2024

PRECINCT PLAN





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EXECUTIVE SUMMARY

1.1 INTRODUCTION

The Tarlton Precinct Plan is designed to guide sustainable development within the Tarlton area of Mogale City Local Municipality, addressing key challenges such as conflicting land uses, unplanned urbanization, and the vulnerability of agricultural land. The plan aims to establish a functional settlement structure that supports sustainable land use, social development, and economic growth through the promotion of appropriate land uses and interventions across short-, medium-, and long-term timelines.

Tarlton is located in the southern part of Mogale City, bordering the northern boundary of Rand West City Local Municipality. It sits at the intersection of the N14 and R24 highways, providing critical regional linkages to Krugersdorp, Magaliesburg, and Badirile. Tarlton encompasses agricultural holdings, informal settlements like Matshelapata, and planned residential developments such as Brickvale. The precinct faces significant pressure from external urban development due to its proximity to larger urban centers.

1.2 VISION AND OBJECTIVES

The vision for the Tarlton Precinct is to develop a functional, sustainable human settlement that plays a regional role as a service center within a larger productive agricultural zone. The plan's primary objectives are to:

- Establish Sustainable Human Settlements: Consolidate informal settlements and planned residential projects into a cohesive, functional urban form, with sufficient social facilities and infrastructure.
- Protect and Enhance Agriculture: Preserve highpotential agricultural land while promoting agricultural support services and agri-business ventures.
- Encourage Economic Development: Stimulate local economic growth through mixed-use development, tourism, and the promotion of small-scale enterprises.
- Provide Social and Public Infrastructure: Ensure adequate provision of schools, clinics, community centers, and public spaces to support the growing residential population.
- Balance Mobility and Accessibility: Upgrade transport infrastructure to accommodate both regional mobility needs and local accessibility, while improving pedestrian and public transport safety.

1.3 SPATIAL DEVELOPMENT CONCEPT

The spatial development strategy for Tarlton focuses on creating a balanced urban-rural interface, consolidating residential zones, enhancing agricultural productivity, and promoting mixed-use development along key corridors.

1.3.1 DEVELOPMENT CORRIDORS

The R24 and N14 highways are critical structuring elements for the precinct, providing regional connectivity and serving as key economic corridors. The R24 is identified as a mixed-use activity spine, accommodating retail, commercial, and light industrial activities. A mixed-use node is proposed at the intersection of the R24 and N14, serving as a focal point for economic and social activity.

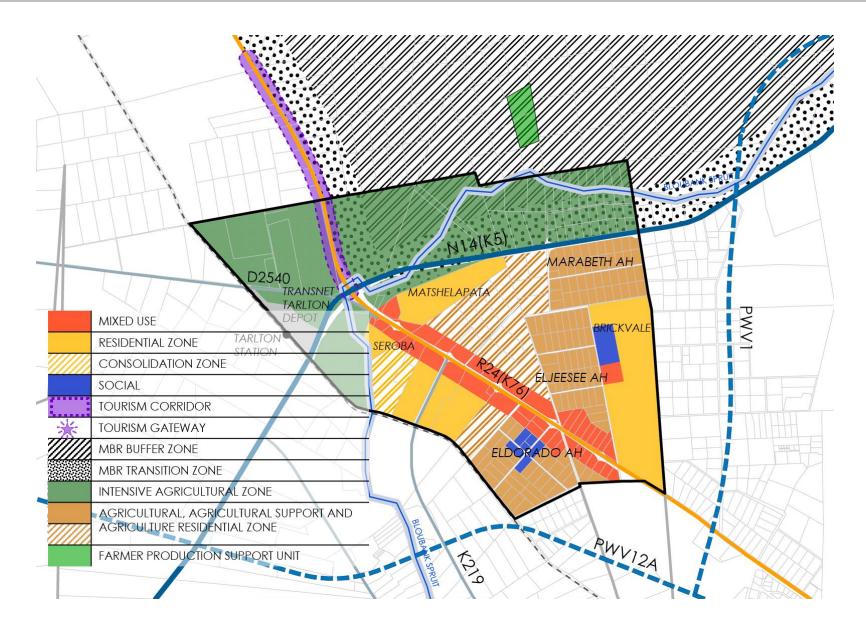
1.3.2 RESIDENTIAL ZONES

The plan consolidates residential development in specific zones, including:

- Brickvale Development: A large-scale residential project that will introduce over 6,000 housing units.
- Matshelapata and Seroba Informal Settlements: Upgrading these settlements is a key priority, with Matshelapata set for formalization and infrastructure improvements.
- Affrivillage Development: A proposed residential project that will accommodate 3,600 medium-density housing units.

1.3.3 AGRICULTURAL ZONES

Tarlton's agricultural potential is protected through the designation of agricultural zones. These zones will focus on intensive agriculture, particularly in areas with high agricultural potential. The plan promotes agri-business and agricultural support services, with the Tarlton Farmer Production Support Unit (FPSU) playing a key role in empowering smallholder farmers and enhancing vegetable production in the region.



1.4 ENVIRONMENTAL CONSIDERATIONS

Tarlton's environmental assets, including the Bloubank Spruit and ridges in the northeastern part of the precinct, are critical for biodiversity and water conservation. These areas are designated as CBAs and ESAs, requiring strict land-use controls to prevent habitat loss and degradation. Buffer zones around rivers and ridges will ensure that these areas are protected, while agricultural activities will be managed to prevent groundwater pollution from irrigation and runoff.

1.5 TRANSPORT AND INFRASTRUCTURE

The transport network in Tarlton is centered on the R24 and N14 highways, which serve both local and regional mobility needs. However, pedestrian-vehicle conflict is a significant issue, particularly near informal settlements. Proposed transport upgrades include:

- K5 and K76 Road Realignments: These upgrades will improve access to residential and commercial areas while reducing traffic congestion.
- Non-Motorized Transport (NMT): Pedestrian pathways and cycling lanes will be developed along major routes to improve safety and accessibility for residents who rely on walking and cycling.

Infrastructure upgrades are also planned for water supply, sanitation, and electricity. The Tarlton Bulk Water Supply project will include a new water reservoir and pipeline to meet growing demand. Similarly, the Brickvale Outfall Sewer will serve the

new residential developments, improving sanitation in the precinct.

1.6 ECONOMIC AND TOURISM DEVELOPMENT

Tarlton's economy is primarily agricultural, with a focus on high-intensity farming, including poultry and vegetable production. The Tarlton FPSU will play a central role in supporting smallholder farmers through the provision of mechanization, logistics, and training. The precinct also has potential for economic diversification, particularly through the development of mixed-use nodes along the R24 and N14, which will provide retail, commercial, and light industrial opportunities.

Tourism in Tarlton is limited but holds potential due to the precinct's proximity to the CoH WHS and MBR. The plan proposes a tourism gateway at the intersection of the R24 and N14, which will enhance the area's appeal to tourists traveling through the precinct.

Table of Contents

ı	INTR	ODUCTION
	1.1	THE PRECINCT PLAN
	1.2	THE TARLTON PRECINCT
	1.3	THE PROCESS
	1.4	STAKEHOLDER PARTICIPATION
	1.4.1	MUNICIPAL PUBLIC NOTICE6
	1.4.2	MUNICIPALITY MEDIA POST
	1.4.3	LOCAL NEWSPAPER
	1.4.4	PUBLIC DOCUMENT8
	1.4.5	WHATSAPP ADVERT8
	1.4.6	SOCIAL MEDIA9
	1.4.7	FOCUS GROUP MEETINGS
	1.4.8	PROJECT WEBPAGE
2	POLI	CY AND LEGISLATIVE FRAMEWORK
	2.1	SPATIAL POLICY FRAMEWORK
	2.1.1	WEST RAND DISTRICT MUNICIPALITY SDF, 2020 13
	2.1.2	MOGALE CITY LM SDF, 2019
	2.2	SPATIAL PLANNING AND LAND USE MANAGEMENT ACT 16 OF 2013
	2.3	INTEGRATED URBAN DEVELOPMENT FRAMEWORK (IUDF), 2016 16
3	THE	ECONOMY AND THE RESIDENTS
	3.1	INTRODUCTION

	3.2	MACRO-ECONOMIC PROFILE	18
	3.3	SPACE ECONOMY	18
	3.4	HOUSEHOLDS AND POPULATION	20
4	ENV	IRONMENTAL ANALYSIS	21
	4.1	RIVERS AND RIDGES	21
	4.2	ENVIRONMENTAL SENSITIVITY	21
	4.3	PROTECTED / CONSERVATION AREAS	22
	4.4	GEOLOGY	22
5	TRAN	nsport network	24
5	AGR	RICULTURE	26
	6.1	OVERVIEW	26
	6.2	TARLTON FARMER PRODUCTION SUPPORT UNIT (FPSU)	27
7	SPAT	TIAL STRUCTURE	32
	7.1	RESIDENTIAL PATTERNS	32
	7.2	HOUSING DEMAND	35
	7.3	HOUSING AFFORDABILITY RANGES	36
	7.4	SOCIAL FACILITIES	37
	7.5	RETAIL AND COMMERCIAL	39
	7.6	TOURISM	41
3	INFR	ASTRUCTURE	42
	8.1	ELECTRICITY	42
	8.2	WATER INFRASTRUCTURE	42
	8.2.1	BULK WATER SUPPLY	42
	8.2.2	REQUIREMENTS & PLANNING	42

16 DESIGN GUIDELINES	56
16.1 DESIGN GUIDELINES FOR MIXED-USE ACTIVITY SPINE	56
16.2 DESIGN GUIDELINES FOR MIXED USE ACTIVITY NODE	60
16.3 DESIGN GUIDELINES FOR SOCIAL NODES	62
16.3.1 ELDORADO SOCIAL NODE	62
16.3.2 ELJEESEE/ BRICKVALE SOCIAL NODE	64
16.4 DESIGN GUIDELINES FOR TOURISM CORRIDOR AND GATEWA	AY65
16.4.1 DEFINING A TOURISM CORRIDOR	65
16.4.2 DEVELOPMENT IN DOLOMITIC AREAS	68
17 STRATEGIC PROJECTS	70
17.1 DESCRIPTION OF STRATEGIES AND PROJECTS	70
17.1.1 STRATEGY 1: ENSURE THE DEVELOPMENT OF SUS	
17.1.3 STRATEGY 3: DEVELOP COMPLETE STREET NETWORK	
17.1.4 STRATEGY 4: SUPPORT TOURISM	73
17.1.5 STRATEGY 5: SUPPORT FPSU	
18 IMPLEMENTATION PLAN	75
19 GUIDANCE FOR LUMS	88
19.1 LUMS CLAUSES	88
19.2 LUMS LAND USE ZONES	88
20 ALIGNMENT	91
20.1 INTRODUCTION	91
20.2 MUNICIPAL SDF	91
20.3 SDFS OF SURROUNDING MUNICIPALITIES	91
20.4 LARGE / STRATEGIC PROJECTS AND SECTOR ALIGNMENT	91
	16.1 DESIGN GUIDELINES FOR MIXED-USE ACTIVITY SPINE

iii

List of Figures

Figure 1: LOCATIONAL CONTEXT	2
Figure 2: TARLTON PRECINCT	3
Figure 3: COMPONENTS OF STAKEHOLDERS PARTICIPATION PLAN	6
Figure 4: MUNICIPAL PUBLIC NOTICE	6
Figure 5: MUNICIPALITY MEDIA POST	7
Figure 6: LOCAL NEWSPAPER ADVERTISEMENT	7
Figure 7: MUNICIPAL DOCUMENT STATION	8
Figure 8: DIGITAL POSTER ADVERT	8
Figure 9: WHATSAPP POSTER ADVERT	9
Figure 10: FOCUS GROUP MEETINGS	9
Figure 11: PROJECT WEBSITE	. 10
Figure 12: WEBSITE DIRECTIONS	
Figure 13: INTERACTIVE MAP PLATFORM	. 11
Figure 14: MOGALE CITY SDF IMPLICATIONS FOR PRECINCT	. 14
Figure 15: SPACE ECONOMY	. 19
Figure 16: POVERTY INDICATORS	. 20
Figure 17: RIVERS AND RIDGES	. 21
Figure 18: ENVIRONMENTAL SENSITIVITIES	
Figure 19: PROTECTED AREAS	
Figure 20: DOLOMITIC CONDITIONS	. 22
Figure 21: ENVIRONMENTAL CONDITIONS	. 23
Figure 22: TRANSPORTATION	. 25
Figure 23: AGRI-PARKS MODEL	. 27
Figure 24: AGRICULTURAL POTENTIAL (GAPA IV)	
Figure 25: AGRICULTURAL ACTIVITIES	
Figure 26: AGRICULTURAL SUPPORT/ RELATED SERVICE	. 30
Figure 27: TARLTON FPSU	
Figure 28: AGRICULTURAL CONDITIONS	. 31
Figure 29: RESIDENTIAL PATTERNS	. 34
Figure 30: NET EFFECTIVE DEMAND	
Figure 31: HOUSING AFFORDABILITY RANGES	. 36
Figure 32: SOCIAL FACILITIES	. 37
Figure 33: SOCIAL FACILITIES IN PRECINCT	. 38
Figure 34: COMMERCIAL AND RETAIL FACILITIES	. 40

Figure 35: TOURISM PRODUCT	41
Figure 36: SYNTHESIS	
Figure 37: AGRICULTURAL ZONES	41
Figure 38: RESIDENTIAL ZONES	42
Figure 39: MIXED USE NODE AND ACTIVITY SPINE	43
Figure 40: SOCIAL NODES	
Figure 41: TOURISM CORRIDOR AND GATEWAY	45
Figure 42: MBR AND PETROPORT	
Figure 43: DEVELOPMENT CONCEPT	47
Figure 44: PROPOSED TRANSPORT NETWORK	54
Figure 45: MAGALIESBERG BIOSPHERE RESERVE	55
Figure 46: IMAGES OF MIXED-USE ACTIVITY SPINE	56
Figure 47: PUBLIC-PRIVATE INTERFACE	57
Figure 48: EXAMPLES OF ARTICULATED BUILDING FACADES	58
Figure 49: R24 STREET SECTION	59
Figure 50: EXAMPLES OF MIXED-USE ACTIVITY NODE	61
Figure 51: ELDORADO SOCIAL NODE	62
Figure 52: IMAGES OF ELDORADO SOCIAL NODE	64
Figure 53: EXAMPLE OF TOURISM GATEWAY PARK	67
Figure 54: EXAMPLE OF LANDMARK ELEMENTS	67
Figure 55: LANDMARK ELEMENTS WITHIN THE COH WHS	68
Figure 56: STRATEGY 1	71
Figure 57: STRATEGY 2	72
-igure 58: STRATEGY 3	73
-igure 59: STRATEGY 4	73
igure 60: STRATEGY 5	74

List of Tables

Table 1: FUNCTIONAL ROAD CLASSIFICATION	24
Table 2: YIELD PER COMMODITY	29
Table 3: LAND USE BUDGET	49
Table 4: SOCIAL FACILITY PROVISION	51
Table 5: MCLM LUS LAND USE ZONES	89

LIST OF ACRONYMS

NUSP National Upgrading Support Programme

LUMS Land Use Management SDZ Special Development Zone

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

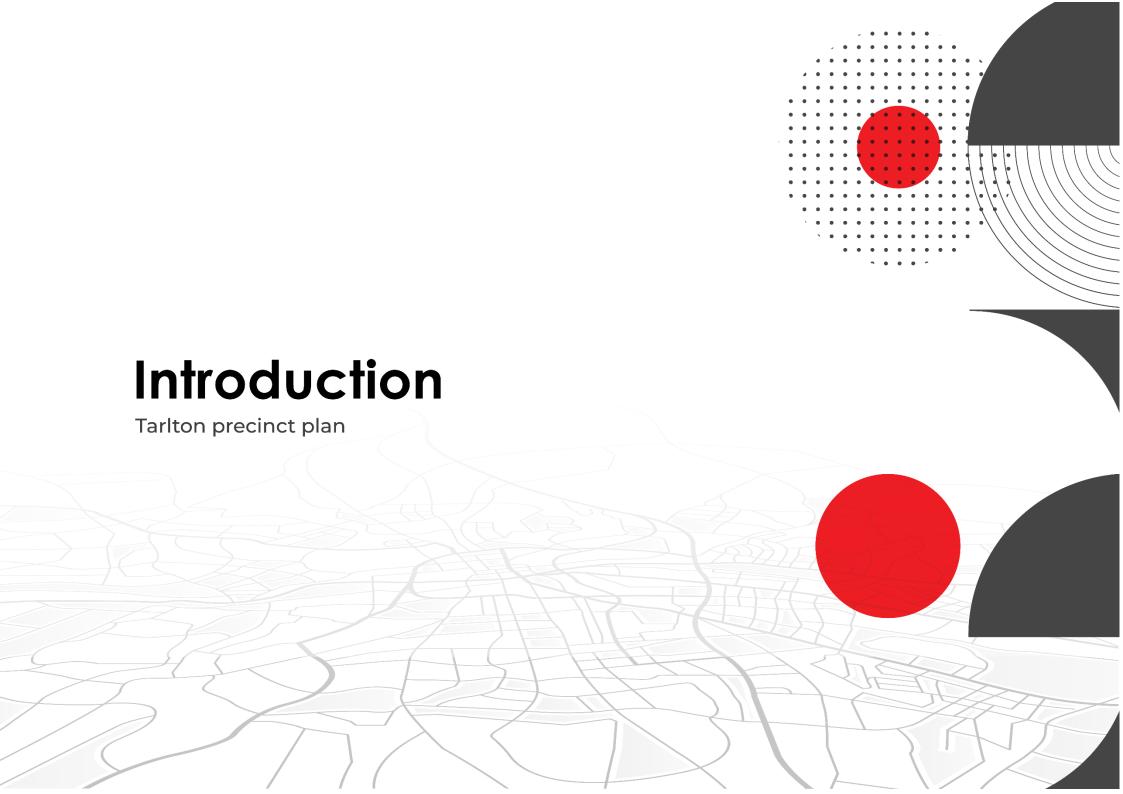
HDA Housing Development Agency
EIA Environmental Impact Assessment

WWTW Waste Water Treatment Works

MSDF Municipal Spatial Development Framework

CoJ City of Johannesburg
BNG Breaking New Ground

SHRA Social Housing Regulatory Authority



INTRODUCTION

1.1 THE PRECINCT PLAN

The Precinct Plan for Tarlton aims to guide development within the Precinct in order to promote sustainability and achieve environmental, social, and economic objectives through the promotion of specific land uses at specific locations, affecting 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 land use disparities.

The Tarlton Precinct Plan:

- is a planning tool that sets out a <u>vision</u> for the future development trajectory for the area.
- establishes a planning and management framework to guide development and land-use change.
- provides <u>strategies and detailed actions</u> 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 Tarlton Precinct is an area of conflicting land uses and ad hoc development creating a dysfunctional settlement structure. Agricultural land uses are

vulnerable to the development of informal settlements and the intrusion of urban development. The Precinct Plan thus takes cognisance of these competing functions whilst addressing the needs of the different stakeholders in a manner that will lead to the creation of a functional settlement form.

1.2 THE TARLTON PRECINCT

The Tarlton Precinct is situated in the southern extent of Mogale City Local Municipality, flanking the northern boundary of Rand West City Local Municipality. It is centred on the intersection of the N14 and the R24, linking to Badirile in the near south west, Magaliesburg to the north west, Muldersdrift to the east and Krugersdorp to the south east.

The Precinct is located almost equidistant from Magaliesburg, Randfontein CBD and Krugersdorp CBD and although the Precinct is located in Mogale City, it has significant linkages to Badirile to the south west in Rand West City Local Municipality.

It includes the agricultural small holdings of Marabeth, Eljeesee and Eldorado AH and is home to the Transnet Tarlton Depot. It also accommodates the proposed Brickvale Residential Development and a number of informal settlements, the largest being Matshelapata.

It is experiencing external urban development pressure from the adjoining areas of Magaliesburg and Muldersdrift.

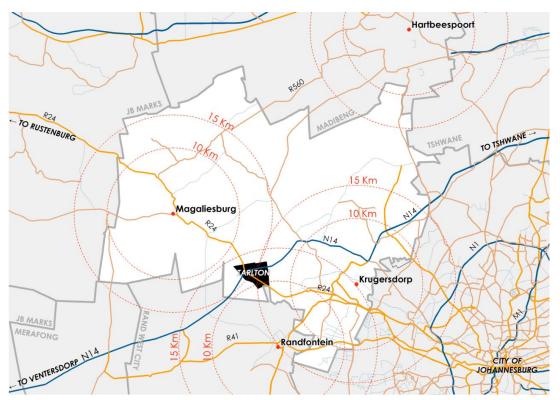


Figure 1: LOCATIONAL CONTEXT

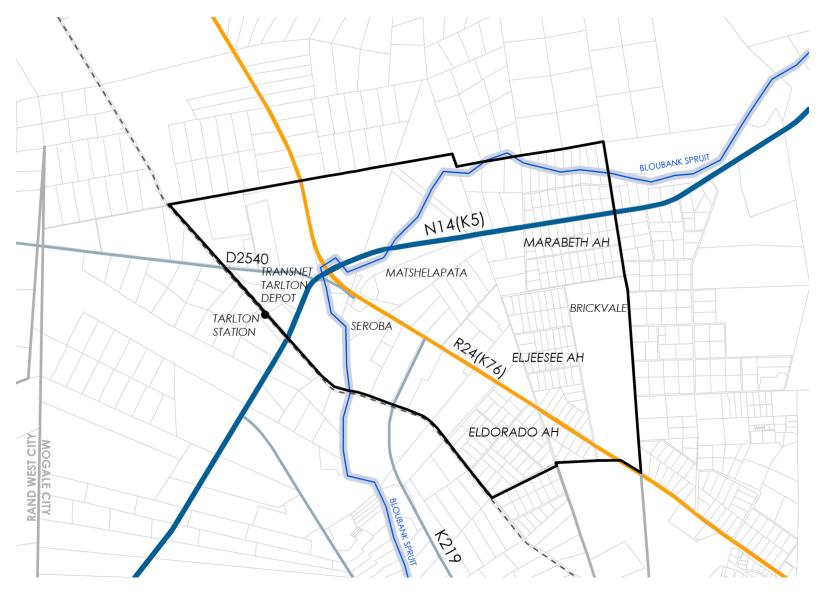
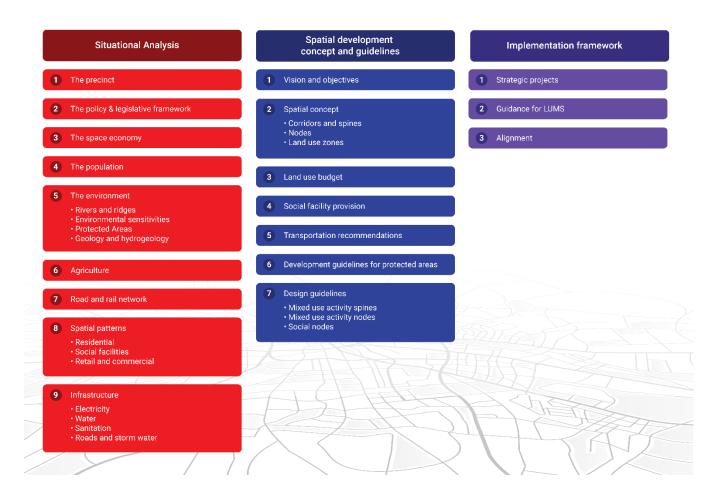


Figure 2: TARLTON PRECINCT



1.3 THE PROCESS

The process followed consisted of a situational analysis and synthesis, the development of a spatial concept, and the compilation of an implementation framework.



1.4 STAKEHOLDER PARTICIPATION

Stakeholders 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.

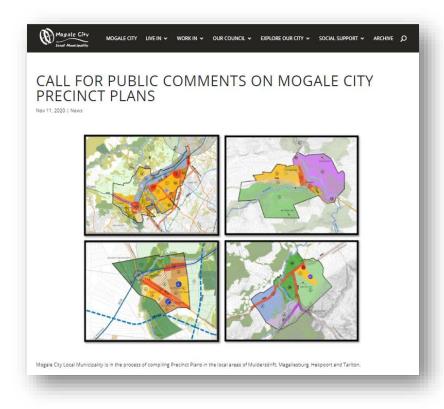


Figure 5: MUNICIPALITY MEDIA POST

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.

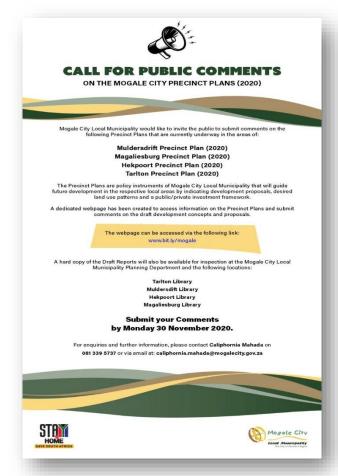


Figure 8: DIGITAL POSTER ADVERT

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.

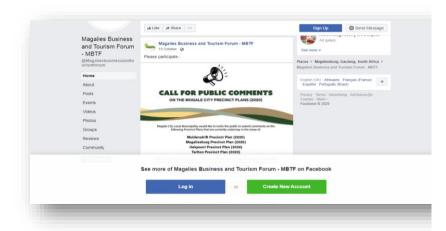


Figure 9: WHATSAPP POSTER ADVERT

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.

www.bit.ly/mogale



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.

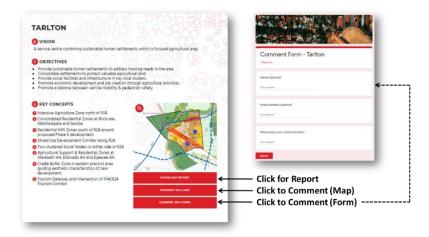




Figure 13: INTERACTIVE MAP PLATFORM



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. Both these SDFs have recently been approved.

2.1.1 WEST RAND DISTRICT MUNICIPALITY SDF, 2020

The West Rand District Spatial Development Framework, 2020 demarcates the Tarlton Precinct as a rural node. The Tarlton Precinct is seen as a lower order central place serving the surrounding rural areas, with agriculture and tourism being the primary economic sectors. Local opportunities in Tarlton include production crops, input logistics, transport, agroprocessing and abattoir. Tarlton is also classified as a Farmer Production Support Unit.

2.1.2 MOGALE CITY LM SDF, 2019

In terms of the Mogale City Spatial Development Framework, 2019, the Tarlton Precinct is demarcated as

an Agriculture/Tourism Node, which is usually associated with corridors. The Tourism Corridor in Tarlton is the northern (north of the N14 intersection) portion of the R24. Furthermore, only the R24 is regarded as a movement corridor.

Tarlton is mostly earmarked for Mixed Use Development, with a tourism area to the north east and an agri-industry/ green industry area to the north and west.

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

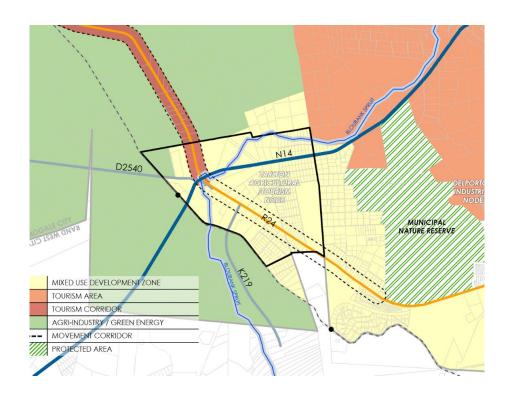


Figure 14: MOGALE CITY SDF IMPLICATIONS FOR PRECINCT

2.2 SPATIAL PLANNING AND LAND USE MANAGEMENT ACT 16 OF 2013

AIM

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

Principles

Good administration

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

Spatial sustainability

- Promote land development that is within fiscal, institutional and administrative means
- 2 Protect prime and unique agricultural land
- 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
- Promote land development in locations that are sustainable and limit sprawl
- **7** Ceate viable communities

Efficiency

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

Spatial justice

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

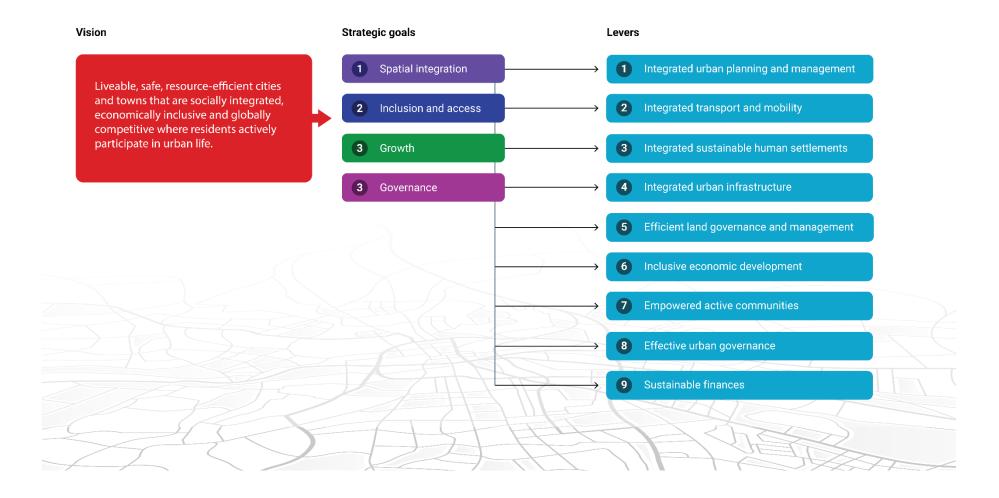
Link to LUMS

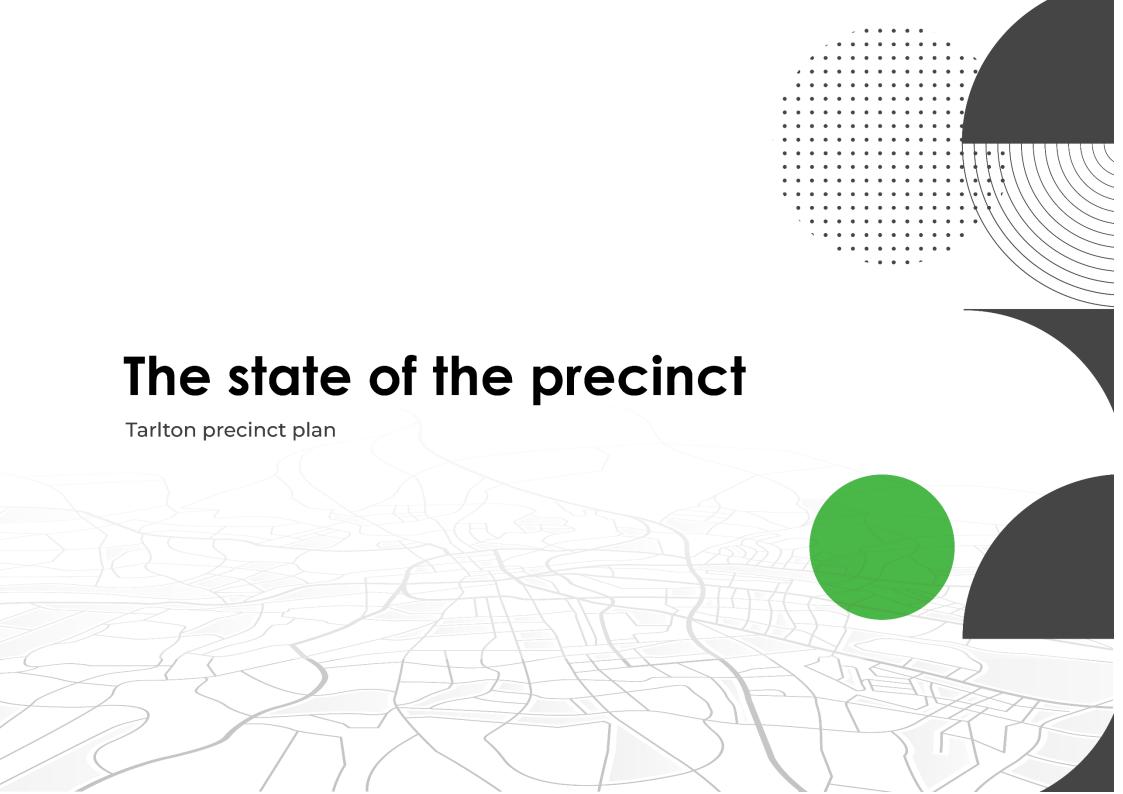
- Include provisions that are flexible and appropriate for the management of disadvantaged areas and informal settlements
 - Include provisions that accommodate access to secure tenure and the incremental upgrading of informal areas

Spatial resilience

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

2.3 INTEGRATED URBAN DEVELOPMENT FRAMEWORK (IUDF), 2016





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 Precinct:

- The local economy experienced a positive economic growth by increasing with 0.71% from 2017 to 2018 and a further 0.09% from 2018 to 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, Finance, insurance, real estate and business service with 4.98% growth and General Government and Community, social and personal services with 1.45%.
- Economic sectors that have shown economic decline include: Agriculture (-7.25%), Mining and quarrying (-9.47%), Manufacturing (-1.84%) and Electricity, gas, and water with a decline of 4.82% in 2019.
- The manufacturing sector (47.52%), followed by the Transport, storage and communication (25.94%),

General Government and Community, social and personal services sector (10.45%) make the largest contribution to the local economy.

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 Tarlton is small. The bulk of economic activities relate to agriculture followed by busines services.

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

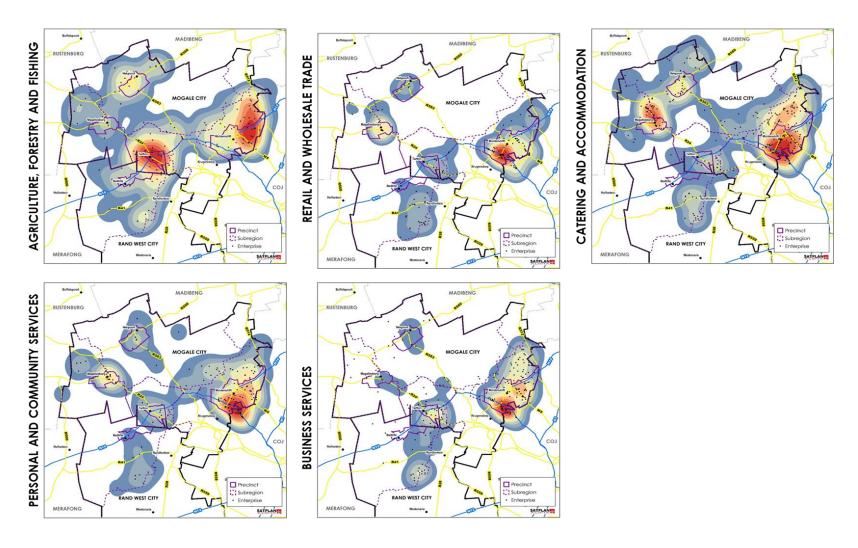


Figure 15: SPACE ECONOMY

3.4 HOUSEHOLDS AND POPULATION

Households exhibit the following characteristics:

- Household income: 58% of households fall within the low-income category.
- Secondary education: 40% of population.
- Population aged between 5 24 attending ordinary school: 55% of population.
- Employment rate: of 41% of population.
- Unemployment rate: 17.26% of population.
- Populations that are semi-skilled: 30% of population.
- Population that are low-skilled: 29% of population.

Low levels of unemployment and income are concentrated in areas with informal settlements.

The population has a low income, are unemployed and unskilled. In contrast the primary sectors of the economy where residents can be employed are declining.

Poverty is concentrated south of the N14 and is manifested in areas containing informal settlements.





Figure 16: POVERTY INDICATORS

4 ENVIRONMENTAL ANALYSIS

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

4.1 RIVERS AND RIDGES

The Bloubank Spruit traverses the area in the northern and western part of the Precinct. It is a perennial river that is critically endangered. A 32m buffers is applicable.

The topography of the Precinct is relatively flat with a class one ridge in the north-eastern edge of the Precinct. A 200m buffer is applicable.

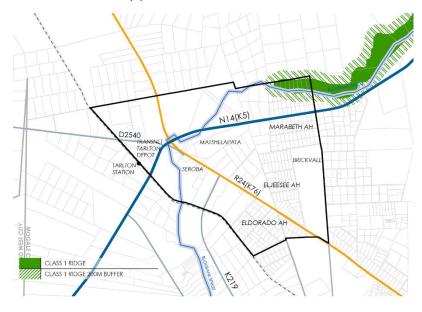


Figure 17: RIVERS AND RIDGES

4.2 ENVIRONMENTAL SENSITIVITY

Bloubank Spruit is surrounded by Critical Biodiversity areas (CBAs) and Environmentally Sensitive Areas (ESAs). The land status data for the area indicates that Tarlton Precinct status is classified as vulnerable.

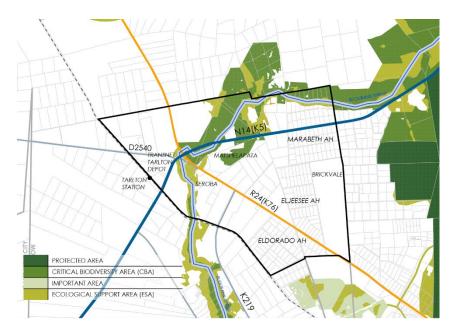


Figure 18: ENVIRONMENTAL SENSITIVITIES

4.3 PROTECTED / CONSERVATION AREAS

There are three protected / conservation areas in and around the Precinct:

- The Magaliesberg Biosphere Region (MBR) which is a UNESCO site is to the north of the N14 and east on the R24.
- The Cradle of Humankind World Heritage Site (CoH WHS is to the north-east of the Precinct.
- The Krugersdorp Municipal Nature Reserve to the east of the Precinct.

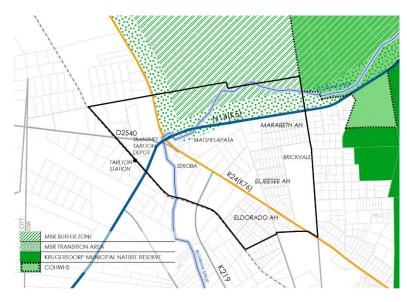


Figure 19: PROTECTED AREAS

4.4 GEOLOGY

The entire Precinct falls within a dolomite belt with differing hydrogeological conditions: Steenkoppies and Zwartkrans dolomite compartments. Major sources of groundwater pollution include sewage effluent and agricultural run-off and the compartments have been exploited through the abstraction of groundwater primarily for agricultural irrigation that have led to declines in groundwater levels.

The dolomite affects all new development due to the potential formation of sinkholes.

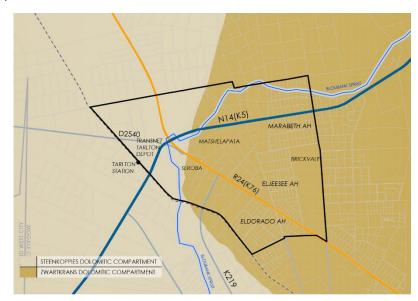


Figure 20: DOLOMITIC CONDITIONS

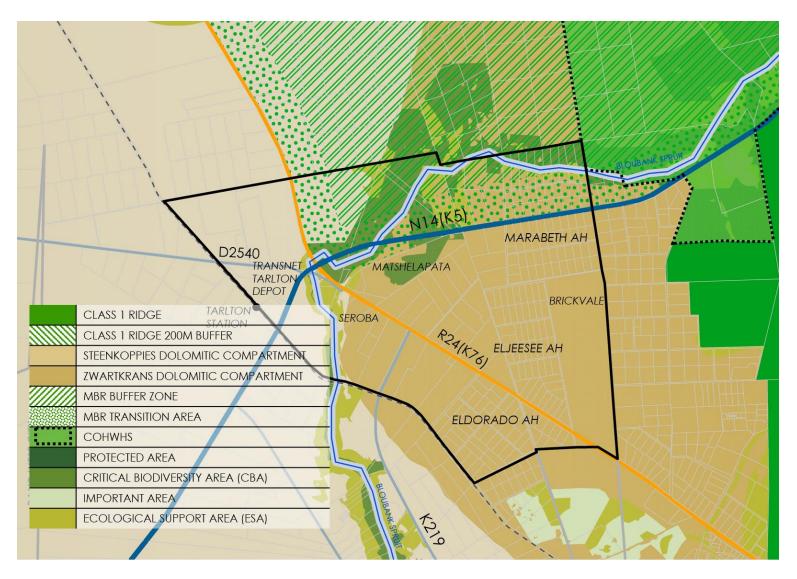


Figure 21: ENVIRONMENTAL CONDITIONS

5 TRANSPORT NETWORK

The functioning and character of Tarlton is to a large degree defined by the two major routes that intersect in the north-western portion of the Precinct:

- R24: east west link between Krugersdorp through Tarlton to Magaliesburg and Rustenburg
- N14: the north south link between Muldersdrift and Tshwane to the north and Ventersdorp to the south

Table 1: FUNCTIONAL ROAD CLASSIFICATION

CLASSIFICATION	DESCRIPTION
Class 1 Principal arterials	Planned PWV12A
arrenais	Planned PWV1
Class 2 Major	N14 (K5/ P28-1)
arterials	R24 (K76 / P16-1)
	K219 along Road D1726
Class 3 Minor arterials	D2540. The road will have to be diverted to comply with Gautrans standards.

The R24 and N14 create high levels of regional accessibility, but pose a problem of vehicular-pedestrian conflict, especially since both routes are major freight routes.

A high proportion of person-trips are made as pedestrian, non-motorised transport, or public transport due to the very low vehicle ownership level of the local community. Passenger transport is exclusively road based with minibus taxis being the only mode of public transport. There is only one informal taxi rank located on the R24 close to its intersection with the N14.

The railway line from Magaliesburg via Tarlton station to Krugersdorp and Johannesburg forms the western boundary of the precinct.

One of the biggest concern raised by stakeholders is the number of accidents on the N14 as well as the conflict between pedestrians and vehicles, especially close to informal settlements.



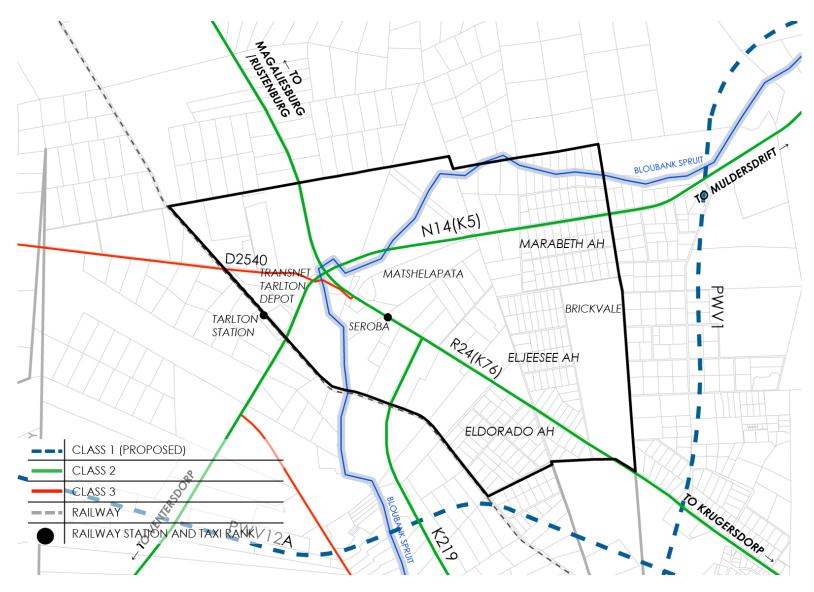


Figure 22: TRANSPORTATION

6 AGRICULTURE

6.1 OVERVIEW

Agriculture is a key element within the Tarlton Precinct and is seen as the breadbasket of the Municipality and the Province. The bulk of the Precinct is zoned for Agriculture or Agriculture + (74% - 1086ha). The Land Capability analysis of GAPA IV shows arable land in the Precinct ranging between high to moderate potential.

High-intensity agriculture in the form of pivotal irrigation and greenhouse tunnels are mostly found along the Bloubank Spruit. These activities are clustered in the northern part of the Precinct, on the north-western corner of the N14/ R24 intersection and adjacent to the western boundary of the Precinct. Given the agricultural status afforded the Precinct, these activities should be protected and enhanced. However, a significant proportion of the high potential arable land is coming under increasing pressure from urbanisation and the intensity of agricultural activities is now higher outside of the Precinct than inside. An example is Greenway Farms.

Poultry farming in the central-northern area, is a substantial agricultural activity. Depending on the type of poultry farming, buffers might be required (typically 250m), thereby sterilising land for development.

The agricultural holdings within the Precinct contain a variety of agricultural support services such as tractor repair services, and agricultural-related activities such as

nurseries, and although not being used for agriculture per se, still play an important role in the agricultural functioning of the Precinct.

Agriculture can have a negative impact on the environment, specifically with regards to extraction of water from the dolomite compartments for irrigation purposes, and from agricultural run-off.



Mzansi farmer leads the world in carrot juicing

SA's largest carrot grower is also the first to use revolutionary juice extraction process
By Chris McCullouan. 2019

When South African carrot grower Vito Rugani wanted to add value to his harvest he embarked on a journey two years ago to produce his own juice from second grade vegetables.

Now he is the only farmer in the world that uses nothing but the natural vegetable to produce the carrot juice and has plans to introduce others. Greenway Farms Ltd is run by business partners Vito Rugani and Vincent Sequeira and operates 2 500 hectares of vegetables with irrigation pivots on three segarate farms.

Having introduced the Rugani carrol juice to the business equation two years ago, chief executive Vito has big plans to extend his juice extraction process to other vegetables as well, possibly even to produce sweet potato juice.

Original article https://www.foodformzansi.co.za/mzansi-farmer-leads-the-world-in-carrot-juicing/

Today, Together with his business partner and chief operations officer, Sequeira, Vito has grown Greenway Farms Ltd Into the biggest producer of carots in South Atrica. However, not content with just having the best carots, Vito lash has view ambitious goals to produce the best quality vegetable juices he can, making his business more efficient by using more of his second grade carrots and other vegetables in the process.

Carrots have a four month growing season, so Vito staggers his own growing process on the three farms to ensure an even production all year round. With one farm on the highveld of Tartlon, Gauleng Province, about 75km west of Johannesburg, the other two are located at Boskop in the Waterberg in Limpopo and Christiana in the Free State.

When harvesting is at the two furthest away farms the carrots are transported to the Tarlton factory by truck.

All told the farm produces in excess of 60,000 fonnes of carrots per year of which 75 percent are premium grade carrots for sale to the end consumer. The remaining 25 percent is second grade which can be luiced.



6.2 TARLTON FARMER PRODUCTION SUPPORT UNIT (FPSU)²

Tarlton is identified as a Farmer Production Support Unit (FPSU) which forms an important part of the Agri-Parks Programme of the Department of Agriculture, Land Reform and Rural Development. The primary objective of the FPSU is to empower smallholder farmers within the district, thereby increasing the quality and quantity of vegetable production as well as the income generated by the farmers.

Portions 29 and 32 of the Farm Vlakdrift 163 IQ, the site of the FPSU, is currently used by GDARD for a vegetable production project as well as for service provision to farmers. The Tarlton area was selected for its favourable location and accessibility to nearby farmers.

The Agri-Parks model consists of the following three components:

- Farmer Production Support Unit (FPSU) Several per district
- Agri-hub One per district
- Rural Urban Market Centre (RUMC) One per province

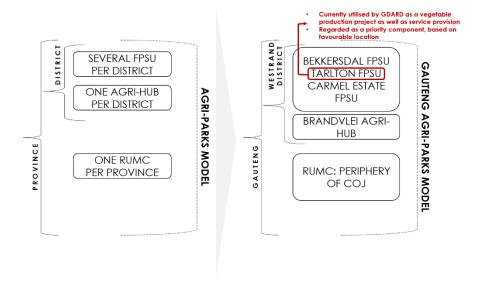
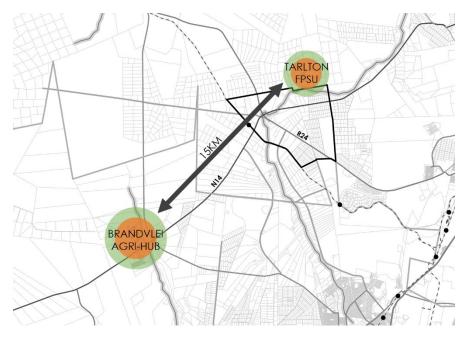


Figure 23: AGRI-PARKS MODEL

The Tarlton FPSU is very well located in terms of the proposed Brandvlei Agri-hub 15km to the south west in Rand West City LM.

² Tarlton FPSU Business Plan – Aug 2018



As mentioned earlier, the main objective of the FPSU is to assist and empower smallholder farmers, thereby increasing the quality and quantity of vegetable production within the district as well as the income generated. The following functions should be provided by the Tarlton FPSU:

- Input support: Provision of production inputs such as seedlings, fertiliser, pesticides, herbicides, and fuel that are required for vegetable production in the MCLM.
- Mechanisation support: It is recommended that the FPSU can provide the farmers with tractors, implements, equipment, as well as the other machinery required for vegetable production.

- Logistics support: It is advised that the FPSU should transport the required machinery and inputs to the farmers when required. Furthermore, it is also predicted that the FPSU services will include the transport of the vegetable produce to the Brandvlei Agri-Hub or other external markets.
- Practical and theoretical training: Specific vegetable production training must be provided by the FPSU. It is advised that theoretical and practical training are provided to the farmers, while the existing vegetable production located at the Tarlton FPSU can be used for practical training like planting, chemical application, growth monitoring, and harvesting.
- Specialised vegetable storage: It is recommended that the FPSU provides a cold storage facility which can preserve the quality of the produce until it is transported to the Agri-Hub or other available markets. All washing and packaging of produce should take place at the Brandvlei Agri-Hub.
- General storage: The proposed FPSU can provide facilities for the general storage of mechanisation and production inputs used for vegetable production.
- Market intelligence: It is predicted that the FPSU will provide the farmers with important market information like the price trends of specific vegetable commodities, local demand, international demand, as well as weather and pest warnings. It is advised that the FPSU should provide the farmers with market intelligence via information sessions at the FPSU, newsletters, brochures, or an Agri-Parks application for cell phones.

Extension support: It is recommended that the FPSU should provide extension services such as tractor driving, spraying, and harvesting, in order to ensure optimal vegetable production in the MCLM.

It is recommended that Tarlton FPSU should provide production support to the vegetable farmers in MCLM, as well as to the enterprise development activities of the FPSU itself. It is expected that the Tarlton FPSU will have a support capacity of 200 ha of vegetable production.

Through the support of the FPSU, it is expected that the vegetable production will be approximately 6 000 tonnes per season. The breakup is tabled below:

Table	2. YIFI	D PFR	COMM	MODITY

Commodity	Yield per hectare
Tomatoes	45 tonnes
Onion	25 tonnes
Carrots	30 tonnes
Cabbage	50 tonnes
Spinach	30 tonnes
Cucumber	15 tonnes
Peppers	30 tonnes
Baby Marrow	12 tonnes
Average yield	30 tonnes
Total Yield	6 000 tonnes

The following recommendations are made:

 Training provision should be a focus point of the FPSU services.

- An audit should be conducted on each individual farm, in order to establish the availability and condition of available infrastructure.
- A support programme can be implemented to establish agricultural infrastructure on the respective farms, with emphasis on irrigation, and vegetable tunnels.
- Communal mechanisation should be provided by the FPSU, which can be shared by the farmers that are supported by the project.
- The Brandvlei Agri-Hub should provide the farmers with off-take agreements, to secure constant income for the farmers.
- Cold storage is a critical infrastructure requirement to be provided by the FPSU.
- The FPSU should transport the produce of the farmers to the Agri-Hub or other available markets.



Figure 24: AGRICULTURAL POTENTIAL (GAPA IV)

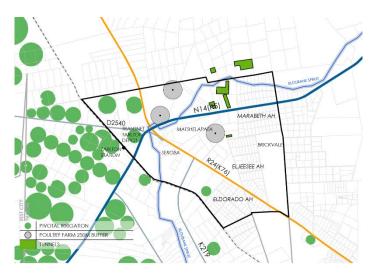


Figure 25: AGRICULTURAL ACTIVITIES

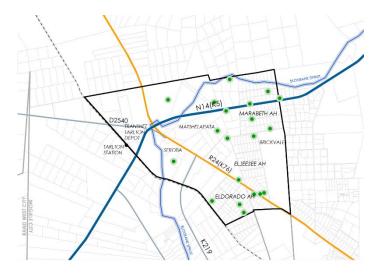


Figure 26: AGRICULTURAL SUPPORT/ RELATED SERVICE

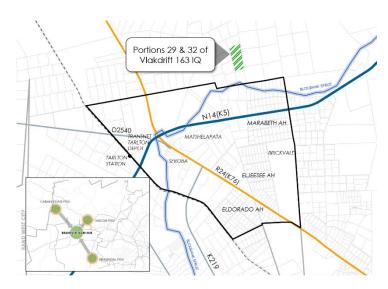


Figure 27: TARLTON FPSU

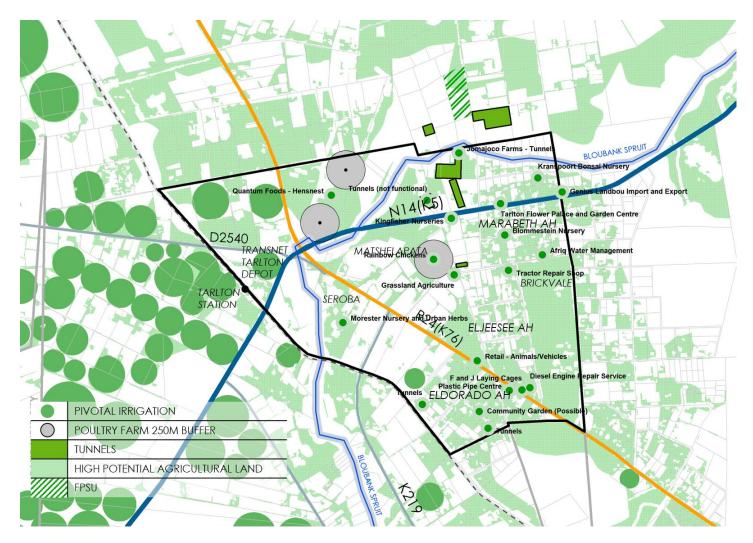


Figure 28: AGRICULTURAL CONDITIONS

7 SPATIAL STRUCTURE

There is no clear land use pattern in the Tarlton Precinct and most uses are ad hoc and to a certain extent in conflict with each other.

7.1 RESIDENTIAL PATTERNS

Although the largest part of the precinct is sparsely inhabited, there is a concentration of structures in informal settlements as well as the densification of the agricultural holdings, especially Marabeth AH.

There are four **agricultural holding** areas with properties of approximately 2ha in extent: Marabeth, Eljeesee, and Eldorado. These were established around the 1940s and formed a wedge between the agricultural land to the west and the residential development to the east. The character of the agricultural holdings is changing, and many contain commercial activities, the bulk of which are illegal. Most commercial activities relate to agricultural support services.

Informal settlements of different sizes and intensities are scattered throughout the study area. It is estimated that almost 70% of residents live in informal structures. Several are clustered along the R24 linking the area with Krugersdorp and Magaliesburg. The growth of informal settlements has been linked to farm evictions. It is also an indication of the development pressure in the area due the proximity of the Precinct to urban settlements such as Krugersdorp where job opportunities are concentrated.

Matshelapata, the largest of the informal settlements is earmarked for upgrading, as is Seroba. The land on which Matshelapata is located, is in the ownership of the Local Municipality. All other informal settlements are designated for relocation, due to the small number of units, unfavourable natural conditions, or land ownership.

In addition to informal settlement upgrading projects, there are two **proposed residential developments** within the Precinct: Brickvale on the eastern boundary and Affrivillage on the western boundary.

The so-called Brickvale development will accommodate 6 480 erven of which 3 776 erven will be Residential 1; and 21 erven will be Residential 4. The land on which Brickvale is located is in the ownership of the Provincial Government. The development of Brickvale will have a significant impact on the character and functioning of the entire Precinct as it will introduce medium to high density residential development in the Precinct and covers around 10% of the Precinct. Although construction has commenced. the township establishment application has not yet been approved and the project is embroiled in controversy.

Affrivillage is still in conceptual phase. It will consist of approximately 3 600 units consisting of a variety of medium density residential typologies.





















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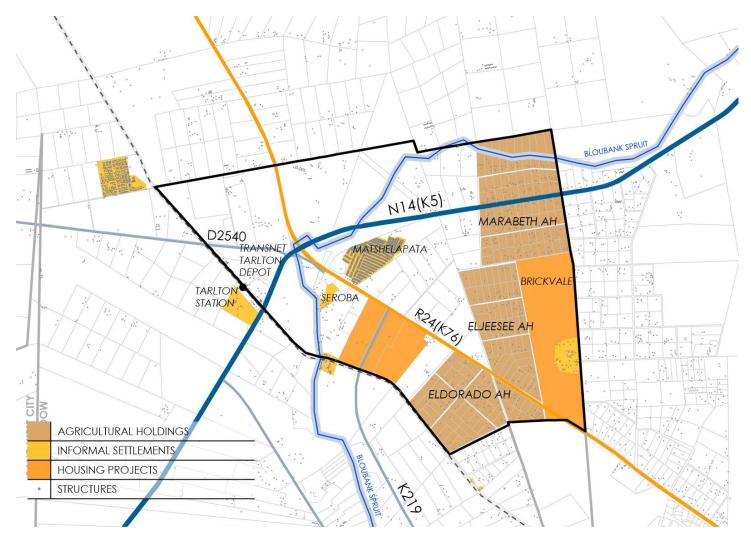


Figure 29: RESIDENTIAL PATTERNS

7.2 HOUSING DEMAND

According to the socio-economic study undertaken for this Precinct Plan, there are currently $\pm 3\,900$ households in the Precinct. This is projected to grow to $\pm 5\,200$ households by the year 2035, based on population growth trends over the past five years. The cumulative net effective residential demand for the larger region is projected to grow by $\pm 1\,300$.

There are an estimated $\pm 3\,800$ households living in informal settlements in and around the Precinct that should be accommodated in the Precinct. It is thus estimated there will be a demand for $\pm 5\,100$ dwelling units by 2035.

The projected housing supply should all housing projects realise (Brickvale, Affrivillage, Seroba and Matshelapata) will yield approximately 9 500 units. This outstrips the housing demand by 4 400 units until the year 2035, based on information currently available.

This figure should be dealt with circumspection and it should be noted that the growth of informal settlements in this Precinct and its surroundings has accelerated over recent years and is not necessarily reflected in the cumulative net effective demand. Tarlton can further be used to relocate some of the more outlying informal settlements such as Thabong, in order to bring residents of these settlements closer to job opportunities and social facilities.



Figure 30: NET EFFECTIVE DEMAND

7.3 HOUSING AFFORDABILITY RANGES

Housing affordability ranges for both rental and bonded housing have been determined to inform the level of affordability between the various income groups within the market area, based on the annual household income figures and population features. By far, the largest demand is for fully subsidised residential units, followed by CRUs and the lower cost brackets of FLISP housing. There is hardly any demand for social housing, affordable housing or middle- and high-income housing.



Figure 31: HOUSING AFFORDABILITY RANGES

7.4 SOCIAL FACILITIES

There are limited social facilities in the Precinct which is to be expected given the semi-rural nature of the area. This will however become a problem, given the large residential developments and informal settlement upgrading projects proposed for the Precinct.

The largest cluster of social facilities is in Cecilia Street off the R24 in Eldorado AH. This street contains the police station, the ward offices, the clinic, the Nelson Mandela hall, the library, and the Unity Primary school.

There is no secondary school in Tarlton, and learners have to travel to Badirile for schooling.

Social facilities, within Matshelapata, include religious facilities, a sports field and a pre-school located adjacent to the R24. There is also a mobile clinic.

What is concerning is that it appears as if the proposed developments do not make provision for sufficient social facilities, especially higher order facilities such as a secondary school.

There are limited social facilities within the wider, mostly rural region, and the Tarlton Precinct must therefore provide not only in the needs of the residents within the Precinct, but also in the needs of residents living in the surroundings, thereby increasing the demand for social facilities within the Precinct.



Figure 32: SOCIAL FACILITIES

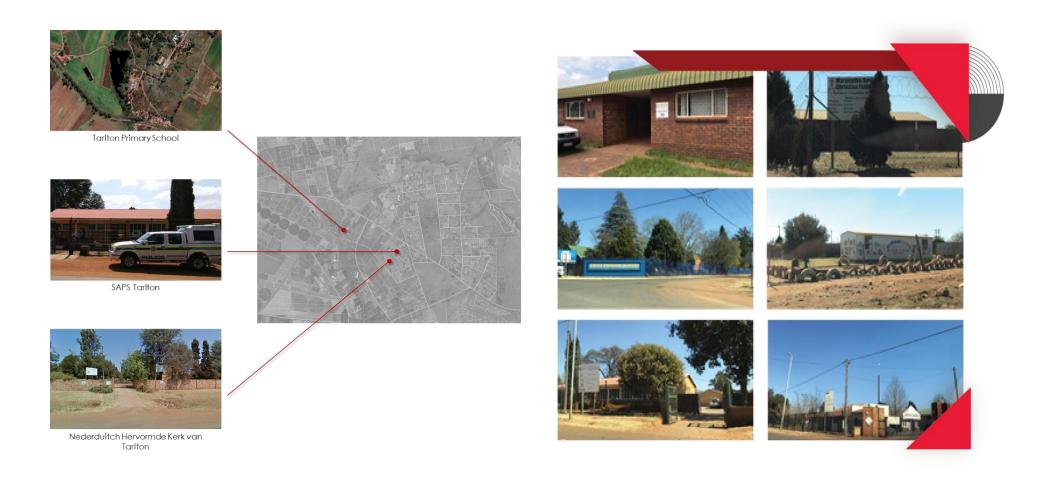


Figure 33: SOCIAL FACILITIES IN PRECINCT

7.5 RETAIL AND COMMERCIAL

Retail and commercial activities are drawn to the visibility and accessibility afforded by the N14 and the R24 and several businesses have already located along these routes, legally and/or illegally. Development is more prevalent along the R24.

Retail facilities are limited and generally of a low-quality, forcing residents to shop elsewhere, such as in Krugersdorp. The highest concentration of activities especially retail activities at the intersection of the N14 and the R24 with amongst others the Tarlton Supermarket and the Exel garage. This is also where informal trade is focused.

There are some commercial activities located within the agricultural holdings. Many are related to storage, vehicles such as tyre repair and engine building, and agriculture. Many of these activities are illegal.

A significant commercial development in the area is the Transnet Tarlton Depot on the western boundary of the Precinct, just north of the N14. It consists of a 30 million litre tank farm with road and rail loading facilities to facilitate cross border deliveries to Botswana. Its peripheral locality means that is has a small spatial impact on the development of the Precinct.

















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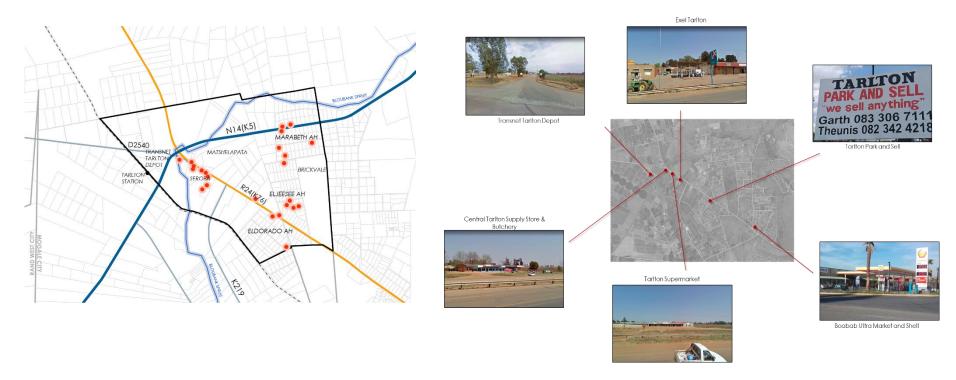


Figure 34: COMMERCIAL AND RETAIL FACILITIES

7.6 TOURISM

The Tarlton Precinct has a relatively low tourism product, with no major tourism facilities located within the Precinct although it is located in close proximity to the CoH WHS and the Magaliesberg Biosphere Region, and the N14 as well as the R24 (to the north of the N14) are classified as Tourism Corridors.

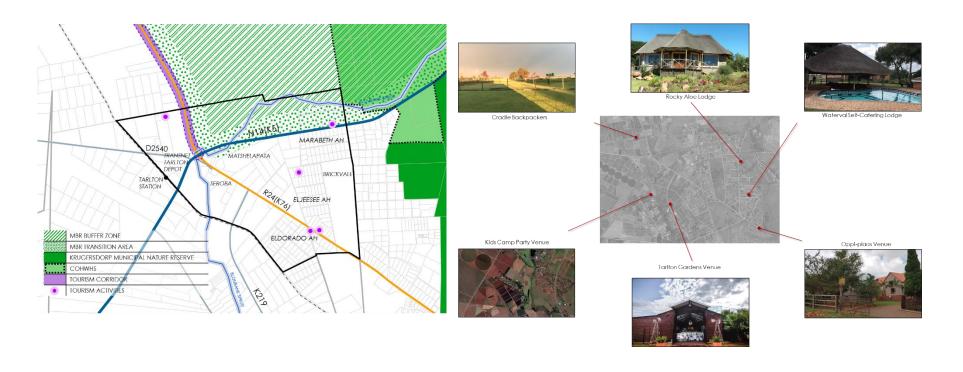


Figure 35: TOURISM PRODUCT

8 INFRASTRUCTURE

8.1 ELECTRICITY

The Precinct 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 Tarlton substation. Mogale City Local Municipality does not have any electrical infrastructure in the area.

The Tarlton substation details are as follows:

- Installed transformers: 2 x 20 MVA.
- Substation voltage: 132/11kV
- Existing maximum Notified Demand: 21.2 MVA
- Spare capacity: Firm capacity exceeded.

Eskom indicated that the upgrade for this substation is planned for 2022 and that 1 \times 40MVA transformer will be added.

Other than the Tarlton substation Eskom have 11kV rural overhead extensive lines supplying the area with electricity.

8.2 WATER INFRASTRUCTURE

8.2.1 BULK WATER SUPPLY

A bulk water pipeline from Randwater, supplying water to Rustenburg, traverses the Precinct in a south to north direction. A connection point is to be provided on the pipeline where it intersects Road R24 (Rustenburg Road) i.e., 3km south of the southern boundary of the precinct.

A supply pipeline has been installed from this point to the Brickvale Housing Development. The pipeline is 160mm in diameter and approximately 5.5km in length.

8.2.2 REQUIREMENTS & PLANNING

The following upgrades are planned:

- Tarlton Bulk Water Supply Construction of a 10Ml water reservoir (Total Value R30m)
- Tarlton Bulk Water Supply 110ND/160NDx10km pipeline (Total Value R30m)

8.2.3 WATER RETICULATION NETWORKS

Brickvale Housing development and informal settlements are reticulated with house connections to individual properties.

8.3 SEWER INFRASTRUCTURE

8.3.1 BULK SANITATION

- Treatment: The area is primarily served by onsite sanitation options such as septic tanks, chemical toilets and pit latrines. The nearest treatment facility for waterborne sewers is the 20MI/d Percy Stewart WWTW, located approximately 4km to the east of the precinct.
- Outfall sewers: The only outfall sewer in the precinct is the Brickvale Outfall Sewer, consisting

of a rising main and pump station. It currently only serves the Brickvale housing development.

9 SYNTHESIS

The character of the Precinct is changing from rural agricultural to residential with the growth of informal settlements and the planned housing projects. The locality of the housing projects is random and does not contribute to the creation of an integrated functional settlement.

Areas around the N14 and the R24 have developed with non-residential land uses, most of which are illegal. These developments contribute to vehicular – pedestrian conflict as it creates the need for pedestrians to cross streets where vehicles travel at high speeds.

Many of the land uses on the agricultural holdings have been transformed into commercial activities, which have a negative impact on the residential amenity of the area. Several of these support agricultural production in the area and contribute to the function of the Precinct as an agricultural hub. Consideration should be given as to which land uses should be allowed on the agricultural holdings and which should be deemed undesirable. The buffer around the poultry farms will have a significant impact on the type of development that can take place.

Social facilities will be needed to support the increasing residential function of the Precinct. The current social facility node to the west of the R24 creates the need for pedestrians to cross this busy road. A social node should be developed on the eastern side of the R24 to provide facilities to the large number of projected residents that will be accommodated in the proposed Brickvale

development. There is currently no indication that this will be done.

The presence of dolomite will be the determining factor as to where and what type of development can take place. This can only be determined through detailed geotechnical studies. Although area can be designated for development, the reality could be different.

Due to several reasons, such as the growth of informal settlements, housing projects, the availability of sufficiently large portions of land, the area around the Precinct holds more potential for agricultural development than the Precinct itself. Due to the hydrogeology of the area care should be taken with the extraction of ground water as well as potential pollution caused by agricultural run-off.

The population is poor, unemployed, and low-skilled. The Precinct Plan should focus on the creation of job opportunities, upskilling and economic upliftment. The trend of housing developments rather human settlements should be addressed.

The Precinct holds low tourism potential despite the R24 Tourism Corridor, and the adjacent CoH WHS, the MBR and the Krugersdorp Nature Reserve due to its character. Some of the reasons for this is the freight routes through the Precinct, the illegal land uses, the low quality of development, the lack of the dramatic topography as is found in other parts in the north of Mogale City.

In order to unlock the development potential of the Precinct and to ensure the integration of the proposed

housing projects with the rest of the Precinct, a lower order street network needs to be provided.

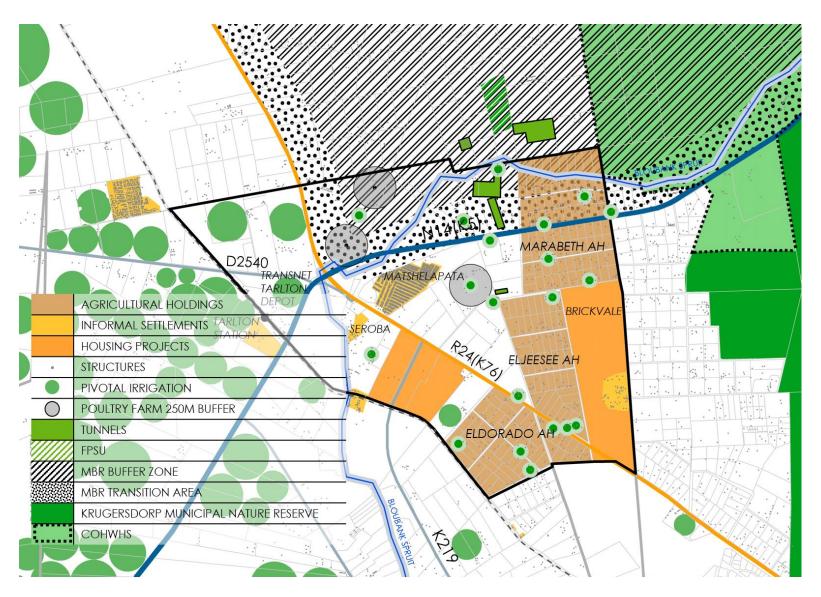
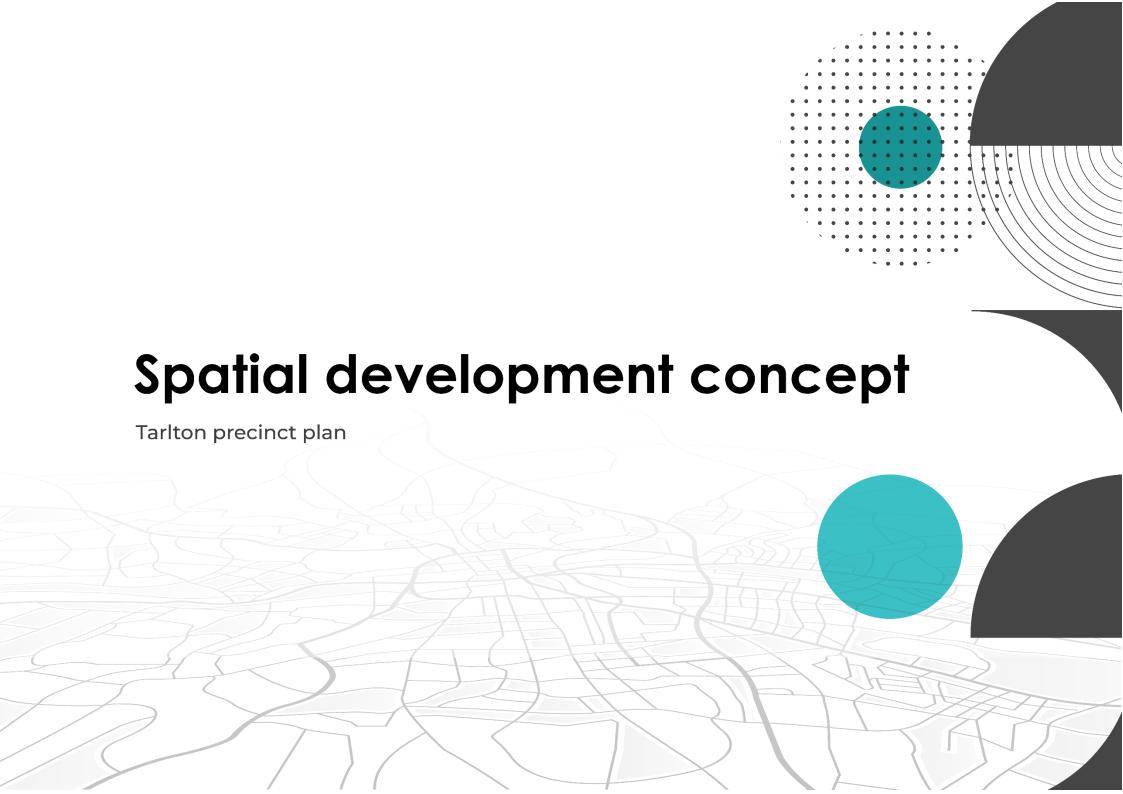


Figure 36: SYNTHESIS



10 VISION AND OBJECTIVES

10.1 VISION

A functional human settlement that plays a regional role as a service centre within a larger productive agricultural zone.

10.2 OBJECTIVES

- 1) To develop a functional settlement form that is sustainable and integrated and that addresses the need for housing within the Precinct and its surroundings.
- 2) To consolidate settlements and minimise rural sprawl and the adverse effects of land development on the environment.
- 3) To ensure the provision of sufficient social facilities, public infrastructure and services clustered in accessible localities.
- 4) To encourage economic development and job creation through agricultural production, services, and beneficiation and small-scale light industrial and retail.
- 5) To balance the functions of mobility and accessibility with public transport, non-motorised transport and pedestrian safety

11 SPATIAL DEVELOPMENT CONCEPT

The design concept explains the logic behind the proposals for the future development of the Precinct.

11.1 MAIN STRUCTURING ELEMENTS

The main structuring elements within the Precinct are:

- The N14 and R24
- Bloubank Spruit
- Proposed housing projects and informal settlements
- The Cecilia Street social node

11.2 AGRICULTURE ZONES

Agricultural zones are based on agricultural potential and current agricultural practices. It includes not only agriculture, but also agricultural support and residential.

- An Intensive Agriculture Zone north of N14 and to the west of the Precinct along the Bloubank Spruit, where only agricultural activities will be allowed. Agricultural practices should take into account that the area to the north of the N14 is affected by the MBR, a ridge and environmental sensitivities.
- Agriculture, Agricultural Support and Agricultural Residential Zones at Marabeth AH, Eldorado AH and Eljeesee AH. The agricultural holdings contain a number of non-residential activities. The residential function of these holdings remains the primary use, but it can be supplemented by agricultural support

services such as agricultural inputs (fertilizer), agricultural functioning (repair of mechanical equipment), and agricultural output (agricultural beneficiation), provided that it has no negative impact on the rural character of the area.

The areas between the R24 and Eljeesee and Marabeth AH and the area between the Affri-Village housing project and Eldorado AH are included in the agricultural support and agricultural residential zone.

A Farmer Production Support Unit (FPSU), one of the projects driven by the Department of Agriculture, Land Reform and Rural Development on Portions 29 and 32 of the farm Vlakdrift 163 IQ to the north of the N14 roughly in the middle of the Precinct.

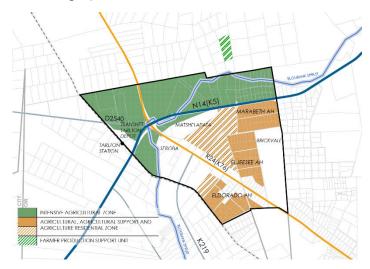


Figure 37: AGRICULTURAL ZONES

11.3 RESIDENTIAL ZONES

Residential Zones at:

- the proposed Brickvale development (in the southeastern portion of the Precinct)
- the Matshelapata and Seroba informal settlement upgrading projects (around the N14 and R24 intersection)
- the proposed Affri Village Project as part of the Gauteng Mega Housing Programme (between the R24 and the western boundary of the Precinct)

Consolidation of Residential Zones through infill development south-east of R24 between Seroba and Affri Village.

Residential zones are limited to areas where existing projects are underway and are kept away from the R24 as far as possible. No residential development is allowed to the north of the N14. The aim of the locality of residential areas is to accommodate what has been/ is being planned and to mitigate the impacts thereof as far as possible.

Residential development should have a non-residential/productive component. Given the nature of the Precinct, it is proposed that such component be related to agriculture.



Figure 38: RESIDENTIAL ZONES

11.4MIXED USE ACTIVITY SPINE AND NODE

Mixed use activity nodes and spines are used to concentrate a variety of activities in accessibly localities in order to improve access, support public and non-motorised transport, encourage sharing of spaces and to enhance a sense of place.

- A mixed-use activity spine approximately 200m wide is proposed on both sides along the R24. There are already a number of commercial and retail activities along this route and public transport is concentrated in this zone. The intensity of the activity spine will reduce with distance from the N14/R24 intersection.
- A mixed-use node along the R24 to the south of the N14. There is already a concentration of nonresidential uses and public transport, albeit somewhat informally. Although the short-term development of the mixed-use node is limited by existing residential development, the proposed growth pattern in the Precinct will strengthen this node over the medium to long term.

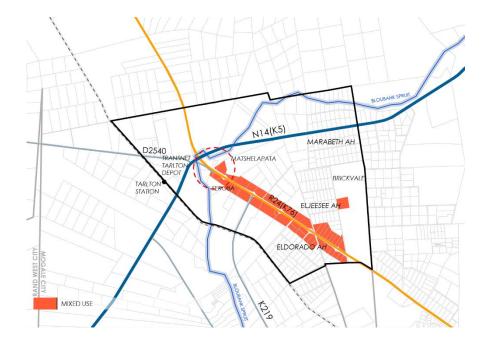


Figure 39: MIXED USE NODE AND ACTIVITY SPINE

11.5SOCIAL NODES

Two **Social Nodes** on either side of R24. The social nodes should contain a number of social facilities as well as local retail activities that can address the needs of the residents in the consolidated residential zones and agricultural holdings. The aim is to provide social facilities embedded in residential areas to limit the movement of pedestrians across the major routes. The locality of the social nodes is based on an existing clustering of social facilities to the south of the R24 (Eldorado Node) and a central locality to the north of the R24 (Eljeesee AH/Brickvale). Although embedded in the residential area, both are adjacent to proposed local collector routes.



Figure 40: SOCIAL NODES

11.6TOURISM CORRIDOR AND GATEWAY

- A tourism corridor along the R24 north from its intersection with the N14 as proposed in the MCLM SDF, 2019. The tourism corridor does not necessarily consist of tourist facilities within the section contained in the Tarlton Precinct as it has a rural/agricultural character. It does however provide access to Magaliesburg and the Magaliesberg Biosphere Reserve and attention should be given to the visual character of the corridor rather than a tourism function.
- A tourism gateway park where the R24 and the N14 intersects with the Bloubank Spruit.

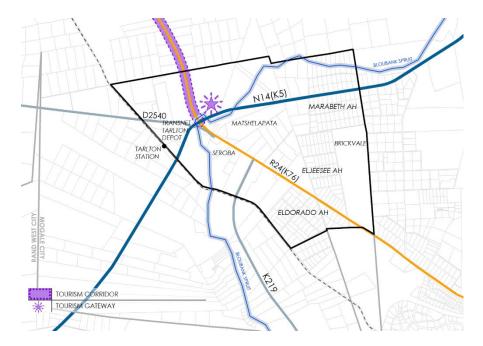


Figure 41: TOURISM CORRIDOR AND GATEWAY

11.7 OTHER

- The Magaliesberg Biosphere Reserve Transitional and Buffer zones located to the north of the N14 and to the east of the R24. Agricultural activities and tourism activities should be aligned with the guidelines proposed by the MBR.
- The Transnet Tarlton Deport/ Petroport located adjacent to the N14 on the western boundary of the Precinct. It has a minimal spatial impact on the functioning of the Precinct due to its peripheral locality and its internal orientation. It is surrounded by agriculture and its potential negative impacts are minimised.



Figure 42: MBR AND PETROPORT

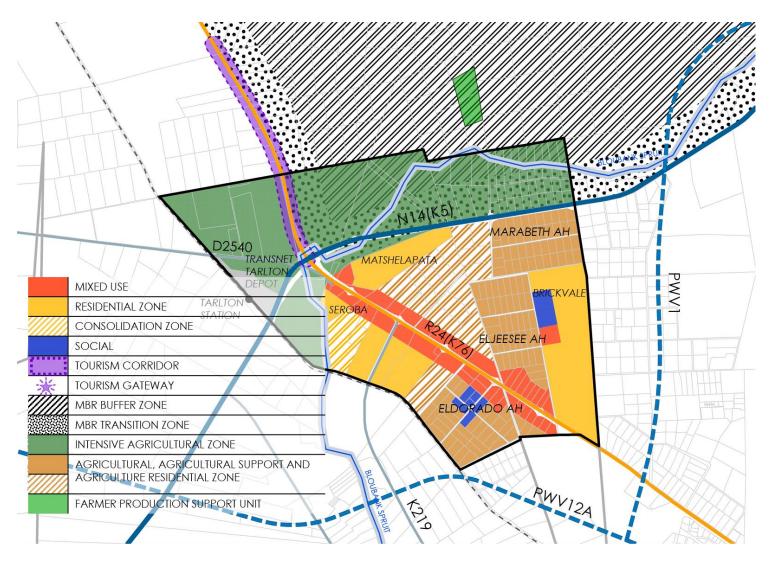


Figure 43: DEVELOPMENT CONCEPT



12 LAND USE BUDGET

The bulk of the Precinct is dedicated to agriculture and agricultural-related land uses. The potential number of dwelling units is around 12 000.

Table 3: LAND USE BUDGET

PROPOSED LAND USE	НА	% OF TOTAL AREA	POTENTIAL NR OF DWELLING UNITS	
Agriculture	593.8	43.5	-	
Residential	227	16.6	10 900	
Matshelapata	42.5	3.1	1 300	
Seroba	8.7	0.6	0	
Affri Village	53.5	3.9	3 600	
Brickvale	122.3	9.0	6 000	
Residential infill area	31.9	2.3	800	
Agricultural residential and support area	220.0	16.1	150	
Agricultural residential and support area (infill)	136.0	10.0	90	
Mixed use spine and node	118.0	8.6	-	
Social nodes	23.6	1.7	-	
Other (Petro Net)	16.1	1.2	-	
TOTAL	1 366.4	100	11 940	

In total, about 70% of the total Precinct is earmarked for agriculture and agricultural related uses, while 16% is earmarked for residential.

13 SOCIAL FACILITY PROVISION

Based on the land use budget approximately 12 000 dwelling units can be provided. At a household size of ±2.7 (based on socio-economic study), the total projected population will be around 32 000.

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.

Based on the social facility needs assessment, there is a need for two primary schools, two secondary schools, a number of Early Childhood Development Centres, a community hall, a post office/ social grant paypoint, several parks and some sport facilities.

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	4.6	2	2
Secondary school	12 500	2.6	0	2
Early childhood development centre	2 400 – 3 000	10 to 13	1	9 to 12
HEALTH				
Clinic (Primary Health Clinic)	24 000 – 70 000	1	1	0
COMMUNITY FACILITIES				
Community halls (medium size)	10 000 -15 000	2 to 3	1	1 to 2
Community Performing Arts Centre	50 000	0	0	0
Library	20 000 - 70 000	1	1	0
Post Office/Social Grant Paypoint	10 000 - 20 000	1 to 3	0	1 to 3
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	18 ha	0	18 ha
Community park (Grassed surface - 2 football fields equivalent)	15 000	2	1	1
Local/Neighbourhood Park	3 000 - 15 000	2 to 10	0	2 to 10
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	2	0	2
Combi-court surface (x 4)	60 000	0	0	0

14 TRANSPORTATION PROPOSALS

14.1 ACCESS POSITIONS

Access to the major arterial road network should be based primarily on the preliminary designs of N14 (K5) and R24 (K76) respectively that have been accepted by the MEC for implementation in terms of the GTIA (Gauteng Transport Infrastructure Act, Act 8, 2001), with amendments to ensure practical access to the Precinct.

The following refinements are recommended with regards to the approved access positions:

- 1) The intersection of D2540 on K5 ±200m west of R24 (K76) should be closed and D2540 should be realigned to coincide with the Tarlton station access road.
- 2) Move access road to Tarlton station (re-aligned D2540) slightly to the east and re-align D2540 to join N14 (K5) at this position. Access to the station should then be provided from D2540 and not directly from N14 (K5). This intersection should also provide access to the area south-east of N14 (K5).
- 3) Relocate intersection on K5 (currently ±600m east of K76) slightly closer to K76 to avoid topographical constraints.
- 4) Relocate intersection on K76 between K219 and K5 to provide practical access to the residential settlement east of K76. The currently proposed position does not comply with Gautrans throat length requirements. The relocated access will also

- better serve the commercial buildings south-west of R24 (K76).
- 5) Provide additional intersection on K5, ±1.25 km east of R24 (K76). This intersection will provide the primary access to the residential settlement on the eastern quadrant of the intersection of N14 (K5) and R24 (K76). It can also provide access from the internal road network to the mixed-use strip along N14 (K5).

14.2 COLLECTOR ROADS

The following Class 4 collector roads are proposed for the Precinct (note that the Precinct is already served by east-west (N14/ K5) and north-south (R24/K76) major arterials and that no additional minor arterial roads are proposed):

- a) Extend the T-junction of K219 and R24 (K76) eastward to N14 (K5)
- b) Collector road south of N14 (K5)
- c) North-east parallel to R24 (K76) between Claassen Street and D219 extension
- d) \$1011 with some re-alignment to join R24 (K76) at 90°. Also provides access to area south of R24 (K76).
- e) Along south-western boundary of the precinct with suitable spacing from the railway line.

14.3TRAFFIC SAFETY, VEHICULAR-PEDESTRIAN CONFLICT AND PUBLIC TRANSPORT

Three aspects are of importance when dealing with both traffic safety and the conflict between vehicles and pedestrians on the N14 and the R24:

- Manage the demand
- Determine the best access positions
- Address traffic safety at access points

Currently there is pedestrian activity on three quadrants of the intersection of N14 and R24, i.e., N-W, S-W and S-E. The intersection is a four-way stop and provides the opportunity for non-motorised transport (NMT) to cross. Unfortunately, the intersection is not on the desire lines of NMT crossing the above routes. NMT follows a straight line and is unlikely to deviate from the shortest route.

There are also currently no convenient formal intersections to the activities on the S-E and S-W quadrants. Private vehicles, public transport and delivery vehicles use numerous unplanned unauthorised informal access points to amenities along the road and to connect to the internal road network.

It is unreasonable to simply close all accesses and it is recommended to manage traffic manoeuvres, both vehicular and NMT by providing convenient infrastructure of a high quality that complies as far as possible to the design standards of Gautrans, the transport authority controlling both N14 and R24.

Three intersections are recommended, namely:

- (i) R24 between activities to the north-east and south-west of the road, immediately south-east of the filling station. Some relaxation of spacing requirement will be required to reduce impact on facilities north-east of the road (R24). Specific attention is required to public transport (not merely a standard lay-by) and paved pedestrian walkways.
- (ii) N14 ±1.2km east of R24. Existing structure should be avoided, and access should be as convenient as possible. Once again, specific attention is required to public transport (not merely a standard lay-by) and paved pedestrian walkways.
- (iii) N14±600m west of R24 at access to Tarlton station. Direct access to Tarlton station and existing substandard access to D2540 gravel road must be closed and consolidated to a new intersection that can serve areas both east and west of N14.

14.4LOCAL ROAD NETWORK

In view of the high level of mobility provided by the K-road network, no additional minor arterial roads (Class 3) are proposed through the Precinct.

The eastern part of the Precinct where residential development is proposed is served by a network of access and collector roads. Some amendment of the local road network is therefore required to create an efficient and effective local road network in support of the provincial arterial road network.

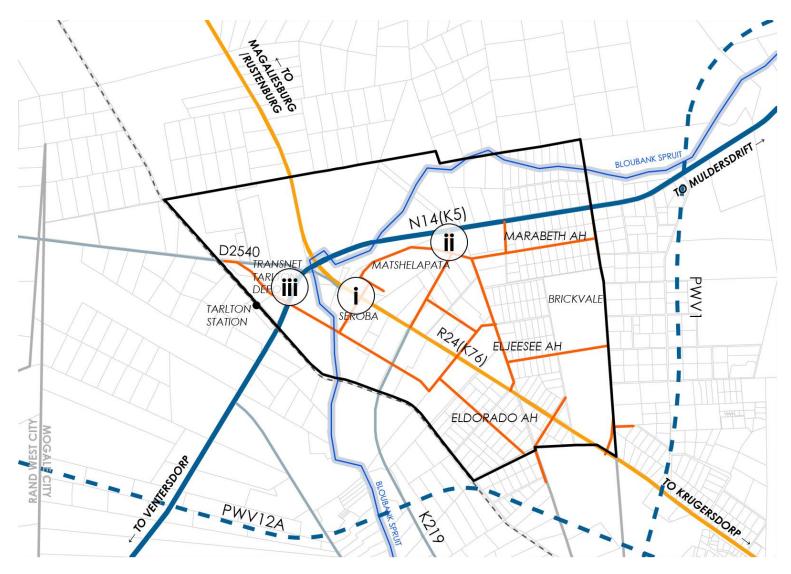


Figure 44: PROPOSED TRANSPORT NETWORK

15 DEVELOPMENT GUIDELINES FOR THE MAGALIESBERG BIOSPHERE RESERVE³

The area to the north of the N14 and to the east of the R24 falls within the MBR Transition Area and Buffer Zone.

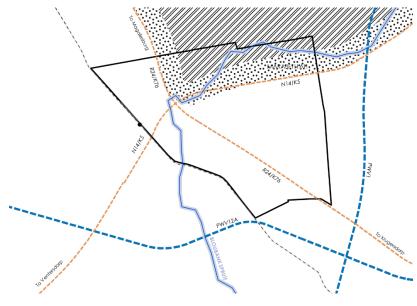


Figure 45: MAGALIESBERG BIOSPHERE RESERVE

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.

Activities involve 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.

15.2TRANSITION AREA

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

The land use within the Transition Zone allows 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 DESIGN GUIDELINES

Design guidelines guides 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 spine
- Mixed use activity nodes
- Social nodes
- Tourism corridor and gateway

16.1 DESIGN GUIDELINES FOR MIXED-USE ACTIVITY SPINE

Tarlton still has a rural character and despite the housing projects, this character will largely remain due to the extensive agriculture and agricultural support area. The mixed-use activity spine will thus not have a high intensity.





Figure 46: IMAGES OF MIXED-USE ACTIVITY SPINE⁴

https://s-ga.com/2019/09/30/stromberg-garrigan-associates-streetscape-rendering-unveiled-for-the-city-of-virginia-beach-resort-area-strategic-plan-update/

⁴ Malop Street Green Spine Part of the Malop to Myers revitalisation project

Proposed land uses on adjacent properties:

- Retail
- Commercial
- Light industrial
- Storage

High and medium density residential and social facilities are discouraged directly adjacent to the R24 due to the heavy traffic on this road.

The following guidelines are applicable to any **new development** along the R24 ('the street'):

- Building should be set back between 16m and 20m from the street boundary
- Buildings can be a maximum of three 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, waste bins, service areas and other utilities should be provided at the back of the building

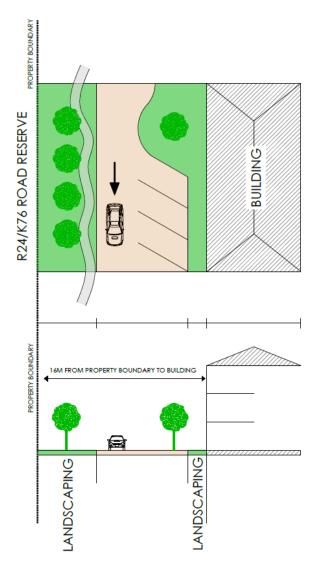


Figure 47: PUBLIC-PRIVATE INTERFACE





Figure 48: EXAMPLES OF ARTICULATED BUILDING FACADES⁵

An **access management plan** will be necessary for new development, as direct access to individual developments from the R24 will be problematic. A service road should be provided or access to a number of properties should be consolidated.

The R24 is problematic as it has a regional mobility function as well as a local activity function. The design of the road should be such that it accommodates both these functions, whilst maintaining the highest levels of safety, especially for pedestrians.

Provision should be made for public and non-motorised transport.

It is proposed that the road be designed as follows:

- A 3.5m vehicular lane in each direction
- A 2.5m shoulder, which can be used for mini-bus taxi or bus lay-bys
- A 2m tree planting zone to protect cyclists and pedestrians from vehicular traffic
- A 2m cycle lane
- A 5m pedestrian walkway

⁵

https://library.municode.com/tn/farragut/codes/code_of_ordinances?nodeld=PTIICOOR_APXDA RDEST



Figure 49: R24 STREET SECTION

16.2 DESIGN GUIDELINES FOR MIXED USE ACTIVITY NODE

This node should accommodate a number of retail and commercial activities and make provision for public transport and non-motorised transport. Informal trade should be accommodated in permanent structures within a market. Specific provision should be made for small businesses.

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

The following development and design guidelines are applicable to all new developments:

- Building should be set back 16m from the street boundary
- 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 on the street boundary. 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, waste bins, service areas and other utilities should be provided at the back of the building.





Figure 50: EXAMPLES OF MIXED-USE ACTIVITY NODE⁶

⁶ https://www.freese.com/our-work/sh-191-corridor-studymanagement-plan http://www.splice-design.com/wp-content/uploads/2010/09/600_flint.jpg

16.3 DESIGN GUIDELINES FOR SOCIAL NODES

16.3.1 ELDORADO SOCIAL NODE

The proposed Eldorado Social Node is located on:

- Holding 7
- Holding 8
- Holding 9
- Holding 19
- Holding 29
- Holding 30

At least the following facilities should be provided:

- Early childhood development centre
- sec
- Post office/ social grant paypoint
- Community park
- Public square
- Public transport facility

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

The following design guidelines are applicable:

 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.

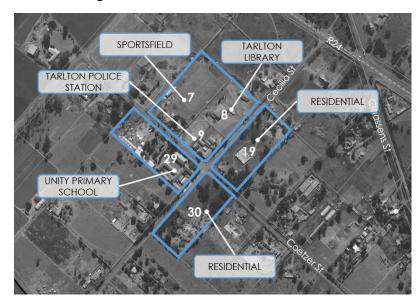
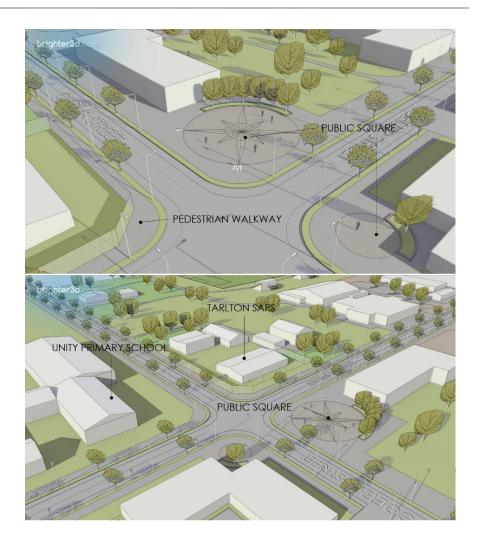


Figure 51: ELDORADO SOCIAL NODE





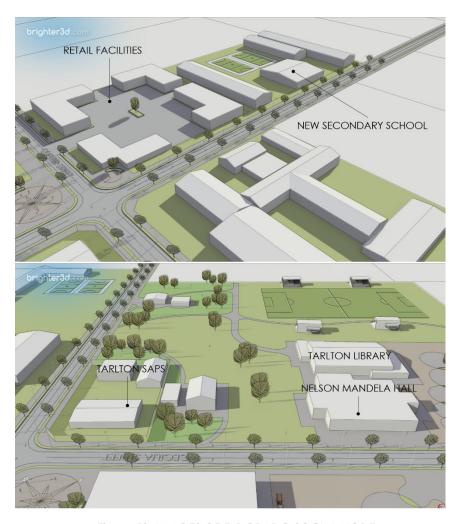


Figure 52: IMAGES OF ELDORADO SOCIAL NODE

16.3.2 ELJEESEE/ BRICKVALE SOCIAL NODE

The Eljeesee/ Brickvale Social Node is located within the proposed Brickvale township.

At least the following facilities should be provided:

- A primary school
- A secondary school
- Early childhood development centre
- A community hall
- Post office/ social grant paypoint
- Community park
- Public square
- Public transport facility

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

Given that this node has not developed yet, it can be planned in a holistic manner from the onset.

The following design guidelines are applicable:

- It should be located in a position that is equidistant from all parts of the residential zone.
- It should be located directly off main throughroutes rather than on such routes. This will provide access but still allow for safety for pedestrians.
- Streets should be pedestrian orientated 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 and the full range of landscaping and street furniture should be provided.

16.4DESIGN GUIDELINES FOR TOURISM CORRIDOR AND GATEWAY

16.4.1 DEFINING A TOURISM CORRIDOR

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 Region, 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 K-routes (provincial roads), 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 PRIVATE DEVELOPMENT, where visible from the road:

- 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: 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
- o 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 COHWHS, '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.

The R24 to the north of the N14/ R24 intersection is designated as a Tourism Corridor in the MSDF, 2019. The land uses around this portion of the R24 consists mostly of agriculture. This character should be retained.

A tourism gateway is proposed at the N14/ R24 intersection, the Bloubank Spruit and the environmentally sensitive areas around it. It is located on a busy intersection, that currently lacks any special character. It should be developed as a natural park with indigenous landscaping and a landmark element in the form of public art. The landmark element should reflect the uniqueness of the MBR as it abuts the MBR Transition and Buffer Zones. It is also on the Route 24 tourism route.



Figure 53: EXAMPLE OF TOURISM GATEWAY PARK⁷









Figure 54: EXAMPLE OF LANDMARK ELEMENTS⁸

 $^{^{7}\}mbox{https://inhabitat.com/tianjin-eco-city-is-a-futuristic-green-landscape-for-350000-residents/}$

⁸ 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.





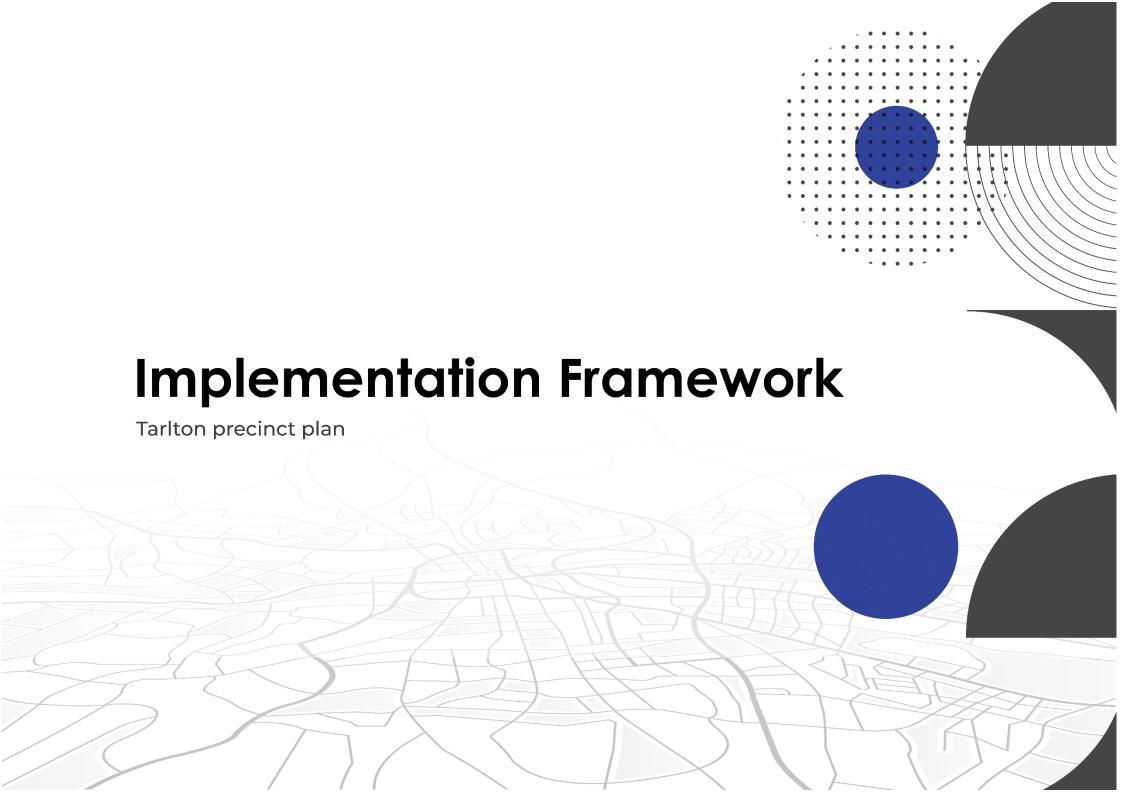
Figure 55: LANDMARK ELEMENTS WITHIN THE COH WHS9

Residential densities should be dictated by dolomitic conditions and geotechnical and dolomitic stability tests will have to be undertaken before residential development should be considered. The conditions as contained in SANS 1936, as well as conditions / requirements as per site-specific studies, will apply to erven / properties affected by dolomitic conditions.

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.

^{16.4.2} DEVELOPMENT IN DOLOMITIC AREAS

⁹ https://bicyclesouth.co.za/listings/cradle-of-humankind/



17 STRATEGIC PROJECTS

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

17.1 DESCRIPTION OF STRATEGIES AND PROJECTS

17.1.1 STRATEGY 1: ENSURE THE DEVELOPMENT OF SUSTAINABLE HUMAN SETTLEMENTS WITH SUFFICIENT SOCIAL FACILITIES GROUPED IN MIXED-USE SOCIAL NODES The Tarlton Precinct is rapidly changing with the introduction of large-scale housing projects, increasing the demand for social facilities. It also serves in the need for social facilities in the surrounding, mainly rural, areas. Compounding the need for social facilities, is that there is already an under provision of facilities, most notably a secondary school.

To enhance efficiency and functionality, social facilities should be grouped in accessible, multifunctional nodes that accommodate a number of social facilities, commercial activities, and public transport within a high-quality public environment.

PROJECT 1: DEVELOPMENT OF ELDORADO MIXED USE SOCIAL NODE

- This will include the evaluation of current facilities, and the facilities to be provided
- Drafting of a detailed Urban Design Framework indicating land parcels to be acquired, land use activities, movement networks, public open spaces, design guidelines, street sections and landscaping
- Develop a public transport facility, make land available for commercial development
- Develop public space, non-motorised facilities, markets and commercial spaces, high school, early childhood development centre, post office/social grant paypoint, community park, sports facility and a maintenance plan
- PROJECT 2: DEVELOPMENT OF ELJEESEE MIXED USE SOCIAL NODE
 - Determining the demand for social facilities
 - Drafting of a detailed Urban Design Framework indicating land parcels to be acquired, land use activities, movement networks, public open spaces, design guidelines, street sections and landscaping

- Acauisition of land
- Make land available for commercial development
- Develop public space, non-motorised facilities, markets and commercial spaces, two primary schools, secondary school. Early childhood development centres, community hall, clinic, post office/social grant paypoint, community park and maintenance plan

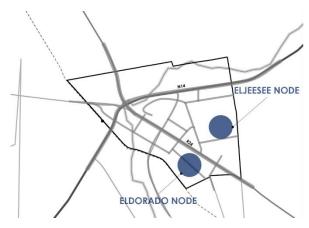


Figure 56: STRATEGY 1

17.1.2 STRATEGY 2: STIMULATE ECONOMIC DEVELOPMENT

The Tarlton Precinct is changing from a rural residential and agricultural area to an urbanised area. Most of the current projects are focused on residential development with a small and

shrinking economic base. The socio-economic analysis indicates that a large proportion of residents are unemployed and poor. Opportunities for small businesses and jobs are created through the designation of commercial areas.

There is a limited offering of retail and personal services, with residents having to travel to Krugersdorp to access such facilities. Land uses are diversified to address in the needs of the local population and the surrounding rural areas.

- PROJECT 1: DEVELOP A MIXED-USE NODE AT THE INTERSECTION OF THE R24 AND THE N14
 - Drafting of a detailed Urban Design Framework indicating land parcels to be acquired, land use activities, movement networks, public open spaces, design guidelines, street sections and landscaping
 - o Acquisition of land
 - Develop a taxi/bus rank, small business development centre
 - o Create safe pedestrian crossings
 - o Incentivise developers
- PROJECT 2: DEVELOP A MIXED-USE ACTIVITY SPINE ALONG THE R24
 - Drafting of a detailed Urban Design Framework indicating land parcels to be acquired, land use activities, movement networks, public open

- spaces, design guidelines, street sections and landscaping
- o Redesign of the R24
- Upgrade of the public environment, road reserves and adjacent properties
- o Incentivise developers
- PROJECT 3: STIMULATION OF AGRICULTURAL SUPPORT AND BENEFICIATION
 - Investigating in what ways agricultural support activities can be stimulated in the areas through the amendments of the land use scheme

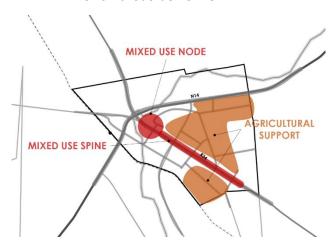


Figure 57: STRATEGY 2

17.1.3 STRATEGY 3: DEVELOP COMPLETE STREET NETWORK

Given the current character of the Tarlton Precinct as agricultural holdings there is a limited street network, and many streets are not tarred.

The N14 and R24 that passes through the Precinct accommodates fast-moving traffic. Direct access to individual properties and pedestrians crossing at random positions create a high incidence of accidents.

- PROJECT 1: DEVELOP SECONDARY STREET NETWORK
 - This project includes a traffic impact assessment for the whole precinct, the design and construction of the secondary road network, land expropriation where needed.
- PROJECT 2: DEVELOP AN ACCESS MANAGEMENT PLAN
 - Linking with project 1, an access management plan should be drafted along with the traffic impact assessment
- PROJECT 3: DEVELOP PEDESTRIAN CROSSINGS
 - Develop pedestrian crossings in areas identified in the traffic impact assessment, and develop instruments to discourage pedestrians crossing the N14 and the R24

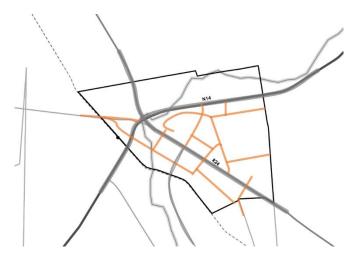


Figure 58: STRATEGY 3

17.1.4 STRATEGY 4: SUPPORT TOURISM

The Tarlton Precinct contains areas classified as a tourism corridor (the northern section of the R24) and a tourism gateway (intersection of the R24 and N14). The areas to the north of the N14 fall within the Magaliesberg Biosphere Reserve. The Precinct forms part of the larger tourism offering within the north-western parts of Mogale City. It can benefit from the tourism network and must also contribute to its successful functioning.

- PROJECT 1: DEVELOP TOURISM AND PROTECTED AREAS OVERLAY
 - This project will include the identification of land, the drafting of design guidelines, parameters and controls.

- The development of land use application and approval process, and the incorporation in the LUS
- PROJECT 2: DEVELOP A GATEWAY PARK
 - Identify suitable land, and appoint consultants to design and construct the park
- PROJECT 3: BEAUTIFICATION OF THE N14
 - This project includes addressing the illegal land uses along the N14 and the plating of trees in the road reserve

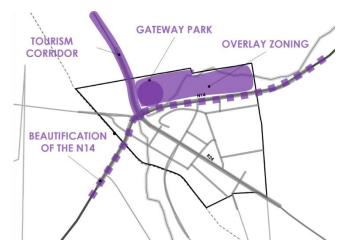


Figure 59: STRATEGY 4

17.1.5 STRATEGY 5: SUPPORT FPSU

- PROJECT 1: CONSTRUCTION OF THE FPSU This project is led by the Department of Agriculture, Land Reform and Rural Development and is aimed at supporting smallholder farmers and increase the overall quality and quantity of vegetable production in the district.
 - The project includes the obtaining of development rights i.e. rezoning, removal of restrictive conditions.
 Drafting a Site Development Plan, and the conduction of necessary studies (environmental, geotech, etc.)
 - Construction of the facilities and the acquiring of equipment

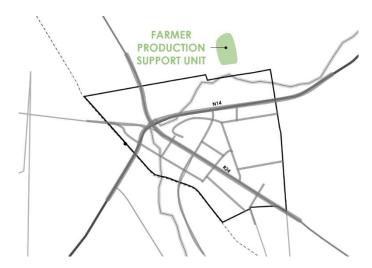


Figure 60: STRATEGY 5

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 roleplayers 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 longterm project:
 - Red = high priority
 - Orange = medium priority
 - o 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: ENSURE THE DEVELOPMENT OF SUSTAINABLE HUMAN SETTLEMENTS WITH SUFFICIENT SOCIAL FACILITIES GROUPED IN MIXED-USE SOCIAL NODES

MOTIVATION

The Tarlton Precinct is rapidly changing with the introduction of large-scale housing projects, increasing the demand for social facilities. It also serves in the need for social facilities in the surrounding, mainly rural, areas. Compounding the need for social facilities, is that there is already an underprovision of facilities, most notably a secondary school.

To enhance efficiency and functionality, social facilities should be grouped in accessible, multi-functional nodes that accommodate a number of social facilities, commercial activities, and public transport within a high-quality public environment.

PROJECT 1: DEVELOPMENT OF ELDORADO MIXED USE SOCIAL NODE

ACTIONS	SHORT TERM	MEDIUM TERM	LONG TERM	RESPONSIBLE AGENT	POTENTIAL SOURCES OF FUNDING	ESTIMATED COST	STAKEHOLDERS
Evaluation of current facilities to determine underutilisation and potential multi-use.	Х			MCLM Development Planning	N/A	N/A	MCLM Development PlanningMCLM Human
Determine social facilities to be provided based on the information contained in this Precinct Plan and needs as identified by community leaders or sector departments.	х			MCLM Development Planning	N/A	N/A	Settlement and Real Estate Administration MCLM Sports, Arts, Culture and Recreation
Draft detailed Urban Design Framework for the social node that addresses at least: Land parcels to be acquired (if necessary.) 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 and building massing and public private interface. Street sections. Streetscaping, landscaping and signage.		X		MCLM Development Planning	MCLM Development Planning	R200 000	MCLM Social Development MCLM Roads and Transport Services Taxi association CoGTA – MIG WRDM Health and Social Development WRDM Economic Development GP DoE GP DoED GP DoH GP DoHS GP DoSD GP DoSACR

Acquire land, if necessary.	Х	Х	MCLM Development Planning	DALRRD	R600 000/ha	Relevant	National
Develop public transport facility.	Х	Х	MCLM Roads and Transport Services	DoPWI	R1 170 000	departments	
Make land available for commercial development.	Х	Х	MCLM Development Planning	N/A	N/A		
Develop public space.	х		MCLM Sports, Arts, Culture and Recreation	CoGTA - MIG	R1 000 000		
Develop non-motorised facilities.	Х	Х	MCLM Roads and Transport Services	CoGTA - MIG	TBD		
Develop markets and commercial spaces.	Х	Х	MCLM Enterprise and Rural Development	CoGTA - MIG	R2 000 000		
Develop a high school.		Χ	GP DoE	GP DoE	R20 000 000		
Develop an early childhood development centre.	X		GP DoSD	GP DoSD	R1 000 000		
Develop a post office/ social grant paypoint.	Х		NDoSD	NDoSD	R500 000		
Develop a community park.		Х	MCLM Sports, Arts, Culture and Recreation	CoGTA - MIG	R700 000		
Develop a sports facility.		Х	MCLM Sports, Arts, Culture and Recreation	CoGTA - MIG	R1 200 000		
Develop a maintenance plan.	Х	Х	MCLM Sports, Arts, Culture and Recreation	N/A	N/A		

	PROJEC	T 2: DEVEL	OPMENT OI	F ELJEESEE MIXED US	E SOCIAL NODE		
ACTIONS	SHORT TERM	MEDIUM TERM	LONG TERM	RESPONSIBLE AGENT	POTENTIAL SOURCES OF FUNDING	ESTIMATED COST	STAKEHOLDERS
Determine social facilities to be provided based on the information contained in this Precinct Plan, the facilities provided for in Brickvale and needs as identified by community leaders and sector departments.	x	TEMVI		MCLM Development Planning	N/A	N/A	MCLM Development Planning MCLM Sports, Arts, Culture and Recreation MCLM Roads and Transport Services
Draft detailed Urban Design Framework for the social node that addresses at least: Land parcels to be acquired (if necessary.) 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 and building massing and public private interface. Street sections. Streetscaping, landscaping and signage.		x		MCLM Development Planning	MCLM Development Planning	R200 000	 MCLM Rodds and Transport Services MCLM Enterprise and Rural Development COGTA - MIG DALRRD SASSA South African Post Office WRDM Health and Social Development WRDM Economic Development GP DoH GP DoSD GP DoE
Acquire land, if necessary.		Х	Х	MCLM Development Planning	DALRRD	R1 000 000	
Develop public transport facility.		Х	Х	MCLM Roads and Transport Services	CoGTA - MIG	R1 170 000	
Make land available for commercial development.		Х	Х	MCLM Development Planning	N/A	N/A	
Develop public space.		Х		MCLM Sports, Arts, Culture and Recreation	CoGTA - MIG	R1 000 000	
Develop non-motorised facilities.		Х	Х	MCLM Roads and Transport Services	CoGTA - MIG	R5 000 000/KM	

Develop markets and commercial spaces.	X	Χ	MCLM Enterprise	CoGTA - MIG	R2 000 000
			and Rural		
			Development		
Develop two primary schools	X	X	MCLM Development	GP DoE	R150 000 000
			Planning		
Develop a secondary school		Х	MCLM Development	GP DoE	R100 000 000
, , , , , , , , , , , , , , , , , , , ,		^	Planning		
Develop two early childhood centres	Y	Х	MCLM Development	GP DoSD	R2 000 000.00
, , , , , , , , , , , , , , , , , , , ,	^	^	Planning		
Develop a community hall	X		MCLM Development	GP DoSD	R1 400 000
,	^		Planning		
Develop a clinic	Х		MCLM Development	GP DoH	R2 000 000
Develop a cili lic	^		· ·	OI BOIT	R2 000 000
			Planning		
Develop a post office/ social grant	X		MCLM Development	GP DoSD	R500 000
paypoint			Planning		
Develop a community park	Х		MCLM Development	GP DoSD	R700 000
7 17 2000			Planning		
Develop a maintenance plan.			MCLM Sports, Arts,	N/A	N/A
20.0.0p d.mamonanoo pidin	v	Х	Culture and	,, .	1,, .
	A				
			Recreation		1

STRATEGY 2: STIMULATE ECONOMIC DEVELOPMENT

MOTIVATION:

The Tarlton Precinct is changing from a rural residential and agricultural area to an urbanised area. Most of the current projects are focused on residential development with a small and shrinking economic base. The socio-economic analysis indicates that a large proportion of residents are unemployed and poor. Opportunities for small businesses and jobs are created through the designation of commercial areas.

There is a limited offering of retail and personal services, with residents having to travel to Krugersdorp to access such facilities. Land uses are diversified to address in the needs of the local population and the surrounding rural areas.

PROJECT 1: DEVELOP A MIXED-USE NODE AT THE INTERSECTION OF THE R24 AND THE N14

ACTIONS ACTIONS	SHORT TERM	MEDIUM TERM	LONG TERM	RESPONSIBLE AGENT	POTENTIAL SOURCES OF FUNDING	ESTIMATED COST	STAKEHOLDERS
Draft detailed Urban Design Framework for the mixed-use node that addresses at least: Demarcation of the boundaries of the node 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 and building massing and public private interface. Street sections. Streetscaping, landscaping and signage. Land to be acquired, if necessary	x			MCLM Development Planning	MCLM Development Planning	R300 000	MCLM Development Planning MCLM Human Settlement and Real Estate Administration MCLM Roads and Transport Services MCLM Enterprise and Rural Development WRDM Economic Development GP DoED DoPWI DTI Gautrans NDoSBD
Acquire land for taxi and bus rank and small business development centre		X		MCLM Development Planning	DoPWI	R600 000/ha	Relevant National departments
Develop a formal taxi and bus rank with adjoining market for small traders		X		MCLM Roads and Transport Services	DoPWI	R2 000 000	
Create a small business development centre			x	MCLM Enterprise and Rural Development	NDoSBD	R4 000 000	

Create safe pedestrian crossings across the R24	X		GAUTRANS	GAUTRANS	R1 000 000
Upgrade the public environment, i.e. the space between the road surface and the property boundary, through landscaping, streetscaping and lighting		х	GAUTRANS	GAUTRANS	R300/m²
Institute incentives for properties identified for retail/ commercial activities to develop and comply with the design guidelines that will emanate from the UDF		х	MCLM Development Planning	N/A	N/A

PROJEC	CT 2: DEVE	ELOP A MIX	XED-USE A	CTIVITY SPINE ALC	ONG THE R24					
ACTIONS	SHORT TERM	MEDIUM TERM	LONG TERM	RESPONSIBLE AGENT	POTENTIAL SOURCES OF FUNDING	ESTIMATED COST	STAKEHOLDERS			
Draft detailed Urban Design Framework for the mixed- use activity spine that addresses at least: Demarcation of the boundaries of the activity spine 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 and building massing and public private interface. Street sections. Streetscaping, landscaping and signage. Land to be acquired, if necessary	x			MCLM Development Planning	MCLM Development Planning	R300 000	MCLM Development Planning MCLM Human Settlement and Real Estate Administration MCLM Roads and Transport Services MCLM Enterprise and Rural Development WRDM Economic Development GP DoED DTI Gautrans			
Redesign the R24 to accommodate cyclists, public transport, wide sidewalks for pedestrians and safe pedestrian crossings			Х	GAUTRANS	GAUTRANS	TBD	Relevant National departments			
Upgrade the public environment, i.e. the space between the road surface and the erf boundary, through landscaping, streetscaping and lighting			х	GAUTRANS	GAUTRANS	R300/m²				
Institute incentives for properties identified for retail/ commercial activities to develop and comply with the design guidelines that will emanate from the UDF			х	MCLM Development Planning	N/A	N/A				
PROJECT 3: STIMULATION OF AGRICULTURAL SUPPORT AND BENEFICIATION										
ACTIONS	SHORT TERM	MEDIUM TERM	LONG TERM	RESPONSIBLE AGENT	POTENTIAL SOURCES OF FUNDING	ESTIMATED COST	STAKEHOLDERS			
Investigate ways in which agricultural support activities can be stimulated in the areas indicated as such through amendments to the land use scheme	Х			MCLM Development Planning	N/A	N/A	 MCLM Development Planning WRDM Economic Development 			

STRATEGY 3: DEVELOP COMPLETE STREET NETWORK

MOTIVATION: Given the current character of the Tarlton Precinct as agricultural holdings there is a limited street network, and many streets are not tarred.

The N14 and R24 that passes through the Precinct accommodates fast-moving traffic. Direct access to individual properties and pedestrians crossing at random positions create a high incidence of accidents.

PROJECT 1: DEVELOP SECONDARY STREET NETWORK

ACTIONS	SHORT TERM	MEDIUM TERM	LONG TERM	RESPONSIBLE AGENT	POTENTIAL SOURCES OF FUNDING	ESTIMATED COST	STAKEHOLDERS
Undertake a traffic impact assessment for the entire Precinct	X			MCLM Roads and Transport Services	MCLM Roads and Transport Services	R250 000	MCLM Development PlanningMCLM Roads and
Determine the design details for the secondary road network	Х			MCLM Roads and Transport Services	MCLM Roads and Transport Services	N/A	Transport Services Gautrans WRDM Transport and
Expropriate land where necessary			Х	MCLM Roads and Transport Services		R600 000/ha	Roads
Construct secondary road network			Х	MCLM Roads and Transport Services	MCLM Roads and Transport Services	R8 000 000/KM	

PROJECT 2: DEVELOP AN ACCESS MANAGEMENT PLAN

ACTIONS	SHORT TERM	MEDIUM TERM	LONG TERM	RESPONSIBLE AGENT	POTENTIAL SOURCES OF FUNDING	ESTIMATED COST	STAKEHOLDERS
Undertake a traffic impact assessment for the entire Precinct (See Project 1)	Х			MCLM Roads and Transport Services	MCLM Roads and Transport Services	See Project 1	MCLM Development PlanningMCLM Roads and
Develop an access management plan		Х		Gautrans	MCLM Roads and Transport Services	R250 000	Transport Services WRDM Transport and Roads Gautrans Local landowners

PROJECT 3: DEVELOP PEDESTRIAN CROSSINGS											
ACTIONS	SHORT TERM	MEDIUM TERM	LONG TERM	RESPONSIBLE AGENT	POTENTIAL SOURCES OF FUNDING	ESTIMATED COST	STAKEHOLDERS				
Undertake a traffic impact assessment for the entire Precinct (See Project 1)	Х			MCLM Roads and Transport Services	MCLM Roads and Transport Services	See Project 1	 MCLM Development Planning MCLM Roads and 				
Develop pedestrian crossings at points indicated in TIA		X		Gautrans	Gautrans	R50 000per/crossing	Transport Services WRDM Transport and				
Develop and implement instruments to discourage pedestrians crossing the N14 and R24 at places other than pedestrian crossings		X	Х	Gautrans	Gautrans	TBD	Roads • Gautrans				

STRATEGY 4: SUPPORT TOURISM

MOTIVATION:

The Tarlton Precinct contains areas classified as a tourism corridor (the northern section of the R24) and a tourism gateway (intersection of the R24 and N14). The areas to the north of the N14 fall within the Magaliesberg Biosphere Reserve. The Precinct forms part of the larger tourism offering within the north-western parts of Mogale City. It can benefit from the tourism network and must also contribute to its successful functioning.

PROJECT 1: 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		Х		MCLM Development Planning	N/A	N/A	MCLM Development PlanningMCLM Tourism
Appoint consultants to draft development guidelines, parameters, and controls		х		MCLM Development Planning	MCLM Development Planning	R300 000	 MCLM Sports, Arts, Culture and Recreation
Develop land use application and approval processes		Х		MCLM Development Planning	N/A	N/A	MCLM Parks Management and Nature Conservation
Incorporate in LUS		х		MCLM Development Planning	MCLM Development Planning	R1000per/page	 MCLM Environmental Management MBR NPO
Apply guidelines to the development of the road reserve along the northern section of the R24			х	MCLM Parks Management and Nature Conservation	N/A	N/A	COH WHS MA MACH

		PROJI	ECT 2: DEVI	ELOP A GATEWAY F	PARK		
ACTIONS	SHORT TERM	MEDIUM TERM	LONG TERM	RESPONSIBLE AGENT	POTENTIAL SOURCES OF FUNDING	ESTIMATED COST	STAKEHOLDERS
Identify the portion of land on which the gateway park should be located			Х	MCLM Tourism	N/A	N/A	 MCLM Development Planning
Appoint consultants to design the park based on clear guidelines			Х	MCLM Tourism	GP DoSACR	TBD	MCLM TourismMCLM Sports, Arts,
Construct the park			X	MCLM Tourism	GP DoSACR	R1 000 000	Culture and Recreation MCLM Parks Management and Nature Conservation WRDM Regional Development Planning and Environmental Management MBR NPO GP DoSACR Local artists
		PROJI	ECT 3: BEAL	JTIFICATION OF THE	N14		
ACTIONS	SHORT TERM	MEDIUM TERM	LONG TERM	RESPONSIBLE AGENT	POTENTIAL SOURCES OF FUNDING	ESTIMATED COST	STAKEHOLDERS
Address illegal land uses adjacent to the N14	Х	X	X	MCLM Development Planning	N/A	N/A	MCLM Development PlanningMCLM Parks
Plant tree lanes along the N14		X		MCLM Parks Management and Nature Conservation	Gautrans	R300/m²	Management and Nature Conservation Gautrans

STRATEGY 5: SUPPORT FPSU

MOTIVATION:

PROJECT 1: CONSTRUCTION OF THE FPSU

ACTIONS	SHORT TERM	MEDIUM TERM	LONG TERM	RESPONSIBLE AGENT	POTENTIAL SOURCES OF FUNDING	ESTIMATED COST	STAKEHOLDERS	
Obtain development rights: Rezoning Removal of restrictive conditions Drafting of Site Development Plan Conduct all necessary studies e.g. environmental, geotech etc.	X			DALRRD	GDARD LABSA DBSA SEDA DALRRD	R200 000	 MCLM Development Planning GDARD DALRRD LABSA DBSA SEDA 	
Construction of facilities and bulk infrastructure	X			DALRRD	GDARD LABSA DBSA SEDA DALRRD	R2 750 000		
Acquiring the necessary equipment e.g. tractors, seed planters and shank rippers	X			DALRRD	GDARD LABSA DBSA SEDA DALRRD	R4 000 000		

19 GUIDANCE FOR LUMS

19.1 LUMS CLAUSES

Th 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 disfigurate 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 Region.

19.2 LUMS LAND USE ZONES

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

Table 5: MCLM LUS LAND USE ZONES

	MIXED USE ACTIVITY SPINE	MIXED USE NODE	SOCIAL NODE	TOURISM CORRIDOR	LOW DENSITY RESIDENTIAL	MEDIUM DENSITY RESIDENTIAL	HIGH DENSITY RESIDENTIAL	COMMERCIAL	GREEN INDUSTRIES	AGRICULTURAL SUPPORT AREAS	AGRICULTURAL AREAS	OPEN SPACE AND NATURAL AREA
RESIDENTIAL 1 1 dwelling unit per erf (100m ² - 4000m ²	NO	NO	NO	YES	YES	YES	NO	NO	NO	NO	NO	NO
RESIDENTIAL 2 20 up to 40 dwelling units per ha	NO	NO	NO	NO	YES	YES	NO	NO	NO	NO	NO	NO
RESIDENTIAL 3 41 to 60 dwelling units per ha	YES	YES	YES	NO	NO	YES	NO	NO	NO	NO	NO	NO
RESIDENTIAL 4 61 dwellings per ha and higher	YES	YES	YES	NO	NO	NO	YES	NO	NO	NO	NO	NO
RESIDENTIAL 5	NO	NO	NO	NO	YES	YES	NO	NO	NO	NO	NO	NO
AGRICULTURAL RESIDENTIAL One dwelling unit per agricultural holding	МО	NO	NO	YES	NO	NO	NO	NO	NO	YES	YES	NO
BUSINESS 1 Dwelling unit- 40 units / ha	YES	YES	NO	YES	NO	NO	NO	YES	NO	NO	NO	NO
BUSINESS 2 Dwelling unit- 40 units / ha	YES	NO	YES	YES	YES	YES	YES	NO	NO	YES	NO	NO

	MIXED USE ACTIVITY SPINE	MIXED USE NODE	SOCIAL NODE	TOURISM CORRIDOR	LOW DENSITY RESIDENTIAL	MEDIUM DENSITY RESIDENTIAL	HIGH DENSITY RESIDENTIAL	COMMERCIAL	GREEN INDUSTRIES	AGRICULTURAL SUPPORT AREAS	AGRICULTURAL AREAS	OPEN SPACE AND NATURAL AREA
BUSINESS 3	NO	NO	NO	NO	NO	NO	NO	YES	NO	YES	NO	NO
BUSINESS 4	NO	NO	NO	NO	NO	NO	NO	YES	NO	YES	NO	NO
BUSINESS 5	NO	NO	NO	NO	YES	YES	NO	NO	NO	NO	NO	NO
EDUCATIONAL	YES	YES	YES	YES	YES	YES	YES	NO	NO	YES	YES	NO
COMMERCIAL	NO	NO	NO	NO	NO	NO	NO	YES	YES	YES	NO	NO
COMMUNITY FACILITY	YES	YES	YES	YES	YES	YES	YES	NO	NO	YES	YES	NO
INSTITUTIONAL	YES	YES	YES	YES	YES	YES	YES	NO	NO	YES	YES	NO
Industrial 1	NO	NO	NO	NO	NO	NO	NO	YES	YES	YES	NO	NO
INDUSTRIAL 2	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
AGRICULTURE	NO	NO	NO	YES	NO	NO	NO	NO	YES	YES	YES	NO
PUBLIC OPEN SPACE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
PRIVATE OPEN SPACE	NO	NO	NO	YES	NO	NO	NO	NO	NO	NO	NO	YES

20 ALIGNMENT

20.1 INTRODUCTION

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

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

20.2 MUNICIPAL SDF

The Precinct Plan is aligned with the WRDM SDF, 2020 and the MCLM MSDF, 2019. The Precinct Plan is regarded as a node and the area is seen as mixed use. The Precinct Plan deviates from the idea of Tarlton being a tourism node and provides further detail on the mixed-use zone. These are however not considered material differences.

20.3SDFS OF SURROUNDING MUNICIPALITIES

The Tarlton Precinct Plan abuts Rand West City Local Municipality. The Precinct Plan does not impact on the Rand West City Municipal Spatial Development Framework.

20.4LARGE / STRATEGIC PROJECTS AND SECTOR ALIGNMENT

There are four large strategic projects 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 these projects.

The projects are:

- Upgrade of Matshelapata and Seroba informal settlements – National Department of Human Settlements through the UISP
- The development of Brickvale residential neighbourhood Gauteng Provincial Government
- The development of Affri Village Gauteng Provincial Government
- The Tarlton FPSU Agri-logistics: Marketing logistics, driven by the RID Branch of DALRRD. Social partners are: GDARD, MCLM-LED, SEDA/DTI.