

2024

PRECINCT PLAN

Hekpoort Precinct
Mogale City Local Municipality



Report prepared by



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agriculture, land reform
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REPUBLIC OF SOUTH AFRICA

Department of Agriculture, Land Reform
and Rural Development



West Rand
District Municipality

West Rand District Municipality



Mogale City
Local Municipality

Mogale City Local Municipality

Multidisciplinary team



Satplan Alpha
GIS



Interdesign Environmental
Consulting - Landscape
Architecture
ENVIRONMENT



Urban Econ Development
Consultants
Socio-Economics



Priem Consult
Civil Engineering



Lyon Vennote & Partners
Electrical Engineering



Aurora Digital
Graphic design



TechIQ Consulting Engineers
Transportation Engineering

1 EXECUTIVE SUMMARY

1.1 INTRODUCTION

The Hekpoort Precinct Plan provides a strategic framework for the sustainable development of the Hekpoort area within Mogale City Local Municipality. Known for its agricultural base and scenic beauty, the precinct faces significant challenges due to the decline in agricultural productivity and limited social and economic opportunities. The plan seeks to restructure the settlement, enhance its tourism product, and improve living conditions for residents by promoting sustainable land use, tourism, and mixed-use development.

The Hekpoort Precinct is located in the northern region of Mogale City, bordering Madibeng Local Municipality. It is situated along the R563 and R560, providing connectivity to Krugersdorp and Hartbeespoort, and home to attractions like Barton's Folly and Kingsley Beverages. Despite these assets, the precinct is sparsely inhabited, with limited commercial activities and job opportunities, prompting the need for strategic interventions to promote economic growth.

1.2 VISION AND OBJECTIVES

The vision for the Hekpoort Precinct is to transform it into a sustainable human settlement that balances tourism, agriculture, and residential growth. The plan aims to:

- **Develop Integrated Human Settlements:** Address the dysfunctional settlement patterns and enhance access to essential services, housing, and social facilities.

- **Enhance Tourism and Agriculture:** Strengthen the tourism product by leveraging the natural and cultural assets of the area, while revitalizing agricultural activities.
- **Protect Environmental Assets:** Preserve the natural environment, including rivers, ridges, and biodiversity areas, to support tourism and sustainable land use.
- **Improve Accessibility and Mobility:** Upgrade the road infrastructure, particularly along the R563 and R560, to improve access to the precinct and ensure the safe movement of pedestrians and vehicles.

1.3 SPATIAL DEVELOPMENT CONCEPT

The spatial development strategy for the Hekpoort Precinct focuses on creating a structured, functional settlement pattern while protecting environmental assets. The concept is organized around development corridors, character zones, and mixed-use nodes.

1.3.1 DEVELOPMENT CORRIDORS

The R560 and R563 serve as the primary development corridors, linking Hekpoort to neighboring regions. These corridors are designated as tourism spines, with a focus on enhancing tourism-related activities, such as accommodation, restaurants, and recreational facilities, along their lengths. Special attention will be given to creating tourism gateways at key intersections to promote the precinct's appeal to visitors.

1.3.2 CHARACTER ZONES

The precinct is divided into distinct character zones:

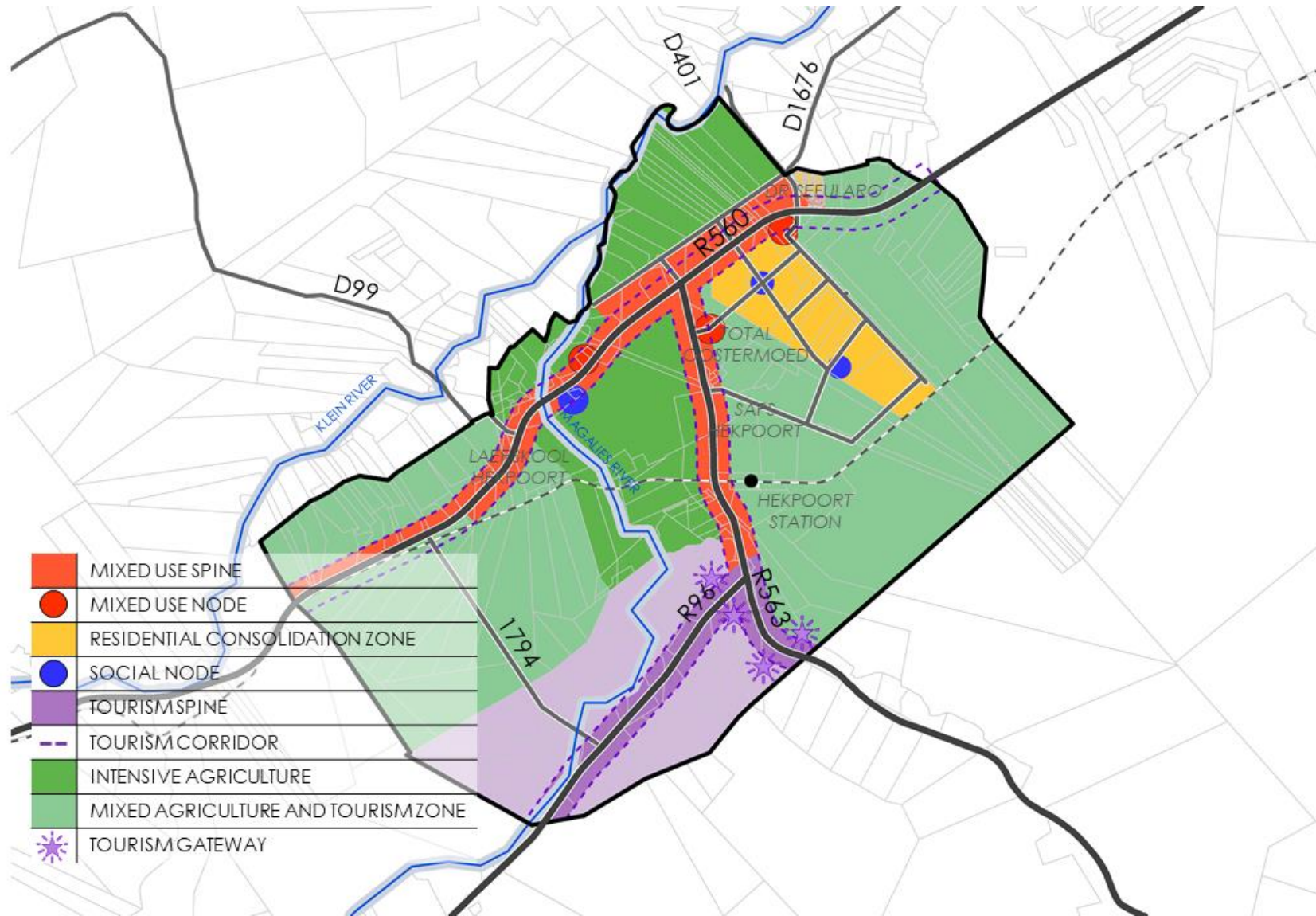
- Residential Zone: A residential area is proposed south of the R560 and east of the R563, focusing on the development of housing projects like Dr Sefularo Ext 1, which will accommodate over 800 housing units. This zone aims to consolidate residential development and provide adequate social facilities for residents.
- Tourism Zone: Located along the R96, this zone will be developed to support tourism, leveraging the natural beauty of the Magalies River and Witwatersberg. The area already contains several tourism facilities, which will be expanded to attract more visitors.
- High-Intensity Agricultural Zone: This zone, adjacent to the Magalies River, will focus on intensive agriculture, supporting irrigation farming and crop cultivation.
- Mixed Agriculture and Tourism Zone: A mixed-use zone will be established to the west of the agricultural zone, allowing for both agricultural activities and small-scale tourism ventures, such as guesthouses and eco-tourism.

social services such as schools, clinics, and recreational facilities, creating a sense of community and improving access to services.

1.3.3 MIXED-USE AND SOCIAL NODES

Three mixed-use nodes and three social nodes are proposed to consolidate retail, social, and commercial activities:

- Mixed-Use Nodes: These nodes, located along the R560 and R563, will serve as hubs for retail, tourism, and agricultural support services. The most significant node will be at the Dr Sefularo development, which will include public transport facilities, commercial spaces, and social amenities.
- Social Nodes: Located near Laerskool Hekpoort and in the Dr Sefularo residential area, these nodes will provide



1.4 ENVIRONMENTAL CONSIDERATIONS

Hekpoort's environmental assets, including the Magalies River, Klein River, and the Witwatersberg, are vital to its tourism and agricultural potential. The precinct falls within Critical Biodiversity Areas (CBAs) and Environmentally Sensitive Areas (ESAs), which require stringent land-use controls to protect against habitat loss and degradation. Buffer zones around rivers and ridges will ensure the protection of these areas, while tourism development will be carefully managed to maintain the precinct's scenic and ecological value.

1.5 TRANSPORT AND INFRASTRUCTURE

The transport network within the Hekpoort Precinct is centered around the R560 and R563, which face challenges such as sharp curves, poor sight distances, and insufficient pedestrian infrastructure. Proposed transport upgrades include:

- **K24 and K17 Bypasses:** These new routes will improve traffic flow and reduce congestion on the R560 and R563, while creating safer conditions for pedestrians and cyclists.
- **Non-Motorized Transport (NMT):** A network of pedestrian pathways and cycling lanes will be developed along major roads to improve mobility for residents who rely on walking and cycling as their primary means of transport.

Infrastructure upgrades are also planned for water supply, sanitation, and electricity:

- **Water Infrastructure:** A new bulk water pipeline and reservoir will be constructed to meet the growing

demand for water in the precinct, particularly in the Dr Sefularo area.

- **Sanitation:** A permanent Wastewater Treatment Works (WWTW) will replace the temporary package plant, ensuring adequate sewage treatment for future developments.

1.6 ECONOMIC AND TOURISM DEVELOPMENT

Tourism is a key economic driver for the Hekpoort Precinct. The plan seeks to enhance the precinct's tourism product by leveraging its natural and cultural assets, including the Nooitgedacht Battlefield and the Magaliesberg Biosphere Reserve. Key initiatives include:

- **Tourism Promotion:** Development of tourism spines along the R96 and R563, with enhanced accommodation, adventure tourism, and eco-tourism facilities.
- **Agricultural Revitalization:** The plan supports the development of agri-tourism and the diversification of agricultural activities to create new income streams for local farmers.

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LIST OF ACRONYMS

CBD	Central Business District
IUDF	Integrated Urban Development Framework
SDF	Spatial Development Framework
CBA	Critical Biodiversity Area
ESA	Environmentally Sensitive Area
GAUTRANS	Gauteng Department of Roads and Transport
SANRAL	South African National Roads Agency SOC Ltd
PHSHDA	Priority Human Settlements and Housing Development Areas
GLMP	Greater Lanseria Master Plan
DBSA	Development Bank of Southern Africa
FAR	Floor Area Ratio
RDP	Reconstruction and Development Programme
FLISP	Finance Linked Individual Subsid Program
MCLM	Mogale City Local Municipality
GDHS	Gauteng Department of Human Settlements
HDA	Housing Development Agency
EIA	Environmental Impact Assessment
WWTW	Waste Water Treatment Works
MSDF	Municipal Spatial Development Framework
CoJ	City of Johannesburg
BNG	Breaking New Ground
SHRA	Social Housing Regulatory Authority
NUSP	National Upgrading Support Programme
LUMS	Land Use Management

SDZ

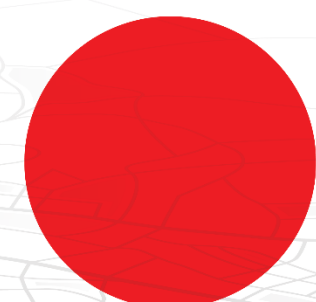
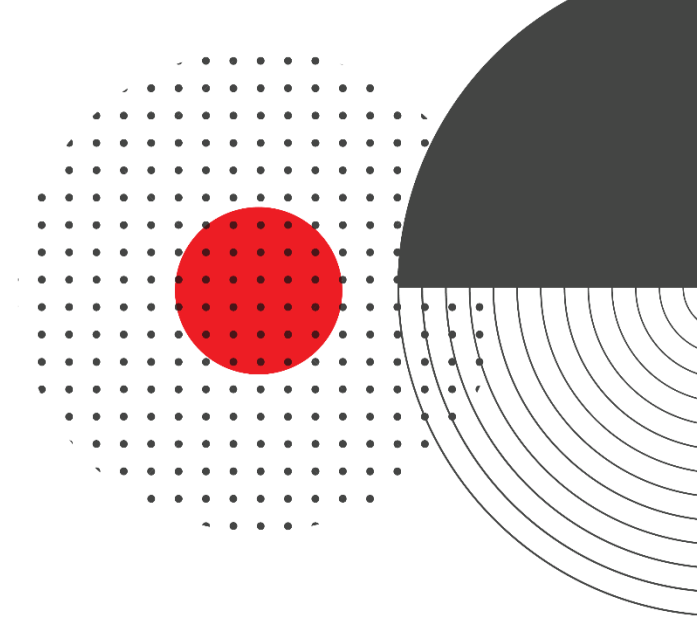
Special Development Zone

MACH

Magaliesberg Association for Cultural Heritage

Introduction

Hekpoort precinct plan



1 INTRODUCTION

1.1 THE PRECINCT PLAN

The Precinct Plan for Hekpoort aims to guide decision-making and development within the Precinct in order to promote sustainability and achieve environmental, social, and economic objectives through the promotion of appropriate land uses at specific locations, informing how buildings, spaces, activities and transport evolve, as well as the identification of short, medium- and long-term interventions needed to achieve this. The Precinct Plan has been developed to provide a new desired development pattern altering existing settlement dysfunctionalities.

The Hekpoort Precinct Plan:

- *is a planning tool that sets out a vision for the future development trajectory for the area.*
- *establishes a planning and management framework to guide development and land-use change.*
- *provides strategies and detailed actions for how the plan can be achieved through the implementation of the Precinct Plan over time.*
- *informs interventions by both the public and private sectors in order to facilitate economic growth and development through social, spatial, and economic development.*

The Hekpoort Precinct is an area of exceptional natural beauty that is characterised by a mix of agricultural and

tourism facilities. Agriculture is however declining and so are the fortunes of its residents. The Precinct is sparsely inhabited and offer little in terms of social and commercial activities and job opportunities. This Precinct Plan aims to address the functioning of the town, enhance its tourism product, and contribute to the living conditions and livelihoods of its residents.

1.2 HEKPOORT PRECINCT

The Hekpoort Precinct is situated in the northern region of Mogale City Local Municipality, flanking the southern boundary of Madibeng Local Municipality in the region of Skeerpoort and the Magaliesberg Nature Reserve.

The Precinct is centred on the town of Hekpoort and the main thoroughfares through the Precinct are the R563 (north-south) and R560 (east-west), linking Hekpoort to Krugersdorp in the south east and Hartebeespoort in the north east.

It is home to Kingsley Beverages and tourist attractions such as Barton's Folly.

Hekpoort is within 10 – 15 km from Magaliesburg, 30km from Krugersdorp and 30km from Hartebeespoort.

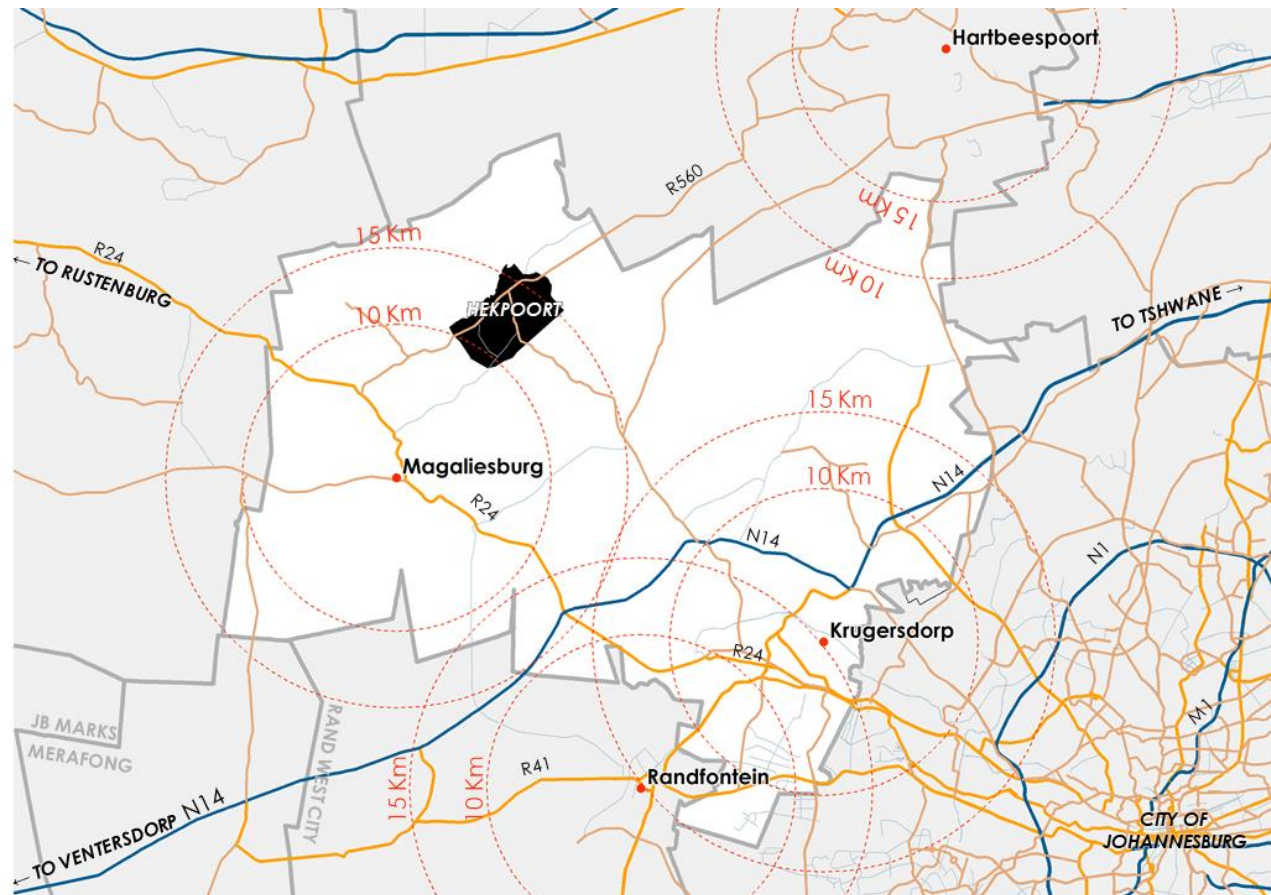


Figure 1: LOCATIONAL CONTEXT

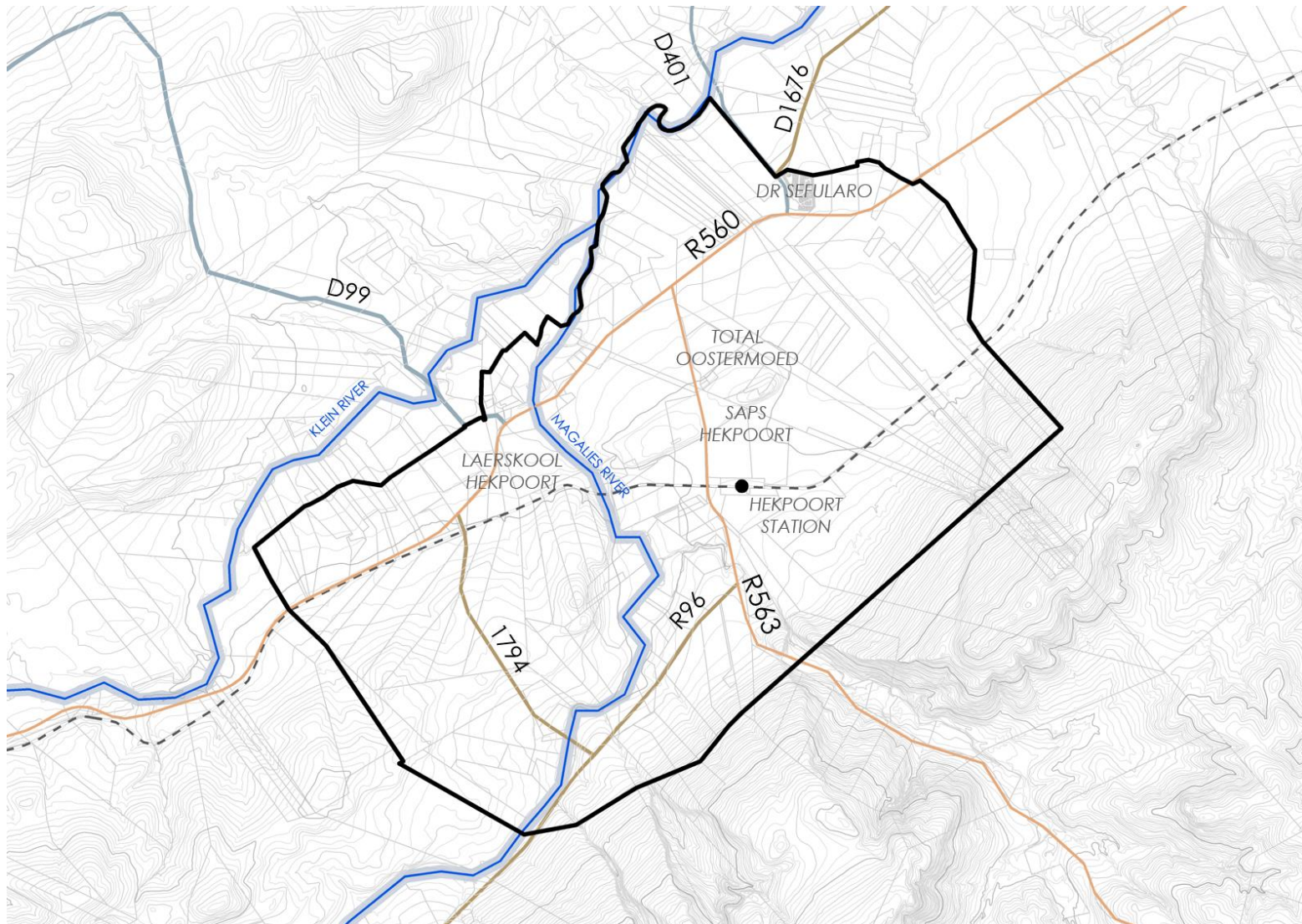
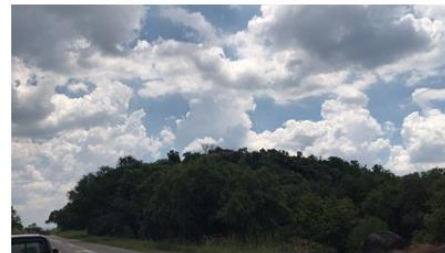


Figure 2: HEKPOORT PRECINCT



ANGLO BOER WAR FORT



END OF HEKPOORT PRECINCT



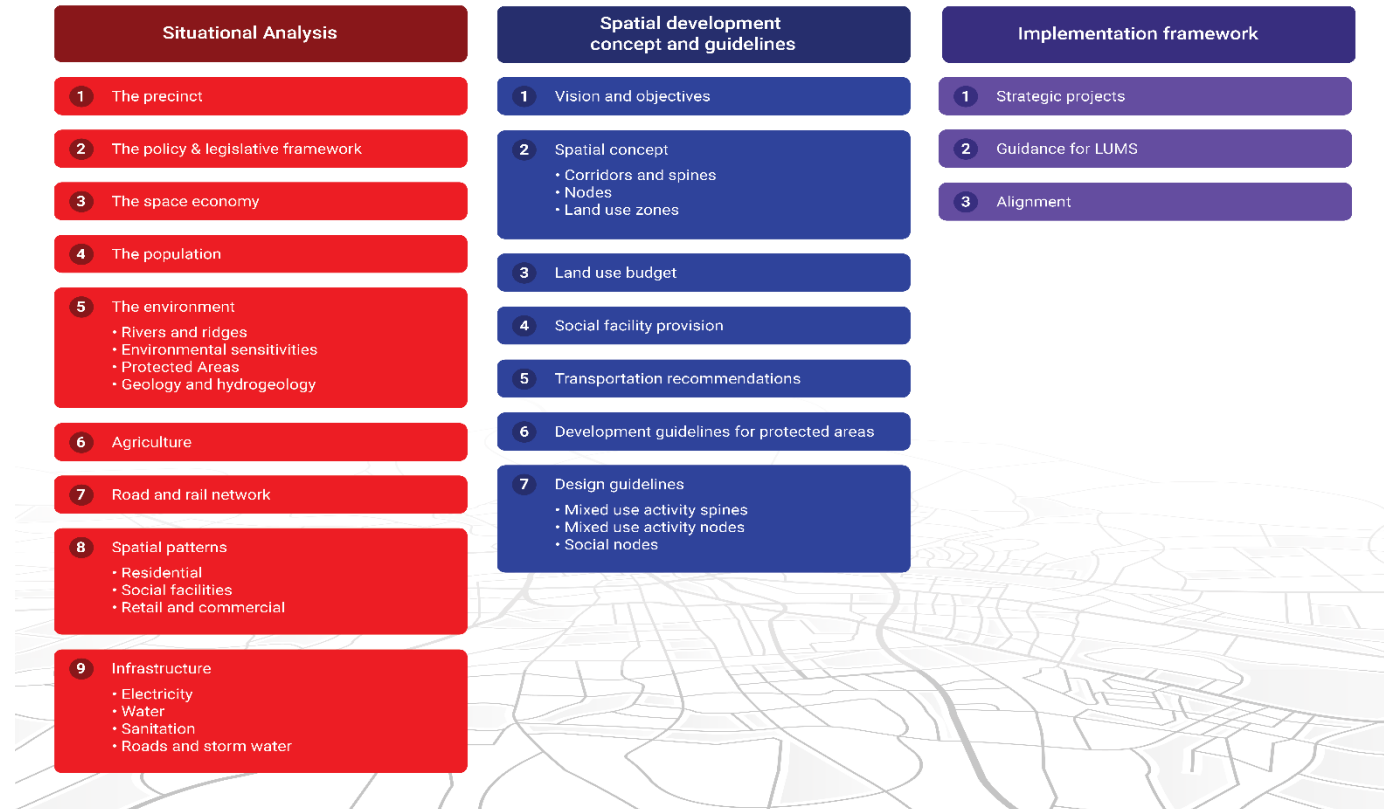
OOSTERMOED (TOTAL)



YOUTH FOR CHRIST (PRIVATE SCHOOL)

1.3 BACKGROUND ON THE PROCESS

The process followed consisted of a status quo analysis and synthesis, the development of a spatial concept, and the drafting of an implementation framework.



1.4 STAKEHOLDER PARTICIPATION

Stakeholder participation forms an important part of the process. The Coronavirus Pandemic emerged in the midst of the project in March 2020 and presented special challenges for the Stakeholder Participation in light of the phased lockdowns, crowd size restrictions and social distancing.

Accordingly, the Stakeholder Participation Plan which was launched in October 2020 was specially designed to factor for the circumstances of COVID-19 to optimise the engagement process and its outputs as much as possible.

The Stakeholder Participation Plan was comprised of 8 components.



Figure 3: COMPONENTS OF STAKEHOLDERS PARTICIPATION PLAN

Each component represents a particular form of media, with an associated platform, as part of a broad spectrum approach to the Stakeholder Participation Plan. A wide variety of components were designed to take advantage of both analogue and digital

platforms, in an attempt to optimise the reach and output of the Stakeholder Participation Plan.

1.4.1 MUNICIPAL PUBLIC NOTICE

A summary of the project, client and team contact information and an invitation to submit comments on the Draft Report was compiled in the form of a Municipal Public Notice which was published on the Municipality website. Importantly, the notice also included an active hyperlink to the Stakeholder Participation website.



Figure 4: MUNICIPAL PUBLIC NOTICE

1.4.2 MUNICIPALITY MEDIA POST

A summary of the project and an invitation to submit comments on the Draft Report was packaged as a media article for the Municipality's Website.

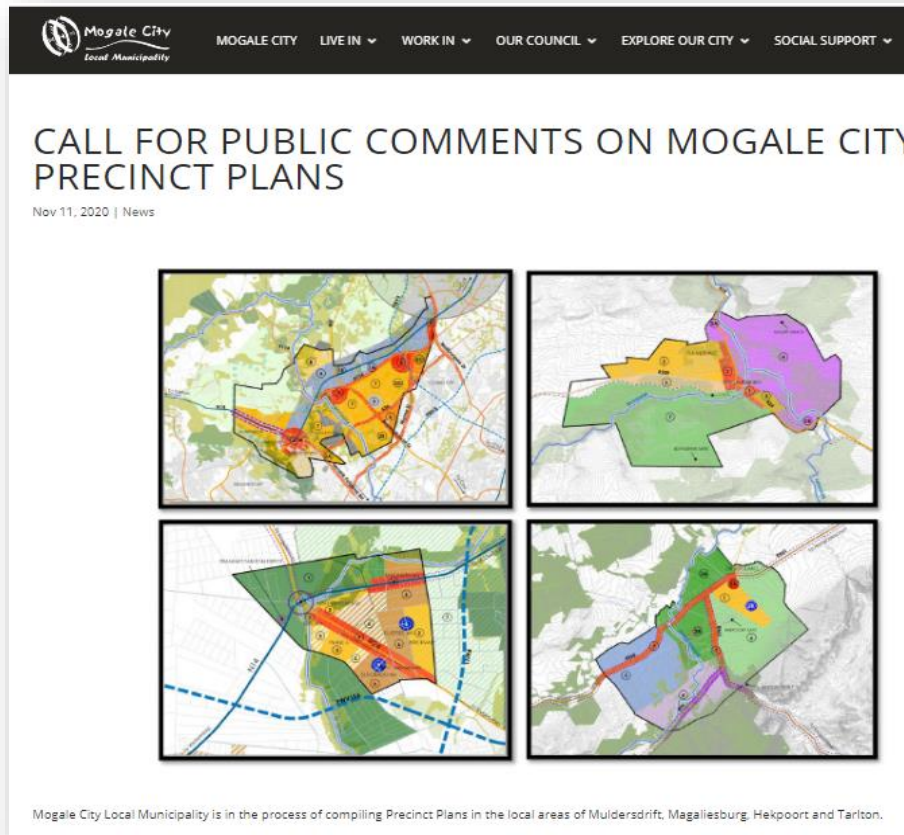


Figure 5: MUNICIPALITY MEDIA POST

1.4.3 LOCAL NEWSPAPER

Details of the project and an invitation to submit comments was packaged as a notice in the local community newspaper, the Krugersdorp News issue for the week ending Friday, 16 October 2020.



Figure 6: LOCAL NEWSPAPER ADVERTISEMENT

1.4.4 PUBLIC DOCUMENT

Hard copies of the Draft Report were set up in document stations that were set up at the Municipal Office and respective Ward Offices of the Precinct Plan local areas, together with hard copy comment forms and a comments submission box.

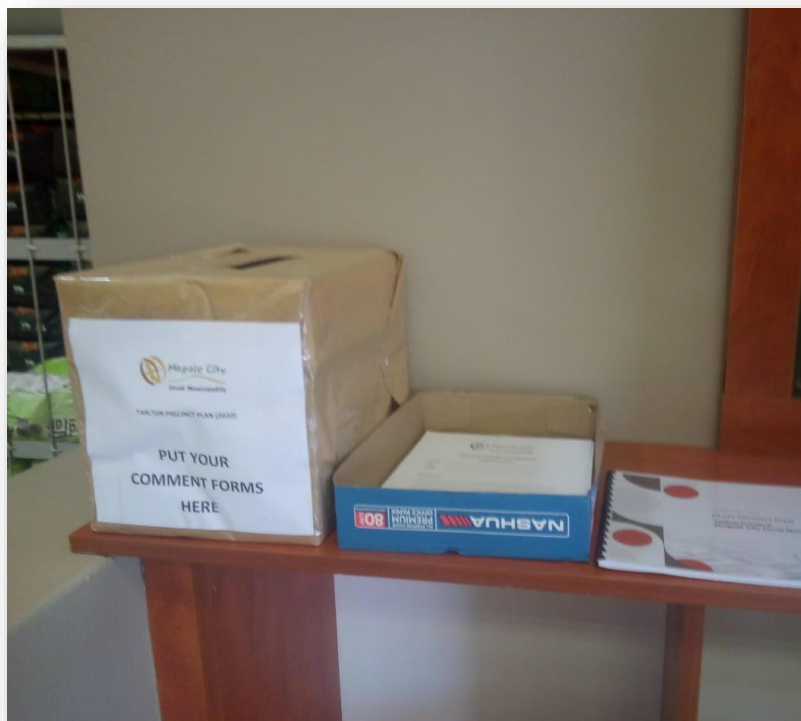


Figure 7: MUNICIPAL DOCUMENT STATION

1.4.5 WHATSAPP ADVERT

Details of the project and an invitation to submit comments was packaged as a digital poster advert designed for sharing via WhatsApp. The poster advert was specifically formatted as a PDF document which allowed the advert to be titled with the name of the project, as well as to include a hyperlinked web address to the Stakeholder Participation website.

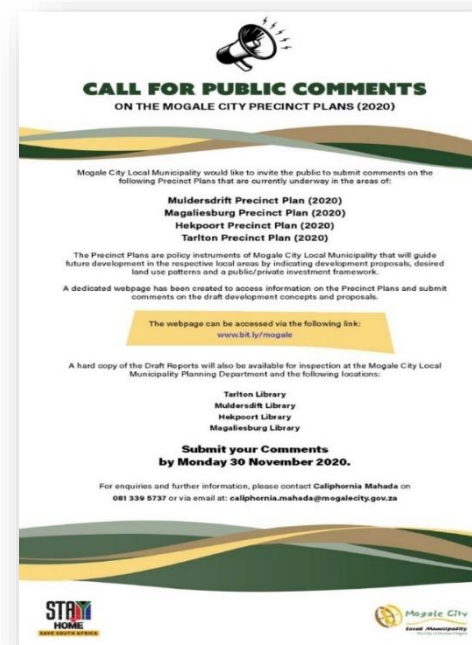


Figure 8: DIGITAL POSTER ADVERT

1.4.6 SOCIAL MEDIA

The WhatsApp Poster Advert was steered towards the social media platforms of key stakeholder groups and organisations in the area and shared with the municipality for them to share on their official social media platforms.

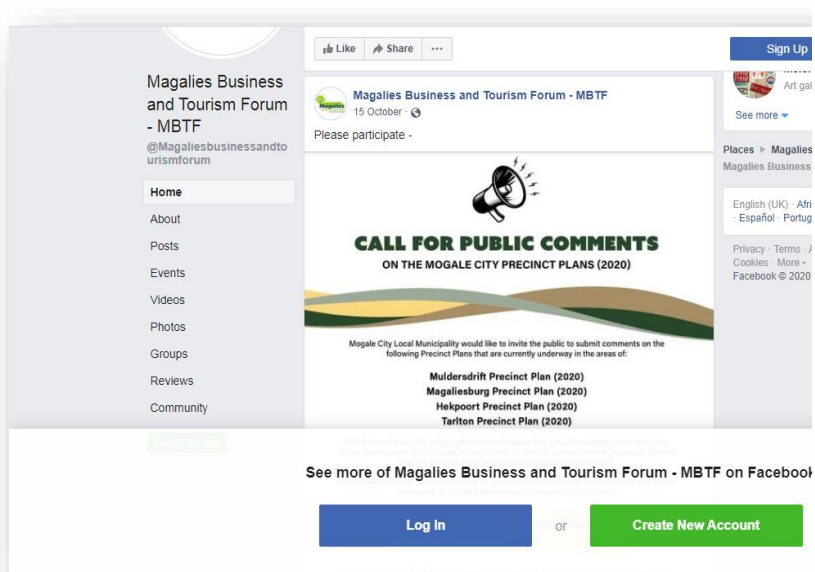


Figure 9: WHATSAPP POSTER ADVERT

1.4.7 FOCUS GROUP MEETINGS

A series of intensive small-group Focus Group Meetings were scheduled with Key Stakeholders and Community Organisations.

The Key Stakeholders and Community Organisations were strategically identified through intensive research and investigation as well as support and guidance from the Speakers Office and Ward Councillors.



Figure 10: FOCUS GROUP MEETINGS

1.4.8 PROJECT WEBPAGE

A special project website was created to assist with Stakeholder Engagement on the Precinct Plans by giving interested and affected stakeholders an opportunity to have a say and help guide the future of the Precinct local areas.



Figure 11: PROJECT WEBSITE

Through the project website the public was able to:

- Download the full Draft Reports of the Precinct Plan
- Find summaries of the development concepts and proposals for the Precinct
- Submit comments using a Form and/or Interactive Map interface

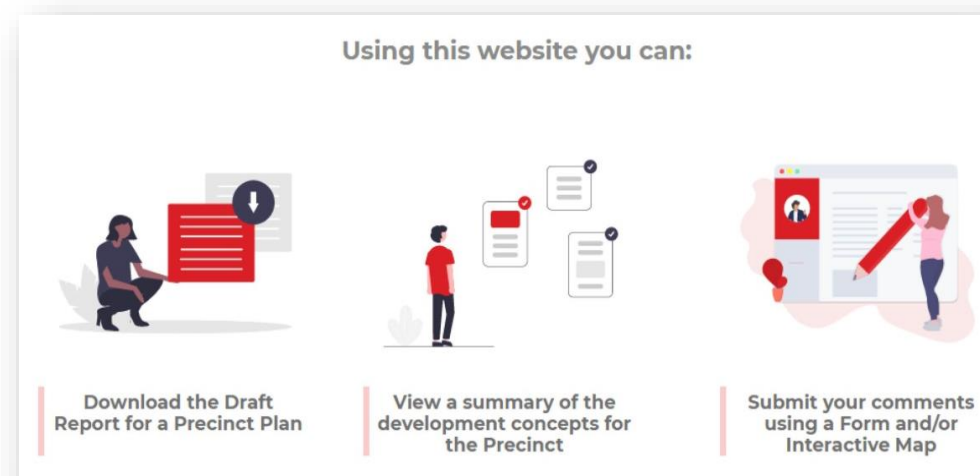


Figure 12: WEBSITE DIRECTIONS

For those stakeholders seeking greater detail, the full Draft Reports could be directly downloaded from the website in a PDF format.

To assist stakeholders with easy access to the key information, summaries of the development concepts for each Precinct Plan were also provided on the

website in content packages that included the Vision, Objectives and Key Concepts linked to a map overview that could also be directly downloaded in a JPEG format.

The Interactive Map platform was designed for those stakeholders that would be able to spatially orientate their comments in and around the Precinct.

Comments submitted via the Interactive Map platform could be categorised by the user as either a Strength, Weakness, Opportunity or Threat (SWOT).

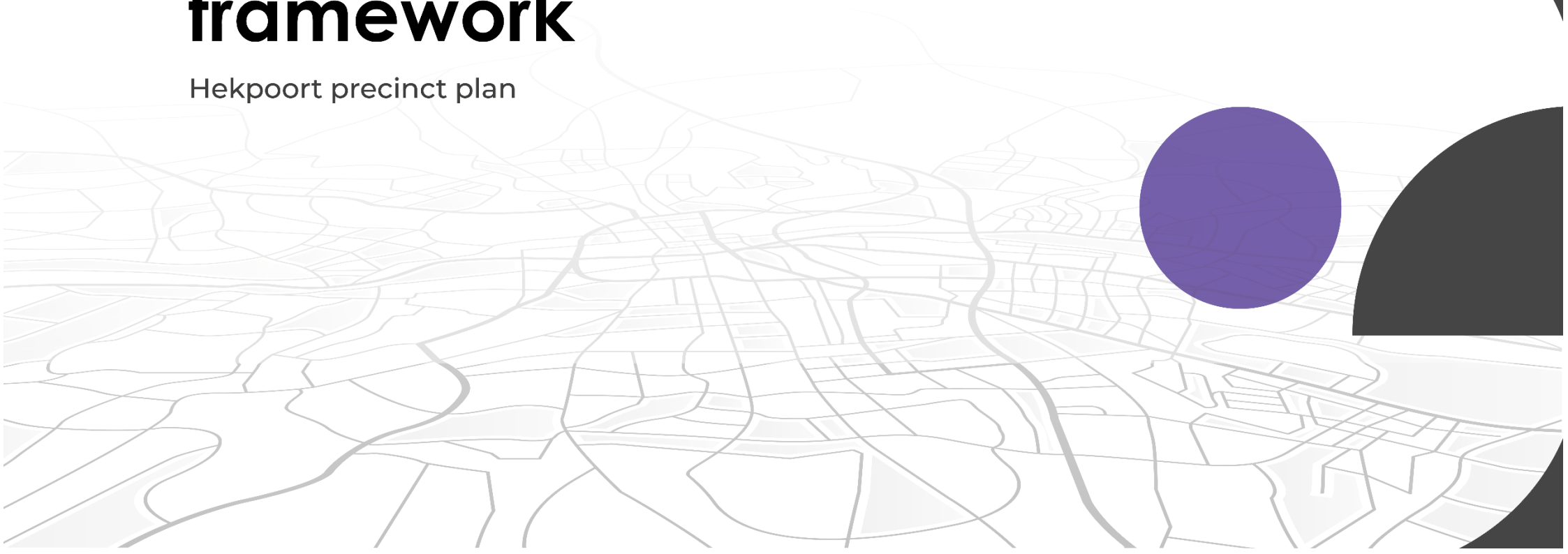
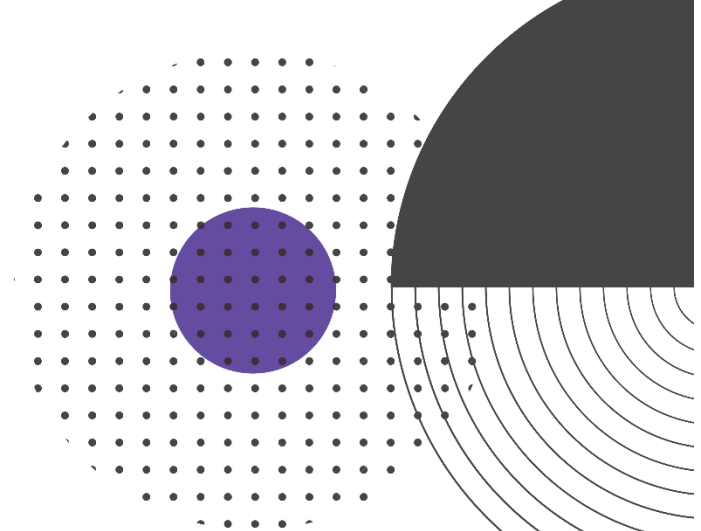
Once the comment marker was classified and placed on the map, the user was prompted to complete a comment form that was linked to the map marker.



Figure 13: INTERACTIVE MAP PLATFORM

Policy and legislative framework

Hekpoort precinct plan



2 POLICY AND LEGISLATIVE FRAMEWORK

2.1 SPATIAL POLICY FRAMEWORK

In terms of national spatial policy, the Spatial Planning and Land Use Management Act 16 of 2013 and the Integrated Urban Development Framework (IUDF), 2016 provide the principles to be applied in the development of a Precinct Plan.

On a Municipal level, the West Rand District Municipality SDF, 2020 and the Mogale City Local Municipality SDF, 2019 are relevant.

2.2 MUNICIPAL PLANNING

In terms of spatial policy, the West Rand District Municipality SDF, 2020 and the Mogale City Local Municipality SDF, 2019 are relevant.

2.2.1 WEST RAND DISTRICT MUNICIPALITY SDF, 2020

The West Rand District Spatial Development Framework, 2020 demarcates the Hekpoort Precinct as a rural node. The Hekpoort Precinct is seen as a lower order central place serving the surrounding rural areas, with agriculture and tourism being the primary economic sectors.

- A rural node in an area of cultivated land and extensive agriculture.

2.2.2 MOGALE CITY LM SDF, 2019

In terms of the Mogale City Spatial Development Framework, 2019, the Hekpoort Precinct is demarcated as an Agriculture/Tourism Node, which is usually associated with corridors. The Tourism Corridors in Hekpoort are the R560, R563 and the D96 with specific focus on the R560. Although Hekpoort is characterised as 'linear development', it is proposed that development should be focussed around a designated core. According to the SDF, rural nodes have the following characteristics:

- Central places in the rural environment
- Services include satellite offices, social support services, and small convenience retail
- Tourism facilities
- Transportation services

Development principles applicable to rural nodes:

- Development should be restricted and the rural character should be retained
- Development should not require extensive service infrastructure
- Development should not have any negative impact on the environment
- Development should not lead to other needed developments
- Land uses should be mainly resourced based

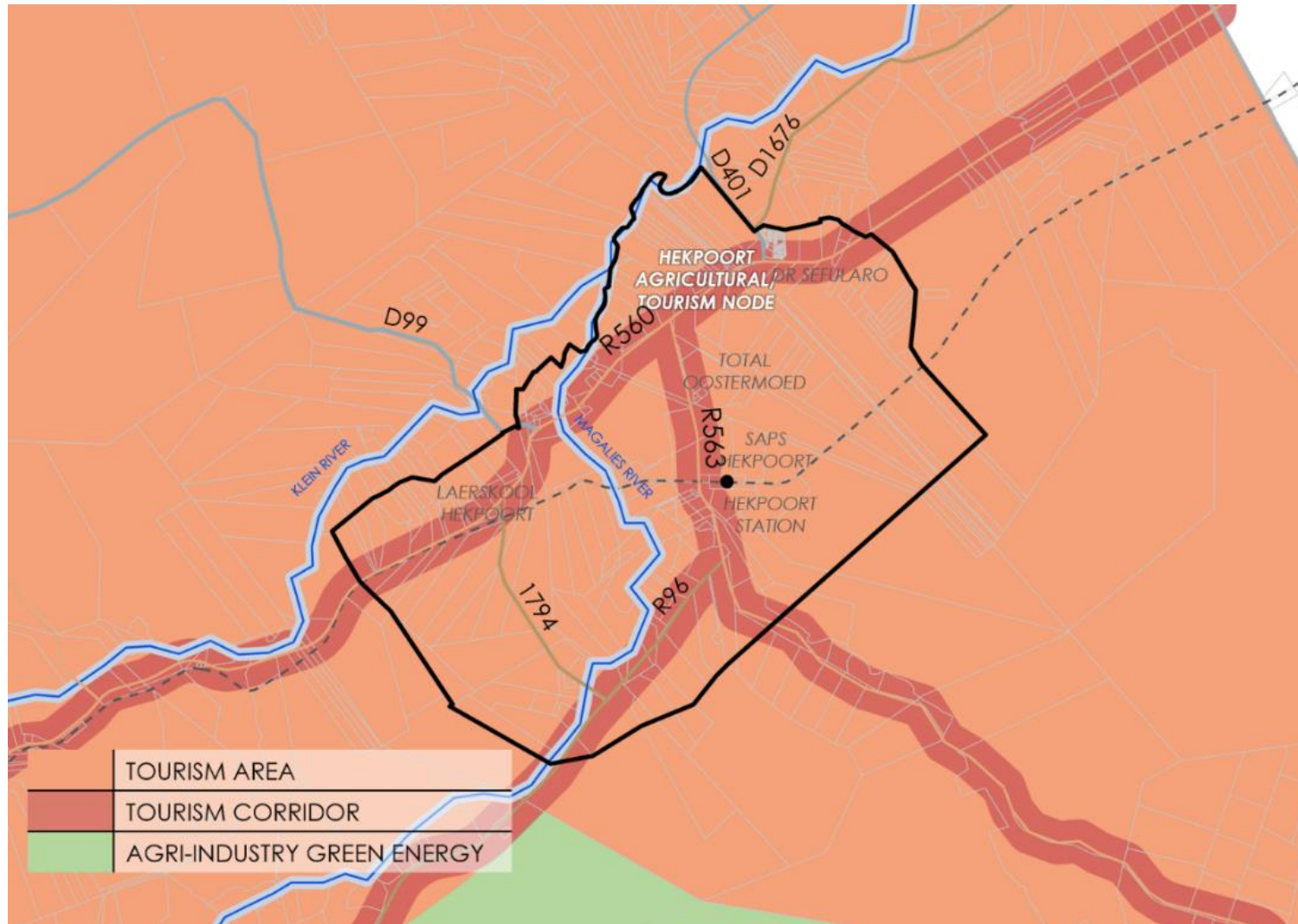


Figure 14: MOGALE CITY SDF IMPLICATIONS FOR THE PRECINCT

2.3 SPATIAL PLANNING AND LAND USE MANAGEMENT ACT 16 OF 2013

AIM

- 1 To provide a framework for spatial planning and land use management in the Republic.
- 2 To provide a framework for policies, principles, norms and standards for spatial development planning and land use management

Principles

Good administration

- 1 All spheres of government must ensure an integrated approach to land use and land development
- 2 All government departments must provide their sector inputs during the preparation of spatial development frameworks
- 3 Include transparent processes of public participation that afford all parties the opportunity to provide inputs on matters affecting them
- 4 Policies, legislation and procedures must be clearly set, in order to inform and empower members of the public

Spatial sustainability

- 1 Promote land development that is within fiscal, institutional and administrative means
- 2 Protect prime and unique agricultural land
- 3 Consistent application of environmental management instruments
- 4 Effective and equitable functioning of land markets
- 5 Consider current and future costs for the provision of infrastructure and social services
- 6 Promote land development in locations that are sustainable and limit sprawl
- 7 Create viable communities

Efficiency

- 1 Optimise use of existing resources and infrastructure
- 2 Minimise negative financial, social, economic or environmental impacts
- 3 Efficient and streamlined procedures

Spatial justice

- 1 Redress past spatial imbalances through improved access to and use of land
- 2 Include informal settlements and areas characterised by widespread poverty and deprivation
- 3 Redress access to land by disadvantaged communities and persons

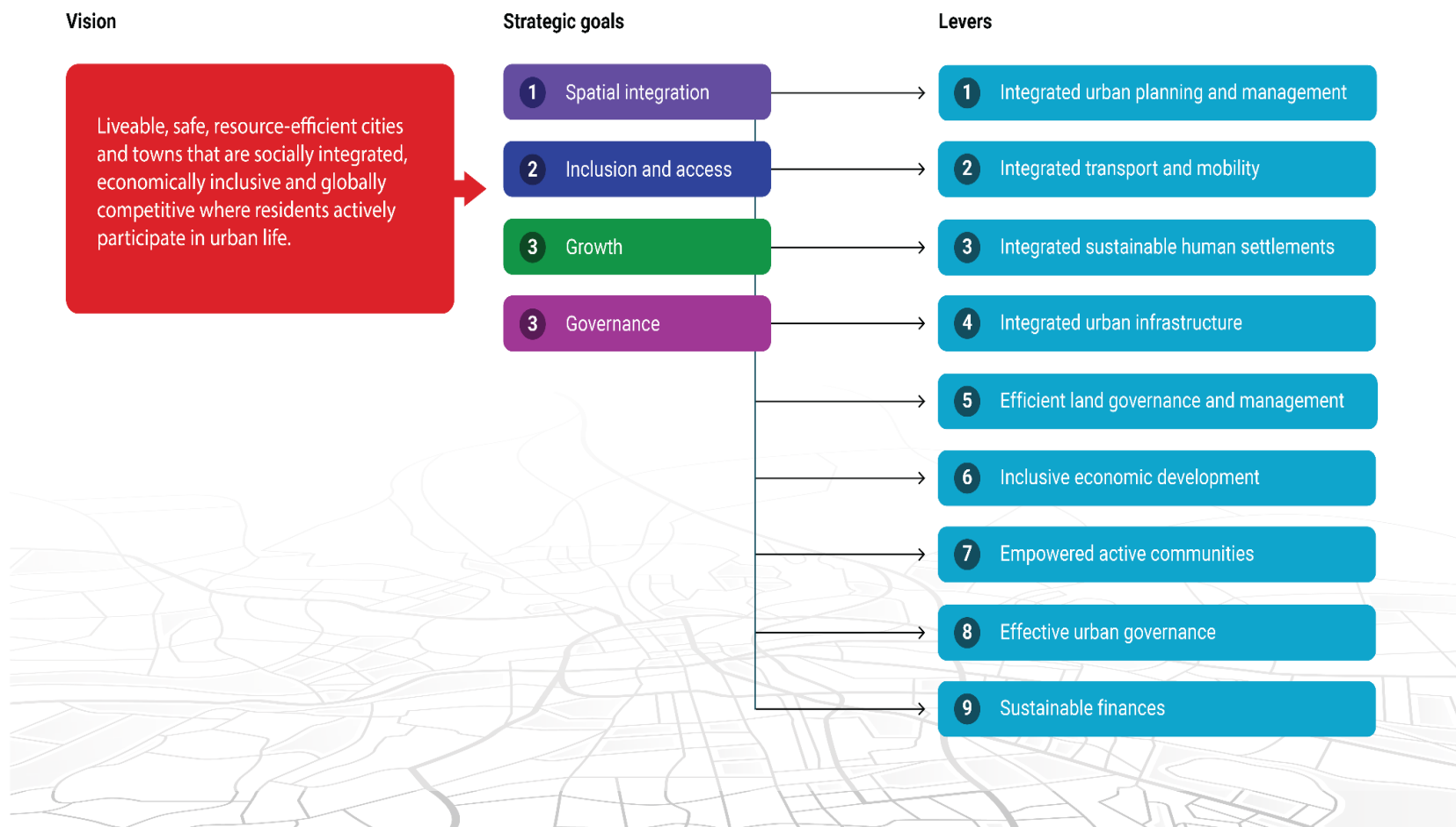
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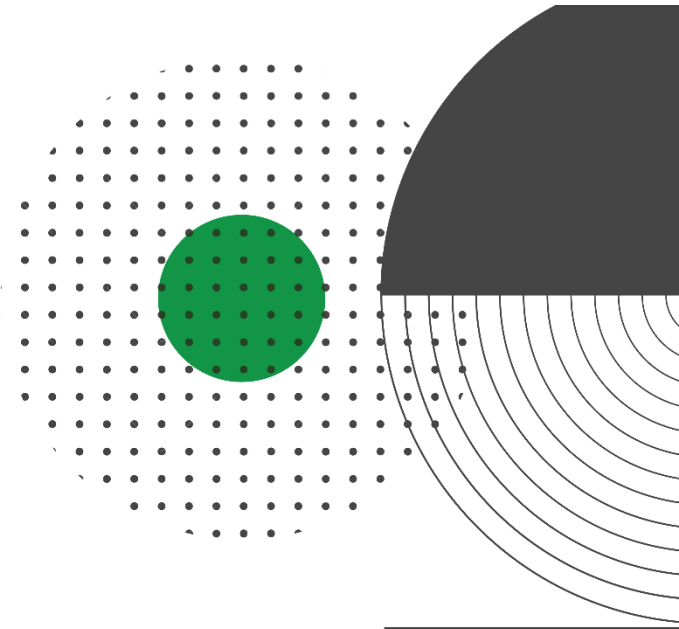
- 4
 - Include provisions that are flexible and appropriate for the management of disadvantaged areas and informal settlements
 - Include provisions that accommodate access to secure tenure and the incremental upgrading of informal areas

Spatial resilience

- 1 Flexibility in spatial plans to ensure sustainable livelihoods in communities most likely to suffer the impacts of economic and environmental shocks

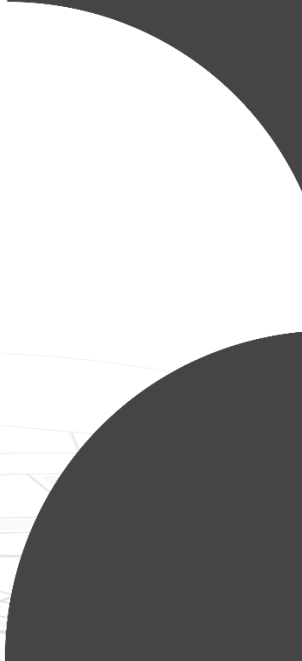
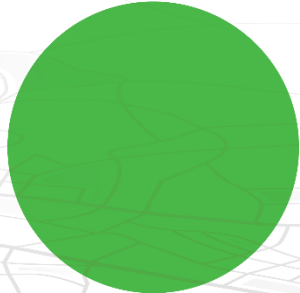
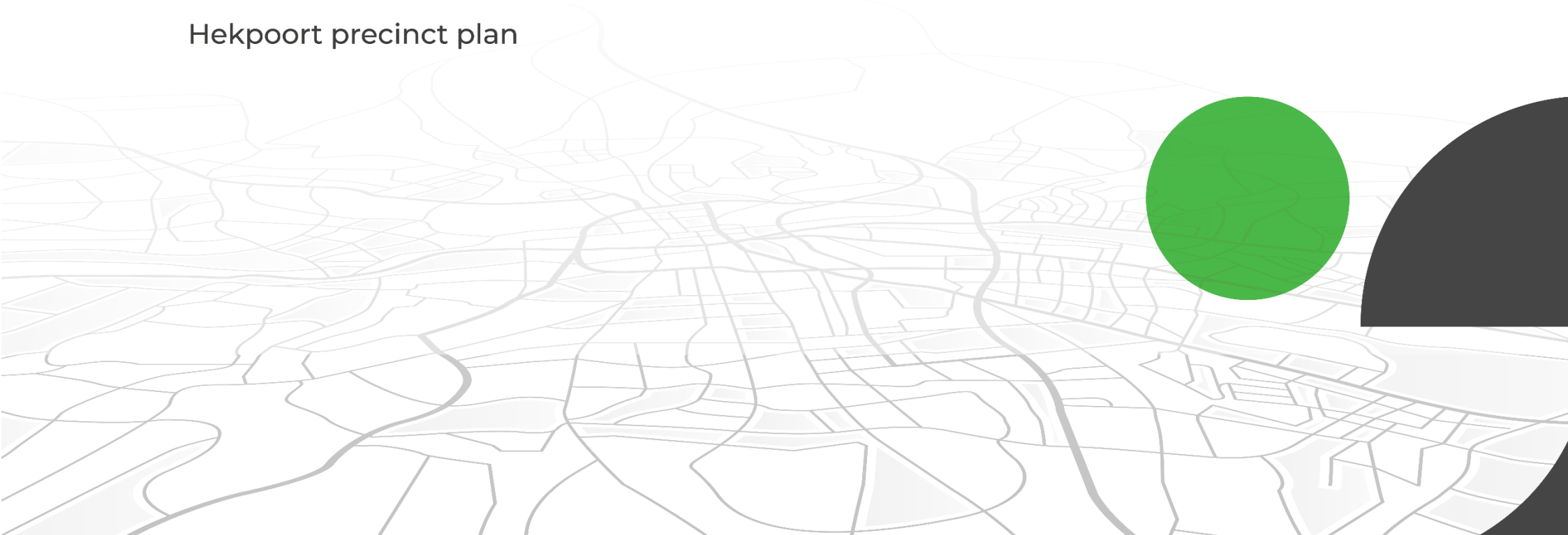
2.4 INTEGRATED URBAN DEVELOPMENT FRAMEWORK (IUDF), 2016





The state of the precinct

Hekpoort precinct plan



3 THE ECONOMY AND THE RESIDENTS

3.1 INTRODUCTION

This section provides a summary of the prominent characteristics of the local economic features and the socio-economic characteristics of the households.

3.2 MACRO-ECONOMIC PROFILE¹

The following are the salient points emanating from the socio-economic and market study undertaken for the region:

- The local economy has a negative economic growth since 2018, with -1.10% in 2018 and -1.26% in 2019.
- Economic sectors that performed well in 2019 include Wholesale and retail trade with 3.64% growth, Transport, storage, and communication with 4.35% growth and General Government and Community, social and personal services with 1.45%.
- It is important to note that based on the economic data there are hardly any Finance, insurance, real estate, and business services in the region.
- Economic sectors that have shown economic decline in 2019 include: Agriculture (-7.25%), Mining and quarrying (-9.47%), Manufacturing (-1.84%) and Electricity, gas and water with a decline of 4.82%.
- Manufacturing contributes 37.73% to the local economy, followed by General Government and

Community, social and personal services (17.73%) and transport, storage, and communications (16.81%).

3.3 SPACE ECONOMY

An analysis of the spatial distribution of economic activity within the larger region of small towns and nodes indicate that the economic base of Hekpoort is small and confirms its economic base as being agriculture and tourism.

¹ Source: CSIR, Data provided by Quantec on Local Municipal disseminate to mesozone level with Dasymetric map, 2020

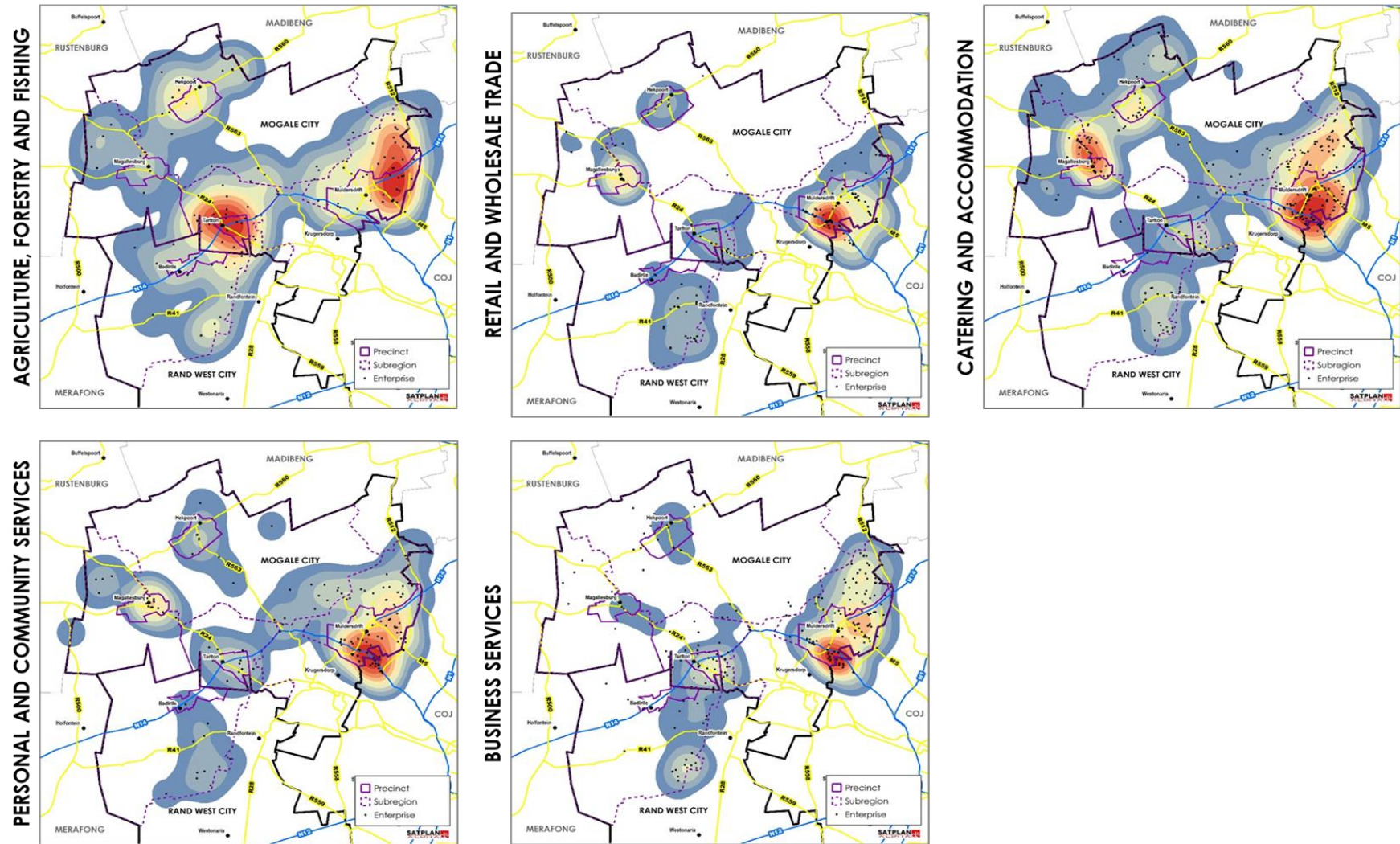


Figure 15: SPACE ECONOMY

3.4 HOUSEHOLDS AND POPULATION

- In the Precinct 57.11% of households fall within the low-income category.
- A large portion (37.28%) of the Precinct has some secondary education.
- In the Precinct 56.78% of the population aged between 5 – 24 are attending ordinary school.
- The Precinct has an employment rate of 63.72%, with an unemployment rate of 11.16%.
- A large portion of the population of the Precinct (35.07%) is highly skilled and 30.87% classified as semi-skilled.

4 ENVIRONMENTAL ANALYSIS

The environmental analysis provides an indication of areas to be protected as well as the state of environmental assets.

4.1 RIDGES AND RIVERS

The Witwatersberg defines the southern boundary of the Precinct and leads to the east-west road network. It also provides for a striking entrance into the Precinct through the 'poort' and a scenic backdrop to the Precinct. It is classified as a Class 1 ridge (least transformed) and has a 200m buffer.

The Magalies River runs through the centre of the Precinct. It is a perennial river and is critically endangered. Klein River runs to the north-west of the Precinct. It is non perennial and is also critically endangered.

Both Rivers are subject to a 32m buffer.

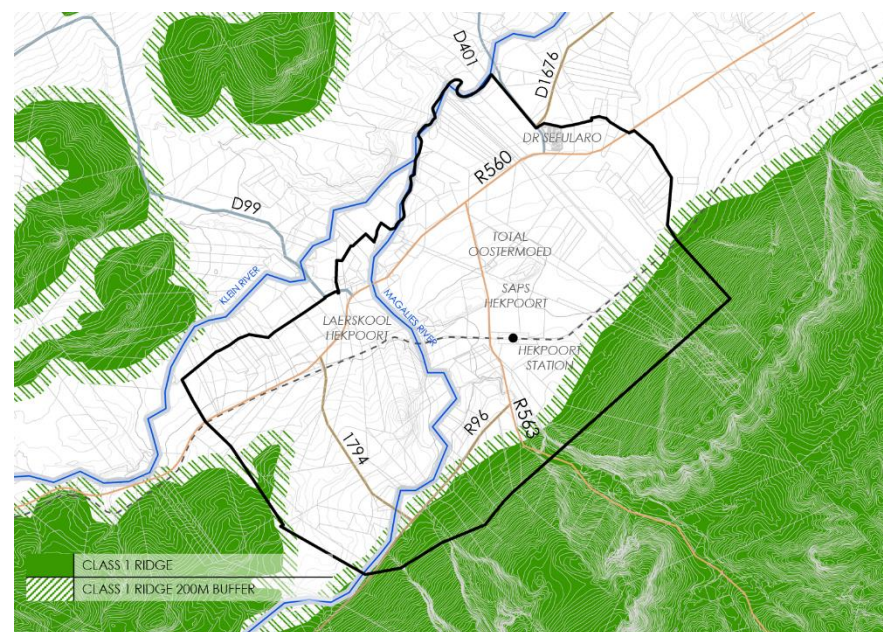


Figure 16: RIVERS AND RIDGES

4.2 ENVIRONMENTAL SENSITIVITIES

The areas on the ridges and around the Magalies River are designated as Critical Biodiversity areas (CBAs) and Environmentally Sensitive Areas (ESAs) and should be protected. Land status data for the area indicates that Hekpoort Precinct status is classified as vulnerable.

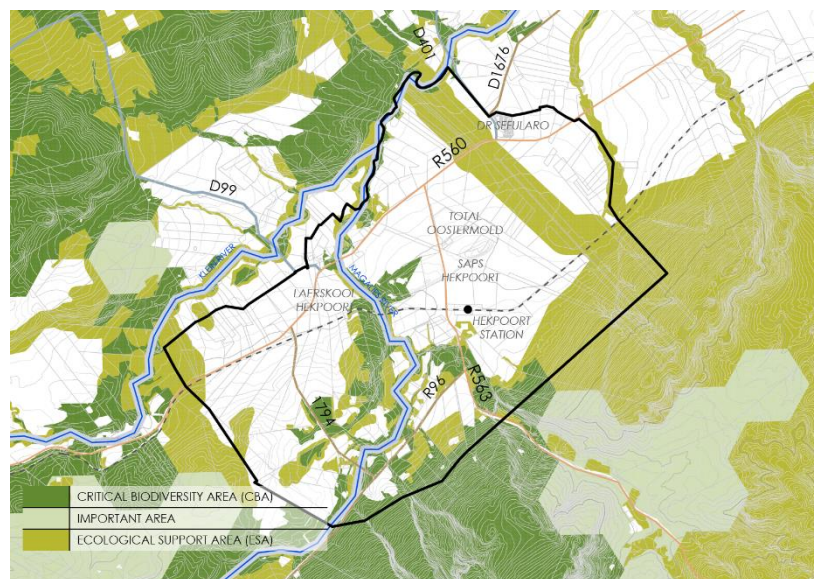


Figure 17: ENVIRONMENTAL SENSITIVITIES

4.3 PROTECTED AREAS

The entire Precinct falls within the Transition zone of the Magaliesberg Biosphere Region (UNESCO site) and portions to the south-east and north-east fall within the buffer.

The south-eastern portion of the Precinct falls within the Cradle of Humankind World Heritage Site.

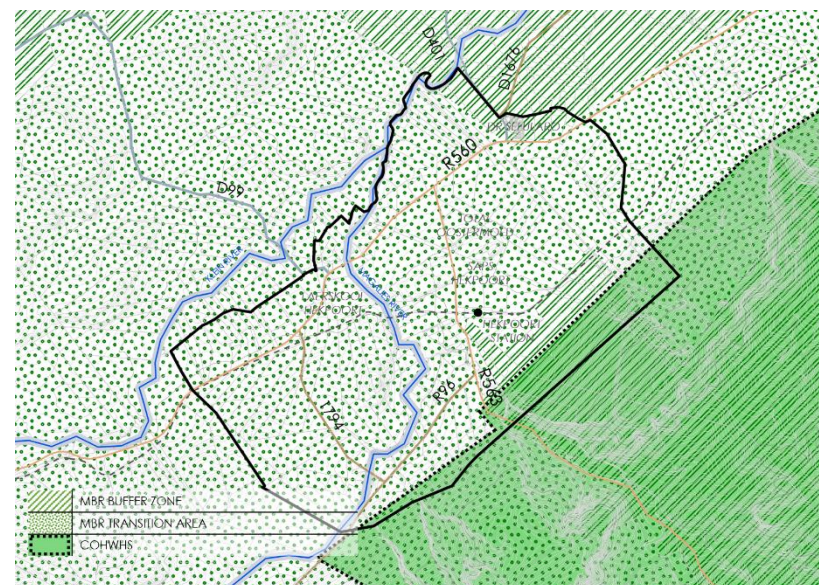


Figure 18: PROTECTED AREAS

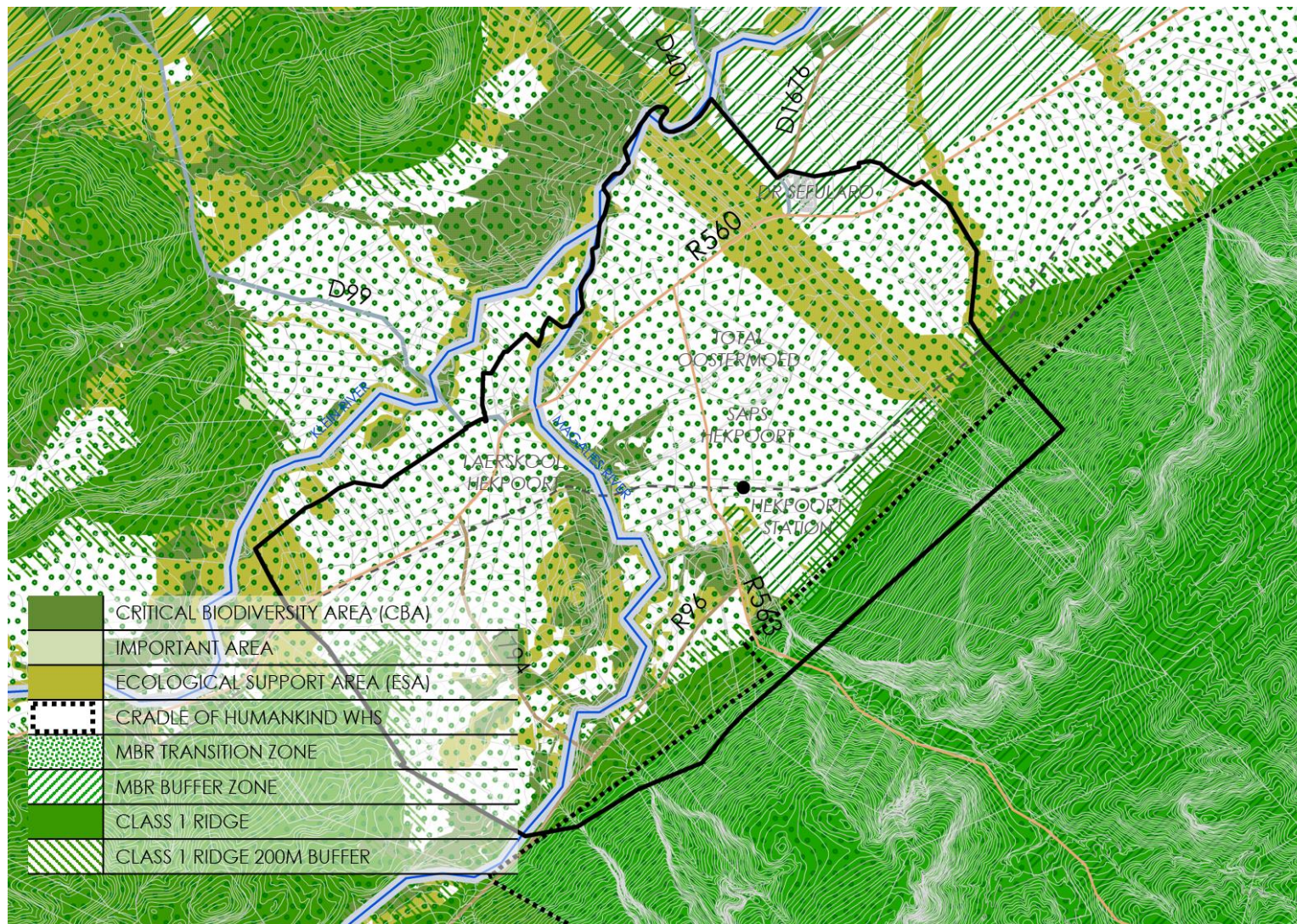


Figure 19: ENVIRONMENTAL CONDITIONS

5 ROAD AND RAIL NETWORK

The Gauteng provincial strategic major road network indicate the following:

- P123-1 (R560 / K24): R24 (west) to Hartebeespoort Dam (east)
- P74-1 (R563 / K17): R560 (north) to Krugersdorp (south)
- D96: R563 to R24
- D99: North-west part of Precinct and beyond
- D1676: Area north of R560 (east), outside precinct area.
- D401: Serves north-eastern part of Precinct and provides link to D2812 (outside Precinct area)
- Road 1794: D96 to R560.

The existing two-lane two-way roads, both the P123-1 (K24 / R560) and the P74-1 (K17 / R563) have poor geometric standards, including sharp curves with poor sight distance and intersections with insufficient sight distance to allow traffic from side roads to enter the provincial road.

There are no significant municipal roads within the Precinct and most properties obtain access directly from provincial roads. In numerous instances, existing access points and structures close to the provincial roads do not comply with the requirements of the Gauteng Transport Infrastructure Act (GTIA).

Table 1: ROAD HIERARCHY

CLASSIFICATION	DESCRIPTION
Class 2 Major rural arterials	P123-1 (R560 / K24) P74-1 (R563 / K17)
Class 3 Minor rural arterials	D96
Class 4 Rural collector roads*	D99, D401, D1676 and Road 1794
Class 5 Rural access roads	Many properties obtain access via access roads and servitudes to the provincial roads

* These roads are currently indicated as Class 3 roads.

A railway line runs parallel to the R560 with a station to the east of the R563. The line is currently in disuse.

Transnet has confirmed that the railway line through Hekpoort to Magaliesburg is part of the strategic freight rail network and must be protected in the planning.

Public and non-motorised transport is limited.

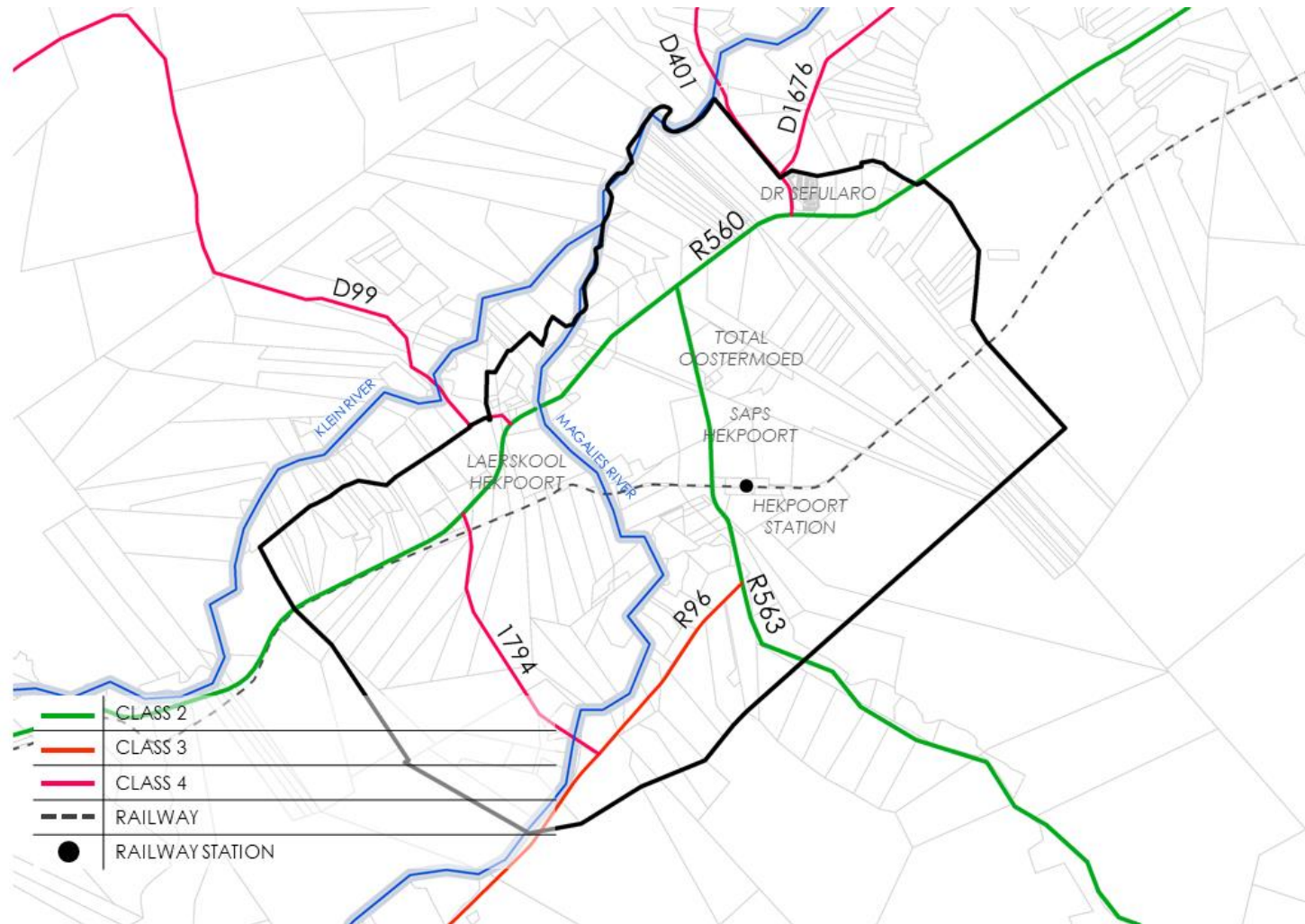


Figure 20: TRANSPORTATION

6 AGRICULTURE

According to the Gauteng Agricultural Productivity Atlas (GAPA), the Hekpoort Precinct is an area of generally moderate agricultural potential, with widespread concentrations of low agricultural potential in the wider vicinity of Hekpoort subregion due to the prevalence of rocky soils and outcrops. Agricultural potential is highest in the vicinity of the Magalies and the Klein River with the bulk of irrigation farming. There is evidence that there is no longer enough water in the Magalies River to conduct irrigation farming as water is depleted upstream by farmers in Tarlton.

Geographically, farm sizes relate to spatial entities, such as rivers, mountain ranges and high potential agricultural soils and agricultural land use is generally linked to the size of the land parcel:

- Intensive agriculture: Smaller farm portions (< 20ha) in the valley along the Magalies River on high-potential agricultural soils that can draw irrigation water from the Magalies River.
- Extensive agriculture: The larger farm portions (> 20ha) in the mountainous regions on lower-potential agricultural soils.

The contribution of agriculture to the local economy and employment is declining and with it the socio-economic

conditions of the residents. Due to several reasons such as increasing costs of inputs and decreasing market prices, there is a move away from intensive agriculture to extensive agriculture, which is less labour intensive. Many farmers have turned to game farming or developing small tourist facilities on their farms to supplement their income.

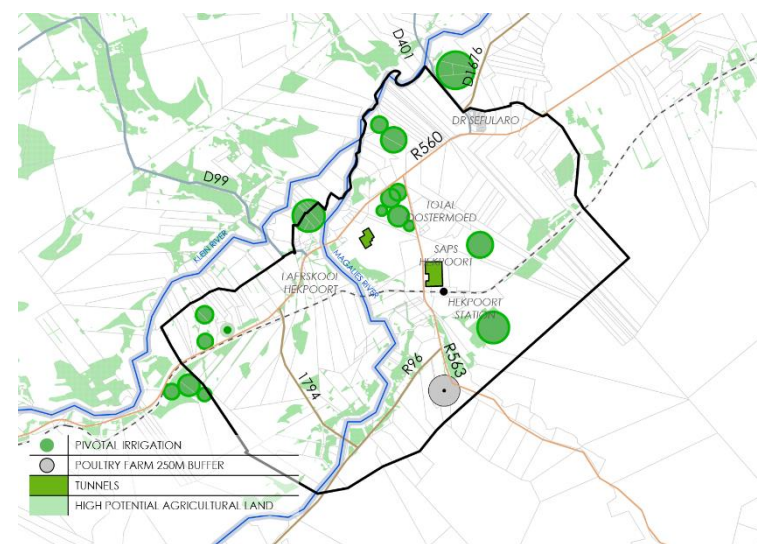


Figure 21: AGRICULTURAL POTENTIAL AND ACTIVITIES

7 SPATIAL STRUCTURE

Hekpoort Precinct has a linear structure along three provincial roads, namely:

- the R560 between the R24 in the west and the Hartebeespoort Dam in the east
- the R563 between the R560 and Mogale City (south)
- the R96 between R563 and R24 in the Magaliesburg area (west).

It is characterised by agricultural activity along the Magalies River, tourism activities along the major roads, some economic activities, and social services along R560 aimed at the local community (shops, filling stations, schools and places of public worship), as well as informal residential settlements that have developed during the past ten years.

7.1 RESIDENTIAL PATTERNS

The Precinct is sparsely inhabited and all formal residential can be classified as agricultural residential. 91% of the Precinct is zoned as Agricultural Residential and 4% for Agriculture+.

11.91% of dwellings in the Precinct can be classified as an informal dwelling in a backyard. This is the second-most prevalent form of housing after a formal dwelling. Residents indicated their frustration at the insecurity of renting dwellings on farms.

There are seven generally small informal settlements, throughout the Precinct. These total 5.3ha and accommodate approximately 305 households, scattered throughout the Precinct. One of the reasons behind the development of the informal settlements are farm evictions.

Anecdotal evidence indicates that in addition to residents moving into informal settlements, high-income people working in the rest of Gauteng are moving to the Hekpoort area to benefit from the rural setting.

There is only one significant township: Dr Sefularo Village was established in 2013 to accommodate the relocation of the scattered informal settlements in the Precinct. It is located on the north-eastern boundary of the precinct and consists of 109 residential erven of $\pm 200\text{m}^2$. The entire township is still vacant.

There are two housing projects within the Precinct:

- Dr Sefularo Ext 1 which will accommodate 323 dwelling units.
- Gauteng Rapid Land Release Programme which will accommodate approximately 600 dwelling units and be linked to an agricultural project.

Neither of these townships have been proclaimed.

An Urban Design Framework has been submitted as part of the GRLRP for a further expansion of the Dr Sefularo Complex. It accommodates 844 units.



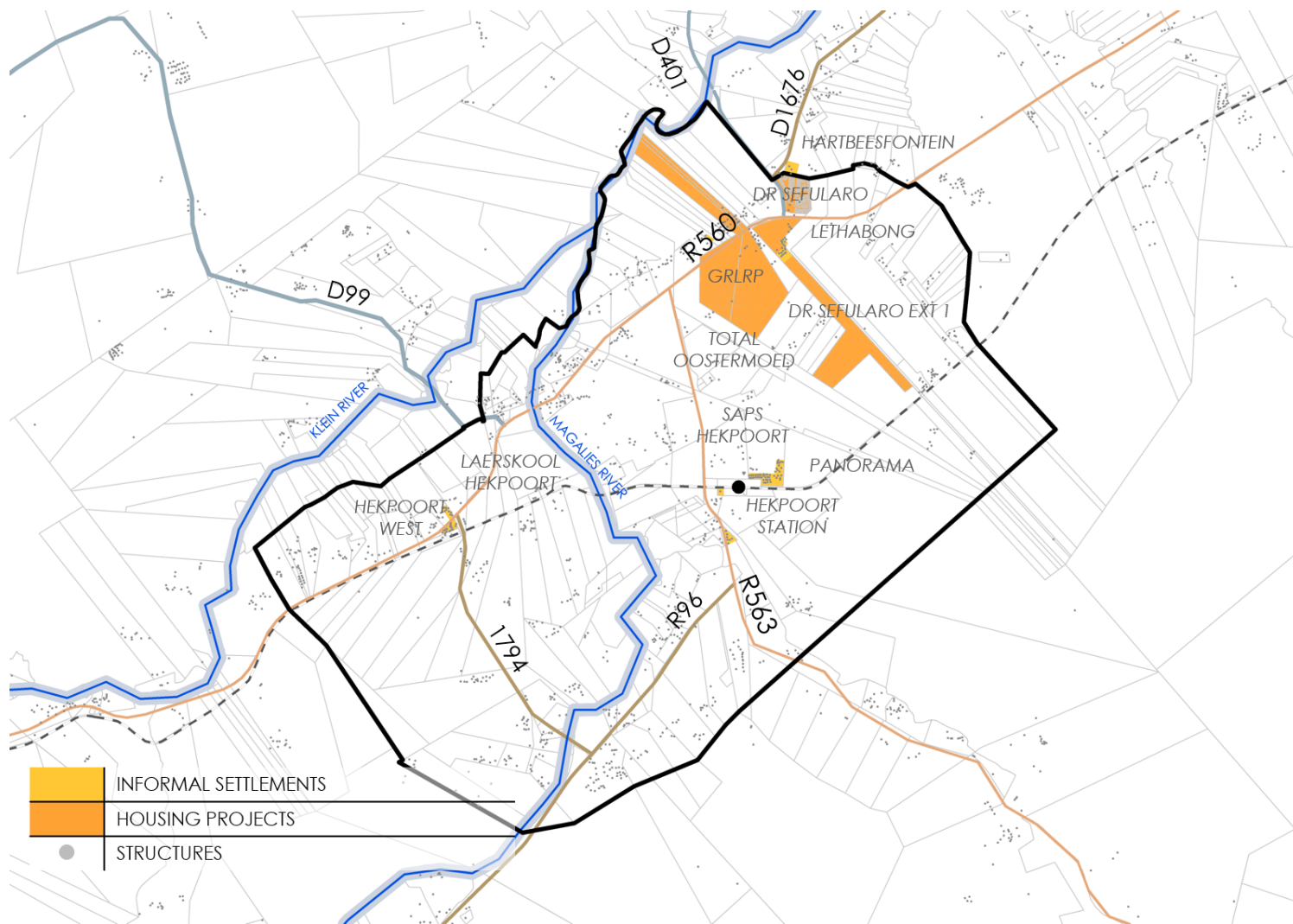


Figure 22: RESIDENTIAL PATTERNS

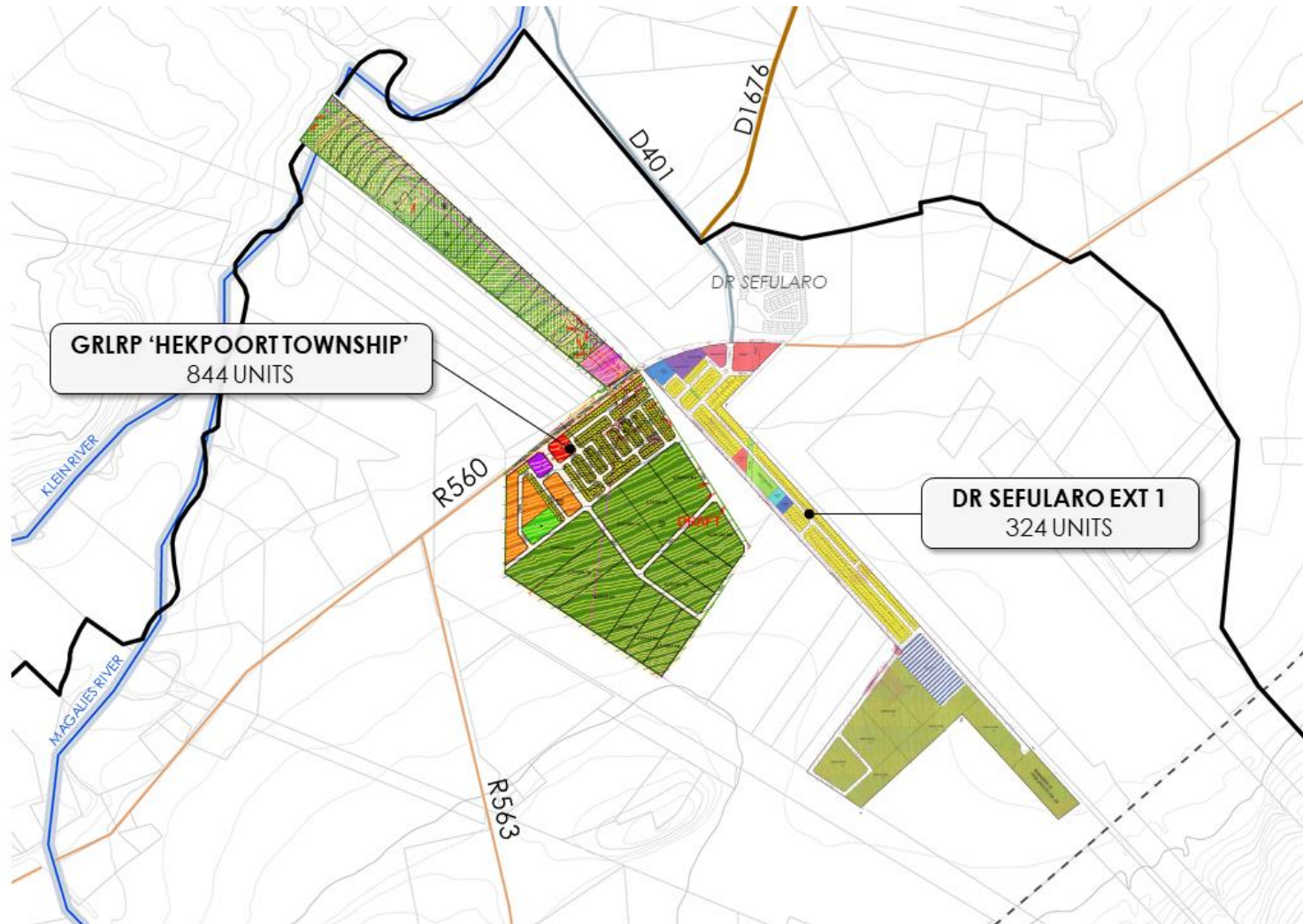


Figure 23: GRLRP HEKPOORT TOWNSHIP

7.2 HOUSING DEMAND

According to the socio-economic study undertaken for the Precinct, there are approximately 4 821 people currently residing within the Hekpoort Precinct, comprising of 1 487 households within an average household size of 3.2 people per household. These figures are expected to increase to 6 235 people and 1 980 households in the Precinct by the year 2035. The study projects a cumulative net effective demand of 863 households for the region.

There are currently approximately 300 households that are residing in informal settlements that need to be accommodated and 500 households living in informal dwellings in a backyard in the region.

Table 2: HOUSING DEMAND VS SUPPLY

DEMAND	Nr of households	SUPPLY	Nr of erven
Housing market study	863	Dr. Sefularo	109
Informal settlements	300	Dr Sefularo Ext 1	323
Backyard units	500	GRLRP	844
	1 763		1 276

There is thus a shortfall of approximately 500 dwelling units. At a net density of 20du/ha an additional 40ha will be needed (if it is assumed that only 60% of land is developed for residential purposes).

7.3 HOUSING AFFORDABILITY

Based on the socio-economic study, housing affordability ranges for both rental and bonded housing were determined. These inform the level of affordability between the various income groups within the market area, based on the annual household income figures and population features. The bulk of households qualify for fully subsidised housing.

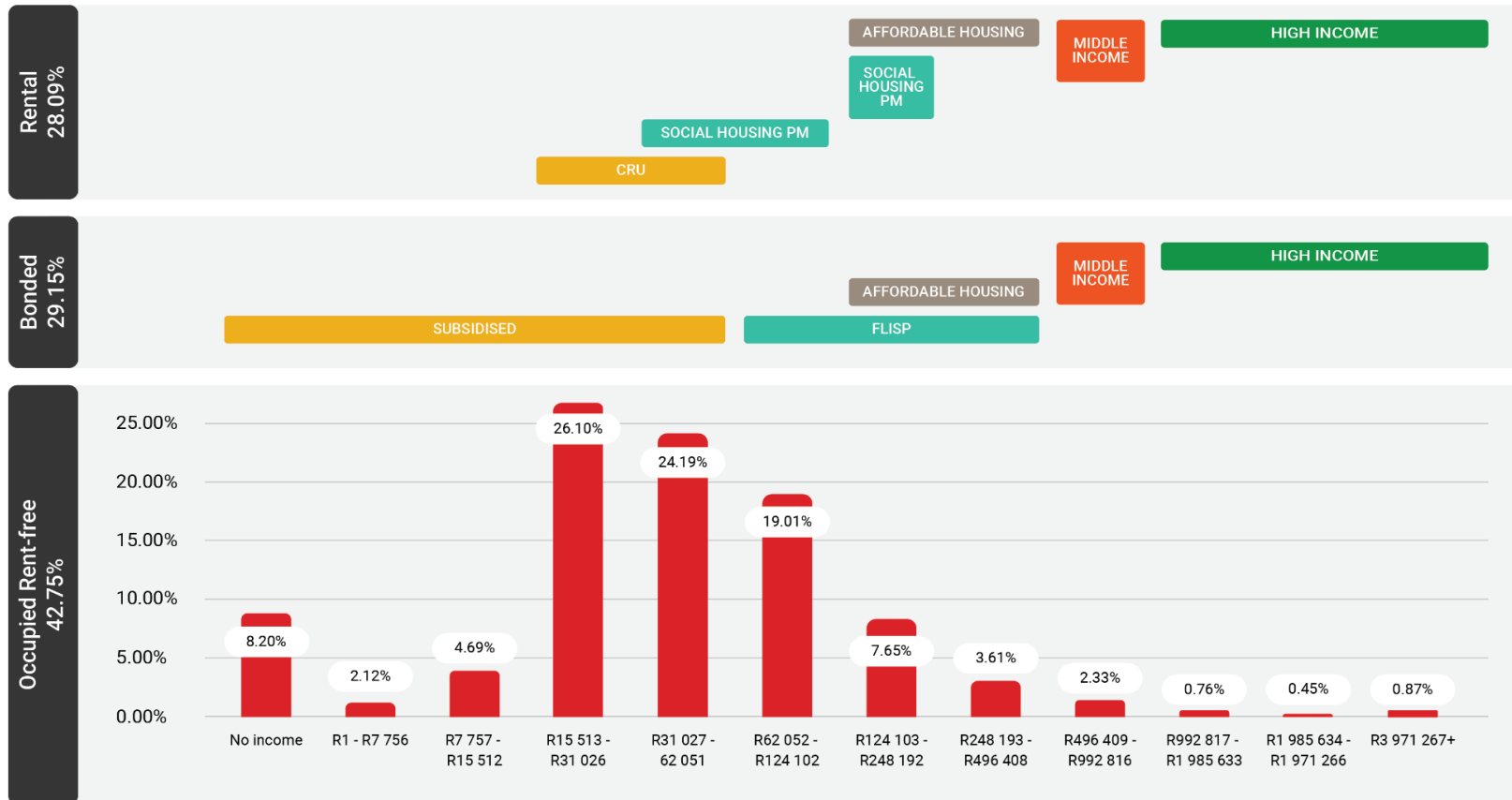


Figure 24: HOUSING AFFORDABILITY RANGES

7.4 SOCIAL FACILITIES

The Hekpoort Precinct largely serves a rural population and social facilities are limited and scattered and do not create a nodal focus. The closest to a social node, is the primary school and the municipal offices (Thusong centre) on the R560 adjacent to the Magalies River. The post office is in the northern portion of the Precinct and the police station is along the R563.

The lack of facilities is not unusual given the small population spread over a large area, but the lack of a nodal focus for the town means that it does not have a clear identity.

The existing and new developments around Dr Sefularo to the north-east of the intersection of the R560 and the R563 will make provision for an approximately 1 000 units, thereby increasing the demand for more social facilities. based on existing layout plans, the following social facilities will be provided:

- 9 Parks
- 3 Community Facilities
- 1 Educational erf
- 1 police station
- 1 a church
- 1 creche
- 3 Park erven

If these are implemented as planned, a strong new social node will develop, and this will become the new 'heart' of the town. However, it still leaves the Precinct without a high school.

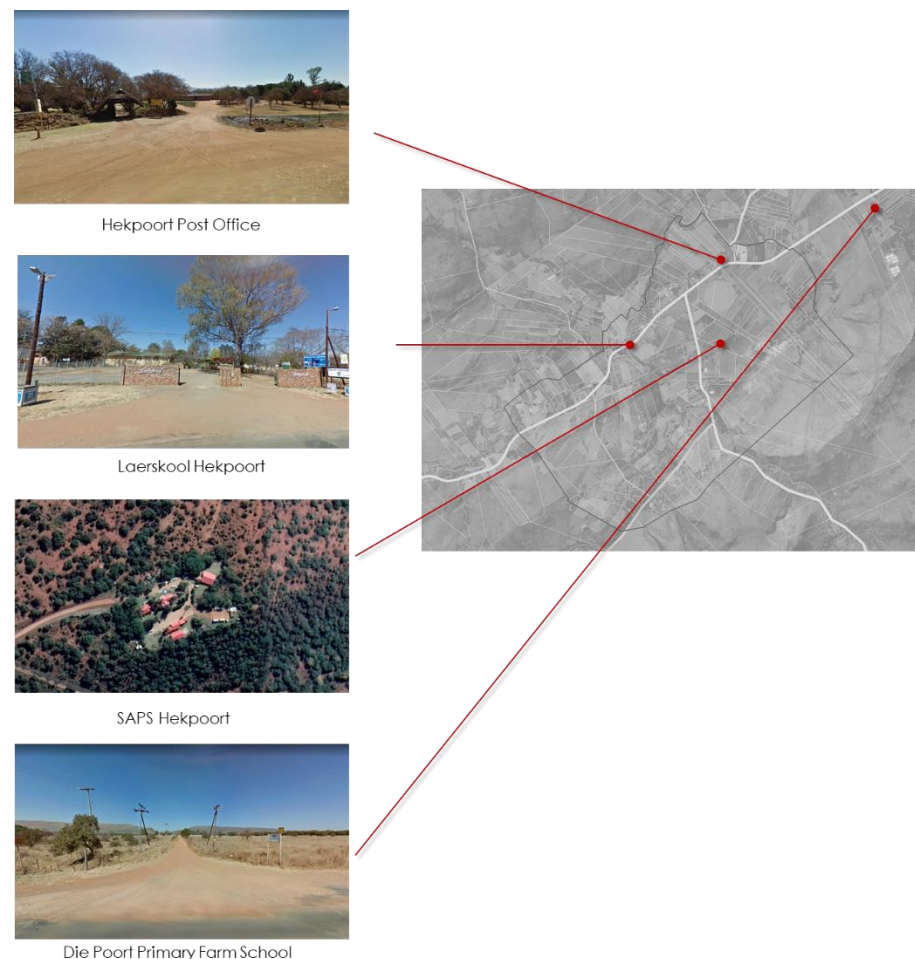


Figure 25: SOCIAL FACILITIES

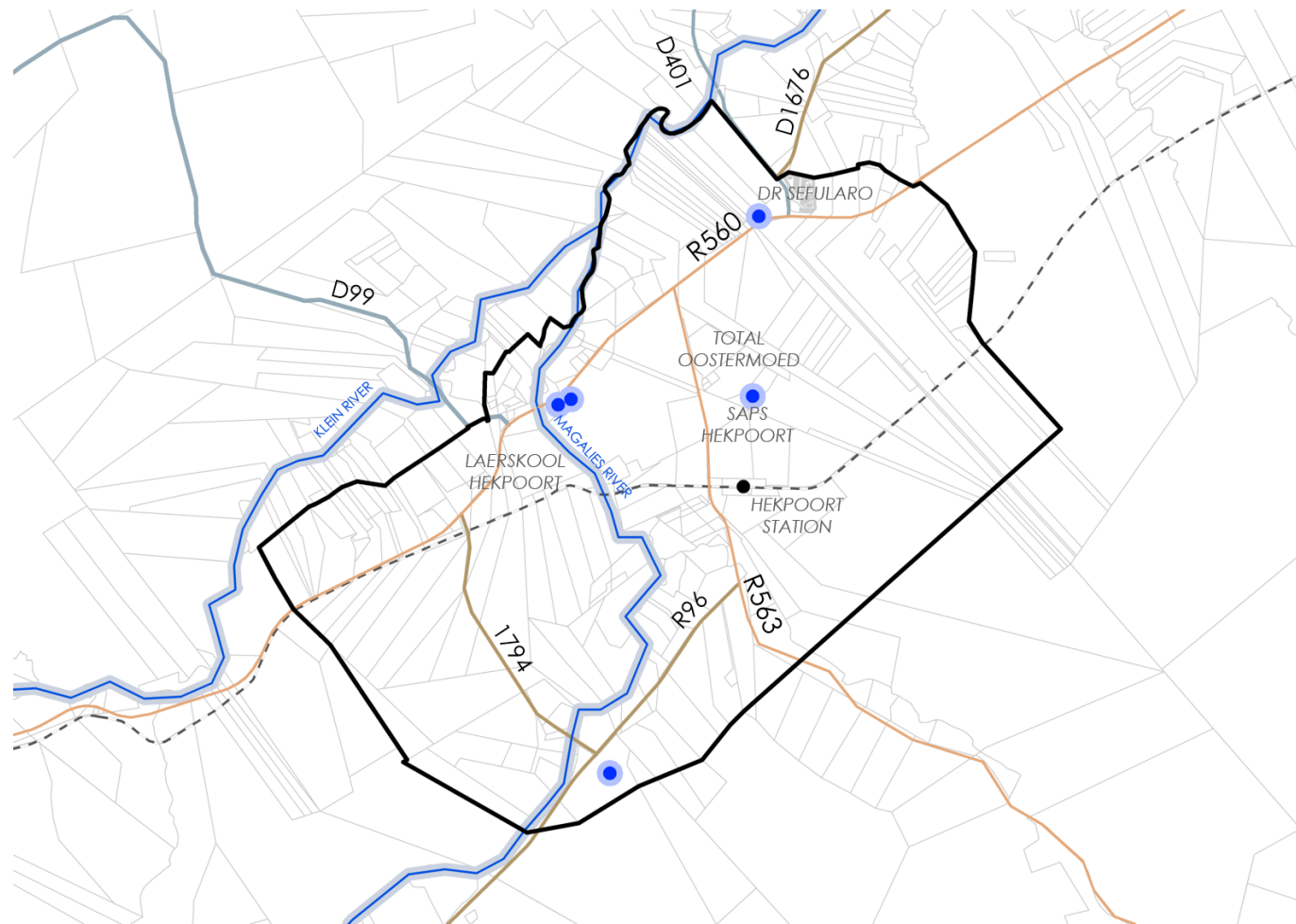


Figure 26: SOCIAL FACILITIES IN PRECINCT

7.5 RETAIL AND COMMERCIAL

There is limited business activity within the Precinct and residents need to travel to surrounding centres to purchase even basic goods. Most business activities are located along the main routes:

- R563: agricultural related businesses, small scale restaurants, small scale retail and transport related businesses.
- R560: diverse including a range of, retail, manufacturers, wholesalers.
- R96: tourist related.

Businesses are spread along these routes but not clustered together or focused, as might be expected, on the intersection of the R560 and the R563. This leads to the Hekpoort Precinct not having a nodal focus or a strong linear development pattern. If the new development of Dr Sefularo is implemented as is planned, a mixed-use business node will develop on the eastern side of the Precinct.

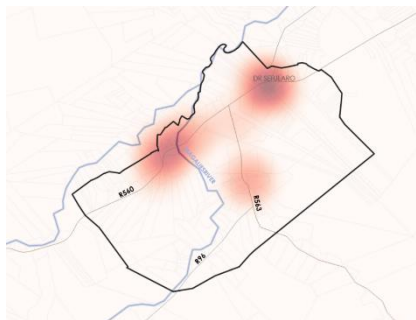


Figure 27: BUSINESS HEAT MAP





Bird Store DIY Depot



Total Oostermoed



Amod and Sons Supermarket



Total Hekpoort



Smartpet Retail



Kingsley Beverages



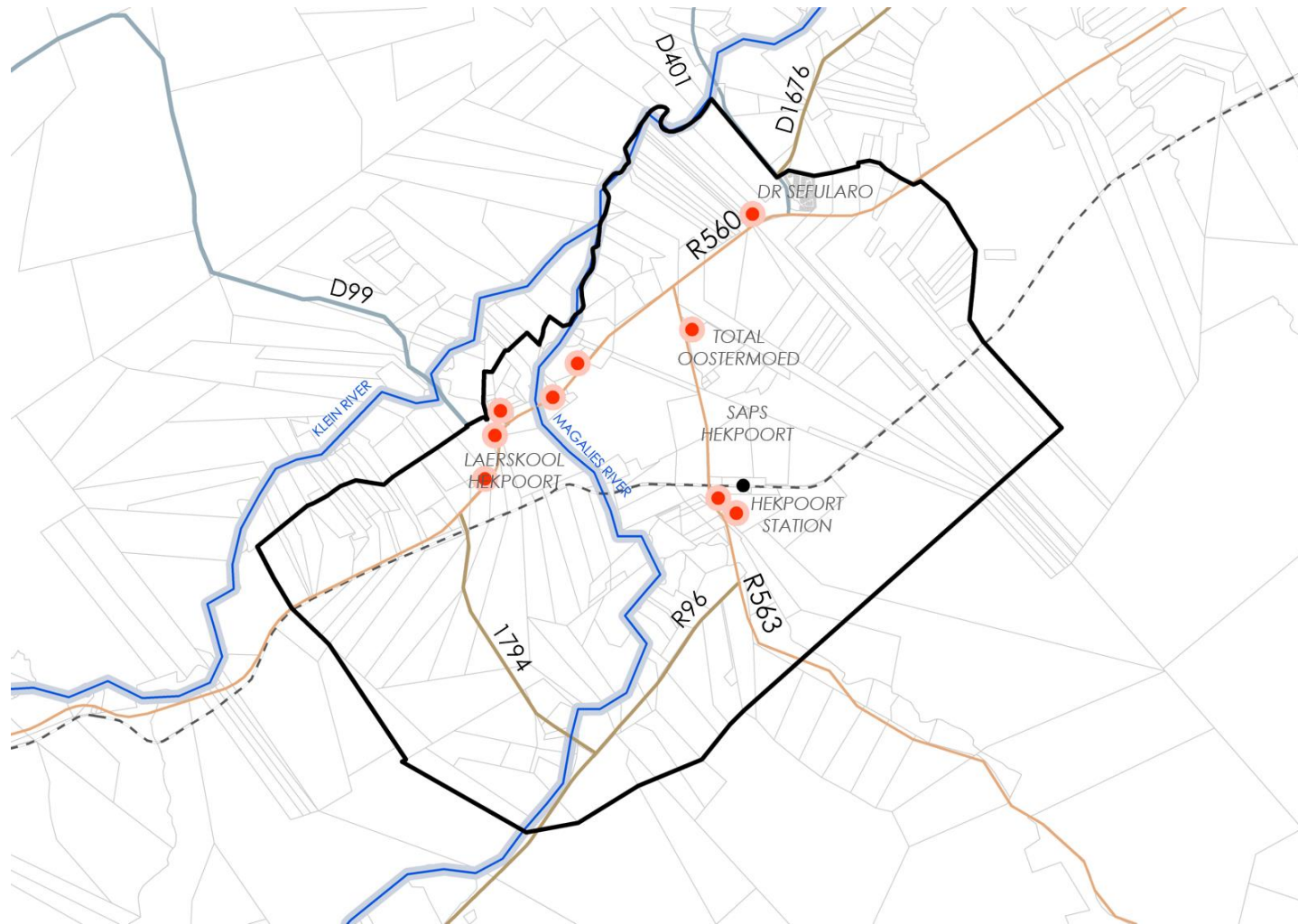


Figure 28: COMMERCIAL AND RETAIL FACILITIES

7.6 TOURISM

The Hekpoort Subregion is identified as an important tourism development area with emphasis on the R563 and R560 Tourism Corridors. The Precinct is also located adjacent to the Cradle of Humankind World Heritage Site and surrounding tourism facilities and within the Magaliesberg Biosphere Region.

The natural environment, especially the Magalies River and the Witwatersberg are significant attractions for tourists. The Hekpoort Precinct has high tourism product value, particularly in terms of short-stay accommodation, venues, game farms, health spas and adventure tourism.

The Nooitgedacht battlefield is to the west of the Precinct and is visible from the Precinct. It was by far the largest battle which was fought in the Magaliesberg region during the South African War. Magaliesberg Association for Culture and Heritage (MACH) have placed a Blue Plaque at this heritage site on the property of the Plumari Private Game Reserve.

Tourism facilities are clustered around the R96 and not necessarily along the R560 and R563, which are designated as Tourism Corridors in the MCLM SDF, 2019.

The proposed development of Dr Sefularo makes provision for a tourism market.

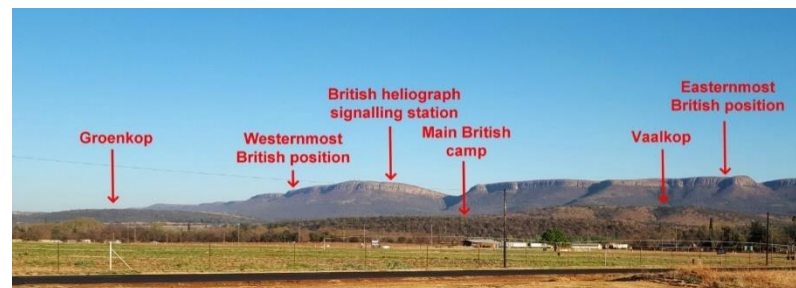


Figure 29: NOOITGEDACHT BATTLEFIELD

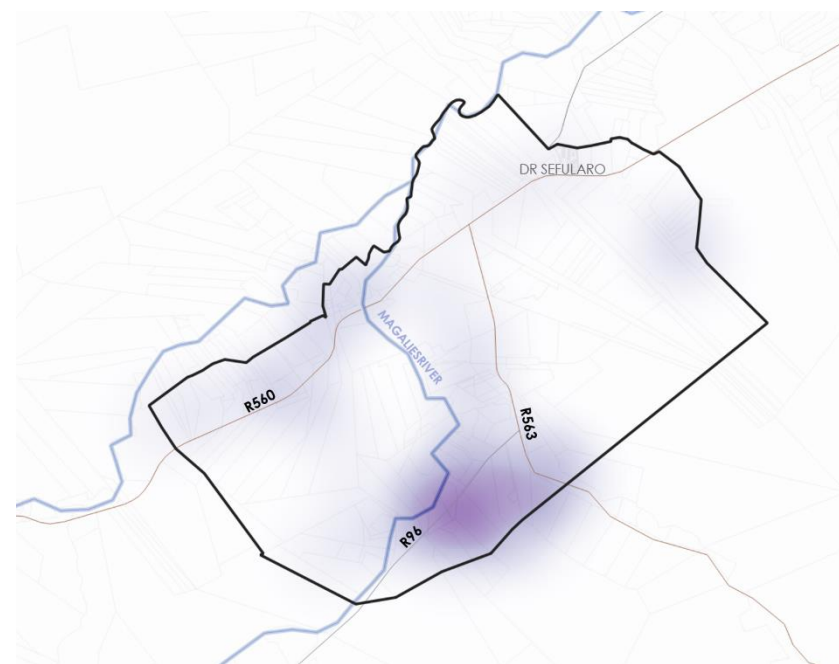


Figure 30: TOURISM HEAT MAP

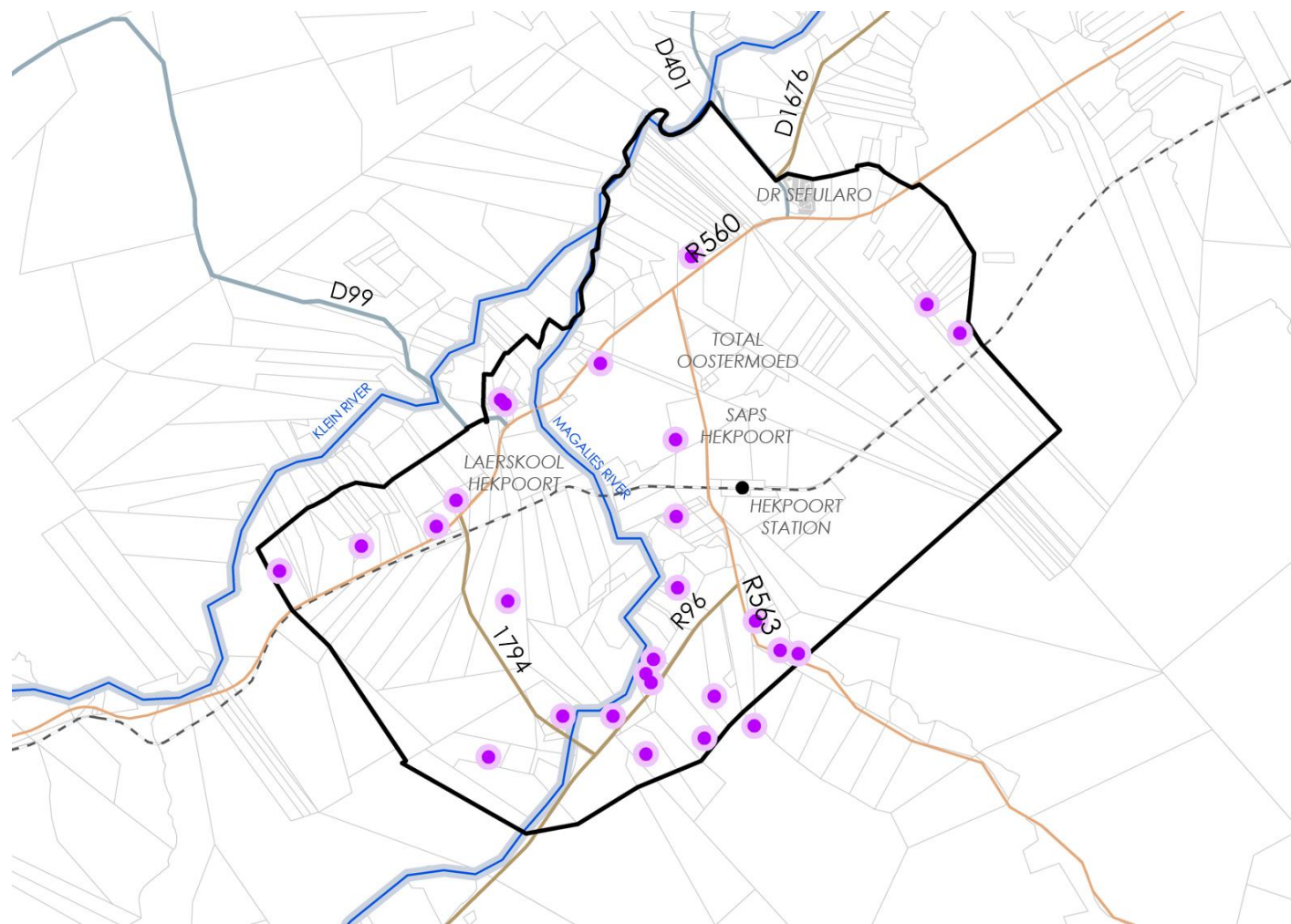


Figure 31: TOURISM FACILITIES IN THE HEKPOORT PRECINCT



Magalies Tranquil Haven



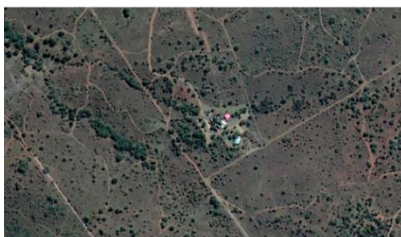
Avela Lodge



Barton's Folly



Finches Nest Farm



Lokutha Country Lodge



Weaver's Roost Resort



8 INFRASTRUCTURE

8.1 ELECTRICITY

This area falls within the Mogale City municipal area but is not included in the Mogale City's electricity licence area and is supplied by Eskom from Hekpoort substation with an 11kV feeder. Mogale City Local Municipality does not have any electrical infrastructure in the area.

The Hekpoort substation details are as follows:

- Installed transformers: 1 x 10 MVA.
- Substation voltage: 88/11kV
- Feeder maximum Notified Demand: 1.9 MVA
- Spare capacity on 11kV feeder: 1.1 MVA

Eskom indicated that the upgrade for this substation is planned and that 1 x 10MVA transformer will be this should have been done already but a definite timeline could not be given.

Other than the Hekpoort substation which falls within Tshwane Municipal Area, Eskom have extensive 11kV rural overhead lines supplying the area with electricity.

8.2 CIVIL ENGINEERING

The Hekpoort area consist of mainly small farm holdings and informal settlements with very limited development as result of limited services being available.

8.2.1 WATER INFRASTRUCTURE

8.2.1.1 BULK WATER SUPPLY

A bulk water pipeline from Randwater, supplying water to Rustenburg, traverses the precinct in a south to north direction. A single connection point has been provided on the pipeline, located at the intersection of roads R401 and R560.

From this point a municipal pipeline has been installed along the northern road reserve boundary of Road R560, terminating near the junction with Road R99. The pipeline is 160mm in diameter and approximately 3.2km in length.

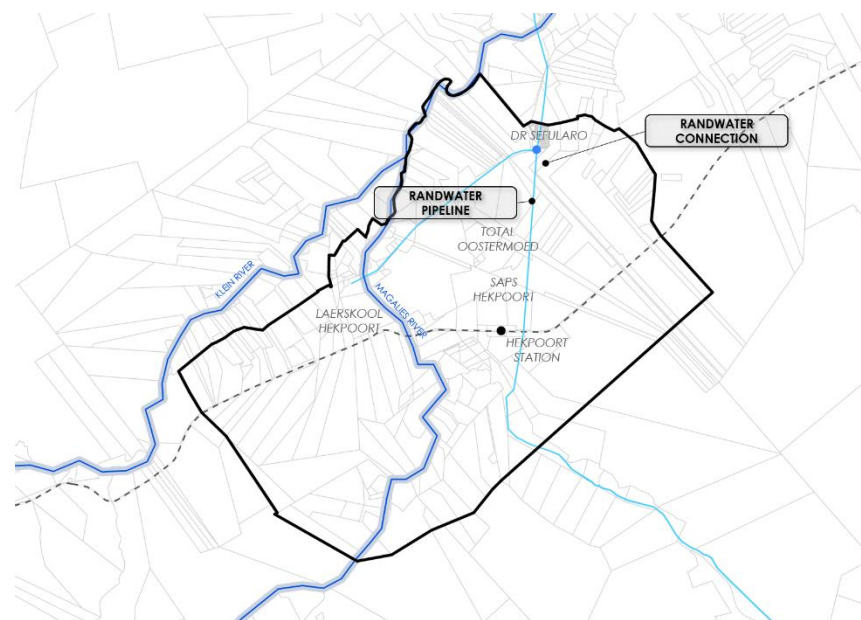


Figure 32: ENGINEERING INFRASTRUCTURE

The connection is 25mm in diameter and inadequate for bulk water supply.

Application needs to be made for a larger connection and, if approved, will be on condition that a reservoir be constructed to ensure constant rate of withdrawal over 20 hours per day.

8.2.1.2 REQUIREMENTS & PLANNING

Construction of a 10-15Ml reservoir: R35m

Construction of new bulk pipelines: R30m

8.2.1.3 WATER RETICULATION NETWORKS

No formal water reticulation has been installed within the Hekpoort area.

8.2.2 SEWER INFRASTRUCTURE

8.2.2.1 BULK SANITATION TREATMENT

The area has no formal sewer treatment plant. As interim measure a temporary package plant is planned to receive sewage from the Dr Sefularo Development.

The package plant will not meet the required discharge effluent quality limits for the Magalies River Catchment and will also not have adequate capacity for future development in the Hekpoort precinct.

It will be replaced with a permanent WWTW with a capacity of 3Ml/d which will be adequate for sewage treatment for the Hekpoort region. (7Ml/d - R178m ??)

Due to the sensitivity of the catchment area the proposed Hekpoort WWTW will not discharge treated effluent into the river. Discharge from the WWTW will be used to irrigate a proposed park and nursery to be established by the Mogale City Local Municipality opposite to the WWTW.

8.2.2.2 OUTFALL SEWERS

The area has no outfall sewers.

Bulk outfall sewer and pump stations are planned. R45m.

8.2.2.3 SEWER RETICULATION AND NETWORKS

The area has no internal waterborne sewer networks. Current development is serviced by septic tanks and on-site sanitation.

Future planned settlements will be planned to have waterborne sewers.

8.2.3 STORMWATER INFRASTRUCTURE

Drains towards and into the Magalies River

9 SYNTHESIS

Hekpoort is a small hamlet that currently provides limited facilities and opportunities for its residents. It lacks any clear functional nodal structure, thereby further limiting its function as a potential service centre. Residents have to travel long distances by foot within the Precinct to access basic facilities and have to travel to adjacent towns to access higher order facilities. This can only be done via private vehicle or at the cost of public transport. Residents of the Precinct are thus severely disadvantaged in terms of social development and access to job opportunities.

On a regional scale, the Hekpoort Precinct has a marginal locality due to its locality between the Witwatersberg and the Magaliesberg and its proximity to the closest towns. Coupled to its limited growth potential based on its marginal locality, its agricultural function has declined over recent years. According to residents, this is due to declining market prices, increasing input costs and declining availability of irrigation water from the Magalies River. The result has been increased unemployment and the growth of informal settlements.

Tourism has to an extent filled the gap left by the decline of agriculture. Some of the farmers have developed small tourism facilities, such as self-catering accommodation units, to supplement agricultural income. The natural and historical characteristics of the Precinct are valuable assets in this regard. These should be protected, enhanced, and marketed. The tourism product is small, and it offers limited

job opportunities. Although tourism markets are proposed, these will have to compete with better located and more developed areas such as Hartebeespoort dam.

The population is small, and the projected growth of the population is limited. New residential townships are planned for the Precinct. Being located in the north-eastern portion of the Precinct, these will completely change the character and functioning of the Precinct, shifting the node from the council offices in the west to the east, near the R563/R560 intersection. This offers an opportunity to provide consolidated social facilities within a safe pedestrian-oriented environment.

The focus with new townships should not be on the provision of conventional housing, but rather on using residential land as a home-based production space to assist the survival strategies of the local population.

Support for tourism development and a coherent settlement structure could address the maladies suffered by the Precinct.

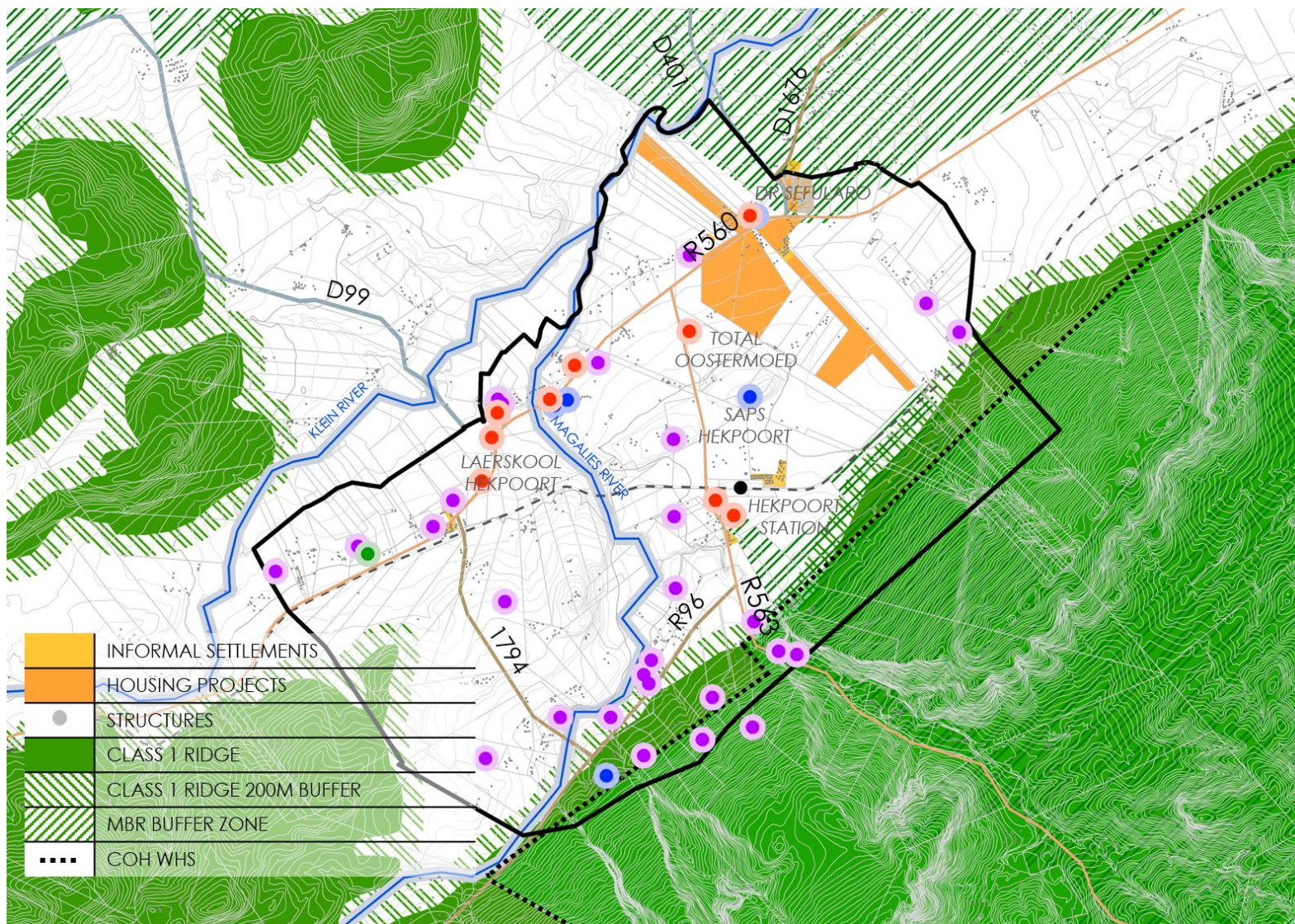
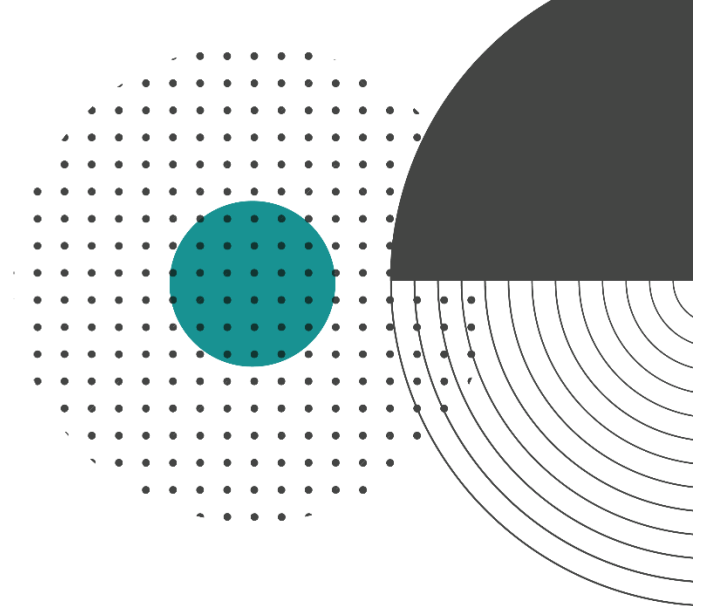
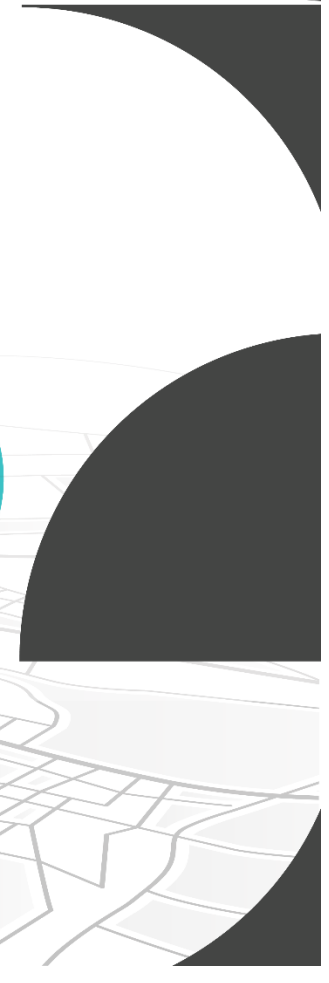
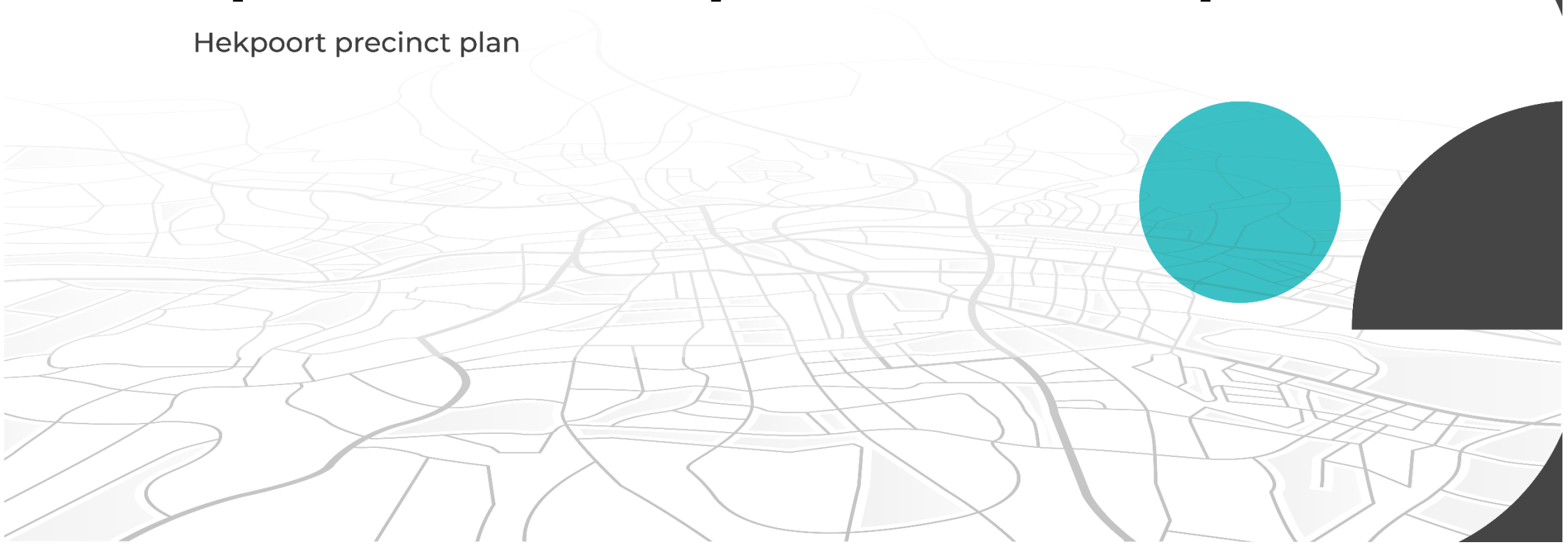


Figure 33: SYNTHESIS



Spatial development concept

Hekpoort precinct plan



10 VISION AND OBJECTIVES

10.1 VISION

A small-scale service centre that provides in the need for sustainable human settlements within a wider tourism and agricultural zone.

10.2 OBJECTIVES

- To develop a human settlement that can become the focus for access to services, amenities, and opportunities.
- To protect the natural environmental assets and heritage elements.
- To enhance the tourism product of the area.
- To support the agricultural product in the area.

11 SPATIAL DEVELOPMENT CONCEPT

The spatial development concept explores the structuring elements that guide the creation of a rational and functional spatial form.

The natural features, specifically the Magalies River and the Witwatersberg and the environmentally sensitive areas surrounding these provide the backdrop for the structuring of the Precinct. Although land use and activities are currently scattered throughout the Precinct, some patterns are apparent:

- Tourism facilities are dominant along the R96 and in the Witwatersberg mountains.
- Along the northern part of the R563 and the western side of the R560, which are also the heavy vehicle routes, are a mix of land uses, predominantly commercial.
- Intensive agriculture is concentrated along the Magalies River, specifically the southern and western side of the river.

These patterns are supported and strengthened by the spatial concept.

New residential developments, with a significant mixed-use node, are planned in the eastern part of the Precinct along the R560. This will create a nodal focus for the Precinct.

The spatial concept is divided into the following elements:

- Corridors and spines
- Character zones

- Mixed use nodes

11.1 CORRIDORS AND SPINES

All the major routes within the Precinct, the R560, R563 and the R96, are identified as Tourism Corridors in the MCLM SDF, 2019. The character of these routes change along their length with some being more touristic and others containing more commercial and agricultural industries. The Tourism Corridor has thus been divided into a tourism spine and a mixed-use spine, which reflect the character of specific sections within the corridor.

A **tourism spine** is proposed along the R96 and to the south of the intersection between the R96 and the R563. There is already a clustering of tourist-related activities in this area. Special treatment should be given to these routes to reflect their status as special areas for tourism.

A **tourism gateway** should be developed at this intersection and at the dramatic southern entrance to the Precinct along the R563 through the poort in Witwatersberg. Barton's Folly is located on the eastern side of the R563 on a prominent hill, making it highly visible and adding to the prominence of this gateway. Another gateway that is directional in nature should be provided at the intersection of the R96 and the R563 to announce the starting point of the R96 tourist spine.

Mixed use spines are proposed along:

- The northern portion of the R563 from its intersection with the R96
- The R560

Mixed uses include retail, commercial, tourism, agricultural supportive uses and agricultural residential.

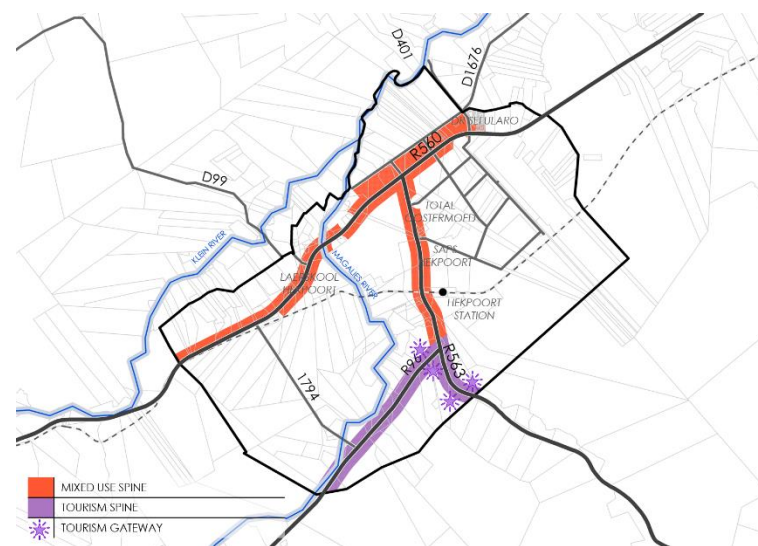


Figure 34: CORRIDORS AND SPINES

11.2 CHARACTER ZONES

11.2.1 RESIDENTIAL ZONE

A Residential Zone is proposed to the south of the R560 and the east of the R563. The residential zone accommodates the residential townships that have been/are being planned for the Precinct. It aims to mitigate the negative impacts created by these townships, such as residential development on both sides of the R560.

A Consolidation Residential Zone is proposed around the Dr Sefularo Ext 1 settlement and is expanded to the west to accommodate the additional dwelling units that are needed, to consolidate proposed townships, and to rationalise the planned settlement form. Consolidation and rationalisation are needed due to the current dysfunctional shape of the settlement that is based on farm portions.

Despite the locality of Dr Sefularo to the north of the R560, it is recommended that, all new townships be limited to the south of the R560 and east of the R563 in order to prevent vehicular-pedestrian conflict.

During the stakeholder participation phase, the plight of households currently residing on farms was highlighted. These households have no security of tenure and pay high rent. Participants indicated that they need land rather than houses.

Future expansion of residential zones towards the R563 can be allowed should there be an additional demand for housing after all areas earmarked for residential consolidation have been developed.

The proposed density for the residential zone is 20du/ha, resulting in 500m² erven. This density will ensure the demand for housing is met, while also providing stands large enough for urban agriculture.

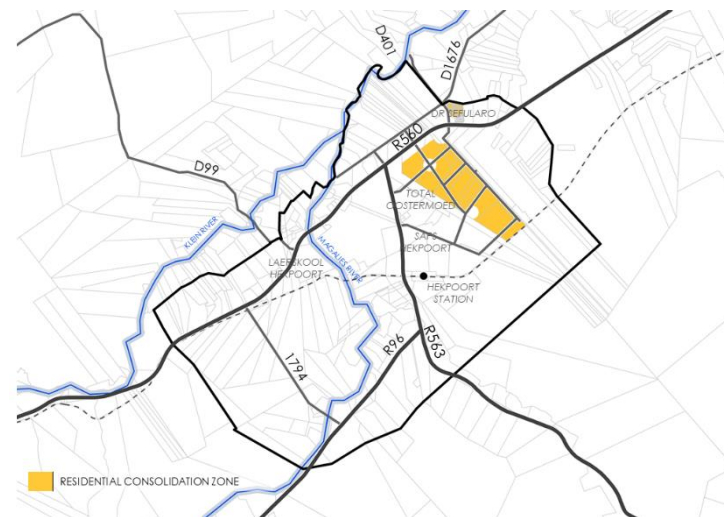


Figure 35: RESIDENTIAL ZONE

11.2.2 TOURISM ZONE

The area around the R96 should be developed for tourism purposes. It already contains the bulk of the tourism facilities, and the natural beauty of the Magalies River and the Witwatersberg present unique opportunities for further tourism development. The R96 further connects to Magaliesburg, one of the centres of tourism within Mogale City.

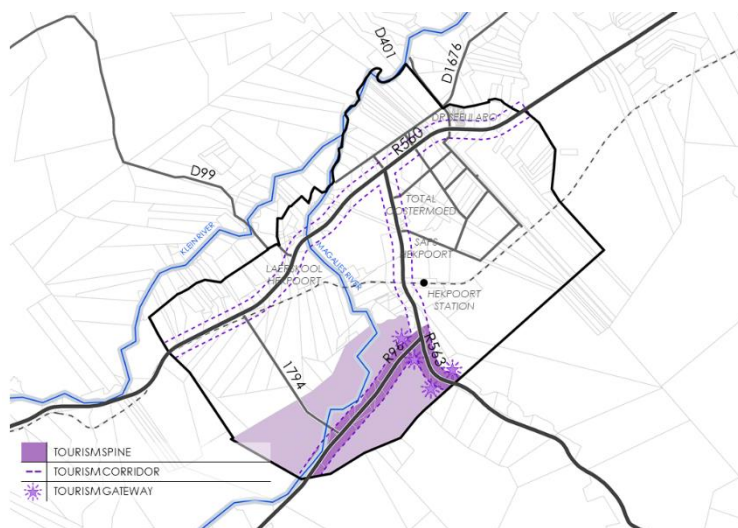


Figure 36: TOURISM ZONE

11.2.3 HIGH INTENSITY AGRICULTURAL ZONE

The area adjacent to the Magalies River to the north of the R560 and the west of the R563 should be retained for intensive agriculture. It already contains a number of intensive crop cultivation activities and can potentially be irrigated due to its proximity to the river.

Agricultural activities should be the dominant land use in this zone. Small-scale tourism, e.g., two to four cottages will be allowed, provided these are supplementary to the agricultural function.



Figure 37: HIGH INTENSITY AGRICULTURAL ZONE

11.2.4 MIXED AGRICULTURE AND TOURISM ZONE

The area to the west of the agricultural zone and to the east of the tourism and residential zone should be developed as a mixed tourism and agricultural zone. Agricultural activities, tourism activities as well as a combination will be allowed in this zone.



11.2.5 MIXED USE AND SOCIAL NODES

Three mixed use and three social nodes are proposed within the Precinct. These are not mutually exclusive but rather an indication of the predominant use: retail can thus be located within a social node and a social facility such as a social grant paypoint in a mixed-use node.

The locality of nodes is based on existing land use, existing and proposed road network, and proposed residential townships and development.

Mixed use nodes should contain a variety of retail, entertainment, restaurants, commercial, agricultural support, and social facilities. The following mixed-use nodes are proposed:

- At existing businesses adjacent to the R560 and the Nooitgedacht Road(D99).
- Adjacent to the R563 at Oostermoed Total and convenience centre. According to MACH 'the site offers significant potential for development as a "gateway" tourism information centre for the Hekpoort region. A tourist information centre could be linked to a craft market which would provide employment opportunities for people living in the area'. It also 'offers a panoramic view of the Nooitgedacht battlefield'.
- On the R560 on the eastern part of the Precinct at the Dr Sefularo settlements as is proposed in current and proposed approved township layouts.

Social nodes should contain a number of social facilities as well as local retail activities that can address the needs of residents. The exact make-up of the nodes will be determined by the demand based on number of households to be served, existing facilities, and household profile. The aim is to provide social facilities embedded in residential areas to limit the movement of pedestrians across the major routes and to ensure comfortable walking distances. Social nodes should be located on collector roads to provide high levels of accessibility within the neighbourhood.

The following social nodes are proposed:

- At Laerskool Hekpoort and the municipal offices along the R560. Access to this node is problematic as well as the proximity of the facilities to the provincial road. Detailed planning is necessary to address these issues.
- Two social nodes at the intersections of main roads within the residential consolidation zone around Dr Sefularo Ext 1.

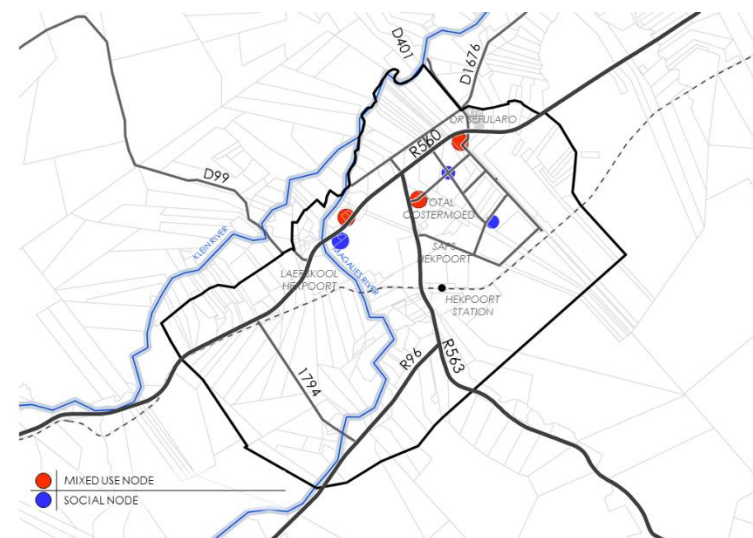


Figure 38: MIXED-USE AND NODES

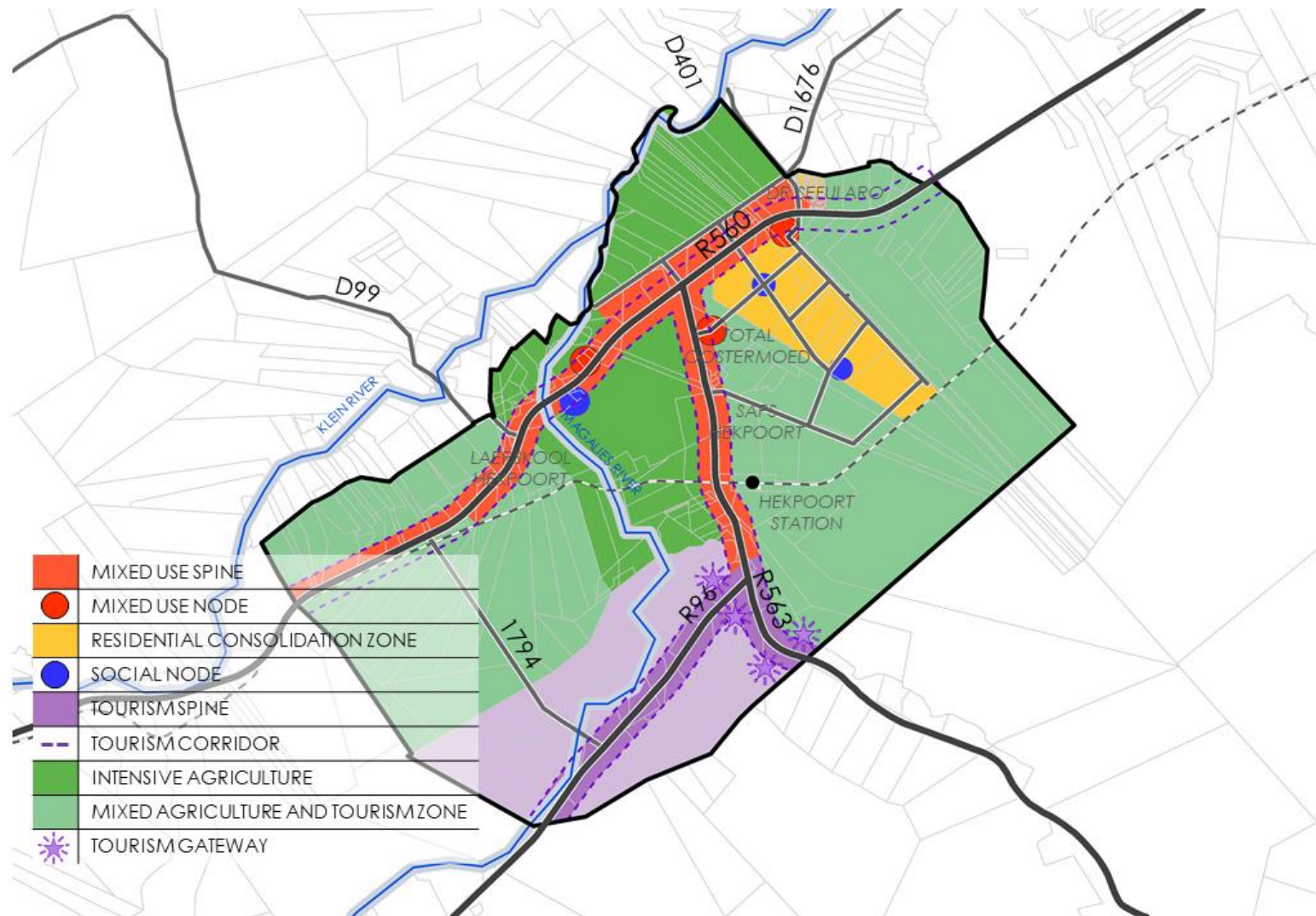
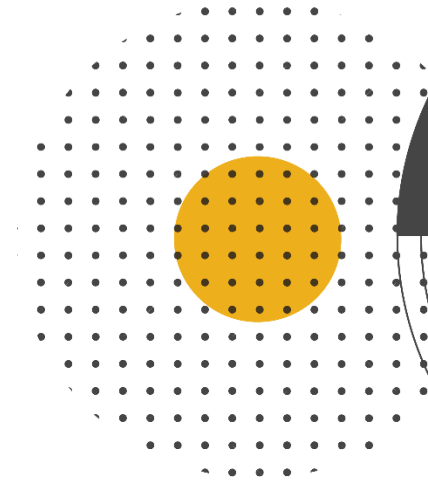


Figure 39: DEVELOPMENT CONCEPT

Development and design guidelines

Hekpoort precinct plan



12 LAND USE BUDGET

The bulk of the Precinct is dedicated to agriculture ($\pm 60\%$). Provision can be made for approximately 2 075 dwelling units in the residential consolidation and Dr Sefularo.

Table 3: LAND USE BUDGET

PROPOSED LAND USE	HA	% OF TOTAL AREA	POTENTIAL NR OF DWELLING UNITS
Agriculture	435.6	17.3	-
Residential			
Dr Sefularo	6.2	0.2	200
Residential Consolidation Zone	124.2	4.9	1 875
Tourism Zone	346.7	13.8	-
Mixed Tourism and Agricultural Zone	1 267	50.3	-
Mixed Use Development Spine	211	8.4	-
Tourism Spine	100	4	-
Mixed Use Nodes	17.1	0.7	-
Social nodes	12.6	0.5	-
TOTAL	2 520.5	100	2 075

There is currently approximately 100ha of land that is in different phases of the process of township development. Provision is made for approximately 1 000 households. This translates into a gross density of 10 du/ha. The low density

is due to large portions of land being dedicated to agriculture,

Based on the analysis, there is a shortfall of 500 dwelling units. The precinct development concept designates an additional 65 ha to residential development. If 60% of the area is developable at a net density of 20du/ha an additional 800 dwelling units can be provided, thus providing the projected need and allowing for additional population growth.

In total, 5.2% (130ha) of the total Precinct is designated for residential purposes, and 8% (200ha) is designated for commercial and mixed-use development. The bulk of the Precinct is dedicated to agriculture and tourism. Although the Precinct is divided into different zones, this only indicates the dominant land use. The zones are:

- Intensive agriculture: 17% (432ha)
- Mixed agriculture and tourism: 50% (1 252a)
- Tourism area and corridor: 18% (446ha)
- Area within the Cradle of Humankind World Heritage Site Buffer Zone: 29% (779ha)

13 SOCIAL FACILITY PROVISION

Based on the land use budget approximately 2 000 dwelling units can be provided in the Dr Sefularo Consolidation Zone. At a household size of 3.2 (based in the socio-economic study), the total projected population will be around 6 400. The existing social facilities and the social facilities required are contained in Table 2.

It must be kept in mind that the required social facilities will not only address the needs of inhabitants of Dr Sefularo, but also of residents of the wider region. Additional facilities that could be considered include a high school, as there is no high school in the proximity, a primary school to replace the farm school, community halls and sports facilities.

There is currently a primary school in Hekpoort and another primary school is proposed for the Dr Sefularo development. For a projected population of almost 2 000 people, a high school should be provided, especially given the remote locality, in terms of public transport for Hekpoort. Other facilities that should be considered are:

- A library
- A sportsfield
- A community hall.

It should also be considered to, over the long term, relocate some of the other social facilities that are spread over the Precinct, such as the police station and the ward office to this area. Social facilities should be clustered in accessible localities.

More low order facilities such as creches and churches should be provided.

The number of facilities necessary per population is based on the standards contained in the *CSIR Guidelines for the Provision of Social Facilities in South African Settlements*.

These are only guidelines and should be considered together with walking distances and the provision of facilities in surrounding areas.

Table 4: SOCIAL FACILITY PROVISION

SOCIAL FACILITY	FACILITY PROVISION STANDARD	NUMBER OF FACILITIES NEEDED	SOCIAL FACILITIES PROVIDED	SOCIAL FACILITIES TO BE PROVIDED
EDUCATIONAL				
Primary school	7 000	1	1	0
Secondary school	12 500	0	0	0
Early childhood development centre	2 400 – 3 000	2 to 3	0	2 to 3
HEALTH				
Clinic (Primary Health Clinic)	24 000 – 70 000	0	1	0
COMMUNITY FACILITIES				
Community halls (medium size)	10 000 -15 000	0	0	0
Community Performing Arts Centre	50 000	0	0	0
Library	20 000 - 70 000	0	0	0
Post Office/Social Grant Paypoint	10 000 - 20 000	0	1	0
SAFETY				
Fire Station	60 000 - 100 000	0	0	0
Police Station	60 000 - 100 000	0	1	0
RECREATION				
Open space	0.56 ha per 1 000	3.7 ha	0	3.7 ha
Community park (Grassed surface - 2 football fields equivalent)	15 000	1	0	1
Local/Neighbourhood Park	3 000 - 15 000	0 to 2	0	2
Sports Complex (grouping of fields and or sports complexes)	60 000	0	0	0
Athletics/Cricket stadium	60 000	0	0	0
Combi-court surface (x 2)	15 000	0	0	0
Combi-court surface (x 4)	60 000	0	0	0

14 TRANSPORTATION RECOMMENDATIONS

Gautrans has appointed consultants for the route determination of the K17 (R563) and the K24 (R560) and also to address design considerations such as the position of intersections along the roads. Draft Final reports have been made available and were taken into consideration in the formulation of the Precinct Transport Framework.

14.1 K24 (R560)

K24 follows the alignment of P123-1 (R560), but the planned road alignment deviates from the existing horizontal alignment to eliminate sharp curves with insufficient sight distance in the vicinity of intersections.

It is recommended that the preliminary design of K24 should make provision for the following intersections / accesses:

- **Extend K17 northbound:** Create a link to a collector road $\pm 250\text{m}$ north of K24. The current intersection angle is approximately 65° and it is recommended that the intersection be improved to be as close as possible to 90° .
- **West of K17**

The following intersections are proposed on K24 west of K17:

- $\pm 700\text{m}$ (east of horizontal curve). Access to agricultural activities north and south of K54.
- $\pm 1.3\text{ km}$. Access to commercial and other properties north of K24 and educational,

governmental, place of worship and agricultural uses south of K24. (Note that the access to Laerskool Hekpoort (primary school) does not provide sufficient throat length or access to the wider area south of the road).

- $\pm 2.05\text{ km}$ (between successive horizontal curves). Provides amended intersection with D99.
- $\pm 2.65\text{ km}$ (west of horizontal curve). Access to shops north of K24 (corresponds with access shown on existing planning of K24).
- $\pm 3.3\text{ km}$. Diversion of Road 1794. Extend northward to D99.
- $\pm 4.0\text{ km}$. Property access north and south of K24.
- $\pm 4.6\text{ km}$ (western boundary of precinct).

- **East of K17**

An S-curve on K24 east of K17 complicates access to properties on the inside of the two curves that form the S-curve.

The following intersections are proposed on K24 east of K17:

- $\pm 715\text{m}$ east of K17. This position corresponds with the western extent of an informal settlement area.
- $\pm 1.285\text{ km}$. T-junction of D401 (north). Radius of curve does not comply with Gautrans standard of $1\ 500\text{m}$ radius to allow access to the south.
- $\pm 2.04\text{ km}$. T-junction (south), Ballymore Estate south of K24 (R560).
- $\pm 2.56\text{ km}$. Eastern boundary of Precinct.

- **Access to area north of K24**
A collector road is proposed $\pm 250\text{m}$ north of K24 with access from K24 opposite K17.
- **New townships south of K24**
The primary access to the proposed townships south of K24 is proposed at a position $\pm 715\text{m}$ east of K17.

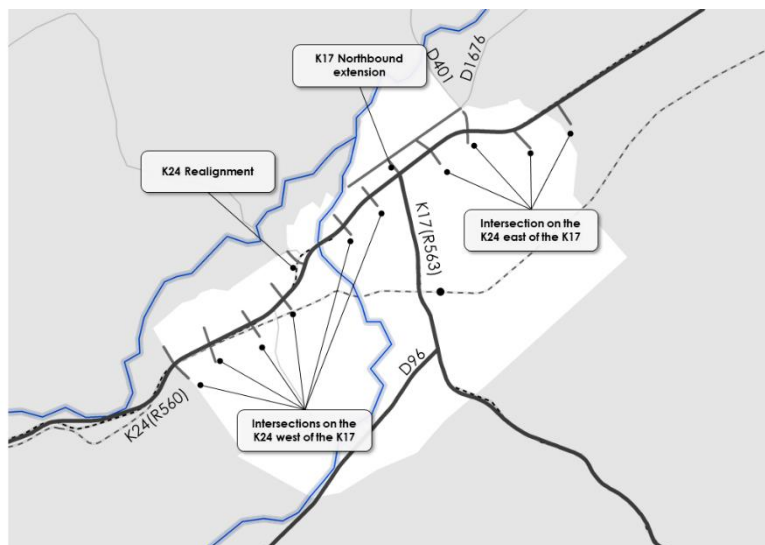


Figure 40: PROPOSED ROUTE DETERMINATION FOR THE K24

14.2 PROPOSED ROUTE DETERMINATION OF K17

The proposed route of K17 is a vastly improved alignment from a geometric design point of view. The alignment provides from the following salient elements:

- T-junction of K17 and K24
- Filling station access (km 0.44): The existing node attracts traffic from Hekpoort and should not only be seen as a filling station. It is therefore recommended to also link the node to the local road network to the east. K17 practically ends at K24 and a reduced intersection spacing between the filling station and K24 is considered to be justified².
- Access road and proposed service road to the east (km 1.07)
- Road-over-rail bridge (± 1.95 km)
- River bridge (± 2.7 km)
- D96 intersection (2.86 km).
- The possibility to provide additional access at $\pm \text{km } 1.67$ and $\pm \text{km } 2.27$ north and south of the railway line respectively should be considered.

² TRH26, South African Road Classification and Access Management Manual, Table 3, par 7.10

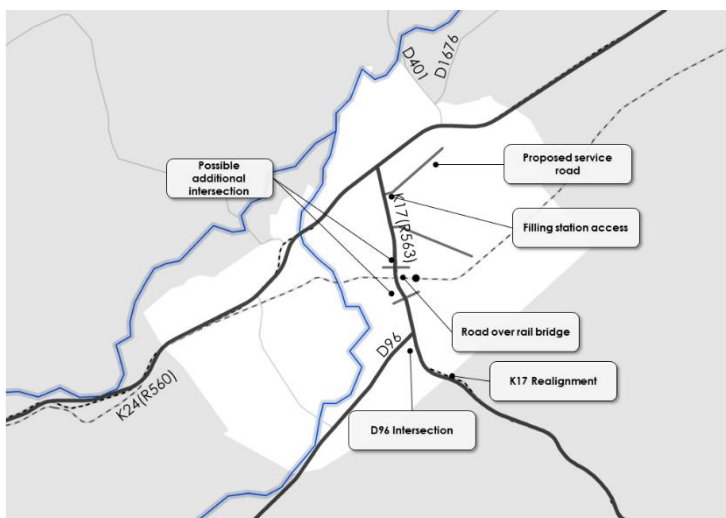


Figure 41: PROPOSED ROUTE DETERMINATION OF THE K17

14.3D96

D96 provides a link of ± 10 km between R24 (K76 / P16-1) and R563 (K17 / P74-1) and is therefore considered to function as a Class 3 minor arterial road.

Gautrans indicated that, in view of the low traffic volume and tourism attractions along this route, an access / intersection spacing of 300m should be strived for. The most important issue from a transportation framework point of view is that accesses must be consolidated and that the design of accesses and intersections must comply with Gautrans standards.

Intersections are proposed at the following distances measured from K17:

- ± 400 m
- ± 780 m
- ± 1.13 km
- ± 1.58 km
- ± 1.82 km (Avoid land-locked properties)
- ± 2.06 km (Road 1794). Possibility to extend to the south should be investigated.

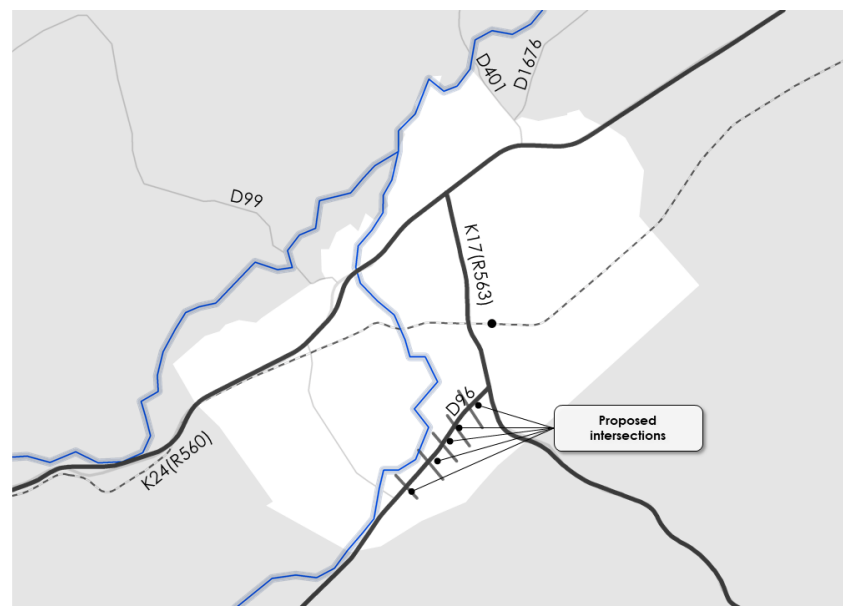


Figure 42: PROPOSED ROAD DETERMINATION FOR THE D96

14.4 COLLECTOR ROADS

14.4.1 ROAD 1794

It is proposed that the northern section of Road 1794 should be re-aligned to achieve acceptable intersection spacing on K24. Oblique intersection and staggered accesses should be eliminated.

14.4.2 D99

D99 provides access to agricultural activities. It is unlikely that Road D99 will be upgraded.

14.4.3 D401

The junction of D401 on K24 and the section of the road up to the intersection of D1676 should be formalised.

Access to the area on the north-western quadrant of D401 and K24 should obtain access from D401 opposite D1676.

14.5 PUBLIC TRANSPORT

Only a limited public transport service is available to, from and within the Hekpoort Precinct. Public transport termini should be considered at the filling station and commercial centre north of K24, as well as at the new residential township in the eastern part of the Precinct.

14.6 NON-MOTORISED TRANSPORT

In view of the low vehicle ownership of the Hekpoort community, combined with a limited public transport

service, the community relies heavily on non-motorised transport. It is therefore important to provide a network of non-motorised facilities for the convenience and safety of pedestrians and cyclists.

The following pedestrian walkways should be provided:

- Along the southern side of R560 (K24 / P123-1). The walkway should not be adjacent to the existing road, but should be separate from the road to avoid vehicle-pedestrian conflict.
- Along the access roads to new residential townships.

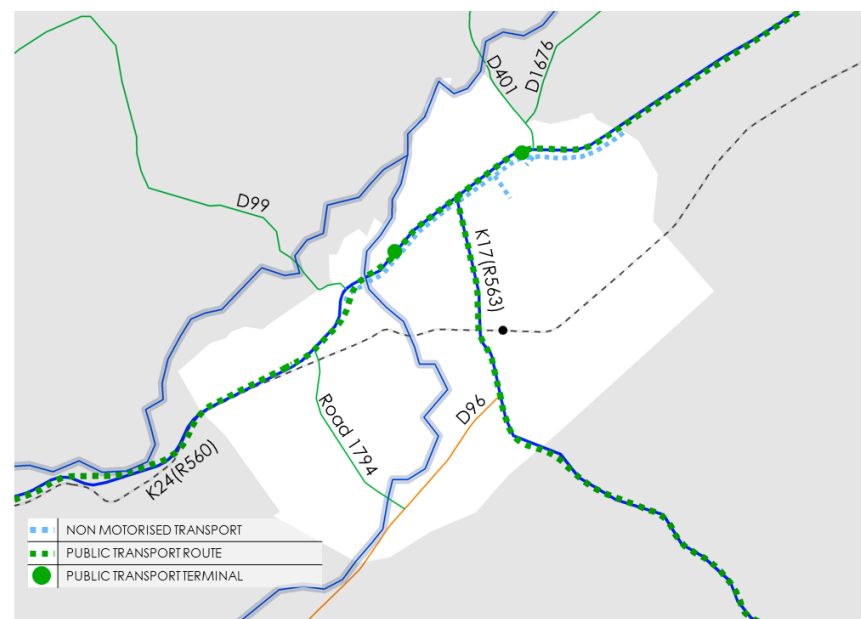


Figure 43: PROPOSED PUBLIC AND NON-MOTORISED TRANSPORT

14.7 RAILWAY LINE

Transnet confirmed the planned function of the railway line through Hekpoort as part of the freight rail network and it has been incorporated in the framework for the Hekpoort Precinct. In the western part of the precinct, the railway line is close to the K24, which may have an impact on the alignment of D1794.

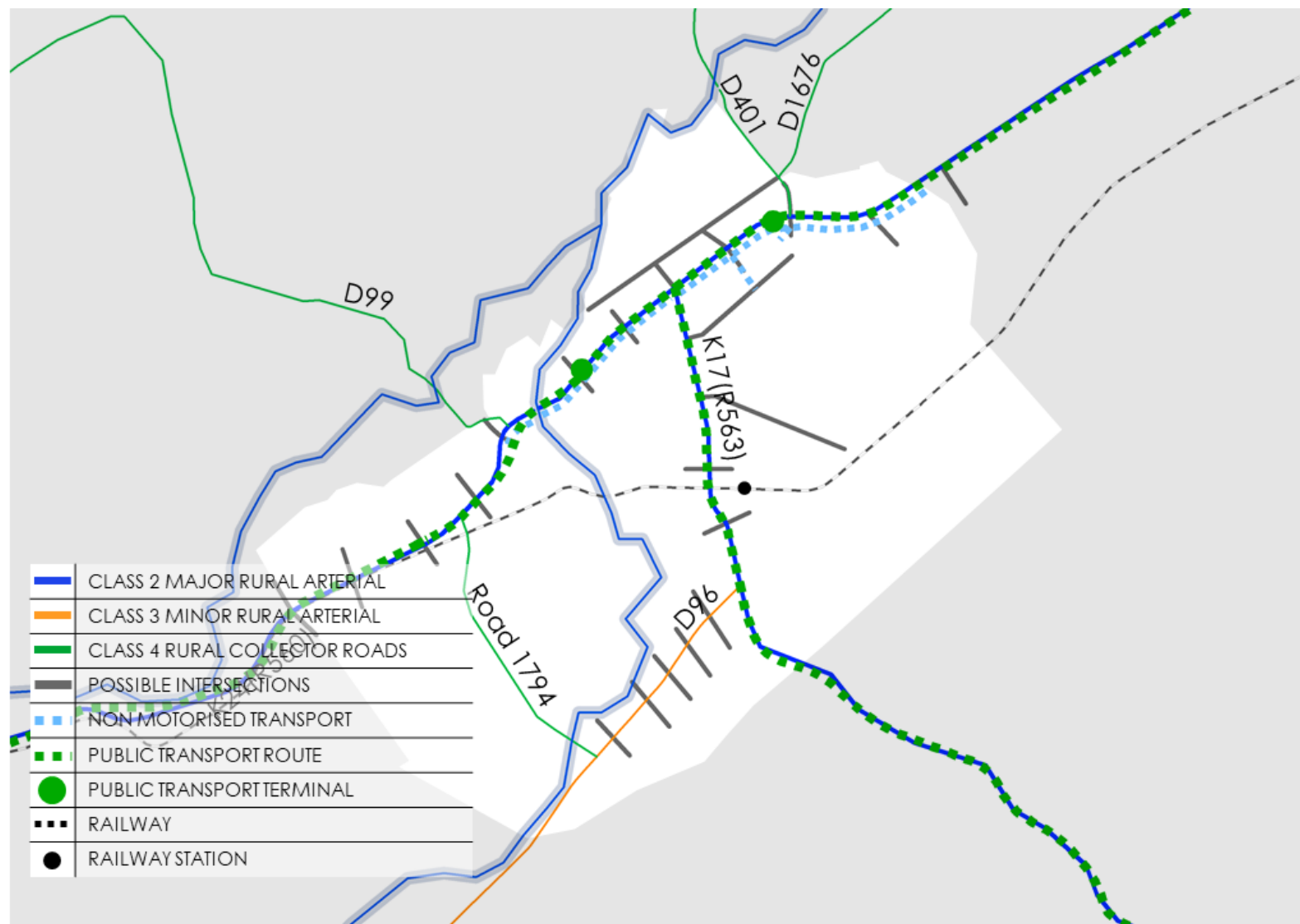


Figure 44: PROPOSED TRANSPORT NETWORK

15 DEVELOPMENT GUIDELINES FOR THE MAGALIESBERG BIOSPHERE RESERVE³

The entire Precinct falls within the Magaliesberg Biosphere Reserve (MBR) Transition Area and portions along the mountain ranges to the north and south of the Precinct fall within Buffer Zones.

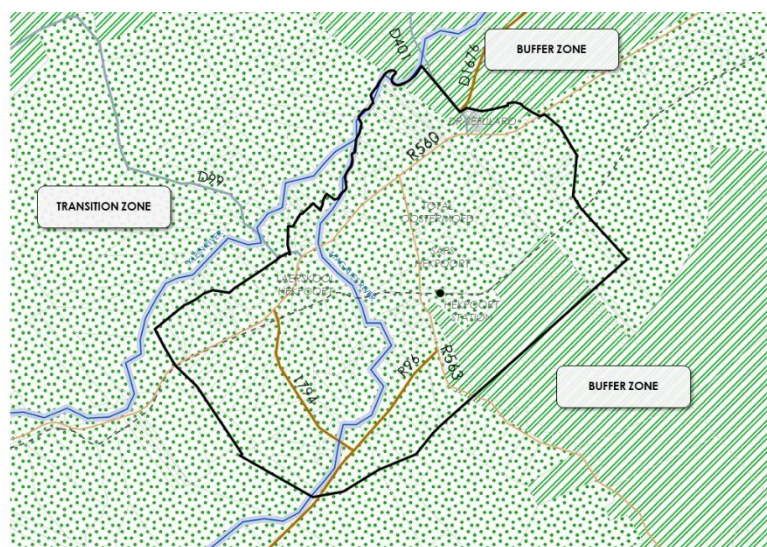


Figure 45: MAGALIESBERG BIOSPHERE RESERVE

15.1 BUFFER ZONE

Buffer zones are areas which usually surround or adjoin the core areas and are used for cooperative activities

³ Magaliesberg Biosphere Management Plan, dated November 2011 drafted in support of Registration/ Listing application with UNESCO

compatible with sound ecological practices, including environmental education, recreation, ecotourism, and applied and basic research. Buffer zones are predominantly natural or near natural areas and ecologically sensitive areas with clearly defined boundaries and formal administrative status.

Land uses will allow for conservation and maintenance of ecosystems, nature-based recreation, eco-tourism, primary dwellings, new developments, and small resorts coupled to conservation areas that are compliant with the Environmental Impact Assessment regulations.

15.2 TRANSITION AREA

Transition Areas are flexible areas or areas of co-operation, which may contain a variety of agricultural activities and settlements, and other uses.

The land use within the Transition Zone will allow for game ranching, cattle grazing, pastures, eco-tourism developments, higher level tourism developments, cultivated lands, irrigation, orchards, agro-industries, human settlements, support services and infrastructure, mining, and industrial development.

16 CRADLE OF HUMANKIND WORLD HERITAGE SITE

A portion of the Precinct on the eastern boundary to the north of the R563 falls within the Cradle of Humankind World Heritage Site (CoH WHS) Secondary Zone 14.

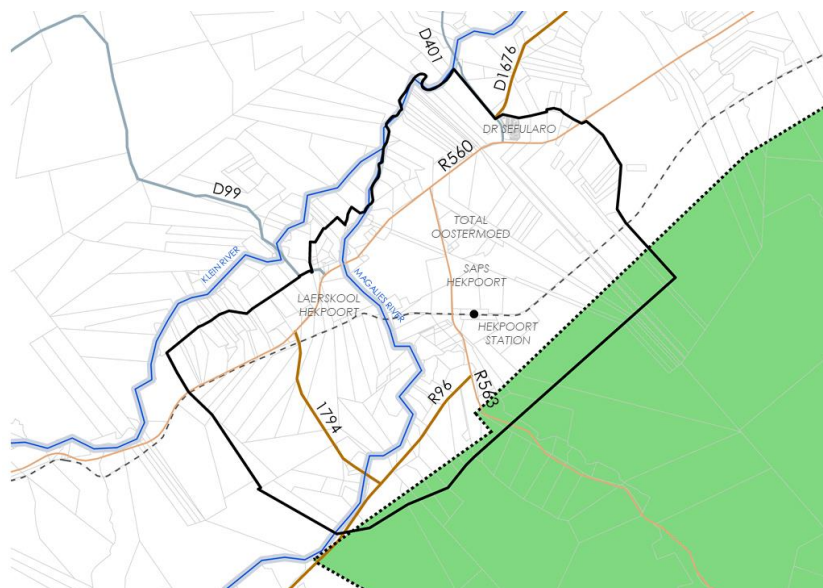


Figure 46: CoH WHS

Desirable development and associated infrastructure

Desirable development and associated infrastructure

- Additional dwelling unit
- Agricultural buildings

- Bed and breakfast
- Boutique hotel/ lodge
- Dwelling house
- Extensive agriculture
- Farm labourer structures
- Farm stall
- Guest house
- Guided scientific tours
- Home occupation (enterprise)
- Infrastructure: Associated infrastructure
- Low impact camping site
- Nature and heritage trails, mountain biking and horse trails
- Resort
- Restaurants
- Servant quarters
- Tourism incentive accommodation

Undesirable development and associated infrastructure

- Advertising on site
- Agricultural industry or expansion of existing operations
- Aircraft landing strips or expansion of existing strips
- Business premises or expansion of existing facilities
- Camping
- Commercial antennae

⁴ The Draft Environmental Management Framework and Management Plan for the COHWHS, its proposed buffer zone and the Muldersdrift Area (Volume 3) July 2011

-
- Conference facility in excess than that provided for in the EMF land use definitions or expansion of existing facilities
 - Farm shop
 - Helistops or expansion
 - High density residential development or expansion of existing facilities
 - Holiday accommodation
 - Industrial activity
 - Infrastructure: Bulk engineering infrastructure facilities or transmission lines
 - Intensive agriculture or expansion
 - Lifestyle estates or expansion of existing estates
 - Mining and quarries
 - Motorised outdoor recreation
 - Place of instruction
 - Place of worship
 - Retirement village
 - Roadside advertising
 - Service (filling) stations or expansion
 - Service trade
 - Subdivision of farm portions or land

17 URBAN DESIGN GUIDELINES

Design guidelines guide both public and private investment in the Precinct. These guidelines are not exhaustive but provide a basic description and explanation of the proposed character of the different Precinct elements.

Guidelines have been developed for:

- Mixed use activity spines
- Mixed use activity nodes
- Social nodes
- Tourism spines and gateways
- Residential consolidation zones

17.1 DESIGN GUIDELINES FOR MIXED USE ACTIVITY SPINES

Mixed-use activity spines are proposed along the northern portion of the R563 from its intersection with the R96 and along the entire length of the R560.

These roads currently contain a number of non-residential activities, ranging from retail to light industry.

Hekpoort still has a rural character and despite the housing projects, this character will largely remain due to the agricultural area. The mixed-use activity spine will thus not have a high intensity, but rather reflect the rural character of the Precinct.

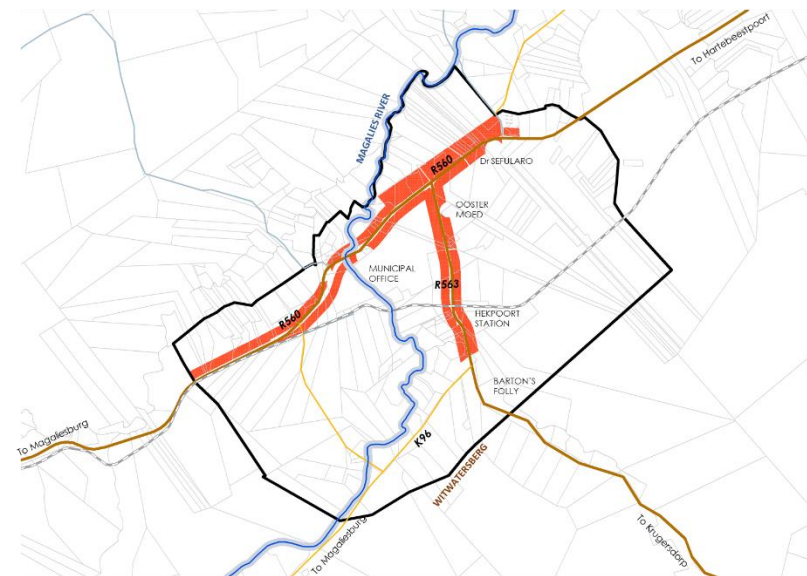


Figure 47: MIXED-USE ACTIVITY SPINES

Proposed land uses on properties adjacent to the activity spines:

- Retail
- Commercial
- Light industrial
- Agricultural support
- Agricultural residential
- Tourist-related

High and medium density residential and social facilities are discouraged directly adjacent to the activity spines due to the high order of these roads.

The following guidelines are applicable to any new development along the activity spines:

- Buildings should reflect the rural function of the Precinct and be in keeping with the natural and tourism character of the Precinct.
- Buildings can be a maximum of two storeys.
- The building should front onto the street with the entrance and windows facing the street.
- The front of the building should be articulated with elements such as, entrances, windows, wall plane variations, and roofs that provide visual interest.
- The area between the building and the street boundary must be landscaped and can be used for parking provided that significant landscaping forms part of the parking area.
- A transparent fence should be provided on the street boundary.
-
- Loading facilities should be provided at the back of the building.
- Waste bins, service areas and other utilities should be provided at the back of the building.

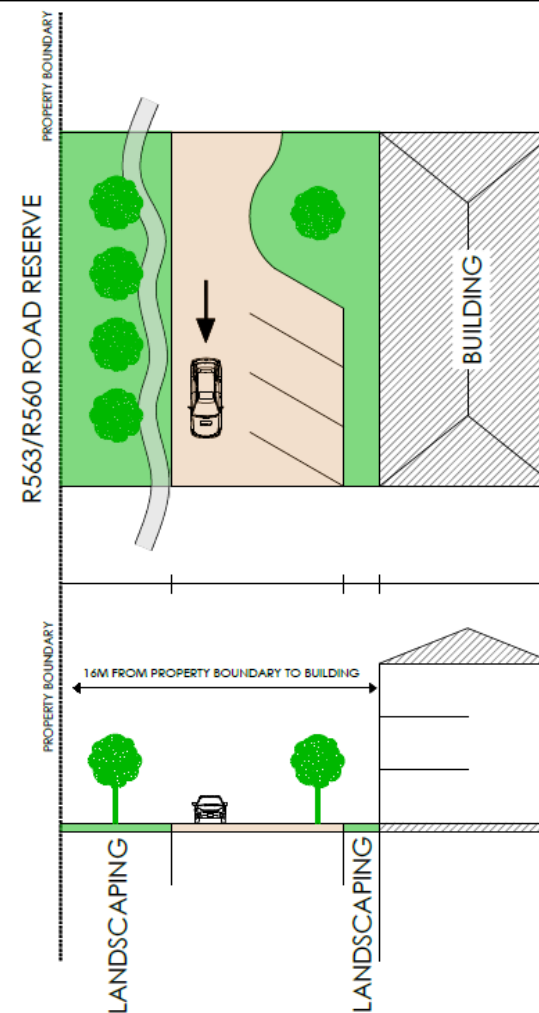


Figure 48: PUBLIC-PRIVATE INTERFACE



Figure 49: IMAGES OF MIXED-USE ACTIVITY SPINE⁵



Figure 51: EXAMPLE OF STREET INTERFACE



Figure 50: EXAMPLES OF ARTICULATED BUILDING FACADES⁶

⁵ Malop Street Green Spine Part of the Malop to Myers revitalisation project
<https://s-ga.com/2019/09/30/stromberg-garrigan-associates-streetscape-rendering-unveiled-for-the-city-of-virginia-beach-resort-area-strategic-plan-update/>

⁶
https://library.municode.com/tn/farragut/codes/code_of_ordinances?nodeId=PTICCOOR_APXDA RDEST

17.2 DESIGN GUIDELINES FOR MIXED USE ACTIVITY NODES

Three mixed-use activity nodes are proposed:

- On the R560 on the eastern part of the Precinct at the Dr Sefularo settlements
- At existing businesses adjacent to the R560 and the Nooitgedacht Road
- Adjacent to the R563 at Oostermoed Total

Although their functions overlap and each node provides in the need of the larger community, the nodes have different functions, a character and focus based on its unique locational conditions:

- The Dr Sefularo Node which will be the largest and most important node in the Precinct. It will address the daily needs of local residents. It must be pedestrian-oriented, of a human-scale and have a strong local sense of place.
- The R560/ Nooitgedacht Road Node will be more agriculture-related and serve the needs of the surrounding rural population given its locality within the Intensive Agriculture Zone and the Mixed Agriculture and Tourism Zone, and its current land use pattern.
- The Oostermoed Node will focus more on providing a service to through-traffic and has been identified as a tourism information centre. It should relate to the larger tourism look and feel of the Precinct.

These node should accommodate a number of retail, tourism, light industrial and commercial activities. Social facilities, recreational facilities and higher density residential development are considered secondary uses. Provision should be made for public transport and non-motorised transport. Informal trade should be accommodated in permanent structures within a market.

A public transport facility should be provided in a central locality and linked with safe pedestrian facilities. The protection of pedestrians is of paramount importance.

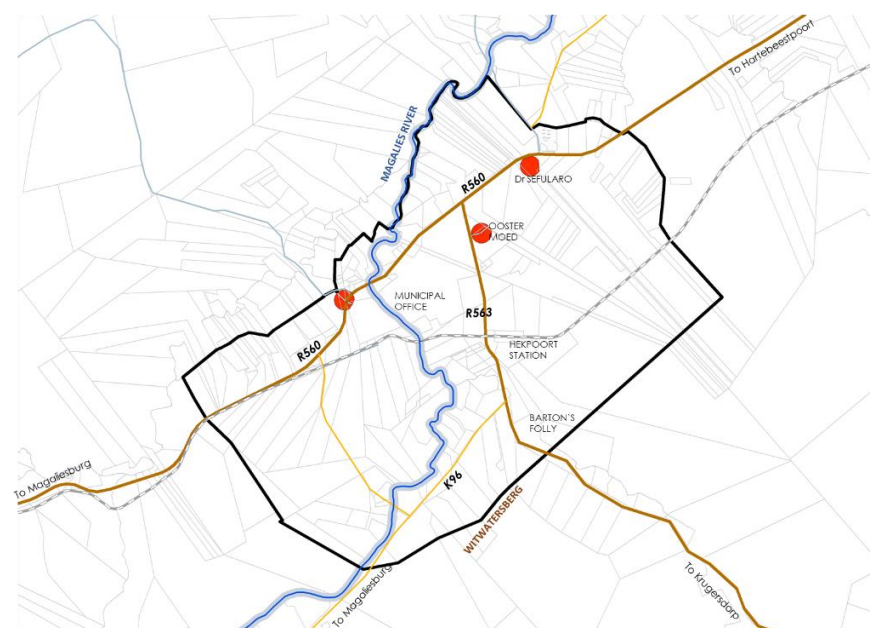


Figure 52: MIXED USE ACTIVITY NODES

The following development and design guidelines are applicable:

- Buildings not facing the R560 and R563, should be as close to the street as possible, with a maximum set back of 6m, unless the area in front of the building is used for publicly accessible open space
- Buildings can be a maximum of three storeys
- Buildings should front onto the street with the entrance and windows facing the street
- The front of the building should be articulated with elements such as, entrances, windows, wall plane variations; and roofs that provide visual interest
- Buildings should define public spaces in front of the building. These public spaces should be developed as landscaped squares with street furniture, such as seating areas, adequate lighting, and facilities for informal trading.
- Pedestrian facilities should be provided between the different developments.
- A transparent fence should be provided along the R560 and R563. This fence should channel pedestrian movement to designated areas where pedestrians can safely cross the street.
- A separate entrance should be provided for pedestrians and vehicles.

- Loading facilities should be provided at the back of the building.
- Waste bins, service areas and other utilities should be provided at the back of the building.

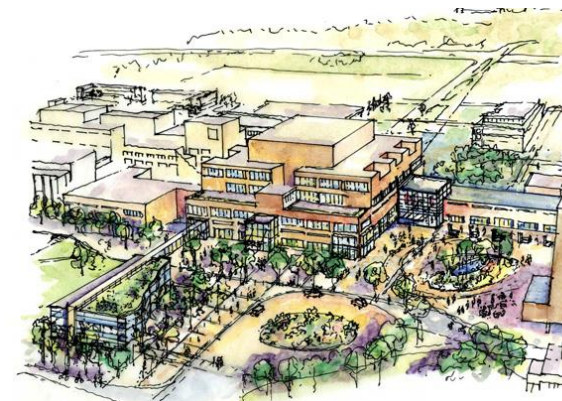


Figure 53 EXAMPLES OF MIXED-USE ACTIVITY NODES⁷

7

https://library.municode.com/tn/farragut/codes/code_of_ordinances?nodeId=PTIICOOR_APXDA_RDEST

<https://www.arts.gov/impact/creative-placemaking/exploring-our-town/driggs-id-city-center-plaza>
[https://simplebooklet.com/publish.php?wpKey=UkahfKw7lu0S8Seq\\$agfmA#page=6](https://simplebooklet.com/publish.php?wpKey=UkahfKw7lu0S8Seq$agfmA#page=6)

17.3 DESIGN GUIDELINES FOR SOCIAL NODES

Three social nodes are proposed:

- At Laerskool Hekpoort and the municipal offices along the R560.
- Two social nodes at the intersections of main roads within the residential consolidation zone around Dr Sefularo Ext 1.

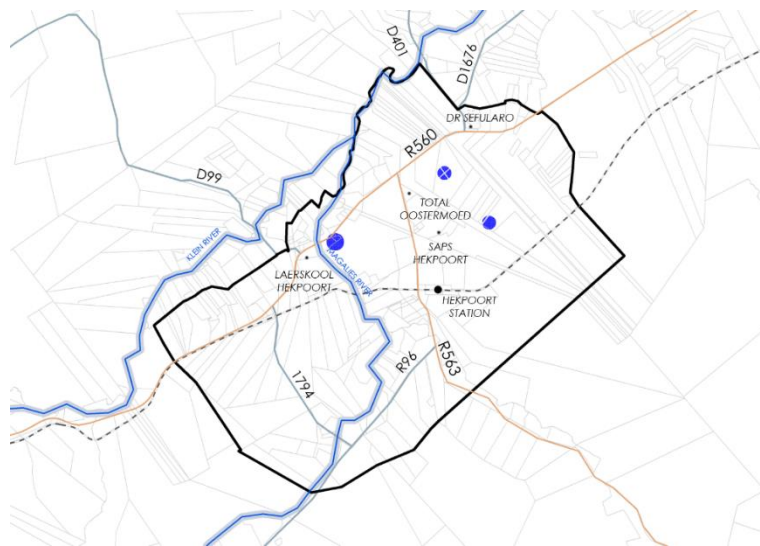


Figure 54: SOCIAL NODES

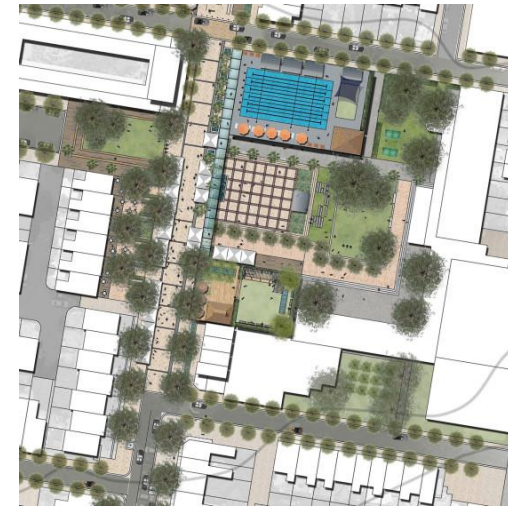


Figure 55: IMAGES OF SOCIAL NODE⁸

http://www.lmdesignllc.com/architecture_mixeduse.html
<https://www.theguardian.com/environment/2020/may/16>

⁸ SOURCE <https://worldlandscapearchitect.com/student-project-the-urban-spine-scott-edward-sidhom/#.X8X8vM0zZPY>

17.3.1 LAERSKOOL HEKPOORT SOCIAL NODE

The following facilities are already located within the node:

- A primary school
- The municipal ward offices
- Thusong centre

The most pertinent challenge at the Laerskool Hekpoort social node is not necessarily the provision of additional facilities, but rather addressing:

- The interface between the existing facilities and the R560. The school specifically is located dangerously close to the busy road and no provision is made for pedestrians.
- The quality of the public space. It is currently just a collection of buildings with no special character or link to its surroundings.
- The node should be expanded to the south of the R560.

The following design guidelines are applicable:

- Vehicular access should be rationalised with due cognisance of pedestrian safety.
- A public transport facility should be placed in a convenient and safe locality.
- A network of hard public spaces should be created in and between buildings to create space for a variety of activities.
- Streets should be pedestrian oriented with wide sidewalks and narrow vehicular lanes consisting of paved, not tarred, surfaces.

- Landscaping and streetscaping in the form of trees, street lighting and street furniture should ensure the safety and convenience of pedestrians and cyclists, definition of space and the creation of a unique character.
- Managed informal trade can be allowed.

17.3.2 DR SEFULARO SOCIAL NODES

The two proposed social nodes in the Dr Sefularo consolidation area are located centrally on main intersections.

The northern node will be of a higher order and contain larger facilities with a wider catchment. It is selected as the primary node due to its proximity to the mixed-use node adjacent to the R560 and due to it in all likelihood being part of the short-term development, even though it is not necessarily centrally located. It is within approximately 1.5km from the furthest point of the consolidation zone.

With the provision of social facilities, it must be kept in mind that the social node will not only provide in the needs of the residents of Dr Sefularo but also for residents from the surrounding rural area.

The following facilities should be provided at the northern node:

- Public transport facility
- A primary / secondary / combined school
- A police station (relocation of the existing police station)

-
- Early childhood development centre
 - A community hall
 - Post office/ social grant paypoint
 - Community park
 - Public square
 - Sports and recreational facilities
 - Religious facilities
 - A market

Provision should also be made for uses such as retail activities, private medical offices, and restaurants.

Over the longer term, a second node which will be central to the consolidation zone will be developed. This will be smaller node and address local needs. Typical activities that can be accommodated include a crèche, a community hall, a religious facility, a local park, a sports facility.

Given that these nodes have not developed yet, they can be planned in a holistic manner from the onset.

The following design guidelines are applicable:

- Nodes should be located in a position that is equidistant from all parts of the residential zone.
- Nodes should be located directly off main through-routes rather than on such routes. This will provide access but still allow for safety for pedestrians.
- Streets should be pedestrian dominated with wide sidewalks and narrow vehicular lanes consisting of paved, not tarred, surfaces.

- Landscaping and streetscaping in the form of trees, street lighting and street furniture should ensure the safety and convenience of pedestrians and cyclists, definition of space and the creation of a unique character.
- Squares should be developed between and in front of buildings to create a space for users of the social facilities.
- Managed informal trade can be allowed.

17.4 DESIGN GUIDELINES FOR THE TOURISM SPINE AND GATEWAYS

The MSDF, 2019 designates a number of routes as Tourism Corridors. The Tourism Corridors are on portions of the N14, the R24, the R560, the R563 and the R96. These connect to the CoH WHS, pass through large portions of the Magaliesberg Biosphere Reserve, and link the small towns of Magaliesburg and Hekpoort to Muldersdrift and Hartebeestpoort Dam in Madibeng. These have both a destination and a linkage function.

The Tourism Corridors are not visually or functionally uniform and their character change significantly along their length, with some sections being amenable to tourism and others creating a negative atmosphere for touristic experiences:

- Surrounding land uses vary from commercial developments, to restaurants, to agriculture.
- The surrounding natural landscape ranges from veld, to dramatic mountains, rivers and lush landscapes, to barren landscapes with invasive plant species.
- Although all Tourism Corridors are major routes, the road treatment allows for fast moving traffic in some places and in others, cyclists are accommodated, and traffic calming has been introduced (parts of the CoH WHS).

It is not necessary nor is it necessarily desirable to create a uniform character, function, and experience along all

the Corridors. It is however necessary to create some cohesion and integration between the disparate parts.

In order to fully exploit the tourism product in the wider Mogale City, the following should be considered with regards to NEW DEVELOPMENT:

Compatible and incompatible land uses: a variety of land uses are compatible with the tourism corridors. These include tourism facilities (such as hotels, museums, restaurants, shops), plant nurseries and agriculture. Land uses that have a negative visual impact such as the selling and renting of earth-moving equipment, storage, and industrial activities are not compatible. The determining factors should be function: does the land use support tourism or is it linked to tourism? Is the land use neutral to tourism? Will the land use have a negative impact on surrounding existing or future tourism activities? For a full list of desirable and undesirable land uses, refer to Section 17: This Section contains Strategic Projects based on the situational analysis and precinct concept development. These projects /interventions seek to leverage specific development opportunities, investment projects and market demands associated with the Precinct.

17.5 DESCRIPTION OF STRATEGIES AND PROJECTS

- 17.5.1 STRATEGY 1: DEVELOP A FUNCTIONAL AND INTEGRATED HUMAN SETTLEMENT
 Planning for township establishment in and around Dr Sefularo is based on farm portions and not on a functional area, resulting in housing

projects that are not integrated and do not form a comprehensive settlement.

It is necessary to plan for a larger area that will form a settlement in the future rather than only looking at portions of land that are currently available for development.

- **PROJECT 1: UNDERTAKE DETAIL PLANNING FOR THE FUNCTIONAL AREA AROUND DR SEFULARO**
 - This project includes the drafting of a detailed Urban Design Framework for the functional area around the Dr Sefularo Area
 - Conducting a Traffic Impact Assessment in order to develop a detailed integrated street network
- **PROJECT 2: IMPLEMENT DR SEFULARO EXT 1**
 - Amend the existing layout plan in order to align with the before mentioned UDF and TIA
 - Finalise the township establishment process
 - Transfer of title deeds to beneficiaries
 - Installation of services and top structures

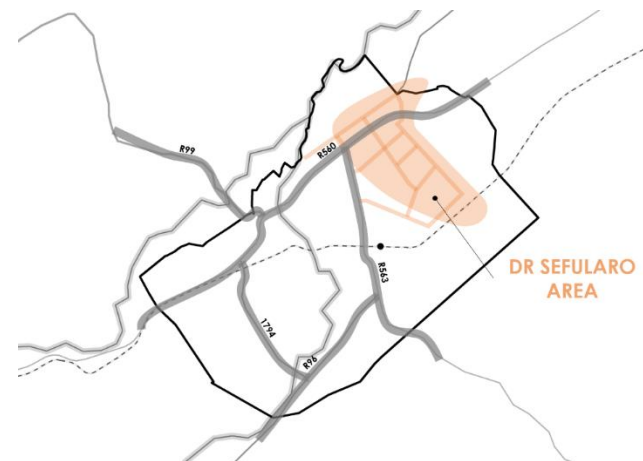


Figure 60: STRATEGY 1

17.5.2

STRATEGY 2: DEVELOP A NETWORK OF MIXED USE AND SOCIAL NODES

Non-residential facilities are sparse and spread over a large area, resulting in long traveling times, no economies of scale, or sharing of infrastructure. The quality and quantity of facilities are inadequate to serve the residents of the precinct and its surrounds. This will be compounded when the Dr Sefularo townships are developed.

There is a need to cluster social and retail facilities at accessible localities.

- **PROJECT 1: DEVELOP MIXED USE NODE AT DR SEFULARO AND DR SEFULARO EXT 1**

-
- Drafting of a Site Development Plan indicating streets and walkways, erven, parking etc
 - Development of fresh produce market
 - Making land available for small businesses
 - Provision of training services for informal and small businesses
 - Development of a public space in line with the before mentioned SDP
 - PROJECT 2: DEVELOP MIXED USE AND SOCIAL NODE AT HEKPOORT LAERSKOOL
 - Resolve issues regarding access from the R560 to the social node
 - Drafting of a Site Development Plan indicating streets and walkways, erven, parking etc
 - Making land available for small businesses
 - Provision of training services for informal and small businesses
 - Development of a public space in line with the before mentioned SDP
 - Drafting of a maintenance plan for the area

- PROJECT 3: DEVELOP SOCIAL NODE IN DR SEFULARO EXT 1
 - Drafting of a Site Development Plan for the social node addressing at least land use, movement systems, public space network, street sections and landscaping
 - The development of several social facilities, including a primary school, secondary school, police station, community hall, early childhood development centres, community park, public square and sports and recreation facilities
 - Drafting of a maintenance plan for the social node

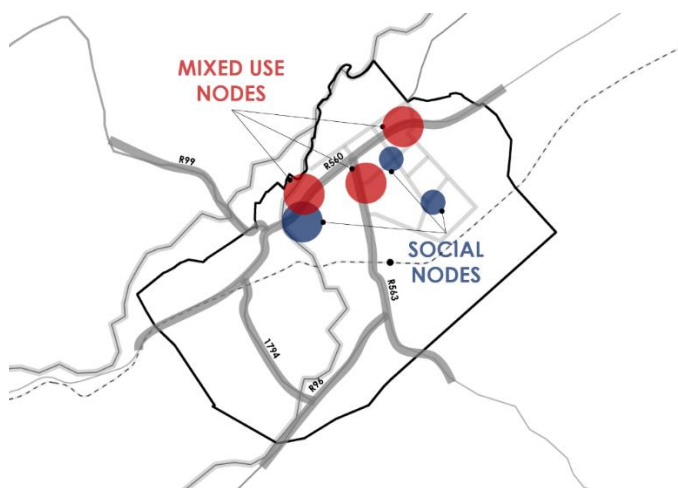


Figure 61: STRATEGY 2

17.5.3

STRATEGY 3: STIMULATE LOCAL ECONOMIC DEVELOPMENT

The Hekpoort Precinct is seen as an important agricultural area. commercial agriculture has however declined over the past decade and with it the fortune of the residents. According to the socio-economic survey many residents are skilled in agricultural practices. It thus makes sense to stimulate emerging and commercial farmers.

The Precinct also has an important tourism function, which is increasing in significance. Both the 563 and the R96 as well as large section of the precinct are identified as tourism related areas. This sector should be nurtured and enhanced.

- PROJECT 1: PROMOTE AGRICULTURAL DEVELOPMENT, SUPPORT AND BENEFICIATION
 - Set land aside for small farmers according to UDF proposals
 - Development of an assistance programme for agricultural co-ops/ small farmers
 - Investigating the reason behind the decline of commercial agriculture
 - Investigate the potential behind agricultural beneficiation
- PROJECT 2: DEVELOP TOURISM GATEWAYS
 - Identify the location of the Gateway

- Appoint consultants to design and construct the Gateway
- PROJECT 3: DEVELOP TOURISM AND PROTECTED AREAS OVERLY ZONE
 - Identify the geographical areas to be included in the overlay zone
 - Appointment of consultants to draft development guidelines and parameters
 - Development of land use application and approval processes
 - Application of before mentioned design guidelines to the road reserves and abutting properties
- PROJECT 4: ASSIST THE DEVELOPMENT OF SMALL TOURIST FACILITIES ON FARMS
 - Identify procedural and financial administrative constraints preventing the development of small tourist facilities on farms – consequently develop ways in which to remove these constrictions
- PROJECT 5: DEVELOP TOURISM HUB
 - Investigate and negotiate the possibility of using Oostermoed development as a tourism hub
 - Developing tourism related infrastructure such as information boards and markets

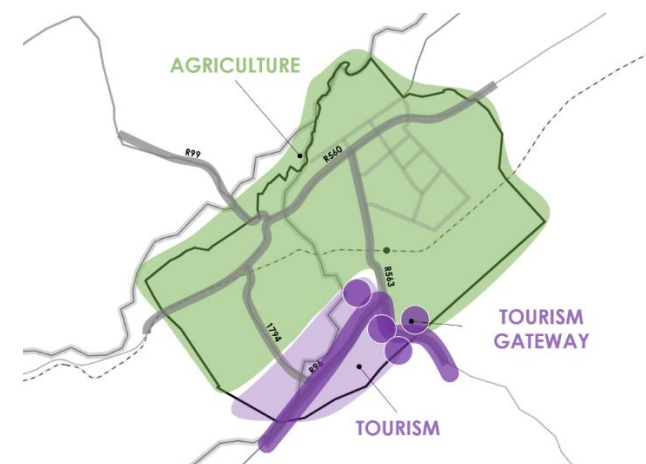


Figure 62: STRATEGY 3

17.5.4 STRATEGY 4: DEVELOP AN ACCESSIBLE AND SUITABLE STREET NETWORK

The Precinct is dominated by three provincial roads: the R560, R563 and the K96. This limits access to individual properties and discourages pedestrian movement although the bulk of the population are pedestrians.

It is necessary to manage access points and address the need for public and non-motorised transport facilities.

- PROJECT 1: ADDRESS ACCESS MANAGEMENT
 - Engage with Gautrans regarding the reclassification of Road 1794 in order to improve access to properties
 - Development of an access management plan along all the provincial routes in the Precinct
- PROJECT 2: MAKE PROVISION FOR PUBLIC AND NON-MOTORISED TRANSPORT
 - This project includes the development of pedestrian walkway, cycle lane and a taxi/bus rank at the Hekpoort Laerskool mixed use and social node

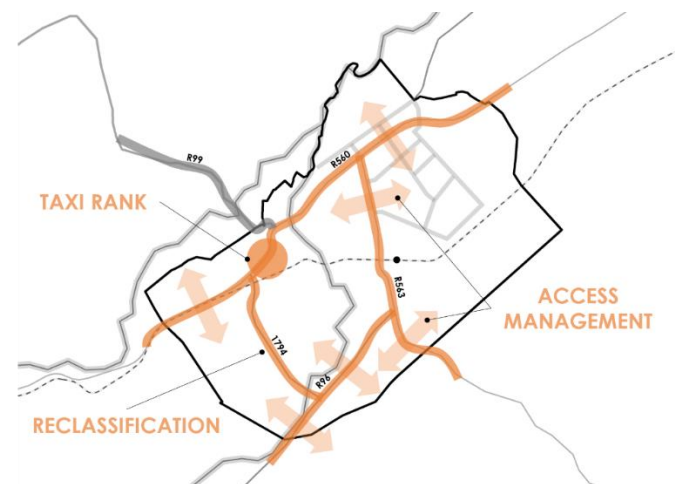


Figure 63: STRATEGY 4

18 IMPLEMENTATION PLAN

This section contains the project implementation of the Precinct Plan. The implementation is organised as follows:

- Strategy and motivation
- Projects
- Actions

For each ACTION the following elements are discussed:

- Timeframe (shorth, medium and long)
- Responsible agent i.e. agency responsible for driving the implementation of the project
- Potential sources of funding, i.e. funding agency. This list is not finite and other sources of funding such as donations should be sourced. Of concern is the shifting of budgets to accommodate the funds necessary to deal with the Covid-19 epidemic
- Stakeholders: relevant public and private role-players that are directly involved in the action or should be consulted in the process.
- Prioritisation indication the urgency of implementation, albeit a short-, medium- or long-term project:
 - Red = high priority
 - Orange = medium priority
 - Green = low priority

The following should be noted:

- Facilities and building costs are estimates, based on industry and development standards, for the

construction of new buildings and facilities; therefore, it should be finalised by professional consultants such as engineers, architects, and quantity surveyors.

- Planning and construction costs for residential areas and some social facilities were derived from the 2018/19 Housing Subsidy and Grant Levels of the National Human Settlements Programmes. Costs are based on a typical erf size of 250m², with a 40m² building with A Grade Services.
- Primary and Secondary School construction costs are derived from the Guidelines Relating to Planning for Public School Infrastructure, published by the Department of Basic Education, 2012.
- Property value is estimated by the average value of recently transferred properties in the area, as well as the current municipal valuation roll.

STRATEGY 1: DEVELOP A FUNCTIONAL AND INTEGRATED HUMAN SETTLEMENT

MOTIVATION:

Planning for township establishment in and around Dr Sefularo is based on farm portions and not on a functional area, resulting in housing projects that are not integrated and do not form a comprehensive settlement.

It is necessary to plan for a larger area that will form a settlement in the future rather than only looking at portions of land that are currently available for development.

PROJECT 1: UNDERTAKE DETAIL PLANNING FOR THE FUNCTIONAL AREA AROUND DR SEFULARO

ACTIONS	SHORT TERM	MEDIUM TERM	LONG TERM	RESPONSIBLE AGENT	POTENTIAL SOURCES OF FUNDING	ESTIMATED COST	STAKEHOLDERS
Draft a detailed Urban Design Framework for the functional area around Dr Sefularo as indicated in this Precinct Plan. The UDF should address at least: <ul style="list-style-type: none"> ▪ Land use and activities both formal and informal. ▪ Residential typologies and densities. ▪ Agricultural land ▪ Motorised, public transport and non-motorised transport networks: movement and termini. ▪ Public space network including hard and soft spaces. ▪ Development parameters and building massing and public private interface. ▪ Street sections. ▪ Streetscaping, landscaping and signage. 	X			MCLM Development Planning	HDA GP DoHS	R300 000	<ul style="list-style-type: none"> ▪ MCLM Development Planning ▪ MCLM Human Settlement and Real Estate Administration ▪ MCLM Roads and Transport Services ▪ WRDM Regional Development Planning and Environmental Management ▪ WRDM Transport and Roads ▪ Ward Councillor ▪ Private landowners ▪ GP DoHS ▪ DALRRD Relevant departments National
Undertake a TIA to develop a detailed street network to ensure an integrated street network and interaction with the R560	X			MCLM Roads and Transport Services	GP DoHS MCLM Roads and Transport Services	R150 000	

PROJECT 2: IMPLEMENT DR SEFULARO EXT 1							
ACTIONS	SHORT TERM	MEDIUM TERM	LONG TERM	RESPONSIBLE AGENT	POTENTIAL SOURCES OF FUNDING	ESTIMATED COST	STAKEHOLDERS
Amend the layout plan for Dr Sefularo Ext 1 to align with the proposals emanating from the UDF and the TIA	X			MCLM Development Planning	GP DoHS	R200 000	<ul style="list-style-type: none"> ▪ MCLM Development Planning ▪ MCLM Human Settlement and Real Estate Administration ▪ MCLM Public Works, Roads & Transport ▪ Surveyor General ▪ CoGTA – MIG ▪ WRDM DoHS ▪ Dees Office ▪ Ward Councillor <p>Relevant National departments</p>
Finalise the township establishment process for Dr Sefularo Ext 1		X		MCLM Development Planning	GP DoHS	R200 000	
Transfer of Title Deeds to beneficiaries in Dr Sefularo Ext 1			X	MCLM Development Planning	GP DoHS	R300 000	
Infrastructure and top structures			X	MCLM Development Planning	GP DoHS CoGTA – MIG	R55 000 000	

STRATEGY 2: DEVELOP A NETWORK OF MIXED USE AND SOCIAL NODES

MOTIVATION:

Non-residential facilities are sparse and spread over a large area, resulting in long traveling times, no economies of scale, or sharing of infrastructure. The quality and quantity of facilities are inadequate to serve the residents of the precinct and its surrounds. This will be compounded when the Dr Sefularo townships are developed.

There is a need to cluster social and retail facilities at accessible localities.

PROJECT 1: DEVELOP MIXED-USE NODE AT DR SEFULARO AND DR SEFULARO EXT 1

ACTIONS	SHORT TERM	MEDIUM TERM	LONG TERM	RESPONSIBLE AGENT	POTENTIAL SOURCES OF FUNDING	ESTIMATED COST	STAKEHOLDERS
Draft a Site Development Plan for the mixed-use node addressing at least: <ul style="list-style-type: none"> ▪ Streets and walkways ▪ Erven ▪ Built-to lines ▪ Development controls (coverage, FSR, height) ▪ Building façade ▪ Parking ▪ Landscaping ▪ Street furniture ▪ Paving ▪ Lighting ▪ Signage ▪ Trading facilities ▪ Bus and taxi rank 	X			MCLM Development Planning	MCLM Development Planning	R200 000	<ul style="list-style-type: none"> ▪ MCLM Development Planning ▪ MCLM Human Settlement and Real Estate Administration ▪ MCLM Roads and Transport Services ▪ MCLM Enterprise and Rural Development ▪ MCLM Special Economic Initiatives Management ▪ WRDM Economic Development ▪ Ward councillor ▪ Taxi and bus operators ▪ GP DoED ▪ GP DoHS ▪ GDARD ▪ DALRRD ▪ NDoSBD Relevant National departments
Develop a market for fresh produce		X		MCLM Enterprise and Rural Development	GDARD	R2 000 000	
Make land available for small businesses		X		GP DoHS	N/A	N/A	
Provide training for informal and small businesses	X	X	X	MCLM Enterprise and Rural Development	NDoSBD	TBD	
Develop the public space in line with the SDP		X		MCLM Development Planning	NDoHS		

PROJECT 2: DEVELOP MIXED USE AND SOCIAL NODE AT HEKPOORT LAERSKOOL							
ACTIONS	SHORT TERM	MEDIUM TERM	LONG TERM	RESPONSIBLE AGENT	POTENTIAL SOURCES OF FUNDING	ESTIMATED COST	STAKEHOLDERS
Resolve the issues around access from the R560 to the social node	X			MCLM Roads and Transport Services	N/A	N/A	<ul style="list-style-type: none"> ▪ MCLM Development Planning ▪ MCLM Human Settlement and Real Estate Administration ▪ MCLM Sports, Arts, Culture and Recreation ▪ MCLM Social Development ▪ MCLM Roads and Transport Services ▪ WRDM Economic Development ▪ WRDM Health and Social Development ▪ GP DoE ▪ GP DoED ▪ GP DoH ▪ GP DoHS ▪ GP DoSD ▪ GP DoSACR ▪ Gautrans ▪ NDoSBD
Draft a Site Development Plan for the mixed-use and node addressing at least: <ul style="list-style-type: none"> ▪ Streets and walkways ▪ Erven ▪ Built-to lines ▪ Development controls (coverage, FSR, height) ▪ Building façade ▪ Parking ▪ Landscaping ▪ Street furniture ▪ Paving ▪ Lighting ▪ Signage ▪ Trading facilities ▪ Bus and taxi rank 	X			MCLM Development Planning	MCLM Development Planning	R200 000	
Make land available for small businesses		X		GP DoHS	N/A	N/A	
Provide training for informal and small businesses	X	X	X	MCLM Enterprise and Rural Development	NDoSBD	TBD	
Develop the public space in line with the SDP		X		MCLM Development Planning	NDoHS	R1 000 000	
Draft a maintenance plan		X		MCLM Development Planning	N/A	N/A	

PROJECT 3: DEVELOP SOCIAL NODE IN DR SEFULARO EXT 1							
ACTIONS	SHORT TERM	MEDIUM TERM	LONG TERM	RESPONSIBLE AGENT	POTENTIAL SOURCES OF FUNDING	ESTIMATED COST	STAKEHOLDERS
Draft a Site Development Plan for the social node addressing at least: <ul style="list-style-type: none"> ▪ Land use and activities both formal and informal. ▪ Motorised, public transport and non-motorised transport networks: movement and termini. ▪ Public space network including hard and soft spaces. ▪ Development parameters, building massing and public private interface. ▪ Street sections. ▪ Streetscaping, landscaping and signage 	X			MCLM Development Planning	MCLM Development Planning	R200 000	<ul style="list-style-type: none"> ▪ MCLM Development Planning ▪ MCLM Human Settlement and Real Estate Administration ▪ MCLM Sports, Arts, Culture and Recreation ▪ MCLM Social Development ▪ MCLM Roads and Transport Services ▪ MCLM Social Development ▪ MCLM Public Safety
Develop a primary school			X	GP DoE	DoPWI GP DoE	R75 000 000	<ul style="list-style-type: none"> ▪ WRDM Economic Development
Develop a high school			X	GP DoE	DoPWI GP DoE	R100 000 000	<ul style="list-style-type: none"> ▪ WRDM Health and Social Development
Relocate police station			X	SAPS	SAPS DoPWI	TBD	<ul style="list-style-type: none"> ▪ SAPS
Develop a community hall			X	MCLM Social Development	CoGTA - MIG	R1 500 000	<ul style="list-style-type: none"> ▪ GP DoE ▪ GP DoED ▪ GP DoH ▪ GP DoHS ▪ GP DoSD ▪ GP DoSACR
Develop an early childhood development centre		X		MCLM Social Development	DoPWI	TBD	<ul style="list-style-type: none"> ▪ Gautrans ▪ NDoSBD
Develop a community park			X	MCLM Development Planning	CoGTA - MIG	R700 000.00	<ul style="list-style-type: none"> ▪ DoPWI
Develop a public square			X	MCLM Development Planning	CoGTA - MIG	R1 000 000	<ul style="list-style-type: none"> ▪ CoGTA - MIG
Develop sports and recreation facilities			X	MCLM Development Planning	CoGTA - MIG	R4 000 000	
Draft a maintenance plan		X		MCLM Development Planning	N/A	N/A	Relevant departments National

STRATEGY 3: STIMULATE LOCAL ECONOMIC DEVELOPMENT

MOTIVATION:

The Hekpoort Precinct is seen as an important agricultural area. commercial agriculture has however declined over the past decade and with it the fortune of the residents. According to the socio-economic survey many residents are skilled in agricultural practices. It thus makes sense to stimulate emerging and commercial farmers.

The Precinct also has an important tourism function, which is increasing in significance. Both the 563 and the R96 as well as large section of the precinct are identified as tourism related areas. This sector should be nurtured and enhanced.

PROJECT 1: PROMOTE AGRICULTURAL DEVELOPMENT, SUPPORT AND BENEFICIATION

ACTIONS	SHORT TERM	MEDIUM TERM	LONG TERM	RESPONSIBLE AGENT	POTENTIAL SOURCES OF FUNDING	ESTIMATED COST	STAKEHOLDERS
Set land aside for emerging/ communal/ small farm agriculture in Dr Sefularo development according to UDF proposals	X			MCLM Development Planning	N/A	N/A	<ul style="list-style-type: none"> ▪ MCLM Development Planning ▪ MCLM Enterprise and Rural Development
Develop an assistance programme for agricultural co-ops/ small farmers	X	X	X	DALRRD	N/A	N/A	<ul style="list-style-type: none"> ▪ Ward councillor ▪ Local community
Investigate the reasons behind the decline of commercial agriculture and develop a strategy to assist commercial farmers in the Precinct	X	X	X	DALRRD	N/A	N/A	<ul style="list-style-type: none"> ▪ GP DoED ▪ GDARD
Investigate the potential for agricultural beneficiation		X		DALRRD	N/A	N/A	<ul style="list-style-type: none"> ▪ DALRRD ▪ Other Relevant National departments

PROJECT 2: DEVELOP TOURISM GATEWAYS							
ACTIONS	SHORT TERM	MEDIUM TERM	LONG TERM	RESPONSIBLE AGENT	POTENTIAL SOURCES OF FUNDING	ESTIMATED COST	STAKEHOLDERS
Identify the locality of the gateway		X	X	MCLM Tourism	N/A	N/A	<ul style="list-style-type: none"> ▪ MCLM Development Planning ▪ MCLM Tourism ▪ MCLM Sports, Arts, Culture and Recreation ▪ MCLM Parks Management and Nature Conservation ▪ WRDM Regional Development Planning and Environmental Management ▪ Gautrans ▪ MBR NPO ▪ Local artists ▪ GP DoSACR
Appoint consultants to design the gateway based on clear guidelines		X	X	MCLM Tourism	GP DoSACR	TBD	
Construct the gateway			X	MCLM Tourism	GP DoSACR	R1 000 000	

PROJECT 3: DEVELOP TOURISM AND PROTECTED AREAS OVERLAY ZONE							
ACTIONS	SHORT TERM	MEDIUM TERM	LONG TERM	RESPONSIBLE AGENT	POTENTIAL SOURCES OF FUNDING	ESTIMATED COST	STAKEHOLDERS
Identify the geographic areas to be included in the overlay zone		X		MCLM Development Planning	N/A	N/A	<ul style="list-style-type: none"> ▪ MCLM Development Planning ▪ MCLM Tourism ▪ MCLM Sports, Arts, Culture and Recreation ▪ MCLM Parks Management and Nature Conservation ▪ MCLM Environmental Management ▪ WRDM Regional Development Planning and Environmental Management ▪ MBR NPO ▪ CoH WHS MA ▪ MACH
Appoint consultants to draft development guidelines, parameters, and controls		X		MCLM Development Planning	MCLM Development Planning	R250 000	
Develop land use application and approval processes		X		MCLM Development Planning	N/A	N/A	
Incorporate in LUS		X		MCLM Development Planning	MCLM Development Planning	R1000per/page	
Apply guidelines to the development of the road reserve and abutting properties along the southern part of the R563 and the R96		X	X	MCLM Development Planning	N/A	N/A	

PROJECT 4: ASSIST THE DEVELOPMENT OF SMALL TOURIST FACILITIES ON FARMS							
ACTIONS	SHORT TERM	MEDIUM TERM	LONG TERM	RESPONSIBLE AGENT	POTENTIAL SOURCES OF FUNDING	ESTIMATED COST	STAKEHOLDERS
Identify procedural and financial administrative constraints that prevent the legal development of small tourist facilities of farms.	X			MCLM Development Planning	N/A	N/A	<ul style="list-style-type: none"> ▪ MCLM Development Planning ▪ MCLM Tourism ▪ Private landowners
Identify ways in which to remove these constraints	X			MCLM Development Planning	N/A	N/A	<ul style="list-style-type: none"> ▪ Magaliesberg Tourism Association ▪ Magaliesberg Business Forum
PROJECT 5: DEVELOP TOURISM HUB							
ACTIONS	SHORT TERM	MEDIUM TERM	LONG TERM	RESPONSIBLE AGENT	POTENTIAL SOURCES OF FUNDING	ESTIMATED COST	STAKEHOLDERS
Negotiate with landowner to use Oostermoed development as tourism hub	X			MCLM Tourism	N/A	N/A	<ul style="list-style-type: none"> ▪ Landowner ▪ MCLM Development Planning
Erect a tourism information board		X		MCLM Tourism	MCLM Tourism	R10 000	<ul style="list-style-type: none"> ▪ MCLM Tourism ▪ MBR NPO
Develop a tourist market		X		MCLM Tourism	NDoT	R2 000 000	<ul style="list-style-type: none"> ▪ MACH ▪ NDoT ▪ Ward councillor ▪ Local residents

STRATEGY 4: DEVELOP AN ACCESSIBLE AND SUITABLE STREET NETWORK

MOTIVATION:

The Precinct is dominated by three provincial roads: the R560, R563 and the K96. This limits access to individual properties and discourages pedestrian movement although the bulk of the population are pedestrians.

It is necessary to manage access points and address the need for public and non-motorised transport facilities.

PROJECT 1: ADDRESS ACCESS MANAGEMENT

ACTIONS	SHORT TERM	MEDIUM TERM	LONG TERM	RESPONSIBLE AGENT	POTENTIAL SOURCES OF FUNDING	ESTIMATED COST	STAKEHOLDERS
Request Gautrans to amend the classification of D1676 and Road 1794 from Class 3 minor collectors to Class 4 rural collector roads to provide more effective access to properties within the Precinct.	X			MCLM Roads and Transport Services	N/A	N/A	<ul style="list-style-type: none"> MCLM Development Planning MCLM Roads and Transport Services Gautrans
Develop an access management plan along all provincial roads: R560, R563 and K96		X		MCLM Roads and Transport Services	MCLM Roads and Transport Services Gautrans	R100 000	

PROJECT 2: MAKE PROVISION FOR PUBLIC AND NON-MOTORISED TRANSPORT

ACTIONS	SHORT TERM	MEDIUM TERM	LONG TERM	RESPONSIBLE AGENT	POTENTIAL SOURCES OF FUNDING	ESTIMATED COST	STAKEHOLDERS
Develop a pedestrian walkway and cycle lane along the southern side of the R560 between the Hekpoort Laerskool social node and the Dr Sefularo Mixed use node		X		Gautrans	Gautrans	R1 440 000	<ul style="list-style-type: none"> MCLM Development Planning MCLM Roads and Transport Services
Develop a taxi and bus rank at the Hekpoort Laerskool mixed use and social node		X		MCLM Roads and Transport Services	Gautrans	R4 000 000	<ul style="list-style-type: none"> Taxi association Bus operators Gautrans

- GUIDANCE FOR LUMS.
- **Visual impact:** what is the visual impact of the development on the corridor? The tourism offering in Mogale City is mostly rural and its strength is to provide a natural sanctuary in close proximity to densely built-up urban areas. The visual impact of surrounding land uses should be evaluated with this in mind. A key factor is the interface between the private and the public realm:
 - Extensive indigenous landscaping should be used
 - No large blank walls should be allowed
 - No large parking areas between the building and the street should be allowed
 - Signage should be in keeping with the character of the tourism and rural nature of the corridor

In order to fully exploit the tourism product in the wider Mogale City, the following should be considered with regards to the ROAD RESERVE:

- The Tourism Corridor should be divided into different zones to reflect the different character and places along its length, i.e., Muldersdrift, Magaliesburg, Hekpoort, the CoH WHS, the MBR.
- A 'look and feel' guidance should be developed for the Tourism Corridors to develop a sense of place. This should be overarching but should allow for variation to accommodate the different zones within the Corridors. The 'look and feel'

should provide guidelines for signage and landscaping. However, as stated in the Draft Environmental Management Framework and Management Plan for the COH WHS, '*the sense of place experience is substantially influenced by the visual picture made up of natural and cultural landscape forms and shapes. Visitors and tourists should be able to identify the area and its unique qualities almost by sight and experience rather than guidance supported only by road signage*'.

- Gateways have to be defined at entrances to the Tourism Corridor, entrances to the different zones and entrances to important tourism facilities. These gateways should be in line with the 'look and feel' as referred to above. Local artists should preferably be used in the development of gateway elements.

Within the Precinct, a tourism spine is proposed along the R96 and to the south of the intersection between the R96 and the R563. There is already a clustering of tourist-related activities in this area, although there are still significant agricultural activities. The basis for the tourism facilities in this area is the striking natural environment created by the Witwatersberg to the south and the Magalies River to the north. This natural character should be retained and enhanced through a landscaping palette of indigenous flora.

Two tourism gateways should be developed:

- at the dramatic southern entrance to the Precinct along the R563 through the poort in Witwatersberg
- at the intersection of the R96 and the R563.

Gateway elements can reflect the South African War as the site of the Battle of Nooitgedacht is visible for the R563.

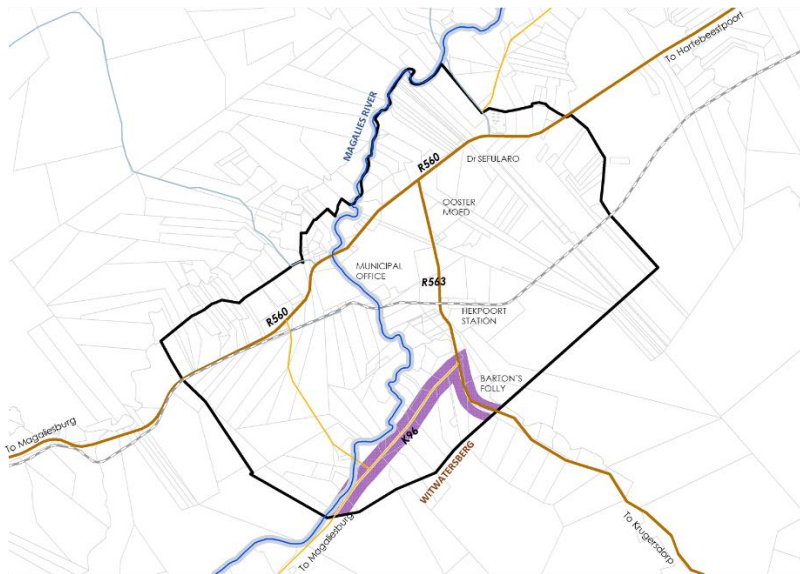


Figure 56: TOURISM SPINES AND GATEWAYS

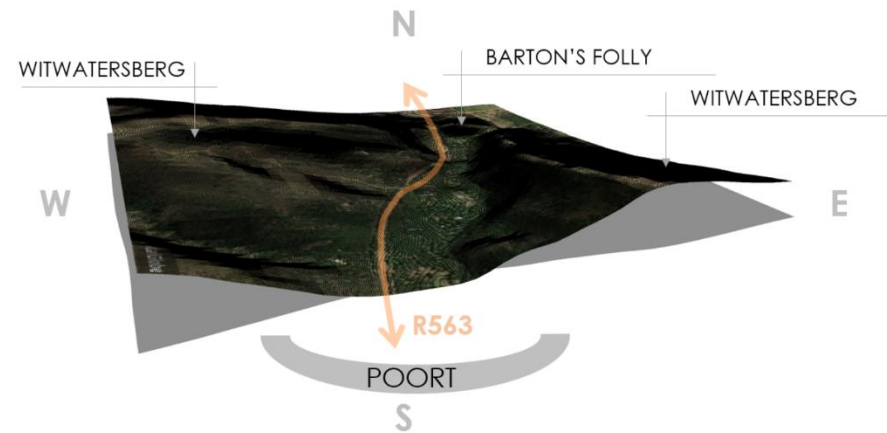


Figure 57: SOUTHERN ENTRANCE TO THE PRECINCT



Figure 58: EXAMPLE OF LANDMARK ELEMENTS⁹

⁹ <https://za.pinterest.com/codaworx/public-art/>

There are already examples of landmark elements, specifically around the CoH WHS in the larger area. New landmarks should build on this.



Figure 59: LANDMARK ELEMENTS WITHIN THE CoH WHS¹⁰

¹⁰ <https://bicyclesouth.co.za/listings/cradle-of-humankind/>

18.1 DESIGN GUIDELINES FOR RESIDENTIAL CONSOLIDATION ZONE

The Dr Sefularo residential development project forms part of the Rapid Land Release Programme driven by Gauteng Province Department of Human Settlements. It consists of seven portions of land, which together are 126.5 ha in extent.

One township (Dr Sefularo Village, which does not form part of the GRLRP) was established in 2013 on Portion 2 of the Farm Vogelzang 429 JQ. The township is located north of the R560. It consists of approximately 200 Residential 1 erven. The gross density is approximately 20du/ha and the net density is 50du/ha.

Another township (Dr Sefularo Ext 1) is in process on the Remainder of the Farm Vogelzang 429 JQ consisting of 324 Residential 1 erven, 2 Business 1 erven, a primary school and several social facilities. The gross density is 9du/ha and the net density is 40du/ha.

A total of 524 households can be accommodated in these two developments.

At issue is the shape of the portion of land on which the township establishment is taking place: typical elongated agricultural portions to provide access to the river for irrigation. These, on their own, are highly unsuitable for development as they cannot be developed to create a functional settlement form. Several portions have to be consolidated have to be

consolidated to allow for a rational settlement, or design should be undertaken to allow for the development of a rational settlement over time.

It is proposed that:

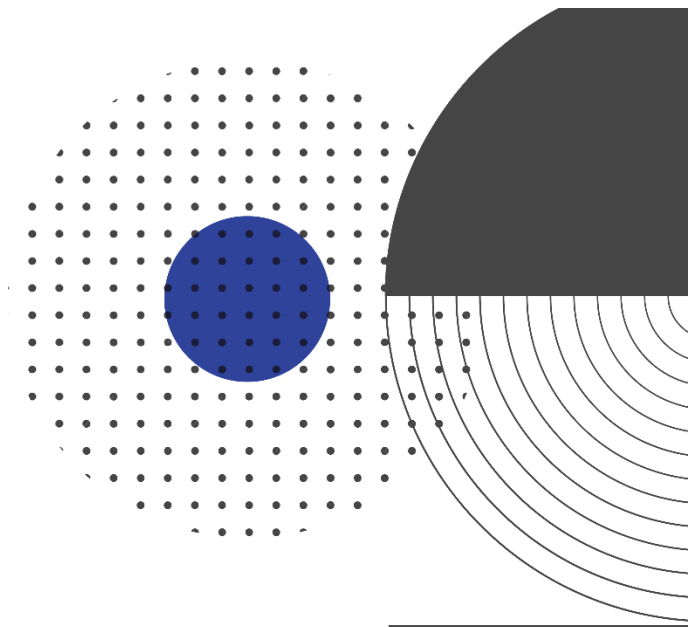
- A detailed design urban design plan be developed for:
 - all the portions of land on which township applications have been approved and submitted
 - land that have been identified as part of the Gauteng Rapid Land Release Programme
 - land portions that need to be obtained to create a functional settlement.

This plan must be implemented incrementally as land becomes available.

- That no further residential development or social facilities are allowed to the north of the R560 to limit pedestrians crossing the major route. Only agriculture and related activities and commercial will be allowed to the north of the R560.
- That gross densities be kept low, at approximately 10du/ha, given the rural context of the Precinct.
- That the settlement makes provision for productive activities to address the unemployment in the area. This could imply that large residential erven are provided in order to allow for space for agricultural or other productive activities (such as the creation of

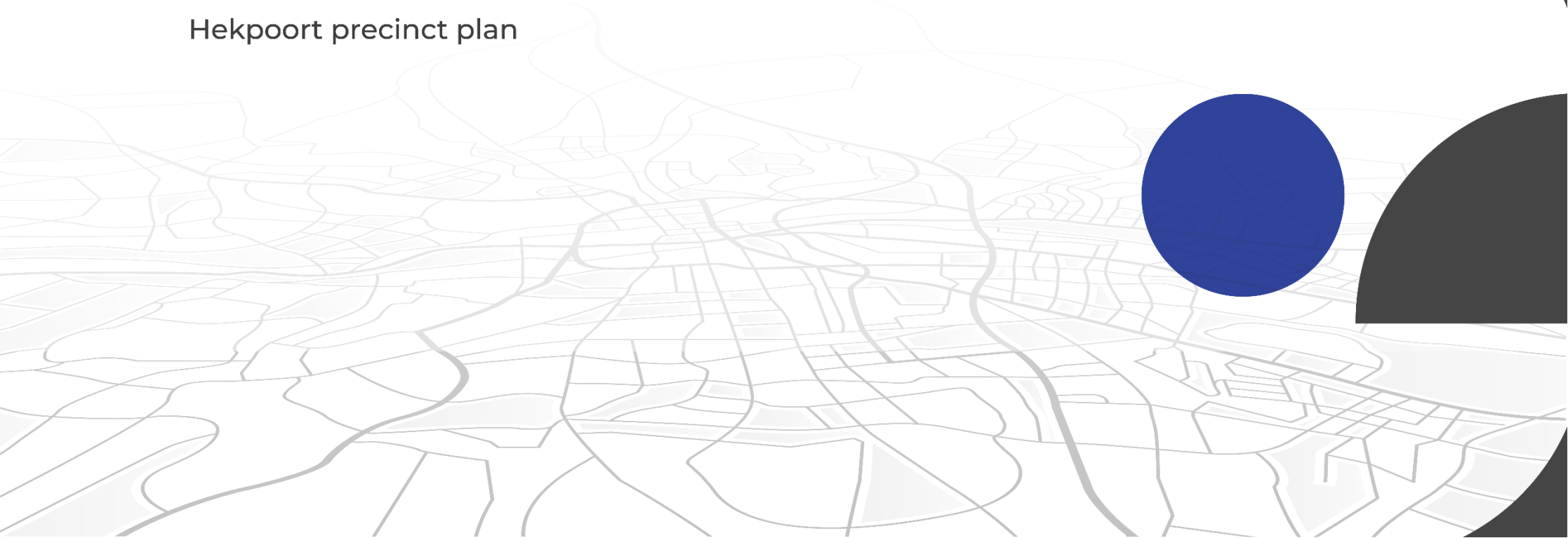
tourist goods, small-scale light industrial activities) on the erf itself, or that a large portion of the settlement be set out for communal productive activities such as a commons for urban agriculture or industrial hives.

- In order to compensate for the benefit of larger erven received by beneficiaries, the provision of site and service stands should be considered.
- Low technology infrastructure solutions should be explored.



Implementation Framework

Hekpoort precinct plan



19 STRATEGIC PROJECTS

This Section contains Strategic Projects based on the situational analysis and precinct concept development. These projects /interventions seek to leverage specific development opportunities, investment projects and market demands associated with the Precinct.

19.1 DESCRIPTION OF STRATEGIES AND PROJECTS

19.1.1 STRATEGY 1: DEVELOP A FUNCTIONAL AND INTEGRATED HUMAN SETTLEMENT

Planning for township establishment in and around Dr Sefularo is based on farm portions and not on a functional area, resulting in housing projects that are not integrated and do not form a comprehensive settlement.

It is necessary to plan for a larger area that will form a settlement in the future rather than only looking at portions of land that are currently available for development.

- PROJECT 1: UNDERTAKE DETAIL PLANNING FOR THE FUNCTIONAL AREA AROUND DR SEFULARO
 - This project includes the drafting of a detailed Urban Design Framework for the functional area around the Dr Sefularo Area

- Conducting a Traffic Impact Assessment in order to develop a detailed integrated street network
- PROJECT 2: IMPLEMENT DR SEFULARO EXT 1
 - Amend the existing layout plan in order to align with the before mentioned UDF and TIA
 - Finalise the township establishment process
 - Transfer of title deeds to beneficiaries
 - Installation of services and top structures

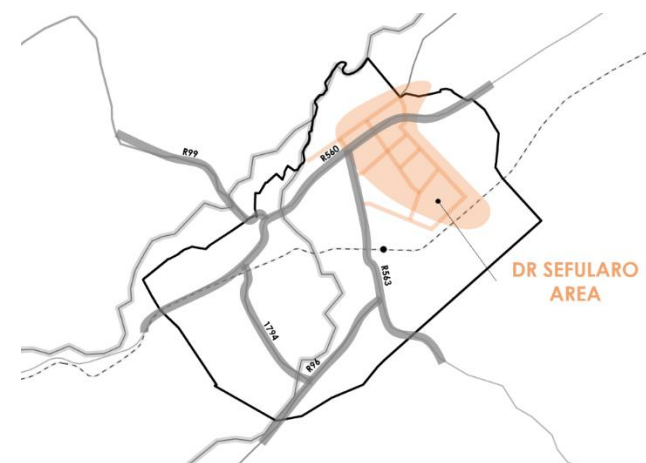


Figure 60: STRATEGY 1

19.1.2 STRATEGY 2: DEVELOP A NETWORK OF MIXED USE AND SOCIAL NODES

Non-residential facilities are sparse and spread over a large area, resulting in long traveling times, no economies of scale, or sharing of infrastructure. The quality and quantity of facilities are inadequate to serve the residents of the precinct and its surrounds. This will be compounded when the Dr Sefularo townships are developed.

There is a need to cluster social and retail facilities at accessible localities.

- PROJECT 1: DEVELOP MIXED USE NODE AT DR SEFULARO AND DR SEFULARO EXT 1
 - Drafting of a Site Development Plan indicating streets and walkways, erven, parking etc
 - Development of fresh produce market
 - Making land available for small businesses
 - Provision of training services for informal and small businesses
 - Development of a public space in line with the before mentioned SDP
- PROJECT 2: DEVELOP MIXED USE AND SOCIAL NODE AT HEKPOORT LAERSKOOL
 - Resolve issues regarding access from the R560 to the social node

- Drafting of a Site Development Plan indicating streets and walkways, erven, parking etc
- Making land available for small businesses
- Provision of training services for informal and small businesses
- Development of a public space in line with the before mentioned SDP
- Drafting of a maintenance plan for the area

- PROJECT 3: DEVELOP SOCIAL NODE IN DR SEFULARO EXT 1
 - Drafting of a Site Development Plan for the social node addressing at least land use, movement systems, public space network, street sections and landscaping
 - The development of several social facilities, including a primary school, secondary school, police station, community hall, early childhood development centres, community park, public square and sports and recreation facilities
 - Drafting of a maintenance plan for the social node

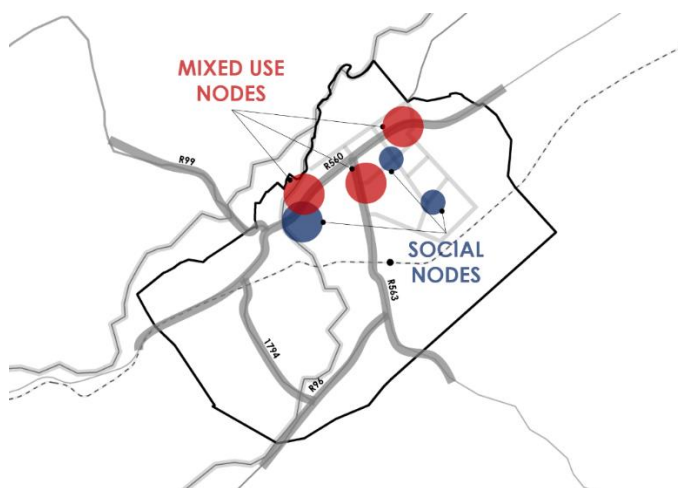


Figure 61: STRATEGY 2

19.1.3

STRATEGY 3: STIMULATE LOCAL ECONOMIC DEVELOPMENT

The Hekpoort Precinct is seen as an important agricultural area. commercial agriculture has however declined over the past decade and with it the fortune of the residents. According to the socio-economic survey many residents are skilled in agricultural practices. It thus makes sense to stimulate emerging and commercial farmers.

The Precinct also has an important tourism function, which is increasing in significance. Both the 563 and the R96 as well as large section of the precinct are identified as tourism related areas. This sector should be nurtured and enhanced.

- PROJECT 1: PROMOTE AGRICULTURAL DEVELOPMENT, SUPPORT AND BENEFICIATION
 - Set land aside for small farmers according to UDF proposals
 - Development of an assistance programme for agricultural co-ops/ small farmers
 - Investigating the reason behind the decline of commercial agriculture
 - Investigate the potential behind agricultural beneficiation
- PROJECT 2: DEVELOP TOURISM GATEWAYS
 - Identify the location of the Gateway

- Appoint consultants to design and construct the Gateway
- PROJECT 3: DEVELOP TOURISM AND PROTECTED AREAS OVERLY ZONE
 - Identify the geographical areas to be included in the overlay zone
 - Appointment of consultants to draft development guidelines and parameters
 - Development of land use application and approval processes
 - Application of before mentioned design guidelines to the road reserves and abutting properties
- PROJECT 4: ASSIST THE DEVELOPMENT OF SMALL TOURIST FACILITIES ON FARMS
 - Identify procedural and financial administrative constraints preventing the development of small tourist facilities on farms – consequently develop ways in which to remove these constrictions
- PROJECT 5: DEVELOP TOURISM HUB
 - Investigate and negotiate the possibility of using Oostermoed development as a tourism hub
 - Developing tourism related infrastructure such as information boards and markets

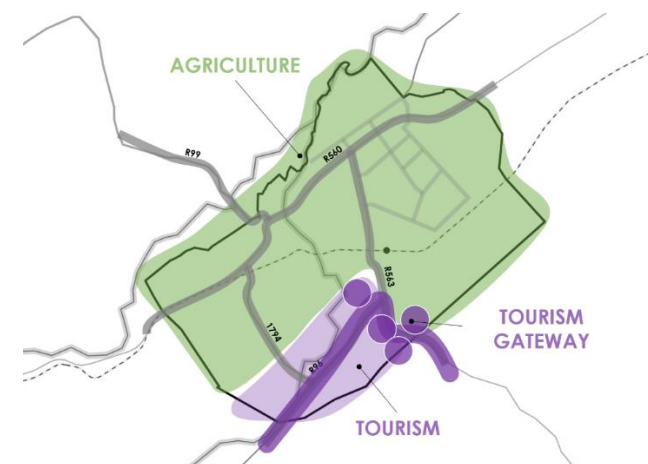


Figure 62: STRATEGY 3

19.1.4 STRATEGY 4: DEVELOP AN ACCESSIBLE AND SUITABLE STREET NETWORK

The Precinct is dominated by three provincial roads: the R560, R563 and the K96. This limits access to individual properties and discourages pedestrian movement although the bulk of the population are pedestrians.

It is necessary to manage access points and address the need for public and non-motorised transport facilities.

- PROJECT 1: ADDRESS ACCESS MANAGEMENT
 - Engage with Gautrans regarding the reclassification of Road 1794 in order to improve access to properties
 - Development of an access management plan along all the provincial routes in the Precinct
- PROJECT 2: MAKE PROVISION FOR PUBLIC AND NON-MOTORISED TRANSPORT
 - This project includes the development of pedestrian walkway, cycle lane and a taxi/bus rank at the Hekpoort Laerskool mixed use and social node



Figure 63: STRATEGY 4

20 IMPLEMENTATION PLAN

This section contains the project implementation of the Precinct Plan. The implementation is organised as follows:

- Strategy and motivation
- Projects
- Actions

For each ACTION the following elements are discussed:

- Timeframe (shorth, medium and long)
- Responsible agent i.e. agency responsible for driving the implementation of the project
- Potential sources of funding, i.e. funding agency. This list is not finite and other sources of funding such as donations should be sourced. Of concern is the shifting of budgets to accommodate the funds necessary to deal with the Covid-19 epidemic
- Stakeholders: relevant public and private role-players that are directly involved in the action or should be consulted in the process.
- Prioritisation indication the urgency of implementation, albeit a short-, medium- or long-term project:
 - Red = high priority
 - Orange = medium priority
 - Green = low priority

The following should be noted:

- Facilities and building costs are estimates, based on industry and development standards, for the

construction of new buildings and facilities; therefore, it should be finalised by professional consultants such as engineers, architects, and quantity surveyors.

- Planning and construction costs for residential areas and some social facilities were derived from the 2018/19 Housing Subsidy and Grant Levels of the National Human Settlements Programmes. Costs are based on a typical erf size of 250m², with a 40m² building with A Grade Services.
- Primary and Secondary School construction costs are derived from the Guidelines Relating to Planning for Public School Infrastructure, published by the Department of Basic Education, 2012.
- Property value is estimated by the average value of recently transferred properties in the area, as well as the current municipal valuation roll.

STRATEGY 1: DEVELOP A FUNCTIONAL AND INTEGRATED HUMAN SETTLEMENT

MOTIVATION:

Planning for township establishment in and around Dr Sefularo is based on farm portions and not on a functional area, resulting in housing projects that are not integrated and do not form a comprehensive settlement.

It is necessary to plan for a larger area that will form a settlement in the future rather than only looking at portions of land that are currently available for development.

PROJECT 1: UNDERTAKE DETAIL PLANNING FOR THE FUNCTIONAL AREA AROUND DR SEFULARO

ACTIONS	SHORT TERM	MEDIUM TERM	LONG TERM	RESPONSIBLE AGENT	POTENTIAL SOURCES OF FUNDING	ESTIMATED COST	STAKEHOLDERS
Draft a detailed Urban Design Framework for the functional area around Dr Sefularo as indicated in this Precinct Plan. The UDF should address at least: <ul style="list-style-type: none"> ▪ Land use and activities both formal and informal. ▪ Residential typologies and densities. ▪ Agricultural land ▪ Motorised, public transport and non-motorised transport networks: movement and termini. ▪ Public space network including hard and soft spaces. ▪ Development parameters and building massing and public private interface. ▪ Street sections. ▪ Streetscaping, landscaping and signage. 	X			MCLM Development Planning	HDA GP DoHS	R300 000	<ul style="list-style-type: none"> ▪ MCLM Development Planning ▪ MCLM Human Settlement and Real Estate Administration ▪ MCLM Roads and Transport Services ▪ WRDM Regional Development Planning and Environmental Management ▪ WRDM Transport and Roads ▪ Ward Councillor ▪ Private landowners ▪ GP DoHS ▪ DALRRD Relevant departments National
Undertake a TIA to develop a detailed street network to ensure an integrated street network and interaction with the R560	X			MCLM Roads and Transport Services	GP DoHS MCLM Roads and Transport Services	R150 000	

PROJECT 2: IMPLEMENT DR SEFULARO EXT 1							
ACTIONS	SHORT TERM	MEDIUM TERM	LONG TERM	RESPONSIBLE AGENT	POTENTIAL SOURCES OF FUNDING	ESTIMATED COST	STAKEHOLDERS
Amend the layout plan for Dr Sefularo Ext 1 to align with the proposals emanating from the UDF and the TIA	X			MCLM Development Planning	GP DoHS	R200 000	<ul style="list-style-type: none"> ▪ MCLM Development Planning ▪ MCLM Human Settlement and Real Estate Administration ▪ MCLM Public Works, Roads & Transport ▪ Surveyor General ▪ CoGTA – MIG ▪ WRDM DoHS ▪ Dees Office ▪ Ward Councillor <p>Relevant National departments</p>
Finalise the township establishment process for Dr Sefularo Ext 1		X		MCLM Development Planning	GP DoHS	R200 000	
Transfer of Title Deeds to beneficiaries in Dr Sefularo Ext 1			X	MCLM Development Planning	GP DoHS	R300 000	
Infrastructure and top structures			X	MCLM Development Planning	GP DoHS CoGTA – MIG	R55 000 000	

STRATEGY 2: DEVELOP A NETWORK OF MIXED USE AND SOCIAL NODES

MOTIVATION:

Non-residential facilities are sparse and spread over a large area, resulting in long traveling times, no economies of scale, or sharing of infrastructure. The quality and quantity of facilities are inadequate to serve the residents of the precinct and its surrounds. This will be compounded when the Dr Sefularo townships are developed.

There is a need to cluster social and retail facilities at accessible localities.

PROJECT 1: DEVELOP MIXED-USE NODE AT DR SEFULARO AND DR SEFULARO EXT 1

ACTIONS	SHORT TERM	MEDIUM TERM	LONG TERM	RESPONSIBLE AGENT	POTENTIAL SOURCES OF FUNDING	ESTIMATED COST	STAKEHOLDERS
Draft a Site Development Plan for the mixed-use node addressing at least: <ul style="list-style-type: none"> ▪ Streets and walkways ▪ Erven ▪ Built-to lines ▪ Development controls (coverage, FSR, height) ▪ Building façade ▪ Parking ▪ Landscaping ▪ Street furniture ▪ Paving ▪ Lighting ▪ Signage ▪ Trading facilities ▪ Bus and taxi rank 	X			MCLM Development Planning	MCLM Development Planning	R200 000	<ul style="list-style-type: none"> ▪ MCLM Development Planning ▪ MCLM Human Settlement and Real Estate Administration ▪ MCLM Roads and Transport Services ▪ MCLM Enterprise and Rural Development ▪ MCLM Special Economic Initiatives Management ▪ WRDM Economic Development ▪ Ward councillor ▪ Taxi and bus operators ▪ GP DoED ▪ GP DoHS ▪ GDARD ▪ DALRRD ▪ NDoSBD Relevant National departments
Develop a market for fresh produce		X		MCLM Enterprise and Rural Development	GDARD	R2 000 000	
Make land available for small businesses		X		GP DoHS	N/A	N/A	
Provide training for informal and small businesses	X	X	X	MCLM Enterprise and Rural Development	NDoSBD	TBD	
Develop the public space in line with the SDP		X		MCLM Development Planning	NDoHS		

PROJECT 2: DEVELOP MIXED USE AND SOCIAL NODE AT HEKPOORT LAERSKOOL							
ACTIONS	SHORT TERM	MEDIUM TERM	LONG TERM	RESPONSIBLE AGENT	POTENTIAL SOURCES OF FUNDING	ESTIMATED COST	STAKEHOLDERS
Resolve the issues around access from the R560 to the social node	X			MCLM Roads and Transport Services	N/A	N/A	<ul style="list-style-type: none"> ▪ MCLM Development Planning ▪ MCLM Human Settlement and Real Estate Administration ▪ MCLM Sports, Arts, Culture and Recreation ▪ MCLM Social Development ▪ MCLM Roads and Transport Services ▪ WRDM Economic Development ▪ WRDM Health and Social Development ▪ GP DoE ▪ GP DoED ▪ GP DoH ▪ GP DoHS ▪ GP DoSD ▪ GP DoSACR ▪ Gautrans ▪ NDoSBD
Draft a Site Development Plan for the mixed-use and node addressing at least: <ul style="list-style-type: none"> ▪ Streets and walkways ▪ Erven ▪ Built-to lines ▪ Development controls (coverage, FSR, height) ▪ Building façade ▪ Parking ▪ Landscaping ▪ Street furniture ▪ Paving ▪ Lighting ▪ Signage ▪ Trading facilities ▪ Bus and taxi rank 	X			MCLM Development Planning	MCLM Development Planning	R200 000	
Make land available for small businesses		X		GP DoHS	N/A	N/A	
Provide training for informal and small businesses	X	X	X	MCLM Enterprise and Rural Development	NDoSBD	TBD	
Develop the public space in line with the SDP		X		MCLM Development Planning	NDoHS	R1 000 000	
Draft a maintenance plan		X		MCLM Development Planning	N/A	N/A	

PROJECT 3: DEVELOP SOCIAL NODE IN DR SEFULARO EXT 1							
ACTIONS	SHORT TERM	MEDIUM TERM	LONG TERM	RESPONSIBLE AGENT	POTENTIAL SOURCES OF FUNDING	ESTIMATED COST	STAKEHOLDERS
Draft a Site Development Plan for the social node addressing at least: <ul style="list-style-type: none"> ▪ Land use and activities both formal and informal. ▪ Motorised, public transport and non-motorised transport networks: movement and termini. ▪ Public space network including hard and soft spaces. ▪ Development parameters, building massing and public private interface. ▪ Street sections. ▪ Streetscaping, landscaping and signage 	X			MCLM Development Planning	MCLM Development Planning	R200 000	<ul style="list-style-type: none"> ▪ MCLM Development Planning ▪ MCLM Human Settlement and Real Estate Administration ▪ MCLM Sports, Arts, Culture and Recreation ▪ MCLM Social Development ▪ MCLM Roads and Transport Services ▪ MCLM Social Development ▪ MCLM Public Safety
Develop a primary school			X	GP DoE	DoPWI GP DoE	R75 000 000	<ul style="list-style-type: none"> ▪ WRDM Economic Development
Develop a high school			X	GP DoE	DoPWI GP DoE	R100 000 000	<ul style="list-style-type: none"> ▪ WRDM Health and Social Development
Relocate police station			X	SAPS	SAPS DoPWI	TBD	<ul style="list-style-type: none"> ▪ SAPS
Develop a community hall			X	MCLM Social Development	CoGTA - MIG	R1 500 000	<ul style="list-style-type: none"> ▪ GP DoE ▪ GP DoED ▪ GP DoH ▪ GP DoHS ▪ GP DoSD ▪ GP DoSACR
Develop an early childhood development centre		X		MCLM Social Development	DoPWI	TBD	<ul style="list-style-type: none"> ▪ Gautrans ▪ NDoSBD
Develop a community park			X	MCLM Development Planning	CoGTA - MIG	R700 000.00	<ul style="list-style-type: none"> ▪ DoPWI ▪ CoGTA - MIG
Develop a public square			X	MCLM Development Planning	CoGTA - MIG	R1 000 000	
Develop sports and recreation facilities			X	MCLM Development Planning	CoGTA - MIG	R4 000 000	
Draft a maintenance plan		X		MCLM Development Planning	N/A	N/A	Relevant departments National

STRATEGY 3: STIMULATE LOCAL ECONOMIC DEVELOPMENT

MOTIVATION:

The Hekpoort Precinct is seen as an important agricultural area. commercial agriculture has however declined over the past decade and with it the fortune of the residents. According to the socio-economic survey many residents are skilled in agricultural practices. It thus makes sense to stimulate emerging and commercial farmers.

The Precinct also has an important tourism function, which is increasing in significance. Both the 563 and the R96 as well as large section of the precinct are identified as tourism related areas. This sector should be nurtured and enhanced.

PROJECT 1: PROMOTE AGRICULTURAL DEVELOPMENT, SUPPORT AND BENEFICIATION

ACTIONS	SHORT TERM	MEDIUM TERM	LONG TERM	RESPONSIBLE AGENT	POTENTIAL SOURCES OF FUNDING	ESTIMATED COST	STAKEHOLDERS
Set land aside for emerging/ communal/ small farm agriculture in Dr Sefularo development according to UDF proposals	X			MCLM Development Planning	N/A	N/A	<ul style="list-style-type: none"> ▪ MCLM Development Planning ▪ MCLM Enterprise and Rural Development
Develop an assistance programme for agricultural co-ops/ small farmers	X	X	X	DALRRD	N/A	N/A	<ul style="list-style-type: none"> ▪ Ward councillor ▪ Local community
Investigate the reasons behind the decline of commercial agriculture and develop a strategy to assist commercial farmers in the Precinct	X	X	X	DALRRD	N/A	N/A	<ul style="list-style-type: none"> ▪ GP DoED ▪ GDARD
Investigate the potential for agricultural beneficiation		X		DALRRD	N/A	N/A	<ul style="list-style-type: none"> ▪ DALRRD ▪ Other Relevant National departments

PROJECT 2: DEVELOP TOURISM GATEWAYS							
ACTIONS	SHORT TERM	MEDIUM TERM	LONG TERM	RESPONSIBLE AGENT	POTENTIAL SOURCES OF FUNDING	ESTIMATED COST	STAKEHOLDERS
Identify the locality of the gateway		X	X	MCLM Tourism	N/A	N/A	<ul style="list-style-type: none"> ▪ MCLM Development Planning ▪ MCLM Tourism ▪ MCLM Sports, Arts, Culture and Recreation ▪ MCLM Parks Management and Nature Conservation ▪ WRDM Regional Development Planning and Environmental Management ▪ Gautrans ▪ MBR NPO ▪ Local artists ▪ GP DoSACR
Appoint consultants to design the gateway based on clear guidelines		X	X	MCLM Tourism	GP DoSACR	TBD	
Construct the gateway			X	MCLM Tourism	GP DoSACR	R1 000 000	

PROJECT 3: DEVELOP TOURISM AND PROTECTED AREAS OVERLAY ZONE							
ACTIONS	SHORT TERM	MEDIUM TERM	LONG TERM	RESPONSIBLE AGENT	POTENTIAL SOURCES OF FUNDING	ESTIMATED COST	STAKEHOLDERS
Identify the geographic areas to be included in the overlay zone		X		MCLM Development Planning	N/A	N/A	<ul style="list-style-type: none"> ▪ MCLM Development Planning ▪ MCLM Tourism ▪ MCLM Sports, Arts, Culture and Recreation ▪ MCLM Parks Management and Nature Conservation ▪ MCLM Environmental Management ▪ WRDM Regional Development Planning and Environmental Management ▪ MBR NPO ▪ CoH WHS MA ▪ MACH
Appoint consultants to draft development guidelines, parameters, and controls		X		MCLM Development Planning	MCLM Development Planning	R250 000	
Develop land use application and approval processes		X		MCLM Development Planning	N/A	N/A	
Incorporate in LUS		X		MCLM Development Planning	MCLM Development Planning	R1000per/page	
Apply guidelines to the development of the road reserve and abutting properties along the southern part of the R563 and the R96		X	X	MCLM Development Planning	N/A	N/A	

PROJECT 4: ASSIST THE DEVELOPMENT OF SMALL TOURIST FACILITIES ON FARMS							
ACTIONS	SHORT TERM	MEDIUM TERM	LONG TERM	RESPONSIBLE AGENT	POTENTIAL SOURCES OF FUNDING	ESTIMATED COST	STAKEHOLDERS
Identify procedural and financial administrative constraints that prevent the legal development of small tourist facilities of farms.	X			MCLM Development Planning	N/A	N/A	<ul style="list-style-type: none"> ▪ MCLM Development Planning ▪ MCLM Tourism ▪ Private landowners
Identify ways in which to remove these constraints	X			MCLM Development Planning	N/A	N/A	<ul style="list-style-type: none"> ▪ Magaliesberg Tourism Association ▪ Magaliesberg Business Forum
PROJECT 5: DEVELOP TOURISM HUB							
ACTIONS	SHORT TERM	MEDIUM TERM	LONG TERM	RESPONSIBLE AGENT	POTENTIAL SOURCES OF FUNDING	ESTIMATED COST	STAKEHOLDERS
Negotiate with landowner to use Oostermoed development as tourism hub	X			MCLM Tourism	N/A	N/A	<ul style="list-style-type: none"> ▪ Landowner ▪ MCLM Development Planning
Erect a tourism information board		X		MCLM Tourism	MCLM Tourism	R10 000	<ul style="list-style-type: none"> ▪ MCLM Tourism ▪ MBR NPO
Develop a tourist market		X		MCLM Tourism	NDoT	R2 000 000	<ul style="list-style-type: none"> ▪ MACH ▪ NDoT ▪ Ward councillor ▪ Local residents

STRATEGY 4: DEVELOP AN ACCESSIBLE AND SUITABLE STREET NETWORK

MOTIVATION:

The Precinct is dominated by three provincial roads: the R560, R563 and the K96. This limits access to individual properties and discourages pedestrian movement although the bulk of the population are pedestrians.

It is necessary to manage access points and address the need for public and non-motorised transport facilities.

PROJECT 1: ADDRESS ACCESS MANAGEMENT

ACTIONS	SHORT TERM	MEDIUM TERM	LONG TERM	RESPONSIBLE AGENT	POTENTIAL SOURCES OF FUNDING	ESTIMATED COST	STAKEHOLDERS
Request Gautrans to amend the classification of D1676 and Road 1794 from Class 3 minor collectors to Class 4 rural collector roads to provide more effective access to properties within the Precinct.	X			MCLM Roads and Transport Services	N/A	N/A	<ul style="list-style-type: none"> ▪ MCLM Development Planning ▪ MCLM Roads and Transport Services ▪ Gautrans
Develop an access management plan along all provincial roads: R560, R563 and K96		X		MCLM Roads and Transport Services	MCLM Roads and Transport Services Gautrans	R100 000	

PROJECT 2: MAKE PROVISION FOR PUBLIC AND NON-MOTORISED TRANSPORT

ACTIONS	SHORT TERM	MEDIUM TERM	LONG TERM	RESPONSIBLE AGENT	POTENTIAL SOURCES OF FUNDING	ESTIMATED COST	STAKEHOLDERS
Develop a pedestrian walkway and cycle lane along the southern side of the R560 between the Hekpoort Laerskool social node and the Dr Sefularo Mixed use node		X		Gautrans	Gautrans	R1 440 000	<ul style="list-style-type: none"> ▪ MCLM Development Planning ▪ MCLM Roads and Transport Services ▪ Taxi association ▪ Bus operators ▪ Gautrans
Develop a taxi and bus rank at the Hekpoort Laerskool mixed use and social node		X		MCLM Roads and Transport Services	Gautrans	R4 000 000	

21 GUIDANCE FOR LUMS

21.1 LUMS CLAUSES

The following Clauses contained in the Mogale City Local Municipality Land Use Scheme, 2019 – Final Draft are applicable to the Precinct.

SECTION 1: LAND DEVELOPMENT RIGHTS

PART IV: DEVELOPMENT RULES AND OVERLAY ZONES

It is proposed that an overlay zone be developed for Tourism Corridors for the entire Mogale City Local Municipal area.

SECTION 2: MANAGEMENT OF LAND DEVELOPMENT RIGHTS

PART V: LAND DEVELOPMENT REQUIREMENTS

32. GENERAL APPEARANCE AND CONVENIENCE

32.1 The Municipality may, if in its opinion any proposed building in any use zone in respect of which building plans have been submitted to it for approval will disfigure the environment or may for any reason whatsoever be detrimental to the amenity of the area, require the person who submitted such building plans, to furnish such further information, plans, models or other sufficient indication of the proposed building as it may, in its discretion, deem necessary, before considering

such building plans in terms of the provisions of its building Bylaws.

It is proposed that for this Precinct, especially, for the tourism corridor and the mixed-use corridor and node, additional criteria relating to the physical appearance and aesthetics for the buildings and landscaping for new development be considered. These are contained in the design guidelines in the Precinct Plan.

SECTION 3: PROMOTION OF LAND DEVELOPMENT

43. SPECIAL DEVELOPMENT ZONES

It is proposed that green infrastructure and appropriate natural landscaping should be considered during the approval of land use management schemes, rezoning, consent use and written consent applications and building plans. This is specifically important for the Magaliesberg Biosphere Reserve.

21.2 LUMS LAND USE ZONES

The proposed land use zones as contained in the Precinct Plan allows for the following land uses as defined in the Mogale City Local Municipality Land Use Scheme, 2019 – Final Draft.

The following land use zones as contained in the Mogale City Local Municipality Land Use Scheme, 2019 – Final Draft are applicable to the respective development categories contained in the Precinct Development Concept.

Table 5: MCLM LUS LAND USE ZONES

	MIXED USE ACTIVITY SPINE	MIXED USE NODE	SOCIAL NODE	TOURISM CORRIDOR	LOW DENSITY RESIDENTIA L	TOURISM ZONE	AGRICULTU RAL AREAS
RESIDENTIAL 1 1 dwelling unit per erf (100m ² - 4 000m ²)	NO	NO	NO	YES	YES	YES	NO
RESIDENTIAL 2 20 up to 40 dwelling units per ha	NO	NO	NO	NO	YES	NO	NO
RESIDENTIAL 3 41 to 60 dwelling units per ha	YES	YES	YES	NO	NO	NO	NO
RESIDENTIAL 4 61 dwellings per ha and higher	YES	YES	YES	NO	NO	NO	NO
RESIDENTIAL 5	NO	NO	NO	NO	YES	NO	NO
AGRICULTURAL RESIDENTIAL One dwelling unit per agricultural holding	NO	NO	NO	YES	NO	YES	YES
BUSINESS 1 Dwelling unit- 40 units / ha	YES	YES	NO	YES	NO	NO	NO
BUSINESS 2	YES	NO	YES	YES	YES	YES	NO

	MIXED USE ACTIVITY SPINE	MIXED USE NODE	SOCIAL NODE	TOURISM CORRIDOR	LOW DENSITY RESIDENTIA L	TOURISM ZONE	AGRICULTU RAL AREAS
Dwelling unit- 40 units / ha							
BUSINESS 3	NO	NO	NO	NO	NO	NO	NO
BUSINESS 4	NO	NO	NO	NO	NO	NO	NO
BUSINESS 5	NO	NO	NO	NO	YES	NO	NO
EDUCATIONAL	YES	YES	YES	YES	YES	YES	YES
COMMERCIAL	NO	NO	NO	NO	NO	NO	NO
COMMUNITY FACILITY	YES	YES	YES	YES	YES	YES	YES
INSTITUTIONAL	YES	YES	YES	YES	YES	YES	YES
INDUSTRIAL 1	NO	NO	NO	NO	NO	NO	NO
INDUSTRIAL 2	NO	NO	NO	NO	NO	NO	NO
AGRICULTURE	NO	NO	NO	YES	NO	YES	YES
PUBLIC OPEN SPACE	YES	YES	YES	YES	YES	YES	YES
PRIVATE OPEN SPACE	NO	NO	NO	YES	NO	YES	NO

22 ALIGNMENT

22.1 INTRODUCTION

This Section contains the alignment of the Precinct development proposals with:

- municipal SDFs
- SDFs of surrounding municipalities
- large strategic projects and sector alignment

22.2 MUNICIPAL SDF

The Precinct Plan is aligned with the MCLM MSDF, 2019.

22.3 SDFs OF SURROUNDING MUNICIPALITIES

The Hekpoort Precinct Plan does not impact on any surrounding MSDFs.

22.4 LARGE / STRATEGIC PROJECTS AND SECTOR ALIGNMENT

There is one large strategic project that will have a significant impact on the future of the Precinct. It is of concern that the different roleplayers are working in silos in the realisation of the project: Development of Dr Sefularo settlement as part of the Gauteng rapid land Release Programme.

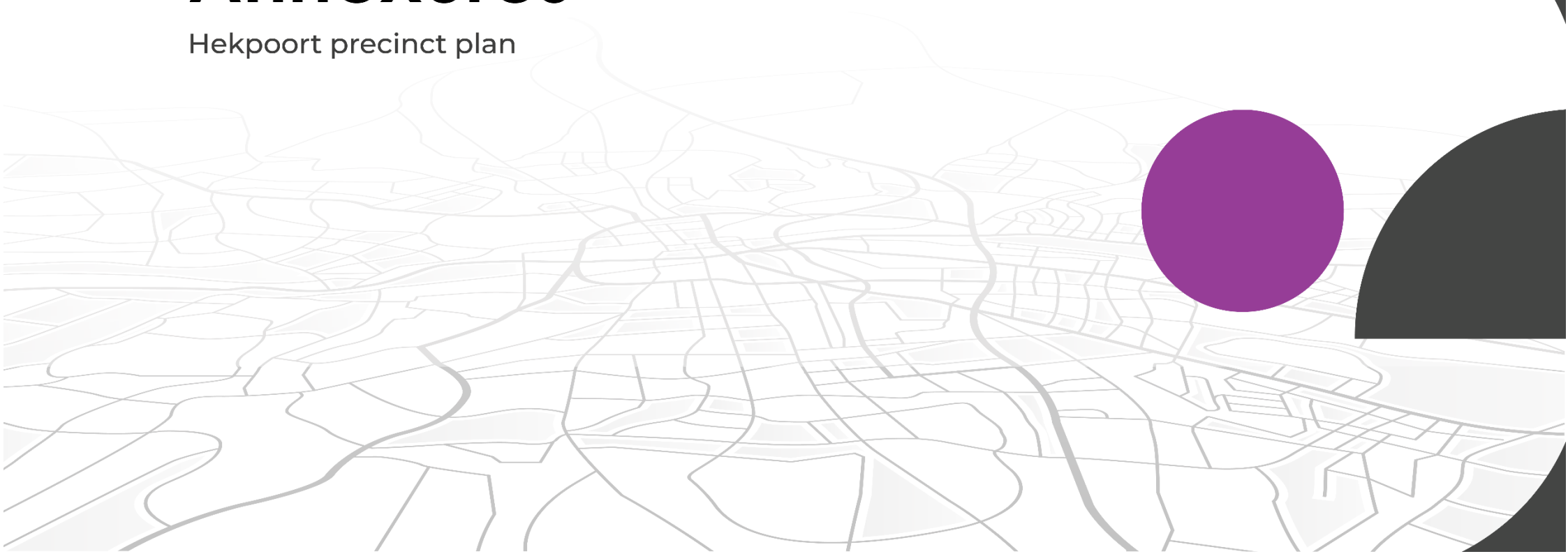
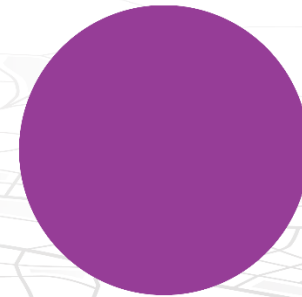
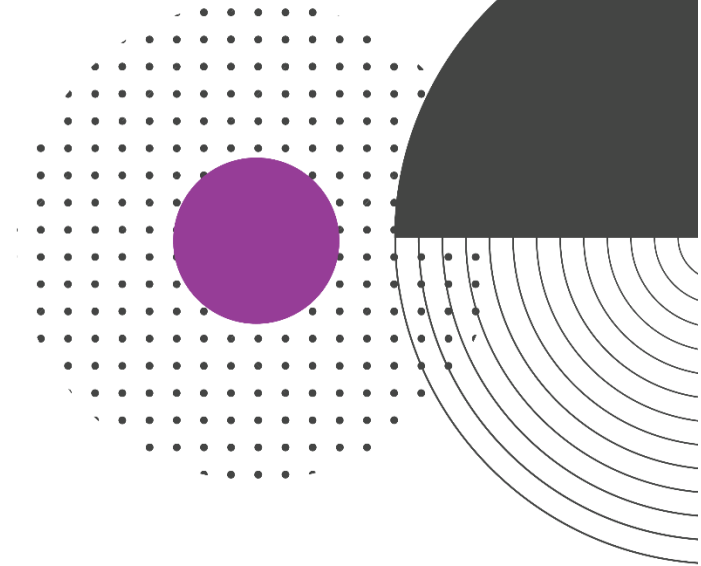
All departments linked to the provision of social facilities, local economic development, and tourism should be involved in the development of the Dr Sefularo settlements.



Figure 64: DR SEFULARO SETTLEMENT

Annexures

Hekpoort precinct plan



CoH WHS EMF LAND USE DEFINITIONS AND GUIDELINES

The definitions contained in the CoH WHS EMF differ somewhat from that in the LUMS and are supplementary to those in the LUMS in the sense that additional definitions are provided, and quantitative and qualitative criteria are included. It is ideal to develop an overlay zone to accommodate these definitions and guidelines. The definitions (adapted for the purpose of the Precinct Plan) that differ significantly from the MCLM LUMS are as follows:

- **“additional dwelling unit”** means dwelling unit that may be erected on an existing subdivided farm portion or agricultural holding where a permitted dwelling house has first been erected and no additional dwelling unit or structures exceeding this provision has been erected to date. The additional dwelling unit shall remain on the same cadastral unit as the dwelling house. Only a single additional dwelling unit is permitted on an existing subdivided farm portion or agricultural holding regardless of the size of the portion or holding. An additional dwelling unit including a parking structure, may not exceed 250m² coverage and the development footprint may not exceed 500m² per unit. The additional unit must be a single storey construction and must preferably be placed adjacent to the dwelling house to limit the visual impact of the proposed development to the original farmstead precinct.
- **“advertising on site”** means the placing of physical advertising signs and hoardings. This includes the attachment of banners and posters to existing infrastructure, walls or fences for advertising purposes. This excludes on site facility signs approved by the Local Authority.
- **“agricultural buildings”** means any permanent structures such as required for the parking and general storage of farm vehicles, implements and produce directly related to the farming activities on site. Any activity or structure that exceeds merely the storage

of the above such as packaging, sorting or commercial activity is excluded from the above provision.

- **“aircraft landing strips”** means any site prepared for use by the owner/user of an aeroplane to land or take off.
- **“associated infrastructure”** means the minimum infrastructure required to service a particular development which is aimed at best environmental practice and limited impact on the environment. The provision of sustainable methods such as grey water use, solar energy, ecological stormwater management etc. should be promoted.

In areas underlain by dolomitic conditions, the provision of on-site wastewater (sewage) treatment and stormwater runoff requires particular attention. Soak away “French drains” and septic tanks are not acceptable systems. Properly constructed and maintained conservancy tanks with sufficient capacity is the only acceptable option at present. Stormwater management should be aimed at the prevention of ponding of water.

In instances where access is required to properties beyond the existing surfaced road system, careful consideration should be taken of the visual and physical impact of surfaced (tarred) roads in the COH WHS. Alternative options ranging from well maintained and sited gravel surfaces to limited provision of cobbled or cement sections in areas that require high maintenance or vehicle traction problems should be considered in preference to surfaced (tarred) roads. Access pathways to individual units on a property should also be carefully designed and constructed with a width and length limited by visual and functional considerations in line with an approach aimed at minimum disturbance.

- **“bulk engineering infrastructure”** means the provision of large-scale engineering services and facilities not aimed at providing a direct link or service only to an individual property or erf. This

includes facilities such as wastewater treatment works, water purification plants, electrical substations and associated powerlines as well as link services excluding reticulation.

- **“business premises”** means a building or property from which business is conducted and includes a shop, office, financial institution and building for similar uses, but does not include a place of assembly, place of entertainment, institution, service station, motor repair garage, industry, industrial hive, noxious trade, risk activity, restaurant, adult entertainment business or bottle store.
- **“camping site”** means a property or part thereof in which tents and caravans are utilised for accommodation for temporary visitors, and includes ablution, cooking and other facilities for the use of such visitors and must comply with the following requirements: 1 site per property, maximum of 20 tents or 20 caravans at a density of 1 tent/ caravan/ 10 ha of property size with central ablution facilities including cooking/ washing. Each tent sleeps maximum 4 people.
- **“commercial antenna”** means a facility incorporating a high mast, for the transmission and/or receiving of electromagnetic waves, and includes a television station, a radio station, and a cellular communication tower.
- **“commercial kennel”** means kennel services for dogs, cats, and similar animals, and includes commercial breeding, boarding kennels, pet motels and dog training centres.
- **“conference facility”** means a place of assembly without overnight accommodation, which also supplies meals, which normally is an additional activity to a primary function such as a boutique hotel, guesthouse or restaurant and where the building restrictions will be those of the primary function, except that additional parking may be required.
- **“dwelling house”** means a permanent homestead for occupation by the owner of the property either full time or part time consisting of a single building or consolidated units (rooms)

(single storey) without any separate outbuildings or structures except for a structure providing for the parking of vehicles not exclusively used for farming purposes. Outdoor entertainment areas such as a swimming pool and braai area as well as all soft and hard landscaping areas must form a single consolidated unit with a limited and well-defined footprint. A dwelling house including a parking structure may not exceed 500m² coverage and the development footprint may not exceed 1 000m² per dwelling house.

- **“extensive agriculture”** means agriculture that involves the use of the natural vegetation without any attempt to increase its yield above that of the original condition, and/or the cultivation of up to 20ha of land for crops or pastures. This refers primarily to the grazing of livestock and game on natural veld but does allow for a limited amount of crop or pasture production. Included is the use of facilities such as dips, spray races, and holding kraals.
- **“farm labourer structures”** means any permanent structures for the bona fide occupation of farm labourers employed on the same farm portion including provision for soft and hard landscaping which must form a single unit with a limited and well-defined development footprint if not contained within the dwelling house footprint. Each structure should not exceed 60m² within a footprint of 100m².
- **“farmstall”** means a building, located on a farm, which does not exceed 100m² in floor space, including storage facilities, where a farmer sells products produced and processed on this farm to the general public.
- **“farm shop”** means a building, located on a farm, which does not exceed 100m² in floor space, including storage facilities, where the farmer sells goods, whether to his employees or to the general public.
- **“fossil research”** means all activities undertaken by an authorized scientist to excavate a site for fossil evidence or related scientific information within the boundary of the declared COH WHS and

buffer zone. Such excavation activity must be authorised by at least SAHRA and the CoH WHS Management Authority.

- **“guest house”** means an additional dwelling unit (250m²) which is used for the purpose of letting individual rooms for residential accommodation, with or without meals, provided that:
 - the property is retained in a form which can easily be re-used by a family as an additional dwelling unit; and
 - all amenities and provision of meals shall be for the sole benefit of bona fide lodgers.
- **“guided scientific tours”** means any formal tours undertaken by a suitably qualified and registered tour guide to any heritage site or fossil excavation site with the written permission of the landowner and relevant authorities.
- **“helistops”** means any site prepared for use by the owner/user of a helicopter to land or take off excluding sites required for use by emergency personnel.
- **“high density residential development”** means residential development of single privately owned stands and units with associated services in densities associated with urban development.
- **“holiday accommodation”** means a harmoniously designed and built holiday development used for holiday or recreational purposes, whether in private or public ownership, which:
 - consists of a single enterprise in which accommodation is supplied by means of short-term rental or time sharing only;
 - may include the provision of a camping site, mobile home park and dwelling units;
 - may also include a restaurant and indoor and outdoor recreation facilities; and
 - may include a boutique hotel and lodge.
- **“hotel/ boutique hotel/ lodge”** means property used as a temporary residence for transient guests, where lodging and meals are provided, and may include associated conference and entertainment facilities that are subservient and ancillary to

the dominant use of the property as a hotel/lodge, as well as premises which are licensed to sell liquor for consumption on the property, but does not include an off-sales facility. The facility is limited to a single hotel, boutique hotel/ lodge or consolidated units on a property with a maximum of 10 units per property at a density of 1 unit per 10ha of property size, each unit/ suite should not exceed 120m² and is limited to sleep a maximum of 3 people. In addition, conference and entertainment facilities in scale can be provided at a rate of 10m² floor space/unit up to a maximum of 100m². The primary structure including provision for conference/ entertainment should be a single storey development with a maximum building footprint of 700m².

- **“intensive agriculture”** means a farming system involving high yields of crop or livestock products by means of replacing or enhancing the natural agricultural resource base. Included are operations involving irrigation of crops or pastures by means of centre pivot irrigation systems including as example such activities as chicken batteries, egg packaging facilities and woodlands, etc.
- **“lifestyle estates”** means land containing residences usually developed in relation to significant open space, the latter which may (or may not) include other lower intensity uses such as recreation, golf courses or polo fields.
- **“low impact camping site”** means a property or part thereof in which tents are utilised for accommodation for visitors, and includes ablution, cooking and other facilities for the use of such visitors. These camping facilities must however be exclusively in support of low impact tourism activities such as horse riding, hiking and mountain biking and must comply with the following requirements: 1 site per property, maximum of 20 tents at a density of 1 tent/10ha of property size with central ablution facilities including cooking/washing. Each tent sleeps maximum 2 people.

- **“mining and quarries”** has the meaning assigned to it in the Mineral and Petroleum Resources Development Act, 2002.
- **“nature and heritage trails, mountain biking and horse trails”** means any formal trails used on a permanent basis for the conducting of any of the above non-motorised outdoor activities both on a commercial or non-commercial basis. The design and construction of these trails should be done in accordance with best management principles and facilities should make provision for public amenities normally associated with trail use.
- **“plant nursery”** means a property which is used for the sale of plants, gardening products and gardening equipment and excludes the commercial planting of trees or plants for horticultural purposes and excludes and coffee shop or restaurant facility.
- **“resort”** means facilities for overnight tourism accommodation which sleeps more than 15 people, a maximum of 10 units per property at a density of 1 unit per 10ha of property size, each unit/suite should not exceed 120m² and is limited to sleep a maximum of 4 people. The resort should be a single storey development or consolidate units with a maximum building footprint of 700m². In addition, conference and entertainment facilities in scale can be provided at a rate of 15m² floor space/unit up to a maximum of 150m².
- **“restaurant”** means a commercial establishment where meals and liquid refreshments are prepared and/ or served to paying customers for consumption on the property and may include licensed provision of alcoholic beverages for consumption on the property. The size is limited to a maximum of 100 patrons.
- **“roadside advertising”** means the placing of physical advertising signs and hoardings within the road reserve of any road. This includes the attachment of banners and posters to existing infrastructure, walls and fences for advertising purposes. This excludes on-site facility signs approved by the Local Authority.
- **“servant quarters”** means any permanent structure for the bona fide occupation by domestic workers employed on the same farm portion including provision for soft and hard landscaping which must form a single unit with a limited and well-defined footprint if not contained within the dwelling house footprint. This single building unit may not exceed 60m² and should be located within the footprint of the dwelling house or additional dwelling unit.
- **“service trade”** means an enterprise which is:
 - primarily involved in the rendering of a service for the local community such as the repair of household appliances or the supply of household services;
 - not likely to be a source of disturbance to surrounding properties;
 - employs at most 10 people;
 - not liable, in the event of fire, to cause excessive combustion, give rise to poisonous fumes or cause explosions;
 - includes a builder’s yard and allied trades, laundry, bakery, dairy depot and similar types of uses; but
 - does not include an abattoir, brick-making site, sewage works, service station or motor repair garage.
- **“tourism incentive accommodation”** means permanent provision of accommodation units on actively farmed properties to provide bona fide farmers with additional opportunity to generate income. Units may not exceed the following provisions: 1 unit per 10ha of property size, 5 units maximum per property, each unit limited to 150m² including a structure for the parking of a car, development footprint not exceeding 250m². Owner must submit a formal application for such unit/s and provide a detailed motivation including services provision for consideration. Land or units may not be transferred to any other person, organisation or group of people. Provision does not apply to already existing agricultural holdings.