

Review of the Lepelle-Nkumpi Spatial Development Framework Part 1: Spatial Analysis and Synthesis Final

Lepelle-Nkumpi Local Municipality

30 September 2016

Revision: 2

Reference: 112478

Document control record

Document prepared by:

Aurecon South Africa (Pty) Ltd

1977/003711/07

8 Watermelon Street, Platinum Park

Bendor

Polokwane

T +27 15 297 8240

F +27 15 297 8259

E polokwane@aurecongroup.com

W www.aurecongroup.com

A person using Aurecon documents or data accepts the risk of:

- Using the documents or data in electronic form without requesting and checking them for accuracy against the original hard copy version.
- Using the documents or data for any purpose not agreed to in writing by Aurecon.

Document control							aurecon	
Report title		Part 1: Spatial Analysis and Synthesis Final						
Document ID					Project number		112478	
File path		P:\Projects\112478 Lepelle-Nkumpi SDF Review\03 PRJ Del\5 DEL\6 Spatial Analysis and Synthesis\3. Final Report 30 September 2016\Submission\Final Report\Spatial Analysis and Synthesis Final Report.docx						
Client		Lepelle-Nkumpi Local Municipality			Client contact			
Rev	Date	Revision details/status			Author	Reviewer	Verifier	Approver
0	22 July 2016	First Draft Report						
1	1 September 2016	Second Draft Report						
2	30 September 2016	Final Report						
Current revision		2						



Approval			
Author signature		Approver signature	
Name		Name	
Title		Title	



Review of the Lepelle-Nkumpi Spatial Development Framework

Spatial Analysis and Synthesis - Final

Date 30 September 2016

Reference 112478

Revision 2

Prepared for:

Lepelle-Nkumpi Local Municipality

170 BA Civic Centre
Lebowakgomo

T +27 15 633 4500

T +27 15 633 6896



Prepared by:

Aurecon South Africa (Pty) Ltd

1977/003711/07

8 Watermelon Street, Platinum Park

Bendor

Polokwane

T +27 15 297 8240

F +27 15 297 8259

E polokwane@aurecongroup.com

W www.aurecongroup.com

aurecon

Leading. Vibrant. Global.
www.aurecongroup.com



Contents

Abbreviations.....	ix
--------------------	----

Terminology and Definitions.....	x
----------------------------------	---

1 BACKGROUND AND PURPOSE	1
---------------------------------------	----------

1.1 Project Objectives	2
------------------------------	---

1.2 Process	3
-------------------	---

1.3 Overview of Municipality	4
------------------------------------	---

1.4 Document Structure	5
------------------------------	---

2 POLICY CONTEXT AND VISION DIRECTIVES.....	6
--	----------

2.1 National Policy Objectives.....	7
--	----------

2.1.1 National Development Plan (NDP) 2030	7
--	---

2.1.1.1 Integrated and inclusive rural economy	9
--	---

2.1.2 Spatial Planning & Land Use Management Act (SPLUMA), 2013	11
---	----

2.2 Provincial Policy Objectives.....	13
--	-----------

2.2.1 Provincial Mandate	13
--------------------------------	----

2.2.2 Limpopo Provincial SDF	13
------------------------------------	----

2.2.2.1 Vision	13
----------------------	----

2.2.2.2 Development Principles - strategies	14
---	----

2.2.2.3 The relationship: Provincial vs Municipal SDF	17
---	----

2.2.2.4 National Comprehensive Rural Development Programme	18
2.2.3 Limpopo Multi Year Housing Development Plan and Informal Settlement Upgrading Strategy	18

2.3 Local Policy Objectives (District/Municipal).....	19
--	-----------

2.3.1 District Spatial Development Framework	19
--	----

2.3.2 District Rural Development Plan (DRDP).....	19
---	----

2.3.3 Municipal Spatial Development Framework	20
---	----

2.3.4 Local Spatial Development Plans	21
---	----

2.3.4.1 Lebowakgomo Town Development Plan	21
---	----

2.3.4.2 Lebowakgomo CBD Development Plan	22
--	----

2.4 Draft Vision Statement.....	24
--	-----------

2.5 Key Issues	25
-----------------------------	-----------

3 SPATIAL CHALLENGES AND OPPORTUNITIES	27
---	-----------

3.1 Introduction	28
-------------------------------	-----------

3.1.1 Baseline Review	29
-----------------------------	----

3.2 Biophysical Analysis	30
---------------------------------------	-----------

3.2.1 Municipal Overview	30
--------------------------------	----

3.2.1.1 Typology and Hydrology.....	30
-------------------------------------	----

3.2.1.2 Protected and Conservation Areas	31
--	----

3.2.1.3 Biodiversity and Ecosystems.....	32
--	----

3.2.1.4 Agriculture	34
---------------------------	----

3.2.2 Challenges and Opportunities	38
--	----

3.3 Socio-Economic Analysis	40
--	-----------

3.3.1 Municipal Overview	40
--------------------------------	----

3.3.1.1 Regional Space Economy	40
--------------------------------------	----



3.3.1.2	Demographics and Social Conditions	41
3.3.1.3	Cultural Heritage and Tourism	47
3.3.1.4	Employment	49
3.3.1.5	Local Economy and Business	50
3.3.1.6	Key Economic Sectors	51
3.3.1.7	Rural Development	52
3.3.2	Challenges and Opportunities	53
3.4	Built Environment Analysis	55
3.4.1	Municipal Overview	55
3.4.1.1	Transport and movement networks	55
3.4.1.2	Settlement patterns	59
3.4.1.3	Settlement Role, Hierarchy and Function	61
3.4.1.4	Spatial Structure and Form	73
3.4.1.5	Structure of human settlement areas	74
3.4.1.6	Land tenure or ownership	76
3.4.1.7	Land Use and Activity Patterns	80
3.4.1.8	Land use Scheme	95
3.4.1.9	Infrastructure	98
3.4.1.10	Housing	107
3.4.2	Challenges and Opportunities	111
3.5	Synthesis	114
3.5.1	Key Challenges	114
3.5.1.1	Biophysical environment	114
3.5.1.2	Socio-economic environment	114
3.5.1.3	Build environment	115
3.5.2	Key Opportunities	115
3.5.2.1	Biophysical environment	115
3.5.2.2	Socio-economic environment	115
3.5.2.3	Build environment	116
3.5.3	Synthesis: Form Giving Elements	118



Figures

FIGURE 1.1: MUNICIPAL SPATIAL DEVELOPMENT FRAMEWORK PROCESS	3
FIGURE 1.2: STRUCTURE OF SDF REPORT	5
FIGURE 1.3: DEVELOPMENT PRINCIPLES IN TERMS OF SPLUMA	11
FIGURE 1.4: EXTRACT FROM CAPRICORN DISTRICT DEVELOPMENT PLAN (LEPELLE-NKUMPI)	20
FIGURE 1.5: LEBOWAKGOMO LSDP 2013	22
FIGURE 1.6: LEBOWAKGOMO CBD DEVELOPMENT FRAMEWORK	23
FIGURE 1.7 : STRATEGIC SPATIAL ANALYSIS THEMES	28
FIGURE 1.8: RELATIONSHIPS & INTERACTIONS IN THE REGION	41
FIGURE 1.9: AGE STRUCTURE, 2011	44
FIGURE 1.10: MONTHLY HOUSEHOLD INCOME, 2001 AND 2011	45
FIGURE 1.11: UNEMPLOYMENT RATE, 2001 AND 2011	50
FIGURE 1.12: SECTOR CONTRIBUTION TO GDP, 2011	52
FIGURE 1.13: SCHEMATIC ILLUSTRATION OF TRANSPORT AND MOVEMENT ROUTES	55
FIGURE 1.14: CLUSTERED SETTLEMENT WITH LINEAR DEVELOPMENT FORM ALONG ROUTES	59
FIGURE 1.15: LINEAR DEVELOPMENT OF SETTLEMENTS ALONG A RIVER	60
FIGURE 1.16: SCATTERED PATTERN OF SETTLEMENTS	60
FIGURE 1.17: PREVIOUS GROWTH POINTS (2007-2011)	67
FIGURE 1.18: CURRENT GROWTH POINTS (2016)	67
FIGURE 1.19: GROWTH POINTS IN THE REGION (2016)	68
FIGURE 1.20: ACTIVITY BETWEEN NODAL AREAS IN THE REGION	68
FIGURE 1.21: PROPOSALS IN SDF'S OF ADJACENT MUNICIPALITIES	69
FIGURE 1.22: LEBOWAKGOMO CORE ACTIVITY AND LINKAGES	73
FIGURE 1.23: THE SHOPPING CENTRE AT LEBOWAKGOMO	80
FIGURE 1.24: LEPELLE-NKUMPI LAND USE SCHEME 2004	97

FIGURE 1.25: HOUSEHOLD WATER INFRASTRUCTURE NEEDS	98
FIGURE 1.26: HOUSEHOLD SANITATION INFRASTRUCTURE NEEDS	103
FIGURE 1.27 FORM GIVING ELEMENTS	118



Maps

MAP 1.1: MUNICIPAL OVERVIEW	4	MAP 1.27: LAND USE	86
MAP 1.2: TOPOLOGY AND HYDROLOGY	30	MAP 1.28: LEBOWAKGOMO HOUSING	87
MAP 1.3: PROTECTED AREAS AND CONSERVATION AREAS	31	MAP 1.29: COMMUNITY AND SOCIAL AMENITIES WITHIN THE MUNICIPAL AREA	90
MAP 1.4: CRITICAL BIODIVERSITY FOCUS AREAS	33	MAP 1.30: COMMUNITY AND SOCIAL AMENITIES WITHIN THE LEBOWAKGOMO AREA	91
MAP 1.5: CRITICAL BIODIVERSE AREAS (CBA)	33	MAP 1.31: ACCESS TO PRIMARY SCHOOLS	92
MAP 1.6: AGRICULTURAL LAND CAPABILITY	35	MAP 1.32: ACCESS TO SECONDARY SCHOOLS	93
MAP 1.7: AGRO-ECOLOGICAL ZONES	36	MAP 1.33: ACCESS TO HEALTH FACILITIES	94
MAP 1.8: AGRICULTURAL ACTIVITIES	37	MAP 1.34: WATER INFRASTRUCTURE	101
MAP 1.9: SYNTHESIS BIOPHYSICAL ENVIRONMENT	39	MAP 35: WATER BACKLOGS	102
MAP 1.10: REGIONAL CONTEXT	40	MAP 1.36: SANITATION INFRASTRUCTURE	104
MAP 1.11: SYNTHESIS SOCIO-ECONOMIC ENVIRONMENT	54	MAP 1.37: ELECTRICITY INFRASTRUCTURE	105
MAP 1.12: MOVEMENT AND DEVELOPMENT CORRIDORS	56	MAP 1.38: WASTE DISPOSAL SITES	106
MAP 1.13: FREIGHT CORRIDORS	57	MAP 1.39: SYNTHESIS BUILT ENVIRONMENT	113
MAP 1.14: PUBLIC TRANSPORT	58		
MAP 1.15: EXISTING CLUSTERS	62		
MAP 1.16: SDA 1 AND SDA 2 AND AREAS OR DIRECTION FOR FUTURE GROWTH	64		
MAP 1.17: SDA 3 AND AREAS OR DIRECTION FOR FUTURE GROWTH	64		
MAP 1.18: SETTLEMENT GROWTH PRESSURE	70		
MAP 1.19: SETTLEMENT POPULATION SIZE	71		
MAP 1.20: SETTLEMENT TYPE	72		
MAP 1.21: LAND OWNERSHIP	78		
MAP 1.22: TRADITIONAL AUTHORITIES AND LAND CLAIMS	79		
MAP 1.23: LEBOWAKGOMO CBD AND GOVERNMENT COMPLEX	80		
MAP 1.24: MOLETLANE SECONDARY ACTIVITY NODE	81		
MAP 1.25: LEBOWAKGOMO INDUSTRIAL AREAS	83		
MAP 1.26: MINING AREAS AND MINERAL POTENTIAL	84		



Tables

TABLE 1.1: NDP IMPLICATIONS	8	TABLE 1.20: ERVEN SURVEYED AFTER 1995	74
TABLE 1.2: EXISTING PROJECTS IN LEPELLE-NKUMPI SDF	21	TABLE 1.21: LAND OWNERSHIP IN THE MUNICIPAL AREA	77
TABLE 1.3: THE EXTENT OF CRITICAL BIODIVERSITY AREAS (CBA) AND ECOLOGICAL SUPPORT AREAS (ESA) IDENTIFIED IN THE LEPELLE-NKUMPI MUNICIPALITY	32	TABLE 1.22: WATER BACKLOGS PER WATER SCHEME AREAS	98
TABLE 1.4: AGRICULTURAL LAND CAPABILITY	34	TABLE 1.23: WATER SUPPLY PROJECTS	99
TABLE 1.5: AGRO-ECOLOGICAL ZONES WITHIN THE LEPELLE-NKUMPI MUNICIPALITY	36	TABLE 1.24: SPECIFIC CHALLENGES IN RESPECT OF DIFFERENT WATER SCHEMES	100
TABLE 1.6: POPULATION AND HOUSEHOLD INDICATORS, 2011	42	TABLE 1.25: HOUSEHOLD DWELLING TYPES, 2001 AND 2011	107
TABLE 1.7: POPULATION AND HOUSEHOLD GROWTH TRENDS, 2001 TO 2011	42	TABLE 1.26: HOUSING PROJECTS FOR THE MUNICIPALITY IDENTIFIED AND TO BE FUNDED BY THE HOUSING DEVELOPMENT AGENCY	108
TABLE 1.8: LEPELLE-NKUMPI MUNICIPALITY POPULATION GROWTH TRENDS, 2011 TO 2016	42	TABLE 1.27: HOUSEHOLD TENURE STATUS, 2001 AND 2011	108
TABLE 1.9: POPULATION AND HOUSEHOLD PROJECTIONS PER AREA/SETTLEMENT CLUSTER	43	TABLE 1.28: HOUSING BACKLOG PER INCOME CATEGORY	110
TABLE 1.10: AGE STRUCTURE, 2011	43		
TABLE 1.11: ADULT EDUCATION LEVELS, 2001 AND 2011	44		
TABLE 1.12: MONTH HOUSEHOLD INCOME LEVELS, 2001 AND 2011	45		
TABLE 1.13: REGIONAL AND LOCAL POPULATION GROWTH TRENDS (CAGR)	46		
TABLE 1.14: TOURISM DEVELOPMENT POTENTIAL (LED STRATEGY, 2013)	47		
TABLE 1.15: EMPLOYMENT INDICATORS, 2001 AND 2011	49		
TABLE 1.16: PERCENTAGE SECTORAL SHARE OF THE GDP PER AREA, 2001, 2007 & 2011	51		
TABLE 1.17: ROADS TO BE UPGRADED BY RAL	55		
TABLE 1.18: DEMOGRAPHICS OF THE THREE CLUSTERS WITHIN LEPELLE- NKUMPI ACCORDING TO THE 2007 SDF CLASSIFICATION	61		
TABLE 1.19: STRATEGIC DEVELOPMENT AREAS (SDA'S) ACCORDING TO THE SDF 2007	64		



Abbreviations

ABET	Adult Basic Education and Training	LUMS	Land Use Management Systems
CBA	Critical Biodiversity Area	MGP	Municipal Growth Point
CBD	Central Business District	MTSF	Medium Term Strategic Framework
CDM	Capricorn District Municipality	MYHDP	Multi Year Housing Development Plan
CPA	Community Property Association	NDP	National Development Plan
CRDP	Comprehensive Rural Development Programme	NEMPA	National Environmental Management Protection Act
DAFF	Department of Agriculture, Forestry and Fisheries	PCP	Population Concentration Point
DGP	District Growth Point	PGP	Provincial Growth Point
DRDLR	Department of Rural Development and Land Reform	PTO	Permission To Occupy
DRDP	District Rural Development Plan	RSA	Republic of South Africa
ESA	Ecological Support Area	RWS	Rural Water Supply Scheme
GDP	Gross Domestic Product	SDA	Strategic Development Area
GWS	Group Water Scheme	SDF	Spatial Development Framework
ICT	Information and Communication Technology	SEZ	Special Economic Zone
IDP	Integrated Development Plan	SPLUMA	Spatial Planning and Land Use Management Act
IRDP	Integrated Residential Development Programme	VSA	Village Service Area
K2C	Kruger to Canyon	WRA	World Resource Institute
LED	Local Economic Development		
LSDF	Limpopo Spatial Development Framework		
LSP	Local Service Point		
LUM	Land Use Management		



Terminology and Definitions

Term	Acronym	Definition
Active outdoor recreation area		An area or specific site within the EPTZ earmarked for outdoor recreation which may include eco-tourism, organised outdoor recreation and sport activities such as golf, hunting, mountain biking, hiking trails and fishing sites. However, such activities should comply with environmental protection guidelines at all time.
Activity Node		Areas where a higher intensity of land uses and activities, other than residential uses, are supported and promoted. Typically any given municipal area would accommodate a hierarchy of nodes that indicate the relative intensity of development anticipated for the various nodes, their varying sizes and their dominant nature.
Activity Spine		A major routes between nodal areas where public transport services or a high level of private transport occur and which provides opportunities for development along such routes or at important intersections thereof. As in the case with Activity Corridors, these Activity Spines should also be developed with a specific theme in mind which determines the character of land uses along such spine.
Critical Biodiversity Areas	CBA	The portfolio of sites that are required to meet the Province's biodiversity targets, and need to be maintained in the appropriate condition based on their biodiversity characteristics, spatial configuration and requirement for meeting targets

Term	Acronym	Definition
		for both biodiversity pattern and ecological processes.
Central Business District	CBD	The business focal point of the municipality where commercial, office, retail, entertainment, government and cultural activities cluster and is usually also the centre point for transportation networks.
Density		The number of units per unit of land area, e.g. dwelling units/hectare. There are five measures of density, namely: <ul style="list-style-type: none"> ■ Population density: people/hectare; ■ Gross dwelling unit density: dwelling units/total land area of a project or suburb including roads, public open space and non-residential land uses; ■ Net dwelling unit density: dwelling units/land occupied by residential plots only; ■ Building density: area of buildings/hectare; ■ Settlement density: (dwelling units/total land occupied by settlement) also known as average gross dwelling units density.
Densification		The increased use of space both horizontally and vertically within existing areas/properties and new developments, accompanied by an increased number of units and/or population threshold.
Development Corridor	DC	Roads, links or transport routes between nodes or areas with an increased intensity of development



Term	Acronym	Definition
		in a linear form, either along the entire length or only parts thereof.
Development or urban edge		A demarcated line and interrelated policy that serves to manage, direct and limit urban expansion.
Growth Points:		
■ Provincial Growth Point	PGP	The highest order nodes in the Province. In most cases, these cities and towns have an established and diverse economy, together with a range of higher order social and government services. Most importantly, these nodes have immense resource potential, predominantly mineral-related, which render them existing and/or future core nodes in the provincial, and even national economy. Four of these nodes were also earmarked as Special Economic Zones (SEZs) in the Limpopo Development Plan. The bulk of future economic development will be undertaken by the private sector, but should be supported by public investment in sufficient and high quality engineering infrastructure, and additional social services to serve the fast-growing local populations.
■ District Growth Point	DGP	Nodes that are very well positioned along the national and provincial movement network and have a strong resource base (including mineral potential and agricultural activities). They function as high order service centres, have relatively large

Term	Acronym	Definition
		local populations, and have relatively well established institutional cores and relatively strong economies. However, while some of them have a well-established CBD and active industrial area, others lack economic- and engineering infrastructure due to years of under-investment. All District Growth Points have potential for economic growth, which should be supported by public investment in infrastructure, but especially high levels of public investment is needed to unlock the potential of historically under-invested nodes.
■ Municipal Growth Point	MGP	Large rural settlement clusters (between 75 000 and 100 000 people), but with very small economic and institutional bases, and very limited local resources on which to build. However, they are accessible via the provincial road network, and thus well located to serve the respective population clusters. It is proposed that these areas be prioritised for the provision of engineering infrastructure, higher order community facilities, as well as economic infrastructure where relevant.
■ Rural Growth Point or Rural Node or Service Point	RGP	These nodes represent two categories. The first is namely a village situated in the midst of a high number of small scattered villages that are isolated/ removed from the provincial road network. The isolated location of these villages is deterring efficient service delivery, hence the identification of a nodal point among these villages where services will be clustered to the benefit of



Term	Acronym	Definition
		the broader area. The second category comprises small 'towns' that are situated along the provincial road network, in the midst of extensive commercial farming areas and which serve relatively few local residents/ farming communities. Both categories generally have limited economic and institutional bases at present. Social services are to be consolidated at these nodes to efficiently serve the extensive surrounding rural communities. Although small local economies might emerge over time as a result of the proposed agglomeration of public services, it is acknowledged that the economic potential of these nodes is less than the three types of Growth Points described above. The focus should thus be on community infrastructure and not necessarily economic infrastructure.
Infill Development		Development or use of vacant or under-utilised land within existing settlements or built-up area in order to optimise and re-position the use of infrastructure and buildings, increase urban densities and promote integration. It is normally associated with re-development or growth management programmes. Another category of infill development involves "suburban infill" which can be described as the development of land in existing suburban areas that was left vacant during the development of the suburb.

Term	Acronym	Definition
Integrated Development Plan	IDP	A plan contemplated in Chapter 5 of the Local Government: Municipal Systems Act, 2000 (Act 32 of 2000).
Land Development		The erection of buildings or structures on land, or the change of use of land, including township establishment, the subdivision or consolidation of land or any deviation from the land use or uses permitted in terms of an applicable land use scheme.
Land Use		The purpose for which land is or may be used lawfully in terms of a land use scheme or any other authorisation, permit or consent issued by a competent authority.
Land Use Management	LUM	To regulate or manage the use or a change in the form or function of land, and includes land development.
Land Use Management System	LUMS	A system of regulating and managing land use and conferring land use rights through the use of schemes and land development procedures.
Land Use Scheme	LUS	A legal instrument for regulating the use of land and land development in terms of provincial or national legislation, such as a Land Use Scheme contemplated in Chapter 5 of the Spatial Planning and Land Use Management Act, 2013 (Act 16 of 2013). It bears the same meaning as a Town Planning Scheme contemplated in Chapter 2 of



Term	Acronym	Definition
		the Town Planning and Townships Ordinance, m1986 (ord. 15 of 1986).
Local Activity Corridor		A main development corridor with a specific theme for development along such route or at strategic intersections with lower order routes.
Municipal Spatial Development Framework	MSDF	A spatial development framework contemplated in Part E of Chapter 4 of the Spatial Planning and Land Use Management Act, 2013 (Act 16 of 2013).
Nodes		Areas where a higher intensity of land uses and activities are supported and promoted. Typically any given municipal area would accommodate a hierarchy of nodes that indicate the relative intensity of development anticipated for the various nodes, their varying sizes and their dominant nature.
Administrative Cluster	AC	A functional area for administrative purposes based on municipal wards.
Primary Activity Node	P	The highest order activity node within the municipality, comprising of a wide range of specialised land uses and services. It is also referred to as the Lebowakgomo CBD. It may even contain shopping centres within the hierarchy classes of those typical as the Secondary Activity Nodes.

Term	Acronym	Definition
Protected Area		Areas in South Africa consisting of special nature reserves, nature reserves and protected environments, including declared provincial protected areas; World heritage sites; Specially protected forest areas, forest nature reserves and forest wilderness areas declared in terms of the National Forests Act, 1988; and Mountain catchment areas declared in terms of the Mountain Catchment Areas Act, 1970.
Provincial Spatial Development Framework		A spatial development framework contemplated in Part C of Chapter 4 of the Spatial Planning and Land Use Management Act, 2013 (Act 16 of 2013).
Rural Development Focus Area	RDFA	A demarcated focus area which have been identified in national and provincial programmes for upgrading of services and revitalization initiatives in order to ensure sustainable livelihoods and a better life for people in the rural areas
Secondary Activity Node/s	S	Nodes in suburban locations throughout the municipal area aimed at serving the different local communities and neighbourhoods according to their specific and basic needs. Secondary Activity Nodes are further classified and provided in terms of a hierarchy of centres or specific function.
Sector Plans		Municipal plans for different functions such as bio-diversity conservation, housing, transport, local economic development and disaster management. They may also be geographically based, for



Term	Acronym	Definition
		example a sub-region, settlement within a local municipality or a component of that settlement.
Settlement or Human Settlement		A geographic term referring to a settlement or populated place where people live together as a community and where dwelling houses are clustered together. A settlement can range in size from a few dwelling houses grouped together to the largest of cities with surrounding urbanised areas. It includes villages, towns and cities.
Spatial Development Framework	SDF	A spatial development framework contemplated in Chapter 4 of the Spatial Planning and Land Use Management Act, 2013 (Act 16 of 2013)
Spatial Planning		A planning process that is inherently integrative and strategic, takes into account a wide range of factors and concerns and addresses how those aspects should be spatially arranged on the land or in an area.
Strategic Development Area	SDA	A Strategic Development Area or a growth area is a specifically demarcated area or precinct with unique opportunities to give form to a desired objective, and further represent areas/precincts where future growth opportunities are identified, which includes greenfield development and infill development.
Strategic Link	SL	Link roads or transport routes between nodes and Development Corridors, or even between settlements, which provide an important or

Term	Acronym	Definition
		strategic level of connectivity between important destinations. It may also link internal nodes with outside areas (e.g. other municipalities or outside nodes). However, they are not corridors for development although they may hold potential for development at certain strategic intersections.
Tourism nodal support area		An area or settlement located within the EPTZ that can serve as a focus area for activities that support tourism and eco-tourism in the adjacent Protected Areas and Critical Biodiversity Areas. Activities in these nodes may include hotels, overnight accommodation, guest houses, restaurants, curio shops, art galleries, cultural museums etc.
Town Planning Scheme		A Town Planning Scheme bears a similar meaning as a Land Use Scheme, but it is a scheme contemplated in Chapter 2 of the Town Planning and Townships Ordinance, 1986 (Ord. 15 of 1986).
Township		An area of land divided into erven, and may include public places and roads indicated as such on a General Plan.
Upgrading Intervention Area	UIA	An area which have been compromised by uncoordinated and unplanned settlement of people which requires intervention from the authorities in terms of upgrading of services and land use control in order to ensure sustainable human settlement and prevent further urban sprawl.
Urban Sprawl		Is a concept which includes the spreading outwards of a city, town or build-up area and its



Term	Acronym	Definition
		suburbs to its outskirts and resulting in low-density development of rural land, high segregation of land uses and various design features that encourage car dependency and longer travel distances between such land uses.
Zone		In the context of this SDF it shall refer to a spatial planning area having a specific earmarked purpose and does not necessarily reflect or include a corresponding zoning or use zone as contemplated in a land use scheme, but it may.

Zones:

■ Agricultural and Farming Zone	AFZ	Areas where commercial and game farming activities take place, and are classified as the It includes: <ul style="list-style-type: none"> ■ The commercial citrus farms and other commercial farms; ■ Cattle and game farms.
■ Environment Protection and Tourism Zone	EPTZ	Areas for biodiversity protection and major areas for tourism potential and includes: <ul style="list-style-type: none"> ■ Protected areas; ■ Critical Biodiversity areas; ■ Tourism nodal support areas which includes existing settlements located within protected areas or biodiversity areas; ■ Areas of active outdoor recreation.

Term	Acronym	Definition
■ Industrial Development Zone	IDZ	Areas specifically demarcated and zoned for industrial development.
■ Government Zone	GZ	A precinct specifically demarcated for the establishment of government and other public and institutional land uses.
■ Mining Zone	MZ	An area where mining activity, including mines and prospecting can and may occur, but it may also contain other land uses and activity including human settlements and farming.
Zoning or Use Zone		A system designating and regulating permitted land uses based on mapped zones and associated tables and conditions which separate one set of <u>land uses</u> from another.





1 Background and Purpose

Spatial Development Frameworks are frameworks that seek to influence the overall spatial distribution of current and future land use within a municipality in order to give effect to the vision, goals and objectives of the Municipal IDP



1.1 Project Objectives

Spatial Development Frameworks are frameworks that seek to influence the overall spatial distribution of current and future land use within a municipality in order to give effect to the vision, goals and objectives of the Municipal Integrated development Plan (IDP). In terms of the Municipal Systems Act of 2000 (Act 32 of 2000), an SDF "... must include the provision of basic guidelines for a land use management system for the municipality."

Local municipalities have the functions and powers referred to in Sections 156 and 229 of the Constitution which include municipal planning, municipal infrastructure and municipal facilities, and municipal fiscal powers and functions but excluding those functions and powers vested in the District municipality in whose area they are located in. Municipal planning includes all spatial planning and development control within their respective municipal boundary.

The purpose of this project is to review the existing Lepelle-Nkumpi Municipal Spatial Development Framework (2007) and to compile a credible Municipal SDF dated 2016, aligned with the provisions set out in the Spatial Planning and Land Use Management Act (SPLUMA). The purpose and objectives are further to develop a Municipal Spatial Development Framework that:

- Represents the spatial development vision statement of the Municipality through integration and trade-off of all relevant sector policies and plans.
- Guides the Municipality in taking any decision or exercising any discretion relating to spatial planning and land use management systems, and to address historic spatial imbalances in development.
- Provides information to public and private sector in relation to investment areas, identify long term risks of particular spatial patterns of growth and development and provide mitigation measures.
- Provides direction for strategic developments, infrastructure investment, taking cognisance of any environmental management instrument.

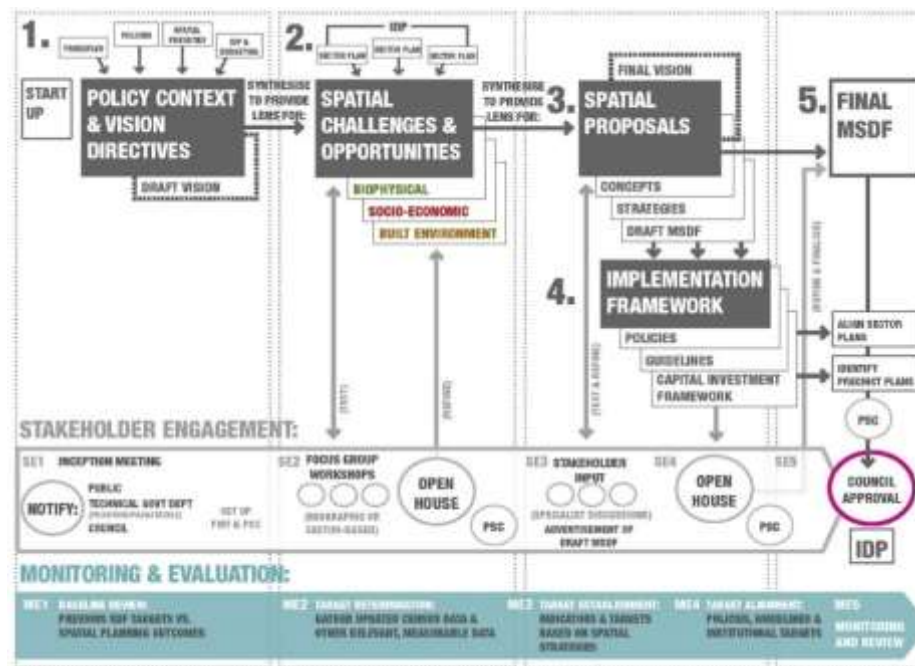
Section 21 of the SPLUMA sets out the contents of a municipal spatial development framework. These requirements guide the review and development of the Lepelle-Nkumpi Spatial Development Framework:

1. Section 21(a) state that a Municipal Spatial Development Framework must give effect to the development principles and applicable norms and standards set out in Chapter 2 of the Act.
2. The SDF should include the five year term and long term spatial development vision statement of the Municipality which indicated the desired spatial growth and development pattern for short and long term.
3. The SDF should identify current and future structuring and restructuring elements of the spatial form of the Municipality.
4. Analyse the spatial structure and identify spatial proposals
5. Estimation of population growth for the next five years and more.
6. Estimate the economic activity and employment trends and location in the area.
7. Estimation of housing demand across different socio-economic categories and planned locations and density of future housing developments.
8. Identify, quantify and provide location requirements of engineering infrastructure and service provision for existing and future developments needs for the next five years and above.
9. Designate areas where a provincial inclusionary housing policy may be applicable.
10. Include a strategic assessment of environmental pressures and opportunities within the municipal area, including the spatial location of environmentally sensitivity, highly and moderately agricultural area.
11. Identify areas which require more detailed local/precinct plans by delineating areas where incremental upgrading can be implemented.



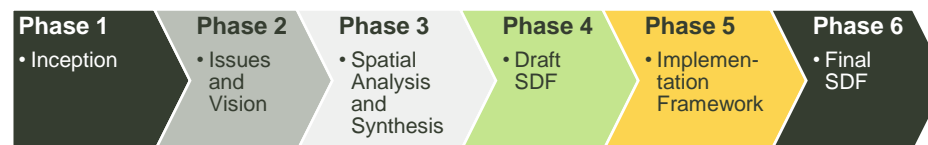
12. Provide the spatial expression of the coordination, alignment and integrations of sector policies of all municipal departments.
13. Determine the purpose, desired impact and structure of the land use management scheme to apply in the Municipality.
14. Synthesise the legislative and policy context through consideration of relevant national and provincial policy directive.
15. An implementation plan comprising of -
 - a) sectoral requirements, including budgets and resources for implementation;
 - b) necessary amendments to a land use scheme;
 - c) specification of institutional arrangements necessary for implementation;
 - d) specification of implementation targets, including dates and monitoring indicators; and
 - e) specification, where necessary, of any arrangements for partnerships in the implementation process.

FIGURE 1.1: MUNICIPAL SPATIAL DEVELOPMENT FRAMEWORK PROCESS



1.2 Process

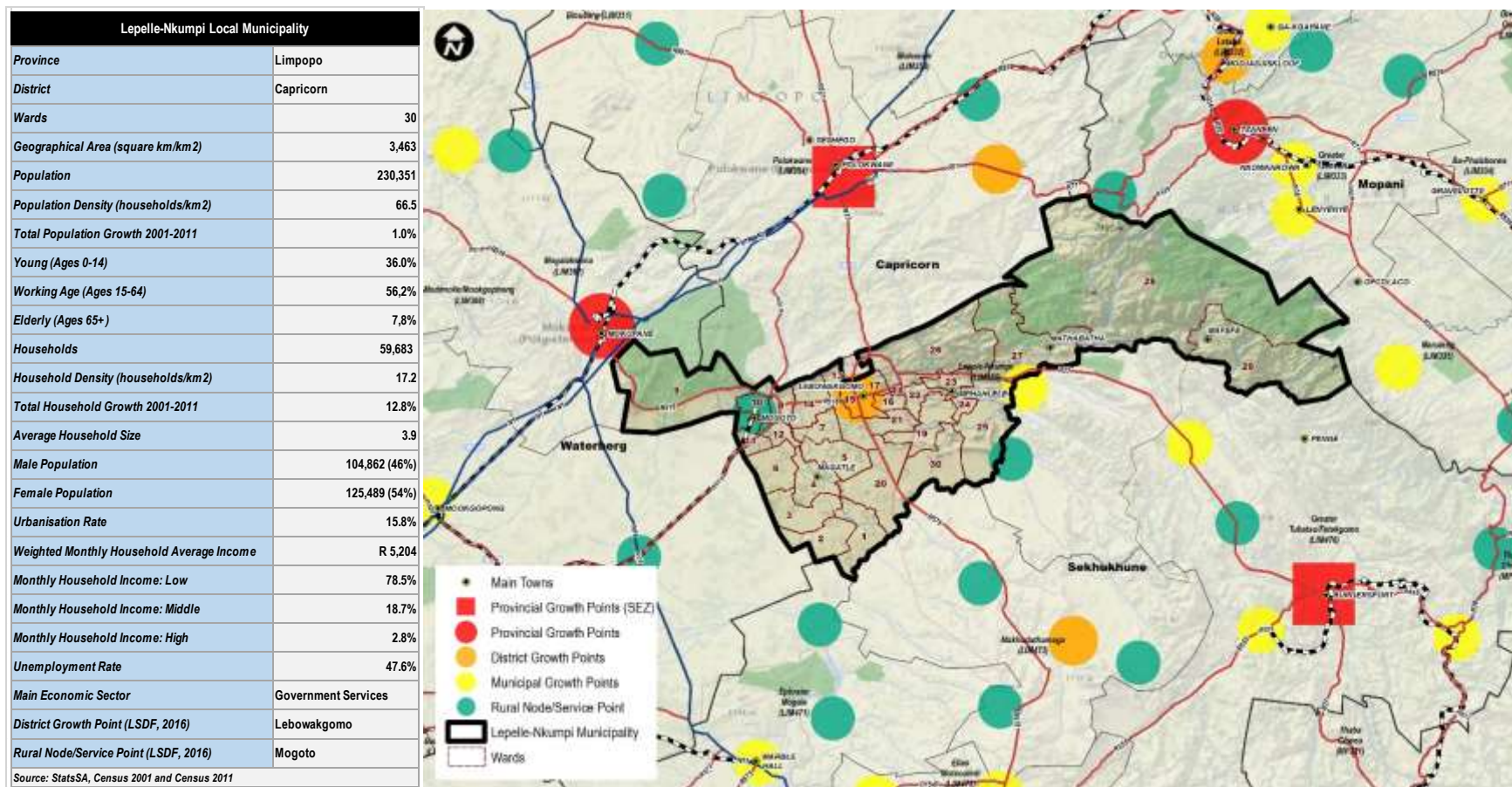
The review of the SDF is compiled according to the Guidelines for the Development of Provincial, Regional and Municipal Spatial Development Frameworks and Precinct Plans (Final Draft September 2014) issued by the Department of Rural Development and Land Reform. The process and approach are depicted in Figure 1.1. The project is implemented in 6 Phases.



1.3 Overview of Municipality

Lepelle-Nkumpi Local Municipality is the second largest of the four (4) local municipalities within the Capricorn District Municipality and is located in the southern area of the District. The Municipality is predominantly rural with more than 120 villages. Lepelle-Nkumpi Municipality is classified as a Rural Municipality because the density of the population is less than 150 persons/km².

MAP 1.1: MUNICIPAL OVERVIEW

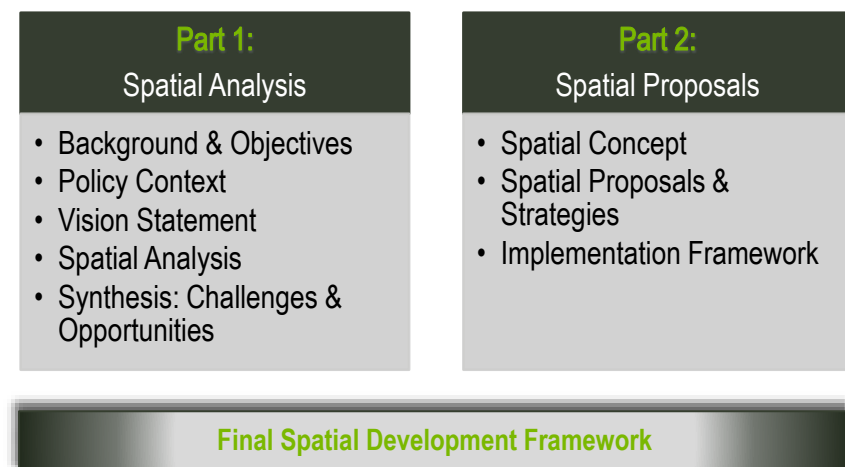


1.4 Document Structure

The final SDF document will consist of two parts or components, namely:

- Spatial Analysis and Synthesis Report; and
- Spatial Proposals Report.

FIGURE 1.2: STRUCTURE OF SDF REPORT



This report and specific phase of the project consist of the following essential parts forming the **Spatial Analysis Report**, namely:

- Background and objectives
- Policy context and vision directives;
- A spatial analysis and synthesis of challenges and opportunities.

The analysis of the spatial challenges and opportunities will evaluate and include an analysis of the bio-physical, the socio-economic and build environment. It will be preceded by important evaluation of policies and other strategic plans which provides guidance for compilation of the SDF in subsequent parts. The last part of this phase will include a synthesis leading to a summary of key challenges and opportunities. The form giving elements will enable the compilation of the spatial concept and strategies in the second part of the project.

Hence, this Spatial Analysis Report will be followed by the **Spatial Development Framework Report** which will include:

- Spatial proposals and strategies; and
- Implementation framework.

2 Policy Context and Vision Directives

A Municipal Spatial Development Framework must give effect to the development principles and applicable norms and standards set out in Chapter 2 of SPLUMA.

Spatial Sustainability

Spatial Efficiency

Spatial Justice

Spatial Resilience

Spatial Sustainability



2.1 National Policy Objectives

2.1.1 National Development Plan (NDP) 2030

The National Development Plan, (NDP) 2030 provides a new scope of focus for planning authorities which embrace a number of other policies of government since 1994. The plan proposes a new focus for transformation of South Africa. It focuses much more on spatial planning issues as basis for development and economic growth.

The following is stated in the National Development Plan, 2030, namely that: “The plan helps us to chart a new course. It focuses on putting in place the things that people need to grasp opportunities such as education and public transport and to broaden the opportunities through economic growth and the availability of jobs. Everything in the plan is aimed at reducing poverty and inequality. Our view of government should, shift the balance of spending towards programmes that help people improve their own lives and those of their children and the communities they live in.”

What are the focus areas of the plan?

- Create jobs and livelihoods;
- Expand infrastructure;
- Transition to a low carbon economy;
- Transform urban and rural spaces;
- Education and training;
- Provide adequate health care;
- Build a capable state;
- Fight corruption;
- Transformation and unity.

In general planning terms, the underlined issues as shown above, namely expansion of infrastructure, transformation of urban and rural spaces, education, adequate health care

and a capable state (government) can be considered as focus areas of importance for this SDF.

Chapter 8 of the NDP, 2030 deals with “Transforming Human Settlements” where specific provision is made in respect of spatial planning, including issues of importance for purposes of this study.

The plan provides overarching principles for spatial planning in order to deal with the complexity of transforming human settlements. It is said that: “*One reason for the complexity is that planning needs to happen at international, regional, country and local level.*” Hence, the following key principles are provided, which are the same development principles of SPLUMA, namely:

- Spatial justice;
- Spatial sustainability;
- Spatial resilience;
- Spatial quality;
- Spatial efficiency.

The NDP proposes that: “These principles need to be incorporated into operational principles that provide guidance on: ...”

- integrating rural and urban areas;
- accommodating social diversity within the built environment;
- creating more dense settlements without raising the cost of land and housing for the poor; integrating transportation systems and land use;
- broadening the economic base of towns and cities through supply of reliable infrastructure, suitable land and property, connectivity, skills and logistics;
- building community involvement and partnerships;
- generally supporting the development of vibrant, diverse, safe, green and valued places; and



- ensuring that governance arrangements and leadership deliver equitable and efficient decision-making.

Lastly, the NDP proposed certain steps in order to ensure that the state's role as direct housing provider shifts to a housing facilitator, developing public goods through investment

in public transport, other economic and social infrastructure, quality public spaces and jobs. The most important issues/steps in this regard affecting the SDF are shown in Table 1.1.

TABLE 1.1: NDP IMPLICATIONS

Step	Action or issue
<i>Develop coherent and inclusive approach to land</i>	Municipality should formulate land policy showing how vacant and under-utilised land will be developed and managed to achieve wider socio-economic and environmental objectives
	Understand how poorer people access land and develop ways to support and regularize these processes to give people more security
	Administrative procedures for land development should eliminate inefficiencies, without compromising the need for careful evaluation of proposals.
<i>Revise the regulations and incentives for housing and land use management</i>	Strengthen the link between public transportation and land use management with the introduction of incentives to support compact mixed-use development along transit routes and creation of integrated and sustainable human settlements.
	Incentivise new private housing development to include a proportion of affordable, high density and integrated housing options
	Support the growth of housing in the gap and rental market.
	Require all new developments to be consistent with a set of sustainability criteria (to be developed urgently and collaboratively across the spheres of government).
	Require all local spatial development frameworks to incorporate a growth management approach that would align areas of population and economic growth with investment in bulk infrastructure. Introduce a proactive element into land-use management systems by allowing municipalities to proactively rezone land to achieve specific objectives such as densification along transit routes.
<i>Support the transition to environmental sustainability</i>	Encourage the contribution of urban areas for food security and also support urban greening programmes.
<i>Support rural spatial development</i>	The direction of growth of existing settlements require guidelines to ensure compliance with national planning principles.
	Infrastructure provision and services in rural areas present challenges due to factors such as low densities and dispersed settlement patterns while land use planning systems for managing growth and development are lacking and challenging to implement.



Step Action or issue

	<p>Guiding principles for infrastructure provision in rural areas include:</p> <ul style="list-style-type: none"> – Sensitivity to the differentiated nature of rural areas – Priority given to connective infrastructure that strengthens the linkages between urban and rural areas and to infrastructure that supports provision of basic universal services – Innovative forms of service and infrastructure provision should be developed where conventional, fixed infrastructure may be unaffordable. – Land reform programmes should reflect the importance of location and connectivity for farm viability.
<i>Respond to shifting settlement patterns</i>	<p>Shifting settlement patterns should be investigated to align public investment in infrastructure and services with these trends, and to develop appropriate systems of land tenure and growth management.</p> <p>Special attention must be given to areas of densification along transport corridors.</p>
<i>Small town development strategy</i>	<p>A strategy should be developed to enhance the developmental role of small towns in rural economies, with a focus on economic viability, sustaining public services, skills development, the green agenda and connecting infrastructure.</p> <p>These strategies also need to consider appropriate mechanisms to deal with step migration through small towns to larger centres.</p>
<i>Spatial interventions to support agricultural development</i>	<p>Support local production networks. These should include attention to the infrastructural requirements in support of value chains, proposals to reactivate a tradition of local commonages, and strategies for intensification of agriculture in peri-urban areas, which could complement the use of urban growth boundaries to restrict urban sprawl.</p>

2.1.1.1 Integrated and inclusive rural economy

Since Lepelle-Nkumpi can be regarded as a Rural Municipality, rural development and economy should play an important role in the SDF's review.

The NDP (2010) has set a vision that rural communities should have greater opportunities to participate fully in the economic, social and political life of the country. The vision includes better integration of the country's rural areas through land reform, job creation and poverty alleviation. The plan refers to inclusive rural development with a vision that by

2030 ".....there will be integrated rural areas, where residents will be economically active, have food security, access to basic services, health care and quality education. Achieving this vision will require leadership on land reform, communal tenure security, infrastructure and financial and technical support to farmers, and building the capacity of state institutions and industries to implement these interventions".

The NDP indicates that: "In areas with low economic potential, quality education, health care, basic services and social security will support the development of human capital. In



areas with some economic potential, non-agricultural activities (such as agro-industry, tourism, small enterprises or fisheries) will boost development.

Access to basic social and infrastructural services is a high priority for many rural households, and these are addressed in the human settlements and social protection chapters. This chapter focuses on developing rural economic opportunities, without which services are unlikely to be sustained in the long term. “

[own underlining]

The plan subsequently proposes the following to be done, namely:

- “Agricultural development based on successful land reform, employment creation and strong environmental safeguards. To achieve this, irrigated agriculture and dry land production should be expanded, beginning with smallholder farmers where possible.
- Quality basic services, particularly education, health care and public transport. Well-functioning and supported communities will enable people to develop the capabilities to seek economic opportunities. This will allow people to contribute to developing their communities through remittances and the transfer of skills, which will contribute to the local economy.
- In areas with greater economic potential, industries such as agro-processing, tourism, fisheries (in coastal areas) and small enterprise development should be developed.”

The NDP also recommend the exploration of market linkages for small-scale farmers in the communal and land reform areas as well as recommendations in respect of non-agricultural activities. Hence, the plan indicates that: “*Analysis of South Africa’s economic development shows that rural areas are mainly locations of primary sector industries. In South Africa, mining is vital for job creation. The spill-over benefits related to trading and services from mining as a source of development and how this can be used to develop local economies needs to be investigated, as too little is known of mining value chains and how they can address spatial developmental inequalities.*”

In n respect of tourism in rural areas, the NDP submits that: “....tourism offers opportunities to enhance people’s livelihoods. These benefits depend on institutional

support and the level of involvement of local communities. Another interesting option is the craft market, because globally and in South Africa, the size of the creative arts industry is projected to grow.”

[own underlining].

It is also indicated that despite rapid urbanisation in South Africa and population shifts from rural to urban areas, that rural areas still plays an important role in the country’s future. It states that: “.....*the health and wellbeing of the entire population still depends on rural goods and services – food, water, minerals, energy, biodiversity, natural and cultural experiences, labour and land – and this will become increasingly clear in the next few decades, as resources become more constrained.*”

Although the initiatives of the rural development programme is more on an economic level, the NDP also state that spatial aspects of rural development “... *cannot be divorced from other critical issues – institutional development, land tenure reform, non-agricultural employment and resource rights. Each needs to be addressed in a comprehensive programme to restore rural areas, clearly outlining the role of the state and local government, as well as capacity requirements.*”

The NDP, 2030 includes five spatial issues to be confronted in developing rural areas, namely:

- Different types of rural settlement;
- The appropriate type and location of infrastructure;
- Spatial dimension of land reform;
- Local system of food production and distribution;
- Spatial conflicts in rural areas.



The NDP submits the following issues in this regard and which has particular application to the review of the SDF, namely:

Rural settlements

“Particular attention must be paid to rural densification in parts of the previous homelands, where rural settlements are growing rapidly in areas where access to land is possible and transport services are good. Population densities in these places are approaching those of urban areas, but the economic base and the infrastructure and governance arrangements to manage this change are lacking. Land registration systems, for example, cannot deal with the increasingly complex forms of informal and semiformal tenure in these areas.”

Infrastructure location

“Infrastructure unlocks the development potential of rural areas. Appropriate levels, form and location are important, given that infrastructure investment is less cost effective in lower density areas with small economies. The question is not whether infrastructure should be provided, but what levels and forms of infrastructure should be provided, where it should be located and how it should be funded.”

Spatial conflicts

“In future, scarce resources will result in more acute conflicts. In some areas, it is likely that tourism, agriculture, mining and biodiversity will be in conflict over access to land and water. The role of traditional authorities in spatial decisions about land use will also come under scrutiny if new agricultural development proposals are implemented. Mechanisms to resolve these challenges need to be found.”

2.1.2 Spatial Planning & Land Use Management Act (SPLUMA), 2013

The Spatial Planning and Land Use Management Act, (SPLUMA), 2013 (Act 16 of 2013) came into operation on 1 July 2015. It is a law enacted by national government and applicable in the entire Republic. The Act also repealed some other planning laws which is in conflict with SPLUMA, such as the Development Facilitation Act, 1995, but not those Ordinances of which the competency lies with provincial governments, for example Ordinance 15 of 1986.

Unlike previous planning laws, this Act provide a framework for spatial planning and land use management on different spheres of government. It provides for the two pillars of planning, namely spatial forward planning and land use management or land development administration.

As point of departure, SPLUMA also provide general development principles applicable to spatial planning and land use management in Chapter 2, Section 7 of the Act. They are illustrated in Figure 1.3.

FIGURE 1.3: DEVELOPMENT PRINCIPLES IN TERMS OF SPLUMA



Section 21 of SPLUMA stipulates that a municipal SDF must give effect to the development principles and applicable norms and standards set out in Chapter 2 of the Act. The review of the Lepelle-Nkumpi SDF must therefore apply the development principles.

It is important to note that there is now a direct relationship drawn in the Act between spatial planning and land use management. The two pillars should support each other, unlike in the past where there was a vague correlation between the two levels of planning. Another important part of the Act is that it acknowledges the municipality as authority of first instance. In other words, the local municipality is the only authority to entertain applications for land development/land use change, except in special circumstances which the Act provides for, e.g. development affecting national interest.

Although the mandate and guidelines for the compilation of a municipal SDF derives from Chapter 4 of SPLUMA, Chapters 5 and 6 thereof is of equal importance since it deals with the land use management system and land development.

It is also important to realise that SPLUMA now provides for the following categories of spatial planning between the different spheres of government, namely:

- Municipal Planning;
- Provincial Planning; and
- National Planning.

Hence, in terms of Chapter 4 of SPLUMA which deals with Spatial Development Frameworks, the following hierarchy of plans which must be prepared accordingly, should be noted as well, namely:

- The National Spatial Development Framework prepared by the Minister;
- Provincial Spatial Development Framework, prepared by the Premier of each province;
- Regional Spatial Development Framework, prepared by the Minister for a specific region after consultation with the Premier of the Province in which such region is located;

- Municipal Spatial Development Framework, prepared by a Local Municipality.

In above mentioned regard, Section 12(2)(a) of SPLUMA provides that the national government, a provincial government and a municipality must participate in the spatial planning and land use management processes that impact on each other to ensure that plans and programmes are coordinated, consistent and in harmony with each other.

Section 12(1) sets out the general requirements applicable to SDF's. It provides that SDF's must:

- Interpret and represent the spatial development vision of the municipality;
- Be informed by a long term spatial development vision;
- Represent the integration and trade-offs of all relevant sector plans;
- Guide planning and development decisions across all government sectors;
- Guide the municipality in taking any decision in terms of this Act or any other law relating to spatial planning and land use management;
- Contribute to a coherent, planned approach to spatial development in the municipality;
- Provide clear and accessible information to the public and private sector and provide direction for investment purposes;
- Include previously disadvantaged areas, rural areas, areas under traditional leadership, informal settlements, slums and land of state owned enterprises and government agencies and address their inclusion and integration into spatial objectives in the municipality;
- Address historical spatial imbalances in development;
- Identify long term risks of particular spatial patterns of growth and development and the policies and strategies necessary to mitigate those risks;
- Provide direction for strategic developments, infrastructure investment, promote efficient, sustainable and planned investment by all sectors and indicate priority areas for investment in land development;



- Promote a rational land development environment to create trust and stimulate investment;
- Take cognisance of any environmental management instrument adopted by the environmental authority;
- Give effect to national legislation and policies on mineral resources and sustainable utilisation and protection of agricultural resources;
- Consider and where necessary incorporate the outcomes of substantial public engagement.

2.2 Provincial Policy Objectives

2.2.1 Provincial Mandate

Sections 12(1) and 15 of Chapter 4 of SPLUMA stipulates and provides that a provincial sphere of government and/or the Premier of the Province must prepare a spatial development framework for the Province.

2.2.2 Limpopo Provincial SDF

Limpopo Province recently adopted their Limpopo Spatial Development Framework, 2016 in terms of provisions of Chapter 4 of SPLUMA.

2.2.2.1 Vision

The strategic vision of the Limpopo SDF -

“...envisioning a provincial spatial structure where the natural environment and valuable agricultural land in the rural areas are protected for future generations, with a strong, diverse and growing economy focused around a range of nodal areas and that offers its residents high quality living environments and good job opportunities in a sustainable manner.”

In order to achieve this vision, it sets out the following development objectives, namely:

- Capitalise on the Province’s strategic location within the SADC region;
- Improve regional and local connectivity to facilitate the movement of people, goods and services;
- Provide a strategic and coherent rationale for targeted public sector investment, including engineering, social and economic infrastructure, to optimise service delivery;
- Encourage urban and rural spatial restructuring as a necessity;
- Aggressively protect and enhance the Province’s natural resources, including scarce fresh water sources and high biodiversity landscapes;
- Guard valuable agricultural land as a scarce resource and national asset;



- Consolidate and enhance the Province's ecotourism product;
- Encourage and institutionalise the sustainable development of its massive mineral potential (and encourage green economy initiatives); and
- Create an enabling environment for both the formal and informal sector to participate in economic development (retail, office, commercial, industrial). “

[own underlining]

2.2.2.2 Development Principles - strategies

The Limpopo SDF (LSDF) sets out **Development Principles** in order to arrive at the envisaged spatial framework. The following principles and issues are regarded as essential for purposes of the Lepelle-Nkumpi SDF. These principles are mentioned and their importance for Lepelle-Nkumpi briefly discussed hereinafter, namely:

***Development Principle 1:** Define and protect a Provincial Regional Open Space System which ensures that ecosystems are sustained and natural resources are utilised efficiently*

Lepelle-Nkumpi has large areas affected by the proposed open space system including protected areas (nature reserves) and critical biodiversity areas. These areas within the municipal area further contributed that it is regarded as a “Tourism Anchor” and should henceforth also play an important role in the municipal SDF.

***Development Principle 2:** Facilitate efficient spatial targeting through the identification of a range of provincial, district, municipal and rural nodal points to serve as focal points for investment and service delivery*

The LSDF includes the **following levels of growth points in terms of the nodal hierarchy of settlements in the Province**, namely:

- Provincial Growth Point;
- District Growth Point;

- Municipal growth Point;
- Rural Node/Service Points.

In the Lepelle-Nkumpi municipal area, the following **growth points** were therefore recognised, namely:

- Lebowakgomo District Growth Point; and
- Mogoto Rural Node/Service Point.

It should be noted at this point in time, that it is a substantial deviation from the previous SDF as well as from the Capricorn District Municipality SDF and even the previous SDF of the municipality, which identified a wider range of growth points within the municipality.

(Refer to Figure 1.17 and Figure 1.18 in the section that addresses settlement roles and functions)

However, it should be realised that the Limpopo SDF approached these identified growth points from a provincial planning perspective and it doesn't mean that a municipality is not able to expand on its lower order growth points in terms of the municipal SDF.

The LSDF provides that: “A total of 47 Rural Nodes/Service Points have been identified from the existing District and Local SDF's. These may change in future pending review of existing Municipal SDF's and/or the outcome of Rural Development Plans to be compiled for District Functional Areas in Limpopo under supervision of the Department of Rural Development and Land Reform (DRDLR).”

***Development Principle 3:** Establish a multi modal transport network to optimise the movement of people and goods between nodes within the province and to all major destinations in Southern Africa*

The LSDF identifies the following **priority road network**, namely:

- Provincial road network and selected secondary route sections – seeking to capitalise on Limpopo's strategic location within southern Africa by linking border posts to support import and export and cross-border tourism. It links all major tourism destinations such as Kruger national park and Waterberg and Vhembe Biospheres, and all major nodes



in Limpopo. It also links all major regional centres in neighbouring provinces, e.g. Mbombela and Tshwane;

- High level public transport corridors – linking communities with places of employment and with goods and services;
- High order modal transfer facilities proposed at Polokwane, Musina, Lephalale and Modimolle.

The LSDF also supports the national government's "road to rail" imperative, advocating utilisation of rail freight.

In respect of Lepelle-Nkumpi, the following routes plays an important role, namely:

- R37: Provincial Corridor between Polokwane and Burgersfort;
- R518: Main Road (Lebowakgomo – Mokopane)
- R519: Main Road (Polokwane – Zebelela – Roedtan)
- R579: Main Road (Lebowakgomo – Jane Furse)

Development Principle 4: Direct engineering infrastructure investment towards the priority nodal points where the majority of economic activity and human settlement will establish

It is pointed out in the LSDF that every citizen's constitutional right to basic services is acknowledged. It states that as far as possible, basic water and sanitation services should be incrementally rolled out to all towns and villages, irrespective of nodal status.

However, in light of limited financial resources and the low density scattered nature of many rural villages (which hampers efficient service provision), there is a need to prioritise infrastructure maintenance and expansion projects.

Hence, the LSDF includes that "For these reasons, it is recommended that all the identified nodes in Limpopo Province be recognised as the priority points for public investment in the form of upgraded and new engineering infrastructure, including water,

sanitation, electricity, roads and stormwater, solid waste removal, and information and communications technology (ICT)."

Development Principle 5: Prioritise consolidation of community infrastructure at the identified nodal points and in line with the concept of multi-purpose Thusong Centres/ Rural Development Centres in Rural Nodes

Under this principle, the LSDF ".....strongly advocates that national and provincial sector departments prioritise the establishment of new social facilities (e.g. clinic, school, library, park) at the proposed priority nodes until all of the nodes in the province offer an appropriate range of social services. The 'level' of services provided should be in line with the proposed nodal hierarchy, i.e. high order services such as a hospital and magistrate's court to be located at higher order nodes, while lower order services such as a mobile clinic and mobile library would be more appropriate at lower order nodes."

It is also pointed out that: "The need for public investment patterns to remain consistent with the proposed nodal hierarchy over an extended period of time cannot be over-emphasised."

Development Principle 6: Create conditions conducive to development in multi-functional business areas and implement Urban Revitalisation Strategies in such areas where required

For purposes of the Lepelle-Nkumpi SDF it is important to note the principle pointed out in the SDF, namely that: "A growing offering of goods and services (formal and informal) at nodes will also assist to increase the viability of adjacent social facilities and government services by drawing more people. In this way, private and public sector investment becomes mutually reinforcing and the nodes' critical mass keeps growing which enhances the sustainability of the node."



Principle 7: Optimise the utilisation of agricultural potential of Limpopo Province to provide sustainable livelihoods to marginalised communities in rural areas in partnership with commercial farms

The LSDF provides in this strategy that high potential and productive agricultural land be protected from development and retained as a provincial and national asset. .

It is also advocated that “....both commercial and subsistence agricultural activities be strongly supported by government, politically, institutionally, and spatially – and particularly in the face of increased need for national food security and growing pressures for expansion of mining activities onto agricultural land.”

It is also said that: “The lack of packaging facilities, limited scale of production, and the lack of access to markets are some of the factors that constrain the participation of small-scale farmers in mainstream value chains. There is thus potential for considerable increases in productivity/output, employment and value chain development in all agricultural sectors/‘Clusters’ in the Province if supported by infrastructure upgrades and – provision – especially around Agri Parks.”

Development Principle 8: Utilise the provincial environmental resources as attractions to promote sustainable tourism development (and conservation) in all parts of the Province

Ecotourism is pointed out in the LSDF as the dominant tourism product offered in the Province. It is said that “.... the Province presents rich and diverse wildlife, culture and landscape offerings, making the natural resource base the key driver of the provincial tourism industry.”

Since Lepelle-Nkumpi has larger areas which could be used for eco-tourism, this principle should be carried forward in the municipal SDF. It is further pointed out that the eco-tourism product should be strengthened by offering a range of accommodation facilities such as lodges, guest houses etc.

Development Principle 9: Promote mining activity and associated job creation potential in an environmentally sustainable manner

The LSDF recognises six precincts in respect of mining activities. Although Lepelle-Nkumpi has none, it is located along the Dilokong corridor/Tubatse in respect of platinum mineral resources.

Development Principle 10: Address industrial sectoral diversification by way of area specific investment in high value production and value added technologies and industries

The LSDF identified industrial priority nodes earmarked for specialised public and private sector investment. Unfortunately, Lepelle-Nkumpi is not included as such node and hence this principle in the provincial SDF may not impact on the municipal SDF as such.

Development Principle 11: Sustainable Human Settlement in urban and rural Limpopo Province

Apart from all the above mentioned principles, this strategy in the Provincial SDF may be one of the most important ones in respect of the review of the Lepelle-Nkumpi SDF.

The LSDF point out that: “Human settlement trends in Limpopo Province already show distinct patterns of urbanisation. A shift to more compact urban growth, connected infrastructure, and coordinated governance could boost long-term urban productivity (creating stronger nodes while preserving agricultural land) and yield environmental and social benefits (New Climate Economy Report). This approach resonates with the SPLUMA principles of Efficiency, Sustainability, and Resilience. Apart from the above, the focus in all urban areas in the province should be on spatial restructuring as part of a continuous drive to eradicate the spatial legacy of the Apartheid era.

The LSDF therefore advocates that future ‘urban’ development (housing, economic infrastructure, community infrastructure, etc.) be consolidated around the identified nodes and that it be done to achieve the Integrated Urban Development Framework (IUDF) vision which reads as follow: ‘Liveable, safe, resource-efficient cities and towns that are



socially integrated, economically inclusive and globally competitive, where residents actively participate in urban life’.”

It is lastly proposed that in the urban areas of Limpopo the focus should thus be on the following:

- Upgrading all informal settlements on suitable, well-located land;
- Substantial investments in safe, reliable and affordable public transport and better coordination among the various modes.
- Increased urban densities to reduce sprawl and infrastructure costs;
- Initiatives to shift jobs and investment to the urban townships on the peripheries;

In the rural areas emphasis should be placed on the following:

- Innovative, targeted and better co-ordinated provision of infrastructure (including information and communications technology's) and services provision supported by the spatial consolidation of rural settlements to enhance densities and associated service delivery;
- Small-town development as nodes to harness rural development.

The LSDF furthermore strongly recommends that: “...new housing, from both the public and private sector, be consolidated within the Strategic Development Areas (SDAs) delineated in the respective Local Spatial Development Frameworks. The accumulated Strategic Development Areas in Limpopo measure in excess of 78 656 hectares in extent.”

2.2.2.3 The relationship: Provincial vs Municipal SDF

The Limpopo SDF points out that “.....it is furthermore intended that the Limpopo Spatial Development Framework’s spatial rationale and development principles will incrementally filter into local planning frameworks, such as the municipal IDP’s as well as local Spatial Development Frameworks (SDFs) and Precinct Plans. This will ensure spatial consistency across the borders of municipalities throughout the province in line with Section 12(4) of SPLUMA which states as follow:

“A provincial spatial development framework must contribute to and express provincial development policy as well as integrate and spatially express policies and plans emanating from the various sectors of the provincial and national spheres of government as they apply at the geographic scale of the province”.

More specifically, the LSDF will perform the following functions as noted in Section 16 of SPLUMA, 2013:

- (a) provide a spatial representation of the land development policies, strategies and objectives of the province, which must include the province’s growth and development strategy where applicable;
- (b) indicate the desired and intended pattern of land use development in the province;
- (c) coordinate and integrate the spatial expression of the sectoral plans of provincial departments;
- (d) provide a framework for coordinating municipal spatial development frameworks with each other where they are contiguous;
- (e) coordinate municipal spatial development frameworks with the provincial spatial development framework and any regional spatial development frameworks as they apply in the relevant province; and
- (f) incorporate any spatial aspects of relevant national development strategies and programmes as they apply in the relevant province.”

[own underlining]



2.2.2.4 National Comprehensive Rural Development Programme

The Limpopo SDF, 2016 summarises the essence of the Comprehensive Rural Development Programme (CRDP) as follows, namely that "... the CRDP aims to be an effective response to poverty alleviation and food insecurity by maximising the use and management of natural resources to create "vibrant, equitable and sustainable rural communities".

It further points out that "...the vision of the CRDP is to be achieved through a three-pronged strategy based on:

- Co-ordinated and integrated broad-based Agrarian Transformation;
- Strategically increased rural development through infrastructure investment; and
- An improved land reform programme."

It continues and submits that: "... the objectives of each of the three strategic thrusts thought applicable to the formulation of the SDF for Limpopo are as follows:

Agrarian Transformation:

- Facilitate the establishment of rural and agro-industries, co-operatives, cultural initiatives and vibrant local markets;
- Increase production and sustainable use of natural resources by promoting farming and related value chain development (exploring all possible species of food and economic activity).

Rural Development:

- Access to community and social infrastructure, especially well-resourced clinics;
- Focus on the development of new and the rehabilitation of existing infrastructure;
- Improve and develop infrastructure conducive to economic development, for example distribution and transportation infrastructure, agricultural infrastructure, water and electricity infrastructure, market and storage infrastructure, retail infrastructure and telecommunications infrastructure. Improve and develop infrastructure conducive to social development, for instance sanitation, infrastructure, health infrastructure, sports

and recreation infrastructure and education infrastructure (especially Adult Basic Education and Training (ABET) centres).

Land Reform:

- Promote restitution, tenure reform and redistribution in a sustainable manner.
- Increase access to land by previously disadvantaged people.
- Establish agri-villages for local economic development on farms.
- Up-to-date information pertaining to land claims.
- Provide reliable and efficient property (deeds) registration system.
- Contribute to economic growth and housing development by providing government and private agents with essential land information in order to engage in planning as well as economic transactions.
- Provide spatial planning information and services to local municipalities and other public and private institutions that may require these services for development purposes."

2.2.3 Limpopo Multi Year Housing Development Plan and Informal Settlement Upgrading Strategy

The Medium Term Strategic Framework, 2014-2019(MTSF) of the National Department of Human Settlements, sets out specific targets to achieve the National Development Plan and specifically the objective of **Transforming Human Settlements by 2030**. The Limpopo Department of Cooperative Governance, Human Settlements and Traditional Affairs, subsequently compiled the Limpopo Multi-year Housing Development Plan, 2014-2019(MYHDP) to ensure it has a strategy to achieve the MTSF targets.

The applicability of the MYHDP to the SDF review, is to align the identification of land and development of housing opportunities, according to the provincial strategy. The following is noted from the MYHDP.



- No projects are included in the MYHDP for informal settlement upgrading, rental housing, social housing, community residential units (CRU), or Peoples Housing Projects.
- Six Lebowaikomo extensions were included as Integrated Residential Development Programme (IRDP) projects and were further assessed by HDA.

The Provincial Informal Settlement Upgrading Strategy, March 2016, seeks to guide the province in addressing the challenge of informal settlements, and discuss possible responses per informal settlement in the prioritised municipalities. Lepelle-Nkumpi is not a prioritised municipality for informal settlements and

“Informal Settlements” are defined in the document as “An illegal settlement where a group of people are living on a piece of land that is not proclaimed nor allocated by an acceptable land administrators, and

- where they don't have legal claim to the land (tenure)
- where there is inadequate basic services,
- or where basic services are in a deplorable condition, irrespective of the densities, type of structures they have built, where they are located (urban/rural) and their existing surroundings”

The pillars or thrusts of the strategy to address informal settlements are:

- Accelerating Incremental Upgrading
- Capacity Building & Empowerment
- Exploring Various forms of Shelter Provision
- Rapid Land Release
- Integrated Development Planning

2.3 Local Policy Objectives (District/Municipal)

Two levels or hierarchy of spatial planning policy issues are relevant, namely district or regional policy directives, and local or municipal policy directives. The latter comprises the SDF as well as other lower order framework plans, development plans or policy plans.

Hence:

2.3.1 District Spatial Development Framework

The current district municipal SDF, namely the Capricorn District Municipality SDF, 2011 is already 5 years old and compiled prior to the commencement of SPLUMA and the finalisation of the 2011 census figures as well as the Limpopo SDF 2016.

It is also understood that the plan will be reviewed in the near future. In the light of these facts and specifically because of the new Limpopo SDF discussed above, further analysis of the Capricorn SDF, 2011 is seen un-necessary.

However, for purposes of the Lepelle-Nkumpi SDF it would not be regarded as obsolete and aspects of it may still be utilised in subsequent parts of this SDF.

2.3.2 District Rural Development Plan (DRDP)

This plan was commissioned by the Department of Rural Development and Land Reform (DRDLR) in 2015 and hence a plan was compiled for each of the District Municipalities in Limpopo Province.

The DRDP for Capricorn set out the following objectives, namely:

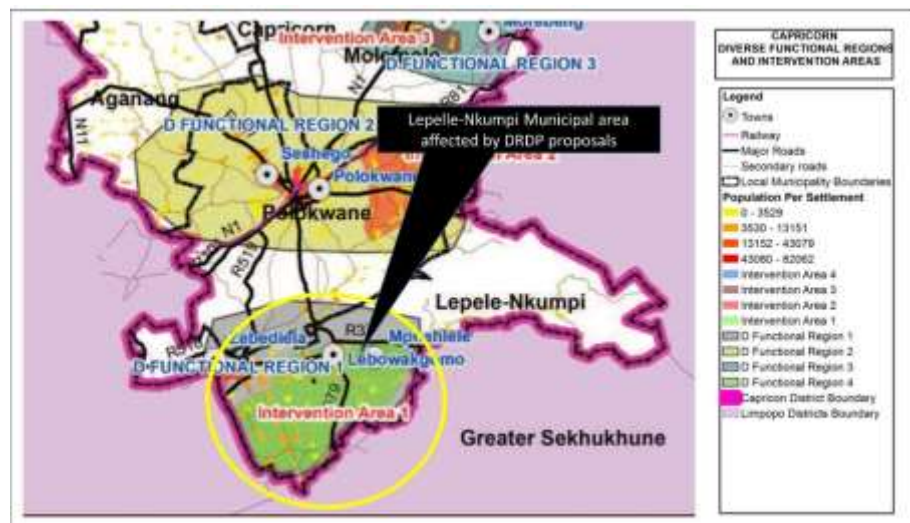
- Improving productivity and competitiveness in the agricultural sector
- Promoting integrated human settlements;
- Investment in rural revitalisation;
- Improving tourism competitiveness; and
- Conserving the natural environment.



For the Capricorn district, four Intervention areas have been identified of which the Magatle area is included under Intervention Area 1 and Functional Region 1. The latter basically includes the entire municipal area, whilst the Intervention area also extends over quite a considerable large area within Lepelle-Nkumpi and not only the Magatle area.

(Refer to Figure 1.4)

FIGURE 1.4: EXTRACT FROM CAPRICORN DISTRICT DEVELOPMENT PLAN (LEPELLE-NKUMPI)



Source: Dept. Rural Development & Land Reform; draft District Rural Development Plan for Capricorn District Municipality, Limpopo Province.

2.3.3 Municipal Spatial Development Framework

The current spatial development framework of the municipality is the *Lepelle-Nkumpi SDF, 2007*. It followed many of the principles and concepts set out in the former *Limpopo Spatial Rationale, 2007*.

The SDF set out the following spatial objectives, namely:

- "To promote the creation of sustainable human settlements;
- To contain urban sprawl
- To encourage urban integration and redressing the imbalances of the past; and
- To promote good land use management."

It further submits that the desired outcomes of these objectives are:

- "The restructuring of spatially inefficient settlements;
- The sustainable use of land and other resources;
- The channelling of resources to areas of greatest need;
- Stimulate economic development in Lepelle-Nkumpi; and
- The promotion of accountable, open and transparent decision-making w.r.t land use and development."
- It also used the concept of Nodes and Corridors as "restructuring elements".

In respect of the future settlement form, the 2007 SDF followed the principle of the hierarchy of settlements as set out in the Limpopo Spatial Rationale. Subsequently it also identified clusters which consisted of 1st and 2nd order settlements, or Growth Points and Population Concentration Points (PCP). The current hierarchy of settlements will be discussed in more detail in paragraph 4.3 below.

It also mentions that Local Service Points (LSP) and Village Service Areas (VSA) are included. The LSP's included the 3rd order settlements.

In respect of future development, the SDF identified three Strategic Development Areas (SDA's), basically a SDA for each of the clusters. These SDA's are also discussed in paragraph 4.3 below.

The SDF identified projects for implementation which are included in the following table. The Municipality made progress with the Spatial Forward Planning projects with the development of local SDFs for Lebowakgomo, and is currently in process with a Precinct Plan for Zebediela. A land use management scheme was also compiled for Lebowakgomo township only. Unfortunately, the remaining projects were not implemented, primarily due to dependency on funding sources.

TABLE 1.2: EXISTING PROJECTS IN LEPELLE-NKUMPI SDF

No	Project	Remarks
Spatial Forward Planning		
1	Development Plan for SDA 1: Lebowakgomo/Seleteng Cluster	2007/2008 Fin Year
2	Development Plan for SDA 2: Mogoto/Magatle Cluster	2008/2009 Fin Year
3	Development Plan for SDA 3: Mathabatha/Mafefe Cluster	2009/2010 Fin Year
4	Review LNSDF	2010/2011 Fin Year
Land Use Management Status of Review		
5	Zoning/Land Use Scheme for Lebowakgomo/Seleteng Cluster	
6	Zoning/Land Use Scheme for Mogoto/Magatle cluster	
7	Zoning/Land Use Scheme for Mathabatha/Mafefe Cluster	
Other		
8	Lebowakgomo Urban Renewal Project – Aim Upgrading of Engineering Services in Lebowakgomo through the Human Settlements Redevelopment Programme	Funding by National Department of Housing/DPLG over 2 financial years
9	Lebowakgomo Industrial Area Promotion Project – Aim the resuscitation of the Lebowakgomo Industrial Area	Funding by Limpopo Department of Economic Affairs
10	Lepelle-Nkumpi Tourism Project – Aim to unlock the tourism potential of the Lekgalameetse Conservation Area	Funding by Limpopo Department of Economic Affairs

2.3.4 Local Spatial Development Plans

The most important local or lower order spatial development plan which may impact on proposals in this study, is titled *Local Spatial Development Plan (LSDP) for Lebowakgomo town, 2013*. In a certain sense it “overrides” the 2007 SDF since it comes up with more concrete and direct proposals in respect of the Lebowakgomo/Makotse cluster as referred to in the SDF.

The plan has two major components/parts, namely the Lebowakgomo Town Development Plan and the Lebowakgomo CBD Development Plan.

2.3.4.1 Lebowakgomo Town Development Plan

The Lebowakgomo Town Development Plan is depicted in Figure 1.5.

The plan is based on the following development principles, namely:

- **Principle 1:** Consolidate the urban structure of Lebowakgomo Town in a pear shape around route R518 with the core centre being located around the R518-R579 intersection.
- **Principle 2:** Demarcate and develop an Integrated Regional Open Space System for Lebowakgomo functionally linking the mountainous areas to the north and the associated drainage systems converging in the Chuene's River towards the east.
- **Principle 3:** Consolidate a range of economic activities at three main activity nodes along routes R518 and R579.
- **Principle 4:** Promote mixed uses, including retail, office, commercial, and light industrial in the Lebowakgomo CBD at the R518-R579 intersection.
- **Principle 5:** Attract industrial activity associated with the Dilokong Corridor (R37 to Lebowakgomo J industrial area), and consolidate/maintain the existing industrial activities at Lebowakgomo IA to the south.
- **Principle 6:** Develop all the existing erven in proclaimed towns before expanding the footprint of Lebowakgomo.



- **Principle 7:** Residential expansion of Lebowakgomo Town should focus on filling the area between extensions P and Q, and developing to the south of extensions F, G, H and P.
- **Principle 8:** Accommodate lower order community facilities like primary schools and crèches within each of the individual residential neighbourhoods, and consolidate all higher order community facilities in and around the CBD (as first priority) and in the Government Precinct to the north thereof.
- **Principle 9:** Provide a continuous network of secondary routes and pedestrian walkways to give access to the respective residential neighbourhoods, and to all the major community facilities and economic activity nodes.
- **Principle 10:** Protect the surrounding high potential agricultural land from urbanisation in order to promote local economic development and enhance food security.

What is important to note for purposes of this study, is that a definite Urban Edge is being delineated which differs from proposals of the 2007 SDF. It focusses on consolidation of the urban form, infill development and utilisation of existing even before allowing further expansion of the urban footprint.

2.3.4.2 Lebowakgomo CBD Development Plan

The Lebowakgomo CBD Development Framework is depicted in Figure 1.6 hereto. It contains a variety of proposed land uses and re-vitalisation of land etc. It includes business, commercial and service industries, medium density residential as well as public service and facilities, sport and recreational facilities and public transport proposals.

The CBD is basically divided into four functional precincts, namely:

- A **Business Zone** to the north-west in the area closest to the R518-R579 intersection;
- A **Commercial and Service Industry Zone** adjacent to the south-east thereof;
- A Medium Density **Residential Precinct** further towards the south; and
- A horseshoe-shaped **Institutional Precinct** extending from the Legislature, Municipal Offices and Magistrates Court in the north, past the Sport Stadium to the east, and up to the Police Station and Department of Education offices in the south.

FIGURE 1.5: LEBOWAKGOMO LSDP 2013

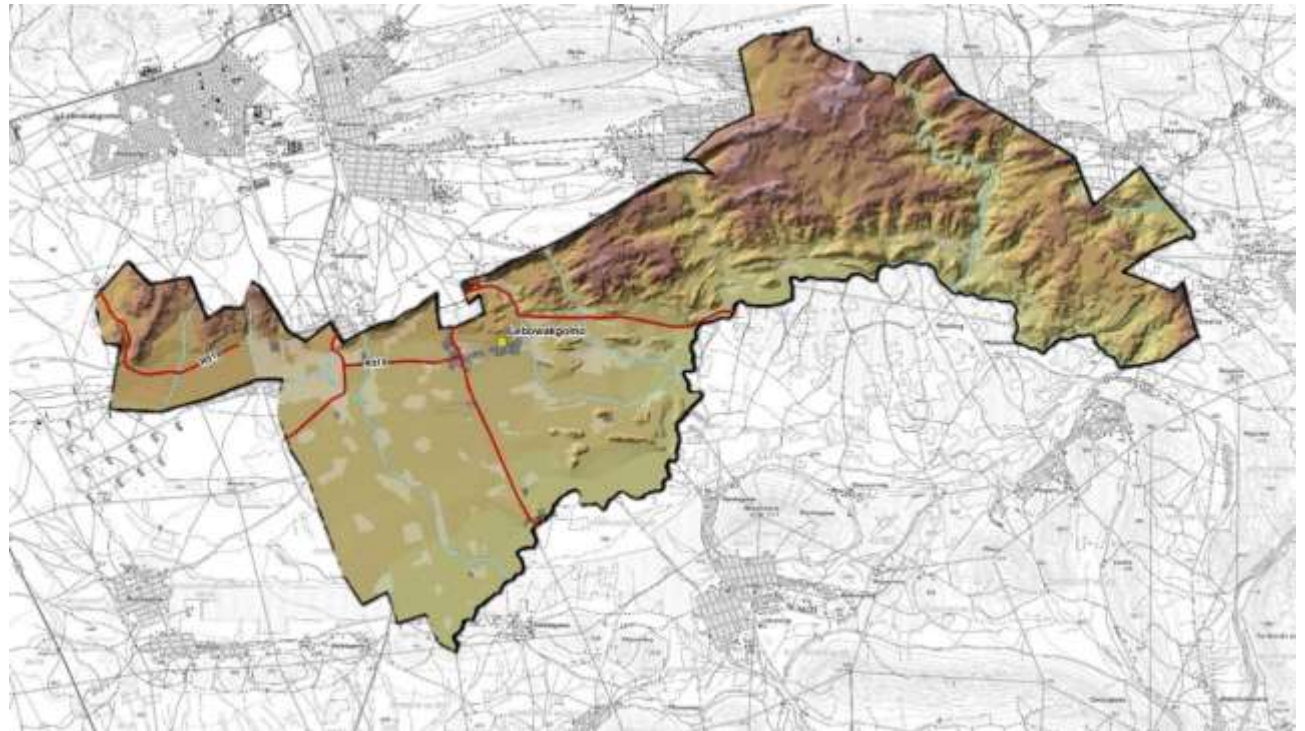


Source: Lepelle-Nkumpi Municipality; Local Spatial Development plan for Lebowakgomo Town, April 2013.

[illegible]

2.4 Draft Vision Statement

To develop a spatial hierarchy of development areas for the Municipality with linkages to the broader region, encouraging integration, environmental and socio-economic sustainability, and wherein the residents have adequate access to quality of life.



2.5 Key Issues

The following key issues were identified at the Draft Spatial Vision and Issues Workshop held 11 April 2016:

Land	<ul style="list-style-type: none"> – Certain communities and traditional authorities don't accept SPLUMA, which may create challenges for land use management in future. – There is a lack of tenure security with reference to the status of sites and occupation of land. – There is a lack of trust between the municipality and some Traditional Authorities – Ledwaba TA encroaches onto other areas due to their land fully occupied/demarcated. – Mafefe does not have land for additional residential sites and consideration should be given to increase the densities in the area. Zebediela (areas such as Mogoto and Moletlane) holds the potential for increased densities or provision of smaller erven/sites in future.
Housing/ Human Settlements	<ul style="list-style-type: none"> – Housing invasion of formal structures occur in Lebowakgomo (eastern part) – There is a trend of growth and migration to Lebowakgomo as a supporting and alternative residential area to those working in Polokwane city. – Demarcated sites are not serviced and lies underutilised.
Social and Community Facilities	<ul style="list-style-type: none"> – Determine the potential localities or guidelines for locality of community halls.
Infrastructure	<ul style="list-style-type: none"> – There are infrastructure backlog and maintenance, especially water and sewer reticulation – The provision of bulk infrastructure will unlock the vacant land owned by the Municipality and National Government.
Economic Activity	<ul style="list-style-type: none"> – The potential relocation of Legislature may impact on the local economy and proposals in the SDF. – Currently business activities are only focused towards Lebowakgomo and Zebediela (Moletlane/Mogoto) area. – There may be interested investors who are looking to develop in Lebowakgomo. – There is a low interest in industrial development and activity in the municipal area. activities
Movement & Linkages	<ul style="list-style-type: none"> – There is a high volume and daily movement from Lebowakgomo and Moletlane/Mogoto to employment destinations such as Polokwane, Burgersfort and Mokopane. – There is a leakage of spending income towards areas such as Polokwane and Mokopane. – There is high traffic volumes through Lepelle-Nkumpi to by-pass the N1, especially during Easter weekends and other ZCC gatherings.



	<ul style="list-style-type: none"> – The current intersection of the two high order routes at the Lebowakomo Mall intersection creates traffic congestion and unsafe pedestrian situations. – There is a need to create a ring-road in Lebowakomo in order to link with adjacent areas/neighbourhoods.
Environmental Features	<ul style="list-style-type: none"> – Environmental management issues needs to be addressed in the SDF





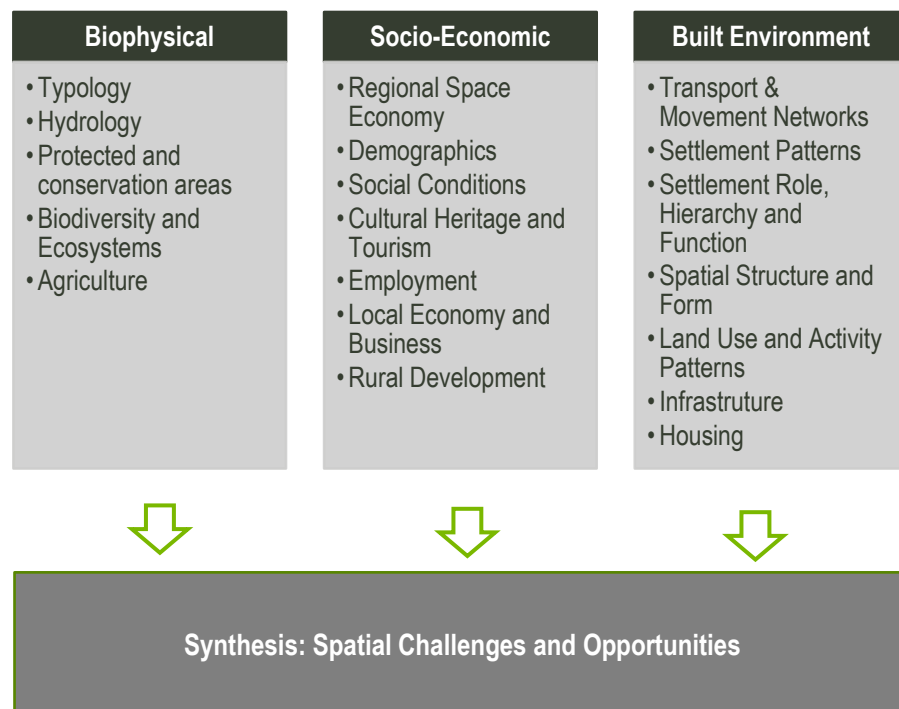
3 Spatial Challenges and Opportunities

A Spatial Development Framework is more than the spatial representation of the sector plans of IDP, it needs to set the spatial strategy and spatial perspective for the 5 year term.

3.1 Introduction

The purpose of this section is to undertake a strategic spatial analysis according to three themes, namely Biophysical, Socio-Economic and Built Environment Analysis.

FIGURE 1.7 : STRATEGIC SPATIAL ANALYSIS THEMES



This section concludes with a synthesis of the spatial analysis and identification of spatial challenges and opportunities that will form the basis for the drafting of the spatial concept and strategies.

3.1.1 Baseline Review

The key municipal strategic plan to guide the strategic spatial perspective, is the Lepelle-Nkumpi Municipal Integrated Development Plan, 2016-2021.

A number of sector plans have been compiled for the municipal area, such as the LED Strategy, IWMP, Disaster Management Plan, Integrated Environmental Management Plan and Integrated Transport Plan. The review and alignment of these plans are included during the analysis of the various sub-components, in the following section.

IDP Vision 2016 - 2021

“Be financially viable municipality, geared towards the improvement of quality of life of the people, by providing sustainable services.”

Community Development Priorities (IDP, 2016 – 2021)

1. Water and Sanitation
2. Roads and Stormwater
3. Housing
4. Electricity
5. Health

The community priorities relate directly to basic service provision. It is thus important that the SDF Review assist to guide the spatial delivery of the services.

The municipality has seven (7) strategic organisational objectives of which the following relates directly to the SDF review:

- To provide sustainable basic services and infrastructure development;
- To plan and manage spatial development within the municipality;
- Promote shared economic growth and job creation;
- To protect biodiversity and cultural heritage, enforce environmental compliance and mitigate the impact of climate change.



3.2 Biophysical Analysis

3.2.1 Municipal Overview

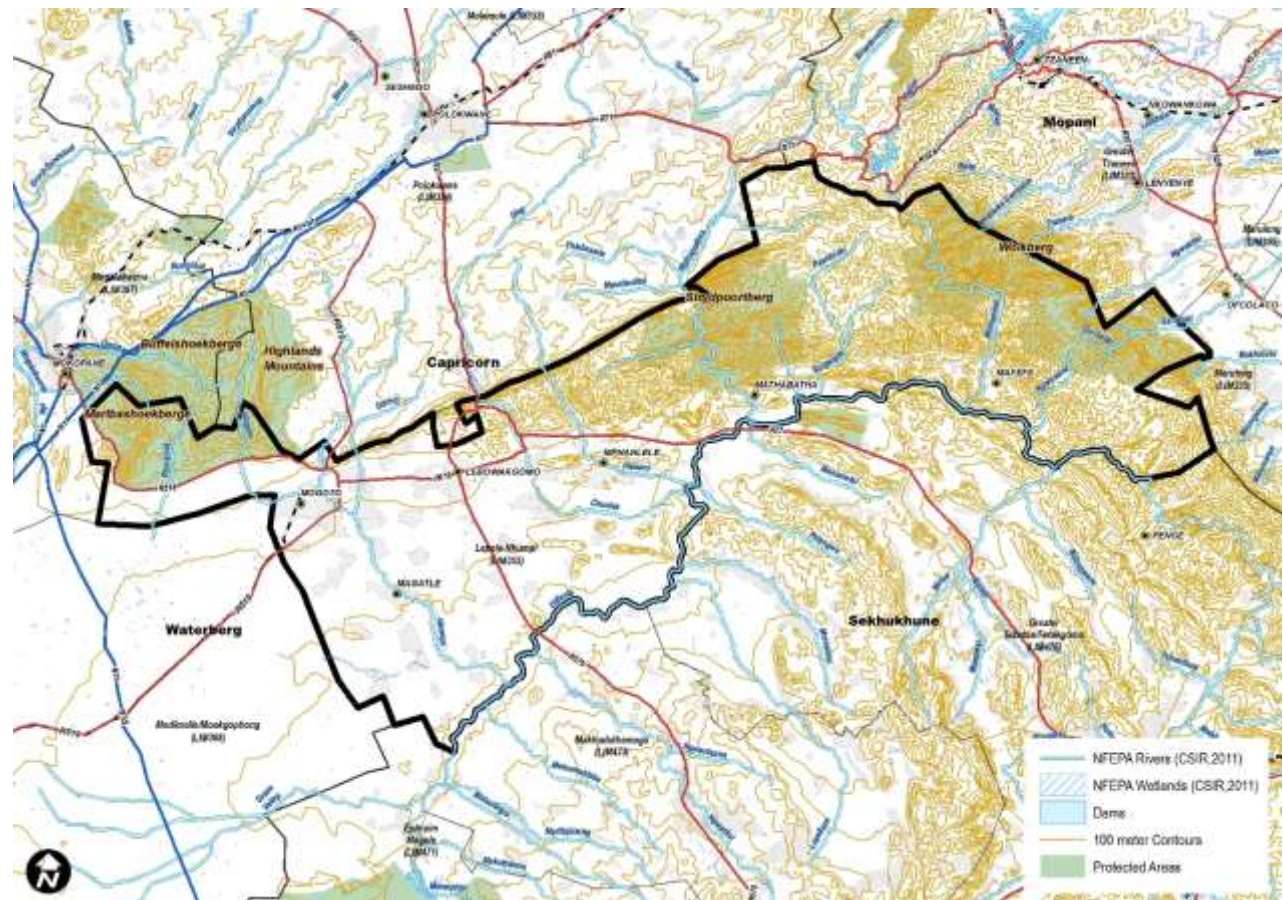
3.2.1.1 Typology and Hydrology

The north-eastern portion of the Lepelle-Nkumpi municipal area is mountainous with the Great Escarpment or Northern Drakensberg as the dominant feature of the north-eastern quadrant of the Municipality with Wolkberg and Strydpoort mountain ranges are both located within this portion. Portions of the Maribashoek Mountains are located west of Zebediela towards Mokopane, Magalakwena Local Municipality. The south-western portion of the Municipality is considered relatively flat.

The Lepelle-Nkumpi Local Municipality is located in the Olifants catchment (Middle Olifants catchment/sub-area). The Olifants River forms the southern boundary of the Municipality. Several tributaries of the Olifants River transect the Municipality including the Nkumpi River, Hlakaro River and the Mohlapitse River. These rivers flow from north to south through the Municipality and terminate in the Olifants River.

There are a number of small wetlands within Lepelle-Nkumpi, but there are no declared Ramsar wetlands. A relatively large wetland near Khureng in the South of the Municipality as well as along the Mohlapitse River in the East of the Municipality.

MAP 1.2: TOPOLOGY AND HYDROLOGY

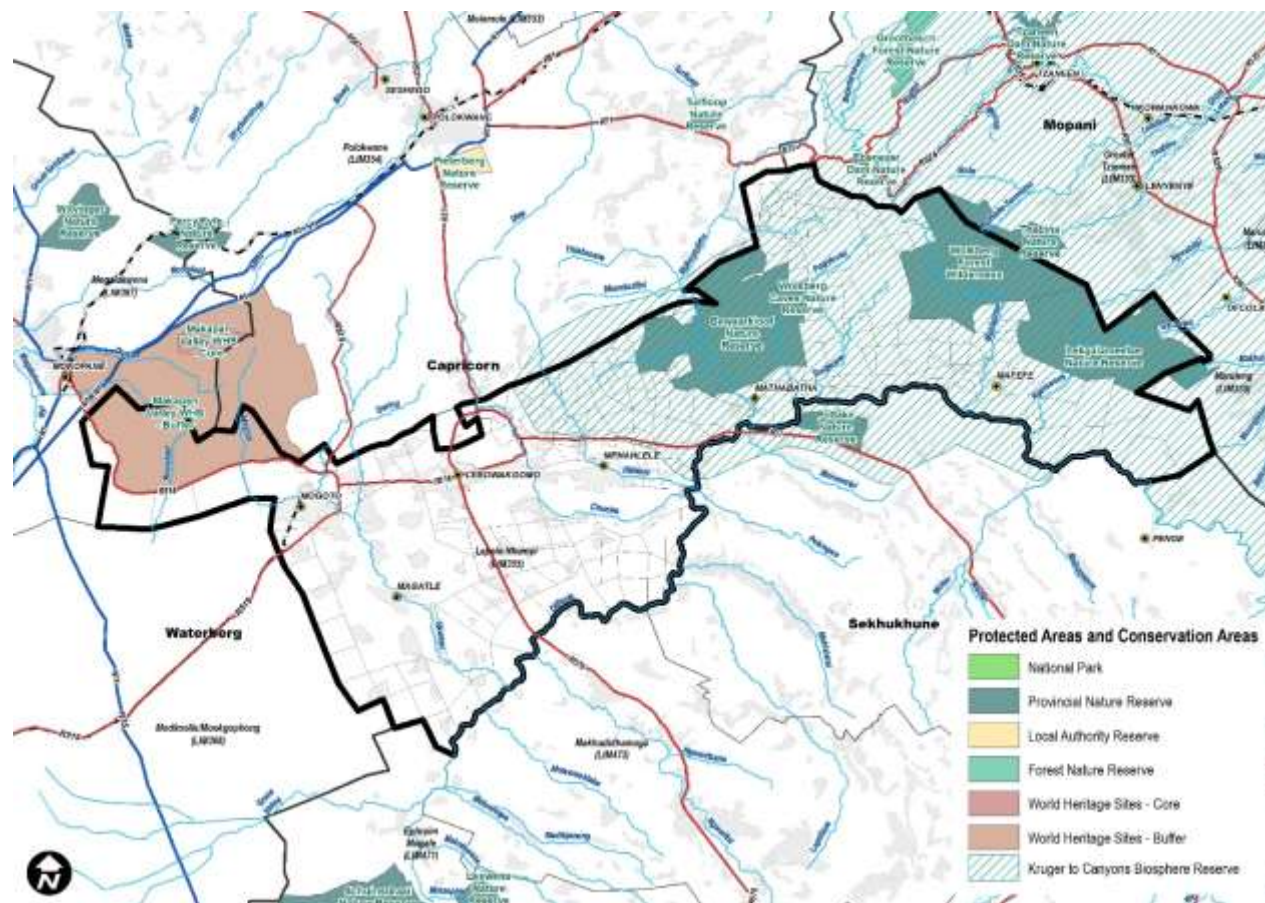


3.2.1.2 Protected and Conservation Areas

Three conservation areas are located within the Lepelle-Nkumpi Municipal area, which include the Bewaarskloof, Wolkberg and Lekgalameetse reserves all located within the north-eastern portion of the Municipality. These three reserves are all provincial nature reserves and have formal protected areas status. The Thabina reserve, Strydpoort Mountains and Donkerkloof caves are also within the boundaries of the Municipality. The buffer areas of the Makapan Valley World Heritage Site are also located within the western portion of the Municipality.

A significant portion of the Lepelle-Nkumpi Municipality is covered by the Kruger to Canyon (K2C) Biosphere including the formally protected areas of the Bewaarskloof, Wolkberg and Lekgalameetse reserves.

MAP 1.3: PROTECTED AREAS AND CONSERVATION AREAS



3.2.1.3 Biodiversity and Ecosystems

Critical Biodiversity Areas are areas required to meet biodiversity targets for ecosystems, species and ecological processes. The primary purpose of a map of Critical Biodiversity Areas and Ecological Support Areas (ESA) is to guide decision-making about where best to locate development. It should inform land-use planning, environmental assessment and authorisations, and natural resource management, by a range of sectors whose policies and decisions impact on biodiversity.

The extent of Critical Biodiversity Areas (CBA) and Ecological Support Areas (ESA) identified in the Lepelle-Nkumpi Municipality is depicted in Table 1.4.

The CBA Map is linked to a set of land-use guidelines which describes the compatible and incompatible land uses associated with each biodiversity category. The CBA and ESA within the Lepelle-Nkumpi Municipality can be summarised as follow:

- A total of 62% of the Municipality is designated as Critical Biodiversity Areas (CBA) – which include:
 - 17% Protected Areas - Protected Areas and Protected Areas pending declaration under NEMPA.
 - 35 % Critical Biodiversity Area 1 (CBA1) which can be considered "irreplaceable"
 - 10% Critical Biodiversity Area 2 (CBA2) where conservation is optional but highly desirable.
- Ecological Support Areas (ESA) have been split on the basis of land cover into ESA 1 (11%) and ESA 2 (9%). ESA 1 areas are largely in their natural state while ESA 2 areas are no longer intact but potentially retain significant importance in terms of maintaining landscape/ ecosystem connectivity.
- Other Natural Areas make up 12% of the Municipality.

According to the Limpopo SDF (2016) the Wolkberg Region is one of the leading international floral hotspots and should be prioritised as conservation areas.

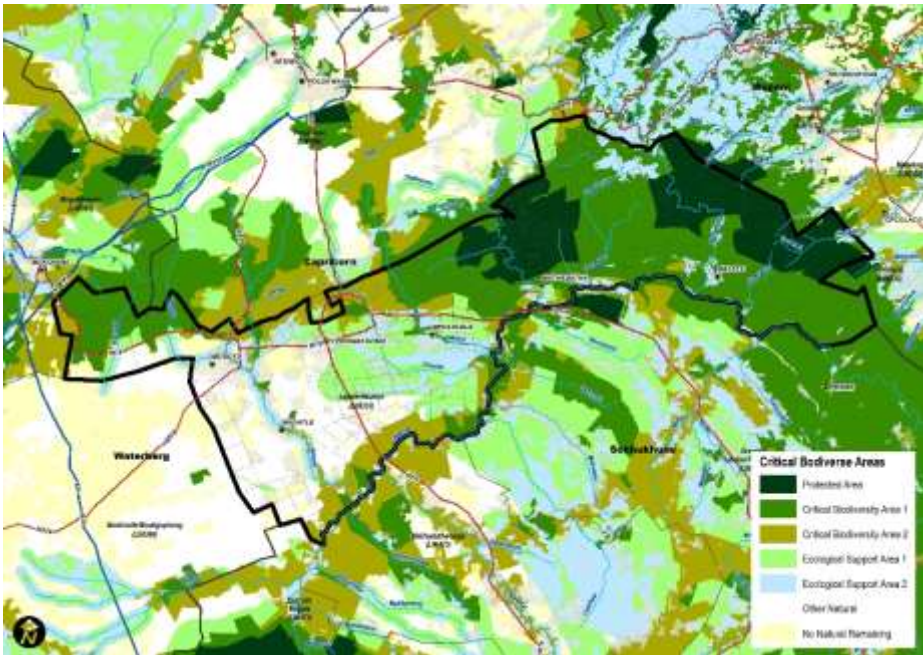
TABLE 1.3: THE EXTENT OF CRITICAL BIODIVERSITY AREAS (CBA) AND ECOLOGICAL SUPPORT AREAS (ESA) IDENTIFIED IN THE LEPELLE-NKUMPI MUNICIPALITY

<i>Critical Biodiversity Category</i>		<i>Extent (ha)</i>	<i>Extent (km²)</i>	<i>Percentage of Total (%)</i>
<i>Protected Area</i>	PA	59,912	599	17%
<i>Critical Biodiversity Area 1</i>	CBA1	120,479	1,205	35%
<i>Critical Biodiversity Area 2</i>	CBA2	34,177	342	10%
<i>Ecological Support Area 1</i>	ESA1	36,411	364	11%
<i>Ecological Support Area 2</i>	ESA2	31,755	318	9%
<i>Other Natural Area</i>	ONA	42,255	423	12%
<i>No Natural Remaining</i>	NNR	21,408	214	6%
<i>Total</i>		346,399	3,464	100%

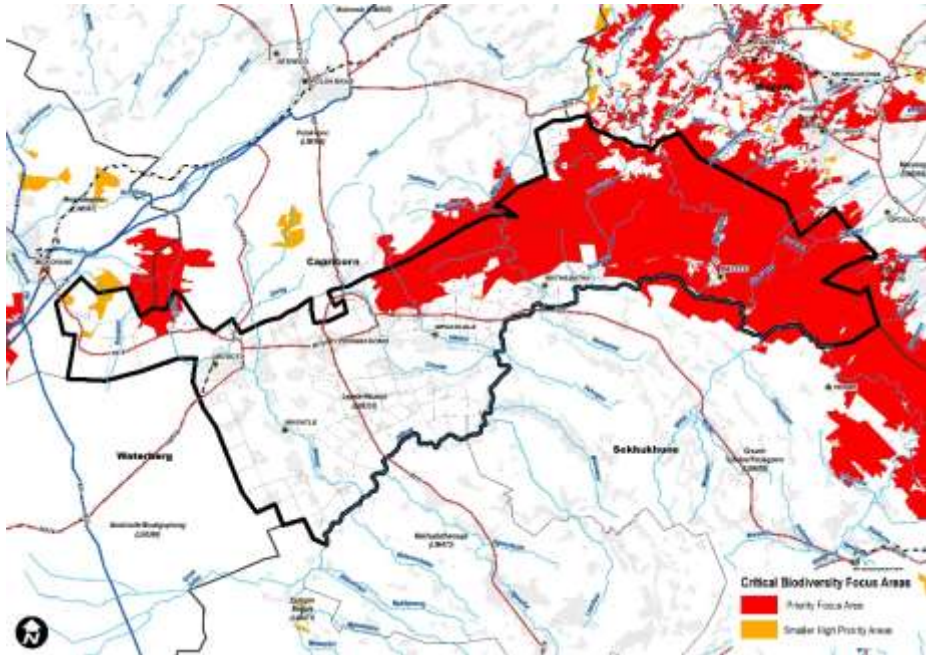
Source: Adapted from the Limpopo Conservation Plan v.2, 2013



MAP 1.5: CRITICAL BIODIVERSE AREAS (CBA)



MAP 1.4: CRITICAL BIODIVERSITY FOCUS AREAS



3.2.1.4 Agriculture

Land capability provides a framework that combines soil, terrain and climate factors to assess the most intensive long-term use of land for rain-fed agriculture and at the same time indicate the permanent limitations associated with the different land-use classes.

Land capability is an expression of the effect of physical factors (e.g. terrain form and soil type), including climate, on the total suitability and potential for use for crops that require regular tillage, for grazing, for forestry and for wildlife without damage. Land capability involves the consideration of (i) the risks of damage from erosion and other causes, (ii) the difficulties in land use caused by physical factors, including climate and (iii) the production potential. The land capability of the Lepelle-Nkumpi Local Municipality is depicted in Map 1.6 and summarised in Table 1.4.

Table 1.4 indicates that 35% of the Municipality falls within the arable grouping, 34% in the wilderness grouping and the remaining 31% in the grazing grouping.

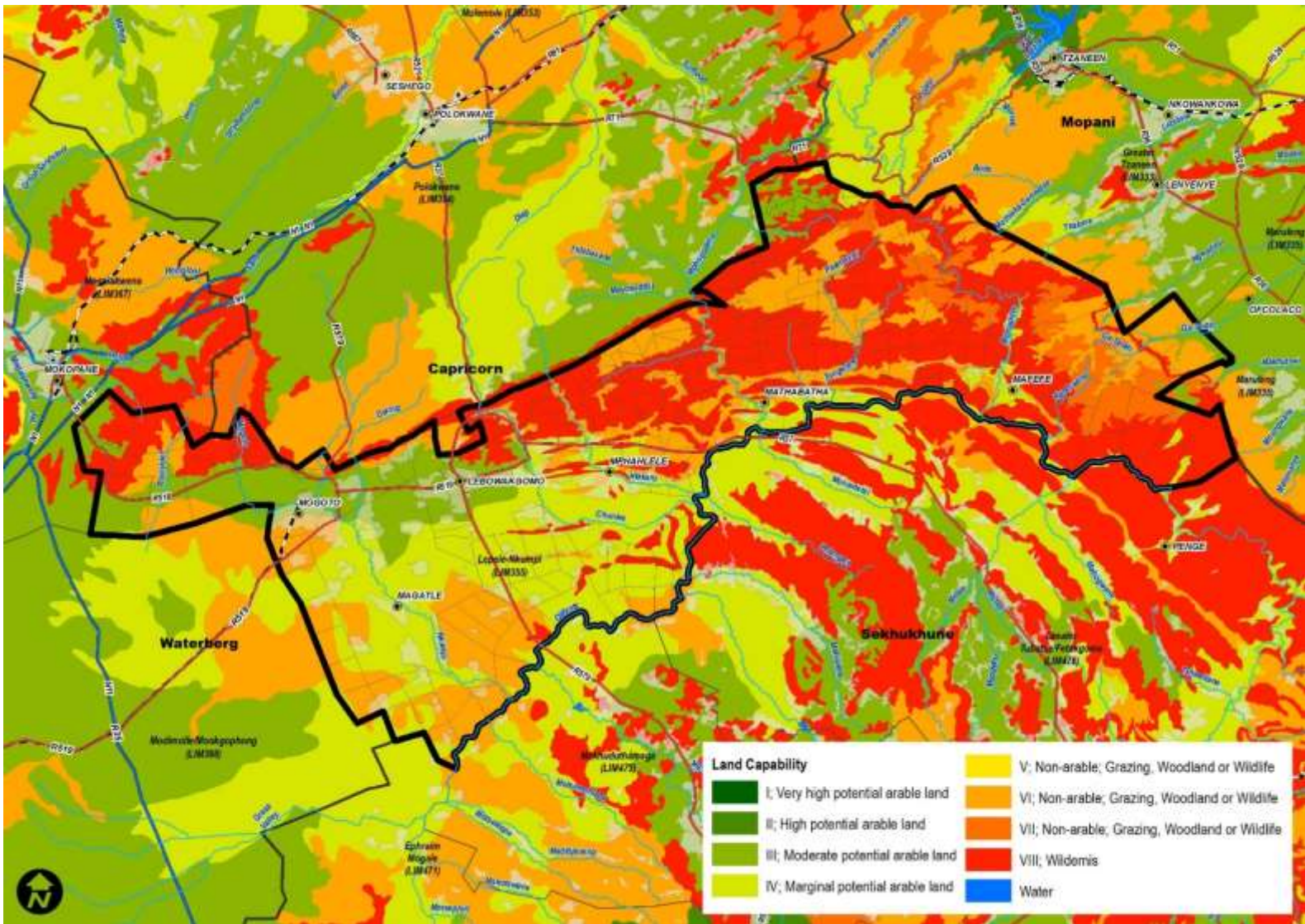
TABLE 1.4: AGRICULTURAL LAND CAPABILITY

<i>Land Capability Description</i>	<i>Class</i>	<i>Grouping</i>	<i>Extent (ha)</i>	<i>Extent (km²)</i>	<i>Percentage of Total (%)</i>
<i>Moderate potential arable land</i>	III	<i>Arable</i>	39,831	398	11%
<i>Marginal potential arable land</i>	IV	<i>Arable</i>	81,292	813	23%
<i>Non-arable; Grazing, Woodland or Wildlife</i>	VI	<i>Grazing</i>	88,565	886	26%
<i>Non-arable; Grazing, Woodland or Wildlife</i>	VII	<i>Grazing</i>	17,533	175	5%
<i>Wilderness</i>	VIII	<i>Wilderness</i>	119,178	1,192	34%
Total			346,399	3,464	100%

Source: Adapted from DAFF Land Capability data, 2002



MAP 1.6: AGRICULTURAL LAND CAPABILITY



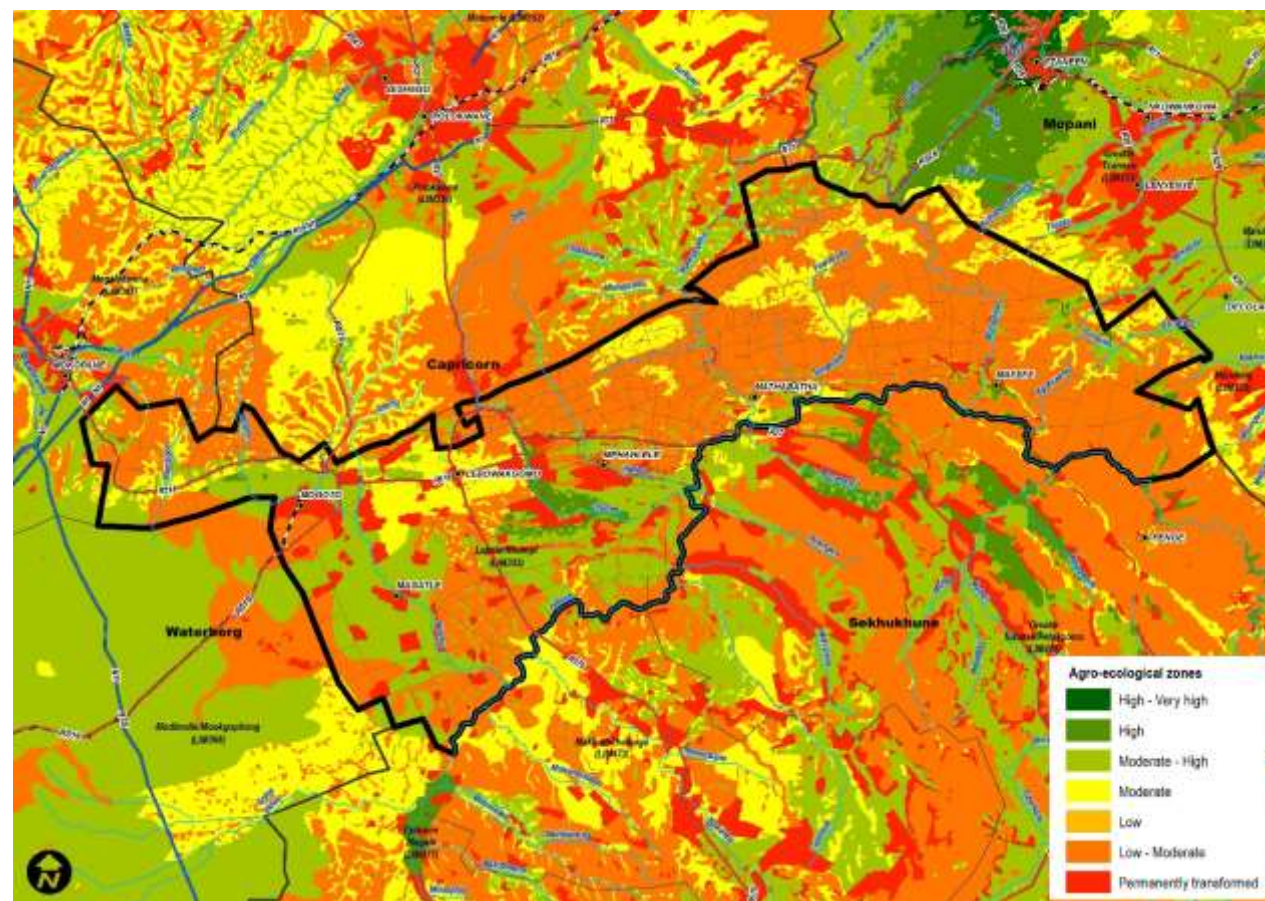
The World Resource Institute (WRI) defines agro-ecosystems as “a biological and natural resource system managed by humans for the primary purpose of producing food as well as other socially valuable non-food goods and environmental services”. Department of Agriculture, Forestry and Fisheries (DAFF) has developed agro-ecological zones (agricultural zones) based on agricultural potential, land use/ land cover, current agricultural practices as well as various natural resource data sets such as soil, climate and terrain. Map 1.7 shows the agro-ecological zones within the Lepelle-Nkumpi Municipality, summarised in Table 1.5.

TABLE 1.5: AGRO-ECOLOGICAL ZONES WITHIN THE LEPELLE-NKUMPI MUNICIPALITY

<i>Agro-Ecological Zones</i>	<i>Extent (ha)</i>	<i>Extent (km²)</i>	<i>% of Total</i>
<i>High</i>	6,801	68	1.96%
<i>Moderate - High</i>	80,168	802	23.14%
<i>Moderate</i>	47,626	476	13.75%
<i>Low - Moderate</i>	187,722	1,877	54.19%
<i>Low</i>	84	1	0.02%
<i>Permanently transformed</i>	23,998	240	6.93%
Total	346,399	3,464	100%

Source: Adapted from DAFF Land Capability data, 2013

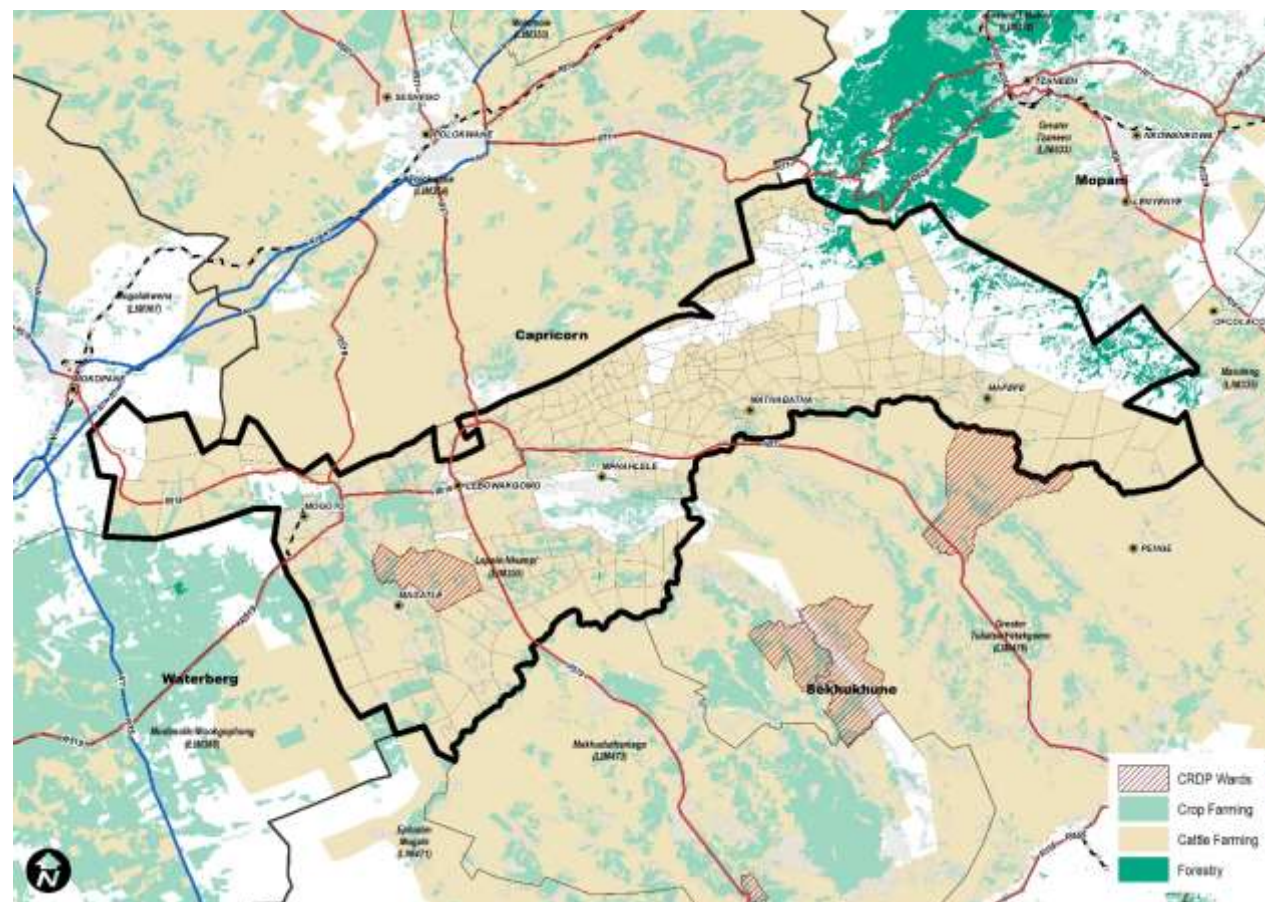
MAP 1.7: AGRO-ECOLOGICAL ZONES



Map 1.8 illustrates the spatial distribution of agricultural activities in the Lepelle-Nkumpi Local Municipality. It is evident that cattle farming is the dominant agricultural activity within the Municipality. Smaller crop farming areas are scattered through the south to south-eastern section of the Municipality with small forestry areas located in the north east in close proximity to the Wolkberg and Lekgalameetse reserves.

Local situation is that agriculture is primarily in the form of permission to occupy rights to use small land parcels for grazing, dryland farming or irrigation farming. The tendency is that these parcels surrounds existing settlements and riverine areas, as illustrated in the image below. The identification of land for future extensions to settlements need to take cognisance and respect these allocations. Unfortunately the weakness is that these rights are not yet captured electronically to secure it in future planning.

MAP 1.8: AGRICULTURAL ACTIVITIES



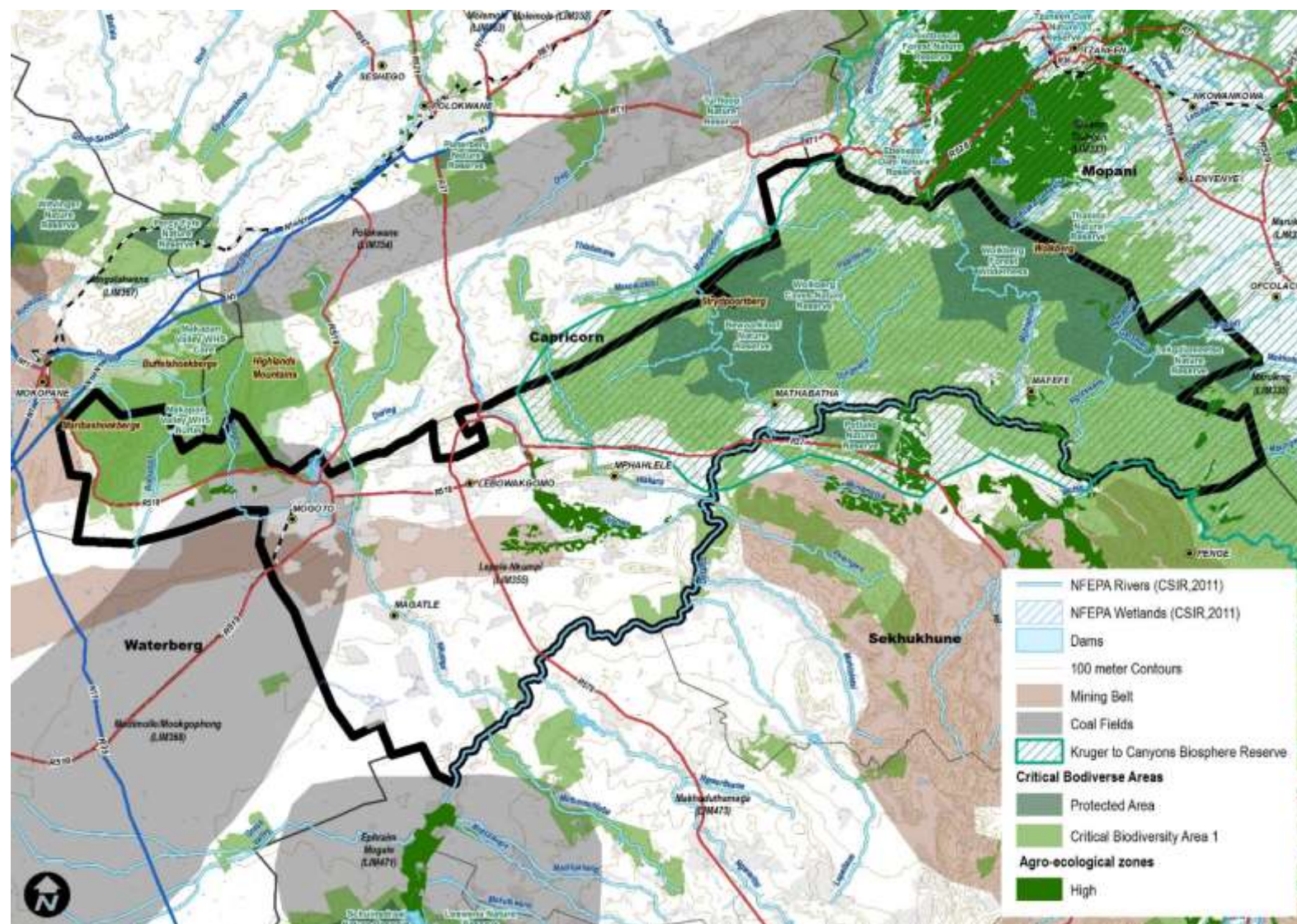
3.2.2 Challenges and Opportunities

The challenges and opportunities arising from the analysis of the bio-physical environment can be summarised as follows, namely:

- The steep topography of the mountain ranges found in the north-eastern part of the municipal area, is a restricting factor for future urban development, as well as road and freight linkages between Lepelle-Nkumpi and Mopani District Municipality.
- Due to the steep topography the existing road and freight linkages are weak, even though the travelling distance is shorter between Mopani and the markets in Gauteng compared to the current route via Polokwane.
- The steep topography limits also easy access to the tourism potential of the nature reserves.
- 62% of the municipal area is designated as Critical Biodiversity Area (CBA) in the Limpopo Conservation Plan, 2013. It provides both a constraint but also an opportunity;
- Another 20% of the municipal is regarded as Ecological Support Area (ESA);
- The positive factor of the mountain ranges is its biodiversity, conservation and tourism value, protected in nature reserves and forest reserves known as Wolkberg, Bewaarkloof, Thabina and Lekgalameetse. The area also forms part of the Kruger to Canyon (K2C) Biosphere in the eastern parts of the municipality;
- The Makapan Valley World Heritage site and buffer area is located to the west of the municipal area. This also holds potential for tourism and recreation;
- There are urban settlements developed over environmental sensitive areas in the north-eastern part of the municipal area, as well as the western part. The settlement development pattern also reveal a tendency to establish along riverine area. The unplanned extension of these settlements, is a threat to the protection of the natural resources, and the safety of inhabitants (houses may be constructed within floodline areas, or structures and foundations not suitable for soil condition).
- There are mining and/or quarrying activities within the Biosphere zone which is also a threat to the conservation of the area.
- The scattered settlement pattern in the Zebediela area, as well as the extensions to these settlements, can be regarded as potentially sterilizing the sub-surface mineral potential of the area. Consultation is required with Department of Mineral Resources to consent to the use of the land for purposes other than agriculture following investigation into and confirmation of the mining potential of the mineral resources in this area.
- According to the agricultural land capability data from DAFF, there is very little high potential arable land in the municipal area;
- 35% of the municipal area is classified as potential arable agricultural land with marginal to moderate potential. Almost the same size (34%) of the land is wilderness area and 31% is non-arable with potential use for grazing, wildlife etc.
- Cabinet Lekgotla identified 23 poverty stricken municipalities in 2011. The wards within these municipalities with massive infrastructure and service backlogs are prioritised by government for coordinated and integrated service delivery, and the transformation of apartheid spatial development patterns. Ward 5 in Lepelle-Nkumpi was identified as a poverty stricken zone.
- Ward 5 therefore benefits from the Comprehensive Rural Development Programme (CRDP) and is therefore identified as one of Wards in Limpopo Province in greatest need of rural development.
- The initiatives from the Department of Rural Development and Land Reform in respect of the Rural Spatial Assessment Report and District Rural Development Plan, create opportunities for focussed investment and assistance to the identified areas namely:
 - Madisha-Di Toro/ Zebediela intervention area where only limited projects have been rolled out by the Department since 2009; and
 - Ward 5 as CRDP area.
- The Limpopo Development Plan proposes the acceleration of rural development by the establishment of rural development centres and accelerated implementation of the CRDP.



MAP 1.9: SYNTHESIS BIOPHYSICAL ENVIRONMENT



3.3 Socio-Economic Analysis

3.3.1 Municipal Overview

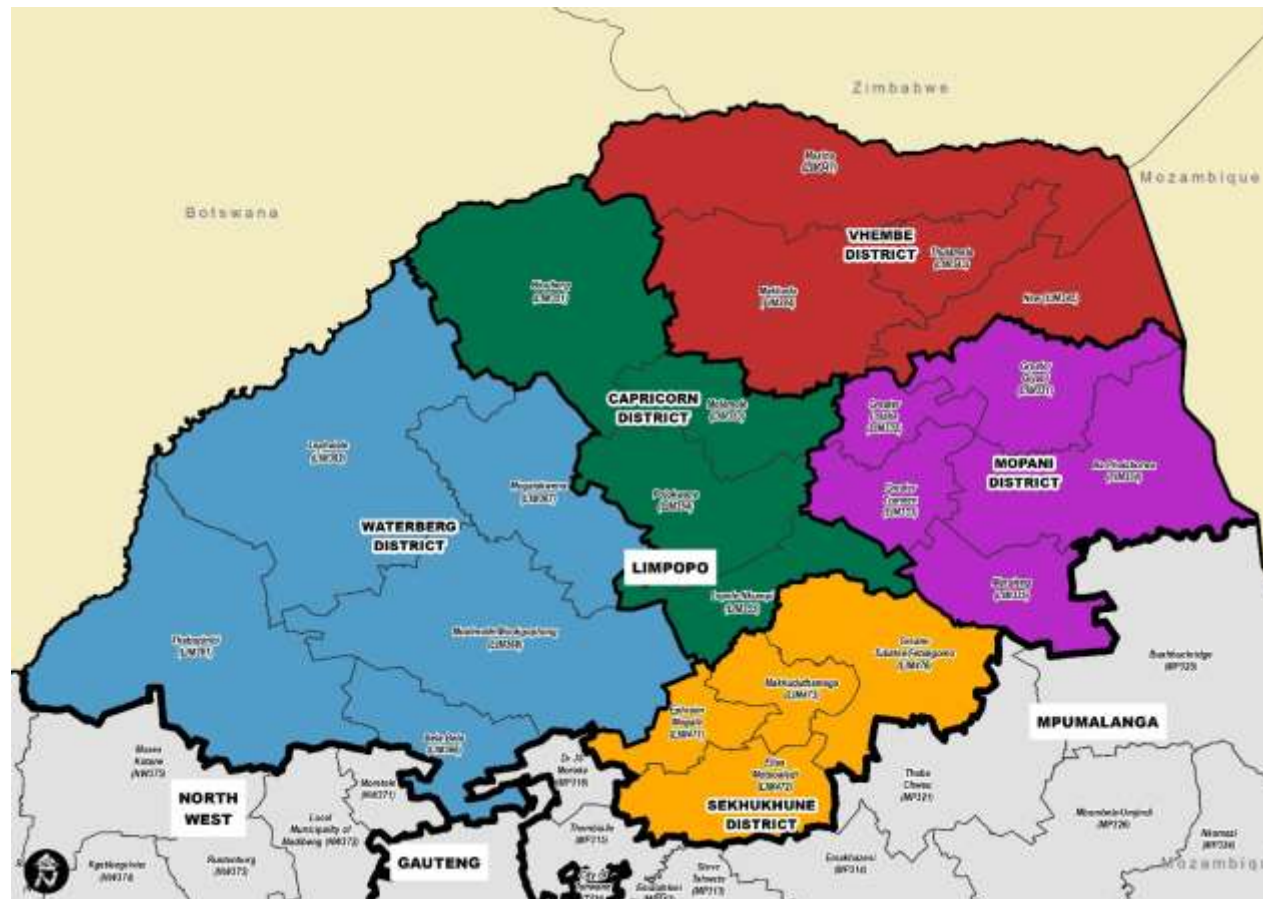
3.3.1.1 Regional Space Economy

Lepelle-Nkumpi Local Municipality is located within the Capricorn District Municipality's area of jurisdiction.

Other local municipalities in this district includes Polokwane, Blouberg, and Molemole as can be seen in Map 1.10.

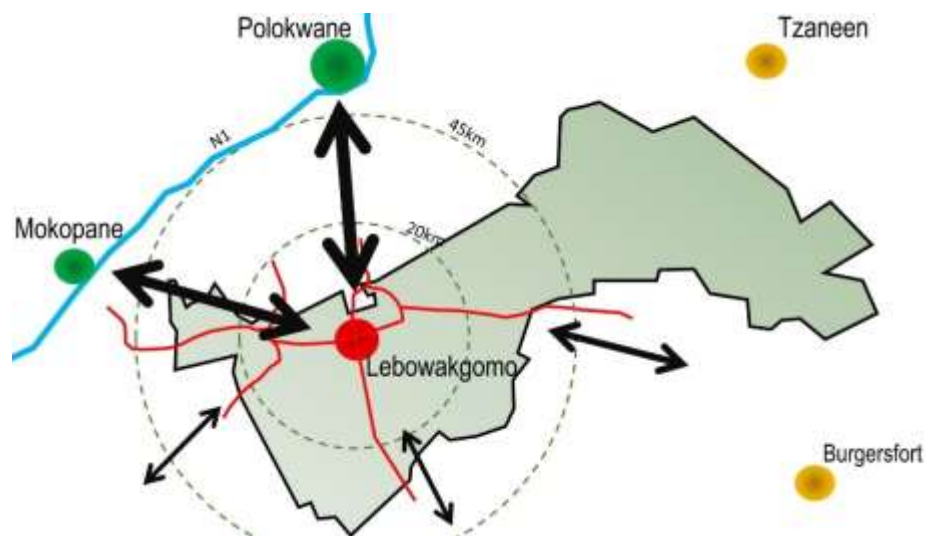
The municipality is further border by eight different Local Municipalities of which most of them, except Polokwane Municipality, are located in other District Municipal areas. These bordering municipalities include Polokwane, Greater Tzaneen, Fetakgomo, Greater Tzaneen, Modimolle/Mookgophong, Mogalakwena, Makhuduthamaga and Ephraim Mogale.

MAP 1.10: REGIONAL CONTEXT



As in the case with Capricorn District Municipality, large areas of the Lepelle-Nkumpi municipality formed part of the former Lebowa Home Land which mainly accommodated rural development with very little large cities/settlements where a wide range of specialised functions and employment opportunities could be found. The municipal area is further characterised by many scattered settlements as in the case with many rural areas in Limpopo Province. However, these settlements are grouped to the central and western parts of the municipal area which correlates with access routes from Polokwane and Mokopane towards the south to areas/towns such as Roedtan and Epharaim Mogale. The north and eastern parts of the municipal area is characterised by mountainous areas where access is limited apart from the R37 which links with Burgersfort and Mashishing. Hence the Lepelle-Nkumpi municipality has very little interaction to areas such as the Greater Tzaneen Municipality, including areas such as Letsitele. In general these areas are known for their agricultural products such as citrus.

FIGURE 1.8: RELATIONSHIPS & INTERACTIONS IN THE REGION



However, Polokwane Municipality which is the Capital and economic hub of Limpopo Province, abuts the Lepelle-Nkumpi municipality to its north and is located approximately 50km away with main roads linking the two municipalities. As illustrated in the schematic diagram below, there is a strong relationship between Lebowa Kgomo and Polokwane city in respect of employment opportunities and general economic activity. In the past there was also a strong relationship in respect of the government function since the Limpopo Legislature was accommodated in Lebowa Kgomo town. Furthermore, Polokwane city accommodates specialised functions such as tertiary education, financial institutions, professional services and specialised medical facilities.

There also seems to be strong relationships with the neighbouring Mokopane town to the west which is also some 50km away, especially because of the increasing mining activity in the Mogalakwena area the past few years.

Therefore, between the city of Polokwane and Mokopane town lies great opportunity for Lepelle-Nkumpi's residents in terms of employment and general economic activity and availability of specialised personal services. This interaction is further supported by main roads which provides good access and public transport.

3.3.1.2 Demographics and Social Conditions

The objective of this sub-section is to provide an overview of the socio-economic aspects of the Lepelle-Nkumpi Local Municipality. The population and household indicators of the Limpopo Province, Capricorn District and the Lepelle-Nkumpi is shown in the following tables.

The major weakness is that the official statistic from Statistics South Africa date 2011.

TABLE 1.6: POPULATION AND HOUSEHOLD INDICATORS, 2011

	Limpopo Province	Capricorn District	Lepelle-Nkumpi Municipality
<i>Geographical Area (square km/km²)</i>	125,754	21,705	3,463
<i>Population</i>	5,404,866	1,261,462	230,351
<i>Population Density (households/km²)</i>	43.0	58.1	66.5
<i>Households</i>	1,418,101	342,837	59,683
<i>Household Density (households/km²)</i>	11.3	15.8	17.2
<i>Average Household Size</i>	3.8	3.7	3.9
<i>Male Population</i>	2,523,764.0	589,811.0	104,862.0
<i>Female Population</i>	2,881,102.0	671,651.0	125,489.0
<i>Urbanisation Rate</i>	17.9%	24.8%	15.8%

Source: StatsSA Census 2011

According to Census 2011 data, the population of the Lepelle-Nkumpi Municipality totalled 230,351 in 2011, which constituted 19.8% of the Capricorn District and 4.3% of the Limpopo Province's total population.

The Municipality covers a geographical area of 3,463km² (346,345ha) which represent 16% of the Capricorn Districts total surface area. In respect of the province it only represent \pm 2.7% of the total area of Limpopo Province.

In comparison the Provincial and District densities (43 and 51 respectively), the Municipality has a much higher population density of only 66.5 people per square kilometre. Lepelle-Nkumpi has a fairly low urbanisation rate (portion of the population that reside in urban areas) of 15.8% with the majority of the Municipality's population residing on tribal and traditional land (83.8%) and the remaining 0.5% on a farms.

In terms of growth rates, the Lepelle-Nkumpi with an annual average household growth rate of 1.2% is lower rate than compared to the Provincial and District Municipality's growth rate which is 1.7%. In terms of the population growth rates the same trend applies.

TABLE 1.7: POPULATION AND HOUSEHOLD GROWTH TRENDS, 2001 TO 2011

	2001	2011	Total Growth 2001-2011 (%)	Average Annual Growth (2001- 2011)
Limpopo Province				
<i>Population</i>	4,995,106	5,404,866	8.2%	0.8%
<i>Households</i>	1,193,479	1,418,101	18.8%	1.7%
Capricorn District				
<i>Population</i>	1,163,880	1,261,462	8.4%	0.8%
<i>Households</i>	288,581	342,837	18.8%	1.7%
Lepelle-Nkumpi Municipality				
<i>Population</i>	227,959	230,351	1.0%	0.1%
<i>Households</i>	52,928	59,683	12.8%	1.2%

Source: StatsSA Census 2001 and Census 2011

According to the Community Survey 2016 figures currently available, the population of the Lepelle-Nkumpi Local Municipality has increased with just more than 5,000 individuals over the last 5 years. A slightly higher average annual population growth rate for the period 2011 to 2016 (0.4%) in comparison with the period 2001 to 2011 (0.1%)

TABLE 1.8: LEPELLE-NKUMPI MUNICIPALITY POPULATION GROWTH TRENDS, 2011 TO 2016

	2011 (Census 2011)	2016 (Community Survey 2016)	Total Growth 2011-2016	Total Growth 2011-2016 (%)	Average Annual Growth (2001-2011)
<i>Population</i>	230,351	235,380	5,029	2.2%	0.4%

Source: StatsSA Census 2011 and Community Survey 2016



TABLE 1.9: POPULATION AND HOUSEHOLD PROJECTIONS PER AREA/SETTLEMENT CLUSTER

Area/settlement cluster	Area (ha)	2011		2015		Growth 2011-2015		2020		2025	
		Population	Households	Population	Households	Population	Households	Population	Households	Population	Households
Lebowakgomo/Makotse cluster	7,795	50,320	13,036	52,141	13,508	1,821	472	54,414	14,097	56,828	14,722
Mogoto/Magatle cluster	9,126	87,191	22,588	89,943	23,301	2,752	713	93,293	24,169	96,789	25,075
Mathabatha/Mafeke cluster	1,352	7,781	2,016	7,811	2,024	30	8	7,828	2,028	7,846	2,033
Other settlements & rural areas, farms etc.	1,171	85,429	22,132	87,095	22,563	1,666	431	89,017	23,061	91,000	23,575
Total	346,345	230,721	59,772	236,990	61,396	6,269	1,624	244,552	63,355	252,463	65,405

Source: Based on Department of Water and Sanitation (DWS) Form G Village data and projections 2016, StatsSA Census 2011 and Community Survey 2016

The age structure of the Lepelle-Nkumpi Municipality is shown in Table 1.10:

TABLE 1.10: AGE STRUCTURE, 2011

Category	Age Cohort (years)	Percentage of Total Population	Total Population
Youth	00-14	35.9%	82,776
Young Adulthood	15-24	20.9%	48,111
Middle Adulthood	25-44	21.3%	49,027
Older Adulthood	45-64	14.1%	32,518
Pensioner	65-84	6.7%	15,524
Elderly	85+	1.0%	2,395
Total		100%	230,351

Source: StatsSA Census 2011

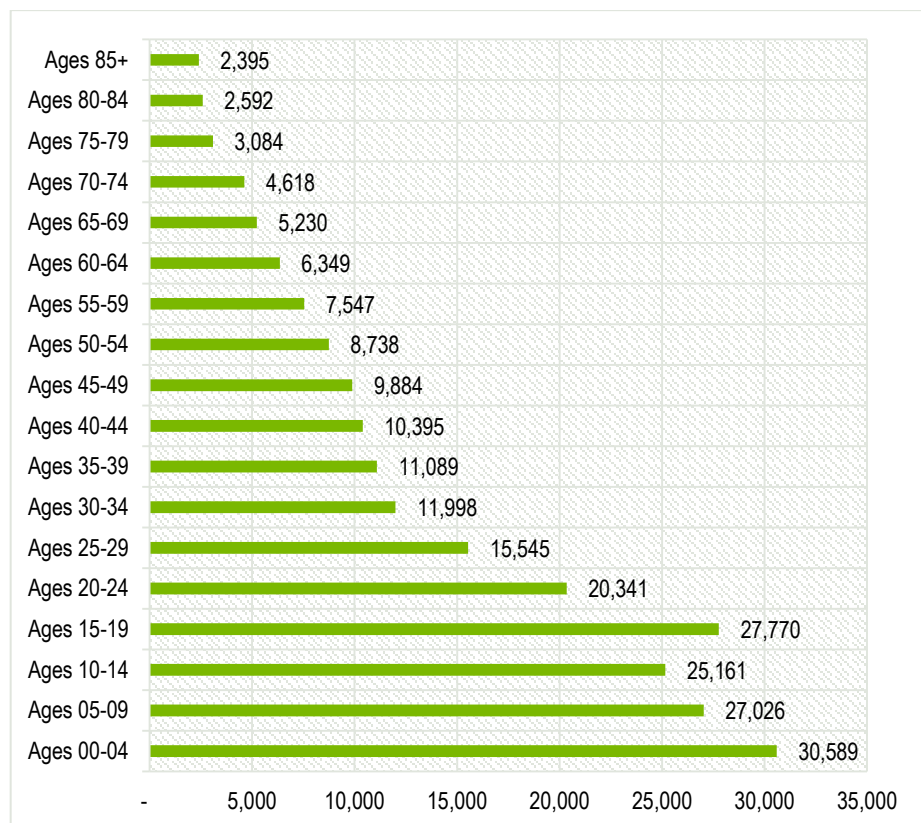
Table 1.10 indicates that Lepelle-Nkumpi has a bottom heavy age structure with more than half of its total population (56.8%) of it's between the ages of 0 to 24 years (also refer to Figure 1.9) The youthful nature of the population is typical to developing economies. It requires a growth and development agenda in terms of interventions and resources in areas such as education, health as well as social grants that puts an emphasis on the youth for future sustainability. A total of 56% of the population are of working age (age cohort 15 to 64 years). The youth, pensioners and elderly age categories (total of 100,695 individuals) represent those categories that are dependent on the population that are of working age (total of 129,656). This translates to 0.78 individuals being dependent on each individual that falls in the working age group. In reality this figure is likely to be much higher due to the following:

- The large number of the individuals that fall in the young adulthood category (age 15 to 24) could still be in school;
- Not all the individuals that are of working age are able to work due to disabilities or health issues;



- Not all the individuals that are of working age are able to find employment; and
- Not all the individuals that are of working age are willing to work.

FIGURE 1.9: AGE STRUCTURE, 2011



Source: StatsSA Census 2011

Adult education refers to the highest level of education obtained by individuals 20 years and older. Table 1.11 depicts the adult education levels of the Lepelle-Nkumpi Municipality:

TABLE 1.11: ADULT EDUCATION LEVELS, 2001 AND 2011

Adult Education Levels	2001		2011	
	Total Individuals	Percentage of Total (%)	Total Individuals	Percentage of Total (%)
No schooling	35,522	34.6%	21,631	18.1%
Some primary	12,184	11.9%	13,458	11.2%
Complete primary	5,237	5.1%	4,439	3.7%
Some secondary	26,024	25.4%	38,980	32.6%
Complete secondary/ Grade 12/ Std 10/ Matric	15,530	15.1%	26,168	21.9%
Higher	8,037	7.8%	13,309	11.1%
Unspecified	-	-	286	0.2%
Not applicable (e.g. institutional, transients)	-	-	1,390	1.2%
Total	102,533	100%	119,661	100.0%

Source: StatsSA Census 2001 and Census 2011

A total of 18.1% of the Municipality's adult population (21,631 individuals) has no form of schooling. Only 11.4% of the Municipality's adult population has completed secondary school (grade 12/matric) or a higher education. This indicates the majority of the labour force in the Municipality has no, or very limited basic skills. There is however a significant improvement in adult education levels from 2001 to 2011. It should be noted that there is a strong connection between a person's level of education and his or her employability and earnings. In other words, the more educated a person is, the better their chances of



getting hired, and the more likely they are to earn more. And all of the last mentioned, in return, leads to a better overall living standard.

Household income is one of the most important determinants of welfare in a region. The ability to meet basic needs, such as for adequate food, clothing, shelter and basic amenities, is largely determined by the level of income earned by the households. Poverty is often defined as the lack of resources to meet these needs. The monthly household income of the Lepelle-Nkumpi Municipality is shown in Table 1.12 below in terms of income categories (low-, middle- and high income), monthly and annual income brackets and lastly the weighted monthly average.

TABLE 1.12: MONTH HOUSEHOLD INCOME LEVELS, 2001 AND 2011

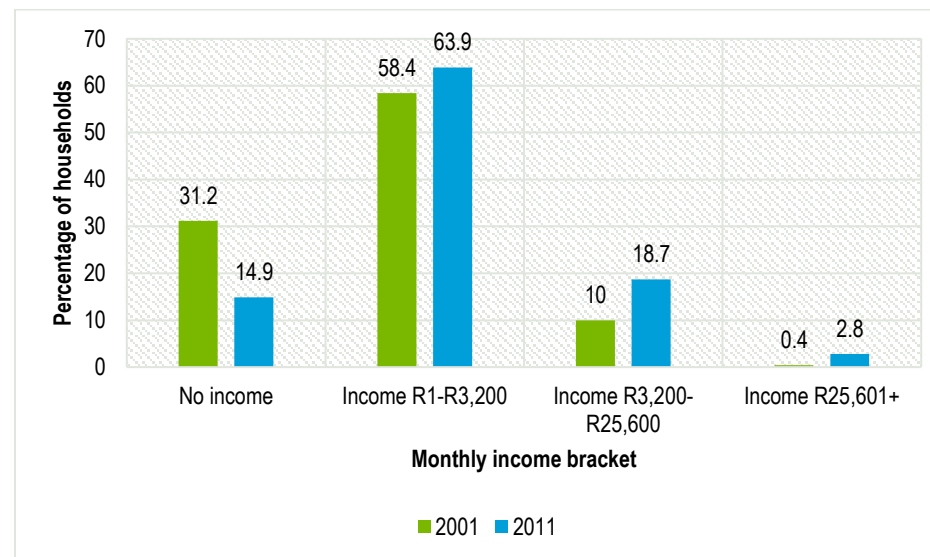
Income Category	Monthly Income Cohort	2001		2011	
Low Income	No Income	16,486	31.2%	8,898	14.9%
	R 1 – R 3,200	30,920	58.4%	37,985	63.6%
Middle Income	R 3,201 – R 25,600	5,284	10.0%	11,154	18.7%
High Income	R 25,601 +	213	0.4%	1,646	2.8%
Total		52,903	100%	59,683	100%
Weighted Monthly Average		R 2,450		R 5,204	

Source: StatsSA Census 2001 and Census 2011

Although the portion of households that fall in the low income bracket (earning between R0 and R3,200 per month) decreased from 89.6% (or 47,407 households) in 2001 to 78.6% (or 46,883 households) in 2011, indications are that the Municipality is still struggling with poverty because 8,900 households (14.9%) still earned no monthly income in 2011 . However, there was a decrease from 31.2% in 2001 to 14.9% in 2011 of households with no income. The large portion of households earning no monthly income correlates to the high unemployment rate of the Municipality. There are however also some positive aspects. The household income of the middle and high income groups increased a little. The households of the middle-income group increased from 10.0% to 18.7% between

2001 and 2011, and for the high income group it increased from 0.4% in 2001 to 2.8% in 2011.

FIGURE 1.10: MONTHLY HOUSEHOLD INCOME, 2001 AND 2011



Source: StatsSA Census 2011



Calculation of Population and Household Projections and Estimates

The 2011 Form G Village (settlement) information obtained from the Department of Water and Sanitation (DWS), which was based on Census 2011 and household counts from aerial photos was used as a baseline for the 2011 population.

The following factors were taken into consideration for the calculation of the population projections and estimates:

- Settlement categorisation based on the Limpopo Spatial Rationale 2007 hierarchy, namely: provincial growth points, district growth points, municipal growth points, population growth points, local service points and rural/scattered settlements.
- Settlement categorisation based on the Limpopo Spatial Development Framework 2016 hierarchy, namely Lebowa-Kgomo District Growth Point (DGP) and the Moleletane/Mogoto Rural Growth Point/Service Point.
- Actual settlement growth pressure, based on the DWS village/settlement boundaries of 2006, 2010 and the updated 2015 boundaries (based on aerial images) – which indicates the growth patterns of settlements within the Municipal boundary.
- Based on these factors, each settlement was accessed individually and assigned an average annual growth rate. As a result:
- Regional and local population growth trends (*compound annual growth rate, CAGR*) based on published population data from Statistics South Africa, namely *Census 2001 and Census 2011, as well as the latest Community Survey data of 2016*:
- Location of the settlement in terms of accessibility (roads/railways).
- A positive average annual growth rate was assigned to all settlements within the municipal area.
- High order settlement areas (based on the Limpopo Spatial Rationale 2007 and the Limpopo SDF 2016) with a high population concentration and good accessibility were assigned a high average annual growth rates (between 0.6% and 1.5%).
- The lower order settlements, with a low population concentration and poor accessibility were assigned a lower average annual growth rate (between 0.1% and 0.6%).
- The population growth rate was applied from 2011 to 2015 for all settlements were decreased with 0.05 points from 2016 to 2020 in order to account for slower future growth trends.

TABLE 1.13: REGIONAL AND LOCAL POPULATION GROWTH TRENDS (CAGR)

	Population 2001	Population 2011	Population 2016	CAGR 2001-2011	CAGR 2001-2016	CAGR 2011-2016	Average CAGR
Limpopo Province	4,995,106	5,404,866	5,799,090	0.8%	1.0%	1.4%	1.1%
Capricorn District	1,163,880	1,261,462	1,330,436	0.8%	0.9%	1.1%	0.9%
Lepelle-Nkumpi Municipality	227,959	230,351	235,380	0.1%	0.2%	0.4%	0.3%

Source: StatsSA Census 2001, Census 2011 and Community Survey 2016



3.3.1.3 Cultural Heritage and Tourism

Attractions within Lepelle-Nkumpi include the Stydpoortberge, Bewaarkloof, the Wolkberg Wilderness area, the Downs and Lebowakgomo. The western part of this municipal area is dominated by many rural villages while the nature conservation areas to the east of the municipality attract hikers, campers, picnickers and weekenders. Accommodation is scarce, leaving potential to develop the tourism industry within Lepelle-Nkumpi. However, tourism development will need to be handled with great sensitivity due to the risk of degradation and exploitation of natural resources. Co-operative governance, due to the cross boundary nature of these tourist attractions, is required to ensure exploitation is controlled and tourism is beneficial. The Wolkberg Wilderness area consists of 40,000 hectares of almost pristine Afromontane grasslands, indigenous forests, spectacular mountain scenery and clean, running streams and rivers. (EMP 2010)

Table 1.14 also shows the locations, which have, potential to be developed into tourism attractions.

TABLE 1.14: TOURISM DEVELOPMENT POTENTIAL (LED STRATEGY, 2013)

<i>Location/ Site</i>	<i>Tourism Opportunities</i>
<i>Lekgalameetse reserve</i>	Has potential to be developed into one of the seven biodiversity hot spots in South Africa.
<i>Wolkberg reserve</i>	Commercialisation of this reserve could develop it into one of the largest wilderness area readily available to the public of South Africa.
<i>Thabina reserve</i>	Link to the other reserves, Wolkberg, Lekalameetse and Bewaarkloof could optimise the nature experience that this reserve can offer.
<i>Bewaarkloof reserve</i>	Link to the other reserves, Wolkberg, Lekalameetse and Thabina could optimise the nature experience that this reserve can offer.
<i>Strydpoort mountains</i>	This escarpment is located in the north-eastern parts of Lepelle-Nkumpi, next to the Lekgalameetse Conservancy linkage to the reserve
<i>Donkerkloof Caves</i>	Together with the Wolkberg reserve and caves can be developed into a historical attraction. They are reported to have been used by the locals during tribal wars.
<i>The African Ivory Route</i>	This route passes through the Mafefe area and should be linked to the nature reserves in the area, as well as the Mafefe Village Camp.
<i>The Former Lebowa Government Offices</i>	The former Lebowa homeland used these offices as the headquarters of the Lebowa homeland. These offices were considered a masterpiece during those times and could be further developed into a historical attraction.
<i>Royal Houses</i>	Most of the tribal areas in Lepelle-Nkumpi have potential to be developed into the pillars of cultural tourism in Lepelle-Nkumpi.
<i>Zebediela Farm stay</i>	The potential exists to develop farm stay accommodation linked to the large citrus estate in Zebediela.
<i>Olifant's river gorge</i>	Stunning scenery when viewed from the Lekgalameetse reserve.



Location/ Site Tourism Opportunities

<i>Unique butterflies and wetlands</i>	There is reportedly a unique butterfly specie situated in Lepelle-Nkumpi which has already attracted numerous tourists to the area. Increased marketing of this uniqueness would assist in attracting greater number of tourists.
<i>Mafeke Miraculous tree</i>	This tree exists in Mafeke and has been known to be a source of miracles. Reportedly, photographs of the tree cannot be taken and anyone whom takes a picture of the tree has always been left with flaws. This tree is also used for praying by a local 'cult'. The tree has some historical value as and may present an opportunity for historical and cultural tourism if marketed adequately.
<i>Mafeke Village Camp</i>	Accommodation facilities have been built in the Mafeke Village, but is not in operation at the moment. This Village Camp is situated in close proximity to the Miracle Tree, which creates potential to link them to ensure a unique experience.
<i>MEC Residences</i>	These residences hold vast potential to be further developed and used as accommodation for delegates, business professionals and tourists.
<i>Construction of new stadium at Zebediela and Mphahlele</i>	Zebediela and Mphahlele are home to numerous soccer, softball and other clubs who do not have adequate sporting facilities. The Tribal authorities has in cooperation with the municipality, already put aside land for such a venture.
<i>Sporting fields for Lebowakgomo, Mathibela & Mamaolo</i>	There is a need for sporting fields to accommodate the many sporting activities in these urban/semi-urban areas. Only major games will take place in the stadia.
<i>Upgrading of Lebowakgomo Stadium</i>	The Lebowakgomo stadium is falling short of the required standard to host major events such as athletics, games and other activities.
<i>Revitalisation of the Zebediela Golf Club</i>	Currently the Zebediela Golf Club are not maintained or open to the public. Through revitalising the Golf Club, local residents and neighbouring communities can enjoy golfing and socialising.
<i>Lebowakgomo Municipal swimming pool</i>	Lebowakgomo is one of the hottest areas and in summer temperatures can easily reach around 40°C. Most of the sites here are too small even for affording residents. There is therefore a need to establish a municipal swimming pool to benefit the poor residents.
<i>Renovation of old fire station into Disaster centre and community hall, sports centre and event centre</i>	The municipality does not have a disaster centre. A suitable structure for such a function exists in the form of the old and disused fire station. This structure never actually worked for the purpose for which it was created since its inception some 15 to 20 years back, but served all along as military base. Due to its state of vandalism, the Capricorn district Municipality opted to build a new fire station next to the civic centre which is now fully functional. The station can be renovated to serve as a disaster centre, multi-purpose centre such as community hall-cum indoor/outdoor sports centre with tennis courts and soccer field, mini conference centre, training centre for emergency/fire personnel and with the spacious staff quarters being utilized as lodge or for accommodation for conference or training delegates.



3.3.1.4 Employment

An important indicator of human development is the employment profile of an area. The quality of labour is reflected, among other things, by the educational profile of the economically active population and the availability of training facilities in the region. The term labour force refers to those people who are available for employment in a certain area. According to Statistics South Africa¹, the definitions of the following employment indicators are:

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

¹ Statistics South Africa. 2010. Concepts and Definitions for StatsSA 2010, Version 3. Pretoria.

The employment indicators of the Lepelle-Nkumpi Municipality are depicted in the following table:

TABLE 1.15: EMPLOYMENT INDICATORS, 2001 AND 2011

Employment Indicator	2001	2011
<i>Labour Force (employed + unemployed)</i>	49,348	53,333
<i>Employed</i>	19,901	27,947
<i>Employment sector: In the formal sector</i>		71.3%
<i>Employment sector: In the informal sector</i>		18.2%
<i>Employment sector: Private household</i>		8.8%
<i>Employment sector: Do not know</i>		1.6%
<i>Unemployed</i>	29,447	25,386
<i>Unemployment Rate (excluding discouraged work-seekers)</i>	59.7%	47.6%
<i>Discouraged work-seeker</i>		8,991
<i>Unemployment Rate (including discouraged work-seekers)</i>		55.2%
<i>Other not economically active</i>	70,787	67,337

Source: StatsSA Census 2001 and Census 2011

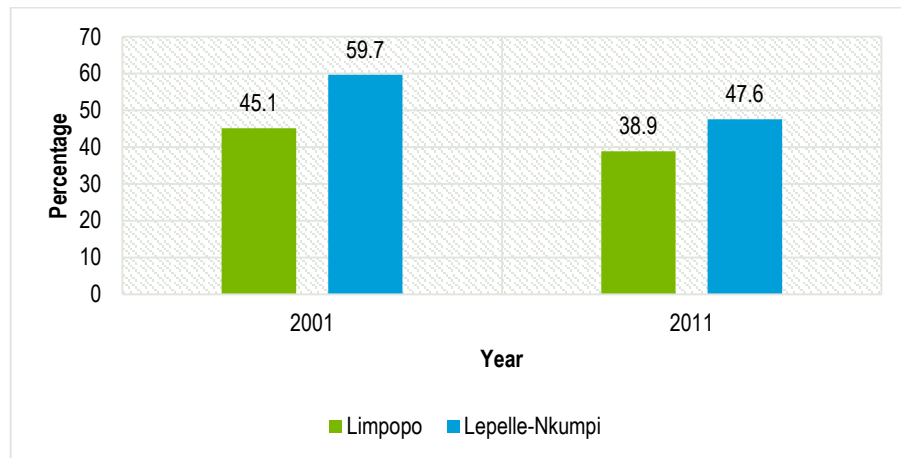
According to Statistics South Africa Census 2011 more than 25,300 residents of the Lepelle-Nkumpi Municipality are without work. The Municipality's unemployment rate totalled at 47.6% 2011. It is important however to note that this unemployment rate does not include the discouraged work-seekers of almost 9,000 individuals, which if included would increase the Municipality's unemployment rate to 55.2%. Indications are that the unemployment rate of the Municipality has decreased from 2001 to 2011.

If unemployment figures are compared to that of the Province, the unemployment rate of Lepelle-Nkumpi is much higher. It should be noted that the Limpopo Province's unemployment figure decreased according to the Limpopo SDF, 2016 from 45.1% in 2001



to 38.9% in 2011. It is also much higher than national unemployment figure which is estimated at approximately 25% according to the Limpopo SDF.

FIGURE 1.11: UNEMPLOYMENT RATE, 2001 AND 2011



Source: StatsSA Census 2001 and Census 2011

3.3.1.5 Local Economy and Business

According to the Lepelle-Nkumpi Local Economic Development Strategy (LED) 2013, the Lepelle-Nkumpi Municipality makes the second largest contribution to the District GDP.

Although the Municipality experienced a positive growth rate 2007 and 2011, the economy of the municipality has grown significantly slower than the overall economy on a National, Provincial and District level. The economic activity within the Municipality is currently very limited and the formal economy is fairly concentrated in the urban areas (e.g. Lebowakgomo), which can largely be attributed towards the high contribution generated by services, which in the case of the former homelands can assumed to be comprised of salaries paid to government officials. Informal and marginal activities such as subsistence farming and informal trading and is largely practiced in the area that comprises the former homeland of Lebowa.

This high level of concentration renders the economy extremely vulnerable to any factor that may decrease the absolute number of government officials working and residing in the district or a factor that reduces the real value of total salaries paid.

3.3.1.6 Key Economic Sectors

Table 1.16 below demonstrates the sectors that were the biggest contributors to the economy of Lepelle-Nkumpi in terms of its output for 2001, 2007 and 2011.

TABLE 1.16: PERCENTAGE SECTORAL SHARE OF THE GDP PER AREA, 2001, 2007 & 2011

Sector	2001	2007	2011
Agriculture	1%	1%	2%
Mining	17%	14%	17%
Manufacturing	3%	4%	3%
Utilities	2%	3%	4%
Construction	2%	3%	4%
Wholesale & retail trade	12%	11%	10%
Transport & communication	9%	9%	6%
Finance and business services	14%	15%	12%
Social and personal services	8%	9%	10%
Government services	32%	31%	31%
Total	100%	100%	100%

Source: Quantec database 2011, Kayamandi calculations 2011, Lepelle-Nkumpi LED 2013

Table 1.16 indicates that the government service sector is the main contributor towards the economy of the Municipality, followed by mining and then finance and business services. Although the sector's contribution show a slight decreased from 2001 to 2007, it still contributed 31% to the overall GDP generated in Lepelle-Nkumpi in 2011.

A further threat is the potential relocation of the Legislature, a significant contributor to the government service sector, to Polokwane.

Indications are that the mining sector is increasing its contribution to the economy after decreasing from 17% in 2001 to 14% in 2007, to contribute 17% to the GDP share 2001, which ranks it the second in its share of the overall GDP. During the consultation sessions, it was evident that mining activities and subsequent employment in this sector decline, especially in respect of Hwelereng Mine and Zebediele Bricks. In the first case employment positions were reduced from 2000 people to less than 50 people. There is

however the potential of a new mine (known as Lesogo Platinum) which is still in feasibility stage, located along the Olifantsriver.

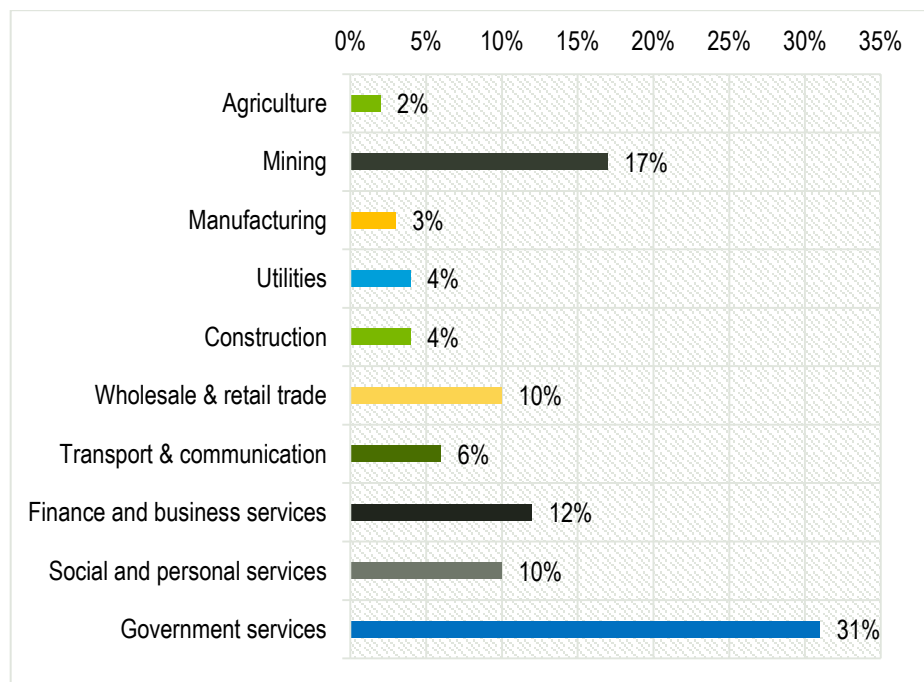
Although the finance and business services decreased its contribution to the GDP share it is still the third largest contributor towards the economy of Lepelle-Nkumpi - contributes approximately 12% to the GDP of the Municipality in 2011. The formal trade activities are centred in the main town of Lebowakgomo at the Lebowakgomo industrial area and the Lebowakgomo shopping complex. Given the extensively rural nature of the remainder of the municipal area, the remainder of the municipality is served only by small retail shops, which are scattered throughout the villages. The limited trade activities found within Lepelle-Nkumpi Local Municipality do not sufficiently cater for the rural settlements and people generally have to travel to larger centres of activity, such as Polokwane. Since 2011, a growth in retail activities took place that were not included in the Quantec figures. New developments include the *Mall at Lebo* with a GLFA of $\pm 25,000\text{m}^2$, the Mogoto Mall with GLFA of approximately $15,000\text{m}^2$ as well as retail centre in the CBD of Lebowakgomo. Currently, further extensions are under construction by major retailers in the CBD. There is also prospects of a mixed use development at Zebediela that will contribute to these sectors in future.

The Lepelle-Nkumpi LED (2013) identifies the following key development opportunities that exist within the Municipality:

- **Natural resource base:** Lepelle-Nkumpi has a natural resource base that consists of agricultural products. The development potential in the agricultural sector of the Municipality is contained in the expansion of the production of existing products in the region, particularly citrus, vegetables and livestock.
- **Agro-processing and cluster development:** Mainly in relation to the establishment of new industries, and expanding of existing enterprises, that are focussed on the beneficiation of the existing agricultural products.
- **Mining and Manufacturing:** The processing of raw materials from mining will contribute significantly in expanding the manufacturing sector within the Municipality.



FIGURE 1.12: SECTOR CONTRIBUTION TO GDP, 2011



Source: Quantec database 2011, Kayamandi calculations 2011, Lepelle-Nkumpi LED 2013

3.3.1.7 Rural Development

The Comprehensive Rural Development Programme (CRDP) of national government and in Limpopo driven by the Department of Agriculture forms the basis of the initiatives that the municipality must also include in their SDF. As stated in the Limpopo SDF, 2016: “... rural development is based on a proactive participatory community-based planning approach rather than an interventionist approach to rural development. Essentially, the programme is aimed at being an effective response to poverty alleviation and food insecurity by maximizing the use and management of natural resources to create vibrant, equitable and sustainable rural communities. The strategic objective of the CRDP is therefore to facilitate integrated development and social cohesion through participatory approaches in partnership with all sectors of society.”

In respect of Lepelle-Nkumpi Municipality, the Limpopo SDF 2016 highlight the area declared as CRDP site. It is located in the central western area of the municipality close to the Magatle settlement (refer to Map 1.8)

From focus group discussions it was pointed out that two areas in the rural areas of the municipality, hold potential for tourism development and that different studies in the past also pointed it out. The areas are the Zebediela area as well as Mafefe area, which are both located close to a world heritage site and in nature conservation area respectively.

In respect of further opportunities in the entire municipal area, it was also pointed out during focus group discussions that training in technical skills such as brick-laying can contribute towards raising the general skills of the community.

3.3.2 Challenges and Opportunities

The challenges and opportunities from the preceding discussions in this section can be summarised as follows, namely:

- On a regional level, there is a strong relationship and interaction between the City of Polokwane as the capital and economic hub of the Limpopo Province, with Lepelle-Nkumpi Municipality. The interaction is supported by good linkages via main roads and the Provincial Corridor.
- The proposed Special Economic Zones (SEZ's) and Logistics Clusters in the adjacent municipalities of Tubatse and Polokwane, and relative locality of Lepelle-Nkumpi central to these two priority municipalities, provide opportunity in terms of economic activity, movement and other aspects.
- Tubatse and Fetakgomo are also Mining Town Municipalities with government focussed interventions in these areas.
- The municipality's average household and population growth rate, respectively at 1.2% and 0.1% is much lower than that of the Limpopo Province and the Capricorn District Municipality. The district's household growth rate stands at 1.7% and the population growth rate at 0.8%.
- A large number, namely 56.8% of the population of the municipality falls within the 0 to 24 years age group and can hence be regarded as a "bottom-heavy" age structure which will place many challenges to the municipality in terms of resources such as education, health and social services, not to mention job creation.
- A total of 56% of the population is of working age between 15 to 64 years.
- Unemployment rates of the municipality totals at 47.6%, which is higher than the Limpopo Province's rate of 38.9%.
- A large percentage of the population has no or very little education. Hence the majority of the labour force has no or very little basic skills.
- 78% of the total population falls within the Low Income group of which 14.9% of the total population of the municipality, has no income whatsoever.
- At 31%, Government Services is the biggest contributor towards the local GDP, followed by mining at 17% and thereafter finance and business services at 12%. Other large contributors are wholesale and retail as well as social and personal services which each contribute towards 10% of the GDP. Unfortunately Agriculture is the lowest contributor at 2% of the total GDP.
- There is a declared CRDP site located in the central western area of the municipality close to the Magatle settlement which should be reserved for integrated rural development and upgrading of infrastructure.
- The Zebediela area and Mafeke area hold potential as Rural Tourism Nodes.
- The Zebediela area holds potential for mixed use development, as well as densification.
- The close proximity of Lepelle-Nkumpi and Lebowakgomo to the Provincial Capital, namely Polokwane City has both advantages and disadvantages. Advantages include access to specialised services such as medical, employment opportunities for residents of Lepelle-Nkumpi, but it also means that there may be an outflow of capital because the community of Lepelle-Nkumpi may spend their money there instead of within the municipality's area.
- The fact that official demographic figures for of Stats SA is based on the 2011-Census, means that it is already outdated and doesn't give an accurate picture of the actual situation in 2016. Many aspects have changed in the past 5 years.



Limpopo Settlement Hierarchy 2016

- Provincial Growth Points (SEZ)
- Provincial Growth Points
- District Growth Points
- Municipal Growth Points
- Rural Node/Service Point

★ Tourism Nodes
 Health District Office
 Hospitals
 Clinics
 Education Circuit Office
 Primary Schools
 Secondary Schools
 Police Stations
 Municipal Library
 Stadium
 Shopping Centres
 Mining/Quarrying
 Settlements/Villages 2010
 Settlements/Villages 2015
 CRDP Wards
 Mining Area

3.4 Built Environment Analysis

3.4.1 Municipal Overview

3.4.1.1 Transport and movement networks

Road network

Lepelle-Nkumpi's municipal area is strategically located in respect of several Main (provincial) Roads, and most importantly in respect of the Dilokong Provincial Corridor between Polokwane and Burgersfort. The road network is depicted in the schematic diagram in Figure 1.13 and in more detail in Map 12.

Hence, the municipal area includes the following important Main Roads through the area, also acknowledged in the Limpopo SDF, namely:

- Provincial Corridor – R37 between Polokwane and Burgersfort;
- Main Roads:
 - R579 between the R37 from Polokwane to Jane Furse;
 - R519 between Polokwane to Roedtan/Mookgophong;
 - R518 between the R37/Lebowakgomo to Mokopane.

Although the N1 National Route runs through the adjacent municipal areas of Polokwane, Mogalakwena and Mookgophong Local Municipalities, the mentioned R37 and R519 towards Polokwane and the R518 towards Mokopane provides residents sufficient access to this route in order to link with areas in Gauteng in the south and the rest of Africa in the north. (Also see Map 1.12)

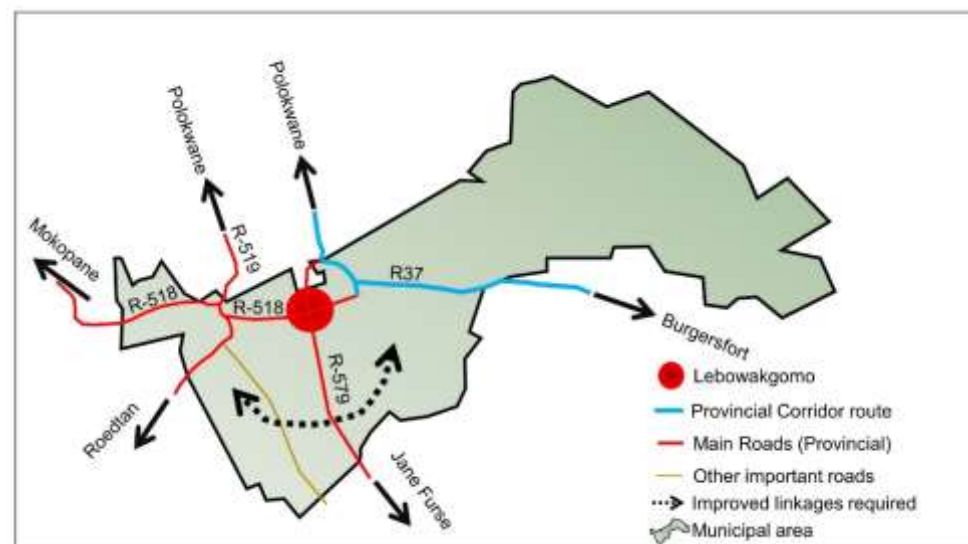
Apart from the main roads described above which provides good connectivity between nodal areas and other municipalities, the rural areas to the south-west and south-east needs improved connection to the main growth point areas as illustrated in Figure 1.13. It is especially important that improved connectivity is created between the Lebowakgomo growth point and the rural areas close to Magatle to the south-west.

The following roads will be upgraded by RAL and the Provincial Department of Public Works. However, the timeline for this upgrade is unsure. The roads are shown in Table 1.17 below, namely:

TABLE 1.17: ROADS TO BE UPGRADED BY RAL

Road no.	Description
D3594; D3618; D3619; D4098	From R519 at Mogoto/Moetlane to Ga-Rakgwata to Madika to Hwelereng.
D4064	From Lebowakgomo Zone A along old government offices to Road D4066

FIGURE 1.13: SCHEMATIC ILLUSTRATION OF TRANSPORT AND MOVEMENT ROUTES



Railway network

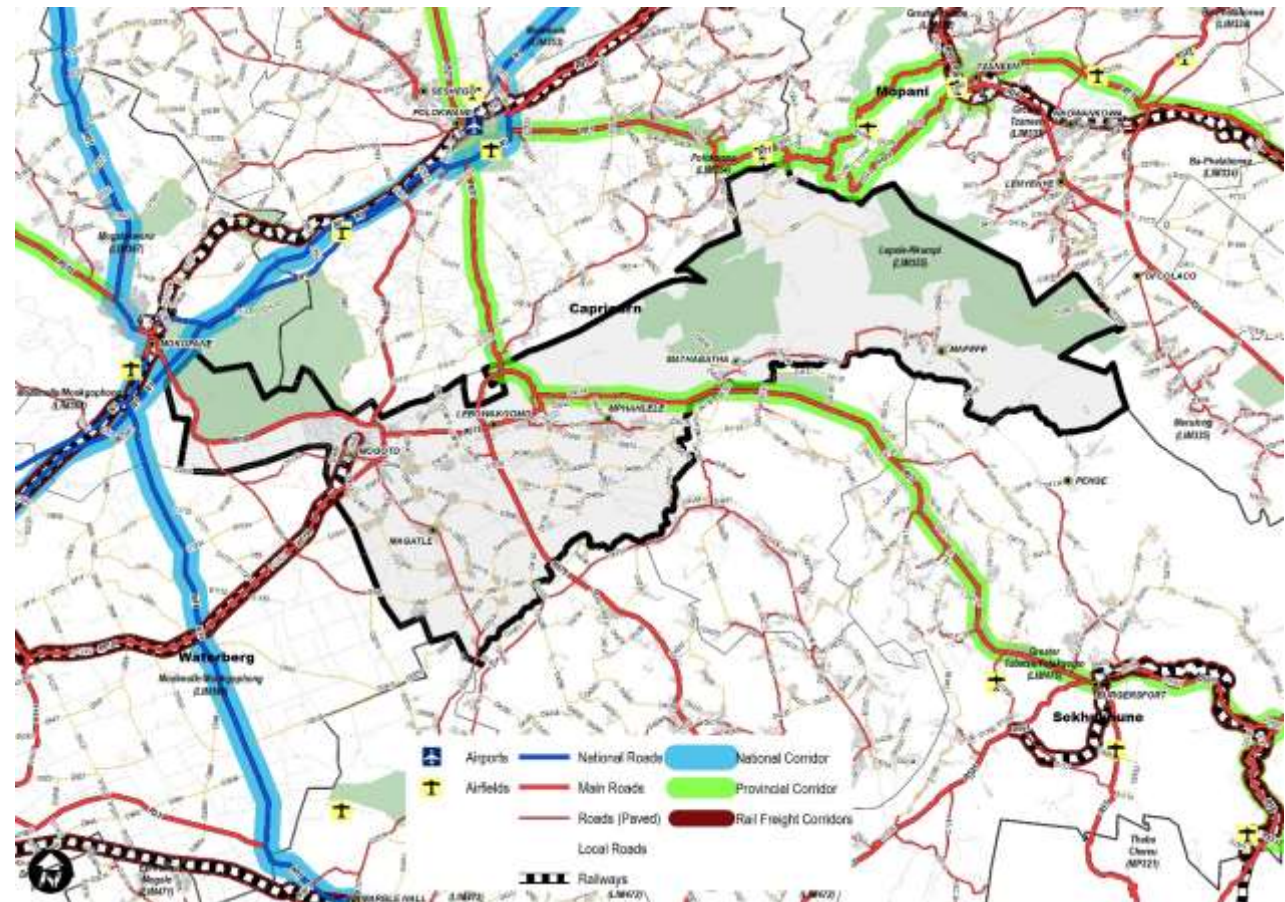
There is a railway line from Mookgophong to Zebediela which links up in Mookgophong with the important Mainline railway line between Pretoria and Beit Bridge (Musina). Unfortunately the line to Zebediela is no longer in operation. The railway network in this region is also shown on Map 1.12.

The rail network in Limpopo is mainly used for freight at this point in time.

Airports and airfields

There are no airports or airfields in the municipal area. However, the Gateway International Airport as well as Polokwane Municipal Airport is located in Polokwane, approximately 60 km from Lebowakgomo. There is also an airfield in Mokopane approximately 50km from Lebowakgomo.

MAP 1.12: MOVEMENT AND DEVELOPMENT CORRIDORS



Freight Network and Corridors

Road freight is the predominant mode of freight transport in Limpopo Province according to the Limpopo SDF, 2016. This is due to several reasons, but one is because of the closure of several railway lines, and secondly because of the speed and convenience of road cargo carrier services. The fact that Limpopo's freight is focussed on agricultural produce (perishable goods), the choice of road freight is obvious.

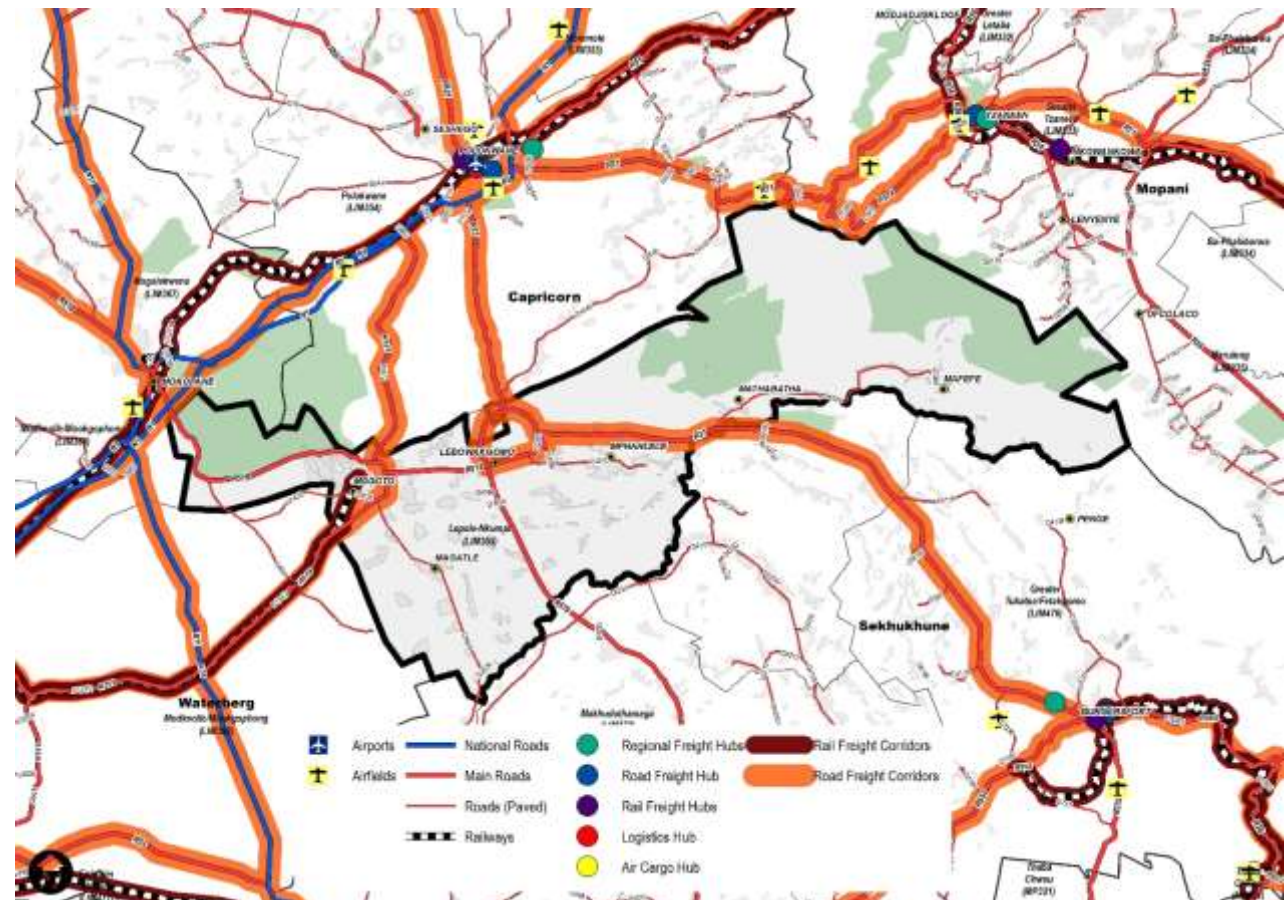
Map 1.13 depicts the freight systems in the area. The two main routes through the municipal area is the R37, also linking from the R37 to Lebowakgomo, and the other is the R 519, between Polokwane via the Zebediela/ Mogoto area to Roedtan and areas to the south-west of Limpopo and towards Mpumalanga.

In respect of rail freight there is a mainline railway line from Pretoria, via Pienaarsrivier, Polokwane, Musina up to Beit Bridge at the Zimbabwe border, which carries general international and domestic cargo

(Please note: The rail freight route shown to Zebediela is currently out of commission).

Although the R37-route is a declared Provincial Corridor route, there is no strong characteristic that contributes to this status at this point in time. The only noticeable character is the high volume of heavy delivery motor vehicles on this route between Tubatse and Polokwane.

MAP 1.13: FREIGHT CORRIDORS

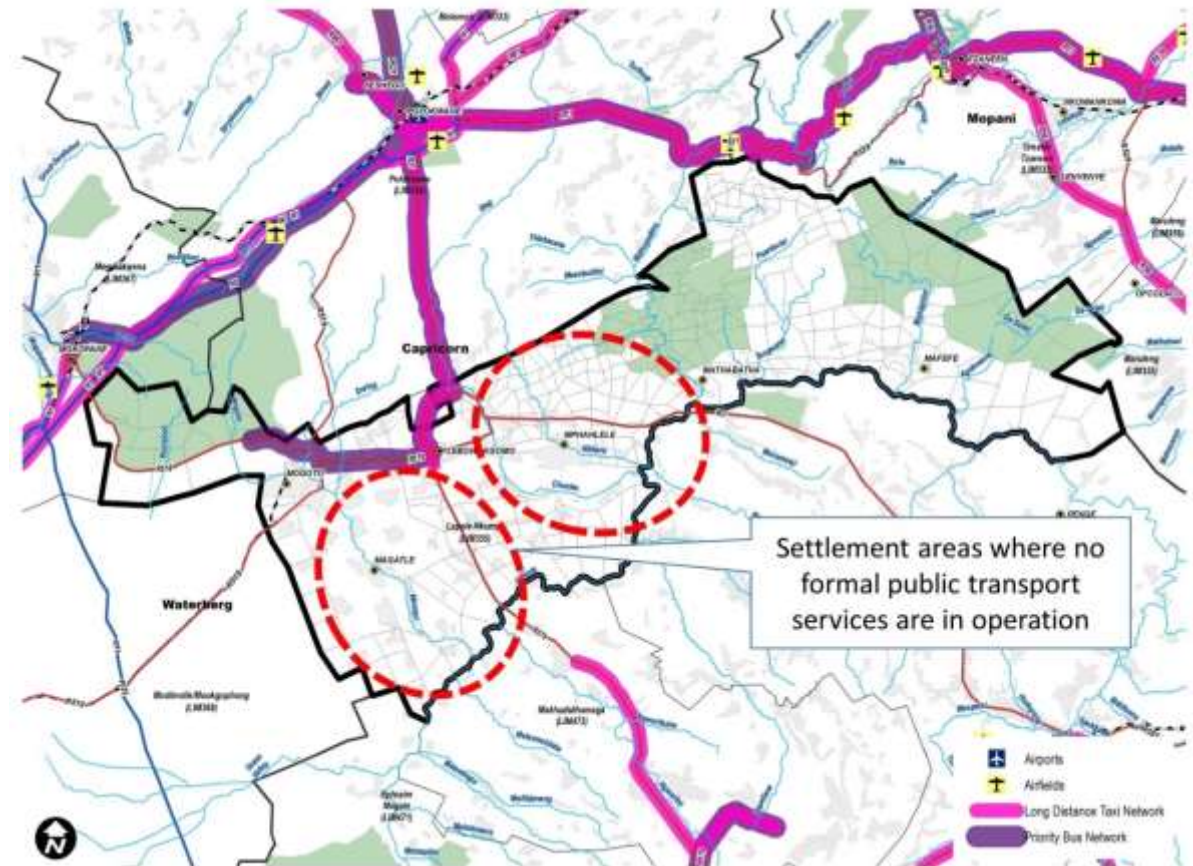


Public Transport

The Limpopo SDF, 2016 points out that motor vehicle ownership in Limpopo is low due to relative low income levels which means that people are making use of public transport commuting between areas. The public transport by households mainly includes bus (+23%) and taxi operations (+46%).

Public long distance transport systems of busses and taxis in the municipal area are depicted in Map 1.14. The main long distance taxi route is between Polokwane and Lebowaqomo, whilst the bus route from Polokwane goes to Zebediela via Lebowaqomo. The focus of these public transport services are only in the major growth points (eg Lebowaqomo). The rural areas to the south-west and east of the municipal area are excluded and without any formal services as illustrated in the map on the right. There are 12 taxi ranks in the Lepelle-Nkumpi area of which 5 are informal. In terms of bus routes, a total of 180 bus routes are within the Capricorn District, of which 19 of these routes are within the Lepelle-Nkumpi Municipality. All commuter networks lead to Lebowaqomo CBD although there are no formal bus rank facilities.

MAP 1.14: PUBLIC TRANSPORT



3.4.1.2 Settlement patterns

Settlement patterns are normally classified into three types, namely clustered or nucleated settlements, linear settlements and scattered or dispersed settlements.

Clustered or nucleated settlements as depicted in the schematic diagram on the right are normally found at intersections of roads. The settlement is characterised by buildings or houses which settle together close to the point of intersection.



Linear settlements on the other hand are recognised by the line formation of buildings or houses along roads, rivers etc. as shown in the schematic diagram to the left.

Scattered settlements are recognised by buildings or houses that are far apart which don't follow any particular pattern as shown on the right.



If the current settlement pattern of Lepelle-Nkumpi is analysed, it can be described as a mixture between clustered, linear as well as scattered settlements.

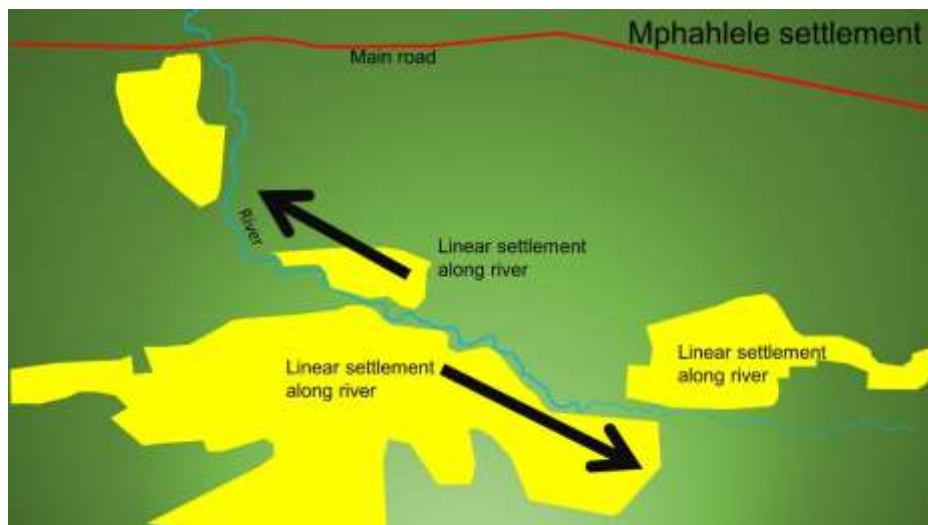
Lebowakgomo/Mpahlele & Moletlane/Mototo clusters

The larger settlements such as Lebowakgomo and Moletlane/Mogoto and Mogodi/Mamaolo can be classified as clustered settlements at important intersections of main roads. Some of them will then grow in a linear format along these roads, like in the case with Lebowakgomo (refer to Figure 1.14 and Figure 1.15). However, these settlements are dense and mostly properly planned. The three largest clustered settlements are Lebowakgomo, Moletlane and Mphahlele.

FIGURE 1.14: CLUSTERED SETTLEMENT WITH LINEAR DEVELOPMENT FORM ALONG ROUTES



FIGURE 1.15: LINEAR DEVELOPMENT OF SETTLEMENTS ALONG A RIVER

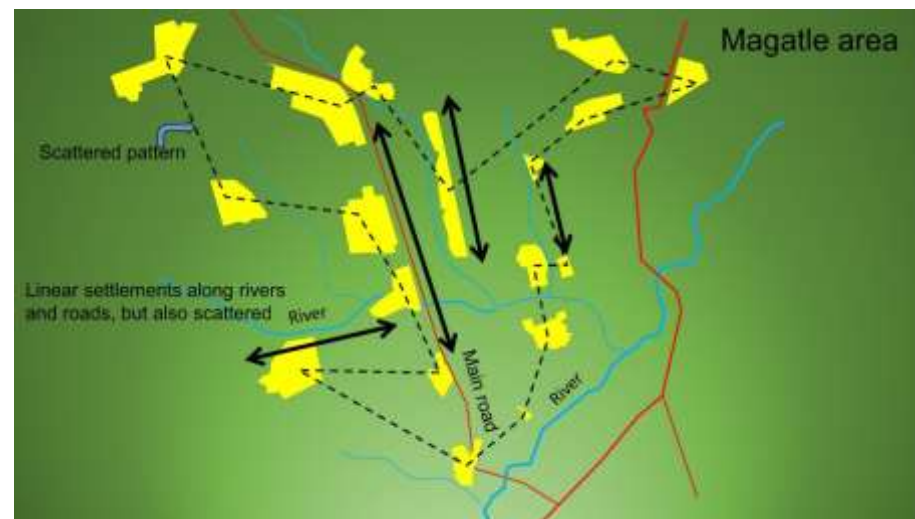


The origin of some linear settlements however is unclear, namely did they originally formed along rivers and the roads followed thereafter, or is it a combination of the two elements. It is assumed that in the case of more formal townships like Lebowakgomo, that it was intentionally planned that it should be established along the routes.

Magatle area and other rural areas

Some linear settlement along roads in rural areas such as the Magatle area, are smaller in size but larger in numbers and scattered over a large area, which created a pattern of small scattered settlements all over a large area of the municipality (See Figure 1.16). It is assumed that these patterns of scattered settlements was formed organically over time and may also be linked with the traditional authority systems where headman each had his own village not too close to another one. This is a general pattern all over Limpopo Province and one of the recognisable patterns that contribute towards expensive service delivery.

FIGURE 1.16: SCATTERED PATTERN OF SETTLEMENTS



The last example one would find, is scattered buildings or houses on the outskirts of some settlements, especially as one moves further way from the larger settlements. Most of these scattered houses seems to be unplanned as in the case just south of Lebowakgomo–F and it becomes less dense the further one moves away from the core of the settlement or the further one moves from the clustered settlements. The linear settlements located on the outskirts also becomes less dense compared to the clustered settlements.

3.4.1.3 Settlement Role, Hierarchy and Function

The 2007-SDF included the following clusters comprising the 1st and 2nd order settlements, namely

- Lebowakgomo/Makotse Cluster;
- Mogoto/Magatle Cluster;
- Mathabatha/Mafefe Cluster.

Table 1.18 reflects the population demographics of the three clusters in more detail as it was set out in the 2007-SDF. (Also see the map below)

The estimated population for the Lebowakgomo/Makotse Cluster was approximately 70,853 people or 27% of the total population of the municipality.

Within this cluster, the Lebowakgomo town was identified as District Growth Point (1st order settlement) whilst Mphahlele is the 2nd order settlement or Population Concentration Point (PCP).

Magatle was also identified as District Growth Point (DGP) with Mogoto as its PCP in the Mogoto/Magatle Cluster formation. This cluster accommodated a population of 73,329 people or 28% of the total population, which is the largest cluster in terms of population in the municipality.

The Mathabatha/Mafefe Cluster is the smallest cluster with an estimated population of 20,131 or 8% of the total population.

In respect of this cluster, Mafefe was identified as Municipal Growth Point (MGP) and Ga-Mathabatha as the PCP. Considering the total composition, it can be calculated that 64% or 164,313 people resided in these three clusters back in 2007. Only 46,401 people or 19% of the entire population in the municipality reside in the other settlements and rural areas (farms).

TABLE 1.18: DEMOGRAPHICS OF THE THREE CLUSTERS WITHIN LEPELLE-NKUMPI ACCORDING TO THE 2007 SDF CLASSIFICATION

Area/settlement cluster	Area of land (hectares)	2007		
		Total Population	% of Total Population	Number of Households
<i>Lebowakgomo/Makotse cluster</i>	12,616	70,853	27%	16,009
<i>Mogoto/Magatle cluster</i>	21,715	73,329	28%	8,693
<i>Mathabatha/Mafefe cluster</i>	1,864	20,131	8%	3,427
Total for clusters	36,195	164,313	64%	38,928
Total for Municipality	346,345	264,866²	100%	-

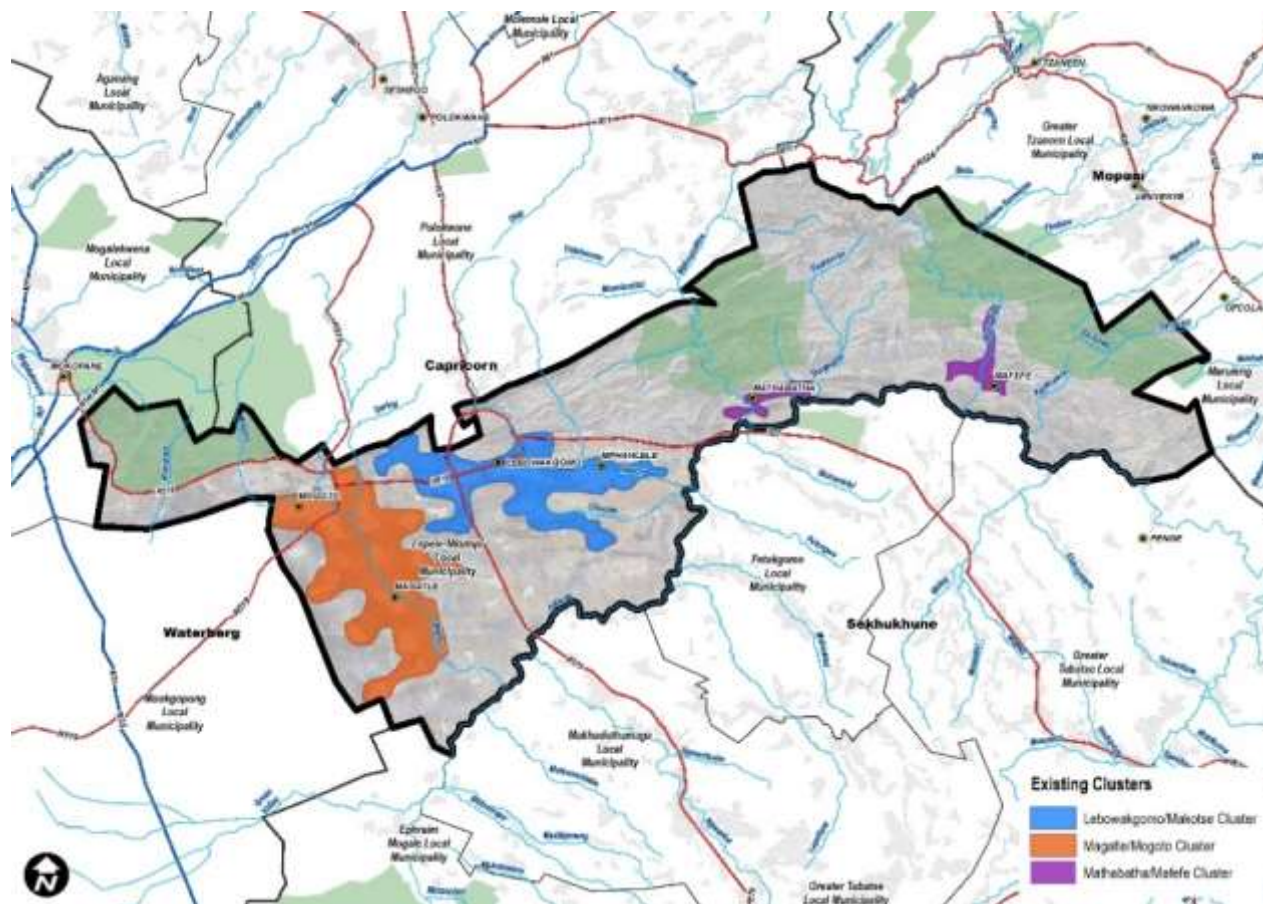
² Note: The total population figures as well as the individual figures for the different clusters were obtained from SDF, 2007.



Regarding the future development, the SDF identified three Strategic Development Areas (SDA's), basically a SDA for each of the clusters. These SDA's should serve as focus areas for future development, especially in respect of residential development. In total the SDA's comprise a total area of 42,048ha. It will be discussed in more detail herein-after.

In addition thereto, directions for future growth was also pointed out with the principle that the clusters and specifically the SDA's should grow towards each other in future. It is assumed that it requires that SDA's be developed to its full potential before expansion should be considered. Map 1.16 and Map 1.17 depicts the SDA's and areas or directions of future growth.

MAP 1.15: EXISTING CLUSTERS



Strategic Development Areas (SDA's) and future growth areas

The Strategic Development Areas (SDA's) as set out in the 2007-SDF is shown in Map 1.16 and Map 1.17 and depicted in Table 1.19. It is henceforth discussed.

The three **Strategic Development Areas** earmarked in the 2007-SDF covers a total area of 30,517ha excluding existing settlements. If a conservative approach is used whereby it is assumed approximately 30% of the area will be used for roads and open spaces, it can be calculated that approximately 21,362ha would be available for development (division into) erven.

The Lebowakgomo/Makotse Cluster includes **SDA 1** which covers a total area of 16,507ha. Using current density figures, it can be calculated that this SDA can accommodate an additional 150,215 households (erven) or 570,817 people.

The direction of future growth is into a western direction towards the Mogoto/Magatle Cluster. It is estimated that this area would provide an additional 6,550ha of land for development between the two clusters, which means another 55,020 households (erven) or 247,590 people.

SDA 2 is located within the Mogoto/Magatle Cluster and overs a total area of 7,089ha of land. This this SDA can accommodate an additional 59,544 households (erven) or 226,267 people.

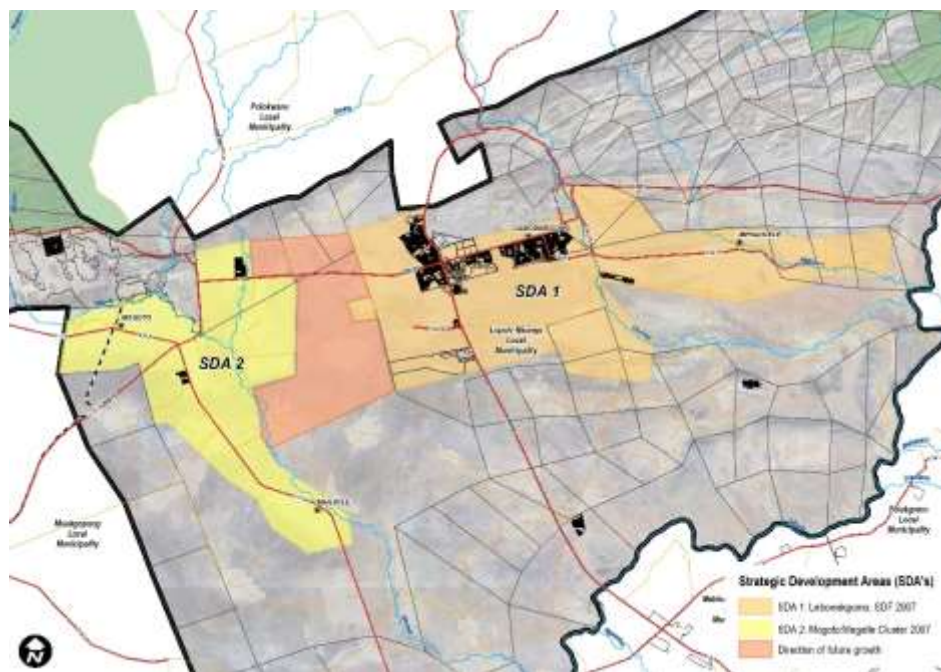
The direction of future growth proposed is in its northern parts and toward the Lebowakgomo/Makotse Cluster as mentioned above.

The last SDA is divided into two parts. **SDA 3** is located in the Mathabatha/Mafefe Cluster in the eastern parts of the municipal area. This strategic development area includes a total area of 6,921ha of land. It is proposed that these two SDA-areas grow towards each other and it includes an estimated area of 2,970ha. The SDA can accommodate 67,830 households (erven) with 257,754 people, and the area earmarked for future growth in between can accommodate \pm 27,027 households (erven) or 121,622 people.

In conclusion, the three SDA's can accommodate an additional **277,886 households** with an estimated population of **1,054,838 people** in the three SDA's alone. In terms of population, this means 4 times more than the current situation in 2015. This would represent a total "oversupply".



MAP 1.16: SDA 1 AND SDA 2 AND AREAS OR DIRECTION FOR FUTURE GROWTH



MAP 1.17: SDA 3 AND AREAS OR DIRECTION FOR FUTURE GROWTH

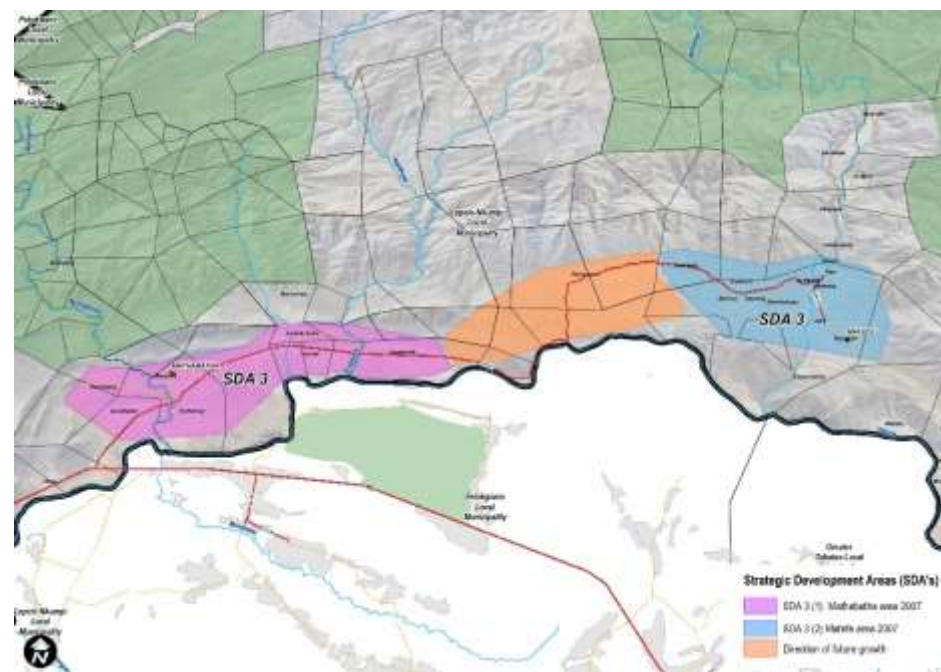


TABLE 1.19: STRATEGIC DEVELOPMENT AREAS (SDA'S) ACCORDING TO THE SDF 2007

SDA	Cluster or growth point	Extent (ha)		Average density (dwelling units/ha)	Potential		
		Total	Developable		Households (dwelling units)	Population (@3,8 persons/ household)	
SDA 1	Lebowakgomo/ Makotse Cluster	16,507	11,555	13	150,215	570,817	
SDA 2	Mogoto/Magatle Cluster	7,089	4,962	12	59,544	226,267	
SDA 3	Mathabatha/ Mafefe	6,921	4,845	14	67,830	257,754	
Total		30,517	21,362	-	277,886	1,054,838	

Lebowakgomo District Growth Point

It is evident from general activity, specialisation of land uses, pressure on development in respect of the residential component etc. that the Lebowakgomo/Makotse Cluster consisting of the major settlements such as Lebowakgomo, Mphahlele, Mamaolo, Dithabeng, Makuring and Mogodi that Lebowakgomo can be regarded as the growth point and cluster with the highest role and function within the municipal area. This node's status is further complimented by the fact that it is located favourably in respect of the intersection of two major Main Roads, i.e. the R518 and R579, as well as close to the R37 Provincial Corridor route.

Hence, this status is also confirmed in the Limpopo SDF, 2016.

It is evident from informal settlements, especially on the outskirts of the Lebowakgomo settlement, as well as in respect of other developments, that there is much pressure for development on this Growth Point. (refer to MAP 1.18 for indication of growth directions experienced since 2007). Another area where growth is evident, is in the Mphahlele area.

Magatle District Growth Point

In the Mogoto/Magatle cluster, the area of Magatle was identified as District Growth Point and Mogoto only as the Population Concentration Point. The Mogoto PCP includes settlements such as Mogoto, Moletlane, Ga-Rakgoatha, Ga-Mamogwasa and Mathibela which had an estimated population of $\pm 36,000$ people back in 2007.

The Magatle DGP includes settlements such as Magatle, Molapo, Droogte and Ga-Phaswana which had an estimated population of $\pm 35,000$ people in 2007.

The current 2015-population for the entire cluster is estimated at 98,271 people or 26,397 households.

It is unsure why the Magatle DGP obtained its status as 1st order settlement back in the early 2000's. It may be because of the range of community facilities such as the hospital, magistrate office etc. However, it is expected that the Mogoto PCP consisting of Mogoto/Moetlane areas located next to the R519 and R518 which represent major transport routes to adjacent towns such as Mokopane, Roedtan and Polokwane, would experience more pressure on development, than in the case of the Magatle area. If one examines MAP 1.18 it is clear that this area experienced much physical growth the past few years. It is further evident from general business activity in this area the existence of the shopping centre in Moletlane, that this area holds the natural potential for growth, rather than Magatle.

However, both areas experienced residential growth the past few years and it would be difficult to make any exception.

However, the Limpopo SDF, 2016 re-identified Mogoto as a Rural Node/Service Point in this western part of the municipal area. The Magatle area is not included as a growth point anymore as previously the case. (Also refer to the classification of settlements in the Capricorn District Municipality's SDF, 2011).

The Limpopo SDF, 2016 includes the following hierarchic orders in respect of Growth Points, namely: Provincial Growth Point, District Growth Points, Municipal Growth Points and Rural Growth Points/Service Points. Provincial wide the number of growth points were reduced since the previous version. (Also see Figure 1.18).

The LSDF indicates that the new nodal hierarchy is based on a philosophy of "spatial targeting". It further indicates that the proposed nodal hierarchy took into account the full range of proposals in national policy documents, provincial strategies, sector plans and municipal SDF. It is mentioned that the following criteria informed the nodal selection and categorisation, namely:



Limpopo SDF, 2016 Node Selection Criteria

- Its status in the Limpopo Spatial Development Framework 2007 nodal hierarchy.
- Its status in the respective District and Local Spatial Development Framework.
- Level of access thereto with regards to national and provincial road network and physical barriers such as mountains.
- Centrality of settlement relative to surrounding villages/ commercial farms.
- Current level of economic activity (as an indicator of economic potential).
- Its surrounding resource base in the form of agriculture and mining activities (as an indicator of economic potential).
- Population growth over the past decade (or lack thereof).
- Population size (where relevant).
- Distance between nodes (where relevant).

Mafefe Municipal Growth Point

The 2007-SDF identified the Mafefe area as Municipal Growth Point which includes settlements such as Ga-Mafefe, Gemini, Mataung and Fertilis. Together with Ga-Mathabatha PCP it formed the cluster to the north-east of the municipal area. This cluster is relatively isolated from the rest of the settlements to the centre and west of the municipal area. However, it is strategically located in respect of the R-37 Provincial corridor route as well as in respect of nature conservation and tourism destination areas. It is unknown why Ga-Mafefe obtained its status as MGP because it only had a population of approximately 10 000 people in 2007 and didn't really have any higher order community facilities such as a hospital or magistrate court to justify this classification back in the early 2000's.

What is important now is the fact that the Limpopo SDF, 2016 also excluded this area as a growth point.

With reference to the preceding discussion above, Figure 1.17 and Figure 1.18 show the changes between the previous classification of growth points in the period 2007-2011 and the situation now in 2016.



FIGURE 1.17: PREVIOUS GROWTH POINTS (2007-2011)

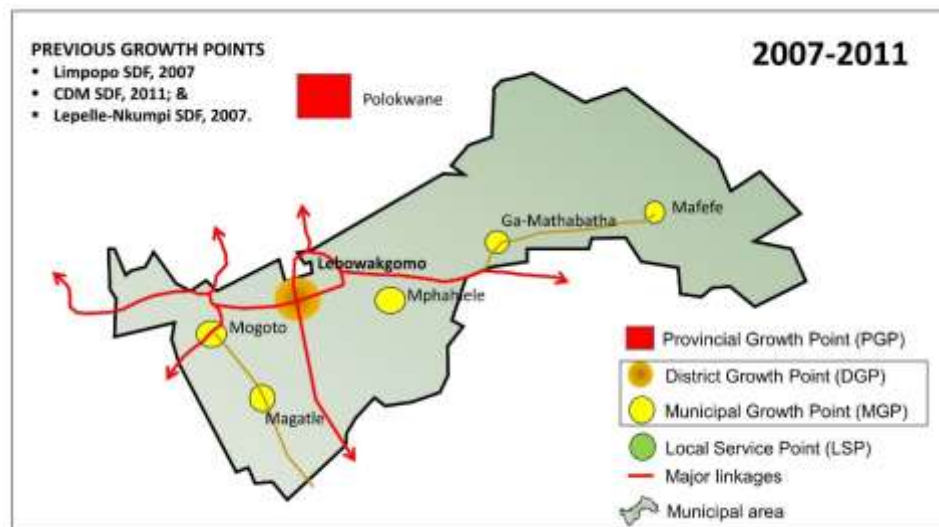
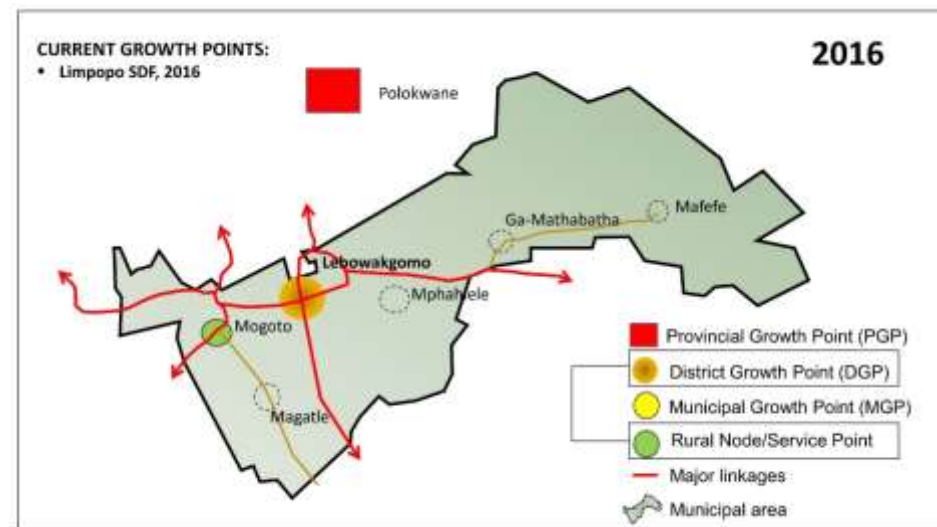


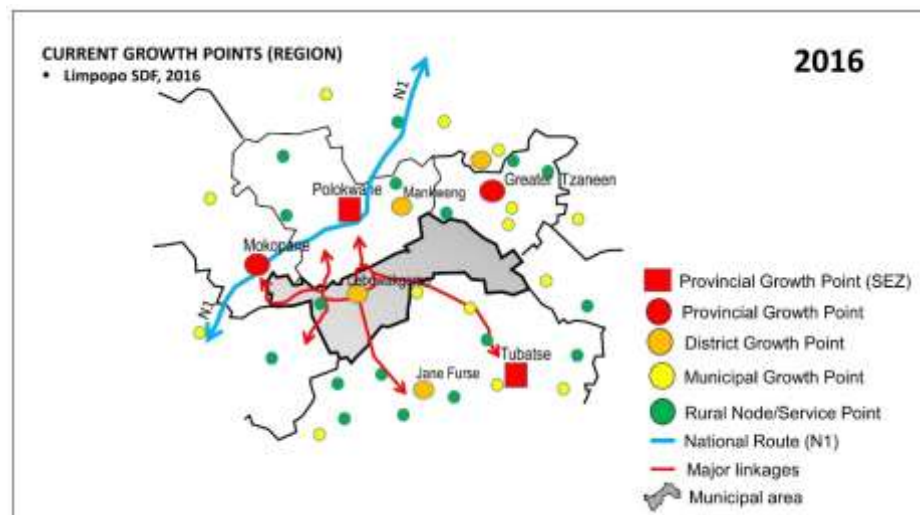
FIGURE 1.18: CURRENT GROWTH POINTS (2016)



Hierarchic role and function of adjacent municipalities

Figure 1.19 depicts the latest proposals of the Limpopo SDF, 2016 in respect of Growth Points in the region which may impact on Lepelle-Nkumpi.

FIGURE 1.19: GROWTH POINTS IN THE REGION (2016)



The Polokwane and Tubatse settlements are Provincial Growth Points in the region and also earmarked as Special Economic Zones (SEZ). As can be seen elsewhere in this report, it is located along the Dilokong Provincial Corridor (R-37) and Lebowakgomo is also along those corridor and basically between these two Provincial Growth Points. To the west of the municipal area lies Mokopane which is another Provincial Growth Point which can play an important role. Both Tubatse and Mokopane has strong mining activities whilst Polokwane as Capital of Limpopo accommodates a great variety of specialised functions. All the mentioned nodal areas has good linkage with the municipal area and specifically the Lebowakgomo District Growth Point.

Another important nodal area in the region, located south of the municipality, is Jane Furse which is also classified as a District Growth Point. Again, Jane Furse is properly connected via a main road, leading through Lebowakgomo towards Polokwane Municipality. With the Atok Municipal Growth also in the area of Fetakgomo Municipality, it forms another important activity area in respect of mining activity.

Unfortunately, Greater Tzaneen which is also a Provincial Growth Point, hasn't got proper linkage with Lepelle-Nkumpi and specifically the Lebowakgomo Provincial Growth Point by means of main roads. The possibilities of interaction and positive activities between the important nodal areas are schematically illustrated in Figure 1.20.

FIGURE 1.20: ACTIVITY BETWEEN NODAL AREAS IN THE REGION

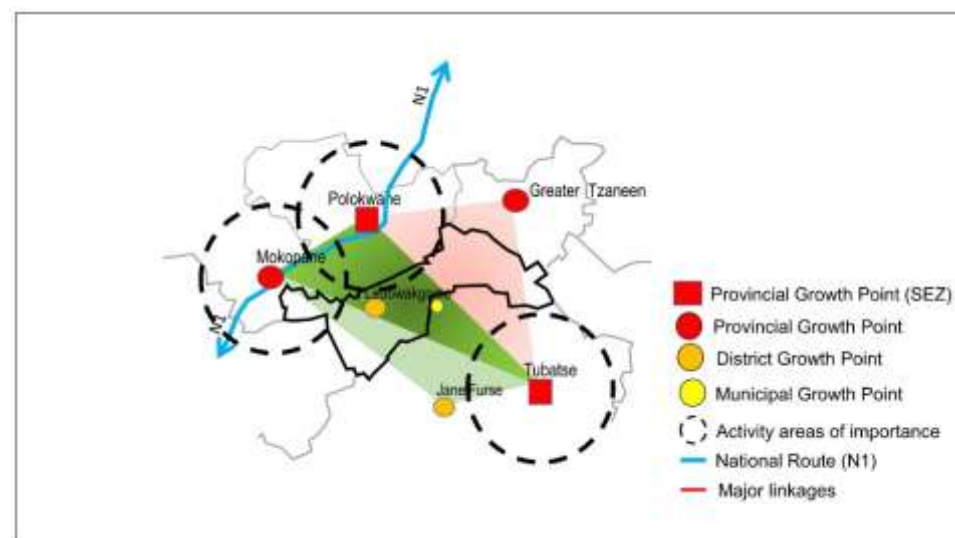
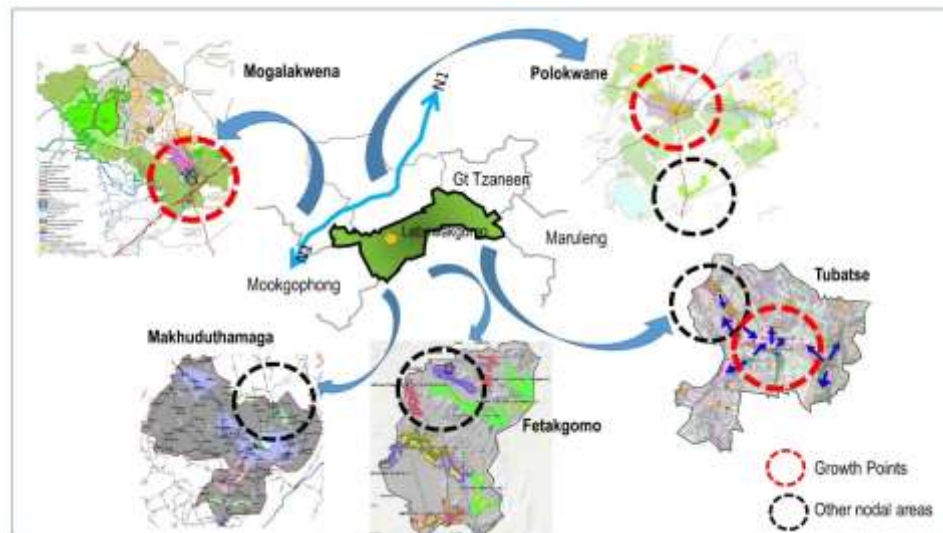


FIGURE 1.21: PROPOSALS IN SDF'S OF ADJACENT MUNICIPALITIES



Impact of proposals in the SDF's of adjacent municipalities

As pointed out in the above paragraph and Figure 1.20 the three municipalities with the greatest influence is Polokwane, Mogalakwena and Tubatse. These municipalities accommodate the Provincial Growth Points and for reasons set out above it will impact on Lepelle-Nkumpi in terms of regional economics.

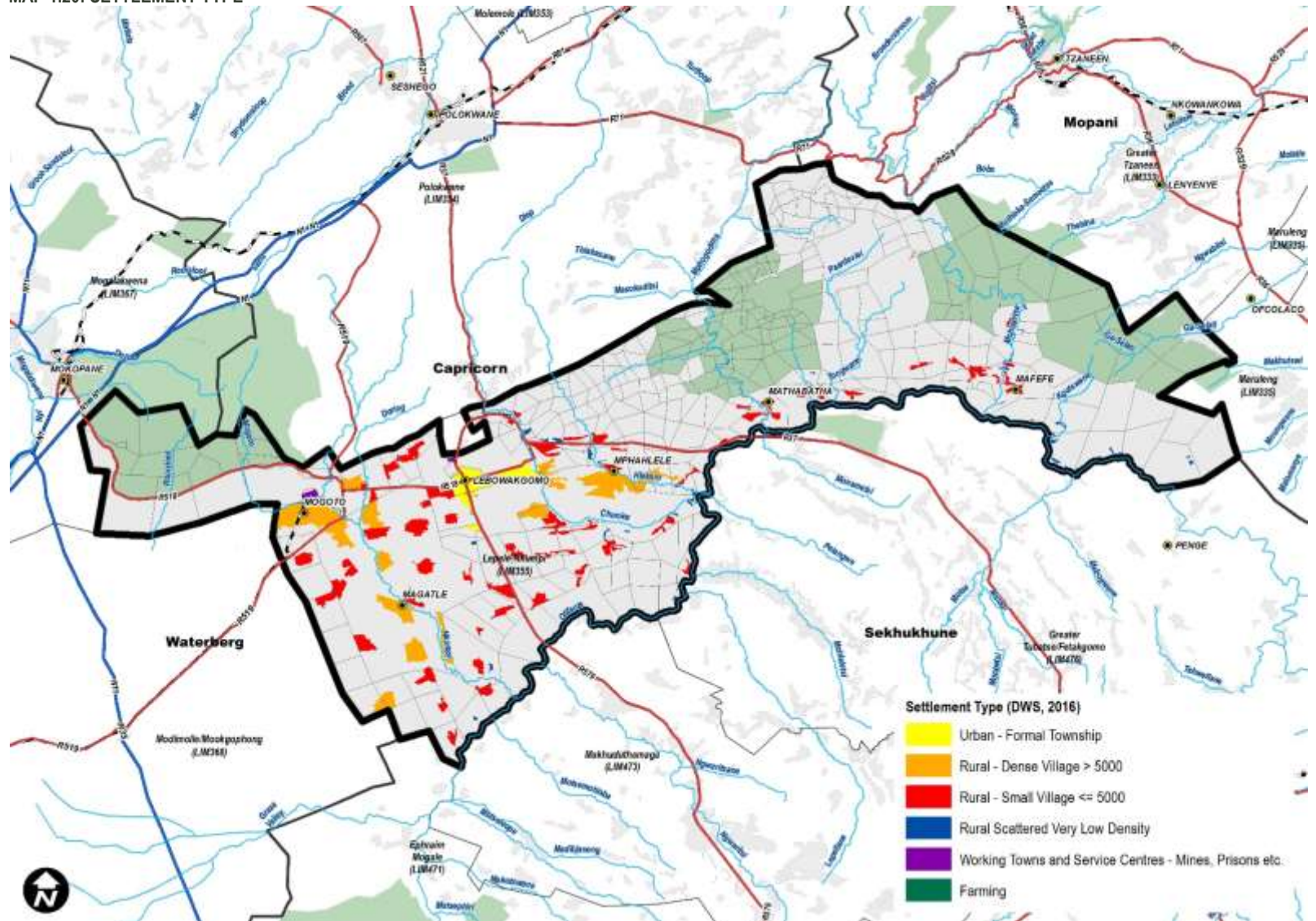
In respect of lower order nodal areas, Figure 1.21 shows that there are some nodal areas located close to the border of Lepelle-Nkumpi Municipality that may have an impact on a local level. In Tubatse, Fetakgomo and Makhuduthamaga there are lower order nodal areas or areas containing a concentration of settlements that will impact on the Lepelle-Nkumpi municipality, specifically the rural areas to the south of Lepelle-Nkumpi. Hence, in terms of aspects such as community facilities (e.g. clinics) it is important to realise that these nodal areas may contain such community facilities.

To the north of Lepelle-Nkumpi the Polokwane Municipality also includes a lower order nodal area. Practically this area will depend more on Lebowakgomo for services such as retail than on Polokwane simply because of the distance.

To the east, the impact of the Maruleng and Greater Tzaneen Municipalities only relates to tourism and agriculture.

[illegible]

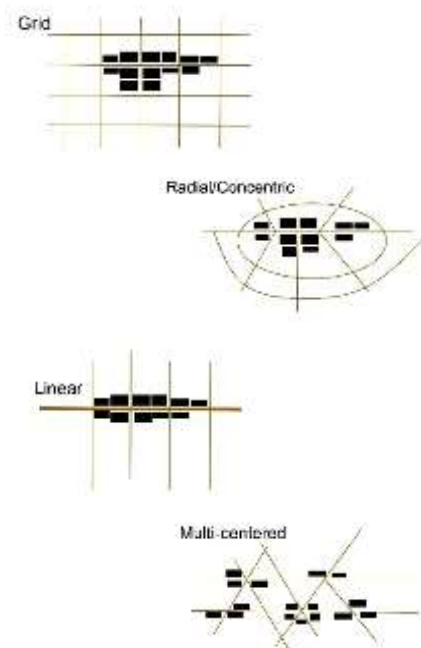
MAP 1.20: SETTLEMENT TYPE



3.4.1.4 Spatial Structure and Form

Urban (spatial) form is defined as the spatial pattern of human activity at a specific point in time. Hence, urban or spatial form refers to the physical layout and design of the city, town or region and normally recognised as follows, namely:

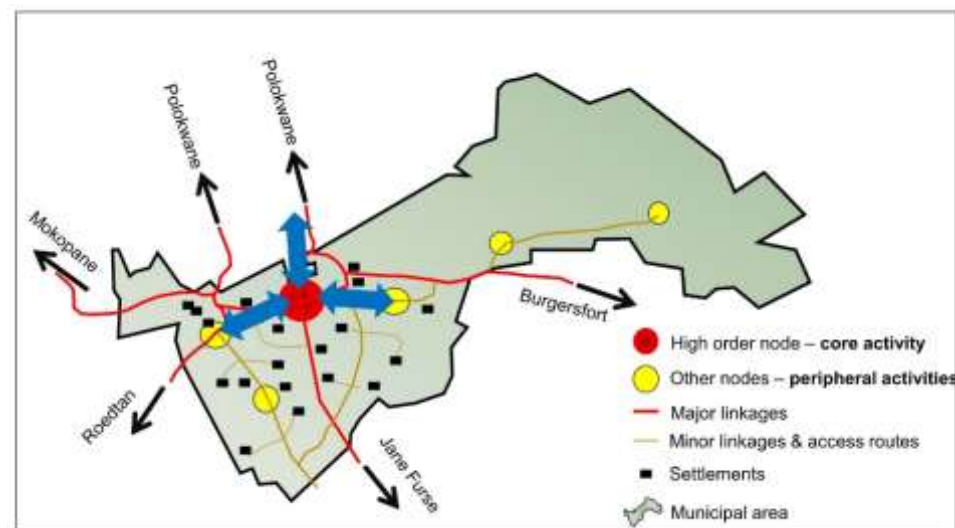
- Grid system;
- Radial or concentric system;
- Linear system; or
- Multi-centered system



The urban spatial structure refers to the relationships arising out of the urban or spatial form and those underlying interactions of people and freight. Spatial structures are expressed by two structural elements, namely *nodes* and *linkages*.

Lepelle-Nkumpi's urban form can be described as a radial or concentric system with Lebowakgomo as the core activity/urban area and other decentralised (rural) nodes as depicted in Figure 1.22.

FIGURE 1.22: LEBOWAKGOMO CORE ACTIVITY AND LINKAGES



Hence it consists Lebowakgomo as central node which accommodates the highest order of core and central activities with secondary nodes in decentralised locations which further accommodates peripheral activities.

Lebowakgomo town is the core activity area and the highest order node within the municipality. It accommodates high level of specialised services and functions such as government offices, hospitals, shopping facilities for luxury goods, financial services. It is the commercial and retail hub of the municipality. This node is linked by road via the R579, R518, R519, which all intersects at the Lebowakgomo's CBD.

Advantages of the concentric model in terms of linkage are:

- Direct line of travel and centrally directed traffic flow;
- Economics of a single centralised point of origin.

The disadvantages on the other hand are:

- Central congestion;
- Local flow problems.

These disadvantages is evident in Lebowakgomo at the intersection where the R518 and R579 cross.

The primary node is linked with other nodes and the rural area by means of main (provincial) roads, which also provides linkages to adjacent municipal areas such as Polokwane and Mokopane. (See Figure 1.22). This spatial form is common in South Africa and especially in the rural areas of Limpopo. It is further evident that linear development occurs along these major roads.

The other nodes, such as at Mogoto/Moletlane and Mphahlele mainly contains peripheral activities which are predominantly residential in nature and provides a node to serve the local needs of the communities.

Core activities are those activities of the highest order in the urban spatial structure of a municipal area and consist of tertiary and quaternary activities, such as management, finance and specialised retail.

Central Activities are those activities and land uses concerned with production and storage, distribution manufacturing as well as transportation.

Peripheral Activities are dominantly residential in nature and accommodate uses to serve the local needs of people/residents in the area.

3.4.1.5 Structure of human settlement areas

The structure of settlements in terms of surveying and township status can be linked directly to the land ownership systems described in paragraph 3.4.1.6 herein.

There are basically two types of human settlement demarcation, namely surveyed erven and un-surveyed sites. Surveyed and proclaimed townships are linked with the freehold title erven and mostly found in the urban areas of Lebowakgomo. The less formal sites (un-surveyed stands) are linked with State land and Common Hold land and mostly found in the rural areas or former Homeland areas. Only some demarcated stands in the rural areas have been surveyed, but it seems that now formal township establishment process took place where a township register has been opened in the Deeds Office. Table 1.20 below reflect a list of surveyed erven/sites where General Plans have been approved by the Surveyor-General's Office after 1995.

TABLE 1.20: ERVEN SURVEYED AFTER 1995

<i>General Plan No.</i>	<i>Township name</i>	<i>Comment</i>	<i>Occupation status</i>
550/2014	Tooseng	1 erf	Not occupied
254/2009	Ga-Seloane	Residential erven	10% occupied
1090/2008	Lekurung	Residential erven	Not occupied
403/2008	Mamaolo	Residential erven	Not occupied
3331/2007	Mathibela Ext 2	1 erf, many occupants	Occupied
2061/1999	Mathibela Ext 1	Residential erven	60% occupied
3297/2005	Information unavailable		
4044/2002	Lebowakgomo 1A	Industrial erven	10% occupied
Information unavailable	Moletlane	Several residential erven	70% occupied



It should be noted that very little of the surveyed erven has been occupied. The ones occupied is closer to the areas where more development pressure is experienced, such as Lebowakgomo and Moletlane. In the outskirt rural areas most of the surveyed erven lies un-occupied (e.g. Lekurung, Mamaolo). The reasons for this is unknown, but it may be explained by the lack of the services installed to the erven.



3.4.1.6 Land tenure or ownership

Land tenure refers to land ownership or holding of land by title, lease, permission to occupy or customary tenure.

There are basically two categories of tenure systems in South Africa, namely a “formal system” whereby land is surveyed and recorded/approved in the Surveyor-General’s Office and registered in the Deeds Office as freehold titles. The second system is a more “informal system” and deals with communal land and customary land tenure types.

The types of tenure systems and land tenure rights generally found in Limpopo Province can be described as follows, namely:

- Freehold title;
- State land; and
- Common hold land.

Freehold Title

Land or even under freehold is formally surveyed land which has been approved in the Surveyor-General’s Office and fully registered in the Deeds Office (Title Deed/Deed of Grants) in the name of a juristic person. The land is transferable or leasable. Farm land and

agricultural holdings are normally administered through provisions of legislation such as the Subdivision of Agricultural Land Act, 1970, the Subdivision of Land Ordinance, 1986; the Agricultural Holdings Act, 1919, whilst even in townships are being/were administered or established through provisions in legislation such as the Town Planning and Townships Ordinance, 1986; The Development Facilitation Act, 1995; Proclamation R-293 of 1962; Less Formal Township Establishment Act, 1991 etc.;

State land

This category includes land owned by the State. There are basically two types of State Land, namely:

- **State Land in the former RSA** which is owned by the Minister of Public Works. It is normally surveyed and registered in the Deeds Office. The state land for domestic use is a provincial competency and therefore it is in most instances owned by the Provincial Dept. of Public Works. This type of land falls under the “formal system” referred to above. Normally the Title Deed or Deeds Office will refer to/indicate such as registered in the name of: RSA; and
- **State Land in the former Homelands**, which is also owned by the State but held in trust by the Minister of Rural Development and Land Reform. State land in

this instance may be surveyed and registered in the Deeds Office, but it is not always the case. Some “communal land” has only been surveyed recently and may still not be registered in the Deeds Office. This form of state land rather falls within the category of the “informal system” and provides in the following tenure type systems in its turn, namely:

- **Communal land or PTO’s:** Land owned by the State and held in trust by the Minister of Rural Development and Land Reform for use or occupation by local communities. Land is occupied by individuals under the Permission to Occupy (PTO)-system or may also be under *customary tenure* as described herein after. PTO’s were normally provided for under Proclamation R-188 of 1969. A PTO is a permit for occupation of unregistered state land or communal land issued to a person, normally the head of the household. The permit is therefore attached to a person and not a surveyed parcel of land. However, after the new democratic dispensation after 1994, individuals’ tenure rights on land in this instance was protected by the ³Interim Protection of Informal Land Rights Act, 1996.
- **Traditional/Customary Tenure:** State or Trust land held by a customary chief or ⁴*kgosi* of on behalf of the community or tribe. Land is allocated to individuals by a hierarchy of traditional leaders, consisting of the chief and his/her ⁵*indunas*.

³ Interim Protection of Informal Land Rights Act, 1996 (Act 31 of 1996).

⁴ The word “*kgosi*” is a *Setswana* term for “king” or “chief”. Various *affixes* can be added to the word to change its meaning: adding the prefix *di-* creates the plural form *dikgosi*; the feminine suffix *-gadi*

makes the word *kgosigadi*; and the adjectival suffix *-kgolo*, meaning “large”, creates *kgosikgolo*, the word for “supreme leader”. The office of tribal leadership is called the *bogosi* while the person who assumes the office is the *kgosi*. (Source: <http://en.wikipedia.org>)

⁵ “*InDuna*” (plural: *izinDuna*) is a *Zulu* title meaning *advisor, great leader, ambassador, headman, or commander* of group of warriors.

It can also mean *spokesperson* or *mediator* as the *izinDuna* often acted as a bridge between the people and the king.^[1] The title was reserved for senior officials appointed by the king or chief, and was awarded to individuals held in high esteem for their qualities of leadership, bravery or service to the community. ^[2] ^[3] The *izinDuna*

Government hence created and super-imposed the structure of Traditional Authorities.

Common hold

Common hold land is land or erven which is normally formally surveyed and approved in the Surveyor-General's Office and fully registered in the Deeds Office in the name of a Communal Property Association (CPA) through provisions of the ⁶Communal Property Association Act, 1996. This a new tenure form registered in the Deeds Office and in most instances relates to land transferred back to communities by means of land restitution. Unlike Customary Tenure of PTO's referred to above, land in this tenure type is hold with "freehold title", but registered in the name of a group of persons of the property is hold in common and it is not owned by the State. In terms of the Act, "holding of property in common" means the acquisition, holding and management of property by an association on behalf of its members in accordance with the terms of such association's constitution established ito the Act (supra).

For purposes of this study however, the land tenure/ownership types described above will be divided into the following two groups, namely:

"Public owned land", referring to land owned by the State, or any other government department or government sphere within the government of the Republic, including the local municipality. It hence would include land held under communal and traditional tenure

would regularly gather for an indaba to discuss important issues. (Source: <http://en.wikipedia.org>)

rights. It is further divided into land registered in the name of National or Provincial Government, and land registered in the name of the Local Municipality;

"Privately owned land", referring to freehold land registered in the Deeds Office in the name of a juristic person, and would include land registered to companies, a tribe or under common hold.

Hence:

Table 1.21 provides the land ownership composition of land in the municipal area in the tenure categories described above. Public owned land comprise almost 64% of the total area, with only 30% in private ownership (refer to Map 1.21).

TABLE 1.21: LAND OWNERSHIP IN THE MUNICIPAL AREA

Group of ownership	Ownership type	Area (in ha)	Percentage
Public owned land	State land (National)	1,866.30	53.9%
	State land (Provincial)	341.37	9.9%
	Other	0.06	0.0%
Subtotal		2,207.74	63.7%
Privately owned	Private	835.86	24.1%
	Private (in the name of a Tribe)	218.84	6.3%
Subtotal		1,054.70	30.4%
Unknown		201.56	5.8%
TOTAL		3,464.00	100%

The Municipality owns land only in Lebowakgomo extensions. It is in dire need to acquire land for the future township development in order to pro-actively create a conducive environment for investment. Land has been identified north of Lebowakgomo township for acquisition since it is well-located land.

Land restitution and land claims

Map 1.22 shows the land in the municipal area which is under land claims. It includes a total surface area of 93,485ha or 37% of the total area of land within the municipal area.

Most of the land under claims is in the western part of the municipal area, which is the area where most of the settlements are located and which is public owned land. There are also land claims lodged in the eastern parts which overlaps with the environmentally sensitive areas.

Lebowakgomo township and its extensions are excluded from any claim however.

⁶ Communal Property Association Act, 1996 (Act 28 of 1996).



Public Owned Land

- State Land - National
- State Land - Unregistered
- Provincial
- Municipal

Privately Owned

- Private
- Private (in the name of a tribe)
- Private (in the name of a church)
- Unspecified

The map displays the Lepelle-Nkumpi Local Municipality, which is outlined in a thick black line. The municipality is divided into several tribal authorities, each represented by a different color and pattern. A legend in the bottom right corner identifies these authorities: Bataa-ba-Selokane (dark green), Bakgaga-ba-Mphahlele (light green), Ditlou-Macidi (yellow), Ditlou-Ntshong (orange), Mafefe (brown), Ndlovu (pink), and Zebediela (dark purple). The map also shows land claims (hatched areas) and protected areas (blue hatched areas). Surrounding municipalities include Capricorn to the north, Waterberg to the west, and Sekhukhune to the east. Key towns and villages are labeled, including Mafefe, Zebediela, and Bataa-ba-Selokane. The map includes a north arrow in the bottom left corner.

3.4.1.7 Land Use and Activity Patterns

Business/retail

In correlation with the urban or spatial structure discussed in paragraph 4.3.1.4 above, the land uses and activity found in the Lebowakgomo/Makotse growth point are those specialised land uses and high intensity activity, whilst land uses in the other secondary nodes and rural areas are much more rudimentary in nature.

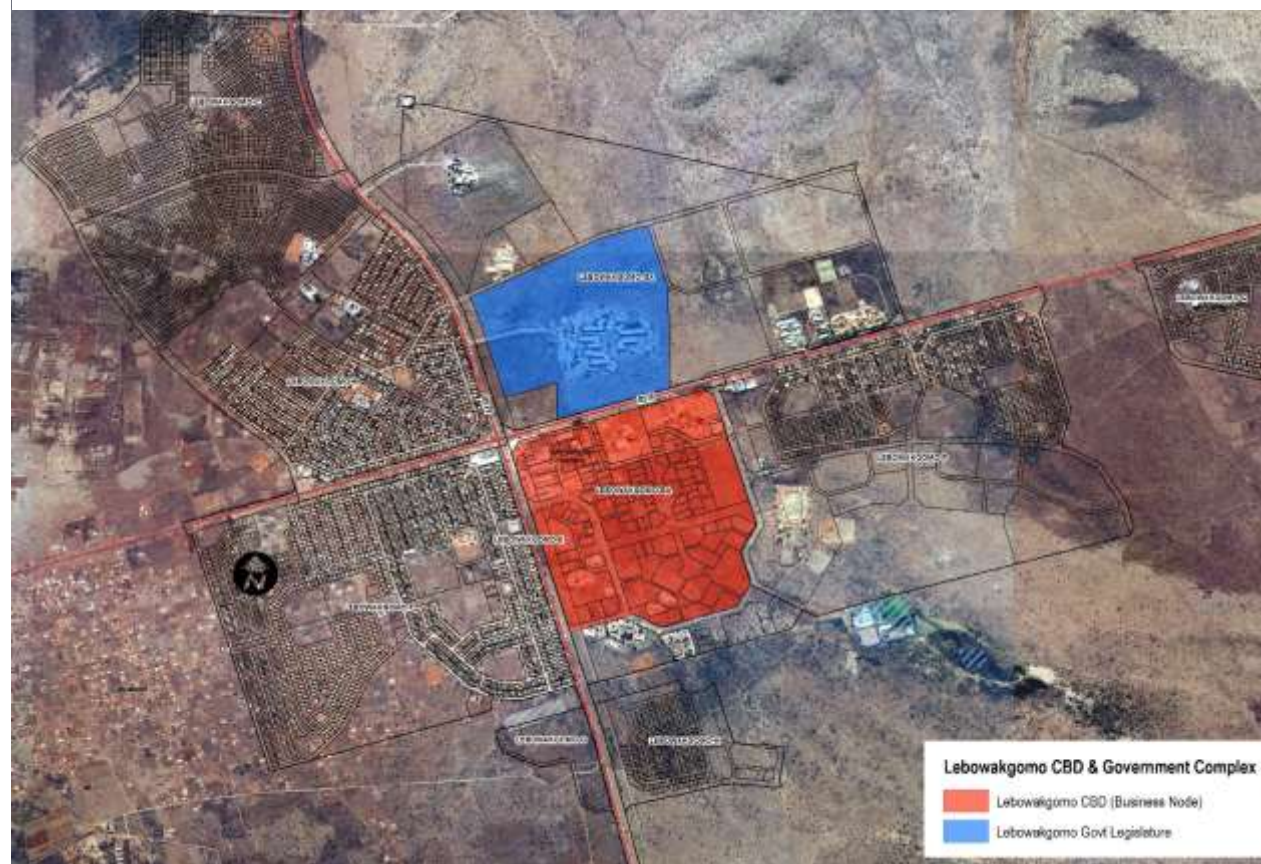
Lebowakgomo has various specialised shopping facilities with a new shopping centre (picture below) within the CBD which may be classified as a Community Shopping Centre (12,000-25,000m²). It is evident from the human activity that this shopping centre provides an essential service to the community of the area.

FIGURE 1.23: THE SHOPPING CENTRE AT LEBOWAKGOMO



Lebowakgomo's CBD is the primary activity node in respect of provision of a wide range of facilities such as offices and retail (shops). Apart from the CBD, the cluster also accommodates the Limpopo Legislature complex, located just north of the CBD. Historically the Legislature played an important role in the area, but there is an indication that the function of the Legislature will be relocated to Polokwane. The CBD area and Legislature complex is shown in Map 1.23.

MAP 1.23: LEBOWAKGOMO CBD AND GOVERNMENT COMPLEX



Apart from the Lebowakgomo/Makotse growth point, it is evident that the Mogoto/Moletlane area/settlements have intense activity in respect of localised services and commercial (retail) activity. It also accommodates a Neighbourhood Shopping Centre. This secondary activity node, which is very strategically located at a prominent intersection along the R519 road, which also includes a new taxi rank, is shown in Map 1.24.

However, it is also evident that business development at Moletlane along the R519 road as well as along the main intersection thereof leading north to Mogoto and south towards Magatle, is problematic due to uncontrolled and unplanned development, which even exceed onto the road reserve as shown in the photographs below. Even if it doesn't exceed onto the road reserve, access to these premises is unsafe and most probably against the standards of road authorities.

Apart from Lebowakgomo's CBD and the Moletlane secondary activity node which contains the two large activity nodes, there are also other secondary activity nodes in the suburban area and settlements, e.g. Lebowakgomo A.

However the secondary node in Lebokwakgomo A shows signs of decay and underutilisation as can be seen in the photograph below. Considering its target area and population, it certainly holds great potential to serve as secondary activity node.

MAP 1.24: MOLETLANE SECONDARY ACTIVITY NODE





Photograph left: Businesses along road D-3628 close to the intersection with the R-519 road. Note that the buildings are almost on the tarred road surface.



Photograph left: Businesses along the R-519 road close to the intersection at Moletlane. The shops have direct access from provincial road. Vehicles park on the road reserve and people cross the road.



Photographs left and right: Buildings in the suburban secondary business node showing signs of urban decay and under-utilisation.



Industrial

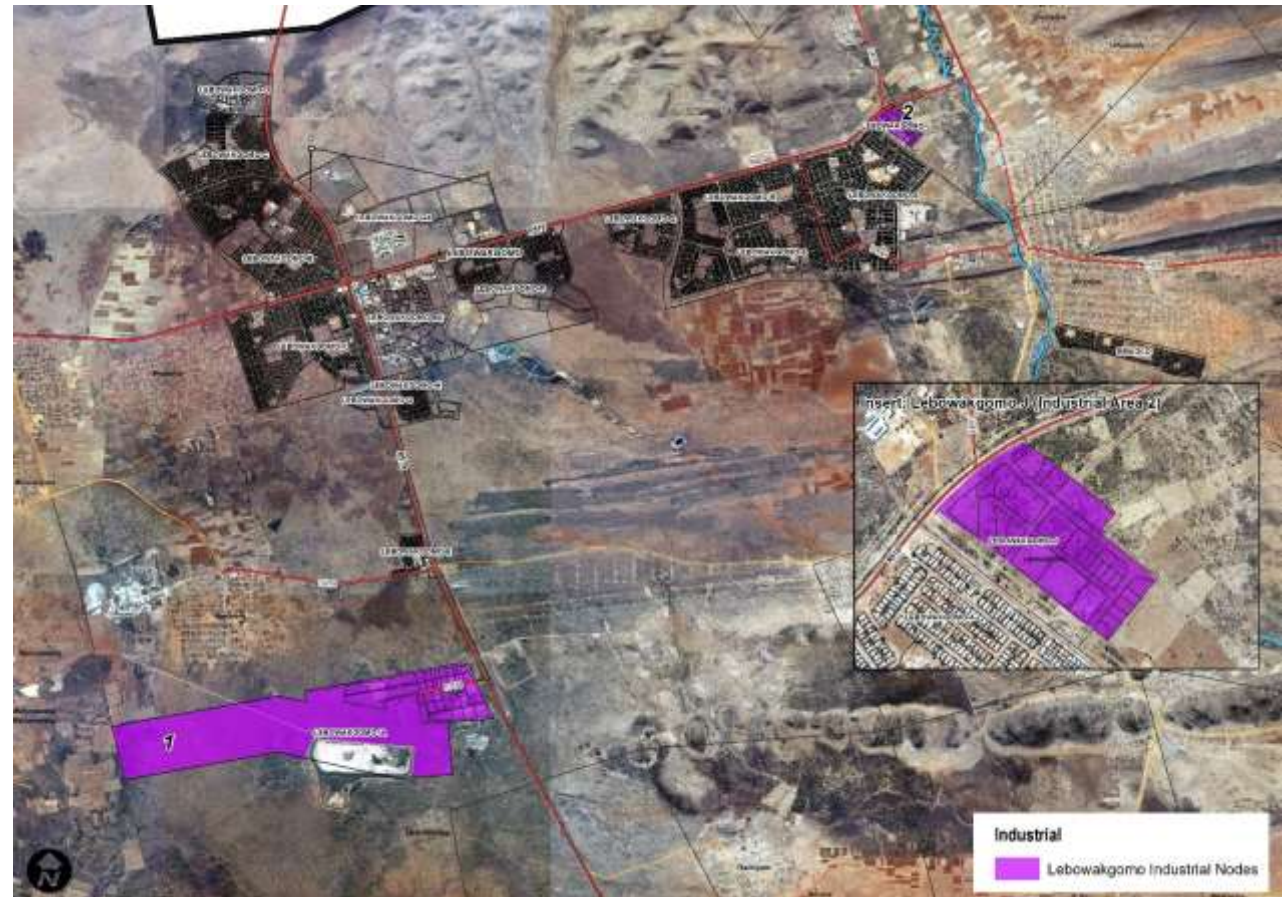
There are two main areas which provides in industrial townships which is located at the Lebowakgomo/Makotse cluster (refer to Map 1.25). It was quite noticeable during inspection of the municipal area that there are many vacant erven and under-utilised industrial properties in Lebowakgomo's industrial townships. (See photographs below).

However, although there are proclaimed townships for industrial purposes in the Lebowakgomo settlement, there is an obvious oversupply for this land use and not much industrial development which occurs in these areas. It can be concluded that there is not much pressure on any development for industrial purposes and that the existing erven available for this is sufficient to serve in the medium to long term. Despite of this observation, these areas still holds potential for development for industrial purpose, including manufacturing, packaging and warehousing.



Photograph left:
Vacant building in
Lebowakgomo's
industrial area.

MAP 1.25: LEBOWAKGOMO INDUSTRIAL AREAS



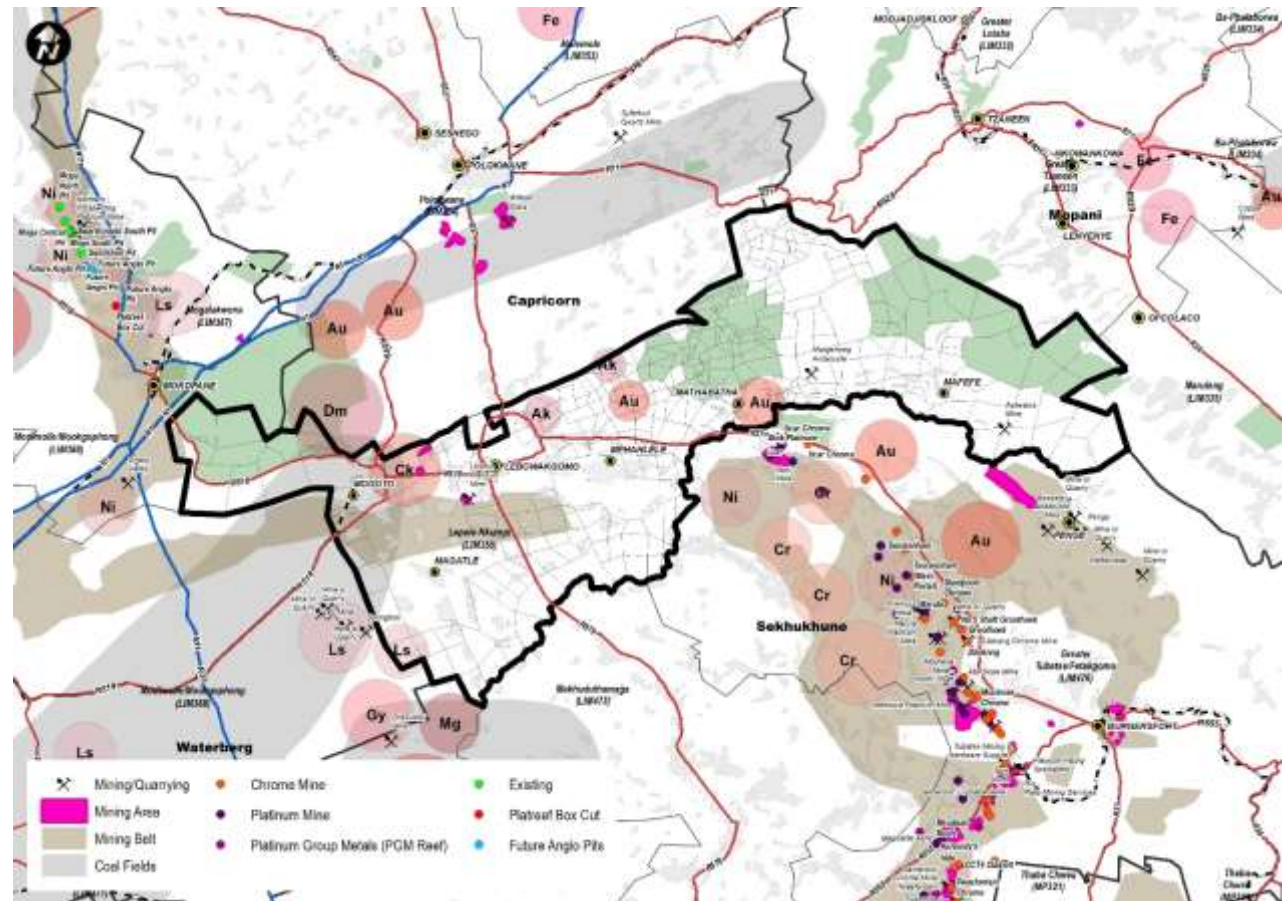
Mining

In terms of mining land uses and activity, there are a few mines as indicated in the Map 26. The consultation sessions revealed that mining activity in general is declining. It can be concluded that there is not much pressure on any development for mining purposes. The mining land use forms a small part of the land use composition of the area.

The platinum mining belt of the Bushveld Complex and Platreef Resource, illustrate the central locality of Lepelle-Nkumpi in respect of the core of both resources, namely at Mogalakwena and Tubatse. The locality of existing and future mines along these reefs are evident in Map 26.

The potential of the mining belt over the Zebediela region could be threatened by the settlement developments that are located in a dispersed manner over the subsurface mineral belt. The mining feasibility of this area should be confirmed with DMR.

MAP 1.26: MINING AREAS AND MINERAL POTENTIAL



Conservation – Regional Open Space

The conservation areas and biosphere (regional open space) land use comprises a considerable large area of the land use in the municipal area. Two areas forms the core, namely to the eastern and north-eastern parts of the municipal area a large area for conservation and a biosphere is present, and in the western parts of the municipal area, a conservation area with international heritage status exist (refer to Map 1.3)

Residential

The residential land uses can be classified in the following categories, namely:

- **Urban residential** – located in formal townships and areas where General Plans exist and erven were formally surveyed and zoned and individual ownership registered in the Deeds Office in most instances (e.g. erven in Lebowakgomo);
- **Rural residential** – located in less formal settlements, or settlements which might have been surveyed, but in many instances not. Land normally belongs to the State and it includes those areas/settlements held in trust by Traditional Authorities. (e.g. Magatle, Molapo);
- **Agricultural Holdings** – located in rural areas or adjacent to other settlements where a General Plan normally exist as part of an agricultural holdings complex. Individual ownership is normally registered in the Deeds Office (e.g. Zebediela Estate);
- **Informal residential** – located in informal settlements where no general plan exist or where settlements took

place without any permission from the authorities (e.g. areas west and south of Lebowakgomo BA);

- **Farmsteads and farms (agriculture)** – located on farm portions where individual ownership is registered in the Deeds Office (e.g. productive commercial farms, game farms etc.).

Although the “Urban Residential” component forms the majority of the residential component in the Lebowakgomo Growth Point, it is not the predominant class in the entire municipal area. There is also much pressure on expansion iro residential development at this node and therefore there are “Informal Residential” uses found on the outskirts of Lebowakgomo.

The largest component of residential uses is the “Rural Residential” component associated with the scattered settlements and other lower order nodes located throughout the municipal area. Because Lepelle-Nkumpi’s area of jurisdiction formed part of a former Homeland, most land is owned by the State and hence under Traditional Leadership. This category includes the largest part of the municipal area.

There is only one “Agricultural Holdings” complex to the west of the municipal area, namely Zebediela Estate. It forms a small residential component and mainly associated with agriculture.

“Farmsteads and farms” in private ownership forms a very small component of the residential land use category in the municipal area. It is located in two isolated areas in the west and north-east of the municipal area.

Refer to Map 1.27.

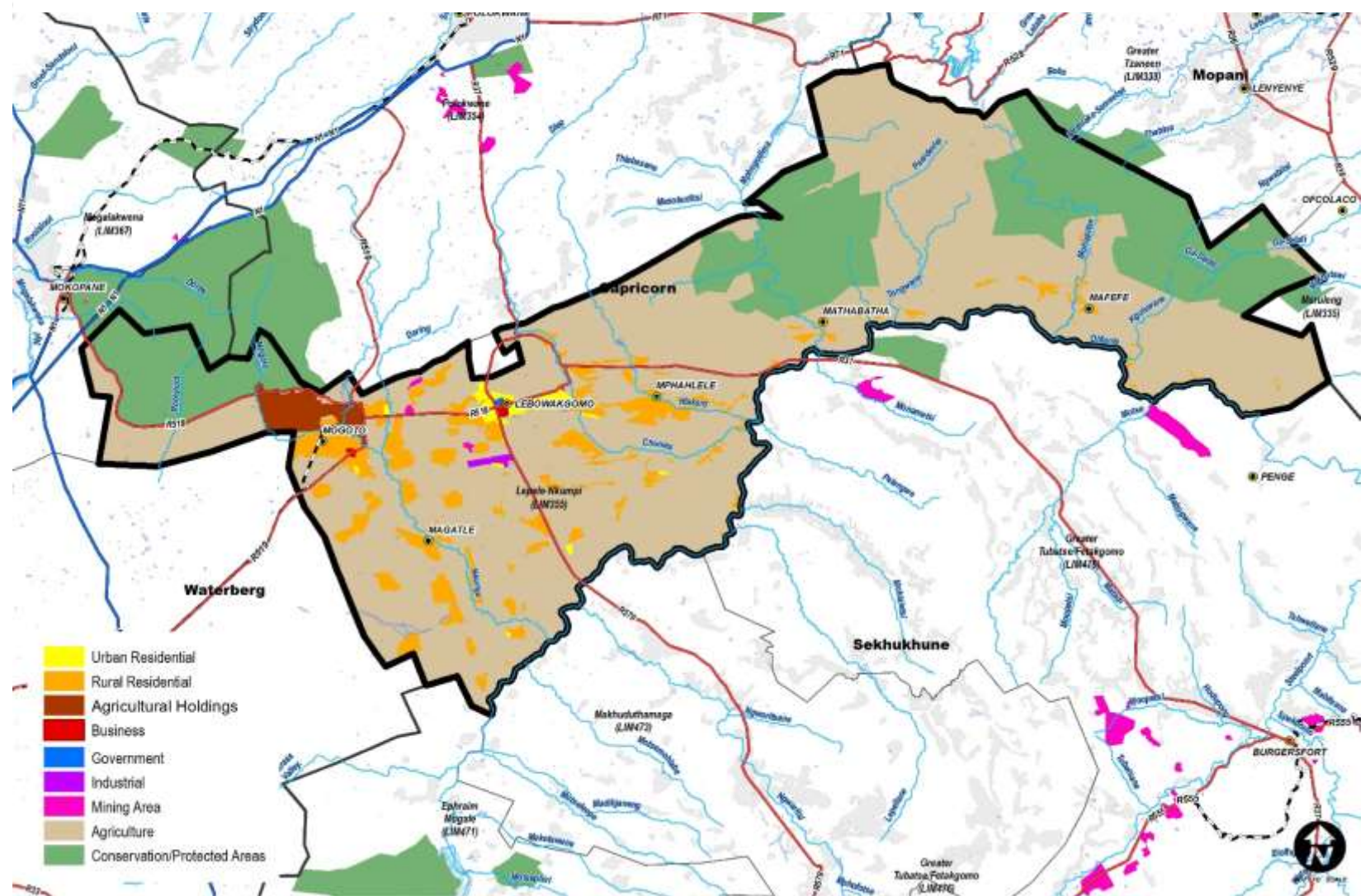
As indicated above, it is evident that enormous pressure is experienced for residential development at the Lebowakgomo Growth Point/Cluster.

Other nodal areas where noticeable pressure is experienced for residential development is Mogoto/Moletlane area, Magatle area, and Mphahlele area.

There is also many informal settlements, especially in Lebowakgomo. Some of these informal settlements contain permanent and luxurious structures as can be seen in the photographs below. Hence, although it appears as formal structures, these houses are located in informal settlements without any sanction by authorities and/or registered erven. The photographs are examples of the informal settlement west of Lebowakgomo-F along the R518 road towards Zebediela.



MAP 1.27: LAND USE



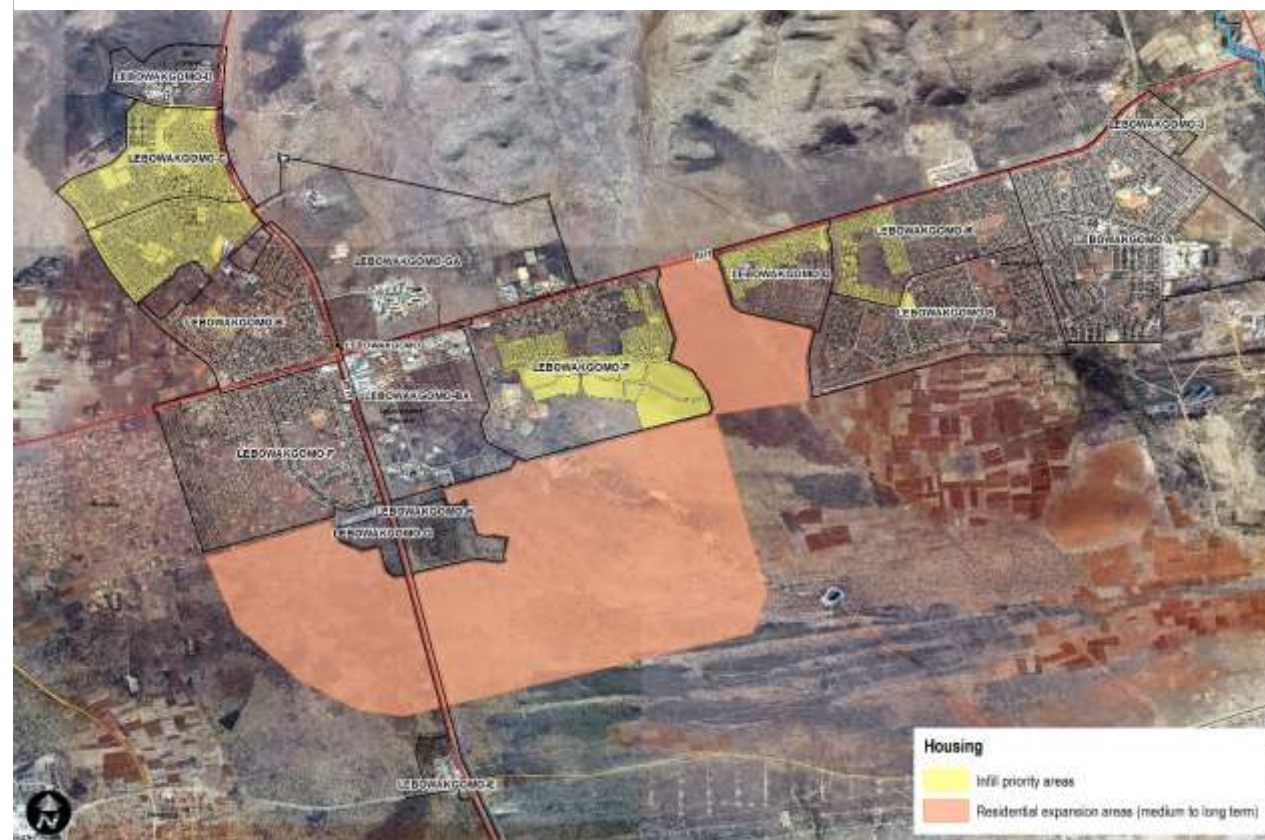


Photographs
left and below:
Informal
settlement
west of
Lebowakgomo-
F along the
R518 road.



*Photograph
left: Informal
settlement
showing
permanent
structures
(house).*

MAP 1.28: LEBOWAKGOMO HOUSING



Other land uses – community facilities

Facility location planning standards, access guidelines and threshold norms are an essential element of strategic forward planning and are used to allocate and reserve land for particular uses and facilities and develop capital budget plans within a planning area. In respect to planning over the long term, access standards, threshold guidelines and site sizes are increasingly important in ensuring that sufficient land has been reserved for essential facilities in terms of future growth and development without being wasteful and/or encouraging the illegal use of underdeveloped land. Standards ideally facilitate a more equitable provision of services and facilities to diverse communities.

In order to determine the accessibility of social services within the Municipal areas, the planning norms and standards with reference to educational and health facilities were applied. The standards have been adjusted from time to time, the latest being issued by the "CSIR Guidelines for the Provision of Social Facilities in South African Settlements in 2012". However, in the event that a Provincial Department has a specific norm and standard that they apply, this norm will in such case be used for consistency.

Accesses to educational facilities are based on the South African Schools Act, 1996 (Act No. 84 of 1996) Norms and Standards. At full implementation of the Norms and Standards, every school will be required to have a catchment area (area to be served by a school) with a radius of up to 3km (45 minutes walking time). A total walking distance to and from school will then be 6km (1.5 hours walking distance time).

The access to health facilities (hospitals, clinics and community health centres) are based on the CSIR Guidelines for the Provision of Social Facilities in South Africa (2012). According to the CSIR Guidelines, the access distance to hospitals is 30km and 5km to both to clinics and community health centres.

The subsequent parts of this section of the report include a series of Maps that depict the accessibility and provision of community facilities, such as schools, health facilities, police stations etc. It is evident that the location of most of the facilities ensures appropriate services and accessibility. However, there are areas of shortcoming where these facilities are still required. These shortcomings are spatially indicated on the relevant maps as well

as summarised in a table on the map. Further thereto, general requirements in respect of other facilities are depicted in **Error! Reference source not found..**

Photograph to the right: The public library along the road between Lebowakgomo and Mphahlele.



Photograph to the right: An example of an undeveloped park (Public Open Space)



Although in areas where most of the community facilities such as police stations, magistrates' courts, libraries and hospitals seems to be maintained properly and used by the community, some of the locations of such facilities seems to be planned on an ad-hoc basis without considering other aspects such as agglomeration benefits, public transport etc. some are located far from other facilities and create defragmented land use patterns. For example the public library along the main road between Lebowakgomo and Mphahlele. (See photograph below). Greater care should be given in future in respect of the most desirable location for such community facilities, and to ensure that areas where those facilities are lacking, be provided with it.

Apart from formal recreation facilities such as the Lebowakgomo stadium, the other recreational facilities such as parks and open spaces seems to be maintained poorly and not used by people and children. In other instances it seems that parks are being used for informal settlements. The Municipality identified the need for a stadium at Zebediela.

There is a need for community halls identified in the IDP and the SDF will guide the spatial provision of such facilities.

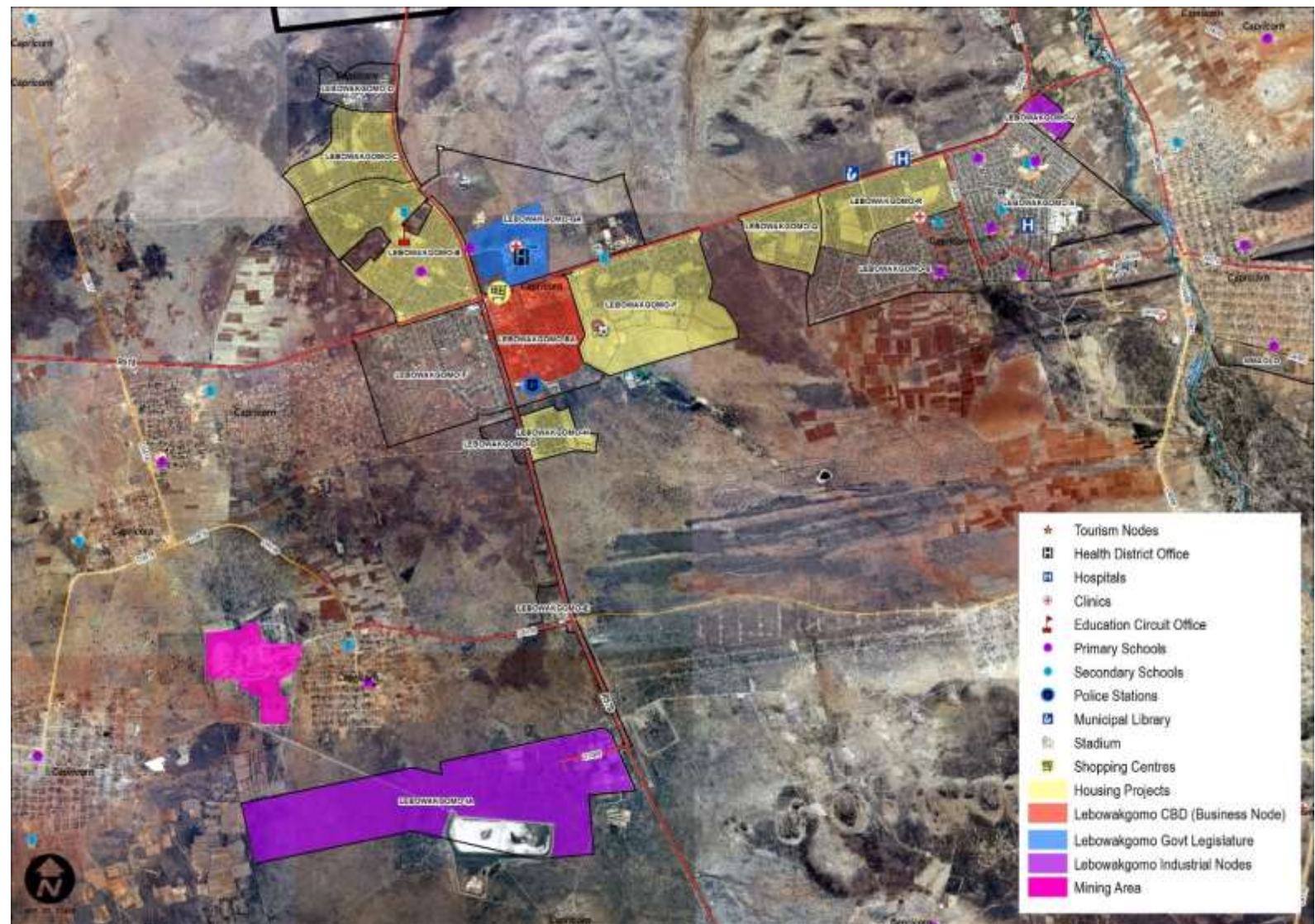


Limpopo Settlement Hierarchy 2016

- Provincial Growth Points (SEZ)
- Provincial Growth Points
- District Growth Points
- Municipal Growth Points
- Rural Node/Service Point

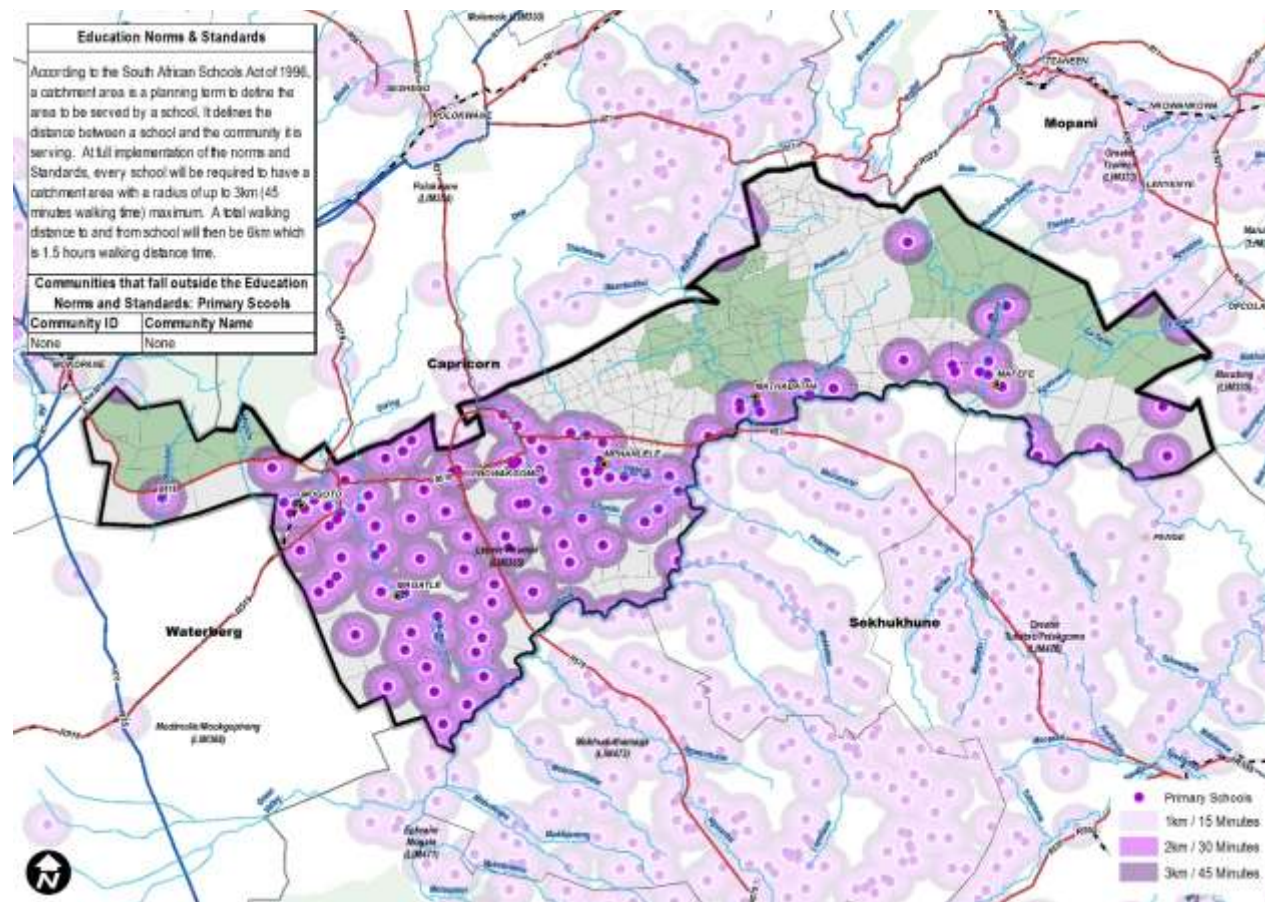
The map displays the settlement hierarchy of Limpopo province in 2016. It shows various growth points and service points across different districts including Mopani, Waterberg, Sekhukhune, and Capricorn. The legend also includes symbols for Tourism Nodes, Health District Office, Hospitals, Clinics, Education Circuit Office, Primary Schools, Secondary Schools, Police Stations, Municipal Library, Stadium, and Shopping Centres.

MAP 1.30: COMMUNITY AND SOCIAL AMENITIES WITHIN THE LEBOWAKGOMO AREA



The analysis of access to primary schools, based on the South African Schools Act, 1996 (Act No. 84 of 1996) Norms and Standards, indicates that all villages have adequate access to primary schools.

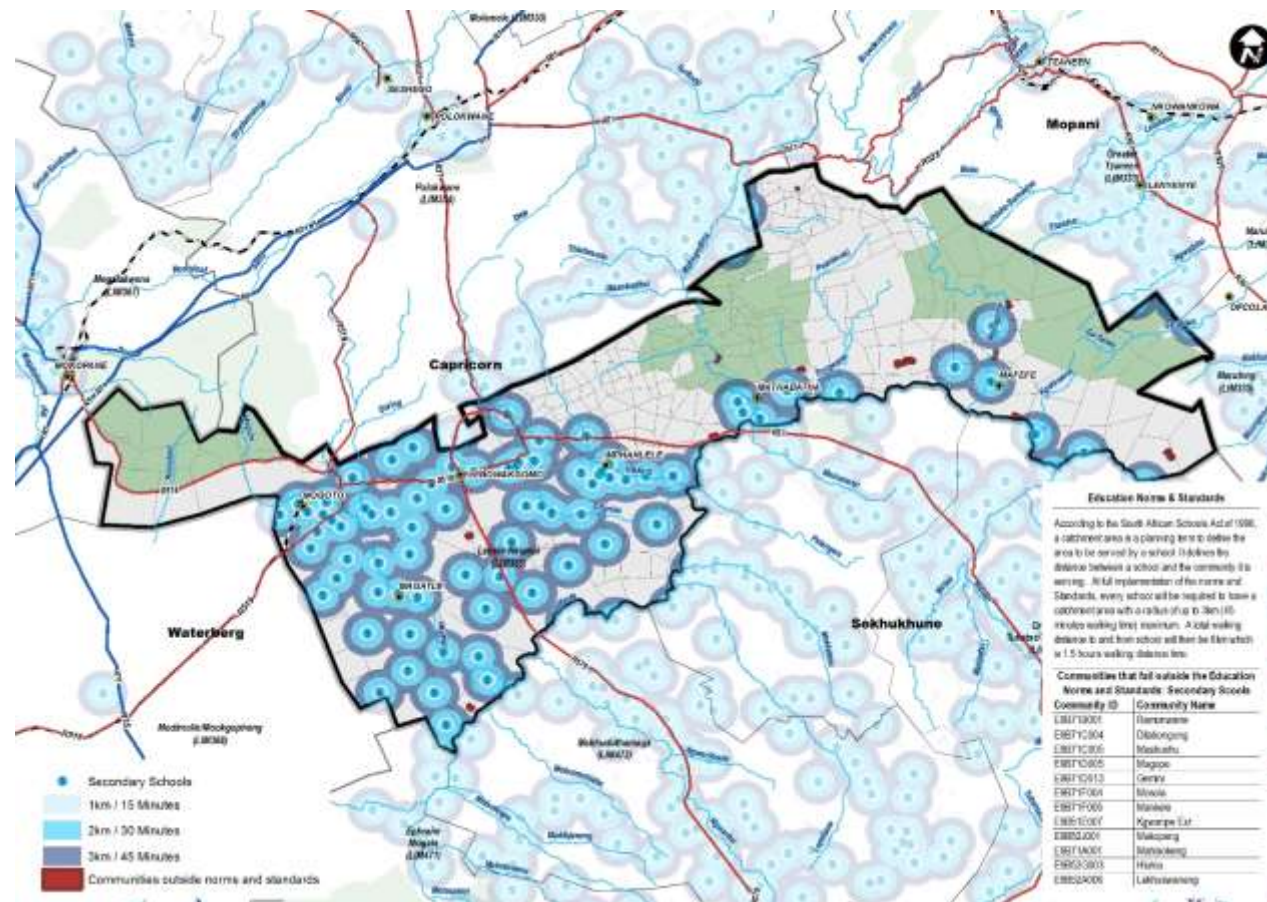
MAP 1.31: ACCESS TO PRIMARY SCHOOLS



The analysis of access to secondary schools, based on the South African Schools Act, 1996 (Act No. 84 of 1996) Norms and Standards, indicates that 12 villages do have sufficient access to secondary schools, which include:

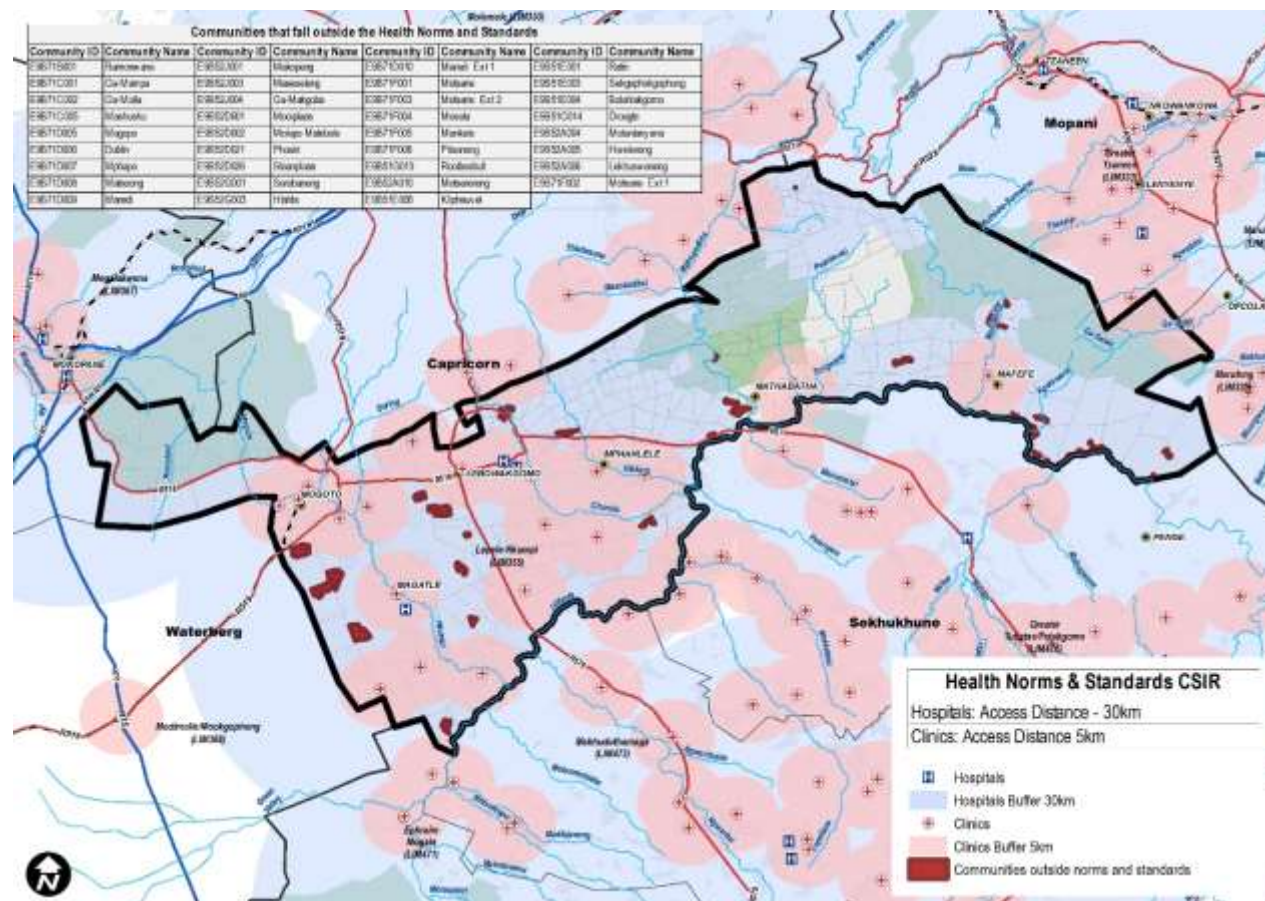
- Ramonwane
- Ditabongong
- Mashushu
- Magope
- Gemini
- Mosola
- Mankela
- Kgwaripe Ext
- Makopeng
- Mahlaokeng
- Hlahla
- Lekhuswaneng

MAP 1.32: ACCESS TO SECONDARY SCHOOLS



The analysis of access to health facilities, based on the CSIR Guidelines, indicates that all villages have adequate access to hospitals, but a total of 35 villages do not have adequate access to clinics.

MAP 1.33: ACCESS TO HEALTH FACILITIES



3.4.1.8 Land use Scheme

The analysis of the municipality's current town planning scheme in operation in this section will not focus on detail provisions in the scheme clauses and maps itself, but rather on functioning and implementation of the entire land use management system and where there are critical shortcomings which prejudice proper land use management.

General

The Lepelle-Nkumpi Land Use Scheme, 2006 was promulgated on 10 April 2009 in terms of provisions of the Town Planning and Townships Ordinance, 1986 (Ordinance 15 of 1986).

Hence, it is already 10 years old since it has been compiled in 2006. Simply considering its age and provisions of Section 27(1) of SPULAM which stipulates that a municipality must review its land use scheme at least every five years, it would be necessary to review the Lepelle-Nkumpi Land use Scheme within the period of this SDF.

Application and administration of the scheme

The scheme applies to the entire jurisdiction area of the municipality which is a positive aspect, considering the SPLUMA requirements that the scheme should apply to a municipality's entire municipal area.

However, it seems from preliminary discussions with officials of the municipality, that the scheme is only managed/applied in the Lebowakgomo township areas,

and not really applied in the rural areas such as Magatle, Moletlane and Mafefe. It seems that the municipality still relies on the Department of Cooperative Governance Human Settlement and Traditional Affairs (COGHSTA) to take decisions in respect of land use changes and township establishment (demarcations) in these areas. Apparently it is argued that these areas are still under control of Proclamation R293 and hence COGHSTA take preference to decide over land use change matters.

It is actually incorrect for the municipality not to oversee the proper enforcement of the scheme in these areas. If the scheme is promulgated in an area the provisions of Ordinance 15 of 1986 will apply over and above, or at least parallel to, any other law in respect of land use management.

After 1 July 2015 when the SPLUMA came into operation, the act is clear on this matter. Section 33(1) stipulates that all land development applications must be submitted to the municipality as authority of first instance. The department of COGHSTA has no jurisdiction to decide over matters pertaining to the land use scheme, land development and in terms of provisions such as Sections 18, 20, 28, 56, 96 and 108 of Ordinance 15 of 1986, unless it is an appeal contemplated in Sections 59, 104 or 139 of Ordinance 15 of 1986.

Even prior to 1 July 2015 where it might have been possible for COGHSTA or other controlling authorities (e.g. Limpopo Development Facilitation Act Tribunal) to approve certain land development rights in terms of

parallel legislation, the scheme applies to the entire areas since its promulgation on 10 April 2009 and the municipality had a duty in terms of Ordinance 15 of 1986 to administer the scheme. In other words, at least they had to keep the scheme maps updated and necessary approvals promulgated (e.g. rezonings and township establishments) or recorded in a register where land use changes such as consent uses took place.)

Contents of the scheme

The scheme consists of scheme clauses and scheme maps (notation system) as provided for in the ordinance (supra). As usual, the scheme clauses and scheme maps function together in order to apply development control over all land within the scheme area.

Hence:

■ Scheme clauses

A critical shortcoming which may contribute to a total failure to apply proper development control over land use matters, involves the absence to provide for permitted floor areas of buildings or a Floor Area Ratio (FAR). The scheme clauses including the Land Use tables setting out the development controls under each use zone, does not include any provision such as FAR in order to determine the permitted floor area of permitted buildings or the size of a development.

However, the scheme provides for coverage and height control measures, which may assist in determining the possible Gross Leasable Floor Area (GLFA) of buildings.



Unfortunately it is not the best planning practice and it is imaginable how the planners and engineers calculate services contributions etc. The FAR is also an important component in determining land values etc. when it comes to the valuation and the valuation roll of a municipality.

In this regard it would also necessary to review the Land Use Scheme.

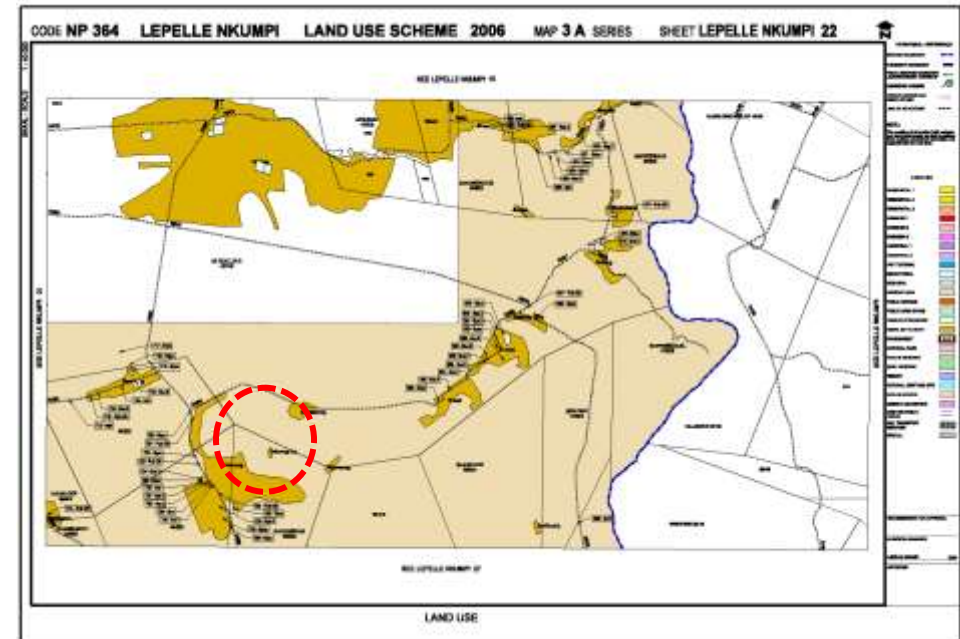
■ Scheme Maps

In terms of the zoning maps (Map 3's) it seems that maps weren't updated since the promulgation of the scheme. In any review it implies that all rights or land development or demarcation of sites approved by means of Ordinance 15 of 1986 or any other law, needs to be incorporated into the scheme and scheme maps. (See figures below for example).

In this regard it would also necessary to review the Map 3's of the Land Use Scheme.



FIGURE 1.24: LEPELLE-NKUMPI LAND USE SCHEME 2004



3.4.1.9 Infrastructure

The bulk engineering services are briefly summarised below.

Water

The Integrated Development Plan (IDP) indicates that according to 2011-census figures 75% of households has access to water above RDP standard. The estimated backlog is 14,502 households.

The water sources or water areas for the municipal area as shown on Map 1.34 are as follows, namely:

- Groothoek RWS,
- Mphahlele RWS;
- Specon RWS,
- Mafefe Individual GWS;
- Flag Boshielo RWS/West WS;
- Mathabatha Individual GWS cluster.

The current (as in March 2014) water backlogs and the priority is shown in Map 35.

The table below provides a summary of the situation pertaining to current water backlogs under the different water scheme areas in the municipal area.

TABLE 1.22: WATER BACKLOGS PER WATER SCHEME AREAS

Description	No of villages	Total Households 2013	Households with need	Percentage of Total
Flag Boshielo RWS	6	3,817	1,668	44%
Groothoek RWS	27	28,585	12,352	43%
Mafefe Individual GWS	30	3,050	1,912	63%
Mathabatha Individual GWS	9	2,639	802	30%
Mphahlele RWS	32	18,900	6,363	34%
Specon RWS	17	7,743	3,735	48%
Lepele Nkumpi Small GWS's	2	482	214	44%
Total	123	65,217	27,046	41%

The Groothoek, Specon and Mphahlele water schemes and settlements in the central parts of the municipal area is expected to have water deficiency within 5 to 10 years. (See Map). This area is exactly the area where future demand for water will increase because it includes both growth points. Hence it would be necessary to take note of this.

The direct water backlog, the total number of households with a water need (irrelevant the type of need) is an estimated 27,046 (DWS, 2013). DWS categorises the water infrastructure needs into six categories, namely: resource needs; O&M needs; infrastructure needs upgrade; infrastructure needs extensions; infrastructure needs refurbishment; and no services. The household water infrastructure needs per category is depicted in the following graph, it should be noted that a household with water infrastructure needs can fall within one or more categories:

FIGURE 1.25: HOUSEHOLD WATER INFRASTRUCTURE NEEDS

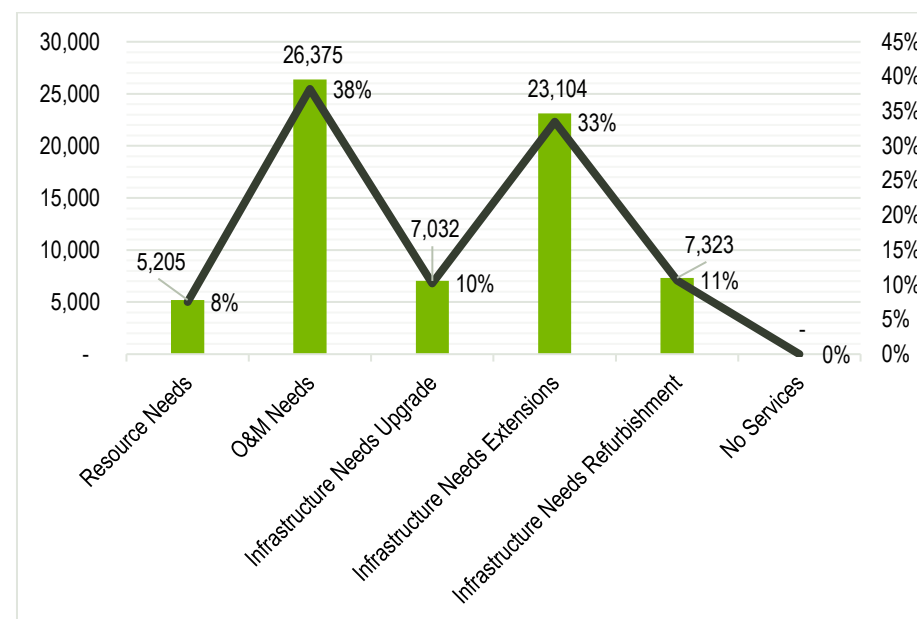


Table 1.24 also provides some detail of the status of the type of backlogs and challenges facing the different water scheme areas.

The IDP indicates the following projects in respect of water supply to specific settlements and is reflected in Table 1.23 below:

TABLE 1.23: WATER SUPPLY PROJECTS

<i>Water supply projects</i>		<i>Water supply projects</i>	
<i>Water Scheme</i>	<i>Settlements</i>	<i>Water Scheme</i>	<i>Settlements</i>
<i>Groothoek RWS</i>	Lebowakgomo B; Ga-Molapo; Ledwaba; Matome; Moletlane; Gedroogte; Mogoto; Rakgwatha; Makweng; Makushoaneng' Ga-Mogotlane	<i>Mphahlele RWS</i>	Serobaneng; Thamagane; Morotse; Marulaneng; Lenting; Tjiane; Tooseng; Maijane; Sefalaolo; Makaepea; Sedimothole; Moshate;
<i>Mathabatha/Tongwane BWS</i>	Makgoba; Madikeleng; Lekgwareng; Matane; Success; Mphaaneng;	<i>Mafefe RWS</i>	Mahlatjane; Mankele; Ga-Moila; Ngwaname;
		<i>Stocks RWS</i>	Hwelereng; Makotse



TABLE 1.24: SPECIFIC CHALLENGES IN RESPECT OF DIFFERENT WATER SCHEMES

Water scheme name	No of settlements served	Water deficient	Water storage shortage	Maintenance & security improvement required	Internal reticulation		
					Access to stand pipes (RDP standards)	Access in stands	Reticulation infrastructure
<i>Flag Boshielo RWS</i>	6	Yes, capacity of WTW & future increased use by Sekhukune DM	Yes, upgrade WTW & supply reservoirs	-	40%	10%	Extension required.
<i>Mafefe GWS (various individual schemes)</i>	31	No, supply to exceed demand in future due to declining population	No WTW. Reservoirs required. Water schemes not adequate to meet long term demands, Certain sub-schemes to be addressed.	Yes	40%	Few	Not well developed.
<i>Mathabatha GWS</i>	9	No.	Reservoirs required to supply current demand	Yes	70%	Few	Not well developed. Upgrading & extension required. Formalise existing yard connections.
<i>Groothoek-Specon & Mphahlele RWS</i>	68	No, but expected to be within 5-10 years	Reservoirs required. Water demand management required	Yes	Areas not reticulated up to RDP standard		Extension required. Formalise existing yard connections.

Expected water deficiency in 5 – 10 years

CLIENT:
Municipal Infrastructure Support Agency (MISA)
REPUBLIC OF SOUTH AFRICA

PROJECT TITLE:
Capricorn District Municipality
Water Services Master Plan
Settlement Level Study (Micro)

MAP TITLE:
Map C - Lapetle Hluangl

PROFESSIONAL SERVICE PROVIDER (PSP):
AECOM wayo

DATE: March 2014
PROJECTION: Geographic WGS84

DISCLAIMER: The Municipality and Service Providers cannot be held responsible for the quality and accuracy of the information presented on this map or the information used to compile the map under different future planning scenarios. The map and information are only to be used for planning purposes.

[illegible]

Sanitation

The IDP indicates that only 495 of households has access to sanitation facilities on RDP standard and above. Only Lebowakgomo has a sewer system but currently operating above its capacity.

The sanitation backlog for the municipal areas is considerably high with an estimated 29,827 households according to the IDP.

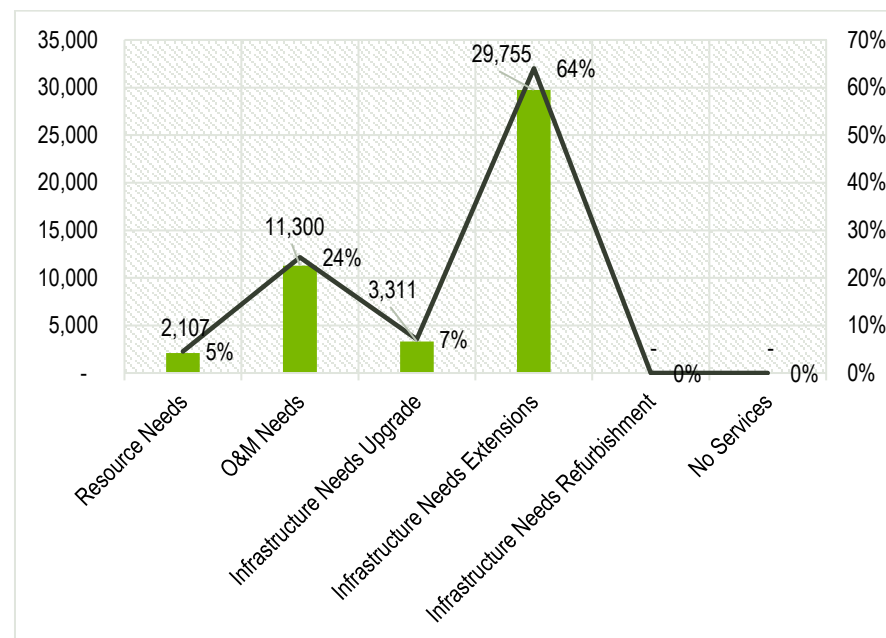
According to the latest Department of Water and Sanitation (DWS) data (2013), the direct sanitation backlog, the total number of households with a sanitation need (irrelevant the type of need) is an estimated 44,367.

DWS categorises the sanitation infrastructure needs into six categories, namely:

- Resource Needs
- O&M Needs
- Infrastructure Needs Upgrade
- Infrastructure Needs Extensions
- Infrastructure Needs Refurbishment
- No Services

The household sanitation infrastructure needs per category is depicted in the following figure, it should be noted that a household with sanitation infrastructure needs can fall within one or more categories:

FIGURE 1.26: HOUSEHOLD SANITATION INFRASTRUCTURE NEEDS



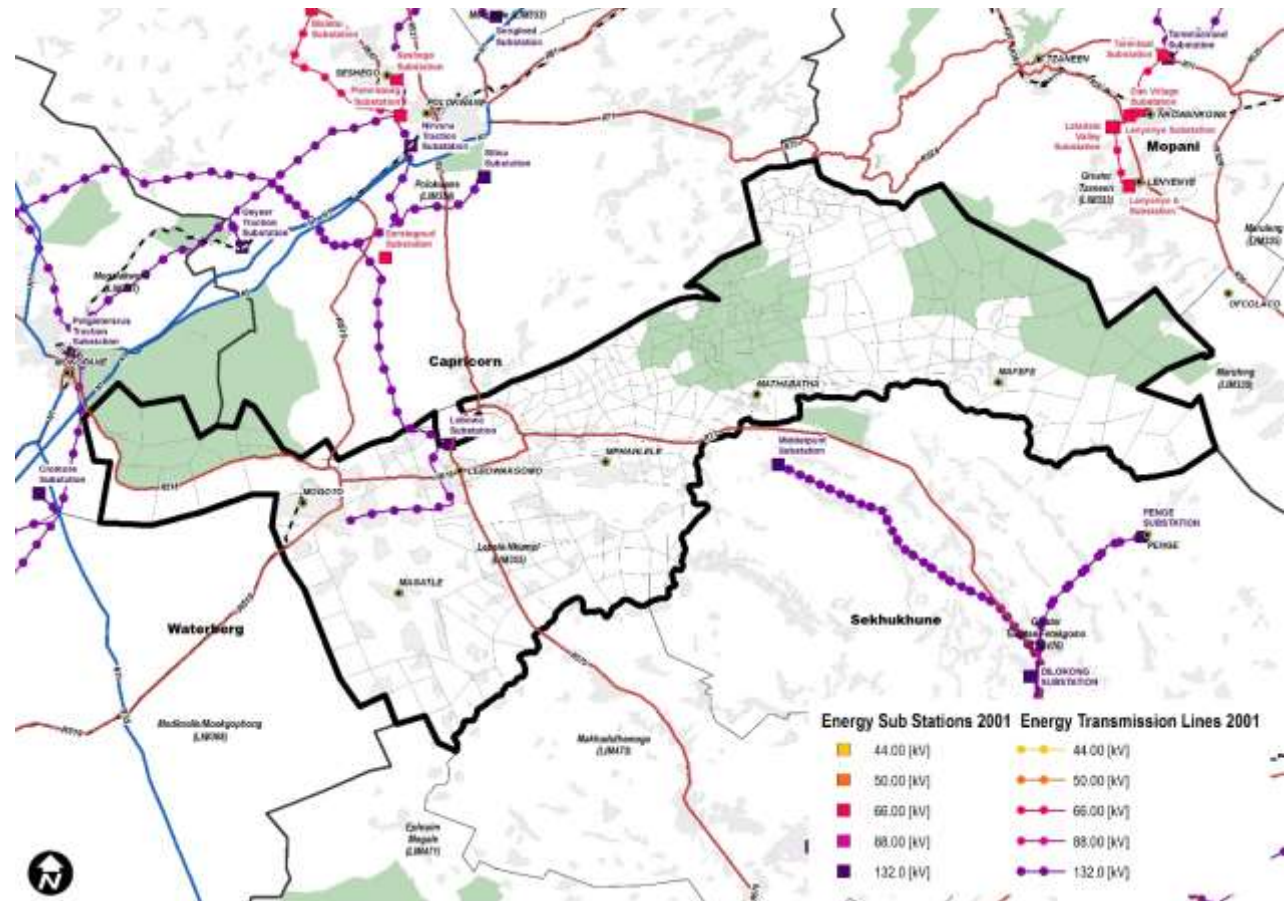
Electricity

Eskom is the electricity supplier in the entire municipal area.

The IDP indicates that 92% of households has access to electricity with only a backlog of 4,809 households to receive electricity.

The Map to the right illustrate the bulk electrical infrastructure distribution in the municipal area.

MAP 1.37: ELECTRICITY INFRASTRUCTURE



Solid waste and refuse

The IDP indicates that only 21% of households have access to solid waste disposal services. Refuse removal (domestic/general waste collection) is only provided at Lebowakgomo township, Mathibela village, Rakgoatha, Makeng and Matome.

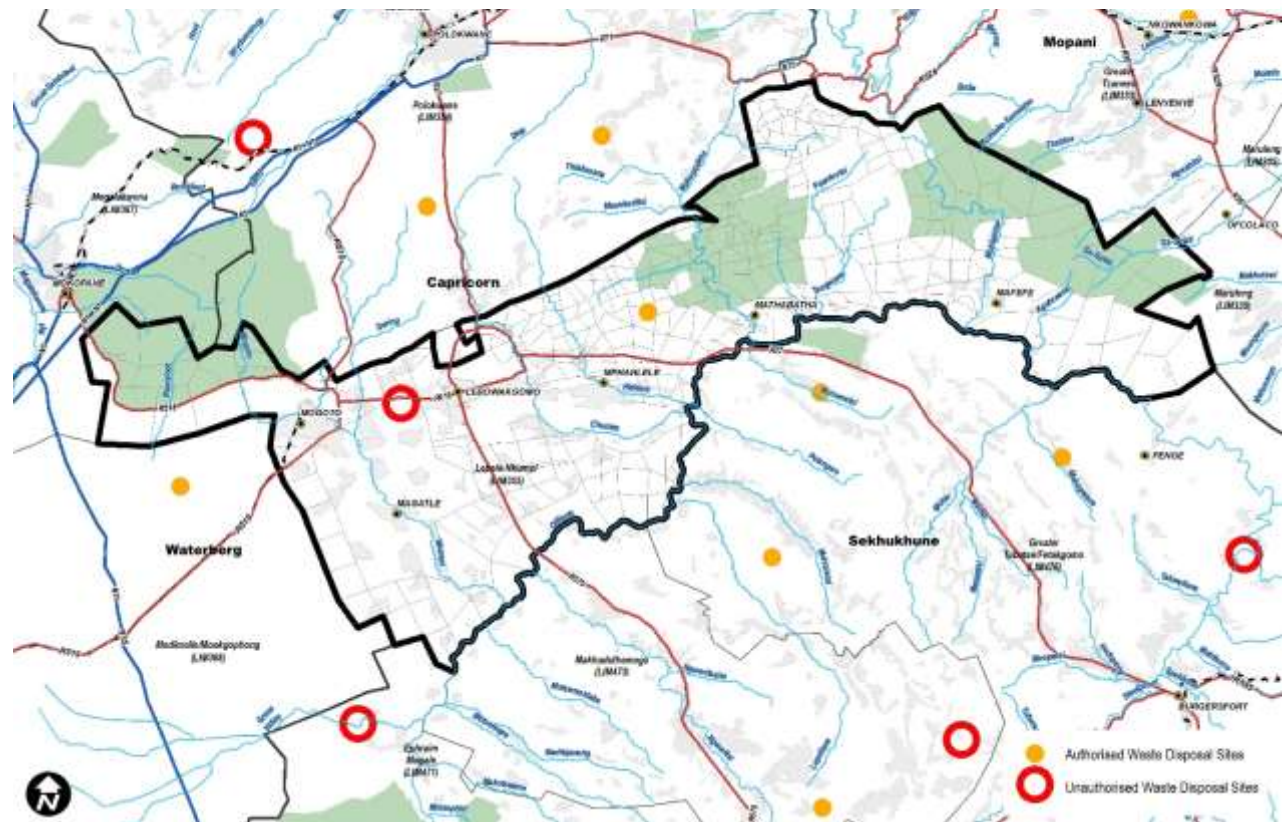
The District developed a licenced landfill site at Lenting village. It is managed and maintained through technical assistance by the Lepelle-Nkumpi Municipality.

The Municipality plan to expand refuse/waste collection to six village over the medium term namely:

- Moletlane
- Mogodi
- Makurung
- Dithabaneng
- Seleteng
- Mamaolo

The municipality has an IWMP dated 2004/5.

MAP 1.38: WASTE DISPOSAL SITES



3.4.1.10 Housing

Housing Chapters were compiled for all municipalities during 2009. However, the Municipality does not have an updated Housing Sector Plan that aligns with the NDP and MTSF 2014-2019. COGHSTA compiled a Provincial Multi-year Housing Development Plan 2014 – 2019. As indicated in paragraph 2.2.3, the Municipality is not prioritised in the pipeline for subsidies for informal settlement upgrading, CRU, social housing, PHP or other rental stock. The Municipality is included for IRDP prioritisation in respect of the housing projects listed in Table 20.

The Table 21 and Table 1.25 illustrate the tenure status and dwelling types comparing the trend between 2001 and 2011. The majority of households owns their houses whilst rental tenure increased over the period. It could illustrate the potential of Lebowa kgomo to be a place of stay for people working in adjacent urban nodes (Polokwane, Burgersfort, Mokopane).

The housing demand, 2011 according to the Limpopo MYHDP 2014-2019 is estimated at 2668 units. The housing backlog according to the Integrated Development Plan (IDP) is ±3,000 housing units.

Apart from the IDP, the *Lebowa kgomo Town Local Spatial Development Plan, 2013* referred to in paragraph 3.3, does contain proposals in respect of housing and suitable areas for the different housing typologies.

It is indicated in the plan that Lebowa kgomo town has the potential to accommodate a total of 16,703 housing units for future housing development.

It can be accommodated as follows, namely:

- Vacant proclaimed stands (existing potential) - 4,155 housing units;
- Infill development - 4,155 housing units;
- Expansion areas - 8,355 housing units.

(Refer to Map 1.28)

TABLE 1.25: HOUSEHOLD DWELLING TYPES, 2001 AND 2011

Dwelling type	2001		2011	
	House-holds	Percent age of Total	House-holds	Percent age of Total
<i>House or brick/ concrete block structure on a separate stand or yard or on a farm</i>	44,034	-	55,348	92.7%
<i>Traditional dwelling/ hut/ structure made of traditional materials</i>	4,436	8.4%	1,471	2.5%
<i>Flat or apartment in a block of flats</i>	161	0.3%	120	0.2%
<i>Cluster house in complex</i>	-	0.0%	43	0.1%
<i>Townhouse (semi-detached house in a complex)</i>	95	0.2%	7	0.0%
<i>Semi-detached house</i>	-	0.0%	107	0.2%
<i>House/ flat/ room in backyard</i>	982	1.9%	488	0.8%
<i>Informal dwelling (shack; in backyard)</i>	420	0.8%	821	1.4%
<i>Informal dwelling (shack; not in backyard; e.g. in an informal/ squatter settlement or on a farm)</i>	782	1.5%	801	1.3%
<i>Room/ flatlet on a property or larger dwelling/ servants quarters/ granny flat</i>	243	0.5%	354	0.6%
<i>Caravan/ tent</i>	77	0.1%	33	0.1%
<i>Other (unspecified/not applicable)</i>	1,698	3.2%	89	0.1%
Total	52,928	100%	59,682	100%

Source: StatsSA Census 2001 and Census 2011



The Housing Development Agency (HDA) assessed the following projects/area for the development of housing opportunities during 2015/16. The interventions or investment required to address the projects are primarily infrastructure provision, as well as housing top structures. Planning processes are required in respect of Lebowakgomo Extension H. These projects are currently included in the pipeline for IRDP subsidy in the Limpopo MYHDP 2014-2019.

TABLE 1.26: HOUSING PROJECTS FOR THE MUNICIPALITY IDENTIFIED AND TO BE FUNDED BY THE HOUSING DEVELOPMENT AGENCY

<i>Project location</i>	<i>Number of dwelling units</i>	<i>Requirements/Interventions</i>
<i>Lebowakgomo B</i>	1,342	Road network and top structures
<i>Lebowakgomo C</i>	1,142	Water, sanitation, road network and top structures
<i>Lebowakgomo P</i>	582	Road network and top structures
<i>Lebowakgomo H</i>	293	Town planning, EIA, water and sanitation, road network and top structures.
<i>Lebowakgomo Q</i>	289	Road network and top structures
<i>Lebowakgomo R</i>	533	Road network and top structures
Total	4,181	

Source: Housing Development Agency, 2016

TABLE 1.27: HOUSEHOLD TENURE STATUS, 2001 AND 2011

<i>Tenure Status</i>	2001		2011	
	<i>Households</i>	<i>Percentage of Total</i>	<i>Households</i>	<i>Percentage of Total</i>
<i>Owned and fully paid off</i>	33,394	63.1%	37,548	62.9%
<i>Owned but not yet paid off</i>	3,367	6.4%	2,783	4.7%
<i>Rented</i>	1,444	2.7%	3,744	6.3%
<i>Occupied rent-free</i>	13,043	24.6%	14,909	25.0%
<i>Not applicable/ Other</i>	1,681	3.2%	698	1.2%
Total	52,929	100%	59,682	100%

Source: StatsSA Census 2001 and Census 2011



Housing backlog

The housing backlog status quo for 2011 of the Lepelle-Nkumpi Municipality can be broken down into the backlog per income category and per inadequate dwelling type (traditional, informal and caravan dwellings).

The official source of the housing backlog of the Municipality is the 2011 Census figures from Statistics South Africa. The total Housing Backlog for 2011 is further derived from the dwelling types recorded by Census as "Inadequate dwellings" type, namely:

- Traditional Dwelling/hut/structure made of traditional materials
- Informal Dwelling (shack; in backyard)
- Informal Dwelling
- Caravan/tent

In order for the Lepelle-Nkumpi Municipality to plan properly to eradicate the housing backlog, information regarding the income segment of the households staying in an inadequate dwelling, should be provided. The income segment will determine the subsidy instrument that could be applied to address the housing backlog. For this purpose, the income segments, as categorised by Census, were combined to estimate the number of households in an inadequate dwelling, in the lower, gap, middle and high income categories. Unfortunately, the income categories for Census does not compare completely with the income brackets of the housing instruments (example the Census income bracket is R0 to R3,200, whilst subsidies are for households earning up to R3,500)

The spatial distribution of the low income bracket could be divided into those households that are located in the urban areas, traditional areas, or on farms. This spatial distribution will assist the Municipality further to classify the most suitable housing instrument based on its location, such as rural subsidy to those households staying in a traditional dwelling backlog, farm worker subsidy to the backlog on farms etc. Table 1.28 is a consolidation of the 2011 housing backlog for the Municipality per income, dwelling type and spatial distribution, where possible.

The following conclusions can be made from the table:

- According to Census 2011, the total municipal housing backlog in 2011, was 3,152
- The majority of the households in need of housing, are located in a rural area and earn a salary below R3,200.
- Approximately 22 households are located in the urban areas in an inadequate dwelling that could potentially qualify for subsidy instruments.
- There are approximately 80 farm worker households in need of an adequate housing.
- Approximately 248 households that fall within the gap market (R3,201 to R12,800) stayed in an inadequate dwelling in 2011. The option of FLISP subsidy could be explored to provide for this backlog.
- Approximately 61 households staying in an inadequate dwelling, earn a salary above the R12,801 (upper middle and high income bracket). These households are mainly located in traditional dwellings and informal dwellings in backyards.



TABLE 1.28: HOUSING BACKLOG PER INCOME CATEGORY

<i>Income/Subsidy Category</i>	<i>Description</i>	<i>Traditional dwelling/ hut/ structure made of traditional materials</i>	<i>Informal dwelling (shack; in backyard)</i>	<i>Informal dwelling (shack; not in backyard; e.g. in an informal/ squatter settlement or on a farm)</i>	<i>Caravan/ tent</i>	<i>Total Backlog/ Inadequate</i>	<i>Percentage of Total</i>
High Income	Households earning between R25,001 and higher	7	11	8	-	26	1%
Middle Income	Households earning between R12,801 and R25,000	15	15	4	1	35	1%
Middle Income: Gap Market	Households earning between R6,401 and R12,800	33	26	20	2	81	3%
Middle Income: Gap Market	Households earning between R3,201 and R6,400	78	61	27	1	167	5%
Subsidy Housing: Urban	Households earning less than R3,200 (urban geography)	22	98	55	3	178	6%
Subsidy Housing: Rural (Traditional)	Households earning less than R3,200 (rural/tribal geography)	1,333	615	626	11	2,585	82%
Farm Subsidy	Households earning less than R3,200 (farm geography)	5	19	56	-	80	3%
Total		1,493	845	796	18	3,152	100%

3.4.2 Challenges and Opportunities

The challenges and opportunities arising from the discussions in this section can be summarised as follows, namely:

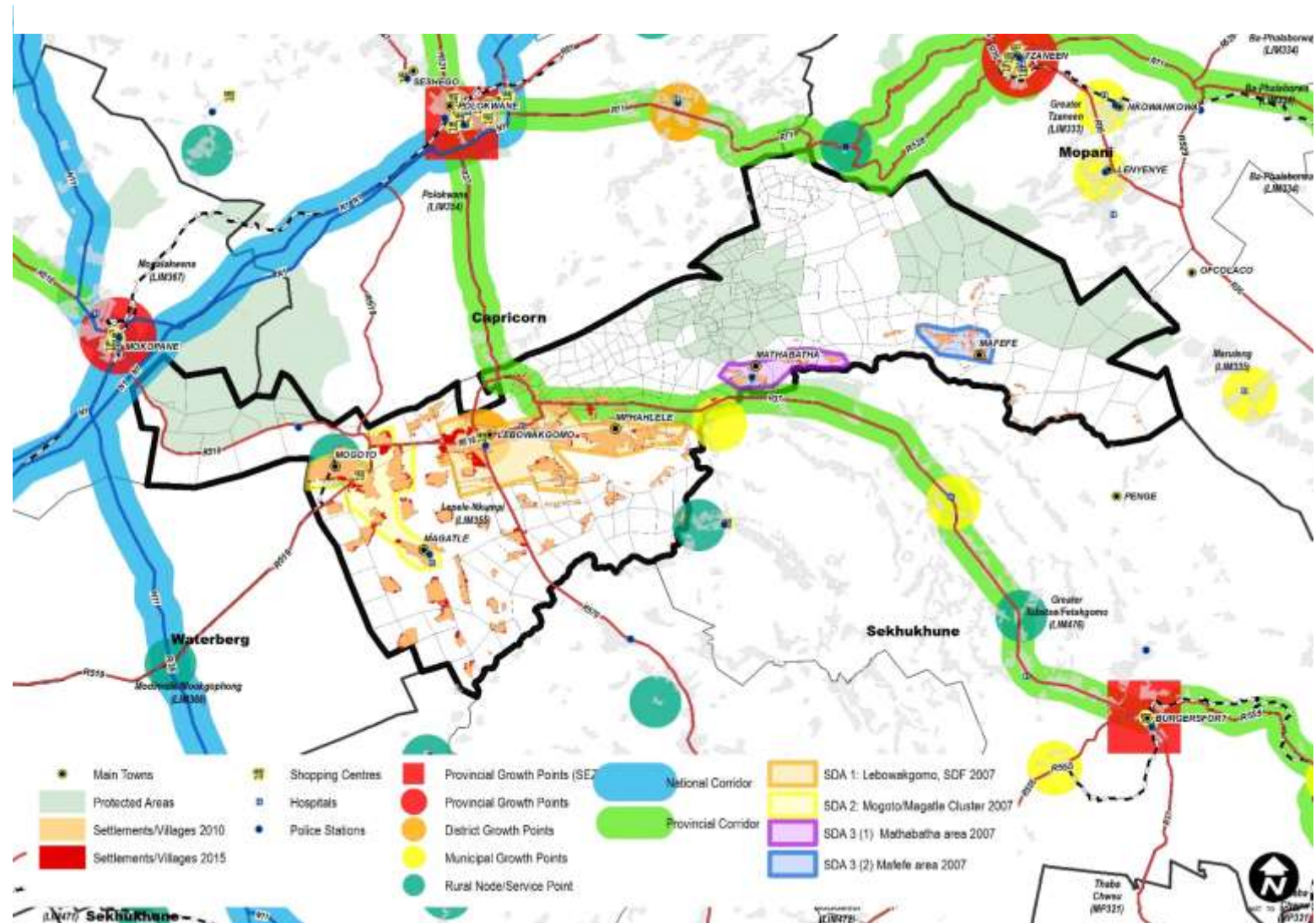
- 64% of the land in the municipality is public owned land, and only 30% is privately owned land. The Municipality is restricted by only owning land in Lebowakgomo for development purposes. Well-located land has been identified north of Lebowakgomo for acquisition;
- It is necessary to redefine and restructure the hierarchic order of settlements in terms of the growth points in order to align it with the Limpopo SDF, 2016;
- There is a general necessity to restructure the urban spatial patterns and ensure compact urban growth, since there are many scattered settlements and informal settlements mushrooming. Informal settlements and expansion seems to continue uncontrolled in most settlements and development is not directed to growth points;
- Apart from Lebowakgomo where recent planning proposals included a proper Urban Edge, there is a lack of proper delineation of the Urban Edges in the rest of the municipal area. Because of the scattered settlements within clusters it creates a situation where the principle of compact settlement and optimal utilisation of resources will be compromised leading to unsustainable human settlement patterns;
- Although Strategic Development Areas has been earmarked in clusters for future residential development, these SDA's provides an "over supply" of land whereby it will prejudice the principles of compact settlement patterns and optimal utilisation of resources. The size of individual SDA's also seems not to correspond with pressure on growth. This will eventually compromise sustainable human settlement patterns. The SDA's needs to be reviewed;
- There are no significant informal occupation of land in the form of slum dwellers. Informal occupation is primarily on state or communal owned land, but without statutory approvals and hence referred to as informal settlements. It would be necessary to upgrade all informal settlements and properly delineate their urban edges in order to prevent any further urban sprawl;
- The Zebediela golf course and estate hold great potential for a unique development and tourism attraction point. This potential should be further exploited;
- It would be necessary to increase the densities at all settlements because current densities are relatively low. Infill development should receive preference over expansion of settlements;
- It is essential and their lies great potential for infill development in support of optimal utilisation of infrastructure, resources and land in order to promote more compact cities and prevent urban sprawl. Lebowakgomo especially holds great opportunities for infill development and utilisation of vacant proclaimed erven;
- Lebowakgomo hold the potential to accommodate an additional 1,600 dwelling houses in a vast range of housing types. The proposals of the recent development plan for this area should be strengthened by this SDF;
- The Provincial Housing Pipeline include housing projects in Lebowakgomo for 4,181 dwelling units which include construction of top structures as well as infrastructure. No housing projects are in the pipeline for the remainder of the municipal area;
- There is proper planning in place for the Lebowakgomo town in order to provide for a wide range of land uses, including proposals for residential development in order to provide in a wide spectrum of housing typologies;
- There are opportunities for mixed use development within Lebowakgomo town. These should be integrated with a variety of housing options to create sustainable and integrated human settlements in the growth points of the municipality;
- There are proper planning guidelines and proposals in place to address the development and optimal utilisation of the Lebowakgomo CBD;
- There is a need to ensure that planning and construction of community facilities take place to ensure that it is located on the most desirable location in order to serve the community in a convenient way and according to good planning practice. The principle of community cluster development should be encouraged;
- The withdrawal of the Limpopo Legislature from Lebowakgomo to Polokwane will cause the possible under-utilisation of buildings and an impact on the functionality of the node;
- There is a need to provide proper planning guidelines to control development and re-plan the mushrooming business node at Moletlane at the intersection along the R5219 road;



- There is the potential to attract industrial development associated with the Dilokong Provincial Corridor between Burgersfort and Polokwane as well as other industrial uses possibly associated with agricultural production/ packaging since there are many vacant erven reserved for this purpose in the Lebowakgomo settlement;
- The existing industrial erven are only located in Lebowakgomo;
- There is a necessity to review the municipality's Land Use Scheme within the next 5 years;
- The R37, R518 and R519 is strategically located and provides great opportunity for movement of people and goods, not only within the municipal area, but also to adjacent cities and town, such as Polokwane, Mokopane and Burgersfort;
- The railway line up to Zebediela is current not utilised and hold the potential to be utilised for transport of agricultural produce and people in support of the governments public transport initiatives in this regard;
- The Mafefe area holds great potential for tourism due to its location in the mountains and relatively close to the R37 Provincial Corridor;
- The Groothoek, Specon and Mhahlele water schemes and settlements in the central parts of the municipal area is expected to have water deficiency within 5 to 10 years;
- The current situation with sewer places great restraint on future development. Not only is Lebowakgomo's treatment works utilised beyond its capacity, but there is a general lack of proper sewer systems in the rest of the municipal area. It may have negative effects on the environment over the long term;
- The lack of solid waste removal and proper disposal is another challenge and it needs to be addressed because it may hold negative impacts on the environment as well as on health conditions of the community.
- There are 4,181 housing opportunities in Lebowakgomo. In general, the housing demand/backlog is relatively low at approximately 3000 units.



MAP 1.39: SYNTHESIS BUILT ENVIRONMENT



3.5 Synthesis

The following represent a synthesis of the key challenges and opportunities identified during the analysis of the bio-physical, socio-economic and built environment in the preceding paragraphs.

3.5.1 Key Challenges

The key challenges and opportunities summarised below includes a range of figures and maps to explain these aspects visually and provide a synthesis. However, it is not possible to show every aspect visually. Hence:

3.5.1.1 Biophysical environment

- The steep topography of the mountain ranges found in the north-eastern part of the municipal area, is a restricting factor for future urban development, as well as road and freight linkages between Lepelle-Nkumpi and Mopani District Municipality.
- 62% of the municipal area is designated as Critical Biodiversity Area (CBA) in the Limpopo Conservation Plan, 2013, and another 20% of the municipal is regarded as Ecological Support Area (ESA);
- There are urban settlements developed over environmental sensitive areas in the north-eastern part of the municipal area, as well as the western part. The settlement development pattern also reveal a tendency to establish along riverine area. The unplanned extension of these settlements, is a threat to the protection of the natural resources, and the safety of inhabitants (houses may be constructed within floodline areas, or structures and foundations not suitable for soil condition).

3.5.1.2 Socio-economic environment

- A large number, namely 56.8% of the population of the municipality falls within the 0 to 24 years age group and can hence be regarded as a “bottom-heavy” age structure which will place many challenges to the municipality in terms of resources such as education, health and social services, not to mention job creation;

- Unemployment rates of the municipality totals at 47.6% in 2011, which is higher than the Limpopo Province’s rate of 38.9%. The total unemployment rate, inclusive of discouraged work seekers is 55.2% however ;
- A large percentage of the population has no or very little education. Hence the majority of the labour force has no or very little basic skills;
- 78% of the total population falls within the Low Income group of which 14.9% of the total population of the municipality, has no income whatsoever in 2011;
- At 31%, Government Services is the biggest contributor towards the local GDP, followed by mining at 17%. The potential relocation of the Legislative to Polokwane could impact negatively on this sector as an employer. Since 2011, the mining sector may have experienced a decline due to the downscaling/closure of the Hwelereng Mine and Zebediela Bricks. (Formal statistics to prove the decline could not be found, but consultative sessions confirmed the trend.)
- Unfortunately Agriculture at 2% is the lowest contributor of the total GDP of the municipality;
- A large number, namely 56.8% of the population of the municipality falls within the 0 to 24 years age group and can hence be regarded as a “bottom-heavy” age structure which will place many challenges to the municipality in terms of resources such as education, health and social services, not to mention job creation;
- A large percentage of the population has no or very little education. Hence the majority of the labour force has no or very little basic skills;
- The close proximity of Lepelle-Nkumpi and Lebowakgomo to the Provincial Capital, namely Polokwane City has disadvantages because it may cause be an outflow of capital out of municipality’s area;
- Zebediela is identified as an Intervention Area for rural development and potential rural tourism node.
- There is currently no strong tourism destination area in Lepelle-Nkumpi Municipality.
- A weakness in the spatial analysis is that the official data available to assess the socio-economic profile, dates 2011 (Statistics SA).



3.5.1.3 Build environment

- Redefine and restructure the hierarchic order of settlements in terms of the Limpopo SDF growth points;
- Restructure the existing dispersed urban spatial patterns and ensure compact urban growth, in the identified growth points. Encourage provision of integrated and high density human settlements with a variety of housing options;
- Review the identified SDA's including their function and size within their hierarchy of settlements and also to correlate with development pressure and the projected population growth;
- There are currently no urban edges delineated for the settlement areas to direct their future growth direction. Delineate proper Urban Edges for all settlements in order to promote sustainable human settlement and compact urban settlement form;
- Ensure that future location of community facilities are located in the most desirable location in order to serve the community in a convenient way and to encourage clustering of services;
- Ensure proper control of development in order to eliminate the phenomena of informal settlements and expansion of residential areas without proper sanction by the municipality;
- There is a necessity to review the municipality's Land Use Scheme within the next 5 years;
- High levels of service backlogs is a challenge, especially water and sanitation. Introduce systems that ensure the future provision of water and sanitation systems which can accommodate the desired growth;
- 64%% of the land in the municipality is public owned land, and only 30% is privately owned land. The Municipality is restricted by only owning land in Lebowakgomo for development purposes A total of area of 93,485ha or 37% of the total area of land within the municipal area is under land claims and it may impact on the physical as well as economic development in the municipal area.
- The industrial area (IA) is under-utilised and maintenance of services inadequate. Ownership is in the form of lease agreements with LEDA as land owner. The municipal

owned industrial area at Extension J is vacant, unserviced and locked by unresolved land ownership disputes.

- The availability of the vacant business erven in Lebowakgomo, is also subjected to resolving land ownership issues.
- Communities have access to hospitals according to health standards, but evaluation of access to primary health identified a number of settlements with inadequate accessibility.
- The housing demand/backlog is relatively low at approximately 3000 units;
- The Groothoek, Specon and Mhahlele water schemes and settlements in the central parts of the municipal area is expected to have water deficiency within 5 to 10 years.

3.5.2 Key Opportunities

3.5.2.1 Biophysical environment

- 62% of the municipal area is designated as Critical Biodiversity Area (CBA) in the Limpopo Conservation Plan, 2013 which provides opportunity for tourism and recreation;
- Mountain ranges of conservation and tourism value, are protected in nature reserves and forest reserves in the eastern parts of the municipality. An opportunity exist to merge and commercialise the reserves;
- The Makapan Valley World Heritage site and buffer area is located to the west of the municipal area. This also holds potential for tourism and recreation.

3.5.2.2 Socio-economic environment

- Build on the strong regional relationship and interaction between the city of Polokwane as the capital and economic hub of the Limpopo Province and Lepele-Nkumpi municipality. The regional interaction is supported by good linkages via main roads and the Provincial Corridor;
- The municipality's average household and population growth rate is much lower than that of the Limpopo Province and the Capricorn District Municipality and should



therefore be regarded as a positive aspect since there are municipalities which is worse off;

- Mining with a GDP contribution of 17% is the second largest sector in the local economy and may hold great potential in respect of the long term prospects for the municipality.
- The Finance and business services, Wholesale and retail as well as Social and personal services as strong contributors of the local GDP and hold potential for the municipality over the medium to long term and should be exploited further;
- There is a declared CRDP area Ward 5, located in the central western area of the municipality close to the Magatle settlement which should be reserved for integrated rural development and upgrading of infrastructure.
- The Zebediela area and Mafeke area hold potential as Rural Tourism Nodes.
- The Zebediela area holds potential for mixed use development;
- The close proximity of Lepelle-Nkumpi and Lebowakgomo to the Provincial Capital, namely Polokwane City has advantages which include access to specialised services such as medical, employment opportunities for residents of Lepelle-Nkumpi;
- The City of Polokwane is identified as the provincial logistics hub with proposed road, freight and passenger routes identified towards Lebowakgomo/Zebediela. The interaction and linkage is foreseen to increase.
- Tubatse and Fetakgomo are prioritised Mining Towns, and Tubatse is also identified as a Special Economic Zone with government focussed interventions in these areas. Lepelle-Nkumpi may benefit from increase movement patterns through the municipal area to these adjacent municipalities, whilst it could serve as a residential area for labourers in these mining towns/municipalities.
- There are potential expansion opportunities of platinum mines at Mogalakwena (Platreef Resource) that may in future result in stronger movement patterns between Lepelle-Nkumpi and Mogalakwena areas, as well as stronger movement between Mogalakwena and the platinum mines in Tubatse.
- Potential economic opportunities include the planned retail facilities in the Lebowakgomo CBD, the potential new mine at the Olifants River, and proposed mixed

use development in Zebediela. A number of local economic opportunities were also identified in the LED Strategy and include the following:

- The transfer of land to local communities could create opportunities for development of the land for farming enterprises, or tourism- related enterprises.
- The development potential of the agricultural sector is contained in the expansion of the production of existing products, particularly citrus, vegetables and livestock.
- Agro-processing and cluster development:
- Tourism development, especially the potential merging and commercialisation of existing reserves.
- Retail and mining support services due to central locality.
- Establishment of a Fresh Produce Market

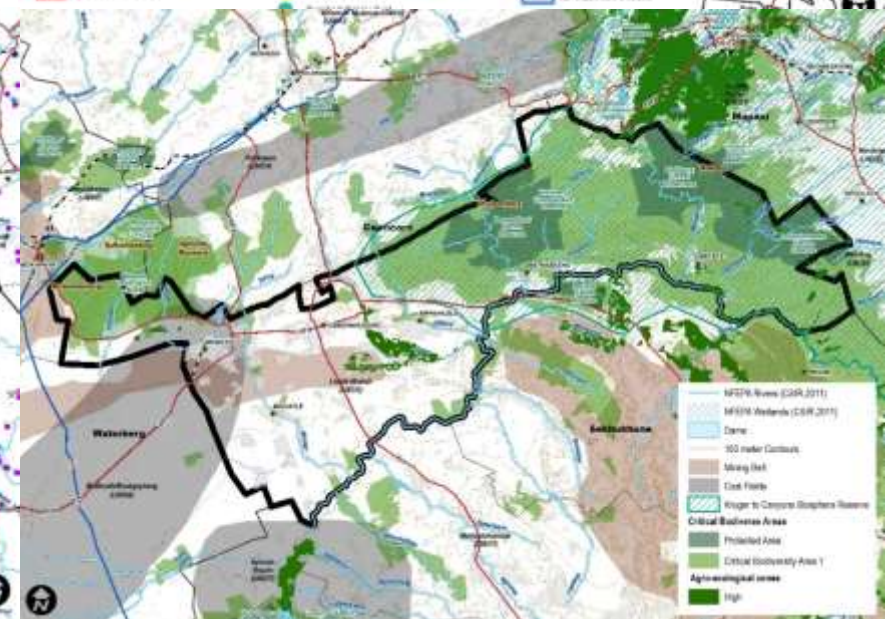
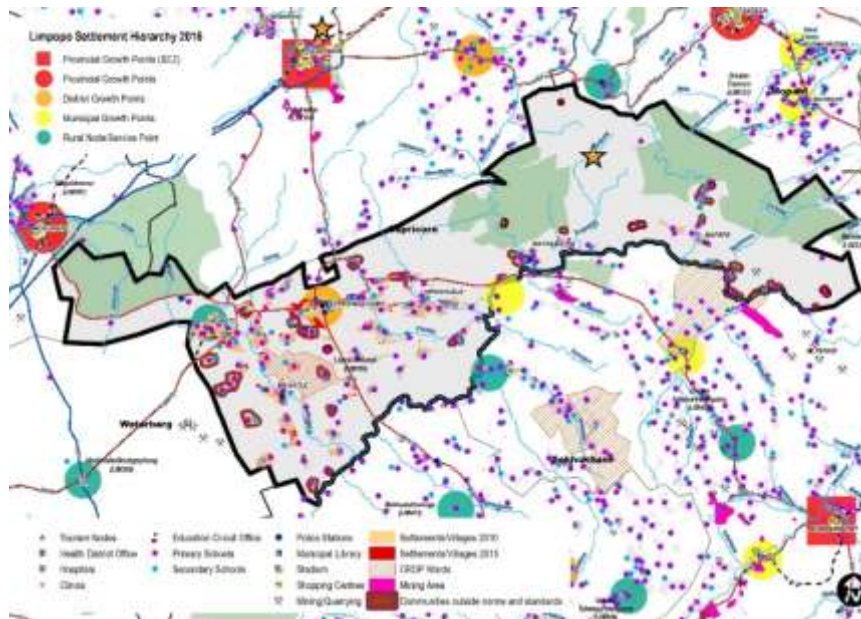
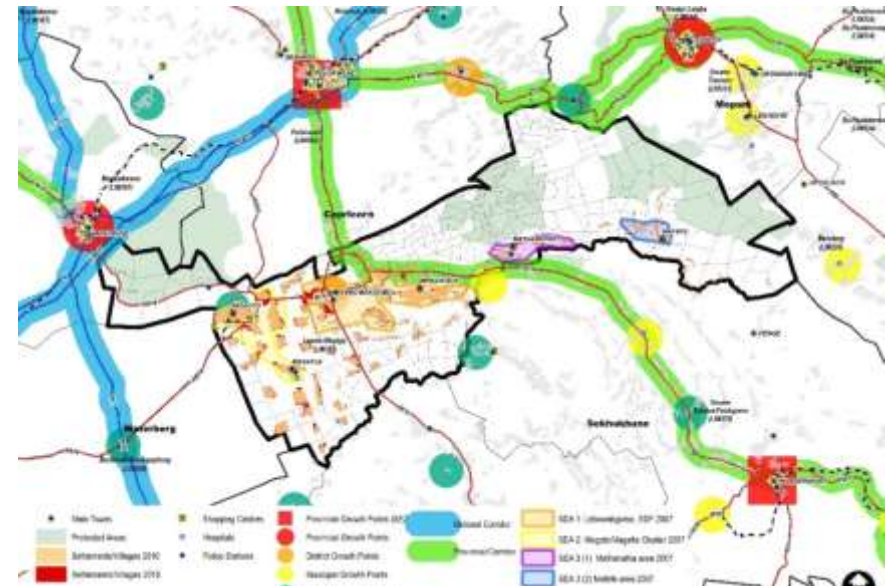
3.5.2.3 Build environment

- Proper planning and development guidelines were developed for the Lebowakgomo Town and District Growth Point in order to provide for a wide range of land uses, including proposals for residential development in order to provide in a wide spectrum of housing typologies;
- There is the potential to attract industrial development associated with the Dilokong Provincial Corridor between Burgersfort and Polokwane as well as other industrial uses possibly associated with agricultural production/ packaging. In addition thereto, there are initiatives underway to investigate the revitalisation of the industrial area;
- There are large vacant erven in Lebowakgomo CBD and surrounding the CBD that could be released for development if the land ownership issues are resolved.
- Well-located land has been identified north of Lebowakgomo, for acquisition by the Municipality.
- There is a need for community facilities in the Mogoto cluster such as a stadium, community hall, police station and fire station, based on CSIR standards.
- There are 4,181 housing opportunities in Lebowakgomo.



- The R37, R518 and R519 is strategically located and provides opportunity for movement of people and goods, not only within the municipal area, but also to adjacent cities and town, such as Polokwane and Mokopane. These roads are included in Provincial Public Transport Planning as priority routes for bus and freight transport. The plan also include a future passenger rail link to Zebediela as a proposal. The increase in the significance of the roads links, associated increase in traffic volumes, will also increase economic opportunities along the routes;
- Due to the strategic locality of Lebokwagomo in respect of Polokwane, Tubatse and Mogalakwena, it holds potential to be a preferred residential area provided it offer quality and safe living environments. In addition thereto, the relative young population profile create the opportunity to provide educational and recreational facilities, as well as higher educational and training facilities that offer skills required in the surrounding mining environments.
- The Mafefe area holds great potential for tourism due to its location in the mountains and relatively close to the R37 Provincial Corridor.

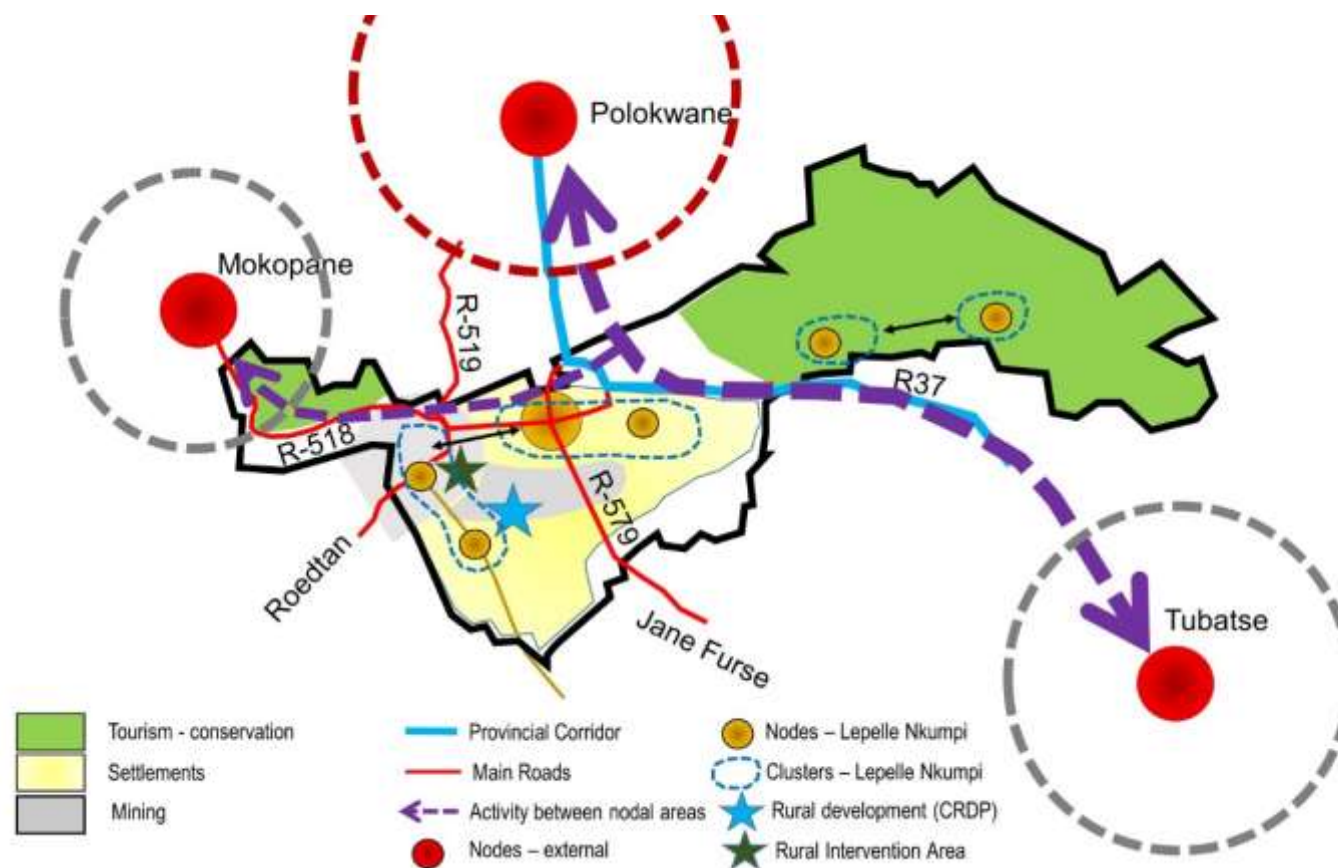
The following maps illustrate a summary of the synthesis, and is also in the report as map 9, 11 and 39.



3.5.3 Synthesis: Form Giving Elements

Based on the first draft of the spatial analysis, the key form giving elements could be schematically illustrated as follows:

FIGURE 1.27 FORM GIVING ELEMENTS





Aurecon South Africa (Pty) Ltd

1977/003711/07

8 Watermelon Street, Platinum Park

Bendor

Polokwane

T +27 15 297 8240

F +27 15 297 8259

E polokwane@aurecongroup.com

W www.aurecongroup.com

Aurecon offices are located in:

Angola, Australia, Botswana, Chile, China,
Ethiopia, Ghana, Hong Kong, Indonesia,
Lesotho, Libya, Malawi, Mozambique,
Namibia, New Zealand, Nigeria,
Philippines, Qatar, Singapore, South Africa,
Swaziland, Tanzania, Thailand, Uganda,
United Arab Emirates, Vietnam, Zimbabwe.