



**Final 2026/2027
Integrated
Development Plan
(IDP) Review**

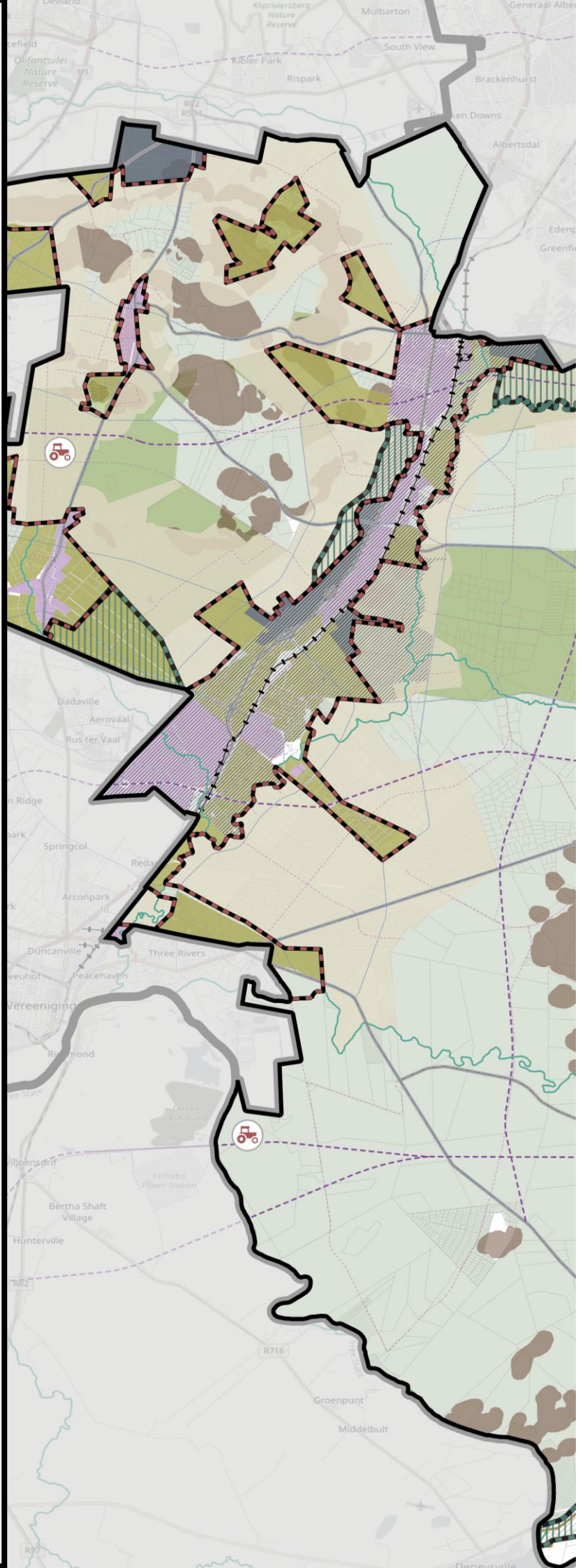
**Annexure B: 2026-
2027 Spatial
Development
Framework (SDF)
Review**



2025/2026 Draft Spatial Development Framework (SDF)

**(Annual amendments to the 2022-2027
IDP and SDF)**

March 2025



EXECUTIVE SUMMARY

Midvaal Local Municipality (LM) is strengthening its reputation as the best-performing local government in Gauteng and is continuing to meet its vision to achieve excellence in service delivery. A defining element to continue to drive this vision is the Spatial Development Framework (SDF) which will steer the municipality towards the future, promote areas which attract economic activity, and confirm the Midvaal LM as a place of stability.

According to the Municipal Systems Act (32 of 2000), a municipal SDF is a core component of an Integrated Development Plan, which acts as a facilitating tool to consolidate developmental visions and community objectives with real time project proposals and an associated budget. Similarly, the Spatial Planning and Land Use Management Act (16 of 2013) prescribes the development of spatial plans at all levels of government to address matters of national and local importance.

The 2022-2027 Midvaal SDF aims to address the spatial disparities, uneven and uncoordinated economic and spatial development, and the threats of climate change and environmental degradation through implementable strategies that will enable Midvaal LM to shape the future development trajectory.

The 2022-2027 Midvaal SDF is a comprehensive document supported by thorough analysis and specialist research. Insights and understandings of decision-makers, councillors and officials were sought, whereafter the general public had the opportunity to comment on draft versions of the framework through an extensive public participation process consisting of nine community engagement meetings.

The information contained within the 2022-2027 Midvaal SDF will form the basis for decision-making on spatial issues within Midvaal LM.

The document is structured in line with the analysis and processes followed to draft the 2022-2027 Midvaal SDF. Chapter 1 places the municipal area in context, defining the internal and external growth pressures that are evident, and the need to diversify the municipal economy in view of the declining manufacturing sector. Chapter 2 analyses the municipal area within the wider national, provincial, district and local contexts, focusing on the legislation, policies and programmes that have implications for the current and future development of Midvaal LM. Placing the municipal area in these contexts laid the foundation for the spatial analysis – contained in chapter 3.

The spatial analysis captures the realities on the ground by examining the population projections for the area and determining where growth pressures are most prominently felt. It assesses the municipal area through different lenses, including the bio-physical, socio-economic and built-environment, the movement

network, the predominant business, industrial and commercial land uses, the availability of community, health and government facilities and engineering services. This analysis provided an understanding on where best to accommodate these growth pressures sustainably.

The analysis and consultative process aided the formulation of an adequate and appropriate spatial vision, coupled with concise development drivers to support and realise the spatial vision (chapter 4). The ultimate vision for the 2022-2027 Midvaal SDF is, therefore:

“The Midvaal Local Municipality offers a unique spatial composition of urban and rural development located along strategic economic corridors and spines. The rural character is protected by means of consolidated and well-designed urban areas and managed urban-rural cross-over zones. Urban expansion is consolidated along the R59 Corridor and R82 Mobility Spine, with east-west spines becoming more prominent.”

The development drivers formulated to support this vision include:

1. Strive towards consolidated compact urban areas.
2. Pursue alternative clean energy and reduce the cost to industrial and commercial consumers.
3. Implement and manage corridor and spine development initiatives.
4. Encourage agricultural production and processing.
5. Stimulate tourism.
6. Foster walkable nodes and transit-oriented development.
7. Ensure connectivity through a considered movement network.
8. Support quality human settlement development.
9. Prioritise environmental management.
10. Streamline targeted engineering infrastructure investment.
11. Implement local area plans (precinct plans).

The framework and development drivers have major implications for the future trajectory of Midvaal LM. This includes the expansion of urban development boundaries and the identification of future urban expansion areas that are subject to conditions. The areas demarcated as strategic development areas (where engineering service investment is to be prioritised for current and future development), should also be noted.

Chapter 5 summarises the written comments received during the public participation process and indicates where, and how, such feedback was addressed, and the adjustments made to the SDF.

The implementation framework is described in Chapter 6. This contains (1) an analysis of the capital expenditure framework and its potential spatial alignment with the SDF vision and development drivers, (2) the capital investment framework projects, and (3) management interventions that should be pursued to assist in realising the spatial vision and development drivers.

The 2022-2027 Midvaal SDF is a critical tool to accelerate robust spatial transformation and enable the Midvaal LM to realise its developmental vision.

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1 INTRODUCTION

1.1 Background & Purpose

Section 20 of the Spatial Planning and Land Use Management Act (SPLUMA) (Act 16 of 2013) states that each municipal council must adopt a Spatial Development Framework (SDF) as part of its Integrated Development Plan (IDP) in accordance with the Municipal Systems Act (Act 32 of 2000). In 2021, after the local government election held in November 2021, Department of Agriculture, Land Reform and Rural Development (DALRRD) appointed a service provider to formulate the 2022-2027 SDF for Midvaal Local Municipality in line with the compilation of the municipal 2022-2027 IDP. The 2022-2027 SDF was approved by Council in May 2022.

In terms of Section 34 of the Municipal Systems Act, a municipal IDP must be reviewed annually in accordance with an assessment of its performance measurements and as changing circumstances deem necessary. Therefore, in conjunction with the IDP review, the municipal SDF is reviewed annually. The 2023/2024 version of the SDF adopted in May 2023 included alignment with the DALRRD SDF Guidelines 2017, enhanced mapping aesthetics and deepen the understanding of the spatial strategies outline in the Development Drivers. This 2024/2025 version of the SDF further includes up update to status of precinct plans in Section 2.6, alignment with the Human Settlement Plan in Section 3.2.4 and alignment with the Midvaal Land Use Scheme in Development driver 8 .

1.2 Locational Context

Gauteng constitutes the economic heartland of South Africa. The province contributes about 34% to the national Gross Domestic Product (GDP) (GSDF, 2030). Despite this primary position as the largest GDP contributor to the national economy, Gauteng does not function in isolation. It has strong social and economic linkages with towns and cities that fall outside its provincial borders. These include Rustenburg (North West), Sasolburg (Free State) and Emalahleni (Mpumalanga). Collectively, they form a space economy referred to as the Gauteng City-Region.

Sedibeng District Municipality, within the Gauteng province, is designated as the Southern Development Corridor in the Gauteng Spatial Development Framework 2030 and is identified as an incubator of new industrial developments that should.

advance the agricultural sector and the development of new cities. Midvaal Local Municipality, in the Gauteng Province, is located within the Sedibeng District Municipality together with the Emfuleni and Lesedi Local Municipalities (Figure 1). Large urban agglomerations surround the municipality on its western border, including Vanderbijlpark-Vereeniging, Evaton-Sebokeng (Emfuleni), and Orange Farm (Johannesburg) residential complexes. On the tip of its uppermost border, sits

another major industrial and residential complex in Ekurhuleni, including Alberton, Katlehong, Thokoza and Vosloorus (Kathorus) (Figure 2).

The municipality is approximately 1 722 square kilometres in size and has a strong rural and semi-rural character. Urban development within the municipality is largely concentrated along regional linkages including the R59, connecting Johannesburg (north) and Vereeniging/Sasolburg (south). The N1 and the N3 national development corridors converge northerly in Gauteng, running adjacent to the western and eastern borders of the Midvaal Local Municipality respectively.

Midvaal Local Municipality is the smallest municipality in the Sedibeng district. With a population size of 111 612 by 2016, it constitutes 12% of the district's total population (Stats SA, 2016). Looking at the social ills in Midvaal, low growth and inadequate distribution strategies at district level is observed to be perpetual factors in inter-generational poverty. When using the 2019 Upper Bound Poverty Line of R1 227 per person per month, 49% of the district's population lives in poverty. Emfuleni accounts for over half of the population living below the poverty line with Midvaal contributing an insignificant proportion thereof.

Midvaal Local Municipality is an important regional corridor and a gateway to the Gauteng City-Region. The municipality has vast socio-economic and spatial opportunities. The main economic drivers in the municipality are manufacturing, financial services, and trade, all respectively contributing 30%, 19% and 15% to the municipal Gross Value Added (GVA). Manufacturing, although the largest contributor, has been declining in the past few years. The continuation of industrialisation along the R59 near Alberton and the new Tambo Springs logistics hub

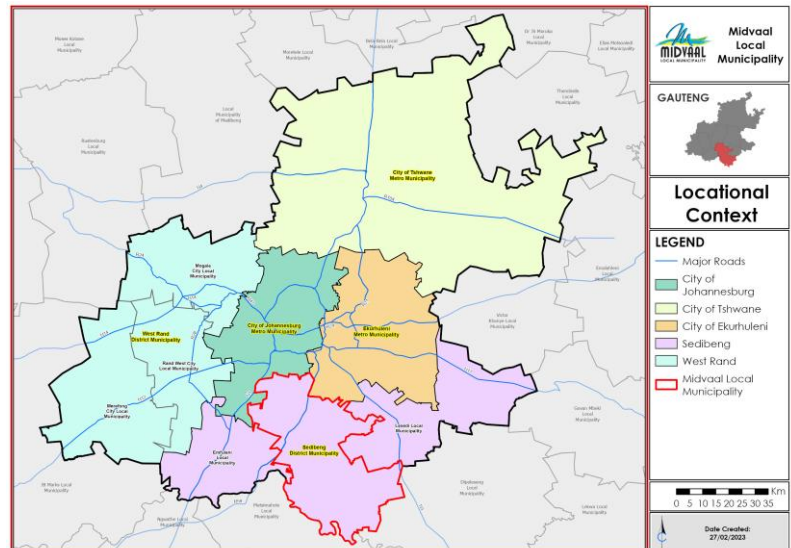


Figure 1: Midvaal Local Municipality locational context

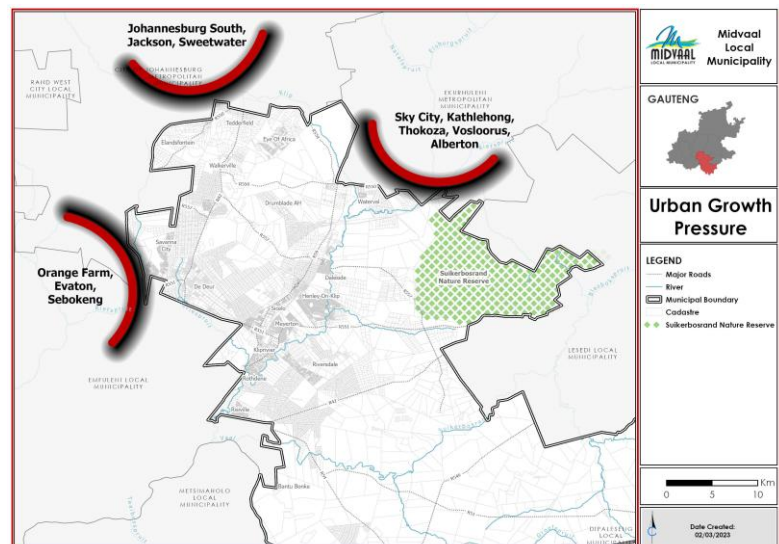


Figure 2: Urban growth pressure from beyond the borders

just north of the Suikerbosrand Nature Reserve, mandates planning to manage the inevitable growth and development in the municipality.

Meyerton, including Rothdene, Riversdale, Sicelo, Meyerton Park, Kookrus, Henley on Klip and Golfpark - is the highest order urban complex in the municipality. Further north, along the R59, are Randvaal-Daleside and Waterval industrial complexes. Vaal Marina along the Vaal Dam is the only urban development in the south. It forms a unique recreational and tourism-related urban complex within the municipality. The R82 is a major regional distributor connecting Vereeniging and Johannesburg. The northern section of the R82 in Tedderfield is experiencing increased urbanisation pressure, while in the southern section, Savanna City is rapidly expanding into a mega housing complex within the municipality. Nodal developments are established along the R82 namely Walkerville and De Deur.

Informal settlements in Midvaal Local Municipality have a unique character compared with ones in other regions such as Emfuleni (Boiketlong), Tshwane (Winterveld) and Merafong (Khutsong). The informal settlements in Midvaal Local Municipality show little evidence of rapid physical growth and subsequent land invasions. A common factor is the desire of households to be closer to social and economic opportunities.

The municipal area is characterised by ridges, as evident in Figure 3. Hydrological features such as the Vaal River and Vaal Dam are located on the southernmost tip of the municipality, with the Klip

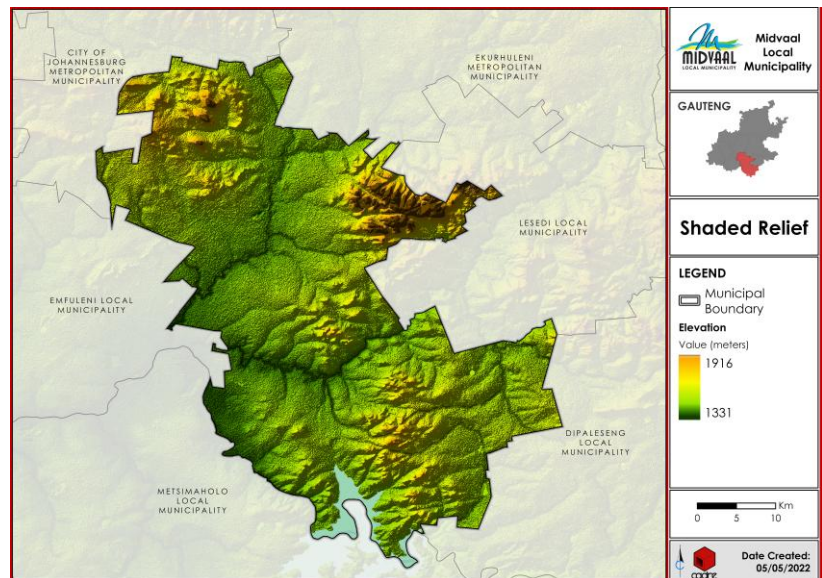


Figure 3: Shaded relief

River running parallel to the east of the R59 which cuts through the central parts of the municipality. These physical features, including the Suikerbosrand Nature Reserve, have an enormous impact on the land use development in the municipal area.

2 KEY LEGISLATIVE AND POLICY CONTEXT

This section captures higher order and local policy strategies that should be embraced in the development of the new Midvaal Local Municipality SDF. For a comprehensive review, see Addendum 3.

2.1 Spatial Planning and Land Use Management Act (Act 13 of 2016)

The Spatial Planning and Land Use Management Act (SPLUMA) is a legislative provision that guides all spatial planning and land use management in South Africa. Its central agenda is to establish robust spatial transformation to inspire better socio-economic outcomes. Addressing the historical spatial imbalances created by the apartheid spatial planning, forms the centre of engagement, supported by the inclusive transformation agenda set out in the National Development Plan. SPLUMA integrates principles of sustainable development into land use and planning regulatory tools and legislative instruments.

In effecting a high-impact social and economic transformation in a municipal context, Section 21 of SPLUMA provides that a municipal spatial development framework must be prepared to give effect to the development principles and applicable norms and standards set out in Chapter 2. The contributed development principles set out in this chapter apply to all organs of the state and other authorities tasked with the responsibility to meet policy objectives.

Accordingly, SPLUMA directs all spheres of government (national, provincial, and local) to prepare spatial development frameworks. The spatial development framework produced, must establish a clear spatial vision developed through a detailed inventory and analysis. This must be based on national spatial planning principles and local long-term development goals and plans.

SPLUMA seeks to promote consistency and uniformity in the procedures and decision-making on spatial planning and land use management. Section 12(2) of the Act provides that all three spheres of government must participate in each other's processes of spatial planning and land use management. However, each sphere must be guided by its own spatial development framework when making land use and development decisions.

Chapter 2 Section 7 of the Act contributes principles that must anchor the directives of the municipal spatial development framework. The land use and land development must promote:

- **Spatial Justice** - to redress development imbalances through improved access to land.
- **Spatial Sustainability** - to protect food security, natural elements, and effect viable communities.
- **Spatial Efficiency** - less use of resources to provide more socio-economic and socio-spatial opportunities.
- **Spatial Resilience** - to effect plans and policies that will constitute economic and environmental shock-resistant communities.
- **Good Administration** - all spheres of government promote integrated efforts for the implementation of the principles, norms and standards set out.

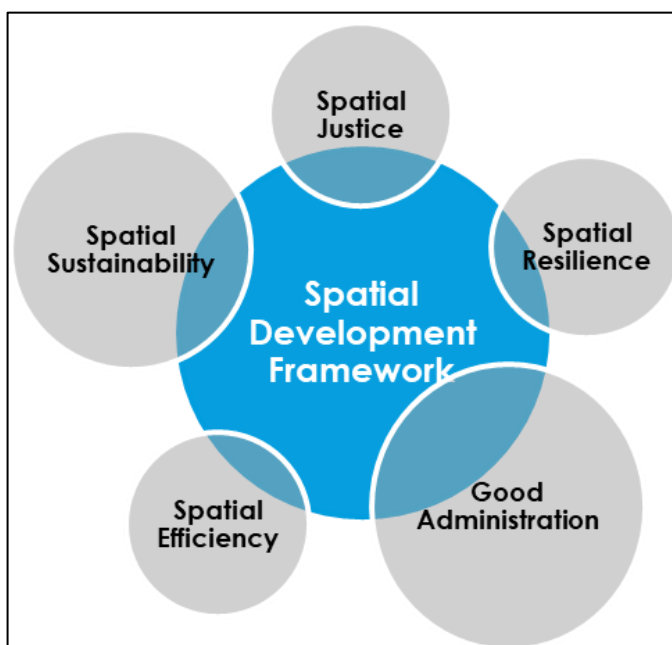


Figure 4: SDF principles

2.2 Municipal Systems Act (Act 32 of 2000)

The Municipal Systems Act 32 of 2000, makes provision for a local municipality to draft its Integrated Development Plan (IDP), considering the integrated development processes. An IDP is a facilitating tool to consolidate the (1) developmental vision and (2) objectives of a community with real time project proposals and an associated budget. The SDF will assist in understanding the status quo of an area, visually identify opportunities and constraints, and deliberate on potential spatial interventions that will drive the type of development that is envisioned.

Section 31 of the Municipal Systems Act 2000 (MSA) contains provisions for provincial monitoring and support for the preparation of IDPs and SDFs. The prepared IDPs and SDFs are submitted and subjected to the review by the MEC. The intent is to support intergovernmental cooperation and to facilitate alignment of local plans to the national agenda as enshrined in the legislation.

The Municipal Planning and Performance Management Regulations of 2001, outlines key undertakings that must be done by all municipalities. The Regulations require that each municipality have a performance management system related to the IDPs that must include the seven National Key Performance Indicators (KPIs). The KPIs are

required to be measurable, relevant, objective, and precise. The reporting ideally should have:

1. Input indicators – demonstrating resources required to deliver on target.
2. Output indicators – recording what is delivered; and
3. Outcome indicators – reflecting on the impact of the work done.

The MLM performance framework comprises of Key Performance Areas (KPA's). These are areas of focus required for the municipality to achieve its strategic objectives. The Midvaal Local Municipality SDF captures these KPAs as follows:

TABLE 1: KEY PERFORMANCE AREAS – MIDVAAL LOCAL MUNICIPALITY	
Key Performance Area	Strategic objective
KPA 1: Good governance	To promote increased participation and improved communication with all key internal and external stakeholders
KPA 2: Safe and healthy environments	To create a sustainable environment safe from harm
KPA 3: Community development	To create an environment focussed on uplifting the youth, the poor and the most vulnerable
KPA 4: Institutional development	To transform and align the people, processes, and systems of the municipality to achieve its objectives
KPA 5: Financial stability	To improve the financial sustainability and capacity of the municipality, whilst adhering to statutory requirements
KPA 6: Infrastructure and sustainable living environments	To ensure efficient infrastructure and energy supply that will improve the quality of life of the community
KPA 7: Communications and customer care	To deliver inclusive and excellent services to the community
KPA 8: Economic growth and spatial transformation	To facilitate sustainable economic empowerment for all communities within Midvaal and through the development of partnerships and innovation

2.3 Sedibeng District Spatial Development Framework 2019

The Sedibeng district is regarded as a crucial southern gateway into the Gauteng City-Region. It is surrounded by three provinces, namely Mpumalanga, the Free State and the North West. The district observes high inward and outward migration patterns from its neighbouring inter-provincial districts. The Sedibeng district consists of three local municipalities namely, Emfuleni, Midvaal and Lesedi LMs.

Sedibeng district is historically well known as the iron and steel industrial hub of Gauteng. The formerly state-owned ArcelorMittal steel works is located in Vanderbijlpark. The district has experienced significant de-industrialisation due to the decline in the steel industry. The steel industry is still one of the main employers in the district within the manufacturing category. Its decline has resulted in the unemployment rate in the district to sit at 50.7%, with Emfuleni contributing a larger proportion of this figure.

The district SDF (Figure 5 & 6) identified consolidation strategies to revive the economy. Key primary, secondary and mixed-use nodes are identified for infill-developments and densification. The nodes are identified as follows across the district:

TABLE 2: SEDIBENG DISTRICT NODAL CLASSIFICATION		
Primary nodes	Secondary nodes	Mixed-use consolidation
Vanderbijlpark Vereeniging Meyerton	Evaton Sebokeng Savanna City Waterval Elandsfontein	Heidelberg Ratanda Jameson Park

The primary nodes identified by the district SDF, offer the highest order and widest range of goods and services to other urban and rural settlements. The secondary nodes are those identified to be in the process of development, serving the local surrounding communities. These secondary nodes, together with the Vanderbijlpark, Vereeniging and Meyerton primary nodes represent the master framework of a future urban conurbation aligned with the district's metropolitan vision.

The district's spatial vision highlights "building towards a developmental metropolitan river city of choice." The SDF details important elements of the vision which have spatial implications for the development of the Sedibeng district such as the River City.

The envisioned River City must focus its economic activity towards the Vaal River. The directive builds on the "Vaal 21: A River City" document which is a cross-border agreement between the Sedibeng district's local municipalities and the Fezile Dabi district's local municipalities in the Free State. The aim is to mobilise resources towards developing a regional economy on both sides of the Vaal River. The Midvaal Local Municipality SDF ought to pursue revitalised spatial interventions to build the water-related economic potential along the Vaal River, between Three Rivers and the Vaal Marina. The SDF presents both the spatial concept and detailed plan as indicated below:

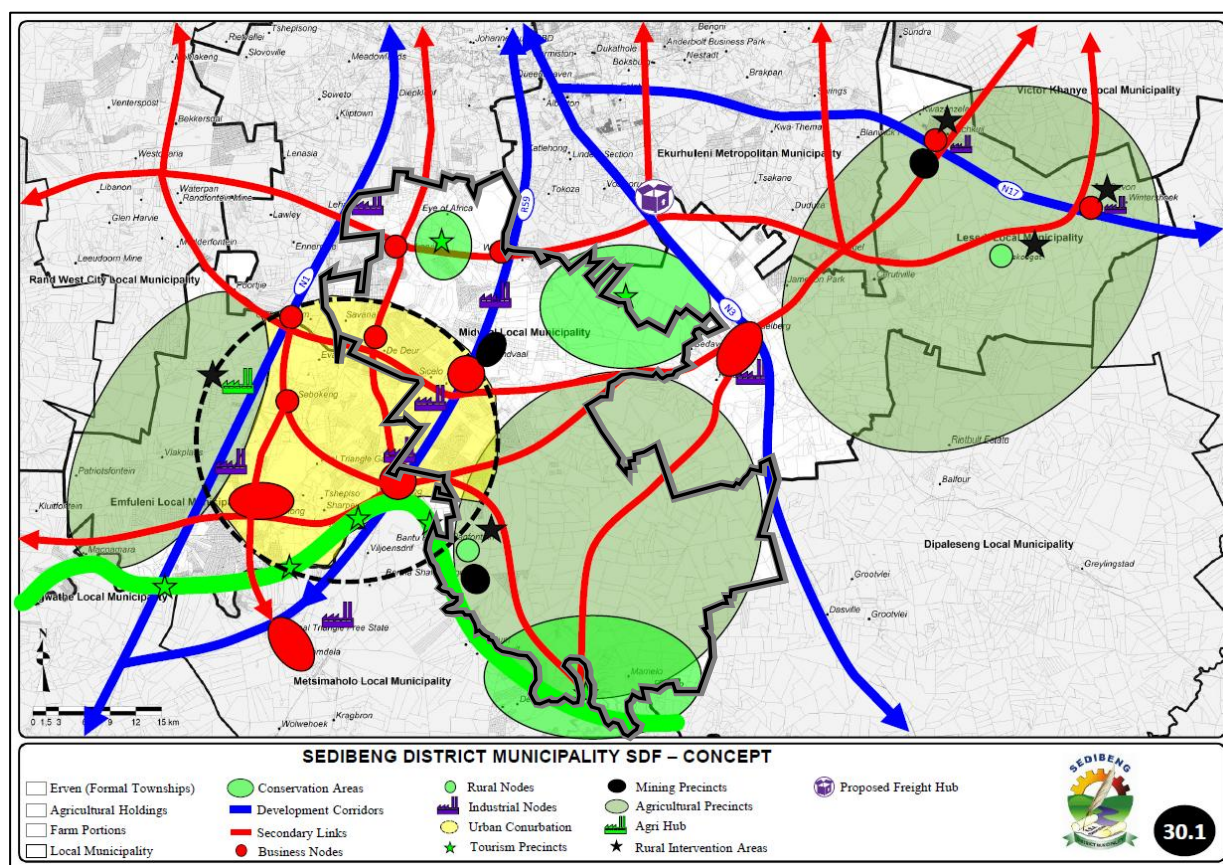


Figure 5: Sedibeng District Municipality SDF concept

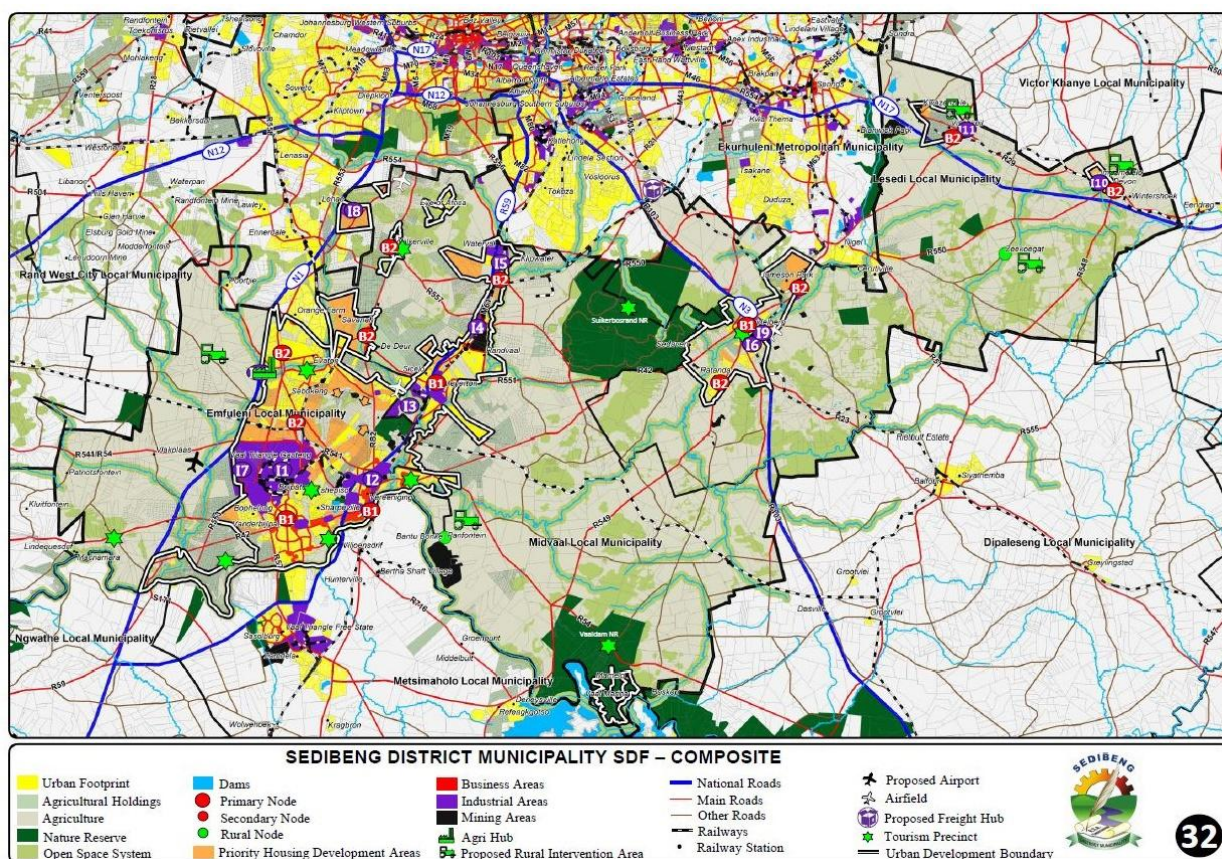


Figure 6: Sedibeng District Municipality SDF

2.4 Midvaal Local Municipality Spatial Development Framework 2017-2022

Midvaal Local Municipality adopted a 5-year SDF for 2017-2022 and have subsequently reviewed the SDF annually. The composite map depicted in the Figure 7 below depicts the final review adopted in May 2021. The 2021/2022 SDF Review document is the point of departure for the compilation of the 2022-2027 SDF.

The previous SDF indicates key spatial interventions summarised as follows:

1. Industrialisation and commercialisation along the R59 in:
 - Duncanville Ext 3
 - Meydustria
 - Highbury
 - Randvaal
 - Waterval
2. Need for the compilation of precinct plans for the following secondary nodes:
 - Henley on Klip
 - Gateway
 - Golfpark
 - Sicelo
 - Kookrus
 - Rothdene
 - Riversdale
3. Construction of schools, clinics, and cemetery in Savanna City.
4. Revitalisation of strategies for southern industries along the R59 corridor.
5. Compilation of sustainable human settlements plan.
6. Promote human settlements mega projects in line with R59 Development Framework and Design Framework.
7. Formulate municipal tourism enhancement strategy for the tourism precincts including:
 - Alewynspoort
 - Suikerbosrand Nature Reserve
 - Vaal Marina.
8. Support Comprehensive Rural Development Programme initiatives on agricultural land (initiated by DALRRD)

The 2017-2022 SDF comprised of 10 Development Principles used to guide development which are:

- 1. Environmental Management** - To protect and actively manage the natural environmental resources in the Midvaal Municipal Area in order to ensure a sustainable equilibrium between agricultural, tourism, industrial/ manufacturing and mining activities, as well as urbanisation pressures in the area.
- 2. Agricultural Production** - To facilitate and enhance agricultural production in the municipal area by actively protecting all land earmarked for agricultural

purposes, and to target agricultural holdings for innovative small-scale farming and agro processing.

- 3. Tourism Promotion** - To promote tourism development through the active utilization of tourism resources available like the Vaal Dam, the Ridges Precincts, and the Nature Reserves in the area.
- 4. Corridor Development** - To pro-actively plan, design and facilitate the establishment of a Development Corridor along the R59 freeway.
- 5. Nodal Development** - To facilitate the development of a hierarchy of sustainable Activity Nodes in partnership with stakeholders to ensure equitable access to social infrastructure, and to promote Local Economic Development in the urban and rural parts of the municipality.
- 6. Movement Network** - To capitalise on the strategic location of the municipality by way of regional and provincial linkages, and to establish an internal movement network comprising a hierarchy of roads which include a comprehensive public transport network and services.
- 7. Industrial, Commercial, Mining Activity** - To promote the development of a diverse range of industrial, commercial and mining activities in the Midvaal area through partnerships with the private sector, and with specific focus along the R59 Corridor and at the designated nodal points.
- 8. Human Settlement Development** - To provide for a wide range of bonded and subsidised housing typologies and tenure alternatives within clearly defined Strategic Development Areas, and to continuously manage residential densification by way of the Midvaal Density Policy.
- 9. Compact City** - To delineate an Urban Development Boundary to encourage consolidated urban development and to protect high potential agricultural land and sensitive environments.
- 10. Targeted Engineering Infrastructure Investment** - To prioritise the bulk of short to medium term upgrading/provision of engineering services to nodal areas within the Urban Development Boundary.

The development principles listed above aimed at providing pillars/drivers to guide development in Midvaal. This does not replace or deviate the development principles outlined in the Spatial Planning and Land Use Management Act (Act 16 of 2013).

MIDVAAL SPATIAL DEVELOPMENT FRAMEWORK Composite Map 2021 - 2022

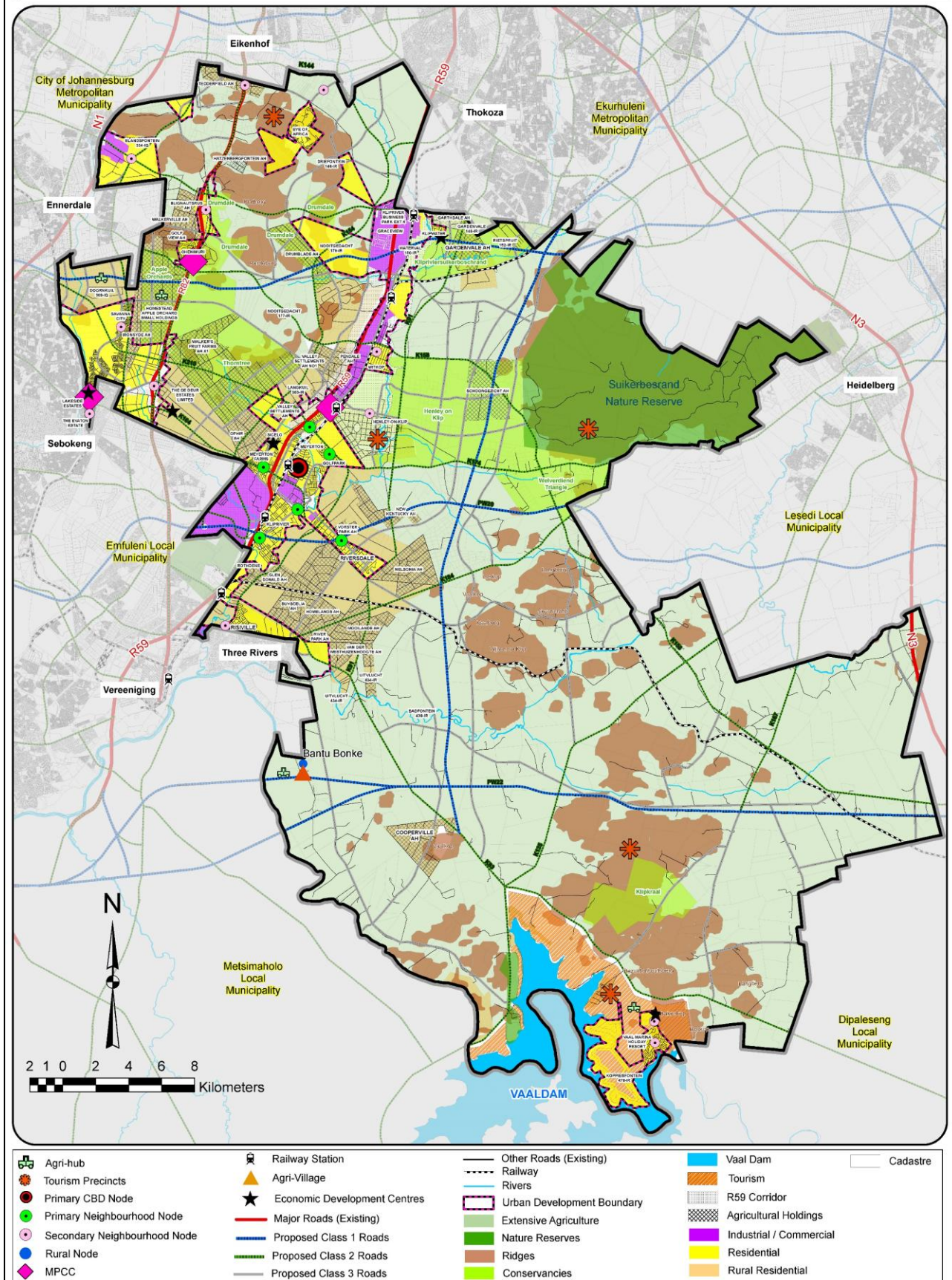


Figure 7: Midvaal Local Municipality Spatial Development Framework 2021-2022

2.5 R59 Corridor Strategic Development Plan (2010) & Urban Design Framework (2014)

The R59 is an important structuring element of Midvaal. The concept for the development corridor follows a 'beads on a string' approach with five nodes identified along the route. These include North (Waterval), Central (Daleside and Highbury), and South (Meyerton and Sicelo). A critical objective is to increase the mobility on the route, and to improve access to and from the freeway through a number of east/west movement routes.

As part of this initiative, density and intensity of developments should be increased along the route with the aim to improve public transport usage. The plan proposes that the area around Waterval as part of the northern node be developed with light industrial uses, mini-factories, offices, warehouses and commercial uses. This node is situated at the gateway of the corridor and should therefore be protected in terms of the types of uses and aesthetical appearance. A class 3 road to the west and parallel to the R59 is critical to unlock development in the west of the corridor. The policy is further detailed in the R59 Corridor Urban Design Framework (2014).

2.6 Midvaal Local Municipality Precinct Plans (2010-2021)

Midvaal Local Municipality Council has adopted precinct plans for its key development area in the municipal region. The table below captures objectives and directives of each precinct plan, and the figure below indicates their location. Precinct plans are separate documents to the SDF and must be read in its entirety in conjunction with this SDF.

TABLE 3: PRECINCT DEVELOPMENT IN MIDVAAL LOCAL MUNICIPALITY				
Precinct plan		Date	Objective(s)	Key directives
1a.	Meyerton CBD Precinct Plan	2011	Enhance multi-functional character of the CBD and prevent intrusion of non-residential uses into the surrounding areas while promoting economic growth and development.	Expand the CBD easterly along Loch Street as activity strip. Promote residential densification to strengthen the CBD. Include commercialisation and investment aspects to the UDF in Meyerton CBD.
1b.	Meyerton Urban Design Framework and CBD plan	2021		
2.	Tedderfield Precinct Plan	2011 (In Review)	Retain the rural character and utilise the traffic on R82 for	Promote range of economic land uses on erven adjacent to R82. All other erven to be used as rural residential.

			local economic development.	
3.	Walkerville Precinct Plan	2017	Preserve rural character and maximise economic potential.	Promote limited densification (two-storey walk ups, semi-detached units), inclusionary housing, gap market housing, middle-higher income bonded housing. Properties bordering R82 and K57 to be earmarked for tourism-related business uses.
4.	De Deur Precinct Plan	2021	Develop as mixed-use node and facilitate residential densification.	Construct the K57 road and invest in the public realm. Allow densification and protect the rural character of existing low-density residential housing.
5.	Elandsfontein Precinct Plan	2013	Maximise the development of vacant land adjacent to N1 and link the two ridges into the regional open space system.	Earmark the two ridges for conservation and eco-tourism related activities. Development around the ridges to strictly adhere to environmental legislation to ensure preservation of indigenous flora.
6.	Aloe Ridge Precinct Plan	2021	Maximise the potential of the area without compromising on the tourism potential and rural character.	Retain high potential agricultural land. All remaining land is classified as rural residential.
7a.	Doornkuil Precinct Plan	2014	Spatially integrate uses of the strategically located land parcel to facilitate sustainable use of resources for the benefit of all residents of the functional area.	To develop a regional cemetery, hospital/research facility, agricultural training. Intensive and extensive agriculture, industrial uses subservient to the above uses, a conservation area around the spruit and a low intensity CBD and secondary node.
7b.	Doornkuil Precinct Plan Feasibility Study	2022	To assess the practicability of the precinct plan and to identify and research sensitive areas.	Commissioning a comprehensive investigation by an agricultural economist and environmentalist to determine the potential of the site.

8.	Henley on Klip Precinct Plan	2022	Support and enhance the rural residential character.	Proactively manage the pressure of high-density residential developments.
9.	Sicelo Precinct Plan	2010 2022	Enhance settlement identity, and socio-economic well-being of residents.	Increase NMT connectivity between Meyerton CBD and Sicelo.
10.	Waterval Precinct Plan	2011 2022	Diversify land use activities and ensure environmental quality amid development pressure.	Intensify and densify uses around the TOD node. Ensure enough open spaces on site to ensure quality environment.
11.	Bantu Bonke Agri Village Precinct Plan	2022	Build a self-sustainable agri-village.	Develop new phases of agricultural produce. Construct 500 housing units.
12.	Pendale Valley Settlement Precinct Plan	2023	Compiled with 5 development objectives to guide sustainable growth.	Provide development guidelines for 3 sub-precincts – Rural Living and Tourism, Agriculture and Open Space, Activity Nodes

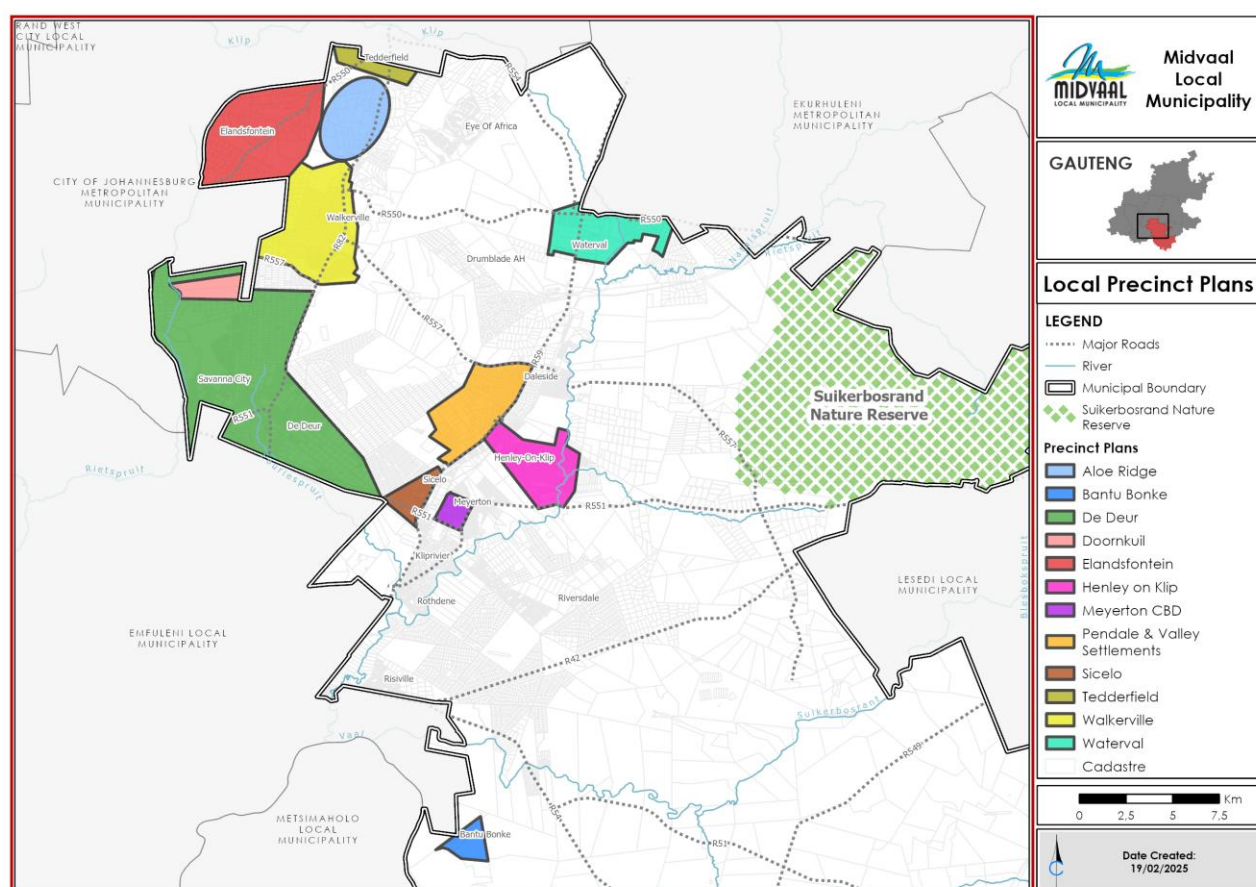


Figure 8: Midvaal Local Municipality precinct plan location context

2.7 The Midvaal Nodal Policy Review, 2019

The Midvaal Nodal Policy, 2019 distinguishes between a settlement hierarchy (primary urban node, secondary urban node, rural node) and a business node hierarchy (CBD, neighbourhood, MPCC) within the municipal area.

TABLE 4: PROPOSED MIDVAAL NODAL HIERARCHY	
Primary urban node	
Settlement hierarchy	Business node hierarchy
Meyerton Town	Central Business District
	Sicelo Neighbourhood Node (EDC)
	Gateway Neighbourhood Node
	Golf Park Neighbourhood Node
	Kookrus/Kliprivier Neighbourhood Node
	Rothdene Neighbourhood Node
	Riversdale Neighbourhood Node
Secondary urban node	
Settlement hierarchy	Business node hierarchy
De Deur (future CBD)	De Deur Neighbourhood Node (EDC)
Savanna City	Savanna Extension 3
	Savanna Extension 4
	Savanna Extension 7
	Savanna Extension 8
	Doornkuil
	Lakeside Neighbourhood Node (EDC)
Waterval (future CBD)	Waterval Neighbourhood Node (EDC)
Daleside	Daleside Neighbourhood Node
Henley on Klip	Henley on Klip Neighbourhood Node
Risiville	Risiville Neighbourhood Node
Eye of Africa	Alewynspoort Neighbourhood Node
Tedderfield	Tedderfield Neighbourhood Node
Elandsfontein	Elandsfontein Neighbourhood Node
Walkerville	Walkerville Neighbourhood Node
Vaal Marina	Vaal Marina Neighbourhood Node
Mamello	Mamello Neighbourhood Node (EDC)
Rural node	
Settlement hierarchy	Business node hierarchy
Bantu Bonke	Bantu Bonke Neighbourhood Node

2.8 The Midvaal Density Policy, 2019

The Midvaal Density Policy, 2011 applies a base density of 20 units per ha for all single residential areas and 25 units per ha for sectional title developments, for development located within the Urban Development Boundary. Higher residential densities are provided on merit, such as the proximity of a site's location to community facilities, public open spaces, or public transport stations. To an extent, this approach would allow densities to vary in different parts of the municipal area, thus encouraging a varied urban form.

2.9 Summary on policy implications for Midvaal Local Municipality SDF

TABLE 5: SUMMARY OF POLICY IMPLICATIONS	
Policy	Directives
SONA 2022	1. Focus on District Development Model. 2. Need for integrated planning across all spheres of government. 3. Need to plan for post-Covid-19 era. 4. Opportunities for growth in new economic activities.
SONA 2021	1. Increase local production. 2. Rejuvenate manufacturing industries.
NDP Vision 2030	1. Provide housing for people closer to their workplaces. 2. Provide better quality public transport. 3. Retrofit historical apartheid townships with capital investments. 4. Provide medium-to-high density integrated human settlements.
MTSF 2019-2024	1. Implement document of the long term NDP directives.
Draft NSDF 2050	1. Increase urban densities to reduce sprawl and infrastructure costs. 2. Upgrade all informal settlements on suitable and well-located land. 3. Focus strategies on the housing gap market. 4. Prioritise agricultural and rural development along mobility corridors. 5. Identify non-agricultural opportunities such as tourism.
GSDF 2030	Promote: ▪ Connectivity. ▪ Viability. ▪ Diversification. ▪ Liveability. ▪ Concentration ▪ Conservation.

TABLE 5: SUMMARY OF POLICY IMPLICATIONS	
Policy	Directives
GGT 2030	Focus on building a new economy in the Vaal River.
ITMP25	1. Reduce travel times and extents. 2. Discourage dependence on private vehicles. 3. Promote non-motorised transport. 4. Introduce innovative and sustainable technologies.
IUDF 2014	1. Create more compact and connected cities. 2. Promote inclusive cities and increase access to socio-economic opportunities.
Sedibeng DM SDF 2019	1. Promote urban conurbation between Savanna City, Meyerton, Sebokeng-Evaton and Vereeniging. 2. Pursue refreshed spatial interventions to build water-related economic activities along the Vaal River, between Three Rivers and Vaal Marina.
Comprehensive Rural Development Programme 2009	1. Build rural and agri-industries, cooperatives, cultural initiatives, and vibrant local markets. 2. Improve: ▪ Roads and railways ▪ Communication networks ▪ Sanitation and health care facilities ▪ Libraries and skills development centres ▪ Community gardens and produce stalls 3. Increase access to land for previously disadvantaged communities. 4. Protect land rights of farm workers and create decent jobs on farms. 5. Establish agri-villages for local economic development on farms. 6. Provide basic needs for farm dwellers including: ▪ Water. ▪ Sanitation. ▪ Electricity. ▪ Housing
IPAP 2018/19-2020/21	Enhance green industries, agri-processing, metal fabrication and transport equipment.

3 SPATIAL ANALYSIS - CHALLENGES AND OPPORTUNITIES

3.1 Population projections - CSIR Green Book (2022)

The Green Book is an online data interactive tool that assists municipal planning to develop climate-resilient human settlements. Developed by the Council for Scientific and Industrial Research (CSIR), the tool mainstreams data on climate change and population into local government planning instruments and processes. Adaptation strategies are included. For the purposes of the SDF the population projections contained in the Green Book were used.

Projecting the future growth of South African settlements

The Green Book explores potential changes and development trajectories of South African settlements. It attempts to determine the future growth and decline of settlements across South Africa. The settlements are profiled according to their social, economic, physical, and environmental vulnerabilities. Mechanisms to increase resiliency adopted by these settlements, are also profiled to project possible futures. Spatial population projections are important in determining future assessments. Such assessments can be done on land use distribution, demand for food, water, and energy. Taking a 'giraffe view' of the spatial make-up, resource needs and environmental events enables better planning and constraints management.

Future population projections are mainly at a global and national scale and are non-spatial. To provide planning support that is (1) context-specific and (2) responds better to the future, local population projections are required. Spatial growth in developing countries is driven by different geographic and socio-economic factors. The rapid population growth, which is an independent factor, has a proportional effect on settlement expansions. The following table demonstrates various factors that influence population change:

TABLE 6: COMPONENTS INFLUENCING POPULATION CHANGE	
Demographic conditions	Socio-economic conditions
1. Population size and change 2. Population density 3. Population distribution (potential housing sites) 4. Average household size 5. Population processes (birth rate, mortality rates and migration) 6. Population composition (age, sex, race)	1. Employment/unemployment rates 2. Income levels 3. Crime rates 4. Education level 5. Household types (informal/formal) 6. Social and economic facilities 7. Community values 8. Type of employment (industrial, agriculture)

Urban growth

Urban growth refers to the potential growth and development trajectories of towns and settlements within municipalities. It attempts to determine the future growth and decline of settlements across South Africa and to relate these directly to the changes that are projected to occur due to climate change.

Growth estimates for the entirety of the municipality were also developed. These estimates are based on 2011 and 2016 data from Statistics South Africa and then projected forward to 2030 and 2050 respectively. Additionally, two growth scenarios were developed, a medium and high growth scenario. The medium-growth scenario indicates population estimates if South Africa experiences medium levels of urban migration towards major towns and urban regions. Migration is a complex and dynamic process that has significant influence on population change. Migration is influenced by social and economic factors and is mostly a response to unequal access to opportunities. More focus is needed in the analysis of migration patterns.

The high-growth scenario indicates population estimates if South Africa experiences high levels of urban migration towards major towns and urban regions. A high-growth scenario will result in increased populations within towns and settlements with an increased rural migration to these places as well as towards larger urban centres outside of the municipality. Population growth projections for Midvaal Local Municipality are depicted as follows:

TABLE 7: POPULATION GROWTH SCENARIOS						
LM	Pressure	2011	2016	2025	2030	2050
Midvaal	Medium growth scenario	95 286	111 612	141 508	158 016	243 747
	High growth scenario	95 286	111 612	148 630	167 682	283 617

TABLE 8: HOUSEHOLD GROWTH SCENARIOS						
Average household size (2011)						3,1799
2025 extrapolated						3,2997
LM	Pressure	2011	2016	2025	2030	2050
Midvaal	Medium growth scenario	29965	35300	44501	49692	76652
	High growth scenario	29965	35300	46740	52732	89190

Using the data supplied by the Green Book a map was developed to geographically depict areas in Midvaal Local Municipality that are experiencing growth pressures. The results show that Meyerton will continue to experience extreme growth pressure by 2050 and more industrial activity will continue along the R59 corridor. The R82

corridor connecting Vereeniging and Johannesburg is experiencing extreme residential development pressure in areas, including Savanna City and Walkerville.

An urban conurbation is observed between Midvaal's De Deur, Walkerville, Meyerton, and Savanna City, Johannesburg's Orange Farm, and Emfuleni's Evaton-Sebokeng. The southern parts of Midvaal Local Municipality are seeing low growth pressures influenced by the conservation strip along the Vaal Dam. Considering the aims contained in the vision of the Sedibeng District to capitalise on the Vaal River for economic growth, the conservation strip could be sterilising the potential for a growth and development corridor for Midvaal Local Municipality. It is clear that the growth projections compound current population densities indicated in the next figure.

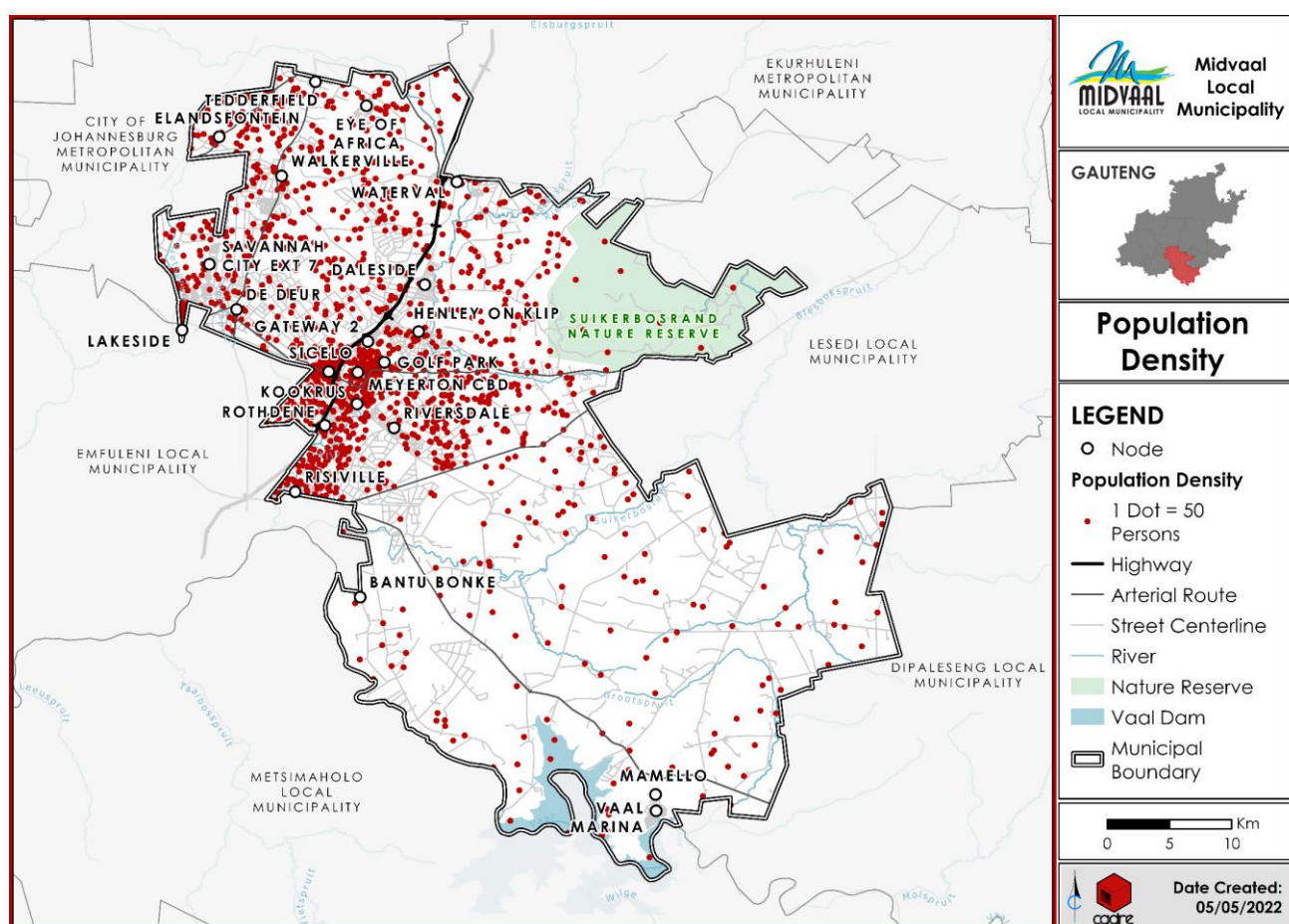


Figure 9: Population density

3.2 Key spatial features

3.2.1 Environmental features

The SDF notes the primary environmental features present in Midvaal Local Municipality which might affect the municipality's spatial development:

- Hydrology and topology – the Vaal River and Vaal Dam are the most prominent features in the southern part while the Klip River, and its tributaries,

and the Suikerbosrand River constitute the main drainage system. The Vaal River is also a crucial water source for the greater Gauteng provincial region.

- **Geology¹** – the far northern parts of the municipality fall within the extensive dolomite belt which stretches from the south of Johannesburg. This is a major physical element which affects potential development in the areas that also experience development pressures, such as the R59 Corridor.
- **Agricultural potential²** – the area has a high potential with the largest concentration around Klipriviersberg and the agri-hub in the south-eastern part.
- **Nature reserves and conservancies** – the Suikerbosrand Nature Reserve is legally protected from development, and there are a further eight registered conservancies in the municipality.
- **Biodiversity³** – the Gauteng Conservation Plan lists 'important areas' which must be protected, including parts in the north-western areas up to the R59, the Suikerbosrand Nature Reserve and the Vaal Marina precinct.

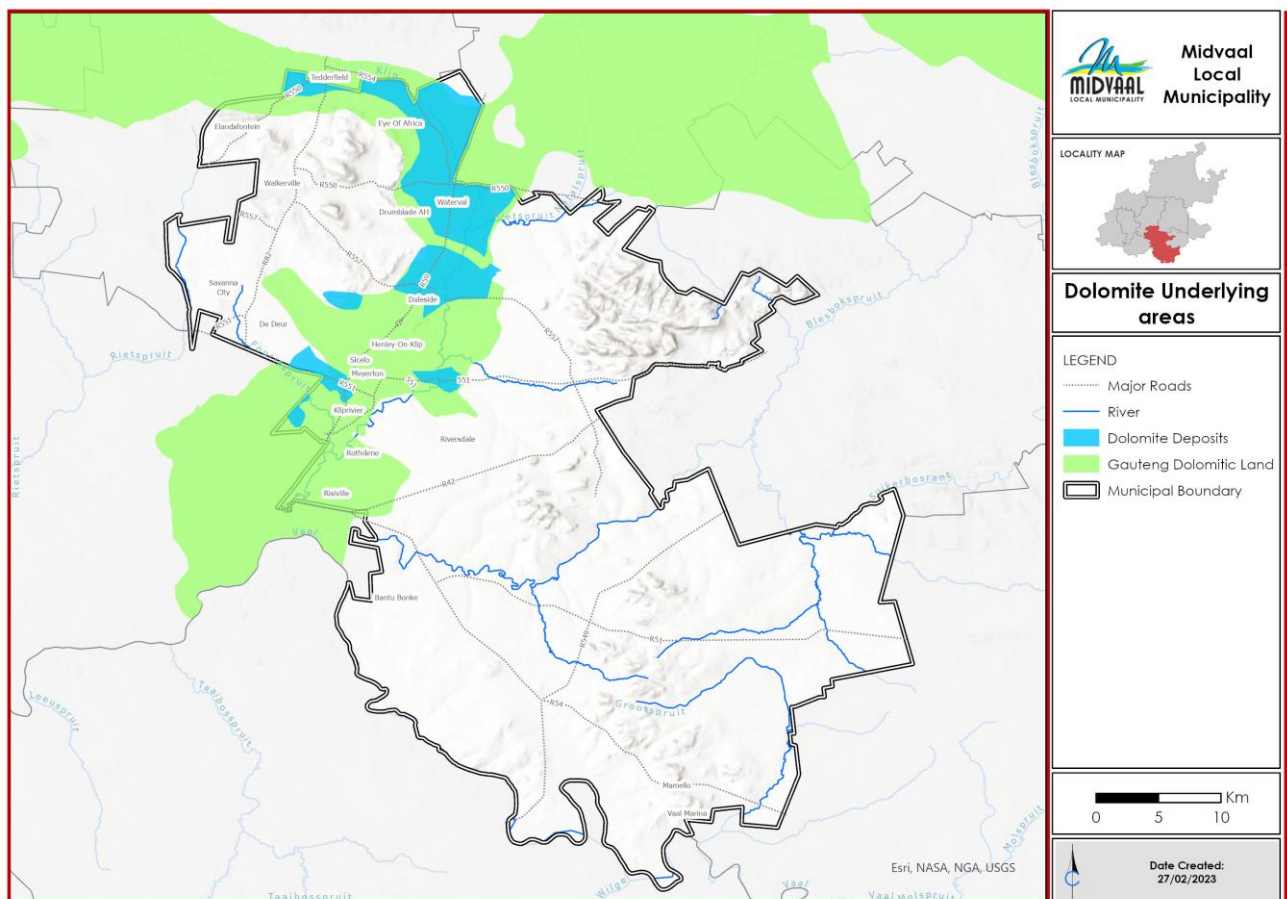


Figure 10: Areas affected by Dolomite soil conditions

¹ Refer to **Figure 10** for areas with dolomite deposits, but also view Addendum 4 for all dolomite land.

² Refer to that indicates high potential agricultural land.

³ Refer to **Figure 11** that indicates critical biodiversity and environmentally sensitive areas.

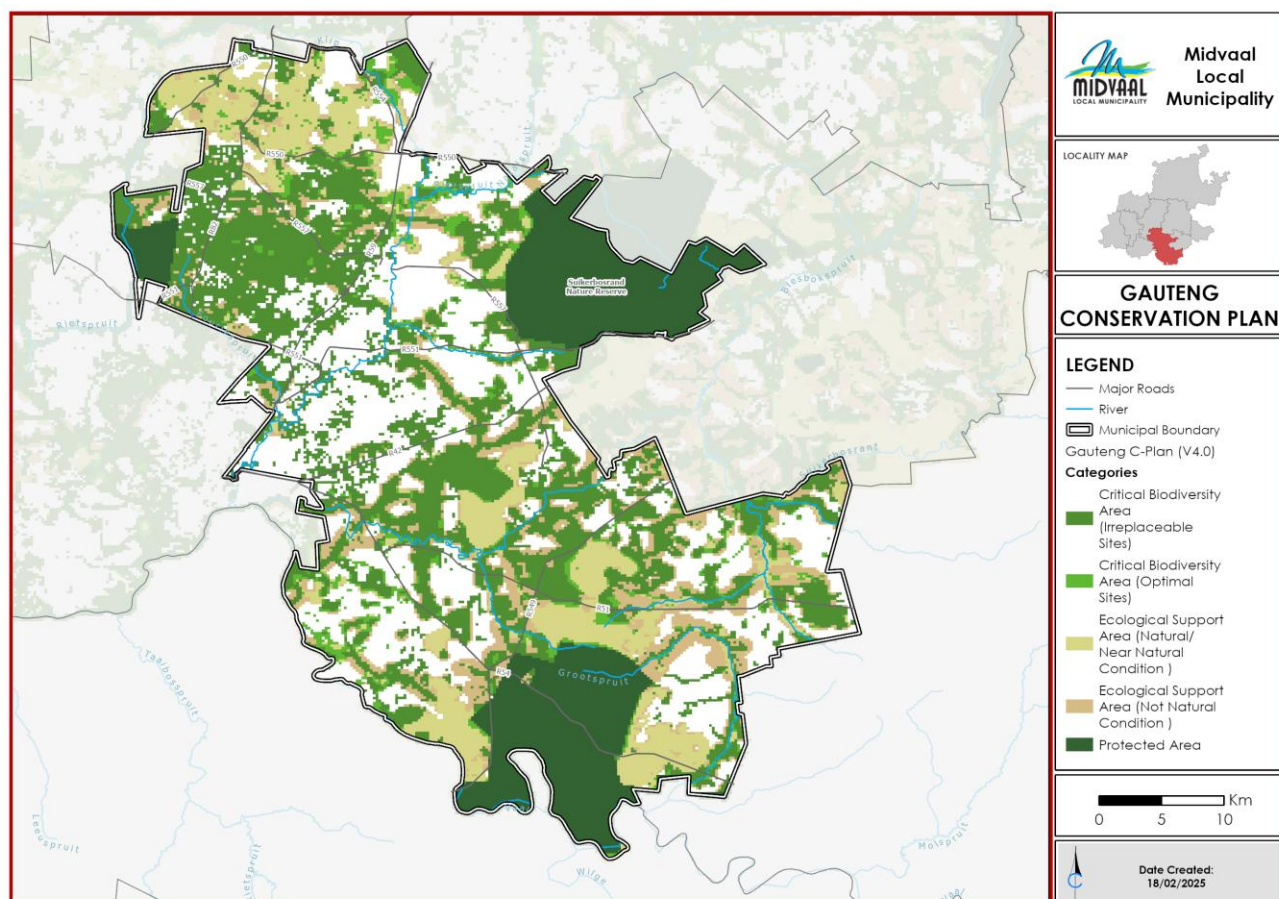


Figure 11: Conservation Plan

3.2.2 Spatial structure

Land use composition and distribution

The Midvaal LM is predominantly rural in nature and about 50%⁴ of the total municipal area consists of extensive commercial farming areas. A further 20% of land is vacant and 7% is under conservation. Urban activities are predominantly concentrated along the R59, with increased urbanisation pressures most notably across the border from Ekurhuleni in the north and Emfuleni in the west.

Meyerton – including Rothdene, Riversdale, Sicelo, Meyerton Park (farms), Kookrus, Henley on Klip and Golf Park – is the highest order urban complex. Further towards the north, along the R59, are Randvaal-Daleside and Waterval. The Vaal Marina is the only urban development in the south.

To the west small nodal developments have sprung up along the R82 – which is the primary link between Vereeniging and Johannesburg. These nodes include De Deur, Ohenimuri, Walkerville and Tedderfield. Savanna City is a mega city development which will be a functional extension of the larger Evaton – Sebokeng - Orange Farm residential complex.

⁴ Refer to Addendum 5: Detailed description of land uses, 2021.

Informal settlements in Midvaal have a unique character compared to settlements in other regions. Midvaal informal settlements show insignificant evidence of rapid physical growth and subsequent land invasions. Growth patterns indicate a desire of households to locate closer to work opportunities. Many informal households are clustered in Sicelo - west of Meyerton CBD, in Vaal Marina along the Vaal Dam, and on the outskirts of the Waterval industrial complex.

Agricultural holdings are used for small-scale, intensive agricultural purposes, secondary industries, or residential purposes. The Meyerton CBD is the primary business node while smaller nodal points such as De Deur and Walkerville function as service centres and offer limited retail and commercial opportunities.

Industrial activities are found mainly along the R59 and are clustered in Meyerton, Daleside and Waterval. Among the companies which have located industrial activities are Heineken, Everite, Samancor, and South32.

The Afrimat Glen Douglas Mine located near Randvaal, is the only operational mine in the area. Proposals for further mining in the area near Bantu Bonke are being explored. The entire municipal area is under moderate risk for mining activities.

Several areas with high potential for tourism are located within the municipality, including the Suikerbosrand Nature Reserve and other conservancies and historical sites.

The Vaal Dam and the precinct along the Vaal River is an asset with major potential for the growth of a tourism and leisure industry. There was a growth in township tourism prior to the onset of the pandemic and the municipality has established a Tourism Forum to engage stakeholders, serve as a platform for networking and support the marketing of the region.

Commercial farming focuses on crop production (maize and grain) and animal production (milk, beef, eggs, and poultry.) The south-eastern part of the municipality forms part of an agri-hub identified by Gauteng Province and produces the bulk of the agricultural yield.

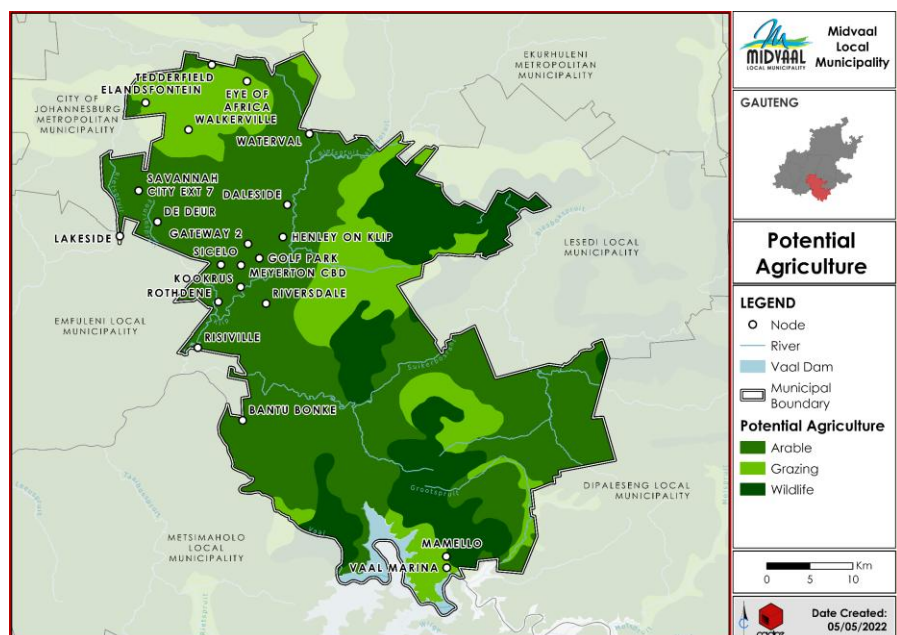


Figure 12: Agricultural potential

3.2.3 Movement network

Road network

The existing road network offers mainly north-south movement through Midvaal LM, building on the existing linkages between Johannesburg and the old 'PWV' complex. The most significant routes are:

- The R59 linking Vereeniging with Alberton and the N12 in Johannesburg.
- The N1, the country's primary north-south artery, passes just to the west of Midvaal LM.
- The N3 – the primary link between Gauteng and KwaZulu-Natal passes a few kilometres to the north-east.
- The R82 is a secondary route between Vereeniging and Johannesburg via Walkerville and De Deur. It runs parallel to the R59 and the N1 and attracts mixed use development.
- The M61 is a secondary north-south route linking Vereeniging and Alberton via Meyerton, Randvaal and Waterval.
- The R42 runs east-west through Midvaal LM and links Meyerton to Heidelberg and the N17 in the Lesedi Local Municipality.
- Within the municipality road traffic is also conducted along the R551, the R557, the R54 and the R549.

The regional roads in Midvaal LM are in relatively good condition compared to the rest of the southern corridor. However, local connector routes in precincts require detailed attention. Excessive freight transport and slower maintenance cycles contribute to the deterioration of this vital infrastructure.

Railway network

The main railway line runs in a north-south direction parallel to the R59 and connects Vereeniging with Germiston and Johannesburg. The line is mainly used for freight services in Midvaal LM and is in a deteriorating condition. A railway line to the west serves commuters in Orange Farm and Evaton across the border of Midvaal, but also Lakeside and Savanna City residents.

Public transport

City regions across the globe have seen a rapid spike in the usage of private motor vehicles. Traffic congestions have been a primary issue affecting the functionality and productivity of city governments.

Public transport has the benefit of limiting the number of motor vehicles operating on public roads. This enables efficiency in the mobility of economic goods, thus achieving higher economic yields. The National Household Travel Survey in South Africa by StatsSA (2021), reports that 44% of commuters use private motor vehicles as their main mode of transport. This is followed by public transport sitting at 35%.

This calls for the need to intensify public transport routes and extended facilities. There is a need to for Transnet to provide a commuter service on the railway that could anchor the R59 Corridor. Meyerton Station could be the main modal transfer point between rail, bus and taxis and there is an urgent need to develop this hub further, including measures which protect the safety of commuters and pedestrians.

Private transport seems to be the norm in the urban parts of the Midvaal area while public transport is more commonly used in the rural areas. The R82 is a major public transport corridor.

Taxis are the most dominant form of public transportation, followed by buses. The low levels of private vehicle ownership correspond with the low-income levels in the disadvantaged communities. This emphasises the need for public transport routes and facilities in the MLM. Population densities in the rural areas are however very low, which is not conducive to effective public transport.

Taxis mainly use the following roads:

- R59
- R82
- R551 from the R82 via Meyerton towards Henley-on-Klip.
- The R550 (west) from Tedderfield towards Orange Farm.
- The R550 (east) from the R59 (Waterval) towards the N3 serving Sky City, Katlehong, Vosloorus and Thokoza residents.
- R42, R54 and the road to Bantu Bonke in the south.

Air travel

There are other smaller private airfields across the municipal region including Klipriver Airfield and Tedderfield Air Park.

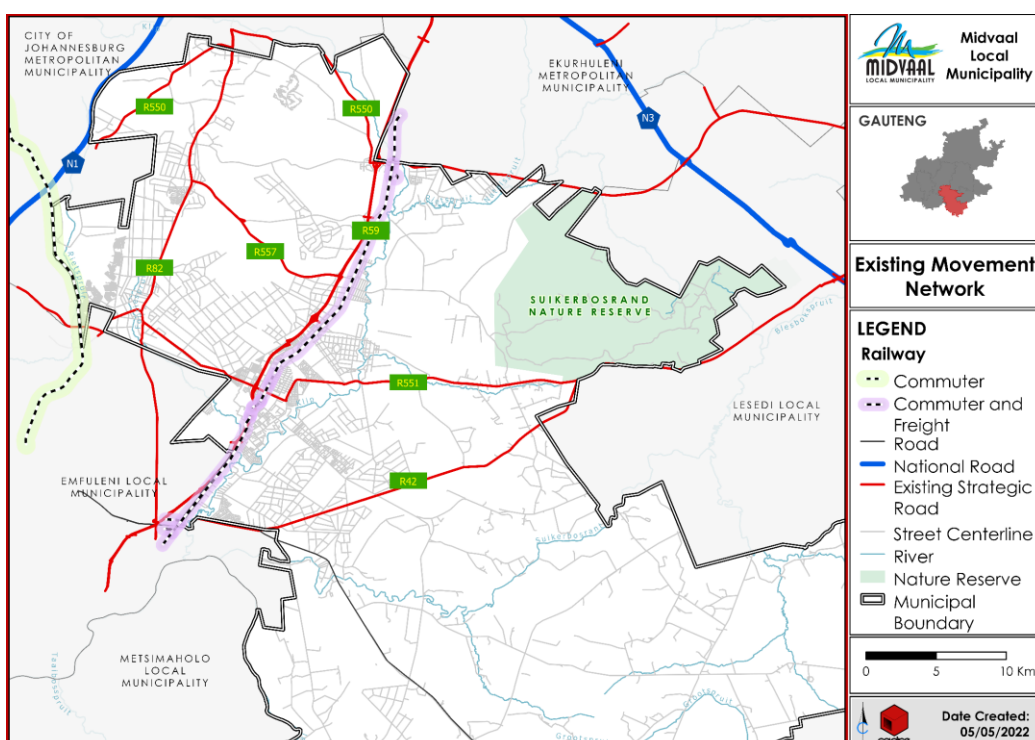


Figure 13: Existing movement network

3.2.4 Housing profile

The dominant dwelling type is a house or brick structure on a separate stand or yard (81%) followed by informal dwellings in informal settlements (12%) and backyard units (5%).

Several housing projects are currently underway to address the following housing needs - bonded housing, subsidized housing, or private housing. Among the most prominent are:

- Savanna City Development which borders Orange Farm in Johannesburg.
- Various projects on erven near Meyerton which will benefit residents from the Sicelo informal settlement.
- Mamello in proximity to Vaal Marina to cater for the Mamello informal settlement.
- Portions of land to provide housing opportunities to residents of Boitumelo.
- Bantu Bonke/Panfontein Agri-village to provide opportunities for people living in backyards in Bantu Bonke and surroundings. A precinct plan is currently underway and will make further recommendations.

Although these projects are adequate, implementation and roll out of the projects are not at the desired state. The projects stagnation can create ripple effects that could negatively impact the housing profile in the municipality.

3.2.5 Government, educational, health and community facilities

Government, educational, health and community facilities are mostly concentrated in urban core areas and activity nodes such as Meyerton, Henley on Klip, De Deur and the Vaal Marina. There are limited facilities in the eastern rural areas.

Among the facilities located in Midvaal LM are three clinics, four police stations, six libraries, 32 primary and secondary schools and one municipal office.

There are no public or private hospitals and medical care is offered at three public clinics and four mobile clinics. Two town halls in Meyerton and Rothdene and five community halls provide central locations for gatherings and serve as multi-purpose community centres.

The facilities surveyed in the 2021/2022 Sedibeng Land Use Audit are mapped and illustrate the distribution of government, educational, health and community facilities in the figures below.

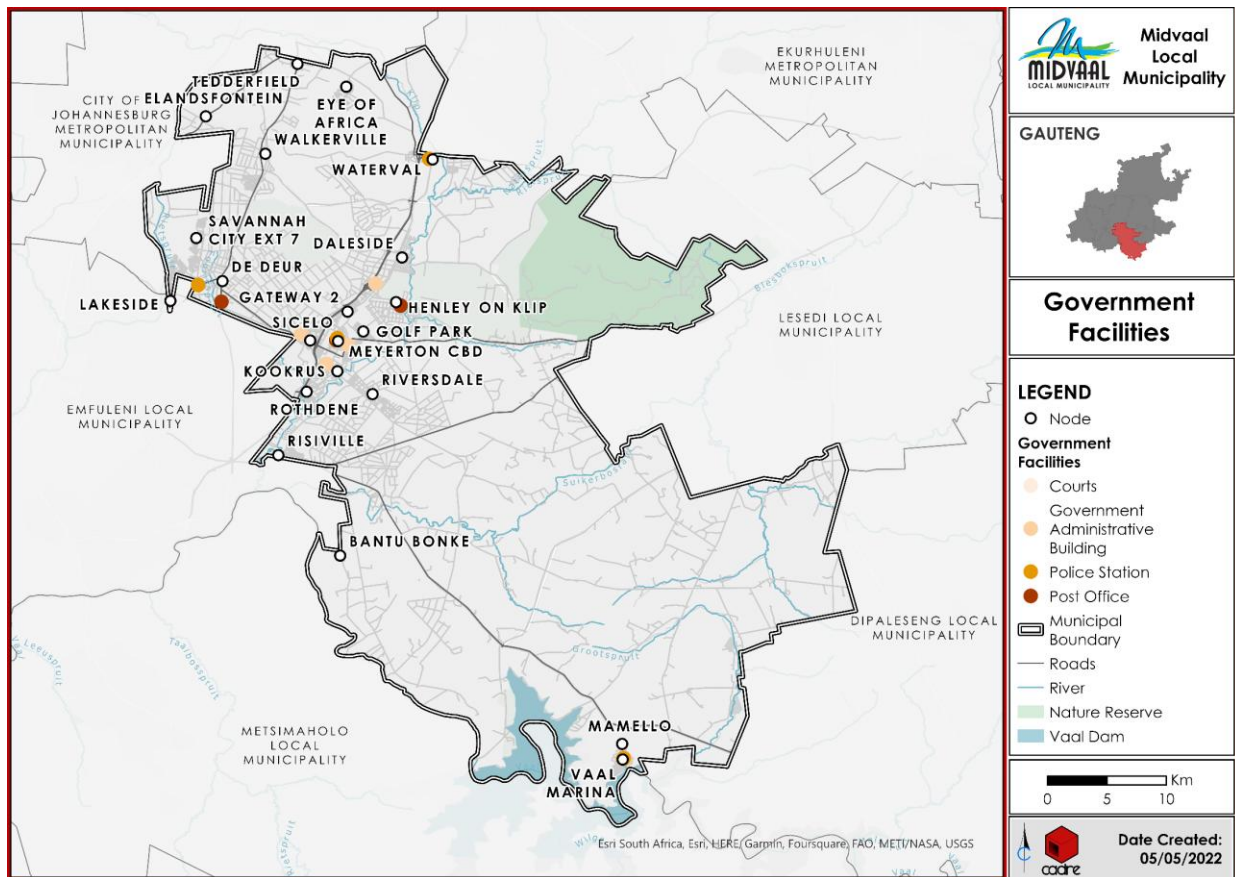


Figure 14: Government facilities

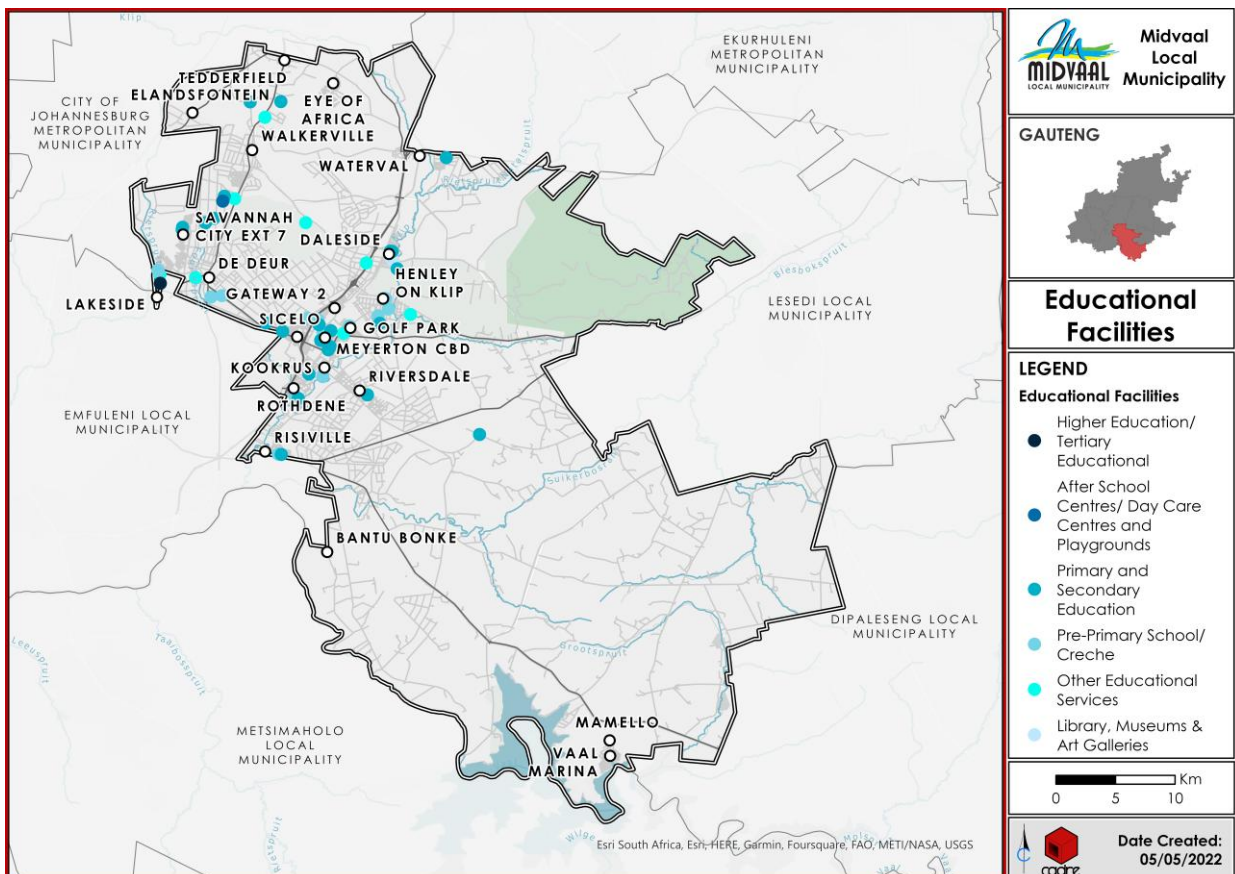


Figure 15: Community facilities

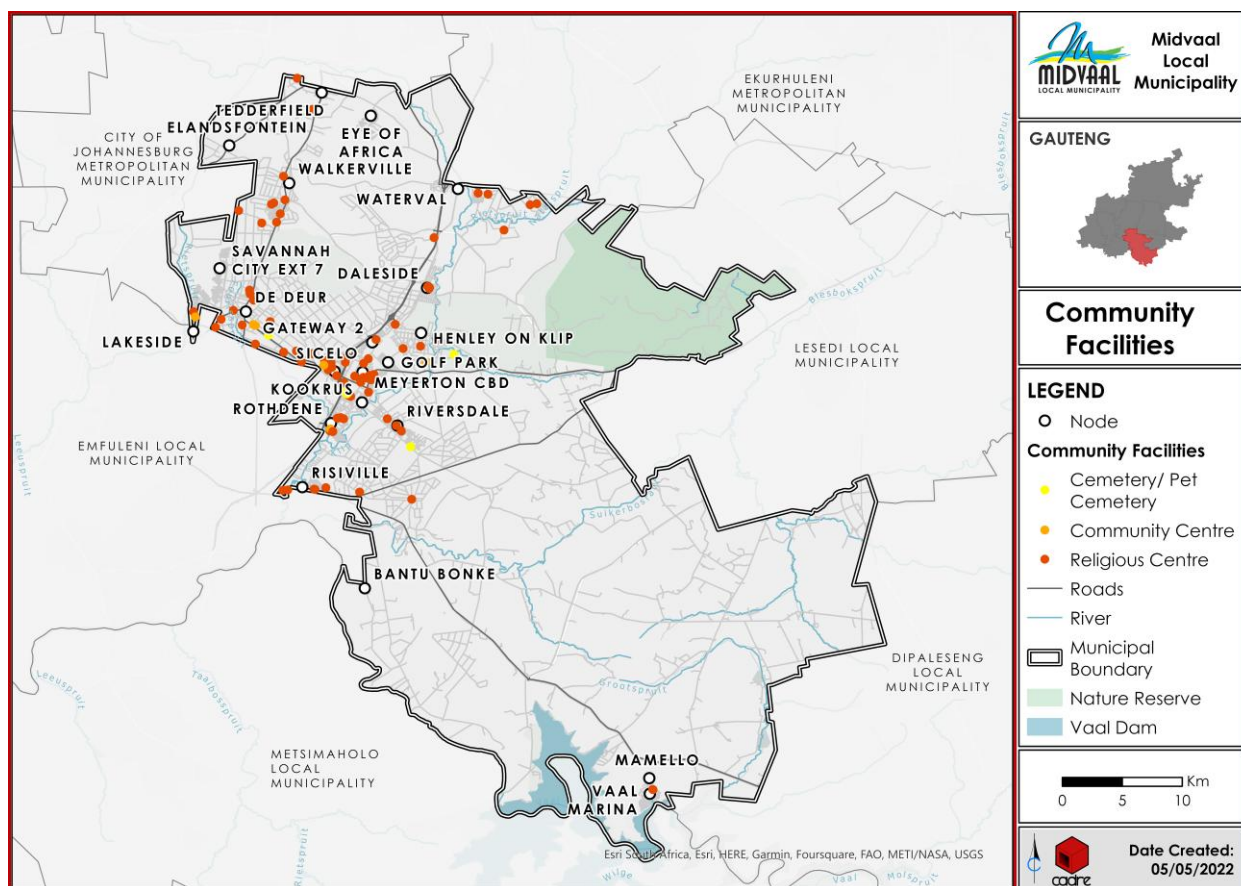


Figure 16: Education facilities

3.2.6 Engineering services

Roughly 96% of households in Midvaal LM have access to some sort of piped water source – either inside the dwellings, or the yard or through communal taps. Bulk water is predominantly supplied to the municipality by Rand Water and the distribution network covers all urban areas as well as large clusters of agricultural holdings.

The capacity of the existing reticulation networks is constrained, and this may limit new residential developments and future economic activities. The rural character of Midvaal LM and the distances between settlements further complicates the provision of water.

Groundwater is mainly used for irrigation purposes. There are large quantities of groundwater present in the north but concerns about the development of sinkholes in the dolomite areas place constraints on its utilisation. The main rivers in the region – most notably the Klip, Riet and Suikerbos rivers– flow into the Vaal River but are polluted and used mainly for crop irrigation. There are three wastewater treatment facilities and more than 80% of households are served by waterborne sewer.

Only the urban parts of Midvaal LM are provided with electricity by the local municipality with the remainder connected directly from Eskom. A master plan was recently developed by the municipality to ensure that new developments are

supplied with power and upgrades to the Meyerton substation and the construction of new substations along the R59 was proposed.

The sensitive nature of the natural environment and Midvaal LMs proximity to major rivers pose challenges for waste removal services and landfills. There are three primary landfills in the municipality and the need has been identified to develop smaller landfill sites throughout the region.

The engineering services are mapped and can be viewed in Addendum 4.

3.2.7 Economic profile

The manufacturing sector is the major contributor to the local economy, with a 30% contribution, followed by business services (19%) and wholesale and trade (15%). However, the SDF notes that the number of employment opportunities created by manufacturing has been declining since 2011 and that the potential for growth in other sectors should be explored.

This is also recognised in the Midvaal Economic Analysis which calls for economic diversification, and sustainable growth in sectors with comparative advantages.

Industrial uses including production and manufacturing, service-related industries focusing on vehicle repairs, as well as industrial parks are mostly situated along the R59 and R82. Commercial uses such as distribution, and warehousing and storage facilities are also concentrated in this area. The spatial distribution of these industries surveyed in 2021 are indicated in the figure below.

Figure 18 indicated the business uses, such as financial services, offices and retail, concentrated in Meyerton and the corridor (Waterval, Daleside) and other identified nodes, but most notably in De Deur, Walkerville, Risiville, and the Vaal Marina. The Meyerton-Riversdale axis also has a large concentration of business.

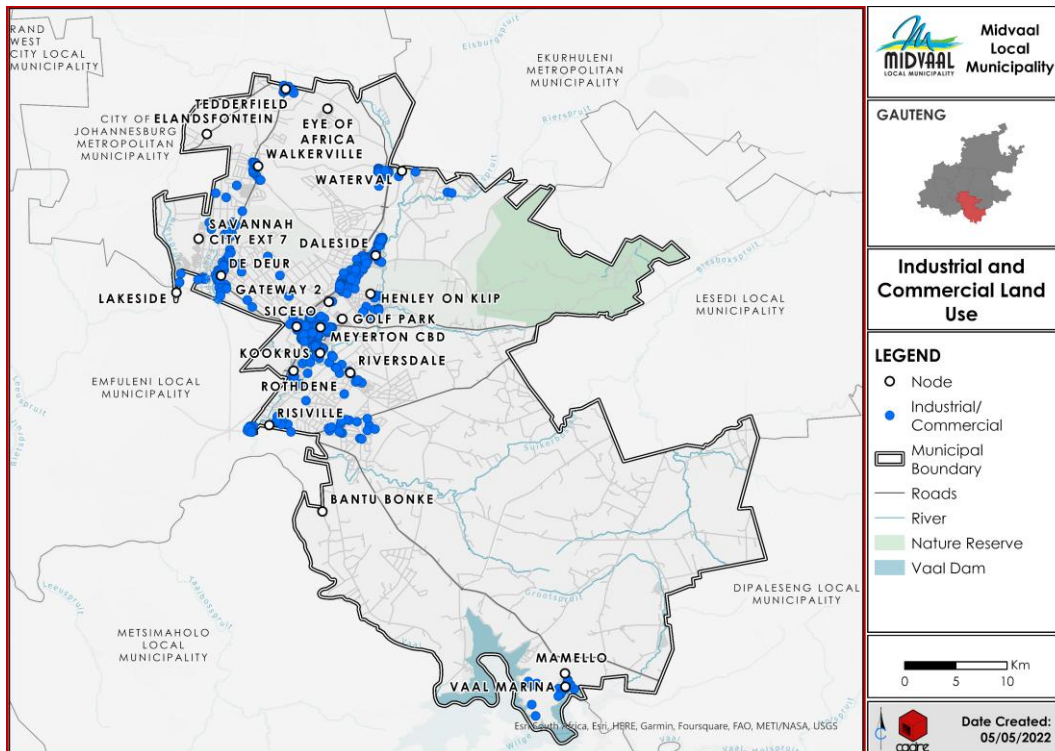


Figure 17:
Industrial and commercial use

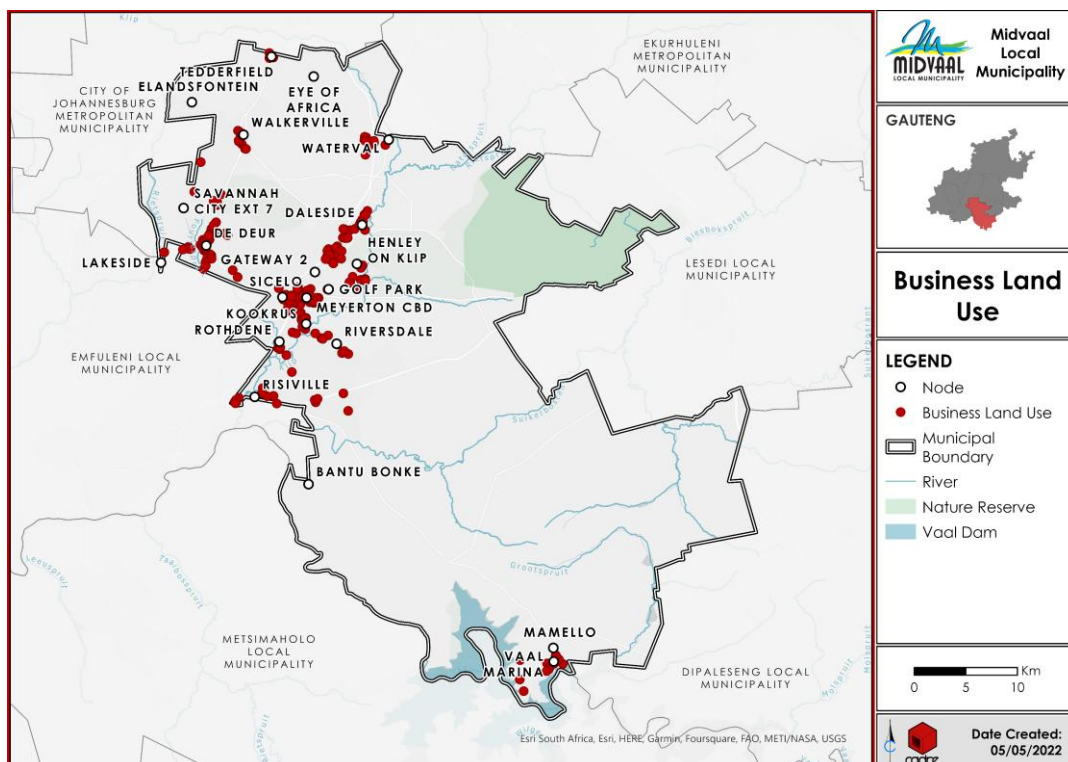


Figure 18:
Business land use

Five sectors have been identified for potential growth:

1. **Construction** – there has been a steady growth in building plan approvals, subdivision, and rezoning applications. The anticipated development along the R59 and the expansion of Savanna City might contribute to growth in the construction sector, which is labour intensive and has the potential to create jobs.

2. **Tourism** has the potential to revitalise a sluggish economy and mobilise domestic and foreign investment. Midvaal LMs strategic location within Gauteng, its proximity to Johannesburg and Ekurhuleni and its regional linkages offers opportunities for growth.
3. The scenic beauty of the region, and its potential as an eco-tourism destination should be promoted by the municipality and in partnerships with neighbouring municipalities, the private sector, and communities.
4. Growth in **agriculture** can be encouraged through improved linkages between commercial farming and small-scale niche farming and the initiatives to establish agri-processing facilities.
5. **Manufacturing** in the region depends heavily on the steel sector but there are also opportunities in the production of biofuels, beverages and products emanating from the agricultural sector.
6. **Trade** has the potential to absorb more labour through the provision of value-added goods and services. The growth of trade can be a catalyst for growth in the other identified sectors and play a vital role in the functioning of the informal sector. The municipality has expressed its intention to adopt a policy and by-law on informal trading to assist this sector to access amenities and opportunities for growth.

3.3 Strengths, Weaknesses, Opportunities and Threats

TABLE 9: SWOT ANALYSIS	
KEY FEATURES AND STRUCTURING ELEMENTS	KEY ISSUES
▪ Strong regional linkages to other economic cores. ▪ Predominantly rural with urban development along transport routes. ▪ Meyerton is highest order town with significant business and residential components. ▪ Local population is relatively well-educated with lower unemployment compared to provincial average. ▪ Need for diversification as strongest economic driver – manufacturing – is declining. ▪ Highest population growth in urban areas and agricultural holdings. ▪ Provision of housing projected to meet future demand.	▪ Need for horizontal alignment with strategies of adjacent metros and municipalities. ▪ Area is bordered by large concentrations of low-income households to the west in Emfuleni. This puts the western rural landscapes under development pressure from natural growth of these households. ▪ Looming development pressure from the planned corridor (N3/R59) and nodal developments (Tambo Springs logistics hub) in Ekurhuleni. ▪ Rural communities have limited access to infrastructure and social services.

▪ Need for integrated housing projects.	▪ Major concerns about water capacity in several areas. ▪ Urgent need for revitalisation of CBD activities, local economic development and SMMEs.
DEVELOPMENT OPPORTUNITIES	DEVELOPMENT CONSTRAINTS
▪ Strategic location midway between major industrial cores. ▪ Future direct access onto the N1 corridor. ▪ Major opportunities for tourism growth in areas such as Suikerbosrand and Vaal Marina. ▪ Important ridges in area can be developed as tourism attractions. ▪ Growth of provincial agriculture hub in south-east. ▪ R59, R82 and R550 earmarked as development / industrial corridors. ▪ Potential to develop the R42 as a secondary corridor linking economic units horizontally across the district. ▪ Potential movement of cargo transport from OR Tambo International to Vereeniging airport open new opportunities for development in Meyerton. ▪ Walkerville has potential to develop into niche tourism destination.	▪ Dolomitic conditions hamper development in the north—specifically within the municipality's Urban Development Boundary along the R59 and surrounding areas. ▪ Environmentally sensitive areas must be conserved. ▪ There are limited regional routes that could increase mobility between the northern and southern parts of the municipality. ▪ Insufficient water and sanitation infrastructure. ▪ Urban footprint of Meyerton is fragmented. There is a need to consolidate the urban fabric of the municipality along two north-south and two east-west routes. ▪ Spatial discrepancies – the R59 cutting through Meyerton, presents a barrier to integrate and identify Sicelo as an integral part of the CBD. This perpetuates perceptions of differentiated interventions between Sicelo and Meyerton CBD, Golf Park etc.

3.4 Synthesis maps

3.4.1 Socio-economic

Midvaal LM has a rural character, with isolated pockets of economic and social activities spread across the municipal region. These constitute the main nodes as identified in the current SDF and the nodal policy. The map below depicts the intensity of economic and social activity using the spectral heat map. Blue represents

the least activity whereas red represents the most intense activity. The highest activity value is observed at the heart of the municipal region in Meyerton. Along the R59 and R82 corridors, higher activity value is observed in Risiville, Waterval, Savanna City, Walkerville, De Deur and Eye of Africa. Vaal Marina presents the only higher activity value in the southern parts of the municipality. The areas identified with higher activity value represent nodes with the highest social and economic potential. With a continued influx and urban migration to the Gauteng City Region more socio-economic activity should be expected in these areas which shows existing evidence of conurbation between Evaton, Vereeniging, Orange Farm and Meyerton.

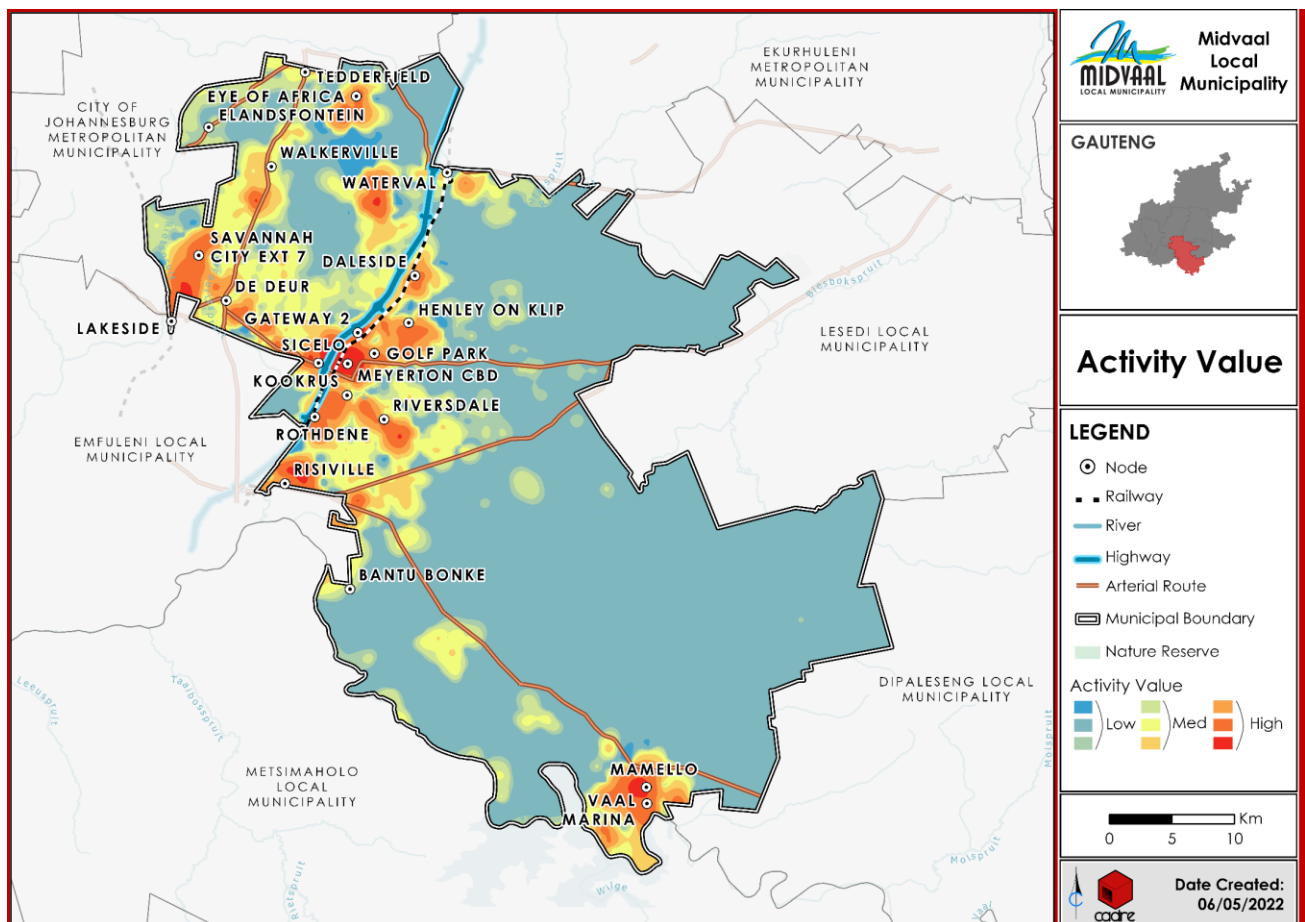


Figure 19: Socio-economic activity

3.4.2 Built Environment

A model which depicts built intensity was developed using the recent land use audit data. At a primary level of land use classification, the model categorises land uses recorded with the scale of 0-5, with 5 being the most intense land use activity. The map below shows medium-to-high built intensity along the R82 and the R59 corridors which connect Johannesburg and Vereeniging. Many of these medium intensity uses are rural residential areas which are supported by the emerging commercial hotspots especially in Walkerville and De Deur. The R59 corridor shows signs of industrial intense developments especially near Meyerton, Randvaal and Waterval.

Evidence of the concentration of built elements along the R82 and the R59, depicts the investor's utilisation of existing infrastructure services. The built intensity and future development pressure along these two corridors need to be considered for spatial proposals.

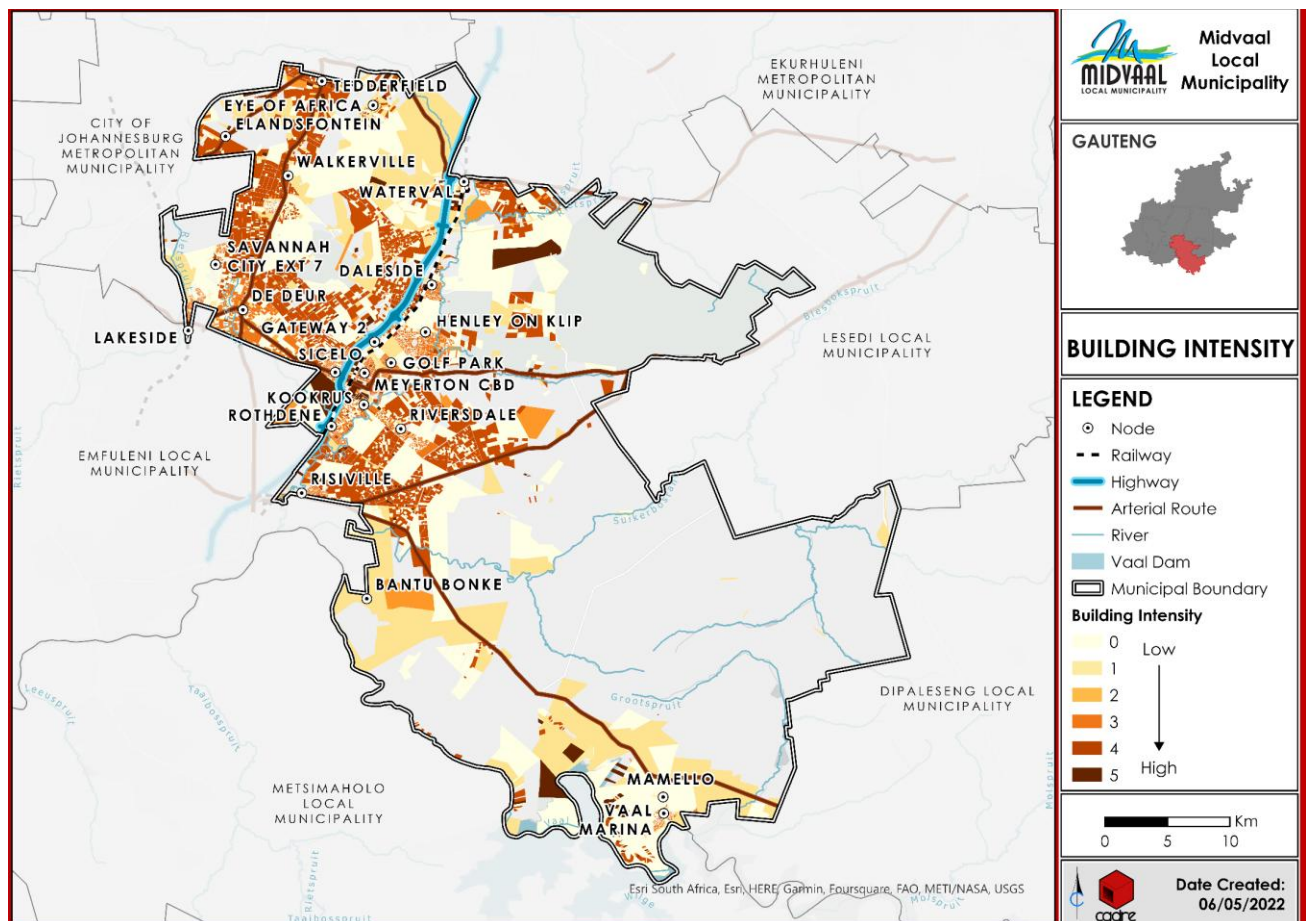


Figure 20: Built Environment

3.4.3 Bio-physical

The assessment of the Critical Biodiversity Areas (CBA) is important to inform spatial decisions that support ecological sustainability. These areas are deemed to be kept in a natural or near-natural state to support the ecological sustainability of regions. The South African National Biodiversity Institute (SANBI) produced CBA maps in which spatial planning should note the existing limitations. The map below shows the geographic distribution of the five CBA categories including (1) protected areas, (2) critical biodiversity areas 1 and 2, (3) ecological support areas 1 and 2, (4) other natural areas, and (5) no natural areas remaining.

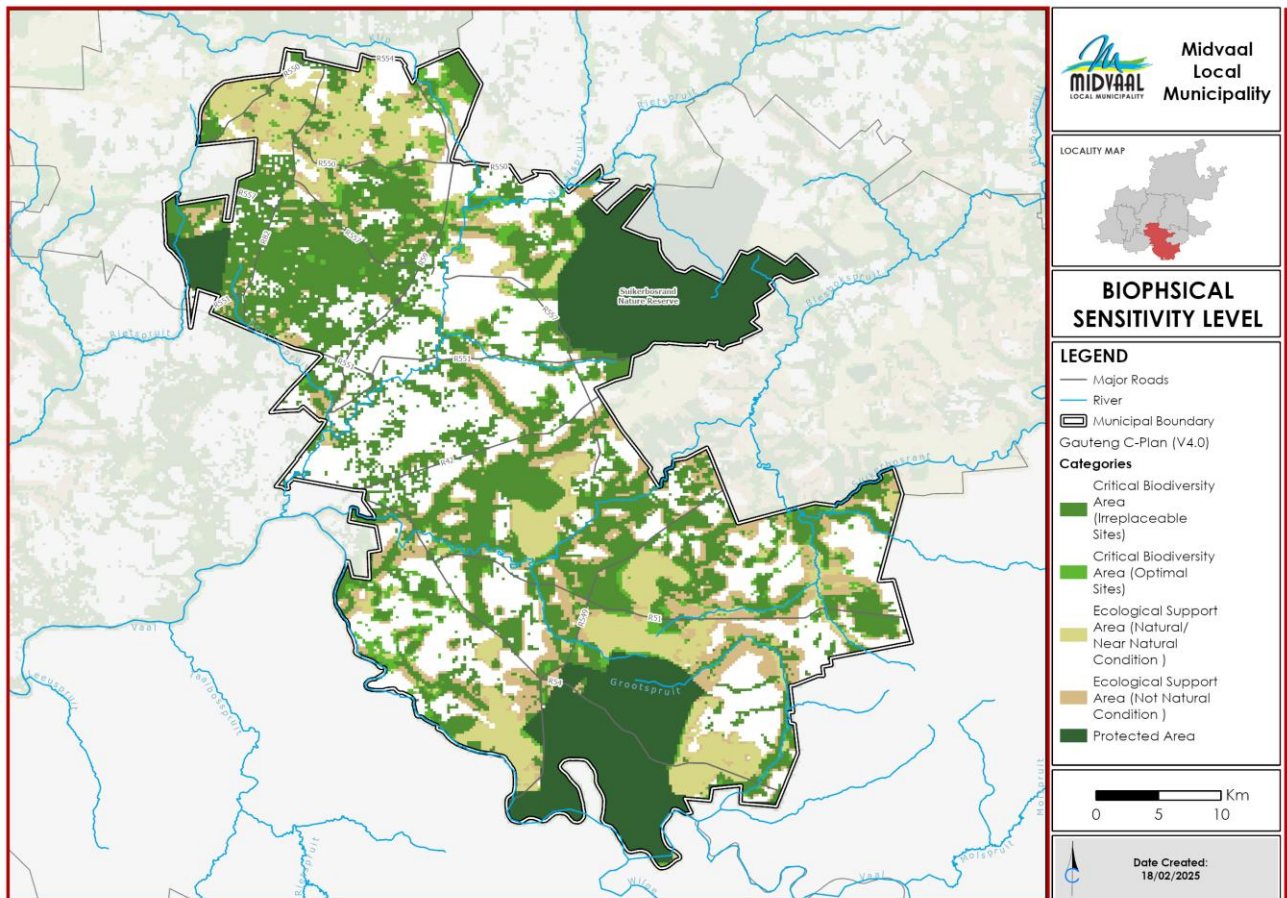


Figure 21: Bio-physical sensitivity level

The map above depicts large pockets of land between the R82 and the R59 corridors being declared as the CBA 1 and 2. These CBAs span eastwards towards the Suikerbosrand Nature Reserve. The development pressure brought by infrastructure opportunities here, suggests innovative planning proposals that will attend to adequate human settlements and keep up with demand, while ensuring ecological sustainability, both with the same level of urgency.

The southern half of the municipal region is inundated by CBA 1 and 2. There are areas that need ecological support such as regeneration especially along the Vaal River near the dam wall. The conservation strip that is characterised by the CBA along

the Vaal Dam, limits the water-related socio-economic potential as identified by the Sedibeng SDF vision. It is paramount to ensure a balance between enhancing economic activity in the region and conserving ecology.

3.5 Land use budget

The land use budget consists of an analysis of the current supply utilising the recent land use audit data. The demand was calculated for the additional land requirements towards 2030, and onwards to 2050. Population and household threshold figures are derived from the Greenbook and the South African census data (StatsSA, 2011).

This assessment was conducted for the entire MLM. The land use budget will be a key informant to this development framework, housing allocation, and spatial strategies that follow.

The following assumptions apply to this model:

- The CSIR Greenbook high and medium population scenarios provide a good baseline to comprehend the possible growth for MLM in the next 28 years. The census conducted in 2022 will provide a more accurate representation, and this model should be updated and adapted accordingly.
- The supply data was adapted from the available land audit data, to indicate the actual dwelling unit supply and not a count on land use.

3.5.1 Land use supply

The recently completed land use audit for Sedibeng District Municipality completed in 2021, is the data source that was used to establish the current spatial supply figures. It provides a recent reflection of the land use and spatial reality of the district, with specific reference to the MLM.

Data from the land use audit indicates that the MLM has:

- 43 000 land parcels covering 210 000 hectares.
- Large conservation areas: 13 600 hectares.
- The largest portion of land under agriculture in the Sedibeng district: 91 000 hectares.
- 4 600 informal residential structures are concentrated in 10 different areas.
- There are 270 erven and agricultural holdings that accommodate 2 800 informal residential structures.

A detailed description of primary, secondary, and tertiary land uses can be found in Addendum 5.

3.5.2 Residential and vacant supply

The following tables indicate land use data count for residential and vacant properties, the necessary adjustments to get an accurate supply value, and applicable notes for the adjustments.

TABLE 10: RESIDENTIAL AND VACANT SUPPLY						
Primary	Secondary	Tertiary	LU data count	Adjusted count (rounded)	Hectares (rounded)	Notes on adjustment
Residential	Multiple Residential	Commune/ Boarding Facility	20	20	35	Approximated (single household)
Residential	Multiple Residential	Farm Worker Accommodation	15	75	40	approximated (average of 5 units)
Residential	Multiple Residential	Flats or Block of Flats	12	120	10	approximated (average of 10 units)
Residential	Multiple Residential	Group Housing (Townhouses, Clusters, Simplexes and Duplexes, Estate)	1324	3100	400	accurate count
Residential	Multiple Residential	Duet Houses	0	0	0	n/a - no count
Residential	Single Residential	Dwelling House	13358	13500	2500	1 to 1
Residential	Single Residential	Dwelling House with 2nd Dwelling / Potential 2nd Dwelling	1215	2400	500	multiply by 2
Residential	Transient Residential	Hostels	1	0	0.2	n/a due to transient nature
Residential	Transient Residential	Caravan Park / Camping Site	2	0.	80	
Residential	Transient Residential	Dormitories	0	0	0	

TABLE 10: RESIDENTIAL AND VACANT SUPPLY						
Primary	Secondary	Tertiary	LU data count	Adjusted count (rounded)	Hectares (rounded)	Notes on adjustment
Residential	Transient Residential	Guest Facilities (Guest Houses / B&B / Lodging/ Backpackers / Self-catering)	51	0	660	
Residential	Transient Residential	Hotels /Inn/Motel	5	0	20	
Residential	Transient Residential	Resorts	9	0	80	
Residential	Transitional Residential Settlement Area	Main house in addition to informal self-help structures on property	2968	6000	240	Multiply by 2
Residential	Transitional Residential Settlement Area	Informal self-help structures	266	530	110	
Residential	Rural Residential	Residential with Related Outbuildings on Smallholding / Farm	3938	4500	16500	10% variance applied for potential second dwelling units
Approximate totals			23184 counts	30 000 Dwelling units	20 000 ha	

TABLE 11: VACANT SUPPLY⁵
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⁵ It is important to note that the vacant even supply presents a distorted picture as this is based on Surveyor General plan approvals and not proclaimed townships. An update to translate the current situation into proclaimed even should be undertaken.

Primary	Secondary	Tertiary	LU data count	Adjusted count	Hectares	Notes on adjustment
Vacant	Vacant Land (Not in use)	Undisturbed / Not Yet Developed	13331	12500	8800	Adjusted to count only vacant erven
Vacant	Vacant Land (Not in use)	Disturbed/D erelict	309	300	600	Adjusted to count only vacant erven
Vacant	Vacant Land (Temporarily used)	Vacant with Temporary Use/Activity	2271	1800	6700	Adjusted to count only vacant erven - most temporary uses are for footpath shortcuts used by pedestrians
Approximate totals			16737 counts	14500 vacant erven	16 000 ha	

The current supply of existing housing is approximately 30 000 dwelling units with an additional 14 500 vacant erven located within MLMs borders. It is however important to note that the vacant erven have been approved by the Surveyor General, and some of these erven have not been investigated for their suitability for development. A study on ready-to-develop erven still needs to be conducted.

3.5.3 Land use demand

The following map shows the distribution of significant informal settlements across MLM. The map also gives an approximate number of informal households in each cluster of settlement. Many of these informal settlements are clustered in Sicelo, Mamello, and the outskirts of the Waterval industrial complex.

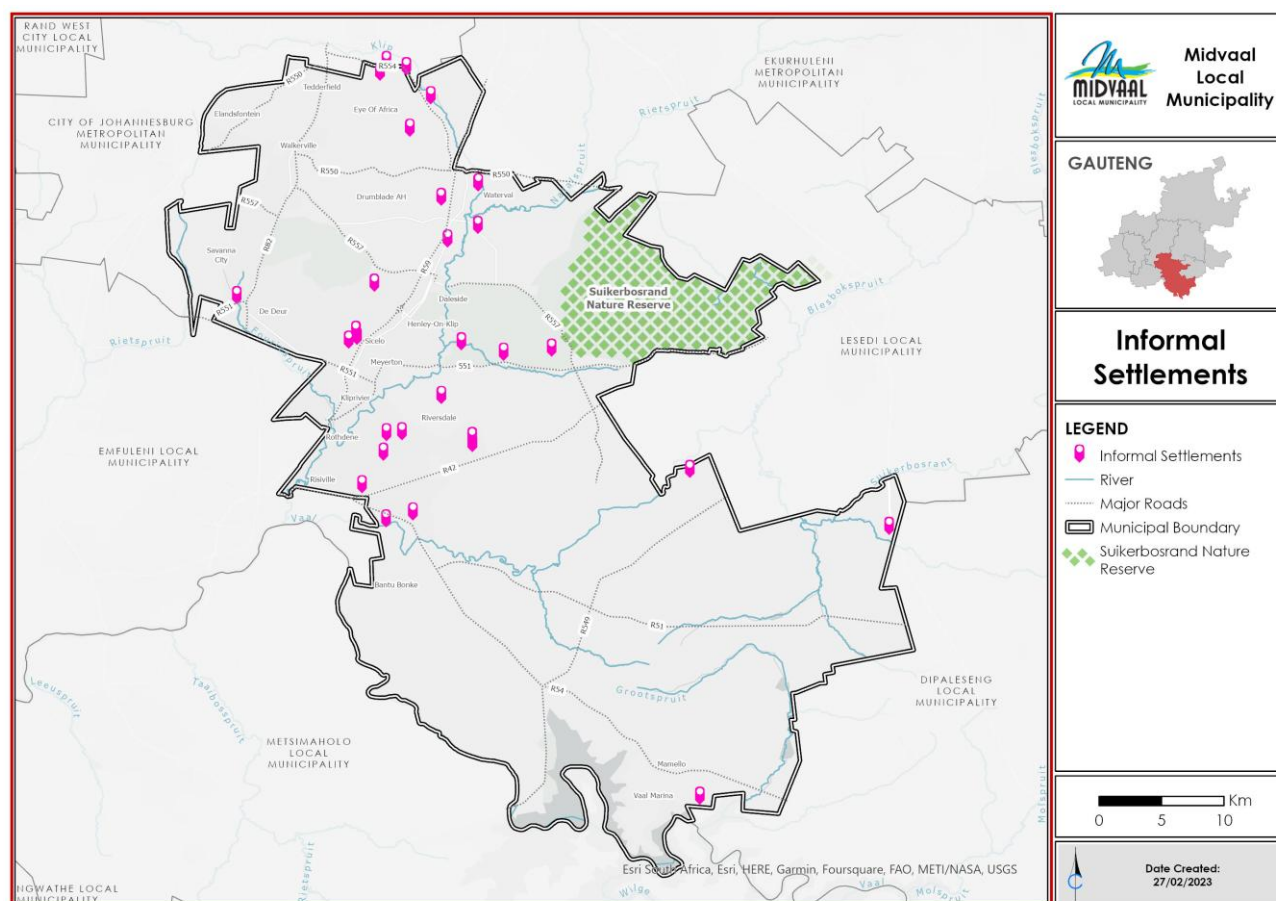


Figure 22: Informal settlements in Midvaal Local Municipality

The total number of 7 400 informal settlement structures of which 4 600 is situated in the 10 settlements is regarded as the current housing backlog in the subsidy market. A further 3 500 dwelling units in the GAP market is regarded as backlog.

As indicated in the supply chapter, the primary focus of the land use budget should be on the residential and vacant land use categories, as they represent the biggest counts and percentages, taking up most of the land use in the municipality.

Because of natural growth pressures and urban migration, the housing demand will continue to rise in years to come and requires efficient spatial planning and targeting to prevent an undesirable spatial form.

3.5.4 Housing deficit/surplus

To understand the scenario projections below, it is critical to first comprehend the year-on-year growth for each scenario. South Africa's current population growth is 1.3%. The medium growth scenario is based on 2.8%, with the high growth scenario on 3%. The census model is calculated from 2011 with year-on-year growth to current date and then projected as an average growth rate into the future.

The housing requirements (as a percentage of households/population) for each income level and associated markets (subsidy, gap, and bonded) are indicated below.

TABLE 12: HOUSING MARKETS		
Income	%	Market
No Income	14%	SUBSIDY MARKET
R1 - R8,039	3%	
R8,039 - R16,078	5%	
R16,079 - R32,157	15%	
R32,157 - R64,313	5%	
	11%	GAP MARKET
R64,314 - R128,626	13%	
R128,627 - R257,253	10%	
R257,254 - R514,506	1%	
	10%	BONDED MARKET
R514,507 - R1,029,012	8%	
	1%	
R1,029,012 - R2,058,024	2%	BONDED UPPER MARKET
R2,058,024 - R4,116,048	1%	
R4,116,048 -	1%	

Given the unpredictable nature of the future, and the inherent inaccuracy of future predictions, it is recommended that the Greenbook high growth scenario is used to determine the future space requirements for the next 5-year SDF cycle going towards 2050. This should ensure adequate space allocation for residential development based on a 3% year-on-year growth rate.

The following tables give an indication of the (1) projected dwelling units, (2) additional dwelling units required, and (3) total hectare requirements given the high growth scenario. The calculations were replicated for both the medium growth scenario and based on the census 2011 data, and these can be found in Addendum 6. The allocation of these additional hectares is discussed in the following sub-section.

TABLE 13: TOTAL PROJECTED HOUSEHOLD DISTRIBUTION

High scenario	Dwelling units' distribution	Current backlog	Total projected dwelling units		
	Current		2025	2030	2050
Subsidy market	12500	7400	13 000	23 000	38 000
Gap market	10500	3500	11 000	19 000	32 000
Bonded market	6000	Surplus	7 000	11 000	18 000
Bonded upper market	1000		1000	2 000	3 000
Totals:	30 000	10 900	32 000	55 000	91 000

TABLE 14: ADDITIONAL DWELLING UNITS REQUIRED

High	Additional dwelling units required				
	Current backlog	2025	2030	2050	Current to 2050
Subsidy market	7400	500	2 500	15 500	18500
Gap market	3500	450	8 000	13 000	21450
Bonded market	Surplus	250	4 500	7 500	12250
Bonded upper market		50	500	1 200	1750
Totals:	10 900	1 250	15 500	37 200	54 000

The following gross dwelling units per hectare were used in determining additional space requirements.

TABLE 15: NORMS TO CALCULATE LAND REQUIREMENTS

Market	Gross du/ha
Subsidy market	20 units per hectare
Gap market	30 units per hectare
Bonded market	20 units per hectare
Bonded Upper market	20 units per hectare

The total projected hectare requirements for the high growth scenario are as follows:

TABLE 16: TOTAL HECTARE REQUIREMENTS

High	Hectares required				
Year	Current backlog	2025	2030	2050	Current to 2050
Subsidy market	370	25	460	765	1620
Gap market	115	15	260	430	740

Bonded market	Surplus	10	220	370	600
Bonded upper market		5	35	55	95
Sub-Totals	485	55	975	1620	3135
Urban Infill					(350ha)
Total					2 785ha

Given that the timeframe of the SDF vision concludes in 2050, the total space requirements from now until 2050 is as follows:

- Subsidy market – 1 620 ha
- Gap market – 740 ha
- Bonded, and bonded upper market – 695 ha.
- An estimated 7 000 opportunities for urban infill development exist in MLM and 350ha is subtracted from the total urban expansion area required.
- The total land required is conservatively estimated at approximately 2 800 ha.

3.5.5 Public amenities and facilities

The CSIR space planner is a tool used to calculate the demand for social facilities in a specific area. This demand is calculated in terms of population numbers, density, and land area. According to the CSIR space planner (**Addendum 7**), the current supply of public amenities on a municipal wide level meets or exceeds the indicated thresholds. The current facilities in the MLM are indicated in **Addendum 8**. The future demand was calculated using the CSIR population projection scenarios.

To determine what facilities may be required due to the population growth expected in the MLM, an exercise to determine the surplus or deficit of social amenities and facilities was undertaken (refer to the table below).

TABLE 17: PUBLIC AMENITIES AND FACILITIES			
Name	Current supply according to land audit	2050 Facilities required	Deficit/Surplus
Fire Station	0	3	-3
Police Station	4	5	-1
Regional Library - reference	1	3	-16
Local Library		14	
Hospital L1	0	1	-1

TABLE 17: PUBLIC AMENITIES AND FACILITIES

Name	Current supply according to land audit	2050 Facilities required	Deficit/Surplus
Community Health Centre & ARV	11	5	-3
Primary Health Clinic		9	
Indoor Sports Halls	0	1	-1
Swimming Pool	0	5	-5
Sports Stadium	0	1	-1
Sports Fields	9	284	-275
Park Space	21	284	-263
Tertiary Training not University	1	3	-2
Secondary School	24	23	-51
Primary School		52	
High Income Creche / Early childhood centre	22	95	-191
Low income Creche/ Early childhood development centre		118	
Home Affairs - regional office	0	2	-34
Home Affairs - District office		4	
Home Affairs - Permanent Service point		14	
Home Affairs - Thusong Centre		14	
Sisakala - Thusong	0	1	-14
Sisakala - First Stop - urban		3	
Sisakala - One Stop		1	
Sisakala - First Stop - rural		9	
Cemetery	5	6	-1
Community Centre	6	9	-3
Religious Centre	83	95	-12
Old age Home ⁶	12	6	6
Children's Home ⁷	6	5	1
Civic Centre / City Hall	2	3	-1
Municipal Office	1	3	-2

⁶ The capacity of these individual facilities - TBC

⁷ The capacity of these individual facilities needs to be investigated

According to current supply, police stations, old age homes and children's homes (orphanages) are sufficiently provided as social facilities. This exercise does not determine actual capacity within the social facility, nor does it consider location and needs of the communities. It would require engagement with the people of Midvaal to determine this.

The remainder of the social facilities would require additional facilities in the next 30 years, with specific consideration to the following:

1. Additional emergency services (fire station and ambulances)
2. Additional libraries catering for the 4IR (internet access and ability to access information online in these centres).
3. By 2050, a hospital can be developed for Midvaal, but a feasibility study and business plan would be required.
4. Additional health clinics or centres across the municipality can be considered in years to come
5. Additional recreational social facilities such as swimming pools, sports fields and even a sports stadium are all plausible, but would require business plans and be on a needs basis from the community. Existing sporting fields, even in schools, need to be upgraded/utilised first to be space efficient.
6. The land audit captured both primary and secondary schooling under one category. Additional schooling requirements with a feasibility study on additional educational requirements will be needed before any additional schools are commissioned. Where established schools can be expanded to add additional pupils, this option needs to be explored first before the commissioning of a new school. Private sector providers of educational services should also be consulted (e.g.: Curro).
7. Towards 2050, additional tertiary training opportunities may present themselves. This would be determined by the dominant market forces in the area and be based on skilled labour needs.
8. A high demand for both low- and high-income early childhood centres will present in the next few decades and provision should be made to accommodate these types of businesses with strict controls to ensure that young children are in safe and conducive environments.
9. The potential to establish a Thusong centre with urban and rural first stops exist but would require a needs analysis to ensure that it would add value to Midvaal and not create parallel systems that increase unnecessary bureaucracy.

10. Establishing a home affairs office in Midvaal is suggested, with additional home affairs offices which could be developed for the communities of Midvaal in the decades to come.
11. Additional cemeteries would be required for the municipality over the next few decades, but a comprehensive analysis on the location of this additional land use would be required as a cemetery cannot be removed once commissioned due to ancestral and religious practices and environmental requirements. Short term demand on burial sites needs to be determined to evaluate the current supply of the existing five cemeteries in Midvaal. Potential to expand instead of establishing a new site needs to be considered for land use efficiency.
12. Additional religious centres can be commissioned as the population grows but would need to occur organically as this is not the responsibility of the state.
13. Three additional community centres can be commissioned in the years to follow but would require a needs basis. Moreover, the community centres can act as civic centres or as a city hall and be able to add capacity to the current zero count.
14. Lastly, additional municipal offices can be developed if needed, but in the instance of Midvaal and the already well-established municipal buildings, upgrading and building on to the current infrastructure may be a better option instead of establishing new offices across the municipality. Extensive consultation and engagement would be required to decide on this, but additional capacity will be required in the future.

In no way is the CSIR planner prescriptive and it should not be used as a monitoring or evaluation tool. It is a quantitative knowledge informant to help the municipality identify and prioritise certain social facilities and amenities. The CSIR space planner should work in tandem with spatial positioning exercises and community needs analysis.

It is important to have a comprehensive understanding of community needs through ongoing engagement. Services that are provided must be appropriate and applicable and such facilities must meet space planning requirements. It is proposed that MLM uses a blended approach that is informed by data and engagement with the people of MLM.

3.6 Commercial, industrial and business use

There are 150 land parcels (208ha) of commercial use and 385 land parcels (2279ha) of industrial use in the proposed industrial and commercial areas as per the 2017/2022

Midvaal SDF (indicated in the figure below). There are 340 land parcels (605ha) of business use in MLM.

There are 249 vacant erven (317.5 ha) and 12 (19.8 ha) vacant agricultural holdings within the industrial and commercial areas of MLM. Midvaal LM aims to create an enabling environment for job creating industries and supports the development of commercial and industrial areas.

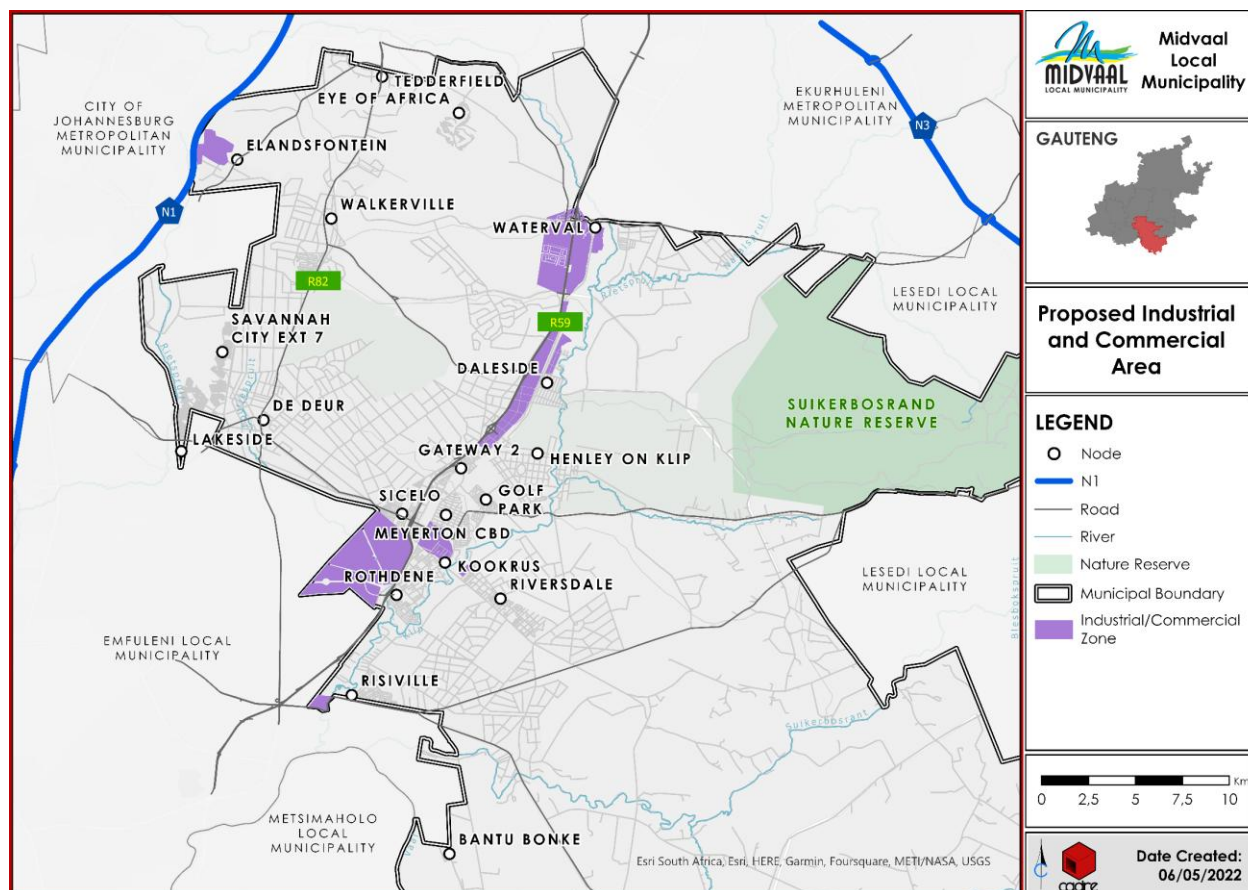


Figure 23: Proposed industrial and commercial area

3.7 Available land

Given the calculations done in subsection 3.5.4 a total of 2 800 hectares are needed to accommodate the growth expected according to Greenbook 2050 high growth scenario. An analysis was done based on the current Urban Development Boundary (UDB) in MLM.

The first step to identify the urban expansion areas, is to look at the land parcels within the municipal UDBs to determine the space available for infill development. Land parcels with associated urban land uses (residential, commercial, industrial, etc.) were extracted from the potential infill development parcels, leaving only the potential urban expansion areas. The figure below illustrates the land parcels within the established UDBs, with the yellow areas representative of the current urban area, purple indicating established industrial and commercial uses, and the grey indicating

the space available for urban expansion. The result of this determination is an estimated 9 200 hectares that are available for urban expansion.

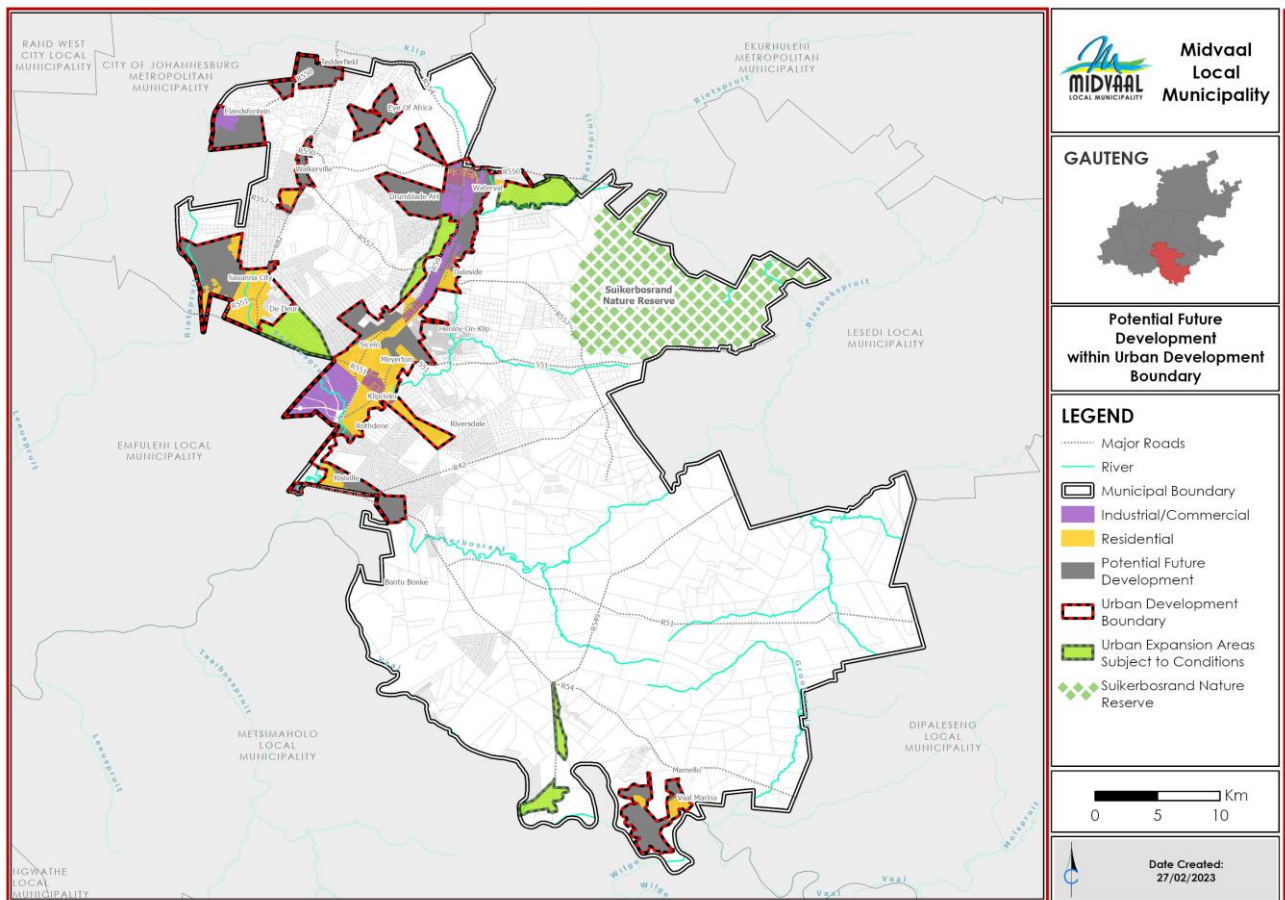


Figure 24: Potential Future Development within the UDB

After critical biodiversity areas are subtracted, there are less than 7 000 hectares within the current urban development boundary. A significant portion of areas inside the current urban development boundary lack engineering services and could not be accounted for as being in the development pipeline. The MLM, however does not want to constrain potential developers of self-funded engineering services and therefore do not intend to reduce the UDB in these instances.

Sufficient land in growth areas, where engineering services are deemed to be more feasible will, however, be brought forward by the spatial proposals.

4 SPATIAL PROPOSALS

Embracing the project of meaningful transformation requires a shift from conventional regulatory planning towards active planning. Active planning employs long-term visioning to promote growth and development that is sustainable, inclusive and productive. Visions are expressions of spatial values or images that demonstrate possible and alternative futures. These visions must represent an agreement between spatial partners (including elected representatives) the facts of the past, the current realities, and the path to be taken for the future.

The purpose of a vision is to define the growth and development direction for a region, in this case the Midvaal Local Municipality. The vision developed ought to embrace the key development directives defined by national, provincial, and district policies and legislation. Section 21(c) of SPLUMA prescribes that municipal spatial development frameworks must include a longer-term spatial development vision statement for the municipal area which indicates a desired spatial growth and development pattern for the next 10 to 20 years. The MLM decided to develop a vision towards 2050 which is aligned to the population projections contained in the Green Book (CSIR, 2022).

This chapter summarises the processes and methods followed to develop a spatial vision for MLM. It presents the vision statement and conceptual spatial illustration for the future development direction, and ends with an emphasis on future urban expansion areas necessary to accommodate this developmental direction.

4.1 Vision informants

4.1.1 Regional vision shapers

The MLM SDF spatial vision draws regional shaping elements from Gauteng Growing Together 2030 and the Sedibeng DDM One Plan. The following highlights the regional vision shapers that were taken from these provincial and district plans, visions, and related projects.

Growing Gauteng Together

- Goal: Revitalise the economy of Sedibeng which has suffered significant de-industrialisation due to the collapse of the steel industry.
- Opportunities:
 - Development of the Vaal River City and the Vaal University village precinct.
 - Rehabilitation of the sewer infrastructure to stop spillage into the Vaal River.
 - Vaal Special Economic Zone.

- Catalytic investment projects - Savanna City development, and Vaal River City development.

Sedibeng DDM One Plan

- Regional joint vision - A leading and developmental metropolitan river city by 2030.
- Opportunities:
 - Catalytic investment projects – Savanna City, Vaal River City, Vaal SEZ, Vaal Marina development,
 - Midvaal LM catalytic projects: Vaal Marina (tourism development), Doornkuil (mixed-use and social infrastructure development).
 - Vaal River sewer rehabilitation project.
 - Regional bulk infrastructure to catalyse the SEZ.
 - Vaal Marina Commercial development

The Gauteng State of the Province Address 2022 again centralises township investment and regeneration as a priority intervention across the province.

Since 2014, it has been the province's vision to alleviate economic pressure – and the subsequent spatial pressure – in Johannesburg as the centre of economic activity. A decentralised economy across the three metros and the two districts is envisioned. Different parts of the province are directed to create growth opportunities, especially in the West Rand and Sedibeng districts.

The Sedibeng district embraced the provincial directive to become the next growth point as the southern development corridor of Gauteng. The diversification of the economy is geared to exploit the economic potential of the Vaal River. The achievement of the economic diversification and 'metropolitising' the district relies heavily on the cooperation and support from the adjoining Fezile Dabi district in the Free State. Preliminary and advanced investment stages for the Vaal River Special Economic Zone, aerotropolis, freight, and revitalised steel manufacturing are noted to inform MLMs future.

MLM is a largely rural municipality, but it is important to note the inevitable pressure of housing development and new economies which the municipality faces. In tabling the development vision of the MLM it is important to strike a balance between identity, food security, social cohesion, growth, ecological sustainability, and urbanisation.

4.1.2 Municipal vision shapers

Reflecting on the past, the present and the potential future of MLM, the following key spatial features were identified by municipal and government officials in a workshop held in 2022:

Unique and special places in MLM

- Vaal Dam and Vaal Marina– considered to be the best tourism destination in the municipality.
- Suikerbosrand Nature Reserve – beautiful, unique, and underrated natural landscape that needs infrastructure support to revive tourism in the area.
- The Klip River is prone to pollution from numerous sources but has the potential to enable many areas of leisure and enjoyment. Henley on Klip capitalises effectively on this asset and should be supported to enhance this attraction even further.
- Alewynspoort and the ridges could be a bigger attraction.
- Eye of Africa – identified as the best modern housing development that provides security, comfort, and access to natural and recreational amenities.
- Walkerville – identified as a key village and service centre along the R82 corridor.
- Meyerton – perceived to be the heartland of economic opportunity.
- Sicelo- township tourism, where a tourist can experience the character and culture of a township.

Current spatial issues and challenges

- Aloe Ridge – this area has been experiencing huge development pressure but has also been identified as a unique natural landscape that needs protection from development. A balance between conservation and development needs to be reached.
- Conservation and protected areas should not be preserved or utilised in self-interest for privilege and exclusivity. Inclusivity, access to opportunities and efficiency need to be considered when demarcating areas earmarked for conservation and protection.
- Informal settlements – in-situ upgrading to be prioritised to satisfy the locational criteria. Upgrading should only be considered where technically feasible and ensure that the potential residents are afforded the opportunity to have safe living environments and not be exposed to unnecessary risks that can be identified in technical studies. Some of the technical studies can include environmental (EIA) and territorial (TIA) impact assessments, disaster risk reports (fire, social unrest, etc), geological reports and flood lines.

- Sprawling settlements including the Sky City (Ekurhuleni)– redirection or upgrading of informality due to the development pressure needs to be considered. Directing the sprawl towards activity spines where there is existing development can improve land use efficiencies.
- Protection of the rural residential properties of the greater Walkerville area (outside the node) along the R82 amid development pressure and potential in the corridor.
- Protection of unique rural character and touristic attraction in certain parts of Henley on Klip.

Spatial opportunities

- Potential mixed-use development corridor between Heidelberg and Risiville/Three Rivers.
- Increased tourism and residential activities in the Vaal Dam area.
- R82 and R59 as the destination for capital investments.
- Potential social housing restructuring zones in Savanna City, Meyerton/Sicelo and De Deur.
- Recreational and tourism opportunities along the Klip River, Vaal River, Vaal Dam and Henley on Klip.
- Densification and infill development of low-cost and gap-market housing within existing urban boundaries closer to work and social opportunities.

4.2 Spatial vision

The Midvaal Local Municipality offers a unique spatial composition of urban and rural development located along strategic economic corridors and spines. The rural character is protected by means of consolidated and well-designed urban areas and managed urban-rural cross-over zones. Urban expansion is consolidated along the R59 Corridor and R82 mobility spine, with east-west spines becoming more prominent.

The MLM long term spatial vision is also visually represented in the figure below. It provides a schematic and diagrammatic view of the desired long-term spatial structure of the municipality. The process of developing the spatial vision incorporated several structuring elements to form the ideal vision, namely: (1) nodes and centres, (2) connectivity, and (3) spatial areas and unique components.

The contextualisation of the MLM spatial shapers assists in identifying (1) fewer dynamic elements which might need improvements instead of creating new ones,

and (2) highly dynamic elements that need resource-specific support, control and management.

Midvaal's long term spatial vision also give impetus to the 5-year developmental vision formulated by the local municipality through the IDP processes:

Midvaal Local Municipality prides itself on being a stable institution able to provide services efficiently to its residents while improving their socio-economic conditions. The municipal vision for the 2022-2027 IDP is:

“Achieve excellence in service delivery”

To achieve this vision the municipality strives to:

1. Enhance service delivery through innovative technologies.
2. Enable a safe, healthy community and environment.
3. Promote local economic development and tourism.
4. Adopt clean, renewable energy.
5. Build strong partnerships.
6. Be a people-centred, compassionate institution.

Spatial areas and unique places

Contextualising the current development footprint and socio-economic character of the municipality highlighted the current pockets where social, residential, and economic activities are focused. This resulted in the identification of areas where infill-development, densification and intensification can take place to (1) promote ecological sustainability, (2) bring households closer to the centre of opportunity, (3) protect prime agricultural land, and (4) promote public transport viability.

Additional activities were observed to be gradually developing between these activity centres – therefore necessitating an increase in bulk infrastructure to support growth and development. These areas include:

- Meyerton CBD to De Deur
- De Deur to Savanna City
- De Deur to Walkerville
- The Waterval-Sky City area

The densification of residential areas would be supported by increasing support for economic, social, tourism and recreation activities. Beyond the MLM borders, the Evaton-Sebokeng, Orange Farm, Vereeniging, and Kathorus settlement clusters will support this consolidation to establish a bigger township economy. Production and consumption markets grow in such residential clusters.

Development is purposefully concentrated in the areas surrounding the R59 and R82 development spines to protect the prime agricultural land in the southern half of the municipality, and the areas of ecological importance – Suikerbosrand Nature Reserve, Vaal Dam and River, and the ridges in the north.

The provincial and district vision for the re-industrialisation of the area is encapsulated in the envisioned industrial zones along the R59. The envisioned intensification of industrial activities is aimed at Waterval at the northern end of the R59, and Rothdene at the southern end.

Bringing everything together, the spatial vision intends to demonstrate a focused way to engage sustainable urbanism, social cohesion, integrated governance, economic recovery, and the preservation of natural elements. These are indicated with the same level of urgency to sustain the identity of the municipal region and create an enabling environment for socio-economic shock-resilience.

4.3 Spatial proposals

The 2022-2027 Spatial Development Framework builds on the previous SDF that aimed to consolidate and integrate the national spatial directives with the reality on the ground. Development drivers and spatial proposals are set out in the table below.

TABLE 18: SPATIAL PROPOSALS		
Development drivers		Spatial proposal
1	Strive towards consolidated compact urban areas	Maintain the Urban Development Boundary (UDB) and manage urban-rural cross-over zones to promote compact urban development, support the integrity of rural residential areas, protect high potential agricultural land, and conserve critical biodiversity areas and valuable ecosystems.
2	Pursue alternative clean energy and reduce the cost to industrial and commercial consumers	To tackle the shortage of energy by partnering with renewable energy service providers and participate in initiatives to generate local power, aid economic diversification along the R59 Corridor, industrial and commercial zones and the urban nodes through public-private partnerships.
3	Implement and manage corridor and spine development initiatives	Plan, design, and facilitate development along the R59 Corridor, the R82 mobility spine and secondary east-west spines by means of appropriate developments and responsive township layouts in line with the spatial vision and relevant precinct plan proposals.
4	Encourage agricultural production and processing	Protect all land earmarked for agriculture in order to facilitate and enhance agricultural production. Support innovative small-scale farming in agricultural areas and cross-over zones, and support agri-processing in cross-over zones and in corridors and spines.
5	Stimulate tourism	Protect tourism resources, heritage assets, and unique precincts by stimulating relevant tourism-related activities and appropriate developments in the ridges, in unique precincts, around Bass Lake, in Suikerbosrand Nature Reserve, and along the Vaal Dam.
6	Foster walkable nodes and transit orientated development (TODs)	Promote transit-oriented development (TODs) and the creation of compact, walkable, pedestrian-oriented, mixed-use communities centred around all public transit facilities (train stations, taxi ranks, rapid bus systems). Facilitate the development of walkable urban nodes, rather than suburban shopping centres for reduced dependence on a car for mobility and survival.

7	Ensure connectivity by means of a considered movement network	Capitalise on existing regional links to promote development and utilise the internal movement network to support public transport networks and services. For enhanced continuity, prioritise strategic roads identified in the SDF and consider alignment of proposed roads carefully to prevent further fragmentation of precincts, and unnecessary sterilisation of potential land for development.
8	Support quality human settlement development	Promote integrated human settlements through varying housing typologies, income models and densification, and prioritise the expansion of the gap market. Plan and implement for the integration of social facilities and commercial activities as integral part of any housing development.
9	Prioritise environmental management	Protect and manage the natural environment by administering the UDB to ensure an equilibrium between agriculture, tourism, industrial, and urbanisation activities.
10	Streamline targeted engineering infrastructure investment	Prioritise short to medium term upgrading of engineering services in priority strategic development areas (SDAs) and ensure that engineering services are available before township establishment processes are finalised.
11	Implement local area plans (precinct plans)	Undertake precinct plans to give effect to the intentions of the broader strategic direction in the SDF and make proposals on a detailed level. Proposals should not only be focused on land use and transport but should also provide practical spatial proposals and urban design guidelines to ensure appropriate spatial form in support of design principles, such as walkability.

4.3.1 Development Driver 1: Strive towards consolidated compact urban areas

"Maintain the Urban Development Boundary (UDB) and manage urban-rural cross-over zones to promote compact urban development, support the integrity of rural residential areas, protect high potential agricultural land, and conserve critical biodiversity areas and valuable ecosystems."

MLM acknowledges that compact urban areas, rather than urban sprawl, support economic viability, liveability and social equity. Urban compaction involves the promotion of urban regeneration, the revitalisation of CBD's and nodes, the restraint on development in rural areas, higher densities, mixed-use development, promotion of public transport, and the concentration of urban development at public transport nodes.

The major focus area for urbanisation in MLM occur along the R59 corridor extending from Rothdene in the south up to Waterval in the north. Lakeside, Savanna City, De Deur, Walkerville, Ohenimuri, Eye of Africa and Vaal Marina are also included within the Urban Development Boundary as these areas already represent extensive development and future development potential.

An urban development boundary (UDB) has been implemented in MLM as a growth management instrument to carefully manage land uses within urban areas and monitor changes in land use adjacent to the UDB termed urban-rural cross-over zones. Areas with a rural character, the protection of high potential agricultural land and ecosystems is a priority beyond the UDB.

Development applications need to demonstrate urban design principles that promote compact, mixed-use and walkable areas that could be serviced with engineering services in a sustainable manner. The Midvaal Land Use Management Scheme can be improved by an extended list of land use definitions to enable improved land use management. The following guidelines pertaining to land uses to be allowed within and outside the Midvaal Urban Development Boundary will apply:

Land Use within the Urban Development Boundary

As far as land uses inside the Urban Development Boundary are concerned, a land use that is consistent with the relevant municipality's Integrated Development Plan (IDP), Spatial Development Framework (SDF), spatial planning policies and land use scheme should be permitted, subject to the normal procedures and legislation e.g. environmental considerations, transportation requirements etc. It is important to note that the Urban Development Boundary does not imply that the entire area within the boundary can/ should be allowed to develop or that development rights are automatically guaranteed. Factors such as timing, availability of services, the

environmental impact/ conditions etc. must and should still be applicable when considering an application within the Urban Development Boundary.

Land Use outside the Urban Development Boundary

Land uses that are rural in nature would be more desirable and should therefore be promoted outside the Urban Development Boundary rather than inside it. Where applicable, the proposed land use will also have to be in line with provincial policies and local areas plans. -The following land uses will be allowed in the rural areas outside the Midvaal Urban Development Boundary:

- a. Extensive agriculture;
- b. Conservation Areas/Nature Reserves;
- c. Tourism and related activities
- d. Recreational Facilities
- e. Farm stalls and home industries;
- f. Rural residential uses/Agricultural Holdings in specific areas; or\Any other related development of service;

Provided that the proposed development or service

- g. services primarily the local market; and/or
- h. is resource based; and/or
- i. is located at a defined and approved service delivery centre/nodal point.

Developments or services not complying with the criteria set in (a) – (f) may thus only be allowed if it complies to one or more of the criteria listed as (g), (h) and (i).

Additional uses may be considered within the urban-rural cross over zones that is in line with the rural character of the area and based on the merits of individual land use applications.

In principle, all parts of the Midvaal Municipality located within the Urban Development Boundary are deemed to be priority areas for accommodating development, while the remainder part of the municipal area is deemed to be rural in nature, and thus all policies, guidelines and principles applicable to rural development are to be applied in these areas.

Urban Development Boundary Amendments

During the 2022-2027 SDF compilation, the previous urban development boundaries (UDB) was expanded to allow for sufficient land to enable a full spectrum of urban land uses. The six amendments where:

1. An extended boundary east of the R82 in De Deur to complement the business precinct in De Deur with mixed-uses, but especially medium density residential.

2. The area west of the R59 corridor between Meyer Street and Randvaal off ramps that could bolster economic activities in this area.
3. The Tedderfield area, west of the R82.
4. A portion of Henley-on-Klip (Indicated as zones 3-6 in the Henley on Klip precinct plan)
5. The inclusion of Garthdale AH as indicated in the Waterval precinct to create opportunities closer to employment.
6. Meyerton extension towards the Klip River to expand the primary node in the MLM.

Urban Expansion Areas

Urban expansion areas are further recommended in appropriate locations to facilitate a closer link between places of residence and places of work. Four future urban expansion areas have been identified and may only be considered to be included in the Urban Development Boundary subject to conditions such as infrastructure development or local areas plans. These areas are:

- A. De Deur extended further towards Meyerton. This area could be considered for inclusion in the UDB if Point 1 above demonstrates a level of success, and engineering services become available. This area is exceptionally fitting in terms of urban form aspirations, highlighted in the spatial vision, but the lack of funds to invest in engineering services puts an initial hold on including this area in the UDB at this stage.
- B. The expansion of the R59 corridor has been a spatial vision since its adoption in 2010. This area could be considered for inclusion in the UDB once the Class 3 road towards the west of the R59 is established and Point 2 above, demonstrates a level of success.
- C. The Gardenvale AH area is under extreme development pressure due to the residential developments within City of Ekurhuleni Metropolitan Municipality on the border of Midvaal. This area could be considered for inclusion in the UDB if Point 5 above, demonstrates a level of success, and engineering services become available.
- D. The Vaal Dam area is a prime area for the bonded market and it is recommended that the MLM should partner with the private sector to demonstrate how this area could be developed in a financially sustainable way. The natural environment in this vicinity must be protected in any proposed development.

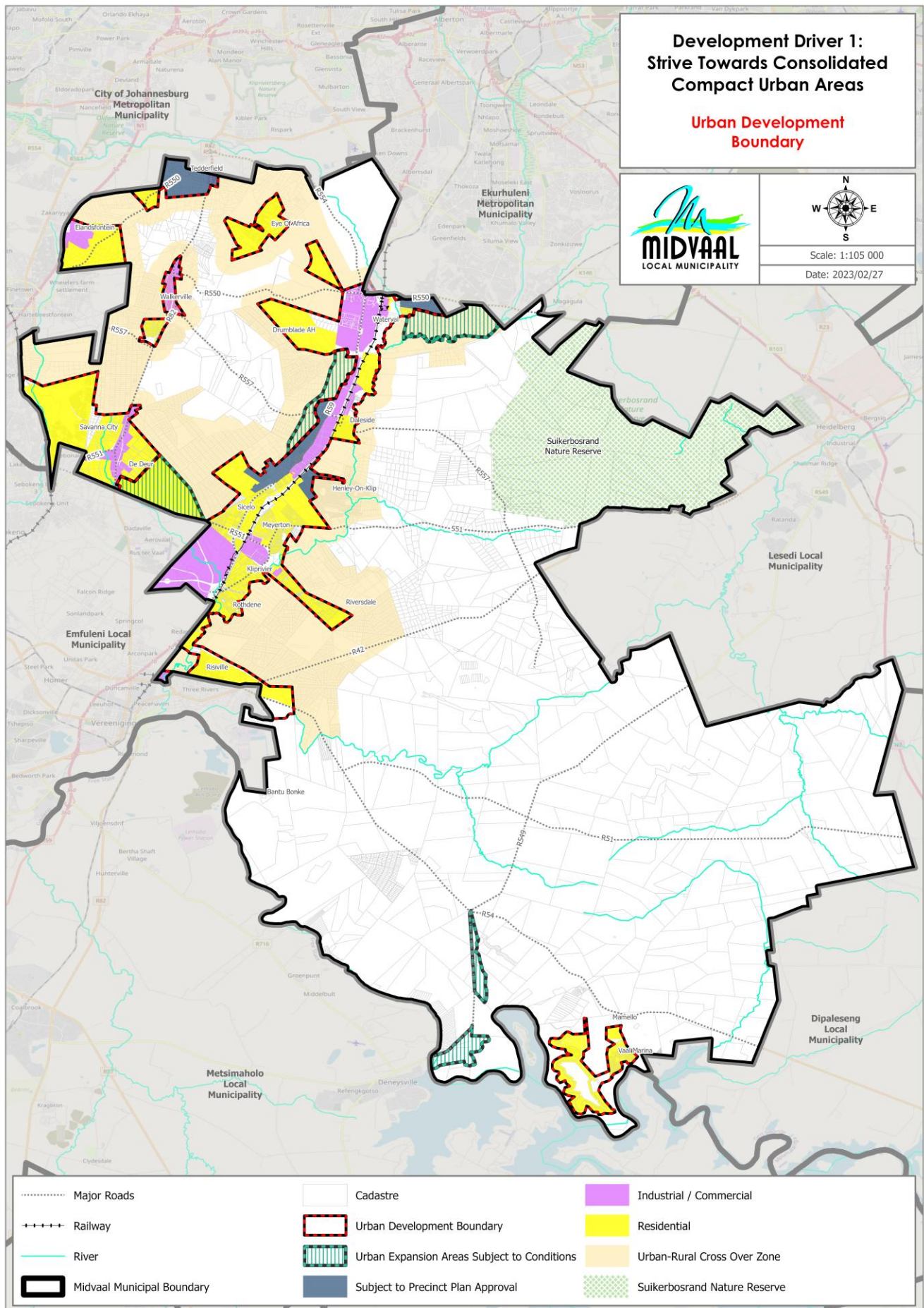


Figure 26: Urban Development Boundary

4.3.2 Development Driver 2: Pursue alternative clean energy and reduce cost to industrial and commercial consumers

"To tackle the shortage of energy by partnering with renewable energy service providers and participate in initiatives to generate local power, aid economic diversification along the R59 Corridor, industrial and commercial zones and the urban nodes through public-private partnerships."

Fundamental reforms in the energy environment sector have open new opportunities for local municipalities to generate power that can be distributed to residents within its boundaries or wheeled to neighbouring jurisdictions. Government has indicated that it will fast-track proposals based on solid business plans submitted by municipalities. These new regulations also open the prospects for innovative public-private partnerships between municipalities and private enterprises.

MLM should consider becoming an Independent Power Producers (IPP) or consider applications for the establishment of IPPs in the area based on the merits of their applications. MLM should also encourage Small Scale Embedded Generators (SSEGs) for applications submitted for uses such as high-density residential, industrial, and commercial activity where alternative energy solutions and higher energy efficient could be applied in the development. The municipality should initiate a resilient energy model and start implementing a municipal energy-efficiency retrofit programme for streetlights, traffic lights and municipal buildings.

4.3.3 Development Driver 3: Implement and manage corridor and spine development initiatives

"Plan, design, and facilitate development along the R59 Corridor, the R82 mobility spine and secondary east-west spines by means of appropriate developments and responsive township layouts in line with the spatial vision and relevant precinct plan proposals."

To capitalise on the dominant north-south regional connector roads, the MLM vision will establish primary development spines along the R59 and R82. There is significant potential to promote a variety of economic activities, as well as residential development along the R59 Corridor in the Midvaal area. Extensive studies were conducted to determine the development potential of this corridor that culminated in the R59 Corridor Development Framework 2010, and the R59 Corridor Urban Design Framework 2014. The R59 Corridor functional area is the priority area for the bulk of economic and residential development within the Midvaal Municipality and should thus also be prioritised in terms of the provision of engineering services. Substantial parcels of vacant industrial-zoned land are still available within the R59 corridor area and development of these land parcels should receive priority for light industrial and commercial use to achieve the proposed R59 Development Corridor. As far as heavy/noxious industrial development is concerned, it should be consolidated in the Meydustria (Kookfontein) area which has sufficient buffer zones between the industrial activities and surrounding residential suburbs. A part of

Meydustria (Kookfontein) has also been earmarked to be developed as a proposed Industrial Park.

Areas to the west of the R59 along the future Class 3 road, from Johan Le Roux to R550 Waterval, are earmarked for development in the short to medium term similar to the M61 along the east of the R59. The development of this Class 3 road in conjunction with the provision of bulk infrastructure will allow for Activity Nodes which will comprise of uses such as commercial, industrial, agricultural, residential, retail and offices. The municipality will further develop precinct plans per Activity Node to outline the development proposals and intensity of uses per node.

R82 can be developed as a mobility spine that, secondary to the R59, provides regional linkages. The development of Savanna City and business hubs in De Deur, Walkerville and Tedderfield along the R82 create economic opportunities that may attract the need for increased residential developments.

To address the need for stronger east-west connectivity and integration with the City of Joburg, Ekurhuleni and Lesedi, secondary development spines are required along the R42, R550, R551 and the proposed PWV20 from Savanna City to Heidelberg.

R42, R550 and R551 are envisioned as secondary development spines to support new commercial investments in the long-term. The creation of movement demand along these routes by opening up employment pools would promote public transport services, especially with mini-bus taxis.

Transit Oriented Development (TOD) applicable within the R59 Corridor development are further explained under Development Driver 6 and must be read in conjunction with this Development Driver.

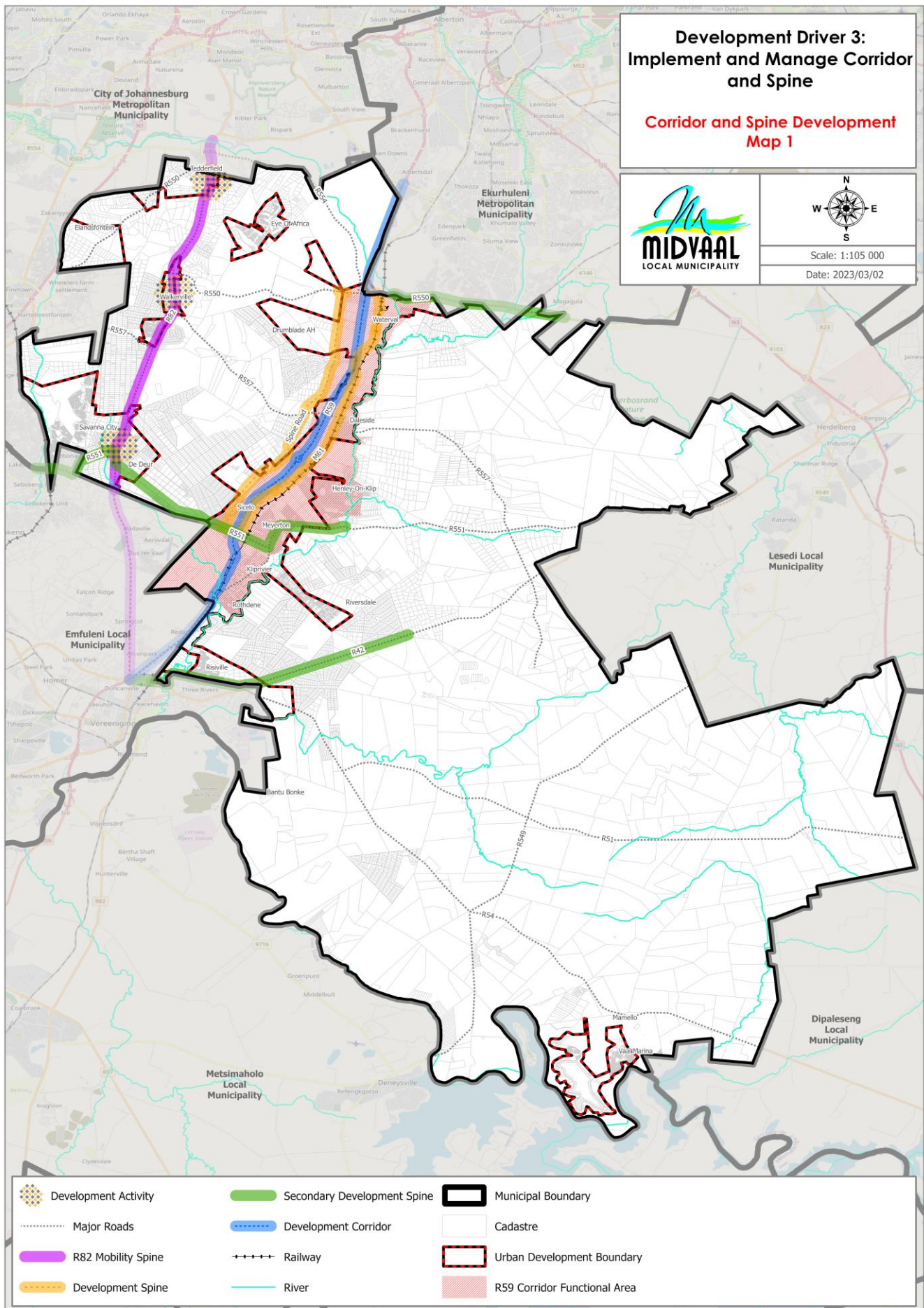


Figure 27: Corridor and Spine Development

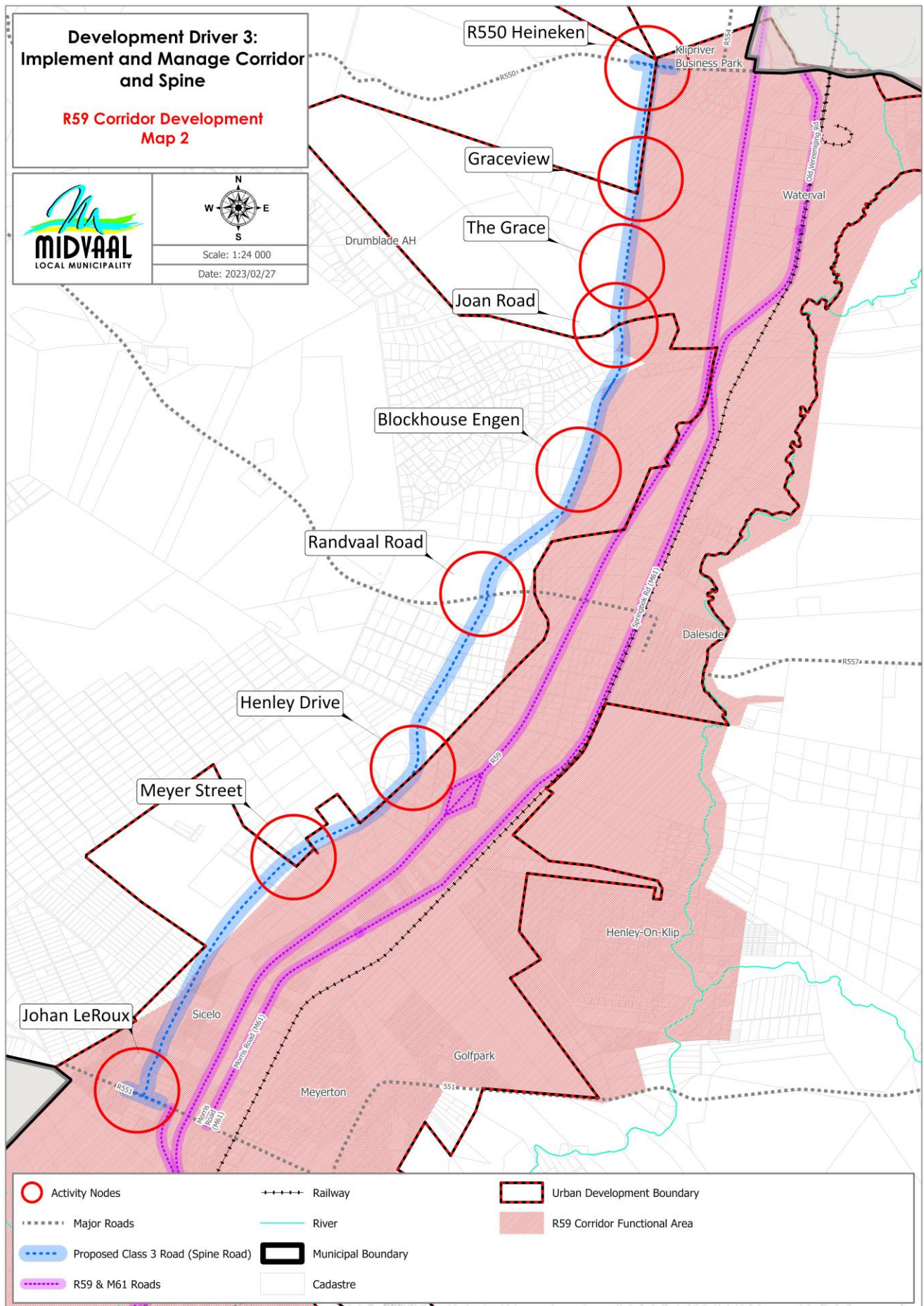


Figure 28: Future Activity Spine West of the R59

4.3.4 Encourage agricultural production and processing

"Protect all land earmarked for agriculture in order to facilitate and enhance agricultural production. Support innovative small-scale farming in agricultural areas and cross-over zones, and support agri-processing in cross-over zones and in corridors and spines."

MLM supports the protection of high potential agricultural land and the graduation of small-scale farmers to commercial farmers and Agropreneurs. Agricultural activities mainly occur in the south-eastern parts of the municipal area between Suikerbosrand and Vaal Marina and the central north-western parts between Doornkuil, Homestead Apple Orchards, Walkerville, Tedderfield and Waterval. Agricultural land must be protected against urbanisation and/or extensive subdivision in order to protect the agricultural potential and integrity of these farm units in support of the Local Economic Development Strategy (LED Strategy 2023) thrust related to agriculture development, support & value-adding.

MLM wishes to enhance agricultural production and processing as part of its vision to promote the municipal area as an agricultural hub in Gauteng context. This might require farmers to form functional clusters (agricultural hubs) within the area to collectively perform specialised agricultural activities (agglomeration and economy of scale benefits). Such activities may comprise intense production with related infrastructure, processing of products (agro-industries), training facilities and associated accommodation/social facilities for workers, and even commercial outlets to sell the processed agricultural products locally.

As far as agricultural holdings in general are concerned, Council should strictly control the land uses as these areas have the tendency to become "mixed use transition areas" if not properly managed.

The primary purpose of agricultural holdings is to accommodate small-scale farming and rural- residential activity and the original layout, road reserves and engineering services provided in these areas were designed in accordance with this concept.

In many instances the illegal land uses performed on agricultural holdings have a severe negative impact on the surrounding environment in terms of noise pollution (small industrial activities), traffic (especially "trucking business", sanitation (normally these areas only have septic tanks) and waste disposal.

MLM has determined Urban-Rural cross over zones where the municipality may consider land use applications should the use be compatible with the rural character of the areas, or subject to an adopted precinct plan (local area plan) specifying different land uses in the area. Consent use applications as allowed for in the LUMS will be considered on merit.

The following interventions adopted by the previous SDF needs to be continued and/or finalised:

- Protect high potential agricultural areas.
- Compile precinct plans for five rural intervention areas.
- Establish an institutional structure to assist small scale and emerging farmers.

- Facilitate the establishment of agri industries at Doornkuil.
- Establish economic development centres (EDC) in the five Midvaal townships, with specific focus on the milling plant, agro processing facility.
- Support to the Bantu Bonke agri-village.
- Collaboration with Gauteng Agricultural & Rural Development to implement the Comprehensive Agricultural Support Programme (CASP) for emerging farmers and households.

4.3.5 Development Driver 5: Stimulate tourism

"Protect tourism resources, heritage assets, and unique precincts by stimulating relevant tourism-related activities and appropriate developments in the ridges, in unique precincts, around Bass Lake, in Suikerbosrand Nature Reserve, and along the Vaal Dam."

MLM benefits from having numerous environmental features that when enhanced and supported, forms the main elements of a tourism destination. Various initiatives are required to bolster the unique places and opportunities highlighted in the vision shapers to promote Midvaal as a tourism destination, as emphasised on the LED Strategy, 2023. The strategy further proposes programmes that should be implemented to achieve the above and to promote economic development through promotion of the tourism industry and development of the green economy.

The tourism sector is one of the main identified growth sectors in Midvaal and as such the following programmes with accompanying projects have been identified under the Tourism and Green Economy Development and Promotion Thrust:

- Tourism Industry Growth & Development
- Tourism Marketing, Promotion & Awareness
- Green Economy & Eco-Tourism development & promotion

The most prominent tourism feature in Midvaal is the Vaal Dam. This area is an asset not only to the local Midvaal community, but also to the broader Gauteng and regional population. It needs to be actively managed and protected in order to ensure that the character of the area as a tourism destination is maintained in the long term. The development guidelines as formulated for the Vaal Dam Special Control Zone as indicated in the Gauteng Environmental Management framework, are applicable to this precinct.

The area also forms part of the Vaal Special Economic Zone (SEZ) earmarked for tourism development and a future contributor regional economic growth.

Supplementary to the Vaal Marina area, the world renowned Suikerbosrand Nature Reserve which is located in the north-eastern parts of the municipal area, and which

incidentally also consist of a range of ridges, represent a second prominent tourism feature/destination to the Midvaal area. The nature reserve should be actively marketed and promoted as a destination for day visitors from all over Gauteng Province. At present it already hosts some annual sports events which attract people from afar, but much more could be done to effectively brand it as a tourism precinct supplementary to it being a Nature Reserve. A one-kilometre-wide buffer zone of low intensity and compatible land use must be maintained in all directions around the Nature Reserve in order to protect it from negative external influences.

The Klip river represent the third prominent tourism feature located within the Midvaal area. Accessibility to the Klip river needs to be enhanced at various strategic points along the river to support water sport and leisure activities. Bass Lake, adjacent to the north of Henley- on-Klip, is also very popular for fishing and a number of adventure water sports facilities. The existing character of Henley in Klip should be maintained and protected by controlling densities in line with adopted planning policies as well as ensuring that farm portions are used for agricultural purposes. The agricultural properties to the east, south and west need to be maintained as a green belt/buffer, while the establishment of bridle paths should be encouraged for the use of horse riders and cyclists.

The fourth tourism precinct within the municipal area is represented by the extensive ridges located in the south-eastern and north-western parts of the municipal area respectively. Because of the strict development limitations applicable to these areas, there is potential to utilise these to further enhance the tourism character of the Midvaal area. The ridges areas can be utilised to expand on the range of tourism facilities and services being provided by the Midvaal municipality. Such services and facilities could include the development of mountain biking routes, hiking trails, game farming, and a range of adventure sport facilities as long as these do not impact negatively on the environmental quality of the area. The proposed Walkerville tourism village concept as discussed in the Walkerville Precinct Plan could play an anchor role towards strengthening the tourism component in the Platberg ridges area.

Supplementary to the above, routes R42, R549 and R54 which serve most of the tourism precincts could be developed as tourism corridors by catering for supportive tourism initiatives and hospitality uses subject to the following conditions:

- The land use must be compatible with the character of the surrounding area.
- The scale and intensity must be compatible with the surrounding area.
- It may not interfere or impact negatively on the amenity of the area.

In principle, the majority of guest accommodation typologies as contained in the Midvaal Accommodation Policy should be promoted in and around the tourism precincts identified in the Midvaal SDF, subject to these facilities complying with all the requirements and conditions as set out in the policy.

It should be emphasised that the SDF supports that the majority of the guest accommodation typologies should be concentrated in and around the identified tourism precincts. However, this does not prevent landowners within any other parts of the municipal area from applying for such rights as long as they comply with the criteria, guidelines and justification requirements for such facilities as contained in the Midvaal Accommodation Policy.

Aside from the use of environmental features as attractions, MLM should consider widening the scope of tourism by encouraging and supporting weekend markets, festivals, sporting events and township tourism. This will assist in increasing the number of day visitors to the area.

The key intergovernmental projects to enhance tourism are:

- Upgrading and maintenance of infrastructure and facilities at Suikerbosrand Nature Reserve.
- Cleaning and managing pollution of the Klip River and improving leisure and walking spots adjacent to the river.
- Creating public-private partnerships for opportunities to promote and enjoy the Klip River and Vaal Dam (such as low impact restaurants and places of leisure) and using such partners to maintain natural areas and provide ablution facilities.
- Capitalise and enhance township tourism in the Sicelo area to promote local economic development and township revitalisation.
- The strengthening of the R54 as a tourism link road will increase the accessibility of this tourism destination from Meyerton and increase connectivity to the economic heart of the municipality. Focus tourism development along the Vaal dam to capitalise on the newly established Vaal River SEZ.

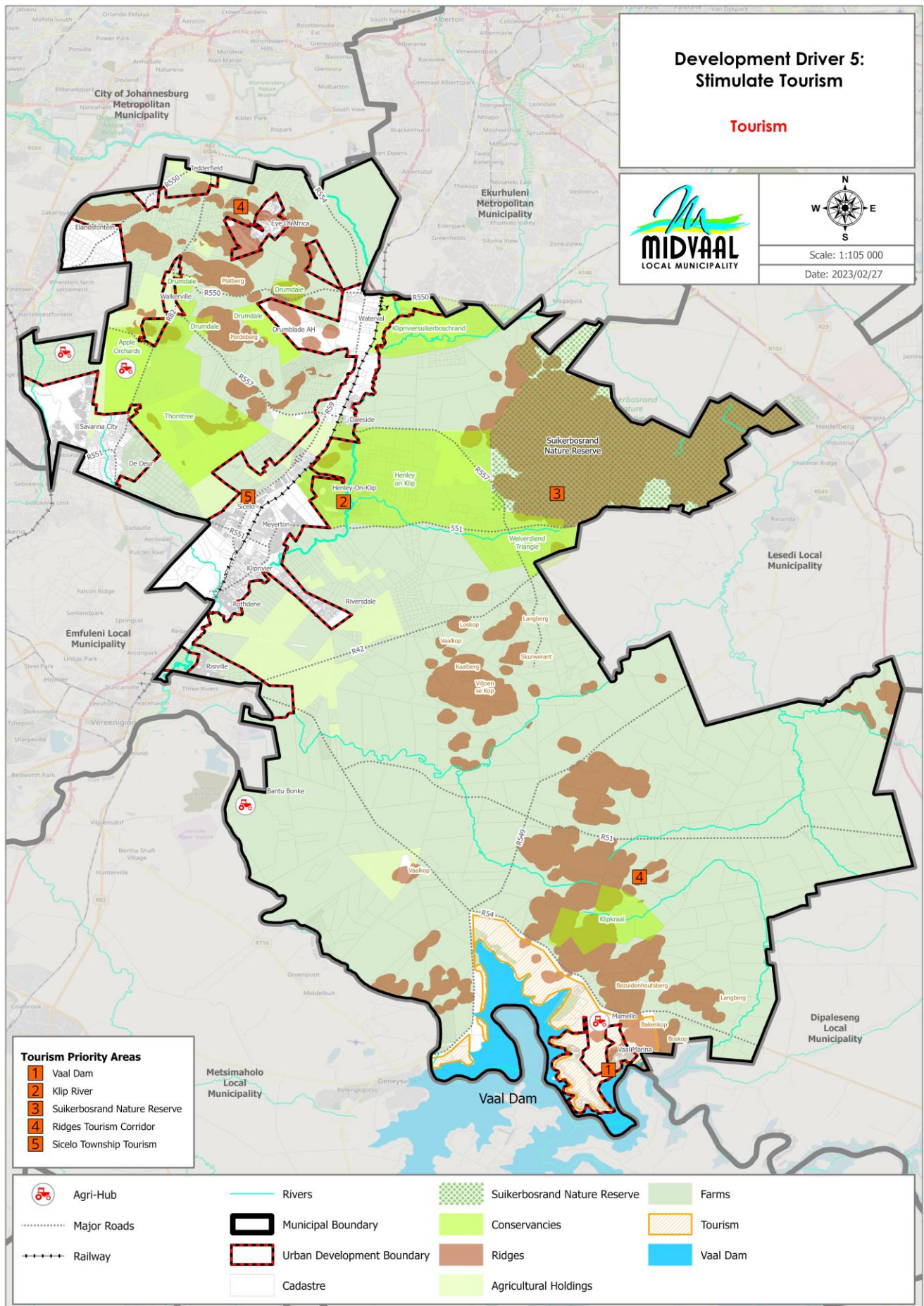


Figure 29: Tourism Priority Areas

4.3.6 Development Driver 6: Foster walkable nodes and transit-orientated development (TODs)

"Promote transit-oriented development (TODs) and the creation of compact, walkable, pedestrian-oriented, mixed-use communities centred around all public transit facilities (train stations, taxi ranks, rapid bus systems). Facilitate the development of walkable urban nodes, rather than suburban shopping centres for reduced dependence on a car for mobility and survival."

This Development Driver intends to support nodes where cluster of development is recommended and supported. Nodes are identified in various forms such as nodes as determined by the Midvaal Nodal Policy 2021, Multi-Purpose Community Centres, Economic Development Centres, Activity Nodes (explained as part of Development Driver 3) and Transit Oriented Development (TOD).

Nodal Development

According to the Midvaal Nodal Policy (2021), nodal development is built on the premise that there is greater return on public investment in areas with economic potential than in areas without that potential. Therefore, MLM has identified nodes to promote and consolidate public and private investment.

Nodes identified support intensification and densification, thereby pro-actively addressing urbanisation and protecting prime agricultural land based on the settlement hierarchy.

The settlement hierarchy identifies and categorises all the major settlement areas within the municipality around which future development should be consolidated. It includes the following three categories:

- The Primary Urban Node is the largest settlement(s) in the municipality and comprises the widest range of land uses, economic activities and job opportunities and a comprehensive range of community facilities serving local and regional needs. A Primary node is defined by Central Business District (CBD) and larger Neighbourhood Nodes.
- The Secondary Urban Node is smaller than the Primary Urban Node with a limited range of land uses, economic activities and mostly middle to lower order community facilities. A Secondary Urban Node is defined by smaller Neighbourhood Nodes.
- The Rural Node represents a small community and/or service point in the rural parts of the municipality. The economic base of the node is very limited and primarily focused on agriculture. The limited population residing in such node normally only warrants very basic lower order community facilities, e.g., small primary school and mobile clinic, library, pension pay-out facilities.

The table below outlines the designation of areas per Node:

Node	Hierarchy	Area
Primary	Central Business District (CBD)	Meyerton CBD
	Neighbourhood Nodes	Sicelo Neighbourhood Node
		Gateway Neighbourhood Node
		Golfpark Neighbourhood Node
		Kookrus Neighbourhood Node
		Rothdene Neighbourhood Node
		Riversdale Neighbourhood Node
Secondary	Neighbourhood Nodes	De Deur Neighbourhood Node
		Savanna City Neighbourhood Node
		Waterval Neighbourhood Node
		Daleside Neighbourhood Node
		Henley on Klip Neighbourhood Node
		Risiville Neighbourhood Node
		Alewynspoort Neighbourhood Node
		Tedderfield Neighbourhood Node
		Elandsfontein Neighbourhood Node
		Walkerville Neighbourhood Node
		Vaal Marina Neighbourhood Node
		Mamello Neighbourhood Node
		Lakeside Neighbourhood Node
Rural	Rural Node	Bantu Bonke Neighbourhood Node

Except for a select few, the majority of the identified nodes have been purposefully selected due to their close proximity to the R59 Corridor and the R82 Mobility Spine. It is however important to note that limited small-scale light industrial/commercial development can and should also be accommodated in some of the other nodal points in the municipality such as De Deur, Walkerville and Tedderfield located along route R82 in the western parts of Midvaal. The Precinct Plans for each of these nodal areas provide more detail pertaining to the range of activities to be allowed, as well as the exact location, scale and extent of such developments.

Multi-Purpose Community Centres

Clusters of community facilities in the form of Multi-Purpose Community Centres exist in Mamello, Lakeside, Ohenimuri and Randvaal. The purpose of a Multi-Purpose Community Centre is primarily to provide a one-stop service comprising a fairly comprehensive range of social facilities and services to the surrounding community at strategic points within the municipal area. Such services and facilities could include schools, clinics, satellite police stations, libraries, post offices, community halls, and a range of additional social facilities and services e.g., pension pay-out points.

Economic Development Centres

Economic Development Centres (EDC's) are aimed at realising economic growth and creation of jobs. The main objective of the EDC's is to serve as integrated distinct anchors allocated within five (5) Midvaal townships as proposed in the Midvaal Economic Analysis ranging from, but not limited to a milling plant, Agro-processing centre, upholstery and sewing centre, tourism activities and a plastic manufacturing plant. All the centres are aimed at utilizing and improving skills and employment for the local communities, through prioritising local labour and youth employment. It is envisaged that all the centres be integrated through participating in the leading and lagging economic value chain.

Transit Oriented Development

The key to successful land use and transportation integration is obtaining higher land use densities at transit stations, such as commuter railway and bus stations. These are the points where access is obtained to the public transport systems and attempts should thus be made to optimally use these strategic locations. This can be done by locating higher-density land uses around these transit stations. This is known as Transit Oriented Development (TOD), which is essentially a node that is centered around a transit station. These higher-density land uses need to be located within walking distance of the transit station, which is generally accepted to be 400m from a station. This distance can also be considered the peripheral boundary of a TOD. In general, the elements that make up a TOD are (see Diagram below):

- Walkable design with pedestrians considered the highest priority means of movement.
- A commuter rail station or bus station or taxi rank as the central feature of the TOD.
- A mixture of land uses in close proximity, including office, residential, retail, and community uses.
- Higher-density, high-quality housing development within a 4–10-minute walk radius (400- 1000m) surrounding the transit station.

TODs can essentially be implemented in one of two ways: TODs located within an existing township, forming part of a brownfield development, and TODs forming part of a new town development. TODs located within an existing township will involve the development of vacant stands that are within walking distance of a transit station with TOD-related uses, such as retail and higher-density housing. TODs located within existing townships are ideal for use as part of urban renewal initiatives. In terms of Midvaal, TODs have been identified at the current railway stations as indicated in the figure below.

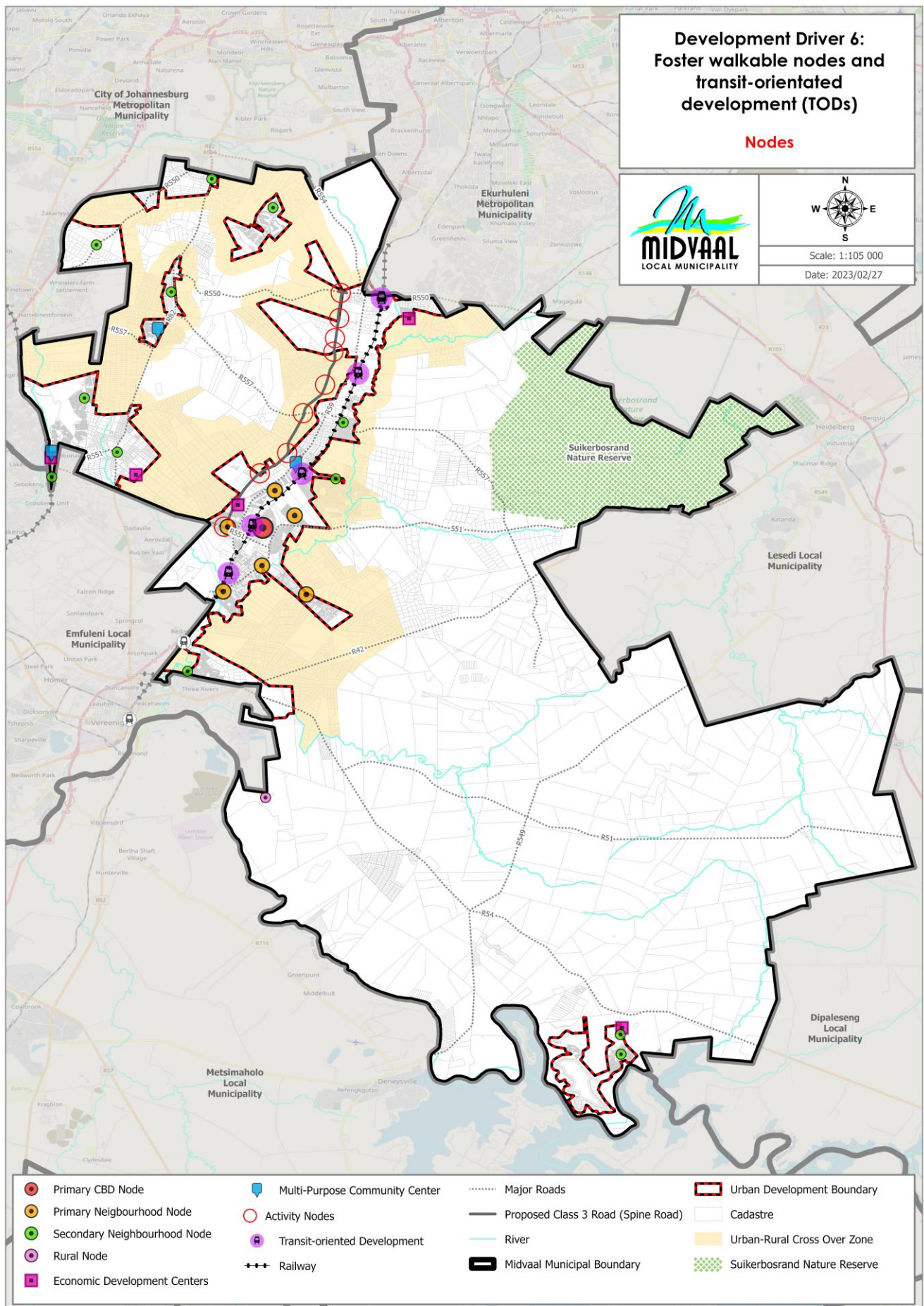


Figure 30: Nodes

4.3.7 Development Driver 7: Ensure connectivity by means of a continuous, hierarchical movement network

"Capitalise on existing regional links to promote development and utilise the internal movement network to support public transport networks and services. For enhanced continuity, prioritise strategic roads identified in the SDF and consider alignment of proposed roads carefully to prevent further fragmentation of precincts, and unnecessary sterilisation of potential land for development."

The development driver aims to highlight the existing movement network in Midvaal that should be maintained and enhanced as well as strategic future roads hierarchy that will unlock economic opportunities and improve regional linkages.

The most important north-south regional routes currently serving the Midvaal area include the R59 and R82. The main east-west regional routes are the R550 which runs from the Waterval area towards the N3 in the eastern parts, the R551 which links Midvaal (Meyerton) to Lesedi (Heidelberg); R54 which links the Meyerton area to the Vaal Dam and to the N3 freeway to the east (south of Heidelberg); R549 which links the Vaal Marina area to Heidelberg towards the north-west; and R557 which links Meyerton to the Suikerbosrand Nature Reserve. These main road networks need to be protected and enhanced at all costs in order to ensure that Midvaal is functionally linked to the surrounding urban fabric and performs its function, both economically and socially, in the broader regional and provincial context.

The existing roads, railways and proposed future road hierarchy (Class 1, 2 and 3) comprise the following.

First Order (Freeways):

- N1 towards the west.
- R59 in the central Midvaal area.
- PWV13 broadly linking Suikerbosrand to the Vaal Dam.
- PWV18, 20 and 22 which will serve the Midvaal area in an east-west direction in the northern, central and southern parts once it is constructed.

Second Order: K-routes/Conventional Dual Carriageway Routes:

- Routes K47, K57 (existing R82), and K77 parallel to the west of route R59.
- Routes K91, K135 and K167 parallel to the east of Route R59.
- In an east-west direction and from north to south in the Midvaal area the following routes:

- K144 past Tedderfield to the north towards Lenasia.
- K154 through the Waterval Node (Heidelberg Road) towards Walkerville and Elandsfontein.
- K158 through Daleside towards Suikerbosrand.
- K210 from Golf Park through Doornkuil towards the N1.
- K174 between Meyerton and Heidelberg (Lesedi).
- K164 from Meyerton CBD through Sicelo towards Ironside and Everton-Sebokeng (Johan le Roux extension).
- K184 from Emfuleni/Vereeniging towards Ironside.
- K83 between Emfuleni/Vereeniging and the Vaal Dam.

The most important routes from the above are K57 (R82) to the west (serving the area in a north- south direction); K154 to the north linking Waterval Node to Elandsfontein and beyond (east to west); and K164 (Johan le Roux) linking Midvaal CBD to Sicelo and to De Deur (east-west). Combined with route R59 these routes form the lattice around which the bulk of development in Midvaal will take place over the next few decades. It is important to note that the Strategic Road Network is a long-term plan (50 years plus), and that individual routes or parts thereof will only be constructed if/when traffic volumes emanating from land use development/urbanisation warrants the construction thereof.

Third Order: Class 3 Roads

Supplementary to the above, there is also a third order network which serves to provide access to individual farm areas and agricultural holdings/properties at local level. This is the first road hierarchy that provide direct access to land uses and is the highest order route network under the authority of the Midvaal Municipality. The Class 3 road west of the R59 Corridor is priority to unlocking development on the western side of the R59 Corridor.

Railway lines

The two existing railway lines are assets to the Midvaal area, and the municipality will contribute towards enhancing the viability of these as commuter railway lines by promoting Transit Orientated Development around all the railway stations along the lines both along the R59 Development Corridor and at the Residentia and Stretfort railway station in Savanna City.

Public Transport Routes

Priority public transport routes as well as taxi and bus stops within the municipal area are depicted on Figure 33 below. The most important routes in this regard include route R551 which links De Deur to Meyerton; route M61 which serves as the main public transport route parallel to R59 and the railway line; as well as some local linkages towards the east and south of Meyerton.

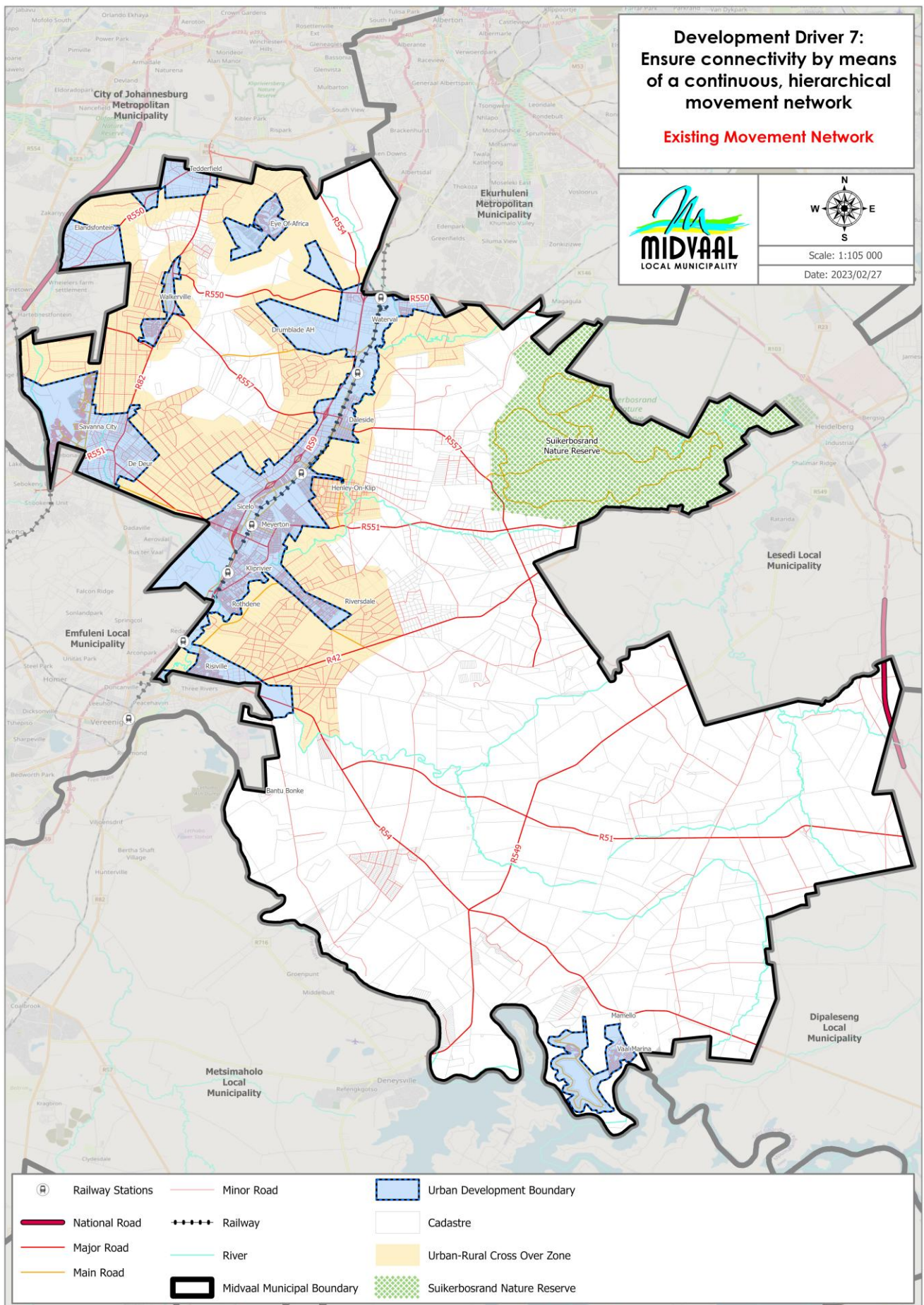


Figure 31: Existing Movement Network

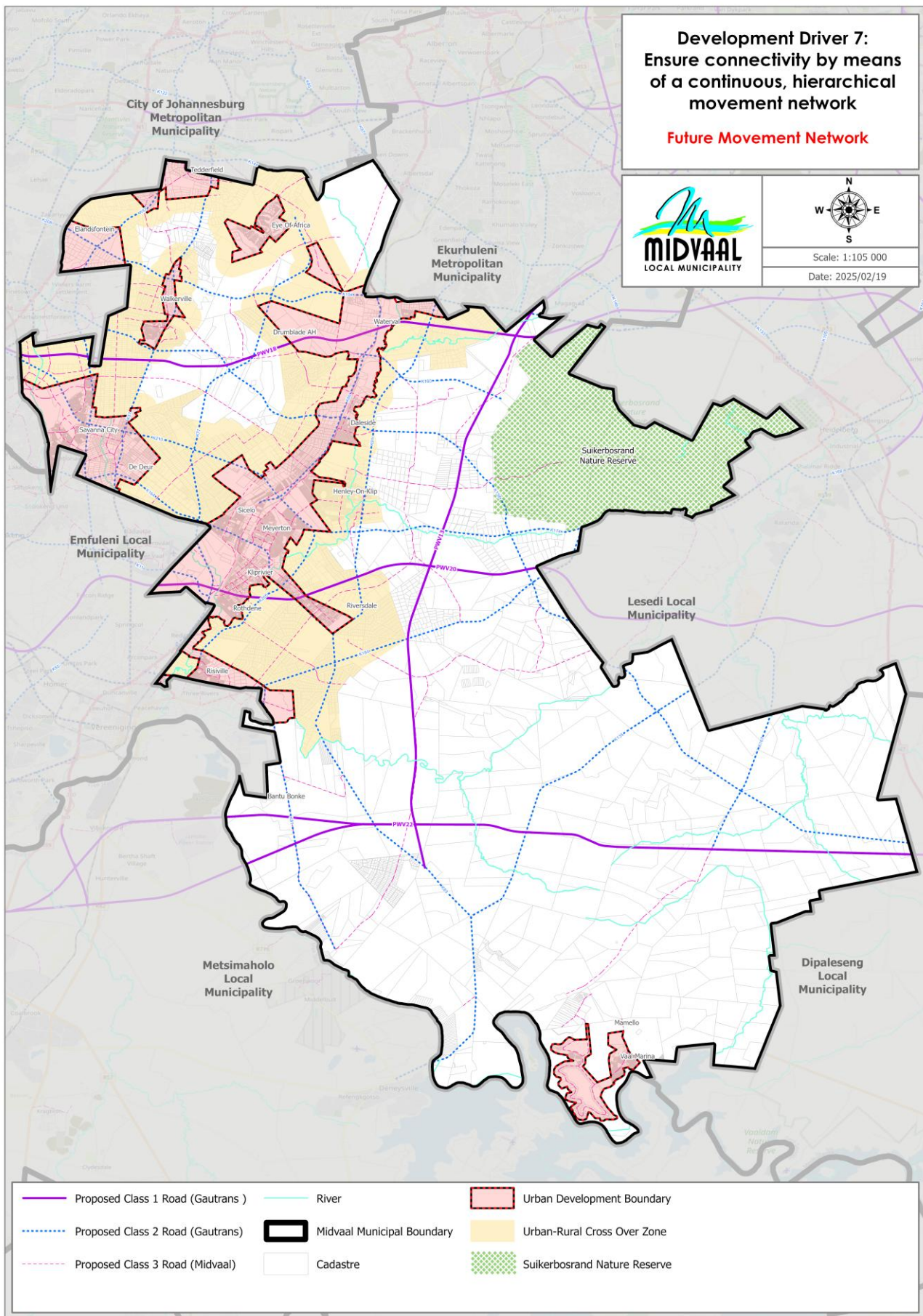


Figure 32: Future Movement Network

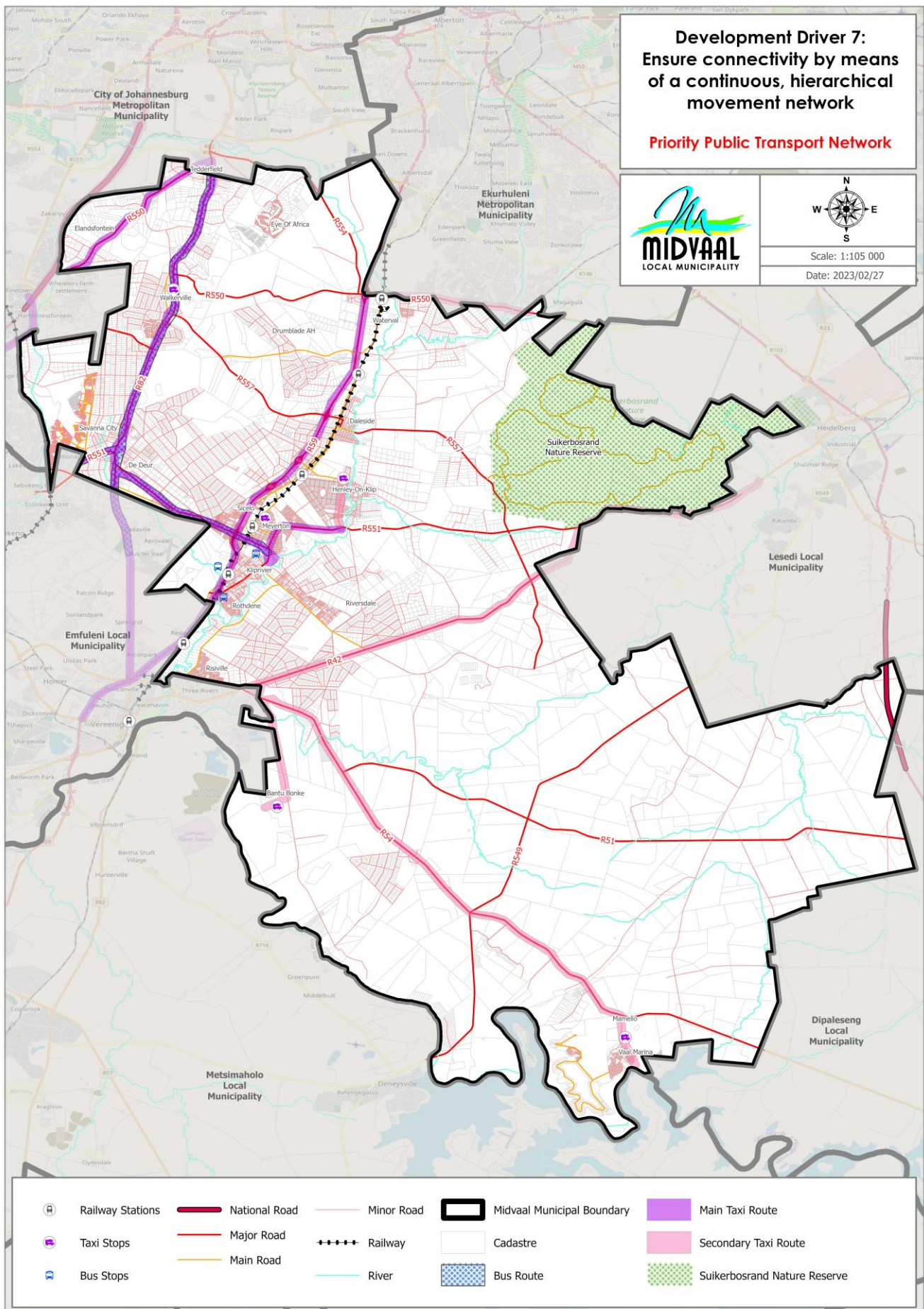


Figure 33: Priority Public Transport Network

4.3.8 Development Driver 8: Support quality human settlement development

"Promote integrated human settlements through varying housing typologies, income models and densification, and prioritise the expansion of the gap market. Plan and implement for the integration of social facilities and commercial activities as integral part of any housing development."

To provide for a wide range of bonded and subsidised housing typologies and tenure alternatives in line with the human settlements sector plan, the housing requirements (as a percentage of households/population) for each income level and associated markets (subsidy, gap, and bonded) as indicated in the table below need consideration.

TABLE 19: HOUSING MARKETS		
Income	%	Market
No Income	14%	SUBSIDY MARKET
R1 - R8,039	3%	
R8,039 - R16,078	5%	
R16,079 - R32,157	15%	
R32,157 - R64,313	5%	
	11%	GAP MARKET
R64,314 - R128,626	13%	
R128,627 - R257,253	10%	
R257,254 - R514,506	1%	
	10%	BONDED MARKET
R514,507 - R1,029,012	8%	
R1,029,012 - R2,058,024	1%	
	2%	BONDED UPPERMARKET
R2,058,024 - R4,116,048	1%	
R4,116,048 -	1%	

The table below indicates the Priority Housing Development Areas in Midvaal, mapped in the figure below:

TABLE 20: PRIORITY HOUSING DEVELOPMENT AREAS	
Priority Housing Development Areas	Units
Savanna City	18399
• Fully subsidised	5517
• FLISP	5518
• MKVs	200
• Bonded	4729
• Res 3	2635
Meyerton Farms (Sicelo)	3154
• Erf 78 Meyerton farms	720

TABLE 20: PRIORITY HOUSING DEVELOPMENT AREAS	
Priority Housing Development Areas	Units
• Erf 72 Meyerton farms	720
• Erf 56 Meyerton farms	720
• Portions of Erf 188 Meyerton farms	152
• Sicelo Ext 4 and 5	842
Langkuil	8500
Mamello	515
Panfontein (Bantu Bonke)	500
Witkop (Boitumelo)	4700
The Grace	700
TOTAL	36 468

Midvaal has identified 26 Strategic Development Areas (SDA) where Council should promote the bulk engineering services for residential development and economic opportunities in the short, medium, and longer term. These areas are generally located close to the major centers of economic activity, and support/supplement the development of the R59 Development Corridor and the R82.

The highest priority areas for the short to medium term include Meyerton/Sicelo and surrounding areas along route R59; Savanna City along route R82; and Mamello in the Vaal Marina area. All development will, however, be subject to engineering services availability. As far as residential densification outside the Urban Development Boundary is concerned the Midvaal Density Policy will be applied. It is proposed that low intensity land uses associated and compatible with agricultural activities may be supported within the urban rural cross over zones. Intensive agriculture should also be promoted in these areas, where potential exists. If properly developed, these uses can support the Urban Development Boundary and serve as a barrier/ obstacle to future expansion of the urban environment.

Formalisation of informal settlements need to be achieved through the Upgrading of Informal Settlement Programmes (UISP) in conjunction with other mixed housing typology developments.

Transitional residential zoned spaces provide adequate land for residential development of informal human settlements, which might include subsidised housing while providing ample economic opportunities and necessary social amenities within the zone without creating any inconvenience to the residents and disturbing the residential fabric of the zone. This promotes sustainable development, creates spatial resilience, and assists in facilitating gradual formalisation of human settlements. Transitional Residential zones are only permitted on Council owned land or State-owned land managed by the municipality with the agreement from the relevant sphere of Government and by a service agreement between the municipality and the landowner on privately owned land. Currently, Sicelo Ext 4 and 5 are zoned as transitional residential.

Inclusionary housing is a mechanism used to ensure housing topologies of low to medium income households are catered for in housing developments. The concept of inclusionary housing shall be applied to all mega housing projects as a condition of approval. Mega projects that have been approved with the application of inclusionary housing methodology are Savanna City and The Grace developments.

To implement the inclusionary housing concept further Portion 47 and 77 of the farm Langkuil are earmarked as a future mixed housing typology to satisfy the demand for housing in Sicelo and surrounding areas. This will include residential units integrated with community facilities, retail and public open spaces.

Social housing is defined as a rental or co-operative housing option targeted for low-medium income persons. Such housing is provided by an accredited social housing institution. Social housing must be developed in designated Restructuring Zones. Social Housing should be promoted in Restructuring Zones as determined by the municipality.

The SDF however prioritise proposed restructuring zones and inclusionary housing within the UDB.

Quality human settlement development in Midvaal to satisfy the various housing markets, require:

- Restructuring Zones designated to support social housing.
- Inclusionary housing policy that focuses on pro-active deal-driven arrangements.
- Level of engineering services for informal settlements.
- Investment in bulk engineering service infrastructure to support densification and new development.
- The adequate service delivery and provision of social facilities and economic opportunities.

Economic Revitalisation areas have been earmarked and designated as an overlay zone in the Midvaal Land Use Scheme 2023. The aim of the overlay zone promotes and revitalises economic development on all properties zoned transitional residential or properties zoned Residential 1 in Savanna City (all extensions), Lakeside Estates, Lakeside Estates Extension 1, Meyerton Farms, Ohenimuri, Mamello (all extensions), Witkop (Daleside).

This overlay zone makes provision for the protection and management of diverse economic activities in order to ensure that the development of such uses do not become a public nuisance, but a respond to economic issues by creating sustainable jobs, reducing inequality and defeating poverty in these areas in line with the provisions of the Township Economic Development Act, 2022.

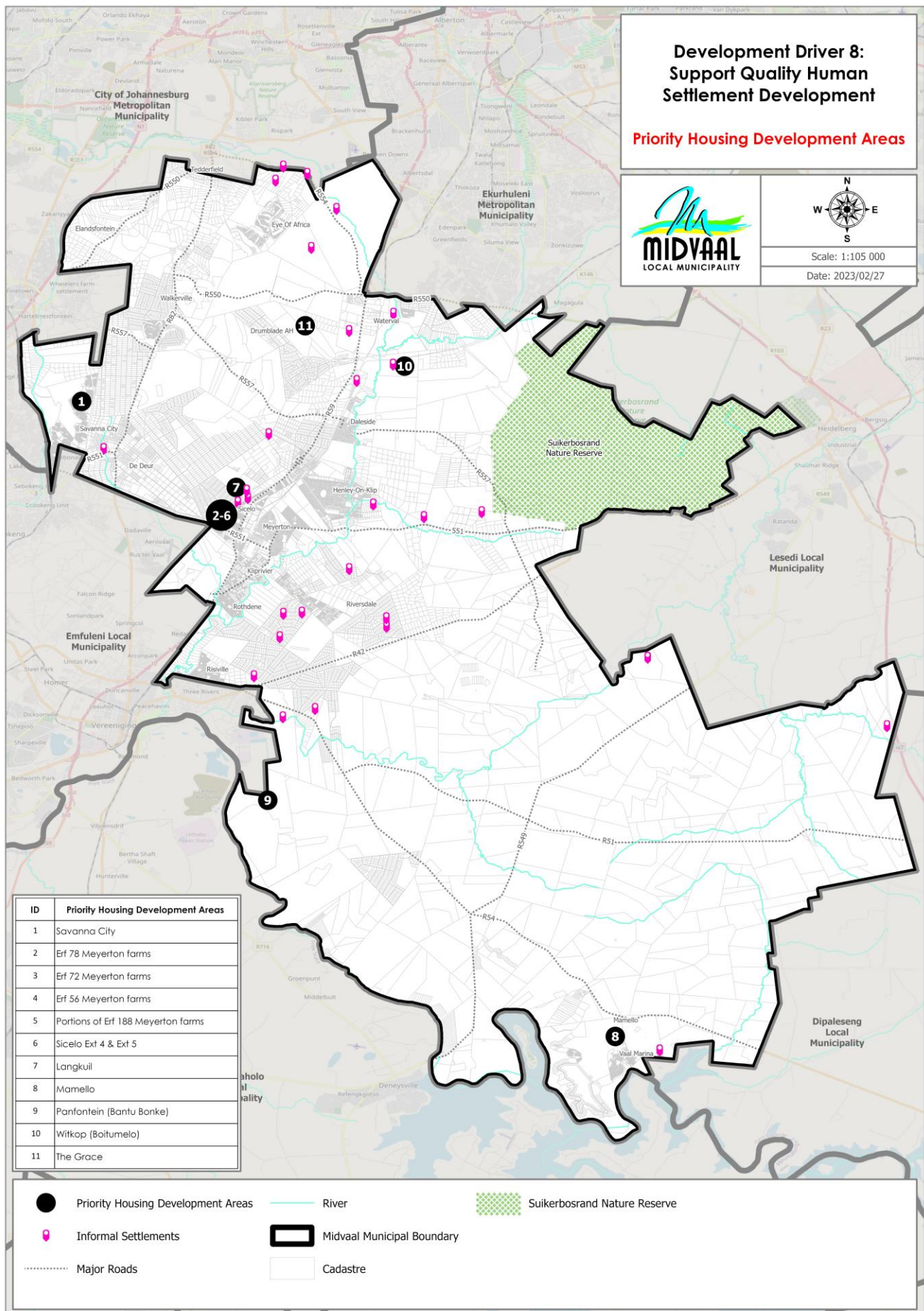


Figure 34: Priority Housing Development Areas

4.3.9 Development Driver 9: Prioritise environmental management

"Protect and manage the natural environment by administering the UDB to ensure an equilibrium between agriculture, tourism, industrial, and urbanisation activities."

MLM acknowledges the National Environmental Management Act, 1998 and its prescripts, further guided by the Gauteng Province Environmental Management Framework 2021 (GPEMF) and its subsequent revisions. The GPEMF is illustrated by five control zones:

- Zone 1: Urban Development Zone
- Zone 2: High Control Zone (within the Urban Development Zone)
- Zone 3: High Control Zone (outside the Urban Development Zone)
- Zone 4: Normal Control Zone
- Zone 5: Industrial and Large Commercial Focus Zone

The Midvaal SDF embraces directives by various environmental management policies (key environmental tools illustrated in the table below), by means of various interlinked drivers and management interventions, for example:

- Prioritise environmental management through reinforcing protected areas.
- Stimulate tourism activities in environmental sensitive and natural areas.
- Strive towards consolidated compact urban areas through infill development along major corridors.
- Targeted portfolio infrastructure investments to promote industrial expansions along the R59 corridor.
- Prioritise environmental management through a dedicated freshwater maintenance programme (with specific focus on the Klip River).

TABLE 21: ENVIRONMENTAL MANAGEMENT PLANNING

Environmental management tools	Purpose	Directives
Gauteng Protected Areas Expansion Strategy	Provide framework for protected area expansion.	Consolidate and formalise existing protected area system
Gauteng Ridges Guidelines v8.1 of 2018	Foster conservation and sustainable development and use of ridges.	Support low impact development activities such as tourism on ridges.

Gauteng Provincial Environmental Management Framework	Guide sustainable land use management.	Reduce development footprint through compact mixed-use development.
Gauteng Pollution Buffer Zone Guidelines	Identify specific zones for industrial pollution sources.	Zone 1 and 5: Urban Development Zone along R59 corridor
National Freshwater Ecosystem Priority Areas	Identify Freshwater Ecosystem Priority Areas	Establish priorities for conserving freshwater ecosystems.

The Midvaal SDF acknowledges the potential wetlands associated with the hydrological features in the area, and detailed EIA assessments need to be compiled and assessed before development would be permitted in close proximity to these areas. Furthermore, the municipality acknowledges the following environmental management tools which will help guide the municipality in complying with environmental considerations and legislations: (1) Gauteng Conservation Plan, (2) threatened ecosystems, (3) hydrology priority areas, and (4) sustainable urban drainage system.

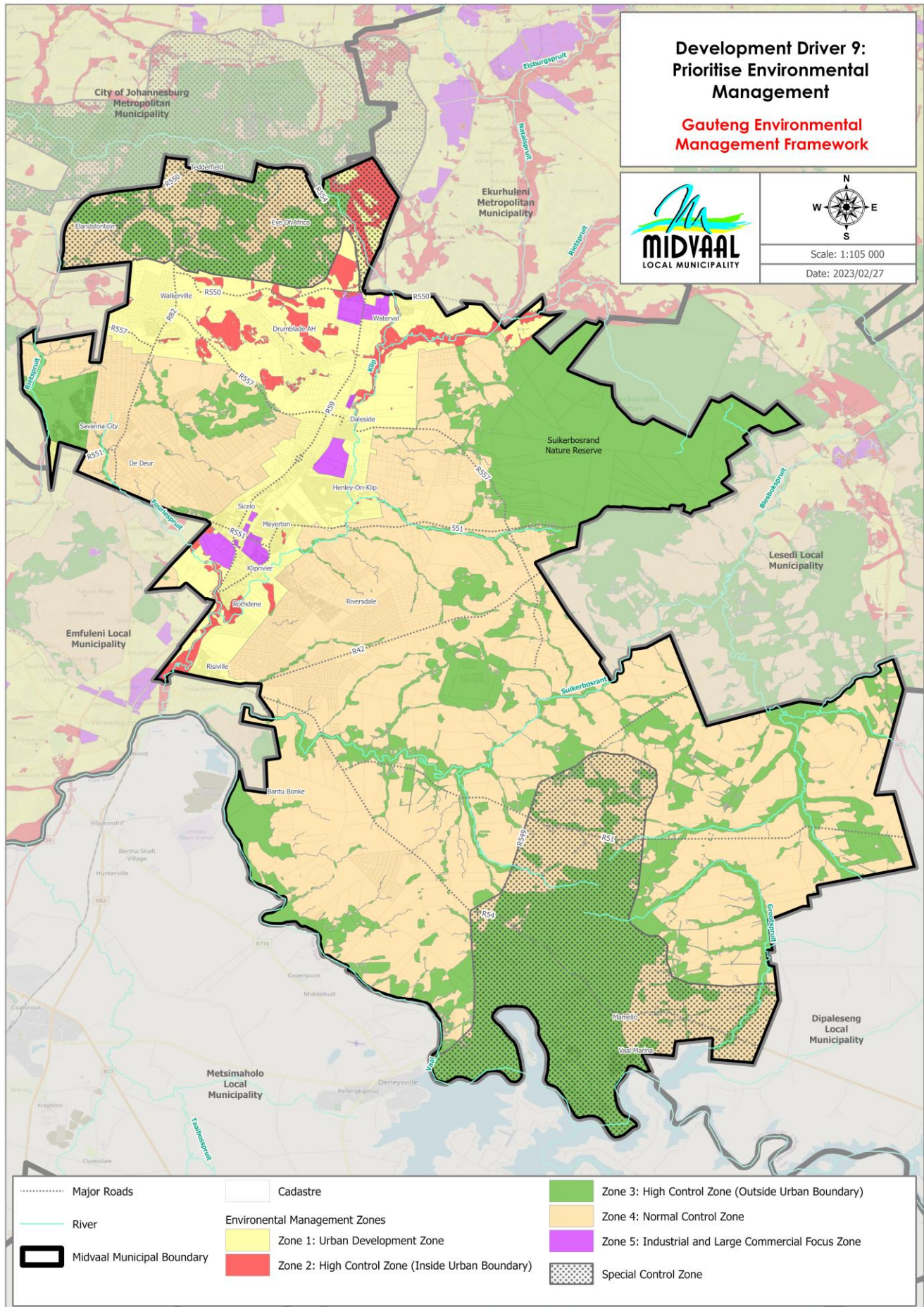


Figure 35: Gauteng Provincial Environmental Management Framework

4.3.10 Development Driver 10: Streamline targeted engineering infrastructure investment

"Prioritise short to medium term upgrading of engineering services in priority strategic development areas (SDAs) and ensure that engineering services are available before township establishment processes are finalised."

MLM prioritises the bulk of short to medium term upgrading/provision of engineering services in areas within the UDB. The figure below illustrates 26 Strategic Development Areas (SDAs) within the urban development boundary that identifies existing developed areas and future potential development. The SDAs are further earmarked in terms of development objective, priority, and capacity in the table below:

TABLE 22: STRATEGIC DEVELOPMENT AREAS (SDAS)			
Strategic Development Area	Development Objective	Priority	Potential Capacity
SDA 1: Waterval TOD	Transit-Oriented Development	Medium	550 Units
SDA 2: Graceview Ext 5	Mixed Development	Short	1532 Units
SDA 3: Meyerton CBD	Densification	Short	1000 Units
SDA 4: Riversdale	Densification	Short	200 Units
SDA 5: Rothdene-Klipriviersdorp (Kookrus)	Densification	Short	200 Units
SDA 6: Risiville	Densification	Short	100 Units
SDA 7: Sicelo	Mixed Development	Medium	5476 Units
SDA 8: Savanna City	Mixed Development	Medium	18 399 Units
SDA 9: De Deur	Mixed Development	Medium	20 028 Units
SDA 10: Walkerville	Mixed Development	Long	2523 Units
SDA 11: Eye of Africa	Expansion	Medium	2599 Units
SDA 12: Elandsfontein	Mixed Development	Long	16 182 Units
SDA 13: The Grace ⁸	Mixed Development	Long	1414 Units

⁸ Development to be cancelled and may be accommodated under SDA 15: Boitumelo. The status of some of the planned housing developments have changed over time due to various factors.

SDA 14: Mamello	Mixed Development	Short	1031 Units
SDA 15: Boitumelo	Mixed Development	Long	4700 Units
SDA 16: Panfontein/ Greater Bantu Bonke	Mixed Development	Long	500 Units
SDA17: Langkuil	Mixed Development	Medium	8500 units
SDA 18: Uitvlugt	Mixed Development	Long	To be determined
SDA 19: Meydustria	Industrial / Commercial and Business Development	Medium	To be determined
SDA 20: Tedderfield	Industrial / Commercial and Business Development	Medium	To be determined
SDA 21: Henley on Klip (Part)	Densification	Short	To be determined
SDA 22: Klipriversval	Mixed Development	Medium	To be determined
SDA 23: Daleside (Skansdam)	Mixed Development	Long	To be determined
SDA 24: R59 Corridor (West)	Mixed Development	Medium	To be determined
SDA 25: Garthdale	Mixed Development	Long	To be determined
SDA 26 Meyerton Ext	Mixed Development	Medium	To be determined

In directing decisions pertaining to infrastructure budgets, the potential expansion areas need to consider the spatial vision defined in subsection 4. The vision identified important development spines.

It's necessary to allocate dedicated funding for water, sanitation and energy infrastructure to:

- the R59 Corridor area
- the R82 mobility spine area
- the strategic development areas prioritised for short and medium term.
- the nodal areas to promote economic development and job creation.

The following is a brief summary of the rationale/approach to be followed by the Midvaal Municipality in terms of the provision/upgrading of engineering services in the next three to five years:

Meyerton/Sicelo Core and Surrounding Area

Water: As far as water is concerned a new reservoir has been constructed in the northern parts of the Meyerton/Sicelo core area. This reservoir will have a capacity of 10ML which should be sufficient to accommodate approximately 5000 additional households. The bulk water line that will feed into the Meyerton/Sicelo water system network is currently being constructed.

Sanitation: In terms of sanitation the entire Meyerton/Sicelo functional area will benefit from the upgrading of the Meyerton sewer treatment plant from the current 12ML to approximately 22ML. This upgrade will be conducted over a period of approximately 4 to 6 years and will serve about 15 000 more residential units in the Meyerton/Sicelo area, and even beyond. The outfall sewers serving this functional area will have been upgraded. This includes a new bulk outfall sewer from Sicelo to link up with the existing Klip River outfall sewer. In the vicinity of Rothdene the existing pump station and rising main will also have to be upgraded in order to cater for the increased capacity of the total catchment area.

The Grace/Rietspruit/Graceview developments

Water: In the Waterval Node functional area the Drumblade reservoir will be upgraded to serve the new residential developments associated with The Grace located to the west of the existing node. This is the most important water related upgrade for the short to medium term in this area. For the Rietspruit and Graceview development no infrastructure is available and will have to be provided for by the developers.

Sanitation: In terms of sanitation each development in and around this area will have to provide its on-site package plant in line with current policy. The long-term vision for this area is, however, to link into the existing Erwat sewer treatment plant which is located within this functional area. It is anticipated that this will only materialise in the medium to longer term (beyond 6 years from now).

Walkerville/Elandsfontein

Water: The Walkerville area and future development in Elandsfontein will be served by the Spioenkop reservoir which is located in the northern extents of this functional area. There is sufficient capacity to serve the demand.

Sanitation: In terms of sanitation, Walkerville will rely on package plants for the short to medium term until the Erwat plant located at the Waterval Node is accessible for use by the Midvaal municipality. It is envisaged that Walkerville will eventually be linked by way of an outfall sewer from Walkerville through to the Erwat plant in Waterval. The Elandsfontein sewer will be treated at the Sebokeng treatment plant which is located to the south-west of the area in the area of jurisdiction of the Emfuleni Local Municipality.

Savanna City Functional Area

The infrastructure for Savanna City will mostly be provided by the developers. These include the recently completed reservoir located in the north-eastern extents of the functional area as well as an outfall sewer link to the Sebokeng Treatment Plant towards the south- west. It should, however, be noted that the Sebokeng Plant is already under severe pressure and does not have spare capacity.

De Deur

Water: Once the intensity of development in the De Deur area warrants, the existing Langerand reservoir serving the area will be upgraded to 10 or 15ML which will cost approximately R100 million.

Sanitation: The current policy with regards to the provision of package plants for individual developments in De Deur will remain until such time as the scale/magnitude of development warrants the construction of an outfall sewer line to link up with the Meyerton treatment plant. This link will require that the Meyerton treatment plant at the time be expanded from the 22ML currently planned to approximately 30ML. The expansion of the treatment plant as well as the feeder line is expected to cost in the order of approximately R300 million. This initiative is scheduled for the medium to longer term and will only follow once the intensity of development in De Deur justifies such large-scale upgrading.

Vaal Marina

At the Vaal Marina Node the priority matters relate to the construction of a new water tower of approximately 0.3ML as well as the improvement of the existing sewer treatment plant. Both these projects are already on the capital programme of the local municipality.

Risiville/Uitvlugt

Water: The 10ML reservoir is needed in future for the Risiville area, A project has been completed to remove the water supply from Emfuleni has been completed

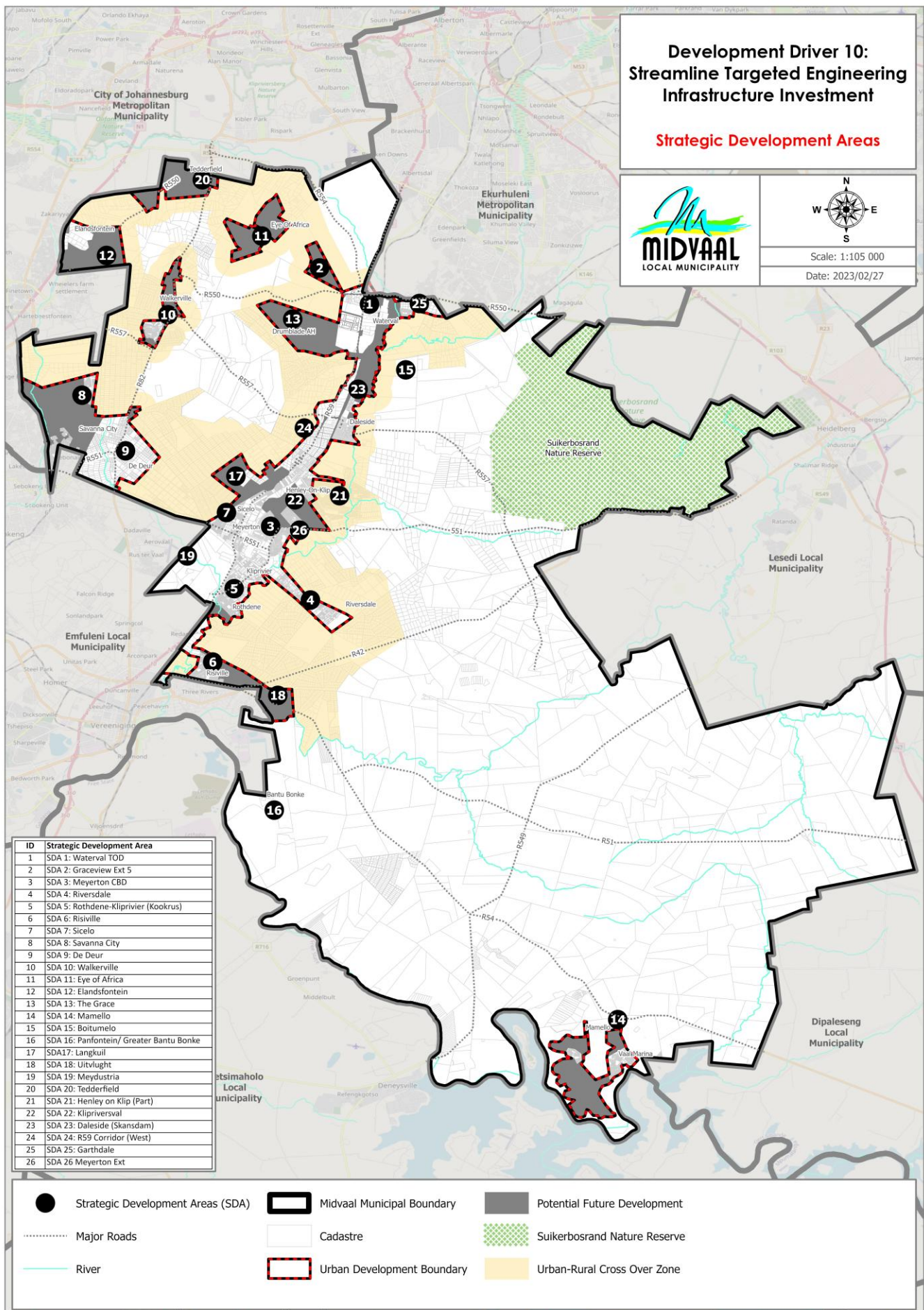


Figure 36: Strategic Development Areas

4.3.11 Development Driver 11: Implement Local Area Plans (Precinct Plan)

“Undertake precinct plans to give effect to the intentions of the broader strategic direction in the SDF and make proposals on a detailed level. Proposals should not only be focused on land use and transport but should also provide practical spatial proposals and urban design guidelines to ensure appropriate spatial form in support of design principles, such as walkability.”

In terms of Section 21 of the Spatial Planning and Land Use Management Act (Act 56 of 2013) the municipality may develop more detailed Local Area Plans (Precinct Plan) in areas where development requires further planning guidelines.

The SDF, however, does take precedence over the precinct plan and should there be any contradictions, the municipality is at liberty to repeal components or the entire local area plan in terms of a Council resolution. Therefore, it is imperative that the municipality periodically review existing precinct plans and compile new precinct plans to guide development that is in line with the spatial vision and development proposals of the SDF. Section 2.6 refers to the precinct plans currently adopted by Council and those in review.

Urban expansion areas listed in Development Driver 1 are subject to the compilation of precinct plans before the areas are included into urban development. Areas that have been included in the urban development boundary in the 2022-2027 SDF should have precinct plans developed or reviewed.

The implementation of precinct plans should be determined by Precinct plans are a fundamental tool in directing spatial development and assist in the consideration of land use applications to achieve the municipality spatial vision.

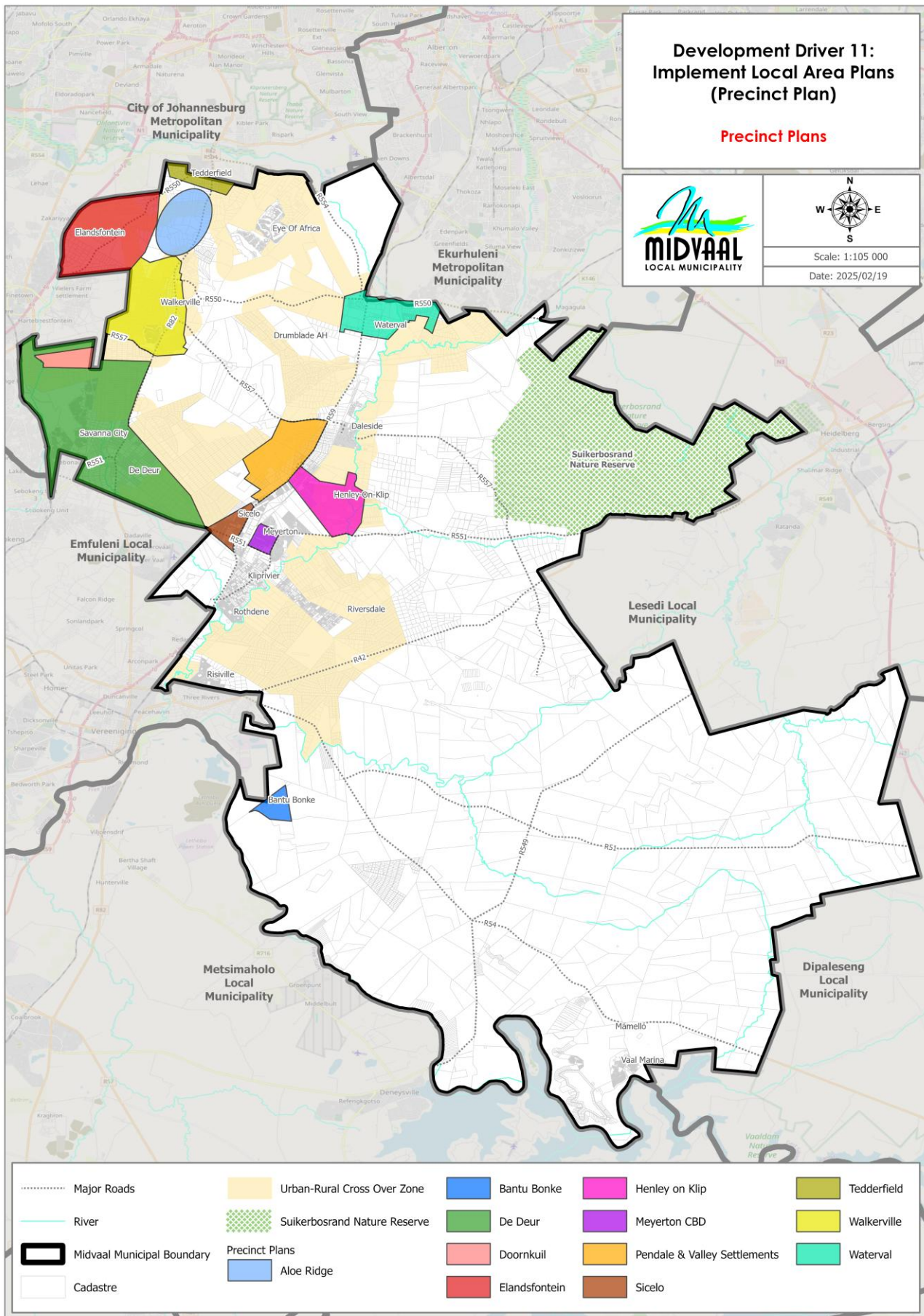


Figure 37: Midvaal Precinct Plans

4.4 The Spatial Development Framework Composite Map

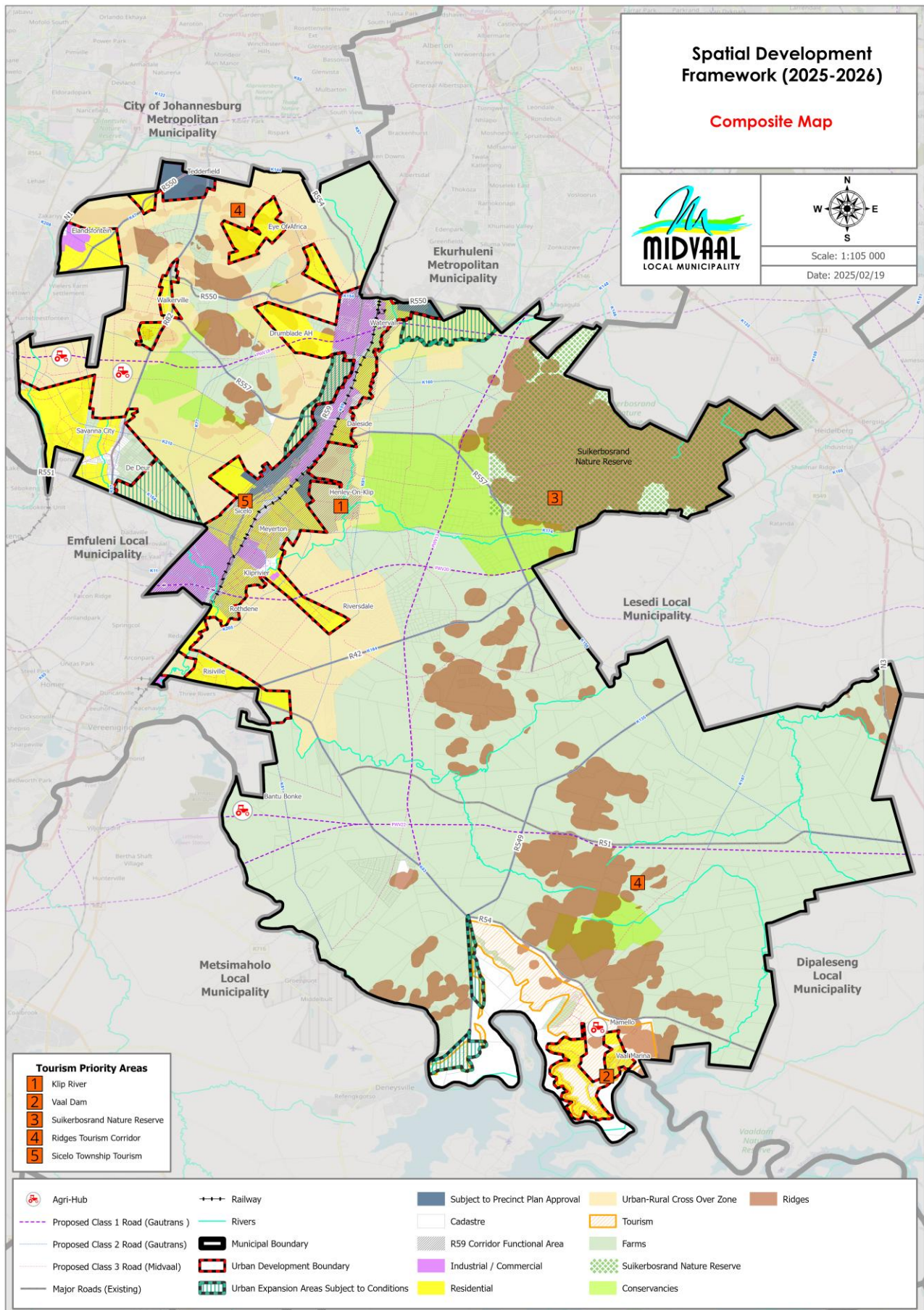


Figure 38: Composite Map

5 IMPLEMENTATION FRAMEWORK

5.1 Introduction

A Capital Expenditure Framework (CEF) is legislated by the Spatial Planning and Land Use Management Act (16 of 2013) to serve as part of the SDF. The contents of a CEF have eluded definition in preceding legislative and policy instruments, necessitating a brief overview of the legislative mandates regarding municipal planning and budgeting:

- The Constitution of South Africa demands planning and budgeting process in local government (Constitution of South Africa, 108 of 1996).
- The Constitution of South Africa demands local government to be developmental and resource efficient (Constitution of South Africa, 108 of 1996).
- An IDP is deemed as the principle, single, inclusive and strategic planning instrument of a municipality and that it should comprise of a financial plan as well as an SDF (Municipal Systems Act, 32 of 2000).
- The municipal budgeting process cannot stand alone from the IDP process (Municipal Finance Management Act, 56 of 2003).
- The SDF must contain a CEF that is spatially referenced (Spatial Planning and Land Use Management Act, 16 of 2013)

The CEF is a consolidated, high-level view of infrastructure investment needs in a municipality over the long-term. It considers not only infrastructure needs but also how these needs can be financed and the impact thereof on the financial viability of the municipality. The role of the CEF is thus to frame the outcomes of a multitude of planning documents within the municipality in order to ensure that implementation is guided by a strategic, spatial, financial and socio-economic logic.

A further legislative requirement of the SDF is a Capital Investment Framework (CIF), mandated by the Municipal Planning and Management Regulations (2 of 2001). A CIF is similar to the CEF in that it also identifies the infrastructure investment needs within the municipal region. The funding sources for a CIF is however not only limited to municipal funds, as is the case with the CEF, but takes into account infrastructure investment that should be funded by other government departments, state owned enterprises, and other agencies.

As part of the CIF, this chapter starts by detailing the capital investment interventions required for each development driver to start working toward realising the municipal spatial vision. Thereafter, the CEF is presented which analyses the 2022/23 – 2031/32 Long Term Demand, and the Midvaal Municipal Annual Budget 2022/23 MTREF to determine the long-term capital investment demand in the municipality and spatially indicate where the approved capital investments are located. Lastly, the chapter ends with municipal management interventions based on the 11

development drivers, that will further the spatial vision from a management perspective.

5.2 Capital investment framework

The following capital investment interventions might assist in realising the SDF spatial vision through supporting the proposed 11 development drivers:

TABLE 23: CAPITAL INVESTMENT INTERVENTIONS
Development Driver 1: Strive towards consolidated compact urban areas
Upgrade infrastructure in priority SDAs to accommodate infill development
Development Driver 2: Pursue alternative clean energy and reduce the cost to industrial and commercial consumers
Commence the process of becoming an energy provider and distributor and do feasibility of alternative energy provision
Modify/implement solar street lighting
Install solar panels on all municipal buildings
Increase municipal energy capacity along the R59
Development Driver 3: Implement and manage corridor and spine development initiatives
Resurface R59
Upgrade/expand R42
Upgrade/resurface M61
Construct class 3 road to extend R59 investment westward
Development Driver 4: Encourage agricultural production and processing
Collaborate with land owners to establish land stewardship programmes to reduce the adverse impacts of intensive agricultural production
Invest in central processing hub in the south to aggregate agricultural products and support small emerging farmers
Establish fresh produce markets and market facilities
Development Driver 5: Stimulate tourism
Upgrade access road to Suikerbosrand Nature Reserve
Establish public open space along Klip River
Refurbish amenities at Suikerbosrand Nature Reserve
Develop central tourism information centre for the whole of Midvaal
Resurface R54
Increase investment in branding to market the municipality
Promote township tourism in Sicelo
Development Driver 6: Foster walkable nodes and transit orientated development (TODs)
Construct paved pedestrian walkways
Refurbish railway stations along R59 corridors
Upgrade railway line adjacent to R59 to support commuter transport

TABLE 23: CAPITAL INVESTMENT INTERVENTIONS
Development Driver 7: Ensure connectivity by means of a considered movement network
Establish Rural Bus Rapid Transit System
Construct arterial road between Walkerville and Elandsfontein
Build footbridge over R59 to connect Sicelo and Meyerton
Prioritise development of K77
Rejuvenate Meyerton station
Development Driver 8: Support quality human settlement development
In-situ upgrading in Mamello
In-situ upgrading in Waterval informal settlements
In-situ upgrading in Sicelo informal settlements
Construct integrated housing in Bantu Bonke
Development Driver 9: Prioritise environmental management
Establish Klip River maintenance body
Rehabilitate sand quarries and sludge residue deposits through vegetation
Establish tree planting programme through EPWP
Coordinate with adjacent municipalities to protect the Vaal River catchment areas – place under formal protection
Develop precinct plans in the south to determine/project development pressures and conserve valuable agricultural land
Facilitate province wide municipal collaboration on the protection of the Integrated Vaal River System and its tributaries
Clean up and manage Vaal River pollution (sewerage infrastructure upgrade/maintenance)
Development Driver 10: Streamline targeted engineering infrastructure investment
Expand road services lanes along R42 and R551
Extend sanitation services to the first UDB expansion area in De Deur
Extend sanitation services to the second UDB expansion area in De Deur
Extend water reticulation towards Savanna City
Structured maintenance of roads in old major settlements
Maintain existing infrastructure to avoid leakages, illegal connections, etc.
Development Driver 11: Implement local area plans (precinct plans)
Develop precinct plan for Vaal Marina
Develop precinct plan for Pendale/Valley Settlements

5.3 Capital expenditure framework

An analysis was done by Novus3 (2022) on the 2022/23 – 2031/32 Long Term Demand, and the Midvaal Municipal Annual Budget 2022/23 MTREF. The 2022-23 – 2031/32 Long Term Demand analysis had the purpose to understand the long-term capital expenditure demand in Midvaal. The 2022/23 MTREF is a rolling three-year expenditure planning tool that defines the expenditure priorities for a period of three

years on a project level. This sub-section will look into specifically the spatial targeting of the identified projects and their relation to the SDF proposals.

Spatial targeting refers to the deliberate focus of actions on a particular spatial area. It is a very effective and efficient principle to apply when dealing with limited resources and when a municipality aims to address spatial injustice in a focused and integrated manner. A total of 503 projects were identified, with only 178 having a works location (i.e. spatial reference) and a further 170 projects designated as "city-wide" given their multi-node spatial implications and the inability to allocate a single works location to the project.

The two community services capital projects that are the most expensive are:

1. Walkerville landfill site rehabilitation (ten-year financial total amounts to R 76 389 990).
2. Skip bin loader with trailer (ten-year financial total amounts to R45 175 000).

The two engineering services capital projects that are the most expensive are:

1. Conventional meters replaced with prepaid meters (ten-year financial total amounts to R 39 775 000).
2. Implementing the Meyerton CBD Urban design framework (including the construction of traffic circles, public toilets, market stalls and public art features (ten-year financial total amounts to R 31 943 000).

Considering that the most expensive projects are from both community and engineering, capital demand indicates the municipality's attempt to balance out the need for both hard and soft infrastructure. Capital demand per ward has also been analysed, with figures below illustrating the percentage of capital projects allocated per ward and indicating those investments spatially. The total capital distribution is 57.97% for "City-Wide", 11.63% for Administrative HQ, 16.5% for 5 wards, 5.53% to a further 7 wards and nothing allocated to the remaining 3 wards. This uneven capital demand is understandable given the municipality is sparsely populated and preserved for agricultural use and nature conservation.

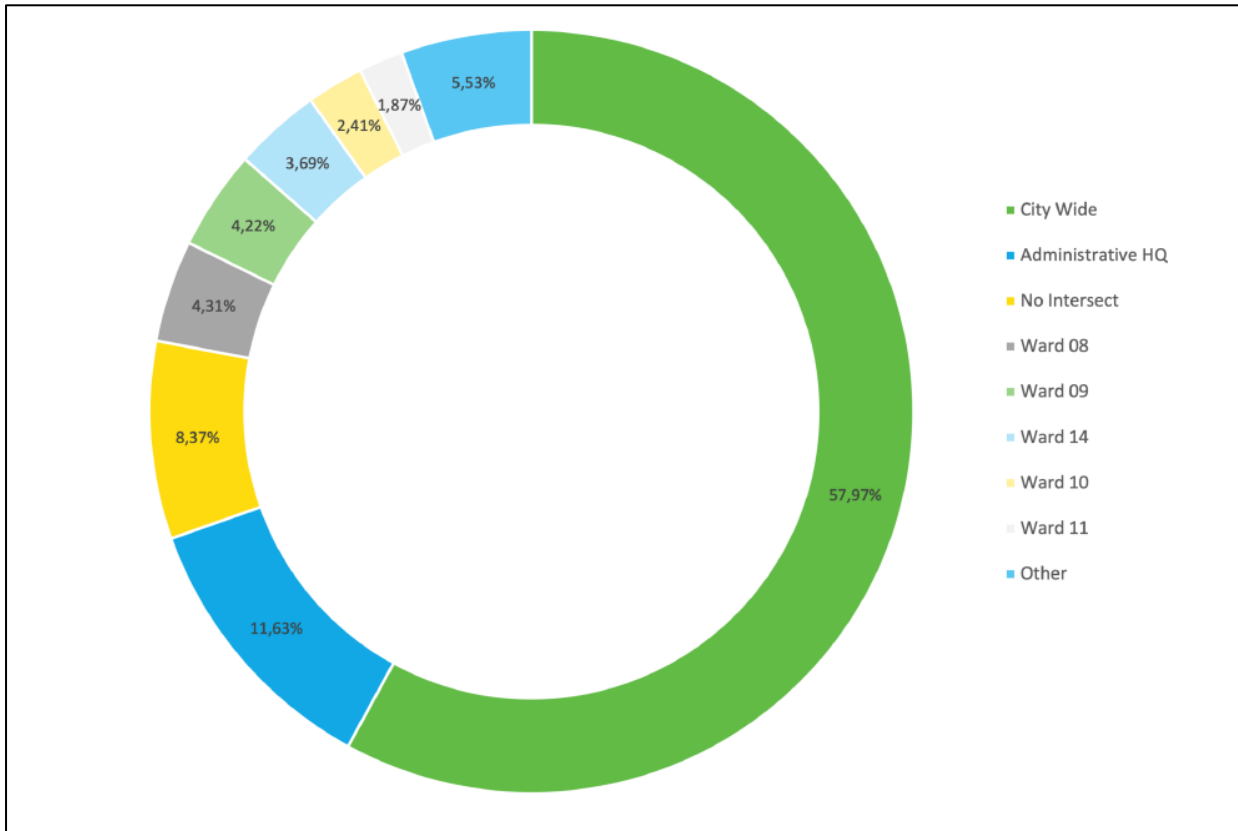


Figure 39: 2022/23 – 2031/32 capital demand per ward (Novus3, 2022)

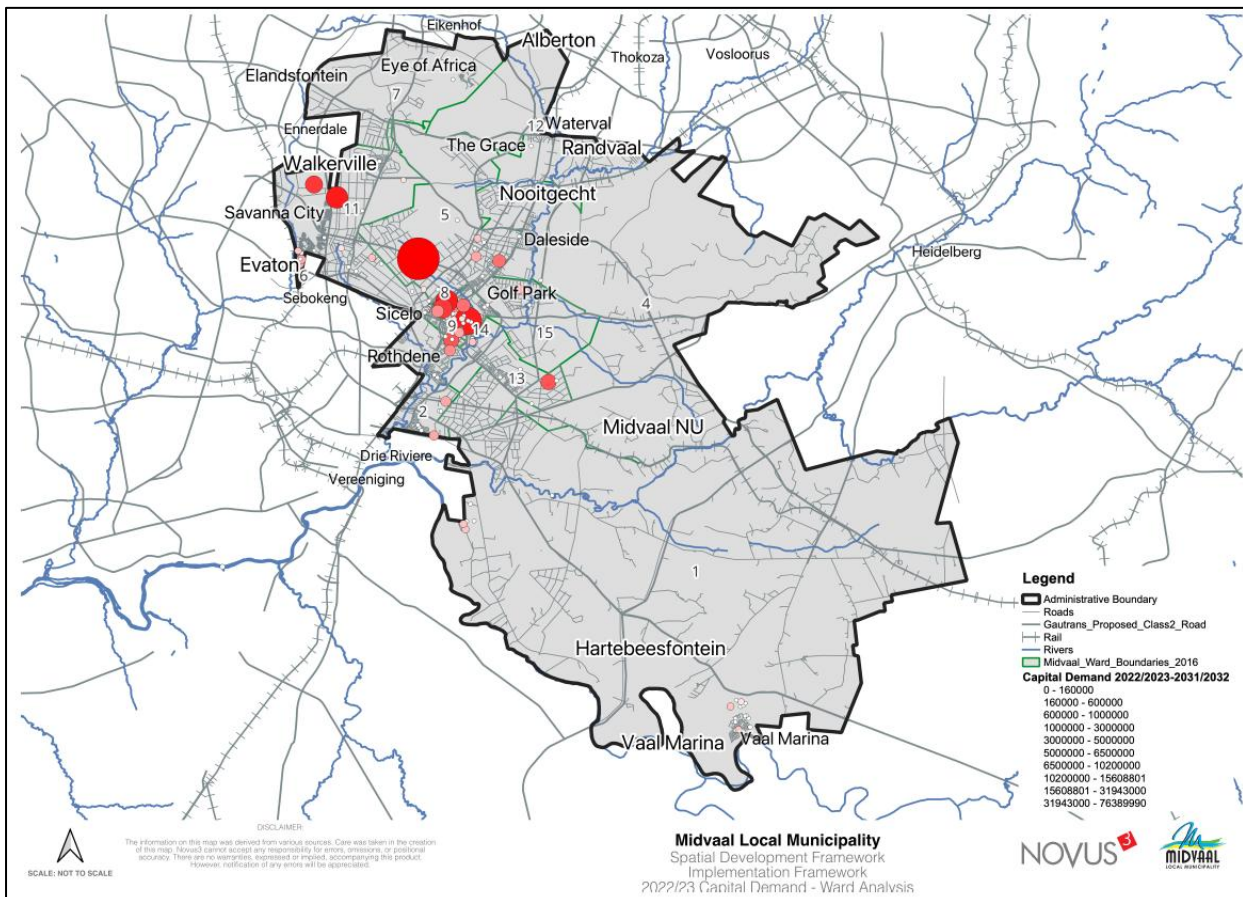


Figure 40: 2022/23 – 2031/32 capital demand per ward (Novus3, 2022)

The departments for Water and Sanitation (R44 462 990) Electricity (R44 872 670), Roads and Stormwater (R17 847 931) and Development Planning (R14 550 000) is allocated the largest share of the capital expenditure. This is understandable considering both the current needs in the municipality (such as basic services and creating revenue generating assets) and the mandate of each department.

The municipality still faces a massive demand for basic services, especially in informal areas such as Sicelo and Mamello regarding electricity, sanitation and water supply. These infrastructure networks are under strain because of the informal dwellings hence the high proportion of the capital budget allocated to the engineering service departments. Of these departments the following three capital projects are the most expensive: (1) Savanna City electrification network, (2) Sicelo electrification network, and (3) aged bulk water pipe replacement.

Capital expenditure per SDF structuring elements has also been analysed, with the figures below illustrating the percentage of approved capital budget allocated per SDF structuring element and indicating those investments spatially. The total capital distribution is 68.94% for "City-Wide", "No intersect" and "Administrative HQ". This could indicate that these are assets that are non-infrastructure (library books, waste management equipment, etc.). However, there are infrastructure projects contained in these classifications, they are just not spatially referenced, or they impact and serves the wider municipal jurisdiction and not a single node. Therefore, when only looking into the components of the capital budget that is spatially targeted, 15.11% are targeted to areas within the Urban Area. A further 13.62% is located in Rural Residential and Rural-Urban Cross-Over Zones.

Capital expenditure projects often relate to a physical asset. This implied that the asset must have a geo-location or be geo-referenced. This is referred to as the works location. The same asset may also have an affected location, which relates to the area that will benefit from the expenditure or the use of the asset. These are vital elements to understand when evaluating projects against spatial criteria as captured in the SDF, technical plans, and population distribution.

For improved spatial targeting analysis accuracy, it is recommended that works and affected locations are better reported per project. This will also enable the municipality to show that the desired spatial vision set out in the SDF are being implemented over time.

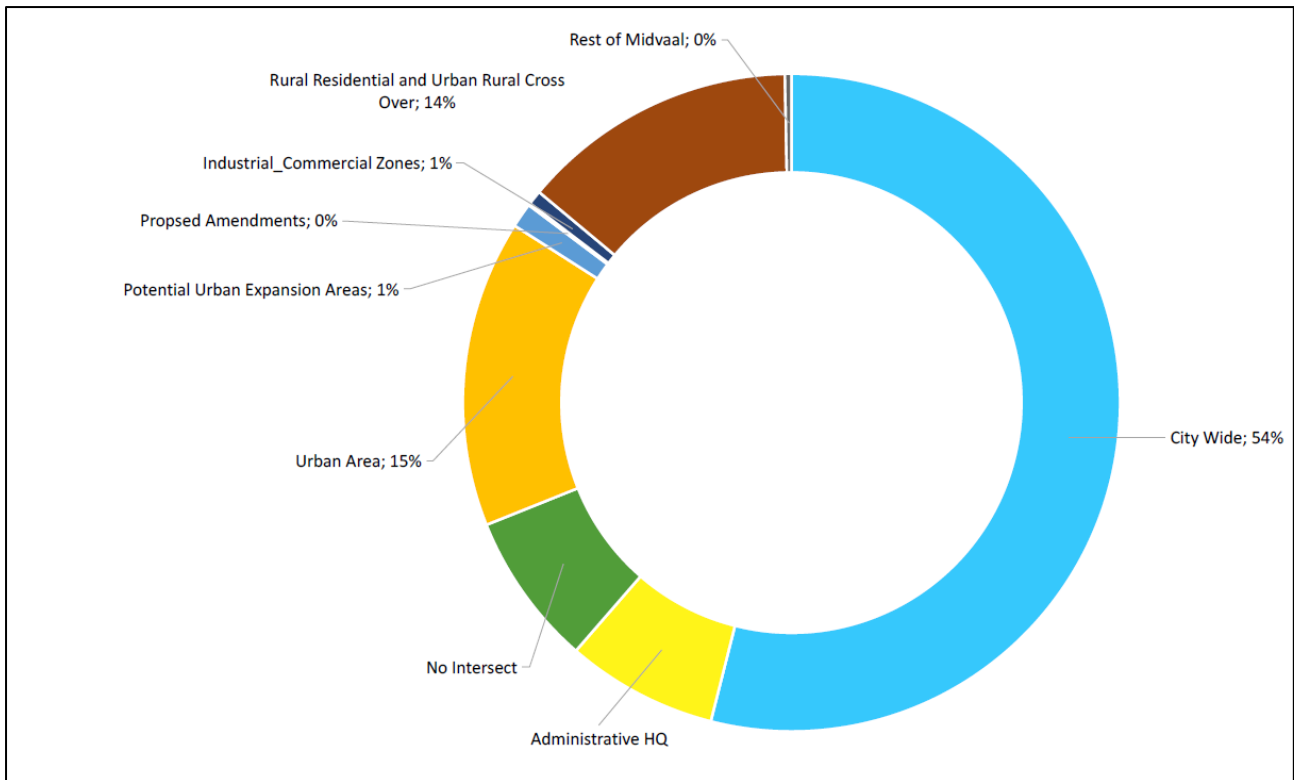


Figure 41: 2022-23 - 2024/25 MTREF approved capital budget per SDF element (Novus3, 2022)

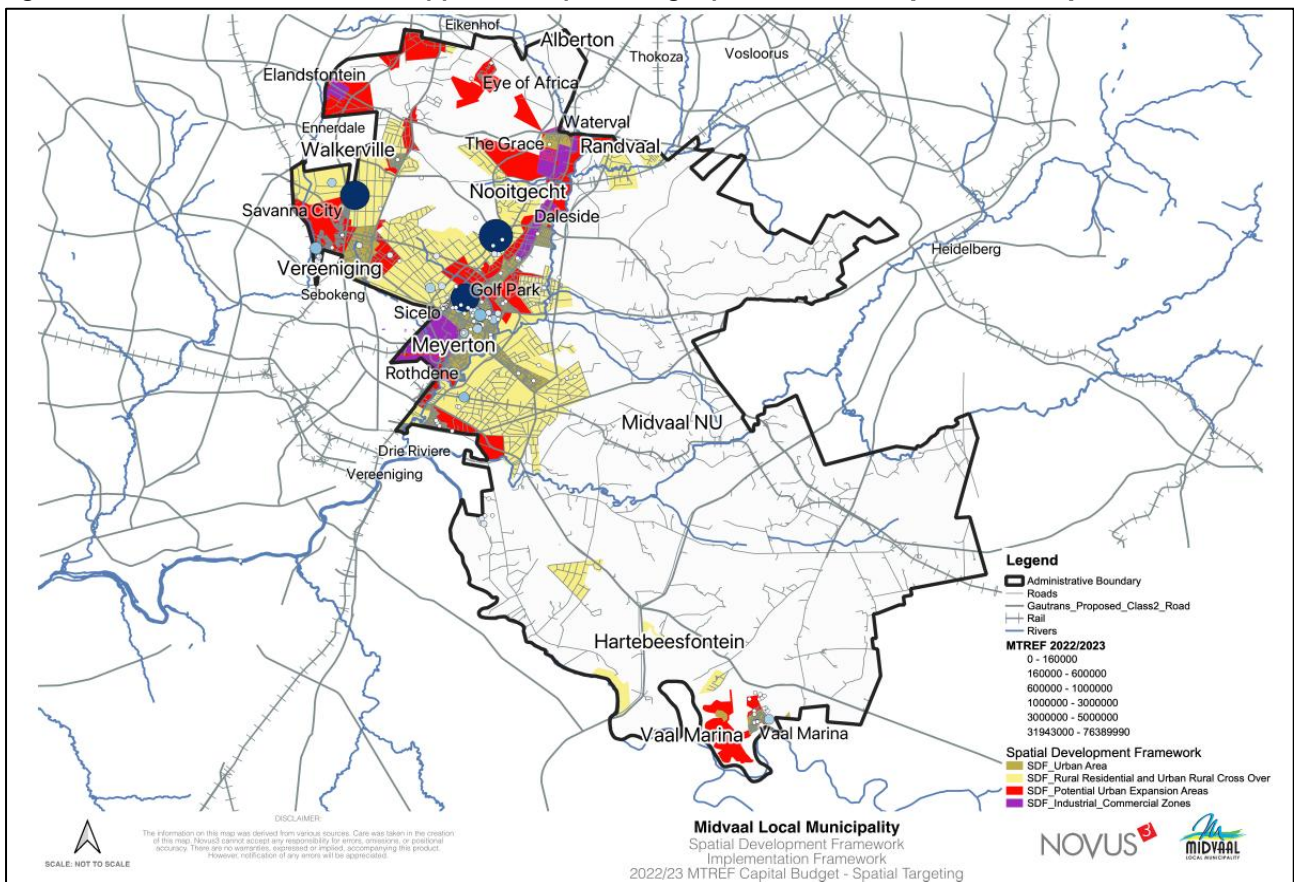


Figure 42: 2022-23 - 2024/25 MTREF approved capital budget per SDF element (Novus3, 2022)

5.4 Management interventions

The following municipal management interventions will assist in realising the SDF spatial vision through supporting the proposed 11 development drivers:

- Improve the Midvaal Land Use Management Scheme by incorporating the definitions developed in the recent land use audit project.
- Promote partnerships in the Meyerton CBD via a City Improvement District as outlined in the urban design framework and associated documents.
- Promote 2-3 storey walk-ups along activity spines.
- Develop social amenities master plan to project spatially where social service development should be facilitated.
- Investigate UDB extension areas for development constraints (CBAs, dolomite, flood risks, etc.) – improve data.
- Work with adjacent municipalities to better accommodate development pressures on the municipal borders (Waterval, Lakeside, Savanna City, De Deur, etc.).
- Partner with Emfuleni LM to address growth pressures/urban conurbation management.
- Release municipal land in the SDA and nodes for development.
- Investigate land parcels adjacent to the R59 and R82 for commercial/industrial/business potential (flood risk, CBA, dolomite, etc.).
- Promote poultry and fish farms.
- Promote commercial urban agriculture facility.
- Promote ecological agriculture approaches to promote agriculture and protect the environment.
- Consult municipality on tourism destination development and how best to use natural capital to enhance tourism.
- Promote TOD in precinct plans adjacent to R59.
- Lobby Transnet to increase commuter capacity on rail.
- Declare restructuring zones for social housing.
- Cross border partnership with Ekurhuleni for infrastructure provision for Waterval area.
- Improve and maintain the Land Use Audit data to enable improved billing and valuation
- Engage with Pendale/Valley Settlement residents on precinct plan development.

6 ADDENDUM 1 – BACKGROUND

6.1 Problem statement

This introductory chapter explains what a Spatial Development Framework (SDF) is, how it fits into South African planning and why the Midvaal Local Municipality is going through the process of developing an SDF. It indicates how the final SDF will guide spatial development in the next five years and serve as a meaningful tool to assist in a longer-term spatial vision for the municipality.

The previous Midvaal LM Municipal Spatial Development Framework (MSDF) was developed in 2017 as an integral element of the fourth-generation Integrated Development Plan (IDP). This was done in harmony with Section 20(2) of the Spatial Planning and Land Use Management Act, 2013 (SPLUMA). Legislation determines that a new SDF must be prepared every five years and reviewed annually. This document serves as the 2022 to 2027 SDF to support the latest and emerging policy positions, capitalise on developmental opportunities, and mitigate the current challenges. The SDF will contribute directly to the municipal IDP.

Considering the social, economic, and spatial challenges that the municipality faces, the old spatial development framework had vague details on integrated human settlement development and environmental security. Using the old SDF as a basis, and with an understanding of the spatial development trajectory and existing challenges in the municipality, this new spatial development framework aims to address the following elements:

- Spatial disparities
- Uneven economic development
- Uncoordinated spatial development
- Threats of climate change
- Environmental degradation
- Improving social and economic potential through spatial development.

In addition to these elements that will be considered for this new SDF, the municipality must comply with the developmental principles stipulated by SPLUMA. A five-year Council plan that inspires rapid economic recovery, sustainability and resilience is of major importance for the citizens of Midvaal Local Municipality following a turbulent period – including the Covid-19 pandemic – which has the potential to destabilise the socio-economic well-being of citizens.

The following sections contextualise the reader on the rationale to develop the new SDF for the Midvaal Local Municipality.

6.2 Why a spatial development framework?

A spatial development framework is an evidence-based analytical tool that informs and assists decision-makers on how an area can be better developed to unlock potential and keep up with changing needs. It is an instrument that guides where both public and private investments such as roads, housing or clinics should be located. This SDF will detail potential partnerships, identify key role players and stakeholders, and guide the short-to-medium term spatial interventions.

The SDF also acts as a tool that can be used as reference point to keep track of the long-term spatial development and determine whether the municipality is moving towards the shared spatial vision of an area. Local authorities will use the SDF for guidance and utilise it to deliberate on land development applications based on what is spatially envisioned for the area of interest.

According to the Municipal Systems Act 32 of 2000, a municipal spatial development framework (MSDF) constitutes a core component of an IDP.

An IDP is a facilitating tool to consolidate (1) developmental vision (2) objectives of a community with real time project proposals and an associated budget. The MSDF will assist in understanding the status quo of an area, visually identify opportunities and constraints, and deliberate on potential spatial interventions that will drive the type of development that is envisioned. The figure below illustrates the elements that need to be considered when developing a Municipal spatial development framework.

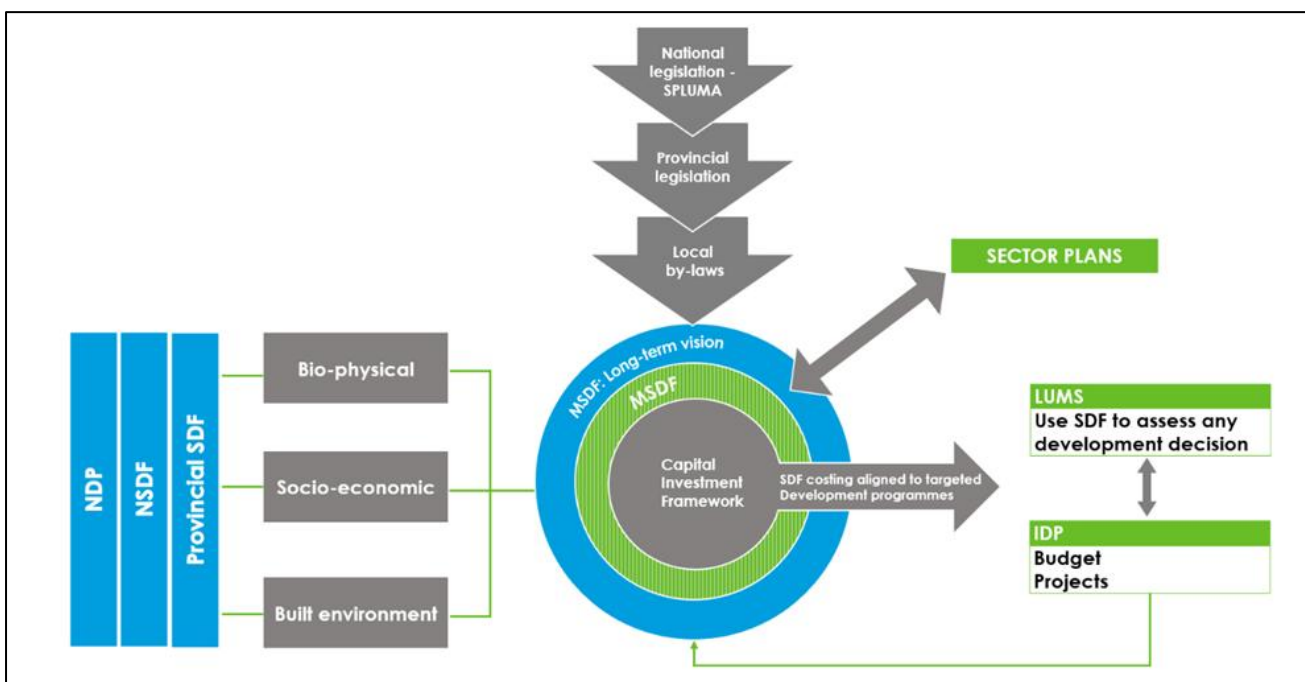


Figure 43: SDF in context of strategic government planning system (Cadre Plan, 2019)

6.3 Objectives of spatial development frameworks

The policy framework in South Africa focuses resources on the national transformative agenda. Inclusivity, growth, and development are immediate objectives to pursue. In the post-apartheid South Africa, the introduction of SPLUMA has reinforced the call to have human settlements that are efficient and productive and contributes to the betterment of previously disadvantaged communities. SPLUMA defines normative directives on how spatial transformation should be achieved.

6.3.1 Background

The 21st century is considered to be the urban century. In the recent past there has been an immense and complex expansion of city regions in the Global South. This expansion is largely accompanied by unresponsive and inadequate human settlements. Low economic growth and the resulting inter-generational poverty are core characteristics of such city regions, especially in Africa.

Today, more than 50% of the world's population lives in cities. The UN-Habitat, 2015 projected that by 2050, 70% of the global population will reside in urban areas. South Africa is not exempted from this global trend, as 60% of its total population is already present in the urban areas. This figure is expected to grow to 80% by the year 2050. Consequently, it is becoming increasingly important to develop tools that will manage this trend and promote the socio-economic well-being of the citizens. The Integrated Urban Development Framework (IUDF) puts spatial transformation as the key theme to achieve this objective.

The National Development Plan, 2030 sets the tone in the policy agenda. The instruction is to attend to spatial transformation in South Africa with the urgency it deserves. Its articulation is anchored in stressing the need to accelerate growth and development that improves the quality of life of all citizens.

The national developmental objective is, in simple terms, the eradication of poverty. To intensify these improvements, a Spatial Planning and Land Use Management Act (SPLUMA) was adopted in 2013.

SPLUMA follows on the instruction of the higher order policy agenda—to use spatial transformation to achieve the national developmental objective of reducing poverty. This Act prescribes the development of spatial plans at all levels of governance. These spatial plans address matters of national and local importance. For the purposes of this document, we refer to the MSDF in compliance with SPLUMA.

6.3.2 SPLUMA principles

SPLUMA development principles are designed to guide spatial planning, land use management and development. The overall guiding components of an SDF are

provisioned in Section (7) of the SPLUMA principles. These principles seek to shape, improve, and redress the apartheid geography that is still perpetuated across South Africa today. The five developmental principles, as taken from the then Department of Rural Development and Land Reform (DRDLR) guidelines (DRDLR, 2017), are:

1. **Spatial Justice:** past spatial and other development imbalances must be redressed through improved access to, and use of land, by disadvantaged communities and persons.
2. **Spatial Sustainability:** spatial planning and land use management systems must promote the principles of socio-economic and environmental sustainability through:
 - Encouraging the protection of prime and unique agricultural land.
 - Promoting land development in locations that are sustainable and limit urban sprawl.
 - Consider all current and future costs to all parties involved in the provision of infrastructure and social services to ensure the creation of viable communities.
3. **Efficiency:** land development must optimise the use of existing resources and the accompanying infrastructure, while development application procedures and timeframes must be efficient and streamlined to promote growth and employment.
4. **Spatial Resilience:** securing communities and livelihoods from the spatial dimensions of socio-economic and environmental shocks, through mitigation and adaptability that is achieved through flexibility in spatial plans, policies, and land use management systems.
5. **Good Administration:** all spheres of government must ensure an integrated approach to land use and land development and all departments must provide their sector inputs and comply with prescribed requirements during the preparation or amendment of SDFs.

These principles are the fulcrum of this spatial framework. The implementation of the spatial planning vision and objectives is not only highly dependent upon a strong coordinating role of government but is also underpinned by the SPLUMA principles. None of the principles can be achieved in isolation and a holistic approach of achieving all five in unison is critical to realise positive spatial changes.

6.3.3 SPLUMA MSDF objectives

The objectives of the MSDF are legislated by Section (12) of SPLUMA (Republic of South Africa, 2013). The following objectives are stated:

- (a) interpret and represent the spatial development vision of the responsible sphere of government and competent authority.
- (b) informed by a long-term spatial development vision statement and plan.
- (c) represent the integration and trade-off of all relevant sector policies and plans.
- (d) guide planning and development decisions across all sectors of government.
- (e) guide a provincial department or municipality in taking any decision or exercising any discretion in terms of this Act or any other law relating to spatial planning and land use management systems.
- (f) contribute to a coherent, planned approach to spatial development in the national, provincial, and municipal spheres.
- (g) provide clear and accessible information to the public and private sector and provide direction for investment purposes.
- (h) include previously disadvantaged areas, areas under traditional leadership, rural areas, informal settlements, slums and land holdings of state-owned enterprises and government agencies and address their inclusion and integration into the spatial, economic, social, and environmental objectives of the relevant sphere.
- (i) address historical spatial imbalances in development.
- (j) identify the long-term risks of spatial patterns of growth and development and the policies and strategies necessary to mitigate those risks.
- (k) provide direction for strategic developments, infrastructure investment, promote efficient, sustainable, and planned investments by all sectors and indicate priority areas for investment in land development.
- (l) promote a rational and predictable land development environment to create trust and stimulate investment.
- (m) take cognisance of any environmental management instrument adopted by the relevant environmental management authority.
- (n) give effect to national legislation and policies on mineral resources and sustainable utilisation and protection of agricultural resources; and
- (o) consider and, where necessary, incorporate the outcomes of substantial public engagement, including direct participation in the process through public meetings, public exhibitions, public debates and discourses in the media and any other forum or mechanisms that promote such direct involvement.

The preparation of an MSDP is legislated by Section (20) of SPLUMA (Republic of South Africa, 2013). This section states the following:

- (1) The Municipal Council of a municipality must by notice in the Provincial Gazette adopt a municipal spatial development framework for the municipality.

- (2) The municipal spatial development framework must be prepared as part of a municipality's integrated development plan in accordance with the provisions of the Municipal Systems Act.
- (3) Before adopting the municipal spatial development framework contemplated in subsection (1) and any proposed amendments to the municipal spatial development framework, the Municipal Council must—
 - (a) give notice of the proposed municipal spatial development framework in the Gazette and the media.
 - (b) invite the public to submit written representations in respect of the proposed municipal spatial development framework to the Municipal Council within 60 days after the publication of the notice referred to in paragraph (a); and
 - (c) consider all representations received in respect of the proposed municipal spatial development framework.

The following table denotes the SPLUMA requirements for content of an MSDF (Section 21), as well as where these requirements have been addressed in the document:

TABLE 24: SPLUMA REQUIREMENTS FOR CONTENT OF AN MSDF		
SPLUMA section	SPLUMA requirement	SDF response
21.	A municipal spatial development framework must:	
21.(a)	give effect to the development principles and applicable norms and standards set out in Chapter 2	Section 2 Section 4.3 Section 6
21.(b)	include a written and spatial representation of a five-year spatial development plan for the spatial form of the municipality	Section 4.2
21.(c)	include a longer-term spatial development vision statement for the municipal area which indicates a desired spatial growth and development pattern for the next 10 to 20 years	Section 4.2
21.(d)	identify current and future significant structuring and restructuring elements of the spatial form of the municipality, including development corridors, activity spines, and economic nodes where	Section 4.3

TABLE 24: SPLUMA REQUIREMENTS FOR CONTENT OF AN MSDF

SPLUMA section	SPLUMA requirement	SDF response
	public and private investment will be prioritised and facilitated	
21.(e)	include population growth estimates for the next 5 years	Section 3.1
21.(f)	include estimates of the demand for housing units across different socio-economic categories and the planned location and density of future housing developments	Section 3.5.4
21.(g)	include estimates of economic activity and employment trends and locations in the municipal area in the next five years	Section 3.2.7 Section 3.5.3 Section 3.7
21.(h)	identify, quantify, and provide location requirements of engineering infrastructure and service provision for existing and future development needs for the next five years	Section 4.3.10
21.(i)	identify the designated areas where national or provincial inclusionary housing policy may be applicable	Section 4.3.8
21.(j)	include a strategic assessment of the environmental pressures and opportunities within the municipal area, including the spatial location of environmental sensitivities, high potential agricultural land and coastal access strips, where applicable	Section 3.2
21.(k)	identify the designation of areas in the municipality where incremental upgrading approaches to development and regulation will be applicable	Section 4.3.8 Section 4.3.10
21.(l)	identify the designation of areas in which -	
21.(l)(i)	more detailed local plans must be developed,	Section 2.6 Section 4.3.11
21.(l)(ii)	shortened land use development procedures may be applicable and land use schemes may be so amended	Section 4.3

TABLE 24: SPLUMA REQUIREMENTS FOR CONTENT OF AN MSDP

SPLUMA section	SPLUMA requirement	SDF response
21.(m)	provide the spatial expression of the coordination, alignment, and integration of sectoral policies of all municipal departments	Section 4.3
21.(n)	determine a capital expenditure framework for the municipality's development programmes, depicted spatially	Section 5.2 Section 5.3
21.(o)	determine the purpose, desired impact, and structure of the land use management scheme to apply in that municipal area	Section 4.3
21.(p)	include an implementation plan comprising of -	
21.(p)(i)	sectoral requirements, including budgets and resources for implementation	Section 6.2
21.(p)(ii)	necessary amendments to a land use scheme	Section 4.3
21.(p)(iii)	specification of institutional arrangements necessary for implementation	Section 5.4
21.(p)(iv)	specification of implementation targets, including dates and monitoring indicators	Section 5
21.(p)(v)	specification, where necessary, of any arrangements for partnership in the implementation process	Section 5.4

7 ADDENDUM 2 – STAKEHOLDER ENGAGEMENT

7.1 Community engagement meetings

The community engagement meetings had the purpose of presenting the SDF and its spatial proposals to the affected communities, and to gather their insights and recommendations. The table below notes the dates and venues of the engagements held during the course of April.

TABLE 25: COMMUNITY MEETING DATES			
Date	Time	Community	Venue
09/04/2022	11:00	Waterval	Kliprivier SAPS
12/04/2022	09:00-14:00	All Midvaal stakeholders	Meyerton Town Hall
19/04/2022	18:00-20:00	Meyerton, Pendale, Valley Settlements	Meyerton Town Hall
20/04/2022	18:00-20:00	Henley on Klip	O'Connor Hall
21/04/2022	18:00-20:00	Walkerville, Tedderfield, Elandsfontein	Walkerville Showgrounds
23/04/2022	09:00	Daleside	Daleside Firehouse Gym
25/04/2022	18:00-20:00	De Deur	De Deur Primary School
26/04/2022	18:00-20:00	Sicelo	Sicelo Hall
03/05/2022	18:00	Waterval	Final Turning Point Ministries International

Detailed minutes are available upon request, but the key inputs obtained at the meetings are provided before the response to written comments are outlined.

7.1.1 Waterval engagement

The community raised questions on the issue of greenbelts and agricultural land, and how the Suikerbosrand Nature Reserve and Klip River acts as a buffer. Questions were also raised based on the potential for social housing adjacent to the railway line and train station instead of demarcating the area for a cemetery. Furthermore, comments were made on issues experienced with engineering infrastructure and services (specifically water and sanitation).

Objections to the urban expansion area in Garthdale were raised.

The potential for social housing adjacent to the train station will be investigated further by the municipality. Furthermore, the environmental issues were more comprehensively incorporated into the SDF. The municipality also realise the need to support and prioritise infrastructure investment and upgrading in the area, and recommendations therefore will be included in the capital expenditure framework and implementation policy.

7.1.2 Midvaal stakeholder engagement

The Midvaal stakeholder engagement session was run for five hours, with the SDF presentation repeated on the hour, every hour. Questions from this session revolved around the clarification of proposals intended for specific areas (e.g., the R42, Pendale and Valley Settlements areas). Some more specific comments were made on the SDFs focus on predominantly the northern area, and the need for precinct plans in the south to determine the unique development opportunities that could be capitalised on. In reference to the municipal development driver to promote agricultural production, a comment was made on the need to focus on small-scale and informal sectors, as there is great potential in these sectors. The need to focus on supporting the entire supply chain (from production to marketing) was also emphasised.

Furthermore, there was noted that the municipality needs to work with its adjacent municipalities and the broader Gauteng municipal region to work towards linking natural areas and catchment zones to protect and manage the wider Vaal River System. Lastly, comments were made on the need to plan and implement infrastructure provision/upgrades proactively to unlock areas prior to development.

The municipality agrees that there is a need to better understand the southern extents of the municipal area, specifically surrounding the Vaal River SEZ and the impact it might have on development in the south. Furthermore, the southern extents need to be investigated for its potential to host alternative energy generating facilities (such as solar or wind farms); the potential of the area to act as a food basket for the Gauteng province; and its logistical connection to the N3 and therefore the potential distribution of agricultural produce to other provinces and countries.

The capital expenditure framework and implementation policy make recommendations on where capital projects should be focused to achieve the spatial vision. It therefore makes recommendations on potential precinct plans to guide detail level implementation of the identified SDAs, and the needed engineering and social infrastructure investments to unlock these areas.

7.1.3 Meyerton engagement

Questions were raised with regards to the impact of the proposals on the traffic congestion in the CBD. Another comment related to the residential areas being located near the industrial areas, and how in future these areas will be separated for health and safety reasons.

In 2018, an urban design framework was developed for the CBD area, and that document looked at vehicle movement. The municipality is also working to build a footbridge over the R59 to connect the residents of Sicelo to Meyerton CBD, as well

as investigating a stronger linkage road between De Deur and Meyerton. The vision of the municipality is to bring people closer to job opportunities, which includes earmarking areas along the R59 for industrial and commercial development. The idea is then to redirect major industrial development to these indicated areas to limit the integration of residential and industrial areas. There is however a need to investigate the existing interface between industrial and residential uses, in order to improve the health and safety of the residents of those areas.

7.1.4 Henley on Klip engagement

The community brought up a few concerns regarding the proposed densification. Their fears stemmed from the perception that there are no proposals on how to improve the safety of the area, and also that no further social facilities or engineering infrastructure improvements are being proposed to support the increased densities (specifically more schools and a police station, upgrading the road network to improve traffic flow, improving The Oval public park, etc.). There was also the shared sentiment that the densification of the area will result in a loss of community character, as the new residents will not share in the established culture of the area.

Community comments can further be addressed in the precinct plan that is currently being reviewed. It is through the precinct plan that their proposals on protecting the heritage and character of the area can find spatial expression. It is also through the precinct plan, that recommendations can be made to improve the road network, improve the public open spaces, and determine whether new social facilities can be provided.

7.1.5 Walkerville engagement

The Walkerville engagement was intended to present the SDF to the residents of Elandsfontein, Tedderfield and Walkerville. The majority of the questions surrounded development along the R82 and questioned why homeowners are being blocked by the municipality to develop business and commercial uses in the area. Furthermore, the question arose of why the area has limited/outdated precinct plans.

The vision for the R82 is to concentrate development in identified nodes along the R82 to aid in the economic sustainability of these nodes. Furthermore, limited access can be given on the R82, therefore the vision to concentrate development in identified nodes, and redirect any large industrial developments to the R59 corridor when land is earmarked for industrialisation and where infrastructure capacity can be upgraded to support development. The municipality further identifies the need to develop a precinct plan for the area to identify natural areas that need protection from development pressure; where business and commercial uses can

be located in the nodes surrounding the R82; and where social facilities need to be provided/upgraded to cater for the spill over from Johannesburg.

7.1.6 Daleside engagement

The Daleside meeting was mostly attended by the Pendale community. The community expressed their displeasure about their recommendations continuously being ignored by the municipality, and that they have communicated on numerous occasions their vision for the area, which is to be residential, and not industrial. Comments were also made on the mixed-use land uses that are being promoted, and the fact that trucking businesses and other commercial/industrial uses are degrading the area and the infrastructure. Community feels that the municipality needs to engage with them on the compilation of a precinct plan to better manage the intended development of the area, and to capture and spatially express the recommendations that are being made.

The community- in general- did not object to the amended urban development boundary but had reservations on the type of developments that would be allowed in Pendale.

The municipality agreed to start the process of developing a precinct plan for the area. This precinct plan will clearly define what uses should be allowed in the mixed-use areas to reduce the ambiguity of the term. The precinct plan will also allow more meaningful engagement with the community as it allows the municipality to capture land parcel level detail, which is a level of detail unattainable at the SDF municipal wide scale. The precinct plan will therefore provide clarity on how the SDF proposed development along the R59 can be accommodated along with the residential wishes of the community, and how a balance between these opposing views for the prime location of the community can be achieved.

7.1.7 De Deur engagement

Comments and questions in this engagement centred around the infrastructure capacity of the area, and how the municipality intends to upgrade/develop infrastructure in the area to support the proposed densification and urban development boundary extension. Further comments were made on the existing issues experienced with sewer capacity, and the spill over experienced from Emfuleni and its impact on properties. Questions regarding social facilities (specifically a crematorium, cemetery) and how new facilities will be accommodated along with residential development.

The infrastructure master plans currently under revision should follow the vision of the SDF and would therefore provide better information and recommendations regarding the extension of infrastructure in De Deur. The capital expenditure framework and implementation policy will furthermore make recommendations on the capital projects that will aid in the municipality achieving its spatial vision,

including how the extension of the urban development boundary in De Deur will be supported. Queries regarding the crematorium and cemetery, however, need to be further investigated within the wider area for feasibility given the sterilising nature of these facilities.

7.1.8 Sicelo engagement

Questions from the engagement related to high cost of water to support urban gardening, and how the municipality could potentially support these home gardeners in terms of providing tools, seeds and fertilisers. Comment was also made on whether livestock should be allowed to be kept in urban areas.

The municipality would better promote small-scale agriculture support programmes stemming from the Department of Agriculture and Department of Human Settlements, as well as the municipal Local Economic Development department. Furthermore, due to South Africa being a water scarce area, and the municipality buying water from Randwater, the community needs to look into alternative water sources to support their farming practices, such as rainwater harvesting. There is a need to capacitate the home gardeners on effective and sustainable growing methods, which is a programme that could stem from the LED department or from government. The use of boreholes will, however, not be extensively promoted considering the area is dolomitic in nature, and excessive use could lead to the development of sinkholes.

7.2 Municipal engagement meetings

The municipal engagement meetings had the purpose of presenting the SDF and its spatial proposals to council, internal departments and adjacent municipalities, to gather their insights, recommendations and sector inputs. The table below notes the date of the engagements and the departments engaged with during April.

TABLE 26: MUNICIPAL MEETING DATES		
Date	Time	Community
06/04/2022	11:00-13:00	Internal departments
06/04/2022	13:00-14:00	Midvaal ward councillors
25/04/2022	11:00-12:00	Adjacent municipalities (City of Johannesburg, City of Ekurhuleni, Emfuleni, Lesedi, Sedibeng)

7.2.1 Internal department engagement

Some questions were raised on why there are no spatial recommendations or space allocations for social facilities. Other questions raised were in regard to the extensive dolomitic areas in the north and whether it is wise to further promote development

in the area given the inherent risks and restrictions associated with dolomite. The promotion of mixed-use nodes was also questioned given the history of complaints from the community given the mixed-use developments. Lastly, comments were made on how the municipality intends to balance conservation efforts with the inherent development pressures experienced in the municipality.

The municipality emphasised the need for all the internal departments to take ownership in the SDF, as it is a document that should be used to inform decision making for at least the next 5 years. Therefore, departments should build on the SDF and compile master plans that are in line with the SDF vision, for exactly the provision of social and engineering infrastructure. The SDF does make reference to the social facilities that will be required in future based on population projections for 2050, but it is the responsibility of the respective municipal departments to determine and advocate for where these facilities are needed the most.

In reference to the dolomitic areas, it is the reality that MLMs development is concentrated in the north, and it is unfortunate that it is this area specifically that is underlain with dolomite. However, the municipality needs to build on the existing strengths and therefore development can't be redirected to other areas. There is however the need for further studies on the dolomite underlain areas to determine the building requirements that should be implemented to stabilise any structures intended for the area. Careful management of the infrastructure, and limitations on groundwater extractions, should also be imposed on these areas to limit the potential formation of sinkholes.

Mixed-use areas will be promoted in the SDF as it provides the best approach to bring people closer to where they work and play. It is also necessary to integrate uses to limit travel distances to services, thereby reducing the need for private transport.

There is, however, the need to better define the uses permitted within mixed-use nodes, and the interaction and transition zones between these uses. Lastly, the urban development boundary will be used as a containment zone, and all development will be redirected to within the UDB. Furthermore, the rural-urban cross-over zones will facilitate the transition between what is urban and what is rural, and which areas should be protected and where development should be accommodated.

7.2.2 Ward council engagement

The questions raised at this engagement mostly related to clarifying how the adjacent municipalities impact development in MLM, and specifying what particular proposals are made for certain areas. Some participants noted the lack of recognition afforded township tourism, while others stated the need for realistic infrastructure development proposals given the lack of capacity to finance infrastructure investment.

The municipality acknowledges the SDFs silence on township tourism and revitalisation. Though these recommendations relate particularly to the purpose of local economic development strategies, the SDF should at least take note of township tourism as part of the development drivers (4.3.6 Stimulate tourism). Furthermore, the capital expenditure framework will make recommendations on the capital investments needed to realise the SDF vision.

7.2.3 Adjacent municipalities engagement

Various questions arose on the development proposals that are made on the border between the municipalities, particularly Tedderfield and its border with Johannesburg, and Waterval bordering on Ekurhuleni. Participants wanted to know what infrastructure support/expansion is being planned to carry the increased demand for services in those areas, considering the potential for cross-border service agreements. Questions were also raised on the SDF vision statement, with it being more an affirmation of what already exist in the area, and not a vision for the development of the area.

It was generally agreed that there needs to be collective pressure on national government from both MLM and Johannesburg for the revitalisation and improvement of the commuter rail which connects residents from Savanna City and Orange Farm to the Johannesburg CBD. Potential cross-border engineering service agreements for particularly the Waterval area is something that needs to be investigated given the vision from Ekurhuleni to extend township development into the area.

The municipality reaffirmed that they want to build on the strengths already present in the municipality, and therefore it can be deemed as an adequate vision statement. The vision is therefore to build on and support the strengths of the municipal area, including promoting development along key corridors and spines to protect the high value agricultural land and natural sensitivities in the area, and to locate residential developments in closer proximity to employment and recreational activities.

7.3 Written comments

Opportunity was given to the public to provide written comments on the SDF. The closing date for written comments was on the 6th of May 2022. The following tables note written comments that were received, with an indication of how these comments were addressed/acknowledged in the SDF. The tables are structured according to the comment categories: (1) Waterval precinct, (2) Pendale/Valley Settlements precinct, (3) community engagement, (4) clarification/correction, (5) engineering and social infrastructure, (6) site level detail, (7) development drivers, and (8) internal municipal comments:

TABLE 27: WRITTEN COMMENTS CATEGORISED AS “WATERVAL PRECINCT”

Written comment	SDF response	SDF section
The urban expansion areas as shaded in the Area 1 SDF map on pg. 84 must be removed, till further discussion. This area should remain agricultural/rural residential and be protected from urban sprawl and development from the north, as you have stipulated for Henley and Walkerville.	The SDF was amended to state that the proposals made in the Waterval area- in terms of the Urban Expansion Areas and Urban Expansion Areas (subject to conditions)- is subject to the development directives contained in an approved Waterval Precinct Plan, which is currently being reviewed and open for an extended public participation process. The outcomes of the precinct plan approval and adoption by council will be taken into consideration with the annual review of the SDF, where changes will be made accordingly to the composite map and precinct plan description.	4.3
From me and my family side, we would like the Waterval plan to be removed from the SDF until next meeting.		4.4
Meeting held on 3 May 2022 shocked me to my core. This is NOT what WE, the people want in OUR area. This proposed development is in my view unconstitutional, and I must insist that the Waterval Precinct Plan is removed completely from the SDF document prior to submitting the document, to give US, the residents the opportunity to state our case.		
We utilise our property for farming, cattle, sheep and chickens and object to this plan and ask that the proposals be removed from the SDF document in its entirety. This area must be kept as an agricultural/rural area.		
I would urge you to reconsider the proposed growth trajectory/plans to exclude the Garthdale/Kliprivier areas as not only would this harm employment chances but also hurt similar operations.		
Not only would you be killing agricultural activity (which the government says they are trying to revive) but those who are in the lower economic bracket would also be hurt.		
I saw the Waterval precinct plan, on page 51, as presented in the SDF - this is unacceptable and urge you to remove it entirely from the SDF documents.		

TABLE 27: WRITTEN COMMENTS CATEGORISED AS "WATERVAL PRECINCT"

Written comment	SDF response	SDF section
This area must remain agricultural, residential and be protected from urban invasion and development from the northern side, as same as you have stipulated for Henley and Walkerville.		
I object to the Waterval precinct plan of the SDF presentation. I request it entirely removed from the SDF.		
I cannot support the proposals as per the SDF presentation, and hereby request that it be removed from the SDF document until further discussion and participation with the community.		
The urban expansion areas shaded 1 on the SDF map to be removed until further discussion and public participation has taken place as it will impact our choice of lifestyle living.		
We ask that our area be kept for agricultural lifestyle living. Keeping an agricultural hub on the verge of the urban area would benefit both urban living and us living on the agricultural holdings.		
This plan as presented in the SDF presentation is not acceptable to the community.		
Please receive our objection against the planned urban expansion areas as per Waterval precinct plan and SDF.		
We welcome your decision to withdraw the Waterval precinct plan in its entirety, till you have had further consultations with the community.		
In light of the development pressures from Ekurhuleni's side, the areas marked as urban expansion and urban expansion (subject to conditions) be removed from the SDF map for our area of Garthdale, Gardenvale and Rietspruit, until the community participation process. By doing this, it will avoid confusion and		

TABLE 27: WRITTEN COMMENTS CATEGORISED AS “WATERVAL PRECINCT”

Written comment	SDF response	SDF section
incorrect assumptions being made when this map and document is released in the public domain.		
We welcome the withdrawal of the Waterval Precinct Plan.		
We would appreciate if mention of and locations shown in our area of Garthdale, Gardenvale and Rietspruit noted as Urban Expansion and Urban expansion (subject to conditions) is removed from the document until after the community meeting.		
I am satisfied that the Waterval Precinct Plan is removed from the SDF.		
The demarcated Zone 6 as highlighted, which is earmarked for high density residential development is a private property and belong to Lonsa Everite. We want to bring attention that Lonsa Everite has not been consulted or engaged by the municipality about the intended use of the property	The draft proposals of the precinct plan is advertised and the consultation period is extended to allow for further inputs by affected parties.	N/A

TABLE 28: WRITTEN COMMENTS CATEGORISED AS “PENDALE/VALLEY SETTLEMENTS PRECINCT”

Written comment	SDF response	SDF section
If we look at the Pendale district, it is obvious that this precinct and its community have developed into a unique and pristine Eco- and agri-type of environment with farm style living and an area where nature, ecology and small-scale farming is very prominent.	This area will remain as indicated in the SDF. The SDF is a long-term plan and looks at the development of the municipality up until 2050. We can therefore not exclude areas, that are showing enormous development pressure, from the plan given the long-term implications of the SDF.	4.3
This land use typology forms an important green landmark in the Midvaal area. This land should be preserved in its current state,		4.3.11 4.4

TABLE 28: WRITTEN COMMENTS CATEGORISED AS “PENDALE/VALLEY SETTLEMENTS PRECINCT”

Written comment	SDF response	SDF section
in spite of the strong pressure to develop this for financial gain.	Conditions have however been stipulated in the SDF that the proposals made on the Pendale/Valley Settlements area in terms of the Urban Expansion Areas and Urban Expansion Areas (subject to conditions), is subject to the development directives contained in the Precinct Plan, which is of high priority for the municipality to commence with its compilation. It is within the precinct plan that the community's desired precinct character will find spatial expression. It is also within this detail level plan that development directives will be captured detailing the envisaged development of the precinct. The permitted land uses that is supported in the area will also be noted in the precinct plan. The outcomes of the precinct plan approval and adoption by council will be taken into consideration with the annual review of the SDF, where changes will be made accordingly to the composite map and precinct plan description. It would be beneficial for the community to connect with all	
Most important argument - this land is occupied, embraced and cherished by a community, where people make a living, and a place where many have retired and still want to retire in a natural, farm-style area close to town.		
The community wants this area to be preserved, with limited and additional similar and compatible uses.		
The Pendale community do not want commercial or industrial development or large-scale residential development in this area - this is not part of their vision.		
Red flags - when looking at the agricultural value of the land it is likely that DALRRD may not consent to commercial and industrial development (and the loss of pristine agricultural land).		
When looking at natural and cultural value of the land and the strong community vision, a similar reaction and objection against major development might be presented by the Department of Environmental Affairs.		
It is our submission that low density and typical farm living be allowed within the precinct (density of one living unit per 5000m ²).		

TABLE 28: WRITTEN COMMENTS CATEGORISED AS “PENDALE/VALLEY SETTLEMENTS PRECINCT”

Written comment	SDF response	SDF section
Municipality should extent the appointment of Cadre to develop a fully-fledged local SDF or precinct plan for the Pendale precinct, to ensure proper future development and management of this area.	landowners in the area, to ensure that the community representation at the forthcoming precinct participation events be that of a unified, community wide vision for the area, and not the views of a select few.	
The whole Pendale precinct, in view of its pristine character, be defined as "ring-fenced" as an Eco- and Agri-Village, that only provides for limited eco-related and agri-related activities. Other compatible land uses supporting this vision be considered, however be well motivated.		
Detail land uses for these proposed typologies (urban expansion, urban-rural cross over zones) be clearly defined and consulted with the interested and affected parties through developing a precinct plan for the Pendale precinct.		
Current Draft SDF 2022-2027 be amended to designate the whole Pendale precinct for and Eco and Agri Village.		
It is the wish of the community to contribute and control the future management and maintenance of this Pendale Eco and Agri Village in conjunction with the municipality through a formal legal entity (Conservancy, Section 21 company, Co-operative or CID).		

TABLE 29: WRITTEN COMMENTS CATEGORISED AS “COMMUNITY ENGAGEMENT”

Written comment	SDF response	SDF section
How can we accept that you just send outsiders into OUR area to do assessments, and the proposes all these one sided developments. You are destroying our lives here and we don't stand for it! I am a second generation resident here in Croft Rd since 1985 and I refuse to be bullied by an official to surrender my rights as a rate paying citizen.	The SDF is a long-term vision for the municipality. Given the development pressure experienced in Waterval from Ekurhuleni, it is the vision of the municipality to proactively plan for this pressure to limit environmental degradation that inevitably result if this pressure is ignored. The municipality is, however, in process of reviewing the Waterval Precinct Plan, which will give detail direction on how development will be managed in the precinct.	N/A
It is obvious that the Pendale community must be extremely frustrated and concerned about the way in which administrative procedures are dealt with in the municipality and the way in which important constitutional processes are being watered-down. When looking at planning and environmental legislation (NEMA, MSA, SPLUMA) it is obvious that communities and interested and affected parties should be thoroughly consulted on development and major policies such as the SDF, hence the need to listen to the voices of the community and to understand and respect their concerns and wishes. It is our submission that every effort be made by the municipality and the consultants	The municipality acknowledge the frustrations of the community. Recommendations are being made on the compilation of a precinct plan for the Pendale/Valley Settlements that will allow for further participation.	4.3.11

involved to ensure meaningful participation processes and to ensure that the concerns and needs of the communities are properly assessed and addressed as and where possible.		
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TABLE 30: WRITTEN COMMENTS CATEGORISED AS “CLARIFICATION/CORRECTION”

Written comment	SDF response	SDF section
Map on pg. 33 shows an industrial spot on portion 8 Rietspruit, why when this is an agricultural farm.	The data will be scrutinised.	3.7
MLM is largely a rural municipality, benefit from this phenomenon instead of trying to follow the run-down ineffective strategy of other municipalities that seem hell bent on urbanising every square inch.	The spatial vision captures the municipality's intent to offer unique rural and urban development with the rural character being protected by means of consolidated and well-designed urban areas. The municipality intends to use the urban development boundary to contain urban development, and to carefully manage urban-rural cross-over zones to protect and support rural areas. Which still make up the majority of the municipal space.	4.2 4.3.1
We find the SDF as presented contradictory, confusing, and biased in favour of urban sprawl and urbanisation. This is in stark contrast to the frameworks quoted so copiously, but not taken into account, especially for our area where protection of rural agricultural activities/processes and conservation efforts must be encouraged and protected.	The SDF makes proposals on the expansion of the UDB in various urban and urbanising areas to accommodate the expected doubling of households by 2050.	4.2

TABLE 30: WRITTEN COMMENTS CATEGORISED AS “CLARIFICATION/CORRECTION”		
Written comment	SDF response	SDF section
Waterval - Agri hub is the solution with regards to help people to help themselves.	The precinct plan for Waterval is currently being reviewed and is in the public participation process. The outcomes of this process will determine whether Waterval will be earmarked as an Agri-hub	N/A
The composite map shows the Kliprivier - Suikerbosrand conservancy and agricultural small holdings, but a portion of the conservancy including Greenvally has been excluded.	The composite map only includes the Suikerbosrand Nature Reserve and the areas within its legally protected borders. Given that the Klipriver-Suikerbosrand Conservancy does not have legal status, it is not considered/indicated in the composite map.	4.4
Since 2012, Midvaal and Sedibeng has done nothing to help protect or renovate and conserve this valuable asset and historical landmark (Witkop Blockhouse)	Comment is noted, but not in the scope of the SDF.	N/A
Henley and Walkerville landfills have recently been closed, hope they are not counted as two of the 3 landfill sites in Midvaal mentioned in the report.	No these are not included	3.6.5
Please follow and incorporate all guidelines in National and Gauteng frameworks, regarding agriculture, rural development, conservation, tourism, etc. not only those concerning urbanisation.	Please refer to improved development driver 9	2.1 4.3.9 9.1

TABLE 31: WRITTEN COMMENTS CATEGORISED AS “ENGINEERING AND SOCIAL INFRASTRUCTURE”		
Written comment	SDF response	SDF section
Waterval - We moved here and was told this is a conservation	The SDF is a long-term vision for the municipality. Given the	N/A

TABLE 31: WRITTEN COMMENTS CATEGORISED AS “ENGINEERING AND SOCIAL INFRASTRUCTURE”

Written comment	SDF response	SDF section
area and are not allowed to have streetlights. What happened? Now Midvaal wants to develop in this area.	development pressure experienced in Waterval from Ekurhuleni, it is the vision of the municipality to proactively plan for this pressure to limit environmental degradation that inevitably result if this pressure is ignored. The municipality is, however, in process of reviewing the Waterval Precinct Plan, which will give detail direction on how development will be managed in the precinct.	
Waterval - We live with Erwat sewage farm not even able to handle the sewage that they receive. We have to live with the aroma that comes from there and not much gets done. Waterval - The Kliprivier, Rietspruit area - we unfortunately have problems in the area, no police - crime is sky high already. Rietspruit was a very clean and safe place. Every week there is crime and people dumping rubbish from across the street at Rietspruit. Waterval - the area also has an infrastructure problem - limited water (we are using borehole water) and no sewage system (we are using septic tanks as Erwat is full). Waterval - The infrastructure on sewerage, water and other services also cannot cope, and	The SDFs chapter on the Implementation Framework notes a number of capital investment interventions that could aid the municipality in achieving the spatial vision (including unlocking the urban expansion areas as demarcated for Waterval) The Waterval Precinct Plan is currently being reviewed and is in the public participation process. The outcomes of this process and the subsequent adoption by council will indicate whether the area will be included in the urban development boundary with subsequent infrastructure investment to support this proposal. Or whether any alternative proposals for the development of the area will be	6

TABLE 31: WRITTEN COMMENTS CATEGORISED AS “ENGINEERING AND SOCIAL INFRASTRUCTURE”

Written comment	SDF response	SDF section
even the police services cannot cope in the area anymore	made, with the subsequent impact of such decision on the provision of infrastructure.	
Waste transfer station in Kliprivier, way over capacity due to Sky City and outside residents from Ekurhuleni dumping there. Waste collection not done for various regions, creating massive backlog and health risk		
Waterval - What infrastructure is there for these new developments? No hospital, No school, No sewerage, No access roads, No police stations, No drainage for storm water, etc. and then you have the cheek to tell us that there needs to be a certain number of people living in and area before these things gets built?? this is a perfect recipe for a fatality causing disaster, riots and unrest.		
Waterval - We already sitting with floods caused by the Sky City "buffer dams". Floods that is destroying Rietspruit road, causing people to lose their jobs, and residents to have no access to their homes.		
Waterval - With the recent development of Sky City it is already evident that the infrastructure cannot cope and handle the influx of the thousands of people, specifically the roads (R550) which cannot be widened easily due to river crossings and train bridges		

TABLE 31: WRITTEN COMMENTS CATEGORISED AS “ENGINEERING AND SOCIAL INFRASTRUCTURE”

Written comment	SDF response	SDF section
Waterval - We decided to live out here as this area was nice and quiet, and crime was not a problem. Now, with all the developments of Sky City, we have loud parties every weekend, NO police station and crime is hitting us very hard. (Yes, Kliprivier HAS NO POLICE STATION) just a building filled with useless salary drawing incompetent people.	Comment is outside of the scope of the SDF and the development in Sky City is noted. These changes in Ekurhuleni needs to be considered in an appropriate response in the Waterval area.	N/A
Waterval - The police station is way over capacity and too small. SAPS spends most of their time in Sky City, despite township development plans showing that they would have their own police station		
Waterval - Human nature and settlement patterns cannot be predicted or based on scenarios in the Greenbook or consultants who don't understand the dynamics of the area they are reporting on.	The CSIR Space Planner is a national planning tool used across the country to determine the demand for social facilities/infrastructure. The SDF highlights how the planner is prescriptive and should be used as a quantitative knowledge informant to prioritise certain social facilities. It, however, also notes that this planner should work together with spatial positioning to determine where these facilities are needed most. Therefore, the Waterval precinct plan will be instrumental in identifying the need for social facilities, and the allocation of potential land to accommodate these services.	3.6.5

TABLE 31: WRITTEN COMMENTS CATEGORISED AS “ENGINEERING AND SOCIAL INFRASTRUCTURE”

Written comment	SDF response	SDF section
Please add malls, SARS, schools, clinics, home affairs, rehabilitation centres, orphanage centres. I believe that as population is growing it will cut the cost	Social facility requirements are based on the CSIR Space Planner, which is informed by population densities and projections. Feasibility studies are required for each of the suggested services.	3.6.2
R59 Corridor - while this corridor is of essential importance to the ability to access the industries, agricultural areas and residences of Midvaal, it is also an exceptionally high accident zone, and needs major structural attention.	The comment is noted, and further municipal management interventions need to be afforded to the R59 corridor and the improvement of the safe use of this regional link.	4.3.3
This road is in need of consistent monitoring of road conditions, the soft shoulder is in need of upgrading, and the corridor needs far greater attention from police and traffic police as regards the poor driving and number of unroadworthy vehicles, particularly vehicles travelling at night with inadequate or even no lights		6
Henley on Klip - Police stations such as Evaton are in an embarrassing state of disrepair. The planned new police stations for areas that will need to be covered in the future need to be preceded by serious attention to the current facilities.	The SDFs chapter on the Implementation Framework notes a number of capital investment interventions that could aid the municipality in achieving the spatial vision. The Henley on Klip precinct plan would also be instrumental in guiding capital investment for engineering and social infrastructure. This precinct plan is being reviewed and is currently in the public	3.6.5
Henley on Klip - Inadequate space, substandard equipment and a somewhat less than welcoming face of the current facilities all contribute to the impression in the minds of the		6

TABLE 31: WRITTEN COMMENTS CATEGORISED AS “ENGINEERING AND SOCIAL INFRASTRUCTURE”

Written comment	SDF response	SDF section
criminal element that policing is ineffective in the area, an unfair judgement, but no doubt a contributing factor in the current rise of crime.	participation process. After completion and adoption by council, the SDF proposals for Henley on Klip will reflect the outcomes of the precinct plan.	
Henley on Klip - As well as this is the definitive lack of visible policing, which is being addressed in the planning, but needs to be prioritised.		
Henley on Klip - At the same time, more facilities for children would be very welcome, and a definite creation of more sporting facilities is needed		
Henley on Klip - Proposed new schools, police stations and clinics - these planned new facilities assumed upon a projected growth of the population also need careful attention to timing.		
Henley on Klip - The strengthening of the grid and the provision of better infrastructure needs to run well ahead of the statistical predictions on population growth, if we are to avoid disaster.		
Henley on Klip - Lack of technologically up to date infrastructure is already placing pressure beyond the realistic capacity of the current infrastructure		
Henley on Klip - Talk of higher density housing areas must come with an advance plan for provision of a strong and easily		

TABLE 31: WRITTEN COMMENTS CATEGORISED AS “ENGINEERING AND SOCIAL INFRASTRUCTURE”

Written comment	SDF response	SDF section
maintained infrastructure, that is secure and safe from cable theft		
In the SONA address, the president suggested that paved roads would be a better consideration than the current bitumen tar road. Having spent 7 years driving through Alexandra I have met many of their paved roads, which have survived the worst storms, floods and extremes of traffic. In heavy rains, Alex fills up like a bowl (which it is) and the paved roads survive. I do think the paving of some of our heavier use roads would not go amiss.	The comment is noted, and further feasibility studies should be done on the potential implementation of paved roads.	4.3.7
Ward 4 - at the proposed site to formalise the informal settlement of Boitumelo on Witkop Road (1) there is no infrastructure there, whereas at Skansdam there is infrastructure both in services such as water, sewage and electricity.	Must be dealt with in the Integrated Human Settlements Plan.	N/A
Ward 4 - at the proposed site to formalise the informal settlement of Boitumelo on Witkop Road (2) both train and road transport infrastructure is already in place at Skansdam		
Ophir AH - is there any plan for the illegal power connections that are taking place	Comment outside the scope of the SDF.	N/A
Ophir AH - Is there a plan for the roads around Ophir AH to be fixed and also tarred		
Ophir AH - will the transporter in the area be upgraded to accommodate all new residents		

TABLE 31: WRITTEN COMMENTS CATEGORISED AS "ENGINEERING AND SOCIAL INFRASTRUCTURE"

Written comment	SDF response	SDF section
in the area or will it stay the current size		

TABLE 32: WRITTEN COMMENTS CATEGORISED AS "SITE LEVEL DETAIL"

Written comment	SDF response	SDF section
The consideration of increased mining in the area is of concern, especially in view of the extremely damaging prospect of coal mining. While Eskom is being encouraged to produce a definitive plan to cease the use of coal for electricity production, there has been too little reason for them to do so if coal production is allowed to continue.		
Coal mining is also damaging to the environment in and of itself, and the human cost in medical health issues cannot be overemphasised.		
Waterval - Since 2017, I have been planning to expand my activities to include growing more "niche" market vegetable items and have invested hundreds of thousands in training on myself and my workers, but now you want to destroy my dreams and investment.	The SDF is a long-term vision for the municipality. Given the development pressure experienced in Waterval from Ekurhuleni, it is the vision of the municipality to proactively plan for this pressure to limit environmental degradation that inevitably result if this pressure is ignored.	N/A
Waterval -I already had to give up my intensive exotic parrot breeding program as a result of the illegal trucking yard that shot up on the R550 right behind me. I did register a complaint, but as usual, Midvaal did NOTHING to stop them. Now you are expecting me to give up my small-scale vegetable growing enterprise as well? I lost hundreds of thousands of Rands in losses with my parrot breeding facility.		
	The municipality is, however, in process of reviewing the Waterval Precinct Plan, which will give detail direction on how development will be managed in the precinct.	

TABLE 32: WRITTEN COMMENTS CATEGORISED AS "SITE LEVEL DETAIL"

Written comment	SDF response	SDF section
Waterval - Also, you cannot say we can relocate the operations to another area - the cost of moving goods to the market would make it simply unworthwhile, while developing suppliers and infrastructure to support these businesses in the immediate term would be impossible		
Would it be possible to Re-Zone the attached 3 pieces of land from Agricultural to Commercial (the clients would be looking to create a Shopping centre on Both pieces	Comment reserved for LUMS	N/A
Consider permission for service industries and supporting businesses and commercial uses in the area (Vaal Marina), since residents have to travel far distances for services. It is not intended to have noxious and heavy industries in this regard	Potential for a precinct plan for the Vaal Marina area is being considered, which could be used to demarcate areas suited to these uses.	N/A
Look at the Hartbeespoort Dam uses on a small scale, as people need things fixed (houses and boats) and these services are not very accessible in the Vaal Marina area		
Support storage facilities for boats, cycles, and other related tourism needs, which can tie in with agricultural activities also found in the area.		
Provide designation for light industries to prevent an overspill of undesirable uses in the immediate vicinity on high potential agricultural land and preservation of the environment		
Henley on Klip - Since the meeting at which the plan was presented. Great effort has gone into marketing the spaces, and hopefully	Comment outside the scope of the SDF but should be part of the action list in the precinct plan.	N/A

TABLE 32: WRITTEN COMMENTS CATEGORISED AS "SITE LEVEL DETAIL"

Written comment	SDF response	SDF section
identifying and dealing with absentee landlords. However, should the estate agents be successful in their efforts, we will need to have some of these facilities in place rather urgently as we will be faced with an influx of not only new owners, but builders and other contractors, who will need monitoring for the small but potentially worrisome few with criminal intent		
Waterval - Since development started across from the R550 a lot of things changed. Criminal activity increased a lot. We used to be able to access the R550 with no problem. We never had riots and vandalism in our area. The last couple of nights we are having riots on the R550 and even people digging trenches across the road	Comment outside the scope of the SDF.	N/A
Waterval - Road network - no mention has been made of illegal truck yards in agricultural areas damaging road infrastructure.		
Ophir AH - is there any plan to continue the RDP housing to place some of the settlement community, especially a side that has breached the barrier of Agricultural farms	Comment outside the scope of the SDF.	N/A

TABLE 33: WRITTEN COMMENTS CATEGORISED AS "DEVELOPMENT DRIVERS"

Written comment	SDF response	SDF section
The solutions in South Africa (sun, wind, and water generation) cannot continue to be avoided.	Hence development driver 2 (pursue alternative clean energy and reduce cost to industrial and commercial users)	4.3.2
'Waterval - In 2018 the Mayor talked about creating an agri-hub in Rietspruit - nothing	The precinct plan for Waterval is currently being reviewed and is in the public participation	N/A

TABLE 33: WRITTEN COMMENTS CATEGORISED AS “DEVELOPMENT DRIVERS”

Written comment	SDF response	SDF section
happened. With this hub we can uplift people to generate and own business for themselves.	process. The outcomes of this process will determine whether Waterval will be earmarked as an Agri-hub.	
Waterval - Let's start by showing people how they can generate money from collecting tin cans, plastic, creating a cleaner space to live in, and generate an income - all within this HUB		
Waterval - creating a market for selling own products - this way creating an income		
Boitumelo - I therefore would expect that this development would only be considered once the precinct plan for the current Boitumelo area is finalised to ensure a better quality of life for the would-be recipients of this project	To be dealt with in the Integrated Human Settlements Plan.	3.6.3
Waterval - Housing profile - why are only resident of Boitumelo mentioned and not Khayelitsha and Piels Farm? This matter is a ticking time bomb and needs to be addressed urgently so that the informal dwellers can live dignified, healthy, proud lives		
Waterval - You need to finalise a workable, dignified, sustainable housing development for the 3 informal settlements in our area. Namely Boitumelo, Khayelitsha and Piels Farm, not only Boitumelo as mentioned in the document		
Vaal River area seems to be the main focus and economic growth and tourism area, given the full potential of the area has not been explored. But potential	Development driver 5 (stimulate tourism) is not intended to be an exhaustive list of tourism priority areas. The driver is however meant to be supportive of all	4.3.5

TABLE 33: WRITTEN COMMENTS CATEGORISED AS “DEVELOPMENT DRIVERS”

Written comment	SDF response	SDF section
in other areas need to be explored promoted and protected.	tourism developments and related activities whether or not situated in the priority areas. The Witkop Blockhouse has been noted on the Tourism Priority Areas Map as a place of "recreation & entertainment", together with various other tourism, entertainment, and recreation sites.	
Why is Witkop Blockhouse not mentioned as an area of high potential for tourism? It is a unique landmark in our area and an ideal location for an information centre/curio shop		
Witkop Blockhouse needs to be protected and renovated so that it can be one of our functional landmarks and heritage sites		
Encourage, promote and support your conservancies. Midvaal is in the enviable position to have 8 of them. Utilise them, they are already doing a lot to manage, protect and conserve pockets of land within the municipality and taking a load off Midvaal's shoulders	The topic of conservancies and their role will be discussed with stakeholders.	4.3.9
A concerted effort needs to be made to revive and protect Suikerbosrand Nature Reserve and Kareekloof at all times and not only mentioned in documents under review.		
The Suikerbosrand and Kareekloof need to be supported and viable		
These two facilities can be and will be the main tourist and conservation attractions in the north of Midvaal, generating much needed income whilst protecting and conserving a dwindling heritage for future generations		

TABLE 33: WRITTEN COMMENTS CATEGORISED AS “DEVELOPMENT DRIVERS”

Written comment	SDF response	SDF section
The Klip River and Rietspruit need to be protected, conserved and promoted through tourism related activities		
Conservancies need to be encouraged, protected, and supported as in your previous documents, as non-negotiable entities, but unfortunately this has been removed from your documentation		
Explore the opportunity to legislate a greenbelt area for Gauteng between Suikerbosrand, adjoining conservancies up to Klipriviersberg Nature Reserve, to create a green lung for urbanised city and town dwellers to get out into the country close to home		
Waterval - No mention is made of the fact that the R550 is the main East-West Abnormal Load Route or that promised upgrades which were part of Waterval Development have not been implemented.	The SDFs chapter on the Implementation Framework notes a number of capital investment interventions that could aid the municipality in achieving the spatial vision. The Waterval Precinct Plan is currently being reviewed and is in the public participation process. The outcomes of this process and the subsequent adoption by council will indicate whether the area will be included in the urban development boundary with subsequent infrastructure investment to support this proposal. Or whether any alternative proposals for the	N/A

TABLE 33: WRITTEN COMMENTS CATEGORISED AS “DEVELOPMENT DRIVERS”

Written comment	SDF response	SDF section
	development of the area will be made, with the subsequent impact of such decision on the provision of infrastructure.	

TABLE 34: WRITTEN COMMENTS CATEGORISED AS “INTERNAL MUNICIPAL COMMENT”

Written comment	SDF response	SDF section
Figure 51 refer to the Westonarea CBD?	The figure is an example of capital investment projects that have been implemented in the Westonarea CBD that might be considered in Midvaal.	8.1.2
R59 Corridor. West, East mobility routes are supported.	Noted	3.2.3
Nodal Precinct Plans. Areas with underlying dolomite should be noted.	Dolomite map has been included.	3.2.1
Policy/By Law on Development on Dolomite should be included	Dolomite map has been included. The by-law should be incorporated with the annual SDF review	3.2.1
Should the SD Plan also address other services e.g.; GAS and FEUL lines crossing MLM	Other engineering infrastructure should be analysed with the annual SDF review	3.2.6
Dolomitic conditions are identified in the SWOT. Should the doc perhaps elaborate	Dolomite map has been included.	3.2.1
The Precinct Plans are supported	Noted	3.3
Figure 36 (Synthesis map - built environment) is noted	Noted	3.5.2
Sports fields and park space. How accurate is 284 facilities	Figures are based on the 2021 Land Use Audit data. Figures are therefore fairly accurate.	3.6.2
Do we have vacant land available for small business, industrial uses, etc, as it might be in demand due to the current economic conditions, etc.	Analysis on space allocations for social infrastructure and services should be done during the annual SDF review. Or space allocations should result from departmental master plans structured according to the SDF.	N/A

TABLE 34: WRITTEN COMMENTS CATEGORISED AS “INTERNAL MUNICIPAL COMMENT”

Written comment	SDF response	SDF section
From a law enforcement point of view, mixed used areas should be avoided	Definition of mixed-use development and the associated permitted land uses is included to better define compatible land uses for mixed-use areas	N/A
Clean and renewable energy initiatives are supported	Noted	4.3.2
4.3.4 - large volumes of ground water extraction in dolomitic areas should be avoided	Dolomite map has been included. Municipality should manage the amount of borehole applications and groundwater extractions allowed in dolomitic areas	3.2.1
Walkable nodes and TODs are supported	Noted	4.3.6
pg. 96 par 4 - spelling error (skills)	Error has been corrected	8.1.2
pg. 96 - can the info not be locally bound	No, the example is extracted from the projects done by the NDP	8.1.2
The development drivers are supported	Noted	4.3
With the implementation of the previous SDFs, there has always been a challenge with regards to the applications received for Filling stations and Cemeteries. As much as the idea is not to earmark an area for the said uses, the SDF should at least provide some sort of guidance on how such applications should be dealt with	Comment reserved for LUMS	N/A

8 ADDENDUM 3 – INSTITUTIONAL, POLICY AND STRATEGY CONTEXT

This section intends to capture higher order and local policy strategies that should be embraced in the engagement of the new Midvaal Local Municipality SDF.

8.1 Policies and strategy focus

8.1.1 State of Nation Addresses

2022

The 2022 State of the Nation Address delivered by President Cyril Ramaphosa contained the following key aspects to be considered:

- A renewed commitment to the implementation of the District Development Model which brings all spheres of government together with other social partners to grow inclusive local economies and improve the lives of communities.
- Integrated planning and budgeting across spheres of government and improved integration of national projects at a district level.
- The accelerated rollout of broadband across all municipalities and the establishment of a standard model for the granting of municipal permissions.
- The intention to end the state of disaster and remove all lock-down and/or Covid-19-related mandates moving forward. This is to promote economic growth and allow everyone to continue with their lives.
- Legalisation and market acceleration of the cannabis sector to increase investment and job creation. It is projected to create 130 000 jobs in the hemp production industry. Spatially, the need for arable land and the necessary farming skills will be required to establish this industry.
- The need for additional schooling facilities in the country was highlighted with an estimated total need of 2 500 schools.
- Concerns surrounding investor confidence and the provision of basic services (water, electricity, and sanitation) was highlighted in the speech.
- The conditions of roads and ability to travel safely, including children crossing rivers due to inadequate bridges.
- The unreliable electricity supply (load shedding) is directly affecting employment opportunities and increasing the unemployment rate.

President Cyril Ramaphosa also said that “If there is one thing, we all agree on it is that the present situation that we are in now, of deep poverty, unemployment and inequality is unacceptable and unsustainable”.

The announcements are important for local authorities such as Midvaal Local Municipality because they set priorities for government and identify the projects and initiatives which will become key focus areas for national and provincial administrations.

2021

The State of the Nation Address delivered by President Cyril Ramaphosa in 2021, introduced a short and focused plan. The economic destruction instigated by the corona virus pandemic mandated a clear articulation on recovery and public health and safety.

The main components of the address focused on:

- Defeating Covid-19
- Accelerating economic recovery
- Implementation of economic reforms, the creation of sustainable jobs, and driving inclusive growth.
- Fight corruption and strengthen the state.

The administration's plan remained solid on tackling the triple bottom-line challenges of poverty, unemployment, and inequality. These are historical challenges in South Africa which the pandemic has exacerbated. Finding a balance between immediate public health emergency and maintaining the fight on poverty became a financial dilemma for the administration.

Economic Reconstruction and Recovery Plan

Released in 2021 the plan is designed to stimulate equitable and inclusive growth. It reflects a consensus among social partners that economic resources and efforts should be mobilised to put the economy on a sustainable recovery trajectory.

Economies trapped in a downward spiral of decline can only be taken out of bust through decisive state interventions. Monetary policy interventions are key in ensuring a stable economic environment; however, they are not enough to facilitate sufficient growth and development. Strategic expenditure on capital projects by the state, triggers private capital to continue spending. The latter drives the large absorption of the jobless masses.

The images below illustrate both micro and macro-scale public works projects that are envisioned to drive growth, employment, and development.



Figure 44: Public works infrastructure projects of a local road and N2 Msikaba bridge

Following this economic model, a series of priority interventions for rapid economic recovery were detailed in the SONA 2021:

1. Massive rollout of infrastructure throughout the country.
2. Massive increase in local production.
3. Employment stimulus to create jobs and support livelihoods.
4. Rapid expansion of energy generation capacity.

The address notes that achieving growth and recovery depends heavily on increasing exports. This economic strategy constitutes the basic function of city governments. The White Paper on Local Government 1998 stresses the need for municipalities to be competitive entities. Municipalities can provide targeted assistance to specific sectors of comparative advantage. These can be enhanced through property rate and tax incentives, and infrastructure incentives.

The rejuvenation of the manufacturing industries is high on the national government's agenda. Specific sectors of focus include sugar, poultry, textile, steel, and automobile sectors. The R59 corridor offers opportunities to revive and intensify manufacturing and logistics infrastructure development from Vereeniging to Alberton.

The manufacturing sector in the Sedibeng district accounted for R 14.7 billion, about 24% of the total district GVA in 2018. This makes it the largest sector by contribution to the district. However, in the recent years, the sector has experienced a decline, together with construction.

8.1.2 National Development Plan, Vision 2030

The National Development Plan sets out an integrated strategy for accelerating growth, eliminating poverty, and reducing inequality by 2030. The plan has less than a decade left to demonstrate sufficient evidence on achieving the developmental goals it set out since the publication date of 2011. Supported by the New Growth Path (NGP) and other relevant developmental programmes, it provides a platform to look beyond the current constraints to the transformation imperatives over the next 20 to 30 years.

Its 2030 goals include eliminating income poverty and reducing inequality. The NDP's human settlement targets, as set out in Chapter 8, focus on transforming human settlements and the national space economy. The plan expands on the administration's focus to enable support programmes that will enable:

More people to live closer to their workplaces

Better quality public transport, and

More jobs in proximity to historical black townships.

The above directives intend to take work to where people are living, as an intervention to undo the apartheid spatial legacy. It aims to alleviate the pressure of daily migration to historical city centres, opening-up the opportunity to have (1) functional and self-sufficient communities and (2) efficient transportation of economic units (commuters, goods, and services). The latter leads to greater economic productivity in municipal regions.

Industries want to be located where their business facilitation is efficient, shows evidence of growth and is served by reliable infrastructure services. Communities directly benefit from the economic spill overs of these industrial agglomerations. These include infrastructure (re)developments and employment. The material changes of the people on the ground, leads to a society that makes better decisions. Socio-economic upliftment is the main element that has the potential to deal with a variety of social ills including gender-based violence (GBV) and the prevalence of HIV/AIDS.

The pursuit of efficient cities and towns is emphasised in the plan through the discouragement of further development of affordable public housing in marginal spaces. The NDP is a proponent of increasing urban densities to support public transport viability and land use efficiency, which is referred to as "sustainable densification."

In South Africa, this intends to strike a balance between the embedded culture and pride in land ownership and decreasing the damage on the ecology. These are often reflected in horizontal densification strategies as observed in Savanna City (Midvaal LM) and Westonaria Borwa (Rand West LM) amongst others. It is also important to consider a variety of other housing typologies such as three-storey walk-ups located in existing town centres. This will cater for individuals and families that prefer such living arrangements.

The images below demonstrate densification models at the disposal of planners. They reflect the reality of population growth and rapid "urbanisation of poverty", environmental degradation, and public health threats. These typologies represent public and/or private housing developments that the Midvaal Local Municipality SDF can deploy to advise the housing sector plan.

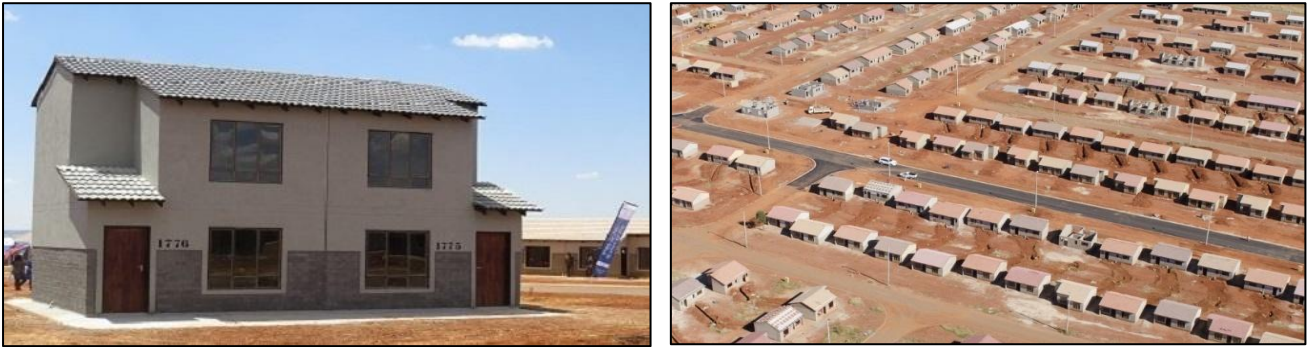


Figure 45: Densification with low-cost duplexes and smaller erven near Westonaria CBD

It is important to note the inevitable housing development pressure which Midvaal Local Municipality as a predominantly rural municipality faces. When tabling the Midvaal Local Municipality developmental vision it is important to strike a balance between identity, food security, social cohesion, growth, and urbanisation. The Greenbook provides a foundation to observe, deliberate, and offer risk management solutions to the projected scenarios of human settlements growth in South Africa.

Chapter 6 of the NDP sets out specific targets and goals towards establishing a more inclusive rural economy through integrated rural development. The focus here is on increased investment in new agricultural technologies, research, and the development of adaptation strategies. This aims to protect rural livelihoods and expand on commercial agricultural activities. Gauteng as a Node of Competitiveness that is strongly supported by the Competitive Corridors including the N1, N3 and N4 national roads, should facilitate the exports of goods and services and provide regional opportunities across the SADC region.

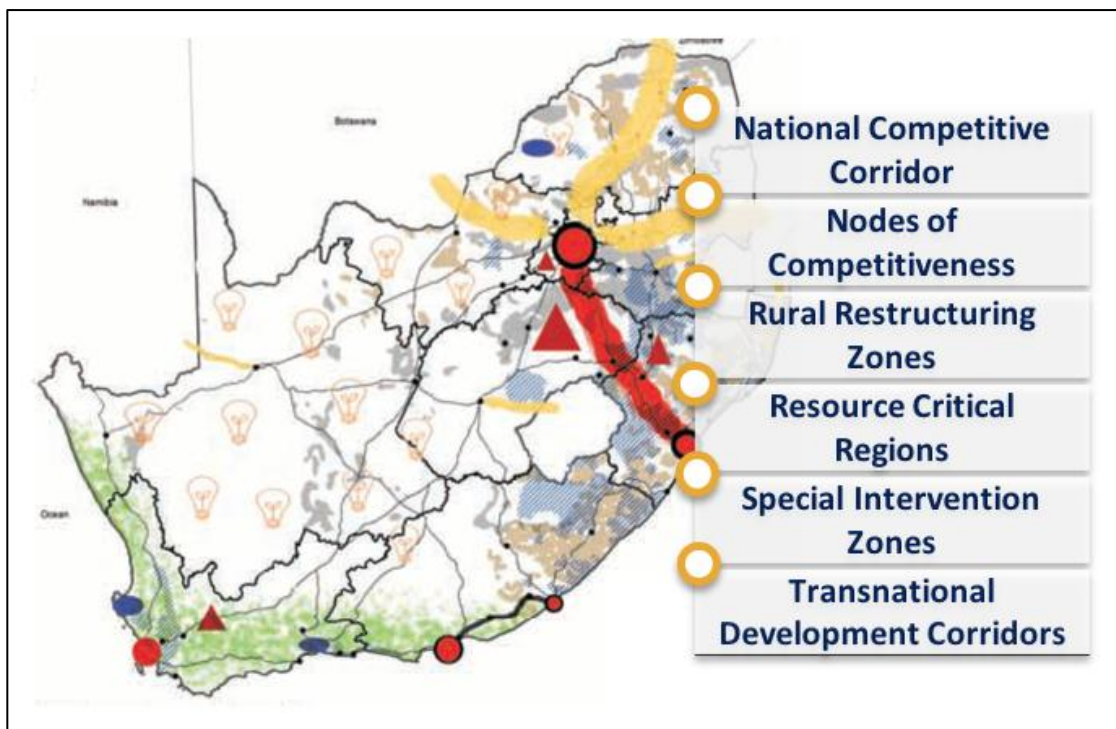


Figure 46: National schema for spatial targeting (NDP)

It is imperative to continue seeking public/private partnerships such as those formed for the Bantu Bonke hydroponics project. Research and development guarantee the growth and prosperity of industries. The partnership formed between Rand Water, the Vaal University of Technology, and the Bantu Bonke Communal Property Association—is an important example of how to continue driving innovative ways to increase agricultural productivity and utilise fewer resources. This follows the district's directive to formulate environments that will incubate the growth of agricultural industries across Sedibeng.

8.1.3 Draft National Spatial Development Framework 2050 (NSDF)

The Integrated Urban Development Framework (IUDF) states that South African cities are largely characterised by high levels of wasteful use of scarce resources. These resources include land and capital infrastructure (CoGTA, 2014). Despite significant developmental efforts made by the Breaking New Ground (BNG) policy programmes, and the Reconstruction and Development Programme (RDP), the distorted spatial patterns in South African cities are still largely unreversed.

The Draft National Spatial Development Framework (NSDF) follows on the spatial transformation agenda echoed in the NDP. The NSDF is a higher order spatial idea that “seeks to make a bold and decisive contribution to bringing about the peaceful, prosperous and truly transformed South Africa....” (NSDF, 2019). Section 12 (3) of SPLUMA, provides that a national spatial development framework must contribute to and offer spatial representation of national development policies and plans.

The framework presents spatial representations of policies and plans from various sectors of national government. Accordingly, the NSDF has provided a national spatial scheme to inform, direct, prioritise, and guide all future infrastructure spending decisions by the public and the private sector. The national spatial scheme aims to optimise place-based potentials and spatial interdependencies.

The national spatial development framework depicted below, outlines a series of five strategic National Spatial Outcomes. These spatial outcomes are both informative and directive in achieving the national developmental objectives highlighted in the NDP. The NSDF identifies the Sedibeng district as the Central Agricultural Heartland— Agri-Enterprise and Small-Scale Farming Resource Region. For this document, emphasis is put on the National Spatial Outcome Four.

National Spatial Outcome Four

The spatial outcome focuses on productive rural regions that should be supported by sustainable resource economies and regional development anchors. Rural areas ought to be enhanced, to enable access to the dividends of urban consolidation, rural innovation, and climate adaptation.

In terms of this outcome:

1. National food security, rural transformation and rural enterprise development and quality of life are enabled and supported through a set of **strong urban-rural development anchors**.
2. Well-functioning, **well-connected and productive rural regions**, strengthen and enhance rural development and the well-being of rural communities.
3. **Differentiated rural development** as set out in Chapter 6 of the NDP, details small, medium and large-scale agriculture, agri-processing, agri-eco enterprises, tourism, resource management and protection of natural resources—which play a key role in creating economic opportunities, and addressing poverty, inequality and unemployment in these regions.
4. Strategically located small towns in rural regions should **support increased access to social services**, tourism, personal services, and administrative functions. They should, thus, act as regional development anchors.
5. Urban consolidation and growth, innovation and context-specific access to services in sparsely, and densely populated areas should be promoted in these rural anchor towns.
6. A set of well-connected, strategically located, smaller towns are to act as **rural service centres** to ensure mutually beneficial urban-rural market linkages.

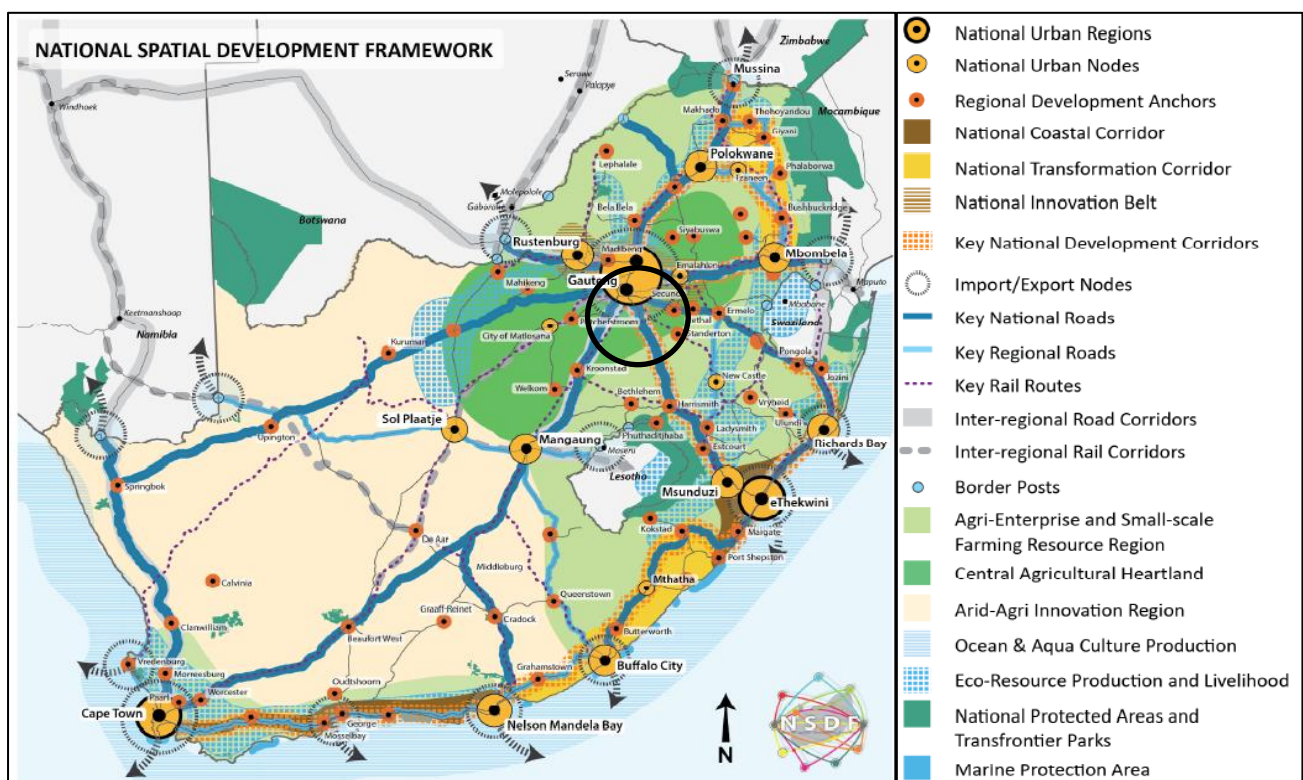


Figure 47: National Spatial Development Framework 2050

From a national perspective, it is critical that the Midvaal Local Municipality spatial outcomes to be pursued in the SDF embrace the concept of productive rural regions. These regions are to focus capital investments to increase access to

adequate social and economic services in its primary and secondary rural service centres. Such services include:

- Health care
- Education
- Administration
- Welfare services
- Recreational/sporting facilities.

The NSDF expands on these services for all settlement hierarchies. See the figure below for the social services wheel.

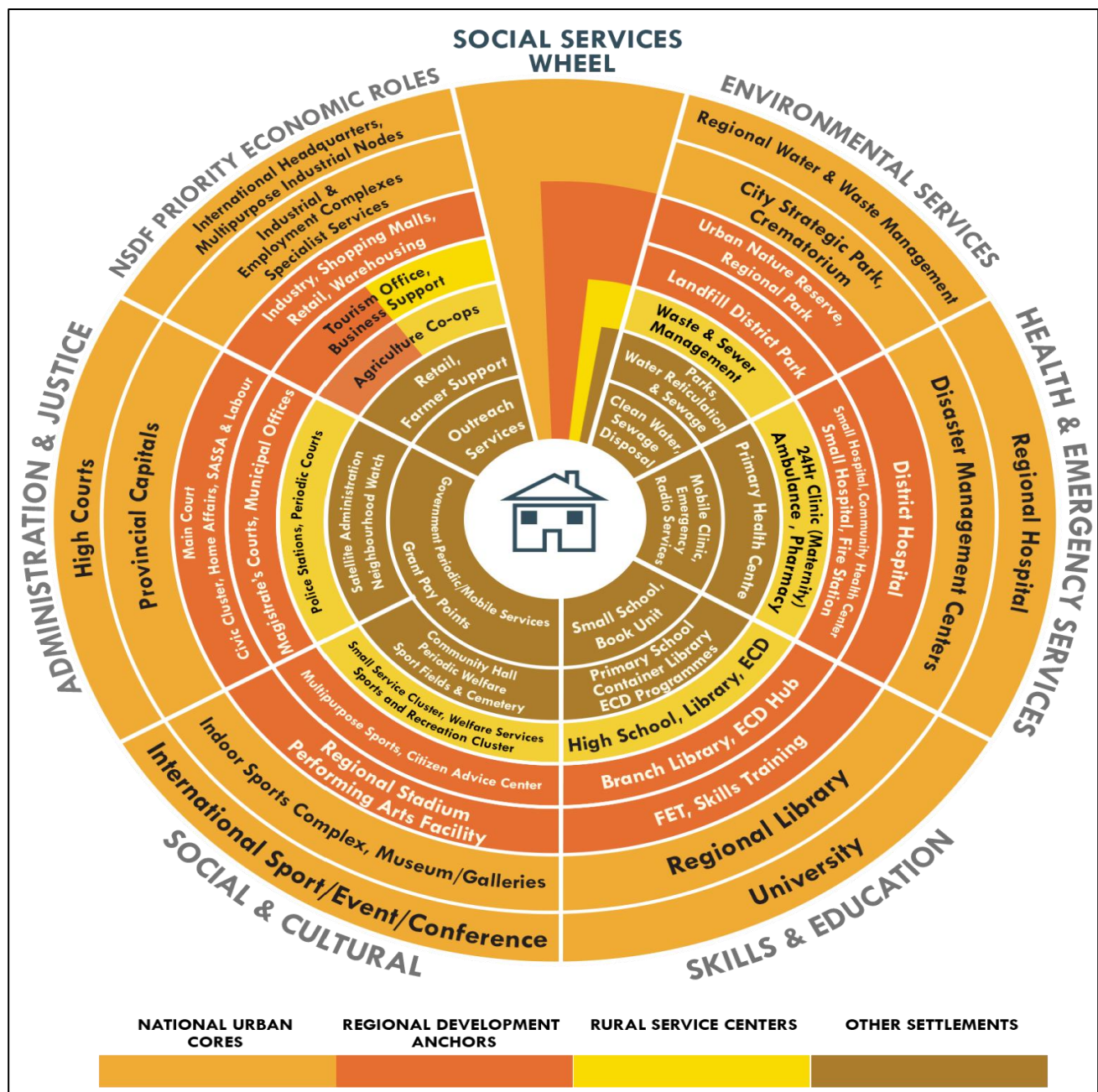


Figure 48: The social services wheel (NSDF)

These centres will be loosely distributed across a municipal region as is the case in the Midvaal Local Municipality. Interventions should maintain the focus on integrating these centres to improve accessibility and mobility between the rural anchor nodes and other larger market centres. The goal is to enable the easier facilitation of goods and services between large and small towns. This latter has a proportional impact on the productivity of regions.

The NSDF makes recommendations on both urban and rural interventions. In urban areas, key recommendations include:

- The upgrading of all informal settlements on suitable and well-located land by 2030.
- Increasing urban densities to reduce sprawl and infrastructure costs.
- Redirect capital investments to the historical black townships in the urban periphery.
- Substantial investment in safe, reliable, affordable, and integrated public transport.
- Implement multi-income and differentiated housing subsidy schemes in settlements.
- Focus strategies on the housing gap market by involving financial institutions and employer housing schemes.

Taking note of the increasing rural decline and outmigration, the NSDF recommends the following for rural interventions:

- Targeted and better coordinated provision of innovative infrastructure.
- Prioritising agricultural and rural development along mobility corridors to build local economies.
- Identification of non-agricultural opportunities such as tourism or certain mining activities with a 'green' focus.

To create such a 'shared, smaller, better connected and more sustainable South Africa', the NSDF identifies the most urgent short-term, strategic spatial development catalysts to (1) bring about radical spatial transformation at scale, and (2) manage and mitigate rising national risks. These are called National Spatial Action Areas (NSAAs).

The NSAAs comprises of five spatial action areas. These are the

1. National Transformation Corridors
2. National Resource Risk Areas
3. Arid Innovation Regions
4. National Urban Regions
5. **Central Innovation Belt (CIB).**

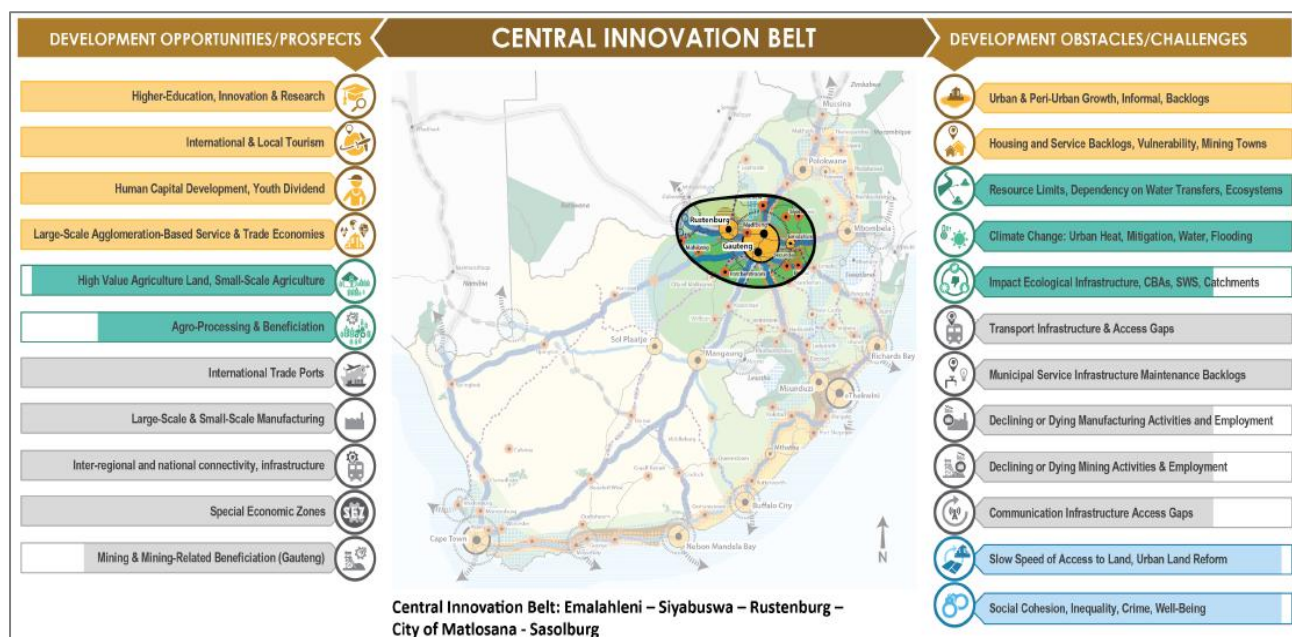


Figure 49: Central Innovation Belt (NSDF)

8.1.4 Gauteng Spatial Development Framework 2030 (GSDF)

Gauteng is the smallest province with the highest population density in South Africa. The province contributes about 24% of the total South African population, with 97% of its population living in urban areas.

It is the best-connected province in the country, with major national road infrastructure linking Gauteng to major export harbours (Maputo and Richards Bay) and several metropolitan cities. These include Durban, Mangaung and the Cape Town city regions.

In 2015, the Gauteng State of the Province Address proposed a 10-Pillar Strategy to engage socio-economic and socio-spatial transformation in the province. Key policy directives were set out to tackle the apartheid spatial economy and human settlement patterns. These directives focus on urban form, space economy, human settlements, and infrastructure, amongst others. The Gauteng SDF communicates the following on spatial (re)developments:

Urban form and human settlements

Policy directives for urban form in Gauteng focus on nodal and corridor developments. High-density and mixed-use developments are promoted in strategically located spaces. These are integrated with public transport systems. Accordingly (1) urban renewal (2) clustering (3) densification, and (4) infill developments are placed high on the agenda of spatial (re)developments. These interventions pursue (1) the protection of agricultural land with high potential (2) protect biodiversity and (3) make the provision of basic services and public transportation systems more cost effective. The GSDF spatial concept stresses the development of new settlements by promoting:

1. Connectivity
2. Viability
3. Diversification
4. Liveability
5. Concentration, and
6. Conservation.

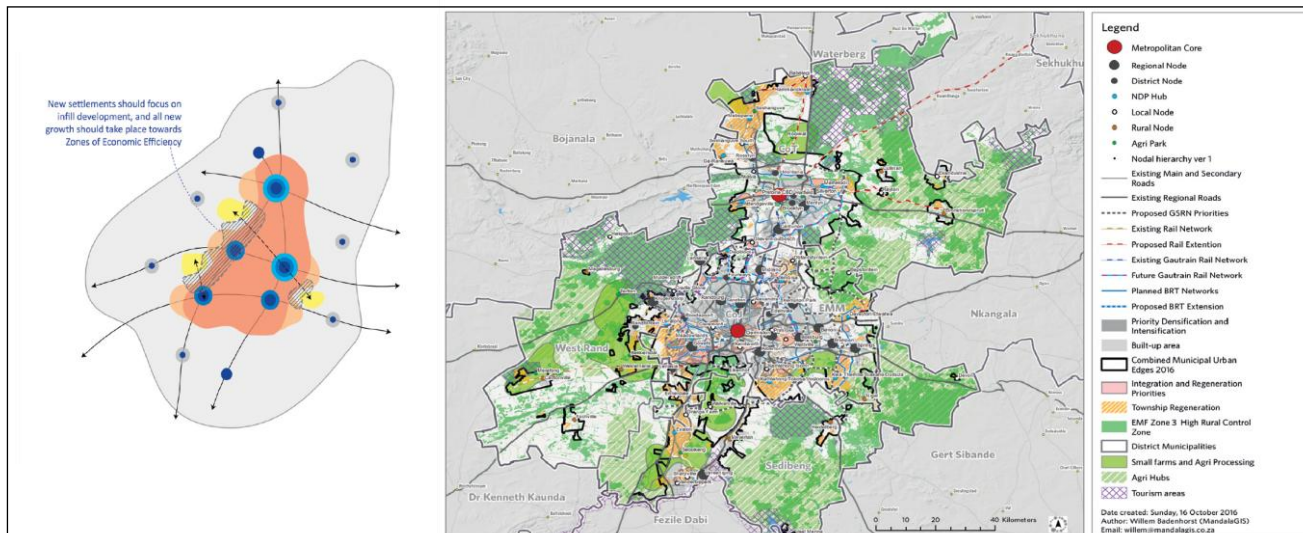


Figure 50: Managing new settlement developments in Gauteng (GSDF)

The Gauteng Provincial Government (GPG) has centralised efforts to facilitate sustainable human settlements. This emphasises the development of quality living spaces through the provision of adequate and affordable housing in spaces of socio-economic opportunities.

The revitalisation and upgrading of the previously disadvantaged areas and informal settlements are high priorities. Interventions in these areas need to focus on mixed-use economic development that create sustainable neighbourhoods.

Socio-economic development

The strategy and vision to grow Gauteng is focused on making places more compact. In theory, such places are more resource efficient. Public transport catchment becomes viable and can accommodate varied income households in spaces with economic and social services. By curbing sprawl, large stretches of agricultural and ecologically sensitive areas are protected from further degradation.

Urban concentration, however, does not exist without spatial consequences which are very much tied to socio-economic degeneration. Economic geographers refer to this as congestion costs. Spaces of higher economic potential are mostly characterised by higher land prices. Developers opt for higher residential and land use density to incentivise their costs. It is advisable to be vigilant of the displacement of the residents by up-market developments when engaging in the planning of integrated human settlements in the Midvaal Local Municipality.

In South Africa, efforts to redress the legacy of spatial segregation has seen the Breaking New Ground (BNG) interventions pursuing land parcels in economic spaces to accommodate low-income households. Although the acquisition of such land parcels remains a financial challenge for the human settlements sector, there are ongoing efforts to pursue these interventions. The rate and scale of these interventions, however, are not at a level desired by policy (Presidency, 2014). The Midvaal Local Municipality SDF, in its refreshed perspective on sustainable human settlements, should communicate clear normative and spatial directives to promote affordable housing in its primary and secondary business nodes.

Densification and intensification of cities

The development of compact cities through densification and intensification has been at the forefront of town and regional planning across the globe. Greenfields developments have been discouraged in policies, which prefer the redirection of funding for urban renewal into areas already developed. The Midvaal Local Municipality SDF should focus efforts to revitalise and enhance already existing primary (Meyerton) and secondary (Vaal Marina) nodes in the municipality. It is advisable to direct the focus towards areas which are seeing unprecedented growth patterns (De Deur), as well as adjustment and containment strategies including densification and intensification.

Intensification is a policy option which is required by the GSDF. Intensification involves redirecting development from the urban periphery into city centres, where development already exists. It is promoted by policy to achieve higher densities and the clustering of different land uses. Higher densities contribute to incentivise public urban infrastructure (public transportation and utilities) and protect the natural environment from human interference. Soft interventions, such as the provision of healthcare centres and schools, are made available within easy reach and usage.

The GSDF discussion above builds on the concept of “smart growth”. Smart growth is a group of urban development strategies that aim to facilitate the sustainability of human settlements. A framework of smart growth promotes socio-economic growth and ecological/agricultural sustainability at the same level of urgency. It is imperative to adopt this approach for Midvaal Local Municipality’s spatial interventions.

8.1.5 Growing Gauteng Together 2030 (GGT)

The “Growing Gauteng Together” (GGT) policy document constitutes a tool to facilitate the implementation of the National Development Plan Vision, 2030. The document envisions a “seamlessly integrated, socially cohesive, sustainable and economically inclusive Gauteng City Region”. To achieve this vision, the GGT centralises the founding principles of:

1. The Freedom Charter
2. The Constitution of the RSA

3. The Sustainable Development Goals, and
4. The African Union Agenda 2063.

This vision strongly emphasizes the need for, amongst others: compaction, high densities, inter-connectivity, and social cohesion.

The GGT identifies Gauteng as one of the wealthiest regions in Africa. However, it also represents an extreme case of inequality, poverty, and unemployment. The continued influx of people into the province has turned the provision of adequate shelter into a never-ending task. Despite significant capital investments to (re)structure and (re)position the apartheid geography, Gauteng, like many other urban regions are still characterized by spatial inequalities.

Rapid population growth as well as continued influx into the province in search of job opportunities, have increased the demand for shelter and basic services. The housing needs register in Gauteng reflects a demand of more than 1-million houses (GPG, 2019). The GGT elevates the completion of unfinished housing and urban renewal projects as a priority. It aims to address this through fast tracking the Rapid Land Release Programme (RLRP).

Currently, this programme has identified about 100 000 land parcels that ought to be provided with basic services. These will be made available for self-help housing for Gauteng residents to differentiate housing provision strategies.

The 2021/2022 Sedibeng Land Use Audit shows that Midvaal Local Municipality has almost 15 000 erven and 2 000 agricultural holdings and farms that are vacant. These vacant land parcels constitute 42% of the total number of properties in the municipality. This suggests focused deliberations at precinct planning level and in housing sector planning. The SDF can assist the GPG to accelerate the RLRP. This will form differentiated interventions to satisfy the demand for human settlements.

The GGT points to where the regional economy has suffered significant de-industrialisation due to the collapse of the steel industry. State interventions should focus on building a new economy in the Vaal, on both the Gauteng and Free State-side of the Vaal River. The GGT identifies the following catalytic investment projects in the Sedibeng District (Midvaal Local Municipality):

- **The Savannah City**
- **Vaal River City**
- A cargo airport and logistics hub
- The Vaal Special Economic Zone
- An AB InBev investment project
- **The Vaal Marina development and logistics**
- The Gauteng Highlands projects

8.1.6 Comprehensive Rural Development Programme 2009 (CRDP)

The Comprehensive Rural Development Programme (CRDP) identifies rural development as interventions that enable rural communities to take charge of their own resources. It considers the optimal usage, and management of natural resources as an effective way to do away with poverty in rural areas. The strategy to achieve this directive identifies (1) agrarian transformation (2) rural development and (3) improved land reform as the supporting pillars of this programme. These pillars are summarised as follows:

Agrarian transformation

1. Facilitate the building of rural and agri-industries, cooperatives, cultural initiatives, and vibrant local markets.
2. Increase production and sustainable use of natural resources including land, water, and mineral resources.
3. Use innovative technology and indigenous knowledge systems to improve the quality of life for each rural household.

Rural development

Involves the improvement of economic infrastructure including:

- Roads and railways
- Community gardens and produce stalls
- Storage warehouses
- Distribution and transport networks
- Communication networks (cell phone towers, wi-fi, radio and television technology)
- Irrigation schemes for small scale farmers
- Water harvesting systems (dams)
- Rural shopping centres or nodes
- Postal services and internet facilities.

Improvement of social infrastructure by establishing:

- Savings clubs and cooperatives for economic activities.
- Sports and recreational facilities for the community.
- Proper sanitation and health care facilities.
- Libraries and skills development centres.

Land reform

The land reform pilot programme, aims to accelerate land redistribution by:

- Increasing access to land for the previously disadvantaged communities—through the redistribution of 30% of white-owned agricultural land.
- Fast-track the settlement of labour tenant claims.
- Facilitate secure access to land by farm dwellers.
- Protect land rights of farm workers and create decent jobs on farms.

- Deal effectively with illegal evictions.
- Establish agri-villages for local economic development on farms.
- Provide basic needs for farm dwellers including:
 - Water
 - Sanitation
 - Electricity
 - Housing.

Planning should support land reform programmes through the provision of reliable and efficient property or deeds registration systems. This includes modernising and digitising the cadastral information. The entire Gauteng Province is a Comprehensive Rural Development Programme focus area. In the Midvaal Local Municipality, Bantu Bonke is the focus area for rural development interventions.

8.1.7 The Industrial Policy Action Plan 2018/19 – 2020/21 (IPAP)

The IPAP is the DTI's pilot programme that identifies key constraints in industrial policy and contributes key action programmes to inspire economic growth. The IPAP intervenes where re-industrialisation is needed to absorb the large numbers of unemployed people. The plan seeks to facilitate a project of economic diversification beyond the current reliance on exporting non-processed and/or semi-processed commodities. The goal is to enhance local production and compete in the export markets more than in import markets. This is achievable through moving towards a knowledge economy.

Key constraints on industrialisation

The plan identifies the following as key challenges that limit industrialisation and subsequent economic growth in South Africa:

1. Lack of sectoral policy alignment
2. Monopoly of large firms
3. High input costs to private sectors
4. Electricity
5. Water supply and availability
6. High port tariffs
7. High logistics costs and economic infrastructure blockages
8. Lack of skills available for productive sectors
9. Apartheid geography constrains workers and affect subsequent productivity, time and ability to save money

Key action programmes

The IPAP identifies traversal focus areas to drive re-industrialisation and growth. These include:

- Special Economic Zones
- Innovation and technology
- Developmental trade policy

- Industrial financing and incentives
- Public procurement

Emphasis is placed on transforming industrial policy on three sectors. The identified sectors should enhance market growth and they include:

1. **Green industries:** these are renewable energy generation markets which should support energy demand for higher production in manufacturing.
2. **Agri-processing:** promoting of beneficiation in manufacturing of bio-fuels and finished food products should create more export market opportunities.
3. **Metal fabrication, capital, and transport equipment:** capital investments are attracted when rail and power infrastructure is enhanced for the easy facilitation of production and transportation. The steel industry needs demand pools both in the international and local markets.

These economic growth strategies have a fertile ground to be revitalised and implemented in the Midvaal Local Municipality in terms of the national, provincial and district economic visions. Midvaal Local Municipality has locational advantage and shares economic infrastructure such as national transport corridors, power generation units and resources, water infrastructure, commercial agricultural land, and industrial infrastructure.

8.1.8 25-Year Gauteng Integrated Transport Master Plan (ITMP25)

The ITMP25 has a vision to implement an efficient transport system in Gauteng that will facilitate economic growth and subsequently foster quality of life. The plan focuses interventions on public transport corridors and their transfer nodes, freight routes and logistics centres.

In pursuit of sustainable transport, the objectives of the plan include:

- Reducing travel times and extents.
- Discouraging dependence on private vehicles.
- Promoting non-motorised transport.
- Introducing innovative and sustainable technologies.

An economic forecast for Gauteng was conducted to understand the future demand of transport and transportation soon. The following table presents the forecast findings:

TABLE 35: GAUTENG TRANSPORTATION DEMAND			
Gauteng	2010	2025	2037
Population	11,2 million	16,3 million	18,7 million
Formal workers	3,9 million	6,7 million	8,6 million

Source: Global Insight 2013

The table indicates that the Gauteng City Region will continue to see an influx of job seekers and population growth with increased economic activities. Transport and

transportation demand will continue to grow. A robust plan to continue the facilitation of economic units is required.

The ITMP25 elaborates on its interventions to ensure integrated and sustainable transportation. These have direct implications on municipal planning tools and their interventions. The interventions are categorised as follows:

TABLE 36: MIDVAAL LOCAL MUNICIPALITY KEY PERFORMANCE AREAS	
Land use development	
1.	Provide housing subsidies in urban centres.
2.	Promote investments and job creation in existing peripheral settlements.
3.	Promote densification to support the viability of e.g., Bus Rapid Transport systems.
Strategic public transport network	
4.	Create facilities that will encourage walking, cycling, trolley pushing and gas-propelled BRT (NMT).
5.	Reinforce passenger rail network to relieve pressure on road networks.
6.	Extend service points of integrated rapid public transport networks.
7.	Continue building capacity in the transport industry.
Freight transport	
8.	Strengthen intermodal freight and logistic hubs.
Road transport	
9.	Travel demand management.
10.	Promote provincial-wide mobility.

8.1.9 Integrated Urban Development Framework 2016 (IUDF)

The IUDF is government's policy position to guide future growth management of urban areas. Urbanisation and population growth have been accompanied by rapid spikes of disastrous climate and weather events, shrinking resources, poverty, and inequality. The IUDF notes that about 72% of the country's population will be living in urban areas by 2030. In this context, supporting policies and frameworks are needed to ensure a sustainable process of urbanisation in contrast to 'urbanisation of poverty'.

In line with the NDP policy expectations the IUDF's overall outcome is focused on spatial transformation to mark a New Deal for South African cities and towns. It aims to achieve the latter through guiding urban growth and development that is sustainable. This entails compact, well-connected, and coordinated cities and towns. The cities and towns should be inclusive, resilient, and liveable.

In pursuit of a programme of spatial transformation, four strategic goals are introduced:

1. **Spatial integration:** to forge new spatial forms in settlement, transport, social and economic areas.

- 2. Inclusion and access:** to ensure people have access to social and economic services, opportunities, and choices.
- 3. Growth:** to harness urban dynamism for inclusive, sustainable economic growth and development.
- 4. Governance:** to enhance the capacity of the state and its citizens to work together to achieve spatial and social integration.

These strategic goals inform the identified nine policy levers which seek to tackle bottlenecks to transformation presented.

1. Policy lever 1: Integrated urban planning and management

- Essential for coherent development.
- Guides investment and encourages prudent use of land and natural resources.

2. Policy lever 2: Integrated transport and mobility

- Vital for South Africa's economic facilitation and growth.
- Crucial for strengthening rural-urban linkages.
- Contributes to sustainable and efficient dense urban form.

3. Policy lever 3: Integrated sustainable human settlements

- Key to addressing the prevailing apartheid geography.
- Key to (re)structuring cities towards safe living and working conditions and environment friendly.

4. Policy Lever 4: Integrated urban infrastructure

- Promotes universal access to resources for industrial, commercial, and household needs and promotes inclusive growth.
- Should be planned in ways that promote efficient, equitable urban form and facilitates access to socio-economic opportunities.

8.1.10 CSIR Green Book (2019)

In addition to the above policies, it is similarly important to note the content and development directions and implications presented in the Green Book.

The Green Book is an online data interactive tool that assists municipal planning in developing climate-resilient human settlements.

Developed by the Council for Scientific and Industrial Research (CSIR), the tool mainstreams data – including on climate change and population – into local government planning instruments and processes. Adaptation strategies are included. For the purposes of this document, we look at work stream 3 which deals with population projection.

The remaining five work streams with specific scientific evidence were developed and peer reviewed. These are:

1. Downscaling climate change projections across the country to 8x8 km grids.
2. Assessing the impact of climate change on the intensity and magnitude of wildfires, coastal flooding, flooding, and drought; as well as the likely impacts

on resources such as the availability of groundwater and surface water, agricultural production and the economy.

3. **Profiling the vulnerability of all local municipalities, settlements and neighbourhoods and predicting the population growth and decline of these areas.**
4. Developing temporally dynamic composite risk profiles for all municipalities and their settlements.
5. Developing a typology of adaption actions relevant to local government planning functions and climate risks; and
6. Developing a web-based platform where all evidence and supporting outputs can be accessed.

Projecting the future growth of South African settlements

Workstream 3 explores potential changes and development trajectories of South African settlements. It attempts to determine the future growth and decline of settlements across South Africa. The settlements are profiled according to their social, economic, physical, and environmental vulnerabilities. To project possible futures, mechanisms put in place by these settlements to be more resilient are also profiled.

Spatial population projections are important in interrogating future assessments. Such assessments can be done on land use distribution, demand for food, water, and energy. Better planning and constraints management are enabled by taking a 'giraffe view' of the spatial make-up, resource needs and environmental events.

Future population projections are mainly at a global and national scale and are non-spatial. To provide planning support that is (1) context-specific and (2) responds to better future local population projections are required. Spatial growth in developing countries is driven by different geographic and socio-economic factors. The rapid population growth which is an independent factor has a proportional effect on settlement expansions. The following table demonstrates various factors that influence population change:

TABLE 37: COMPONENTS INFLUENCING POPULATION CHANGE	
Demographic conditions	Socio-economic conditions
1. Population size and change	1. Employment/unemployment rates
2. Population density	2. Income levels
3. Population distribution (potential housing sites)	3. Crime rates
4. Average household size	4. Education level
5. Population processes (birth rate, mortality rates and migration)	5. Household types (informal/formal)
6. Population composition (age, sex, race)	6. Social and economic facilities
	7. Community values

	8. Type of employment (industrial, agriculture)
--	--

Urban growth

Urban growth refers to the potential growth and development trajectories of towns and settlements within municipalities. It attempts to determine the future growth and decline of settlements across South Africa to relate these directly to the changes that are projected to occur due to climate change.

Growth estimates for the entirety of the municipality were also developed. These estimates are based on 2011 and 2016 data from Statistics South Africa and then projected forward to 2030 and 2050 respectively. Additionally, two growth scenarios were developed, a medium and high growth scenario. The medium-growth scenario indicates population estimates if South Africa experiences medium levels of urban migration towards major towns and urban regions.

Migration is a complex and dynamic process that has significant influence on population change. Migration is influenced by social and economic factors and is a response to unequal access to opportunities. More focus is needed in the analysis of migration patterns.

The high-growth scenario indicates population estimates if South Africa experiences high levels of urban migration towards major towns and urban regions.

A high growth scenario will result in increased populations within towns and settlements with an increased rural migration to these places as well as towards larger urban centres outside of the municipality. Population growth projections for Midvaal Local Municipality are depicted as follows:

TABLE 38: POPULATION GROWTH SCENARIOS						
LM	Pressure	2011	2016	2025	2030	2050
Midvaal	Medium growth scenario	95 286	111 612	141 508	158 016	243 747
	High growth scenario	95 286	111 612	148 630	167 682	283 617

TABLE 39: HOUSEHOLD GROWTH SCENARIOS						
Average household size (2011)						3,1799
2025 extrapolated						3,2997
LM	Pressure	2011	2016	2025	2030	2050
Midvaal	Medium growth scenario	29965	35300	44501	49692	76652
	High growth scenario	29965	35300	46740	52732	89190

Using the data supplied by the Green Book above, a map was developed to geographically depict areas in Midvaal Local Municipality that are experiencing growth pressures.

The results show that Meyerton will continue to undergo extreme growth pressure by 2050 and more industrial activity will continue along the R59 corridor. The R82 corridor connecting Vereeniging and Johannesburg is experiencing extreme residential development pressure in areas including Savanna City and Walkerville.

An urban conurbation is observed between Midvaal's De Deur, Walkerville, Meyerton, and Savanna City; Johannesburg's Orange Farm; and Emfuleni's Evaton-Sebokeng. The southern parts of Midvaal are seeing low growth pressures influenced by the conservation strip along the Vaal Dam.

Considering the Sedibeng District's vision aims to capitalise on the Vaal River for economic growth, the conservation strip could be sterilising the potential for a growth and development corridor for Midvaal Local Municipality.

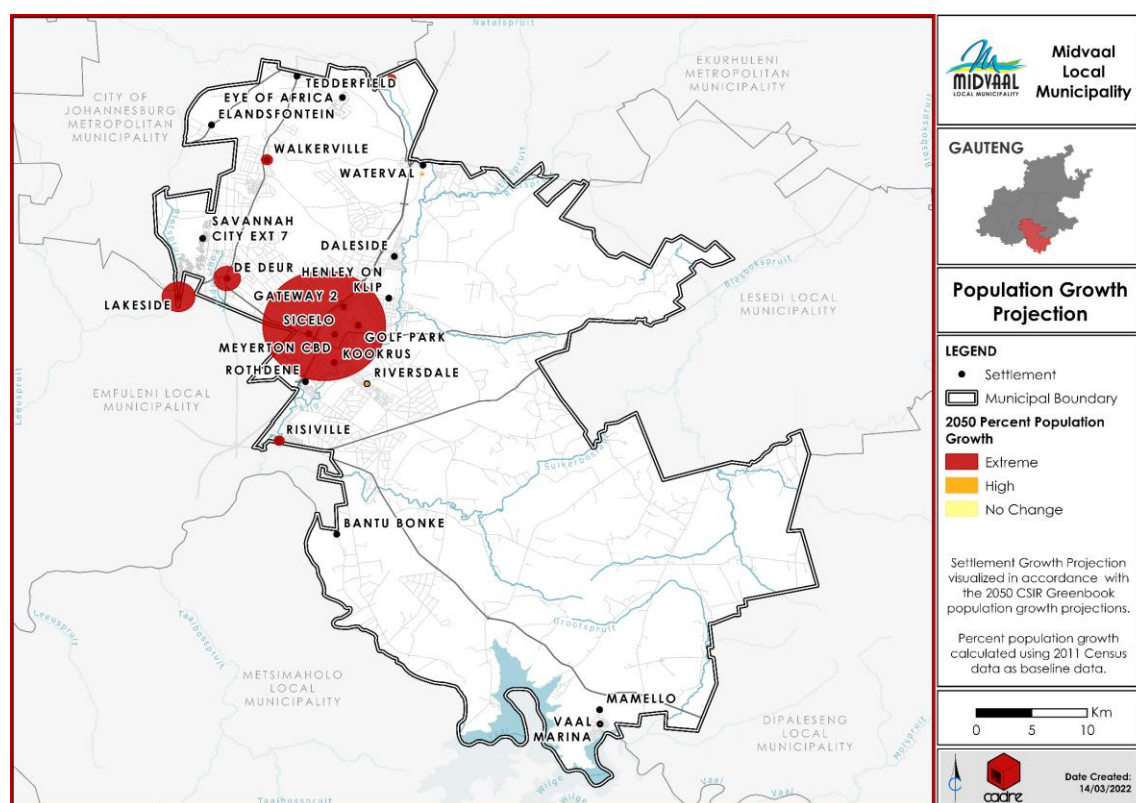


Figure 51: Population growth pressure - Settlements (Cadre adapted CSIR: Green Book data)

8.1.11 Gauteng Rural Development Plan 2014 (GRDP)

The GRDP acknowledges Gauteng as the hub for mining, manufacturing, tertiary, and quaternary sectors. In the context of an extensive build form, Gauteng has large extents of unique rural areas. The GRDP was developed as a strategic tool to focus on the planning and coordination of rural development in Gauteng. The plan seeks to capitalise on the opportunities presented by the city region to integrate rural regions spatially, economically, and socially.

GRDP objectives

The GRDP seeks to achieve ‘Functional Rural Regions’ through the facilitation of the following:

- Strategically plan for and provide guidance for future rural development and land reform project.
- Provide up-to-date GIS information data to assist future rural development and land reform decision-making.
- Facilitate the implementation of the NDP policy objectives.

Nine functional rural regions were identified in Gauteng. These regions would form implementation sites of rural development strategies, plans, frameworks, programmes, and projects developed by national and provincial government. The figure below depicts the Midvaal Local Municipality functional rural regions:

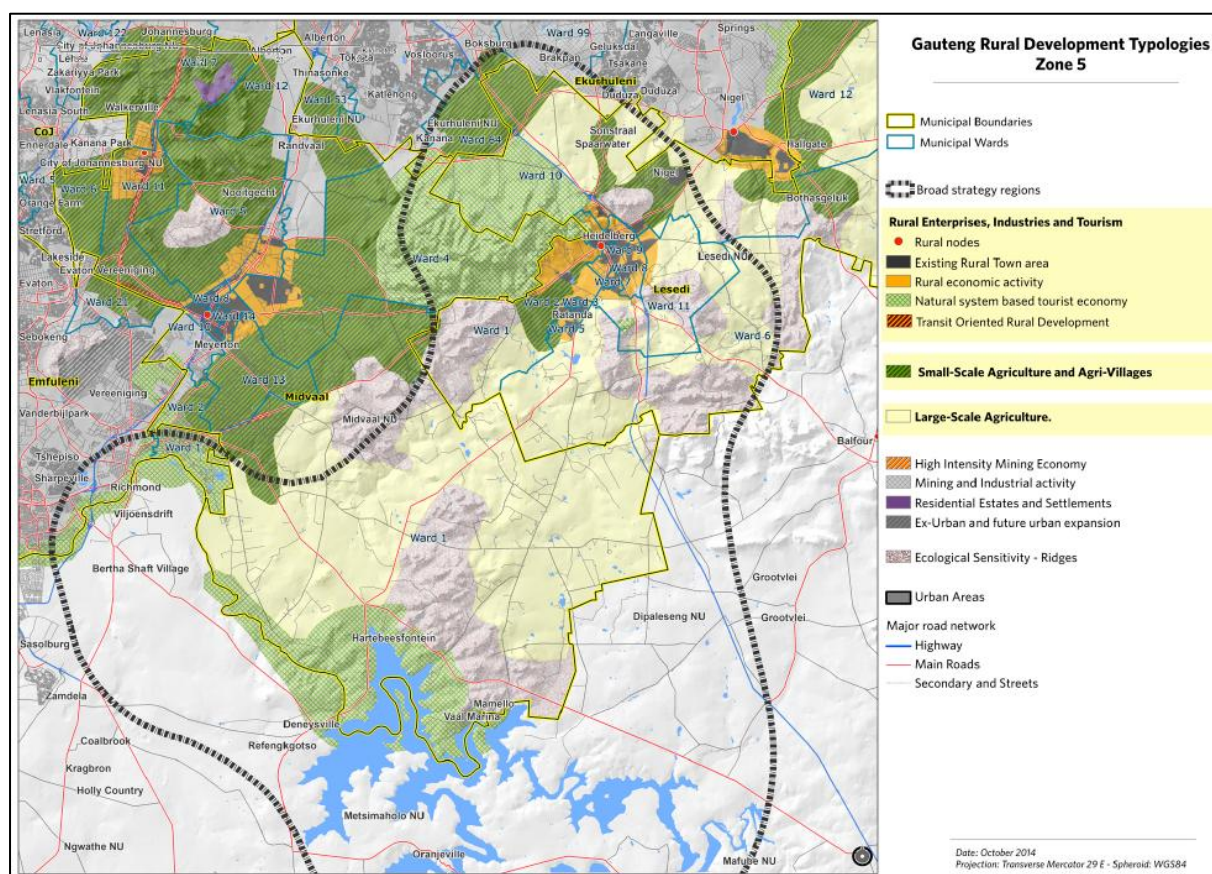


Figure 52: Gauteng Rural Development Plan (Midvaal Local Municipality Zone 5)

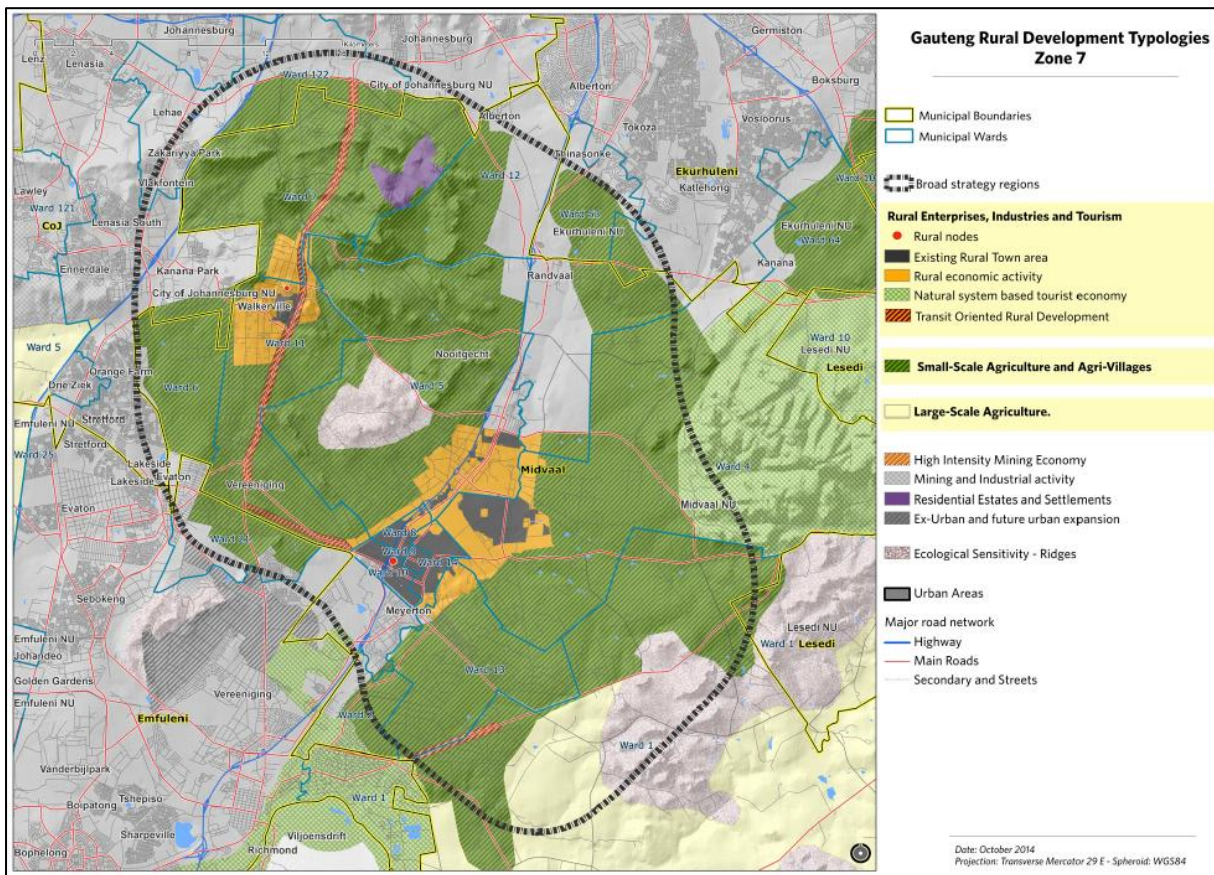


Figure 53: Gauteng Rural Development Plan (Midvaal Local Municipality Zone 7)

9 ADDENDUM 4 – ENGINEERING SERVICES

9.1 Engineering services- Water

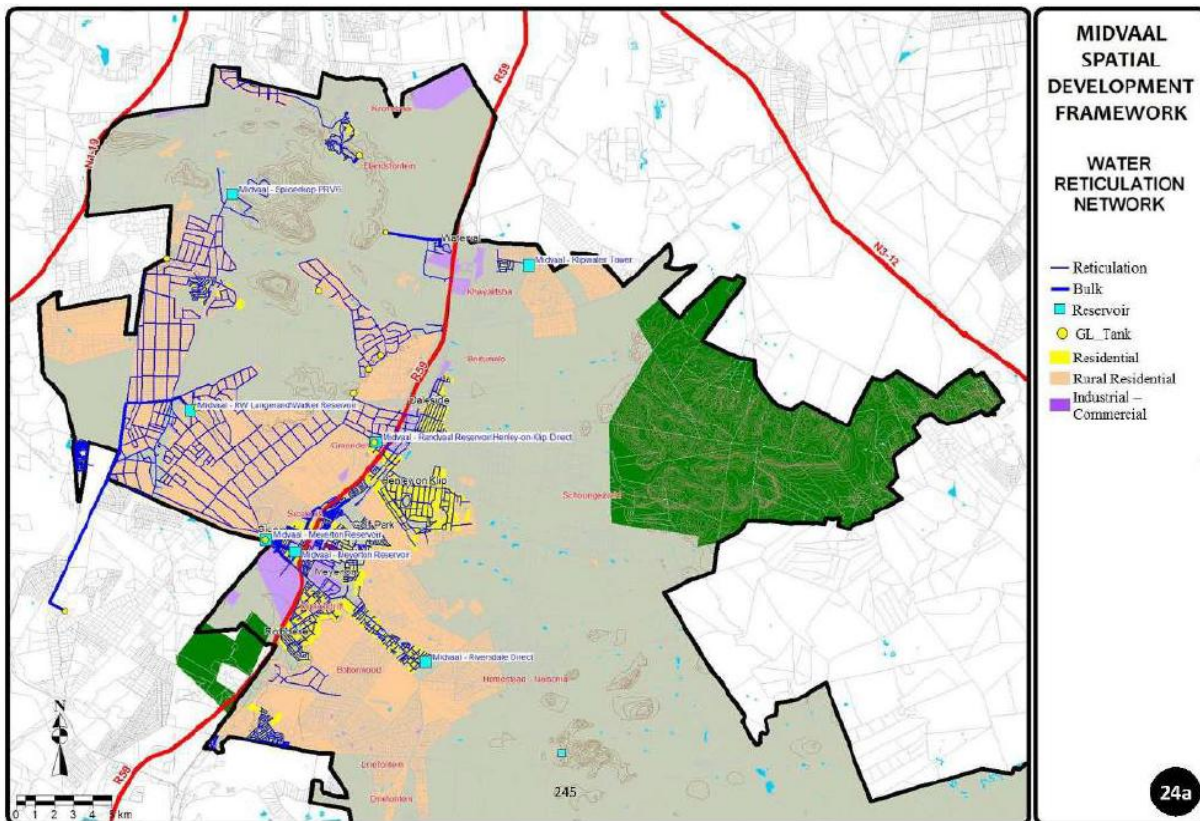


Figure 54: Water reticulation network 1

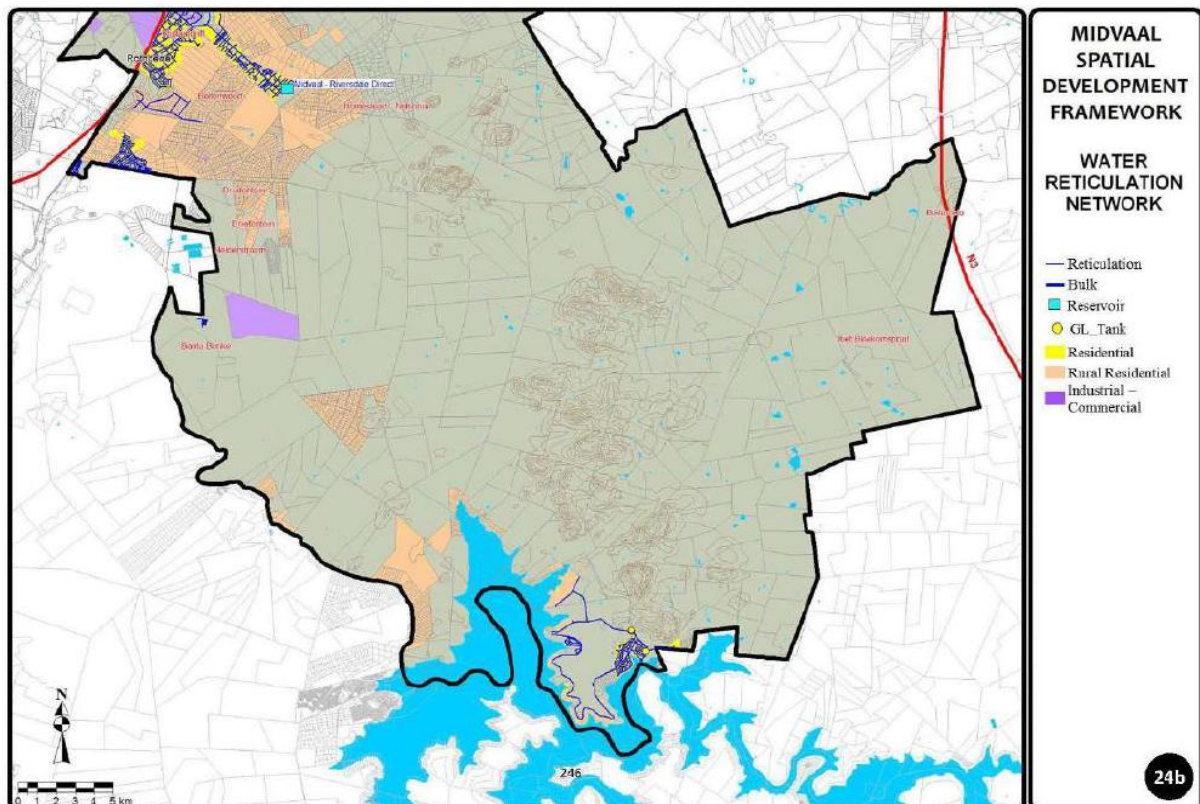


Figure 55: Water reticulation network 2

9.2 Engineering services- Sanitation

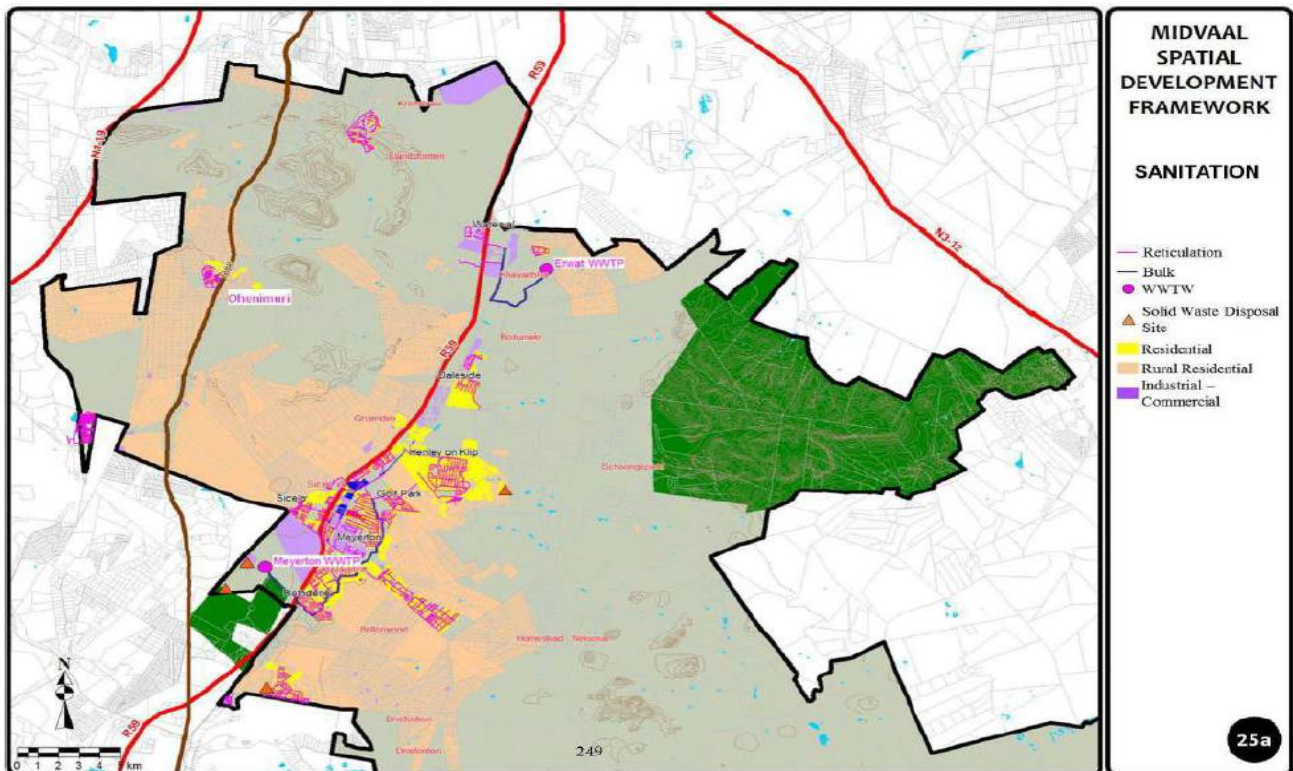


Figure 56: Sanitation 1

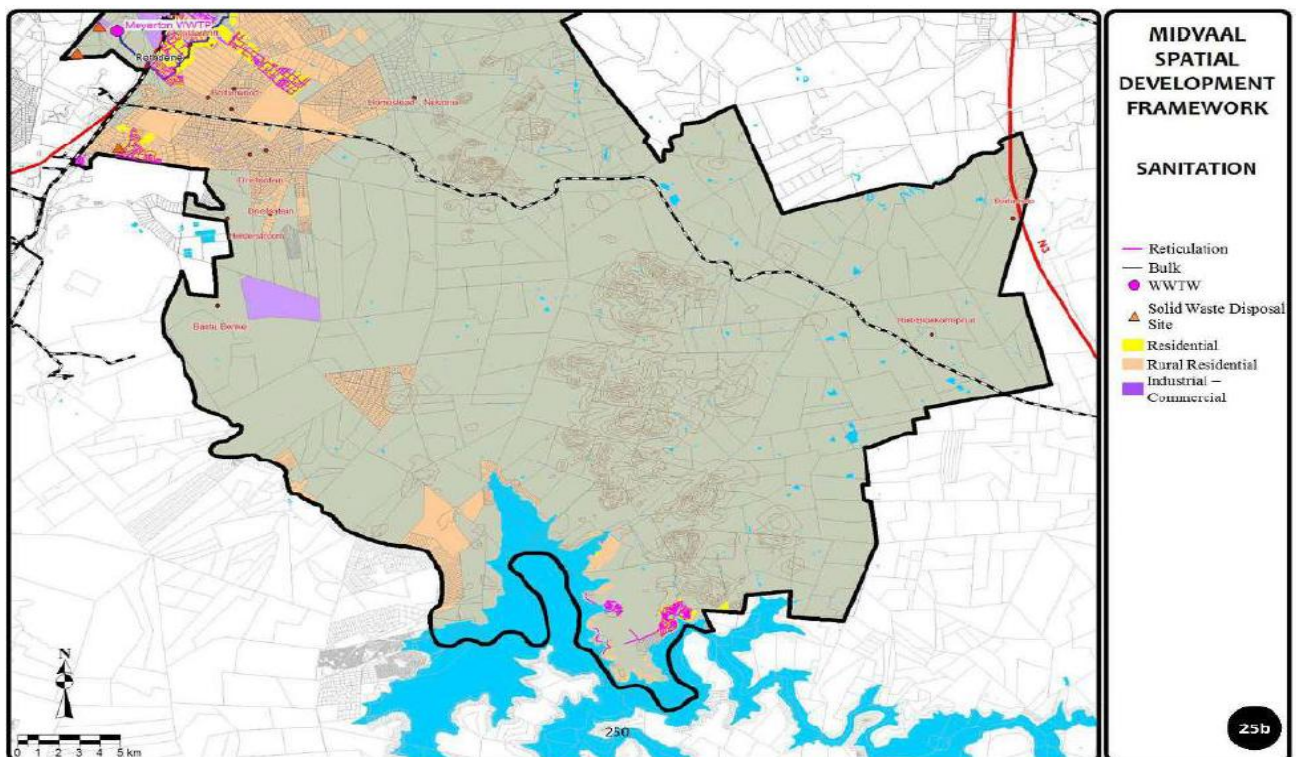
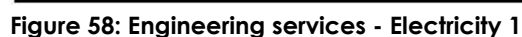


Figure 57: Sanitation 2



9.4 Engineering services - Dolomite

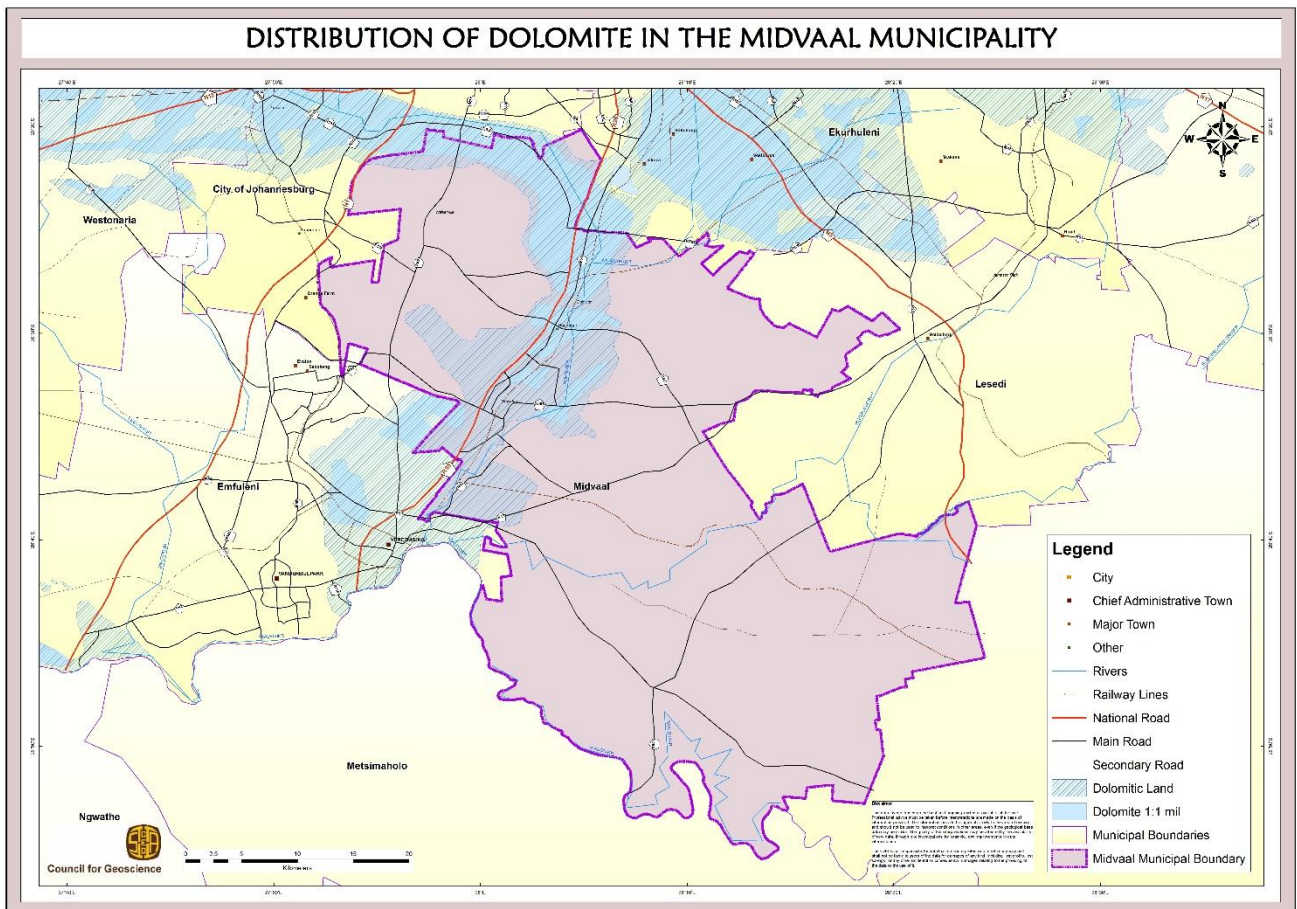


Figure 60: Engineering services – Dolomite distribution

10 ADDENDUM 5 – DETAILED DESCRIPTION OF LAND USES, 2021

10.1 Primary land use

The total area of Midvaal Local Municipality is dominated by agriculture, residential, vacant and conservation primary land uses. There is 23302 residential land parcels and 16925 vacant sites.

TABLE 40: PRIMARY LAND USE					
#	Primary use	Total count	Percentage of count	Total area (ha)	Percentage of area
1	AGRICULTURE	1200	3,00%	91074	50,00%
2	BUSINESS	340	1,00%	605	less than 1%
3	COMMERCIAL	150	less than 1%	208	
4	COMMUNITY	100		203	
5	CONSERVATION	80		13599	7,00%
6	EDUCATIONAL	60		290	less than 1%
7	GOVERNMENT	20		81	
8	INDUSTRIAL	385		2279	
9	INSTITUTIONAL	50		48	
10	MINING	8		758	
11	PUBLIC	30		75	
12	RECREATION	25		295	
13	RESIDENTIAL	23300	55,00%	41808	22,00%
14	TRANSPORTATION	478	less than 1%	994	less than 1%
15	FORESTRY	7		1366	
16	UTILITIES	64		1699	
17	VACANT	16925	40,00%	38565	20,00%
	TOTAL	440 000 land parcels	100,00%	195000 hectares	100,00%

Due to the total area coverage consisting of the four primary land uses above, and most land parcels falling within two of the four, secondary and tertiary land uses will be limited to the residential and vacant properties to determine the land use supply and demand for housing.

An additional assessment will be conducted to determine the available social facilities for.

10.2 Secondary land uses

The key secondary land uses that cover 96% of total count and 95% of percentage area are illustrated below:

TABLE 41: SECONDARY LAND USES					
Si d	Secondary use	Total	Total area	Percentage count	Percentage area
1	Agriculture infrastructure	65	450	0%	0%
2	Animal production	300	37000	1%	22%
3	Crop production	820	53000	2%	31%
33	Traditional rural settlements	1	4	0%	0%
34	Multiple residential	1400	1650	3%	1%
35	Single residential	1500 0	3000	34%	2%
36	Transient residential	70	850	0%	0%
37	Transitional residential settlement area	3300	350	8%	0%
38	Rural residential	4000	27250	9%	16%
54	Water network	20	1100	0%	1%
55	Vacant land (not in use)	1400 0	11500	32%	7%
56	Vacant land (temporarily used)	2700	7500	6%	4%
57	Vacant land with permanent use	450	20000	1%	11%
	TOTAL	42 000	164000	96%	95%

10.3 Tertiary land uses

As indicated in the primary and secondary land use categories above, a strong indication of current land use demand and supply is contained within the residential and vacant primary categories. The following tertiary residential land uses include:

TABLE 42: TERTIARY LAND USES						
Primary Land Use	Secondary land use	Tertiary land Use	Count	Area (ha)	% count	% area
Residential	Traditional Rural Settlements	Homestead	0	0	0%	0%
Residential	Traditional Rural Settlements	House of the Chief/ Komkhulu	0	0	0%	0%
Residential	Traditional Rural Settlements	Imizi/ Traditional Households	0	0	0%	0%
Residential	Traditional Rural Settlements	Low Income Housing	0	0	0%	0%
Residential	Traditional Rural Settlements	Royal Palace/ Izigodlo (Traditional Palace)	0	0	0%	0%
Residential	Multiple Residential	Barracks	0	0	0%	0%
Residential	Multiple Residential	Commune/Boarding Facility	20	35	0%	0%
Residential	Multiple Residential	Farm Worker Accommodation	15	40	0%	0%
Residential	Multiple Residential	Flats or Block of Flats	12	10	0%	0%
Residential	Multiple Residential	Group Housing (Townhouses, Simplexes and Duplexes, Estate)	1350	410	6%	2%
Residential	Multiple Residential	Duet Houses	0	0	0%	0%
Residential	Single Residential	Dwelling House	13500	2350	58%	11%
Residential	Single Residential	Dwelling House with 2nd Dwelling/Potential 2nd Dwelling	1215	520	5%	2%

TABLE 42: TERTIARY LAND USES						
Primary Land Use	Secondary land use	Tertiary land Use	Count	Area (ha)	% count	% area
Residential	Transient Residential	Hostels	1	0,27	0%	0%
Residential	Transient Residential	Caravan Park/ Camping Site	2	82,15	0%	0%
Residential	Transient Residential	Dormitories	0	0	0%	0%
Residential	Transient Residential	Guest Facilities (Guest Houses/ B&B/Lodging/Backpackers/Self-catering)	50	650	0%	3%
Residential	Transient Residential	Hotels /Inn/Motel	5	22	0%	0%
Residential	Transient Residential	Resorts	9	80	0%	0%
Residential	Transitional Residential Settlement Area	Main house in addition to informal self-help structures on property	3000	250	13%	1%
Residential	Transitional Residential Settlement Area	Informal Self-help Structures	250	110	1%	1%
Residential	Rural Residential	Residential with Related Outbuildings on Smallholding/ Farm	4000	16500	17%	78%
Totals:			24000	30000	100%	100%

The following tertiary vacant land uses include:

TABLE 43: VACANT TERTIARY LAND USES						
Primary Land Use	Secondary land use	Tertiary land Use	Count	Area (ha)	% count	% area
Vacant	Vacant Land (Not in use)	Undisturbed/Not Yet Developed	13500	8800	80%	25%
Vacant	Vacant Land (Not in use)	Disturbed/Derelict	310	600	2%	2%
Vacant	Vacant Land	Under Construction	400	550	2%	1%

	(Temporarily used)					
Vacant	Vacant Land (Temporarily used)	Vacant with Temporary Use/Activity	2300	6650	14%	18%
Vacant	Vacant Land With Permanent Use	Vacant with Limited but Significant Additional Use	450	200000	3%	54%
Totals:			17000	36000	100%	100%

11 ADDENDUM 6 – HOUSING DEFICIT/SURPLUS CALCULATIONS

To understand the three projections below, it is critical to first comprehend the Year on Year (YoY) growth for each scenario. South Africa's current population growth is 1.3%. The medium growth scenario is based on 2.8%, with the high growth scenario at 3%. The census model is calculated from 2011 with YoY growth to current date, and then projected as an average in the future.

11.1 Total projected household distribution

The total projected dwelling units are projected in available census data and the two scenarios below:

TABLE 44: CENSUS DATA – PROJECTED HOUSEHOLD DISTRIBUTION					
Census	Dwelling distribution units	Backlog	Total projected dwelling units		
	Current		2025	2030	2050
Subsidy market	12500	7400	13000	14000	17000
Gap market	10500	3500	11000	12000	14000
Bonded market	6000	Surplus	7000	7000	8000
Bonded upper market	1000		1000	1000	1250
Totals:	30 000	10 900	32 000	34 000	40 250

TABLE 45: MEDIUM SCENARIO – PROJECTED HOUSEHOLD DISTRIBUTION					
Medium scenario	Dwelling units distribution	Backlog	Total projected dwelling units		
	Current		2025	2030	2050
Subsidy market	12500	7400	13 000	21 000	32 000
Gap market	10500	3500	11 000	18 500	28 000
Bonded market	6000	Surplus	7 000	10 000	15 500
Bonded upper market	1000		1000	1 500	2 500
Totals:	30 000	10 900	32 000	51 000	78 000

TABLE 46: HIGH SCENARIO – PROJECTED HOUSEHOLD DISTRIBUTION					
High scenario	Dwelling units distribution	Backlog	Total projected dwelling units		
	Current		2025	2030	2050
Subsidy market	12500	7400	13 000	23 000	38 000
Gap market	10500	3500	11 000	19 000	32 000
Bonded market	6000	Surplus	7 000	11 000	18 000
Bonded upper market	1000		1000	2 000	3 000
Totals:	30 000	10 900	32 000	55 000	91 000

11.2 Additional dwelling units required

The total projected additional dwelling units are projected in available census data and the two scenarios below:

TABLE 47: CENSUS DATA – ADDITIONAL DWELLING UNITS REQUIRED					
Census	Deficit	Additional dwelling units required			
	Current	2025	2030	2050	Current to 2050
Subsidy market	7400	500	850	2800	4150
Gap market	3500	400	750	2500	3650
Bonded market	Surplus	250	450	1350	2050

Bonded upper market		35	65	200	300
	10 900	1 185	2 115	6 850	21 150

TABLE 48: MEDIUM – ADDITIONAL DWELLING UNITS REQUIRED

Medium	Deficit	Additional dwelling units required			
	Current	2025	2030	2050	Current to 2050
Subsidy market	7400	500	8 000	11 000	19500
Gap market	3500	450	6 750	9 500	16700
Bonded market	Surplus	250	3 800	5 500	9550
Bonded upper market		50	600	850	1500
	10 900	1 250	19 150	26 850	58 150

TABLE 49: HIGH – ADDITIONAL DWELLING UNITS REQUIRED

High	Deficit	Additional dwelling units required			
	Current	2025	2030	2050	Current to 2050
Subsidy market	7400	500	2 500	15 500	18500
Gap market	3500	450	8 000	13 000	21450
Bonded market	Surplus	250	4 500	7 500	12250
Bonded upper market		50	500	1 200	1750
	10 900	1 250	15 500	37 200	64 900

11.3 Additional hectares required

The following gross dwelling units per hectare were used in determining additional space requirements:

TABLE 50: DWELLING UNITS PER HECTARE

Market	Gross DU/Ha
Subsidy market	20 units per hectare
Gap market	30 units per hectare
Bonded market	20 units per hectare
Bonded Upper market	20 units per hectare

the total projected hectares are projected in available census data and the two scenarios below:

TABLE 51: CENSUS DATA – PROJECTED HECTARE SPACE REQUIREMENTS					
Census	Hectares required				
Year	Current backlog	2025	2030	2050	Current to 2050
Subsidy market	370	25	45	140	480
Gap market	115	15	25	80	235
Bonded market	Surplus	10	20	70	100
Bonded upper market		5	5	10	20
Totals	485	55	95	300	935

TABLE 52: MEDIUM – PROJECTED HECTARE SPACE REQUIREMENTS					
Medium	Hectares required				
Year	Current backlog	2025	2030	2050	Current to 2050
Subsidy market	370	25	400	575	1370
Gap market	115	15	225	320	675
Bonded market	Surplus	10	190	270	470
Bonded upper market		5	30	40	75
Totals	485	55	845	1205	2590

TABLE 53: HIGH – PROJECTED HECTARE SPACE REQUIREMENTS					
High	Hectares required				
Year	Current backlog	2025	2030	2050	Current to 2050
Subsidy market	370	25	460	765	1620
Gap market	115	15	260	430	820
Bonded market	Surplus	10	220	370	600
Bonded upper market		5	35	55	95
Totals	485	55	975	1620	3135

An estimated 7 000 urban infill opportunities exist in MLM and 350ha needs to be subtracted from the land requirement illustrated above.

12 ADDENDUM 7 – CSIR SPACE PLANNER

TABLE 54: CSIR SPACE PLANNER		
Name	CSIR Parameters	
	Population/facility	Hectares/facility
Fire Station	100000	0,3
Police Station	60000	0,5
Regional Library - reference	100000	0,56
Local Library	20000	0,05
Major public venue	1000000	2
Tertiary Hospital	4500000	35
Regional Hospital	1000000	7
Hospital L1	450000	5
Community Health Centre & ARV	60000	1,5
Primary Health Clinic	30000	0,5
International sports complex	1500000	3
Indoor Sports Halls	500000	0,5
Swimming Pool	60000	0,16
Sports Stadia	200000	3
Sports Fields	1000	0,56
Park Space	1000	0,5
University	1000000	8
Tertiary Training not University	100000	1
Secondary School	12500	4,8
Primary School	5500	2,8
High income Creche/early Childhood Centre	3000	0,05
Low income Creche/early Childhood development centre	2400	0,02
Home Affairs - regional office	140000	0,5
Home Affairs - District office	80000	0,2
Home Affairs - Permanent Service point	20000	0,05
Home Affairs - Thusong Centre	20000	0,05
Sisakala - Thusong	500000	0,16
Sisakala - First Stop - urban	100000	0,01
Sisakala - One Stop	500000	0,05
Sisakala - First Stop - rural	30000	0,006
Cemetery	50000	8
Community Centre	30000	0,3
Religious Centre	3000	0,1

Old age Home	50000	2
Children's Home	60000	1
Civic Centre / City hall	100000	1
Municipal Office	100000	0,3

13 ADDENDUM 8 – CURRENT AMENITIES AND FACILITIES IN MLM

TABLE 55: CURRENT AMENITIES AND FACILITIES				
Primary land use	Secondary land use	Tertiary land Use	Count	Area (ha)
Community	Cultural and Religious Facilities	Community Centres	6	16
Community	Cultural and Religious Facilities	Religious Centres	83	165
Community	Funeral Services	Cemetery, Pet Cemetery	5	22
Educational	Educational Facilities	After School Centres/Day Care Centres and Playgrounds	1	4
Educational	Educational Facilities	Higher Education/ Tertiary Educational	1	3
Educational	Educational Facilities	Library, Museums and Art Galleries	1	0,2
Educational	Educational Facilities	Other Educational Services	8	120
Educational	Educational Facilities	Pre-Primary School/ Creche	22	25
Educational	Educational Facilities	Primary and Secondary Education	24	130
Government	Administrative Facilities	Courts	3	1
Government	Administrative Facilities	Government Administrative Building	6	8
Government	Administrative Facilities	Post Office	3	2
Government	Administrative Facilities	Thusong Centres	0	0
Government	Protection and Emergency Services	Police Station	6	6
Institutional	Animal Care Facilities	Animal Rehabilitation Facilities	1	13
Institutional	Animal Care Facilities	Indoor and Outdoor Kennels	5	10
Institutional	Animal Care Facilities	SPCA	0	0
Institutional	Animal Care Facilities	Veterinary Care	4	2,5
Institutional	Medical and Health Care Services	Chemist and Pharmacy	3	1
Institutional	Medical and Health Care Services	Clinic/medical suits	11	4
Institutional	Medical and Health Care Services	Hospital	0	0
Institutional	Institutional Care Facility	Orphanage	6	2

Institutional	Institutional Facility	Care	Senior Housing, Retirement Centre/Village	12	10
Institutional	Institutional Facility	Care	Special Needs Centre	1	2
Institutional	Institutional Facility	Care	Nursing Home/Frail Care/Psychiatric Facilities	1	1
Institutional	Institutional Facility	Care	Welfare Facilities/Charitable Institution	5	3