# CHAPTER 03: REGIONAL SPATIAL DEVELOPMENT FRAMEWORK



CHAPTER 03: Spatial Development Framework

#### **INTRODUCTION: REGIONAL SPATIAL DEVELOPMENT FRAMEWORK (2013-14):**

The Spatial Development Framework (SDF) is a key legislative mechanism that seeks to address the numerous developmental challenges of the District. A number of these challenges considered and interpreted by the SDF include:

- Integrating the urban spatial form created under apartheid to separate townships from economic areas;
- Addressing the services backlogs for the poorest of the poor
- Investing in the market-related residential development property boom;
- Providing an effective and affordable district-wide public transportation network that takes into account the reliance of the low-income communities on public transport (at a greater relative monthly cost) and conversely, the dependence of middle income communities on private modes;
- Balancing and facilitating market and public sector development in an effective and coordinated manner; optimising the use of existing resources;
- Determining and communicating reasonable and effective development policies and strategies;
- Investing in infrastructure in a cost-effective and proactive fashion whilst ensuring that historical backlogs are addressed.

The purpose of the SDF is not to infringe upon land rights but to guide future land uses. No proposals in this plan create any land use right or exempt anyone from his or her obligation in terms of any other controlling land uses. The maps should be used as a schematic representation of the desired spatial form to be achieved by the municipality in the long term.

The Gauteng Spatial Development Framework forms the basis around which the District SDF is developed, therefore this SDF:

- Gives effect to the policies and principles as laid down in the National Spatial Development Perspective (NSDP), Gauteng Spatial Development Perspective (GSDP), Gauteng Spatial Development Framework (GSDF) and National Development Plan vision for 2030;
- Gives effect to the principles contained in Chapter 1 of the Development Facilitation Act 1995 (Act no 67 of 1995), DFA;
- Sets out objectives that reflect the desired spatial form of the municipality;
- Indicates desired patterns of land use within the municipality;
- Addresses the spatial reconstruction of the location and nature of development within the municipality;
- Provides strategic guidance in respect of the location and nature of development within the municipality;
- Sets out a land use management system in the district;



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- Sets out a capital investment framework for the municipality's development programs;
- Contains a strategic assessment of the environmental impact of the spatial development framework;
- Identifies programs and projects for the development of land within the municipality;
- Aligns with the spatial development frameworks reflected in the integrated development plans of neighboring municipalities;
- Indicates where public and private land development and infrastructure investment should take place;
- Identifies areas where strategic intervention is required and
- Indicates areas where priority spending is required.

#### **Context**

There are various plans and policies that influence the development of the Spatial Development Framework. These aspects have been incorporated in order to develop the proposals as set out in the framework.

#### **LEGISLATION & POLICY:**

A number of pieces of Legislation and Policy have a direct influence on the compilation of the SDF. The following legislative and policy documents have to be taken into account:

#### Local Government: Municipal Systems Act, (Act 32 of 2000)

This Act stipulates that all Municipalities prepare an Integrated Development Plan (IDP), which is the principal strategic planning instrument guiding and informing all planning and development. Chapter 5, Section 26 (e) of the Act specifies the requirement that a Spatial Development Framework (SDF) be a component of the IDP.

#### Local Government: Municipal Structures Act, (Act 117 of 1998)

Section 84 (i) of this Act provides for the division of functions and powers between Districts and Local Municipalities. The relevant section of the Act dealing with functions of the District is reproduced below:

"A District Municipality has the following functions and powers:

- a) Integrated development-planning for the District municipality as a whole, including a framework for integrated development plans of all municipalities in the area of the District municipality.
- b) Potable water supply systems.
- c) Bulk supply of electricity, which includes for the purpose of such supply, the transmission, distribution and, where applicable, the generation of electricity.
- d) Domestic waste-water and sewage disposal system.
- e) Solid waste disposal sites, in so far as it relates to:
  - i. the determination of a waste disposal strategy;
  - ii. the regulation of waste disposal;



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- iii. the establishment, operation and control of waste disposal sites, bulk waste transfer facilities and waste disposal facilities for more than one local municipality in the District.
- f) Municipal roads which form an integral part of a road transport system for the area of the District municipality as a whole.
- g) Regulation of passenger transport services,
- h) Municipal airports serving the area of the District municipality as a whole.
- i) Municipal health services
- j) Fire fighting services serving the area of the District municipality as a whole, which includes:
  - i. planning, co-ordination and regulation of fire services;
  - ii. specialized fire fighting services such as mountain, veld and chemical fire services;
  - iii. co-ordination of the standardization of infrastructure, vehicles, equipment and procedures;
  - iv. Training of fire officers.
- k) The establishment conduct and control of fresh produce markets and abattoirs serving the area of a major proportion of the municipalities in the District.
- I) The establishment conduct and control of cemeteries and crematoria serving the area of a major proportion of 5 municipalities in the District.
- m) Promotion of local tourism for the area of the District municipality.
- n) Municipal public works relating to any of the above functions or any other functions assigned to the District Municipality".

The first of the functions of the District as listed above is the preparation of a framework for integrated development plans for each of the municipalities, a key component of which is the District Spatial Development Framework.

#### Spatial Planning and Land Use Management Act, 2013

The Act prescribes norms and principles for development planning, including matters relating to sustainability, equality, efficiency and integration, fair and good governance, all of which must, as a result, be taken into account in the development of the Sedibeng District Spatial Development Framework.

#### Municipal Planning and Performance Management Regulations (Government Gazette No. 2605, 24 August 2001)

These Regulations specify that a Spatial Development Framework (SDF) reflected in a municipality's IDP must:

- a) Give effect to the principles contained in Chapter 1 of the Development Facilitation Act (DFA), Act 65 of 1995.
- b) Set out objectives that reflect the desired spatial form of the Municipality.
- c) Contain strategies and policies regarding the manner in which to achieve the objectives.



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- d) Set out basic guidelines for a land use management system in the municipality.
- e) Set out a capital investment framework for the municipality's development program.
- f) Contain a strategic assessment of the environmental impact of the spatial development framework.
- g) Identify programmes and projects for the development of land within the municipality.
- h) Be aligned with the spatial development frameworks reflected in the IDPs of neighbouring municipalities.
- i) Provide a visual representation on the desired spatial form of the municipality.

#### Development Facilitation Act, (Act 67 of 1995)

While the Development Facilitation Act is to be repealed, the Land Development Principles contained in Chapter 1 of the Development Facilitation Act should still be adhered to in the compilation of the SDF, in particular:

- a) Policy and laws to provide for urban and rural development and to facilitate formal/informal settlements
- b) Discouraging illegal occupation of land
- c) Promoting efficient and integrated land development
- d) Integrating social economic institutional and physical aspects
- e) Mutually supportive rural and urban development
- f) Facilitating availability of residential and job opportunities in close proximity to each other
- g) Optimisation of existing resources
- h) Promoting diverse combination of land uses
- i) Discouraging urban sprawl
- j) Correcting historically distorted spatial patterns
- k) Encouraging environmentally sustainable development
- I) Facilitating safe utilisation of land
- m) Facilitating speedy development
- n) Ensuring applications are judged on their own merit
- o) Development that results in security of tenure

#### Gauteng Planning and Development Bill, 2012

Of relevance to the SDF is chapter 3 of the Gauteng Planning and Development Bill, which directs municipalities to include the following in their Spatial Development Frameworks:

- a) A review of existing land use patterns in the municipality and a statement of issues to be addressed.
- b) A plan showing the desired pattern, including the density or intensity, of land uses.
- c) The future development of roads and transport infrastructure.



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- d) A statement of priorities for the development of any particular land uses or land areas within the municipality and the strategies to be implemented to achieve such priorities.
- e) A programme for the development of any particular land uses or land area within the municipality
- f) The availability of engineering services to serve future land use development.
- g) A programme for the provision of engineering services to serve the development of the desired pattern of land use.
- h) The methods, including the provisions of the land use scheme, to achieve the objectives of the municipal strategic development framework.

#### The Gauteng Spatial Development Framework, 2011

The Gauteng Spatial Development Framework has a number of aspects that need to be taken into account when developing the SDF. In particular, this framework is, "premised on building Gauteng as a City Region that allows agriculture to provide a link between rural and urban economic development, shaped by infrastructure led investment". The framework seeks to:

- a) Provide a clear future provincial spatial structure that is robust to accommodate growth and sustainability.
- b) Specify a clear set of spatial objectives for municipalities to achieve in order to ensure realisation of the future provincial spatial structure.
- c) Propose a set of plans that municipalities have to prepare in their pursuit of these objectives.
- d) Provide a common language and set of shared planning constructs for municipalities to use in their planning processes and plans.
- e) Enable and direct growth.

## National Environmental Management Act (NEMA) (Act 107 of 1998), Environmental Conservation Act (Act 73 of 1989) & National Environmental Management Air Quality Act (Act 39 of 2004)

The above environmental legislation requires that due cognisance be taken of environmental factors in any proposed development. The Acts, in particular NEMA, outline the procedures for environmental authorisation including that, where required, environmental impact assessments are to be undertaken for approval by the responsible department. The SDF must take into account the protection of environmentally sensitive areas.

#### Mineral and Petroleum Resource Development Act (Act 28 of 2002)

The act requires that consent to mineral rights be granted by the Department of Minerals and Energy before land is developed.



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#### Water Services Act (Act 108 of 1991)

This act allows the municipality to divert a river course for the construction of structures within a flood line. No development on affected land can take place without the approval of a municipality.

#### National Land, Transport Act (Act 22 of 2000)

The Act authorizes the Department of Transport to proclaim road alignments for national and provincial roads. No development may occur on land earmarked for such roads development.

#### Subdivision of Agricultural Land Act (Act 70 of 1970)

The Act restricts subdivision of land proclaimed as agricultural in terms of the Act. Ministerial consent must be obtained for subdivision of such land.

#### National Heritage Resources Act (Act 25 of 1995)

The Act does not allow any developments to occur on land proclaimed as a heritage resource without prior approval of the responsible authority (Provincial Heritage Resources Agency).

#### National Parks Act (Act 57 of 1976)

The Act sets aside areas to be proclaimed as national parks. These lands may not be developed at all.

#### The Housing Act (Act 107 of 1997)

This Act, through the Department of Housing, provides for the development of a housing programme and the identification of areas for low income housing. The act promotes the establishment of high density areas.

#### **LEGISLATIVE AND POLICY KEY ISSUES:**

From an analysis of the legislative and policy context, the emerging key issues for spatial development planning can be summarized as follows:

- 1. Sedibeng needs to develop policies that support inherent strengths and intrinsic potentials of the area across municipal and provincial boundaries.
- 2. Current disjointed policies need to be reformulated to address the strategic development of the District as a functional entity.
- 3. Law enforcement needs to be improved.
- 4. Policy and strategy is required for integrated planning and the prevention of sprawl.



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#### PROVINCIAL CONTEXT

Gauteng Department of Economic Development embarked on a project to develop a long-term development plan for Gauteng province and was finally approved in 2011. It proposed a spatial development pattern in the pursuit of planning for shared, equitable, sustainable and inclusive growth and development in the province.

The Spatial Development Framework, with which this document is concerned, is a key part of this initiative. In embarking on this initiative, the Gauteng Provincial Government seeks to:

- i. provide a clear future provincial spatial structure that is robust to accommodate growth and sustainability;
- ii. specify a clear set of spatial objectives for municipalities to achieve in order to ensure the realisation of the future provincial spatial structure;
- iii. propose a set of plans that municipalities have to prepare in their pursuit of these objectives;
- iv. provide a common language and set of shared planning constructs for municipalities to use in their planning processes and plans; and
- v. Enable and direct growth.

In the Gauteng Spatial Development Framework (GSDF), the Province outlines issues of population growth with a predicted population of 28 million people in the Gauteng City Region (GCR) by 2055 and therefore Gauteng requires a serious overhaul of its planning fundamentals to address the social, environmental and economic needs of an added 16 million people in the Gauteng province. The GSDF has mentioned that there are too many inadequacies and inequalities that exist in the present Gauteng economic system and these are in many respects deeply embedded in failings in the spatial structure of the city region.

In addition to the GSDF there are various policies and strategies that have been developed that provide direction to municipalities with regard to the type of developments to promote in the area. Some of these documents included the Integrated Energy Strategy, Green Economy Strategy, ICT Strategy and the Innovation Strategy. Although these strategies do not directly impact on the spatial development of the regions, it does provide some guidance with regard to the types of activities to be promoted. These strategies promote manufacturing related to the green economy, better use of broadband and fibre optic infrastructure that may facilitate developments such as BPO parks.

#### **REGIONAL CONTEXT:**

#### **Study Area**

The study area for the Sedibeng District Spatial Development Framework includes the three local Municipalities that make up the Sedibeng District, namely, Midvaal, Emfuleni and Lesedi Local Municipalities, as illustrated on the map below.



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#### **Key Issues**

From a contextual perspective, the following Key Issues need to be addressed:

- 1. Focussed development and investment is required, taking into account spatial and economic realities and functional areas. (This will need to take into account cross municipal and provincial border issues.)
- 2. The removal of unnecessary competition between and among municipalities is needed.
- 3. The outward leakage of resources, both human and economic, needs to be curtailed
- 4. There needs to be a clear allocation of integrated development planning responsibilities
- 5. Protection of resources is required, including high potential agricultural areas, environmentally sensitive areas and access to tourism facilities and amenities.

#### LOCAL CONTEXT:

#### **Emfuleni**

Emfuleni functionally links to Pretoria and the Free State. Areas of Sasolburg and Vaalpark in the Free State are economically linked to Emfuleni. In addition, the Gauteng Spatial Development Framework has identified Vereeniging and Vanderbijlpark as important urban development nodes of provincial importance. These nodes are to be linked through rail and road networks.

Emfuleni road and rail infrastructure is well developed; the major roads and rail lines traversing the area include the following:



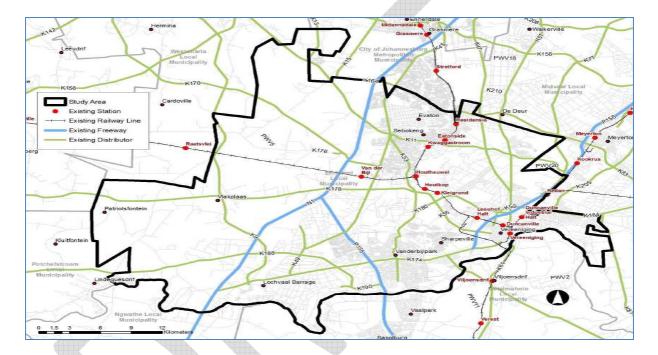
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- The N1 linking Pretoria with the Free State continuing to Cape Town
- The K178 linking Vereeniging with the N1 and the North West Province to the west
- The K53 linking Vereeniging in the south with Johannesburg in the north
- The K59 linking Vereeniging with De Deur, Walkerville and Johannesburg to the north
- The rail line that links Vereeniging and Johannesburg to the north.

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The above and other roads are illustrated in the Map below extracted from the Emfuleni SDF.

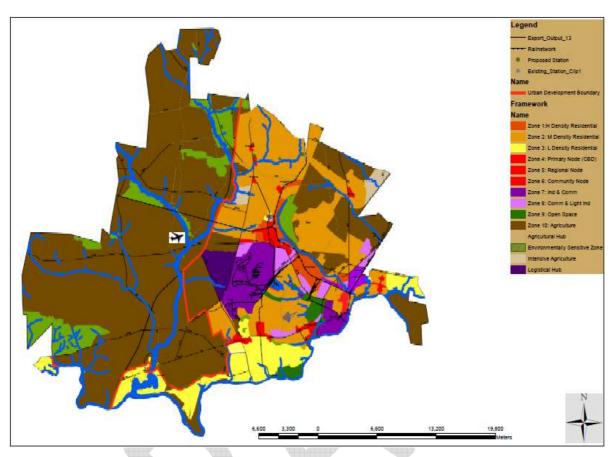
#### **Road Network**



The spatial structure of Emfuleni is such that the non agricultural and tourism land uses, namely commercial, industrial, residential and educational activities, are concentrated in a triangle formed by Vanderbijlpark, Vereeniging and Sebokeng. The agricultural activities are concentrated in the west in the areas with high agricultural potential.

Tourism activities and facilities are concentrated along the Vaal River. This is illustrated in the Emfuleni Spatial Development Framework below, as extracted from the Emfuleni SDF 2013-14.

#### **Emfuleni Spatial Development Framework**



#### **Midvaal**

Midvaal Local Municipality is located between Emfuleni in the west and Lesedi in the east. The municipal area straddles the banks of the Vaal River and the Vaal Dam in the south and extends to the borders of Johannesburg in the North West and those of Ekurhuleni in the north east.

Major national and provincial roads traversing the municipal area include:

- The R59, a north/south route that links Vereeniging with Alberton and the N12 in Johannesburg. This route is situated in the central part of Midvaal Local Municipality area.
- The N1, which is the major national north/south National Road linking Messina, on the northern border of South Africa, to Cape Town in the south and which passes the Midvaal area adjacent to the western boundary of the municipality.
- The N3, which is the major transport link between Gauteng Province and Ethekwini (Durban) and which passes through the Midvaal area a few kilometres to the northeast border of the municipality;
- The R82, a secondary north/south route linking Vereeniging and Johannesburg via Walkerville, situated in the western parts of Midvaal.
- The M61, a secondary north-south route running parallel to the R59 linking Vereeniging and Alberton via Meyerton, Randvaal and Klipriver.



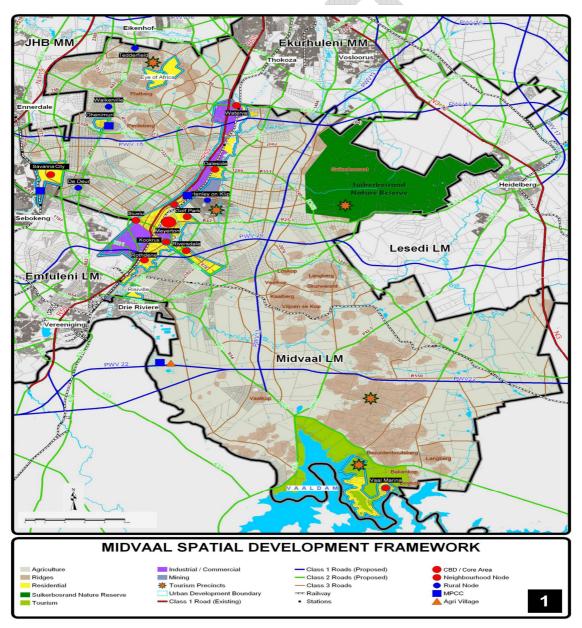
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- The R42, which runs east/west through Midvaal and links Meyerton with Heidelberg and the N17 in the Lesedi Local Municipality.
- The R551, an east/west route between the N1 and the Suikerbosrand Nature Reserve. This road merges with the R42 at the Nature Reserve.
- The R550, an e/st-west link between the N3, R59 and R82 in Midvaal.
- The R54, which links Vaal Marina to the R82 in Midvaal

A notable factor regarding the above roads is the predominance of north/ south routes and the lack of major east/ west routes.

The Midvaal Road Network is illustrated in the map below

#### **Road Network**





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Midvaal is largely rural/agricultural in nature. Suikerbosrand Nature Reserve and the Vaal Dam are significant natural features and important conservation/environmentally sensitive areas in the Municipal Area.

Development is concentrated in the north eastern areas, occurring around and along the R59 in the east and the R82 in the west. Urban nodes occurring along these routes include:

- R59: Waterval, Randvaal, Henley-on-Klip and Meyerton.
- R82: Tedderfield, Walkerville and De Deur. Savannah City will also link with this route.

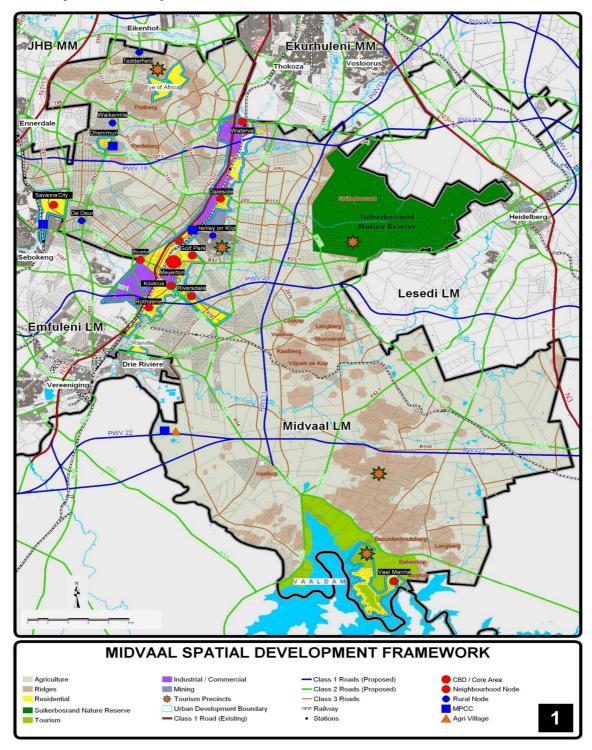
The Gauteng Spatial Development Framework has identified the importance of the R59 corridor to link Johannesburg, Ekurhuleni, Meyerton and Vereeniging in the south. The close proximity of Johannesburg to Midvaal, linked by the R59, R82, M61 and N1, has contributed to the development of residential areas in the north of Midvaal as dormitory areas for people working in Johannesburg.

Recently industrial/commercial areas have also developed in the northern part of the Midvaal Municipality adjacent to the R59 route, which takes advantage of the accessibility, low land costs and proximity to the Johannesburg, Tshwane and Ekurhuleni Metropolitan areas. Areas of strategic development are mainly focusing on future development along the R59 corridor, Henley-on-Klip, Vaal Marina/Mamello, De Deur and Walkerville. In addition, the densification of existing urban areas and emerging areas such as Riversdale is a key priority for the Municipality.



The spatial structure of the Midvaal Area extracted from the Midvaal SDF is illustrated below.

#### **Midvaal Spatial Development Framework**



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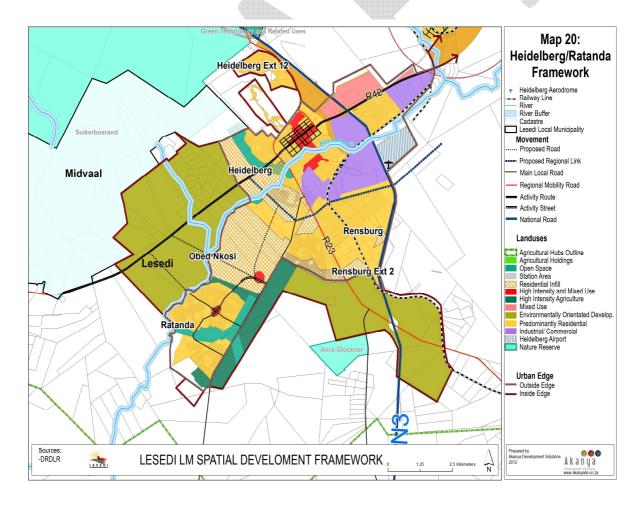
#### Lesedi

Lesedi Local Municipality is located in the south eastern part of Gauteng Province. The municipality has a land mass of 1 042 km² and is traversed by the N3 and N17 national roads. The N3 is the main link between Gauteng and Durban/EThekwini in KwaZulu Natal (KZN), whilst the N17 serves to link Johannesburg to the Sasol-Secunda industrial node, KZN and Swaziland further east.

Major provincial roads traversing the municipal area include:

- R42 that links Heidelberg with Vereeniging to the south-west and Nigel to the northeast
- R29 that runs parallel to the N17
- R549 that links Heidelberg with Vaal Marina and the Vaal River in the south.
- R550 that runs east-west, linking Nigel with Devon
- R23 that links the area with Balfour in the south east and Benoni to the north.
- R51 linking Nigel with Balfour
- R548 linking Balfour with Devon
- R103 that runs parallel to the N3 freeway.

#### **Road Network**



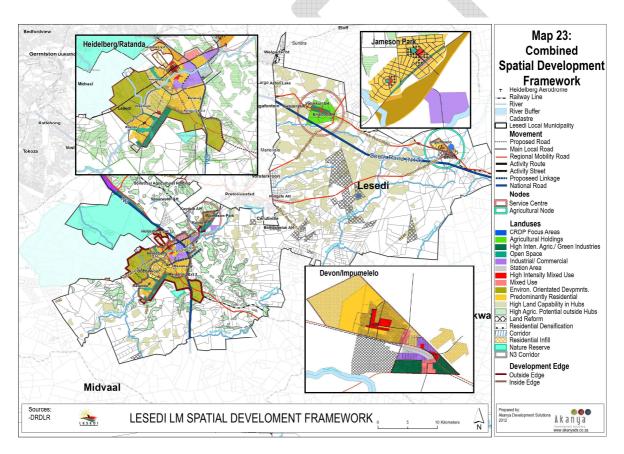


Lesedi is largely rural/agricultural in nature, with Heidelberg/Ratanda and Devon/ Impumelelo serving as the main urban nodes. A large number of people in these urban areas work in Springs and other areas of Ekurhuleni outside of the District.

The Gauteng Spatial Development Framework has identified a corridor along the N3 that links Johannesburg /Ekurhuleni with Heidelberg. The Lesedi SDF has also indentified an "Economic Corridor" (the subject of the Lesedi Nodal & Corridor Study 2009) and a "Tourism Corridor" along the R42. Population density is of the Municipality is relatively low at 95.5 people per km².

The spatial structure of the Lesedi Municipality, extracted from the Lesedi SDF, is illustrated on the Map overleaf. The majority of the area is rural/undeveloped, with small pockets of residential areas in Heidelberg and Ratanda.

#### **Lesedi Spatial Development Framework**



#### **HIERARCHY OF SDFS**

The SDF is structured in a hierarchical manner to provide plans that will guide the municipality with guidance for development and land use control. The plans will be the following:



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- The Regional Spatial Development Framework, which should be regarded as a strategic tool, providing broad spatial direction and context to development in the district as a whole.
- Local Municipality Spatial Development Frameworks, which are detailed plans and aligned with the district SDF and which will contain the local spatial objectives and strategy. Nodes and corridors will also be more detailed and may have a different priority in terms of the local plans.
- Precinct Development Plans, which are development policies/land use plans for specific areas within local municipality, and are refinements of the SDF proposals and policies. A number of areas within the local municipalities, which are subject to development pressure and are of strategic importance, requiring detail planning.

#### **DEVELOPMENT ISSUES**

The identified main development issues in the Sedibeng District can be summarized as follows:

#### Nature of the area

Sedibeng District can be categorized as an area with low population densities compared to the rest of Gauteng, which has serious implications in terms of cost effective service delivery. The towns in the district are far apart. Due to the long distance and low population densities, infrastructural and social service provision to the rural communities, which make up 33% of the total population, is very expensive, and innovative ways to provide basic services to these communities must be sought. The bulk of municipal service provision is concentrated in the urban areas.

#### **Good urban services Infrastructure**

The existing services infrastructure in the urban areas of the district is reasonably good, and has spare capacity to accommodate further urban development. Services backlogs are experienced in certain areas, while services upgrading is also required in certain areas, notably the previously disadvantaged township areas.

Future urban development should be concentrated in those infill/densification areas where spare bulk services capacity is already available. The unavailability of infrastructure such as sewer hampers the future growth potential of the area and will be a priority to be addressed.

#### **Economic Stagnation**

Economic growth in the district during the last few decades has failed to keep pace with population growth, and this has resulted in a general decrease in the standard of living. The



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spatial manifestation of the growing poverty in the area will include general urban decay, growth in informal settlements, decreasing service levels, increased informal economic activity, etc. The local economy is overly dependent on the heavy industrial sector [Arcellor Mittal, BHP Billiton, Scaw Metals etc.] and economic diversification is urgently required. Economic sectors that show potential for future growth include tourism and agriculture, and investment into these sectors should be actively promoted. Economic growth in Emfuleni is vulnerable to fluctuations in the Manufacturing sector due to the high dominance of this sector in the local economy. Alternative manufacturing activities related to the green economy should also be considered. There are also opportunities to include manufacturing of pharmaceutical products in order to reduce the dependence on the heavy industrial sector.

#### **District Economic Performance**

The economic expansion of the District is a complex matter and is dependent on a number of factors, many of which are beyond the control of individuals and beyond the influence of any form of District or local planning. However, it is clear that good planning can have a direct effect on the development and expansion of the economy.

The recent past performance of the District economy has been poor. In 2009, a negative economic growth of 5.2% was recorded and despite a general decline in economies around the world at the time, this was 3.4% worse than the overall Gauteng Provincial negative growth rate of 1.8%.

The Sedibeng economy has increased by 3.1% from 2006 to 2011 but still remains very low with an annual growth rate of 0.8 %.( Sedibeng IDP 2012/13.) This level of annual growth is insufficient to keep abreast of the increase in population and for the creation of sufficient jobs and employment and provision of social and service infrastructure for the District. In fact, at this level of growth, employment levels will decrease and further "economic leakages" to surrounding areas will continue to occur.

#### **Socio-Economic Disparities**

There are huge socio-economic disparities between the different communities in the district, with high levels of poverty prevailing in the previously disadvantaged township areas. These disparities should be addressed as part of a holistic development strategy to be followed by the district and local municipalities. Public investment initiatives should favour those projects that will result in upliftment of the previously disadvantaged communities and narrowing the gap between these communities and their more affluent neighbours.

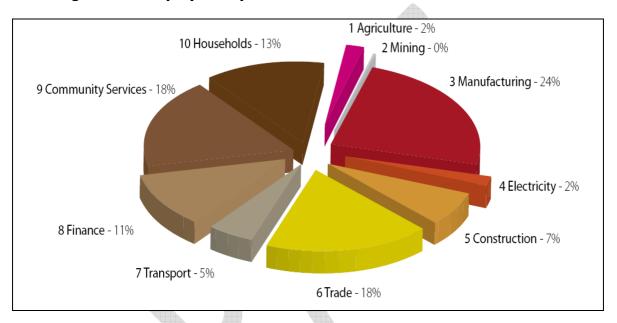
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#### **ECONOMIC SECTORS:**

#### **Manufacturing**

The secondary sector (in particular manufacturing) and the tertiary sector (in particular community services) provide the major economic activities of significance in the District. This is reflected in the employment per sector, as illustrated below.

#### **Sedibeng District Employment per Sector**



#### **Industrial & Commercial Development**

Industrial and commercial activities in the secondary and tertiary sectors, including manufacturing, take up a significant amount of land in the District. The main industrial activities occur in the "triangle" between Vereeniging, Vanderbijlpark and Sebokeng. This Triangle has been recognised and included in the Gauteng Spatial Development Framework 2011 together with the R59 economic corridor. The R59 economic corridor currently extends from the new Heineken Brewery in Klipriver through Samancor to Meydustria and has the potential to expand in both directions. It is estimated that industrial and commercial land has increased from 3 920 hectares in 2004 to only 4 014 hectares in 2010 (0.8% to 0.9%), which is an insignificant change over six years. (Sedibeng District IDP 2010/11) The developments that have taken place, such as the Heineken Brewery, and the planned Pick n Pay Distribution Centre at the southern end of this corridor, can be directly linked to the availability of infrastructure as well as the proximity to the Johannesburg, Ekurhuleni and Tshwane Metropolitan areas to the north.



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#### **Tourism**

The Sedibeng District has a number of areas with intrinsic potential for tourism, including areas such as the Suikerbosrand Nature Reserve, the Vaal Dam area and along the Vaal River and numerous historical and other sites. Yet Tourism does not make an appreciable contribution to the economy.

Some of the planning documents, such as the Emfuleni SDF 2017, have identified the concept of a River Corridor and the Midvaal IDP recognises the area around the Vaal Dam and lists the potential tourism sites. Lesedi has identified the R42 as a Tourism Corridor in their SDF.

A major potential for tourism is the Vaal Dam and along the Vaal River. The development of these areas is closely related to appropriate policy and the prevention of pollution of these water sources, which are the major supplier of potable water in Gauteng.

#### **Agriculture**

Sedibeng has high agricultural potential land and is an important agricultural resource for Gauteng. The area under commercial farming in the District has decreased from 33% to 32.6% from 2004 to 2010. This decrease has been attributed to many factors, including previous droughts and veld fires in that same period, which reduced the productivity of the land. However, this does not explain the continued decline in this sector as a contributor to the District Economy and why the land under commercial farming has remained at about 33% for over 10 years.

The majority of current farming is large scale commercial farming across a range of agricultural products. Significant potential exists for increasing farming activities and agricultural product beneficiation, which is dependent on, amongst other factors, access to finance, markets, and water and waste water sanitation services and, in particular, appropriate institutional arrangements, support and strategy. The existence of large areas of high potential agricultural land in the District, together with the National Development Plan and Gauteng Economic Growth and Development Strategy, show the need to focus on Rural and Agricultural Development and Food Security.

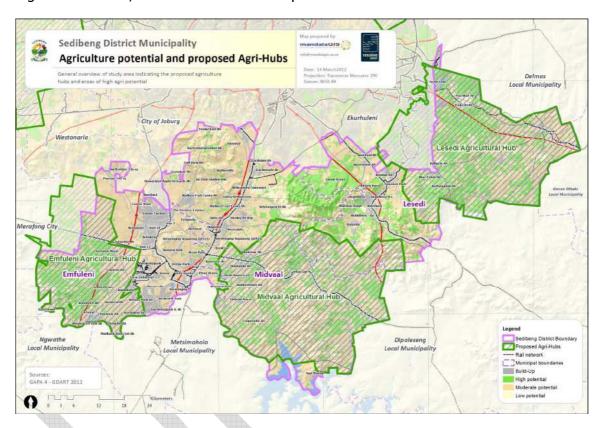
The District is well known for its animal production. The Lesedi area, in particular, produces the largest variety of animal products in the District, including beef, mutton, lamb, poultry and milk. Other agricultural activities that take place within the District are crop production, including maize, grain, ground nuts, dry beans, sunflower seeds, wheat, sorghum, soya and vegetation. The GVA of the agricultural industry has decreased by 20.3% between 2006 and 2010.

Emfuleni has the highest agricultural potential in its south western area, which is in the area of Lochvaal Barrage and Vaal Oewer. Sonlandpark and Patriotsfontein are also areas within the municipality that have high agricultural potential.



The Midvaal Local Municipality has high agricultural potential in areas between the Suikerbosrand Nature Reserve and Klipriver. These areas have intensive commercial crop cultivation, including dry land and irrigated crops.

The Gauteng Department of Agriculture (GDARD) has also identified Emfuleni as a Provincial Agricultural Hub, which reinforces the proposed hubs in the Sedibeng IDP and the Sedibeng District IDP has recognised the need for a focus on agriculture and has proposed a number of Agricultural Hubs, as illustrated on the map below.



There are a limited number of agricultural projects currently in operation within the District that could be a catalyst for further development of this sector, such as:

- The Bantu Bonke project, which is supported by Rand Water
- The Vereeniging Fresh Produce market
- Tokolohong and KwaZenzele Agri-villages, which are in the Lesedi Municipal area and are, intended to create job opportunities for residents in the area.

A major concern is that although the high potential agricultural land and agricultural hubs have been identified, the key strategy remains the "protection" of these areas. This results in stopping all development in these areas as opposed to providing appropriate support and facilitation to enhance and build this sector. Food security is a national priority, the addressing of which, will require creative approaches that benefit all parties involved.

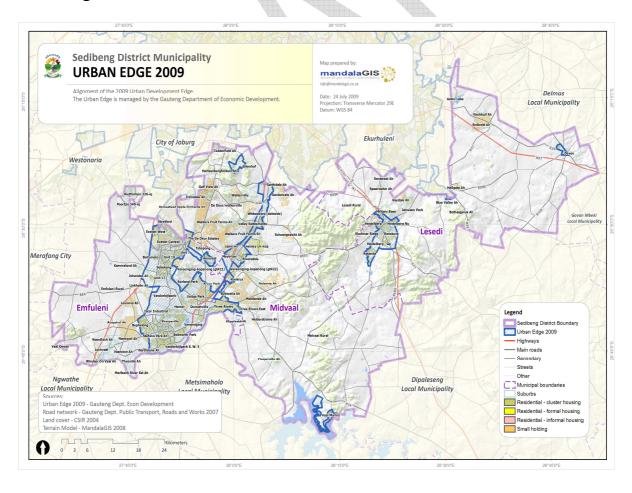
Appropriate empowered institutional structures, funding and strategy are needed to drive the development of this sector.

#### **Vacant Non Productive Land within the Urban Boundary**

Currently, approximately 98 000 hectares of developable land is vacant in the Sedibeng District, of which 6 200 hectares is within the current Urban Development Boundaries. This effectively sterilizes almost 92 000 hectares of developable land due to the lack of infrastructure or other reasons. The majority of currently developable land within the urban development boundary is in Emfuleni (76%) followed by 18% in Midvaal and the balance is in Lesedi. Part of this concern is that large parcels of potentially economically productive land parcels are in the hands of a few individuals or companies.

Land ownership remains a very emotive and serious issue and current land reform mechanisms are viewed by many as slow and ineffective. Mechanisms need to be sought for creating benefits for all parties in making this land available for development. This could, for example, include skilling people in the agricultural sector, while allowing owners to develop parts of the land parcels with high development rights with conditions relating to development of the balance of the land.

#### **Urban Edge**





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#### **Economic Key Issues**

The economy of the Sedibeng District is not performing well relatively to other areas of Gauteng. This is despite no location disadvantage, available developable land, high potential agricultural land, tourism facilities, amenities and relatively well developed road and other infrastructure.

A major constraint for the economic growth of the area is the lack of sanitation capacity.

The GEGDS recognises the need to address unemployment and poverty, which are major factors in the area, in order to develop the economy as outlined in the extract alongside.

Projects/actions that appear, from the analysis conducted, to be needed in the District include:

- Establishing an Agricultural Hub in the Emfuleni Local Municipality in the high potential agricultural area within the south-western portion of the Municipality. This will create job opportunities and assist in reducing the high unemployment rates within this municipality;
- Establishing an empowered agricultural institution capacity in the District;
- Introducing new recreational and tourism activities around the Vaal Dam, which is currently under utilised;
- Extending the rail network into Emfuleni towards the Agricultural Hub for transportation of products to markets;
- Creating a robust economic and institutional relationship between Sasolburg (within the Metsimaholo Local Municipality) and Vanderbijlpark (within the Emfuleni Local Municipality) as they are economically functionally linked to each other; and
- Establishing mechanisms that benefit owners and potential end users for releasing large parcels of potentially economically productive land for development.

### The key economic issues for the expansion of the Sedibeng District Economy include:

- Diversifying the economy to reduce reliance on the manufacturing and services sector.
- Building on the intrinsic economic resources of the agriculture and tourism sectors across municipal boundaries through District-wide strategy and planning.
- Addressing the lack of sanitation services.
- Reviewing current policy and guidelines that restrict tourism development along the
   Vaal River and other high potential economic activities
- Considering the Sedibeng economy as a component of the Gauteng City Region
- Focussing commercial and industrial development within the "development triangle", identified economic corridors and in commercial/industrial nodes.
- Creating planning and other mechanisms that benefit all parties for releasing potentially economically developable agricultural and other land currently in private sector ownership for development.
- Reducing the domination of and dependence on Emfuleni for jobs and services.



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- The provision of services where the majority of the population resides (Sebokeng/ Evaton) and other high density areas.
- Protection of high potential agricultural and environmentally sensitive land while supporting and facilitating appropriate sustainable development of these areas.
- Support of the proposed agricultural projects to create jobs within the sector to reduce the current unemployment rate.
- Development of a job creation policy, strategy and support structures for the entire District.

#### **ENVIRONMENTAL PERSPECTIVE:**

There are a number of major environmental constraints and opportunities in the district, which should be taken into account in the planning for future development in the area. Environmental constraints include the high levels of pollution, especially in the western parts of the study area, the visual unattractiveness of certain parts of the study area, adverse environmental conditions in the township areas.

Environmental opportunities in the district include the existing nature reserves [Suikerbosrand and Alice Glockner], the various conservancies and watercourses through the study area, especially the Vaalriver, Kliprivier and Vaal dam, the Suikerbosrand ridges, and the agricultural potential of the study area.

#### **Environmental Areas**

The Sedibeng District Municipality contains several sensitive areas, which range from highly sensitive areas, including areas with "red data" fauna and flora, nature reserves, ridges, dolomitic areas and wetlands, to non-sensitive areas. The District contains a number of environmentally well preserved and untouched areas to seriously impacted areas such as open cast mining, unrehabilitated quarries and polluted ground water, wetlands and soils. Spread throughout the District are many highly sensitive areas that have been classified in terms of the standard C-Plan categories, ranging from "ecological support areas" to "irreplaceable", "important" and "protected areas".

#### **Ecological Support Areas**

These areas are mainly located within the north-eastern parts of Lesedi and towards the south-eastern parts of Midvaal. A complicating factor is that some of these areas are located within areas that have been found to have high agricultural potential.

#### **Irreplaceable Areas**

These areas, by definition, cannot be recovered once they are lost and are highly vulnerable and must be protected from encroachment by development. They are mostly found in the north-eastern parts of Lesedi and in the southern parts of Midvaal.

#### **Important Areas**

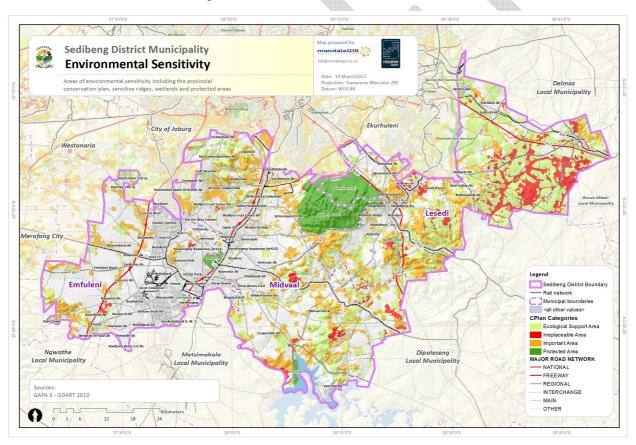
These areas are habitats for certain environmentally important species and although they are widely spread throughout the District, they are mostly found within Midvaal and Lesedi.

#### **Protected Areas**

These are recognised conservation areas that are set aside primarily for nature and biodiversity conservation. Protected Areas are important tools in managing the conservation of species and ecosystems. Within these areas, a range of services are provided that are essential to sustaining these valuable environmental and ecological resources. These areas include Suikerbosrand Nature Reserve, Alice Glockner Nature Reserve, the Kliprivier, Vaal Dam and the Vaal River.

The above areas are illustrated on the Environmental Sensitivity Map.

#### **Environmental Sensitivity**



#### **Environmental Analysis**

The Suikerbosrand Nature Reserve is located on the north-eastern edge of Midvaal and crosses the municipal boundary into the north-western portion of Lesedi. The Nature Reserve, a managed entity to ensure protection of the ecosystem, is one of the areas in



#### CHAPTER 03: Spatial Development Framework

Sedibeng that has tourism potential yet is under threat from urban sprawl as developers have developed low-cost informal housing close to the northern boundary. The Suikerbosrand Nature Reserve has ridges at an altitude of 1500m to over 1800m above sea level, which is the highest point in Gauteng Province. The Alice Glockner Nature Reserve is located in the south of Heidelberg in Lesedi. The reserve is known for its Heidelberg Copper Butterflies and its flora and fauna.

The District is currently facing serious pollution challenges that include air, soil and water pollution. The District is generally characterised by poor air quality, particularly within the western and central parts. The river systems and water bodies are polluted by the mining and industrial activities and often by sewage spills/overflow. The Kliprivier is one of the most polluted rivers in Sedibeng, as a result of mining and industrial activities in the upper catchments, outside the borders of Sedibeng. (Strategic Environmental Focus, 2008). The Kliprivier provides a habitat to birds and other small animals. The Vaal Dam is affected by pollution from urban and industrial run-offs that drain into the dam. The Vaal Dam is currently the most important water source in Gauteng, with a capacity of 2 536 million cubic metres.

The water from the Vaal Dam supplies the mining, industrial, agricultural and other activity sectors within the Region, in Gauteng as well as in Rustenburg. Pollution is mostly found within the industrial areas of Vanderbijlpark, Vereeniging, the Heidelberg industrial area, informal settlements, slimes dams, close to waste water treatment works and on landfill sites.

Numerous Red Data species have been identified in the District and are considered to be in danger of being negatively affected. These species include bird, bullfrog, and invertebrate and plant species.

A very serious concern is the lack of effective environmental law enforcement, which allows the pollution of the air, water and soil in the District to continue.

#### **INFRASTRUCTURE PERSPECTIVE:**

#### **Water & Sanitation**

The Sedibeng District Municipality's water and sanitation services are distributed by the Municipalities at the local level, however, bulk water is supplied to each Municipality by Rand Water.

The Sedibeng Regional Sanitation Scheme (SRSS), as currently envisaged, consists of various components, including a new waste water works, upgrading of the current Sebokeng works, a new pump station, new rising mains and a new gravity main outfall.

Emfuleni is limited to extracting up to 0.2 Ml/day of water from the Vaal River whilst Rand Water supplies 205Ml/day. The Emfuleni Local Municipality has nine reservoirs and a small



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water treatment plant. The Municipality provides two types of sanitation systems, the flush toilet, which connects to the sewer network commonly found in urban areas, and ventilated pit latrines common in informal settlements. Emfuleni has 3 wastewater treatment works, namely, Sebokeng, Rietspruit and Leeuwkuil wastewater treatment works. The Sebokeng wastewater treatment works is the largest in the area and has a capacity of 119Ml/day. The other two need to be upgraded and rehabilitated.

Lesedi water network system consists of seven distribution points in Devon, Nigel, Bergsig, Rensburg, Ratanda and Springs. The current water supply is sufficient and there is capacity to accommodate future development. The Endicott/Vischkuil/KwaZanele area is presently not fully developed. However, there is currently sufficient supply for the current development and future developments provided that they are not high density developments. Lesedi Local Municipality has one main sewer system, the Ratanda Water Care Works (RWCW), which is located on the south western end of the municipal area. The drainage area consists of several sub-basins, Bergsig, Overkruin, Heidelberg, Rensburg, Shalimar Ridge and Ratanda. Devon/Impumelelo has waterborne sewerage reticulation.

Midvaal main supply points are Meyerton, Ohenimuri and Vaal Marina. The Midvaal's water and sanitation supply is currently under pressure and may not be sufficient to provide adequate supply to the currently envisaged developments, unless services are accessed from the adjacent municipalities.

#### **6.2 Electricity**

From information currently available, it is evident that sufficient electrical capacity is available for current and planned developments. The Sedibeng District Municipality's electricity is mainly supplied by ESKOM, with a few areas supplied by the relevant local authorities.

#### **Road Transport Network**

The Sedibeng District Municipality has infrastructure for 3 modes of transportation, namely road, air and rail.

Sedibeng District Municipality has a relatively well developed road transport network,. This is addressed in the strategic road and rail network illustrated overleaf.

A Bus Network operates on the following routes:

- Vereeniging to Sebokeng, along the K59 and the K45 routes.
- Vereeniging to Meyerton.
- Evaton to Meyerton



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Mini-bus taxi networks operate between the CBDs throughout the municipal areas. These routes run mostly between the CBDs into residential and industrial townships.

#### **National Roads**

National roads in the District are:

- The N3 national freeway, which connects Gauteng, Free State and KwaZulu Natal.
- The N17 national road, which links Gauteng, southern Mpumalanga, KwaZulu Natal and Swaziland.

#### **Provincial and Municipal Roads**

The provincial and municipal roads for each of the local municipalities are as listed below per municipality:

#### **Lesedi Local Municipality**

- The R42 links Heidelberg with Vereeniging to the south-west and Nigel to the northeast
- The R29 runs parallel to the N17
- The R549 links Heidelberg with Vaal Marina and the Vaal River in the south.
- The R550 runs east/west linking Nigel with Devon
- The R23 links the area with Balfour in the south-east and Benoni to the north
- The R51 links Balfour with Devon
- The R103 runs to the N3 freeway.

#### **Midvaal Local Municipality**

- The R59, north/south route links Vereeniging with Alberton and the N12 in Johannesburg
- The R82 north/south route links Vereeniging and Johannesburg via Walkerville
- The M61 north/south route runs parallel to the R59, linking Vereeniging and Alberton via Meyerton, Randvaal and Kliprivier.
- The R42 east/west route through Midvaal links Meyerton with Heidelberg.
- The R551 east/west route between the N1 and the Suikerbosrand Nature Reserve
- The R550 east/west route between the N3, R59 and the R82
- The R54 route linking the Vaal Marina to the R82
- The K154 east/west route between R82 and R59

#### **Emfuleni Local Municipality**

- The K178 route links Vereeniging with N1 and the North West Province to the west
- The K53 route links Vereeniging in the south with Johannesburg in the north
- The K59 route links Vereeniging with De Deur, Walkerville and Johannesburg to the north.



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#### **Corridors**

Two main corridors exist in the District namely:

- 1. The N3 south corridor, which links Johannesburg, Ekurhuleni and Heidelberg. This corridor was identified by the Gauteng Spatial Development Framework.
- 2. The R59 corridor, which links Johannesburg, Ekurhuleni, Meyerton and Vereeniging.

#### **Air Transportation**

There are a number of private air transport services that operate through the following airfields:

- 1. In Lesedi there is a small private airfield which is situated south of Bergsig. This airport is largely utilised by farmers who have built the airstrips.
- 2. The Aerovaal Airport, situated on the boundary between Midvaal and Emfuleni, has two runways and accommodates approximately 64 aeroplanes.
- 3. The Tedderpark Aiport, situated in Midvaal, is privately owned and is used mostly for recreational purposes. The Tedderfield Airport provides a training academy for pilots.
- 4. The Vanderbijlpark airport is located in Bophelong in Emfuleni.

#### **Rail Transportation**

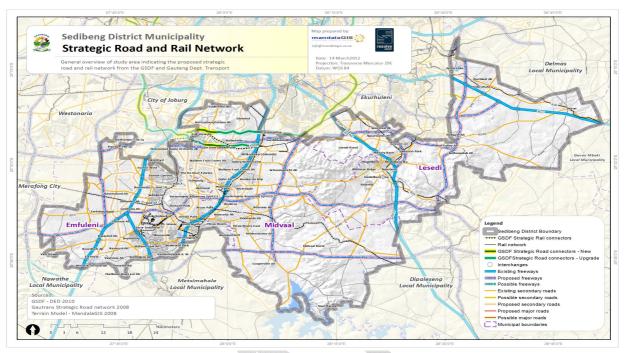
Rail transportation infrastructure is well developed within the Sedibeng District Municipality. There are two railway lines in Lesedi Municipality. These are the railway line that runs parallel to the N17 through Devon and the rail linkage between Ekurhuleni with Belfour that runs through to Heidelberg. Both of these are freight lines.

The main railway line in Midvaal runs parallel to the R59 from north to south. It connects Vereeniging with Germiston and Johannesburg.

In Midvaal there is an east/west line which is used for freight only. A further railway line, running through Vereeniging, Sebokeng and Orange Farm, is used as a passenger rail line.

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#### Strategic Road and Rail Network



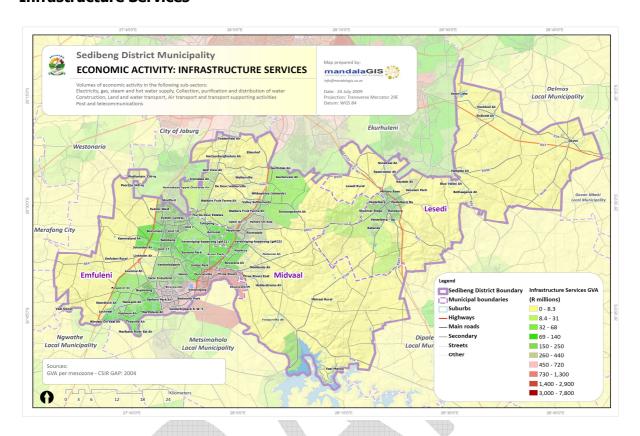
Infrastructural services are provided mainly in urban areas while there is a shortage of services within informal settlements. The existing infrastructure is, in general, old and overburdened and needs rehabilitation and upgrading. While the site for the Regional Sewer Scheme has been identified and the upgrading of existing works has commenced, the excess effluent is finding its way into the rivers and wetlands, creating serious environmental and health problems.

The Sedibeng District Municipality has good quality road and rail networks that extend into other provinces, creating linkages between Sedibeng and other areas. The proposed R59 and N3 corridors present development opportunities at the District.

The Key Infrastructure Issues can be summarised as follows:

- Lack of services in rural and informal settlements.
- Pollution problems, especially from overflowing sewage and heavy industry waste.
- The presence of pit latrines that may add to pollution.
- Shortage of east/west road networks.
- Ageing road infrastructure, especially in Emfuleni.
- Low threshold for services such as rail, and public transport such as busses.

#### **Infrastructure Services**



#### **SPATIAL STRUCTURE:**

#### **Structuring Elements**

In order to achieve sustainable development, it is imperative that all parties (public sector, private sector and end users) involved in development, have an agreed common vision and strategy for the Spatial Structure of the District. To this end it is important that there is a common Vision, Objectives and understanding of the preferred Spatial Structure of the District. This requires agreement on "Structuring Elements".

The Sedibeng District Municipality 2012-17 Integrated Development Plan (IDP) adopted a set of development principles and objectives that should inform structuring elements for spatial planning in the medium to long term. The following principles were adopted:

#### Sustainability

Development is to be implemented in a manner that ensures sustainability of environmental resources while creating opportunities for future generations.

#### **Efficiency**

Efficient use of resources is to be achieved through a robust urban form and structure, managed growth, based on availability of infrastructure and interconnectivity between facilities.



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#### **Accessibility**

Accessibility is to result in the enhanced ability of residents to access various opportunities with reduced costs.

#### **Spatial Development Objectives**

The following spatial development objectives were adopted by the IDP for the District:

#### A Continuous And Sustainable Open Space Network

The creation is required of an uninterrupted open space network that utilises the ridges, rivers and nature reserves including the Suikerbosrand and the Vaal river area as the key elements within the system.

#### **A System Of Functionally Defined Activity Nodes**

The main activity node is currently Vereeniging/Vanderbijlpark, with Meyerton in Midvaal and Heidelberg/ Ratanda in Lesedi being secondary nodes. Rural services nodes are located in areas throughout the District.

#### Linkages

The main roads, such as R29, R42, R59, R82, R54 and R553 should be optimised to link different areas. These routes should promote mixed-use high density development.

#### **Urban Development Boundary (UDB)**

UDBs are to be used to prevent urban development sprawl, to promote more compact urban development and to protect the agricultural and ecological potential of the rural areas. Future urban development is to be within the UDB to ensure infill and densification.

#### **Existing Major Development Opportunities**

Opportunities for development around Suikerbosrand, the Vaal River and along the R59 are to be sought and utilised.

#### **Corridors**

The R59 and N3 corridors should be enhanced as well as along other major routes by promoting high density development along and at main public transport links (road/rail).

#### **Services**

Upgrading of services is to be focused primarily on previously disadvantaged communities. The strategic concept is to focus on existing strengths and development opportunities whilst addressing areas of critical need through building on urban and rural strengths. There should also be high order investment (infrastructure, housing and economic enterprises) in the urban core areas as well as in upgrading existing rural settlements.



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#### **Urban Development Focus Areas**

The identified focus areas include:

- Vereeniging/ Vanderbijlpark
- Meyerton CBD
- N3 zone of opportunity
- R59 corridor

#### **Precincts**

**Identified Precincts include:** 

- Government Precinct
- Fresh Produce Market Precinct
- Doornkuil Precinct
- Waterfront Precinct

#### **Upgrading Of Existing Settlements**

The settlements identified for upgrading are:

- 1. Heidelberg/Ratanda
- 2. Devon/ Impumelelo
- 3. Vischkuil/ Endicott
- 4. Tshepiso North Ext 3 & 4
- 5. Sonderwater
- 6. Boipatong
- 7. Lakeside Ext 4
- 8. Sebokeng Ext 24
- 9. Lakeside Proper

#### **Development Nodes & Corridors**

The key structuring elements include development nodes dived into primary, secondary, tertiary, nodes, zone of opportunity, development corridors and mobility corridors.

- Primary Nodes are: Vereeniging and Vanderbijlpark CBDs.
- Secondary Nodes are: Meyerton and Heidelberg
- Tertiary Nodes are: Vischkuil / Endicott, Devon/ Mpumelelo, the Nampak/ Everite area Sebokeng (vicinity of the hospital/ rank) and Evaton (along the Golden Highway).
- Zones of Opportunity are at the intersection of N3 and R42 for mixed retail development.
- Development Corridors are: The R59 (between Meyerton/ Vereeniging), the N17
  Freeway (intersection N17/ R24 and N17 / R550), and the N3 Freeway (intersections
  with R23, R42 and R550).



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• Mobility Corridors are: The R54 (between Sebokeng and Vereeniging), the R82 (between Vereeniging and De Deur) and the R42 Route.

#### **Lesedi Municipal Area**

Lesedi municipality adopted the following structuring elements for its area:

#### **Development Nodes**

Heidelberg / Ratanda serves as a secondary node for District purposes while it is considered to be a primary node for the local municipal area. Vischkuil / Endicott, Devon /Mpumelelo serve as tertiary nodes for the District while they serve as secondary nodes for the local municipality.

#### **Development Corridors**

R24 serves as a Development Corridor.

#### **Zone of opportunity**

The following intersections with the N3 are identified as zones of opportunity:

- R23
- R550
- R42

Most of the area to the east is considered good for commercial agriculture while areas to the south –west are suitable for tourism and as ecological corridors.

Less than 5% of the area is used for urban development purposes.

#### **Urban Development Boundaries**

Areas indicated above as development nodes, corridors and zone of opportunity are all within urban development boundaries to prevent encroachment into agricultural and conservation land.

#### **Midvaal Municipal Area**

Midvaal Municipality utilised their main development corridor and nodal system as the main structuring elements for the Midvaal Spatial Development Framework (SDF).

#### **Development Corridor**

The R59 is used as the dominant development corridor with nodes along the corridor to serve local interests.

#### **Development Nodes**

A range of nodes are identified these include, Vaal Marina, Savannah City, Rothdene/Kookrus, Golfpark and Meyerton CBD.



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#### **Urban Development Boundary**

All major residential and business/industrial areas are provided with urban development boundaries. These include Vaal Marina, the R59 corridor, Rothdene/Kookrus, Golfpark and Meyerton CBD, Savannah City and Eye of Africa.

#### 7.4 Emfuleni Municipal Area

Emfuleni Municipality adopted the following structuring elements for its area.

#### **Development Nodes**

Vereeniging and Vanderbijlpark CBDs are primary nodes both for Emfuleni and the District, Sebokeng and Evaton are proposed as Secondary nodes

#### **Development Corridors**

The R59 and R42 are identified as Development Corridors

#### **Mobility Corridors**

These include the R54 between Sebokeng and Vereeniging and a portion of the R82.

#### **Urban Development Boundary (UDB)**

An urban development boundary was adopted for all major urban development areas. The UDB extends north/south approximately at the centre of the municipality, creating an urban east and a rural west.

The above are illustrated in the Development Concept Map and Emfuleni SDF Map from the Emfuleni SDF overleaf.

#### **Spatial Structure Key Issues**

While the various policy documents dealing with spatial structure, in particular the Sedibeng IDP and the Local Municipalities' SDFs, all note the need for densification and investing in identified precincts and nodes within the District, such as the "Development Triangle" and other nodes, the reality indicates that this is not taking place. Major investments in the District over the last few years, particularly in housing and related infrastructure, have been in areas that reinforce the old inappropriate land use patterns, placing people far from opportunities and in areas that do not take advantage of existing infrastructure, as illustrated in the Land Cover Map overleaf.

The three municipalities that constitute Sedibeng District (Lesedi, Midvaal and Emfuleni) are very different and distinct from each other with diverse environments and potentials. Further, the spatial structure and planning of these areas tends to be inward focussed, not taking into account adjacent areas and the planning that has been done for the region and province does appear to be effectively taken into account, such as the Gauteng Spatial Framework. Lesedi has high agricultural potential and limited urban development and is functionally linked to Ekurhuleni (Springs and Nigel) for employment and services.



### **CHAPTER 03: Spatial Development Framework**

Midvaal has major conservation and tourism potential with little urban development, except for Meyerton, along the R59 and in newly developed residential areas such as the Eye of Africa and the proposed Savannah City. These developments relate to Johannesburg in the north and Emfuleni to a limited extent as they are functionally part of these areas. The northern part of the R59 corridor is, to a great extent, within the sphere of influence of Ekurhuleni (Alberton). Areas in the south of the municipality are functionally linked to Emfuleni. The municipality does not have a strong central economic core.

Emfuleni has defined developed areas with a strong manufacturing sector and has strong linkages and good access. The eastern portion has a developed urban conurbation with high population densities.

The Key Spatial Structure Issues include:

- The absence of an overall spatial structure, urban form and linkages that define the District as a functional entity.
- The absence of standardised terminology and definition of terms such as nodes, corridors and precincts in planning documents used by the different municipalities.
- A gap between urban and rural areas in relation to the provision of services and development plans for the entire District area.
- Lack of fit with the Gauteng Spatial Development Framework and concepts of a "City Region".
- Municipalities are not maximising the development potential of their own strengths and resources from the broader perspective of development of the District and Province.

From these Spatial Structure Key Issues, the proposed SDF for the Sedibeng District Municipality was developed.

#### SPATIAL DEVELOPMENT FRAMEWORK:

The Sedibeng District Municipality seeks to address past Spatial Planning Imbalances by bringing services and economic opportunities close to previously disadvantaged areas. This initiative is supported by the proposed conurbation that will focus development of the district in the conurbation area which includes Vanderbijlpark, Vereeniging, Meyerton and Sebokeng. This SDF is developed on the following principles:

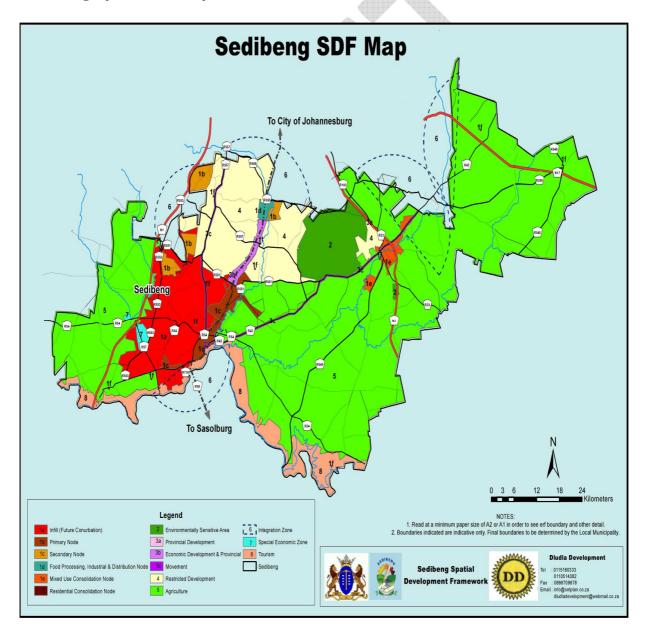
- Support and align with national and provincial planning, in particular the National Development Plan, Gauteng City Region, Gauteng Vision 2050, the 25 Year Integrated Transport Master Plan and the Gauteng Spatial Development Framework.
- Support and align with the IDPs and SDFs of Sedibeng, the Gauteng Province and the Local Municipalities within the District (Emfuleni, Midvaal and Lesedi).
- Promote higher densities and infill in the urban core in line with national and provincial policy.
- Promote environmental sustainability.



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- Promote effective and appropriate use of high potential agricultural areas.
- Facilitate the development of a continuous sustainable open space system
- Ensure functionally defined activity nodes
- Maximise efficiency of service infrastructure and transport systems
- Build sustainable internal linkages
- Establish urban development boundaries to reduce sprawl and support strategic infill
- Support appropriate major current development initiatives and new initiatives
- Support identified precincts
- Facilitate the upgrading of existing settlements
- Support identified development nodes and corridors

#### **Sedibeng Spatial Development Framework**



#### **FLAGSHIP PROJECTS:**

The flagship projects do not constitute a full list of all interventions and developments that will be undertaken in the area. It rather highlights those priority interventions with the highest catalytic impact, has legacy value or is critical to the future growth of the area. These projects can also be depicted in relation to the spatial development and does not include the policy and regulatory interventions required.

Vaal Logistical Hub initiative   Depot in Vereeniging was established in 1993 and is mainly used for the steel industry. It is believed that the hub is not operating optimally and that it could play a more prominent role in the economy.    Sedibeng Regional Sewer Scheme   Due to current capacity costamits sewer network to be upgraded   Due to current capacity costamits sewer network to be upgraded   Due to current capacity costamits sewer network to be upgraded   Due to current capacity costamits sewer network to be upgraded   Due to current capacity costamits sever network to be upgraded   Due to current capacity costamits sever network to be upgraded   Due to current capacity costamits sever network to be upgraded   Due to current capacity costamits sever network to be upgraded   Due to current capacity costamits sever network to be upgraded   Due to current capacity costamits sever network to be upgraded   Due to current capacity costamits sever network to be upgraded   Due to current capacity costamitatives   Due to current capacity	Project Title	Description	Strategic Importance of Projects	Implementation Agent	Municipality
Sewer Scheme    Constraints sewer network to be upgraded   Capacity.   Attracting development.   Legal compliance.   Approval of housing development applications.   Erosume the development of the R59 Corridor   Corridor vith well established road and rail infrastructure. Various developments along the corridor to be promoted and facilitated, especially light industrial and manufacturing.   Residential development at higher densities should also be promoted to increase feasibility of public transport.   Integrated Housing project with 18 000 households proposed. The first development in SA where township has been linked to financial and urban management model. 20% (3738 houses) of the development (18691 mixed housing) will be   Capacity.   Attracting development.   Elegal compliance.   Adventory developments, municipality to provide infrastructure   Midvaal Local Municipality      Densification in areas close to economic activities   Social inclusion   Create densities to support public transport	Vaal Logistical Hub initiative	Depot in Vereeniging was established in 1993 and is mainly used for the steel industry. It is believed that the hub is not operating optimally and that it could play a more prominent role in the economy.	economic development opportunities, • Increased efficiency, • Job creation, • SMME and Cooperative	Transnet, Public Sector	
development of the R59 Corridor  established road and rail infrastructure. Various developments along the corridor to be promoted and facilitated, especially light industrial and manufacturing. Residential development at higher densities should also be promoted to increase feasibility of public transport  Savannah City  Integrated Housing project with 18 000 households proposed. The first development in SA where township has been linked to financial and urban management model. 20% (3738 houses) of the development (18691 mixed housing) will be  established road and rail infrastructure. Various developments, municipality to provide infrastructure  • Increased job opportunities  • Increased public transport  A developer driven areas close to economic activities  • Social inclusion  • Create densities to support public transport  Midvaal Local Municipality  Midvaal Local Municipality  Midvaal Local Municipality  Transport  Midvaal Local Municipality	Sewer Scheme	constraints sewer network to be upgraded	capacity.  • Attracting development.  • Legal compliance.  • Approval of housing development applications.		
project with 18 000 households proposed. The first development in SA where township has been linked to financial and urban management model. 20% (3738 houses) of the development (18691 mixed housing) will be  areas close to economic activities  Social inclusion  • Create densities to support public transport  Municipality  Project by Basil Read in partnership with Old Mutual.	development of the R59 Corridor	established road and rail infrastructure. Various developments along the corridor to be promoted and facilitated, especially light industrial and manufacturing. Residential development at higher densities should also be promoted to increase feasibility of public transport.	and diversity  Increased job opportunities  Increased public transport	developments, municipality to provide infrastructure	Municipality
dedicated to low-cost housing.  Klipriver Business The home of Heineken • Major investment Private sector Midvaal Local		project with 18 000 households proposed. The first development in SA where township has been linked to financial and urban management model. 20% (3738 houses) of the development (18691 mixed housing) will be dedicated to low-cost housing.	areas close to economic activities • Social inclusion • Create densities to support public transport	project by Basil Read in partnership with Old Mutual.	Municipality



# **CHAPTER 03: Spatial Development Framework**

		Strategic		
Project Title	Description	Importance of Projects	Implementation Agent	Municipality
Park and Graceview	Brewery. Pick n Pay will be constructing a distribution centre of 300 000m², currently busy constructing a trailer manufacturing company measuring 30000m²	<ul> <li>in area</li> <li>Consolidation of development corridor and optimal use of engineering services.</li> <li>Job creation opportunities</li> <li>Increased rates base</li> </ul>		Municipality
Sicelo Precinct	Construction of mobility spine roads Creating safe road crossing intersections Establishment of informal trading in the area	Upgrading / consolidation of area     Increased accessibility	Public sector	Midvaal Local Municipality
Meyerton Waste Treatment Works	Due to current capacity constraints sewer network to be upgraded	<ul> <li>Increased capacity.</li> <li>Attracting development.</li> <li>Legal compliance.</li> <li>Approval of housing development applications.</li> </ul>	Public Sector	Midvaal Local Municipality
Implementation of the Dlomo Dam Development	Initiated by South African National Biodiversity Institute (SANBI) who has partnered with GDARD, custodians of Gauteng Province's biodiversity, Sedibeng District and Emfuleni Local municipalities in a process to secure and enhance the biodiversity and amenity value of Sharpeville Dam and its surroundings.	Improved quality of environment and water     Requires protection of natural resource that could be used as an recreational asset for the area.	SANBI, GDARD, Sedibeng, Emfuleni Local Municipality	Emfuleni
Zone of Opportunity	Development zone has been identified at the intersection of the R42 and the N3 for the purposes of mixed retail, commerce and service industries. The process of installing bulk services has commenced, with a planned retail shopping centre of approximately 13000m² to be constructed.	Optimisation of opportunities related to access     Job creation opportunities     Increased accessibility to amenities by community	Private Sector	Lesedi Local Municipality
Heidelberg Showground Industrial Township.	The township is ideally situated in relation to the station and the existing industrial areas such as	Optimisation of opportunities related to access     Job creation	Private sector	Lesedi Local Municipality



# **CHAPTER 03: Spatial Development Framework**

		Strategic		
Project Title	Description	Importance of Projects	Implementation Agent	Municipality
	BAT, Escort and Heidelberg Extension 6. The Township is 30Ha in extent and consists of approximately 47 stands.	opportunities • Increased accessibility to amenities by community		
	The 47 stands will be made up of 43 industrial/commercial stands, 1 Municipal stand housing the drivers testing area and 3 Public Open Space stands that accommodate the indigenous thorn trees in the area. The township has been registered & proclaimed already and available for investment opportunities.			
Transnet Bulk Liquid Terminal.	Transnet has started a construction of Bulk Liquid Terminal in Jameson Park along R42 Corridor. This project forms part of the Multi Product Pipeline from Durban to Heidelberg, which caries four products including petrol, diesel, aviation fuel and crude oil. The Bulk Liquid Terminal will serve as a storage point thereby ensuring that there is enough fuel in inland.	Resource optimisation     Infrastructure development	Transnet	Lesedi Local Municipality
Southern Gateway Logistics Hub.	The proposed development is located in between the N3 and R103 corridors (Tamboekiesfontein) and it can be directly accessed from the freeway through R550 corridor.  The area measures approximately 550 hectares and ROD has been approved for the first 30ha, another 90ha has a pending ROD and a new EIA has to be processed for the remainder of this portion. It includes uses such as warehousing, container terminal, retail and manufacturing. It forms part of a bigger	Addressing structural economic functioning of Province     Development of node that will cater for future needs of Gauteng     Increased economic activity and job creation	Private Sector	Lesedi Local Municipality

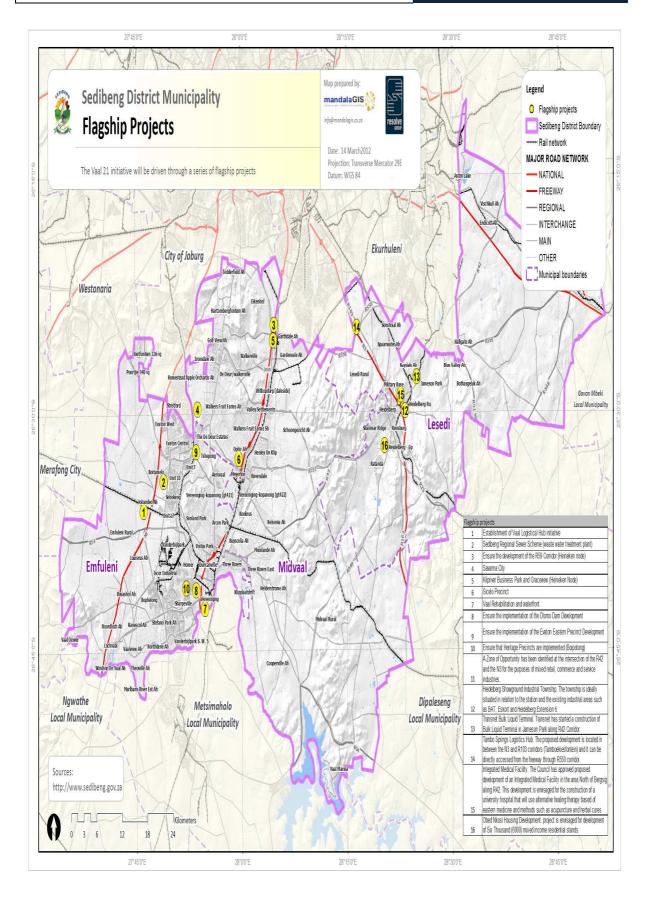


# **CHAPTER 03: Spatial Development Framework**

Project Title	Description	Strategic Importance of Projects	Implementation Agent	Municipality
	development across the N3 in Ekurhuleni that will be known as Tambo Springs that will become major inland port to take over capacity from constrained City Deep.			
Integrated Medical Facility.	The Council has approved proposed development of an Integrated Medical Facility in the area North of Bergsig along R42. This development is envisaged for the construction of a university hospital that will use alternative healing therapy based of eastern medicine and methods such as acupuncture and herbal cures. Meigui Developers have pledged to inject an amount of R7, 5 Billion for the construction of 600 beds hospital and the project is envisaged to create more than five thousand job opportunities for local communities.	Infrastructure Development     Investment in social infrastructure	Meigui Developers	Lesedi Local Municipality
Obed Nkosi Housing Development.	Project is envisaged for development of Six Thousand (6000) mixed income residential stands. Deliver 300 houses and 2000 serviced stands in 2013. Contractor appointed for the construction of 300 houses. The Department in the process of appointing Contractors for the servicing of 2000 stands.	<ul> <li>Increased residential development</li> <li>Social inclusion through mixed income development</li> <li>Create densities for public transport</li> </ul>	Public Sector	Lesedi Local Municipality



## CHAPTER 03: Spatial Development Framework



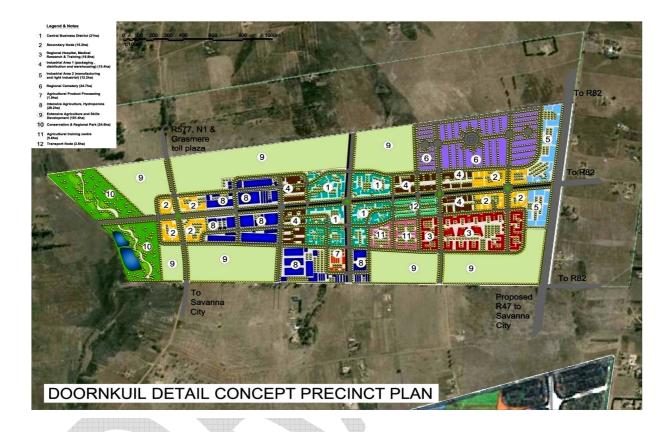


CHAPTER 03: Spatial Development Framework

#### **PRECINCT PLANS:**

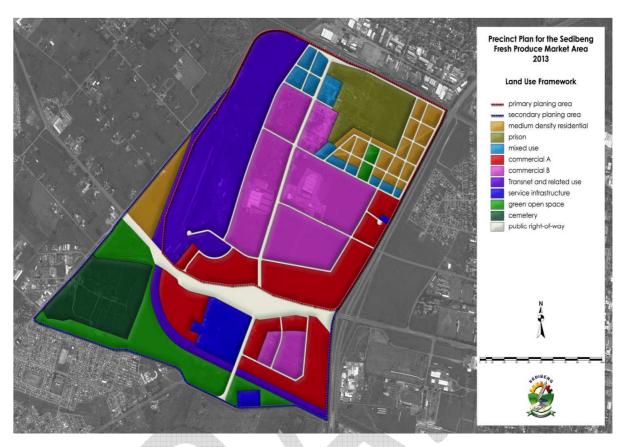
There are four major Precinct Development Plans which are taking place in the Sedibeng region and these Precinct Plans will open up Economic opportunities for the area and have an impact on the economic growth of the area. These Precincts are:

#### **Doornkuil Precinct**



This precinct lies close to the Proposed Savanna City Development. The purpose and objective of this precinct is to develop a regional precinct that will support the Savanna City development and benefit the Orange Farm, Lake side and Evaton residents.

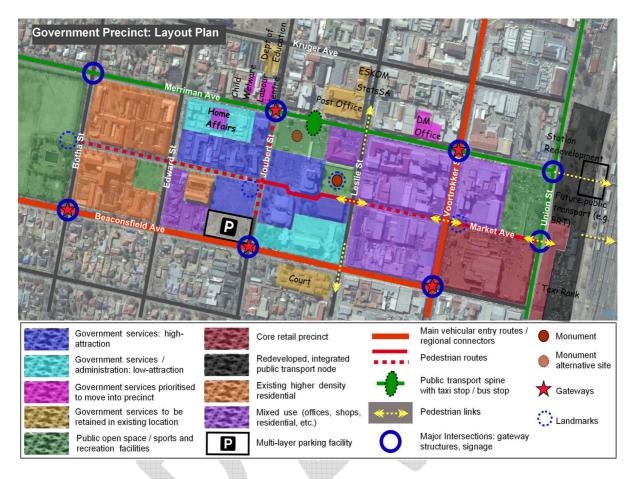
#### **FRESH PRODUCE MARKET:**



The Purpose of this precinct is the enlargement of the Fresh Produce Market's site in order to allow for its expansion and renovation, as well as for the accommodation of subsidiary businesses (e.g. wholesale). It is also for the creation of sites suitable for new commercial and light industrial developments; improvement of local accessibility and connectivity with the immediate surroundings (currently separated from the planning area by means of high order roads and railway lines); application of at least some TOD principles in the vicinity of Leeuhof station in order to derive benefits from and, at the same time, to support the Johannesburg - Vereeniging public transport (rail) corridor.

The objective is the Improvement of environmental quality and ambiance, particularly to ensure safe, pleasant, interesting and comfortable pedestrian environments; a high quality, landmark or gateway development on this very prominent intersection; proposing a clear and appealing vision for the development of the precinct which will be able to entice the commitment and facilitate the cooperation of the three different tiers of government who own different portions of the precinct.

#### **GOVERNMENNT PRECINCT:**



The Purpose of this precinct is to create a vibrant one-stop civic service area, where a range of government services and civic facilities are easily accessible to the community of the Sedibeng District, which is to form the core of a rejuvenated, mixed use Central Business District.

The objective is to ensure that the precinct is accessible at all scales, i.e.:

- at a regional scale in terms of both public and private transport,
- at a local level in terms of walkability from entry points to the CBD and
- at a precinct scale in terms of clustering services that require direct public interaction in a single area
- To establish a range of civic uses beyond direct service delivery points, e.g. facilities
  and spaces for entertainment, cultural activities, sport and recreation, as well as
  open space and public gathering areas.
- To develop a high quality government precinct that sets the tone for the urban regeneration of the CBD and to ensure that links are established between the government precinct and other focal points in the CBD area.



**CHAPTER 03: Spatial Development Framework** 

#### **WATER FRONT PRECINCT:**

The Precinct Plan proposals have been divided into short to medium term proposals, which focus predominantly on the northern and central part of the precinct and long term proposals, which focus on the southern part of the precinct.

The short to medium term proposals revolve around:

- The establishment of a movement network to improve connectivity within the precinct as well as with surrounding areas,
- The establishment of the linear public open space system (greenway) as the central axis through the precinct;
- The upgrading and improvement of Vosloo Park;
- The development of the vacant land and Transnet land to the east of the Central Business District; and
- The further improvement of Dickinson Park.
- The development concept for this area entails the following key interventions and land uses:
- The realignment of Mario Milani Drive to follow the flood line, incorporating the proposed marina area;
- The creation of a large public open space and recreation area between Mario Milani Drive and the river, with opportunities for tourism facilities and/or residential development adjacent to Mario Milani Drive. This area could possibly also incorporate a marina at the existing quarry to be linked to the river, as indicated in the 2010 Waterfront Precinct Development Proposals Plan
- The extension of the existing Aquatics Club to create a much larger and more comprehensive water sport area, which is integrated with the larger recreational area
- The development of a proposed road to link Mario Milani Drive and Barrage Road, with office-related developments along this road which will act as buffer between the proposed residential area and the existing industrial area
- The development of offices adjacent to Barrage Road which will act as buffer to the proposed residential development to the south but will also optimise the development potential of these two roads
- The development of medium density residential neighbourhood (i.e. 2 to 4 storey walkups) in the remainder of the area, with adequate provision for social and community facilities.



## **CHAPTER 03: Spatial Development Framework**

In the long term, once the above-mentioned developments have been completed, the municipality should then focus on the rehabilitation and redevelopment of the industrial land between the railway line and the R59. This precinct will give birth to the "River City" concept.

#### **CONCLUSION:**

As indicated above, the Spatial Development Framework has been formulated in response to a number of objectives, which include the development of an efficient and well-structured river city and the meeting of needs for land for settlement, as well as for different social and economic purposes, in a sustainable manner.

These objectives relate directly to the core concerns of Local Agenda 21 and the proposed Framework is seen to contribute positively towards the creation and management of a built and natural environment within which the needs of the most disadvantaged members of Sedibeng's residents may in future be met. In this regard, the Spatial Development Framework seeks to facilitate the development, over time, of a river city within which levels of access to upgraded infrastructure, social facilities and supportive institutions for marginalized residents and those afflicted with disabilities and illness is improved in both urban and rural environments.

The strategy for spatial development cannot on its own ensure the success of the implementation of the SDF. The spatial strategy is supported by various other strategies and programmes which is part of a co-ordinated and integrated package to ensure that investments and programmes form the basis of longer-term growth and development and that it supports a proper hierarchy of settlements. It also requires that there must be a certain level of intervention with decision-making and implementation to ensure a deliberate move towards a more functional and optimal spatial pattern for the municipality, also creating sustainable settlements. The extent in which financial and institutional resources are mobilised will undoubtedly have a major impact and could result in a meaningful change in the existing spatial pattern towards a more natural settlement pattern for the future.

A very high level of co-ordination and joint prioritisation is required with reference to all these strategies to ensure support of the geographic locations of the agreed to macro spatial plan. Minimum requirements for service provision to all communities must exist, but priority settlements must be identified for better levels of services to create the economic threshold, which is required for sustainable development.

Through the SDF, new cities need to be built to redefine norms and standards. Cognisance needs to be taken in the fact that climate change and migration influence settlement patterns therefore the SDF seeks to shift from the normal reactive planning to pro Active spatial planning at all scales. Public Open Spaces should also be promoted to have places of interaction and socializing, also places for kids to play because healthy environments produce healthy youth.



## CHAPTER 03: Spatial Development Framework

In essence, the conceptual approach acknowledges that the urban areas of greater Lesedi, Emfuleni and Midvaal, are likely to be the focal points for significant economic growth and development within Sedibeng District over an extended period of time.

Therefore, it is concluded that:

- It must be accepted that it is most rational and economically effective to focus higher order development investment (in infrastructure, housing and a diversity of economic enterprises) in the urban core areas.
- A proportion of the resources of the Sedibeng District Municipality must also be targeted in areas of opportunity (Agriculture) and areas of need (Tourism) in fringe rural and peri-urban areas, in order to upgrade existing settlements and create or facilitate new development opportunities in these areas.
- Focus must be on developing and enhancing the strength of Agricultural and Tourism potential of the Sedibeng area by introducing learning institutions which focus on Agriculture and Tourism.
- Small cities need to connect to primate cities, District Municipality and Local Municipalities need to develop common understanding around space economy and settlement patterning, clarify spatial dimensions, understand demographic shifts, growth of employment, environmental pressures and use technologies such as GIS in order to stabilize land.

