

REVIEW OF MQANDULI & VIEDGESVILLE LSDF

# PHASE 3 & 4: COMPILATION OF DRAFT LSDF & REVIEW OF DEVELOPMENT PROPOSALS

30 June 2023



#### MQANDULI & VIEDGESVILLE LOCAL SPATIAL DEVELOPMENT FRAMEWORK

#### PHASE 3 & 4: COMPILATION OF DRAFT LSDF & DEVELOPMENT PROPOSALS REVIEW

CONTRACT NO: C/1997 30 June 2023

NB: This project is a Review which builds on the original Local Spatial Development Framework for Maanduli and Viedgesville prepared by Concepts Urban Design in June 2016.



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## **LIST OF ABBREVIATIONS**

4IR	Fourth Industrial Revolution	LED	Local Economic Development
ADC	Asime Development Consult	LOS	Level of Service
CA	Character Areas	LSDF	Local Spatial Development Framework
CBD	Central Business District	MISA	Municipal Infrastructure Support Agent
CL	Corridor Link	MR	Main Road
COGTA	Cooperative Governance and Traditional Affairs	NEMA	National Environmental Management Act
DC	Development Corridor	NMT	Non-Motorised Transport
DoT	Department of Transport	NSDF	National Spatial Development Framework
DRDLR	Department of Rural Development and Land Reform	ORTDM	OR Tambo District Municipality
EC	Eastern Cape	PSC	Project Steering Committee
ESRSDF	Eastern Seaboard Regional Spatial Development Framework	PSDF	Provincial Spatial Development Framework
FIRE	Finance, Insurance, Real Estate And Banking	PT	Public Transport
FMR	Future Metro Region	PTC	Project Technical Committee
GDP	Gross Domestic Profit	RDP	Reconstruction and Development Programme
GVA	Gross Value Add	SAC	Smart African City
HSRC	Human Sciences Research Council	SANRAL	South African National Roads Agency
ICT	Information and Communications Technology	SDF	Spatial Development Framework
IDP	Integrated Development Plan	SEZ	Special Economic Zone
ITP	Integrated Transport Plan	SPLUMA	Spatial Planning and Land Use Management
IUDF	Integrated Urban Development Framework	SPV	Special Purpose Vehicle
IWCDP	Integrated Wild Coast Development Programme	WSU	Walter Sisulu University
KSD	King Sabata Dalindyebo	WWTW	Waste Water Treatment Works
KSDM	King Sabata Dalindyebo Municipality		

### 1 INTRODUCTION AND BACKGROUND

#### 1.1 BACKGROUND AND PROCESS

Asime Development Consult (ADC) have been appointed by King Sabata Dalindyebo Municipality (herein after referred to as KSDM) to undertake the <u>review</u> of an existing Local Spatial Development Framework (LSDF) for the nodal areas of Maganduli and Viedgesville.

The focus of the review has been to look at what has changed in the status quo over the past five years, what policy changes have been made at a local, provincial and national level and to provide a refinement of the <u>spatial guidelines and directives</u> for the development and management of Mqanduli and Viedgesville in response to these changes, if any.

The review has taken into account the recently released **Draft Eastern Seaboard Regional Spatial Development Framework** (2023) and the **National Spatial Development Framework** (2022), both of which identify Maganduli and Viedgesville as important nodes with the Eastern Cape and the future Mthatha Metropolitan Region.

The review has been prepared in terms of the Spatial Planning and Land Use Management Act (SPLUMA) and Spatial Development Framework (SDF) guidelines provided by the Department of Rural Development and Land Reform (DRDLR, 2017.

NB the review has not included updates to the Local Economic Development, Environmental, Transportation and/or Infrastructure Status Quo Reports prepared for the 2016 LSDF. Where necessary, the ADC team have made qualified assumptions and made use of information in these original reports and updated or augmented with information from relevant overviews in the IDP and SDFs for KSDM.

#### 1.2 PROJECT APPROACH & METHODOLOGY

There are eight phases to the project:

- Phase 1: Inception
- Phase 2: Data Collection And Analysis
- Phase 3: Compilation of Draft LSDF Review
- Phase 4: Review of Development Proposals
- Phase 5: Incorporation of Amendments
- Phase 6: Public Participation
- Phase 7: Consideration of Submissions
- Phase 8: Final Draft LSDF Review and Submission

The Project Team has adopted a strategic and facilitative approach to assist in delivering a revised and shared vision, updated development strategies and frameworks and stakeholder buy-in.

This report represents the milestone deliverables for **Phases 3 & 4: Compilation** of the Draft Local Spatial Development Framework (LSDF) Review and Review of Development Proposals for consideration by the Project Steering Committee (PSC), Project Technical Committee (PTC) and KSDM Council and before being presented to the general public and Traditional Leaders prior to being finalised and adopted by KSDM Council.

#### 1.3 SITE LOCALITY AND ADMINISTRATIVE BOUNDARIES

#### 1.3.1 Regional Context

Maganduli and Viedgesville are located in the Eastern Cape Province, in the OR Tambo District Municipality (ORTDM), which in turn is located in the King Sabata Dalindyebo Municipality (KSDM).

The District is located in the north-eastern region of the Province is and is bordered by Alfred Nzo District Municipality to the North-East, Joe Gqabi and Chris Hani District Municipalities to the West, Amathole District Municipality to the South-West and the Indian Ocean Coastline to the East.

The local municipal area of KSDM is located on the southern border of ORTDM, to the south of Nyandeni and Mhlontlo municipalities.

The N2 National Road passes through KSDM and connects the Coastal District Municipalities of the Western Cape, Eastern Cape and KwaZulu-Natal.



FIGURE 1-1: STUDY AREA (SOURCE: CONCEPTS URBAN DESIGN)

#### 1.3.2 Local Context

Maganduli Town is located 35km south of Mthatha on the R411 Coastal Route which runs from Viedgesville on the N2 south-east towards Coffee Bay. It is 15kms from Viedgesville and 60km from Coffee Bay.

The Viedgesville nodal area is located on the N2 National Route in the vicinity of the off-ramp to the R411 provincial route, 20kms south-west of Mthatha and 12kms north-east of Qunu and 200km north-east of East London.

Mqanduli is considered a primary node of KSDM, whilst Viedgesville an emerging secondary node.

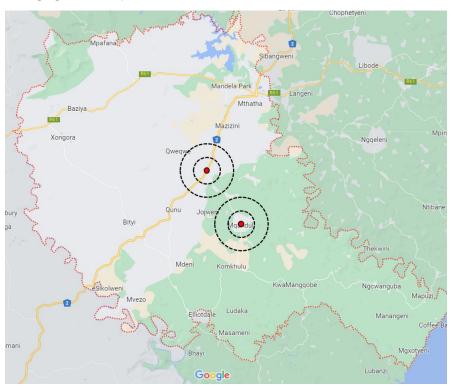


FIGURE 1-2: MQANDULI AND VIEDGESVILLE IN CONTEXT

#### 1.4 STUDY AREA

#### 1.4.1 Mqanduli

The study area of the Mqanduli includes the Mqanduli Central Business District (CBD), residential suburbs and the surrounding commonage<sup>1</sup> administered by the KSDM.

King Sabata Dalindyebo Ni

FIGURE 1-3: STUDY AREA: MQANDULI

The study area falls within Ward 29 and Wards 23 and 28 lie south and west of the study area. These ward boundaries have been substantially amended in 2016 and 2020 ward demarcation adjustment processes and are not the original boundaries used for the 2016 LSDF.

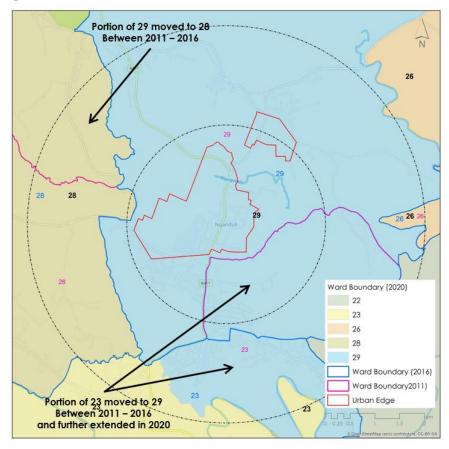


FIGURE 1-4: STUDY AREA: MQANDULI WARD BOUNDARIES

<sup>&</sup>lt;sup>1</sup> "Commonage" means land owned by the municipality on which residents have acquired / can acquire grazing rights or rights to arable lots with the approval of the Municipality (KSDM, 2021).

#### 1.4.2 Viedgesville

Viedgesville study area consists of the peri urban settlements located within a 4km radius from the Viedgesville Railway Station mixed use node located close to the interchange between the N2 and the MR 411.

Upper Zungua Ntshele Mandlovini B KwaNxura Nggwala A Khohlo D King Sabata Dalindyebo NU N2 Rhuyrwala Balizulu R411

FIGURE 1-5: STUDY AREA: VIEDGESVILLE

Ward 32 forms the greater part of the study area. Portions of Wards 28, 29, 33 and 35 also fall within the 4km study area radius. The ward boundaries were changed marginally in 2016 and 2020 and differ from the boundaries used in the 2016 LSDF.

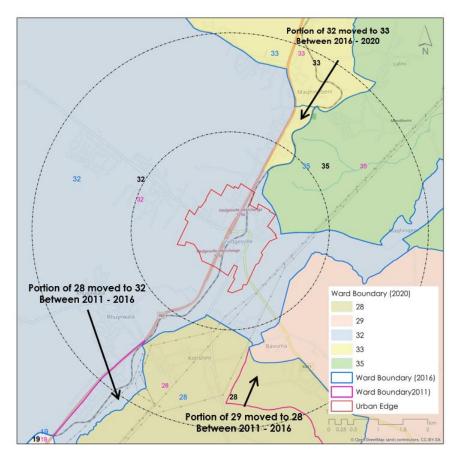


FIGURE 1-6: STUDY AREA: VIEDGESVILLE WARD BOUNDARIES

### 2 POLICY FRAMEWORK AND LEGAL CONTEXT

#### 2.1 OVERVIEW

One of the complexities of integrated development planning within South African cities is the **plethora of the legislation**, **policies and strategies from national**, **provincial and local government** that "aim to improve the way in which our cities function, the conditions in which people live, the way in which cities enables investment and economic growth and the protection of valuable resources from irresponsible consumption" (CoT, 2007).

The legislation that governs spatial planning in one way or another includes:

- Constitution of the Republic of South Africa, 1996
- Spatial Planning and Land Use Management Act, 2013
- Municipal Systems Act, 2000
- National Environmental Management Act, 1998 (NEMA)
- Protected Areas Act, 2003
- Biodiversity Act, 2004
- National Water Act, 1998
- Conservation of Agricultural Resource Act

The list is not exhaustive as there are numerous other Acts that govern sectoral aspects such as transportation, service delivery, housing, education etc. that have a direct influence on the way in which a city should develop spatially (CoT, 2007).

The management of towns and development is also influenced through global, national and provincial policy and strategy frameworks such as the:-

- National Spatial Development Framework (2022)
- Integrated Urban Development Framework (2016)
- Sustainable Development Goals
- The Climate Change Agenda etc

Whilst the preparation of the LSDFs needs to take cognisance of these acts, policies and strategies, not all will have direct application to the Mqanduli and Viedgesville areas. Key legislative frameworks and policy documents of specific relevance to the planning of the study areas are discussed as follows.

#### 2.2 LEGISLATIVE FRAMEWORK

The Municipal Systems Act, the National Environmental Management Act (NEMA) and the Spatial Planning and Land Use Management Act (2013), provide the overarching planning and legislative frameworks within which national, provincial, district and local planning needs to take place.

#### 2.2.1 Spatial Planning and Land Use Management Act (2013)

The Spatial Planning and Land Use Management Act (SPLUMA) provides a national legislative framework for spatial planning and land use management with a uniform set of procedures for land development approvals that primarily seeks to align land use planning with the provisions of the Constitution i.e. it seeks to address historical spatial imbalances, transform settlement patterns and promote greater social and economic inclusion.

The Act reinforces the primary role of municipal government in managing land use planning and land development applications and provides for the establishment of Municipal Planning Tribunals.

The key development principles of Chapter 2 of SPLUMA that the Maanduli and Viedgesville LSDFs must respond to are:

- Spatial Justice.
- Spatial Sustainability.
- Efficiency.
- Spatial Resilience: and
- Good administration

**Spatial Justice**: Spatial Justice addresses the need to redress past spatial and other development imbalances.

**Spatial Sustainability:** Spatial Sustainability addresses the need to promote the development of viable communities in locations that are sustainable and limit urban sprawl.

**Efficiency:** Efficiency deals with the need to ensure that land development optimizes use of resources and infrastructure.

**Spatial Resilience:** Spatial Resilience encompasses the need to accommodate flexibility in spatial plans, policies and land use management systems to ensure sustainable livelihoods in communities.

**Good Administration**: Good administration covers a number of areas:

- Ensuring an integrated approach to land use in all spheres of government, which is guided by the spatial planning and land use management systems embodied in the Act.
- Ensuring timeous compliance by government departments in terms of preparing spatial development frameworks and land use management schemes to guide development.
- Ensuring transparent public participation processes in the preparation of spatial plans, policies and land use management schemes
- Empowering members of the public through clear policies, legislation and procedures.

Under the Act, municipalities must, within five years of the commencement of the Act, adopt a single land-use scheme for its area of jurisdiction, which must be reviewed every five years (in line with the preparation of municipal Integrated Development Plans).

The LSDFs plan must assist KSDM with this review.

# 2.2.2 National Environmental Management Act (No. 107 of 1998 As Amended)

This Act provides for co-operative, environmental governance by establishing principles for decision-making on matters affecting the environment, institutions that will promote co-operative governance and procedures for coordinating environmental functions exercised by organs of state; and to provide for matters connected therewith.

NEMA provides a list of principles that need to be considered in all activities of KSDM as well provides for the development of Regulations for Environmental Impact Assessments (EIAs).

#### 2.3 POLICY FRAMEWORK

#### 2.3.1 National Policy and Plans

#### National Spatial Development Framework (2022)

The National Spatial Development Framework (NSDF) is a long-term planning framework for the spatial development of South Africa that identifies a national spatial development framework to inform, direct and guide all future infrastructure investment and development spending decisions by government and the private sector in line with South Africa's national spatial development vision and logic, to achieve the desired national spatial development pattern for South Africa in 2050, thereby achieving the national development objectives, as set out in the National Development Plan



FIGURE 2-1: NATIONAL SPATIAL DEVELOPMENT FRAMEWORK (2022)

Maganduli and Viedgesville are located within the **National Transformation Corridor (Coastal).** A strategic development area that aims to promote economic growth and development in the Eastern Cape. The corridor stretches from the city of Port Elizabeth in the south to the city of Mthatha in the north, and it is home to a number of important agricultural resources, including fertile soils, abundant water, and a mild climate.

The NSDF calls for the development of the corridor to be "bold and different" and to be develop according to its unique strengths and opportunities and not simply to replicate the development models that have been used in other parts of South Africa.

One of the key implications of the development of the National Transformation Corridor (Coastal) is the need to **protect agricultural land and commonage**. The corridor is home to a significant amount of agricultural land, which is essential for food production and economic growth. The development of the corridor must be carefully planned to ensure that agricultural land is protected, and that the corridor's agricultural potential is not compromised, and the area develops into a **Productive Rural Region** 

This implies the need to **consolidate settlement**. The corridor is currently characterized by a dispersed pattern of settlement, which can make it difficult to provide essential services and infrastructure. The development of the corridor must be accompanied by a process of consolidation, which will help to ensure that people are living in areas that are well-served by services and infrastructure.

The development of the corridor must also protect **ecological goods and services**. The corridor is home to a number of important ecosystems, which provide a range of benefits to people and the environment.

Finally, the development of the corridor must support the **growth of new emerging cities (i.e. Mthatha)** which will help to create jobs and opportunities for people in the corridor.

#### Integrated Urban Development Framework

The Integrated Urban Development Framework IUDF) is a policy initiative of the Government of South Africa to foster a shared understanding across government and society on how best to manage urbanisation and achieve the goals of economic development, job creation and improved living conditions" for South African citizens, (COGTA, 2016).

Whilst the policy framework has a strong urban focus, the IUDF recognises that urban-rural linkages need to be strengthened. There are push and pull factors that drive people from rural areas to urban areas. As such the IUDF aims to strengthen these linkages by recognising that there is an uran-rural continuum and investing in rural development and by making it easier for people to move between urban and rural areas.

"Urban development is not an alternative to rural development. Rural and urban areas complement each other and coexist in production, trade, information flow and governance. They are further connected through flows of people, and natural and economic resources" (COGTA, 2016).

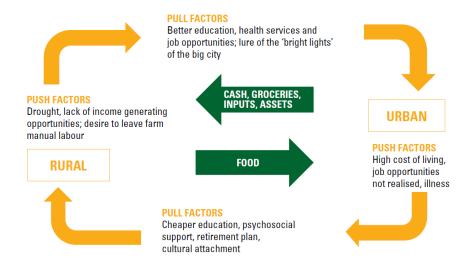


FIGURE 2-2: RURAL - URBAN PUSH AND PULL FACTORS (SOURCE: COGTA, 2019)

Urban growth is to be steered towards a sustainable growth model of compact, connected, and coordinated cities and towns. This means reducing urban sprawl, promoting mixed-use development, and investing in public transportation.

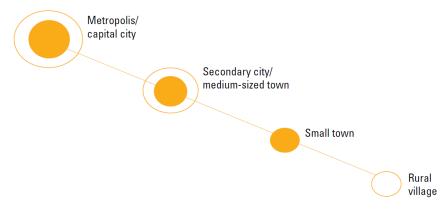


FIGURE 2-3: RURAL-URBAN CONTINUUM (SOURCE: COGTA, 2016)

The implications for the Maanduli and Viedgesville LSDF reviews are that future planning must:

- Promote the consolidation of settlement: Practical and defendable urban/settlement edges should be defined. Clear boundaries between urban and rural areas will help to protect agricultural land and commonage, and it will help to manage urban growth in a sustainable way.
- Augment linkages between settlements and to major nodes: Upgrade connections withing and between different urban and settlement areas and major transportation hubs.
- Protect agricultural land and commonage: These areas provide food security and environmental benefits as well as livelihoods for communities who are currently dependent on agriculture as employment and/or for personal consumption.

#### 2.3.2 Provincial Policy and Plans

#### The Eastern Cape Provincial Spatial Development Framework (2017)

The Eastern Cape Provincial Spatial Development Framework (EC PSDF) is a shift from the Provincial Growth Development Plan (2004), EC Provincial Vision 2030 as well as the Provincial PSDF (2012) as it considers future growth projections and its implications on infrastructure, food security, climate change (Tshani Consulting, 2020).

The future spatial perspective of the province envisages a "poverty free Eastern Cape" with an ultimate objective of achieving 'sustainability through achieving a balance between the needs of society (communities) the ecology (nature) and the demands of the economy (capital)'.

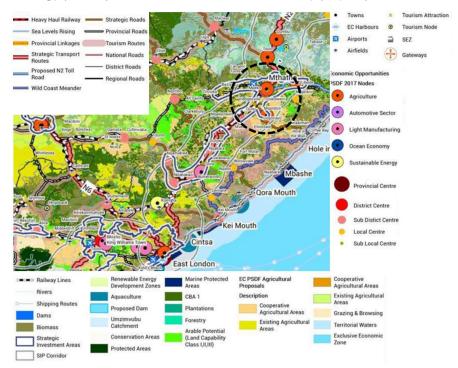


FIGURE 2-4: EC PROVINCIAL SDF

The vision for the concept is that of a "modern, ecologically sustainable economy based in agriculture, tourism and industry" and the spatial perspective comprises a framework that promotes -

"managed urban and rural human settlements clustered in urban regions and corridors, alongside productive agricultural precincts, managed ecological natural resource areas & connected to a network of strategic transportation corridors, open to the globe, national and provincial economy".

Of particular relevance to the Maanduli and Viedgesville LSDF review is the recognition that significant development has occurred along major mobility routes and corridors serving Mthatha and that these developments are envisaged to grow into each other and function collaboratively as a region, by the year 2050 thus becoming a **Future Metro Region**.





#### 2.3.3 Regional Policy and Plans

#### Eastern Seaboard Regional Spatial Development Framework (2023)

The Eastern Seaboard Regional Spatial Development Framework (ESRSDF) is a planning framework for the development of the Eastern Cape and KwaZulu-Natal coastal region (cross-border). It was developed by the Municipal Infrastructure Support Agent (MISA) and published in 2023.

The ESRSDF introduces the concept of an **African Smart City.** A comprehensive approach to urban development that aims to create more sustainable, equitable, and prosperous cities. The idea of "smart" is generally associated with a range of technological and digital concepts and interventions, especially ICT and a particular focus on Fourth Industrial Revolution (4IR) technologies. However, "smart" can also mean "intelligent" or "knowledge intensive" to inform evidence-based decision making and refer to innovative approaches, techniques and processes.

By redeveloping and investing in current towns, spatially transforming them, and augmenting their function to give them city status, the African Smart City focus can help to create a better future for all.

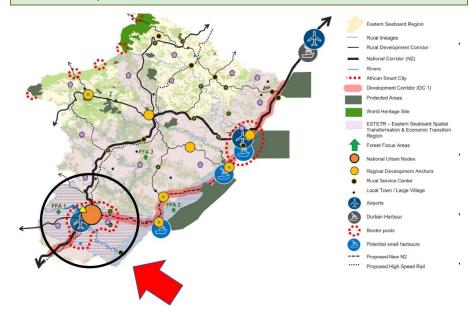


FIGURE 2-5: ESRSDF CONCEPTUAL FRAMEWORK

Directives for the future planning in the area that affect the Mqanduli and Viedgesville LSDF review are:

- SAC01 Smart African City: Mthatha (SAC01) has been identified as a pilot Smart African City (SAC) "a polycentric city with a range of nodal areas and suburban nodes that provide services and goods to residents". The goal of the project is to transform Mthatha into a smart city by investing in infrastructure, technology, and innovation. The administrative boundary associated with this designation, corresponds with the identification of a Higher Order Settlement/ Future Metro Region (FMR) as per ESRSDF Macro Land Uses and Settlement Hierarchy (Figure 2-6). Maganduli and Viedgesville are located within the SAC/FMR.
- DC 1: National Coastal Development Corridor: A development corridor
  that links the Buffalo City Metropolitan Municipality and the eThekwini
  Metropolitan Municipality. The corridor is important for economic
  development, as it provides a transportation link between two major
  economic centres.
- CL 1: Viedgesville-Coffee Bay Corridor Link: The Viedgesville-Coffee Bay
  Corridor Link (CL 1) is a proposed road that would connect the town of
  Viedgesville to the town of Coffee Bay. The corridor is important for
  economic development, as it provides the only inland transportation link
  to Coffee Bay and the coastal assets of the Eastern Cape.
- Identifies Mqanduli (STR14) and Viedgesville (STR24) as nodes for Small
  Town Regeneration and Intervention Area (does not change the current
  local status of node as primary and secondary respectively). This means
  that these towns will receive funding and support from the government
  to improve their infrastructure and services.
- Mqanduli (FPSU11) Agri-Park: A proposed agricultural park that would be
  located in the town of Mqanduli. The park would provide a space and
  agricultural support to farmers to involved in crop production and raising
  livestock.

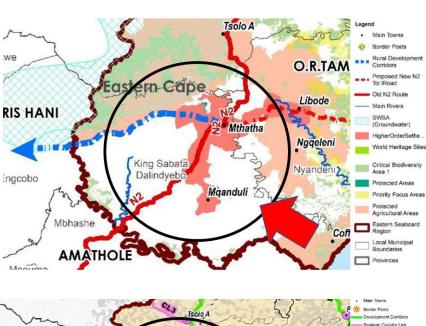




FIGURE 2-6: ESRSDF MACRO LAND USES & SETTLEMENT HIERARCHY

The implications for the Maanduli and Viedgesville LSDF reviews are that future planning must:

- Plan for in-migration: The perceived benefit of metro status and investment is likely to drive in-migration to the greater Mthatha area. The review must make provision for the expansion and consolidation of development within each node.
- Protection of agricultural potential: The agricultural potential of the region needs to be protected. Not only for food security but as an emerging economic sector of value for the region. The Maanduli Agri-Park and other agricultural projects can help to ensure food security in the region.
- Define urban edges: The KSDM needs to define its urban edges, especially for the Future Metro Region. This will help to ensure that development is contained, and that the natural environment is protected.
- Provide clear roles for Maanduli and Viedgesville: Clear roles to guide
  development are needed to ensure that development is coordinated
  and that the benefits of development are shared equitably.
- Investment in education and training: The development of the SAC01
  Smart African City will require skilled people. The region currently has an
  education mismatch, so there will need to be investment in education
  and training. Whilst outside the ambit of the LSDF review, the reviews must
  consider making space available for educational facilities, where
  appropriate.

The declaration of the Eastern Seaboard Region requires the establishment of new administrative entity (SPV) to coordinate development between various national and provincial departments as well as district and local municipalities, however detailed land use planning and the determination of urban edges remains a local municipal mandate.

#### OR Tambo Spatial Development Framework Review (2021)

The District SDF guides all decisions of the municipality relating to the use, development and planning of land and, at the district level, and as such guides and informs:

- A hierarchy of settlement to illustrate the relative importance and purpose (function) of different places (towns and settlements).
- The identification of major movement routes.
- The identification of Special Development Areas for specific interventions to facilitate and/or improve local economic development opportunities or to address special instances of need.
- The conservation of both natural and built environments.

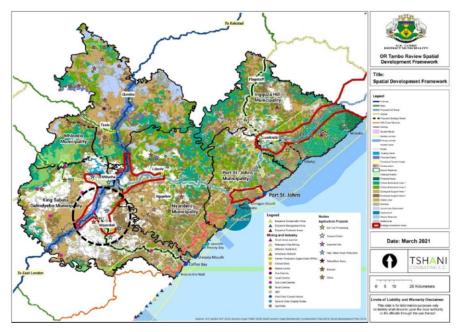


FIGURE 2-7: OR TAMBO DISTRICT SDF

Both Maanduli and Viedgesville are identified as a Local Centre and a Sub-Local node respectively with potential high value crop areas on their periphery suitable for dairy and vegetable farming. A Farmers Production Support Unit is proposed for Maanduli.

The N2 is designated a primary corridor and R411 a mobility corridor.

Other identified tourism initiatives of significance to the study area include the Madiba Corridor which runs along the N2 through Viedgesville connecting the Nelson Mandela Museum in Mthatha to the Qunu Village west of Viedgesville as well as the Wild Coast Meander which runs along the coast and which is accessed off the N2 through Viedgesville, passing southwards to the coast through Manduli.

#### OR Tambo Integrated Transport Plan (2020)

The OR Tambo Integrated Transport Plan (ITP) sets out the vision, goals and objectives, and strategies to address all aspects of land transport in the municipal area.

The outcomes of the ITP are incorporated into the Municipal Integrated Development Plan and Spatial Development Frameworks of the KSDM; however the following dimensions are of particular relevance to the Maganduli and Viedgesville LSDFs review (Likhithanande Engineers, 2020):

- Kei Rail (Passenger services) that operated between East London and Mthatha ceased operations in 2014 due to financial difficulties and low passenger numbers.
- There is pressure from the mini-bus taxi industry not to resuscitate passenger rail services in Eastern Cape (EC DoT, 2021). The taxi industry argues that the service would compete with their own services and would lead to job losses.
- A committee has been established by EC DoT to promote freight rail services in the Eastern Cape province in line with the Provincial Freight Strategy. The committee is working to develop a strategy to increase the use of rail for freight transportation.
- Transnet is assessing whether the East London Mthatha Rail Line is viable
  for freight transportation and there appears to be interest in a freight
  concession that would allow a private company to operate the line for
  freight transportation.

- There is settlement encroachment (residential and business premises) on the rail corridor between East London and Mthatha.
- The national N2 highway between East London and Mthatha is ranked as the worst road in South Africa and colloquially referred to as the highway to hell" due to the number of recorded deaths.
- The Manduli Taxi Rank in poor condition, is overcrowded and does not have adequate facilities for passengers. There is no formal ranking facility in Viedgesville.

The implications for the Maanduli and Viedgesville LSDFs review are to:

- Protect rail corridor that runs through Viedgesville: Settlement encroachment on the corridor poses a safety hazard and could also make it more difficult to operate freight trains on the corridor.
- The proposed logistics hub in Viedgesville needs be developed in a manner that is flexible to road and rail options: This will give businesses more options and could make the hub more attractive to investors.
- Design pedestrian safe environments and "design-in" natural crossing points on major corridors for safe passage for animals and people.
- Revitalise the Taxi Rank in Maanduli and make provision for a Taxi Rank facility in the Viedgesville node.









#### Disaster And Risk Management Framework Plan (Undated)

ORTDM are in the process of drafting a new disaster management plan. The plan will address risks associated with human disease, hydro meteorological hazards, fire hazards, civil unrest, road transportation hazards, and infrastructure/service delivery failure.

A Disaster Advisory Forum has been established in ORTDM and is responsible for advising the municipality on disaster management matters.

The implementation of the new disaster management plan will require the establishment of a **24-hour Communication Control Centre** (Disaster Operations Centre/Central Communication Centre). The centre will be responsible for monitoring emergency and essential services' communications and early warning information systems. It will also be responsible for identifying developing emergencies and disasters so that appropriate response can be activated during major incidents and disasters.

Key aspects of the plan will respond to:

**Disaster Management Strategies** to be mainstreamed into the preparation of the IDP (Integrated Development Plan). This means that disaster management considerations need to be taken into account when planning for the development of the district municipality.

**Emphasis on risk reduction and disaster preparedness** in order to reduce the risks of disasters and to prepare for disasters that do occur.

Adoption of a formal policy for the declaration of a local state of disaster. The policy will set out the criteria for declaring a local state of disaster and the procedures that will be followed when a local state of disaster is declared.

**Review and update of plan on an annual basis** ensuring that the plan remains relevant and up to date.

#### 2.3.4 Municipal Policy and Plans

#### King Sabata Dalindyebo Integrated Development Plan (2022-2027)

The Integrated Development Plan guides and informs the planning, management and implementation of socio-economic development within the municipality. The IDP links development needs to the budget so that the development is financially viable and economically feasible. Issues of physical sustainability and location are key in the IDP process.

#### The IDP Vision is:

"A developmental people centred municipality spearheading RADICAL economic transformation in an environmentally and socially sustainable manner."

#### With a Mission to:

To provide high quality services, socio-economic transformation, safe and sustainable livelihoods based on sound governance and commitment to meaningful public participation and protection of the environment. Shaping KSD to become "a municipality of choice to visit, invest, live and work".

The following priority needs for each node (ward-based) were identified in the May 2022 IDP Roadshows:

TABLE 2-1: IDP ROADSHOW WARD PRIORITY NEEDS (MAY 2022)

	MQANDULI Ward 29		VIEDGESVILLE Ward 32
1.	Roads Construction and	1.	Roads Construction & Maintenance
	Maintenance	2.	Water & Sanitation
2.	Water and Sanitation	3.	Electricity supply in New Extensions
3.	LED – Job Creation for Youth	4.	LED & Youth Development
4.	RDP Houses	5.	Community Hall and RDP Houses
5.	Clinics		

KSDM committed to pursuing the establishment of high-impact programmes that reinforce the roles of:

- Magnduli as an agricultural node with agro-processing and the industrialisation of agricultural initiatives around Magnduli town
- Viedgesville as a logistics hub

#### King Sabata Dalindyebo Spatial Development Framework (2020)

The Spatial Development Framework translates identified key development nodes, priority development corridors and areas of special development interest into a plan on the ground.

The SDF both informs and is informed by the KSDM IDP as well as by national and provincial policy objectives outlined in previous sections.

Informants to the review of the Maanduli and Viedgesville LSDFs review are as follow:

- Maganduli Town is designated as a Local Centre
  - o Municipal-scale Administrative Centre
  - Local-scale service centre for commercial and social goods and services
  - Residential development covering full range of economic bands (Middle-income - Low-income)
  - o Potential for value-adding agro-industrial processes
- Viedgesville is designated as a Sub-Local Centre
  - Serve as location points for community facilities serving the local community.
- Both nodes have been identified as part of the Small Towns Rehabilitation Programme
- Viedgesville is located on a Primary Corridors (N2) at the intersection with the R411: the corridor is aimed at functioning as a key mobility route that promote trade, commerce and key linkages between other municipalities.
- Magnduli is located on a Secondary Corridors (P411): This corridor supports the functions of the primary corridors while extending connectivity to local areas.
- Both nodes are located within the Mthatha Future Metro Region: These
  Future Settlement Regions are aimed at promoting regional growth and
  supporting municipal functions as these regions are cross municipal
  boundaries. The role of the area as a metro region does not imply wallto-wall urban development.

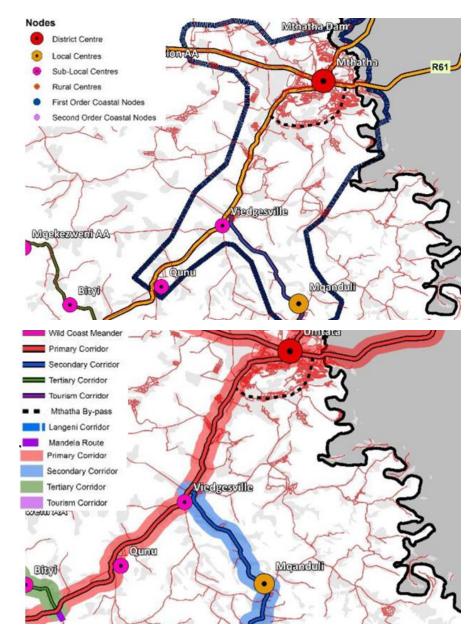


FIGURE 2-8: KSDM SDF NODES AND CORRIDORS FRAMEWORK

- **Urban Edge**: the urban edge is a boundary that seeks to manage urban sprawl within a defined urban area. The current urban edges are reflected in Figure 2-9 but will be refined as part of the LSDF review for both nodes. It is important to rationalise urban edges to ensure that development is sustainable, and that agricultural land is protected.
- Settlement Edge: A settlement edge is the dividing line or boundary between areas of urban or rural development (a settlement). It also defines the logical boundary between areas with different features and purposes, such as the boundary between areas suitable for development and those with ecological sensitivity.
- Protect agricultural commonages: Agricultural commonages are important for food security and for the conservation of biodiversity. It is important to protect agricultural commonages from encroachment and to ensure that they are managed sustainably.
- **Protection of biodiversity assets**: There are several important biodiversity assets that traverse the study areas, it is important to protect these assets by establishing 100m buffers around them, especially watercourses.
- **Plan for growth:** KSDM needs to plan for growth in a way that is sustainable and that protects critical assets. This includes planning for the development of new infrastructure, such as roads and schools, and for the provision of new services, such as water and sanitation.
- Climate change: Climate change is a major threat to food security in the
  Eastern Cape province of South Africa. Planning for the adaptation of
  agricultural practices to climate change and for the development of
  new crops that are more resilient to climate change is required.
- KSDM Functional Agricultural Area: The KSDM Functional Agricultural
  Area is a critical asset for the Eastern Cape province of South Africa. The
  area is home to fertile soils and a mild climate, which are ideal for
  agricultural production. The area is also home to a number of important
  agricultural crops, such as maize, soybeans, and wheat.

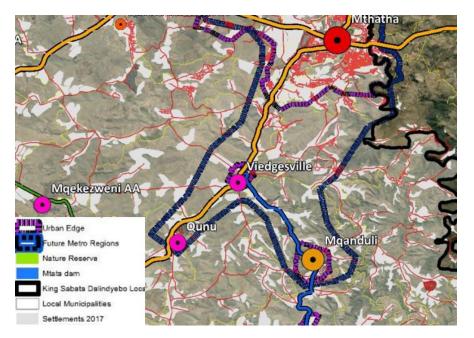


FIGURE 2-9: KSDM SDF URBAN EDGES

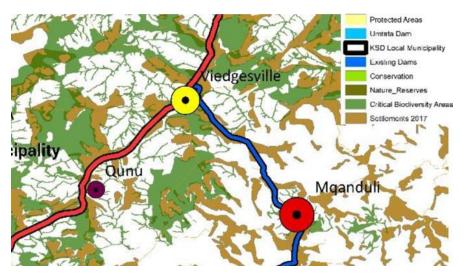


FIGURE 2-10: KSDM SDF ENVIRONMENTAL FRAMEWORK

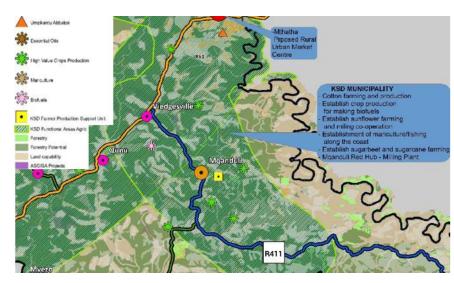


FIGURE 2-11: KSDM SDF AGRICULTURAL FRAMEWORK

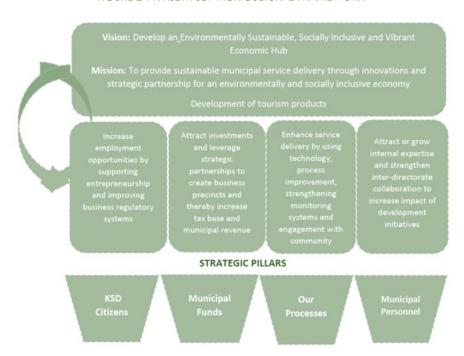


FIGURE 2-12: LED STRATEGIC FRAMEWORK

#### King Sabata Dalindyebo Municipality Local Economic Development Review (2020)

The primary focus of the KSDM Local Economic Development Strategy is to facilitate sustainable local economic growth, creation of sustainable employment and improvement of the quality of life of all the people Municipalities serve.

Priority Projects of relevance to the study area include high value crop production which includes the production of high value crops, agroprocessing, development of relevant and appropriate skills as well as logistics and infrastructure development to support the agriculture industry.

STRATEGIC	STRATEGIC OBJECTIVES				
	A1	A2	A3		
KSD Citizens	Increase employment opportunities to reduce poverty	Support entrepreneurship and innovation through capacity building to create value in local businesses	Improve ease of doing business by improving the regulatory system, infrastructure and red tape reduction		
	B1	B2	B3		
Municipal Funds	Attract investments to facilitate industry development in focus sectors to increase business tax base	Enhance municipal revenue through creating new business districts and precincts	Leverage strategic funding from government entities and private sector		
	C1	C2	C3		
Our Processes	Engage business community and other levels of government	Develop strategic partnerships and collaboration opportunities	Enhance service delivery through technology, process improvement, and strengthening monitoring systems		
	D1	D2	D3	D4	
Municipal Personnel	Build internal capacity through targeted training programs based on skills and personal development plans	Strengthen inter- directorate collaboration to increase impact of development initiatives	Attract and grow expertise to improve implementation of development initiatives	Retain capacitated personnel through recognition of good performance and attach incentives	

FIGURE 2-13: KSDM LED STRATEGIC OBJECTIVES

TABLE 2-2: KSDM PROJECTS IN THE STUDY AREAS

PROJECT NAME	DEPARTMENT	REGION	SOURCE OF FUNDING	PROJECT COSTS
Mqanduli Corridor Development Water Services Supply Intervention Area (WSIA)	ORTDM – Implementation KSD LM Dept Infrastructure - Oversight	ORTDM	MIG, DPW, DWAS	R 1 145 million
Maanduli Corridor (KSD Presidential Initiative : Mthatha Regional Water Supply – Thornhill to Maanduli via Viedgesville)	ORTDM – Implementation KSD LM Dept Infrastructure - Oversight	ORTDM	MIG, DPW, DWAS	R 296 million
Mqanduli Corridor (KSD Presidential Initiative: Mthatha Regional Supply Thornhill to Mqanduli via Viedgesville)	KSD LM Infrastructure ESKOM - Implementation	KSD, Ward 29	MIG	R16 million
KSD PIP: Pipe Replacement	ORTDM – Implementation KSD LM Dept Infrastructure - Oversight	ORTDM	MIG, DPW, DWAS	R 80 million
Mqanduli Secondary Bulk Water Supply	ORTDM – Implementation KSD LM Dept Infrastructure - Oversight	ORTDM	MIG, DPW, DWAS	R 616 million
Mqanduli Secondary Bulk Water Supply	ORTDM – Implementation  KSD LM Dept Infrastructure - Oversight	Qweqwe, Viedgesville, Zwelitsha	MIG	R132 million
Mqanduli Bulk Sewer	ORTDM – Implementation  KSD LM Dept Infrastructure - Oversight	ORTDM	MIG, DPW, DWAS	R 26 million
Detailed feasibility studies for LSDF's within future metro regions	ORTDM – Oversight KSD LM Town Planning – Project Managers	PSJ, Mthatha and Lusikisiki	CoGTA, Mhlontlo	R 3 million
Establishment of Maize belt	Rural economic development – Project Implementation KSD Town Planning – alignment to Spatial Plans	Ingquza, Nyandeni, KSD Mqanduli, Mhlontlo	DRDAR, ORT, CoGTA	R13 200 000
Household Contractor Road Maintenance	Infrastructure – Project Management and Implementation Plan	KSD	Provincial Roads Maintenance Grant	R 98 million
Planning & Survey of Mqanduli West- 500 units – Township Establishment	Town Planning Department – Implementation			R 0.7million
Mqanduli Drivers Licence Testing Centre	PMU Unit	Ward 29	ORT	R25.7 million
Planning & Survey of Mqanduli East -150 units-Township Establishment	Town Planning Department – Implementation	Ward 29		R0.2million
Development & Management of Land Use Schemes by 2025- Road Shows (Public Participation)	Town Planning Department – Conduct Public Participation	1-36		R0.1 million
Management of urban space: mapping of existing informal traders	KSD TP – To fund and lead the project	Urban areas both towns		
Installation of High Mast Lights	KSD LED Department – Implementation	6,7,8.25,29	MIG	
Mqanduli 5 High Mast	KSD LED Department – Implementation	24,29	MIG	
Mqanduli Sidewalks	KSD LED Department – Implementation	29	MIG	
Blekana to Mqanduli Access Road	KSD LED Department – Implementation	28	MIG	
Mxambule to Jojweni Access Road	KSD LED Department – Implementation	26	MIG	
Viedgies to Sawmill Road Surfacing	KSD LED Department – Implementation / PMU Unit	29	MIG	R18 m

### 3 REGIONAL & SUB-REGIONAL CONTEXT

#### 3.1 REGIONAL CONTEXT

Maganduli and Viedgesville are strategically located both from a natural and urban point of view. Viedgesville is located on the N2 Highway, which runs through the District. Similarly, Maganduli Town is located less than 60km from the coast. The Coastal route the R411 (DR08031) from the N2 passes through Maganduli and provides access to Tourism areas of Coffee Bay and Hole in the Wall. The route will also create access to the proposed new Wild Coast Meander, which will run hugging the coast from Hole in the Wall to Port St Johns.

Maganduli Town is identified as a local service centre in the Municipality. Viedgesville us a sub-local centre whilst Coffee Bay is identified as a first order coastal node and Hole in the Wall as a second order coastal node.

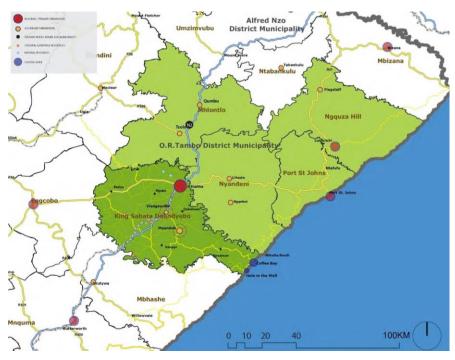


FIGURE 3-1: DISTRICT AND REGIONAL CONTEXT (SOURCE: CONCEPTS URBAN DESIGN)

The study areas are also central to historic, cultural and heritage resources centred on the life of Late Icon and Father of the Nation Nelson Mandela. Qunu Village, hometown of Nelson Mandela, the Mandela Museum in Mthatha, Mvezo Village and Mahekezweni Great Place, all have significance to the cultural heritage of the area. These areas fall within a 40 km radius of Viedgesville.











#### 3.2 SUB-REGIONAL CONTEXT

#### 3.2.1 Mqanduli

At a sub-regional level, several projects and initiatives have significance for the role of Maganduli.

- The recently launched Eastern Seaboard Regional SDF further emphasizes the strategic importance of the Eastern Cape Region in the national spatial development agenda. Maanduli and Viedgesville are located within a new Smart City planned for Mthatha,
- Driven by the Department of Economic Development, Environmental Affairs and Tourism, the Integrated Wild Coast Development Programme (IWCDP) is a new mechanism launched to help rural development and the growth of primary production in agriculture in the region. The programme is built around three pillars of agro-processing, green industry and tourism (www.dedea.gov.za).

The major infrastructure projects underpinning the IWCDP are:

- o R9 billion upgrade to the N2 through the province.
- R3 billion for the development of the proposed Wild Coast Meander, which is aimed towards industrializing the agricultural industry in the province.

Upgrades to the above two routes will improve mobility and enable transportation of goods from fresh produce processing facilities to be sent to other parts of the country.

- Aligned to this, is the proposal for the Mthatha Special Economic Zone (SEZ), which will focus on agro processing at the Mthatha Airport Node.
   Also being considered is an innovation hub tied to the Walter Sisulu University (WSU), which looks at new technologies to support agricultural development and innovation.
- The 2015 State of the Nation address announced the start of Agri-Parks, aimed at revitalizing agro-processing and agriculture in the country. Within the Eastern Cape Province, the KSDM area has been identified for the development of Agri- Parks, which aims to support small holding farmers through the creation of agricultural value chains related to various kinds of farming / livestock development.

In addition is the proximity of Mqanduli to Coffee Bay which creates potential for economic linkages to coastal tourism opportunities .

Also of significance is the direct route, which links Maanduli Town to Mthatha via Qokolweni. With the improved road connectivity on this route, it forms an alternative to travelling on the N2.

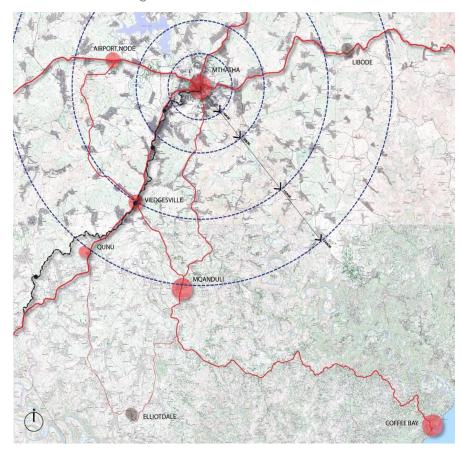


FIGURE 3-2: MQANDULI: SUB-REGIONAL CONTEXT

#### 3.2.2 Viedgesville

At a sub-regional level, in addition to the projects and initiatives that are of significance to Maanduli as highlighted in the previous section, the following initiatives have significance for the future role of Viedgesville:

• **Kei Rail Corridor Project:** Transnet are currently investigating the feasibility of this route for freight rail with the potential to enter a concession arrangement with the private sector. The Viedgesville Station, associated rail infrastructure and the proximity of Viedgesville to the planned **Mthatha Special Economic Zone** provide an opportunity for a logistics role to develop at the Viedgesville railway station.

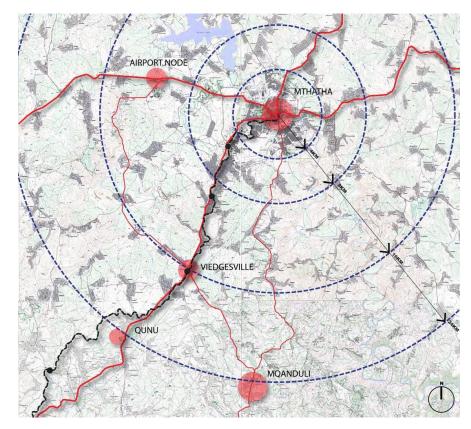


FIGURE 3-3: VIEDGESVILLE: SUB-REGIONAL CONTEXT

# 4 TOWN/NODAL PROFILES

#### 4.1 SPATIAL OVERVIEW2

#### 4.1.1 Mganduli

Maanduli Town is located strategically on the coastal route to Coffee Bay. The main route into Maanduli CBD is the DR08031, which runs from the N2 and Viedgesville.

Access and movement in the town is severely compromised both from a vehicular and pedestrian point of view. From a vehicular point of view, there is a lack of adequate surfaced road infrastructure in the town. Mobility on many roads is compromised due to severe erosion caused by the lack of an adequate stormwater management system.

Pedestrian movement is compromised due to poor state of the sidewalks. Limited surfaced sidewalks, excessive stormwater erosion and informal and formal trading activities on the sidewalks are some of the main factors that are causing people to walk on the roads. The volume of pedestrians walking on the roads in turn interrupts vehicular movement. A number of desire lines are evident through the commonage connecting surrounding settlements to Maanduli Town.

The town sits on the southern boundary of the Mqanduli commonage and as such the entry into the urban area is preceded by passage through natural landscapes and vegetation, which have been protected from development.

The high lying areas surrounding the commonage and main routes into the town have seen development of peri-urban settlement located to maximize benefits of proximity to the Town. In a similar manner, A pattern of cultivation is seen along the river valleys outside the study area /commonage within the surrounding area of influence, in proximity to the peri-urban settlements. The dominant uses outside the town centre are settlement, farming and livestock grazing. These uses are in a rural setting where people grow crops on their individual plots and rear livestock that feed off communal grazing fields.









<sup>&</sup>lt;sup>2</sup> Overview provided by Concepts Urban Design (2016) with some minor amendments and edits to the text.









The northern approach into town comprises a number of smallholdings with small scale agricultural and chicken farming activities. Slightly out of character and scale with other urban uses, a large mixed use site is also present immediately north of the bridge into Maanduli Town. A number of government utilities are also present in the northern region of the area with a land fill site, water treatment works located on the eastern and western extremities of the town respectively.

Land use within Mqanduli CBD is characterised by a mix of uses with business, retail and trading activity dominating the main street and residential uses forming the rest of the CBD. The only visible industrial use is the maize milling plant located on the southeastern edge of the town.

Informal trading activity is significant on the main street as well as in proximity to the taxi rank and the Superstore. A pedestrian oriented market like atmosphere is created in these areas. Informal trading is however highly unregulated and occurs in various forms from containers to stalls to tabletop trade. These often clutter the sidewalks and prevent free pedestrian movement.

Many of the informal trading activities result from lack of proper planning and lack of facilities for these to happen in a controlled manner. Lack of management is also a key factor with regard to parking and loading and storage issues with a prevailing attitude of 'anything goes'.

Two distinct types of housing are seen in the CBD. The residential uses found in the older sub-divisional area covered by the land use scheme plan consist of formal single storey houses on large erven. The general pattern is that most plots have developed separate rental blocks where rooms are rented out to individuals working in the CBD.

The next dominant type of housing is the RDP house type found in the settlement to the southwest of the study area.

The demand for residential units / rental rooms is evident from the supply in the area. Multi-storey residential flats are seen immediately outside the study area in Maqomeni. Municipal officials working in the CBD have expressed the need for the development of residential units that fall in the so called GAP market – serving mostly young professionals who do not necessarily qualify for RDP houses but who also cannot afford large singe residences.

A large formal taxi rank and market is found at the north-eastern end of the town and a much smaller informal rank is located at the south-western end of the town where the main access to the new RDP housing development meets the DR08031.

Most public facilities are located within the footprint of the town, though prominent recreational facilities including a sports field and newly constructed Community Centre and Park, and Traffic Department are located close to the northern entrance to the town. These facilities are currently fragmented from where the people are and have poor access systems in place making them redundant and unusable at a high maintenance cost.

A number of public facility clusters are seen forming nodes within the study area. An administrative node comprising the Magistrates Court, Police Station and Post Office are centrally located on the main route through the town.

The primary Health care facility in Mqanduli is located to the east of the town and is also far and difficult to access both on foot, or by transport.

Facilities are not well linked by a network of pedestrian routes. As most facilities sit behind a boundary wall or fence, the opportunity to create good quality street forecourts / people centred public space has been lost.

No formal public open spaces or parks are found within the town. Previously designated park areas within the RDP settlement have now been developed for housing.

The large undeveloped commonage and woodlots afford beautiful views from the high points in the study area.









#### 4.1.2 Viedgesville

The emerging mixed use node at Viedgesville Station is positioned well from both accessibility and mobility points of view. It is located adjacent to the N2, with the R411 (DR08031) forming the main road running through the node, with the N2 and the rail line bisecting the town. This also has an effect of placing physical barriers within the town that impacts on internal vehicular and pedestrian movement. The Viedgesville Rail Station is currently unused and in a state of disrepair.

There are a significant number of pedestrian desire lines that run to and through the town. These desire lines predominantly join adjacent settlements with the main roads and/or the urban area. No traffic calming exists within the town which impacts on the traffic safety, particularly pedestrians. No formal public transport facility exists, and informal stops/ranking occurs on the on- and off-ramps of the N2/DR08031 interchange.

Settlement has largely located along /on the higher lying ridgelines and plateaux as well as continuous movement routes. The river paths, ridgelines and plateaux together create a series of natural domains where settlement has occurred away from watercourses. The Viedgesville urban node is located on a natural high point in the landscape forming a landmark in the area.

Business and trading activities of the node are largely concentrated on the eastern side of the N2 on the Coffee Bay route with institutional uses including a Community Health Centre and Thusong Centre located to the west of the N2. Land uses to the east of the N2 include wholesalers, grocery stores, bottle store, hardware, panel beating, funeral parlour, filling station and engineering site office. Two schools are found in the area one being a privately run crèche. Trading activity to the west of the N2 is currently limited with a small convenience /grocery shop and a tavern operating here.

There is lack of clarity on land tenure in the area with no formal processes in place in the acquiring or use of land.

Ad hoc developments and lack of coordination or planning in the area has resulted in poor built form character and lack of definition and poor legibility

of access / movement routes and public space. Although fast becoming an urban centre, the structure and grain of the area remains rural with large residential allotments forming the remainder of the node. No public spaces or recreation places are evident at the node.











#### **Development Projects Under Construction or in the Pipeline**



FIGURE 4-1: OVERVIEW OF PROJECTS UNDER CONSTRUCTION

Under Construction

Under Construction R38.5m

(2) R411 COFFEE BAY ROAD & BRIDGES (4) MQANDULI INTERNAL ROADS

PROJECT

R38.5m

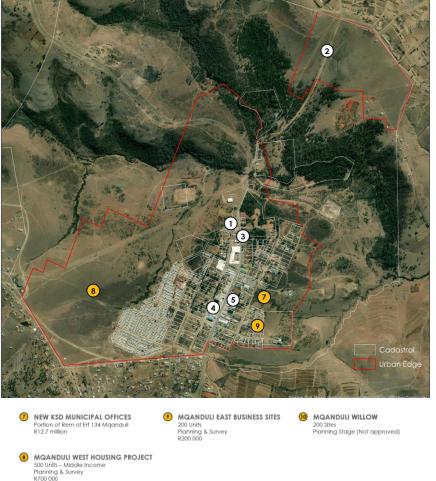


FIGURE 4-2: LOCATION OF PROJECTS UNDER CONSTRUCTION/IN THE PIPELINE

6 LUKWETHU REGIONAL WATER SUPPLY

SCHEME

Under Construction

#### 4.2 SOCIO-ECONOMIC OVERVIEW

#### 4.2.1 Mqanduli

#### **Population and Population Growth**

Population The population within a 4km radius of Maanduli is 13,248 people, which is 2.9% of the population of the King Sabata Dalindyebo Municipality (451 714). This represents 3,082 households in Maanduli, with an average household size of 4.3 people living on 1.2% of the total land area of KSDM.

Within a 2km radius of Mqanduli, there are 4,493 people in 1,402 households, with an average household size of 3.2 people. This represents 1% of the KSDM population, living on 1% of the total land area of KSDM. The population density within a 2km radius of the town centre is 3.6 people per hectare, and the household density is 1.1 households per hectare.

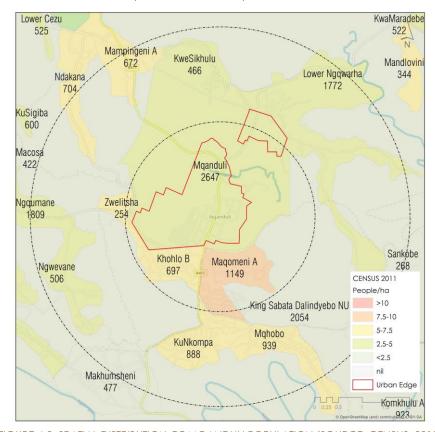


FIGURE 4-3: SPATIAL DISTRIBUTION OF MQANDULI POPULATION (SOURCE: CENSUS, 2011)

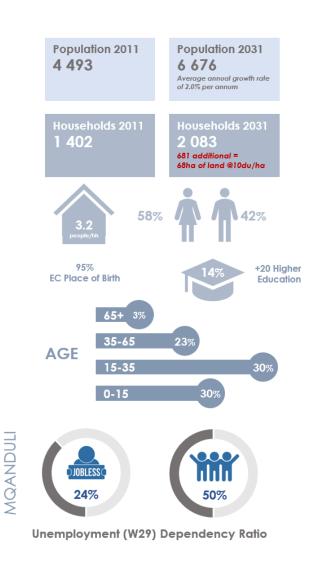


FIGURE 4-4: DEMOGRAPHIC OVERVIEW MQANDULI

The median age of the population is 25 years old with low education levels. Only 14% of the population as a tertiary education and 30% of the population is classified as youth.

This has implication for the Smart City Concept that relies on the tertiary sector for employment, as well as making it difficult to attract businesses that rely on a skilled workforce.

The fact that more than 95% of the population was born in the Eastern Cape suggests that most of the migration into the town is from within the province.

The unemployment rate Maganduli (Ward 29) is 24% and lower than the KSDM level of 38%.

Households are dependent on remittances from family members who live and work in other parts of the country (50%).

The population of Maanduli is transient. Households are either earning income elsewhere in the province or South Africa, or those currently resident in the town, are migrant workers from other areas.

If the population of Maanduli grows at a rate of 2% per year, then in 10 years, the ward will have an additional 680 households. At a density of 10 dwelling units per hectare, this will require an additional 68 hectares of land for housing.

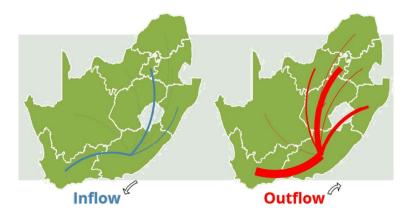


FIGURE 4-5: EC MIGRATION PATTERNS BETWEEN PROVINCES (SOURCE: CENSUS, 2011)

# MQANDULI (2km) PROJECTED POPULATION GROWTH

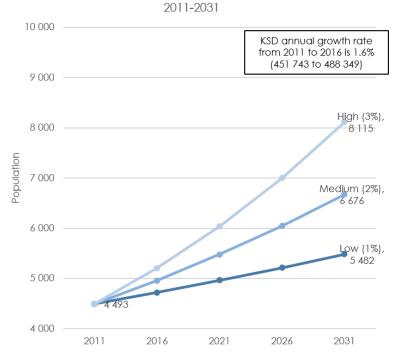


FIGURE 4-6: POPULATION GROWTH SCENARIOS FOR MQANDULI

#### **Annual Household Income**

Annual household income in Maanduli is low and approximately 80% of households earning less than a living wage. The estimated living wage<sup>3</sup> for the Eastern Cape is R8,250 per month i.e. R100,000 per annum.

The low average household income in Mqanduli reflects the fact that the town is located in a rural area with a relatively low level of economic development. The main sources of income in Mqanduli are agriculture, forestry, and tourism. However, these sectors are not very well-developed, and they do not provide enough jobs to support the local population. As a result, many households in Mqanduli are struggling to make ends meet and rely on government assistance and remittances to meet their basic needs.

# MQANDULI ANNUAL HOUSEHOLD INCOME

<81% EARN LESS THAN LIVING WAGE R100,000 25% 20% 19% 18% 16% 15% 12% 10% 5% Maanduli <R4,800 ■R4,801 - R9,600 ■R9,601-R19,600 ■R19,601-R38,200 ■ R38.201-R76.400 ■ R76.401-R153.800 ■ R153.801-R307.601 ■ R307.601-R614.000 ■ > R614.000

FIGURE 4-7: ANNUAL HOUSEHOLD INCOME (CENSUS, 2011)

households to escape the poverty cycle trap and allow for savings. (https://mywage.co.za/salary/cost-of-living-survey/living-wage).

<sup>&</sup>lt;sup>3</sup> A Living Wage is the approximate income needed to meet a family's basic needs including food, housing, transport, health, education, tax deductions and other necessities. It is generally higher than minimum wage levels and is designed to assist

#### 4.2.2 Viedgesville

#### **Population and Population Growth**

The population within a 4km radius of Viedgesville is 14 466 people, which is 3.2 % of the population of the King Sabata Dalindyebo Municipality (451 714). This represents 2,858 households in Viedgesville, with an average household size of 5.1 people living on 1.1% of the total land area of KSDM.

Within a 2km radius of Viedgesville, there are 4 989 people in 997 households, with an average household size of 5.0 people. This represents 1% of the KSDM population, living on 1% of the total land area of KSDM. The population density within a 2km radius of the node centre is 4.4 people per hectare, and the household density is less than 1 households per hectare.

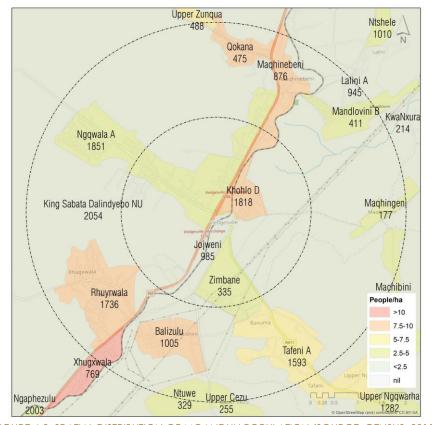
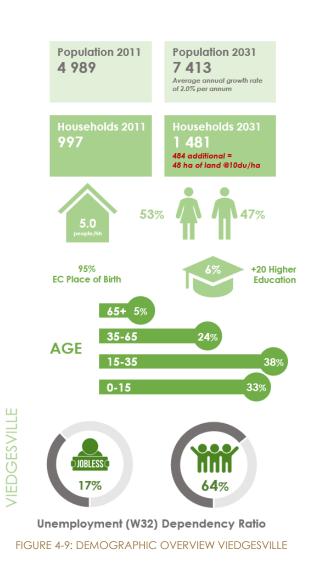


FIGURE 4-8: SPATIAL DISTRIBUTION OF MQANDULI POPULATION (SOURCE: CENSUS, 2011)



The median age of the population is 29 years old with low education levels. Only 6% of the population as a tertiary education and 38% of the population is classified as youth.

This has implication for the Smart City Concept that relies on the tertiary sector for employment, as well as making it difficult to attract businesses that rely on a skilled workforce.

The fact that more than 95% of the population was born in the Eastern Cape suggests that most of the migration into the town is from within the province.

The unemployment rate Viedgesville (Ward 32) is 17% and lower than the KSDM level of 38%.

Households are heavily dependent on remittances from family members who live and work in other parts of the country (64%).

The population of Viedgesville is transient. Households are either earning income elsewhere in the province or South Africa, or those currently resident in the town, are migrant workers from other areas.

If the population of Viedgesville grows at a rate of 2% per year, then in 10 years, the ward will have an additional 480 households. At a density of 10 dwelling units per hectare, this will require an additional 48 hectares of land for housing.

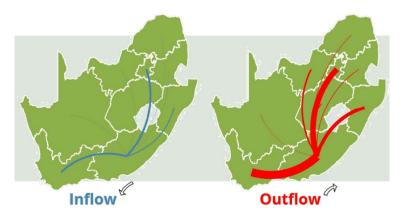


FIGURE 4-10: EC MIGRATION PATTERNS BETWEEN PROVINCES (SOURCE: CENSUS, 2011)

# VIEDGESVILLE (2km) PROJECTED POPULATION GROWTH

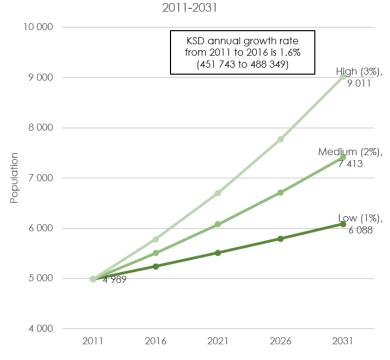


FIGURE 4-11: POPULATION GROWTH SCENARIOS FOR VIEDGESVILLE

#### **Annual Household Income**

Annual household income in Viedgesville is low and approximately 88% of households earning less than a living wage. The estimated living wage<sup>4</sup> for the Eastern Cape is R8,250 per month i.e. R100,000 per annum.

The low average household income in Viedgesville reflects the fact that the town is located in a rural area with a relatively low level of economic development. The main sources of income in Viedgesville are agriculture, forestry, and tourism. However, these sectors are not very well-developed, and they do not provide enough jobs to support the local population. As a result, many households in Viedgesville are struggling to make ends meet and rely on government assistance and remittances to meet their basic needs.

# VIEDGESVILLE ANNUAL HOUSEHOLD INCOME

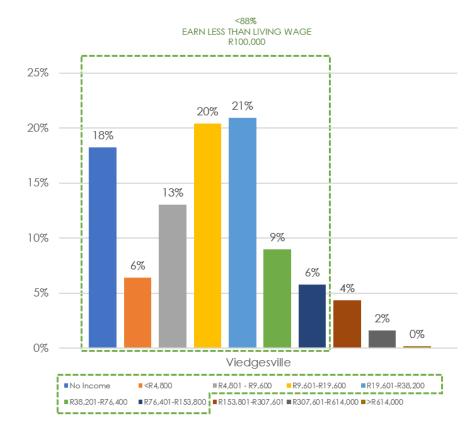


FIGURE 4-12: ANNUAL HOUSEHOLD INCOME (CENSUS, 2011)

households to escape the poverty cycle trap and allow for savings. (https://mywage.co.za/salary/cost-of-living-survey/living-wage).

<sup>&</sup>lt;sup>4</sup> A Living Wage is the approximate income needed to meet a family's basic needs including food, housing, transport, health, education, tax deductions and other necessities. It is generally higher than minimum wage levels and is designed to assist

## 4.3 ECONOMIC OVERVIEW

## King Sabata Dalindyebo Municipality Economic Profile

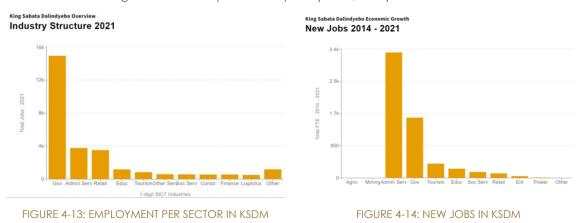
The economy of King Sabata Dalindyebo Municipality (KSDM) as a whole is important for what happens in the Maanduli and Viedgesville. Unfortunately, economic statistics are not available at the local level for the two study areas.

Overall, the KSDM economy contributed R33 billion to the OR Tambo District economy (66%) and has been growing at an annual growth rate of 1.6% for the period 2010-2020.

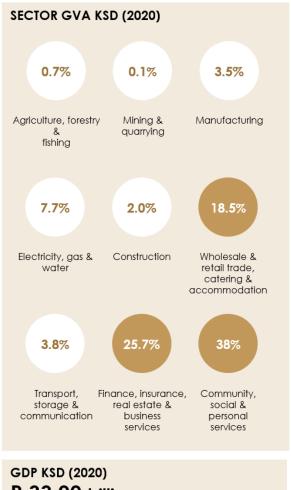
In terms of Gross Value Add (GVA), the KSDM economy is dominated by community services (i.e. government), which accounts for almost 38% of GVA in 2020. (KSDM, 2022). Gross Domestic Profit (GDP) is R33 billion.

The second most dominant sector is FIRE (Finance, Insurance, Real Estate And Banking) at 25.7% followed by wholesale & retail trade at 18.5%. The rest of the sectors are relatively small.

In terms of employment the Government and Administrative Sectors are the largest employers and have seen extensive growth over the past seven years (HSRC, 2023).



(SOURCE: HSRC, 2023)



R 33.00 billion

FIGURE 4-15: GVA AND GDP OF KSDM

## 4.3.2 Economic Challenges

- The subsistence agricultural economy nature of the two study areas means that there is a limited amount of money circulating in the local economy.
- The linkages between small-scale farmers and independent retail stores are under pressure from national chains, which means that less money is being spent in local businesses.
- The densification of villages is squeezing the viability of agricultural commonages, which means that even fewer people are able to make a living from farming.
- The limited employment opportunities and mostly in tertiary sectors means that people are not earning enough money to spend in the local economy.
- The barriers of entry to emerging farmers are high, which means that there are fewer people who are able to start their own businesses and contribute to the local economy.
- The tourism industry has been gutted by COVID, floods and deteriorating infrastructure, which means that there are fewer tourists spending money in the local economy.
- The consumption sector is growing, but it is becoming more informal in character and nature, which means that less money is being taxed and therefore less money is available to reinvest in the local economy.
- The market is driven by rural remittances, which means that the money that is being spent in the local economy is not being generated locally.

## 4.4 ENVIRONMENTAL CHALLENGES



Vulnerability to climate change impacts and land management practices



Ecological goods and services and agricultural production under threat



Soil erosion, loss of biodiversity and the proliferation of invasive alien plant species are on the increase



Pressure to transform agricultural landholdings and commonages to rural development

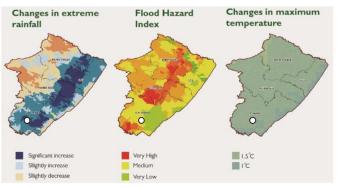


Water resources under pressure from **changing rainfall patterns** and increased **pressure for abstraction** 



Erratic weather conditions, flooding events and periods of drought are on the increase





(Source: Eastern Seaboard Regional Spatial Development Framework)

# 5 STRATEGIC REVIEW OF THE STUDY AREAS

## 5.1 PLANNING FOR A SENSE OF BETTER?

How do we identify/visualise and achieve "a sense of better" (i.e. equity, sustainability, opportunity, value, meaning, enabling) with regard to the planning and redesign of both Maganduli and Viedgesville nodes.

The work of urban theorist and urban planner Kevin Lynch (1981) in his book "Good City Form<sup>5</sup>" provides a basis to assess and evaluate the performance of both Maanduli and Viedgesville nodes.

Lynch's work revolves around the identification and definition of a set of **performance dimensions** that can be used to measure or evaluate the performance a city/town or part thereof in terms of its meaning for its inhabitants and users and in terms of how it meets human needs.

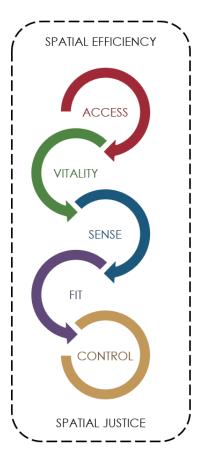
Lynch's work recognises that cities/towns and their neighbourhoods are unique and that they perform different roles and functions over time as they change and grow. As such the dimensions provide a tool that can be used to evaluate an urban area in any specific context.

Lynch argues that development can be defined as being a set of interventions directly related to the performance of Maanduli and Viedgesville nodes as "platforms" or "stages" that accommodates and enables communities to live their lives in a more productive, sustainable and equitable manner.

This work, by Lynch's own admission, is a contribution to the broader and on-going discourse relating to how we identify and achieve "a sense of better" with regard to the making and remaking of human settlements.

The context of Maanduli and Viedgesville, necessitates ensuring that the spatial, physical, social, economic, environmental and institutional characteristics and properties of the project area are used, and or created, to establish a relevant and effective "platform" for growth and development.

The dimensions include Access, Vitality, Sense, Fit and Control and include two "meta-criteria", justice and efficiency, which are involved in each dimension and are therefore not independent of each other.



<sup>&</sup>lt;sup>5</sup> Lynch, Kevin (1984) **Good City Form** 

#### **SPATIAL EFFICIENCY**

The cost of creating and maintaining the study area.

#### **ACCESS**

The ability to reach other persons, places, resources, services and information i.e. adequacy of the movement networks to link people and opportunity and spatially integrate settlement.

#### VITALITY

The degree to which the form of the area supports the vital functions, biological requirements and capabilities of human beings i.e. availability of water, clean air, energy, waste removal and food and safety of person from hazards, disease and environmental pollution and the maintenance of the balance between urban living and access to sustainable natural areas.

#### SENSE

The degree to which the area can be clearly perceived and to which it connects to the values of its users i.e. the landmarks, features and character of the places and built form that provide identity, orientation and meaning for its inhabitants.

#### FIT

The degree to which the form and capacity of the area matches the pattern and quantity of activity of the residents i.e. the manner in which the spaces, places, buildings and infrastructure that make up the living environment accommodate the activities of the community with respect to their work, play and home life.

#### CONTROL

The degree to which the use of, creation of and management of spaces can be controlled by those who use them i.e. this refers to the community and institutional capacities and processes and the manner in which they permit and enable individuals and communities to contribute to the shaping of their living environments.

#### SPATIAL JUSTICE

The way in which benefits and costs are distributed among users

FIGURE 5-1: LYNCH'S PERFORMANCE DIMENSIONS

## 5.2 SWOT ANALYSIS METHODOLOGY

The following section presents a strategic level investigation into the strengths and weaknesses of Maanduli and Viedgesville nodes and some of the key opportunities and threats which need to be addressed in the LSDF as they relate to Lynch's performance dimensions (i.e. SWOT Analysis).

A SWOT analysis is "an analytical method which is used to identify and categorise significant internal (Strengths and Weaknesses), and external (Opportunities and Threats) factors faced either in a particular arena, such as an organisation, or a territory, such as a region, nation, or city"6).

Strengths and opportunities are considered helpful aspects to build on with respect to future planning for the study areas, whilst weaknesses and threats are harmful and will need be mitigated against and/or addressed in future planning.

It must be noted, that whilst there are some aspects of similarity and issues commons to both Mqanduli and Viedgesville, the two nodes are unique and function independent of each other.

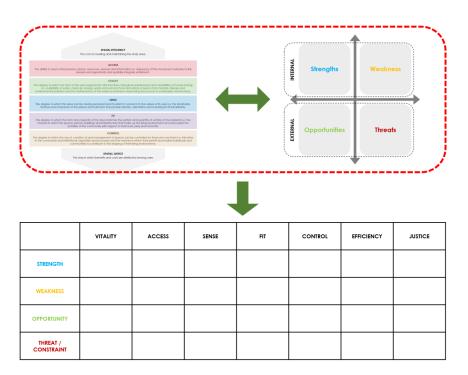


FIGURE 5-2: LSDF REVIEW SWOT METHODOLOGY

<sup>&</sup>lt;sup>6</sup> Cities Alliance (2016) **A City Development Strategy: Online Tool**, http://city-development.org/phase-1-6-swot-analysis/

## 5.3 MQANDULI LYNCHIAN SWOT ANALYSIS

## 5.3.1 Maanduli Access

The ability to reach other persons, places, resources, services and information i.e. adequacy of the movement networks to link people and opportunity and spatially integrate settlement.

## Strength

- Situated on Development Corridor route to the Coast.
- Established rights of way network to accommodate movement system in the town.
- Town is compact and has a walkable.

#### Weakness

- Poor/damaged road infrastructure in town may constrain access to facilities and certain neighbourhoods.
- Poor facilities / infrastructure for pedestrian traffic.
- Conflicts between through traffic and local traffic in main streets.
- Unintegrated public transport terminal facilityneed to upgrade Terminal facilities for commuters and taxi operators.

# **Opportunity**

- Good accessibility to the coast and surrounding rural settlements.
- Situated on Coastal Tourism Route / Development Corridor.

- Single bridge access into town which could be compromised during flood periods.
- Uncontrolled traffic behaviour.
- Growth of taxi industry will put pressure on facilities.

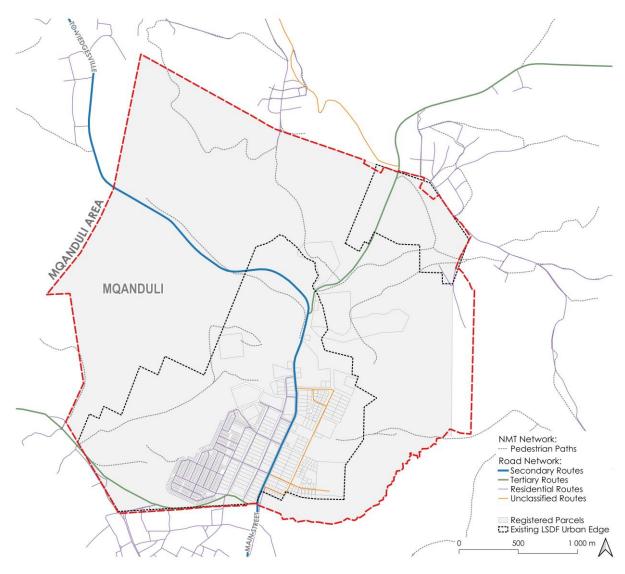


FIGURE 5-3: MQANDULI ACCESS

## 5.3.2 Maanduli Vitality

The degree to which the form of the area supports the vital functions, biological requirements and capabilities of human beings i.e. availability of water, clean air, energy, waste removal and food and safety of person from hazards, disease and environmental pollution and the maintenance of the balance between urban living and access to sustainable natural areas.

## Strength

- Numerous intact and untransformed riverine corridors.
- Intact Forest and associated ecosystem services.

#### Weakness

- Reduction of asset base through encroachment into flood plains/ buffers.
- Soil erosion resulting from over grazing and agricultural fields.
- Impacts of solid waste facility in terms of water, air, quality and visual pollution.

## **Opportunity**

- Integration of systems and assets to provide a more sustainable network of assets to protect and utilise ecosystem services and to support development in terms of water, soil protection, flood protection and recreation areas for the town.
- Inadequate veld management erosion/fires erosion and air pollution

- Erosion of assets caused by lack of control over settlement, crop fields extension and grazing.
- Climate change impacts droughts, flooding.

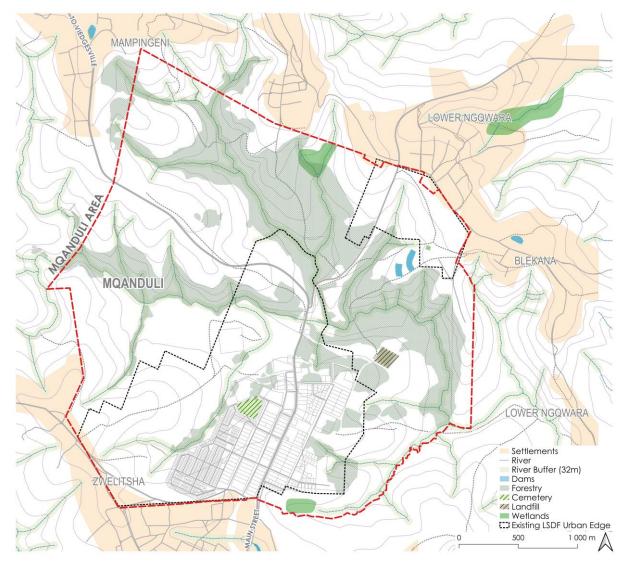


FIGURE 5-4: MQANDULI VITALITY

#### 5.3.3 Maanduli Sense

The degree to which the area can be clearly perceived and to which it connects to the values of its users i.e. the landmarks, features and character of the places and built form that provide identity, orientation and meaning for its inhabitants.

## Strength

- High Street is a strong spatial organiser.
- Mix of social facility and commercial nodes.
- Numerous precincts provide character, identity and variety of experience.
- Legible street grid and access system.

#### Weakness

- Unstructured public space that does not link public facilities and shopping nodes.
- Poor built form response
- Limited cultural artifacts that provide local sense of place.
- Identity and character as a small town needs reinforcement.
- Gateway not emphasized.

## **Opportunity**

- Use new development to structure public space and built form to make area more legible, imageable, comfortable and convenient.
- Use landscape character of surroundings as a benchmark to improve identity of the town.

- Unmanaged traffic, litter, land use and development will impact on sense of place.
- Unmanaged solid waste facility could impact on comfort in terms of dust, visual odours.
- Inappropriate built form, dominance of vehicles, erosion of trees and green space

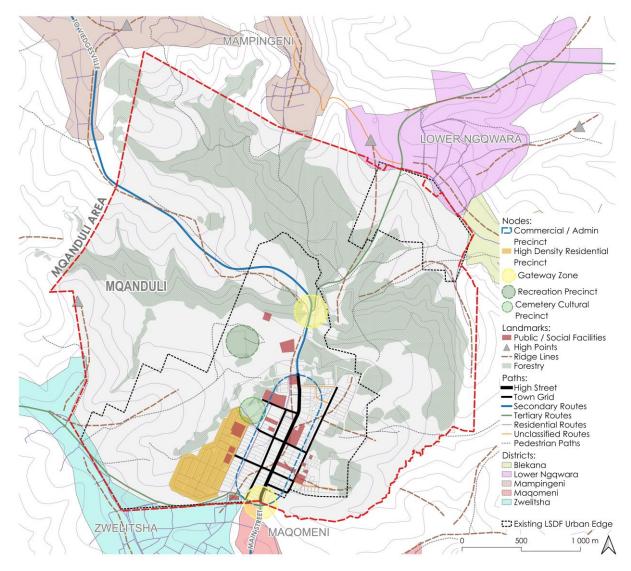


FIGURE 5-5: MQANDULI SENSE

## 5.3.4 Maanduli Fit

The degree to which the form and capacity of the area matches the pattern and quantity of activity of the users i.e. the manner in which the spaces, places, buildings and infrastructure that make up the living environment accommodate the activities of the community with respect to their work, play and home life.

## Strength

- Vacant and underutilized land
- Cluster of health, education and administration facilities.
- Infrastructure upgrades for water and sanitation
- Public Space rights of way embedded in the town cadastral layout.
- New Governmental Service Centre.

#### Weakness

- Main street disorganized, congested and inefficient need for demarcation of space for vehicles, public transportation and pedestrians.
- Very little planned space and infrastructure for SMME's and Informal Traders groups.
- Public realm needs upgrading and reorganization to improve efficiency, convenience, comfort and safety.
- Terminal Market needs upgrading to improve circulation, safety and security and more efficient use of space.

## **Opportunity**

- Commonage land in the CBD that can be strategically developed for housing and or social facilities.
- Densification / intensification of underutilised land.
- New housing developments

## Threats/Constraints

- Unplanned public space.
- In-migration and uncontrolled settlement impacts on agricultural land and open space.

Uncontrolled development and inefficient use of space.

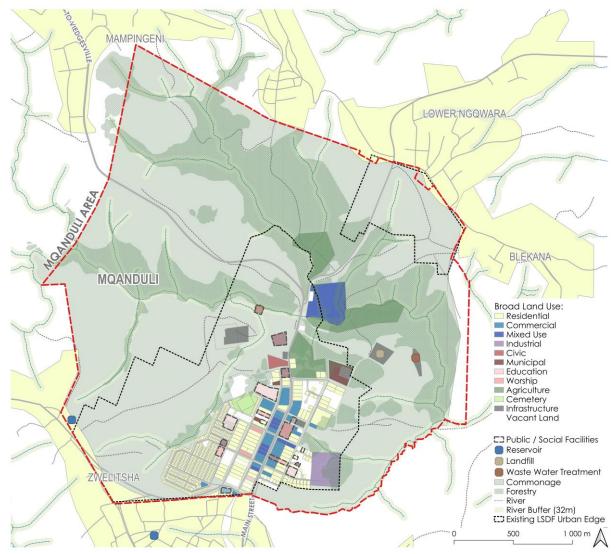


FIGURE 5-6: MQANDULI FIT

## 5.3.5 Maanduli Control

The degree to which the use of creation of and management of spaces can be controlled by those who use them i.e. this refers to the community and institutional capacities and processes and the manner in which they permit and enable individuals and communities to contribute to the shaping of their living environments.

## Strength

- Publicly owned land enables effective and efficient release of land.
- Private owned land for development
- Ward Structures enable conduits for public participation and stakeholder involvement in planning.
- Traditional Structures
- Civic Organisations
- Formal and Informal Business Organisations.

#### Weakness

- Current leases in strategic locations could restrict effective and efficient planning.
- National and Regional infrastructure administered by external agencies.

## Opportunity

- Strategic release of publicly owned land to catalyse development.
- Creation of Local Development Forum to enhance local participation in planning.

- External agencies responsible for R411 planning and development.
- In effective and inefficient release of publicly owned land.
- Uncontrolled development on tribal land outside of urban edge

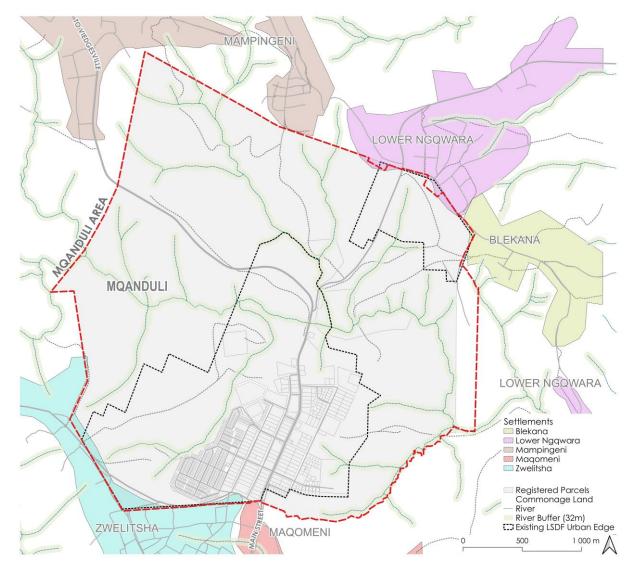


FIGURE 5-7: MQANDULI CONTROL

## 5.3.6 Maanduli Efficiency

The cost of creating and maintaining the study area.

#### Strength

- Public land can be used to efficiently organise and structure activity in space.
- Low densities provide opportunities for strategic infill and densification to protect natural and agricultural assets.

#### Weakness

- Potential inefficiencies related to existing commitments in terms of large land allocations.
- Low density rural lifestyles and associated sprawl and inefficient use of land and pressure on natural assets/ agricultural land.

## **Opportunity**

- Establish a range of settlement types, patterns and densities to protect natural resources and provide for lifestyle choice.
- Establish settlement pattern which is easier to service.

#### Threats/Constraints

 Lack of alignment with other spheres of government and service providers e.g. road, rail water etc.

#### 5.3.7 Maanduli Justice

The way in which benefits and costs are distributed among users.

## Strength

 Public land can be used to provide equal access to opportunities to all individuals and community groups e.g. Land for agriculture, trading, housing, social facilities, transport etc.

#### Weakness

 Potential inefficiencies related to existing commitments in terms of large land allocations.

## **Opportunity**

- Use public land to create social and economic space/ opportunities e.g. housing, informal trading, public transport facilities.
- Use well located underutilized public land to reduce impacts of sprawl which reduces accessibility.
- Improve accessibility to, and convenience in use of, public and private services i.e. government services, commercial services, public transport etc.

- Inefficient layout of town.
- Poor access and circulation systems.
- Insufficient Social facilities



(Source: Concepts Urban Design)

## 5.4 VIEDGESVILLE LYNCHIAN SWOT ANALYSIS

## 5.4.1 Viedgesville Access

The ability to reach other persons, places, resources, services and information i.e. adequacy of the movement networks to link people and opportunity and spatially integrate settlement.

## Strength

- Highly accessible location at crossroads of national and district roads.
- Situated on national rail route.

#### Weakness

- Regional Roads and Rail line dissect town and impact on walkability, connectivity and pedestrian safety.
- Poorly defined access system for vehicles and pedestrians.

# **Opportunity**

- Improved accessibility to surrounding rural settlements.
- Gateway to Coastal Tourism Route off N2.
- Situated on proposed high speed rail link.

- Unsurfaced and / or unmaintained gravel roads will constrain movement.
- Increase in unstructured development / settlement in the node will increase informal pathways and crossings of rail and roadsincreased hazard.
- Failure to secure dedicated public rights of way for roads/streets and pedestrian paths.
- Declining Rail function and services.

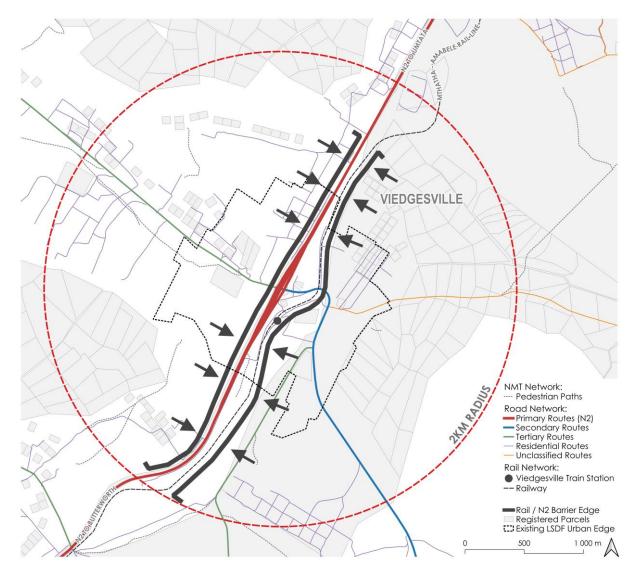


FIGURE 5-8: VIEDGESVILLE ACCESS

## 5.4.2 Viedgesville Vitality

The degree to which the form of the area supports the vital functions, biological requirements and capabilities of human beings i.e. availability of water, clean air, energy, waste removal and food and safety of person from hazards, disease and environmental pollution and the maintenance of the balance between urban living and access to sustainable natural areas.

## Strength

- Numerous intact and untransformed riverine corridors which include streams, wetlands, dams and ecosystem services.
- Good soil base for agriculture and food security.

#### Weakness

- Reduction of asset base through encroachment of development and activity into flood plains / riverine corridors.
- Increasing soil erosion from impacts of settlement, croplands and grazing.
- Unmanaged solid waste site.

## Opportunity

 Integration of systems and assets to provide a more sustainable network of environmental assets to produce ecosystem services and to support adjacent development in terms of water quality, soil protection and flood protection.

#### Threats/Constraints

 Erosion of environmental assets and water quality caused by lack of control over settlement, fields extension and grazing.

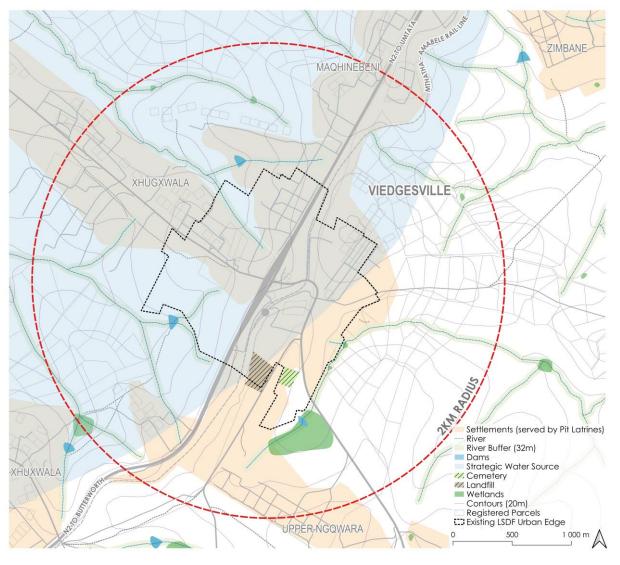


FIGURE 5-9: VIEDGESVILLE VITALITY

## 5.4.3 Viedgesville Sense

The degree to which the area can be clearly perceived and to which it connects to the values of its users i.e. the landmarks, features and character of the places and built form that provide identity, orientation and meaning for its inhabitants.

#### Strength

- Natural, agrarian and rural landscape character.
- Emerging mixed-use Node.
- Identifiable villages and settlements

#### Weakness

- Unplanned and uncontrolled development eroding sense of place and organization.
- Lack of identity as a town / village
- No structure, identity, legibility & imageability.
- Lack of public space to integrate development.
- Dissection of the village/town by N2 and rail line.

## Opportunity

- Emergent trading centre at confluence of several discernible villages could benefit from an integrating (village) public space.
- Celebration of the gateway role through public space, built form and landscape treatment.
- Enhance physical and visual links to surrounding landscape assets i.e. ridgelines, hill tops, rivers, forests etc.

- Mismanagement/deterioration of environmental assets and landscape quality.
- Planning does not identify and protect space for public realm in emerging node and in adjacent settlements.
- Failure to recognize individual village identity and integrity.

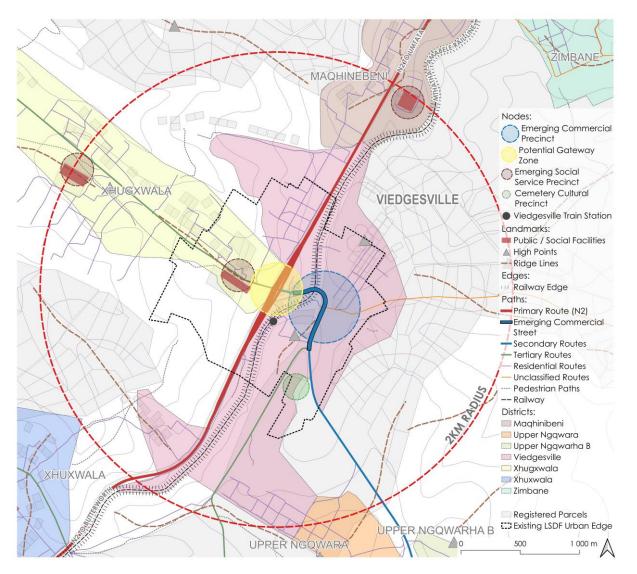


FIGURE 5-10: VIEDGESVILLE SENSE

## 5.4.4 Viedgesville Fit

The degree to which the form and capacity of the area matches the pattern and quantity of activity of the users i.e. the manner in which the spaces, places, buildings and infrastructure that make up the living environment accommodate the activities of the community with respect to their work, play and home life.

## Strength

- Availability of publicly owned land to accommodate new development, agriculture and nature.
- Some existing social facilities can form basis for local service clusters.

#### Weakness

- No planning certainty i.e. layout r scheme, complex land tenure.
- Insufficient and undefined public space for trading, circulation and organised recreation.
- Infrastructure for water, sanitation storm water and electricity lacking?
- Lack of education, health & recreation facilities.
- Low densities threaten efficient use of land.
- Poor quality public spaces and street environment.

#### **Opportunity**

- Links to regional infrastructure systems.
- Delink to local services systems for water, energy, drainage.
- Emerging node could use benefits of regional accessibility to provide enhanced services to adjacent villages.
- Links into the regional system for logistics support.

- Failure to allocate land for social facilities related to population size/needs.
- Insufficient thresholds for "centralized" or municipal services.
- Uncontrolled rural sprawl and inefficient use of land threatens natural and agriculture areas.

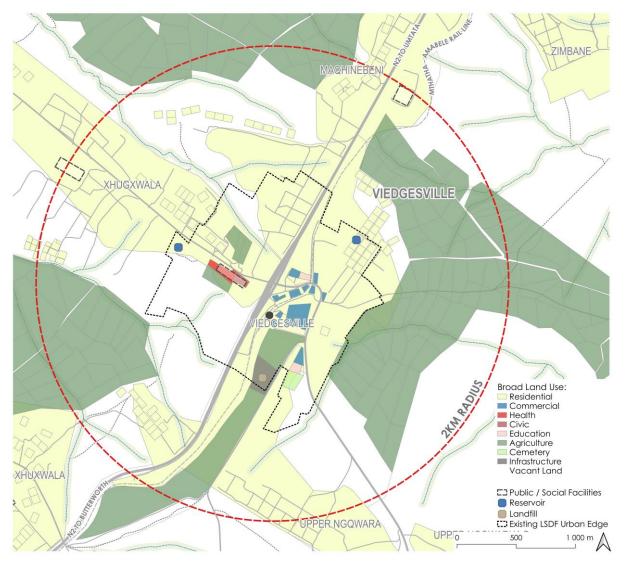


FIGURE 5-11: VIEDGESVILLE FIT

## 5.4.5 Viedgesville Control

The degree to which the use of creation of and management of spaces can be controlled by those who use them i.e. this refers to the community and institutional capacities and processes and the manner in which they permit and enable individuals and communities to contribute to the shaping of their living environments.

## Strength

- Publicly owned land enables effective and efficient release of land.
- Ward Structures enable conduits for public participation and stakeholder involvement in planning.
- Traditional Structures
- Civic Organisations
- Formal and Informal Business Organisations.

#### Weakness

- Current leases in strategic locations could restrict effective and efficient planning.
- National and Regional infrastructure administered by external agencies.

## **Opportunity**

• Strengthening local stakeholder capacity to participate in planning and development.

- External agencies responsible for N2 and Rail planning and development.
- In effective and inefficient release of publicly owned land.

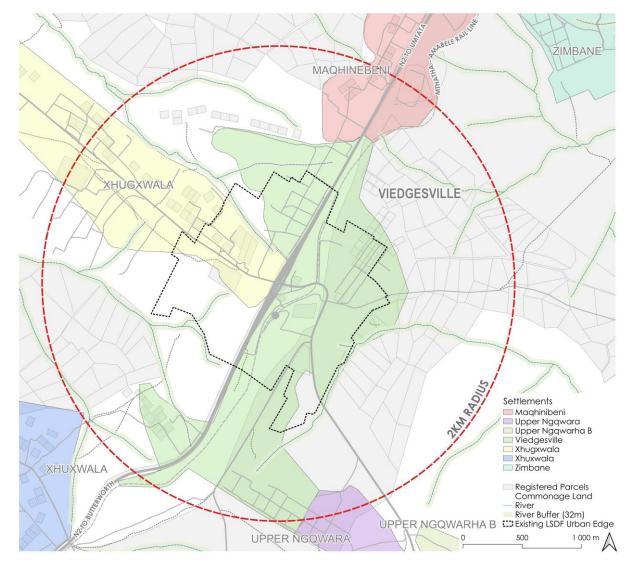


FIGURE 5-12: VIEDGESVILLE CONTROL

## 5.4.6 Viedgesville Efficiency

The cost of creating and maintaining the study area.

#### Strength

- Public land can be used to efficiently organise and structure activity in space.
- Low densities provide opportunities for strategic infill and densification to protect natural and agricultural assets.

#### Weakness

- Potential inefficiencies related to existing commitments in terms of large land allocations.
- Low density rural lifestyles and associated sprawl and inefficient use of land and pressure on natural assets/ agricultural land.

## **Opportunity**

- Improve connectivity between settlements on either side of N2 and between villages.
- Establish a range of settlement types, patterns and densities to protect natural resources.
- Consolidate development and minimize or eliminate rural sprawl.
- Protect agricultural land and environmental assets.

#### Threats/Constraints

 Lack of alignment between spheres of government and service providers e.g. road, rail, water, social facilities etc.

## 5.4.7 Viedgesville Justice

The way in which benefits and costs are distributed among users.

#### Strength

 Public land can be used to provide access to opportunities to all individuals and community groups e.g. Land for agriculture, trading, housing, social facilities, transport etc.

#### Weakness

 Rural sprawl settlement patterns reduce accessibility to social and communal facilities.

## **Opportunity**

- Use public land to create social and economic space/ opportunities e.g. housing, informal trading, public transport facilities.
- Use well located underutilized public land to reduce impacts of sprawl.
- Improve accessibility to, and convenience in use of, public and private services i.e. government services, commercial services, public transport etc.

#### Threats/Constraints

Inadequate representation of all stakeholder groups.



(Source: Concepts Urban Design)

# 5.5 KEY INFORMANTS TO LSDF FOR MQANDULI AND VIEDGESVILLE

PERFORMANCE DIMENSION	MQANDULI TOWN	VIEDGESVILLE NODE
ACCESS	<ul> <li>Protect main accesses into town from flooding.</li> <li>Surfacing of roads to important social facilities and access routes to villages.</li> <li>Adequate facilities and control of public transport and traffic.</li> <li>Upgrade pedestrian infrastructure and facilities.</li> </ul>	<ul> <li>Manage impacts of and exploit opportunities related to increased N2 Traffic.</li> <li>Secure public rights of way network for accessibility, connectivity and circulation for all traffic modes</li> <li>Plan for various rail services scenarios.</li> </ul>
VITALITY	<ul> <li>Integration and sustainable management of the environmental asset base-protect forest.</li> <li>Prevention of erosion of environmental asset base and agricultural base.</li> <li>Development management to prevent intrusion into environmental and agricultural areas.</li> </ul>	<ul> <li>Integration, protection and sustainable management of the environmental assets and agricultural assets.</li> <li>Enhancement of agricultural practice to protect soils productivity.</li> <li>Livestock and settlement management.</li> <li>Improve management of solid waste site.</li> </ul>
SENSE	<ul> <li>Reinforce and upgrade the identity, structure, and form of Mqanduli as a town.</li> <li>Structure and Upgrade Public Realm quality and functionality.</li> <li>Integrate different sub precincts.</li> <li>Control Built Form for functionality, street definition and character</li> </ul>	<ul> <li>Establish the identity, structure, and form of Viedgesville as an emerging town.</li> <li>Protection of key elements of surrounding landscape character i.e. natural areas, agriculture.</li> <li>Secure space for the development of a public realm for the node and for integration of adjacent settlements.</li> <li>Develop and protect appropriate built form character and functionality.</li> </ul>
FIT	<ul> <li>Protect strategically located public land for public facilities, food security and environmental management.</li> <li>Determination of growth scenarios and town and village development limits.</li> <li>Accommodate the anticipated growth of the node</li> </ul>	and environmental management.
CONTROL	<ul> <li>Manage release of strategically located public land.</li> <li>Alignment with external service delivery agents.</li> <li>Continuing engagement with civic society and landowners around planning and development initiatives</li> </ul>	<ul> <li>Alignment with external service delivery agents.</li> <li>Continuing engagement with civic society and landowners around planning and development initiatives</li> </ul>
EFFICIENCY	<ul> <li>Refocus on Municipal roles / strengths to enable/facilitate public and private investment and development.</li> <li>Facilitate higher levels of alignment between spheres of government.</li> <li>Balance rural and town redevelopment strategies.</li> <li>Ensure more efficient spatial strategies and designs.</li> </ul>	<ul> <li>Facilitate higher levels of alignment between spheres of government.</li> <li>Establish efficient access and circulation systems.</li> <li>Protect and manage natural resources and assets base.</li> <li>Balance rural development and town/village development strategies</li> </ul>
JUSTICE	<ul> <li>Use public land efficiently and inclusively.</li> <li>Retain and enhance accessibility to facilities.</li> <li>Consider densification to accommodate growth</li> </ul>	<ul> <li>Provide effective and inclusive settlement planning and design responses to combat sprawl and provide well located social and commercial facilities.</li> <li>Enhance and ensure adequate community consultation and participation in decision making.</li> </ul>

# 6 MQANDULI LOCAL SPATIAL DEVELOPMENT FRAMEWORK

## 6.1 GROWTH SCENARIOS

The population for Mqanduli in 2011 was 13 248. The Commonage at this time did not accommodate any population.

The chart in Figure 6-1 provides the growth scenarios for the Maanduli Node (4km) based on 2011 Census data and limited "ground truthing" of sample settlement growth trends in and around the commonage <u>and</u> in the Town of Maanduli through the interrogation of aerial photographs from 2012 to 2023.

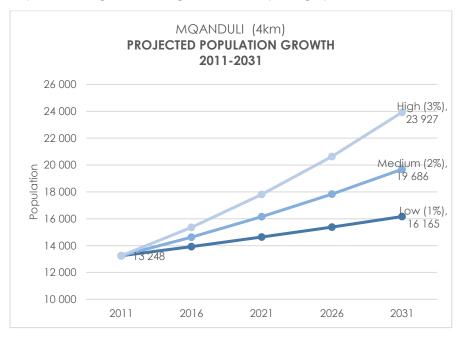


FIGURE 6-1 MQNADULI GROWTH SCENARIOS

Growth indicated in the Census for the period 2001 to 2011 was of the order of 1,1% but growth patterns indicated in the ground truthing exercise over the last 10 years has been of the order of 4% to 5%. This means that the 2031 population for the Town and commonage could be anywhere between 16 165 and 23 927

Using the settlement patterns and densities that exist in the Town and applying them in the proposed spatial framework that seeks to protect ecological resources and establish a sustainable settlement form/footprint in Town the long and commonage (i.e., beyond 2031) the capacity for the Town is calculated to be of the order of 16 000 people (see

Table 7-2: Viedgesville NODE Land Use Budget). This is clearly more that the foreseeable growth expectations discussed above.

However, peri urban growth and settlement outside and inside the commonage is resulting in pressure on the Town's social and essential infrastructure services. Development in these peri urban areas needs to be managed to ensure that services are appropriately provided and that social facilities are balanced with population needs so that pressure on the Town's services and facilities is mitigated.

Broad guidelines on how to approach the growth scenarios for the commonage and the Town of Maanduli and which should direct the review of the LSDF are as follows, and unpacked in more details in the sections that follow:

- Direct and manage growth inside the commonage to the Town to protect further erosion of natural resources and agricultural land as part of the Municipality's Climate Change Resilience and agricultural and ecotourism economic development strategies.
- Increase the densification levels within the Town to improve its capacity for incremental increases in the capacity of services and infrastructure that the Municipality will need to provide and to improve thresholds for accommodating population growth and economic activity and services.
- Provide for the expansion of Maanduli into a town that offers lifestyle
  options that can attract growth away from peri urban areas and that
  can provide services and facilities for the anticipated growth in
  population.

## 6.2 ROLES & VISION

As a **formal town** in the Municipality Magnduli's position in the region along the MR 411 Coastal Development Corridor sets it up to play more meaningful roles in the future. In the first instance it will respond to the changing and emerging policy intentions and objectives for the development of the region (e.g., Eastern Seaboard Region and possible inclusion into the Umtata Metropolitan Municipal Area), and secondly to the existing and future needs of expanding and urbanising local rural communities.

Roles are identified in the table below and the Vision and related development framework that responds to these are articulated in the following sections.

## 6.2.1 The Roles of Maanduli

SCALE ENVIRONMENTAL		SOCIAL	ECONOMIC	
NATIONAL	National Biodiversity.			
PROVINCIAL (Regional)	Provincial Biodiversity.	Tertiary Governmental Services Centre.  (Eastern Seaboard and District level)	Mixed Commercial Development Node.	
MUNICIPAL  (Potential  Metropolitan  Municipality)	Regional and Municipal Biodiversity and Landscape Character	Future Metropolitan Service Centre. Urban and Rural Housing Node.	Mixed Commercial Node Tourism.  Agricultural Development and Support Centre.  Public Transport Interchange.	
LOCAL	Local Biodiversity, Recreation and Landscape Character.	Local Community Services Centre.	Retail Centre.  Service Industry.  Public Transport Interchange.	

#### 6.2.2 Vision for the Maanduli

The vision for the Maanduli Town and surrounding commonage is drawn from its role within the broader context as discussed above.

The vision also aligns with broader District and Municipal Frameworks, which guide the future nature of the node.

#### **VISION STATEMENT**

Maganduli is a growing small town in the Eastern Seaboard Region, District and KSD Municipality with established and competitive retail, commercial, service industrial, agricultural development and tourism activities and potential.

Maganduli offers **various lifestyle options** that are supported by well managed social, educational, recreational, administrative and health facilities and a range of housing choices.

Agricultural **training facilitates support** for both co-operative and commercial farming and agro – processing for the region and **eco-tourism is promoted through the protection of the landscape quality** of the town and its surroundings and provision of specialised tourist accommodation and facilities in the Mangondolo River Forest reserve.

The compact town has a distinctive identity and character with a full range of services on offer and all its precincts are linked by an efficient, pedestrian friendly road system and a safe, secure, attractive, and functional public realm.

The scenic landscape, agricultural lands, and existing natural resources within the Commonage surrounding the Town are enhanced through the promotion of sustainable farming activity and ecological resource management which are all integrated with and add value to the liveability of the town for its residents and visitors.









## 6.3 MQANDULI SPATIAL DEVELOPMENT STRATEGIES

#### 6.3.1 The Notion of Settlement Performance

As explained in previous sections cities, towns and settlements are like the "theatres" or "stages" where communities "act out" their lives on a day-to-day basis. They are made up of a collection of discrete but integrated assets (natural resources, infrastructure, buildings, social facilities heritage etc.) that are spatially organised and managed to accommodate individual and community activities and events in a sustainable manner.

These assets need to be protected, maintained, upgraded, enhanced and expanded to redress existing development challenges, respond to change and growth and mitigate various socioeconomic and environmental disruptions to ensure sustainable operational "performance" of a city, town or settlement for the benefit of its population.

The sections that follow describe the proposed integrated spatial strategies that are required for Maanduli Node study area to be transformed into a town that will meet existing challenges, perform its future roles and achieve the vision articulated above.



(source RDLR SDF Guidelines)

#### 6.3.2 Protect Assets that Enable Performance

- Ecological Resources Protect riverine, forest and wetland habitats, soil
  and water resources that provide ecological diversity, support
  sustainability, determine landscape identity and character and support
  livelihoods.
- Agricultural Land Protect the good / productive agricultural land in the
  commonage from being eroded or transformed by settlement through
  the demarcation and management of clearly defined agricultural areas
  and development edges for the town and peri urban areas.
- Accessibility Protect the regional accessibility and linkage function to the Coast and maintain local connectivity functionality provided by the MR411.

## 6.3.3 Change Conditions that Threaten Performance

- Uncontrolled Settlement Prevent further uncontrolled settlement in the commonage that erodes ecological and agricultural assets and manage existing peri urban settlements more effectively.
- Inappropriate Development Prevent the uncontrolled and or inappropriate development of strategically located land within the Town boundary.

# 6.3.4 Add or Create Conditions that Respond to Change and Enhance Performance

- **Expand the Town Boundary** Demarcate an extended town boundary that will be serviced for compact, mixed use and efficient settlement. Establish a development edge within which services will be provided.
- Commonage Open Space System Establish an integrated multipurpose Open Space System within the commonage that improves regional ecological biodiversity, boosts climate change resilience, protects landscape heritage and provides for recreational and economic activity.
- Town Open Space System Establish an integrated multi-purpose Open Space System within the Town that integrates the Town with the

- commonage and that supports the Towns development and intensification.
- Spatial Structure Identify and establish a legible access, circulation and public realm network to integrate and support higher density mixed use, accommodate an increase in development and activity and to provide safe and efficient environments for vehicles and pedestrians.
- Establish an Identifiable Town Character Encourage the development of a built form and public realm that provides a functional, locally relevant, imageable, legible, "town scaled" and sustainable built environment.
- **Expand and Upgrade the Town Centre** Identify land suitable for the expansion of mixed use activity adjacent to the existing centrally located mixed use area alongside the MR 411. Reorganise Main Road into an attractive pedestrian prioritised, but functional and safe destination.
- Housing Densification and Choice Promote densification of existing residential areas and create new residential areas at a range of densities to increase development capacity of the town, improve housing choice, and improve economic, social facility and services / infrastructure viability thresholds.
- Define and enforce an efficient access and circulation network and hierarchy that integrates the precincts of the Town and that protects regional and local accessibility.
- Efficient Public Transport Reorganise the Public Transport Interchange facility and associated public transport routes to improve regional and local public transport accessibility and to improve safety and efficiency.
- Socio-Economic Facilities Secure and manage existing, and add new, social facilities and commercial areas that provide essential services and employment in line with population growth.
- Heritage Identify, protect, and add new heritage assets that can add value to the economic base, community identity and tourism attraction potential.
- **Infrastructure Capacity** Repair and maintain existing, and expand capacity of, essential infrastructure within the town edge including water, sanitation, electricity, roads, and stormwater.

## 6.4 MQANDULI SPATIAL DEVELOPMENT CONCEPTS

## 6.4.1 Maanduli Spatial Development Concept



## Mganduli Commonage

• Retain, protect, rehabilitate, and integrate undeveloped land within the commonage (i.e., land administered by the KSDM) into a sustainable open space system for biodiversity, agriculture, and tourism as part of the climate change resilience and economic development objectives of the area and the Municipality. Investigate potential for establishing limited tourist accommodation in the Mangondolo Forests.

#### Mganduli Town

• Expand the existing Town westwards to an "Urban" edge to accommodate anticipated population growth in a mix of residential areas and densities.

#### Town Centre

• Consolidate the Town centre around the MR 411 as a mixed-use business, agricultural development, administration and service centre for the Municipality and local population.

## **Access Linkage and Connectivity**

 Optimise functionality of MR 411 as a regional route and maintain local access and connectivity through the commonage. Enhance accessibility and linkages to surrounding peri urban settlement through an upgrading and enhancement of existing roads.

#### Peri Urban Settlement

 Fix the boundaries of existing peri urban settlements within the commonage to restrict their expansion and monitor controlled densification to mitigate their impacts on the agricultural and natural assets within the commonage.

# **Agricultural Areas**

• Protect, consolidate, rehabilitate, and enhance productivity of all defined agricultural lands within the commonage as part of agricultural development objectives of the Municipality.

#### Scenic Routes to the Coast

• Enhance the scenic experience of the MR411 Coastal Corridor in the commonage through the management of settlement and untransformed areas and development of appropriate viewing infrastructure and facilities that showcases its scenic qualities.

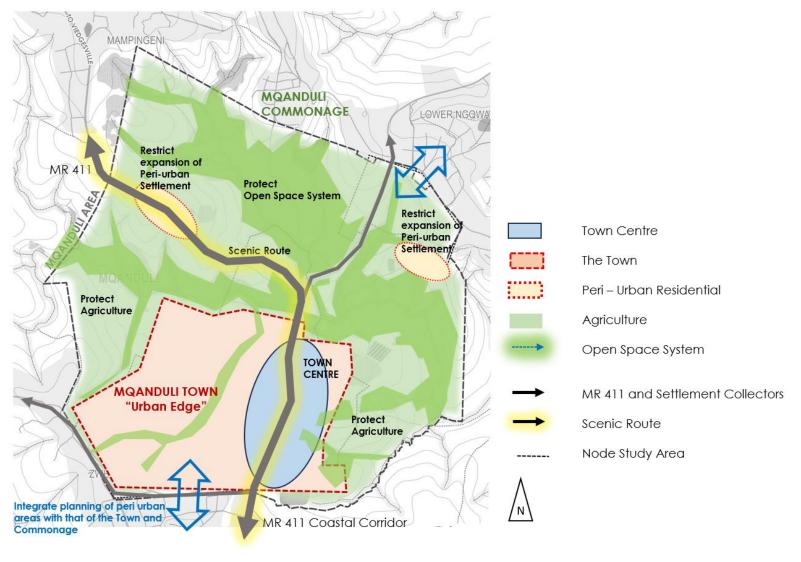
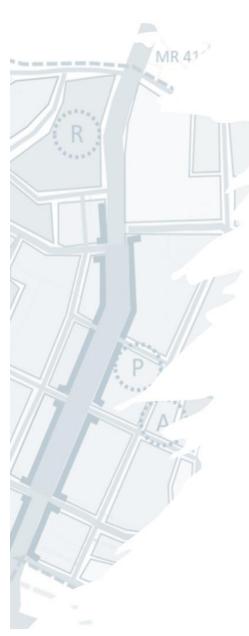


FIGURE 6-1: MQANDULI SPATIAL DEVELOPMENT CONCEPT

## 6.4.2 Maanduli Town Spatial Concept



## **Spatial Structure**

• Spatially and visually integrate, the various nodes and precincts of the Town through the extension of a road and street configuration that is reflective of the original Town's Street and block structure, subdivision pattern and scale of built form to provide a functional, efficient, walkable, imageable and legible and circulation system that retains the character of the Town.

## Mganduli Town Centre

 Consolidate the Town Centre of Magnduli around Main Street into a distinctive pedestrian prioritised, mixeduse business, service industrial, government administration, public transport and mixed density residential service node and destination.

#### **Residential Choice**

Consolidate and expand the residential offerings of the town through the establishment of mixed density and
mixed income residential precincts with housing types and forms that respond to local and regional housing
demands as well as local climatic and landscape character.

## Open Space System

Protect, rehabilitate, enhance, and integrate all natural open space assets into a cohesive open space system
to provide ecological services, flood protection and mitigation and scenic landscape character. Integrate this
system with formalised and man-made open spaces in the Town to provide locals and tourists with a variety of
passive and active recreation opportunities. Ensure surrounding development fronts onto the Park.

#### Public Realm

• Structure the Town into a compact, efficient, high quality safe, secure, functional and people friendly destination around a high quality public realm consisting of a "High" Street along Main Street, Public Nodes at the proposed Municipality Administrative Precinct, Public Transport Terminal and Central Trading Market, Magistrates Court Precinct, Central Recreation / Tourist Centre Node, Landscaped Street Network, a Town Park, hard and soft local spaces and well-designed Community Clusters / Nodes within residential precincts.

# **Community Clusters / Nodes**

Establish clusters of local level community facilities within residential precincts.

# Linkage and Connectivity

- Protect and enhance the regional and coastal accessibility and linkage performed by the MR411 and integrate
  this with upgraded local level links that connect the surrounding peri urban settlement areas to the Town.
  Expand and enhance the internal connectivity of the Town through expanded street networks.
- Upgrade the Public Transport Terminal and associated market to facilitate integrated and efficient regional and local public transportation.

# **Agricultural Allotments / Small Holdings**

 Protect and develop all agricultural land by establishing agricultural allotments and / or smallholdings that meet local / regional subsistence and commercial demands, that provide improved thresholds for the existing milling plant and that provide "buffers" between built up areas and natural areas.



FIGURE 1-2 MQANDULI TOWN SPATIAL CONCEPT

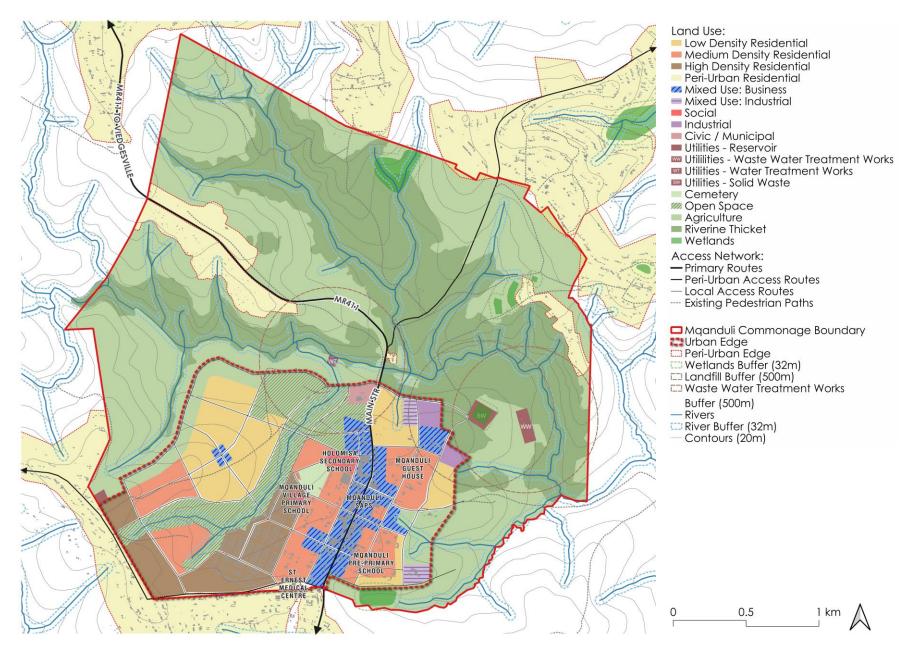


FIGURE 1-3: MQANDULI NODE LOCAL SPATIAL DEVELOPMENT FRAMEWORK

## 6.5 MQANDULI SPATIAL DEVELOPMENT PROPOSALS

The Local Spatial Development Framework for Maanduli consists of several overlapping and integrated frameworks and guidelines which further articulate the concepts presented in the previous section.

## 6.5.1 Land Use Framework

## Objective

To provide for a mix and density of land use and activity that will support the protection and development of the Town and commonage as a balanced and sustainable Commercial, Administrative, Social Services, Agricultural Development, Tourism Residential destination in the KSD Municipality and Eastern Seaboard Region.

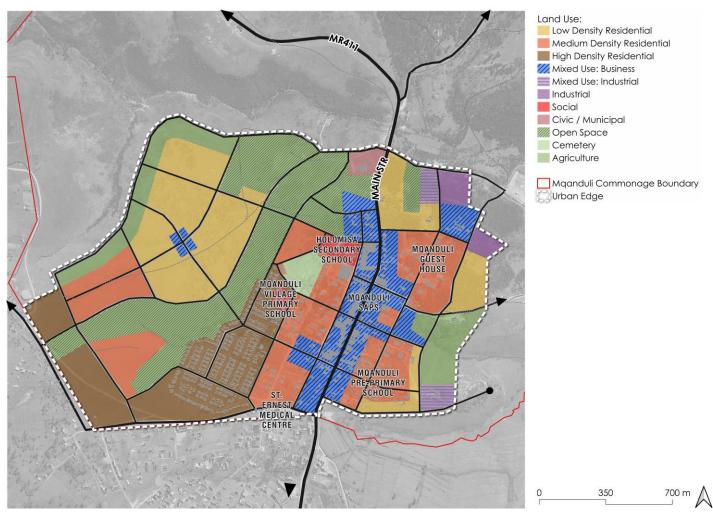


FIGURE 1-4: MQANDULI "TOWN" LAND USE FRAMEWORK

## **Proposals**

## **Development Edges**

Development edges are proposed to ensure that development occurs in a controlled manner and that natural and agricultural assets are protected.

- <u>Town Edge</u> The boundary for development within which highest levels of municipal infrastructure services will endeavour to be provided.
- <u>Peri-urban settlement Edge</u> Boundary for existing peri-urban settlement along the MR411 and rural access roads on the approach to the town.
   To prevent expansion of peri urban settlement footprint.

## Definition of Character Areas (CA)

The Town and surrounding commonage consists of several Character Areas (CA) which collectively make up its identity. Each CA will have a primary land use character and function (e.g., residential, commercial, industrial) but may include a limited amount of other supporting land uses.

#### Land Use Types

Land Use Types that are to be promoted and their location and mix in each CA is described in sections that follow.

LAND USE	DESCRIPTION		
Retail	Shops, personal services, pharmacies etc.		
Offices	Private offices		
Commercial	Wholesale stores with related sales.		
Service Industrial	Hardware, motor vehicle repair and panel beating workshops, engineering works etc.		
Medium Density Residential	One unit per 300m² of land		
Low Density Residential	One unit per 500 m <sup>2</sup> of land		
Peri Urban Residential	One unit per 1000 m² of land		
Social Facilities	Education, health, welfare, worship, community halls, and public administration buildings to be provided at levels related to the type of Community Cluster.		
Agricultural	Subsistence allotments and Commercial farming lots and the Agri		
Retained Rural Area	Natural Open Spaces		
Public Transport Terminal	Regional taxi terminal and associated ablutions, offices and rest area facilities for taxi operators.		
Public Market	Municipal market for informal trading with associated storage, ablutions and administrative space for the traders.		
Petrol Filling Station	Refuelling station		

<u>Note</u>: Location of community facilities will be determined at detailed levels of planning and settlement design

#### **CA Mixed Use Business**

The Town Centre focused on the MR 411, is the primary mixed-use business area of the Town and will contain a mix of retail, commercial, administration and social services uses. It will also include the public transport terminal and public market.

#### CA Mixed Use Industrial

Industrial CA's will be located east of the Mixed Use Business CA and will include light and service industrial activity including the agricultural related activities and the Mill.

## **CA High Density Residential**

- High density residential precincts immediately adjacent to the Town Centre provide a more "urban" lifestyle and will be delivered through development of two to three storey detached and attached housing types - 45 units/ hectare.
- Supporting uses in community clusters may be permitted in these areas to include shops, schools, creches, limited offices, worship sites and local open spaces.

## **CA Medium Density Residential**

- Medium density residential precincts immediately adjacent to the east and west of the Town Centre will provide a more "urban" lifestyle and will be delivered through development of two to three storey detached and attached housing types – 35units /hectare.
- Supporting uses in community clusters may be permitted in these areas to include shops, schools, creches, limited offices, worship sites and local open spaces.

## **CA Low Density Residential**

- Lower density residential development will form the outlying neighbourhoods and be delivered through one to two storey units – 25 units/ hectare.
- Supporting uses in community clusters may be permitted in these areas to include shops, pre-primary schools, creches, limited offices, worship sites and local open spaces.

#### CA Peri Urban Residential

- Low density residential delivered through development of a mix of traditional or formal residential typologies one to two storeys one unit per 1000m<sup>2</sup> of land.
- Supporting uses in community clusters may be permitted in these areas to include shops, creches, worship sites and local open spaces.

## Notes Regarding Residential Areas

Residential areas should be designed as integrated human settlements and their character should reflect that of the original Town and surrounding rural and agricultural landscape.

Residential areas should be structured by an open-ended layout of roads, streets and pedestrian lanes reflective of the block size and subdivision patterns of the original town layout, or in the case of low-density areas the peri urban settlement patterns.

Public open spaces within the residential areas should also be used to integrate the residential blocks to promote walkability and convenience for pedestrians.

## Community Cluster:

- Community Clusters are strategic points in a CA which provide relevant local level commercial and social services e.g. convenience shops, preschool/creche, worship sites, community halls.
- The location of clusters will be made during detailed design stages and should be located to optimise accessibility, form a focus for the CA and prevent interference with residential amenity.

# Mqanduli Land Use Budget

TABLE 1-1: MQANDULI LAND USE BUDGET

Land Use Categories	Area (Ha)	% Allocation of Land for Residential	Land Available for Residential (Ha)	Gross Density (du/ha)	Dwelling Units	Estimated Population (@3,5 pph)
Agriculture	325	10%	33	1	33	104
Peri-Urban Residential	42	90%	38	10	381	1 218
Low Density Residential	52	90%	47	25	1 170	3 744
Medium Density Residential	56	90%	50	35	1 764	5 645
High Density Residential	40	90%	36	45	1 620	5 184
Mixed Use: Business	30	30%	9	35	314	1 005
Mixed Use: Industrial	4	0%	-	-	-	-
Industrial	5	-	-	-	-	-
Social Facilities	3	-	-	-	-	-
Civic / Municipal	2	-	-	-	-	-
Utilities - Waste Water Treatment Works	2	-	-	-	-	-
Utilities - Reservoir	1	-	-	-	-	-
Utilities - Solid Waste	2	-	-	-	-	-
Utilities - Water Treatment Works	-	-	-	-	-	-
Open Space	50	-	-	-	-	-
Cemetery	3	-	-	-	-	-
Riverine Thicket	295	-	-	-	-	-
Totals:	912	-	-	-	5 281	16 900

NOTE: \* Dwelling units and population calculations includes existing development in each land use zone

## 6.5.2 Access and Circulation Framework

# Objective

To plan, design and manage the access, movement and circulation system so that overall access to, movement through and experience of the node is secured and enhanced.

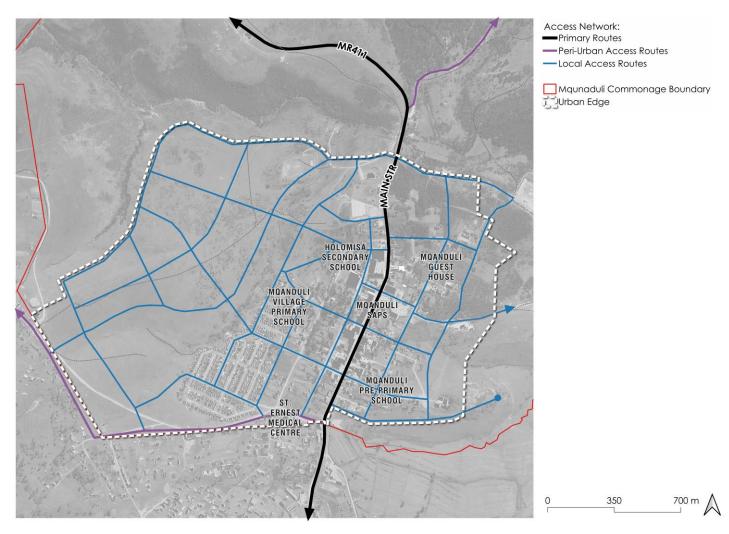


FIGURE 1-5: MQANDULI "TOWN" ACCESS AND CIRCULATION FRAMEWORK

## **Proposals**

## Primary Routes (MR 411)

- Maintain the R411 in a good state of repair as the regional accessibility and linkage route between Mqanduli, Mthatha and the Coast and to surrounding peri urban settlements.
- R411 designed to provide direct access to properties in the Town, but limited access in the remainder of the node.
- The design of the MR 411 road bridge across the Manqondo River should be reviewed to ensure that its functionality from a vehicular capacity, pedestrian safety and flood protection point of view is secured.

#### Peri- Urban Access Routes

 Upgrade (possible surface) Peri Urban Access Routes to protect and improve functionality of links between the Town and adjacent settlements and to act as local spines for each settlement.

#### Local Access Routes (Town Grid)

- Extend and upgrade the Town Centre Road grid network into adjacent Town precincts to ensure direct, efficient, and safe vehicular and pedestrian access and connection to MR 411 and the Town Centre.
- Connect, and spatially and visually integrate, the various precincts of the
  Town through the extension of a road and street configuration that is
  reflective of the original Town's block structure and subdivision patterns
  and dimensions to provide a functional, efficient and cohesive access
  and circulation system that promotes walkability and retains the
  character and scale of the Town.

## **Public Transport and Non-Motorised Transport**

- Maganduli Public Transport Terminal to be upgraded and integrated with the Trading Market. Upgrade / provide ablutions, rest rooms, vehicle washing areas and small offices for public transport operators.
- Develop a system of public transport routes, stops and/or pick up points on MR 411, on Peri Urban Access Routes and Local Access Routes.
- Improve and or provide Non-Motorised Transport (NMT) facilities (e.g. sidewalks) on the MR 411, Main Street and other roads in the Town Centre.
- All roads / streets throughout the Town should have a demarcated sidewalk on at least one side of the road.

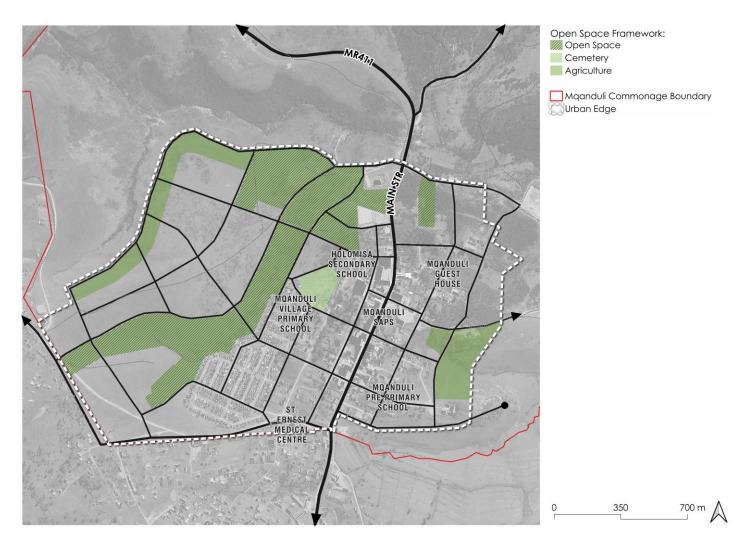
#### Traffic Management

- Improve assess and circulation by introducing acceptable levels of guidance signage to strategic buildings and facilities.
- Introduce traffic calming measures within the Main Street in the CBD in order to manage vehicular traffic passing through.
- Improve safety around Community Clusters by introducing clearly marked pedestrian crossings in association with traffic calming measures.
- Streets and spaces should wherever possible accommodate pedestrian needs.

## 6.5.3 Public Open Space Framework

# Objective

To provide an interconnected system of open spaces to support more intensive development and activity in the town, provide recreation areas, provide for protection of ecological and agricultural assets and services and protect the landscape character of the node.



## **Proposals**

## **Urban Open Space Network**

- Establish a "urban" public space network including public squares, landscaped streets, and formal parks each with an identity, character and function within each and that connect all parts of the Town.
- Include informal trading spaces as part of the open space system in welllocated and designated trading areas or markets within the Town Centre and Community Clusters.
- The Market associated with the Public Transport Terminal should be designed as a major Town Square that caters for trading, commuter waiting areas, social gathering and focus for the town. Consider including a Tourist Information Kiosk for people travelling to the Wild Coast.
- Small parks to be provided within new and existing residential areas and associated with clustering of social facilities.
- Routes that provide views over scenic landscapes and which have view site infrastructure and facilities to showcase the sense of place that is unique to the node and its surroundings.

## Landscaping Guidelines

- Enhance legibility and quality of the Town Centre through provision of landscape infrastructure including sidewalk paving, street and public space tree planting, seating, lighting, signage and litter bins within the town centre.
- Entrance zones to the Town and surrounding commonage require special landscaping treatment including tree-planting, signage and landscaping infrastructure arranged to enhance the sense of arrival.

## Commonage Natural and Agricultural Areas

- Protect, rehabilitate, enhance and expand natural / untransformed areas and integrate into a Commonage Open Space System to protect ecological biodiversity, tourism potential and agricultural potential as part of the Climate Change Resilience strategy of the Municipality for the Commonage.
- Protect and develop all agricultural land by establishing agricultural allotments and / or smallholdings that meet local / regional subsistence and commercial demands, that provide improved thresholds for the existing milling plant and that provide "buffers" between built up areas and natural areas.
- Peri-urban farming areas include areas, which fall within the umbrella of 'retained rural areas'. These farming areas are specially demarcated for cultivation / agriculture (including livestock farming) and could be suitable for small scale / co-operative farming and /or other large scale commercial agricultural projects.

#### **Utility Areas:**

- Utility Installations that are located out of the Town edge fall within the open space system and should be managed to prevent any adverse environmental impacts. These include:
  - Landfill / Solid Waste Disposal Site
  - Waste Water Treatment Works
  - Water Extraction Plant
- Utility Installations that fall inside the Town edge will be considered as part of the town open space system. These include the Water Reservoirs.

# 7 VIEDGESVILLE LOCAL SPATIAL DEVELOPMENT FRAMEWORK

# 7.1 GROWTH SCENARIOS

The chart in Figure 7-1Viedgesville Growth Assumptions provides the growth scenarios for the Node (4km) based on 2011 Census data and limited "ground truthing" of sample settlement growth trends in the Node through the interrogation of aerial photographs from 2012 to 2023.



FIGURE 7-1 VIEDGES VILLE GROWTH ASSUMPTIONS

Growth indicated in the Census for 2001 to 2011 was of the order of 1,2% but growth patterns indicated in the ground truthing exercise over the last 10 years has been of the order of 2% to 3%. This means that the 2031 population could be anywhere between 17 651 and 26 127. The aerial photographs show actual growth rates are higher than the Census data would suggest and it is realistic to assume that rates closer to 3% are likely to occur. This means that the population of the Viedgesville Node would be of the order of 26 000 in 2031.

Using the settlement patterns and densities that exist in the Node and applying them in the proposed spatial framework that seeks to protect ecological resources and establish a sustainable settlement form/footprint in the long term (i.e., beyond 2031) the capacity for the Node is calculated to be of the order of 92 000 people (see

Table 7-2: Viedgesville NODE Land Use Budget). This is clearly more that the foreseeable growth expectations discussed above. However, what is also clear is that rural growth and settlement is resulting in significant settlement sprawl with associated impacts including encroachment onto valuable agricultural land, adverse impacts on ecological resources and systems and increasingly uncontrolled and hazardous access onto the N2. These conditions need to be redressed, addressed and mitigated through the LSDF.

Broad guidelines on how to approach these growth scenarios for Viedgesville and which should direct the review of the LSDF are as follows and unpacked in more details in the sections that follow:

- Restrict and manage rural sprawl to protect further erosion of natural resources and agricultural land as part of the Municipality's Climate Change Resilience and Economic Development strategies.
- Incrementally increase the densification of existing settlements to improve their capacity for a gradual increase in the level of services and infrastructure that the Municipality will need to provide and to improve thresholds for economic activity and servicing.
- Organise settlements in a manner that reduces hazardous conditions along the N2 and adverse impacts on its national and regional mobility roles.
- Provide for the transformation of the centre of Viedgesville Node into a town that offers lifestyle options other than peri urban living and that can provide services and facilities for the anticipated growth in population.

# 7.2 ROLES & VISION

The portion of Viedgesville "Node" centred around the Railway Station is transforming from a loosely clustered mix of peri urban settlements, mixed commercial and administrative facilities into a **small rural service town**.

Its position in the region and on the N2 and national rail line sets it up to play more meaningful roles in the future. In the first instance it will respond to the changing and emerging policy intentions and objectives for the development of the region (e.g., Eastern Seaboard Region and possible inclusion into the Umtata Metropolitan Municipal Area), and secondly to the existing and future needs of expanding and urbanising local rural communities.

Roles are identified in the table below and the Vision and related development framework that responds to these are articulated in the following sections.

# 7.2.1 The Roles of the Viedgesville Node

SCALE	ENVIRONMENTAL	SOCIAL	ECONOMIC	
NATIONAL	Defined Strategic Water Catchment		Potential Rail and Road Logistics Satellite	
			Eastern Seaboard Region Coastal Gateway.	
PROVINCIAL (Regional)			Potential Eastern Seaboard Rail and Road Logistics Node.  Agricultural Development Support Centre.  Provincial Coastal	
			Gateway.	
MUNICIPAL (Potential Metropolitan Municipality)	Provision of Municipal Biodiversity.	Mixed Urban and Rural Housing Node.  Service Centre / Small Town within future Metropolitan Area.	Tertiary Commercial and Industrial Centre.  Municipal Public Transport Interchange.  Subsistence and Commercial Agriculture support.	
LOCAL	Local Biodiversity.	Services Centre for urbanising Peri Urban Settlements. Mixed Town and Rural Housing.	Formal and Informal Retail Node Commercial and Agro- Industry Support Node. Local Public Transport Interchange.	

# 7.2.2 Vision for the Viedgesville

The vision for the Viedgesville Node reflects its future role as an emerging small town in alignment with Provincial /Regional and Municipal Policy Frameworks.

### **VISION STATEMENT**

Viedgesville is a strategically located small service town in the KSD Municipality and Eastern Seaboard Region catering for retail, trade, road and rail-based logistics, services and light industry and Agri-processing activities. It offers a mix of affordable town and rural (peri-urban) residential lifestyles and a range of local level social, educational, recreational, health and governmental / administrative services.

The town comprises identifiable low rise mixed use and mixed density neighbourhoods that are linked into and reflect the surrounding landscape quality, scale and character of its agricultural periphery.

Viedgesville features a compact town centre with a safe, secure, functional and distinctive built form and public realm organised around both sides of the N2 / MR 411 interchange in a manner that reflects its gateway role into the Wild Coast Tourism zone.

The preserved and enhanced natural resources and cultivated lands, are integrated with the node and town through sustainable and responsible environmental management, farming practices and effective settlement and development control.











# 7.3 VIEDGESVILLE SPATIAL DEVELOPMENT STRATEGIES

### 7.3.1 The Notion of Settlement Performance

As explained in previous sections cities, towns and settlements are like the "theatres" or "stages" where communities "act out" their lives on a day-to-day basis. They are made up of a collection of discrete but integrated assets (natural resources, infrastructure, buildings, social facilities heritage etc.) that are spatially organised and managed to accommodate individual and community activities and events in a sustainable manner.

These assets need to be protected, maintained, upgraded, enhanced, expanded and managed to redress existing development challenges, respond to change and growth and mitigate various socio-economic and environmental disruptions to ensure sustainable operational "performance" of a city, town or settlement for the benefit of its population.

The sections that follow describe the proposed integrated spatial strategies that are required for Viedgesville Node study area to be sustainably transformed into a town that will meet existing challenges, perform its future roles and achieve the vision articulated above.



(source RDLR SDF Guidelines)

### 7.3.2 Protect Assets that Enable Performance

- Ecological Protect riverine and wetland habitats, soil and water resources that underpin ecological diversity and sustainability and livelihoods.
- Agricultural Land Protect the good / productive agricultural land surrounding settlement from being eroded or transformed by the settlement through the demarcation and management of clearly defined agricultural areas and development edges.
- Socio-Economic Facilities Secure and manage existing centrally located social facilities and commercial areas that provide essential services, employment and protect heritage assets that can add value to the economic base.

# 7.3.3 Change Conditions that Threaten Performance

- **Contain Rural "Sprawl"** Limit the expansion of, and promote the incremental but sustainable densification of peri urban settlements.
- Inappropriate Development Prevent the uncontrolled and or inappropriate development of strategic and centrally located land.
- Inefficient and Unsafe Movement Patterns Control access to, and crossing of, the N2 and Railway line by vehicles and pedestrians around the N2 interchange with the MR411.

# 7.3.4 Add or Create Conditions that Respond to Change and Enhance Performance

- Demarcate the Node Development Footprints Clearly demarcate the
  long term development footprint and associated density targets for
  settlements within the node to control rural sprawl and provide guidance
  for infrastructure and social facilities planning and development and to
  provide for the long term sustainability of the ecological and agricultural
  resource base.
- **Demarcate the Town Footprint** Clearly demarcate land within the town that will be serviced for compact, mixed use and efficient settlement. Establish a development edge within which services will be provided.

- Define an Open Space System Define and integrate ecological assets into an Integrated Open Space System that improves ecological biodiversity, boosts climate change resilience, protects landscape heritage and provides for recreational and economic activity.
- Spatial Structure Identify and establish a legible access, circulation and public realm network to integrate and support higher density mixed use development on either side of the N2, accommodate an increase in regional and local activity and to provide a safe and efficient environment for vehicles and pedestrians.
- **Establish an Identifiable Town Character** Encourage the development of built form and the public realm in a manner that provides a functional, locally relevant, imageable, and sustainable built environment.
- Densification Promote incremental and appropriate densification of the town and immediately adjacent residential areas to increase its development capacity, improve thresholds for provision of services and economic opportunity and reduce pressure for development in the peri urban areas.
- **Economic Expansion** Reserve land for potential industrial and regional logistics activity to take long term advantage of the location next to the national rail network and the N2.
- Public Transport Develop a centrally located Public Transport Interchange facility and associated public transport routes that integrates the town with surrounding service centres, other employment opportunity nodes and peri urban areas safely and efficiently.
- Infrastructure Capacity Repair, maintain, expand and incrementally transform the capacity and sustainability of the essential infrastructure and services systems within the town edge including water, sanitation, electricity, roads and stormwater.
- Protect the functionality of the N2 through establishment of an integrated and functional road network in the Node to ensure safe and efficient regional mobility and access for vehicles and pedestrians.

# 7.4 VIEDGESVILLE SPATIAL DEVELOPMENT CONCEPTS

# 7.4.1 Viedgesville "Node" Concept



### Viedgesville "Node"

 Structure the Node to provide for the sustainable protection of its ecological and agricultural assets through limiting development to sustainable and integrated settlement areas including the Town, peri urban and rural areas.

# Viedgesville Town and Town Centre

Demarcate and transform the central portions of the "Node" around the Rail Station into a small-town. The
Town to be serviced to support compact, mixed-use and residential development to be controlled by an
"urban / town edge"

### Peri Urban Residential

- Define, limit expansion of, and allow limited densification of existing peri urban settlement within the Node.
- Future expansion of the Town will be accommodated in the immediately adjacent Peri Urban Residential areas as and when demand requires.

### Accessibility, Linkage and Connectivity

- Link the Node to other regional and municipal employment and service nodes in Mthatha and along the Coast to ensure its integration into the wider economy.
- Protect the rail line servitude for future rail linked commuter and freight related transportation.
- Ensure safe and efficient linkage between the surrounding Peri Urban areas to the Viedgesville Town and Town Centre.

# Open Space System

 Identify, protect, rehabilitate and integrate ecological assets into an Open Space System within the Node to support climate change resilience and agricultural and tourism related economic development objectives.

# **Agricultural Areas**

• Define, protect, rehabilitate and promote development of agricultural lands located between the Town and peri urban settlements to support subsistence and commercial farming activities.

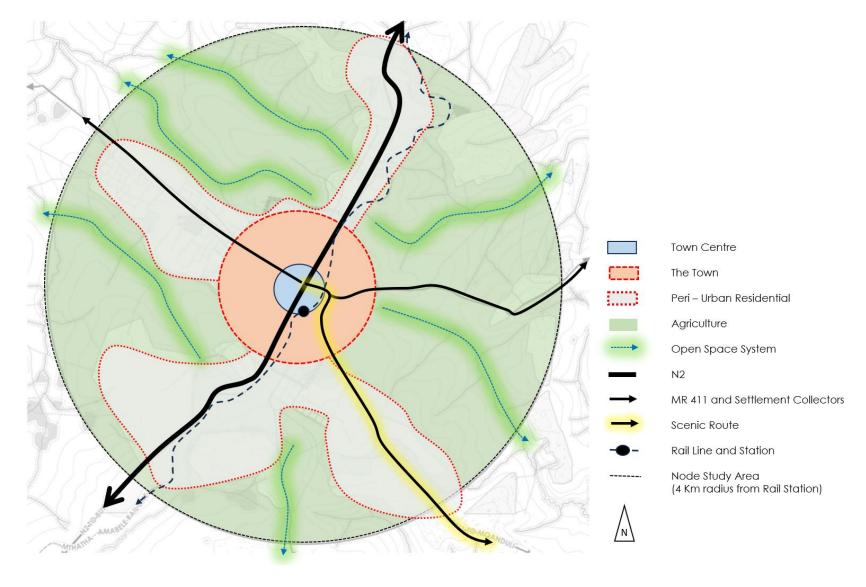


FIGURE 7-2: VIEDGESVILLE NODE SPATIAL DEVELOPMENT CONCEPT

# 7.4.2 Viedgesville Town Concept



### **Spatial Structure**

- Rationalise and formalise the existing road and street configuration to efficiently integrate various nodes, precincts, and peri urban villages into a small town on both sides of the intersection of the N2, rail line and the MR411.
- The layout of roads and streets should be designed to create a block and subdivision structure, size, scale, pattern, walkability, and character for town and surrounding settlements whilst making provision for densification in line with the growth and expansion of the town.

# **Viedgesville Town Centre**

• Consolidate the Town Centre on both sides of the N2 along the MR 411to include a Mixed-Use Business and Industrial / Logistics precinct on the eastern side and a Mixed-Use Retail and Civic / Community Facility precinct on the western side of the N2.

### Peri Urban Residential

• Consolidate, densify and mange peri urban settlements or parts of settlements that are immediately adjacent to the town to offer rural lifestyles and to form future higher density residential precincts and expansion areas for the Town.

# **Agricultural Areas**

• Consolidate the existing defined agricultural lands/allotments adjacent to the town and maintain their linkage to the town and peri - urban areas.

# **Open Space System**

Integrate all natural and formalised open space assets within the town into a cohesive Open Space System to protect and provide improved ecological services, flood protection and mitigation, recreational opportunities and retention of the landscape and scenic quality of the town.

# Access, Linkage and Connectivity

- Create a network of streets on either side of the N2 to integrate the various precincts of the town efficiently and safely link them across the N2 and Rail Line Corridor.
- Provide traffic calming measures along approaches to the N2 to improve safety of the interchange and other regularized access point onto the N2.
- Provide a centrally located Public Transport Interchange Terminal to accommodate and link regional and local public transportation routes and systems.

### **Public Realm**

• Use pedestrian priority "High Streets" and a landscape network of streets and public squares and parks to reinforce the town as a "people friendly" and primary public place of the town and Node.

# **Industry and Logistics**

Provide a potential logistics facility and industrial expansion precinct linked to the rail station and N2 to take advantage of national and regional accessibility.

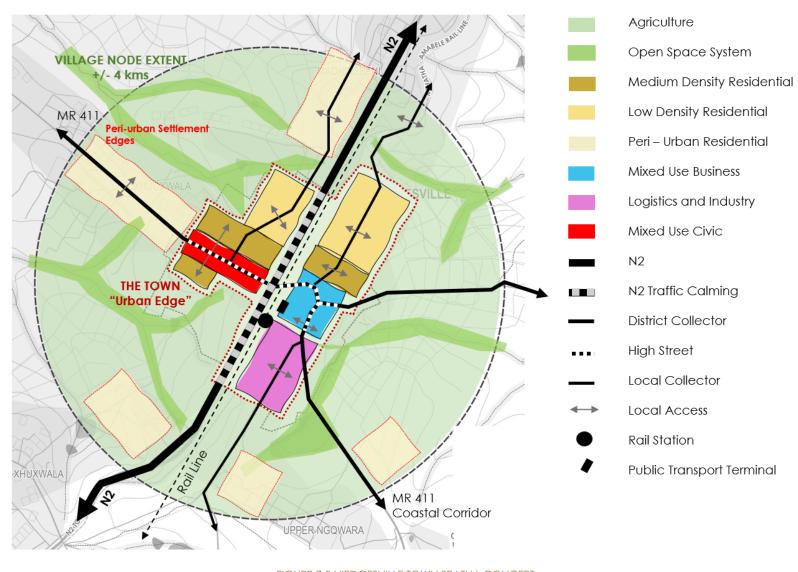


FIGURE 7-3 VIEDGESVILLE TOWN SPATIAL CONCEPT

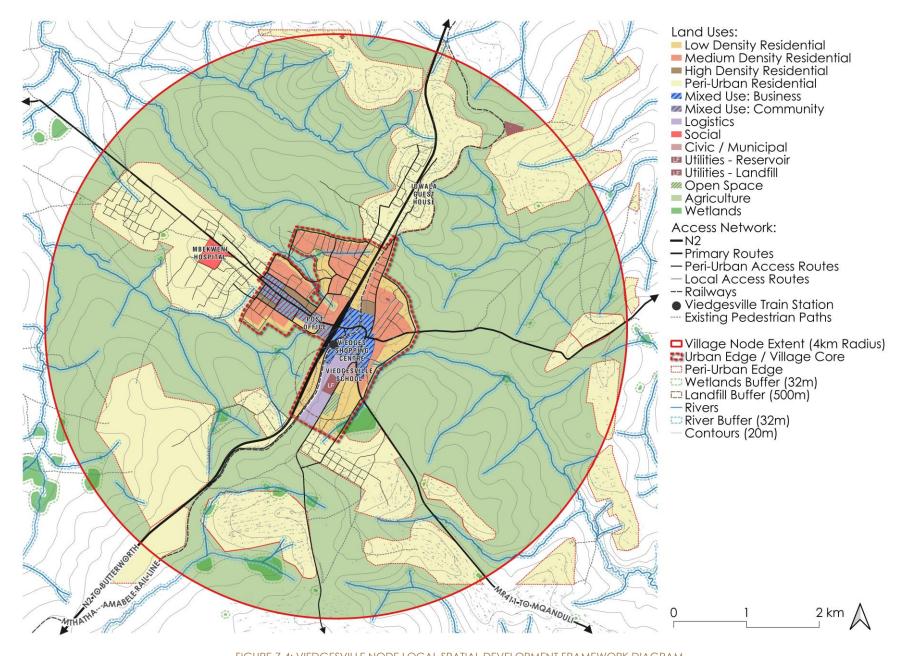


FIGURE 7-4: VIEDGESVILLE NODE LOCAL SPATIAL DEVELOPMENT FRAMEWORK DIAGRAM

# 7.5 VIEDGESVILLE SPATIAL DEVELOPMENT PROPOSALS

The Local Spatial Development Framework for Viedgesville consists of several overlapping and integrated frameworks and guidelines which further articulate the concepts presented in the previous section.

### 7.5.1 Land Use

# Objective

To accommodate a greater mix and density of land use and activity that will support the establishment of viable logistics, public transport, social services, and community infrastructure and to provide for a wider range of residential options, formal and informal business opportunities, and employment.



FIGURE 7-5: VIEDGESVILLE "TOWN" LAND USE FRAMEWORK

# **Proposals**

### **Development Edges**

Urban and peri urban uses are to be confined to clearly defined areas to protect agricultural land and untransformed ecological assets. These will be defined by the following edges.

- <u>Town ("Urban")"Edge</u> Proposed as the boundary to the town within which highest levels of municipal infrastructure services will endeavour to be provided. Densification to be encouraged within the Urban Edge.
- <u>Peri-urban Settlement Edge</u> Proposed as boundaries for existing periurban settlements outside the town. These boundaries define an edge to peri-urban settlement so that incremental residential intensification can occur in line with service levels.

### Definition of Character Areas (CA)

The town is made up of several Character Areas (CA's) which collectively make up its identity. Each CA will have a primary land use and function but may include a limited amount of supporting land uses.

Land Use Types that are to be promoted in the Town and their location and mix in each CA is described in sections that follow.

The following land use types are proposed to be included in the various land use Character Zones within the town.

#### TABLE 7-1: LAND USE TYPES

LAND USE	DESCRIPTION				
LAND USE	DESCRIPTION				
Retail	Shops, personal services, pharmacies etc.				
Offices	Private offices				
Commercial	Wholesale stores with related sales.				
Service Industrial	Hardware, motor vehicle repair and panel beating workshops, engineering works etc.				
Medium Density Residential	One unit per 500m <sup>2</sup> of land				
Low Density Residential	One unit per 1000 m <sup>2</sup> of land				
Peri Urban Residential	One unit per 2000m <sup>2</sup> of land				
Social Facilities	Education, health, welfare, community halls, and public administration buildings to be provided at standards related to the type of Community Cluster.				
Agricultural Areas	Subsistence allotments and Commercial farming lots				
Retained Rural Area	Natural open spaces				
Public Transport Terminal	Regional taxi terminal and associated ablutions, offices and rest area facilities for taxi operators.				
Public Market	Municipal market for informal trading with associated storage, ablutions, and administrative space for the traders.				

Note: Location of community facilities will be determined at detailed levels of planning and settlement design

### **CA Mixed Use Areas**

- Two Mixed Use Areas are proposed within the Town, a Business Precinct and a Retail Community /Civic Precinct.
- Mixed Use Business: Located east of the N2 and includes retail, commercial, office, service industrial, Logistics.
- Mixed Use Retail Community/Civic Located west of the N2 and includes retail, office, social facilities, administration, and higher density residential at 35 units / hectare.
- Mixes of uses within a single building are encouraged e.g. retail on the ground floor with commercial and / or residential above.

### CA High Density

- High density residential precincts immediately adjacent to the Town Centre provide a more "urban" lifestyle and will be delivered through development of two to three storey detached and attached housing types - 45 units/ hectare.
- Supporting uses in community clusters may be permitted in these areas to include shops, schools, creches, limited offices, worship sites and local open spaces.

# **CA Medium Density**

- Medium density residential precincts immediately adjacent to the Town Centre provide a medium density "urban" lifestyle and will be delivered through development of two storey detached and attached housing types - 35 units/ hectare.
- Supporting uses in community clusters may be permitted in these areas to include shops, schools, creches, limited offices, worship sites and local open spaces.

### **CA Low Density Residential**

- Low density residential development forms the outlying neighbourhoods and be delivered through one to two storey detached or attached units – 25 units / hectare.
- Supporting uses in community clusters may be permitted in these areas to include shops, pre-primary schools, creches, limited offices, worship sites and local open spaces.

### CA Peri Urban Residential

- Residential delivered through development of a mix of traditional or formal residential typologies one to two storeys – 10 units / hectare (1000 m2 site size).
- Supporting uses in community clusters may be permitted in these areas to include shops, schools, creches, worship sites and local open spaces.

### Notes Regarding Residential Areas

- Residential areas should be designed as integrated human settlements to include the provision of social facilities relevant to its population.
- Residential areas should be structured where possible by an open-ended grid of roads, streets, pedestrian lanes, and local public spaces reflective of block sizes, scale and subdivision patterns found in a small town, or in the case of low-density areas the scale and character of peri urban settlement patterns.
- Public open spaces within the residential areas should also be used to integrate the residential blocks to promote walkability and convenience for pedestrians.

### Community Cluster:

- Community Clusters are strategic points in a CA which provide relevant local level commercial and social services e.g. convenience shops, preschool/creche, worship sites, community halls.
- These clusters are to be located during detailed design stages and should be positioned to optimise accessibility, form a local focus for the CA and add value to residential character and amenity.

# Viedgesville Core Land Use Budget

TABLE 7-2: VIEDGESVILLE NODE LAND USE BUDGET

Land Use Categories	Area (Ha)	% Allocation of Land for Residential	Land Available for Residential (Ha)	Gross Density (du/ha)	Dwelling Units	Estimated Population (5pph)
Agriculture	3 344	1%	33	1	33	167
Peri-Urban Residential	1 329	90%	1 196	10	11 957	59 787
Low Density Residential	95	90%	86	25	2 144	10 721
Medium Density Residential	107	90%	96	35	3 361	16 805
High Density Residential	10	90%	9	45	397	1 985
Mixed Use: Community	25	30%	7	35	257	1 286
Mixed Use: Business	32	30%	10	35	334	1 670
Logistics	20	-	-	-	-	-
Social	10	-	-	-	-	-
Civic / Municipal	4	-	-	-	-	-
Utilities - Landfill	4	-	-	-	-	-
Utilities - Reservoir	4	-	-	-	-	-
Open Space	4	-	-	-	-	-
Totals:	4 985	-	-	-	18 484	92 421

# 7.5.2 Access and Circulation

# Objective

Plan, design and manage the access, movement, and circulation system to prioritise walkability and safety for pedestrians, provide for public transport, improve mobility, circulation, and parking for vehicular traffic so that overall access to, movement through and experience of the Village Node is enhanced.

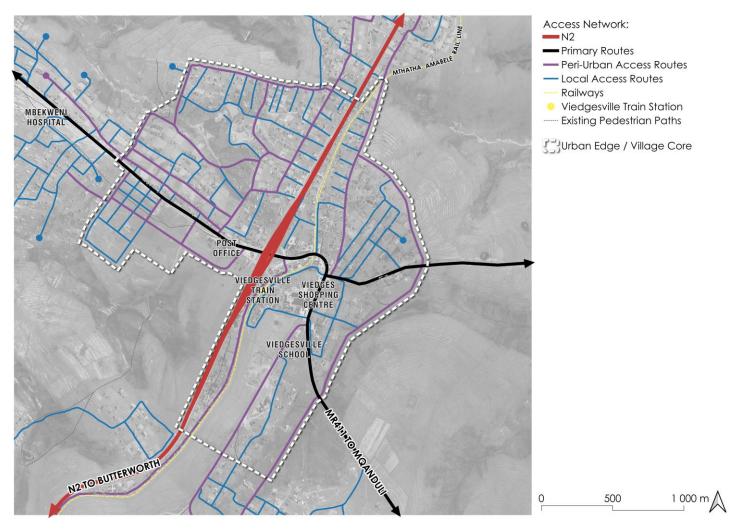


FIGURE 7-6: VIEDGESVILLE "TOWN" ACCESS AND CIRCULATION FRAMEWORK

### **Proposals**

### N2 and MR 411

- No new vehicular or pedestrian access points to be permitted off the N2 within the Node.
- Existing access points off the N2 to be re-assessed and only allowed to continue operating if approved by SANRAL.
- Traffic calming to be proposed to SANRAL along the N2 within the Node Boundaries.
- Parallel routes alongside the N2 providing access to existing settlement need to be approved by SANRAL.
- R411 can provide direct access to individual properties, but no direct access to be permitted within 150 m from the on and off ramp access points to the N2.

#### Local Access and Circulation Network

- A new local access and circulation network layout should be planned, designed and developed to integrate the Town Centre with the adjacent residential and peri urban residential areas.
- It should ensure safe and efficient access from all areas to and from the N2 and MR 411 for vehicles and pedestrians.
- The layout should integrate regional and local public transport into the town and surrounding peri urban settlement areas in a safe and efficient way.
- The layout should include clearly defined NMT networks.

### Peri- Urban Access Routes

- Peri Urban Access Routes provide a direct link between the Town and settlements and act as a local spine for each settlement.
- Direct access off these routes to be permitted.

### Public Transport and Non-Motorised Transport (NMT)

- Public Transport Terminal to be formalised on eastern side of the N2 no closer than 150 from the ramp access points of the N2 interchange. Peri Urban Access Routes to act as Public Transport (PT) routes for each settlement. All Peri Urban Access routes to have a sidewalk on at least one side of the road.
- Rail facilities need to be investigated with relevant authorities to confirm roles with respect to passenger services and freight logistics.

### Traffic Management

 Traffic Calming to be introduced in the Town Centre precincts and in the vicinity of people and vehicular traffic generating commercial and community nodes and facilities.

# 7.5.3 Environmental and Agricultural Areas

# Objective

To protect sustainable biodiversity, enhanced agricultural and other economic growth and development, local and regional landscape quality and character and contribute to climate change resilience.

# **Proposals**

- Protect, rehabilitate and enhance the functioning of all natural habitats and assets and untransformed land (including retained rural areas)
- Retain, protect, rehabilitate and enhance all forms of agricultural land, whether currently utilised or unutilised, as part of the broader agricultural development economic objectives all spheres of government.



FIGURE 7-7: VIEDGESVILLE "TOWN" ACCESS AND CIRCULATION FRAMEWORK

### 7.5.4 Public Realm

# Objective

Design a walkable, safe and secure and appropriately landscaped public realm that integrates and supports the built-up areas of the town, the peri urban areas, links into the surrounding environmental and agricultural areas and contributes to the landscape quality and character of the Node.

<u>Note:</u> These Public Realm elements will be defined during more detailed phases of planning and development.

### **Proposals**

#### **Public Places**

- Consolidate existing and or, create new, public squares, streets, and formal parks each with an identity, character and function relative to the CA they are located in to provide a walkable, safe, secure and landscaped network of public open spaces that connects all parts of the Node.
- Include serviced and well-designed informal trading facilities as part of the Public Realm in well-located and clearly designated trading areas or markets within the Node.
- Establish a Trading Market, associated with the Public Transport Terminal, designed as an urban space that caters for trading, commuter waiting areas, social gathering and a public focus for the Mixed Use Business Precinct.
- Establish a new square associated with the Civic Community Precinct activities and designed as an urban space that caters for trading, social gathering and a focus for the Precinct. Consider providing an Information Centre on the square as part of the tourism function of the square.
- Small parks to be provided within new and existing residential areas and associated with clustering of social facilities in peri urban areas.
- Enhance legibility and quality of the town centre through new urban and public space upgrade projects including greening and tree planting on streets. Introduce street furniture / infrastructure such as seating, lighting, signage, and litter bins.

#### Gateways:

• The Town Centre is the entrance to the Coastal Corridor and Wild Coast Tourism Zone and requires urban design / landscape intervention in the form of special layout and landscape treatment to enhance the sense of arrival off the N2 ramps and through the Town Centre

### Scenic Routes:

• The MR 411 immediately east of the N2 and east of the Town Centre is the entrance route to the Wild Coast and should receive landscaping treatment to enhance the visitors experience and redress the unsightly conditions along this road.

# 8 INFRASTRUCTURE FRAMEWORK FOR BOTH AREAS

### 8.1 POLICY APPROACH TO INFRASTRUCTURE PROVISION

Increasing urbanisation is resulting in significant challenges for Municipalities to provide sustainable infrastructure and service delivery and it is incumbent on the Municipality to investigate and implement alternative technologies and systems for the sustainable provision of infrastructure and delivery of essential services.

This can be complex for a small Municipality and for its small towns as infrastructure planning and design is often not under their control, but it is an essential intervention to enhance both Town and Municipality sustainability, resilience, and efficiency.

It is recommended that the Municipality, perhaps in conjunction with other spheres of government and the private sector, initiate research to identify and test the viability of alternative technologies relevant to the Town's context and its needs and to consider the following:

- Water Management Strategies
- Sanitation Management Strategies
- Renewable Energy Strategies including solar, wind, smart grid systems, "green" buildings etc.
- Waste Management Strategies including "reduction, reuse and recycling".

More specific interventions are described below as per the original LSDF Report prepared by Urban Concepts (2016).

### 8.1.1 Roads and Stormwater

Prepare a Storm Water Management Strategy to respond to the increased demand in runoff that can be anticipated by increased development and associated surface hardening as well as by climate change predictions for rainfall. The strategy should account for:

- Upgraded streets and stormwater infrastructure within the CBD to surfaced road standards.
- Provision of gravel streets and stormwater control measures in new affordable housing areas.
- Re-shaping and re-gravelling of existing unsurfaced roads outside the CBD area including storm water infrastructure upgrading
- Provision of appropriate and efficient stormwater systems and control
  measures to ensure that roadways and property are protected from
  stormwater damage, especially in sections with steeper gradients.
- Provision of surfaced sidewalks and or walkways for pedestrians in CBD area.
- Investigate and ensure the security of the MR 411 Bridge with respect to
  potential flooding as a result of increased development and possible
  increases in rainfall due to climate change.

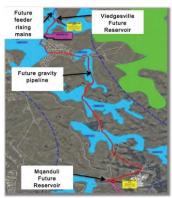
### 8.1.2 Water Services

As per the 2016 LSDF Report, preliminary water demand calculations indicated that there would be sufficient capacity in the new upgraded bulk supply scheme to cater for the proposed developments.

Viedgesville has been included as part of the "Maganduli Corridor" in the long term planning report released in September 2013, called the "Master Plan of Mthatha Corridor Bulk Water Supply Scheme". In terms of the proposals associated with the 2016 LSDF, a new 20 MI reservoir would be provided for Viedgesville for own usage but also as balancing reservoir for the entire Maganduli Corridor.

Confirmation of demand would be required at detailed design stage and should take cognizance of the following guidelines:

- Promote use of alternative and innovative technologies for infrastructure provision in proposed new developments.
- Plan for enhanced level of services {LOS} of infrastructure within the core area to water borne water supply and sewer systems in the long term.
- Plan for a phased approach to infrastructure provision with priority given to commercial and retail / mixed uses in the short term.
- Investigate alternative sources of water to promote agriculture in the area, as the bulk water presently provided has been calculated for human consumption only.



MQANDULI CORRIDOR: FUTURE RESERVOIRS

AND PIPELINES



VIEDGESVILLE FUTURE RESERVOIR AND PIPFLINES

### 8.1.3 Sanitation

- A new Bulk Wastewater Treatment works will be required in the long term in order to serve the growth of both towns, including the extension of reticulation networks.
- Potential for recycling of treated effluent from the planned WWTW for use in the proposed agri-processing/ industrial type activities, as well as possible irrigation of crops and greening of public open spaces should be investigated.
- Most rural houses have pit latrines [dry system] and there is currently inadequate water provision to upgrade to wet (waterborne) systems of any kind. After the bulk water services have been commissioned by end 2017, the system should be able to provide for higher level of service though this will need to be verified during implementation stages.
- Provide safe pit latrines (dry systems) to all houses in short term.

### 8.1.1 Energy

 Prepare an Energy Strategy to respond to current power supply challenges as well as to identify future alternative energy supply options that could be established in the area.

# 8.1.2 Waste Management

 Prepare a Waste Management Strategy that includes Waste beneficiation opportunities for the area.

# **10APPROACH TO IMPLEMENTATION**

### 10.1 WHERE TO START

KSD needs to lead by example and start as soon as possible with addressing interventions and projects that are within its direct control i.e. regular and consistent delivery of the following basic services:

- Law and Order relating to traffic violations, public behaviour, building bylaws and crime prevention activities.
- Street and Public Space Cleaning and Waste Collection
- Repair and Maintenance of basic public infrastructure viz roads and sidewalks, street lighting and signage

Secondly, KSD needs to start working towards aligning municipal departments around the planning and development proposals contained within the LSDF.

Alignment between KSD planning and development objectives and those of the various departments in the other spheres of government which are responsible for service delivery in the area viz. Transnet, Prasa, Department Transport, Postnet, SASSA, Department of Education, Department of Agriculture, SAPS, OR Tambo District Municipality and Eskom etc is also required.

Fourthly, KSD needs to encourage and facilitate the mobilisation and organisation of the Business, Civic and Residential Stakeholder communities so that they have active stakeholder partners with which to engage around development and management of the areas.

And lastly KSD has to start engaging with Traditional Authorities to manage development on communal land.

# 10.2 LONGER TERM CAPITAL INVESTMENT

A capital investment approach is recommended which supports incremental investment within the broader long-term vision and development framework and which includes a degree of flexibility and adaptability to respond to uncertain events and/or disruptions in funding availability or decision-making processes. This will allow more nuanced responses to changing circumstances and allows interventions to be packaged into more manageable investment packages. It also allows for more manageable cash flows, as well as project packaging that includes opportunities for smaller business enterprises.

Key to unlocking capital investment are the following:

### **Land Preparation Processes**

Land needs to be unlocked for development, especially with respect to the Viedaesville Node.

A number of processes need to take place in this regard.

- A land audit of existing uses and tenure needs to be compiled.
- A methodology or model for the release of land for development, which is aligned to the LSDF and Spatial Planning and Land Use Management Act (SPLUMA), needs to be developed.
- An updated Land Use Management Scheme needs to be put in place for both the Maanduli and Viedgesville Nodes.

In addition to the above, Municipal by-laws need to be put in place to manage illegal land uses which are taking place at the two nodes.

### Alignment of Municipal and Other Governmental Departments

The alignment of Municipal stakeholders in necessary in order to coordinate and pool funding for projects, integrate design as well as to ensure smooth project implementation. Other key public stakeholders who play a role in the development of the hub include Provincial and National Government Departments.

### Stakeholder Management and Engagement

Ongoing stakeholder engagement with private landowners, community stakeholders and local organisations and committees are key in ensuring that developments are integrated and in the best interests of all stakeholders.

### Sound Project Preparation and Urban Design Guidance

The sound pre-planning of implementation projects including feasibility studies, preparation of detailed design and urban design frameworks and guidelines are necessary to bring about a visible change in the built environment quality from the status quo and business as usual planning and implementation processes.

### **Unlocking Of Infrastructure**

A significant precursor to implementation of projects includes planning for and ensuring that bulk infrastructure can support the development Vision and Concept for the two nodes.

It is also necessary to ensure that planned infrastructure upgrades occur simultaneously with identified priority projects in order to avoid future disturbance of projects to accommodate infrastructure upgrade.

### Implementation of Integrated Projects

Implementation of integrated projects are of two types, firstly, publicly led catalytic type of projects which have the potential to kick start further development as well as create investor confidence in the area. Projects in this category include public realm upgrade projects such as the creation of high quality public spaces, streets and places, which have the potential to create a high impact in an area. The second type of project is the privately led development or public / private partnership project.

These projects if implemented well, also have the potential to transform the face of an area. These special projects should over, and above retail development include alternative models of housing provision which look at creating higher densities, varying tenure options as well as varying models of housing, which meet the needs of different income brackets.

# 10.3 INDICATIVE PHASING, PROJECTS & PROGRAMMES

An indicative phasing programme has been prepared which identifies the general sequencing of activities rather than actual programming of timelines since actual timelines will be dependent on overall Municipality processes, programmes and budget availability.

The intention is to provide a broad guide as to 'what' needs to happen 'when', so that coordination and planning can begin and investment can be unblocked in a coordinated and value adding manner. The prioritisation should also be informed by the stakeholder consultation and participation process mentioned above..

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