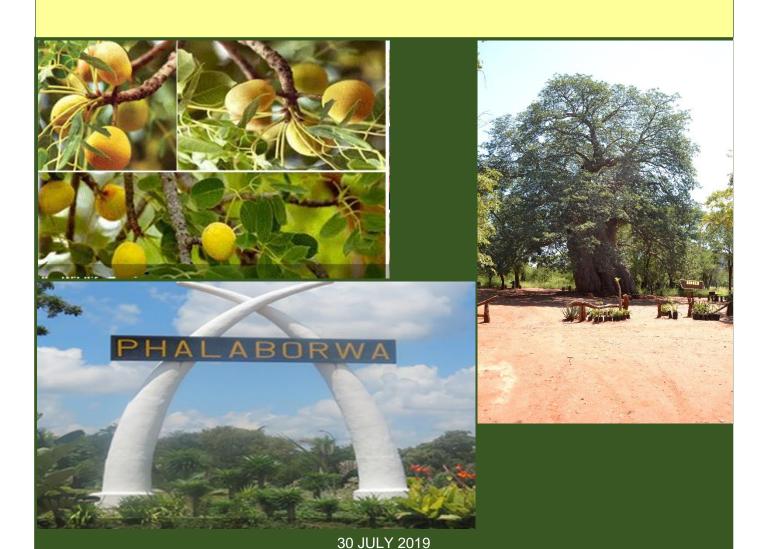


Ba-Phalaborwa The Home of Marula and the Wildlife Tourism

MUNICIPAL SPATIAL DEVELOPMENT FRAMEWORK 2019-2024



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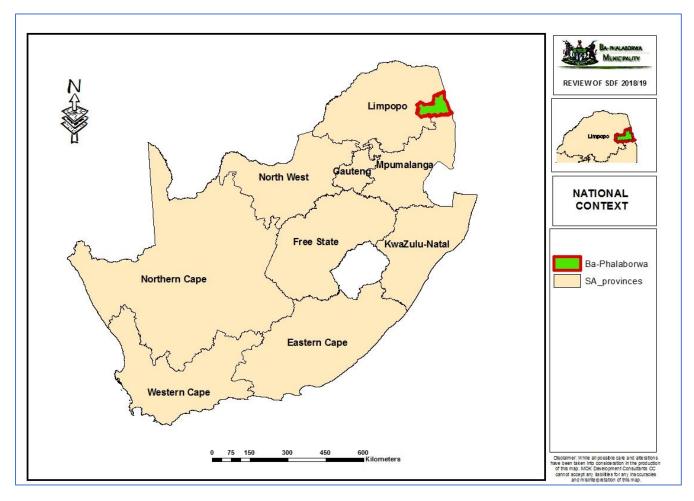
BPM/BPLM	Ba-Phalaborwa (Local) Municipality	
СВА	Critical Biodiversity Area	
DC	Development Corridor	
DRDLR	Department Rural Development and Land Reform	
GMFP	Growth Management Framework Plan	
HODs	Head of Departments	
I&APs	Interested and Affected Parties	
IDA	Infill Development Area	
IDP	Integrated Development Plan	
K2CB	Kruger to Canyon Biosphere	
KNP	Kruger National Park	
LDP	Limpopo Development Plan	
ME	Monitoring and Evaluation	
MSA	Municipal Systems Act 2000 (Act 32 of 2000)	
MSDF	Municipal Spatial Development Framework	
RDP	Rural Development Project	
SDA	Strategic Development Area	
SDF	Spatial Development Framework	
SL	Strategic Link	
SMME	Small, Medium and Micro Enterprise	
SPLUMA	Spatial Planning and Land Use Management Act, 2013 (Act 16 of 2013)	

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1. INTRODUCTION & BACKGROUND

1.1.Background to the Project

Ba-Phalaborwa Local Municipality (BPLM), like many municipalities in South Africa, is characterised by a fragmented spatial settlement structure that is portrayed by poor accessibility, small, low density settlements separated by large distances between them. This spatial structure which is the result of apartheid policies which impacted on the spatial environment over many decades has resulted in the creation of a core services centre with unviable and unsustainable surrounding settlements/ hinterlands.



Map 1-1: Ba-Phalaborwa Local Municipality in National Context

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

The introduction of Spatial Development Frameworks (SDFs) as part of integrated development planning process that culminated in Integrated Development Plans (IDPs) since 2000 brought the required tool aimed at addressing historically distorted, unviable and unsustainable spatial patterns and challenges caused by apartheid planning.

In terms of the Municipal Systems Act (Act 32 of 2000) Section 26(e), all municipalities are required to prepare an Integrated Development Plan (IDP) for their area of jurisdiction, which must include the following core components:

- the **Municipal Council's Vision** for the long-term development of the municipality with special emphasis on the municipality's most critical development and internal transformation needs;
- an assessment of the existing level of development in the municipality, which must include an identification of communities which do not have access to basic services;
- the **Council's Development Priorities and Objectives** for its elected term, including its local economic development aims and its internal transformation needs;
- the **Council's Development Strategies** which must be aligned with any national or provincial sectoral plans and planning requirements binding on the municipality in terms of legislation;
- a **Spatial Development Framework** which must include the provision of basic guidelines for a land use management system for the municipality;
- the Council's Operational Strategies;
- applicable Disaster Management Plans;
- a Financial Plan, which must include a budget projection for a least the next three years and
- the Key Performance indicators and Performance Targets determined.

1.2. Project Objectives

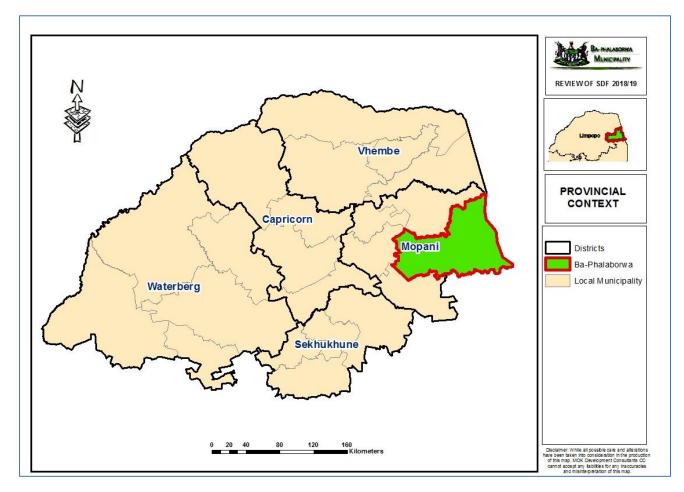
With the above legal requirements as background, the objectives of this project is therefore to:

• "prepare a Spatial Development Framework for the Ba-Phalaborwa Local Municipality in line with the MSA and SPLUMA requirements and "Department of Rural Development and Reform: Guidelines for Development of Spatial Development Frameworks".

1.3. Regional Context

1.3.1. Provincial Context

Ba-Phalaborwa Municipality form part and is located towards the Eastern parts of the Limpopo Province and in the North-Eastern part of South Africa under the Mopani District Municipality area of jurisdiction (Map 1-2: BPLM Provincial Context). It is approximately 220km from both Polokwane and Mbombela and serves as a central gateway to the Greater Limpopo Transfrontier Park through the Giriyondo Border. It is an entry and exit point to the Mozambican side of the Xai-Xai beaches.

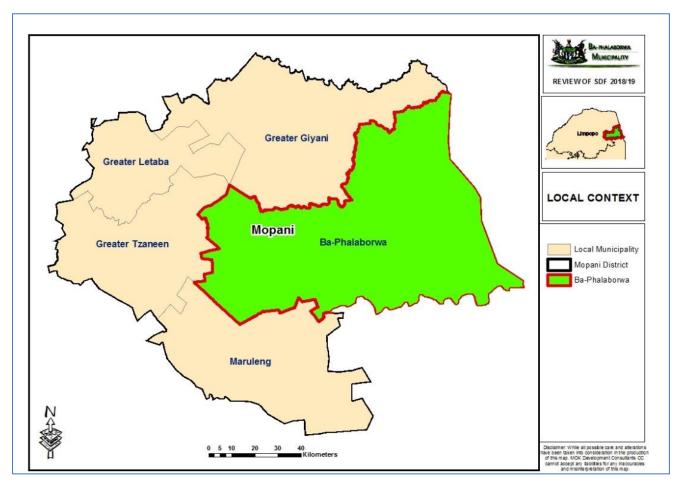


Map 1-2: BPLM Provincial Context

1.3.2. District Context

The Ba-Phalaborwa Local Municipality is a Category B municipality situated in the north-eastern parts of Mopani District Municipality, which includes parts of the Kruger National Park (Map 1-3: BPLM District Context) within its jurisdiction.

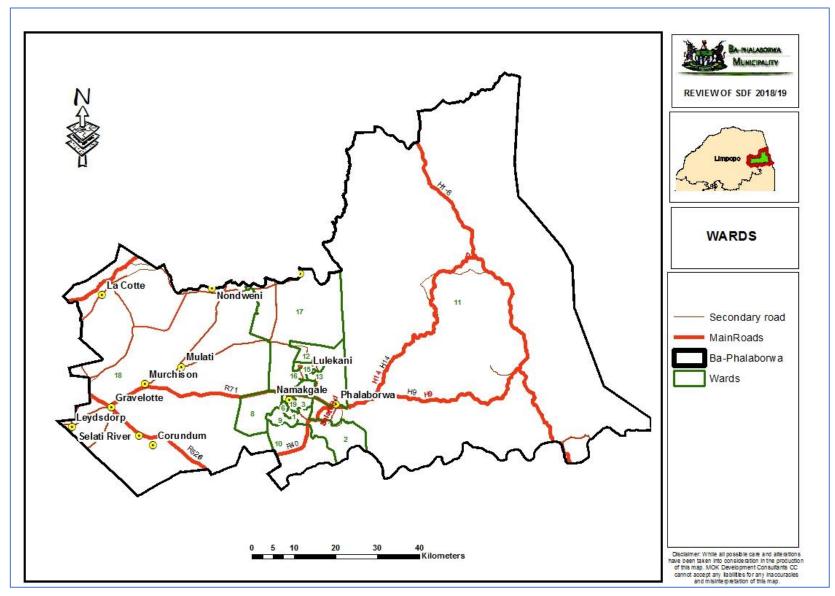
It is bordered by Greater Giyani, Greater Letaba, Greater Tzaneen as well as Maruleng and Bushbuckridge Local Municipality on the North, West and South respectively, with Mozambique forming the eastern border



Map 1-3: BPLM District Context

1.3.3. Local Context

The Municipality has a geographical area of 7461.6 km2 including the Kruger National Park. The land size of the municipality has doubled from 3001 km² with the inclusion of the Kruger National Park in the 2011 demarcation. It is a predominantly rural medium capacity local Municipality, comprising 19 wards as depicted in Map 1-4 and Table 1-1.



Map 1-4: BPLM Wards

The municipal wards are composed as follows:

Table 1-1: Municipal Wards and Settlements

WARD	SETTLEMENT	
1	Part of Nyakelang1, Part of Nyakelang 2, Namakgale D and of zone A	
2	Part of Nyakelang 1, Part of Nyakelang 2, Honeyville, Tipeng, Loss my cherry, Hlakisi, Changaan, Gardenview, Kanana 1, Kanana 2	
3	Benfarm Section A (Majeje), Benfarm Extention B (Zwide), Kurhula B, Ninankulu section, Extention B (Nanana)	
4	RDP (Next to Maphutha), Namakgale Zone B, Part of Zone A	
5	Namakgale D, Part of Zone B	
6	Topville, Mshongo Ville, Part of Nyakelang 4, Mandela village (zone E)	
7	Namakgale (Zone C), Part Zone D, Part of Zone E, Part of Mshongo Ville, Part of Buffer Zone	
8	Tlapeng, Nkhweshe, Nkhweshe Ext, Machidi, Thepe, Mohlabeng, Tlapeng Ext, Matshelapata, Madiba park	
9	Maune, Mapikiri, Mosemaneng, Sebera	
10	Boyelang, Maseke, Tshubye (Mashishimale R1), Griek	
11	Part of Town, Kruger National Park (Mopani camp, Letaba Camp, Olifants camp, until Giriondo boarder	
12	Part of Town, Solinkie farm, Hebron (Skitogh)	
13	Tambo, Pondo, Mlambo, Kurhula A, HectorVille	
14	Tambo Section, Part of township	
15	RDP Section, B1 Extension, Biko, Matiko Xikaya	
16	Matiko Xikaya, Humulani	
17	Selwana New stand, Unit C. Benfarm (Majeje), Mokhowanana, Mahale, Nyakelang	
18	Gravellotte, Prieska, Nondweni, Selwana	
19	Malungane (from Namakgale entrance to Tselang-gape), Makhushane Camp, Part of Buffer Zone	

The next sections of this document will discuss the legislative and policy directives that must be adhered to in the process of reviewing the BPLM SDF 2008 as well as the Status Quo Analysis, which should identify the development opportunities and constraints that will inform the development proposals and implementation plan for the next 20 years.

2. POLICY CONTEXT AND VISION DIRECTIVES

Development in South Africa, and by implication the Ba-Phalaborwa Local Municipality (Map 1), is broadly guided and directed by a wide range of legislation, as well as a range of national, provincial and local development policies and plans. The following section briefly discusses the relevant development policies and plans and highlights the most important guidelines that will inform the Ba-Phalaborwa Local Municipality's SDF Review.

2.1.Legislative Framework

2.1.1. Local Government: Municipal Systems Act 2000

The Local Government Municipal Systems Act, 32 of 2000, first introduced the concept of the Municipal Spatial Development Framework (MSDF) as a component of the mandatory integrated development plan (IDP) that every municipality must adopt. The provisions of the MSA that deal with MSDFs must be read closely with the relevant provisions, especially Part E, of SPLUMA. While the MSA establishes the core features of the MSDF, SPLUMA adds detailed provisions which these Guidelines cover. Two elements of the MSA's treatment of MSDFs should be noted:

- Chapter 5 of the Act deals with integrated development planning and provides the legislative framework for the compilation and adoption of IDPs by municipalities. Within the chapter section 26(e) specifically requires an SDF as a mandatory component of the municipal IDP. The rest of the chapter's provisions on IDPs thus apply to SDFs as well.
- In 2001 the Minister for Provincial and Local Government issued the *Local Government:* Municipal Planning and Performance Management Regulations. Within these regulations Regulation 2(4) which prescribes the minimum requirements for a municipal SDF.

In complying with the requirements of the Municipal Systems Act (Act 32 of 2000), the Ba-Phalaborwa Local Municipality prepared its Spatial Development Framework in 2008. One of the requirements of the aforementioned act is that the IDP and the SDF should be annually reviewed to update and evaluate progress and to ensure that the spatial, social, environmental and economic challenges confronting municipalities are addressed.

In line with the above requirements for the compilation of SDFs as stipulated in the Municipal Systems Act, it is hereby confirmed that the primary objective of this exercise is to implement the **Ba-Phalaborwa 2018/2019 IDP**.

2.1.2. Spatial Planning and Land Use Management Act 2015 (SPLUMA)

The Spatial Planning and Land Use Management Act, 2013 (Act 16 of 2013) was promulgated to provide a framework for spatial planning and land use management throughout the country. The Act provides an understanding into the relationship between spatial planning and land use management system including monitoring, coordination and review of spatial planning and land use management system at different spheres of government.

The Act emphasizes the need to prepare spatial development framework and to ensure its linkage to land use management system. Unlike in the past when many municipalities prepared land use schemes which focused primarily on proclaimed towns, the new Act requires wall-to-wall land use schemes covering the entire municipal area of jurisdiction and this to be linked to and informed by spatial planning.

The Act, further, provides guidelines regarding the content of spatial planning at three spheres of government. The Act also provides for the establishment of Municipal Planning Tribunals to determine and assess land use and land development applications for its area of jurisdiction. It further provides five key principles applicable to spatial planning and land use Management, namely:

- Spatial justice
- Spatial efficiency
- Resilience
- Spatial sustainability, and
- Good administration

These development principles must guide the preparation, adoption and implementation of any spatial development framework, policy or by-law concerning spatial planning and the development or use of land.

2.1.2.1. Implication of the development principles to the SDF

a. Principle of Spatial Justice

Past spatial and other development imbalances should be redressed through improved access to and use of land by disadvantaged communities and persons. This might imply:

- Identifying portions of land throughout the Ba-Phalaborwa Municipality for integration and development purpose;
- Identifying areas previously disadvantaged such as informal settlements for service delivery;
- Providing suitable and serviced land to disadvantaged communities and persons; and
- Ensuring security of tenure (formalization, tenure upgrading of R293 townships, new townships).

b. The Principle of Spatial Sustainability

This relates to the need to promote spatial planning and land use management and land development systems that are based on and promote the principles of socioeconomic and environmentally sustainable development in South Africa. This might imply:

 Promoting land development that is within the fiscal, institutional and administrative means of the municipality;

- Identifying urban edge within which development will be permitted to limit urban sprawl;
- Identifying and protecting natural open space system, especially biodiversity;
- Discouraging any non-agricultural activities in high agricultural potential areas;
- Upholding consistency of land use measures in accordance with environmental management instruments;
- Promoting and stimulating the effective and equitable functioning of land markets; and
- Considering all current and future costs to all parties for the provision of infrastructure and social services in land developments.

c. The Principle of Spatial Efficiency

The spatial efficiency places significant importance on the optimization of existing resources and the accompanying infrastructure. It may imply:

- Ensuring that development initiatives ensure the maximum use of existing resources and infrastructure;
- Ensuring that decision-making procedures are designed to minimise negative financial, social, economic or environmental impacts; and
- Proposing mechanisms and procedures that will ensure efficient approval of development applications.

d. The principle of Spatial Resilience

It relates to mitigation, adaptability and innovations to secure communities from spatial dimensions of socio-economic and environmental (climate change) shocks. This may imply:

• Ensuring that the municipality design spatial plans, policies and land use management systems that are flexible to ensure sustainable livelihoods in communities most likely to suffer the impacts of economic and environmental shocks.

e. The Principle of Good Administration

The principle is predicated upon good governance mechanisms, incorporating meaningful consultations and coordination with a view to achieving the desired outcomes across the various planning spheres and domains. This may imply that:

- All municipal departments and other spheres of government must be involved in the formulation of the SDF and in the implementation thereof to ensure an integrated approach to land use and land development that is guided by the spatial planning and use management systems as embodied in this Act;
- All municipal departments will provide their sector inputs and comply with any other prescribed requirements during the preparation or amendment of spatial development framework;
- The requirements of any law relating to land development and land use are met timeously;
- The preparation and amendment of spatial plans, policies, land use schemes as well as procedures for development applications, include transparent processes of public participation that afford all parties the opportunity to provide inputs on matters affecting them; and

• Policies, legislation and procedures must be clearly set in order to inform and empower members of the public.

2.1.3. Integrating SDF Content Requirement in terms of MSA and SPLUMA

The table below provides a list of legislative compliance requirements for an SDF, against which the BPLM SDF must be measured:

Table 2-1: SDF Legislative Compliance Requirements

Component	MSA Requirement	SPLUMA/White Paper on SPLUM
	MSA Regulations	
	796, 2001	
The desired spatial form and land use	MSA Regs S2(4)(b),	SPLUMA S21(b) Written and
pattern for the municipality to be	(c)(i) and (i)	spatial 5-year SDP for the spatial
visually represented		form of the municipality,
Desired direction and nature of growth	MSA Regs S2(4)(c)(iii)	White Paper, SPLUMA S21©
		Spatial Vision indicating desired
		spatial growth and pattern for 10-
		15 years
Major Movement Routes		White Paper SPLUMA S21(d)
		structuring and restructuring
		elements including corridors
Areas targeted for redressing past	MSA Regs S2(4)(c)(ii)	White Paper
imbalances and spatial reconstruction		
Conservation of the built and natural		White Paper
environment		
Areas where certain types of land use	MSA Regs S2(4)(i)(ii)	White Paper
must be encouraged or discouraged		
Areas where development intensity		White Paper
could be increased or decreased		
Urban edges	MSA Regs S2(4)(i)(iii)	
Where development and infrastructure	MSA Regs S2(4)(c)(i)	SPLUMA S21(h) identify quantify
investment (public and private) should		and provide location
take place		requirements for Engineering
		Infrastructure and services
		provision for existing and future
		needs for next 5 years.
Where strategic intervention is required	MSA Regs S2(4)(c)(iv)	
and priority spending should be	and (v)	
directed		
Objectives, Strategies and Policies to	MSA Regs S2(4)(b)	
achieve the spatial form	and (c)	
Programs and projects for the	MSA Regs S2(4)(g)	White paper
development of the land		

Component	MSA Requirement	SPLUMA/White Paper on SPLUM
	MSA Regulations	
	796, 2001	
Guidelines for land use management	MSA S26(e) and MSA	White Paper, SPLUMA S21(o),
system	Regs S2(4)(d)	purpose, desired impact and
		structure of the Land Use Scheme
Capital Investment Framework	MSA Regs S2(4)(e)	White Paper, SPLUMA S21(n),
		Capital Expenditure Framework
		for development programmes
		depicted spatially.
Strategic Environmental Assessment of	MSA Regs S2(4)(f)	White Paper, SPLUMA S21(j)
the Impact of the SDF		
A reflection of how the SDF is aligned to	MSA S26(d) and MSA	
planning of neighbouring municipalities	Regs S2(4)(h)	
and provincial and national		
government.		
A reflection of how the SDF will give	MSA Regs S2(4)(a)	SPLUMA S21(a) development
effect to the DFA Principles/SPLUMA		principles and norms and
Principles		standards
Population growth estimates for the		SPLUMA S21(e)
next 5 years		
Estimates of demands for housing units		SPLUMA S21(f)
per socioeconomic categories, including		
planned location and density for future		
housing development		
Estimates of economic activity and		SPLUMA S21(g)
employment trends and locations for		
the next 5 years.		
Areas where national or provincial		SPLUMA S21(i)
inclusionary housing policy may be		
applicable.		
Areas where incremental upgrading		SPLUMA S21(k)
approaches to development and		
regulation will be applicable		
Areas where detailed local plans must		SPLUMA S21(I)(i) and (ii)
be developed and areas where		
shortened land use procedures may be		
shortened and land use scheme may be		
so amended		
Spatial expression of the coordination,		SPLUMA S21(m)
alignment and integration of sectoral		
policies of all municipal departments		
Implementation Plan comprising:		SPLUMA S21(p) (i) up to (v)

Component	MSA Requirement	SPLUMA/White Paper on SPLUM
	MSA Regulations	
	796, 2001	
 Sectoral requirements, 		
including budget and resources		
for implementation		
 Necessary amendment to the 		
land use scheme		
 Institutional arrangement 		
necessary for implementation		
 Implementation targets, 		
including dates and monitoring		
indicators; and		
 Arrangements for partnership 		
in the implementation process		

2.2. National Policy Context

A number of national policies must be considered for their applicability as they provide a national strategic objectives and principles for guiding development in various parts of the country. This section discusses the policies that are found to be applicable/ relevant to BPLM and therefore provide guidelines in the review of the SDF.

2.2.1. National Spatial Development Perspective

The National Spatial Development Perspective (NSDP) first adopted by Cabinet in 2003 and later reviewed in 2006, is South Africa's first set of national spatial guidelines that establish an overarching mechanism which:

- Enables a shared understanding of the national space economy; and
- Provides a principle-based approach to coordinate and guide policy implementation across government

Its ultimate purpose is to fundamentally reconfigure apartheid spatial relations and to implement spatial priorities that meet the constitutional imperative of providing basic services to all and alleviating poverty and inequality. The NSDP puts forward five normative principles to be considered when making infrastructure investment and development spending decisions by all three spheres of government:

- a) **Principle 1:** Rapid economic growth that is sustained and inclusive is a prerequisite for the achievement of other policy objectives, amongst which poverty alleviation is key.
- b) **Principle 2:** Government has a constitutional obligation to provide basic services to all citizens (e.g. water, energy, health and educational facilities) wherever they reside.
- c) **Principle 3:** Beyond the constitutional obligation identified in Principle 2 above, government spending on fixed investment should be focused on localities of economic growth and/or economic potential in order to gear up private sector investment, stimulate sustainable

economic activities and create long-term employment opportunities. The BPLM will have to pursue this in earnest to ensure that investments are not scattered across the municipality leaving a minimal impact on development. The implication of this is that the municipality SDF need to clearly identify areas of economic growth/development potential in practical terms, e.g. nodes and corridors, as well as tourist destination and areas of high agricultural potential. The implementation of key projects and investments would therefore need to be channelled in those areas, nodes and corridors as identified in the SDF.

- d) Principle 4: Efforts to address past and current social inequalities should focus on people, not places. In localities where there are both high levels of poverty and demonstrated economic potential, this could include fixed capital investment to exploit the potential of those localities. In localities with low demonstrated economic potential, Government should, beyond the provision of essential services, concentrate primarily on human capital development by providing social transfers such as grants, education and training and poverty relief programmes and reducing migration costs by providing labour market intelligence so as to give people better information, opportunities and capabilities to enable people to gravitate, if they chose to, to localities that are more likely to provide sustainable employment and economic opportunities. In addition, sound rural development planning, aggressive land & agrarian reform & expansion of agricultural extension services is crucial.
- e) **Principle 5:** To overcome the spatial distortions of Apartheid, future settlement and economic development opportunities should be channelled into activity corridors and nodes that are adjacent to or link the main growth centres. Infrastructure investment should primarily support localities that will become major growth nodes in South Africa and the SADC region to create regional gateways to the global economy.

Implications for BPLM SDF

The Municipality should primarily follow approach as per the abovementioned principles in its development initiatives, by stimulating investment, redressing past social and spatial inequities as well as restructuring the space economy in its jurisdiction. The SDF should therefore:

- Explicitly address spatial restructuring;
- Reflect on services delivery backlogs and present a position on the provision services, especially in rural areas (areas of no/ low development potential);
- Identify growth points/ nodes and corridors where investment will be made in infrastructure and must include strategies to encourage orderly development in these areas;
- Reflect on and make proposals for spatial implications of social investment, e.g, how to promote access to ABET facilities.

2.2.2. National Development Plan (NDP) 2030

The National Development Plan was developed as a plan that sets out an integrated strategy for accelerating growth, eliminating poverty and reducing inequality by 2030. The NDP, supported by the New Growth Path and other relevant programmes, provides a platform to look beyond the current constraints to the transformation imperatives over the next 20 to 30 years. In particular Chapter 8 of the NDP sets out key human settlements targets which among others focus on transforming human settlements and the national space economy, which include:

- more people living closer to their places of work;
- better quality public transport;
- more jobs in proximity to townships; as well as
- environmental sustainability and
- improvement of rural economies.

To achieve these targets the NDP advocates strong measures to prevent further development of housing in marginal places, increased urban densities to support public transport, incentivising economic activity in and adjacent to townships; and engaging the private sector in the gap housing market.

ENVIRONMENTAL SUSTAINABILITY AND RESILIENCE

32. Put in place a regulatory framework for land use, to ensure the conservation and restoration of protected areas

CHAPTER 8: TRANSFORMING HUMAN SETTLEMENTS

Objectives

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

INCLUSIVE RURAL ECONOMY

Actions

37. Rural economies will be activated through improved infrastructure and service delivery, a review of land tenure, service to small and micro farmers, a review of mining industry commitments to social investment, and tourism investments

Actions

- **42.** Reforms to the current planning system for improved coordination.
- **43.** Develop a strategy for densification of cities and resource allocation to promote better located housing and settlements.
- **44.** Substantial investment to ensure safe, reliable and affordable public transport.

Figure 2-1: Key Spatial NDP Objective and Actions

The NDP focusses on the critical capabilities needed to transform the economy and society. In particular, it assists government in confronting the nine primary challenges by providing broad framework to guide key choices and actions that will help government in its drive to grow the economy, create jobs, address poverty and establish social cohesion, namely:

- Where should government direct its investment and development initiatives to ensure sustainable and maximum impact?
- What kinds of spatial forms and arrangements are more conducive to the achievement of our objectives of democratic nation building and social and economic inclusion?
- How can government as a whole capitalise on complementarities and facilitate consistent decision making; and move beyond focusing on integration and coordination procedures to

establishing processes and mechanisms that would bring about strategic coordination, interaction and alignment?

The following challenges derived from the NDP are applicable and critical to Ba-Phalaborwa LM in terms of addressing the key challenges faced by the Municipality:

- Creation of jobs and improvement of livelihoods;
- Expansion of infrastructure;
- Transforming urban and rural spaces; and
- Improving education and training.

The SDF as part of the IDP will have to address challenges identified in the NDP in the following ways:

- The LED Strategy need to make proposals regarding LED programmes and projects that will create jobs and improve the livelihoods of communities;
- The Ba-Phalaborwa LM and other spheres need to identify and prioritise a number of infrastructure projects that are of catalytic nature in those localities of economic development potential to ensure maximum impact;
- The SDF will have to design strategies that will address the dysfunctional spatial form created by apartheid. This will include consolidating development and investment in areas with potential for development to ensure maximum utilization of resources in what is referred to as nodal development areas, corridor development and infill/densification. Areas identified as displaying some development potential include Phalaborwa Town, Gravellotte, Namakgale, and Lulekani as identified in both the provincial as well as the municipal SDFs. Housing development and major economic and social infrastructure will have to be prioritised around these centres.
- In order to address the problem of illiteracy, a decline in people with tertiary qualifications and lack of job-related skills, the SDF will make certain proposals regarding the improvement of skills and education in the form of skills-training facilities.

2.2.3. Comprehensive Rural Development Programme (CRDP), 2009

The CRDP was introduced in 2009 as an initiative that supports rural communities in initiatives of self-empowerment and rural local economic development. It seeks to address the following challenges facing rural communities:

- under-utilisation of natural available resources in mineral resources, tourism resources, agriculture and manufacturing;
- poor or lack of access to socio-economic infrastructure; services, public amenities and government services;
- limited or lack of potable water for household or agricultural development;
- low literacy, skills levels and migratory labour practices; and
- slow pace of resolving restitution claims and land tenure issues.

One of the primary aims of CRDP is to improve rural economies by means of using resources available and providing support as government with the aim of creating vibrant, self-sustainable, self- sufficient

and equitable rural communities. The CRDP was introduced to fight poverty and improve food security by means of agrarian transformation, land reform and use of natural resources and provision of basic services.

The establishment of agro-processing industries such as the Marula Food Processing factory in Ba-Phalaborwa may be some of the projects to be considered in this category. The SDF will have to provide guidelines for land use management systems which will facilitate rather than prohibit development in areas zoned Agriculture.

Land reform programme provides an appropriate tool that can be used to kick-start rural development driven by communities and supported by various stakeholders including the Department of Rural Development and Land Reform which will act as the coordinator, facilitator, catalyst and initiator of programmes, policies, strategies and resources.

Implications for BPLM SDF

The BPLM SDF should therefore:

- identify suitable rural development initiatives and indicate accessible locations for these;
- identify opportunities for the improvement of lives of rural people, such as food gardens and their locations;
- reflect on land reform programmes and make suggestion for improvement of the programme.

2.3. Provincial Policy Context

Limpopo province also has several important policy provisions that are critical in guiding the BPLM SDF and two of them are discussed in this section.

2.3.1. The Limpopo Development Plan (LDP) 2015-2019

In his foreword the Premier of the province outlines as the essence of the LDP as "to improve standards of living and to reduce poverty, unemployment and the unacceptable levels of inequality. We aim to achieve this through sustainable economic, social, infrastructure and institutional development, with emphasis on transformation"¹

The plan aims to focus its economic transformation drive on mining, agriculture, tourism, and manufacturing, as well as empowering SMMEs and Cooperatives. It also aims to strengthen support towards identified Growth Point areas while, the development of horticulture, meat, forestry and tourism clusters will be specifically aimed at promoting development in rural areas. The SDF needs to

¹ Limpopo Development Plan 2015-19

identify the comparative and competitive economic advantages of the Municipality in line with the LDP clusters that will address the objectives thereof.

Phalaborwa town has been identified by the LDP as one of the **10 Provincial Growth Points** and Phalaborwa Mining Cluster, that is, **Copper, Phosphate and Magnetite** is one the key economic clusters of the LDP. It is envisaged that with the development of the cluster there is bound to be some **massive public sector investment**, which will include among others bulk electricity supply, upgrading of the railway line and nodal development in the townships adjacent to Phalaborwa town.

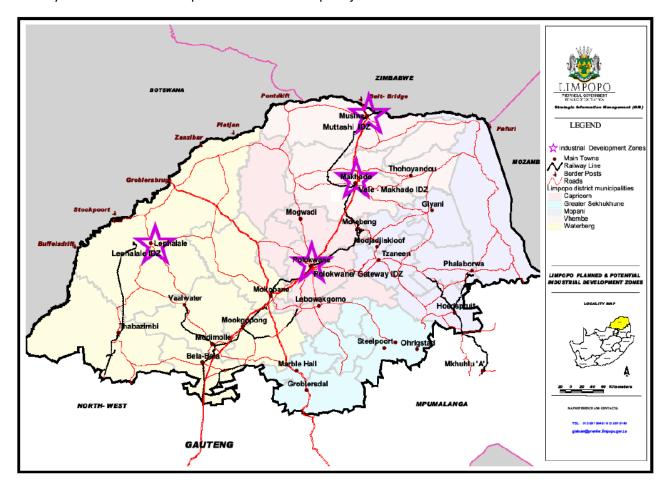


Figure 2-2: Limpopo Development Plan 2015-2019

The LDP also identifies Tourism as one of the economic clusters in all districts. With some parts of the Kruger National Park forming of the municipality as well as some significant cultural and lifestyle attractions such as Marula Festival, this will surely put Ba-Phalaborwa as at a competitive advantage than most municipalities. The SDF must therefore identify initiatives and interventions to strengthen the municipality's tourism competitive advantage and improve the local economy.

2.3.2. Limpopo Provincial Spatial Development Framework, 2016

Limpopo Province reviewed and adopted its provincial Spatial Development Framework in 2016. All municipalities are therefore required as a matter of policy and in the spirit of cooperative governance to align with the adopted Limpopo Provincial SDF (Limpopo PSDF).

In its strategic vision the Limpopo PSDF - "...envisions 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." ²

In order to realise PSDF vision the following development objectives have been set, namely:

- Capitalize 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 optimize 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; and
- Encourage and institutionalize the sustainable development of its massive mineral potential (and encourage green economy initiatives).

The BPLM SDF should therefore align itself to the provincial spatial development objectives based on its strategic location within the province and its competitive advantages in tourism, mining as well as agriculture and conservation.

2.4. District and Municipal Context

Various policies at district and local municipal level also inform the BPLM SDF and their implications are hereby considered.

2.4.1. Mopani District Spatial Development Framework, 2014

The following spatial development objectives are reflected in the Spatial Development Framework 2014 of Mopani District Municipality and provides a directive for the local municipalities under its jurisdiction:

- The establishment of sustainable and livable human settlements that are integrated, served with improved public transportation, and able to generate economic activities and job opportunities.
- The establishment of an optimal and functional spatial pattern for the municipal area over time.
- To promote infrastructure investment in priority areas, and eradication of infrastructure backlogs.
- All land development to ensure the sustainable and efficient use of land that promotes a compact urban/settlement form.

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² Limpopo Province Spatial Development Framework 2016

- To improve development linkages between the district growth points and local economic activities, with the provincial priority development areas and markets.
- To protect and preserve sensitive environmental areas and high potential agricultural land.
- To facilitate the release of strategic land for investment, service provision and human settlement development³.

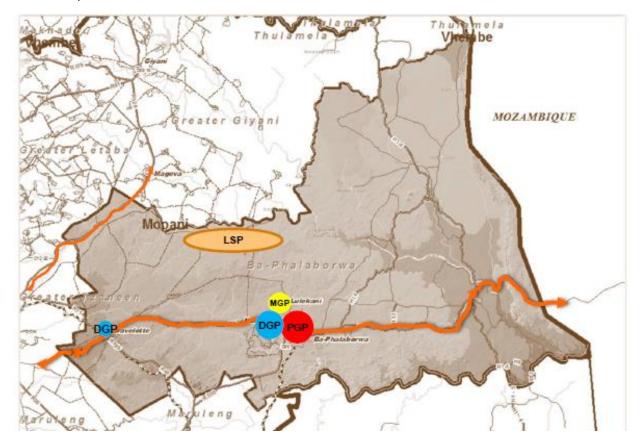


Figure 2-3: Mopani SDF 2016

These objectives are important to consider in formulating the BPLM objectives and proposals in order to ensure consistency and alignment of planning in line with the principles of cooperative government contained in the IGR Framework Act.

2.4.2. Ba-Phalaborwa Spatial Development Framework (2008)

The Municipal Spatial Development Framework for Ba-Phalaborwa Local Municipality (2008) reflects the following spatial vision for the municipality:

"Growing the economy and creating employment through wildlife tourism"

³ Mopani District Municipality Spatial Development Framework 2014, Chapter 10

This vision has been refined in the subsequent Integrated Development Plan (IDP) of the municipality, as will be discussed later. However, a number of strategic themes were formulated for the development of the municipality, as reflected below:

Table 2-2: BPLM SDF 2008 Strategic Themes and Objectives4

Strategic Themes	Strategic Objectives
Economic Growth and Planning	 Create community beneficiation and empowerment opportunities through networking for increased employment and poverty alleviation Create a stable economic environment by attracting suitable investors. Address community needs through developmental spatial and integrated planning Develop a high-performance culture for a changed, diverse, efficient and effective local government
Social, Environmental Sustainability and Infrastructure Development	 Improve access to sustainable quality and affordable service Provide environmentally sound practices and social development. Optimise infrastructure investment and services Maintain and upgrade municipal assets
Good Governance (Public Participation, Financial Viability, Administration and Institution Development	 Develop effective and sustainable stakeholder relations Increase financial viability by identifying revenue generation mechanism and improve budget management. Develop and improve systems, processes procedures and policies by practising sound governance. Develop and build skilled and knowledgeable workforce Attract and retain best human capital to become employer of choice

DESIRED LAND USE PATTERNS AND SPATIAL RECONSTRUCTION

The SDF further set policy directives for achieving the desired land use patterns and for spatial reconstruction of the municipality in order to achieve integrated and sustainable development as follows:

Table 2-3: Desired Land Use Patterns

GROWTH ELEMENTS	POLICIES		
a. Direction of Growth: Spatial Growth Management			
Spatial development pattern Spatial development pattern refers to the hierarchy of urban and rural nodes that exist within the Ba-Phalaborwa Municipality	 Consolidate towns/settlements with the emphasis on the establishment of a balanced and coordinated hierarchy of notes Stimulate priority nodes (growth points) to create a threshold for longer term sustainable development 		

⁴ BPLM SDF 2008

GROWTH ELEMENTS	POLICIES
	 Support and stimulate rural nodes (growth points) to intentionally create a rural-urban balance overtime Promote and support appropriate development in rural zones
Spatial development form Spatial development form refers to the physical development or 'footprint' of the urban and rural nodes (and areas in between) that exist within the municipal area	 Promote and support compact proclaimed urban and rural urban nodes Permit land uses which are compatible and sustainable with identified development/land use zones
Spatial development limitations Spatial development limitations refer to predefined parameters that place a limit on development within certain areas or outside certain identified boundaries	Prevent development within areas that are deemed unsuitable for any number of considerations.
b. Urban And Rural Lan	d Use
Residential Development	Timeously identify land for a variety of residential types to cater for all the residential needs of the population within the municipal area
Industrial Development	 Promote the efficient and productive use of existing and allocated (light industrial land), which could include providing smaller erven Small business development which creates the greatest potential employment should be encouraged, thereby favouring labour-intensive uses.
Mining	 Manage the potential negative impacts of existing and future mining activities within the municipalities Mining potential of minerals/mining zones should be protected from both informal and formal urban development that may sterilize any future exploitation
Tourism	 Consolidate the existing tourism destinations that have the potential to contribute significantly towards accelerated growth in the tourism sector The value chains of each destination or cluster should be mapped and extended as the bases for rapid increases in the contribution from tourism Mobilise the municipal development interventions within the area context for greater impact Design a land use scheme which makes provision for specific higher order tourism
Movement patterns and higher order roads	Enhance and ensure proper maintenance of the radial road network (including corridor route) and rail linking/giving access to the entire municipal population, which functionally interacts with the growth points located in clusters

GROWTH ELEMENTS	POLICIES	
	 The adverse impact of transport on the environment must be minimised Development corridors must encourage maximum spatial benefits and the integration of communities, as well as integration of the spatial economy Investment be focused and targeted at areas where optimum returns could be expected to generate further spin-offs 	
Agriculture	 Conserve and retain prime and unique agricultural land Retain and improve the agricultural sectors contribution to the region's economy Identify opportunities for small scale farming in support of local economic development Ensure that agricultural activities are consistent with the principles of the District SDF and the respective spatial planning categories 	
Agriculture holdings*	Spatially guide the provision of sustainable opportunities for small farmers and emergent farmers to gain access to land.	
Land tenure reform settlements**	Ensure that the establishment of settlements resulting from land tenure reform initiatives are feasible and will ultimately contribute to the establishment of sustainable communities	

^{*-} Agriculture holdings refer to portions of land on which commercial, project based, or community farming ventures are undertaken with the aim to provide small and emergent farmers with access to land

2.4.3. Mopani District Municipality Integrated Development Plan (IDP)

Mopani District Municipality has set itself a vision "<u>To be the food basket of Southern Africa and a tourism destination of choice</u>" in its Integrated Development Plan (IDP)⁵.

Its mission is "To provide integrated, sustainable and equitable services through democratic, responsible and accountable governance; Promoting the sustainable use of resources for economic growth to benefit the community".

Among its strategic objective, the following are key to spatial development:

- To have efficient, effective, economic and integrated use of land space.
- To have integrated infrastructure development.
- To promote economic sectors of the District

^{**-} Land tenure reform settlements refer to new settlements being established as a result of a process of land tenure reform, which is not necessarily tied to the agricultural sector, the provision of housing or tenure for farm workers.

⁵ Mopani Reviewed Integrated Development Plan 2016-2021 (version 3), May 2018

To increase revenue generation

The achievement of these objectives in fulfilling the vision requires integration of planning and implementation with local municipalities. Integrated spatial planning and land use management needs to be supported by sustainable infrastructure provision, which will further support economic development and improve revenue generation for the municipalities. Agricultural and tourism development, which are some of the key economic sectors in Mopani and Ba-Phalaborwa, require infrastructure support in order for them to thrive.

2.4.4. Ba-Phalaborwa Municipality IDP

The Municipal Integrated Development Plan for Ba-Phalaborwa Local Municipality (2018/19) reflects the following vision for the municipality:

"Provision of quality services for community well-being and tourism development"

The mission of the municipality is:

To provide quality infrastructure and affordable services, promote sustainable economic growth, financial viability, sound administration and accountable governance.⁶

The municipality has further set itself the following priorities:

- Integrated planning and service provision in rural areas;
- Acquire more resources to provide and maintain the existing and proposed infrastructure;
- Ensure that all communities have access to electricity;
- Create job opportunities and reduce poverty rate through infrastructure development, support of SMME's through municipal supply chain (procurement) and service delivery;
- Provide waste removal to all communities;
- Increase revenue base.

The municipality's strategic objectives are set as follows:

- Promotion of Local economy;
- Provision of sustainable integrated infrastructure and services;
- Sustain the environment;
- Improve financial viability;
- Good corporate governance and public participation; and
- Attract, develop and retain best human capital.⁷

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⁶ Ba-Phalaborwa Municipality: Reviewed IDP Document 2018/19, 105

⁷ Ba-Phalaborwa Municipality: Reviewed IDP Document 2018/19, 105

The above objectives, in a way, addresses the three (3) key strategic thrusts captured in the vision of the municipality, in that:

- <u>Provision of quality services</u>, requires a well-capacitated municipality (the best human capital
 and good corporate governance) and stakeholder engagement/ participation, which will result
 in improved financial viability of the municipality to allow it the required sustainability
- <u>Tourism Development</u>, which hinges on environmental sustainability and the provision of welldeveloped infrastructure and services, will give impetus to the growth of the local economy through entrepreneurship initiatives.
- <u>Community Well-Being</u>, will result from access to adequate quality services as well as sustainable income/ economic development.

There also seems to be alignment of strategic objectives between BPLM and the Mopani District Municipality.

2.5.Key Spatial Issues and Challenges

The following Priority Issues and Challenges are derived from the Ba-Phalaborwa IDP8:

- Provision of engineering services (roads, water, electricity, etc.);
- Sustainable human settlements (infill developments, new townships and housing provision);
- Community services and safety (clinics, community halls, schools, high-mast lighting, speed humps, de-bushing, etc.);

Surprisingly, local economic development or creation of economic opportunities is not listed among the list of municipal priorities (which are derived from the community) although the municipal vision specifically mentions tourism development. It is therefore important, in reviewing this SDF that a balance is achieved to arrive at the municipal vision without reneging on the identified community needs.

2.6. Synthesis and way forward

The legislation and policies on spatial development and land-use management, as well as the environment reflected to in this section should guide the compilation of the Ba-Phalaborwa Spatial Development Framework. The challenge lies in the integration of all the key developmental issues relevant to the municipality to provide a framework for sustainable future development of the area, which can support its people through social and economic development. With the above policy directives in mind the following are the implication thereof for the new BPLM SDF:

1. Compliance obligations

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⁸ Ba-Phalaborwa Municipality: Reviewed IDP Document 2018/19, 101

The reviewed SDF must comply with and be consistent with all legislative and policy prescripts across the three government spheres in order to ensure alignment of strategic thrusts, programmes and interventions to be proposed.

2. Renewal

Focus must be renewed towards existing opportunities, programmes and plans in order to capitalise on already committed resources and to maximise their impact. Renewal programmes may include planned maintenance of existing infrastructure in order to prolong its lifespan and minimise future cost, as well as refocusing the strategic objectives to be in line with the renewed spatial vision for the municipality.

3. Development

The reviewed SDF must propose critical interventions for development of the municipality in support of the spatial vision and in line with the re-aligned strategic thrusts that will set the municipality on a new sustainable spatial development trajectory. Development must no longer take place haphazardly as all stakeholders must be co-opted into the new development trajectory of the municipality. The following elements/directives to the Ba-Phalaborwa SDF are articulated across the key policies and legislation governing development within the area:-

- Promotion of high density living environments in urban areas
- · Promotion of high quality living environments
- Increase in mixed use/multi-use spaces
- Basic needs of people within the municipality must be met
- Areas located on development corridors and adjacent to main growth centres must be supported
- Clustering of economic, social and transport facilities is required to maximize thresholds and to ensure the maximum and efficient use of resources
- Development must not compromise environmental assets
- Agriculture and tourism opportunities must be maximised
- Linkages to surrounding municipalities and region must be noted and reflected upon

Formulation of objectives with associated strategies and policies must reflect the desired spatial form of development in Ba-Phalaborwa Municipality informed by and consistent with the above policy perspectives and thrusts.

2.7. Towards Ba-Phalaborwa's Proposed Spatial Vision

Section 12 of the Spatial Planning and Land Use Management Act, 2013 (SPLUMA, Act 16 of 2013) requires Municipalities to formulate a Vision relating to Spatial Development Framework based on policy directives, key issues, challenges and opportunities identified in the municipal area including inputs from various stakeholders.

Section 12, read together with the Constitution requires that a vision must be informed by an analysis of the socio-economic, spatial, and infrastructural realities of the area, including an assessment of where gaps exist in the provision of basic services. Also, the Municipality is required to assess its own capacity to redress inequities and to meet basic needs, and to gear itself towards institutional

transformation with a view to improving its organisational efficiency and effectiveness in meeting those needs.

It is clear that the following key aspects identified from the above policy documents and issues will inform the formulation of the SDF:

- accelerate provision, upgrading and maintenance of engineering infrastructure & services and social facilities throughout the municipality;
- upgrading of major roads linking settlements and major economic centres within the municipality;
- stimulate sustainable development in municipality's nodal points;
- protect the environment by limiting sprawl and by proper residential planning especially in rural areas under Traditional Councils;
- intensification through infill and densification especially in urban and peri-urban areas;
- local economic development and job creation;
- improvement of local tourism and linkage with regional and provincial tourism network;
- improve housing delivery which caters for all;
- improvement of organizational systems to ensure successful implementation of the SDF;

Based on the above-stated issues, a number of spatial vision options are proposed to drive the municipality's spatial development imperatives that will inform the new Ba-Phalaborwa MSDF. These are based on key policy considerations which shall then be informed by the ensuing spatial analysis in order to arrive at a final spatial vision, namely:

- ""Spatial transformation for enhanced economic development",
- "Enhancing economic transformation through sustainable spatial planning"
 - "Enhanced economic transformation through sustainable service delivery.

The final vision should cover some or all of the following elements:

- **Spatial transformation** (co-opting key stakeholders in the drive to transform the spatial arrangements and to create sustainable developments)
- **Sustainable service delivery** (provision of engineering services must be sustainable and must support economic development and spatial transformation/ restructuring),
- Enhanced economic transformation (support key community stakeholder in order to enhance transformation of the local economy based on the municipality's comparative and competitive advantage)
- Conservation of natural environment and bio-diversity resources of the municipality

Spatial planning must therefore provide a basis for sustainable service provision and transformation of the local economy by enhancing intensification of human settlements and targeted service provision. The spatial analysis shall provide a clearer picture and guidance in terms of the final spatial vision that the municipality should pursue in order to bring about the required transformation.

3. ANALYSIS OF THE CURRENT REALITY: SPATIAL OPPORTUNITIES AND THREATS

The BPLM municipal environment is influenced by the interaction of three critical factors, whose combined effects provide either opportunities or threats to the development of a sustainable environment, namely the Bio-Physical (Natural) Factors, Socio-Economic as well as the Built Environment (Man-made) factors. An analysis of these factors and their interaction will provide insight into the issues that influence the current spatial setup in the municipality as well as provide a planning basis upon which the SDF will manage their future interactions to achieve a sustainable Ba-Phalaborwa municipality.

3.1.BIO-PHYSICAL FACTORS

3.1.1. Geology

Generally, land within the municipal area is developable. Shallow and exposed bedrock occurs in certain areas affecting the installation of infrastructure services. Certain parts are also prone to erosion and require proper storm water drainage and management. Land development initiatives should include appropriate site-specific geotechnical investigations (Map 3-1: BPLM Geology).

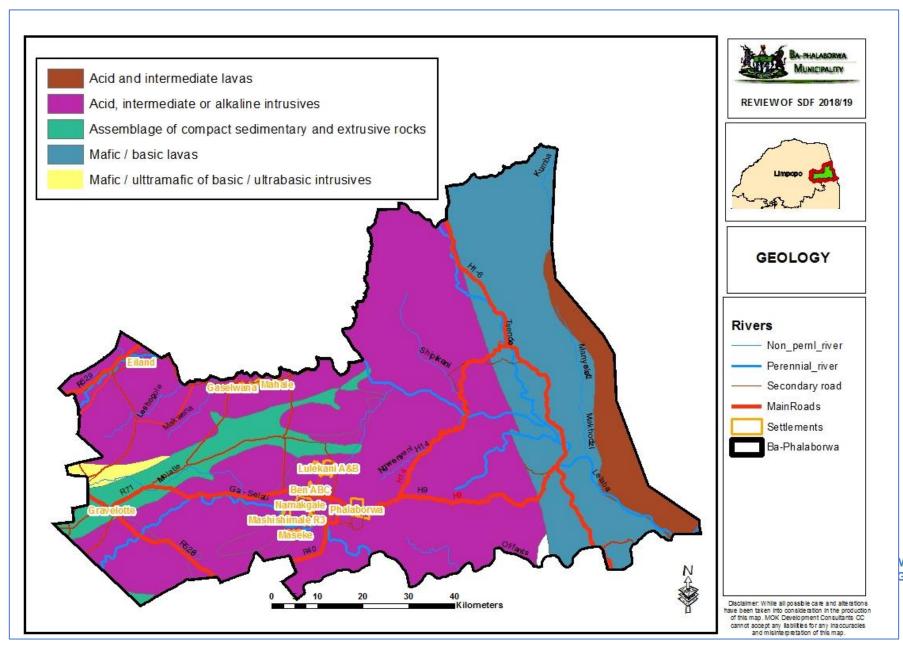
3.1.2. Topography and Hydrology

A lying ridge that is running from west to east through the centre of the municipality is characterized by a series of dominant koppies and rock outcrops, which form topographical highpoints through the municipal area. The influence of the topography on spatial development is minimal, apart from the few steeper mountainous areas and kopjes as well as lower lying areas, in proximity to natural river and drainage courses within the respective water catchment areas. The topography defines the different water catchment areas with the ridge complex forming the major divide between drainage towards the Letaba River to the north and the Olifants River to the south (Map 3-2: Topography and Hydrology).

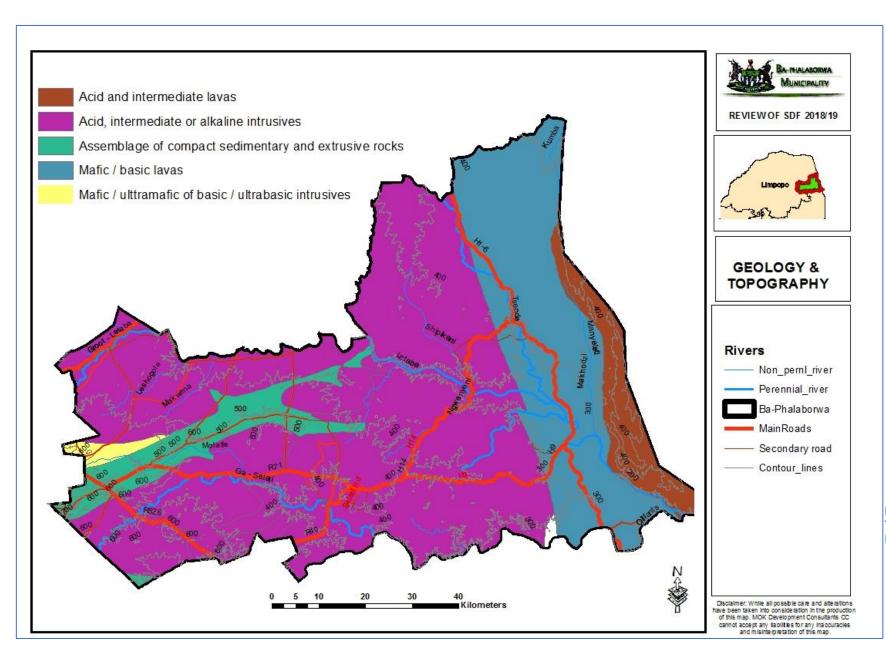
Elevation ranges from less than 700 m in the north to over 1 400m in the hills of the south and southeast, although the highest parts of the Ba-Phalaborwa mountains reach over 2 000 m. Slopes are generally gentle, less than 5% in most cases, but steeper terrain occurs in the hilly areas, up to >25% in places.

There is potential for the water requirements to increase due to:

- Fast growing urban population due to uncontrolled growth of informal settlements
- Mining and industrial development
- Economic development as a poverty relief initiative
- Emerging farmers
- Rural communities who are in dire need of basic water services.



Map 3-1: BPLM Geology



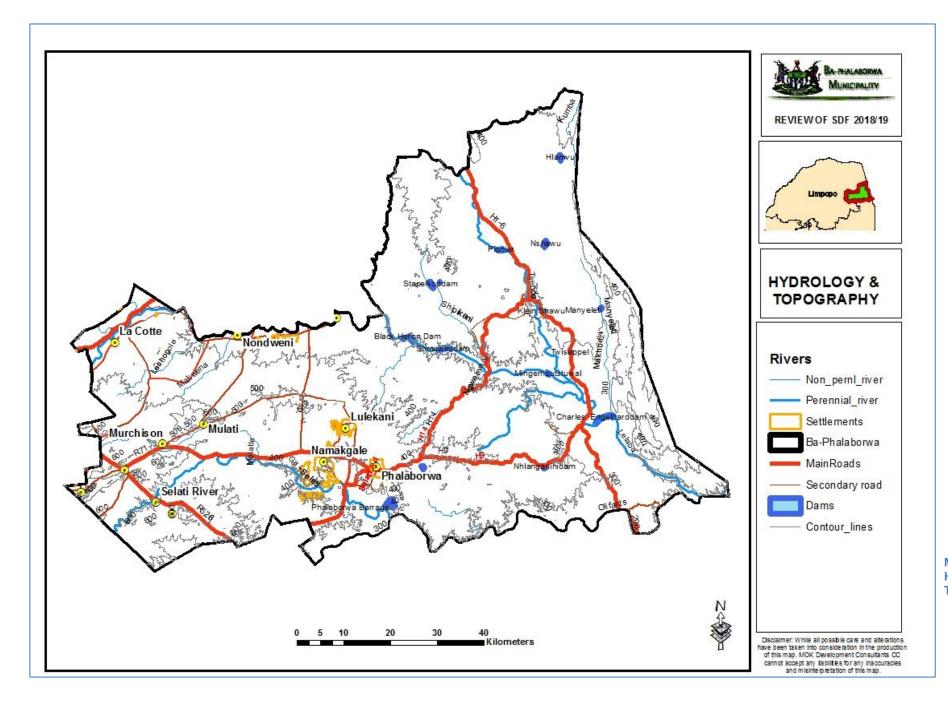
Map 3-2: Topography and Hydrology

3.1.3. Surface Hydrology & Catchments Areas

Ba-Phalaborwa Local Municipality is situated within the Olifants River Primary Catchment area, with the tertiary catchment water shed between the Ga-Selati River and the Letaba River taken along the topographical ridge line. The potable water supply for the Ba-Phalaborwa Municipality is abstracted by Lepelle water from the Olifants River catchment from the Letaba as well as the Olifants River below the confluence with the Ga-Selati River. Water is abstracted from the Letaba River for the citrus industry located near Prieska. Much of the water on which Ba-Phalaborwa depends is therefore sourced from outside of or at the municipal boundary. Lepelle Water abstracts the majority of water for distribution in the municipality from the Olifants River, downstream of the confluence with the Ga-Selati River (Map 3-3:).

Groundwater yields within the municipality are considered low to negligible and cannot be considered as a source of suitable potable water due to these low yields as well as poor water quality. Spatially the major river drainage systems functions as greenbelts and biodiversity corridors along which many larger animal species migrate, thereby providing opportunity for eco – tourism and ancillary land uses. These systems also provide for more intensive agricultural practices such as the citrus farming along the Letaba river.

It is also evident from the cadastre that these areas are targets for land subdivision for intensive agricultural practices as well as for ecotourism and upmarket smallholdings and residential estates. Given the presence of these major rivers and other secondary and tertiary streams and drainage systems, it requires compliance with the Water Act in terms of the determining of flood areas with a return period of 1:100 years on all systems in particular within the urbanised areas. It also provides for the opportunity to protect and use these systems for passive and active open space as well as for locating infrastructure services.



Map 3-3: Hydrology & Topography

3.1.4. Soils with High Agricultural Potential

The Ba-Phalaborwa municipal area comprises a variety of soil types with varying physical and chemical characteristics. These soil types yield different agricultural potential in terms of their suitability for different crops and their varying level of fertility. Furthermore, different soil types influence the type of land use development in a particular area and intervention strategies and mechanisms required for a particular development. For instance, a successful economic development and food security projects hinge on fertile agricultural soils.

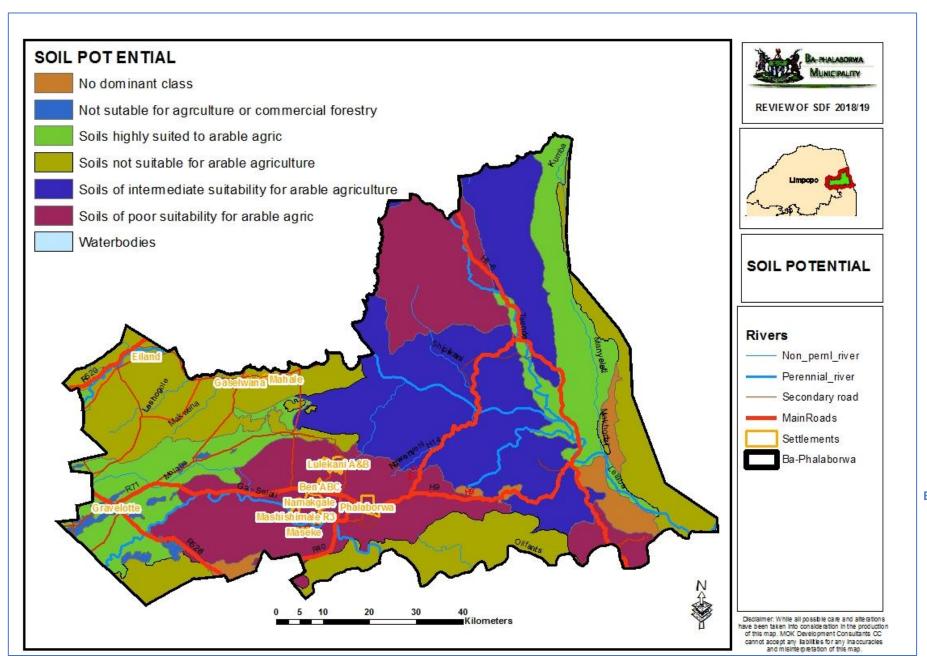
The Environmental Potential Atlas of Southern Africa (ENPAT) classifies soil types in terms of their agricultural potential as follows (Limpopo Spatial Development Framework, 2007):

- a) **High Potential Soils**. These are soils which are highly suitable for agricultural development especially if there is sufficient rainfall or irrigation and with the selection of suitable crops. In the case of Ba-Phalaborwa Municipality these types of soils are found along the eastern parts of the KNP as well as along the western parts of the municipality, mainly forming along river systems (Letaba and Ga-Selati rivers and their tributaries). It is equally important to note that most of these areas also fall within protected areas and nature conservancies.
- b) **Moderate Potential Soils**. These soils are of moderate agricultural potential and are often used for subsistence farming and have moderate agricultural yields and often occur on moderate slopes. Most of the study area comprise of soils in this category.
- c) Low Potential Soils. Soils in this category are not suitable for agricultural development. These are soils with very low clay content, are shallow and usually occur on steep slopes. Soils in this category are widespread towards the northern, eastern and southern parts of the study area. The economic potential of these soils can be improved by means of fertilizers to make them suitable for specific crops.

Soils with the highest potential for arable farming are found from the central parts of the municipality running westwards on the northern part of the R71 extending all the way past Gravellotte and Leydsdorp as well as along Letaba and Manyeleti rivers in the KNP (Map 3-4). It is worth noting from a land use perspective that the current use of this area is mainly conservation activities which may deter or prevent other agricultural activities.

The natural soil resources that need to be conserved and protected in the BPM in order to ensure a meaningful contribution to agriculture should be two categories of soils, namely:

- The land types with the highest proportion of moderate and especially *high potential soils* for arable agriculture, which comprise areas with at least 60% of the landscape having high potential soils. Of these areas, the highest priority will be the areas where *irrigated agriculture* occurs.
- Areas with a high potential for soil degradation (loss of topsoil) by means of **wind erosion**, especially those areas with very sandy topsoil.



Map 3-4: BPLM Soil Potential

3.1.5. Climate and Climate Change

Ba-Phalaborwa is often referred to as the "Town of Two Summers" due to its subtropical Climate. Ba-Phalaborwa is situated at 405 metres above sea level. Temperatures range between 23°C and 35°C and higher with an average annual rainfall of 550 mm. The climate requires that proper attention be paid to land development planning in terms of orientation as well as the use of appropriate construction materials.

Climate change is caused by the sun's radiation (heat energy) that is absorbed by emitted gases into the atmosphere. What really happens is that one-third of the sun's radiation is reflected by the earth's shiny surfaces like shimmering glaciers, water and other bright surfaces, back to the atmosphere. Two-third is fairly absorbed by the earth. **Gases like CO2, methane and nitrous oxide** in the atmosphere absorb heat energy that is bounced from the earth's surface. This is naturally balanced to keep us warm here on earth. Otherwise the earth would be too cold at around -18°C. With more human activities taking place on earth, there is more 24 emission of water vapour, carbon dioxide, ozone, methane, nitrous oxide and chlorofluorocarbons into the atmosphere, resulting in more heat energy trapped or absorbed thus increasing atmospheric temperatures. How much warmer it gets down here on earth depends on how much energy is absorbed or trapped up there and that in turn depends on the atmosphere's composition.

Human activities attached to the increase in CO2 are cars, industrial productions, energy producing industries, deforestation and agriculture (inorganic farming). The consequences of rising temperature are many. They include melting mountains of glaciers into the seas, dams, etc, thus increasing chances for floods, strong storms, altered rainfall patterns, reduction of access to potable water, threat to food security and health effects to poverty stricken communities. Emission of gases causing global warming could be scaled down by utilizing every space for plants, using alternative forms of energy (e.g solar panel, wind turbines heat, power plants) and put strict control against deforestation.

It is critical that individuals, communities and government need to come up with programmes to bring awareness on the causes and effects of global warming and together strategize on control measures for decreasing emission of the gases that exacerbate temperature increase in the atmosphere. The following may need to be done:

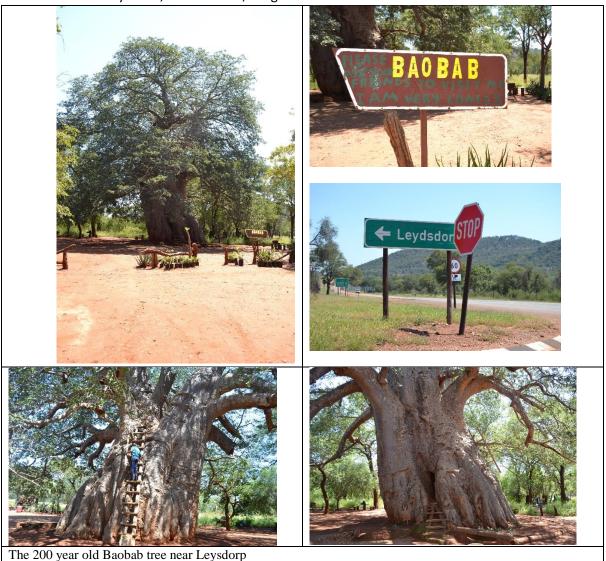
- Organic agriculture should be encouraged,
- land use schemes should be managed,
- veld fires need to be controlled and deforestation be prohibited.

It would be necessary to conduct research on the impact of climate change on agriculture sector for adaptation and/ or possibly mitigation to the change. (Source: March 2014 Provincial workshop on Climate Change)

3.1.6. Cultural and Historical Sites

Heritage sites and areas of interest within the municipality includes the following;

- Masorini Archeological Site ancient copper smelting works (situated in Kruger National Park)
- African Elephant Museum at Letaba Rest Camp (about 50 km from Phalaborwa gate)
- Baobab Tree near Leydsdorp 2000 year old tree;
- Foskor Museum (Phalaborwa Town)
- The Big Hole (Phalaborwa mining area)
- Tsonga Open-Air Museum lifestyle and activities of traditional local people (in Hans Merensky Nature Reserve, near Gravellotte)
- Freak of nature tree
- Conservancy areas, Game Farms, Lodges etc.



3.1.7. Protected and Conservation Areas

Ba-Phalaborwa Municipality comprises certain areas which are considered sensitive and on which development should either be limited or discouraged. Environmental and conservation areas in the Ba-Phalaborwa Municipality include:

- a) **Water Bodies**. This refers to resources such as drainage channels, wetlands, rivers and floodplains. Among them are Olifants River, Letaba river, etc.
- b) **Conservation Areas** include Indigenous Tree Park, Kruger National Park, Kgopolowe Koppie, Letaba Ranch Conservation area, Hans Merensky, Ga-Selati Conservancy
- c) **Cultural or Historical Areas**. _ as mentioned in the previous section.

A number of protected areas within the municipality also serve a very prominent role towards economic development of the province, including the Indigenous Tree Park, Kruger National Park, Kgopolowe Koppie, Letaba Ranch Conservation area, Hans Merensky and Ga-Selati Conservancy

3.1.8. Vegetation

There are no red data species present in the municipal area. Several animals roam freely in the area. Given the closeness to the Kruger National Park this is not unexpected and adds to the attractiveness of the region. Most people in rural areas without electricity use firewood from chopped vegetation as well as paraffin and candles.

The widespread use of wood constitutes a danger to the environment. Aggressive reduction of the natural bush is most evident over large areas. Although there was a big drive for electrification to change this, it had little impact on poor communities relying on firewood as a source of cooking energy. Field fires are especially dangerous for game farms and the Kruger National Park. Drought and flooding reduce the grazing and arable land. Alien and invader plant species as well as disturbance and destruction of biodiversity is considered problematic.

Approximately 31 declared weed or invader species have been recorded in the municipal area, the majority are either category 1 or category 3 species. These species are predominantly associated with gardens and/or sites which have undergone transformation in land use. No municipal policy on alien eradication is in place. Alien eradication is conducted by the mines, private game reserves and SANParks. No alien eradication awareness programmes have been instituted by the municipality.

3.1.8.1. Biomes

The Ba-Phalaborwa Municipality is largely comprised of two main biomes: Savanna and Azonal. The Azonal biome is associated with riverine or wetland systems, and are thus the result of the presence of water, salts and specific soils. The vegetation types in Ba-Phalaborwa Municipality are derived from the 'Vegetation of South Africa, Lesotho and Swaziland' (Mucina and Rutherford, 2012).

These biomes are further classified according to specific habitat or vegetation types. Each vegetation type carries its own configuration of species reliant on it. It is therefore important to recognize this variety and protect vegetation types if the intention is to protect a certain number of species within it. The vegetation types in Ba-Phalaborwa Municipality are derived from the 'Vegetation of South Africa, Lesotho and Swaziland' (Mucina and Rutherford, 2012), namely:

- Gravellotte Rocky Bushveld
- Makuleke Sandy Bushveld
- Tsende Mopaneveld
- Lowveld Rugged Mopaneveld
- Mopane Basalt Shrubland
- Mopane Gabbro Shrubland
- Subtropical Alluvial Vegetation.
- Granite Lowveld
- Northern Lebombo Bushveld
- Phalaborwa-Timbavati Mopaneveld
- Subtropical Salt Pans
- Tshokwane-Hlane Basalt Lowveld

Three of the vegetation types are endemic and four are near endemic to the Limpopo Province. All the vegetation types are Least Threatened.

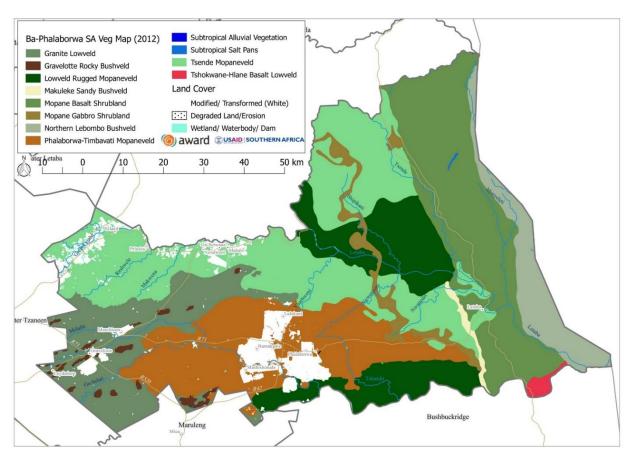


Figure 3-1: Vegetation types in Ba-Phalaborwa Local Municipality

(Source: 'Vegetation of South Africa, Lesotho and Swaziland' (Mucina and Rutherford, 2006, amended 2012: AWARD inputs)

3.1.8.2. Species of special concern

Species of special concern refers to red data species and includes the locations where these species are known to occur. Red data species are plant, animal or other organisms (e.g. reptiles, insects etc.) that have been assessed and classified according to their potential for extinction in the near future.

Plant species

Fourteen known species of critically endangered, endangered, near threatened, vulnerable or datadeficient plant species have been recorded within the Ba-Phalaborwa region. These include three species of cycad (*encephalartos dolomiticus*, *E dyerianus and E. Lebomboensis*) which are listed as critically endangered.

Animal species

In Ba-Phalaborwa the following are some of the known species according to their level of concern

- **Vulnerable**: Crowned Eagle; Secretary_bird; White-backed Vulture (birds), cheetah and white rhino.
- Endangered: Bateleur; Cape Vulture; Hooded Vulture; Cape Parrot (birds) and the Wild Dog.
- Near threatened: Kori Bustard and the Pallid Harrier (birds)
- Critically endangered: White-headed Vulture and the Black Rhino

3.1.9. Minerals and Mining

Significant mineral zones in the region are the Murchison Greenstone Belt (Gravellotte towards Leeuwkop in the Kruger National Park), Giyani Greenbelt-from KNP in the south western direction to the town of Giyani, and the Rooiwater Complex that forms the northern flank of Murchison. There are a number of projects that mining companies are exploring within the district. This includes the expansion of rock Phosphate production by FOSKOR, a Phlogopite processing facility, a Koalin clay project, underground copper mining operations at Phalaborwa, surface strip mining of mineral sand in the Gravellotte area, erection of a steel production facility (Magnetite).

There are also small mining initiatives such as the small gold mining projects in the Giyani and Murchison sequence greenstone areas and the production of dimension stone for the building industry at the Mica area. Potential also exist for small scale mining in the Murchison sequence near Gravellotte (antimony and emeralds) and along the East/ West ridge of mineralization south of Phalaborwa and extending from the Kruger National Park to Mica. Overall the main potential remain centered around Phalaborwa in the Phalaborwa Mineral complex with its copper, phosphate and magnetite resources and in the Murchison Range from Gravellotte towards Nkowa Nkowa/Tzaneen which is reputed to be one of the most diverse mineralization zones in the world.

Given the potential for continued mining activity the development of scattered small resourced based mining settlements and towns are problematic from a growth and service delivery point of view (BPLM IDP).

3.2. Synthesis

In terms of the biophysical the following aspects influences spatial development within the municipality area:

<u>Geo-technical conditions:</u> the area is generally suitable for development, however there are some bedrock occurring at the shallow depth within parts of the functionally urban areas, also with the presence of collapsible soils and clay areas in some parts, creating challenges for infrastructure service provision and construction. It has been noted that erosion is a challenge in some areas, attributed mainly inter alia deforestation, and uncontrolled sand mining for small scale brick making businesses.

<u>Topography</u>: the topography is suitable for development, however at some areas the occurrence of some natural koppies and drainage feature can make the development to be unsuitable.

<u>Surface Hydrology</u>: Flood plains of Letaba, Ga-Selati and Olifants rivers, as well as those of other smaller drainage systems are at risk from development, in certain areas which are within the 1:100 years flood return period. Strong measures are required to protect this important environmental feature.

<u>Sensitive Areas</u>: A significant part of the municipality comprises of nature conservation and conservancy areas, with several sites where heritage and places of interest occur. These areas requires special attention in terms of conservation and sensitive development. These areas provide potential tourism destinations and would need to be protected.

Open Spaces: Most of the open spaces are largely defined by the topography and natural drainage courses. In accordance with the existing municipal policies, natural drainage courses and ridges have broadly been identified as open space that requires protection and management. Open spaces within urban areas are generally in their natural state, although other parts have been transformed for purposes of small scale or subsistence agriculture and for storm water management purposes.

<u>Soil Potential</u>: Significant high potential agriculture/ arable soils also occur within the municipality and would need to be protected from development of other land uses so as to ensure food security.

Minerals: Significant mineral potential areas as well as the existing mining operations have a potential to boost economic growth and employment in the area and would need to be protected and properly managed. However the fact that mining still remains the biggest contributor to the District GDP pose a threat in the long run if the mines closes down or the market future market demands. Strategies to diversify the economy as well as critical consideration of mineral beneficiation should be earnestly pursued taking advantage of the provincial support as outlined in the Limpopo Development Plan.

Aspects which requires special attention and consideration includes:

- Loss of natural areas: significant tracts of natural areas are lost as a result of urban sprawl in the western direction.
- Water quality and quantity: water sources in the municipality are linked to siltation in rivers
 occurring because of erosion, mining activities and encroachment of alien vegetation, poor
 management of sanitation facilities, construction of infrastructure or facilities within
 watercourses and uncontrolled abstraction for agricultural activities within the municipal
 area.

3.3. SOCIO-ECONOMIC ENVIRONMENT

3.3.1. Population Profile

Demographic trends are key driving forces for any development of an area in terms of housing, retail, community and government services, safety and security and engineering services. The demographic profile influences the level of demand for goods and services, the type of goods and services needed and the pressure on local services, infrastructure and public transport.

According to the South African Statistics Census 2011, the Ba-Phalaborwa Municipality has increased its population from 131 089 in 2001 to 150 637 in 2011. The Community Survey 2016 concluded that the population stands at 168 937 with a growth rate of 1.36% (see Table 3-1 & Table 3-2 for details on the various demographics). It is evident that, although the municipal population is only bigger than Maruleng in size, it has been increasing rapidly in comparison to other municipalities within Mopani District.

Table 3-1: Mopani Population Statistics

LOCAL MUNICIPALITIES	CENSUS 2001	CENSUS 2011	POPULATION GROWTH	COMMENT
			2001 to 2011	
Greater Giyani	239289	244 218	4 929	Gained
Greater Letaba	220103	212 701	-7 402	Decreased
Greater Tzaneen	375586	390 098	14 512	Gained
Ba-Phalaborwa	131088	150 635	19 547	Gained
Maruleng	94382	94 855	473	Gained
Mopani	(1 061 445)	1 092 507	31 400	Gained

Source: Mopani IDP adapted from Stats SA Census

Table 3-2: Ba-Phalaborwa population from 2001 to 2016

CENSUS 2001		CENSUS 201	1	COMMUNITY SURVEY 2016		
Population	Households	Population Households		Population	Households	
131 098	33 529	150 637	41 115	168 937	49 100	

Source: Stats SA

Table 3-1 in particular shows that Ba-Phalaborwa Municipality experienced the greatest population growth compared to other municipalities in Mopani District. A geographic spread of the population is as represented in Table 3-3.

Table 3-3: Overview of Key population Information per settlement

Name of	Population	%	households	Average	Population	%	Depende
Settlement		Population		household	density	Working	ncy ratio
				size	people/	age	
					Sq.km		
Ba-Phalaborwa	6 131	4,07	2 449	2,3	2	74,8	55.8
Nu							
Ben Farm	12 757	8,47	3 199	3,9	1 702	58,4	71,1
Ga-	12 499	8,30	3 471	3,47	1 260	58,3	58,3
Makhushane							
Ga-	13 920	9,24	3 666	3,8	1 043	61,9	61,7
Mashishimale							
Ga-Selwane	5 263	3,49	1 350	3,9	1 131	56,6	76,6
Gravellotte	1 098	0,73	503	2,2	554	73	36,9
Kruger National	1 499	1,00	388	1,3	0	84	19,1
Park							
Leydsdorp	6	0(0,004)	4	1,5	8	83,3	20
Mahale	1 825	1,12	502	3,6	1 490	55,1	81,3
Majeje	40 225	26,7	9 271	4,3	2 052	57,2	74,8
Maseke	2 752	1,83	774	3,6	566	61,7	62
Murchison	1 288	0,86	247	2,6	220	86,8	15,2
Namakgale	36 365	24,14	10 927	3,3	2 804	66,3	50,8
Nondweni	984	0,65	244	4	1 302	53,5	87,1
Phalaborwa	13 108	8,70	3836	3,1	68	73,5	36,1
town							
Prieska(Majeje)	626	0,42	174	3,6	690	53,7	86,3
Vuyelani	291	0.19	110	2,6	677	63,2	58,2
Total/Average	150 637	100	41 115	3,6	20	63,2	58,2

Source: Adapted from Stats SA Census 2011

The population spread represents a good model of population densification, with approximately 90% of the municipal population staying within the 15km radius of the Phalaborwa urban complex. Phalaborwa town accounts for approximately 20% and the rural population make up 31% of that population, with the peri-urban areas of Namakgale, Lulekani and Benfarm making up the balance. The remaining segment of the population comprises outlying areas of Gravellotte, Grietjie and Selwane as well as the KNP areas⁹.

Provision of services and development will therefore have a higher impact in the core areas based on the population thresholds and this should therefore be a key consideration in resource allocation in line with the SPLUMA principles of spatial justice and efficiency.

⁹ Ba-Phalaborwa LED Strategy

Table 3-4: Population Distribution by age and gender

Age Group	Male	Female	Total	%
0-4	9 721	9 712	19 433	12,9
5-9	7 536	7 848	15 384	10,21
10-14	7 529	7 219	14 748	9,79
15 – 19	7 118	7 555	14 674	9,74
20 – 24	8 132	7 995	16 127	10,71
25 – 29	6 824	7 371	14 195	9,42
30 – 34	5 392	6 016	11 407	7,57
35 – 39	4 649	5 390	10 039	6,66
40 – 44	3 886	4 395	8 282	5,5
45 – 49	3 103	3 787	6 890	4,57
50 – 54	2 691	2 852	5 542	3,68
55 – 59	2 414	2 252	4 667	3,1
60 – 64	1 660	1 620	3 280	2,18
65 – 69	837	1 206	2043	1,44
70 – 74	657	957	1614	1,07
75 – 79	297	632	929	0,65
80 – 84	244	444	688	0,43
85 +	139	321	439/460	0,29
Total	72 923	77 572	150 495	

Source: Stats SA Census 2011

According to Table 3-4 the majority of the population in Ba-Phalaborwa Municipality are young people below 35 years, constituting approximately 63% of the population (94 617). This has a serious implication for the future development of the Municipality. The municipality should therefore pay special attention to the needs of the young people when it develops its plans and future provision of services and allocation of resources and issues of local economic development.

The combined population age groups from 16-60, make up 59.5% of the population, presenting huge pressure to supply schools and jobs. The data shows that elderly people older than 60 have increased from 5.3% to 5.6%, with subsequent pressure on the need to provide adequate health care, old age home and accommodation facilities for the aged.

3.3.2. Education Levels

The level of education, especially higher education, provides an indication of the level of human development and skills available in a specific area. It also indicates the type of market skills required from the labour force and impacts on job creation in a specific geographical area.

Table 3-5: Level of Education

No Schoolin	g	Primary		Secondary		Tertiary	
12 565	26,4	3 179	6,7	29 850	62,7	2 012	4,2

Source: Stats SA Community survey 2016

An estimated, 4.2% of the municipal households have tertiary education, as opposed to 26.4% without any education. Therefore the municipality must coordinate basic education and training (BET) as well as further education and vocational training (TVET) initiatives in order to improve the opportunities of the community to acquire skills to participate in the economy. Table 3-6 and Figure 3-2: provides a detailed breakdown per settlement based on 2011 STATSA Census data.

Table 3-6: Key Educational information per settlement

Name of Settlement	No schooling	matric aged	higher	Others	total
	aged 20 +	20 +	education		percentage
			aged 20 +		
Ba-Phalaborwa Nu	24,2	16,5	7	52,3	100
Ben Farm	20,8	18	3,5	57,7	100
Ga-Makhushane	10,6	21	3,6	64,8	100
Ga-Mashishimale	14,1	17	3,3	65,6	100
Ga-Selwane	19,9	17,9	4,6	57,6	100
Gravellotte	9,1	25,2	5,2	60,5	100
Kruger National Park	6.9	23,9	18	51,2	100
Leydsdorp	0	16,7	0	83,3	100
Mahale	35,1	9,5	0,4	55	100
Majeje	24,9	19,7	6,9	48,5	100
Maseke	19,1	14,7	1,4	64,8	100
Murchison	1,3	43,6	10,5	44,6	100
Namakgale	6,2	30,7	18,4	44,7	100
Nondweni	59,9	6,9	0,4	32.8	100
Phalaborwa (town	0,9	44,4	28,4	26,3	100
Prieska (Majeje)	33,3	7,4	5,3	54	100
Vuyelani	23,1	4,2	0	72,7	100
Municipal Average	12,1	23	3	61,9	100

Source: Adapted Stats SA Census 2011

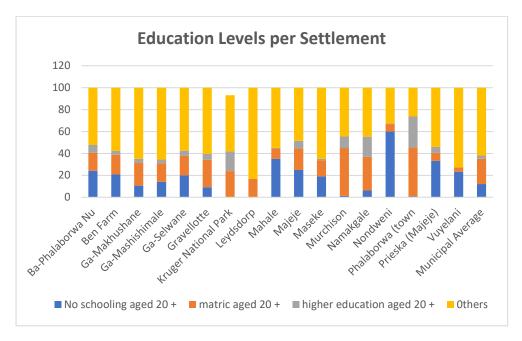


Figure 3-2: Education Levels per Settlement

3.3.3. Economic Data and Employment Statistics

Ba-Phalaborwa has a large economy by provincial standards. The value of production was almost R5.9 billion in 2010. The economic base for Ba-Phalaborwa contributes 30.2% of the Gross Value Added (GVA) of the Mopani District and dominates within the Mopani District Municipal area due to mining, with equal contribution on transport, storage, and communication sectors with Tzaneen¹⁰.

Mining is dominant at 45.3% down from 65% in 2007, with Ba-Phalaborwa greatly reliant on the sector. The main driver commodities of the local mining economy are copper (Palabora Mining Company) and phosphate (FOSKOR), and Elliminite from Consolidated Murchison mine. Government expenditure, mostly on salaries also contributes to local economic activity. The table below indicates the Gross Value Added per sector in Ba-Phalaborwa¹¹.

With a potential labour force of approximately 90, 000, representing almost 60% of the municipality's population, "54 241 people of these are economically active (employed or unemployed but looking for work), and of these, 37,4% are unemployed. Of the 27 413 economically active youth (15 - 34 years) in the area, 50,2% are unemployed" 12.

¹⁰ Ba-Phalaborwa Led Strategy 2014

¹¹ Ba-Phalaborwa Led Strategy 2014

¹² Statistics SA

3.3.4. Employment Sector

According to StatsSA census 2011, four key sectors dominate the economic space in terms of employment creation, namely Community, social and personal services (18,3%), Mining and Quarrying (16.2%) and Manufacturing (9.1%) as well as Wholesale and retail (8.7%), collectively employing 52.3 of the labour force within Phalaborwa Municipality's economy. It is therefore assumed that the rest of the jobs (47.7) are therefore in Agriculture, Conservation, Tourism, Transport, Logistics as well as the Informal Sector.

3.3.5. Income Distribution

The municipality's economic data indicates that approximately 87.3% of the municipal population earn an income below R6, 400 per month, with almost 43% of that figure having no income at all. Income distribution is as per the Figure 3-3 below:

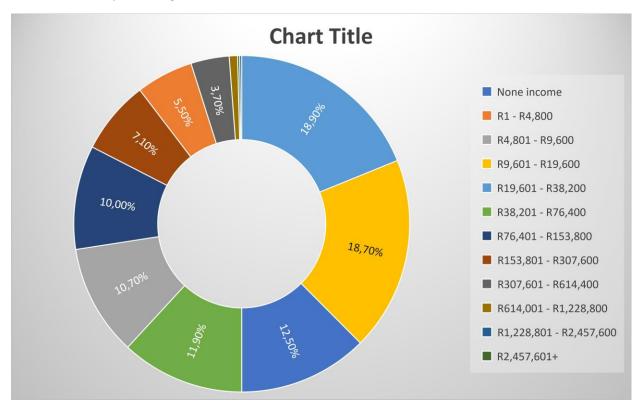


Figure 3-3: Income Distribution

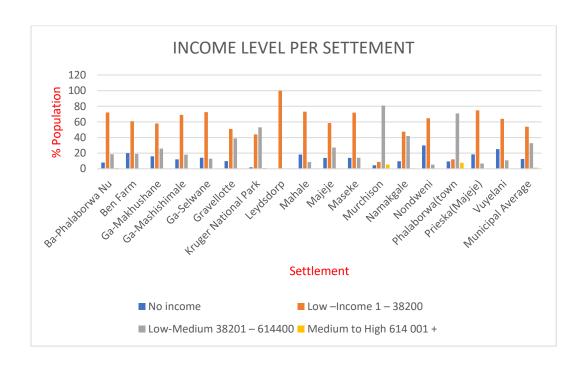
(Source: StatsSA, Census 2011)

With a dependency ratio of 58.2, and a high youth unemployment rate as well as low education and skills levels within the municipality, it is important to target efforts towards youth education and skilling in order to improve the prospects for participation in the economy. A settlement level breakdown of income statistics is provided in Table 3-7 and Figure 3-4 below, indicating an average 66% of the municipal population being within the low income and no income categories.

Table 3-7: Key Income levels per settlement

Name of Settlement	No income	Low –Income	Low-Medium	Medium to	Total
		R1 – 38 200	38 201 - 614	High	percentage
			400	614 001 +	
Ba-Phalaborwa Nu	8	72,2	18,7	1,1	100
Ben Farm	20	60,8	19,1	0,2	100
Ga-Makhushane	15,9	58	25,9	0,1	100
Ga-Mashishimale	12	69	18	0	100
Ga-Selwane	14,1	72,5	13	0,3	100
Gravellotte	9,9	51,1	39	0	100
Kruger National Park	1,8	44,1	53	1,1	100
Leydsdorp	0	100	0	0	100
Mahale	18,3	73,1	8,6	0	100
Majeje	14	58,5	27,2	0,3	100
Maseke	14	71,8	14,2	0	100
Murchison	4,5	8,8	81	5,6	100
Namakgale	9,7	47,5	42	0,7	100
Nondweni	30	64,7	5,3	0	100
Phalaborwa(town	9,5	12,1	70,8	7,6	100
Prieska(Majeje)	18,4	74,8	6,8	0	100
Vuyelani	25,2	63,9	10,8	0	100
Municipal Average	12,5	53,8	32,7	1,4	100

Source: StatsSA Census 2011



3.3.6. Crime

Crime affects the investment confidence in an area as well as the social stability of the residents, and therefore spatial planning needs to combat crime through spatial and social integration. The SDF should therefore identify initiatives that will discourage criminal tendencies and encourage community cohesion and identify adequate spatial requirements and locations for such.

Table 3-8: Crime Statistics in BPLM

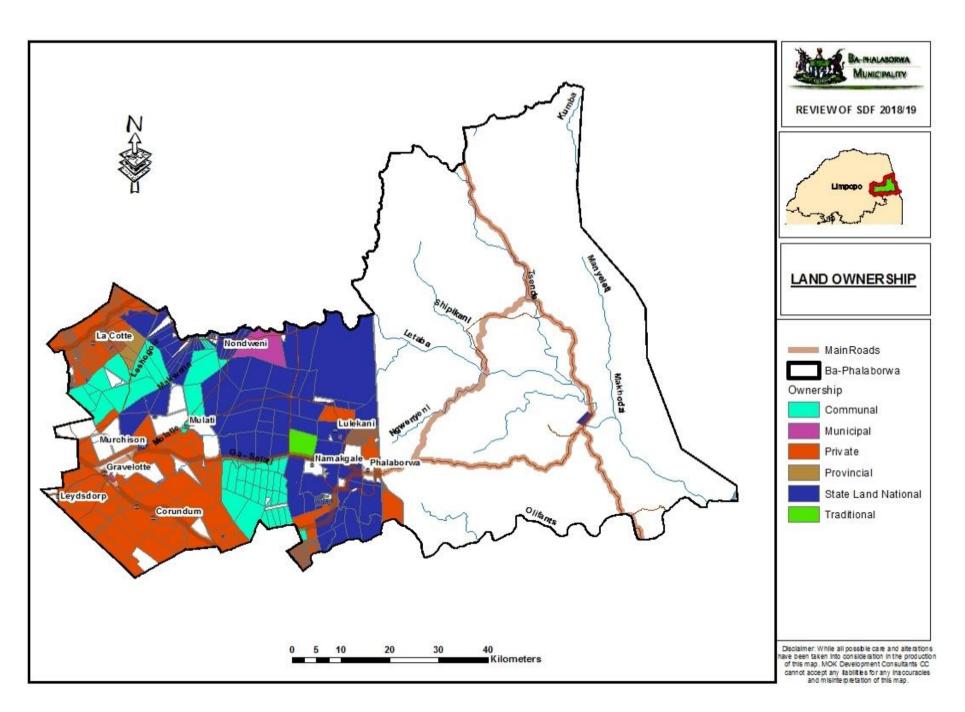
	Flags	hip crime area	s in Ba-Phalaborwa				
Namakgale station	Lulekan	i station	Gravellotte station	Gravellotte station		tion	
Contact crime							
Namakgale Zone A,B,C Far East			Harmony 6		Phalaborwa CB	D	
Makhushane	Matiko Xikaya		Gravellotte		Phalaborwa Tax	ki rank	
Mashishimale	Pondo section		Murchison mine	Murchison mine		Selati road	
Majeje			Beer Garden				
Property related crime							
Namakgale Zone A,B,C	Pondo F	ive rms	Harmony 3		Anna Botha Fla	ts	
Makhushane	Humula	ni	Chester Farm	Chester Farm		Town	
					Houses		
Mashishimale		Lulekani		Sar	ı Wild		
Majeje			Eden Game Lodg	e			

Source: Mopani IDP 2018/19

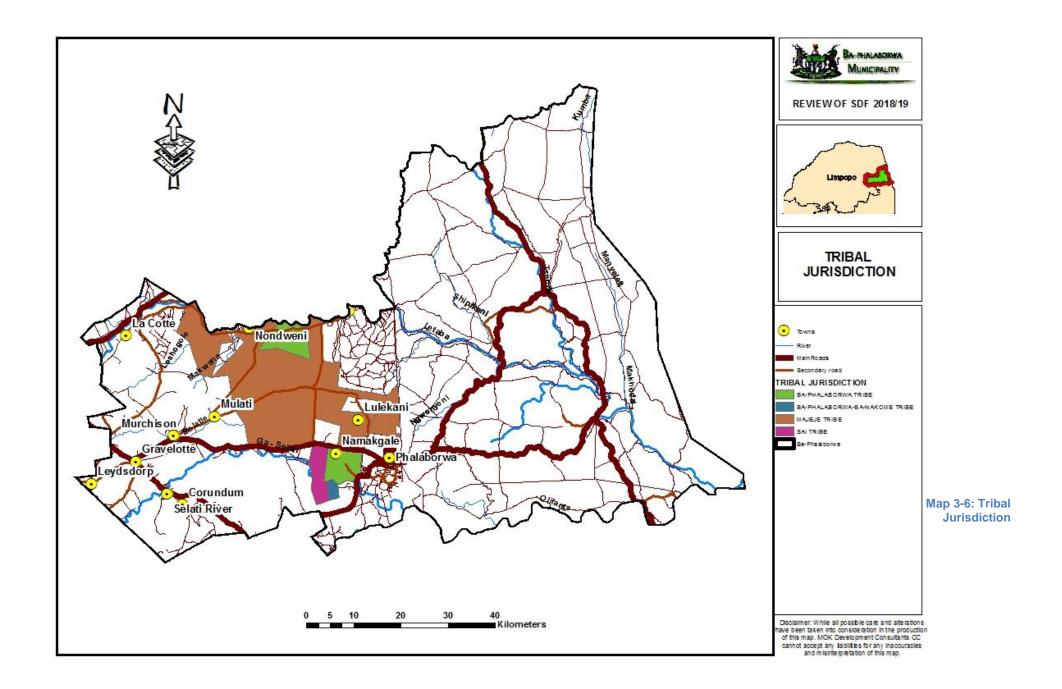
3.3.7. Landownership

Landownership plays a critical role in development as it influences access to land and its affordability. Often privately-owned land is kept for investment (speculative) purposes and the owners are not willing to sell it for social development projects and hence its sale and sale price is market driven. Map 3-5 depicts that state owned farms/ farm portions currently cover the largest area of land followed by private farms and communal land and/or land that is under the control of traditional councils, while Map 3-6 depicts land under tribal jurisdiction. Five traditional authorities have tribal jurisdiction over vast portions of land in the central area, namely:

- 1. Ba-Phalaborwa (Makhushane)
- 2. Ba-Phalaborwa (Selwane)
- 3. Ba-Phalaborwa (Maseke)
- 4. Ditlou tsa Shai and
- 5. Majeje Traditional Council



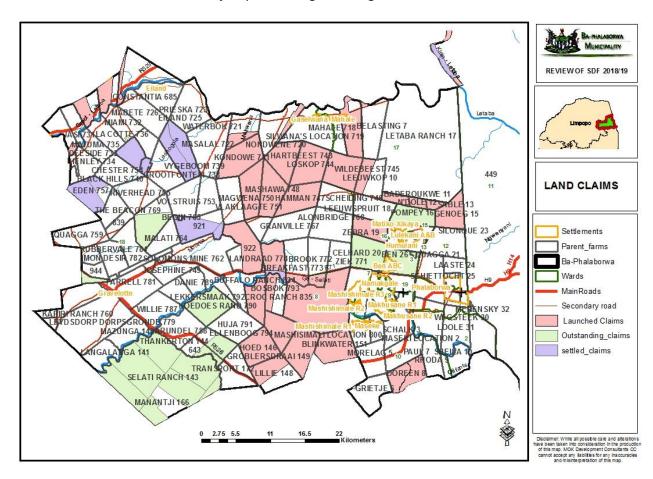
Map 3-5: Land Ownership



The municipality owns very little land around the core urban complex of Phalaborwa, except for open spaces and parks within formal townships. This means that the municipality must reach social compacts with the traditional authorities for the orderly development of their land as well as for development of municipal services and infrastructure requiring land or rely on other government spheres to avail their land for municipal development priorities.

3.3.8. Land Restitution Claims

Information from the Land Claims Commission regarding land restitution claims is not readily released by the commission as they regard it as confidential between the commission and the claimants. However it is recorded that land restitution claims in the municipality affect 77 farm portions as depicted in Map 3-7, with five claims settled and majority at investigation stage.



Map 3-7: Land Claims Status

It is also important to note that land claims only affect land development to the extent that provisions of the Restitution of Land Rights Act have to be complied with by the landowners as well as the planning authorities before development takes place.

3.4.BUILT ENVIRONMENT ANALYSIS

The built environment has the most profound effect on the natural environment, and it is mostly influenced by the prevailing socio-economic conditions in the municipality. It is a combined effect of human's desire to transform their lives through exploitation of their natural environment in order to gain some economic and social benefit out of it and is reflected in the level of infrastructure improvements in an area.

3.4.1. Dominant Land Uses

Main land use categories in the municipality, as depicted in Map 3-8 are:

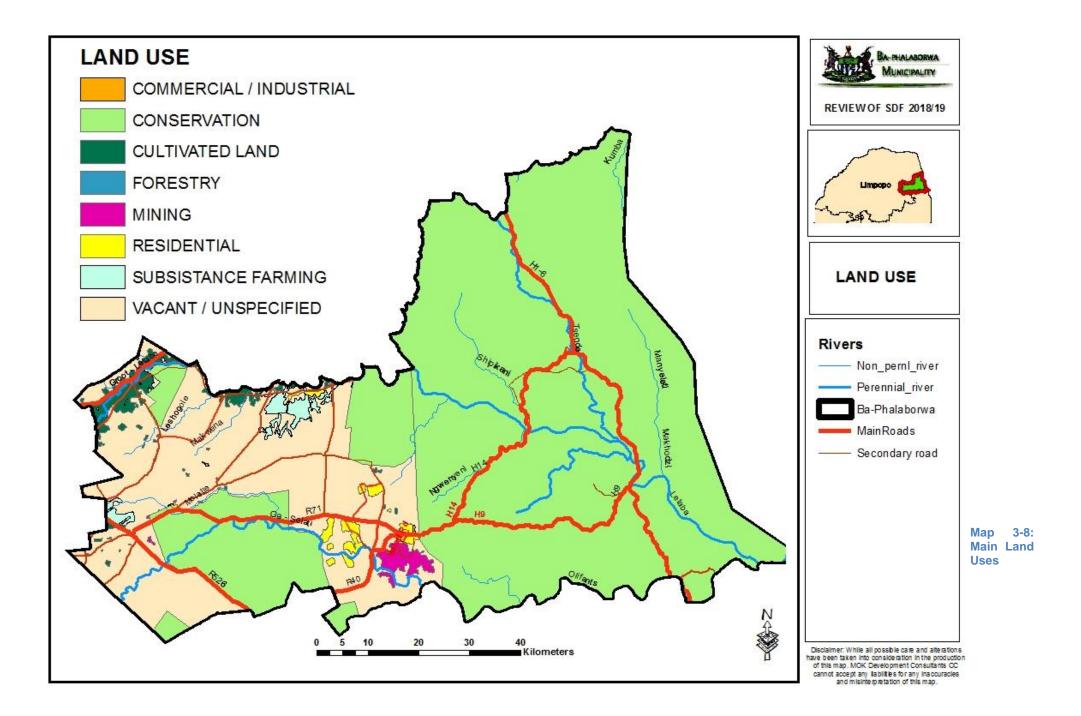
- Nature Conservation- with the KNP, Letaba Ranch and Selati Conservancy taking up the largest proportion of the land coverage and game farming to the western part of the municipality;
- Agriculture- also including game farming, commercial (irrigation farming along the Letaba River) as well as subsistence agriculture alongside traditional settlements;
- Mining, mainly around Phalaborwa and Gravellotte.
- Human settlements- concentrated around the three (3) main clusters around Phalaborwa.

3.4.2. Spatial Structure- Settlement Patterns

A majority of the municipal spatial structure reflects conglomerates of settlements within three (3) main clusters of Phalaborwa town, Namakgale, and Lulekani (forming a core urban cluster) and a few smaller settlements, with Mahale/ Selwane/ Nondweni being the largest settlement outside the core cluster as well as smaller settlements of Prieska, Grietjie and Gravellotte (Map 3-9).

According to the 2008 MSDF for Ba-Phalaborwa, the specific identified development nodes for the area include:

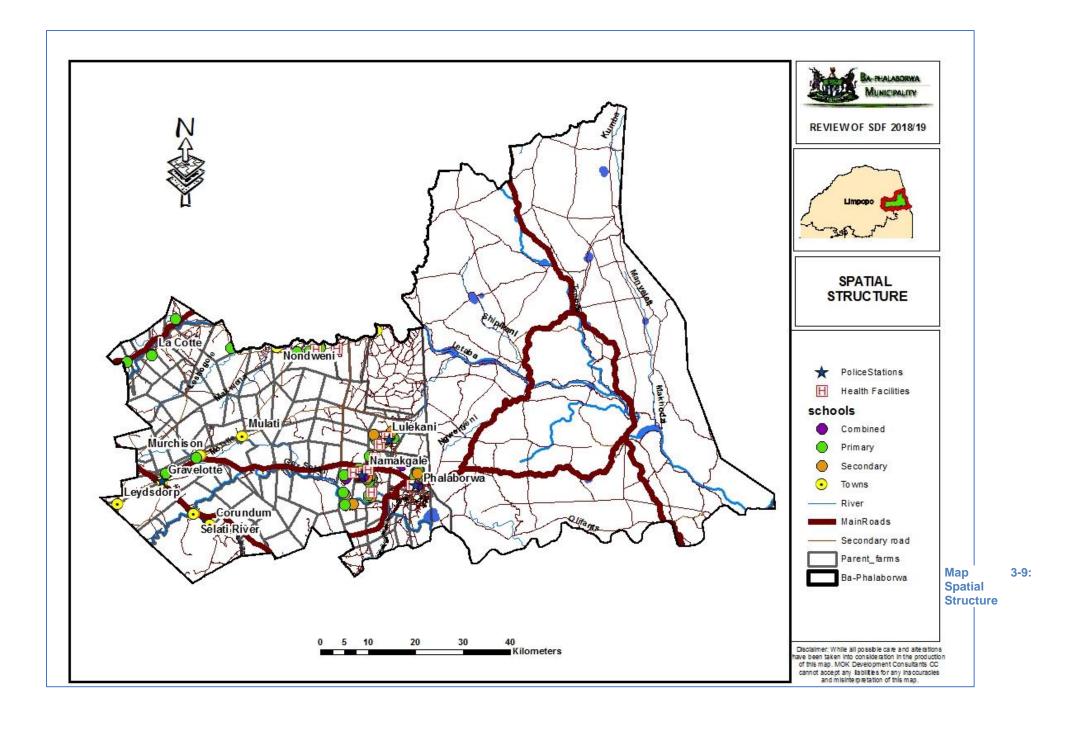
- Phalaborwa town as the provincial and regional business and commercial node and home to approximately 9,3% of the municipal population;
- Namakgale as a municipal sub-regional business and service node;
- Lulekani as a municipal and local business and service node;
- Gravellotte as a District Growth Point
- Selwane/ Mahale/ Nondweni as a Local Service Point
- Scattered settlements of Prieska, Grietjie and Leydsdorp



There has been very minimal new development in the municipality over the years, and as can be seen from the list of township in the municipality, no new township has been developed since 2006 (Table 3-9: List of proclaimed townships within BPLM):

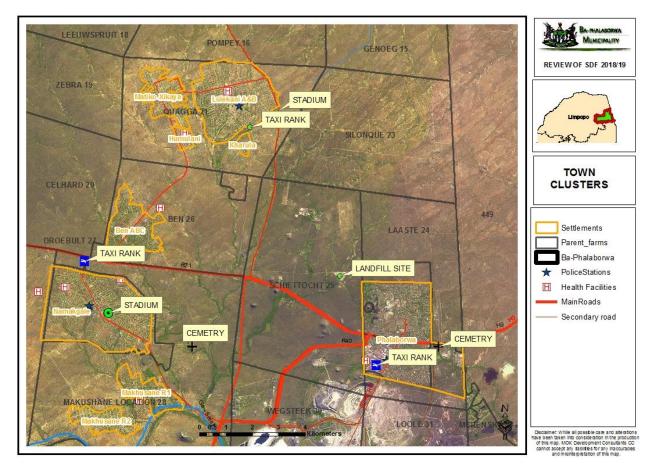
Table 3-9: List of proclaimed townships within BPLM

NO	TOWNSHIP NAME	AREAS IN BA-PHALABO	NO OF	ERF N	NUMBERS
		SG NO	ERVEN	FROM	ТО
1)	BEN-A	4038/1998	433	1	433
2)	BEN-B	4050/1998	574	2	575
3)	BEN-B EXT 1	A8301/1994	106	595	701
4)	BEN-C	4048/1998	488	1	485
5)	GRAVELOTTE	A7705/1971	103	1	103
6)	GRAVELOTTE EXT 1	8199/1996	646	111	756
7)	LEYDSDORP	A862/1909	992	1	992
8)	LULEKANI-A	1044/1998	1305	1	1305
9)	LULEKANI-B	1282/1996	2054	1	2054
10)	LULEKANI EXT 1	8180/1993	252	1658	1909
11)	LULEKANI EXT 2	9852/1997	142	1912	2053
12)	LULEKANI EXT 3	6019/2005	249	2059	2307
13)	LULEKANI-C	5779/2006	403	1	403
14)	LULEKANI-1A	862/1998	67	1	67
15)	MAHALE-A	4006/1998	616	1	616
16)	MASHISHIMALE R 3 VILLAGE	2071/2004	200	1	200
17)	MASHISHIMALE-THEPE VILLAGE	2071/2004	200	1	200
18)	MATIKO XIKAYA-A	A9242/1994	284	1	284
19)	NAMAKGALE-A	1823/1999	1, 815	1	1,815
20)	NAMAKGALE-B	1572/1999	1, 623	1900	3522
21)	NAMAKGALE-C	466/1999	1, 512	1	1512
22)	NAMAKGALE-D	1810/1999	1, 530	1	1, 530
23)	NAMAKGALE-E	434/1999	1, 894	1	1894
24)	NAMAKGALE-IA	1557/1999	54	1	54
25)	NONDWENE-A	5370/1998	247	1	247
26)	PHALABORWA	A3898/56	326	1	326
27)	PHALABORWA EXT 1	A1241/63	661	328	988
28)	PHALABORWA EXT 2	A1402/66	382	969	1370
29)	PHALABORWA EXT 3	A970/65	241	1373	1613
30)	PHALABORWA EXT 4	A5219/66	186	1616	1801
31)	PHALABORWA EXT 5	A4118/70	85	1982	2086
32)	PHALABORWA EXT 6	A3114/74	96	2092	2187
33)	PHALABORWA EXT 7	A4264/76	426	2912	3337
34)	PHALABORWA EXT 8	A6176/77	697	2199	2895
35)	PHALABORWA EXT 9	A2852/89	1, 066	3396	4461
36)	PRIESKA-A	5363/1998	277	1	277
	Total		22, 232		



3.4.3. Phalaborwa Urban Cluster:

It is worth reiterating that the settlement cluster of Phalaborwa, Namakgale and Lulekani complemented by nearby villages can be regarded as the urban cluster, which is also home to a majority of the municipal population. It is the most densely populated area of the municipality and can be regarded as the urban cluster of Phalaborwa. With the settlements located within a 15 km radius of each other, any development will have the biggest impact



Map 3-10: Ba-Phalaborwa Urban Cluster

Phalaborwa

The **Phalaborwa cluster** consists of the town of Phalaborwa which can be classified as the Provincial Growth Point, with a wide range of specialised and well-planned land uses providing services to entire community of Ba-Phalaborwa. It is an urbanised population with a well-established central business district (CBD) as its primary activity node and some secondary activity nodes, recreational areas etc (Map 3-11).

One important recreational area is the Impala Sport Centre. The primary activity node includes a wide range of land uses from business (retail and offices) to public garages/filling stations, municipal and special use zones. It also contains a light industrial land use component.

The residential areas provide in a wide range of residential erven including single residential erven as well as higher density residential erven. It also contains most of the required community facilities normally associated with neighbourhoods, such as schools, institutional erven and open spaces (parks).

It is also worth noting that development has been stagnant or declining, with no new development taking place over the last 20 years and a high number of properties for sale.

Namakgale Cluster

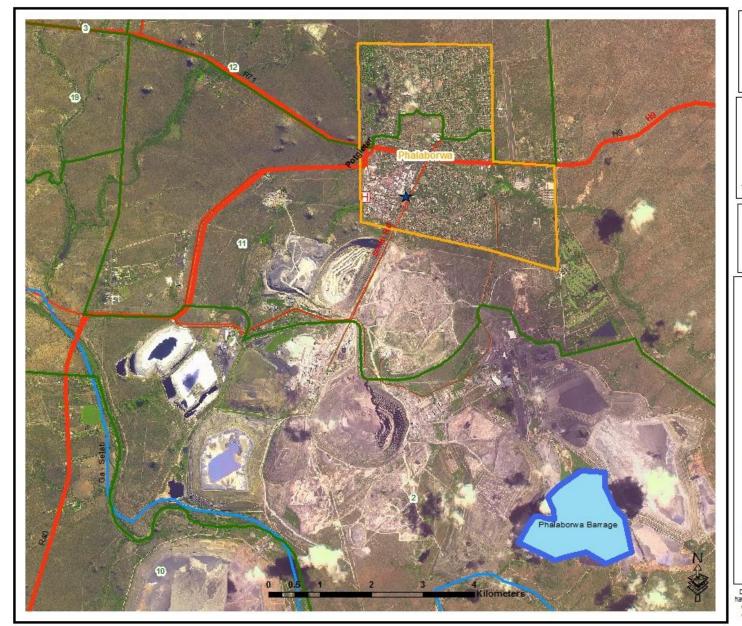
The Namakgale cluster comprises the Namakgale and Ben Village townships as a District Growth Point, surrounded by a hinterland of rural settlements, namely Makhushane, Maseke and Mashishimale. The townships of Namakgale and Ben have well-planned land uses with their own business nodes which can be classified as a secondary activity node which provide in convenience goods for these areas. These secondary activity nodes mainly comprise business erven with other erven such as government and municipal. There is a newly constructed sub-urban shopping centre in Namakgale with a wide range of shops including some specialised uses such as clothing shops. The southernmost node of the Namakgale business area contains a great variety of institutional facilities such as SAPS, FET College, post office and a community centre (see Map 3-12);

Namakgale township has seen some growth with some infill developments and new commercial activity within the township. However, its expansion is held by the surrounding land that belongs to tribal authorities and has been informally allocated (without any planning) for settlement purposes right around the township boundary, as if to curtail growth of the township.

Lulekani Cluster

The Lulekani Municipal Growth Point comprises the Lulekani Township and its various extensions, as well as the surrounded rural settlements of Humulani, Kharula and Matiko-Xikaya. However, the core of this Municipal Growth Point is the Lulekani Township. The Lulekani Township is also a well-planned area with land uses such as single residential, business, industrial, educational, institutional and government. There is also a small sport complex and stadium. However, in terms of secondary activity nodes, there are two distinct nodes forming. The one node is the existing older shopping centre/shops in almost the middle of the township. This node also includes the magistrate's offices and SAPS as well as a filling station and taxi rank (see Map 3-13).

The most noticeable element is lack of attention to public places such as open spaces (parks) and informal play grounds/sport fields in the rural villages and peri-urban areas.





REVIEW OF SDF 2018/19



PHALABORWA CLUSTER

Rivers

Non_pernl_river

Perennial_river

Settlements

Ba-Phalaborwa

★ PoliceStations

H Health Facilities

Wards

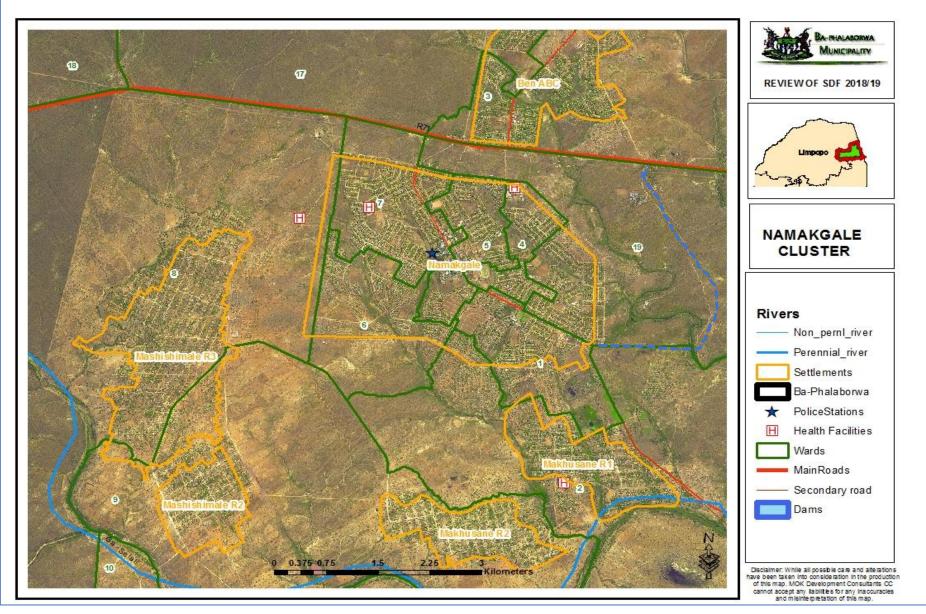
---- MainRoads

- Secondary road

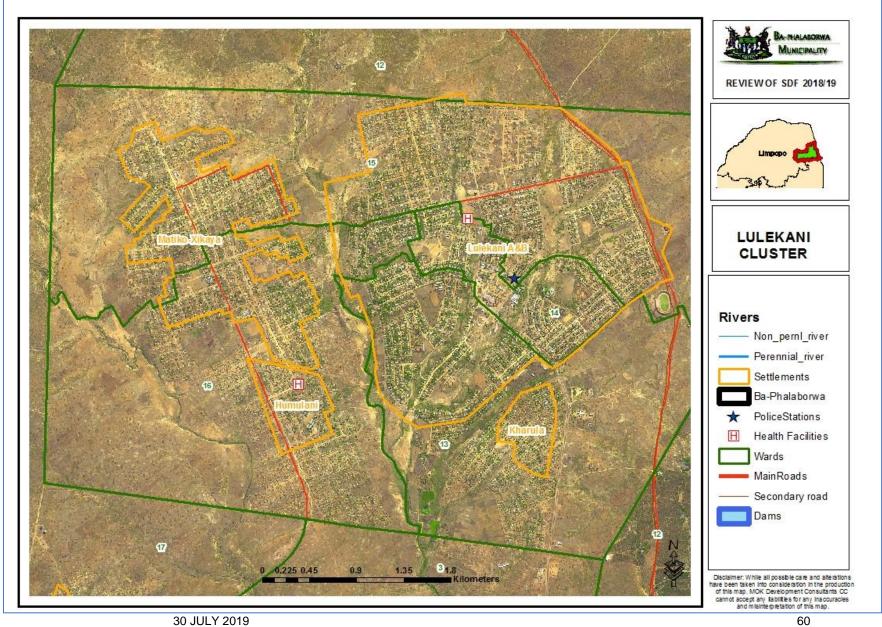
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Map 3-11: Phalaborwa

Disclaimer: While all possible care and afterations have been taken into consideration in the production of this map. MoXi Development Consultants CC cannot accept my Isalities for any lina couracles and misinte pretation of this map.



Map 3-12: Namakgale Cluster



Lulekani Cluster

Map 3-13:

3.4.4. Other Settlements

Other settlements in the municipality include:

- 1. Ben A, B & C (Population Concentration Point)
- 2. Humulani (Population Concentration Point)
- 3. Makhushane (Population Concentration Point)
- 4. Maseke (Population Concentration Point)
- 5. Mashishimale (Population Concentration Point)
- 6. Matiko Xikaya (Population Concentration Point)
- 7. Mahale (Local Service Point)
- 8. Nondweni (Local Service Point)
- 9. Selwane (Local Service Point)
- 10. Prieska (scattered rural settlement)
- 11. Gravellote (classified as a district growth point)
- 12. Murchison mine (mining camp)
- 13. Gritjie (scattered settlement)
- 14. Leydsdorp (scattered settlement with only a hotel and some farm houses)

The municipality should seriously consider engaging relevant traditional authorities regarding the growing trend of allocating stands along township boundaries which mainly

- Curbs potential for township expansion; and
- Take advantage of the township infrastructure, through illegal connections and overload.

This trend further undermines the municipality's efforts to increase its revenue base through expansion of formal townships.

3.4.5. Roads and Transport Networks

Road Network

Four major roads serve as the main links between Ba-Phalaborwa municipality and the rest of its surrounding, namely:

- R71 between Phalaborwa to Tzaneen and Polokwane, via Gravellote;
- The R526 between Gravellote and Mica
- The R40 between Phalaborwa and Nelspruit via Mica.
- The R529 western border, which links Tzaneen and Giyani through the municipality

These roads carry heavy traffic, mainly consisting of heavy trucks conveying goods to and from Phalaborwa to other area. Intra- connection within the municipality happens by means of a network of provincial, district and municipal roads. Generally, the state of the roads is in poor conditions and requires major repairs and upgrades.

Transportation infrastructure is one of the key contributors that facilitate economic activity. There are five access points into the focus area via the district and municipal roads as well as the National roads which traverse through the municipality. The road transport network in BPLM is further categorised into:

a. Activity Corridors

The primary development corridor is formed by the R71 Corridor between Polokwane and Kruger National Park which is of Provincial importance. The Corridor which follows the R71 in a West East direction traverses the Ba-Phalaborwa area and is regarded as a spatial opportunity to the area. This corridor also serves as a gateway to the Kruger National Park. It's not only the major link with areas such as Tzaneen, Polokwane and Giyani via the R-529, but the main link between the different nodes/clusters within the municipality.

b. Activity Spines

Activity spines are major routes on which most of the roads based public transport services run and on which most of the activities are focused. R71, D3782 and D4424 are the main activity spines which connect the prominent development nodes in the municipality and support linkages to most of the neighbouring areas and other towns.

c. Internal Roads/Local Roads

Internal roads form the major linkages between the different sections of the settlements and allows the transportation within the villages. It also offers important opportunities for the stimulation of business development and community facilities. Most of the internal roads which functions as access roads to the settlements are in poor condition.

Railway

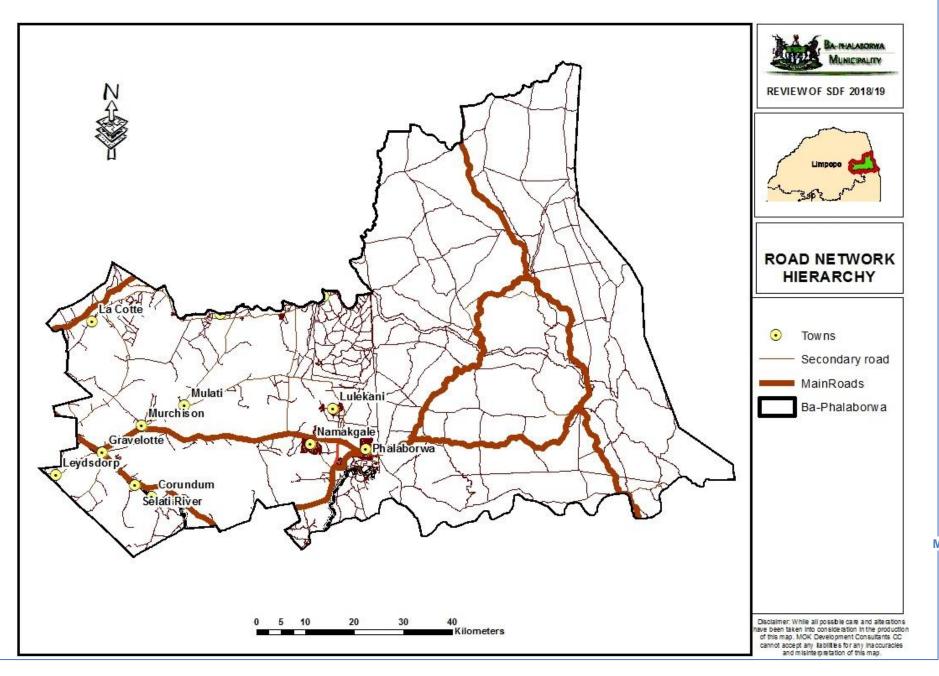
Rail infrastructure in Ba-Phalaborwa is underutilized, being mainly for transportation of minerals from PMC to other areas. The current rail link and service out of Phalaborwa is also inadequate to support the potential for magnetite beneficiation.

Air Transport

There is one airport in the Municipality, next to KNP Phalaborwa Gate. The airport only accommodates small air crafts, but proves to be useful to the local mines and other businesses. There is a need to improve the airport and number of flights in order to add value to the tourism sector in the area. The airport is owned by SA Airlink, which also operates the airline to Phalaborwa.



Phalaborwa Airport



Map 3-14: Road Network

3.4.6. Public Transport

Most people in the Municipal area use public transport as a means of daily commuting into and out of town and other economic area. Public transport within the Ba-Phalaborwa area of responsibility is shared as follows:

- Two short haul bus companies transporting within and between the urban zones: Great North Transport and Megabus.
- There are also a few long-distance hauliers operating between Phalaborwa and Gauteng namely City to City, Trans Cape and Translux.
- Minibus Taxi services provided by the following associations:
 - Phalaborwa Taxi Association
 - Namakgale Taxi Association
 - Lulekani Taxi Association
 - Namakgale Long Distance Taxi Association.

There are also opportunities for a bus service from Ba-Phalaborwa to Zimbabwe which must be explored and supported. Among the challenges facing public transport in the municipality are:

- Formalisation of bus and taxi ranking modal facilities (Opportunity to explore multi-modal facilities);
- Hawkers occupying offloading zones (opportunity for integration of LED activities that feed off each other);
- Lack of adequate stop facilities for public transport.

Table 3-10: Public transport facilities in Ba-Phalaborwa

	Area	Facility Name	Status
1.	Lulekani	Lulekani Entrance	Forma
2.	Lulekani	Lulekani Post Office	Informal
3.	Lulekani	Akanani Shoppin Centre	Informal
4.	Majeje	Majeje Taxi Rank	Informal
5.	Makhushane	Makhushane Taxi Rank	Informal
6.	Namakgale	Namakgale GNT Rank	Informal
7.	Mondzweni	Mondzweni Taxi Rank	Formal
8.	Namakgale	Namakgale Entrance Taxi Rank	Formal
9.	Phalaborwa	Phalaborwa Taxi Rank	Formal















Informal and formal public transport facilities along R71 and Phalaborwa

3.4.7. Housing Trends

The creation of sustainable human settlement is a shared mandate between the three sphere of government, with the municipality responsible for settlement planning while CoGHSTA is responsible for low income housing provision. Therefore, Ba-Phalaborwa Municipality is responsible for ensuring that there is a Housing Chapter that guides issues of human settlements and the identification of housing beneficiaries and the provision of basic services. The table below presents an overview of the current housing situation in the municipal area over the years as per official statistics.

Table 3-11:Dwelling type

Dwelling Type	Number of Households
House or brick/concrete block structure on separate stand or yard	37 690
Traditional dwelling hut/structure	1 149
Flat or apartment in a block of flats	457
Cluster house in complex	35
Townhouses	60
Semi-detached house	20
House/flat/room in backyard	449
Informal dwelling (shark, in backyard)	148
Room/flat let on a property or larger dwelling/servants quarters/granny flat	924
Caravan/Tents	34
Other	84

Source: StatsSA 2011

According to the 2018/19 municipal IDP, the housing backlog in the municipal area is estimated at 3500, with about. 258 units allocated for 2016/17 financial year to leave the backlog at 3242 (2018/19 BPLM IDP). An analysis of the Stats SA figures suggest that in 2011 there was a backlog of 2788 if traditional dwelling huts, backyard rooms or shacks as well as the caravans/tents and others are considered as inadequate shelter.

The estimated housing backlog in BPLM, according to the Limpopo Multi-Year Human Settlement Development Plan 2019/20 is as follows:

Table 3-12: Housing Needs Projections

Issue	2011	2016	Growth Rate	2019 projection	2024 projection**
Population	150,637	168, 936	1,34%	175, 818	187, 918**
Housing backlog	1, 906	2, 511	1.34%	2, 613	2, 793**
Required land*	95.3 ha	125.6 ha		131 ha	139 ha*

^{*}assuming 500m² per planned housing opportunity.

The backlog in Table 3-12 represents just below 1% of the provincial housing backlog, specifically the low-income government subsidized housing (RDP's). With an assumed average erf size of 400-500 m² the municipality requires approximately 130 hectare of land to provide stands to cover the entire 2019 backlog and an additional 9 hectare over the next 5 years up to 2024. It is also important to mention that the above projections and land requirements are based on an assumption of consistent growth and development requirements. A number of factors are not considered, namely:

- Changing household economic circumstances, e.g. improvement or decline in households income;
- Housing consumer preferences in terms of settlement area;
- Current status of consumers in terms of land ownership (e.g. whether they own/ have access to developable land);



RDP House in Gravellotte

The plan further stresses that each district municipality within Limpopo has a set of housing targets, with the current focus being mainly on the delivery of houses, largely ignoring the integrated nature of sustainable settlement growth¹³. Spatially there are a number of strategic areas that must be considered in terms of settlement planning, namely: mining areas and their associated towns; areas of high agricultural potential; conservation and/or protected areas; informal settlements; and traditional authority and ex-homeland areas.

^{**} own 5 year projection based on a 1.34% growth rate.

¹³ Limpopo Multi-Year Human Settlement Development Plan 2019

Ba-Phalaborwa Municipality assists the provincial Department of CoGHSTA with the facilitation of provision of housing to promote sustainable human settlements within the municipal area. The municipality thus relies on housing allocations by CoGHSTA as the competent housing authority to initiate, plan and implement programmes and projects aimed at addressing housing backlogs within the municipal area. The municipality's primarily responsibility in terms of housing provision is to direct where housing must take place in line with its spatial vision and in support of sustainable service delivery.

Challenges

According to the Limpopo Multi-Year Human Settlement Development Plan 2019/20, "A major challenge for municipalities in the creation of sustainable human settlements is the lack of adequate, well-located and available land within the municipalities. Many municipalities have urban nodes surrounded by traditional land areas that restricts their ability to expand or acquire land for human settlement development." This statement is also true for BPLM, which also reflects the following trends:

- Sprawling rural and peri-urban settlements, especially around Lulekani and Namakgale township, which are surrounded by traditional authority areas;
- A new trend in the form of illegal land invasions/ land allocation on the edges of the primary nodes of Namakgale and Lulekani and along major roads, which works against integrated development/ expansion options for these areas.







Informal land allocations along R71

3.4.8. Engineering services

Water

Mopani District Municipality is the Water Service Authority while Lepelle Northern Water is water service Provider, responsible for the maintenance of the water infrastructure throughout Ba-Phalaborwa jurisdiction. LNW supplies bulk water to reservoirs. The Water board is currently upgrading the water purification plant to meet the current water demand.

The total number of households with access to basic water is 29, 467 in the financial year of $2015/2016^{14}$ as per Table 3-13.

Table 3-13: Water Provision

Description	2014 and 2015	2015 and 2016
Piped water inside dwelling	12251	12251
Piped water inside yard (but not dwelling)	17203	17216
Using Public tap (stand pipes) Other water supply (within 200m)	3803	3803
Minimum service level and above sub total	80%	77%
Minimum service level and above percentage	413	413
Using Public tap (more than 200m from dwelling)	8442	9144
Other water supply (more than 200m from dwelling)	20%	21,2%

¹⁴ BPLM Final IDP 2018/19

No water supply	3380	
Total Households	42347	43062

According to the municipal IDP, Ba-Phalaborwa water supply overall performance is at 80% satisfactory¹⁵. Ageing of infrastructure, poor maintenance, diminishing/insufficient water sources and low water pressure where infrastructure is in place are some of the key challenges for water provision. Mopani District Municipality, as the Water Service Authority, is responsible for bulk water provision and reticulation for entire area.

According to the IDP Water backlog currently stands at 1226 households.

- The Municipality is not the water services authority, but the Lepelle Northern Water is performing activities to extract water.
- The District Municipality is responsible for Water & Sanitation services within the municipal area.
- Bulk water is sufficient whereby 64 000Ml has been allocated to the municipality,
- The capacity is 54 750Ml and only 48 443Ml is abstracted from the source.
- Water infrastructure is however insufficient with great backlogs in certain areas.

Sanitation/Sewerage

Water-borne sanitation is supplied to Phalaborwa Town, Namakgale and Lulekani. This service is also challenged by ageing infrastructure for sewer main line and reticulation, as well as the capacity of the existing sewer network to accommodate the current demand from the households. Sanitation infrastructure capacity in Phalaborwa Town, as in many towns across the country, needs urgent attention. The infrastructure is old and needs to be upgraded. This is evident by the regularity of sewer burst that flows into the street. The sewer pump station in town and the main sewer plant at Schiettoch needs to be upgraded and the replacement of asbestos sewer pipes, which is more than 30 years old.

According to the IDP backlog on Sewer and Sanitation stands at 5, 642 household. 16

- Water-borne sanitation services are provided for Phalaborwa, Namakgale & Lulekani townships;
- Sanitation infrastructure in Phalaborwa needs upgrading.

3.4.9. Energy

Electricity provision in the municipal area is through ESKOM with the Department of Energy as the main funder. According to the municipal IDP electricity is supplied to approximately 98.3% of the

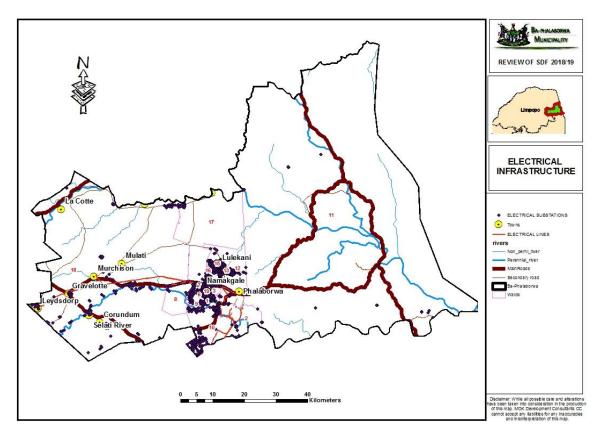
¹⁵ BPLM Final IDP 2018/19

¹⁶ BPLM Final IDP 2018/19

41115 households in the municipality, with a 1.7% backlog recorded in 2016. According to the IDP electricity backlog currently stands at 2250 Households.¹⁷

Error! Reference source not found. shows the spatial distribution of bulk and reticulation electricity grid in the Ba-Phalaborwa Municipality. It is clear from this network infrastructure that the entire municipality has access to electricity.

- The Municipality is the licensed vendor iro Phalaborwa town;
- ESKOM license authority for rest of the municipality;
- There is a backlog in rural areas (Lulekani, Maseke, Matiko-Xikaya)



Map 3-15: Electricity \infrastructure Distribution

3.4.10. Information and Tele-Communication Infrastructure

Information and telecommunication

Access to telecommunications is very high in the municipality; this is evidence by the percentage of households that have access to a cell phone. The number of households that have access to a landline telephone has dropped due to the easy access to mobile phone.

¹⁷ BPLM IDP 2018/19

Postal Services

There are Post Office Services in Phalaborwa Town, Lulekani, Namakgale and Selwane Thusong Centre. This service has become very critical, with the post office now also providing banking service to mainly the social grant beneficiaries and needs to be supported and expended to be more accessible.

Waste Collection

Ba-Phalaborwa Municipality provides waste collection services in Phalaborwa, Namakgale, Lukekani, Gravellotte, and Mashishimale R1, R2, R3 which accounts to 55.79% of the households (or 22, 914 households), while 18, 174 households (44.21%) do not receive waste collection services.

The un-serviced areas include 23 villages, farms, lodges and the mining areas. The farms, lodges and mining areas dispose their own waste. The municipality has a programme for waste removal which caters only few households and business areas. Among the areas affected by no service are:

- Matiko Xikaya & Humulani
- Selwane, Prieska, Nondweni, Silonque, Grietjie
- Makhushane
- Maseke
- Kurhula ¹⁸

Removal of healthcare and pharmaceutical waste in all provincial hospitals and clinics is outsourced to a private waste management company¹⁹

Table 3-14: Waste Collection frequency

Type of Generator	Frequency	Containers
Domestic	Once per week	3 plastic bags
Flat and complexes	Twice per week	85L bins or bags
Schools	Twice per week	85L bins
Hospitals	Five per week	85L bins
Commercial	Five per week or once per week	85L bins or plastic bags
Public offices	Five per week	85L bins
Light industrial areas	Five per week	85L bins
Heavy industrial areas	Once per week	85L bins or bags

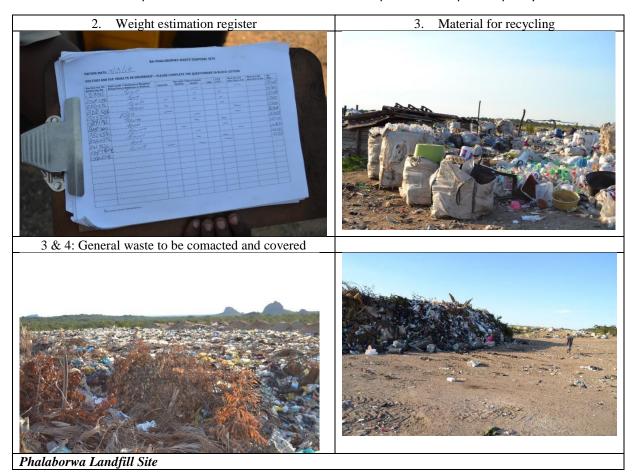
Source: Ba-Phalaborwa Integrated Waste Management Plan, April 2015

¹⁸ Source: Ba-Phalaborwa Environmental Health Section 2014

¹⁹ Ba-Phalaborwa Integrated Waste Management Plan, April 2015, 27

Solid Waste Disposal

Currently the general waste is collected and transported to the dumping site in Phalaborwa. The dumping site is owned by the Municipality, but operation is under a private company contracted to provide the service by the municipality. The landfill sites at Gravellotte, Lulekani and Namakgale have been closed due to licensing issues and all waste from the areas is transported to the Phalaborwa site. The site has been in operation since 1985 has reached its lifespan and air-space capacity



A new site has been identified on a portion of the remaining extent of the farm Schiettocht 25 LU and processes to acquire the necessary permits are at an advanced stage.

Challenges

- Phalaborwa dumping site has reached its lifespan and a new landfill site has to be commissioned as soon as possible;
- There is no weigh bridge at the current landfill site, therefore amount of waste generated is estimated (see picture above).
- Due to poor waste management at source, large amounts of recoverable waste is mixed with general waste, with a resultant small recycling/ recovery opportunity and large quantities of waste. This trend has a big effect on the lifespan of the landfill site, and the municipality must enhance its awareness drive in this regard.

• Traditional waste management methods in rural areas are not environmentally friendly, eg. burning of waste, and have to be discouraged.

3.4.11. Cemeteries

The Municipality is responsible for the provision, administration and maintenance of four cemeteries which are located in Phalaborwa, Namakgale, Lulekani and Gravellotte and is able to provide graves on demand. The municipality does not manage the provision of cemetery services to tribal areas as communities manage this through the tribal authorities. However, the municipality is assisting with water provision and road grading to communal graveyards.



Challenges

- Most of the cemeteries are already reaching their capacity: Phalaborwa cemetery has a remaining 8-10 years lifespan (according to Community Services Department) with a 10-12 year lifespans estimated for Namakgale and Gravellotte while Lulekani cemetery is closed, with the service provided at Matiko Xikaya cemetery.
- The graves are being vandalised since the sites are not fenced off;
- There is no cemetery demand management plan in place for the rural areas with poor management in Namakgale, which has an effect on the cemetery lifespan.

3.5. Alignment with Neighbouring Municipalities SDF's

3.5.1. Greater Tzaneen Local Municipality

BPM is linked to the Greater Tzaneen Local Municipality through the following roads:

- R71 which links the municipality with the core provincial centre of Polokwane through Tzaneen
- R529 which links Greater Giyani municipality and Tzaneen through BPM.

3.5.2. Greater Giyani Local Municipality

The following strategic links should receive attention in the alignment:

- Road D3981 provides the main direct link between the BPM and Greater Giyani communities and should receive special attention as a corridor or strategic link.
- R529 provides a link between Giyani and Greater Tzaneen which passes through the northwestern parts of the BPM. There are no major developmental issues for consideration along this route.
- The Kruger National Park forms part of both the Ba-Phalaborwa and the Greater Giyani Municipalities.

3.5.3. Maruleng Local Municipality

Maruleng municipality links with BPM through the following:

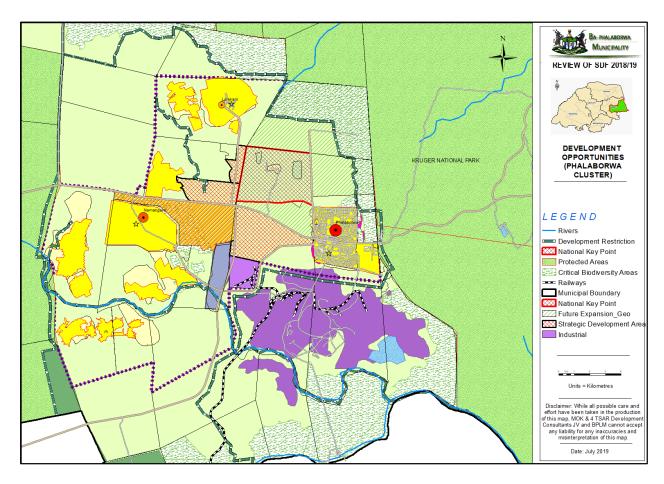
- R40 which is the main link with the town of Hoedspruit and the rest of Mpumalanga Province.
- R526 from Gravellotte to Hoedspruit and the other parts of Mpumalanga Province.
- The railway line from Phalaborwa and Hoesdpruit which goes up to Richardsbay in Kwazulu Natal.
- The railway line from Gravellotte which also links with the other parts of Mpumalanga Province.
- There are also links through nature reserves that straddle both municipalities, such as Selati Conservancy, which need to be given attention.

3.5.4. Greater Letaba Local Municipality

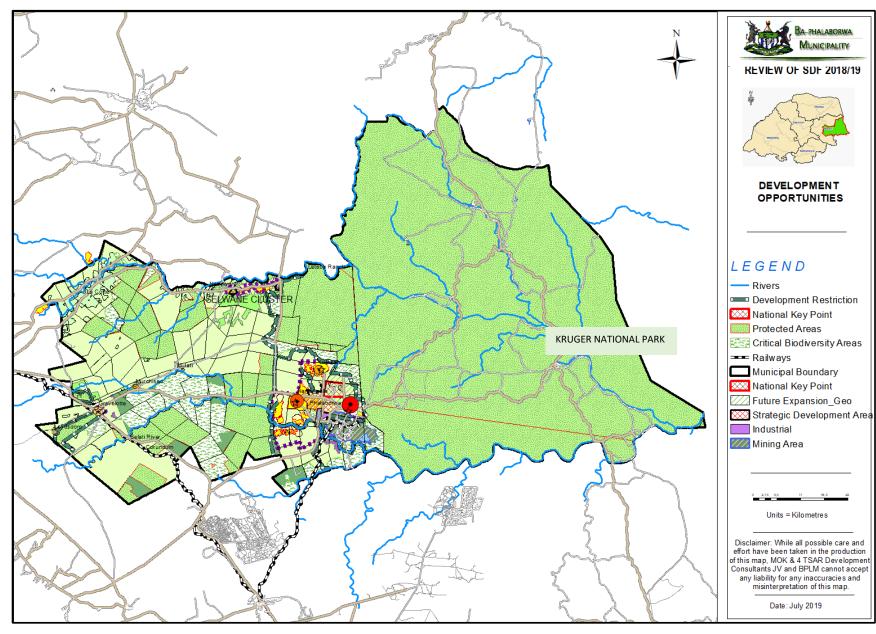
Although the Letaba Municipality shares boundary with BPM, there is no direct link with the municipality, the only link is indirectly through R529 either from Giyani or Tzaneen. Attention may be given to aligning nature conservation initiatives between the two municipalities, where applicable.

3.6. Development Opportunities

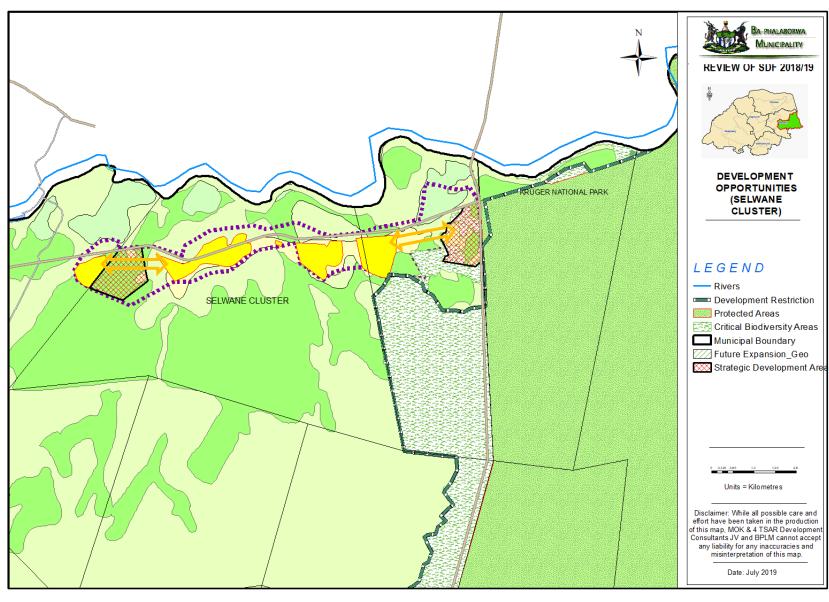
- Phalaborwa Town has been identified by the province as one of the 10 important provincial growth points where major infrastructure spending and investment should be channelled.
- Limpopo Development Plan has identified Phalaborwa as one of the Mining Clusters for Copper, Phosphate and Magnetite, which should be explored through cluster value chains.
- Majority of municipal population reside within what is regarded as an urban core (15 km radius), providing an opportunity for a compact city/ town. (see Map 3-16)
- The Municipality is traversed by Maputo Development Corridor which is an important corridor from a provincial economic point of view.
- R71 and R40 are important linkages for the municipality with the key provincial centres and Mpumalanga province.
- The Kruger National Park and other associated nature conservation areas, such as the Letaba Ranch, etc. are major tourist attraction areas which should be protected and harnessed.
- There are a number of important ridges in the study area which also have potential for tourism development.
- Other areas with tourism potential include: The Baobab Tree near Leydsdorp, The Big Hole (biggest open cast mine in Africa), the Masorini Iron Age Site, etc.
- Phalaborwa town is also the home of the annual Marula Tourism Festival, which attracts over 12, 000 tourists over a week-long festivities each year.



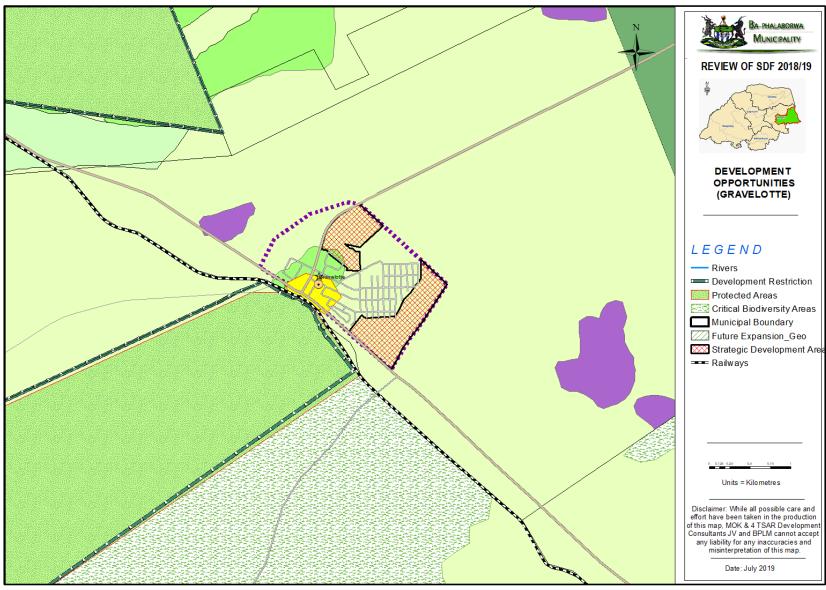
Map 3-16: Development Opportunities in Urban Core



Map 3-17: Development Opportunities



Map 3-18: Development Opportunities - Selwane Cluster

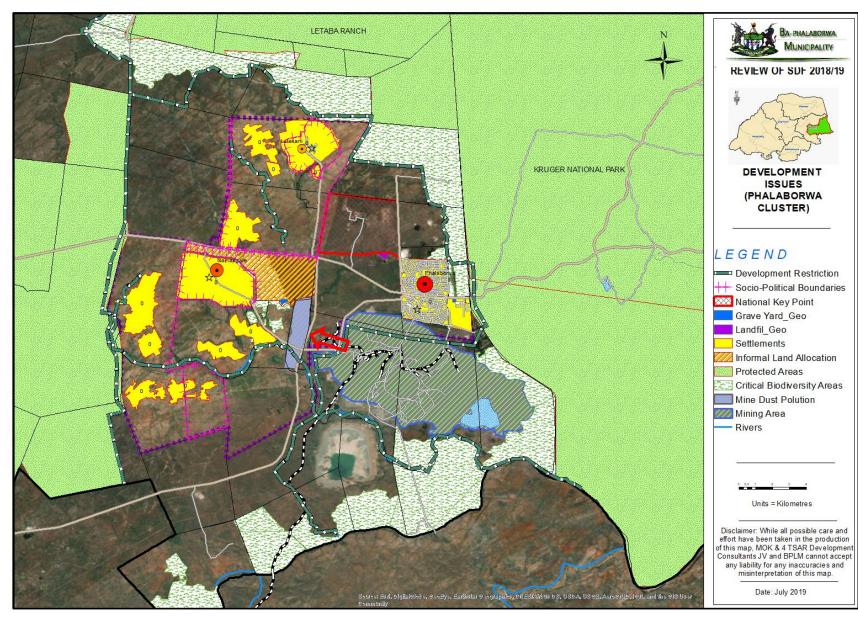


Map 3-19: Development Opportunities - Gravellotte

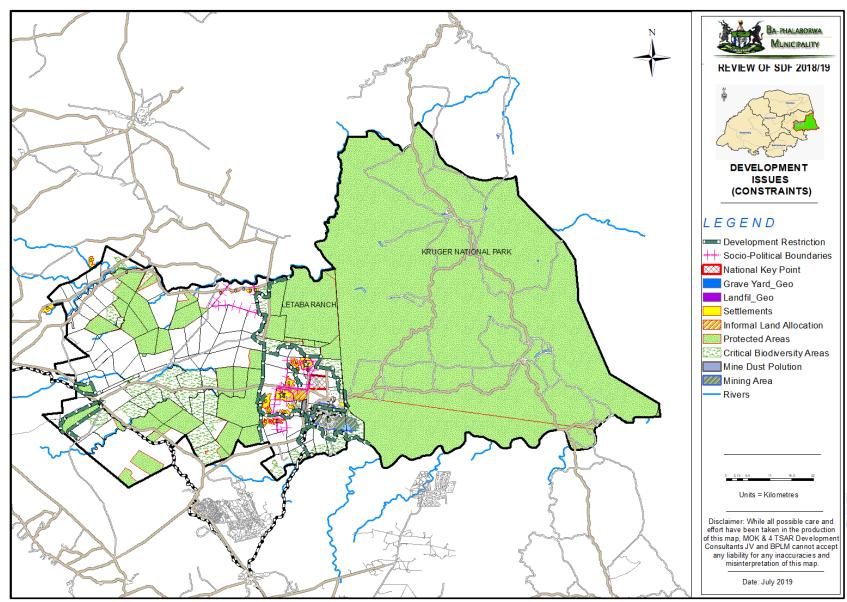
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3.7. Development Constraints

- Lack of orderly spatial planning of rural settlements under traditional authorities around the urban core, especially along R71, which threatens the achievement of the vision of the development of the urban core as envisioned by the municipality. This may be attributed to lack of understanding or awareness of spatial planning issues by traditional authorities as well as socio-political boundaries around land ownership/ jurisdiction.
- Inadequate municipal land in the urban core. Although 70% of the land is public land, that is national and municipal, the majority of the land is under traditional leadership. The rest of the land that is 30% is privately owned.
- Important biodiversity (environmentally sensitive areas) that must be protected, e.g. rivers, swamps and conservation areas.
- Socio-political boundaries along tribal land jurisdiction and allocation hamper the opportunity to integrate human settlements.
- Encroachment of settlements into flood plains or river buffers, especially in Maseke village along Ga-Selati River. There is also cases of illegal occupation or encroachment into open spaces in certain townships.
- Wind Direction a greater part of the area earmarked for future development by the 2009 SDF is compromised due to dust particles from the mines.
- The condition of provincial roads in the municipality is generally poor, mitigating economic development and access to the area.
- Insufficient water and sanitation infrastructure in urban areas and along routes R71 may deter development.



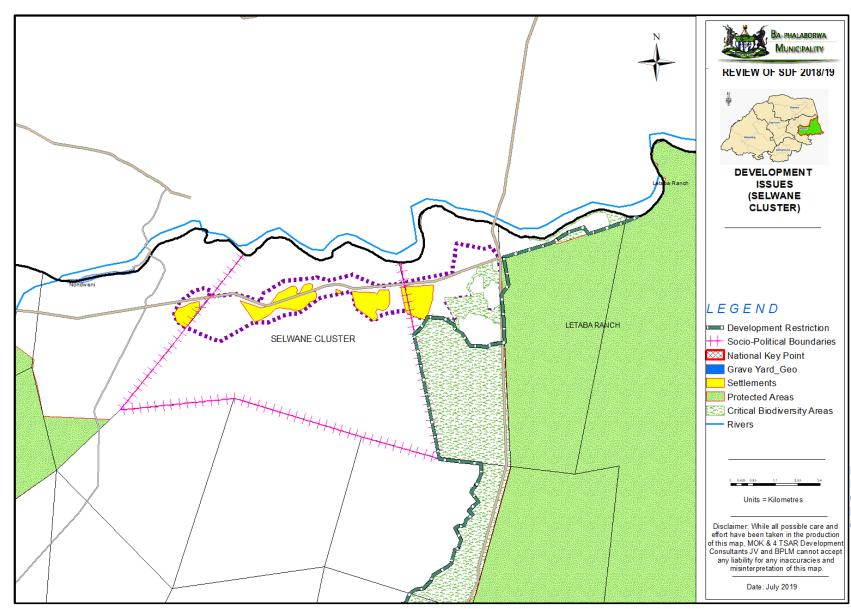
Map 3-20: Development Constraints in the Urban Core



Map 3-21: Development Constraints

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Map 3-3-12: Development Constraints In Selwane Cluster

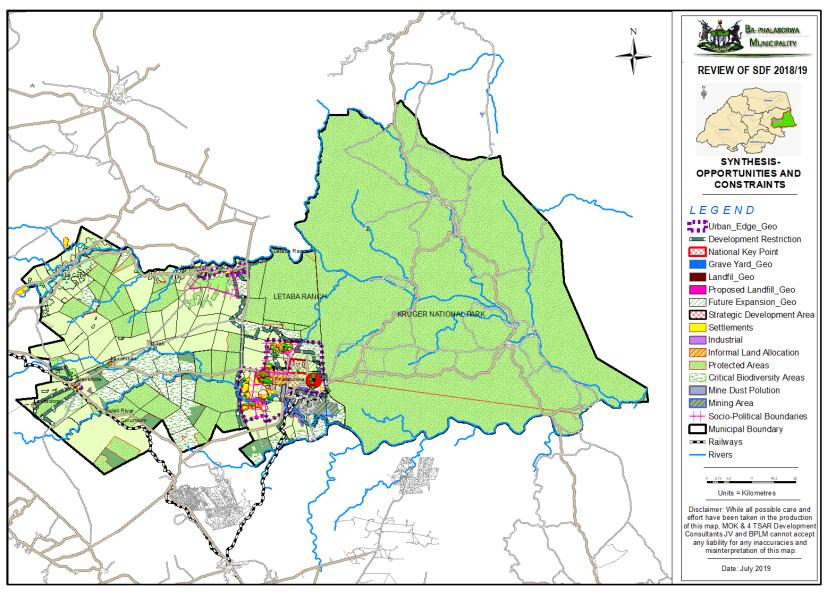
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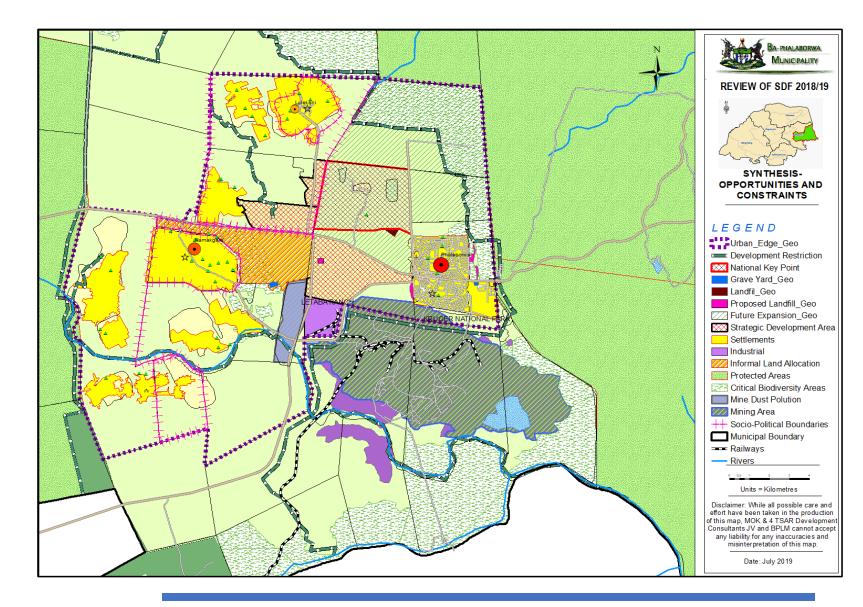
3.8. Summary of Key Issues and Synthesis

The following issues are worth noting as they will inform the development proposals for an integrated spatial development framework for BPLM:

- A significant part of the functionally urban population that resides in the peripheral areas to the "urban complex" on land allocated by traditional authorities, therefore posing a higher demand for services while not contributing to the revenue base of the municipality.
- Sprawling rural and peri-urban settlements threaten most of the land suitable for sustainable expansion and integration of settlements as well as sensitive biodiversity and conservation areas.
- A growing trend in the form of informal land allocation around the primary nodes of Namakgale and Lulekani and along major roads which prevents possible growth of the townships and uses the developed township infrastructure and services while not contributing to the municipality's revenue base.
- Socio-political division of public land as per tribal jurisdiction lines creates polarized communities and has potential to undermine any efforts for integrating human settlements and communities.
 Most of the population is concentrated in Lulekani and Namakgale (a compact development opportunity).
- Most the people constituting the growing population are poor families, placing pressure on the need for land development for low income housing provision and associated engineering and social infrastructure services.
- A large percentage of the population are young people that require sufficient educational facilities as well as economic opportunities.
- A decline in employment in the mining sector has put a strain on the meagre household incomes in the municipality;
- There is an increasing backlog in low-income housing due to the growing number of poor households.
- Formalisation of bus and taxi ranking modal facilities (Opportunity to explore multi-modal facilities);
- Hawkers occupying offloading zones (opportunity for integration of LED activities that feed off each other);
- Lack of adequate stop facilities for public transport.
- Upgrading of the ageing infrastructure must become the central focus of the municipality;
- A new regional landfill site is required urgently to ensure compliance and care for the environment.
- Most of the cemeteries are already reaching their capacity;
- The graves are being vandalised since they are not fenced;
- Although tourism represents the biggest economic potential for development of the municipality, it is hampered by poor infrastructure and systematic support for grassroots tourism activities;
- The condition of existing sports facilities is not satisfactory and therefore there is no value addition to tourism in the area.
- Horizontal alignment of economic initiatives with the adjoining LMs' SDFs, that is Tzaneen, Greater Giyani, Letaba and Maruleng,
- The municipality is characterised by large concentrations of low-income communities with very limited economic activity and job opportunities to serve them.
- Unlike urban areas in the municipality, rural communities have limited access to engineering infrastructure and social services.



Map 3-23: Synthesis of Opportunities and Constraints



Map 3-33a: Synthesis of Opportunities and Constraints

3.9.Key Features and Structuring Elements

- The municipality has strong regional linkages to key economic centres such as Tzaneen and Polokwane through R71 and Hoedspruit and Mpumalanga through R40. An Extension of the R40 into the Kruger National Park also links with Mozambique in the eastern direction.
- The municipality is considered predominately urban in the sense that over 67% of the population reside in the planned urban nodes, that is Phalaborwa, Namakgale and Lulekani.
- Surrounding rural settlements around these nodes also functionally depicts or are part of the
 urban core. With this in mind it can be concluded that approximately 90% of the municipal
 population that reside in this area is functionally urbanised as opposed to about 19% for Limpopo
 population.
- Phalaborwa Town is the highest order town (and identified as the provincial growth point by the
 provincial SDF) in the area with a relatively large business and residential component. It is
 surrounded within a 15km radius by other critically important nodes of Namakgale and Lulekani.
- The strongest economic driver in the area is mining, with a contribution of over 65% of economic value added. There are however indications that the Mining sector contribution has declined to around 46%; therefore there is thus a need to diversify the municipal economy.
- The urban areas exhibit the highest population growth rates.
- The official backlog with regards to informal settlements and backyard units (according to Census 2011) was determined to be 2869. The 2019 demand is projected at approximately 2, 613 housing units/ opportunities, requiring approximately 130 hectare of land for development.
- Average population growth rate for the municipality is about 1,39 % compared to a provincial rate of 0.25%. This indicates considerable local growth potential.
- The population is projected to grow between 3000 and 3700 people per annum for the next five (5) years.
- 17,8% of households in the urban core live in rented accommodation against the provincial average of 12,6%. This indicates a significant transient population.

4. DRAFT SPATIAL DEVELOPMENT FRAMEWORK

4.1.Background

Following the analysis and synthesis of the key issues in the preceding section the next step is to formulate the draft Spatial Development Framework to address the issues raised.

The purpose of this spatial development framework is to ensure that the general principles enshrined in SPLUMA are given effect to change the space economy of the Municipality and maintain environmental sustainability for all. The following principles and their implications have already been outlined in the preceding sections and will be briefly reflected upon below:

- 1. **Spatial Justice**: Past spatial and other development imbalances should be redressed through improved access to and use of land by disadvantaged communities and persons. Therefore the plan needs to deliberately target peri-urban and rural areas that have been historically neglected.
- 2. **Spatial Sustainability**: Relates to the need to promote spatial planning and land use management and land development systems that are based on and promote the principles of socioeconomic and environmentally sustainable development in South Africa. The plan needs to propose ways to tackle informal and unsustainable allocation of land and collaborate with relevant stakeholders for sustainability.
- 3. **Efficiency**: The spatial efficiency pillar places significant importance on the optimization of existing resources and the accompanying infrastructure, including the oiling of development application procedures in order to promote growth and employment. The plan needs to advocate for property planning and timed expansion of settlements in order to create the necessary thresholds and to protect sensitive areas.
- 4. **Spatial Resilience**: Relates to mitigation, adaptability and innovations to secure communities from spatial dimensions of socio-economic and environmental (climate change) shocks.
- 5. **Good Administration**: The spatial governance principle is the fulcrum of this framework largely because implementation of the spatial planning vision and objectives is not only highly dependent upon a strong coordinating role of central government, but is also predicated upon good governance mechanisms, incorporating meaningful consultations and coordination with a view to achieving the desired outcomes across the various planning spheres and domains. The plan needs to assess BLM planning capacity and propose strategies to augment it for thorough implementation

4.2. Final Spatial Vision

Based on the critical analysis of the Bio-Physical, Socio-Economic, and Built Environment in the preceding sections as well as spatial planning principles reflected above, the revised spatial vision for the municipality is proposed as:

* <u>"Enhanced economic transformation through sustainable service delivery".</u>

The vision covers the following elements:

- Sustainable service delivery (provision of services must be sustainable and must support economic development informed by spatial logic);
- **Enhanced economic transformation** (support key community stakeholder in order to enhance transformation of the local economy);
- **Sustainable Spatial Planning** must be the backbone of the above desired municipal vision as it sets the basis for sustainable service delivery and economic development.

Spatial planning must therefore provide a basis for sustainable service provision and transformation of the local economy by enhancing intensification of human settlements and targeted service provision.

4.3. Goals and Objectives

To support the above vision it is critical that goals and objectives are developed. The basic principle is to promote development and land-uses which will contribute to efficiency, sustainability and viability of communities over the long term in order to stimulate economic activity in a sensible manner. Key spatial goals have been identified in order to structure the strategic objectives linked of the Spatial Development Framework, as per Table 4-1 overleaf.

Table 4-1: Spatial Goals and Objectives

STRATEGIC THRUST	SDF GOAL	STRATEGIC OBJECTIVE/S
1. URBAN GROWTH AREAS	Create a pro-active vision for potential urban growth areas within the municipality, with specific reference to land-use types, zoning, density, infrastructure, transportation, etc.	 Delineate an urban edge to limit ad hoc, non-structured development; Promote "infill" development in developable open spaces in the core urban area in order to promote densification of the existing growth / urban areas; Identify and adopt a desired direction of growth within the core urban area along strategic developable areas;
2. LAND-USE MANAGEMENT	Retain a mix of land-uses that will meet housing needs in core urban area, protect the quality of life for residents and enhance the Municipality tax base.	 Promote orderly land development in all areas of the municipality. Identify land-uses that can contribute to the economic development of the municipality, apart from providing residential land-uses catering for the needs of the residents; Increase the economic viability of the Municipal area and urban core by supporting the densification and incorporation of mixed land-uses within urban areas; Identify and support a hierarchy of business centres i.e. the Central Business District (CBD and neighbourhood centres); Identify areas in which the intensity of land development could be increased or reduced; Establish neighbourhood linkages with access to places of employment, shopping, community/public facilities, etc.; Restructure and rectify inefficiencies in the spatial structure of the core urban area. Promote and support local economic development in order to develop Ba-Phalaborwa as an attractive, unique and preferred destination; Identify criteria for evaluating land development applications with respect to economic viability, infrastructure provision, protection of areas with ecological potential, historical value, agricultural potential, etc. Use existing infrastructure and land more optimally:

S	TRATEGIC THRUST	SDF GOAL		STRATEGIC OBJECTIVE/S
3.	RECREATION, PARKS AND OPEN SPACES	To promote access of all municipal citizens to quality recreational and leisure opportunities		Ensure adequate supply of sports & recreation facilities as well as open spaces to meet the space needs of the community;
4.	COMMUNITY (SOCIAL) FACILITIES	To ensure adequate geographical spread and access to community facilities by all BPLM residents.	t	Provide adequate planning of public/community facilities and infrastructure with the planning of new township development and harness partnership with key stakeholders for their development and ongoing management;
5.	MUNICIPAL INFRASTRUCTURE AND TRANSPORTATION	To provide sustainable and affordable infrastructure and services for the municipal community.	• P	To ensure the supply of serviced sites for human settlements in all socio-economic categories; Provide framework for an efficient transportation system within the municipality in partnership with all key role players;
6.	HOUSING	To promote home ownership and access to housing opportunities by all sectors of the municipal population	• P	Identify and develop special development areas to redress past spatial imbalances in land ownership; Protect rights to and in land and prohibit / take measures to prevent all illegal land occupation; Create an appropriate balance between different housing programmes and typologies taking advantage of the PGP status of the municipality. Preserve character of existing neighbourhoods while Increasing opportunities for home ownership for persons of all income levels.
7.	ECONOMIC DEVELOPMENT (NON- RESIDENTIAL NEIGHBOURHOOD AREAS)	To develop a sustainable economic base for the municipality by retaining and attracting business opportunities to the municipality based on locational advantages and natural resources in the municipal area.	n b it r	Identify land-uses which can contribute to the economic development of the municipal area as well as Phalaborwa town as a provincial growth point. Attract businesses that will yield the highest economic benefits to Phalaborwa town and its citizens without accruing negative environmental issues or stressing the resources and infrastructure that support them; Promote the establishment of economic activities and job opportunities within core urban area and discourage urban related development outside the urban edge of any nodal point;

STRATEGIC THRUST	SDF GOAL	STRATEGIC OBJECTIVE/S
		 Encourage commercial re-development, especially in the CBD of Phalaborwa, Namakgale and Lulekani; Encourage an appropriate balance of office, retail, industrial and residential uses and emphasis on mixed use development; Improve traffic circulation as well as pedestrian access and circulation; Stimulate economic development opportunities appropriate for both urban and rural areas in the municipality; Create and encourage diversity and opportunities for small businesses also to establish in Phalaborwa Town; Improve cooperative governance and information sharing; and Promote accountable, open and transparent decision making in terms of land-use and development
8. BIO-DIVERSITY AND HERITAGE PROMOTION AND PROTECTION	Promote development that protects and promotes the special environmental heritage of the municipality.	 Consolidate and Protect Environmentally Sensitive Areas to Ensure Long Term Environmental Sustainability (Regional/ Municipal Open Space System); Build environmental management (CBA) guidelines into the municipality's land use management guidelines; Take all reasonable measures to protect the biodiversity heritage of the municipality by delineating development restriction areas in the land use scheme.
9. RURAL DEVELOPMENT	Promote rural development initiatives and agricultural development in non-urban areas	 Ensure universal access to infrastructure and services in all rural areas (planned expansion of villages that addresses integration and sharing of infrastructure). Promote sustainable livelihoods through supporting integrated Rural Development Programmes in the municipality.

•

4.4. Spatial Tools and Concepts.

To achieve the vision outlined above as well as the desired future spatial form, certain tools and concepts need to be identified. For the purposes of this SDF the following tools and concepts have been identified:

4.4.1. Nodes

Nodes are areas where higher intensity of land uses and activities will be supported and promoted. Nodal Development improves efficiency as it provides easy access and creates thresholds for a variety of uses and public transport services. This SDF shall use:

- Settlement re-structuring including a hierarchy of settlements wherein distorted spatial patterns are addressed/corrected;
- Nodal points and activity nodes wherein higher intensity of land uses and activities are supported and provided for;

The 2009 Ba-Phalaborwa SDF adopted a hierarchy of nodes in alignment with both the provincial and District Spatial Development Frameworks. This review of the current (2009) SDF as well as the Growth Management Framework Plan (GMFP) for the urban core is that this hierarchy of nodes is still relevant in most cases, with a proposed review of the status of certain areas.

4.4.2. Corridors

Corridors are Links between nodes, along which an increased intensity of development will naturally be attracted and should be encouraged. Similar to nodes, they also improve access to opportunities. These should typically include public transport routes. This SDF shall use

 Development Corridors (DC) and Strategic Links (SL) between nodes and other areas as tools for spatial restructuring;

Corridors identified in the 2009 SDF such as the corridors along R71, R40 and secondary routes linking the growth points and other settlements are still very critical for this current SDF and will be explored further together with other possible new development corridors.

4.4.3. Infill and Densification

Densification as a town planning term, refers to the increasing of density of people living in urban areas, while infill development is the process of developing vacant or under-utilised parcels of land within existing urban area that is already being developed or has been developed. Infill and densifications are tools to achieve spatial integration, increase population thresholds and address the legacy of apartheid through social inclusion. This SDF shall propose:

• Infill Development Areas (IDA's) where future growth opportunities are identified, which include intensities and type of infill development;

The SDF will identify certain areas and land parcels where infill development and densification will be proposed to achieve the spatial vision, especially in Namakgale and Phalaborwa.

4.4.4. Containment

This concept refers to the need to limit inefficient low-density development. This is generally done through the use of the urban/development edge which indicates the boundary for urban development for an agreed period of time. This SDF shall provide a review of the current urban edge provided by the 2009 SDF ang the 2014 Phalaborwa GMFP.

• The concept of a development edge which provides for the containment of and limitations for development;

4.4.5. Protection

The concept is aimed at protecting valuable natural, economic, or heritage resources, such as agricultural land, wetlands, ecological corridors or scenic landscapes or national/ provincial key points. An urban edge may also be used as a tool to achieve protection. The municipality has a number of these resources that need protection such as the Kruger National Park, the associated conservation areas/nature reserves, heritage sites and national key points, around which clear land use guidelines shall be developed. This SDF shall introduce:

- The concept of functional Development Zones (DZ), demarcating areas where certain activities or land uses are sanctioned or even prohibited in order to ensure spatial sustainability;
- The concept of Protection areas or Zones (PZ) wherein valuable natural and economic resources require protection

4.4.6. Growth Areas

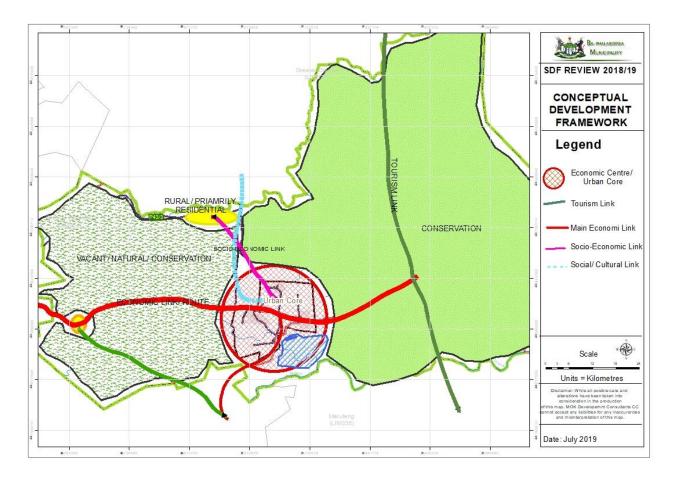
The concept refers to areas identified for future growth of the areas/settlements. This serves to curtail the often negative impacts of unguided market forces. These can also include the redevelopment of existing development areas to higher density, land suitable for infill development as well as greenfield development. This SDF will identify and review the:

- Strategic Development Areas (SDA's) where future or new residential growth opportunities are identified and which may include phasing of such development;
- Service Upgrading Priority Areas (SUPA's) are provided for where areas can be identified for upgrading of services in neglected areas;

4.5. Conceptual Spatial Framework/Spatial Concept

The following Conceptual framework is aimed at a visual representation of the spatial vision taking into account the issues, spatial principles using the tools and concepts outlined in the preceding section.

- Hierarchy of Nodes (including growth points and major urban areas) as well as the desired directions for future growth;
- A development edge around the urban core, to contain sprawl around urban areas;
- Core focus area for future urban areas/development;
- Activity nodes (existing and future);
- Linkages between nodal points and outskirt areas. It distinguishes between major, axles and other lateral links;
- Existing rural hinterland;
- Natural open spaces and areas of environmental sensitivity;
- Mining and industrial areas;
- Outskirt rural areas agricultural and farming areas;
- Outskirt rural areas nature conservation



Map 4-1: Conceptual Development Framework

4.6. Spatial Development Framework

4.6.1. Hierarchy of Settlements

The Mopani SDF in alignment with the Provincial SDF adopted the Hierarchy of Settlement within Ba-Phalaborwa Municipality, which are hereby reviewed as follows:

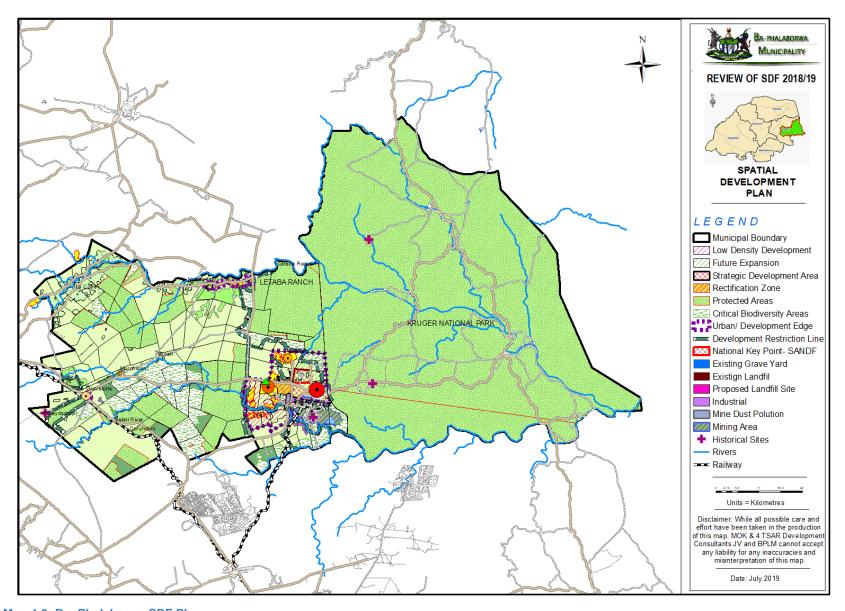
Table 4-2: Settlement Hierarchy

Settlement	Settlement Category Description	Name of Settlement
Hierarchy		
1 st Order	Provincial Growth Point	Ba-Phalaborwa
1 st Order	District Growth Point	Namakgale
		Ben-A, B, C
1 st Order	Municipal Growth Point	Gravellotte
1 st Order	Municipal Growth Point	Lulekani A&B, Matiko-Xisaka, Humulani,
		Kharula, Ben Farm
2 nd Order	Local Service Point	Ga-Selwane, Mukhwanana, Nyakalane
		Mahale
2 nd Order	Population Concentration Point	Mashishimale
		Makhushane
		Maseke
3 rd Order	Scattered Settlement	Nondweni
		Prieska
		Murchison

For the purposes of vertical alignment and based on the spatial planning principles, it is hereby submitted that this SDF maintain the same hierarchy as the District and Provincial SDF's, with a proposal to downgrade Gravellotte to a Municipal Growth Point or Local Service Point based on its current size, regional significance as well as its growth potential (it has shown little improvement and remained stagnant over the years and there is no growth prospect at this stage). Compilation of a detailed local SDF for the area to ensure that it lives up to its categorization should be considered. Attention must also be drawn to the need for settlement cluster development plans for 2nd and 3rd order settlements to be undertaken.

The municipality has partly implemented part of the proposed projects in that it compiled the Growth Management Framework Plan (GMFP) for the Phalaborwa Urban Core. This plan has gone into detail on the functional core urban area which includes, all first order settlements of Phalaborwa, Namakgale, and Lulekani clusters, and this area is identified as the urban core in this SDF.

This SDF will therefore as a rule adopt and align with the key proposals in this plan (GMFP) and rather than repeating such proposals reference will be made to such in specific areas of this report.



Map 4-2: Ba- Phalaborwa SDF Plan

For the purpose of this SDF, BPM will be categorised into a number of distinct planning areas, namely:

- **1. Core Urban Area** Phalaborwa, Namakgale and Lulekani with adjacent rural hinterlands of Mashishimale. Makhushane, Maseke, Ben, Matiko-Xikaya, Kurhula, Humulani, etc.
- 2. **Other Settlement,** including the rural areas of Selwane, Nondweni, Mahale, Prieska all other scattered areas **of** Gravellotte, Murchison, Leydsdorp, etc.
- 3. **Conservancies and Protected Areas-** including the KNP, Letaba Ranch, Selati, Eiland and all other conservation area or Critical Biodiversity Areas (CBA'S);
- 4. Other Major Land Uses, such as Mining and Agriculture.

4.6.2. Core Urban Area

Phalaborwa town and related other nodes within the functional urban core is the most important node within the municipal area. Phalaborwa Town, in particular has been identified as a Provincial Growth Point (PGP) in terms of the Limpopo SDF and should be stimulated in order to grow to its full potential. It is also the primary provider of social services and bulk infrastructure for the local municipal area. The other nodes within this core area are within a radius of 15 km and therefore are very much functionally connected to Phalaborwa, namely Namakgale, Lulekani and the joined surrounding rural settlements/ Population concentration points including Mashishimale, Ben, Maseke, Makhushane, Matiko-Xikaya, Humulani, etc.

It is important to promote the development of the core urban area as a compact integrated urban area, informed by a number of development principles, namely:

- **Principle 1**: All development within the Ba-Phalaborwa Urban Core shall firstly be confined within a <u>delineated development/ urban edge</u> in order to achieve a compact development.
- **Principle 2:** <u>Human settlements</u>, i.e. expansion of existing settlements and all related development, within Ba-Phalaborwa Municipality shall be directed to follow a <u>desired direction of growth</u>.
- **Principle 3**: Engineering services shall, as a rule, be concentrated to the core urban area in order to prevent urban sprawl.
- **Principle 4:** Future business development shall be guided in terms of the identified hierarchy of business centres.
- **Principle 5**: Movement routes and roads shall be planned to improve internal traffic circulation and access within the urban core area and to divert local traffic from national carriers.

4.6.2.1. Development Edge

Principle 1: All development within the Ba-Phalaborwa Urban Core shall firstly be confined within the delineated development/ urban edge in order to achieve a compact development.

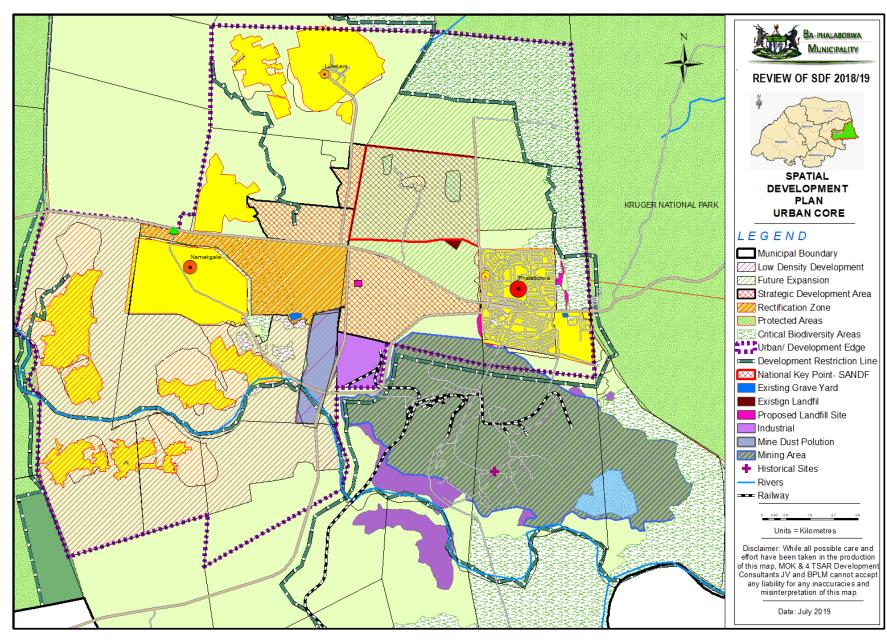
It is a well-known fact that a compact, well-planned town or urban area can be serviced easily and more cost effectively. In order to ensure a compact town, specific guidelines need to be set out for future development that will take place in the urban edge. The urban edge is defined as a demarcated

line and interrelated policy which serves to manage, direct and control the outer limits of urban expansion within the town and to ensure that development of the town only takes place within the identified areas. The urban edge also serves to protect land which is supposed to be utilised for other land-uses such as agricultural purposes, the mining of minerals and sensitive environmental areas.

The development/ urban edge proposed in this SDF (Map 4-3) is guided mainly by the following factors:

- 1. The need to contain the sprawl of development in an undesirable direction;
- 2. The need to create a compact and viable development/ city through integrating historically separate development areas;
- 3. Protection of the municipality's biodiversity.

The subject area is already under pressure especially between the three major growth points in which there appears to be a sprawling spatial pattern, coupled with lack of proper planning, including the buffer strip along the R71 road. Rural settlements/ population concentration points such as Mashishimale, and Matiko-Xikaya area may also grow opposite/ contrary to the desired direction if not carefully taken care of in advance.



Map 4-3: Phalaborwa Urban Core SDF

4.6.2.2. Residential Development and Housing

Principle 2: Human settlement, i.e. expansion of existing settlements and all related development, within Ba-Phalaborwa Municipality shall follow the desired direction of growth within the development/ urban edge.

In terms of the GMFP the total housing demand within the core urban area up to 2018 was estimated to be around 7 083 dwelling units, which is broken down as per the table below:

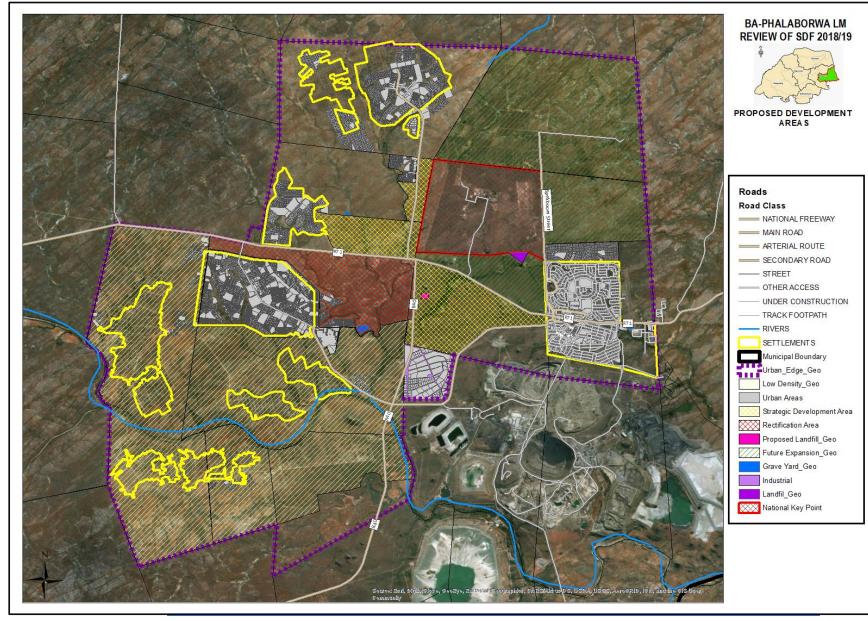
Table 4-3:Estimated Housing Demand

Cluster/area	Settlement or area where housing is expected	Est. housing need (2013-2018)		
Phalaborwa PGP	Phalaborwa	645		
Namakgale/Ben DGP	Namakgale, Ben	2580		
Lulekani MGP	Lulekani, Kurhula, Matiko-Xikaya, Humulani	2 552		
Population Concentration Points (PCP's)	Makhushane, Maseke, Mashishimale	1306		
Total		7083		

Source: Phalaborwa GMFP

Any development outside the development edge of the Ba-Phalaborwa Urban Core could be motivated on its own merits and be able to be sustainable on its own. However, as a general rule, no intensive development or township establishment should take place beyond the development edge of the Ba-Phalaborwa Urban Core. It should be noted that this excludes development at other nodes, which are not part of the Phalaborwa core urban area such as Gravellotte and ga-Selwane village cluster. Such other nodes or Settlements are addressed separately from the Phalaborwa core urban area.

Over and above the fact that human settlements and township development should take place the development edge, it is highly recommended that the priority areas for any new human settlement should be in the areas indicated as Strategic Development Areas (SDA) and Rectification Areas (RA) in Map 4-4: Urban Core Proposed Development Areas, so as to ensure consistency with the spatial planning principles. Potential supply of residential units within the identified future growth areas known as infill development areas and strategic development areas in the urban core is estimated at over 14,000 units, which far surpasses the current demand.



Map 4-4:

Urban Core

Development

Proposed

Areas

4.6.2.3. Provision of Engineering Services

Principle 3: Engineering services should also as rule be concentrated in the core urban areas in order to prevent urban sprawl.

Areas with adequate services will make it just more attractive for people to live in.

As a rule, the urban core area can ideally operate on regionalised services, including engineering and social services due to the economies of scale provided by the dense settlement patterns, namely Regional Landfill site, Regional Waste-Water Treatment Works Regional Sports Precinct, etc.

4.6.2.4. Business

Principle 4: Future business development should be guided in terms of the identified hierarchy of business centres.

Historically the Central Business District (CBD) of the main town within an area has been considered to be the most important area as far as providing retail or shopping facilities to the residents and the region. The GMFP has proposed the following types of Activity Nodes:

- i. The CBD of Phalaborwa as a Primary Activity node; and
- ii. The suburban shopping centres/nodes as Secondary Activity nodes.

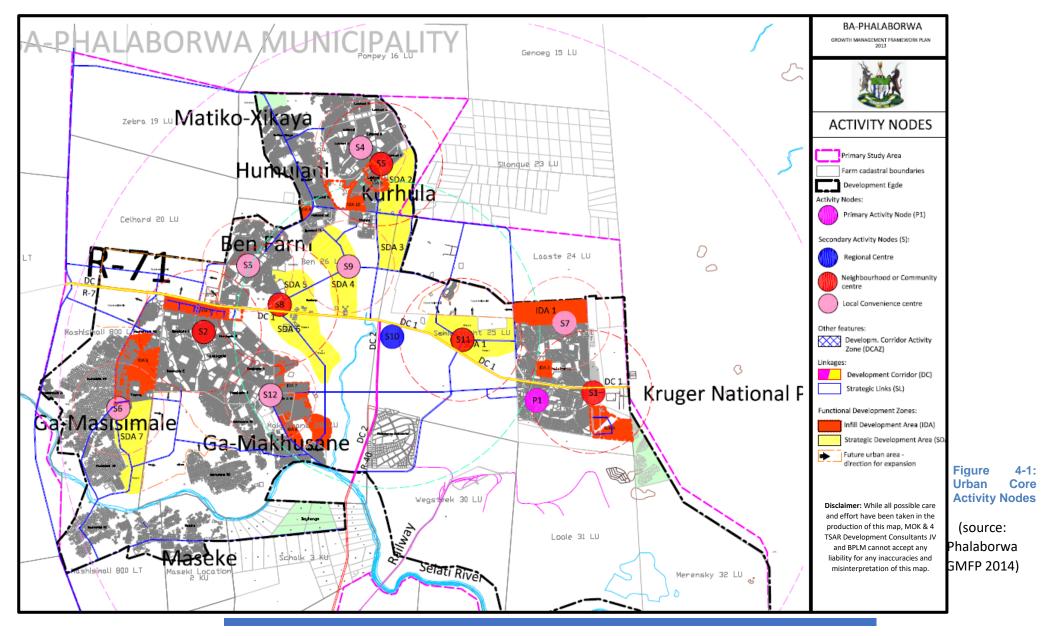
i. The Primary Activity Node

The CBD of Phalaborwa is earmarked as the **Primary Activity Node (P1)** and further demarcated as indicated in Figure 8.3 of the GMFP 2014 (Figure 4-1). It must however be mentioned that the proposed demarcation is not based on a detailed scientific study, and that it may be subject to change to final demarcation once a detail study has been completed. The municipality should take steps to ensure in good time that the CBD's viability and sustainability is maintained and that it becomes the focus area for tourism related retail, since this should remain the most important activity node in the municipal area. The CBD should be the main focus point for specialised goods and services, including office development, tourism facilities, restaurants and hotels.

Development of a CBD Development Plan study should therefore be prioritised in future so as to ensure that the CBD boundary is actually informed by detailed study, but also to ensure that it is best prepared to fulfil its role through specific interventions that will come about as a result of such a plan

ii. The Secondary Activity Nodes.

The GFMP also allows for establishment and recognition of Secondary Activity Nodes (S) throughout the municipal area. The main role of these nodes will be to serve the local community in that specific area or neighbourhood or within a specific recognised radius/ drive time.



These secondary activity nodes' main function should be focused on providing convenience goods and services for the suburban residents in their respective areas, rather than to serve as a substitute for the CBD. The secondary activity nodes should never replace the function or threaten the sustainability of the Primary Activity Node. However, where specialised goods and/ or service unique to an area can be offered as a geographic specialty or as a competitive or comparative advantage of the specific area, such should be encouraged.

Figure 4-1 also shows the various secondary activity nodes across the Phalaborwa core urban area. Detailed information on the existing, as well as the proposed secondary activity nodes in hierarchical order that include the Small Regional Shopping Centre, the Neighbourhood Shopping Centre, The Community Shopping Centre and the Local Convenience Centre is provided in the GMFP. Such information includes the type and area/suburb or settlement where such centre is situated or proposed as well as the proposed Gross Leasable Floor Area (GLFA).

4.6.2.5. Connectivity and Movement Routes

Principle 5: Movement routes and roads should be planned to improve internal traffic circulation and access within the urban core area and to divert local traffic from national carriers.

Connectivity between major nodal points (Growth Points and Activity Nodes) and the region/adjacent municipalities, is provided through:

- Development Corridors (DC) providing connectivity and opportunity for development between nodal points and routes of greater importance;
- Strategic links (SL) providing connectivity between nodal points, different neighbourhoods and other land uses, consisting of:
 - Identified higher order Provincial and District roads providing connectivity between adjacent municipalities, Growth Points and between other areas/land uses of importance such as the Kruger National Park;
 - Higher order urban roads/streets providing connectivity between urban components (neighbourhoods and precincts) and connecting with development corridors;
 - Activity Spines (AS) providing opportunity for increased activity and mixed land uses between major nodal areas and from out the development corridors. Activity Spines are mainly concentrated along certain parts of the higher order urban roads/streets forming part of Strategic Links.

The main objectives of corridors and activity spines are to:

- Ensure the integration of the economic activities of the adjacent communities at a sub-regional level:
- To create the necessary thresholds and greater level of economic activity; and
- To establish improved economic linkages.

i. <u>Development Corridors</u>

The two (2) identified Development Corridors (DC) for the Ba-Phalaborwa Urban Core area, are the following:

- DC 1 the Phalaborwa to Tzaneen/ Polokwane (R71) Development Corridor/route; and
- DC 2 the Phalaborwa to Hoedspruit (R40) Development Corridor/route

DC 1 - The Tzaneen-Phalaborwa (R71) Development Corridor/route -

This corridor runs in an east-west direction and is the most important corridor in the municipality as it links the largest part of Limpopo (from Polokwane/Tzaneen) with Ba-Phalaborwa and the Kruger National Park. It therefore links "external areas" with the Ba-Phalaborwa Urban Core and should therefore be regarded as one of two (2) main economic carriers for the municipality. It also has a very important "internal function" to fulfil, in linking Phalaborwa town/PGP with the District Growth point of Namakgale and Ben as well as the Municipal Growth Point of Lulekani (Map 4-5: Development Corridors).

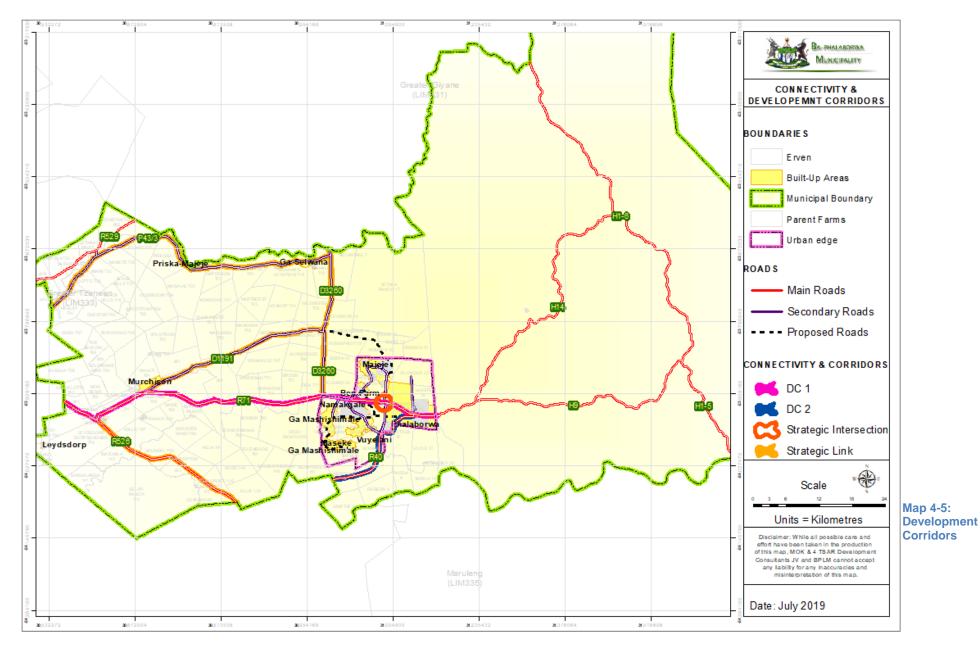
Within the urban core area, the corridor starts at the development edge close to Ga-Mashishimale in the west and runs through or along the Namakgale/Ben DGP, through Phalaborwa PGP up to the Kruger National Park's Phalaborwa gate in the east of the development edge.

Since Phalaborwa town is the Provincial Growth Point, this SDF should in general allow a variety of land uses along this section of the corridor. However all development along the corridor should be of high aesthetical quality which should not only attract visitors, but also reflect a positive image and success of the entire municipal area/town. It may contain high density of land uses, such as (limited) office parks, medical consulting rooms, overnight accommodation, tourism information centre/s, vehicle sales lots/show rooms amongst others.

The corridor also accommodates at certain intersection the Development Corridor Activity Zone DCAZs. Apart from these DCAZ's, this corridor should mainly serve as rapid transport corridor, linking places of residence in the west with places of work in the east.

DC 2 - The Hoedspruit-Phalaborwa (R40) Development Corridor/route

This Corridor also serve as links to both external and internal areas. Externally it is the main route that links the municipality with Hoedspruit town through to Nelspruit in Mpumalanga. It starts at the development edge close to the Selati River in the southern parts of the study area and runs along the Phalaborwa industrial area up to where it intersects with DC1 (the R71 route).



This DC has two major features, namely DCAZ 3 and the nodal point where it intersects with DC1 where another Development Corridor Activity zone as well as a Secondary Activity node can be found. This endpoint should be the major point of attraction of this development corridor. Close to the intersection with DC1 this corridor should also focus on the natural beauty of the area and on the Tourism and Outdoor Recreation Zone. It is regarded as a route which should bring in tourists and visitors from the south, i.e. Hoedspruit and Mpumalanga and Gauteng, while also acting as an important economic carrier, especially for mining in the area.

ii. Strategic Links (SL)

Strategic Links are tertiary routes or link roads between nodes and Development Corridors which provide a level of connectivity between such points or between neighbourhoods. They are normally classified as Class 3 (District Distributor) roads and Class 4 (Local Distributor) roads.

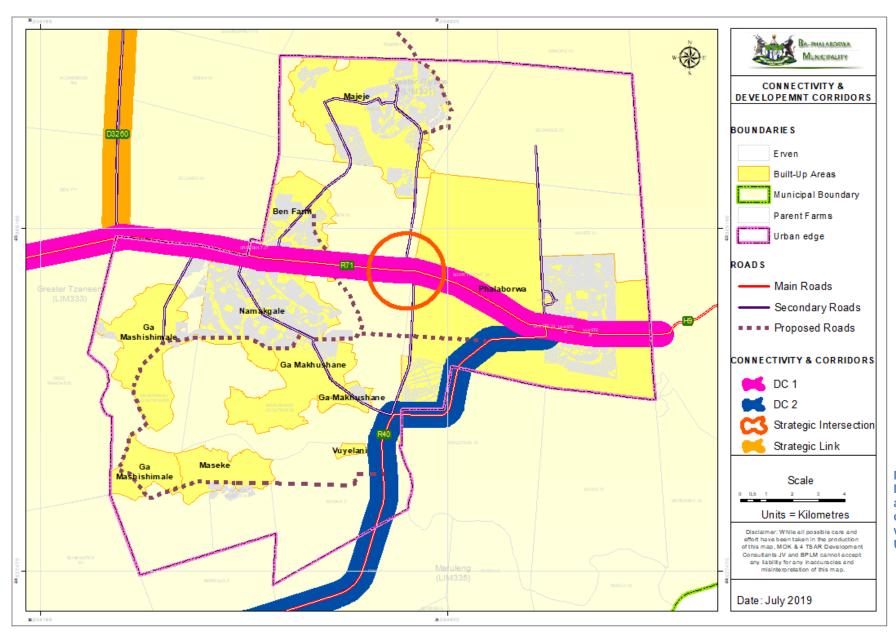
They may also link internal nodes with outside areas (e.g. other municipalities or outside nodes). It is also very important links between different neighbourhoods, ensuring mobility between areas. However, these links are not corridors for development although they may accommodate Secondary Activity Nodes at strategic intersections. The main Strategic Links in the municipality, which require upgrading and maintenance include:

- Road d3280, linking BPM Core to greater Giyani Municipality. With appropriate interventions, this route could also be recognised as a development Corridor;
- Road R526 Linking Gravellotte to R40 (Mica);
- Mashishimale-Maseke- R40 Link road, playing the role of linking especially the rural areas within the urban core to Phalaborwa town, if it can be upgraded;
- Road from Ben through Matiko Xikaya and Lulekani and back to R71, serving mainly as a integral internal public transport route;
- The proposed link road from Benfarm over the R71 through the Rectification Area and linking with Calvin Ngobeni street;
- The proposed direct link from Calvin Ngobeni traffic circle over R40, through the SDA1 and linking with Phalaborwa CBD through Potgieter street.
- The gravel road between Mashishimale Sports Complex westwards through Makhushane linking up with Calvin Ngobeni street in Namakgale, can provide an important internal link.

iii. Activity Spine (AS)

The Activity Spines (AS) are identified routes or stretches of road concentrated along certain parts of the higher order urban roads/streets. In most instances it would form part of the Strategic Links described above, linking with the Development Corridors (higher order routes) within the urban areas or linking different activity nodes with each other. Activity Spines may therefore also consist of other urban roads depending on the local circumstances in the area. Important activity spines include:

- Carl Ngobeni street through Namakgale and linking up to R40 and into Phalaborwa town;
- The proposed link road from Benfarm over the R71 through the Rectification Area and linking with Calvin Ngobeni street;
- Other road within the townships and villages.



Map 4-6: Movement and circulation within the Urban Core

4.6.2.6. Functional Development Zones

Principle 6: Ensure land uses within the study area providing specific opportunities for and identifying suitable areas for economic development including industrial, mining related and other commercial activities are clearly demarcated and protected.

4.6.2.6.1. Airport Zone (AZ)

The current airport which is situated east of Phalaborwa represents the Airport Zone (AZ) within the development edge accommodating air transport facilities for the region. It is proposed that any possible expansion may take place into an eastern direction up to the border with the Kruger National Park. The proposed Aero Zone (AZ) therefore includes an airport and airport related uses such as warehousing, courier services, aircraft maintenance workshops, hangers etc. The idea of the proposed AZ is that activities in support of the airport such as warehouses for air freight, be provided for, in support of a higher level of services/facilities to serve for the entire sub-region. Secondly, it can provide in passenger air services for tourists and businesspeople. However, it is acknowledged that no major growth is expected in the near future for this airport and it may not be able to compete with the neighbouring ones in Polokwane or Hoedspruit.

4.6.2.6.2. Protection or Restriction Zones

Principle 7: Ensuring the protection of the biodiversity and also support the use of nature conservation areas and areas of natural beauty in favour of tourism activities and recreation;

The Protection Zone includes areas which are explicitly aimed at protecting valuable natural and heritage resources as well as sensitive military activities in the urban edge and the municipality. In general, no other land use or township establishment should be permitted, except for purposes incidental to the current use. Although some parts of the Protection Zone fall outside the development edge, it forms a network linked with outside components, such as the Kruger National Park and Selati river.

4.6.2.6.3. Military Restriction Zone (MRZ

The area demarcated as a national key point in the urban edge is a Military Restriction Zone (MRZ) and is reserved for the State for defence force and military purposes.

4.6.2.6.4. Other Features and Land Uses

As alluded to in the earlier development principle, the urban core can be sustained through regionalisation of key services and land uses, which will be more cost-effective than the current separated services that require triple the effort for management and maintenance. The following land uses are critical to be given attention within the development edge:

Regional Sewer Works (RSW)

The ideal location for a proposed Regional Sewer Works (RSW) should be at the lowest points where most of the sewer from the entire urban core area shall be able to gravitate. Sewer flow from most of the proposed SDA's and IDA's will be able to be channelled along the open space systems, which all eventually links up with the Selati River. Therefore, the most ideal location for a proposed RSW should

be south of the area where the Selati river is crossed by the R40, between and road and the river (just west of the mining zone).

It should be noted that the RSW must only be developed after careful consideration of aspects such as environmental impact, provision of the Water Act, etc. due to its location in the environmentally sensitive area and close to the Selati River.

Areas of Densification and Mixed Land Uses

The areas marked as SDA-1 and SDA-2 on the SDF Plan for the urban core area should optimally be earmarked as a mixed use and densification zone due to their location within a development corridor (DC1 & DC2), in order to increase the population threshold in this corridor to attract other commercial uses (Map 4-3: Phalaborwa Urban Core SDF)

Municipal testing grounds and land for additional community facilities

The area west of the CBD and south of the proposed secondary/strategic link road is ideally located for municipal community uses purposes including a testing ground.

Municipal Regional Landfill Site.

The site for this land use has already been secured and processes to acquire the necessary licenses and permits are at an advanced stage. The proposed regional landfill site area is approximately 80ha to 100ha and has a projected lifespan of approximately 50 years.

From a biodiversity point of view, it should be noted that site is located within an Ecological Support Area 1 (ESA1), therefore the landfill site will need to be managed properly with strict conditions in order not to impact negatively on the area's biodiversity value (see Map 4-3). Continuous rehabilitation of the landfill site shall be required for to ensure the area can be rehabilitated and made available for recreational uses such as sport fields in future.

Regional cemetery

The provision of cemetery services within the urban is problematic, with scattered and localised cemeteries and poor management thereof, which leads to shorter lifespan. The municipality shall consider an accessible location for a regional cemetery that can serve the entire urban core, which can be realised with the implementation of the proposed roads to improve internal/ local traffic circulation. This approach requires buy-in from the traditional authorities and communities, and shall have an immense impact on the protection of the environment.

4.6.3. Other Settlements

Outside the urban core, the municipality has: a number of other settlements, namely:

4.6.3.1. Selwane Settlement Cluster

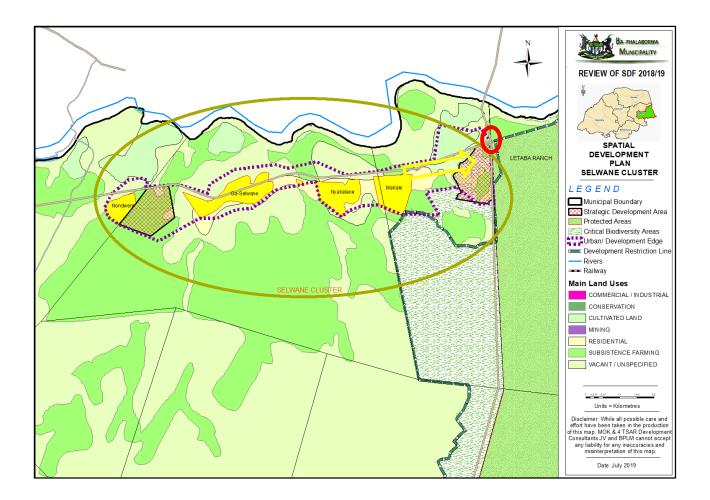
This is the biggest rural cluster in outside the urban core, which comprises Mahale, ga-Selwane & Nondweni villages. Two (2) key strategic development areas (SDA's) identified, with the view:

- To internally integrate the new Selwane township with Nondweni on the western end of the cluster; as well as
- To take advantage of the potential economic development opportunity created by the intersection of road P43 from Selwane with D3280 to Giyani/Phalaborwa on the west of the cluster (see Map 4-7).

Therefore, the general desired direction of growth of the village cluster, once the internal integration has taken place, should be eastwards towards the strategic intersection, where business-related uses should also be encouraged to improve the economic base of the area.

Furthermore, in order for this cluster to live up to its status as a Local Service Point:

- provision of shared social facilities that will serve the entire cluster should be prioritised namely sports & recreation facilities, waste collection service points, security and educational services, etc.
- Engineering services should at least be provided to the national minimum standards throughout the cluster.
- Agricultural activities should be supported to bridge the economic gap in the area. Ideally, small-scale subsistence farming in the area must be supported to become more commercialised and to play a significant role towards contributing to food security in the entire region.
- Critical biodiversity areas must be protected in all developments;



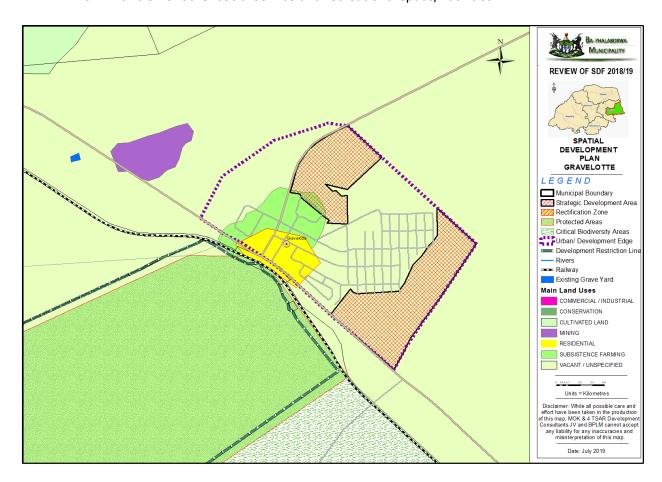
Map 4-7: Selwane Rural Cluster SDF

4.6.3.2. Gravellotte Town

Gravellotte has initially been classified as a District Growth Point. However, this SDF has proposed its reclassification to a municipal growth point due to is current size and its prospects for any substantial growth in the near future. Therefore, the spatial development plan for the town include mainly the identification of strategic expansion area in the form of two (2) strategic Development Areas (see Map 4-8). The priority project for the municipality in this regard are:

- Acquisition of the land earmarked as SDA; and
- Township Establishment to cater for any need for residential and business space in the town to boost its growth.
- Other critical projects to maintain an acceptable state of the town include:
 - Paving of streets and sidewalks;
 - Upgrading of water and sanitation infrastructure;
 - Extension of the existing cemetery;

o Provision of other social service and recreational space/ facilities.



Map 4-8: Gravellotte SDF Plan

4.6.3.3. Other scattered settlement

Settlement in this category include Prieska, Leydsdorp and Murchison Camp. The main principle to be followed regarding development of these areas are:

- **Principle 8:** Where services are provided above the national minimum standards, maintain them as such to the extent that it is cost-effective. Users must be able to pay and provide the required revenue for the municipality to continue the level off service.
- **Principle 9**: Where services are below the national minimum standard (RDP), provide and maintain the required minimum level of service to all residents.
- Principle 10: Expansion of the areas must be directed by the municipality taking cognisance of the need for integration, access to central services as well as the environmental sensitivities of the areas:
- **Principle 11**: Support agricultural development as an economic base.

4.6.4. Critical Biodiversity Areas (CBA)

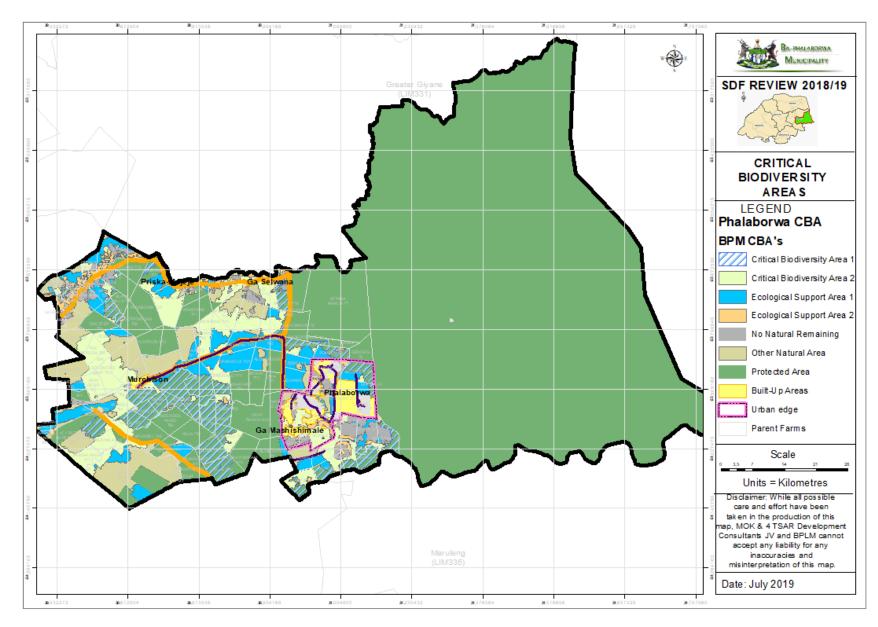
Principle 12: Create a land use regulatory framework that preserves the municipality' protected and environmentally sensitive areas.

The municipality has obligations and responsibilities to protect and ensure there are mechanisms for sustaining the biodiversity within its area of jurisdiction to the extent possible. Noting that some 70% of biodiversity is estimated to occur outside protected areas (nature reserves and parks), this means that municipalities have a crucial role to play in the conservation of the country's natural heritage.

Critical biodiversity areas in BPLM include sensitive environmental features such as rivers, watercourse and mountain ridges and are areas where human settlement and development should not be permitted because of biodiversity protection and because of possible danger for human settlement associated with flooding risks. These areas are "no-go" areas for most forms of development, excluding uses associated with the protection of the biodiversity and tourism (see Map 4-9: Critical Biodiversity Areas in BPLM).

Some CBA's fall within the development edge whilst other parts fall outside of it. Development guidelines shall be adopted, emanating from the Limpopo Biodiversity Plan, for management and protection of these by all stakeholders, especially within the development edge and where high-impact land uses are prevalent.

Important to note with section is that the municipality shall adopt the guidelines in line with the Limpopo Biodiversity Plan, which shall be built into the decision-making criteria for any land use and development applications. The CBA's demarcated through the Limpopo Biodiversity Plan shall be used to identify sensitive environmental areas requiring protection, and these should further be given effect in the review of the municipality's land use scheme, especially Protected Areas, CBA 1 & 2 as well as ECA 1 & 2.



Map 4-9: Critical Biodiversity Areas in BPLM

4.6.5. Other Major Land Uses

Other major land uses in the municipality include Mining and Agriculture.

4.6.5.1. Mining and Industrial Development Zone (MIDZ)

Principle 13: Limit the encroachment of the mining land use into the urban edge or human settlements.

The Mining and Industrial Development Zone (MIDZ) has two interrelated components, namely Mining and Industrial uses.

- In respect of mining the plan demarcates or represents extensive land use and extraction of
 minerals and resources at a large scale on the south-eastern border of the development edge and
 is subject to location of such natural resource/s. Therefore, mining activity will receive preference
 over any other land use within the demarcated mining area, followed by the incidental industrial
 uses.
- The industrial land use zone represents the existing industrial areas in support of the aforementioned as well as in support of the city's requirements in terms of industries as well as rail transport facilities, therefore it's inclusion in the development edge.

Other mining areas in the municipality are around Gravellotte and Murchison and should be protected as such, alongside the surrounding environmental sensitivities.

4.6.5.2. Agricultural and Farming Zone (AFZ)

Principle 14: Protect land with high agricultural potential and support related economic activity in order to create jobs.

The Agricultural and Farming Zone (AFZ) include areas outside the development edge where commercial, small scale and subsistence farming as well as game and cattle farming activities take place. In general terms, urban development should not be permitted, and agriculture should receive preference over any other activity. This zone should be treated as a "no-go" area for certain forms of development since it falls outside the development/ urban edge. However, land uses associated with the processing and packing of agricultural products and servicing of these farming communities as well as associated game farming activities, may be permitted in these areas as it complements the economic base of the rural area/settlements;

4.7. Spatial Strategies

Spatial strategies are hereby developed per key principles and objectives based on the 2009 SDF, with revisions and augmentation in certain areas.

4.7.1. Spatial Growth Management

The following strategies and policies serve to manage, direct and control spatial growth within Ba-Phalaborwa Local Municipal area.

Table 4-4: Spatial Growth Management strategies

GROWTH ELEMENTS	POLICIES	STRATEGIES
a) Spatial development patterns (in respect of the hierarchy of urban and rural nodes.)	 Consolidate towns/settlements with the emphasis on the establishment of a balanced and coordinated hierarchy of nodes and viable communities; Stimulate priority nodes such as Phalaborwa Town, Namakgale and Lulekani Townships to create a threshold for long term sustainable development; Support towns/settlements to provide acceptable levels of municipal and social infrastructure linked to the function and priority of every individual node in terms of the settlement hierarchy; Promote and support appropriate development in rural areas; and Correct historically distorted spatial and land use patterns. 	 Promote the equitable distribution of resources between nodes in terms of their priority and categorisation; Ensure that functions are allocated and located in a manner that is consistent with the hierarchy of nodes; Inform decision-making regarding the location of new investments both public and private in terms of the hierarchy of nodes; Promote cost effective provision of social services and infrastructure; Promote economies of scale; and Reduce overlapping and co-dependency of facilities. Direct all new development in a desired direction of growth.
a) Urban development form (in (relation to the physical development or "footprint" of the urban area.)	 Discourage urban sprawl; Consider influences of surrounding areas; Promote and support a compact proclaimed town; Permit land-uses which are compatible and sustainable within the identified urban edge; 	 To promote and improve the general efficiency of the urban structure; To promote and improve the optimal and cost-effective provision of services and infrastructure; To promote and improve urban integration;

GROWTH ELEMENTS	POLICIES	STRATEGIES
	Restructure urban development to assist in integrating marginalised communities;	To promote and improve convenience and resource utilization; and
	 Provide a diverse combination of land-uses; and Provide residential and employment opportunities in close proximity to one another. 	To make unutilized Council land available for development in terms of prescribed procedures and in line with spatial policy guidelines.

4.7.2. Urban and Rural Land-Use

The following strategies and policies relate to the management of land-use patterns within the Ba-Phalaborwa Municipal urban and rural areas.

Table 4-5: Urban and Rural Land use Spatial Strategies

LAND-USE	POLICIES	STRATEGIES
a) Residential Development	 Timeously identify land for a variety of residential types to cater for all the residential needs of the population in the municipal Area; Discourage land-use sprawl and promote residential densification and intensification of economic activity, where possible; Ensure appropriate living conditions for all and enhance the quality and amenity value of residential environments in general; and Promote mixed land-use zones in selected urban areas. 	development opportunities to accommodate future growth. Council initiatives/incentives with regard to directing future residential development must be aligned accordingly; • Subdivisions and/or redevelopment to achieve higher densities within the context of maintaining the residential character of the respective nodes/settlements should be supported;

LAND-USE	POLICIES	STRATEGIES
b) Industrial and Business Development	 Promote the efficient and productive use of existing and allocated business and (light) industrial land, which could include providing smaller erven; Support the implementation of a functional hierarchy of business nodes with emphasis on the strengthening of the CBD; and Small business developments which create the greatest potential employment should be encouraged, thereby favouring labour-intensive uses. 	 current and envisages future needs; Seek for the efficient and productive use of existing and allocated business and light industrial land; Ensure that new and existing developments meet acceptable environmental standards; Encourage small business development in all the economic sectors;
c) Mining	 Manage potential negative impacts of existing and future mining activities within the municipal area; Mining potential of minerals/mining zones should be protected from both informal and formal urban development that may sterilize any future exploitation; and Acknowledge the general economic demand for mining and the related need for utilisation of the resource potential, but simultaneously ensure appropriate resource management, environmental control and rehabilitation of mined areas. 	 residential development and vice versa; Protect the tourism potential in the municipal area against harmful mining practices where it could occur and/or mitigate with stakeholders and role players to minimize the potential impact on the tourism industry; Strict landscape measures must be enforced to screen the visual impact of mining activities;

to the contract of the contrac							
 Implement and support recommendations made for tourism development In the Limpopo Tourism 	 Adopting the cluster concept as the fundamental approach for development planning at the local municipal level; 						
Development Strategy, insofar as it is applicable to the municipality;	Combine public and private sector contributions to development and align the interventions of various public development						
 Consolidate the existing tourism destinations which are clusters of attractions that are located in close proximity to each other and have the potential to contribute significantly towards accelerated growth in the tourism institutions for greater impact; Public sector interventions should include development with specific reference to improvement of infrastructure and collective 							
sector. The value chains of each destination or cluster should	 Create the threshold (as part of the combined effort between government and the private sector) required to develop 						
be mapped and extended as the basis for rapid increases in the contribution from tourism to Ba-	destinations in terms of their inherent potential optimally; • Design tourism development strategies per destination, which may						
Mobilize the regional and local municipal development	 be more appropriate than municipal tourism strategies, because destinations do not recognize municipal boundaries; and Streamline application procedures for changes in land-use which 						
impact.	are sustainable and tourism related.						
 Conserve and retain prime and unique agricultural land to the extent possible; 	 Earmark prime and unique agricultural land exclusively for agricultural purposes; 						
 Retain and improve the agricultural sector's contribution to the region's economy; 	 The subdivision of agricultural land should be considered based on specialist reports which confirm the sustainability; 						
 Identify opportunities for small-scale farming in support of local economic development; 	The subdivision of all agricultural land should be approached carefully irrespective whether the land has been excluded from the						
 Ensure that agricultural activities are consistent with the principles of the Municipality's Spatial Development 	Subdivision of Agricultural Land Act (Act No 70 of 1970) or not; Non-agricultural development could be considered in agricultural						
 Framework as well as the Integrated Development Plan; Enhance agriculture in general, to permit the 	areas on condition that such development will significantly contribute to promote environmental sustainability and have no influence on the development of existing nodes in the area.;						
• <u>-</u> • •	municipality; Consolidate the existing tourism destinations which are clusters of attractions that are located in close proximity to each other and have the potential to contribute significantly towards accelerated growth in the tourism sector. The value chains of each destination or cluster should be mapped and extended as the basis for rapid increases in the contribution from tourism to Ba-Phalaborwa Local Municipality GGP; and Mobilize the regional and local municipal development interventions within the cluster context for greater impact. Conserve and retain prime and unique agricultural land to the extent possible; Retain and improve the agricultural sector's contribution to the region's economy; Identify opportunities for small-scale farming in support of local economic development; Ensure that agricultural activities are consistent with the principles of the Municipality's Spatial Development Framework as well as the Integrated Development Plan;						

LAND-USE	POLICIES	STRATEGIES				
	practices and to encourage the development of agro-industries;	 Development to receive preference over agricultural resource protection within the urban edge, with conservation /preservation of high-potential agricultural soils to be relegated to instances where the relevant authority can substantiate/motivate the very existence of a viable farming/production unit; To conserve/preserve the agricultural resource potential in areas where it is mandatory to do so (i.e. Extensive Agricultural and Conservation Zone), resource protection therefore to supersede development; To permit land-uses conceivably to be associated with agriculture, with the emphasis on those uses conceivably to create job opportunities such as agro-industries; Promote urban agriculture where possible. 				
f) Agricultural Holdings	 Manage the subdivision of agricultural land carefully and if permitted, require service agreements to ensure sustainable service delivery; and Spatially guide the provision of sustainable opportunities for small-farmers and/or emergent farmers to gain access to land. 	 sustainable utilization of agricultural resources; Subdivision proposals for the establishment of agricultural holdings must ensure that the subdivided land portion(s) are large enough 				
(g)Movement patterns and transportation	 Improve accessibility of Ba-Phalaborwa Town and surrounding parts from key Roads, especially R71, and R40; 	•				

LAND-USE	POLICIES	STRATEGIES
	 Enhance and ensure proper maintenance of the road network and rail linking/giving access to all development nodes and the entire municipal population; The adverse impact of transport on the environment must be minimized; Investment must be focused and targeted at areas where optimum returns could be expected to generate further spin-offs. Tourism corridors should be well maintained and upgraded. 	Prioritization of (future) roads in new developments (i.e. collector and main access roads) to comply with capacity and design requirements from a traffic point of view.

4.7.3. Natural Environment

The following strategies and policies serve to protect sensitive environments.

Table 4-6: Natural Environment Management Spatial Strategies

SENSITIVE ENVIRONMENT / ELEMENTS	POLICIES	STRATEGIES
a) Topography	To preserve mountainous and other ridge areas in view of their environmental sensitivity, ecological importance and as major contributors to local and regional open space systems.	 Do not allow development, including buildings and other structures, mining or any form of modification of landscapes in these areas; If residential developments are permitted on these areas, special measures should be implemented; and Take note of the limited impact of watersheds, therefore reducing the need to redirect water discharge, storm water run-off or sewerage from one watershed to the other.
b) Geologically Unsuitable Areas	Prevent development from taking place on geologically unstable formations.	 Geologically unstable formations susceptible to slumping, erosion and/or movement should be avoided; and Development should, where required, be subjected to a geotechnical engineer's reports. EIA required for all development.
c) Visual Sensitive Areas	Protect the natural and heritage qualities/features contributing towards aesthetic quality, identity and sense of place from indiscriminate development.	 No development should be allowed within visual sensitive areas; and In general, development should not be permitted on ridgelines. EIA required for all development

SENSITIVE ENVIRONMENT / ELEMENTS	POLICIES	STRATEGIES
d) Vegetation	Protect sensitive vegetation habitats.	 In general, development should not be permitted in sensitive vegetation habits, except with enforceable mitigation measures; and Remove invasive alien vegetation in a controlled manner. EIA required for development
e) River Systems	 Protect sensitive river systems, sponges, wetlands and catchment areas; and Preserve the banks of rivers, tributaries and watercourses as open space systems and also safeguard them against unsound land-use practices. 	recreational pressures as a result of shore development; • Development should be restricted to one riverbank to enhance the aesthetic appeal and to protect the estuarine
f) Biodiversity	 Implement Biodiversity Act. Promote identified conservancies. 	 Identify and protect proclaimed nature reserves and conservancies against external influences. Build the biodiversity land use guidelines into the municipality's land use decision-making process; Delineate and maintain a development buffer between protected areas and any high-impact development (transition zone).

	NSITIVE ENVIRONMENT / EMENTS	POLICIES	ST	RATEGIES
g)	Heritage and archaeological sites	Preserve archaeological, cultural, historical and other heritage sites where it is conservation worthy and/or practical to do so.	•	Compile a database of archaeological, cultural, historical and other heritage sites; Investigate and report on cultural, historical and other heritage sites in liaison with the SA Heritage Resources Agency, Heritage Impact assessments to form part of development applications in Develop tourism routes along historical and heritage site with proper signage.
h)	High potential agricultural land	Protect high potential agricultural land	•	Prohibit unjustifiable subdivision on agricultural land; Require proper feasibility studies and Management plans before allowing new farming activities.
i)	Eco-Tourism	Adopt eco-tourism as one of the economic pillars of the Municipality.	•	Incorporate and promote eco-tourism as a "partner" in economic growth in the Municipality.

4.8.Implementation Framework

The SDF identified a hierarchy of nodes in line with both the District and Provincial SDFs. These nodes represent the priority development and investment focus areas for the municipality. It therefore implies that these nodes need to be prioritised for new major infrastructure development and upgrading of existing infrastructure so as to stimulate the economy of the municipality.

Urban Core: The core urban area of the municipality comprising Phalaborwa town, Namakgale and Lulekani and surrounding rural areas constitutes approximately 90% of the municipal population and therefore investing major government resources towards infrastructure in this core area shall definitely improve the quality of life of a majority of residents. It is particularly at these nodes that spatial transformation can be realised if proper systems and plans are put in place and there is adequate support from all stakeholders. The Municipality has already developed and adopted the Growth Management Framework Plan (GMFP) for the core urban area to guide growth and development and it is imperative that this plan be adopted as the supporting policy for the SDF.

Other areas: This however does not imply that other nodes or areas with no economic potential be neglected. The municipality has a constitutional obligation to provide basic services to all its areas consistent with the NSDP principles. Therefore, rural areas and other small towns and settlements in the municipality must be provided with at least the level of service consistent with the national minimum standards (RDP level) as well as ensuring that provision of other social services is in line with the minimum standards as contained in the CSIR Guidelines for the Provision of Social Facilities in South African Settlements (August 2012). Each community/ settlement must have access to clean household water, adequate sanitation and solid waste disposal, access to primary and secondary educational facilities within an appropriate distance, healthcare service, police and other support social services. The feasibility of developing a Thusong Service Centre in ga-Selwane to serve the cluster shall be investigated.

4.9. Supporting Policies for the Ba-Phalaborwa SDF

For the SDF to be implemented with certainty certain policies of guidelines need to be formulated. Among some of the required supporting policies are the following:

- i) Land Use Scheme to be reviewed.
- ii) Local SDFs and or Development Frameworks for other Nodes and population concentration points.
- iii) Phalaborwa CBD Development Plan
- iv) Subdivision of land policy
- v) Informal Trading Policy and by-law
- vi) Tourism Development Strategy
- vii) Incentive policy for investing in priority nodes

- viii) Densification Policy
- ix) Urban renewal strategies for Lulekani and Namakgale
- x) Integrated Infrastructure Master Plan
- xi) Local Integrated Transport Plan
- xii) Water Demand and Conservation Strategy/ Plan
- xiii) Tourism Routes Master Plan
- xiv) Strategic Heritage Study

4.10. Guidelines for Land Use Management

The guidelines for land use management, which should be used by the municipality in considering all spatial planning and land use management initiative are hereby introduced. These should also be included in the land use management scheme and other related policies and management tools of the municipality to ensure universal and consistent application at all levels.

4.10.1. Within the whole Municipality

- Implement the land use scheme as a rule.
- Implement policies and strategies outlined in this SDF

4.10.2. Within Areas of Environmental Sensitivity

 Implement Limpopo Conservation Plan land use Guidelines in addition to those applicable to the whole municipality. The following guidelines shall apply in the consideration of land use applications:

Table 4-7: Recommended land uses per land use zone as per the Biodiversity Sector Plan (BSP)

No	Land Use Zone	Associated Land use Activities		CBA1	CBA2	ESA1	ESA2	ONA	NNR
1	Environmental Conservation (& similar zones in EMFs etc.)	Conservation management, low-intensity eco-tourism activities and sustainable consumptive activities. This includes both gazetted Protected Areas (NEMPA) and non-gazetted conservation areas.		Y	Υ	Υ	Υ	Υ	Υ
		Low Impact Eco-Tourism (e.g. lodge or other ecotourism infrastructure on game reserve)	Y	Υ	Y	Υ	Y	Y	Υ
2	Tourism and Accommodation	Medium Impact Tourism / Recreational and Accommodation.	N	R	R	R	R	Y	Y
		High Impact Tourism / Recreational and Accommodation (e.g. golf and polo estates).	N	N	N	N	R	Y	Y

No	Land Use Zone	Associated Land use Activities	PA	CBA1	CBA2	ESA1	ESA2	ONA	NNR
		Low density rural housing or eco-estates.	N	R	R	R	R	Υ	Y
3	Rural Residential	Moderate density rural housing or eco-estates.	N	N	R	R	R	Υ	Υ
		Traditional Communal Areas and Rural Communal Settlement (New).	N	N	N	R	R	Υ	Y
		Extensive Game Farming	Υ	Υ	Υ	Υ	Υ	Υ	Υ
		Extensive Livestock Production	N	Υ	Υ	Υ	Υ	Υ	Υ
		Extensive Game Breeding (≥100 ha camps)	N	R	R	Υ	Υ	Υ	Υ
		Low Impact Extensive Game Breeding (permeable fencing and camps >100 ha)	N	Υ	Υ	Υ	Υ	Υ	Υ
4	Agriculture	Intensive Game Breeding (<100 ha camps, high stocking densities, impermeable fencing)	N	N	N	R	R	Υ	Υ
		Arable Land - Dryland and Irrigated Crop Cultivation	N	N	N	N	R	Υ	Y
		Plantation Forestry: Timber Production.	N	N	N	N	R	Υ	Υ
		Agricultural Infrastructure - Intensive Animal Farming (e.g. feedlot, dairy, piggery, chicken battery).	N	N	N	N	R	Υ	Υ
5	Open-Space	Public or Private Open-Space (Modified), includes recreational areas, parks etc. i.e. loss of indigenous vegetation	N	N	N	N	Υ	Υ	Υ
	орен эрасс	Public or Private Open-Space (Natural) – includes natural open space (indigenous vegetation retained or rehabilitated in ESA2)	Υ	Y	Υ	Υ	Υ	Υ	Y
6	Residential	Low, low-medium, medium-high, and high density urban residential development.	N	N	N	N	N	Υ	Υ
7	Urban Influence	An amalgamation of land use zones, including Institutional, Urban Influence, General Mixed Use, Low Impact Mixed Use, Suburban Mixed Use and General Business.	N	N	N	N	N	Υ	Υ
8	Low or High Impact and General Industry	Low Impact, General Industry and High Impact Industry (Urban & Business Development).	N	N	N	N	N	Υ	Υ
9	Transport Services	Transportation service land uses e.g. airports, railway stations, petro-ports and truck stops, bus and taxi ranks and other transport depots.	N	N	N	R	R	Υ	Y
10	Roads and Railways	Existing and planned linear infrastructure such as hardened roads and railways, including activities and buildings associated with road construction and maintenance, e.g. toll booths, construction camps and road depot sites. (Linear Engineering Structures)	N	N	R	R	R	Y	Y

No	Land Use Zone	Associated Land use Activities	PA	CBA1	CBA2	ESA1	ESA2	ONA	NNR
		Linear engineering structures, such as pipelines, canals and power lines. (Linear Engineering Structures)	N	R	R	R	R	Υ	Υ
		Small-scale Infrastructural installations, including wastewater treatment works and energy sub-stations	N	N	R	R	R	Υ	Υ
11 Utilities	Large-scale Infrastructure installations, including bulk water transfer schemes, impoundments (Water Projects & Transfers), and energy-generation facilities.	N	N	N	N	R	Υ	Υ	
		Renewable Energy (Photovoltaic farms and solar arrays)	N	N	N	R	R	Y	Y
		Renewable Energy (wind farms)	N	N	R	R	R	Υ	Y
		Prospecting and Underground Mining	N	N	N	R	R	Y	Y
12	12 Quarrying and Mining	Quarrying and opencast mining (includes surface mining, dumping & dredging).	N	N	N	N	N	Υ	Υ
		Hydraulic Fracturing	N	N	R	R	R	Υ	Y

Y = YES, permitted and actively encouraged activity;

4.10.3. Within the Core urban area

• Implement guidelines contained within the **GMFP** in addition to those applicable to the whole municipal area.

4.10.4. Within Traditional Authority Areas

• Implement the land use scheme with flexibility to accommodate the unique setup in such areas. Such uniqueness must be accommodated in the next review of Land Use Scheme.

4.10.5. Within Areas with other land use normally zoned Agriculture.

The following land use guidelines shall be considered in addition to the biodiversity guidelines:

Table 4-8: Agriculture Compatible Land Uses

Agro-oriented	Farm stall, butchery, nursery, dairy, wood sale, etc		
Agro-industrial	Sawmill, packers, canners, mineral water bottling		
Other Agro-related	Forestry office, equestrian school, veterinary surgeon		
Industrial	Brickyard, crusher, Quarry, paper mill, mine		
Manufacturing	Furniture manufacturing, engineering works, mechanical workshop,		
	scrap yard		
Service Industry	Vehicle repairs, motor valet, plumber, upholsterer, taxidermy		
Other Industrial	Power plant, builders yard		

N = NO, not permitted, actively discouraged activity; and,

R = RESTRICTED to compulsory, site-specific conditions & controls when unavoidable, not usually permitted.

Tourism -	Curio shop, museum, hiking trail, tea garden, weavers, information
	kiosk, etc.
Accommodation	Guest houses, bed and breakfasts, motel/hotel, lodge overnight
	accommodation, etc
Service-related	Drilling and borehole equipment, transport service. Tow truck service,
businesses	filling station
Community related	Pre-school, day care centre, primary or secondary school, hostel for
businesses	children, church, entertainment.

NB. Some of the agro-orientated uses do not require that formal application can be made, due to the link that the usage has with agriculture

4.10.6. Standard procedures for all applications:

All applications for land use rights and development must be made in terms of:

- The Ba-Phalaborwa Land-Use Scheme, 2008;
- SPLUMA and related By-law; and or
- - Other applicable legislation, read in conjunction with the above listed.

4.10.7. Standard conditions for approval for all land-uses:

- Advertisement signs: Must comply with regulations of relevant application legislation.
- The owner must submit a services plan and provide a certificate issued by an appropriately qualified person to the satisfaction of the Ba-Phalaborwa Local Municipality for proof that:
 - Adequate water and water of good quality can be provided to the satisfaction of the local authority to the proposed development; and
 - Arrangement can be made for the disposal of effluent and solid waste to the satisfaction of the Municipality.
 - Access, egress and building lines: Entrances, exits and building lines must comply with the requirements of the Roads Agency of Limpopo.
- Compliance with the National Environmental Management Act (Act 107 of 1998) and its amendments.
- Compliance with the applicable health regulations.
- A site development plan must be submitted prior to the submission of building plans and before any development commences.
- The permission must describe the use(s) permitted, the area allowed, as well as the area of
 offices, storerooms or other buildings incidental to, or required in connection with, the use
 exercised on the premises.

- Approved rights must be executed within the period prescribed as per Land Use Scheme and SPLUM By-law
- Comments must be obtained from the Department of Agriculture and/or any other department prescribed by the Ba=Phalaborwa Local Municipality.

Additional standard conditions for approval according to categories of land-uses:

- Must include prescribing of parking requirements;
- Only goods which have been wholly or partly manufactured or processed or assembled on the premises may be sold (where applicable).
- The Municipality must ensure compliance with the environmental legislation prior to approval of application.
- All activities related to the industry must be undertaken within the building erected for that purpose. Activities that have to be performed outside must be screened off by a screen wall, the extent, material, design, height, position and maintenance of which is to the satisfaction of the Municipality (where applicable).
- The development, if approved, will be monitored and the Ba-Phalaborwa Local Municipality could impose further conditions, if necessary, should the industry cause a hindrance (i.e. possible pollution caused by taxidermy) (where applicable).

4.11. Institutional Arrangements

Among the most appropriate institutional requirements to effectively implement the SDF, the municipality shall prioritise:

- An appropriately staffed spatial/ town planning unit
- Formation of a land use screening committee, comprising in the minimum officials from town planning, building control, environmental management, legal services and technical services units of the municipality. Mopani District municipality may be co-opted to support.
- Formation of Mayor-Magoši Land Use Forum: to meet quarterly in order to maintain awareness and buy-in from this key development stakeholder. The Municipal Manager and/or Senior Manager for EDP to provide support.

4.12. Capital Investment Framework

The MTREF capital budget and projects from the IDP are as depicted below.

Table 4-9: Capital Investment Framework (BPLM Projects)

Proposed project	Source of	Implementi	2019/2020	2020/2021	2021/2022
	funds	ng agent	(R)	(R)	(R)
Purchase of a	BPM	BPM	950 000	1 000 000	1 000 000
Tractor					
Installation of remote	BPM	BPM	4 000 000		
control in Substations					
Purchase of Backup	ВРМ	BPM	1 000 000		
Generator					
Construction of Culverts	BPM	BPM	1 500 000	5 000 000	5 000 000
Mashishimale Lejori					
(Ward 10), Makhushane					
(Ward 2), Lulekani					
(Ward 15) and					
Humulani					
Office Furniture and	BPM	BPM	500 000	2 600 000	
Equipment					
Finalise Upgrading of	BPM	BPM	1 000 000	5 000 000	
Council Chamber					
Upgrading of ICT	BPM	BPM	1 850 000	3 000 000	
infrastructure					
Electrification of	DOE	BPM	7 000 000	16 500 000	9 900 000
houses	(INEG)		(400 houses)	(1 000	(600
				houses)	houses)
Selwane Sport Complex	MIG	BPM	4 861 299		
Tambo phase 2	MIG	BPM	500 000	21 000 000	
Tshelang gape to R71	MIG	BPM	8 237 238		
Mashishimale sports	MIG	BPM	5 000 000		
complex					
Namakgale stadium	MIG	BPM	11 826 161	11 000 750	

Table 4-10: Capital Investment Framework : Projects Implemented by Other State Institutions

Proposed project	Source of funds	Implementing agent	2019/2020	2020/2021	2021/2022
Lulekani Water	MIG	Mopani District	0	23 000 000	25 000
Scheme (Benfarm)		Municipality			000
Covering Lulekani,		(MDM)			
Kurhula, Matiko xikaya,					
& Humulani					
Makhushane Water	MIG	MDM	12 526 070	15 000 000	3 000 000
Scheme					

Proposed project	Source of funds	Implementing agent	2019/2020	2020/2021	2021/2022
covering Vuyelani, Mapikiri, Nyakelang					
Selwane Regional Water Scheme and Treatment Works Upgrading	MIG	MDM	0	0	0 (18 000 000 in 2023/24)
Lulekani Sewage Upgrade	MIG	MDM	0	15 000 000	0 (25 000 000 in 2022/23)
Namakgale Water Reticulation	MIG	MDM	0	0	0 (20 000 000 in 2022/23)
Namakgale Sewage Upgrade	MIG	MDM	0	20 000 000	30 000 000
Namakgale Water Scheme	WSIG	MDM	6 000 000	5 000 000	0
Lulekani Water Scheme	WSIG	MDM	6 000 000	5 000 000	0
Lulekani/ Namakgale Water Scheme <i>covering</i> <i>Mapikiri</i>	WSIG	MDM	5 600 000	0	0
Namakgale Sewer System Covering Tshelang Gape	WSIG	MDM	820 000	0	0
Refurbishment of Namakgale Water Treatment	WSIG	MDM	6 000 000	0	0
Construction of 4 Operator Houses at Nondweni Treatment Plant	WSIG	MDM	3 240 000	0	0
Selwane Water Scheme	WSIG	MDM	0	0	10 000 000
Pedestrian bridge at Majeje	MDM	MDM	2 500 000	0	0
GRASP 2 Retention of contrustion of shade nets; pack shade and Enviro-loo I at (Holofelang ;efa Christian; Davano; Khomanani; Eunique	Limpopo Department of Agriculture (LDoA)	LDoA	636 034		
GRASP 4 Installation of irrigation infrastructure with shade net at	LDoA	LDoA	10 750 000		

Proposed project	Source of funds	Implementing agent	2019/2020	2020/2021	2021/2022
Mongwe, Rikhotso, 100 Mandanda, Xipfimbamahlo,					
Makwale, Greenlight					
GRASP 4 Installation of irrigation system with shade net at Moradu, Vuxaka ikudya, Mandla maheli, Reyaya)	LDoA	LDoA	7 420 000		
Revamping of packing facility – Retention : Masalal Structural Works	LDoA	LDoA	552 795		
Procurement of irrigation materials & Fence and water development source : Marievert	LDoA	LDoA	500 000		
fence water pump engine and irrigation pipes: 10 X Mahale Farmers cluster	LDoA	LDoA	800 000		
Benfarm Cooperative: Jojo tanks ,irrigation system ablution facility	LDoA	LDoA	300 000		
GRASP 3 Retention of balancing dams	LDoA	LDoA	235 300		
Oasis Nursery: Procurement of nets; construction of planting structure; and planting materials:	LDoA	LDoA	600 000		
GRASP Aquaculture: Development of office space and cold facility	LDoA	LDoA	500 000		
Homulani clinic: replacement of the existing clinic on the same site: health technology	Department of Health(DoH)	DoH	500 000		
Maphuta Malatjie Hospital: completion of linen store, ring roads, paving & storm water. Health technology	DoH	DoH	500 000		
Maphuta Malatjie Hospital: Upgrade	DoH	DoH	100 000	3 500 000	5 000 000

Proposed project	Source of funds	Implementing agent	2019/2020	2020/2021	2021/2022
neonatal facilities (phase B)					
Seloane clinic: Enviroloo and related services	DoH	DoH	1 000 000	50 000	
Development of Hiking Trails in Letaba Ranch Nature Reserves	LEDET	LEDET	223 562		
Maintain Nature Reserves Infrastructure in Hans Merensky Nature Reserve	LEDET	LEDET	479 000		
Ba-Phalaborwa 5B	ESKOM	ESKOM	945 689		
Ba-Phalaborwa Infills: Connection of 430 H/H	ESKOM	ESKOM	2 225 250		
Ba-Phalaborwa Pre Engineering	ESKOM	ESKOM	232 047		
Buffer Zone	ESKOM	ESKOM	12 650 000		

The municipality still has unfunded projects over and above those listed above. For the next IDP review process it is necessary that the above listed projects as well as the unfunded projects be reviewed in terms of the criteria for project prioritization and budget allocation outlined in Table 4-11 below. This project prioritization will need to be refined by the Municipal Technical Steering committee and be adopted by Council as part of the SDF approval process.

Table 4-11: Proposed Criteria for project prioritization and budget allocation

Category	Example of criteria	Score/Rating
Compliance with SDF (locational advantage of the project)	 Is the project located in a priority investment area (e.g Identified nodes and corridors) Will the project support the clustering of community services Is the project aligned with other projects in this priority investment area Does the project support special spatial targets such as densifications, corridor and nodes development, etc 	40%
Sectoral Priorities	Does the project support specific IDP delivery targets	20%
Project Planning and Programming	Is the project ready for implementation? Has all related studies, investigations and plans been completed	20%
Social Issues	Does the project address specific social issues such as: HIV/AIDS Pro-poor developments Job Creation Life threatening situations Youth Development, etc	20%

4.12.1. SDF Related Projects

Implementation of this SDF by the municipality and other government stakeholders shall entail undertaking of the following projects over the implementation period:

Table 4-12: SDF related

		Short Term	Medium to long-Term
Spatial Goal	Principle	1-3 years	4+ years
Create a pro-active vision for potential urban growth areas within the municipality, with specific reference to land-use types, zoning, density, infrastructure, transportation, etc	All development within the Ba- Phalaborwa Urban Core shall firstly be confined within the delineated development/ urban edge in order to achieve a compact development.	 Phalaborwa CBD Development Plan Strategic Land Acquisition (Schiettocht) 	
Retain a mix of land-uses that will meet housing needs in core urban area, protect the quality of life for residents and enhance the Municipality tax base	Human settlement, i.e. expansion of existing settlements and all related development, within Ba-Phalaborwa Municipality shall follow the desired direction of growth within the development/ urban edge.	 Develop Human Settlement Development Plan (IDP Housing Chapter) New township development Demarcation of sites in rural areas 	 New township development Demarcation of sites in rural areas
To promote mobility of through-traffic and improve internal circulation and access within development areas	Movement routes and roads should be planned to improve internal traffic circulation and access within the urban core area and to divert local traffic from national carriers	Develop Roads Master Plan	New roads projects
To promote access of all municipal citizens to quality recreational and leisure opportunities		Municipal Open Space Management Plan	
To ensure adequate geographical spread and access to community facilities by all BPLM residents.		Facilitate land availability (acquisition) for Thusong Service Centres in all clusters	

To provide sustainable and affordable infrastructure and services for the municipal community.	Engineering services should also as rule be concentrated in the core urban areas in order to prevent urban sprawl	 Land Acquisition/ release for: Regional Sewer Works Regional Landfill Site Regional Cemetery (Urban Core) Central Sports & Recreation Centre 	
To promote home ownership and access to housing opportunities by all sectors of the municipal population		 Allocate municipal stands for densification in all townships; 	
To develop a sustainable economic base for the municipality by retaining and attracting business opportunities to the municipality based on locational advantages and natural resources in the municipal area.	Future business development should be guided in terms of the identified hierarchy of business centres.	 Develop Phalaborwa CBD Development Plan Infrastructure upgrade 	Infrastructure upgrade
Promote development that protects and promotes the special environmental heritage of the municipality.	Protect the biodiversity and support the use of nature conservation areas and areas of natural beauty in favour of tourism activities and recreation;	Incorporate environmental guidelines into land use management scheme	Environmental management guidelines enforcement
Promote rural development initiatives and agricultural development in non-urban areas	Protect areas of medium to high agricultural potential to ensure food security	Support rural development projects/ programmes and agricultural schemes	

4.13. **Monitoring Implementation**

The SDF will need to be monitored and evaluated to ensure the Municipality and its development partners implement programmes in line with this plan. On a monthly basis reports should be compiled to the portfolio committee and management on the implementation of the SDF. Quarterly reports are sent to Council and in the mid-year and annual reports same reports on SDF compliance and implementation are provided. The following monitoring tool shall be used to track implementation of the SDF:

Table 4-13: SDF Implementation Monitoring Tracker

Project/ programme	Targeted Implementation date	KPI	Reporting Frequency	Implementer	Progress	Issues/ Support Required

The revision of the SDF shall be effected utmost five years from the year of adoption.

4.14. Inputs into the IDP

As reflected in the first chapter of this report on legislative and policy perspective a spatial development framework is an integral chapter of the Integrated Development Plan in terms of chapter 5 of the Local Government: Municipal Systems Act. This SDF is a plan that must be incorporated in the Phalaborwa IDP as its core component. The new window for the revision of the 2020/21 municipal IDP should use this SDF as a base for informing decision makers, communities, funders and implementing agents about the location of key infrastructure and economic investments within the Ba-Phalaborwa Municipality.

Any programme that should be prioritized for inclusion in the municipal IDP should pass the master test for giving effect to the spatial vision of the municipality. If there are projects and programmes that are not in congruence with the spatial vision of the municipal SDF the municipality must use various platforms accorded by the available IGR structures to remedy such lest the SDF will be undermined and development will be disintegrated.

4.15. Inputs into sector plans

The SDF provides a better platform for the development and/or review of the following sector plans for Ba-Phalaborwa Municipality:

- Integrated Waste Management Plan (IWMP)
- Local Integrated Transport Plan (LITP)
- Infrastructure Master Plan
- Nodal Area Plans/Local SDF Plans (for all nodes)
- Road Master Plan

5. CONCLUSION

The proposals put forward in this SDF make a case for the consolidation, densification and intensification of urban settlements around the Phalaborwa Urban Core as well as in the rural parts of the LM through identification and delineation of Strategic Development Areas (SDAs) around the town and villages in order to manage settlement growth. Corridors and strategic link roads that require upgrading and maintenance were identified, which shall enhance the spatial efficiency of the Municipality. This road network shall ensure that the municipality is effectively linked to external regional economies, but also enhances access to economic and social services and facilities by all communities, irrespective of their location inf the municipality by connecting all activity nodes to one another and to the regional road network,

A further aim of the BPLM SDF is to mitigate the negative impacts of urban development on the environment as far as possible, and to enhance the invaluable environmental resources of the municipal area, which goes hand in hand with optimising the local tourism industry. The proper management of the natural environment is a critical success factor towards spatial sustainability, as well as economic growth in the study area in future.

The full implementation, monitoring and evaluation of this SDF requires the commitment and dedication of the municipal administration supported by the political principals. Enough awareness need be made to all staff and community members, especially the traditional authorities, to ensure that value that come s with its implementation is adequately understood. The support of the other spheres of government is also important for the municipality to realise the desired spatial vision.

Furthermore, the success of this SDF will require Council to play its oversight role through the use of its Council committees, especially the portfolio of responsible for Planning.

It is through the joint effort of all role players that the spatial vision of this SDF will be realized thereby accelerating high impact development for the municipality in line with the spirit of the National Development Plan.



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