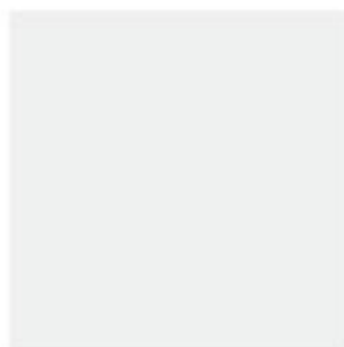




KANNALAND
MUNISIPALITEIT | MUNICIPALITY

KANNALAND SPATIAL DEVELOPMENT FRAMEWORK **2025-2030**



Municipal Spatial Development Framework
2026

Project Information Sheet

Project Name:	MUNICIPAL SPATIAL DEVELOPMENT FRAMEWORK (SDF) FOR KANNALAND LOCAL MUNICIPALITY	
Reference Number:	SSC WC Q05 (2024/2025) DALRRD	
Project Sponsor	Department of Agriculture, Land Reform and Rural Development	
Project Beneficiary:	Kannaland Local Municipality, Western Cape	
Consultant/Service Provider:	Asika Consulting Pty. Ltd. Suite G3, Building 27, Thorn Hill Office Park, Bekker Road, Vorna Valley, Midrand, 1685, email: info@asika.co.za	
Approved by:	Project Steering Committee DALRRD, Western Cape Province, Garden Route District Municipality, Kannaland Local Municipality	

Project Phases

Phase 1: Inception and Planning

Phase 2: Policy Context and Vision Directives

Phase 3: Spatial Challenges and Opportunities

Phase 4: Spatial Proposals

Phase 5: Implementation Framework

Phase 6: Final Municipal SDF

List of Abbreviations

Abbreviation	Description
CBA	Critical Biodiversity Areas
CBD	Central Business District
CEF	Capital Expenditure Framework
CSIR	Council for Scientific and Industrial Research
DLRRD	Department of, Land Reform, and Rural Development
ESAs	Ecological Support Areas
FLISP	Finance Linked Individual Subsidy Programme
GDP	Gross Domestic Product
IDP	Integrated Development Plan
IRDP	Integrated Residential Development Programme
Kl/d	kilolitres per day
KNLM	Kannaland Local Municipality
KPA	Key Performance Areas
ℓ/p/d	Litres per person per day
m	metres
mm	millimetres
NSDF	National Spatial Development Framework
PHSHDA	Priority Human Settlement and Housing Development Area
SDF	Spatial Development Framework
SPCs	Spatial Planning Categories
UBPL	Upper-Bound Poverty Line
UISP	Upgrading of Informal Settlements Programme
WC	Western Cape Province
WCBA	Western Cape Biodiversity Act
WTW	Wastewater Treatment Works

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1: INTRODUCTION AND BACKGROUND

The Municipal Systems Act (Act 32 of 2000), the Spatial Planning and Land Use Management Act (Act 16 of 2013), and the Western Cape Land Use Planning Act (Act 3 of 2014) requires all municipalities to have a municipal spatial development framework (SDF). This framework serves to guide the spatial allocation of current and desired land uses within the municipality, aligning with the vision, goals, and objectives of the municipal integrated development plan (IDP). The existing 2013 SDF for the Kannaland Local Municipality (KNLM) is outdated, necessitating the development of a new SDF. The purpose of the updated SDF is to direct the spatial arrangement of present and future land uses, infrastructure investments, development activities, and environmental conservation, all while taking financial constraints into account.

The Department of Agriculture, Land Reform, and Rural Development (DALRRD) has appointed Asika Consulting Pty Ltd to prepare the new SDF for Kannaland Local Municipality within a period of twelve (12) months.

1.1: Purpose of the Kannaland Municipal Spatial Development Framework

The purpose of a Municipal Spatial Development Framework (SDF) is to provide a strategic, long-term plan that guides spatial planning and land use management within a municipality. It serves as a critical tool to achieve sustainable development, balance competing land-use demands, and ensure the effective use of resources.

The purpose of the Kannaland Municipal Spatial Development Framework is to:

- Articulate and reflect the municipality's spatial development vision, guided by a long-term vision statement and plan.
- Inform planning and development decisions across all levels of government, particularly municipal and provincial authorities, in spatial planning and land use management.
- Promote a unified and coordinated approach to spatial development among different spheres of government.
- Provide clear, accessible guidance to the public and private sectors, offering direction for investment and development.
- Incorporate and integrate previously disadvantaged areas, rural communities, informal settlements, slums, and state-owned or government agency landholdings into the municipality's spatial, economic, social, and environmental objectives.
- Address and rectify historical spatial inequities in development patterns.

1.2: Process and Timeframes

The figure below gives an overview of the process that has been followed to formulate the Kannaland SDF. The project phases are numbered 1 – 6 in figure 1 and this report is being submitted as part of Phase 4.

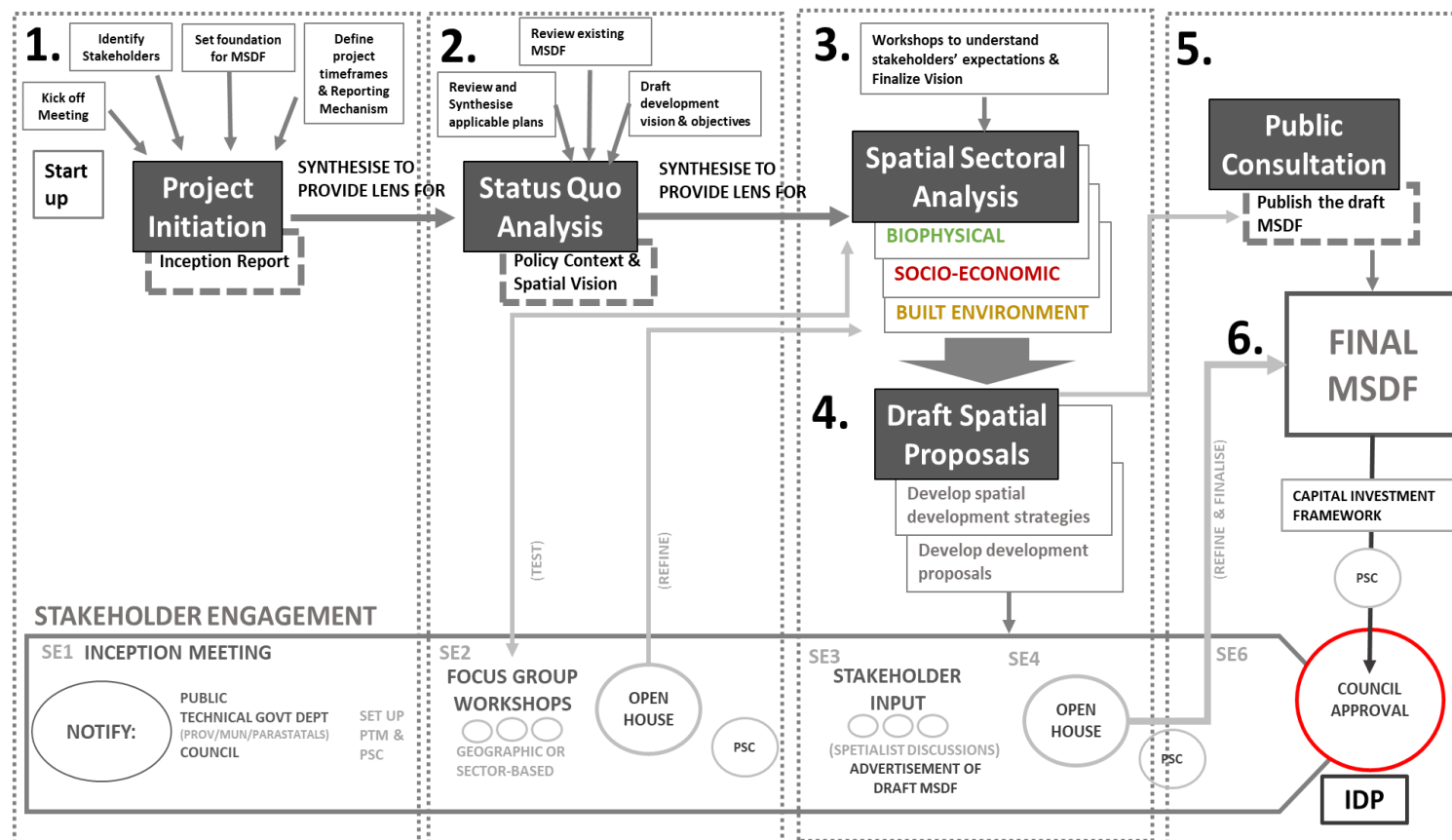


Figure 1: Process of developing the Kannaland SDF

2: LEGISLATIVE AND POLICY CONTEXT

This chapter examines and analyses the key legislation, plans, and policies influencing the municipality's spatial structure. It also highlights the significant implications of each policy or legislative framework on the Kannaland Municipal Spatial Development Framework.

2.1: Horizontal Alignment

2.1.1: National Level

Constitution of the Republic of South Africa: mandates local government to manage and organise planning processes to prioritise community needs.

Municipal Systems Act (Act 32 of 2000): outlines the functions and responsibilities of municipalities. Furthermore, it states that municipality's development plans and strategies should adhere to principles of cooperative governance outlined in the constitution.

Spatial Planning and Land Use Management Act (Act 16 of 2013): provides a comprehensive framework that guides spatial planning and land use management by outlining development planning processes that should be guided by spatial principles.

Local Government: Municipal Planning and Performance Management Regulations 2001: provides guidelines for municipalities on planning, performance management, and service delivery. These regulations ensure that local governments operate efficiently, transparently, and in line with national development goals.

National Environmental Management Act (Act 107 of 1998): provides an overarching framework for environmental legislation by establishing principles for decision-making on matters affecting the natural environment.

National Development Plan 2030: this is an official document setting out the government's long-term vision and strategic approach towards various identified objectives, with the overall aim to eliminate poverty and reduce inequality by the year 2030.

National Spatial Development Framework 2022: this is a framework that seeks to decisively transform the South African spatial development landscape in a viable and sustainable way from the inherited colonial and Apartheid forms to a truly transformed post-Apartheid form by 2050.

Integrated Urban Development Framework 2016: this national policy was designed to guide sustainable urban development. It aims to create well-managed, inclusive, and resilient cities and towns by addressing challenges like urbanisation, inequality, and service delivery.

National Transport Master Plan 2016: this is a national policy that outlines the 2050 vision with transport being an integral part of the economy.

2.1.2: Provincial Level

Western Cape Provincial Spatial Development Framework 2014: is a strategic plan guiding spatial planning and land use in the Western Cape province.

Western Cape Human Settlements Framework 2019: is a framework that emphasises various objectives that will enable the implementation of human settlements delivery in the Western Cape.

Western Cape Land Use Planning Act, 2014: is a provincial law that governs spatial planning, land use management, and development in the Western Cape.

Western Cape Biodiversity Act, Act 6 of 2021: is the provincial legislative framework for protecting ecosystems, species, ecological corridors, and ecological infrastructure.

Western Cape Biodiversity Spatial Plan 2023: is the official provincial, spatial biodiversity planning product. The spatial plan identifies the most important areas for conserving ecosystems, species, ecological processes, and ecosystem services.

Western Cape Ecological Infrastructure Investment Framework, 2021: provides a provincial overview of where ecological infrastructure i.e., the natural systems that deliver essential ecosystem services, is most important for climate resilience, water security, disaster risk reduction, and socio-economic wellbeing. This framework identifies priority ecological infrastructure assets, ecological infrastructure investment priority areas and areas of ecological “risk” where degradation may be a threat to humans and the economy.

Western Cape Infrastructure Framework 2050: is a framework that aims to guide long-term, sustainable infrastructure investment that supports inclusive economic growth and strengthens climate and resilience outcomes. It provides a coordinated provincial vision to ensure that infrastructure systems are efficient, future-proofed, and aligned with spatial and developmental priorities.

Western Cape Growth for Jobs Strategy 2035: is a strategy that intends to drive inclusive economic growth by improving productivity, competitiveness, and investment across key sectors. It provides a coordinated approach to job creation, poverty reduction, and the development of a resilient economy.

Western Cape Provincial Biodiversity Strategy and Action Plan: is a policy that is aimed at conserving the province's unique biodiversity by guiding the protection of ecosystems, species, and ecological processes. It provides a strategic framework for integrating biodiversity priorities into land-use planning, resource management and sustainable development.

2.1.3: District Level

Garden Route Human Settlements Sector Plan 2022: is a strategic plan for housing and the development of human settlements which addresses the current and projected housing needs in the district.

Garden Route Spatial Development Framework 2017: is a strategic plan developed by the Garden Route District Municipality to guide spatial planning and land use management within the district.

Garden Route and Development Strategy 2021: is a comprehensive framework designed to guide the economic and social advancement of the Garden Route District.

Garden Route Integrated Development Plan 2022-2027: is a strategic framework which is intended to guide the district's development over a five-year period. This plan aims to promote sustainable growth, enhance service delivery, and improve the quality of life for all residents within the district.

2.1.4: Municipal Level

Kannaland Spatial Development Framework 2013: is the strategic plan developed by the municipality to guide spatial planning and land use management.

Kannaland 5th Generation Integrated Development Plan 2022-2027: is a strategic framework that is intended to guide the municipality's development over a five-year period. This plan aims to promote sustainable growth, enhance service delivery, and improve the quality of life for all residents in the municipality.

Kannaland Local Economic Development Strategy 2022-2027: is a comprehensive plan designed to stimulate economic growth, create employment opportunities, and enhance the quality of life within Kannaland Municipality.

2.2: Vertical Alignment

Vertical alignment is essential for **coordinated regional development, efficient resource use, and sustainable growth**. Since municipal boundaries do not limit economic activities, environmental systems, or infrastructure networks, alignment with neighbouring municipal spatial development frameworks ensures seamless and well-planned development. Some of the benefits of considering an inter-municipal, coordinated approach are as follows:

1. Promotes Regional Integration and Economic Growth

- Encourages coordinated economic strategies across municipal borders.
- Helps develop shared economic hubs, industrial zones, and transport corridors.

2. Improves Infrastructure and Service Delivery

- Ensures consistent planning for roads, water, electricity, and public transport networks.
- Prevents duplication of services and infrastructure, leading to cost savings.

3. Enhances Environmental Sustainability

- Supports coordinated conservation efforts for shared natural resources (e.g., rivers, forests, wetlands).
- Helps manage urban expansion to prevent environmental degradation.

4. Facilitates Efficient Land Use Planning

- Reduces urban sprawl by ensuring compact and well-planned settlements.
- Encourages the development of interconnected towns rather than isolated, fragmented areas.

5. Strengthens Disaster Management and Climate Resilience

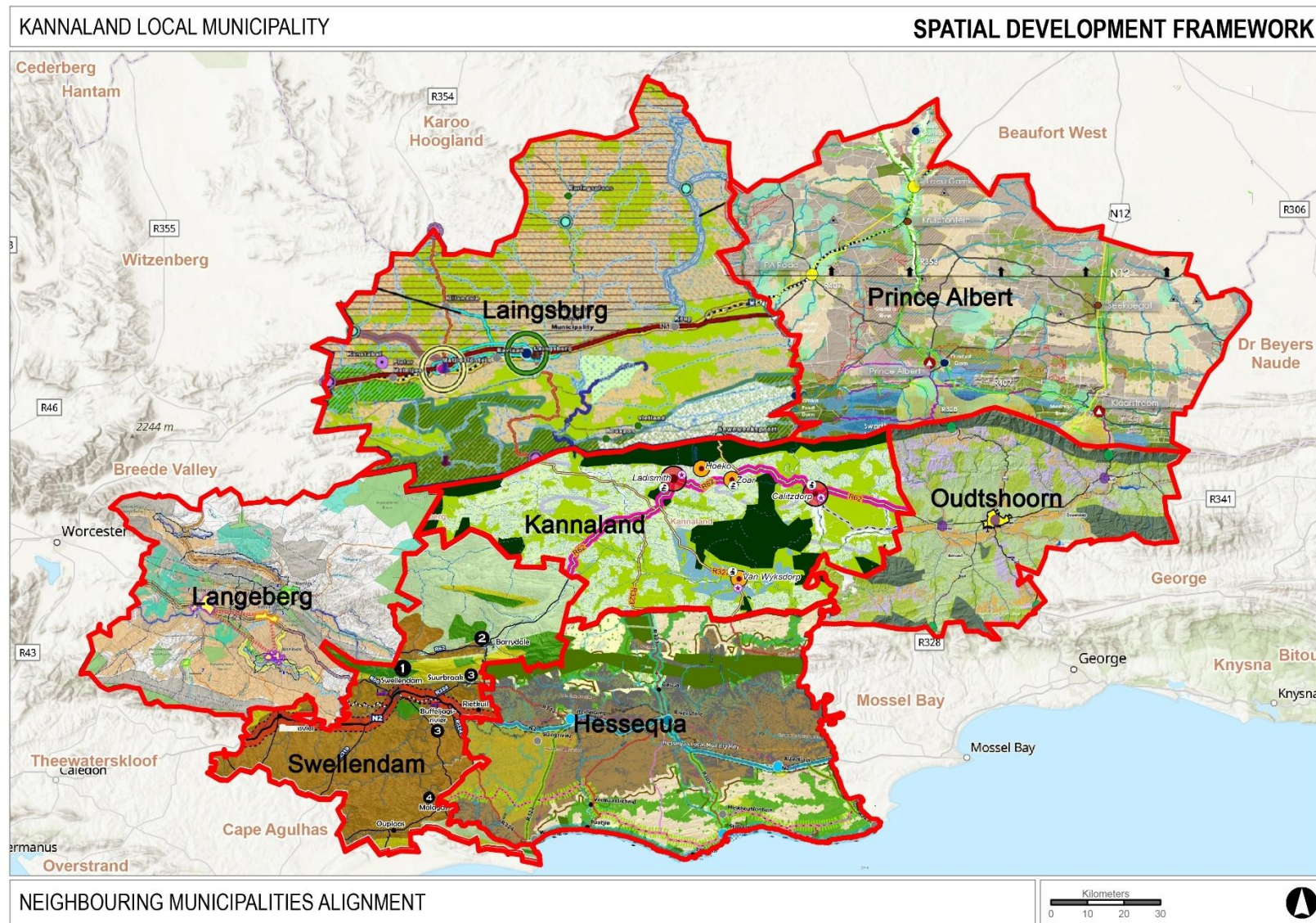
- Improves coordination for flood control, fire management, and climate change adaptation.
- Supports shared emergency response plans for natural disasters.

6. Reduces Spatial Inequality and Enhances Social Inclusion

- Promotes balanced development between urban and rural areas.
- Ensures equitable access to housing, jobs, and public services across municipal borders.

7. Supports Cooperative Governance

- Encourages collaboration between municipalities by reducing conflicts over land use and development priorities.
- Aligns local planning with national and provincial policies for harmonised growth.



Map 1: Neighbouring SDFs

3: STATUS QUO ANALYSIS

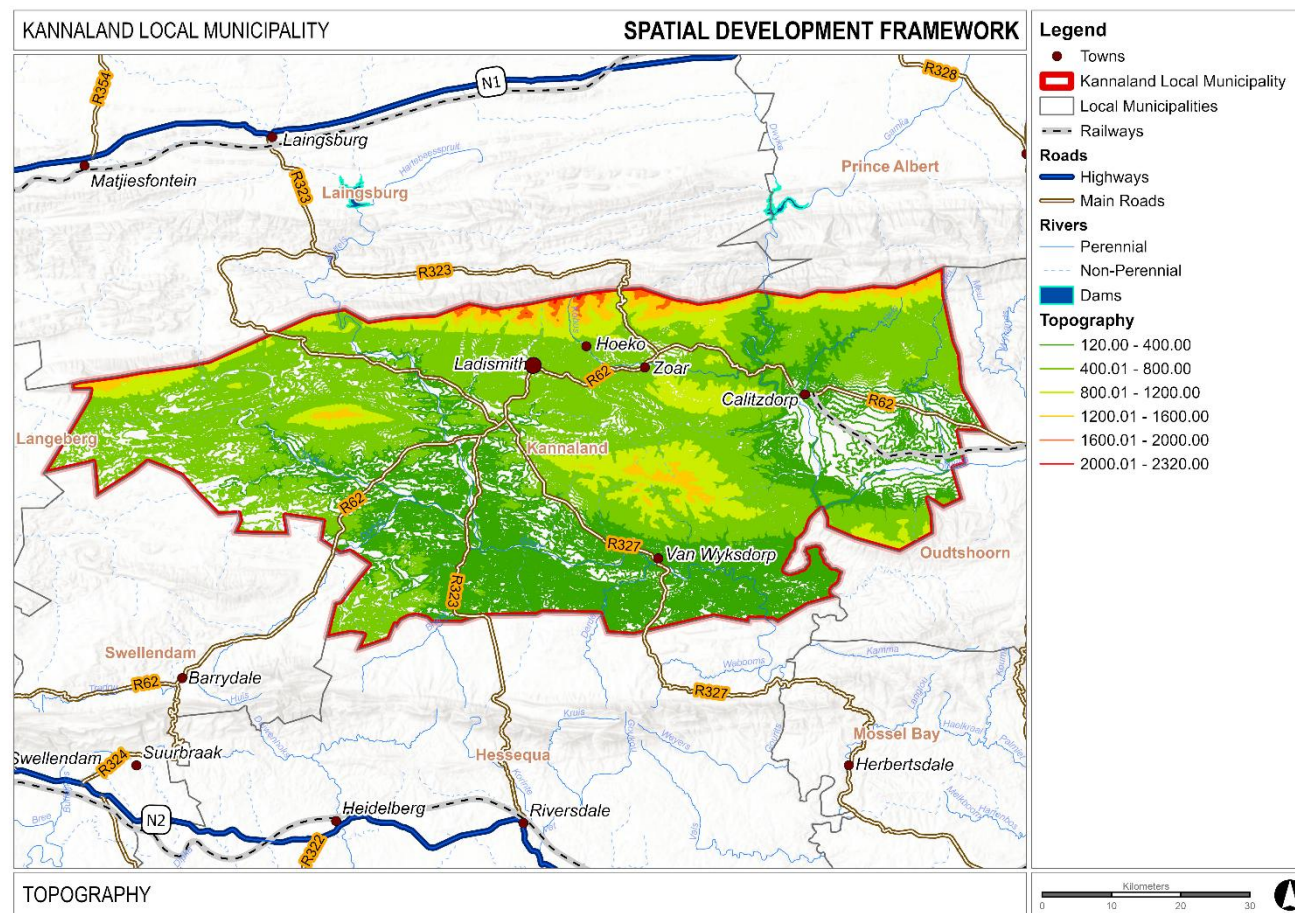
This chapter examines and analyses the key legislation, plans, and policies influencing the municipality's spatial structure. It also highlights the significant implications of each policy or legislative framework on the Kannaland Spatial Development Framework.

3.1: Biophysical Environment

3.1.1: Topography

The topography of the municipality is defined by the Kleinswart, Anys, and Grootswart Mountains, which form its northern boundary. These mountains have an average elevation ranging between 1200m to 2000m above sea level.

Additionally, three other elevated areas are present within the municipality: Touwsberg in the west, Rooiberg in the central region, and Bakenkop, located south of Zoar.

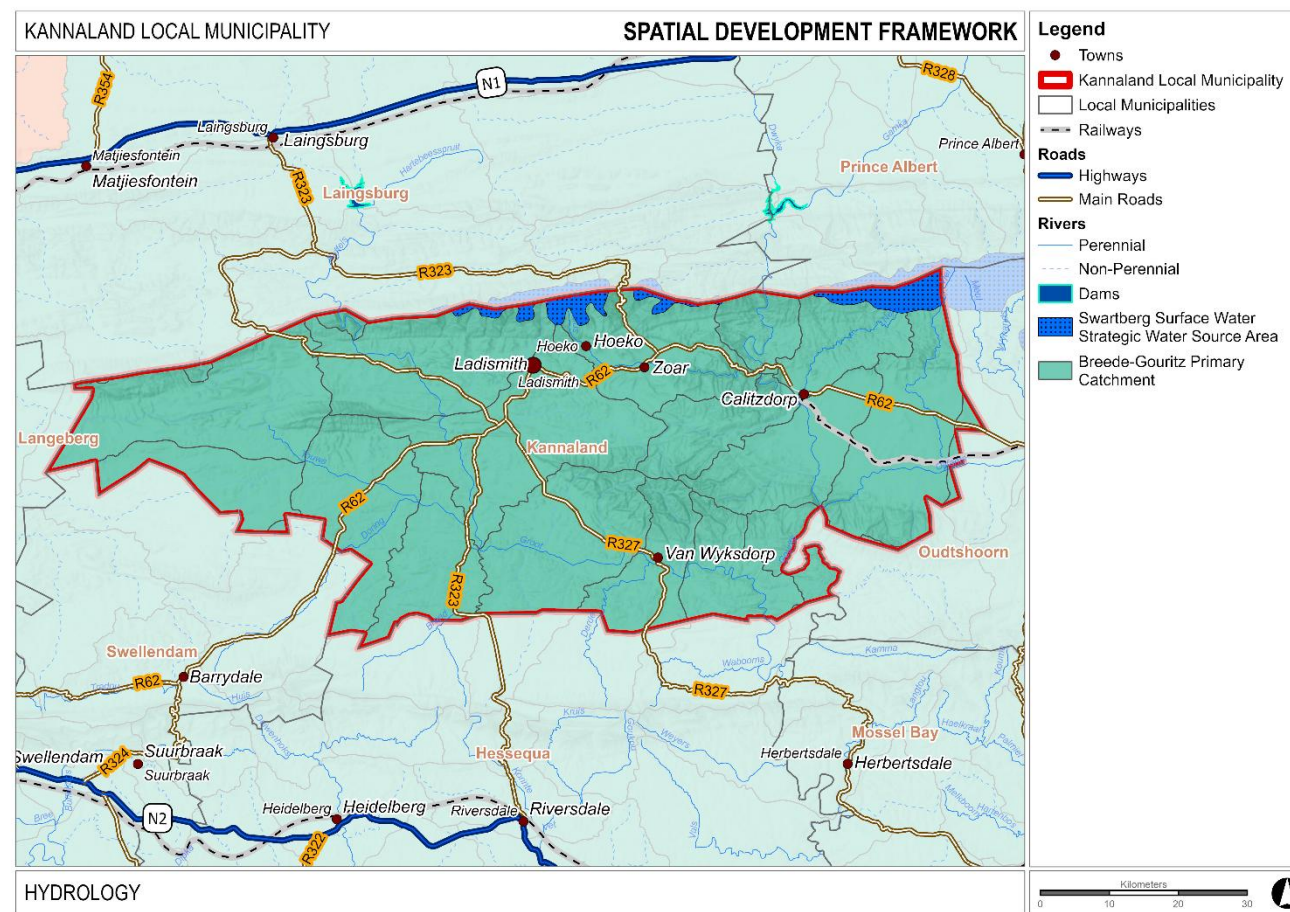


Map 2: Topography

3.1.2: Hydrology

The municipality falls within the Breede-Gourits River catchment area. Swartberg Surface Water Strategic Water Source Area forms part of the municipality and is situated on the northern part of Kannaland Municipality, as shown in Map 3. This area supplies a disproportionate amount of water runoff in relation to its size and is vital for water security. The major rivers in the municipality include the Swartberg River, Brakrivier, Gamkarivier, Gouritsrivier, Grootrivier, Nelsrivier, Olifantsrivier, Elandsberg Fountain and Touws Rivers.

According to the 2019 Green Book Municipal Risk Profiles, Kannaland Local Municipality has a water demand of 177.4 litre per capita (ℓ/p/d) and supply of 273.55 ℓ/p/d. Ladismith is the administrative capital of KNLM and is mainly dependent on the Swartberg River (1 100 m³/day) and the Elandsberg Fountain (300 m³/day spring) for bulk water supply. Approximately 82.9% of the Municipality's water is surface water and the remaining 17.1% is sourced from groundwater which means that the majority of the municipality sources their water from surface water.



Map 3: Hydrology

3.1.3: Vegetation and Biomes

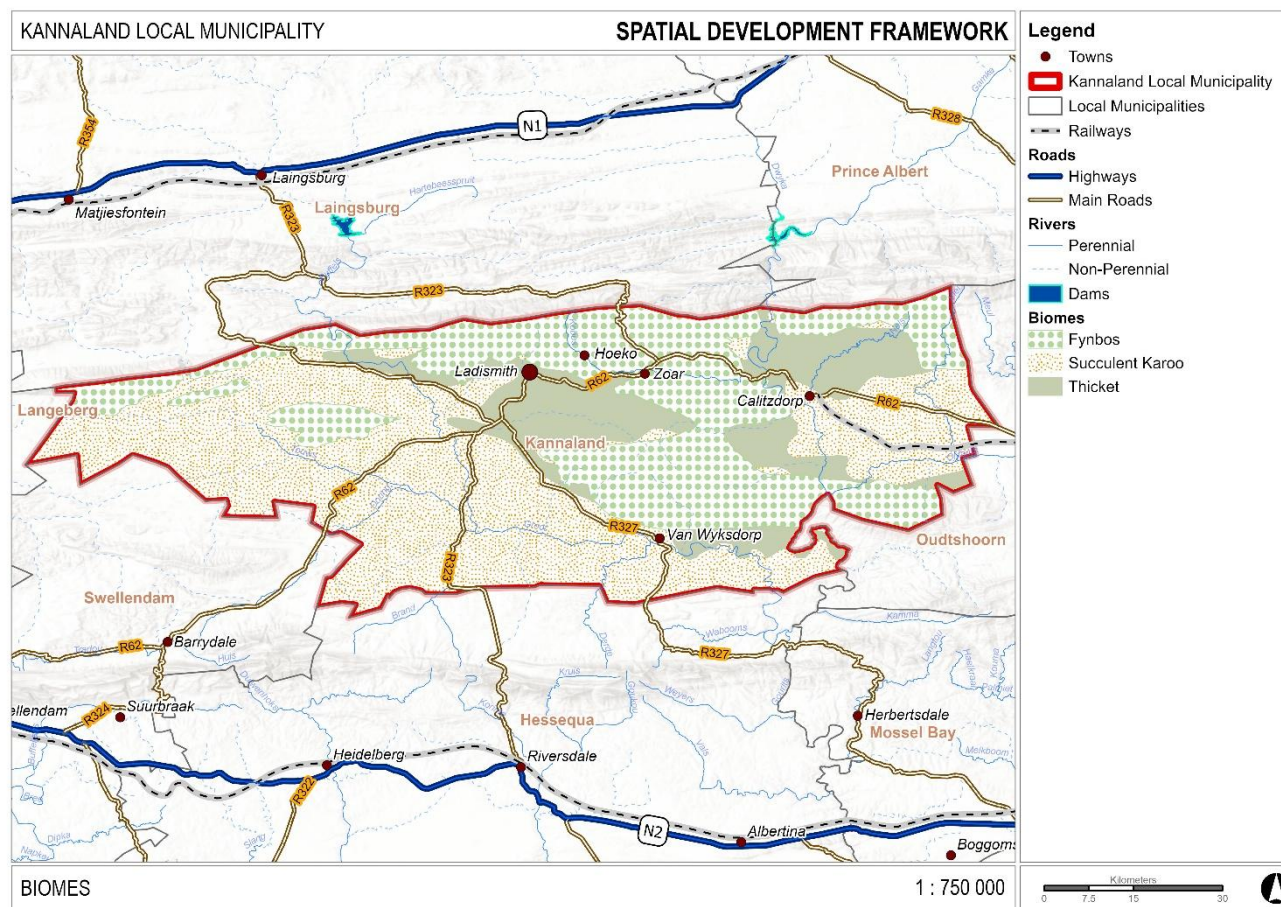
A biome is a large, distinct geographical region with a specific climate, vegetation, soil and wildlife. Map 4 shows the different biomes that are present in the municipality. These biomes include:

- Succulent Karoo Biome;
- Fynbos Biome; and
- Thicket Biome

The Succulent Karoo Biome is mainly found in the central, western and southern parts of the Municipality.

The Fynbos Biome is located along the northern boundary and in some central parts of the Municipality.

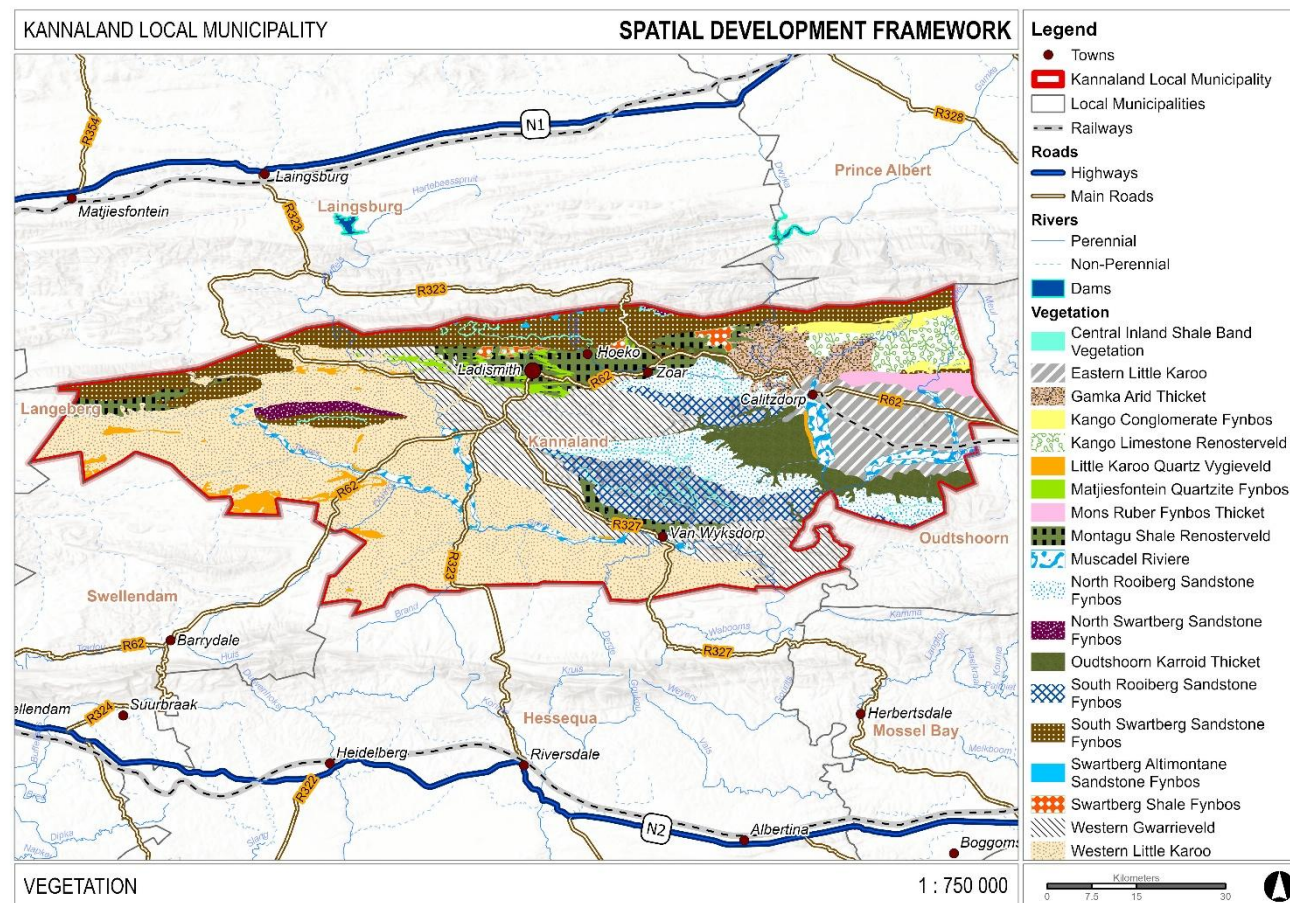
The Thicket Biome can be found in the central and eastern parts of the Municipality.



Map 4: Biomes

Map 5 shows the dominant vegetation types in the municipality:

- Western Little Karoo;
- Western Gwarrieveld;
- North Rooiberg Sandstone Fynbos;
- South Rooiberg Sandstone Fynbos;
- Eastern Little Karoo;
- Montagu Shale Renosterveld; and
- Gamka Arid Thicket



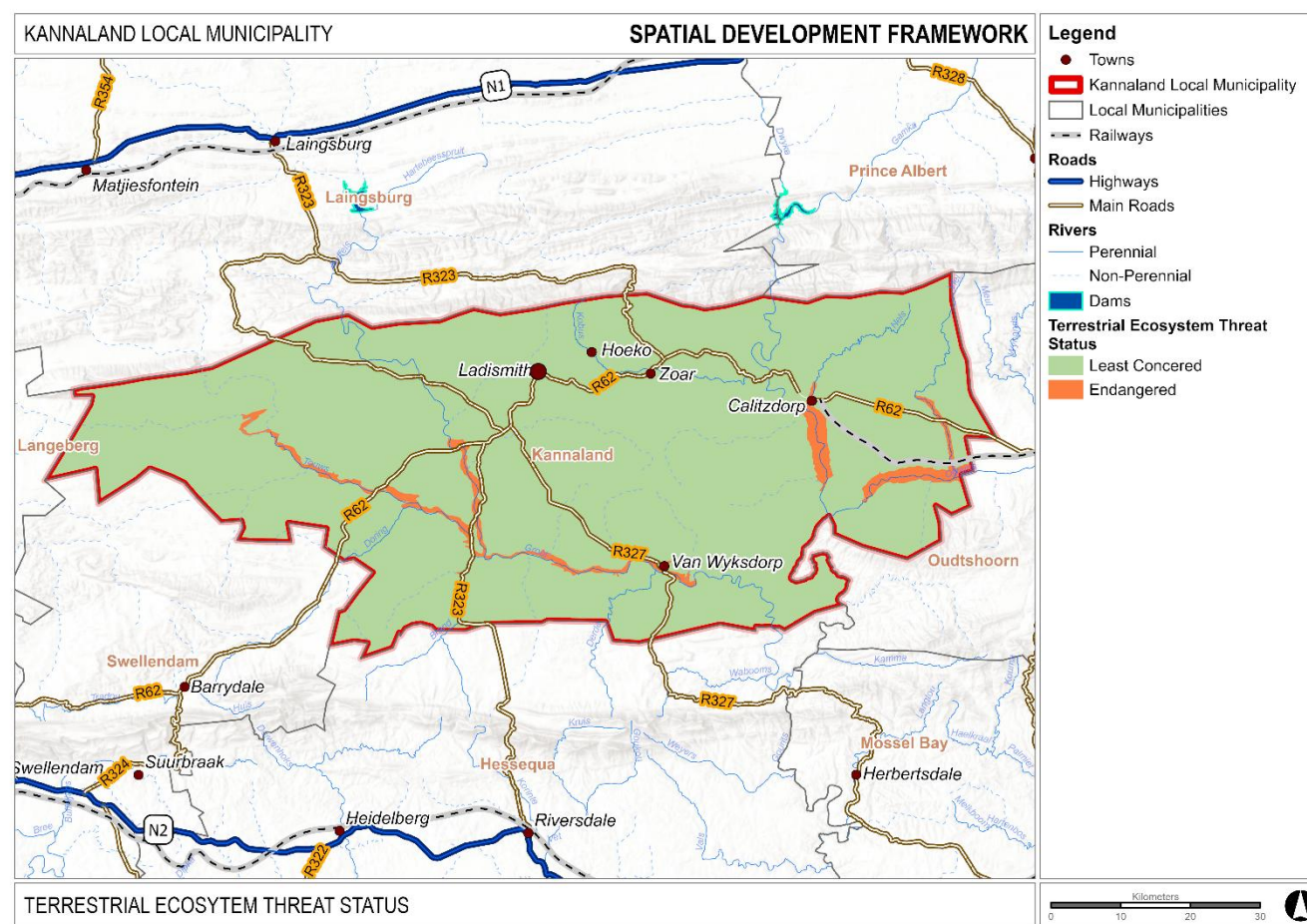
Map 5: Vegetation

3.1.4: Biodiversity Threat Assessment

The primary means of overseeing and reporting on the status of biodiversity in South Africa is the National Biodiversity Assessment (NBA). It serves to guide policies, strategies, and activities across various sectors to enhance the effective management and conservation of biodiversity. The NBA provides a condensed overview of South Africa's biodiversity status and is formulated in accordance with the SANBI mandate under the Biodiversity Act (NEMBA, Act 10 of 2004).

The NBA classifies geographic regions on the status of threat to their biodiversity. They are classified as follows:

- Critically Endangered – facing an extremely high risk of extinction in the wild;
- Endangered – facing a very high risk of extinction in the wild;
- Vulnerable – facing a high risk of extinction in the wild;
- Near Threatened – close to qualifying for one of the above categories in the near future;
- Least Concern – stable enough that risk of facing extinction in the wild in the near future is unlikely;
- Data Deficient – not enough information to estimate the risk of extinction; and
- Not Assessed – has not yet been evaluated.

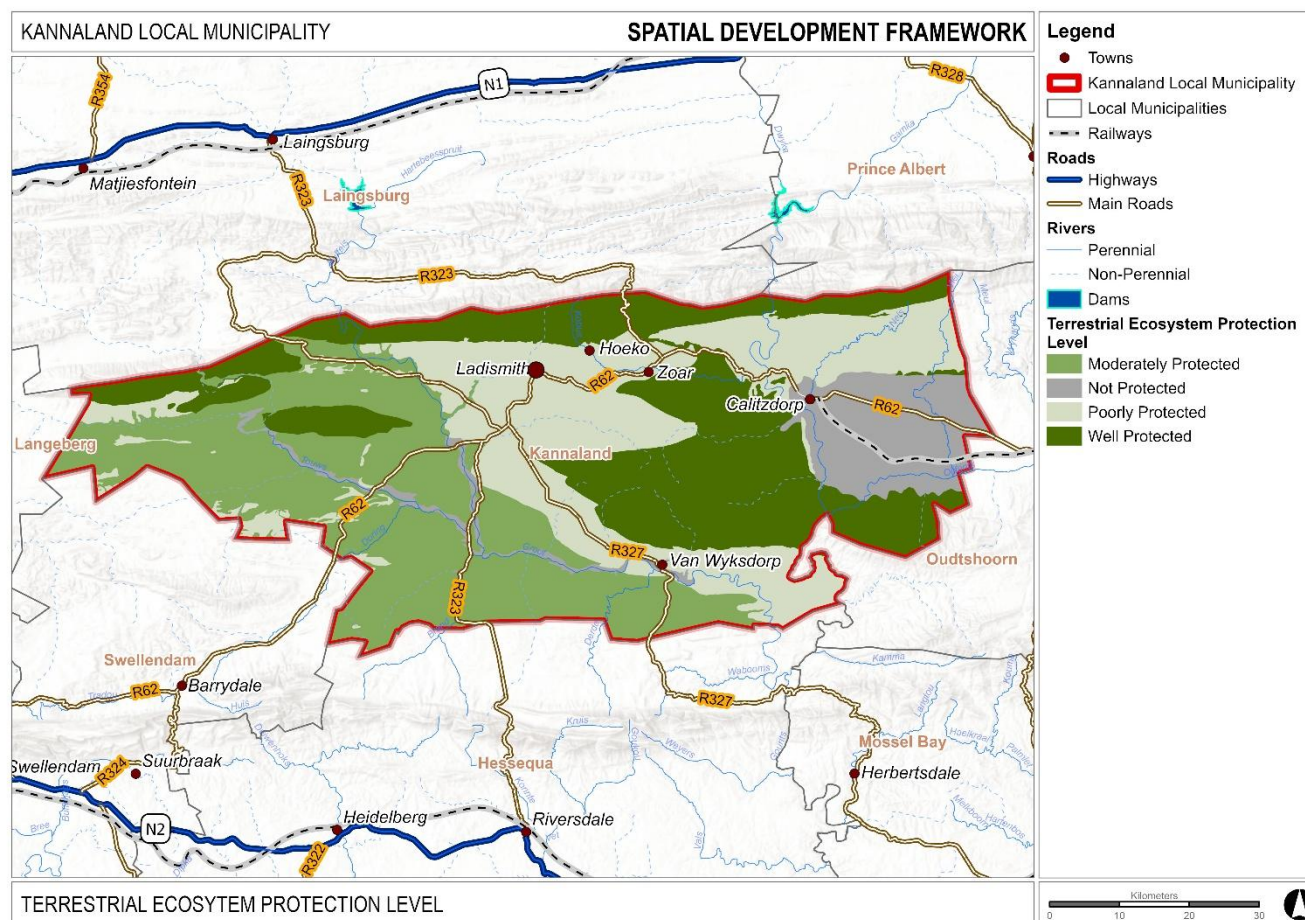


Map 6: Terrestrial Ecosystem Threat Status

As illustrated in Map 6, the majority of areas in the municipality fall under the ecosystem threat category of least concern. The endangered areas are shown to exist alongside the Touws, Buffels and Groot Rivers and more so the Olifants and Nels rivers.

Map 7 provides an indication of the levels of ecosystem protection that currently exist throughout the municipality¹. South Swartberg Sandstone Fynbos, North Swartberg Sandstone Fynbos, South Rooiberg Sandstone Fynbos, North Rooiberg Sandstone Fynbos and Oudtshoorn Karroid Thicket are well protected. Western Gwarrieveld, Montagu Shale Renosterveld, Kango Conglomerate Fynbos, Kango Limestone Renosterveld, Little Karoo Quartz Vygieveld and Gamka Arid Thicket are poorly protected.

It is vital that spatial planning promote the restoration and conservation of ecosystems by restricting further habitat loss and creating biodiversity corridors. This would require the limitation of hard development within defined urban development boundaries, encouraging the establishment of reserves and conservation areas and protecting rivers, ridges, wetlands, and other vital resources from urban development and the impact of population growth.



Map 7: Terrestrial Ecosystem Protection Level

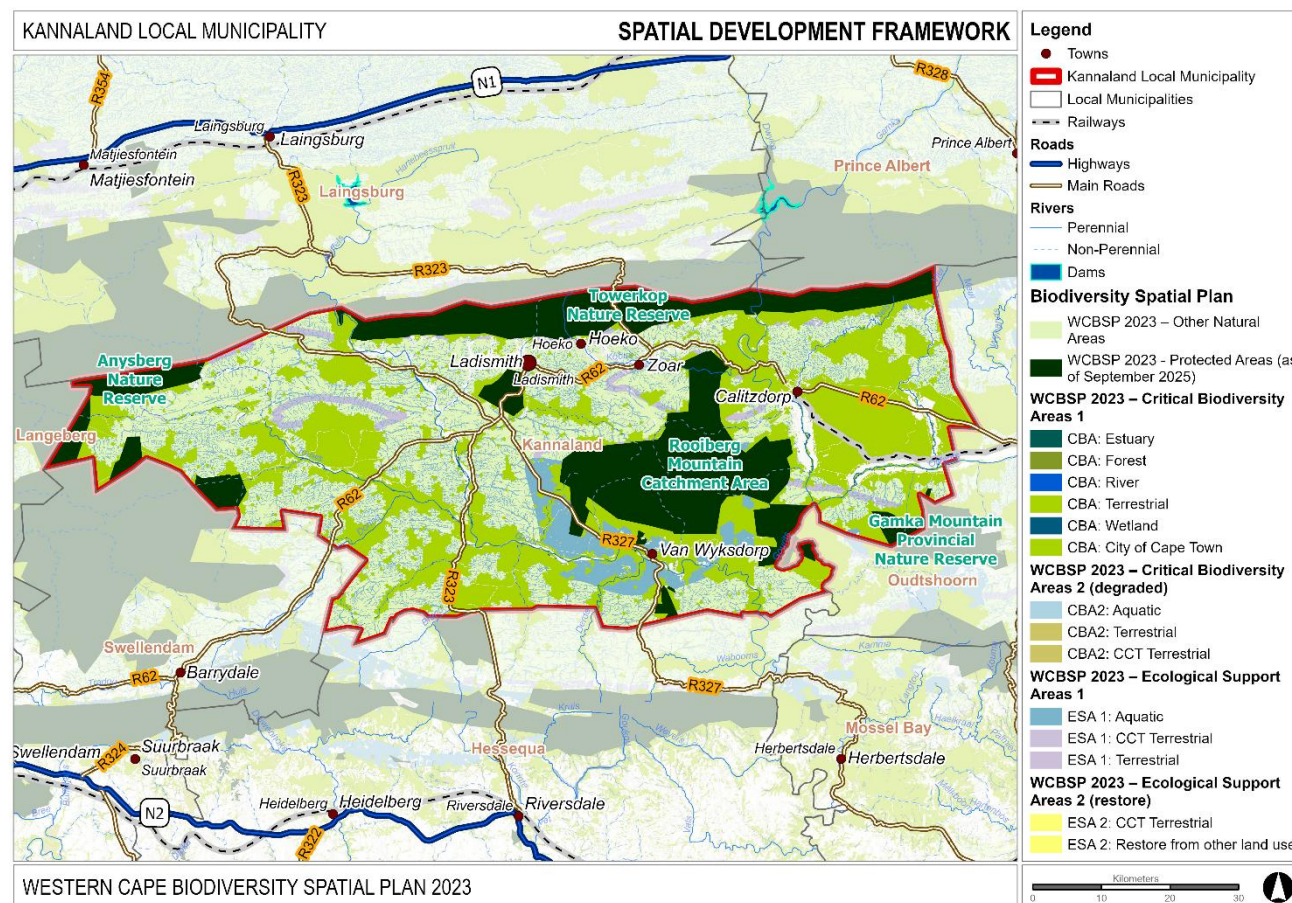
¹ South African National Biodiversity Institute, 2019

3.1.5: Biodiversity Assessment

The Western Cape Biodiversity Act, Act 6 of 2021 defines Biodiversity Priority Areas as areas that are part of the landscape or seascape that are important for conserving a representative sample of ecosystems and species, maintaining ecological processes and ecological infrastructure or the provision of ecosystem services. The critical biodiversity areas, as defined by the Western Cape Biodiversity Spatial Plan (2023) in Kannaland Municipality are reflected in Map 8. Critical Biodiversity Areas (CBAs) refer to those terrestrial and aquatic areas that need to be preserved in their natural state to preserve the biodiversity pattern and keep ecosystems functioning (Berliner et al., 2007; Maree and Vromans, 2010).

There are two kinds of CBAs within the local municipality: irreplaceable (CBA1) and optimal (CBA2). Both CBAs are found close to one another in clusters/pockets but are distributed across the municipality.

The Ecological Support Areas, as defined by the Western Cape Biodiversity Spatial Plan (2023) are areas that are critical for supporting ecological processes and providing ecosystem services. These areas include wetlands, and other natural habitats that provide important ecosystem functions such as water purification, carbon sequestration, and soil stabilisation.



Map 8: Western Cape Biodiversity Spatial Plan 2023

Protected areas are defined as regions with a distinct geographic boundary that are designated and administered in accordance with the National Environmental Management: Protected Areas Act 53 of 2000 (NEMPAA). As defined by the Western Cape Biodiversity Act, these areas need to be conserved.

Table 1 gives a statistical overview of the proportion of critical biodiversity areas, ecological areas, protected areas and natural areas across the municipality.

Table 1: CBA, ESA, Protected Areas

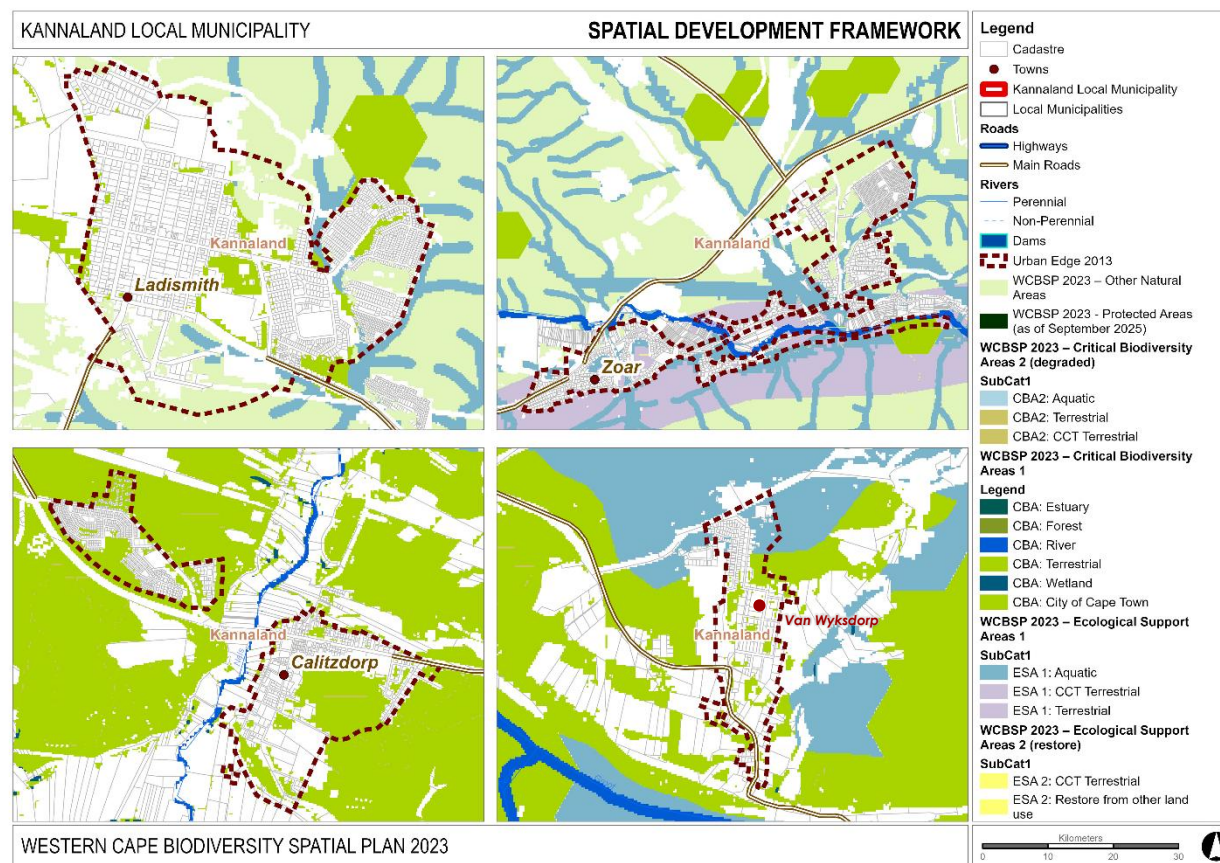
Category	Biodiversity Plan Sub Categories	Desired Land Use	Area (km ²)	Percentage (%)
Protected Areas	Protected Areas	Must be kept in a natural state, with a management plan focused on maintaining or improving the state of biodiversity.	1015.51	22.22
Critical Biodiversity Areas	CBA1: Wetland, Terrestrial, River	Keep natural, with no further loss of habitat. Degraded areas should be rehabilitated. Only low impact, biodiversity-sensitive land-uses are appropriate.	365.71	8
	CBA2: Terrestrial, Aquatic	Keep natural, with no further loss of habitat. Degraded areas should be rehabilitated. Only low impact, biodiversity-sensitive land-uses are appropriate.	1214.78	26.57
Ecological Support Areas	ESA1: Terrestrial	Maintain in a functional, near-natural state. Some habitat loss is acceptable, provided the underlying biodiversity objectives and ecological functioning are not compromised.	78.83	1.72

	ESA 1: Aquatic	Maintain in a functional, near-natural state. Some habitat loss is acceptable, provided the underlying biodiversity objectives and ecological functioning are not compromised.	544.16	11.90
	ESA 2: Restore from other land use	Restore and/or manage to minimise impact on ecological infrastructure functioning; especially soil and water related services.	3.88	0.08
Other Natural Areas	Other Natural Areas	Minimise habitat and species loss and ensure ecosystem functionality through strategic landscape planning. Offers flexibility in permissible land-uses, but some authorisation may still be required for high-impact land-uses.	1348.30	29.50
TOTAL			4571.17	100.00

Source: Western Cape Biodiversity Spatial Plan 2023

Below is a list of the protected areas in the municipality:

- Anysberg Nature Reserve
- Anysberg Private Nature Reserve
- Die Poort Private Nature Reserve
- Doringkloof
- Gamkaberg Nature Reserve
- Groenfontein Nature Reserve (Gamkaberg)
- Groot Swartberg Nature Reserve
- Grootvadersbosch (Thornhill) - WWF land
- Klein Swartberg Mountain Catchment Area
- Kleinberg Private Nature Reserve
- Ladismith-Kleinkaroo
- Paardenberg Nature Reserve
- Part of Wolwekop
- Rooiberg Mountain Catchment Area
- Rooiberg Nature Reserve
- Rooilifantskloof
- Taayskloof Private Nature Reserve
- The Eyerpoort Private Nature Reserve
- Towerkop Nature Reserve
- Vaalhoek Nature Reserve (Gamkaberg)



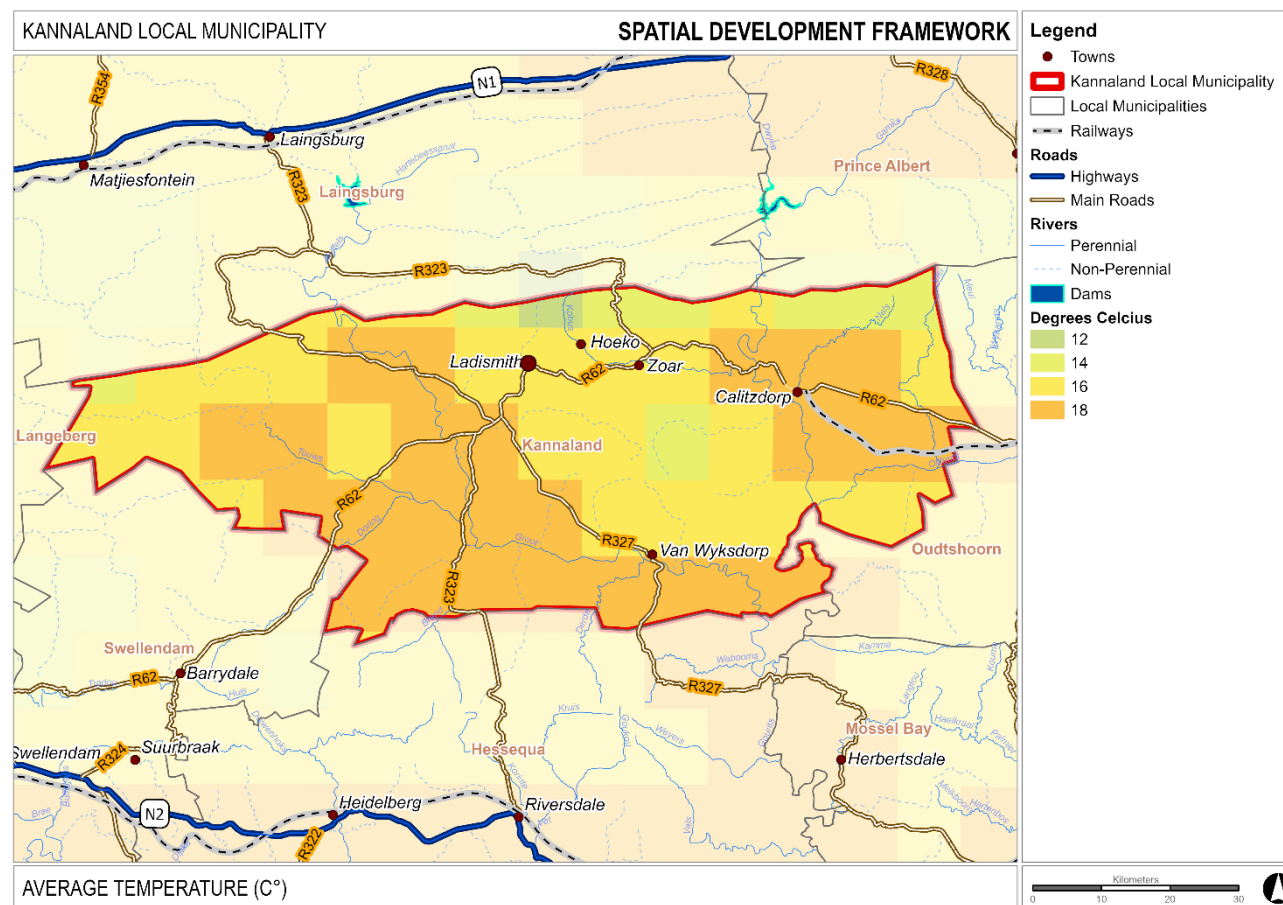
Map 9: Western Cape Biodiversity Spatial Plan (2023) on town scale

3.1.6: Climate

Climate is generally defined as the weather conditions prevailing in an area in general or over a long period. It influences the nature of the natural landscape, availability of water resources, and the varieties of flora. The number of days that experience sunshine, rainfall and the frequency and strength of wind are important in terms of the availability of renewable energy.

3.1.6.1: Temperature

The average annual high temperature ranges between 12 Degrees Celsius (°C) and 18 °C². Kannaland Municipality experiences the hottest temperature on average in March and the coldest temperature on average in July. The wettest months in Kannaland Municipality are March and June.³



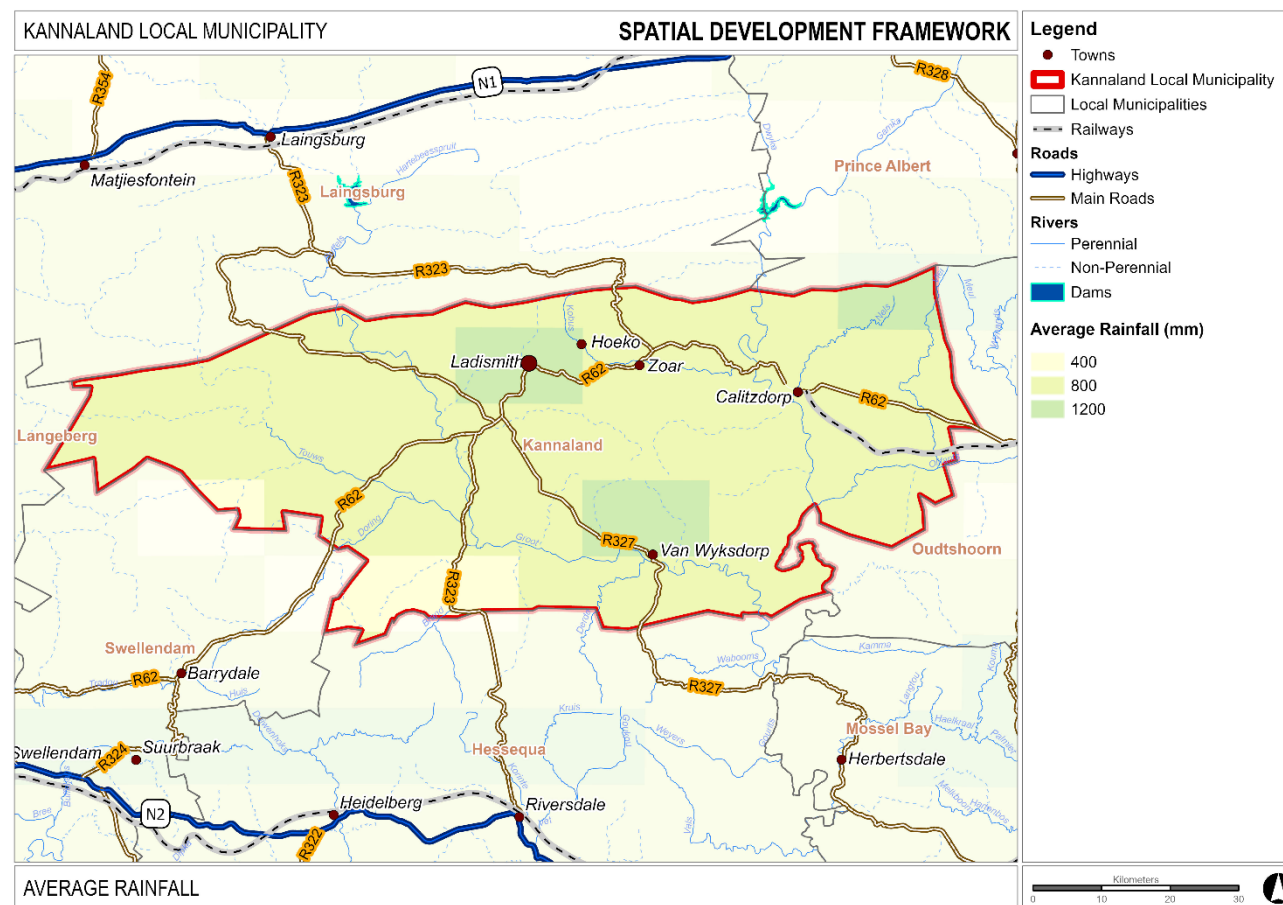
Map 10: Average Annual Temperature

² Green Book Municipal Risk Profile (CSIR), 2019

³ <https://weather.tomorrow.io/ZA/WC/>

3.1.6.2: Rainfall

According to Map 11, the Municipality experiences an average annual rainfall of 400mm to 1200mm. Most of the municipality experiences a rainfall of 800mm⁴ whereas the areas surrounding Ladismith, north of Van Wyksdorp and to the north-east of the Municipality experience higher measures of up to 1200mm.



Map 11: Average Annual Rainfall

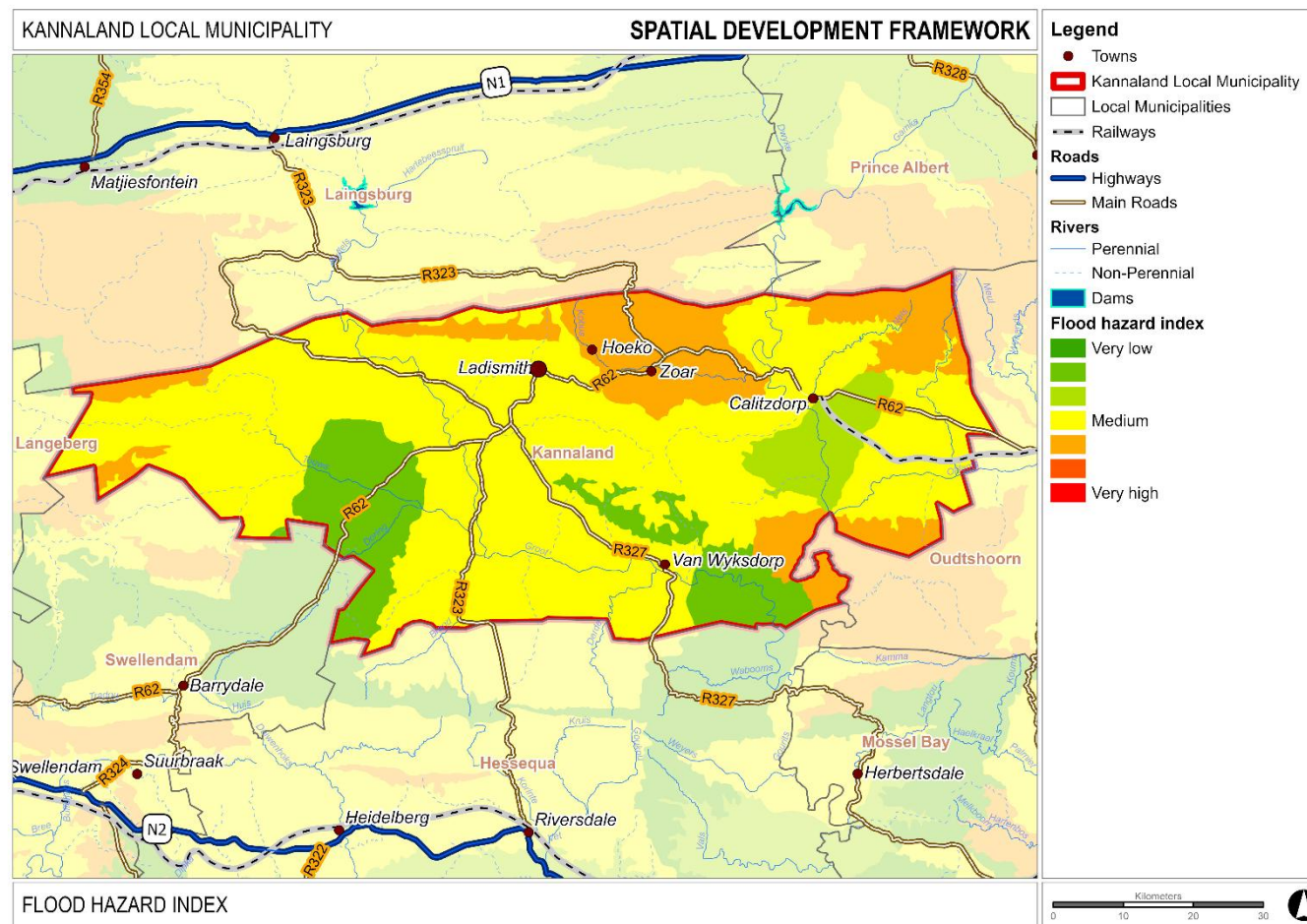
⁴ Green Book Municipal Risk Profile (CSIR), 2019

3.1.7: Natural Disasters

3.1.7.1: Flooding

Floods are likely to occur in low-lying areas, near water, downstream from dams, and where stormwater management is poor. Flash floods typically commence within a few minutes to under 6 hours following heavy rainfall (Jalayer et al., 2018). Flash floods frequently bring about a dangerous surge of rushing water, carrying mud, rocks and assorted debris that can sweep away almost anything in its path.

On the flood hazard index shown in Map 12, a medium measure accounts for the vast majority of the municipality, followed by medium-to-high around Hoeko and Zoar and a few smaller areas to the east of the municipality⁵.



Map 12: Flood Hazard Index

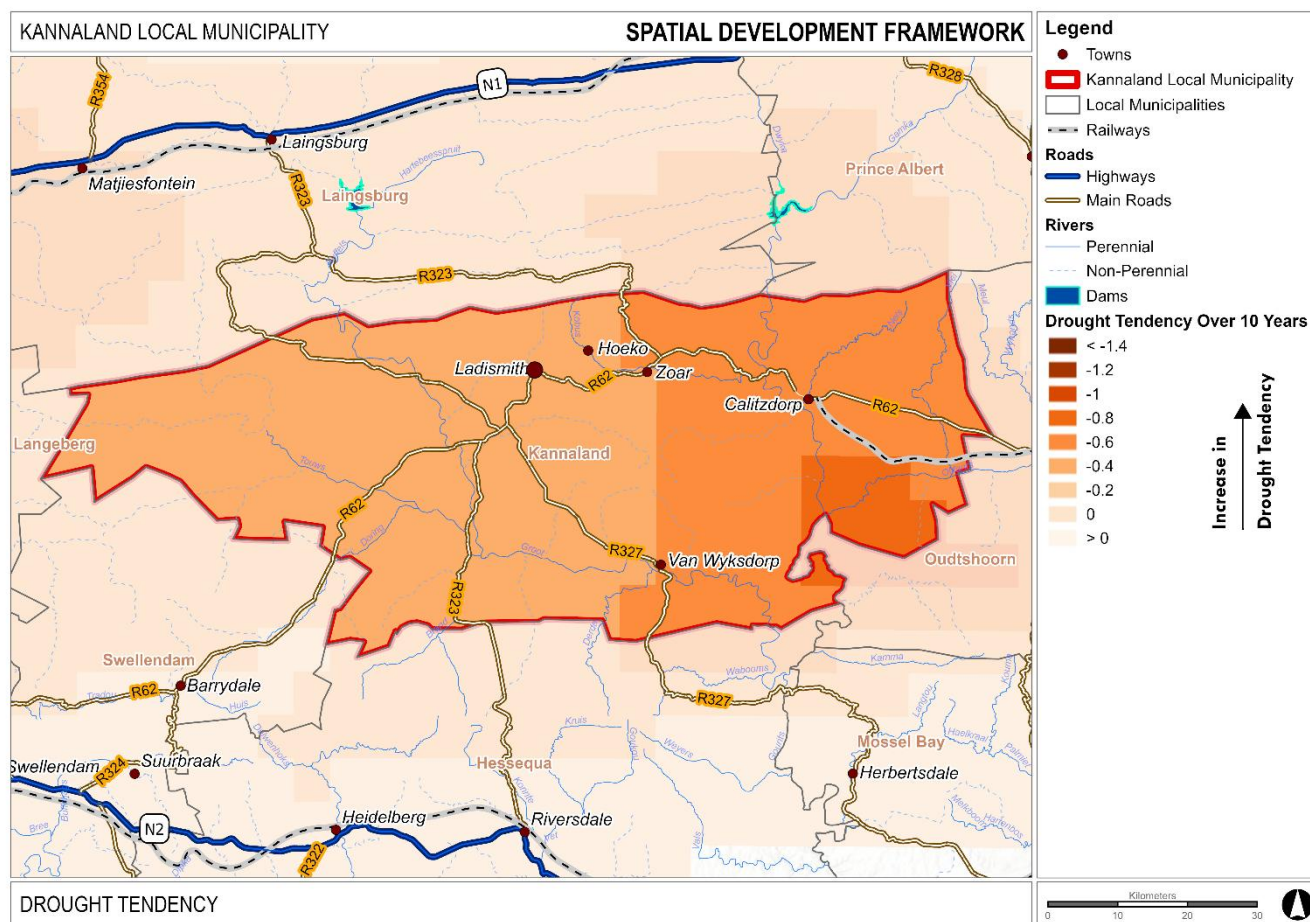
⁵ Green Book Municipal Risk Profile (CSIR), 2019

3.1.7.2: Drought Tendency

Droughts are known to impact both natural resources and human development. Globally, they disrupt agricultural production, leading to notable food and health insecurities, as well as habitat loss due to land degradation and desertification. (Smakthin and Schipper, 2008).

The accompanying map measures the drought tendency in the municipality from zero as the lowest tendency and higher tendencies as the figure regresses into negative figures. The regression in negative figures indicates an increase in drought tendencies over a 10-year period. This is more frequent than the observed baseline which analysed the pattern of flooding over a period of 10 years.

The drought tendencies are generally medium to high across the municipality. Medium areas occur to the west with a score of -0.4 (including Ladismith), regressing to a score to -0.6 towards the east (including Van Wyksdorp and Calitzdorp).⁶



Map 13: Drought Tendency

⁶ Green Book Municipal Risk Profile (CSIR), 2019

3.1.7.3: Invasive Alien Species

The National Invasive Alien Plants Survey of 2023 confirms the existence of invasive alien plant species within the municipality. Invasive alien plants are widespread within strategically important water source areas in Kannaland Local Municipality, particularly in mountain catchment areas and riparian corridors associated with the Gamka River system. According to the Conservation of Agricultural Resources Act, there are 3 categories of invasive alien plants as follows:

Category 1: plants that are declared as weeds and must be controlled.

Category 2: plants that are declared as invaders and may be cultivated in demarcated areas.

Category 3: plants that are declared as invaders and may no longer be planted.

Kannaland Local Municipality do not currently have a plan to curb the growth of invasive alien plants however one should be drawn up in compliance with the Use the National Environmental Management: Biodiversity Act. In the interim, the principles of the Site-Specific Monitoring and Control Plans described in the Garden Route Invasive Species Monitoring, Control and Eradication Plan of 2019 can be used to manage alien invasive plants. The plans are highlighted in the table below.

Table 2: Site-Specific Monitoring and Control Plans

Site	Species Name	Control Methods
Calitzdorp Spa Site: Management Unit CA01	<i>Arundo donax</i>	Cut Stump and spray
	<i>Casuarina cunninghamiana</i>	Cut Stump and spray
	<i>Gleditsia triacanthos</i>	Cut Stump and spray
	<i>Melia azedarach</i>	Cut Stump and spray
	<i>Prosopis glandulosa</i>	Cut Stump and spray
	<i>Salsola kali</i>	Handpull

	<i>Tipuana tipu</i>	Leave
Calitzdorp Spa Site: Management Unit CA02	<i>Agave americana</i>	Foliar spray
	<i>Melia azedarach</i>	Cut Stump and spray
	<i>Ricinus communis</i>	Cut Stump and spray
	<i>Salsola kali</i>	Handpull
Calitzdorp Spa Site: Management Unit CA03	<i>Agave americana</i>	Foliar spray
	<i>Atriplex nummularia</i>	Cut Stump
	<i>Callistemon viminalis</i>	Cut Stump and spray
	<i>Opuntia engelmannii</i>	Stem inject
	<i>Prosopis glandulosa</i>	Cut Stump and spray
	<i>Tamarix ramossissima</i>	Cut Stump and spray
Opzoek Outspan: Management Unit OP01	<i>Opuntia ficus-indica</i>	Stem inject
Buffelsdrif: Management Unit BU01	<i>Acacia mearnsii</i>	Cut Stump and spray
	<i>Acacia saligna</i>	Cut Stump and spray
	<i>Arundo donax</i>	Cut Stump and spray
	<i>Eucalyptus camaldulensis</i>	Cut Stump and spray

Roodeberg Outspan: Management Unit RO01	<i>Opuntia ficus-indica</i>	Stem inject
	<i>Tamarix sp.</i>	Confirm species before control

Source: Garden Route Invasive Species Monitoring, Control and Eradication Plan of 2019

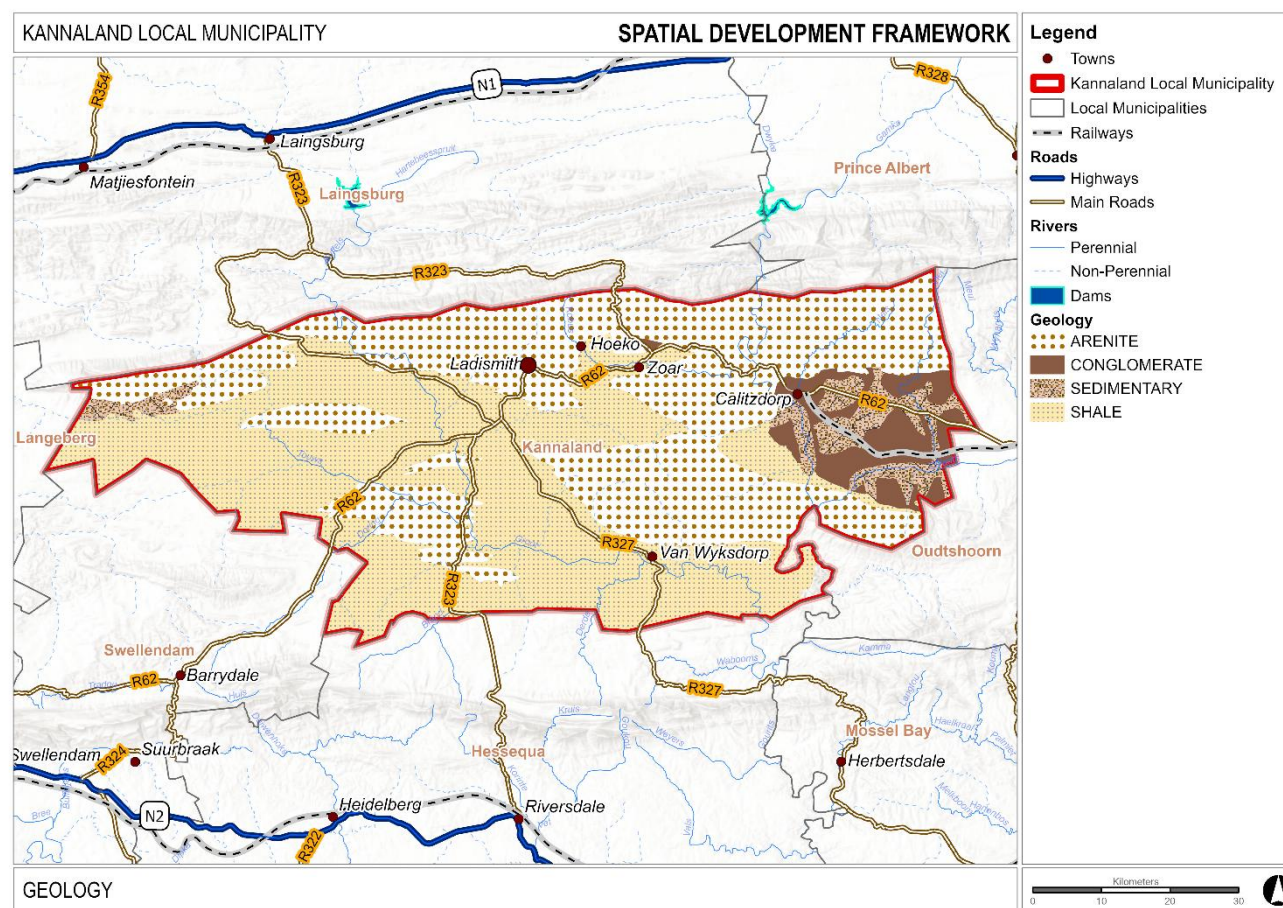
3.1.8: Geology, Soils and Minerals

The municipality contains four distinct geological formations: Arenite, Conglomerate, Sedimentary, and Shale deposits. Arenite and Shale are the most prevalent, with Arenite being found mainly in the north and east, along with some scattered areas in the west, while Shale is concentrated in the south.

Arenite is a type of sedimentary rock composed of medium-grained sand, typically formed through the erosion of other rocks or the accumulation of sand deposits. Shale is primarily composed of clay minerals and quartz grains, is usually grey in colour and forms in slow-moving waters such as lakes, lagoons, river deltas, and floodplains.

Conglomerate rock is present predominantly east of Calitzdorp. It is a sedimentary rock characterized by rounded fragments larger than sand, held together by a cementing material.

Small, scattered pockets of sedimentary rock can be found in the western and eastern parts of the municipality. Sediments are composed of mineral and organic deposits transported by wind, water, mass movement, or glaciers.



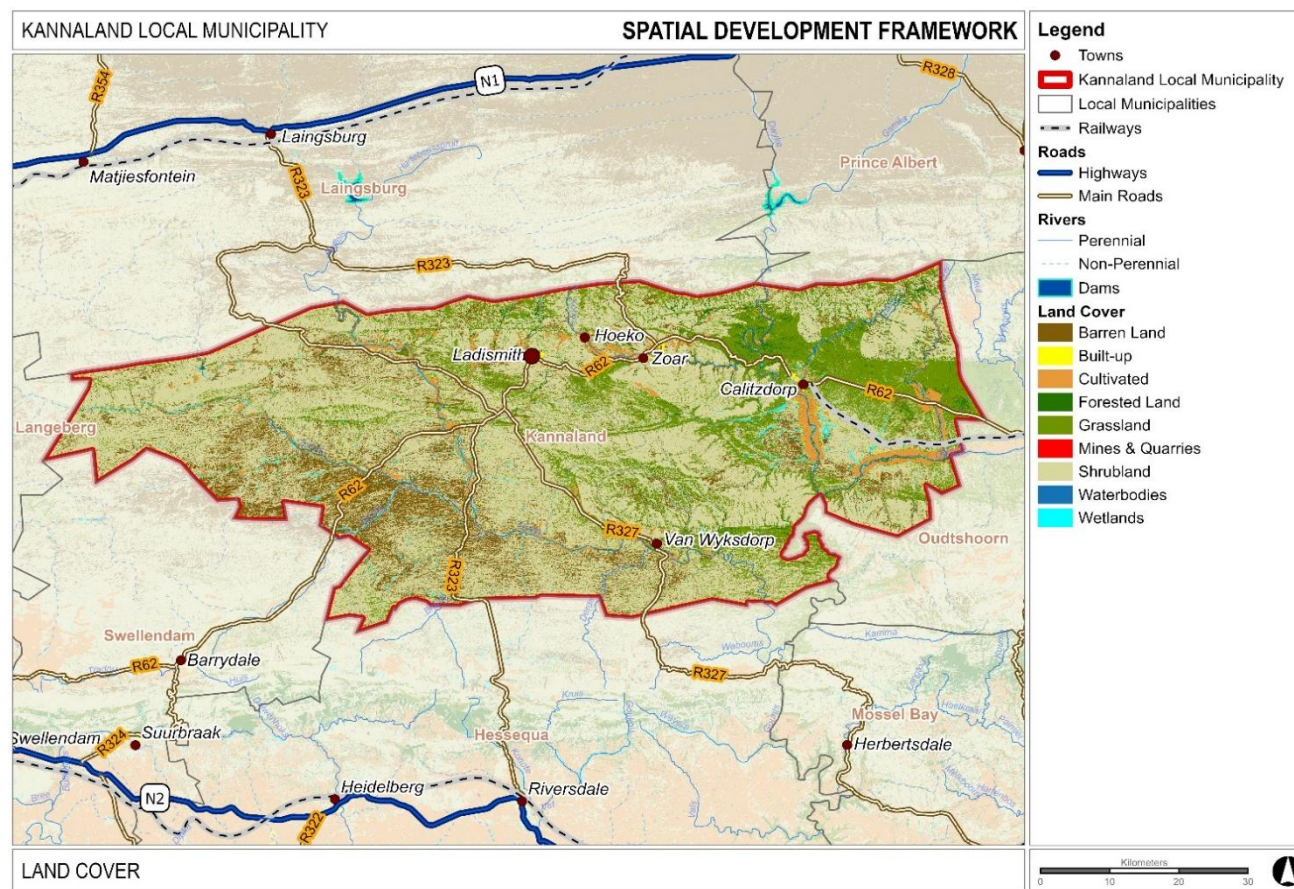
Map 14: Geology

3.1.9: Land Cover

Land cover is generally defined as the physical material at the Earth's surface, which includes vegetation cover, bare land, waterbodies, built-up land, trees/forest, etc. The accompanying map depicts the land cover in Kannaland Local Municipality classified by the following uses:

- Built-up Area (0.43%),
- Cultivated Land (3.44%),
- Grassland (19.21%),
- Forested Land (2.33%),
- Barren Land (13.10%),
- Shrubland (60.29%)
- Wetlands (1.08%),
- Mines & Quarries (0.01%), and
- Waterbodies (0.11%).

Shrubland accounts for the vast majority of the area followed by grassland spreading to almost the entire region. The waterbodies and wetlands also account for a considerable part of the municipality, followed by built-up land, forested land, mines and quarries, and barren land constituting the lowest land cover.⁷



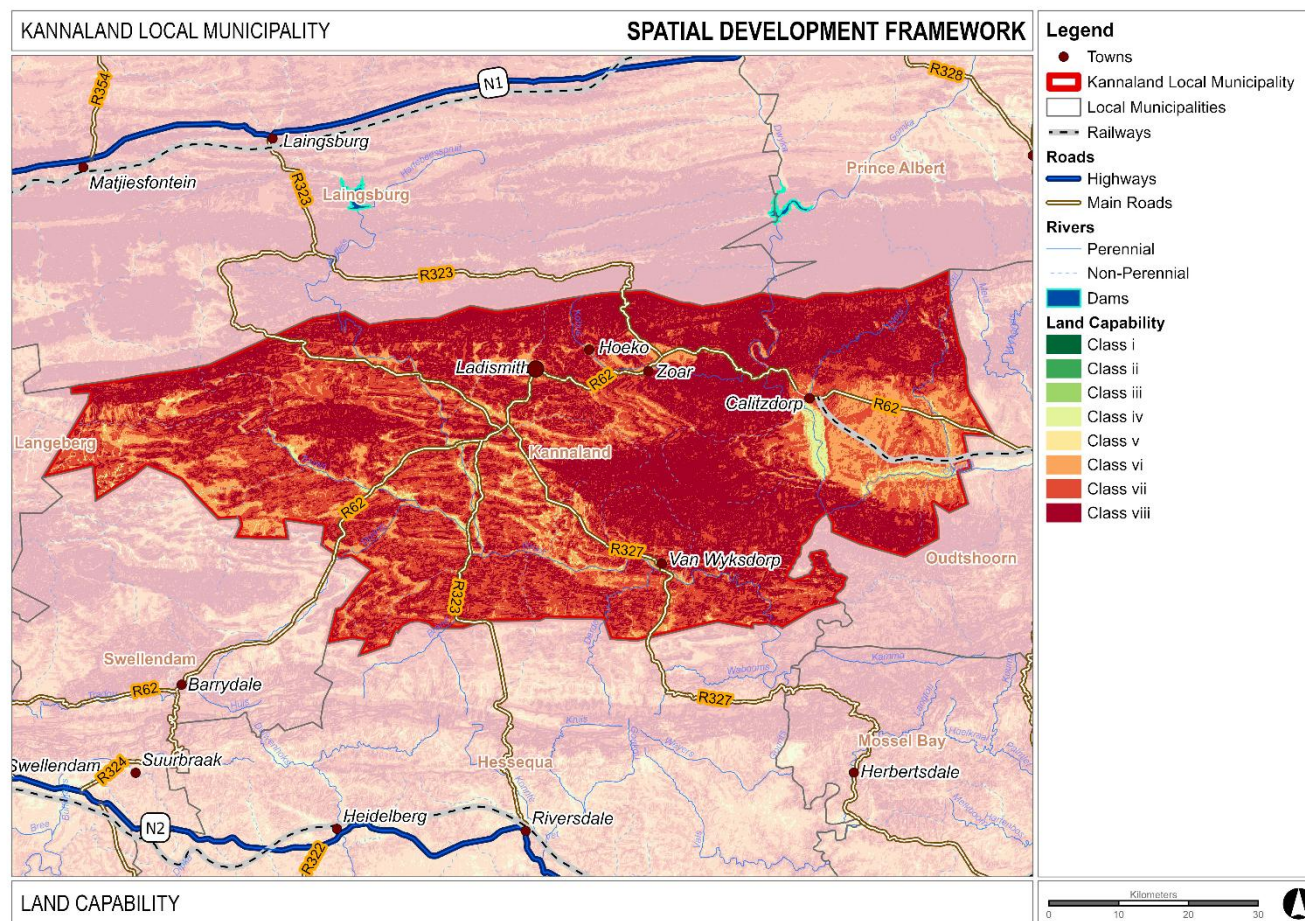
Map 15: Land Cover

⁷ Department of Forestry, Fisheries and the Environment (National land cover dataset), 2020

3.1.10: Land Capabilities

Land capability is generally defined as the extent to which land can meet the needs of one or more uses, under defined conditions of management, without permanent damage. Land capability is ascertained through the combined influence of soil composition, topography, and climatic conditions, indicating the optimal and sustainable utilisation of land for rain-fed agricultural activities over an extended period. According to Klingebiel and Montgomery (1961) land capability is divided into eight classes (i to viii) (see Table 3 below). The shaded area indicates the suitable land use for a particular class. The land capability is further defined in four orders (order A to D):

- **Order A:** Arable land – high potential land with few limitations (Classes i and ii);
- **Order B:** Arable land – moderate to severe limitations (Classes iii and iv);
- **Order C:** Grazing and forestry land (Classes v, vi, and vii); and



Map 16: Land Capabilities

- **Order D:** Land not suitable for agriculture (Classes viii).

Table 3: Land capability classes – intensity of land uses.

LAND CAPABILITY			Wildlife	Grazing and Forestry			Crop production			
Order		Class		Forestry	Veld	Pastures	Limited	Moderate	Intensive	Very
Arable	A	i								
		ii								
	B	iii								
		iv								
Non arable	C	v								
		vi								
	D	vii								
		viii								

Source (Klingebiel and Montgomery, 1961)

Map 16 shows the land capability for Kannaland Local Municipality.

In Table 3, land capability classes i, ii, iii, and iv represent arable land, where land is suitable for agriculture; and classes v, vi, vii, and viii are attributed to non-arable land where land is not suitable for agriculture.

Map 16 shows that most of the central and northern parts of the municipality are attributed classes vii and viii, where land is non-arable and is suitable for grazing and forestry.⁸

According to the Preservation and Development of Agricultural Land Act (Act 39 of 2024), parties who wishes to commence with a listed activity on agricultural land, including agricultural land in a protected agricultural area, must apply to the competent authority, in the prescribed manner, for an agro-ecosystem

authorisation. The delineated areas on Map 16 which are suitable for agriculture according to their land capability should necessitate adherence to agro-ecosystem authorisation requirements. Applicants pursuing agro-ecosystem authorisations must comply with the requirements under the Preservation and Development of Agricultural Land Act in relation to:

- Any action that must be taken before submitting an application (such as preliminary assessments or confirming whether the activity is listed).
- The required content of any prescribed report that must accompany the application, including technical details on impacts to soil, water, and agricultural productivity.
- The procedures for public consultation and information gathering, where stakeholders and affected parties must be informed and given an opportunity to comment.

⁸ Department of Agriculture, Land Reform and Rural Development, 2016

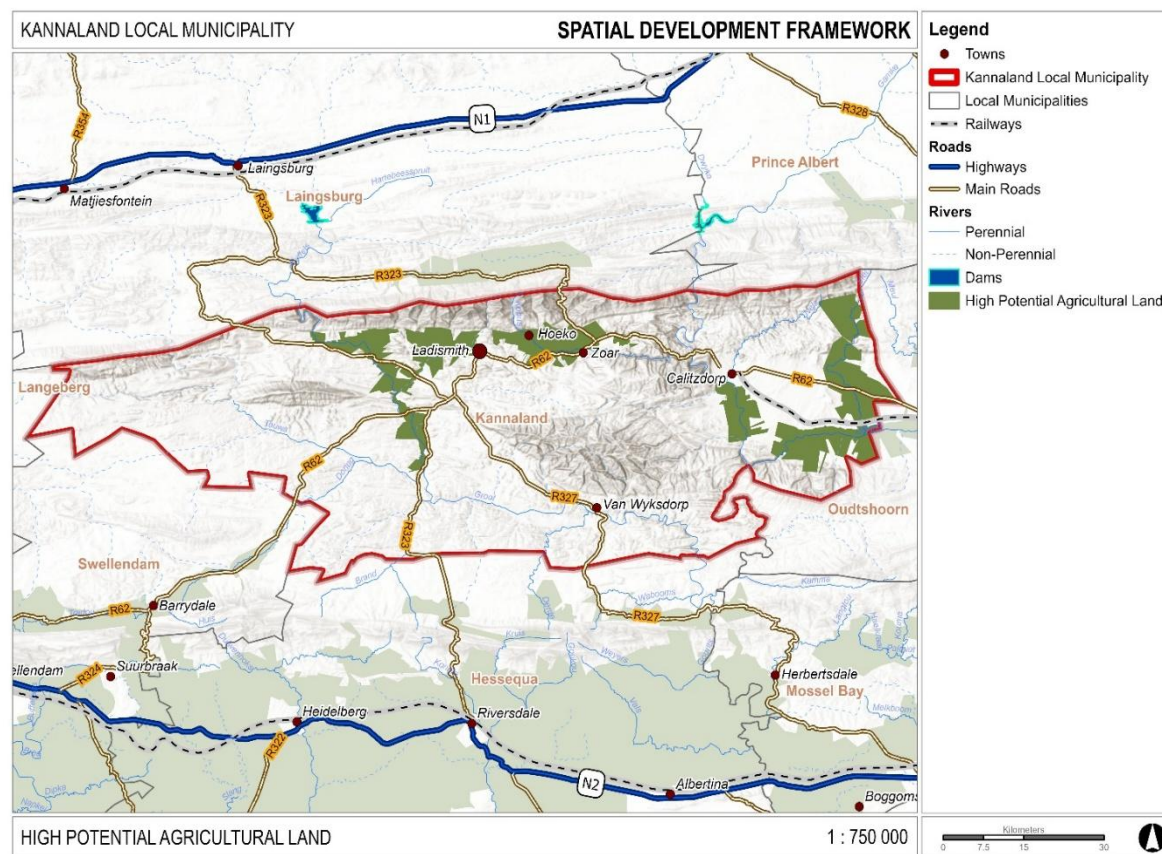
- Consideration of any applicable provincial agricultural sector plan to ensure alignment with provincial agricultural development policies.
- The formal submission of an application for agro-ecosystem authorisation, together with any additional information required by the competent authority.
- The preparation and submission of an agro-ecosystem report where required, assessing the potential impact of the proposed activity on agricultural capability and sustainability.

This process ensures that developments in areas such as Kannaland Municipality do not result in the loss of productive agricultural land.

3.1.11: Agricultural Potential

The Preservation and Development of Agricultural Land Act (Act 39 of 2024) was set out to protect, manage and sustainably develop agricultural land within South Africa to ensure the long-term agricultural productivity, food security, and optimal use of agricultural resources for present and future generations. According to Map 15 in this report, most of the municipality is covered with grass and shrubs. Agricultural activities in the Kannaland Local Municipality are largely shaped by the region's soil types and water availability, which together determine the area's natural resource potential. These factors create favorable conditions for various types

of farming, including field crops, horticulture, and livestock production. The municipality is also home to two cheese manufacturing plants located in Ladismith. Their presence suggests potential for further expansion of agro-industries in the region. Both of the manufacturing plants are operating successfully and have expressed interest in expanding their operations.



Map 17: High Potential Agriculture Land

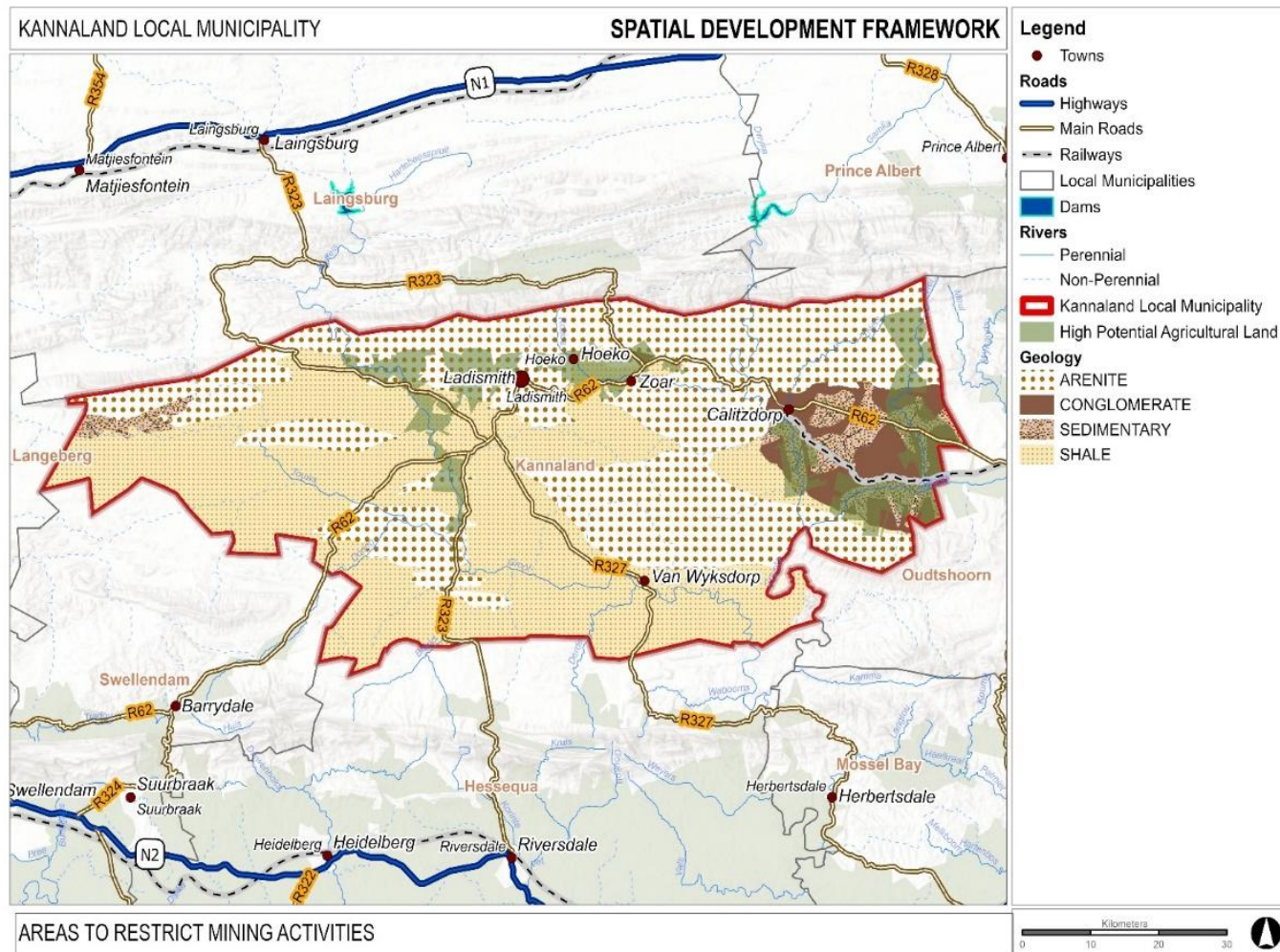
According to Scotney et al. (1987), high-potential agricultural land is defined as having the necessary soil quality, terrain characteristics, growing season, and moisture supply to sustain high crop yields when managed using best farming practices. Map 17 highlights where the high-potential agricultural areas are located. It is evident that the most suitable agricultural land is concentrated in the eastern, central and northern regions of the municipality.

Mining in Kannaland Municipality should be avoided in high-potential agricultural land, river systems, biodiversity priority areas, protected zones, urban edges, and heritage landscapes to ensure sustainable development and long-term environmental protection. Map 18 identifies the following locations where mining activities should be restricted due to their agricultural, ecological, water, and heritage importance:

- **Gamka River corridor** – Sensitive riparian ecosystem and key water source.
- **Groot River corridor** – Important for irrigation and biodiversity.
- **Klein Swartberg** – High biodiversity and scenic mountain landscape.
- **Swartberg Mountains** – Protected and ecologically sensitive mountain catchment area.
- **Towerkop area** – Iconic landmark with conservation and tourism value.

Kannaland Local Municipality Spatial Development Framework

- **Calitzdorp agricultural zone** – High-value vineyards and farming land.
- **Ladismith agricultural belt** – Productive farmland and settlement area.
- **Succulent Karoo vegetation areas** – Globally recognised biodiversity hotspot.



Map 18: Areas to Restrict Mining Activities

3.1.12: Implications

An assessment of the state of the bio-physical environment is crucial in identifying the municipality's natural assets and patterns and the way in which these occur as resources for growth and protection or challenges to development. This assessment results in balanced environmental protection, social wellbeing, and economic development.

Development should avoid steep slopes and mountainous areas to reduce erosion risks and prevent high infrastructure costs. Urban expansion is better directed toward flatter terrain. Mountainous regions should instead be prioritised for conservation rather than hard development.

Strategic water source areas, such as the Swartberg Surface Water Strategic Area, must be protected from urban encroachment. Maintaining riparian buffers along rivers is essential to safeguarding water quality, preserve ecological function, and reduce flood risks. Land-use planning should promote water-efficient development due to the region's reliance on surface water systems.

Development should be restricted in sensitive biomes such as Fynbos and the Succulent Karoo to prevent ecological degradation. Biodiversity corridors between fragmented habitats should be encouraged to maintain ecological connectivity.

Areas classified as endangered or vulnerable should be designated strictly for conservation. Hard development within urban boundaries must be limited to prevent further habitat loss. Restoration initiatives are particularly important for poorly

protected ecosystems such as the Montagu Shale Renosterveld and Gamka Arid Thicket.

CBA1 and CBA2 areas must remain in their natural state, with incompatible land uses prohibited. Ecological Support Areas should be included in planning to sustain essential ecosystem services, such as wetland-based water purification. Strengthening protected area networks and linking them through ecological corridors is vital for overall landscape integrity.

Climate-resilient development should be promoted, taking into account rainfall variability and temperature extremes. Renewable energy opportunities particularly solar and wind are well-suited to areas with high exposure to these resources. Stormwater systems must be designed to accommodate increasingly intense rainfall events.

Development should be avoided in flood-prone zones, and flood hazard mapping must guide planning decisions. Drought mitigation strategies such as rainwater harvesting and drought-resistant landscaping are essential for long-term resilience. Settlements located in medium- to high-risk areas require dedicated emergency preparedness planning.

Planning should account for soil stability and erosion risks, particularly in Arenite and Shale geological zones. Mining activities must adhere to environmental regulations and avoid ecologically sensitive areas. Soil conservation measures are important in agricultural regions to maintain productivity and prevent degradation.

The expansion of built-up areas into shrubland and grassland should be minimised to protect biodiversity. Barren land should be targeted for rehabilitation, either for agricultural production or conservation purposes. Wetlands and waterbodies must be safeguarded from encroachment and pollution due to their critical ecological functions.

High-value agricultural land (Classes i–iv) should be prioritised for farming and protected from urban conversion. Non-arable land (Classes vii–viii) is more suitable for grazing, forestry, or eco-tourism. Compliance with the Preservation and Development of Agricultural Land Act is necessary for agro-ecosystem authorisations.

High-potential agricultural land must be protected from non-agricultural uses to ensure long-term food security. Agro-industrial activities, such as cheese production facilities, should be supported only in appropriate, designated zones. Sustainable farming practices are essential to safeguard soil health and water resources.

3.2: Built Environment

3.2.1: Settlement Typology

The CSIR developed a spatial planning tool, as outlined in the 2015 publication "Updated CSIR/SACN South African Settlement Typology" by Van Huyssteen et al., which determined functional settlement typologies. This tool aids in identifying, calculating, and analysing a variety of developmental information and trends across different urban and rural settlements in South Africa. In developing this tool, the CSIR introduced several settlement types, as detailed in Table 4, to encapsulate the South African planning context. In its 2018 report, the CSIR stated that these typologies are designed to offer evidence and analysis for spatial planning, along with modelling outputs. This approach is intended to support government planning, emphasise strategic regional, inter-regional, and intergovernmental planning, as well as resource allocation, monitoring, and evaluation.

Table 4: CSIR Settlement Typology

Regional location and service role	Description of functional town-area types
Service towns	- Population: 15,000-100,000 people; - Economy: Economic and social service anchor role to hinterland
Small service towns	- Population: <20,000 people; - Morphology: Monochrome small town;

Regional location and service role	Description of functional town-area types
	- Local service role: Playing an anchor role as social service point, serving a large number of people within 30km from the town in denser areas and within 50km in sparser areas; - Economy: Government and community services
Rural service settlement	- Population: Varied in nodal settlement, large population in direct hinterland; - Morphology: Emerging nodes of consolidation in dense rural settlements; - Local service role: Strategically located to play an anchor role as social service point, serving a large number of people within 30km from the town in denser areas and within 50km in sparser areas
Small towns	- Population: <20,000 people; - Morphology: Monocentric small towns, often apartheid landscape with double centre towns; - Economy and service role: Primarily serve local population and/or 'niche' economic activity such as mining, tourism or fisheries.

Source: CSIR Red book Human Settlement Planning and Design

National Network of Rural Service Centres

- Rural development must be supported through a network of prioritised service centres where people in rural areas and settlements can be optimally supplied with municipal and social services, and where rural logistics and support can be provided to support rural development.
- Specific support must be provided to (1) towns that act as border towns and trade posts, and (2) growing towns in border regions.
- In dense rural settlement regions, consolidation within nodal centres and rural design is required.

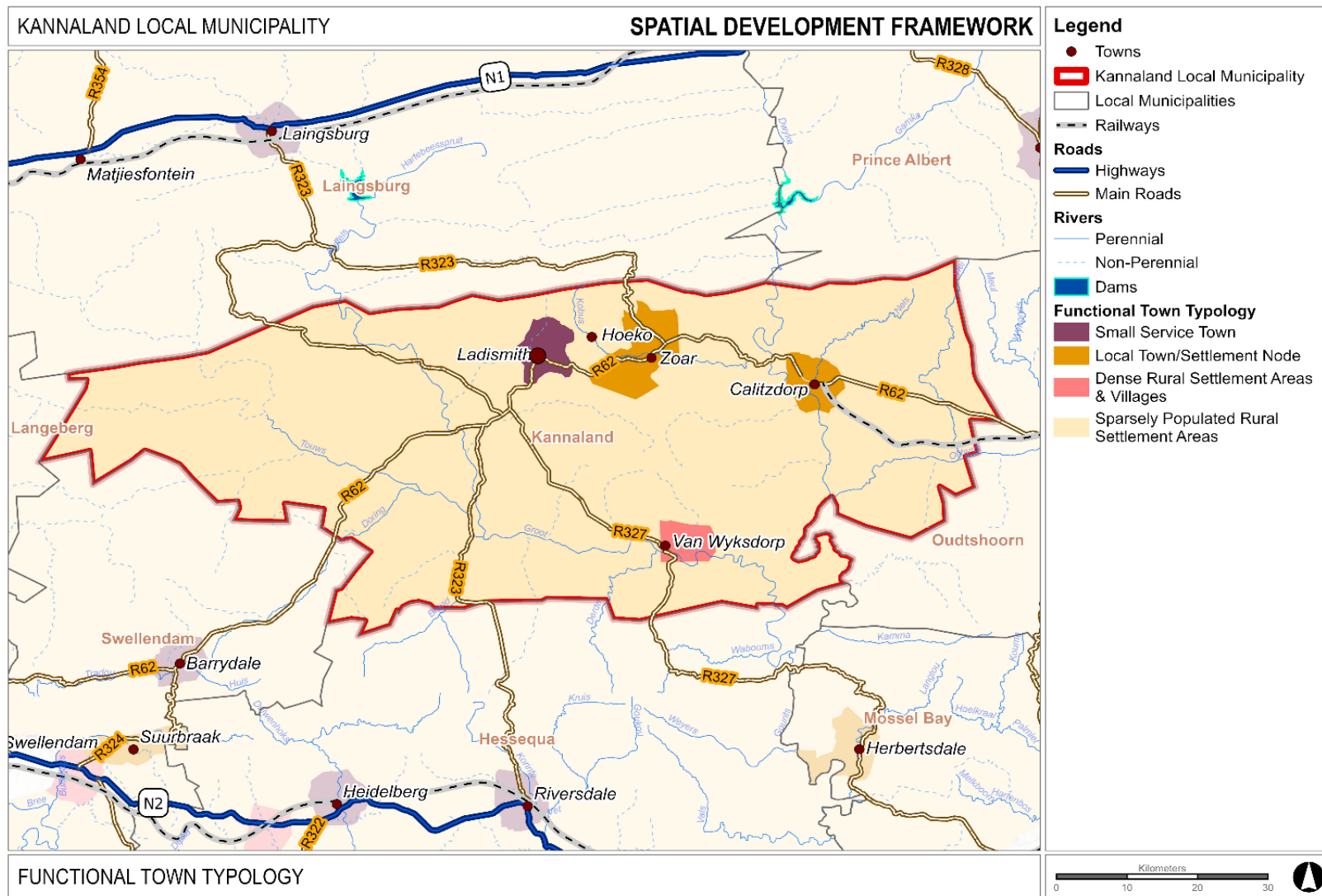
Other Smaller Towns and Settlements in South Africa

- Consolidate and provide basic services to the local population in a network of small towns and settlements.
- Urban consolidation and basic service delivery in growing regions must keep pace with population growth and economic development.
- In densely populated and growing rural regions, (1) settlements must be consolidated in nodes, and (2) spatial planning and rural design must be done to ensure managed and quality future settlement development.
- In areas that are ecologically sensitive, experience harsh climatic conditions, and are set to experience even harsher conditions in future, existing settlement expansion and new settlement formation/development must be discouraged.

The above settlement classifications propose a systemic view of rural areas, identifying polycentric functional rural regions with well-connected regional anchors, social, cultural, historical, economic, and cultural characteristics for development over time.

In consideration of the principles of the CSIR Settlement Typologies, the NDP settlement classifications and the Social Service Provisioning Model, the following hierarchy of towns can be identified within the municipality, as shown in Map 19.

- Ladismith is a small service town that has the largest population and number of economic activities, including manufacturing.
- Calitzdorp and Zoar are settlement nodes with less economic activity.
- Van Wyksdorp is a dense rural settlement.



Map 19: Functional Town Typology

3.2.2: Land Use Patterns

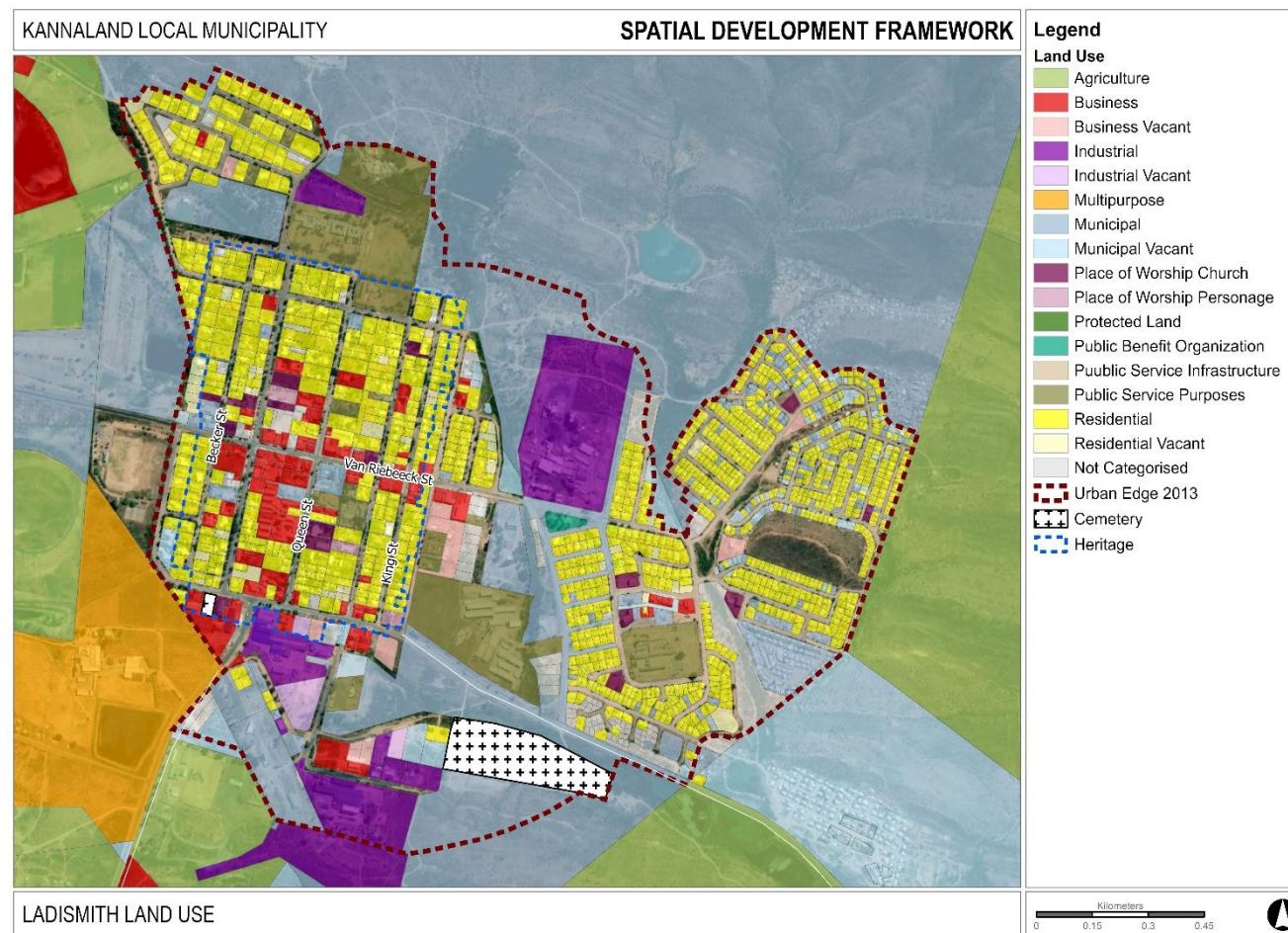
The following information is based on the valuation roll for Kannaland Local Municipality which was used to determine the land use within the municipality.

3.2.2.1: Ladismith

Ladismith is a small service town located along the R62 tourism route. The R62 has significant economic benefits for the town, the majority of which are located to the north of this route.

There is a good distribution of residential and non-residential land uses in Ladismith. There is a concentration of business along the main roads (Van Riebeeck Street and Queen Street).

A portion of a site zoned for industrial use is located to the south of the town and falls outside of the urban edge. The properties between Becker Street and King Street are situated within a heritage area.

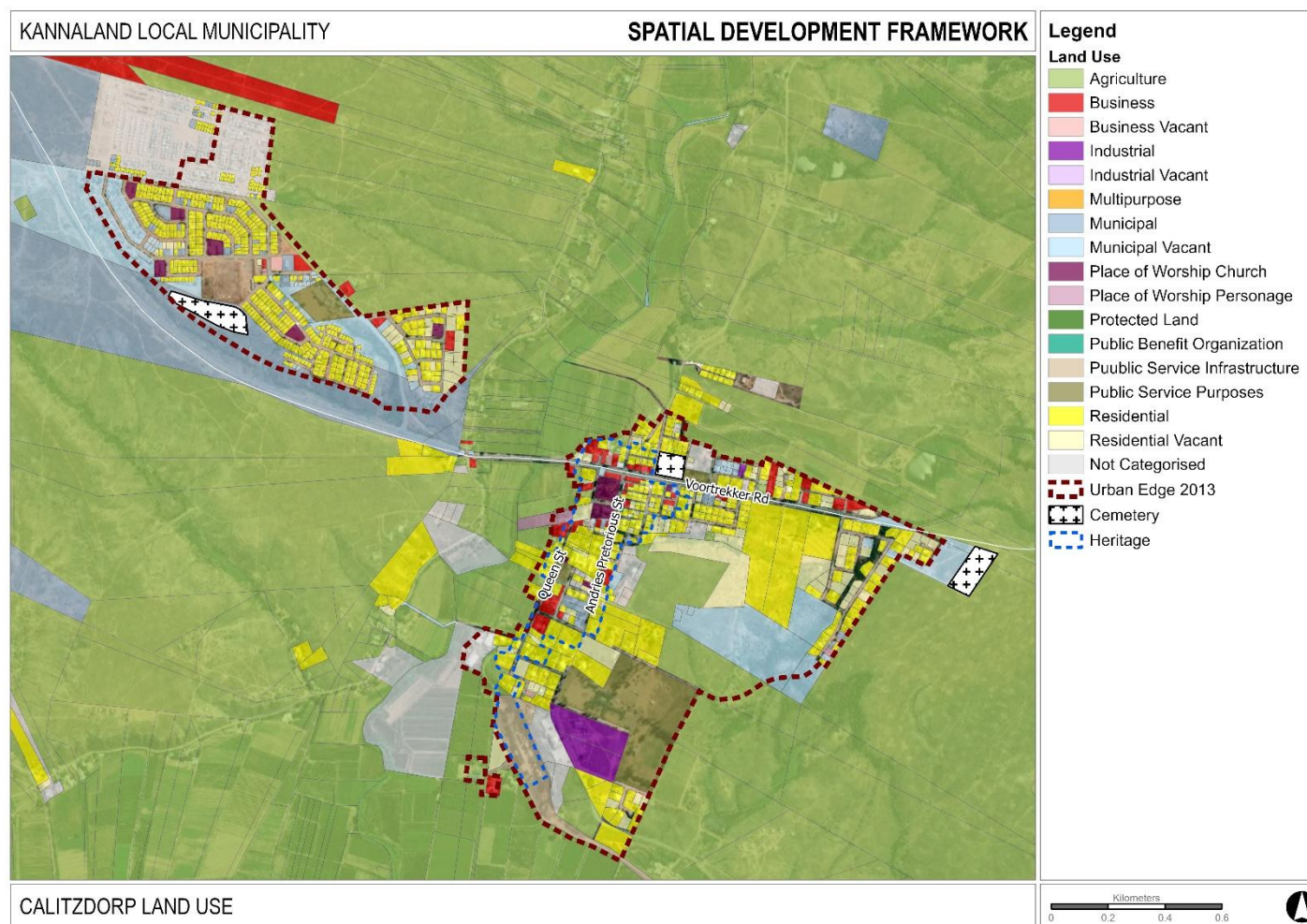


Map 20: Ladismith Land Use

3.2.2.2: Calitzdorp

Calitzdorp is a local town/settlement node which is also known as the “Port Wine Capital”. It is also located against the R62 tourism route along which various opportunities for business development exist such as restaurants, art galleries and accommodation.

There is a good distribution of residential and non-residential land uses as well as a concentration of business along the main road (Voortrekker Road). There are numerous properties zoned for residential, municipal and business uses located outside of the northwestern urban edge warranting an amendment. The properties between Queen Street and Andries Pretorius Street exist within a heritage area. There are a number of properties that are not categorised which means that they have not been allocated any land use according to the municipal valuation roll.

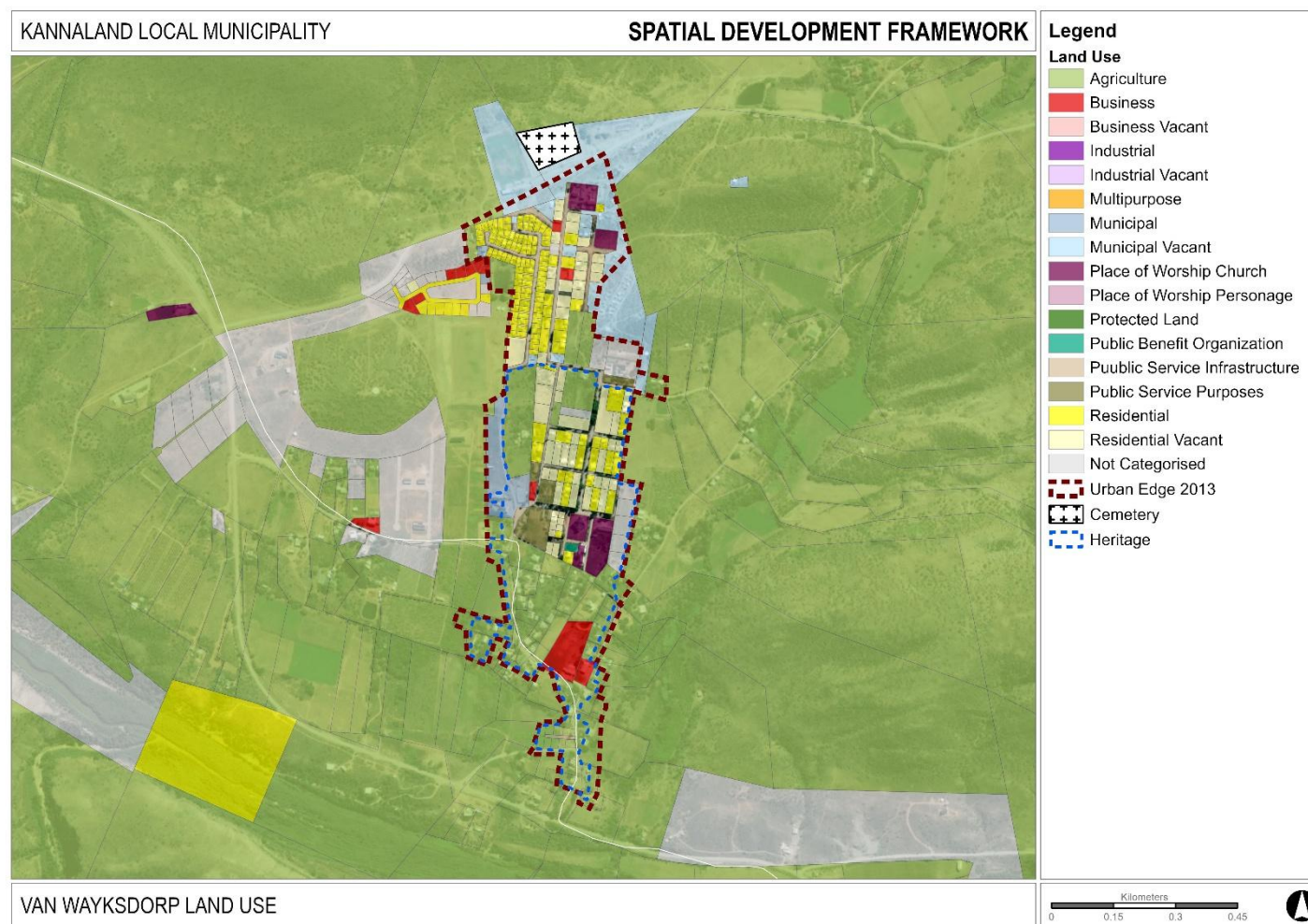


Map 21: Calitzdorp Land Use

3.2.2.3: Van Wyksdorp

Van Wyksdorp is a dense rural settlement that is located along the R327, approximately 42km south of Ladismith. It has a linear/elongated layout and is framed by agriculture on nearly all sides.

According to the valuation roll there are a number of vacant residential properties in Van Wyksdorp suggesting considerable opportunity for infill development and potentially allowing for population growth without expanding the urban footprint.



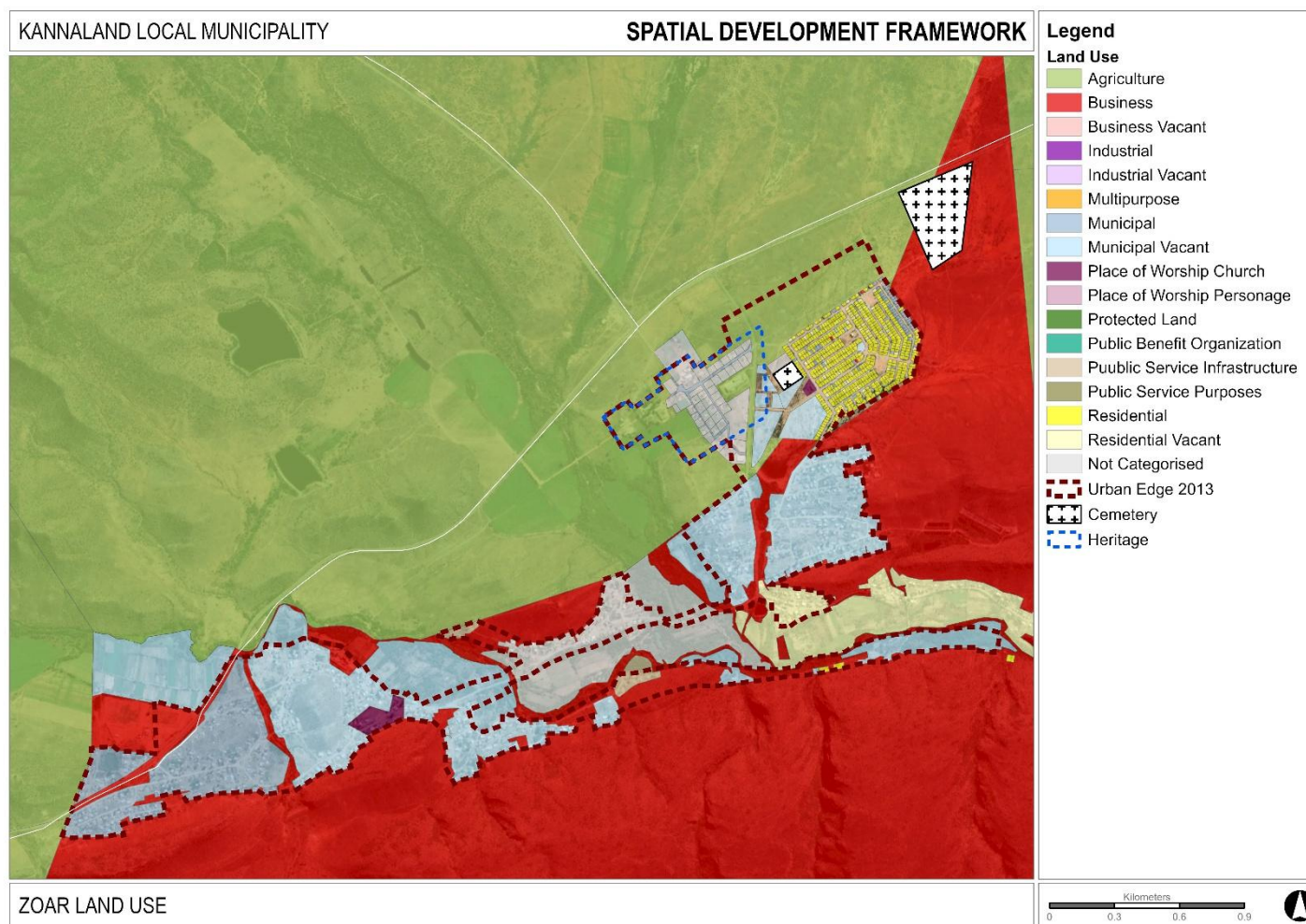
Map 22: Van Wyksdorp Land Use

3.2.2.4: Zoar

Zoar is rural settlement which is located along the Nels River and the R62. There are very limited commercial opportunities in Zoar. According to the valuation roll, most of the land use falls under business. There isn't a good distribution of land uses.

Residential land uses are located on the east and other land uses are located towards the west of the settlement.

The settlement has a lot of land zoned as municipal land to the west.



Map 23: Zoar Land Use

3.2.3: Human Settlements

Figure 2 illustrates the number of households in the municipality contained in each housing typology in the years 2011 and 2022. During both periods, the majority of households within the municipal area resided in formal dwellings whereas 3.5% of households lived in informal dwellings in 2022 compared to 2.6% in 2011. The increase in informal dwellings from 2022 to 2011 reflects the need to enhance the living conditions of vulnerable households in the municipal area.

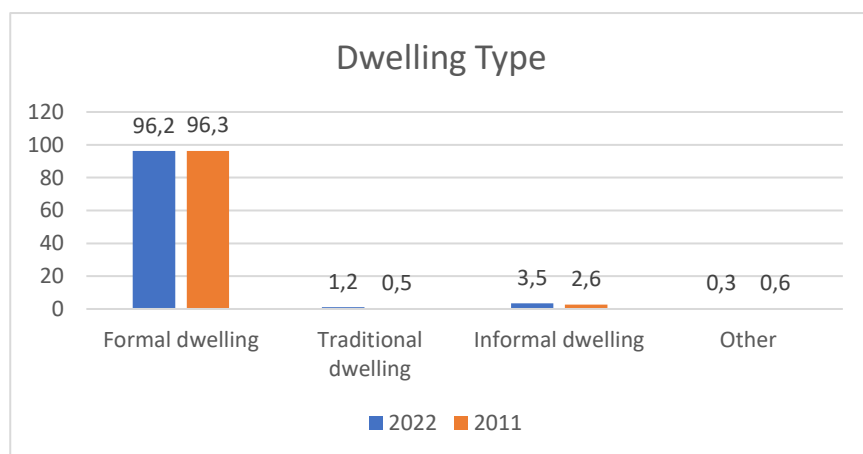


Figure 2: Dwelling type

Source: 2024 Socio-Economic Profile: Kannaland Municipality (Western Cape Treasury) and Census 2011

3.2.3.1: Housing Waiting List

The Western Cape Provincial Department of Infrastructure drew up a report which analysed housing data that was generated by the Western Cape Housing Demand Database and the City of Cape Town (CoCT) Housing waiting list. According to the report, 3420 applicants were recorded on the housing waiting list in Kannaland Local Municipality. A breakdown of the towns in which these applicants are located is given in Table 5. It is evident that most of the population are based in Ladismith followed closely by Calitzdorp.

Table 5: Housing demand by locality

Area	Total Housing Demand
Ladismith	1 321
Zoar	545
Calitzdorp	1 093
Van Wyksdorp	126
Not identified	335
Total	3 420

Source: Western Cape Housing Demand Database, 2024

Figure 3 indicates the preference of residents to live in in the Municipality. Figure 3 shows that the majority of applicants prefer to live in Ladismith as compared to Van Wyksdorp (5%). This could be attributed to a number of reasons such as the perceived lack of economic opportunities in Van Wyksdorp or the distant location of Van Wyksdorp in the south of the municipality relative to the other towns which are closer together.

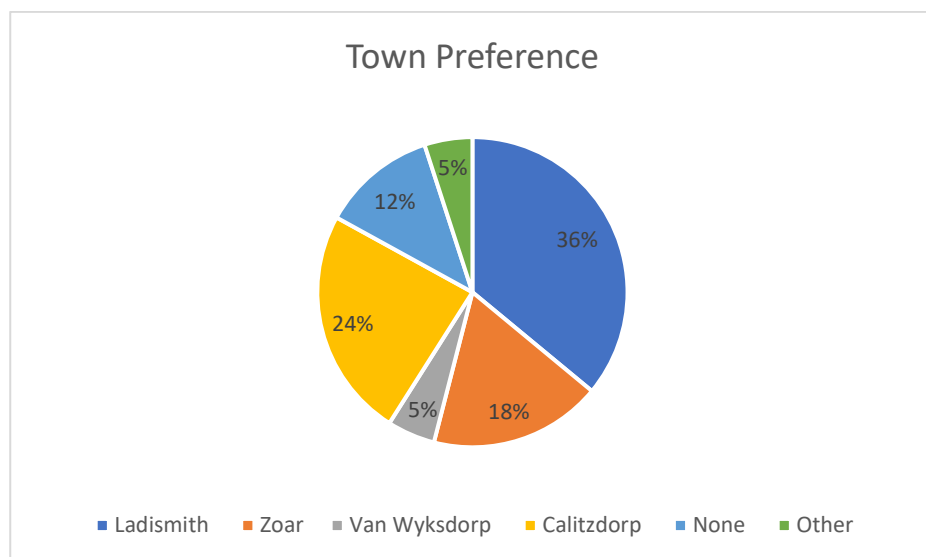


Figure 3: Town Preference

Source: Western Cape Housing Demand Database, 2024

Figure 4 illustrates the income bracket per household in the municipality and it is clear that the majority of households earn between R0 – R3 500, which is very low. This also shows that more households depend on the provision of housing from the government.

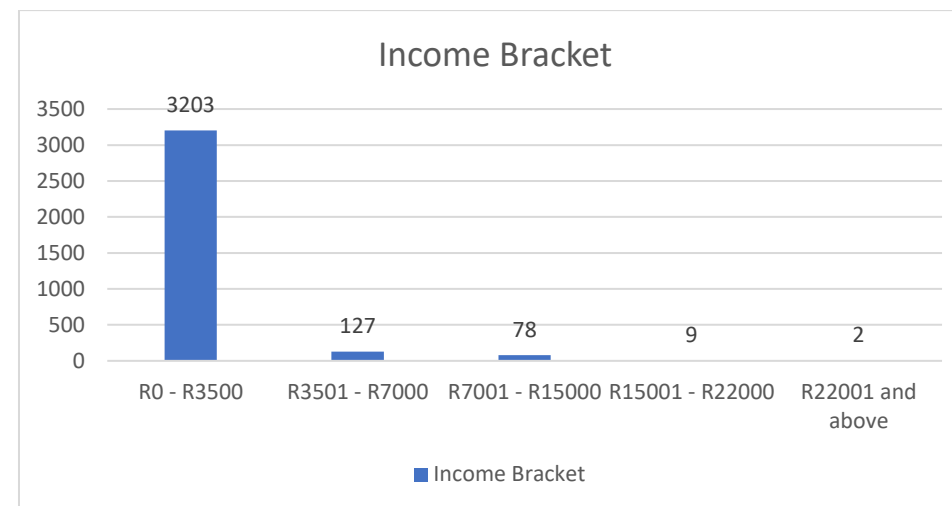


Figure 4: Income bracket

Source: Western Cape Housing Demand Database, 2024

3.2.3.2: Informal Dwelling Count

Table 6 reflects the number of informal dwellings within the municipality. There are a total of 306 informal dwellings within the municipality, the majority of which are located in Ladismith and Zoar.

Table 6: Informal Dwelling Count

Towns	No of informal dwelling
Ladismith	206
Zoar	45
Calitzdorp	28
Van Wyksdorp	27
Total	306

Source: 5th Generation Kannaland Integrated Development Plan 2022-2027

Table 7 details the number of informal households living in informal settlements in Kannaland Local Municipality that have access to basic services. Out of all the informal households, Varrkieskloof 1 on Mossie Street in Ladismith has access to electricity.

Table 7: Number of Informal Households with Access to Basic Services

Number of Informal Households with Access to Basic Services in the municipal area						
No.	Town	Area	Households (HH)	HH with Electricity	HH with Ablution	HH with Water
1	Ladismith	Varrkieskloof 1 (Mossie Street)	130	50	6	130
2		Varkieskloof 2 (January Street)	20	0	0	20
3		Landjie	4	0	0	0
4		September Street	8	0	0	0
5		Sakkiesbaai	30	0	3	30
6	Zoar	Karoolande	45	No data recorded	1	45
7		Lovedale	12	No data recorded	1	12
8		Sandkraal	6	No data recorded	0	6
9	Calitzdorp	Valentynskamp	35	No data recorded	2	35
10		Klinierand	15	No data recorded	1	15
11	Van Wyksdorp	Erf 110	37		3	37
Total			342	50	17	330

Source: 5th Generation Kannaland Integrated Development Plan 2022-2027

3.2.3.3: Housing Pipeline Projects

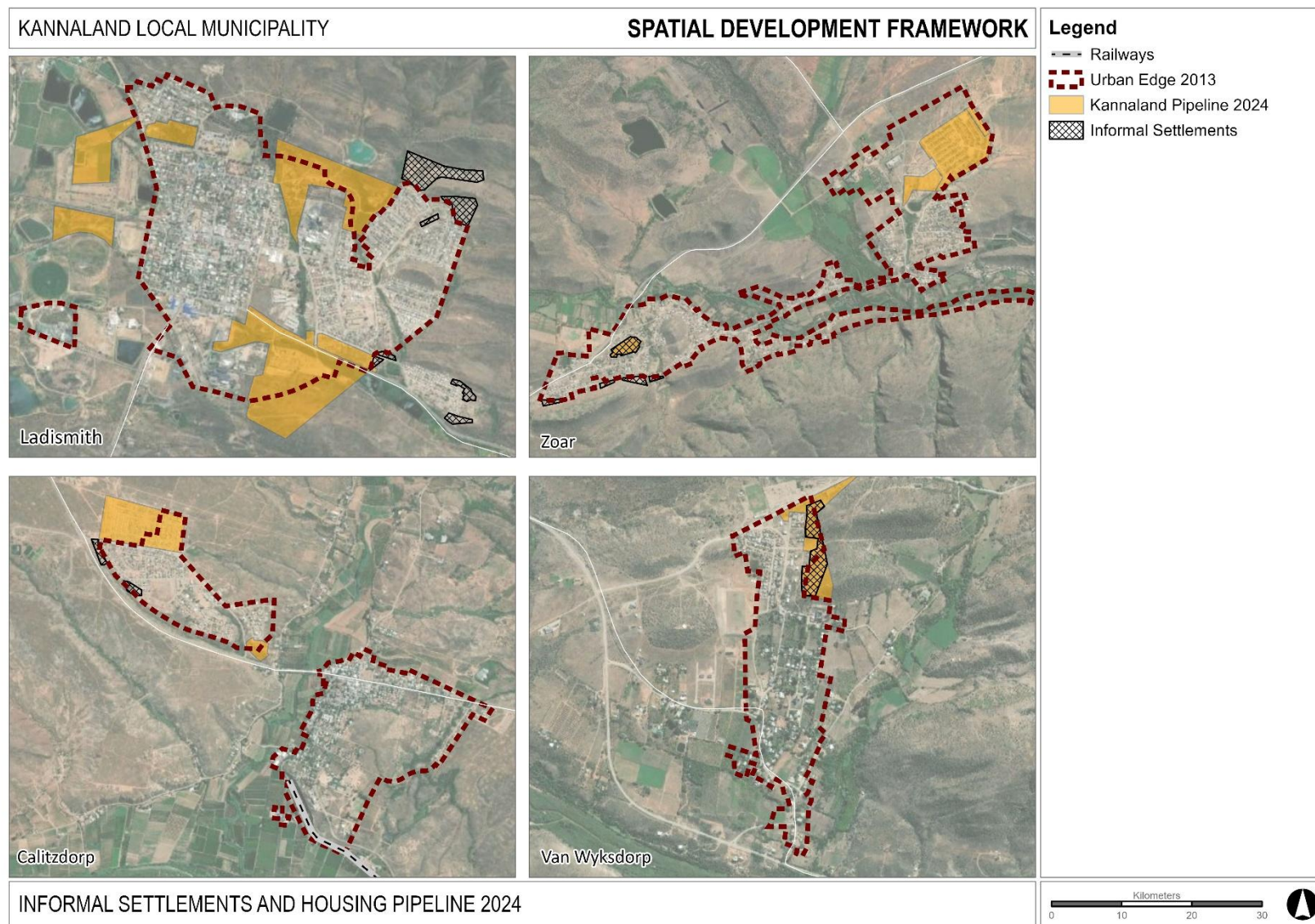
Table 8 details the current housing projects that are underway in the Municipality. This has been extracted from the municipality's list of Housing Pipeline Projects, 2022. The locations of these projects are illustrated on Map 24.

Table 8: Housing Projects

PROJECT NAME	HOUSING PROGRAMME	LOCATION	YIELD	STATUS
3321: Zoar Protea Park Infill (100 units) IRDP	IRDP	"1834, 1835 (Public open space) and 1836" Zoar	100	Project approved. Project is currently being implemented, "The Environmental Impact Study (EIA) was completed in October 2022"
Ladismith Parmalat 280	IRDP	RE / 95 & 2267, Ladismith	280	Infill site, first establish whether bulks is sufficient to service these sites, The Environmental Impact Study (EIA) was completed in October 2022"
Calitzdorp Bergsig Housing Project	IRDP	Erf 2182, Calitzdorp	179	"This project is implementation ready"
Zoar UISP	"Individual Subsidy"	1416	65	"Infrastructure should be upgraded and installed to ensure that we can deliver basic services to the housing project"
MEDIUM TERM PROJECTS				
Van Wyksdorp	UISP/IRDP	Erf 110	100	"Spatial Development Framework needs to be updated because a portion of the erf is located outside of the urban edge"

Ladismith	FLISP	Erf 1194	29	"Sites identified for this project are serviced"
"Calitzdorp Old Hospital Site"	UISP/IRDP	Erf 45	30-50	"Infrastructure to deliver basic services to this project should be installed and existing infrastructure should be upgraded"
"Ladismith Golf Club"	FLISP	Erf 128/95	3	"Infrastructure to deliver basic services to this project should be installed and existing infrastructure should be upgraded"

Source: Garden Route Human Settlement Sector Plan, 2022

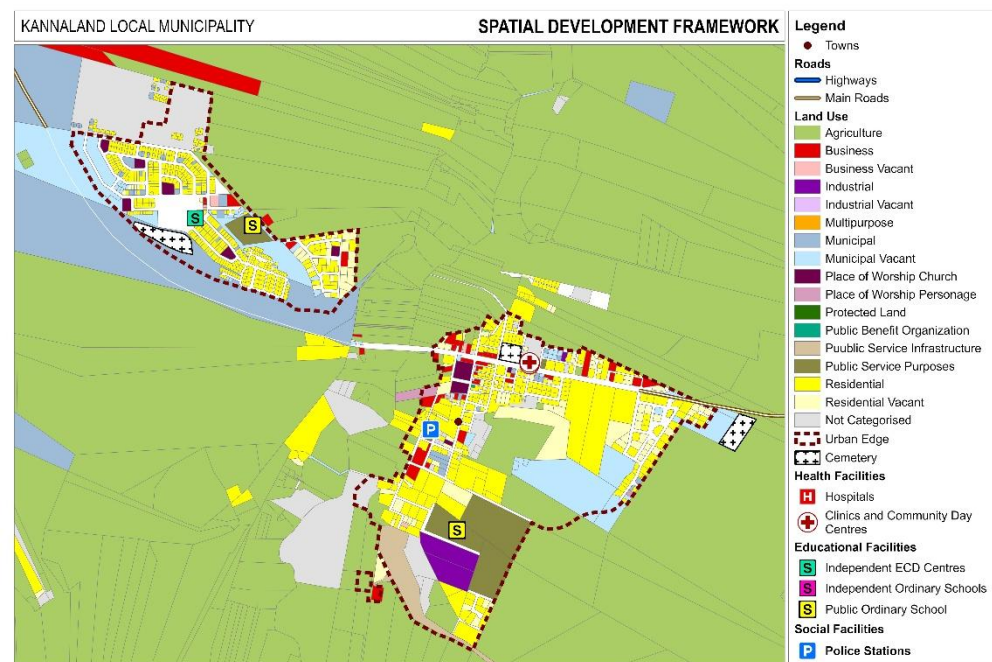


Map 24: Kannland Informal Settlement and Housing Pipeline 2024

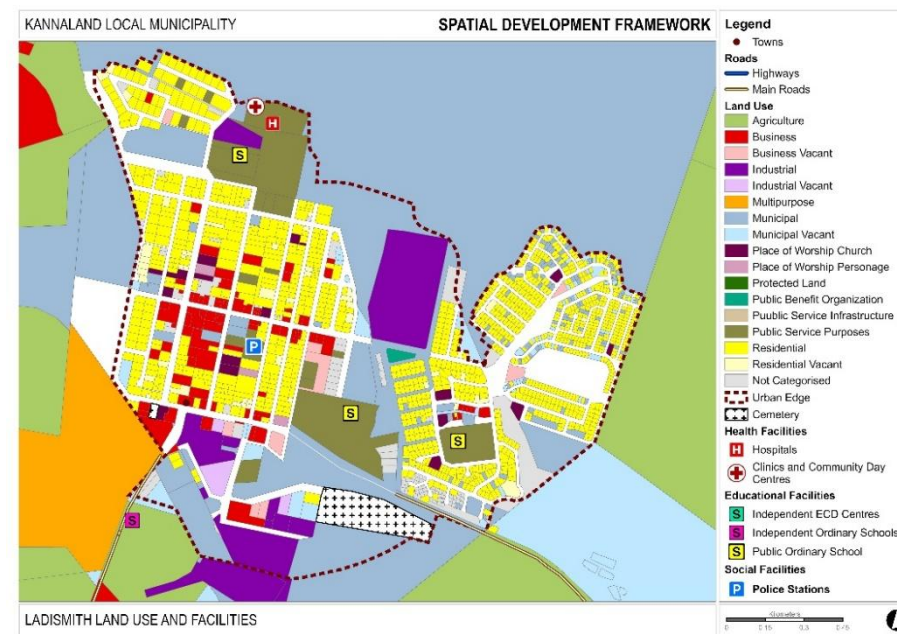
3.2.4: Social Facilities

As illustrated on Map 25, Map 26, Map 27 and Map 28, there are 14 schools across the municipality, 4 primary healthcare institutions, 5 mobile/satellite clinics, and 1 district hospital that serves the municipality's healthcare requirements. Residents have access to 5 antiretroviral therapy treatment centres and 7 tuberculosis clinics. The municipal area was equipped with four provincial ambulances, equivalent to a ratio of 1.80 ambulances per 10 000 people. This exceeds the district average of 0.4 ambulances per 10 000 inhabitants.

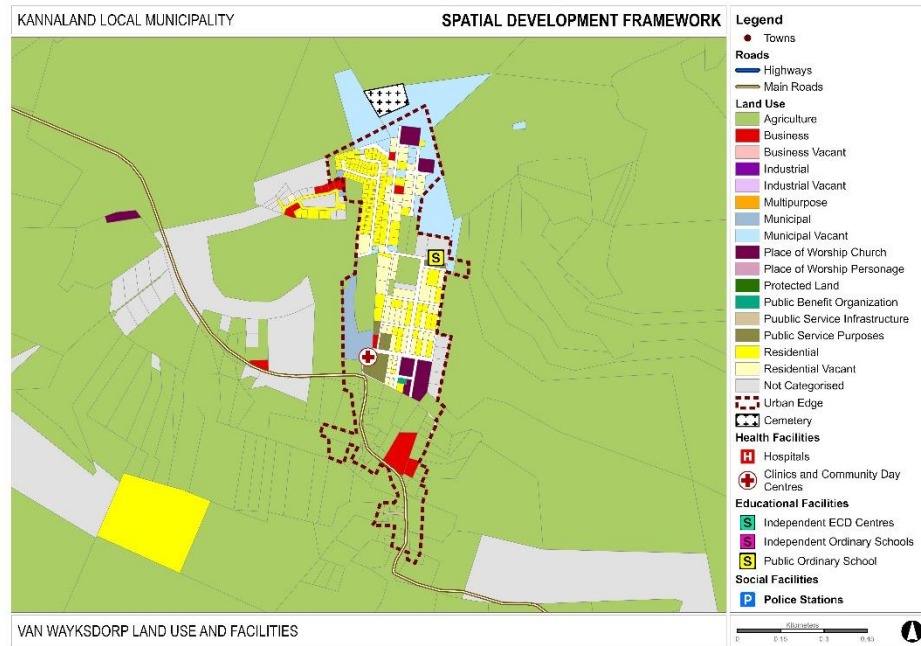
There are 2 police stations in the municipality. Finally, there are 3 cemeteries in Calitzdorp, 2 in both Ladismith and Zoar and 1 in Van Wyksdorp.



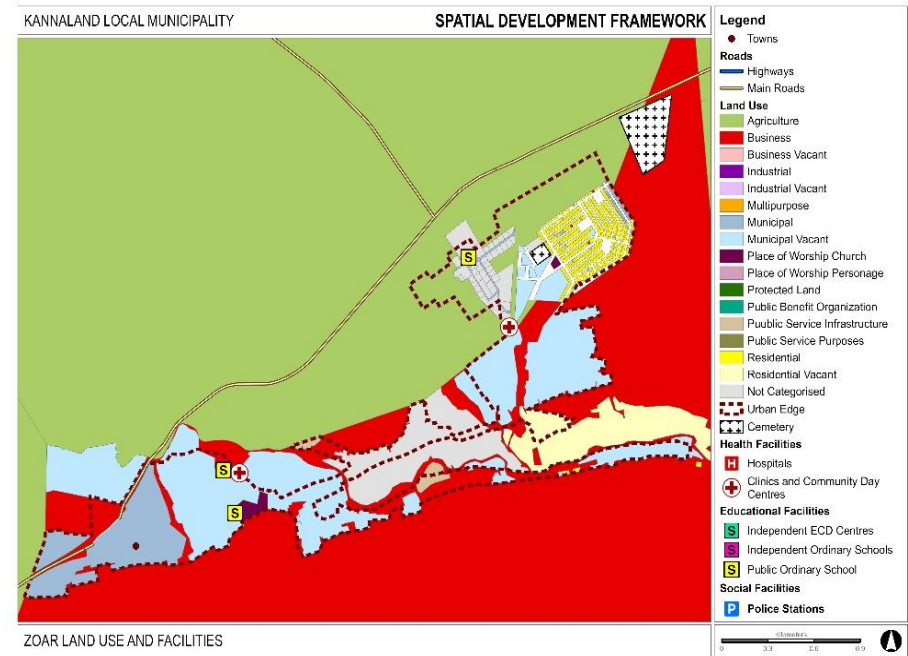
Map 25: Calitzdorp land use and social facilities



Map 26: Ladismith land use and social facilities



Map 27: Van Wyksdorp land use and social facilities



Map 28: Zoar land use and social facilities

3.2.5: Transport Movement Services

Effective and functional linkages through transport systems is one of the critical building blocks towards stimulating economic growth, positive and effective spatial integration and connectivity. These linkages allow for the effective movement of people, goods and services within and through the municipality.

Regional Movement

- The R62, which is also an important scenic route, runs from the south-west all the way to the eastern side of the municipality connecting Ladismith, Calitzdorp and Zoar.
- The R327 runs to the south of Kannaland Municipality connecting Van Wyksdorp with Mossel Bay. This route is also regarded as a scenic route.⁹
- The R323 connects to the N2 further south in Riversdale. The R323 also connects to the N1 further north in Laingsburg.

Role and function of main provincial routes:

- The main provincial and intra-regional routes include the R62, R323, and R327.
- The regional routes link towns of varied size and function.
- The network provides good north-south linkages but limited east-west linkages. The road network appears to be well integrated reflecting the impact of the N2 and N1. Although

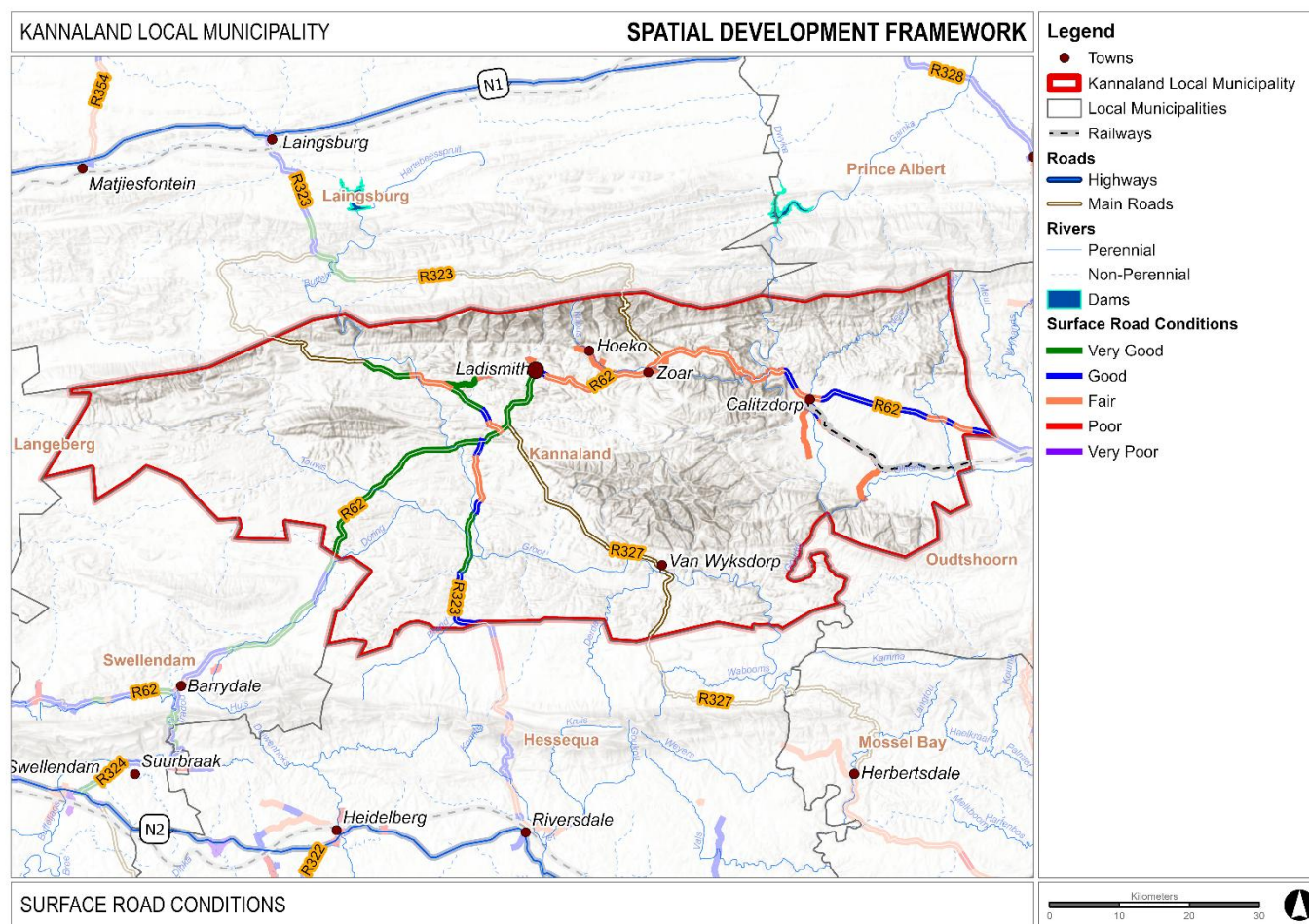
the N2 is not directly linked, Kannaland Municipality is integrated into the Western Cape's broader economic corridor, in part because of its proximity to the N2 through feeder routes. The N1 connects Kannaland Municipality particularly Route R62 which intersects with the N1 at Worcester.

- The continuous deterioration of these roads due to limited maintenance is evident in the quality of the roads. **This limits and exacerbates the effective movement of goods and people, which limits economic growth, positive and effective spatial linkages and the integration of economic activities across the municipal area.**

⁹ 2022-2027 Kannaland Local Economic Development and Tourism Strategy

3.2.5.1: Surface Road Conditions

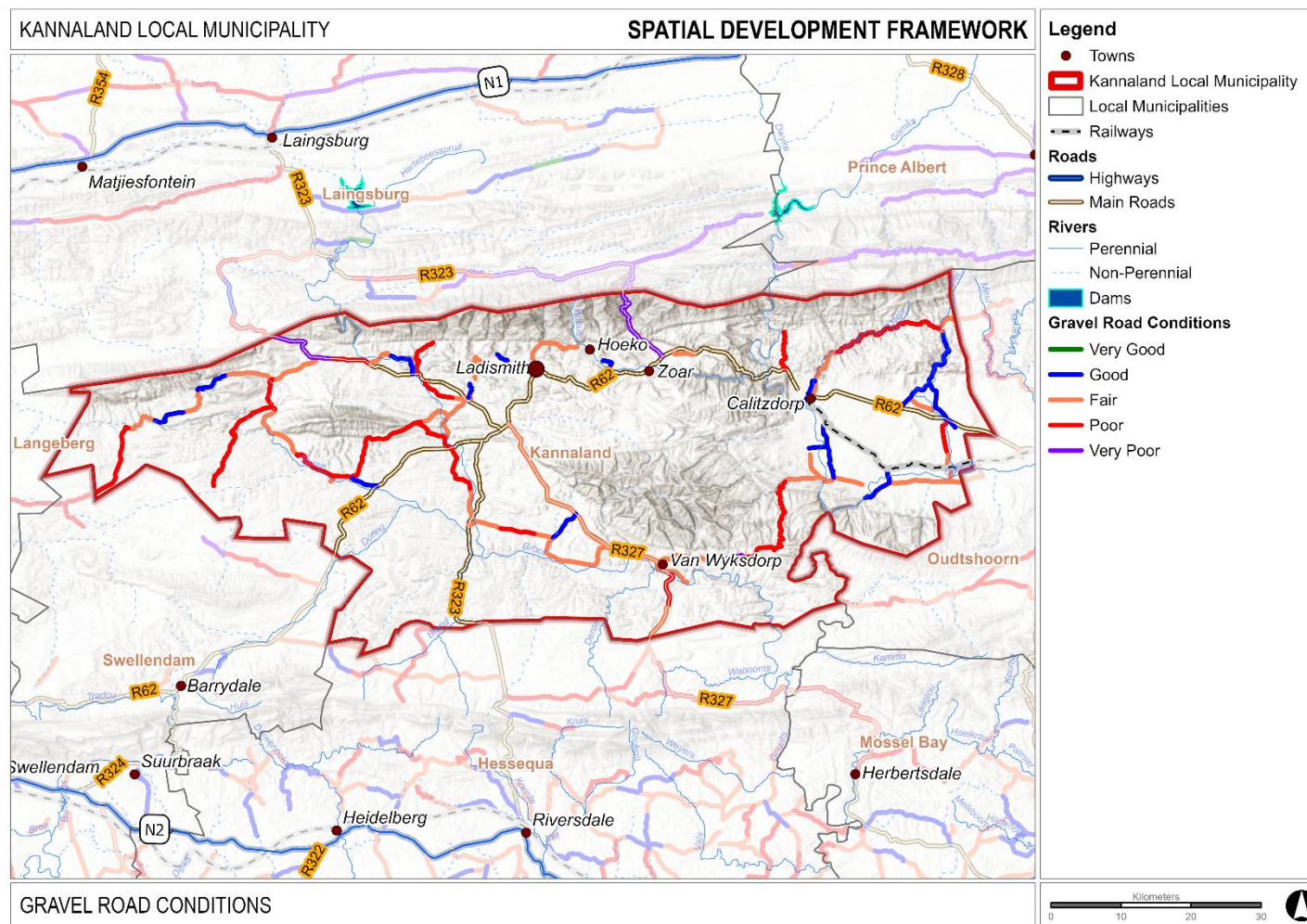
- Effective and functional linkages are critical building blocks in support of growth, spatial integration and connectivity.
- The majority of the R62 and R323 are in good condition.
- Between Calitzdorp, Zoar, Hoeko and Ladismith, the condition of the surface of the R62 is fair.
- The rail to rail only stops at Calitzdorp and is currently closed.



Map 29: Surface Road Conditions

3.2.5.2: Gravel Road Conditions

- Gravel roads exist throughout the municipality which connect more remote areas to the prominent regional roads.
- The majority of the gravel roads are either fair or in a poor condition as shown in Map 30.



Map 30: Gravel Road Conditions

3.2.6: Infrastructure Services

3.2.6.1: Water

According to the 2024 Socio-Economic Profile prepared by the Western Cape Province, approximately 98.8% of households in Kannaland Local Municipality have access to piped water in their dwelling, yard or via communal taps which means that 1.2% of households do not have access to piped water.

The bulk infrastructure capacity (water supply, sanitation, and electricity) is severely constrained and currently poses a high risk to sustained service delivery. There is currently no Master Plan in place for bulk infrastructure development and maintenance. Priority must be given to the development of comprehensive master Plans for water, sanitation, and electricity. It would be prudent to conduct a rapid assessment to quantify the remaining service capacities in each town's bulk infrastructure network. Thereafter dedicated operational budgets and skilled resources to ensure the new and refurbished infrastructure is sustainably managed, can be established.

Table 9 indicates the categories of blue drop scores as specified in the National Blue Drop Report.

Table 9: Blue drop scores

Percentage	Category
≥95 - 100%	Excellent situation, need to maintain via continued improvement
≥80 - <95%	Good performance, some room for improvement
≥50 - <80%	Average performance, ample room for improvement
≥ 31 - <50%	Very poor performance, need targeted intervention towards gradual sustainable improvement
0 - < 31%	Critical state, need urgent intervention for all aspects of the water services business

Source: Blue Drop Report National 2023

According to Table 10, in terms of the Blue Drop Report, the municipality has a very poor quality of drinking water, which is illustrated by the low percentage scores. There were extended periods when the water quality did not comply with the standard and there was no monitoring to confirm the actual quality of tap water. The presence of invasive alien plants consumes more water than indigenous vegetation and the proliferation of alien tree species in key water catchments may reduce runoff and threaten water security.

Ladismith, Van Wyksdorp and Zoar all have water supply systems that are critical and are in need of urgent intervention as shown in Table 10.

Table 10: Kannaland Blue Drop Scores

Key Performance Bulk Water Supplier	Unit of Measure	Calitzdorp	Ladismith	Van Wyksdorp	Zoar
Blue Drop Score 2023		35.03%	23.93%	22.83%	22.48%
Blue Drop Score 2014		41.58%	32.39%	20.57%	25.46%
System Design Capacity	kL/d	2 160	2 500	600	1 400
Systems Available Capacity	kL/d	1 200	2 500	600	1 400
System Input Value	kL/d	1 000	3 083	93	983
Capacity Utilisation	%	83.33%	123.32%	15.50%	70.21%
Resource Extracted from		Calitzdorp Dam	Boreholes & Swartberggrivier	Buffelsfontein River	Tierkloof Dam
Blue Drop Risk Rating 2023		33.44%	65.81%	75.54%	47.90%

Source: Blue Drop Report National 2023

According to the Draft Human Settlements Sector Plan for Garden Route District Municipality, the following water infrastructure

upgrades need to be made in order to accommodate new residential developments within the municipality:

- Ladismith bulk infrastructure to accommodate the projected future population needs for raw water storage.
- Water treatment works and reservoir capacity in Zoar needs to be upgraded.
- Bulk water supply is required in Calitzdorp.
- Need for water source, water treatment works and raw water storage in Van Wyksdorp.
- New boreholes are being planned to increase water supply in Van Wyksdorp.
- Replacement of pipeline from Nels Dam to Calitzdorp Water Treatment Works.
- Repairing of the water collection channel (Syfer sloot en pyp) beneath the Little Swartberg River should be completed to ensure 24h00 per day water delivery to the Ladismith water treatment works.
- All water pipes, channels and manholes to be inspected and repaired to standard specifications in order to minimize water losses and to safeguard the water supply infrastructure.
- The water reservoir known as the "Goewermentsdam" that is already enclosed with security fencing, should be locked with strict access control.
- Zoar Reticulation Project: This project is aimed at upgrading water infrastructure in the municipality.
- Van Wyksdorp Reticulation Project: This project is aimed at upgrading water infrastructure which is cost effective and sustainable to the Van Wyksdorp community with potable water.
- Ladismith Reticulation Project: This project is aimed at upgrading water infrastructure which is cost effective and sustainable to the Ladismith community in order to ensure that supply of potable water.
- Swartberg Water Storage Dam Project: The municipality will initiate the process for the establishment of a bulk water storage facility (dam) for the municipal area.
- Calitzdorp Water Project:
 - Replace raw water supply pipeline from the Nelsdam to the Wastewater Treatment Works;
 - Construct a new reservoir at Bloekomlaan;
 - Construct a new direct pipeline to Bloekomlaan;
 - Construct a high pressure pump station and reservoir in Bergsig.
- Future developments planned for Van Wyksdorp with regards to water are as follows:
 - Upgrading of Raw Water Reservoir Project.
 - Upgrading of water reticulation networks.
 - Additional boreholes drilling and equipping.
 - Upgrading of the new WTW.

3.2.6.2: Sanitation

An estimated 87.3% of households in the municipality have access to flush or chemical toilets.

Table 11 details the overall Cumulative Risk Rating (CRR) percentage score in 2022 and 2023. The CRR reflects the total risk

rating of each supply system expressed as a percentage of the maximum risk that a plant can experience. According to the Green Drop Progress Report, Kannaland Municipality's overall CRR sits at 96.6% which is critical (Green Drop Progress Assessment Tool Report, 2023).

Table 11: Kannaland Municipality Green Drop Assessment

Risk Assessment Areas	Unit of Measure	Calitzdorp	Ladismith	Van Wyksdorp	Zoar
Class of Works		D: Approved	D: Incomplete	D: Incomplete	E: Approved
Treatment Technology		None	Oxidation ponds	None	Oxidation ponds
Total Design Capacity	Kl/d	320	1 200	3200	261
Effluent Quality Non-Compliance	#	6	7	6	6
Cumulative Risk Rating 2023 (CRR/CRRmax)	%	100.0%	94.1%	100%	100%

Cumulative Risk Rating 2022 (CRR/CRRmax)	%	88.2%	82.4%	-	88.2%
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Source: Green Drop Progress Report 2023

According to the Draft Human Settlements Sector Plan for Garden Route District Municipality, the following wastewater infrastructure upgrades need to be made to accommodate new residential developments within the municipality:

- Ladismith: Upgrade and extension of Wastewater Treatment Works.
- Upgrading of wastewater treatment works in Van Wykdorp.
- Bulk sewer is required for new developments.
- Refurbishment of all sewer pump stations.
- Upgrading and refurbishment of the Klein Karoo Rural Water Supply Scheme.
- Calitzdorp: Upgrade and extension of Wastewater Treatment Works.

3.2.6.3: Waste Management

In terms of solid waste management, 81.5% of households in the municipality have their solid waste removed by the local authority at least once a week. At present, there are 4 landfill sites within the municipality located in Ladismith, Calitzdorp, Zoar and Van Wyksdorp.

According to the Draft Human Settlements Sector Plan for Garden Route District Municipality, the following solid waste infrastructure upgrades are required to be made in order to accommodate new residential developments within the municipality:

- Solid Waste Transfer Station Project.
- Further cleaning of illegal dumping sites in Kannaland Municipal Area.
- Recycling of solid waste.
- Van Wyksdorp: Solid Waste Transfer Station Project.
- Repair and upgrade of the Ladismith Central Business Area drainage.

3.3: Socio-Economic Environment

The socioeconomic environment analysis aims to provide a comprehensive understanding of the municipality's socio-economic conditions, such as demography, educational attainment and employment, to aid in the identification of critical themes that could contribute to the development of the SDF.

3.3.1: Demographic Trends

Kannaland Municipality had a population of 21 852 in 2024 making it the smallest population in the Garden Route District, accounting for only 3.24% of the district's total population although occupying 20.4% of the district's land area.

Kannaland Municipality's population is projected to decrease by an average of -1.6% between 2023 and 2027, to 20 087 people in 2029, based on 2024 Mid-Year population estimates by StatsSA. The municipal population's negative growth rate may imply a migration of residents to other towns / cities in pursuit of better economic prospects.

As shown in Table 12, if the current trend continues beyond 2027, the municipality's population is predicted to decline to 19 698 by the year 2030.

Table 12: Existing and Estimated Population

Year	2024	2025	2026	2027	2028	2029	2030
Population	21 852	21 519	21 182	20 818	20 459	20 087	19 698

Source: 2024 Socio-Economic Profile: Kannaland Municipality (Western Cape Treasury) based on StatsSA Mid-Year Population Estimation 2024)

Kannaland Municipality can be classified as a low-density municipality due to its population density of only 4.6 people per square kilometre. The municipality has the lowest urbanisation rate in the district, at 62.4%. The important urban settlements in the municipality are Ladismith, Calitzdorp, and Zoar.

3.3.2: Households

The total number of households in the municipal area was 4 983 in 2024. The average household size in the municipality has increased marginally from 4.0 people per dwelling in 2011 to 4.1 people per dwelling in 2024. The average household size in the municipality is larger than the district average of 3.4 people per dwelling. The relatively large household sizes are primarily due to the inability of families to afford separate living arrangements, resulting in several family members being compelled to share a single dwelling unit.

3.3.3: Gender Ratio

The municipality's estimated female population percentage is 52.7 in 2024, which is slightly higher than the national (51.5%), provincial (51.5%), and district (51.4%) averages. This could be attributed to the migration of working males outside the municipality in search of better employment prospects.

3.3.4: Age Structure

Figure 5 depicts the proportion of male and female residents in the municipality by age group. Females constitute a bigger cumulative proportion of the child population (under 15 years of age). The proportion of females in the population increases after the age of 15, indicating that working-age males possibly leave the municipality in pursuit of better employment opportunities.

As shown in Figure 5, 63.6% of the municipal population is of working age (aged 15 to 64), 27.6% are children (aged 14 or below), and 8.8% elderly (65+). The share of the youth population (aged 15-34) in the municipality is 28.8%. This large number of children and youth shows that there is a growing need for educational resources and job opportunities in the municipal area.

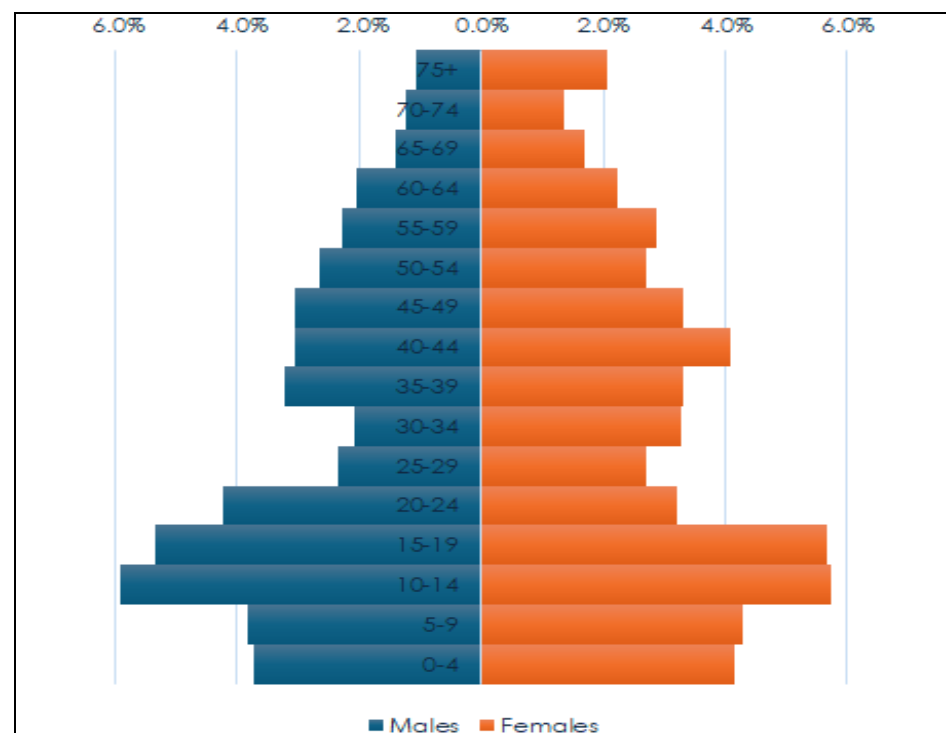


Figure 5: Population Pyramid- Age & Gender Structure

Source: StatsSA, Census 2022

The municipality's dependency ratio, or the average number of economically dependent persons per 100 working-age people, is 57.2, which is greater than the provincial (42.2) and district (47.9) ratios. A high dependency ratio is often seen unfavourably since it implies that there is a greater financial burden on working individuals. A high proportion of economically dependent people necessitates greater resources for education, health care, and pensions while reducing the government's tax base. This is because there is a smaller pool of income, profits, spending, or assets from which the government can collect taxes.

3.3.5: Racial Composition

The major racial demographic category in the municipality is the coloured population, which accounts for 84.8% of the total, followed by the white population at 8.8% and the black african population at 6.1%. The indian/asian group accounts for only 0.3% of the municipal population.

3.3.6: Socio-Economic Indicators

3.3.6.1: Gross Domestic Product per Capita

As shown in Figure 6 in 2023, the Kannaland municipal area had a per capita GDP of R 40 510, which was lower than the District (R53 875). However, the municipality's per capita GDP has grown significantly in recent years. The municipal GDP experienced an increase from R 37 288 in 2020, owing to considerable population

decline and economic growth, particularly after the COVID-19 pandemic.

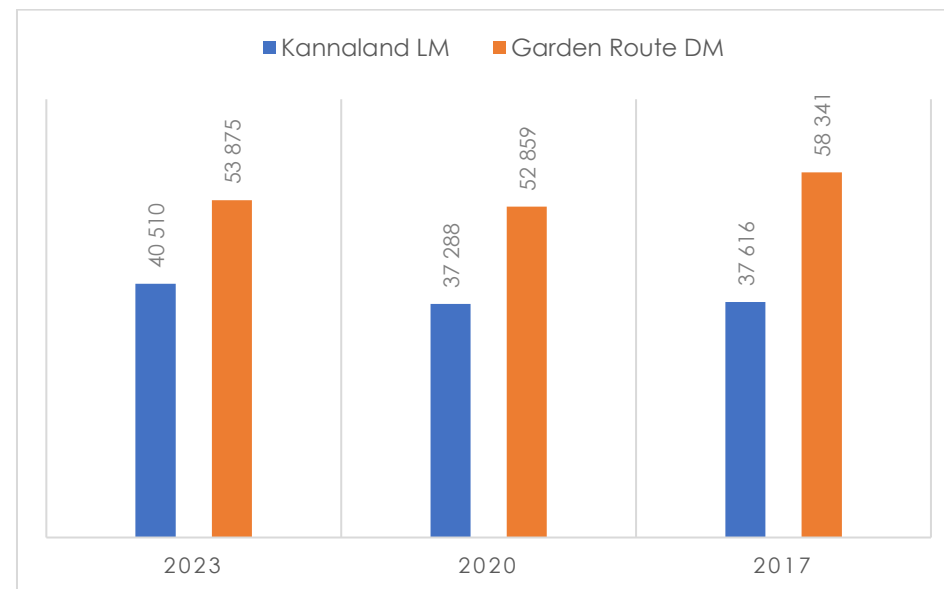


Figure 6: GDP Per Capita

Source: 2024 Socio-Economic Profile: Kannaland Municipality (Western Cape Treasury)

3.3.6.2: Poverty

Poverty is often defined as the proportion of persons living below the Upper Bound Poverty Line (UBPL) or those who cannot afford to buy enough food and essential non-food products. The UBPL in South Africa is R 1558 per person per month (April 2023 prices). As seen in Figure 7, in 2023, 73.7% of the municipal population fell below the UBPL, marginally higher than the district (73.3%) and provincial average (71.9%). The municipality's poverty eradication

rate improved marginally, with individuals who are living below the UBPL decreasing from 73.9% in 2020 to 73.7% in 2023.

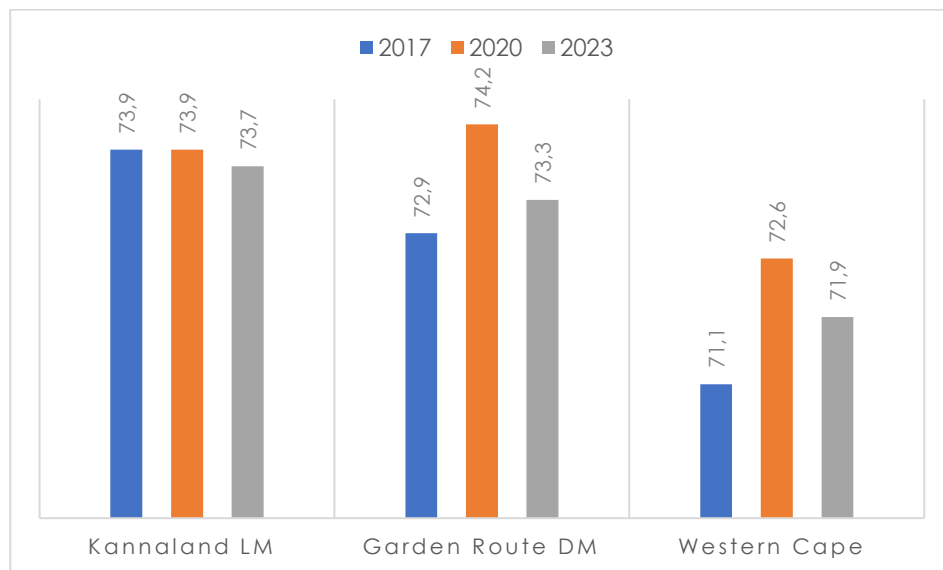


Figure 7: Portion of People below UBPL (%)

Source: 2024 Socio-Economic Profile: Kannaland Municipality (Western Cape Treasury)

3.3.6.3: Income Inequality

Income inequality is the disproportionate distribution of income among individuals within a population. Inequality expresses itself as an uneven income distribution, unequal access to opportunities, and geographical inequities. The Gini coefficient is a widely accepted statistical technique for measuring income inequality. It ranges from 0 to 1, where 0 indicates complete equality and 1 indicates inequality.

South Africa has one of the world's highest Gini coefficients, at 0.63. Kannaland Municipality's Gini coefficient is 0.58, which falls within the National Development Plan's target range. However, it is to be noted that the municipality's GDP per capita is lower than the district and provincial averages. This could indicate that a sizable population in the municipality is struggling with limited economic prospects.

3.3.6.4: Education

Education is regarded as one of the key drivers of change, assisting people in acquiring knowledge and skills that may then be used to obtain jobs. In 2023, there were 14 schools in the municipality, 93% of which did not require payment of school fees. Six schools were equipped with libraries. Hence, there is considerable scope for the establishment of libraries to more schools in the municipality.

In the same year, a total of 4 922 learners were enrolled within the municipal area, which was marginally lower than the previous year. The learner-to-teacher ratio in 2023 was 31.4:1, which was higher than the district average. The learner-to-teacher ratio still falls within the acceptable ratios of 35:1 for public ordinary high schools and 40:1 for public ordinary primary schools.

(a) Learner Retention

Learner retention refers to the ability of a school, college, or training institution to keep students enrolled from the time they start a course or grade to the time they complete it. As shown in Figure 8, in 2023, the learner retention rate in the municipal area was 62.5%, which was much lower than the district average of 71.7%. The low

retention rate raises concerns about the overall development of human capital and the availability of skilled labour. Though it should be noted that the municipality has made progress in learner retention since 2020.

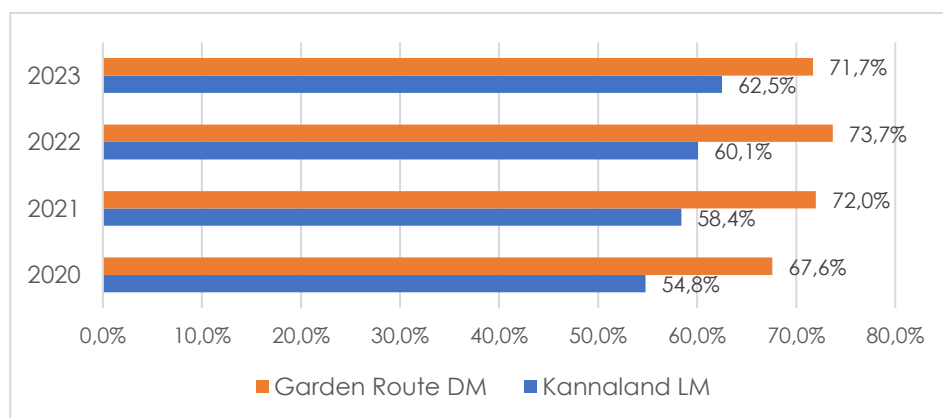


Figure 8: Learner Retention Rates

Source: 2024 Socio-Economic Profile: Kannaland Municipality (Western Cape Treasury)

(b) Education Outcomes

Education remains one of the primary channels through which the state participates in the economy. In educating individuals for future employment, educational policy choices and decisions are crucial in deciding the amount to which future economic and poverty reduction initiatives can be fulfilled. In 2023, Kannaland Municipality's matric pass rate was marginally lower than the district average, as demonstrated in Figure 9. In 2021 and 2022, the municipality's matric pass rate exceeded the district averages.

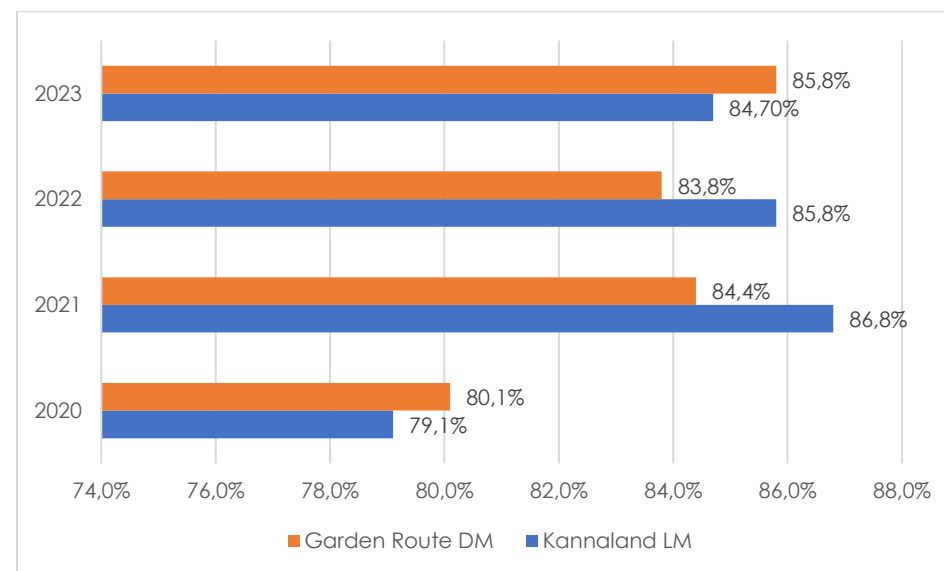
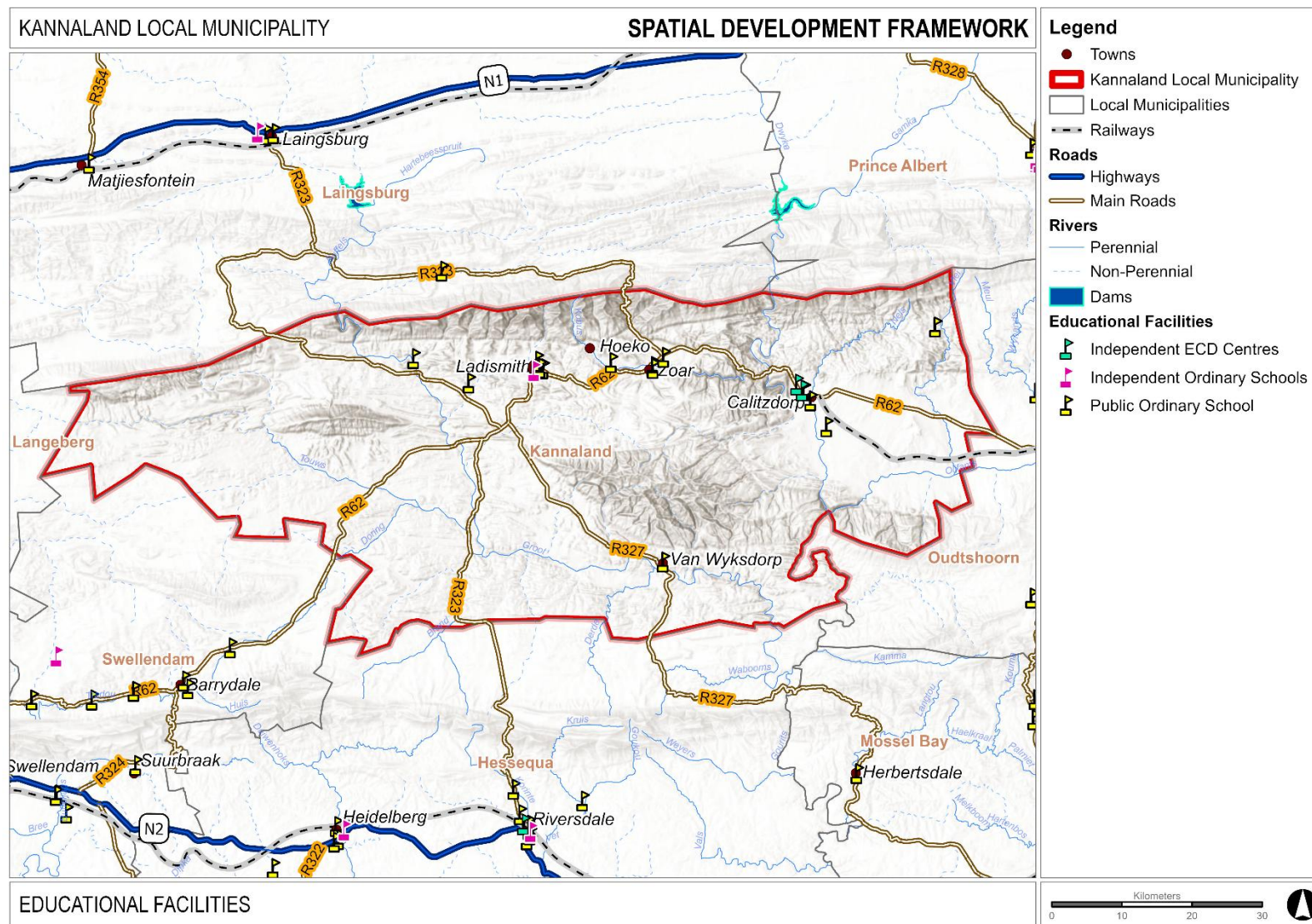


Figure 9: Matric Pass Rates

Source: 2024 Socio-Economic Profile: Kannaland Municipality (Western Cape Treasury)



Map 31: Educational Facilities

3.3.6.5: Employment

(a) Skill Levels

A total of 9 699 jobs were held by municipal residents in 2022. According to the 2024-25 Municipal Economic Review and Outlook (MERO) 19.5% were skilled, 34.0% were semi-skilled, 46.5% were low skilled, and the rest 32.6% worked in the informal sector- refer to Figure 10. The primary employment-generating sectors include dairy product manufacturing, government services, farming and agricultural cultivation, and other social work activities. It is clear that the labour market is strongly reliant on agriculture, which employs many semi-skilled and low-skilled individuals and generates seasonal employment.

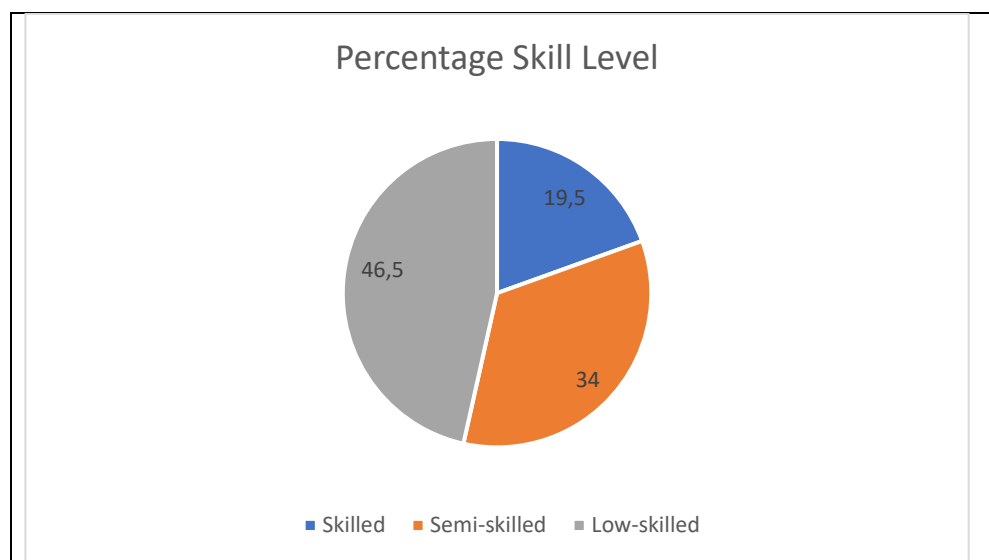


Figure 10: Skill Levels

Source: 2023 Socio-Economic Profile: Kannaland Municipality (Western Cape Treasury)

The labour force participating rate increased from 51.3% in 2022 to 52.6 in 2023. The top 5 jobs within the municipality are as follows:

Job	Number of Jobs
Mixed farming	3 731
Growing of pome fruits and stone fruits	3 375
General public administration at Local Government Level	3 242
Manufacture of butter and cheese	3 150
General public administration at Provincial Government level	1 600

Source: 2024-25 Municipal Economic Review and Outlook (MERO)

However, as of 2022, net employment in the municipality has yet to return to pre-pandemic levels. Only skilled employment has recovered from the job losses when compared to pre-pandemic levels. The municipal area has a high number of lower-income employees earning between R 0 and R 400 and R 1 600 to R 3 200. This concentration considerably contributes to the widespread problem of poverty.

(b) Unemployment

At 12.8%, Kannaland Municipality had one of the district's lowest unemployment rates in 2023. Both labour force participation and absorption rates were expected to improve by an estimated 2.6%, respectively, in 2023. In 2023, the labour force participation improved by 1.3%. Approximately, 71.3% of people who were part of the working-age population were not economically active, in 2023.

3.3.6.6: Access to Housing and Basic Services

Section 26 of the Constitution states that every resident has the right to adequate housing. Access to housing also involves access to amenities such as potable water, basic sanitation, safe energy sources, and removal of waste, which ensure that households have an acceptable level of living.

Of the 4 983 households in Kannaland Municipality, 96.2% had access to formal housing, 98.8% to piped water inside their homes, 87.3% to a flush/chemical toilet, 93.9% to electricity, and 81.5% to a refuse removal facility at least once a week. In some areas, the municipality's performance in delivering basic services exceeds the district average as seen by the statistics in Figure 11.

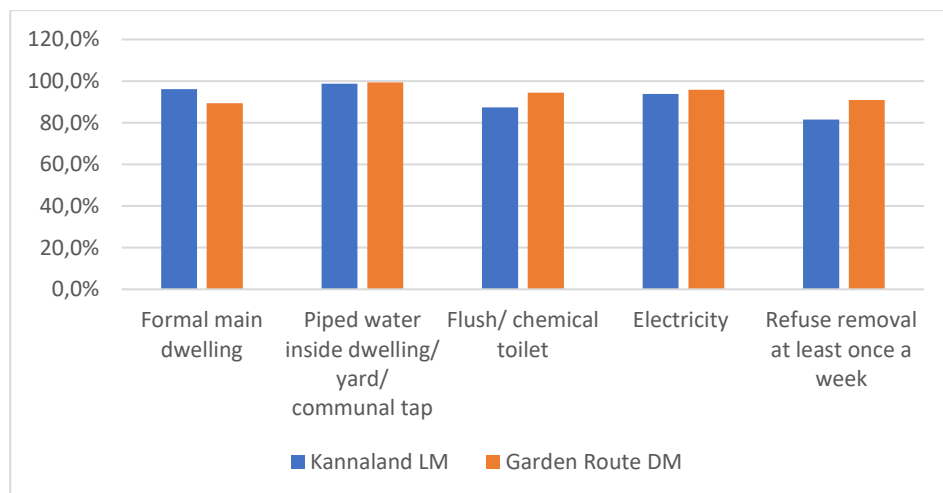


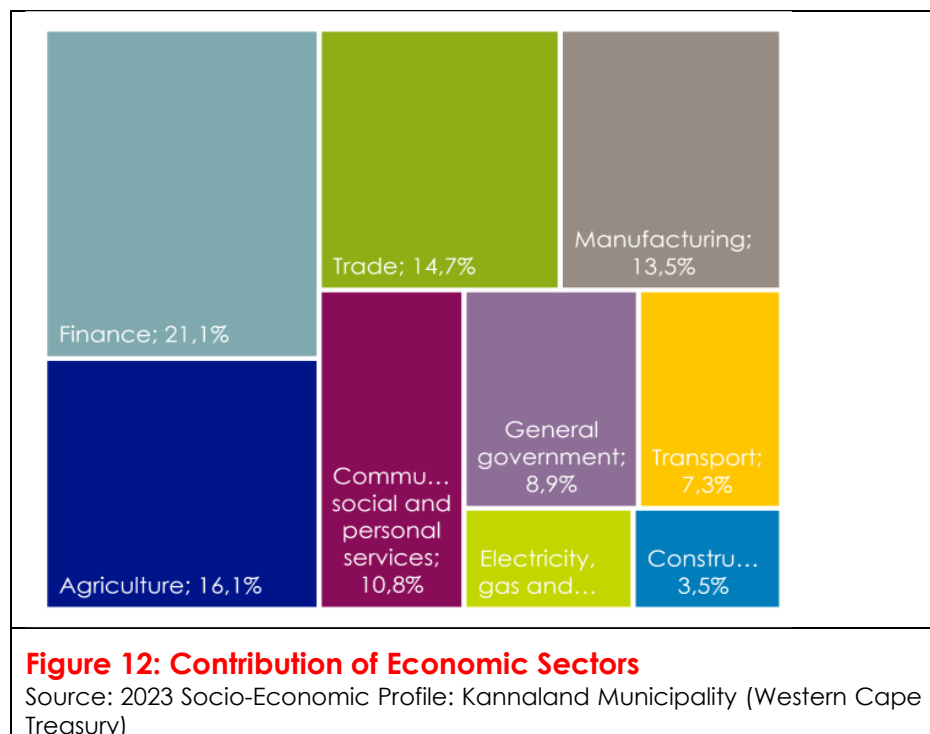
Figure 11: Access to Formal Housing and Basic Services

Source: 2023 Socio-Economic Profile: Kannaland Municipality (Western Cape Treasury)

Access to formal housing in the municipality decreased from 96.3% in 2011 to 95.2% in 2022. The municipal area had the highest housing demand within the district, as indicated by the fact that 65.2% of households in the area were registered on the Western Cape Housing Demand Database. The mismatch in housing demand and supply led to the growth of informal settlements. Poverty and low wages contributed to high housing demand. Due to poor financial condition of households, a large number of households (2 631 or 52.8%) in the municipal area were deemed indigent and eligible for receiving free and subsidised municipal services.

3.3.7: Economic Environment

3.3.7.1: Economy



Kannaland Municipality has a small economic base. The municipality's economy was valued at R1.556 billion in 2021 (GDPR), which was a mere 2.7% of the district economy. This municipal economy is predominantly driven by contributions from the tertiary industry, with financial and business services dominating at R 329 million, accounting for 21.1% of the whole GDPR in 2021. The agriculture sector followed closely after with a GDPR of R 249.9 million, accounting for 16.1 percent of the Municipality's total GDPR. Other key contributing sectors included trade (14.7%), manufacturing (13.5%), communal, social, and personal services (10.8%)-refer to Figure 12.

The estimated GDPR growth in 2022 for the municipality was 3.5%. The COVID-19 closure regulations presented significant challenges for the trade sector, particularly tourism. The construction sector was significantly impacted by the COVID-19 pandemic, which was characterised by closure regulations and an increase in input costs.

The municipality is renowned for its thriving agricultural sector, which is involved in the production of cheese and wine. Nevertheless, the sector

experienced a contraction of 0.6% in 2021, and no exports were recorded. Despite the relatively rapid growth between 2019 and 2022, the municipality's agricultural sector experienced a more significant contraction of 3.3% in 2022 due to challenges such as rising input costs, load shedding, and locust infestations.

3.3.7.2: Economic Opportunities

Agriculture is a significant component of the local economy in Kannaland Municipality. The agricultural foundation of the municipality is robust. Calitzdorp, which is acknowledged as the port wine capital of South Africa, is a critical component of the municipality's agricultural

prowess. This region is renowned for the production of high-quality port wines and brandy by companies such as Boplaas De Krans, Axehill, and Calitzdorp Wine Cellars.

Kannaland Municipality's climate is ideal for growing apricots, peaches, plums, nectarines, and grapes. This region accounts for almost 30% of the entire apricot export market. The municipal area is also home to a flourishing dairy industry, which is bolstered by the presence of dairy processing and cheese factories. Several well-known Parmalat and Ladismith dairy products are produced in the municipal area.

Agricultural activities provide opportunities for the creation of local employment, the production of wines, fruits, and dairy products for domestic consumption, as well as for export to international markets. The agricultural activities also benefit the local tourism and hospitality industry, as visitors are attracted to the orchards, vineyards, and wineries.

Tourism is an important component of the local economy. The municipality provides a wide range of tourist activities. The area is crisscrossed by numerous picturesque routes. One can enjoy the views of Hoeko Valley and orchards, spectacular rock formations along the Seweweekspoort pass, and the valleys and vistas of the Great Karoo. Visitors can explore orchards, vineyards, rustic rural regions, and historic farmhouses of Dwarsrivier, Voorbaat, and Van Zylsdamme. The area's natural splendour attracts artists, hikers, cyclists, bird watchers, environment lovers, and off-road enthusiasts.

The municipality also offers opportunities for heritage and cultural tourism. Kannaland has its own distinctive architectural style, known as the Ladismith Style. A few additional architectural types, including NeoGothic, Georgian, Victorian, Regency, and Rural (Karoo), may be found throughout Kannaland. Visitors come to the municipality to experience its diverse architectural styles, heritage, and cultural festivals such as the Church Festival (Amalienstein and Zoar), the Harvest Festival (Ladismith), the Heritage Festival (Calitzdorp), the Full Moon Festival (Amalienstein and Zoar), and the Winter Festival (Calitzdorp).

The agricultural activities and tourism resources help to position the municipality as an excellent agri-tourism, eco-tourism, and event destination. The agriculture sector can help to further grow small-scale manufacturing units, agri-processing enterprises and agritourism. Tourism may serve as a stimulus for development in many areas of the economy, particularly transportation, arts and crafts, trade and accommodation, and personal services. There are also opportunities to train, upskill, and empower locals to undertake tasks in many areas of the economy, particularly agriculture, trade, arts & crafts, and tourism.

3.3.7.3: LED Strategic Projects and Interventions

Table 13 summarises the strategic projects and interventions specified in the Kannaland Local Municipality's 2022 - 2027 Local Economic Development (LED) Strategy. These projects and interventions will promote agriculture and tourism activities and upskilling of youth and the local populace.

Table 13: LED Strategic Projects and Interventions

LED Project Reference No	Project Name	Project Description
P001	Establish strategic partnerships to lead LED in which stakeholders are represented	To partner the municipality with meaningful and productive role players in economic development
P002	The establishment of a Kannaland Emerging business Forum	To organize entrepreneurs/ SMMEs into one structure in order for them to derive benefit from projects identified and implemented by the KLF and municipality and to have one unified voice representing SMMEs.
P003	Upgrade of caravan park	The redevelopment of Cravan Park- creating overnight accommodation, picnic/ play spaces for locals and tourists and a cultural village.
P004	Neighborhood Street Markets (The iKasi Experience)	Income generating activities for poor neighborhoods and communities
P005	The establishment of Renaissance Farms	The establishment of a mechanism that will assist emerging farmers in Kannaland to develop into more commercialized farmers. The establishment of a cooperatives is a potential vehicle that can be utilized to capacitate communities who lack financial resources
P006	Procurement and promotion of SMME activities	Establishment of business linkages (funding access, technology, business opportunity etc.), emerging entrepreneurial business forums
P007	Community Capacity Building	Skills audit, incubation associated with development potential of the municipality; training of the community on LED and its benefits; SMME training, co-operatives training; mentorship projects

LED Project Reference No	Project Name	Project Description
P008	Tourism Sector Development	This project aims to cluster the available Tourism opportunities in Kannaland. Economic opportunities in tourism will be matched with available emerging entrepreneurs. These opportunities include tour operations, accommodation establishments and the promotion of eco-tourism
P009	The cleaning and Greening of Towns	The beautification/landscaping of Towns in Kannaland as one of the mechanisms to unlock Tourism and increase visitation
P010	Waste Management and Recycling	The creation of small enterprises aimed at beneficiating waste at landfill sites- building rubble into bricks plastics into plants and garden compost and agriculture fertilizer. Waste management can also provide another source of opportunity in extracting reusable resources from residential and industrial waste streams
P011	Arts and Craft development	The indigenous arts and craft trade has a role to play in economic development in that, it has a relatively high labour absorption potential and it can be used by the poor, rural women and marginalized groups as a means for survival. It will therefore provide an opportunity for commercialization and development of small medium and micro enterprises (SMME's)
P012	Urban Regeneration	The town of Ladismith serves as a regional service centre and an economic development hub. However, the visual character and quality of the environment remains the same. It was thus suggested that an urban renewal programme targeting the towns area be initiated. The programme focus areas are the following: • Infrastructure upgrading in selected precincts and town entrance areas • Landscaping • Urban design
P013	The marketing of festival and local villages as Tourist attractions	
P014	Upgrade of "Liggiepad" and "Towersig" pad	Hiking plays a big part in our community. The Liggiepad" is a well known road by not on

LED Project Reference No	Project Name	Project Description
P015	Ladismith "Lekka" weekend	This is a community based festival with big celebration on the 31 st of May-50 years of the "Liggie" in the Elandsberg. The festival looks closely at how to inform the community of Kannaland how to be eco friendly and display some art, culture and experience extreme 4X4
P016	ABSA Calitzdorp Port en Wine festival	Exploring the wine and port from Calitzdorp spin-off projects can also be initiated e.g. local arts and crafts, the sale of indigenous food and beverages and township tours.
P017	The marketing of the Zoar Heritage Festival	Community awareness about their heritage
P018	SSME Incubation	The established private sector in Kannaland to incubate smaller related enterprises/training and mentoring of these SMME's/Technology transfer/Management advice and services/Finance in the form of loans and providing markets
P019	Kannaland Investment Summit	One of the objectives of this summit is to create a platform for LED partners to engage on possible investment options for Kannaland. This summit must identify and promote such options.
P020	Medium Scale Arts and Craft Manufacturing Centre	The main aim if this project is to formalize the arts and crafts sector in Kannaland, thereby providing employment opportunities and inclusion of the second economy into the mainstream economy.

Source: Kannaland Local Municipality, 2022 - 2027 Local Economic Development Strategy

4: KEY OPPORTUNITIES AND CHALLENGES

Following the status quo analysis, key opportunities and challenges were extracted to direct the way forward for the spatial development framework.

4.1: Key Opportunities

4.1.1: Good distribution of non-residential uses

Most of the towns have a good distribution of social and commercial uses.

4.1.2: Infrastructure and connectivity

Majority of the surface roads such as the R62 and R323 are in good condition. There is an increase in housing delivery to address the backlog.

4.1.3: Low unemployment rates

The municipality has the lowest unemployment rates within the district which means that people are eager to work and/or they are able to secure employment within the municipality. This creates a good labour base within the municipality which ultimately has a good impact on the economic growth of the municipality.

4.1.4: Agriculture to support

Focus on primary agricultural production as well as secondary agro-processing factories.

4.1.5: Social facilities

Opportunities for the development of a medical Centre in Van Wyksdorp, and the extension of the Thusong Centre to serve as a business hub in Ladismith. Opportunities for the establishment of an ECD Centre in Zoar and the development of a new private skills development school in Ladismith.

Set up a data base of education services and facilities available which can be made available to members of the community in order to facilitate education and skills training.

4.1.6: Tourism

Develop Kannaland Municipality as a brand emphasizing the municipality as a destination for eco- and adventure tourism, culture and heritage, health and wellness, the Port capital of South Africa and retirement. In order for this to be achieved, the limited health care facilities need to be addressed.

4.1.7: LED projects to alleviate poverty

Promote the arts and culture industry.

Repair municipal owned heritage buildings as fulcrums for art and craft centres and tourism points of interest.

4.2: Key Challenges

4.2.1: Climate change

The impact of annual temperature/ rainfall within the municipality can have an impact on agricultural output.

4.2.2: Poor Administration

Due to lack of capacity within the municipality, it is difficult to track the conditions of infrastructure, maintenance and whether land use management within the municipality is being enforced.

4.2.3: Poor Engineering Service Provision

Although the access to basic services such as water, housing, sanitation and waste management has increased within the municipality, the municipality struggles to maintain acceptable standards in the quality of the basic services being provided.

4.2.4: Population and economic disparity

Urban growth exceeds economic growth.

4.2.5: Restructuring Zones and Priority Human Settlement and Housing Development Area

The municipality does not have any declared restructuring zones and Priority Human Settlement and Housing Development Area (PHSHDA) localities which are defined and delineated.

4.2.6: Lack of Public-Private Partnership

Create cooperatives and partnerships to address the socio-economic challenges of the municipality. It has become difficult for investors to invest in the area.

4.2.7: Lack of Mobility

Lack of mobility into well located areas – entrenched poverty entrapment zones.

5: SPATIAL DEVELOPMENT CONCEPT

According to Section 12 of SPLUMA, local municipalities have to prepare Municipal Spatial Development Frameworks that will establish a clear vision for the future. This chapter will provide an overarching spatial direction, spatial development policy that is associated with the strategies for the development, protection and administration of Kannaland Local Municipality.

This chapter will confirm the spatial vision set out for Kannaland, the spatial concept for future growth and development in the municipality and the spatial strategies.

5.1: Spatial Development Vision

The vision statement will give expression to the desired future for Kannaland Municipality based on the synthesis of the key challenges and opportunities and will guide the development of spatial proposals and policies.

The 2025/26 Kannaland IDP vision for the municipality is "The Place of Choice" To create the ideal environment in which the people of Kannaland would like to live and work.

In establishing the vision for Kannaland, seven strategic focus areas were set forth:

1. Creating a knowledge economy, offering opportunities for training and skills development.
2. Building a tourist economy, offering a range of attractions from the environment to entertainment.
3. Building economic infrastructure in the municipality, notably in disadvantaged areas.
4. Focusing on good governance and social development.
5. Enhancing the agricultural economy in which farming and production prospers.
6. Focusing on creating an industrial economy in which various industries can expand.
7. Enhancing the cultural and creative economy; creating economic and social opportunities through the arts, heritage, and sport.

The vision for Kannaland was expanded into 5 main principles:

1. Live: fostering social development, regeneration of wards, infrastructure.
2. Work: fostering job creation, good governance, agriculture, and industrial development.
3. Learn: fostering earning & teaching and the knowledge economy.
4. Play: supporting and developing tourism, arts, and culture.

5. Prosper: bringing together the principles of Live, Work, Learn, and Play.

The aforementioned strategic areas and principles were taken into consideration and resulted in the following proposed spatial vision for the region:

“A sustainable Kannaland Municipality that grows, works, plays and prospers through resilience”

5.2: Spatial Strategies

In order to realise the spatial vision, the SDF will unpack it by focusing on the following spatial strategies that have been derived and adapted from the Eden District SDF (2018) and the 2013 Kannaland SDF.

1. **Strategy One:** The Economy Is the Environment - Towards Sustainable Resource Use
2. **Strategy Two:** Accessibility For Inclusive Growth and Liveability
3. **Strategy Three:** Sustainable Growth Management Enabling New Development Opportunities
4. **Strategy Four:** Partnership-Driven Governance and Administration Towards Improved Financial and Non-Financial Sustainability and Resilience

These spatial strategies are expanded upon below and will form the conceptual and theoretical basis and framework of the spatial development concept and all spatial policy proposals made in subsequent sections of this report.

5.2.1: Strategy One: The Economy is the Environment - Towards Sustainable Resource Use

The economy of Kannaland Municipality is highly dependent upon its underlying natural resource base. For example, the vitality of the agricultural economy (being the home of nationally significant agri-processing plants for fortified wine and dairy products, and indeed the entire economy of the municipality) is intrinsically linked to the availability of water and the health of the associated ecological systems which protect the river system of the municipality. The importance of this natural resource base in supporting livelihoods and its potential to improve the quality of life of all the municipality's residents cannot be underestimated and thus the protection and enhancement of the environment is one of the main strategies of the spatial vision.

The spatial strategy is to protect, enhance and develop the distinct attributes and resources of Kannaland's Klein Karoo landscape with its varied:

- Natural and agricultural resource base (such as the critically important prime river corridors along the, Groot, Dwyka/Gourits river systems where agricultural activity is prominent, enabling irrigation and agricultural production);
- Settlements with different economic roles and potential (Ladismith, Calitzdorp Zoar and Van Wyksdorp, for example, holding significant built heritage assets, as well as historic farmsteads, churches and burial sites);
- Diverse landscape, lifestyle, and tourism offerings (the Calitzdorp town prominence as the “port capital” of the country, 4x4 routes, game farms, mountain biking trails etc.) very much underpin the tourism economy of the municipality, with scenic routes and passes being the R62, the Seweweekspoort Huisrivier and Rooiberg passes being the most significant.

5.2.2: Strategy Two: Accessibility For Inclusive Growth and Liveability

Access, with the intent of achieving inclusivity and liveability, refers to the ability of people to access economic opportunities, social services and recreational amenities affordably and with ease. Ease of access is dependent on the functionality of the road and pedestrian (non-motorised transport) network to connect communities, as well as the availability and viability of transport services. Ease of access is also dependent on the distribution of community facilities and economic opportunities in the municipal area, and people's proximity to these.

International best practice, SPLUMA, and the PSDF underscore that access is not only a matter of mobility for cars. Rather, walkability, the liveability of towns, land use mix, and density are the ingredients that make it possible to improve access. These attributes allow for efficiency and equity of access for all communities to the regional economy, services, and amenities.

There is a need to create and transform our settlements into places that work for all people and in a gender sensitive manner, including those who do not have private car access, who rely on walking and other forms of non-motorised transport, and who need to have safe and efficient access to a range of opportunities (services, facilities, employment, and living arrangements). This means that land and space need to be used more efficiently (i.e. denser development typologies promoted) and land uses mixed (i.e. providing a mix of residential, commercial and retail development along key intensification corridors and in the CBD of both Ladismith and Calitzdorp).

This strategy directs the municipality to enable appropriate accessibility within and between settlements, as well as across the Garden Route more broadly by:

- Establishing a clear primary and secondary regional route hierarchy, role and investment priorities (N12 versus R62 and R328); and
- Addressing connectivity between Barrydale, Ladismith, Calitzdorp and Oudtshoorn as well as the Great Karoo and Garden Route coastal belt areas; and

- Enabling physical accessibility to improve access to opportunity and services, as well as virtual accessibility where long distances are a barrier to physical access.
- Providing the framework for the investment in non-motorised transport (pedestrian) pathways, side-walks and infrastructure within the settlements of Ladismith and Calitzdorp.

5.2.3: Strategy Three: Sustainable Growth Management Enabling New Development Opportunities

The third leg of a holistic approach to a prosperous and sustainable municipality, is the management of growth and the associated infrastructure systems so that:

- (1) The physical resource base (i.e. agricultural land, critical biodiversity, water and river systems) is protected and managed well;
- (2) Opportunities are created for residents to prosper in inclusive and just settlements by preventing outward sprawl, disconnected and low-density development;
- (3) Municipal financial sustainability becomes a key and central concern in municipal and government infrastructure investment, growth management and expansion; and
- (4) Limited resources are used efficiently to protect long term financial sustainability of households, businesses, and government.

This SDF indicates the future role of settlements and their potential to absorb growth. Specifically, Ladismith and to a lesser degree, Calitzdorp are service centres of the municipality, in which most services, employment opportunities and facilities are and should continue to be consolidated.

The development approach of the municipality is that infrastructure development, investment, and migration should be directed so that growth is matched to capacity, resources, and opportunity. Specifically, this requires the following:

- Align service and infrastructure capacity with need, jobs, social services, and opportunity; and
- Recognise population dynamics in infrastructure investment (more diverse housing products and opportunities in the centralised locations); and
- Optimise the accessibility network to improve livelihood and sustainable service delivery.

The overarching aim is to achieve balance within settlements so that they function optimally and within finite resource constraints and prevent situations where low growth settlements expand to accommodate low income persons without the requisite employment growth.

5.2.4: Strategy Four: Partnership-Driven Governance and Administration Towards Improved Financial and Non-Financial Sustainability and Resilience

There is a growing understanding that an 'integrated governance' and partnership driven approach is required to ensure better coordination, alignment, and impact of planning, budgeting and delivery. The Kannaland Municipality must pursue a range of partnerships to achieve desired impacts, as well as explore shared service solutions within the broader region to ensure financial viability as well as sharing of administrative and logistical burdens associated with servicing the region. Partnerships are therefore central to governance within the municipality going forward.

For example, Ladismith and Calitzdorp's ambitions to achieve the following will require a range of partnerships of different kinds, such as:

- (1) The desire to reinvigorate and revive the CBD's of Ladismith and Calitzdorp, will require cooperation with private sector businesses, retailers, and investors of these towns, possibly in the form of a Special Ratings Area, in order to ensure improved levels of service to create a beautiful, desirable, walkable and indeed 'investable' CBD for these towns. The interlinkage with Zoar and in recognition of the population dynamic of the area, it will be essential to strengthen economic connection with the R62 tourist route along with the opportunities of tapping into specific events such as the annual port festival or large sporting and cultural events which periodically occur in Kannaland.
- (2) The desire to provide social housing opportunities will require partnerships with the provincial government and a social housing institute (in the form of entering into smart partner agreements) in order to deliver hundreds of social housing opportunities in well-located areas;
- (3) The desire to promote government facility and service clustering for increased accessibility will require a partnership between the municipality and national and provincial Department of Public Works or any department seeking to deliver facilities and realise clustering synergies.

5.3: Spatial Development Concept

As articulated in the spatial vision, the spatial concept for the municipality focusses on creating a region – the Klein Karoo regional asset - that:

- Promotes **sustainable resource use** by protecting the environment, enhancing the resilience of the region and capitalising on and enhancing the unique Klein Karoo sense of place. In essence, the health of the economy is very much reliant upon the health of the environment;
- Promotes **accessibility and inclusive growth**; and
- **Promotes sustainable growth management**, ultimately ensuring municipal financial sustainability, as well as ecological and social sustainability.

The strategies described in the previous section will now be ‘unpacked’ in terms of what it means for Kannaland's structuring elements. The municipality must:

- 1) **Protect and enhance** the **natural systems** of the Klein Karoo (such as the Towerkop, Rooiberg and Anysberg Nature Reserves). The Municipality is framed by the Swartberg Mountain Range in the north to the Langeberg in the south. The municipality stretches from the Anysberg in the west to the Gamkaberg in the east. These unique biomes should continue to be prioritised as Critical Biodiversity Areas and designated as Environmental Support Areas for protection. The Municipality is also home to three mountain passes with significant tourist potential: The Huisrivier Pass, the Seweweekspoort and Rooiber Pass. The Touwsberg, Rooiberg and Bakenkop are scenic high points within the interior of the municipality.
- 2) **Protect and enhance** water **catchment** areas, **water resources**, and ensure **continuity** in the natural systems and river corridors in the municipality. This means providing the necessary buffers and setbacks (of at least 32m from the side of each riverbank) to preserve **continuity and integrity** of these biodiverse systems. Specifically, this means that the Groot, Touws, Olifants and the Gamka River systems draining the municipality should be prioritised for protection.
- 3) **Capitalise on the tourism appeal** of the various assets that exist in the Klein Karoo, such as the heritage appeal of existing town centres (i.e. Ladismith and Calitzdorp), as well as historic scenic hamlets and agricultural settlements, such as Amalienstein, Van Wyksdorp and Zoar, that provide a **sense of place, character and charm**. This intrinsic value creates lifestyle, tourism and hospitality opportunities. Barrydale (in neighbouring Swellendam) which has succeeded in rebranding itself as a tourist and alternative lifestyle destination for urbanites seeking a

change of pace is one good example of marketing the competitive advantage of remoteness. The aim must be to invigorate the main towns of Kannaland to similarly benefit from the enormous potential of location along the R62 in Ladismith, Calitzdorp and Zoar, and hence create jobs and assist in poverty alleviation, with low barriers to entry to employment opportunities.

- 4) Ensure the **development and maintenance** of the **road network** that provides mobility in the region. The R62 corridor is a key economic and tourism asset that must be maintained and enhanced where appropriate, also from a road safety perspective. This east-west route is the economic lifeline of the municipality.
- 5) Specific focus is also needed on **non-motorised transport** within the municipality, within Ladismith and Calitzdorp and connecting historically under-served areas to the CBD. Non-motorised transport, particularly pedestrian movement, is the primary transport mode among residents. Key interventions for implementation in this area are pedestrian walkways, and cycle paths. An important consideration in the planning of such interventions is safety, security (good lighting and visual surveillance) while also providing shelter from heat and adapting to climate change by planting trees along pedestrian routes, installing covered rest stops, and designing walkways that are resilient to climate-related phenomena such as flooding.
- 6) Ensure that Ladismith provides the **primary administrative services and facilities** in the municipality, with Calitzdorp and Zoar also playing local service centre roles. Business opportunities within these towns should be maximised to encourage the multiplier effect of investment and expenditure. From a capital investment and maintenance perspective, these towns – particularly the towns of Ladismith and Calitzdorp – are the crucial drivers of growth and development opportunities.
- 7) Strongly encourage **value-add, industrial and agri-processing industries** locating in the primary and local service centres to create employment opportunities and add value to the region's agricultural goods and services. Specifically, Ladismith, Calitzdorp and Van Wyksdorp present opportunities for value-added and agri-processing activities.
- 8) Focus **government investment, facilities, services and housing opportunities** in Ladismith and to a lesser extent Calitzdorp, Van Wyksdorp and Zoar. Prevent the creation of new low-income housing developments in low growth, job deficient settlements that have little prospects of creating employment.

Figure 13 illustrates the spatial development concept for the municipality.

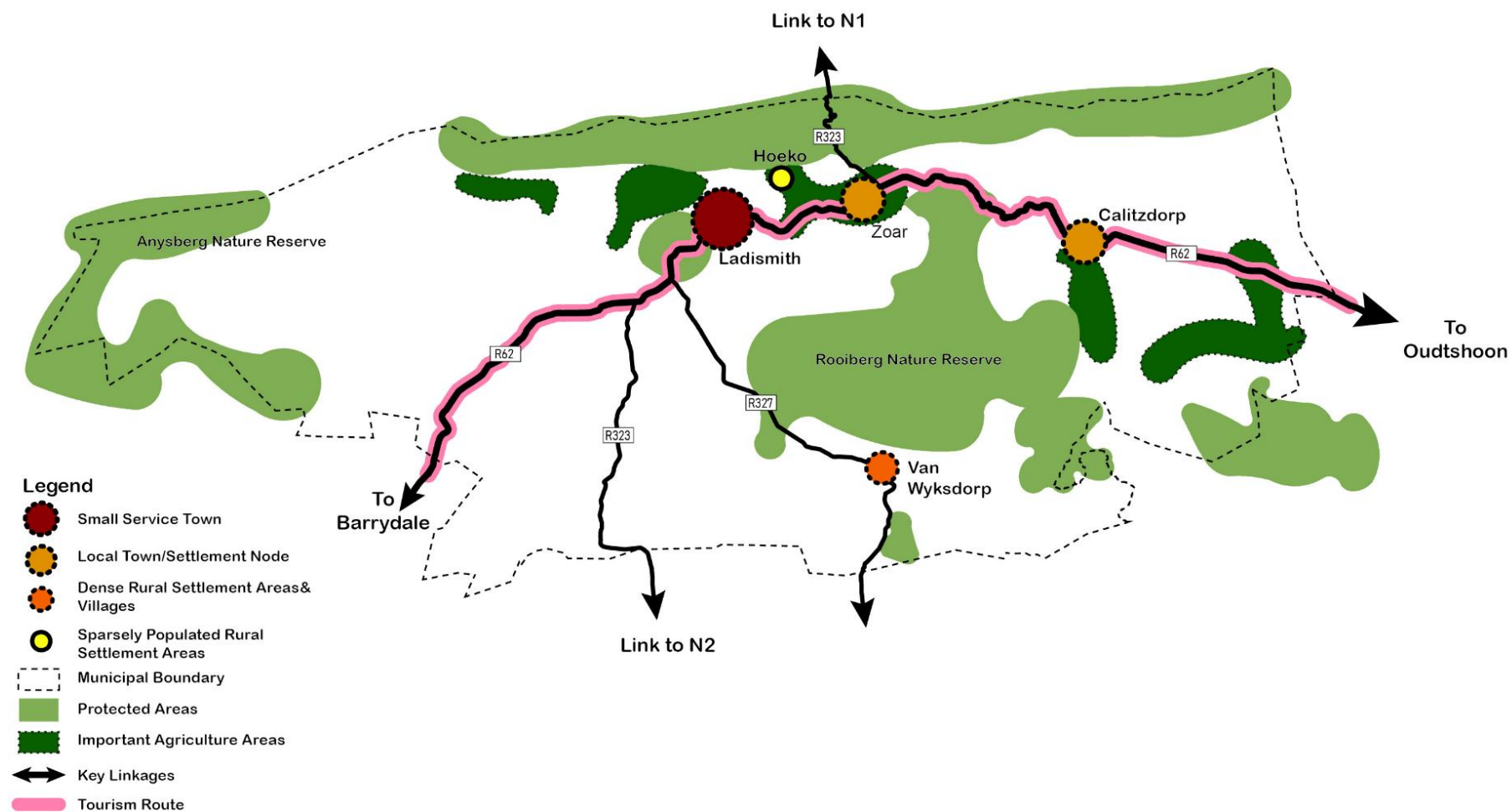


Figure 13: Kannaland Spatial Concept

6: SPATIAL DEVELOPMENT FRAMEWORK

6.1: Population Projection and Land Use Budget

6.1.1: Population Projection

The priority urban settlements in the municipality are Ladismith, Calitzdorp, and Zoar. The population of the municipality is anticipated to decline at an annual rate of -1,6% between 2025 and 2035 according to the 2024 Socio-Economic Profile: Kannaland Municipality (Western Cape Treasury). The negative growth rate may imply a migration of residents to other towns / cities in pursuit of better economic prospects. It is assumed that the municipality's population will continue to decline at the same rate into the near future. The table below indicates the projected -1.6% growth rate. For comparison purposes, it also includes a low bound growth estimate of -1.8% and a high bound population growth estimate of 1%. These growth rates were estimated according to the medium growth rate that was sourced from Stats SA Mid-Year Population Estimations for 2022.

The municipality's population is estimated to be 19758 in 2030 with households projected at 7635 in the same year (refer to yellow highlights in Table 14). The majority of the population resides in Calitzdorp according to the table below. Between 2025-2035, the additional population across the municipality is expected to be 2423 residents and the total additional households required during this period is 936 (refer to yellow highlights in Table 14). In forecasting the number of households required by 2035, the total households required between 2025-2035 (936) is added to the record of people on the housing waitlist (3420) (Western Cape Housing Demand Database, 2024) which amounts to 4356 households.

Table 14: Towns and Settlement Populations

Area	Growth Rate %	Growth Ranking	Projected Population 2025	Projected Households 2025	Projected Population 2030	Projected - Households 2030	Projected Population 2035	Projected Households 2035	Additional Population 2025-2035	Additional Households 2025-2035	Housing Waiting List at 2024
Ladismith	1	High	7,460	2,308	7,841	2,350	8,241	2,549	781	241	1,321
	-1.6	Medium	6,899	2,134	6,364	1,969	5,871	1,816	-1,028	-318	

Kannaland Local Municipality Spatial Development Framework

Area	Growth Rate %	Growth Ranking	Projected Population 2025	Projected Households 2025	Projected Population 2030	Projected - Households 2030	Projected Population 2035	Projected Households 2035	Additional Population 2025-2035	Additional Households 2025-2035	Housing Waiting List at 2024
	-1.8	Low	6,857	2,121	6,262	1,937	5,718	1,769	-1,139	-352	
Calitzdorp	1	High	6,456	2,004	6,785	2,040	7,131	2,214	675	210	1,093
	-1.6	Medium	5,970	1,853	5,507	1,710	5,081	1,577	-889	-276	
	-1.8	Low	5,934	1,842	5,419	1,682	4,948	1,536	-986	-306	
Zoar	1	High	4,794	1,526	5,039	1,604	5,296	1,686	502	160	545
	-1.6	Medium	4,433	1,411	4,090	1,302	3,773	1,201	-660	-210	
	-1.8	Low	4,406	1,402	4,024	1,281	3,674	1,170	-732	-233	
Van Wyksdorp	1	High	1,017	281	1,069	286	1,123	311	106	29	126
	-1.6	Medium	940	260	868	240	800	221	-140	-39	
	-1.8	Low	935	259	854	236	779	216	-155	-43	
Municipal Wide	1	High	23,160	8,949	24,342	9,406	25,583	9,885	2,423	936	3,420
	-1.6	Medium	21,417	8,276	19,758	7,635	18,227	7,043	-3,190	-1,233	
	-1.8	Low	21,287	8,225	19,439	7,511	17,751	6,859	-3,536	-1,366	

Source: 2023 Socio-Economic Profile: Kannaland Municipality (Western Cape Treasury), Western Cape Housing Demand Database, 2024 and author

6.1.2: Housing Demand

Meeting the demand for housing in the coming years is one of the objectives of this SDF. Although the population is projected to decline this does not negate the need for housing. The future demand for housing is influenced by the current gap in housing supply and the amount of housing needed to accommodate the resident population. In order to estimate the number of housing units and the amount of residential land required, it was assumed that the number of new housing units will consist of 40% medium and 60% low density typologies, with a desired household size of 3.5 residents per dwelling.

Table 15: Housing Demand Projection Assumptions

Housing Type/ Density	% of New Households	Density (households/ha)
Low Density	60%	15
Medium Density	40%	25

Based on the above assumptions, the municipality required an additional **3420 dwelling units** in 2024 to accommodate the housing backlog (Western Cape Housing Demand Database, 2024). The table below shows the numbers and types of additional dwelling units required in the towns and settlements of the municipality.

Table 16: Additional Dwelling Units Required per Town/Settlement

Town/Settlement	Low Density	Medium Density	Total Dwelling Units
Ladismith	793	528	1321
Calitzdorp	656	437	1093

Zoar	327	218	545
Van Wyksdorp	76	50	126
Oher & Rural Areas	201	134	335
KNLM	2053	1367	3420

According to the valuation roll, there is vacant land in the municipality that is zoned for residential use. Table 17 shows the extent of additional land that is required to meet the future housing backlog. Table 17 shows that Ladismith, Calitzdorp, Van Wyksdorp and other and rural areas need additional 27,77Ha, 27,72Ha, 1,82Ha and 19Ha of land, respectively, to accommodate the housing backlog and future housing demand. Zoar on the other hand has a surplus of 106,45Ha of vacant land available to accommodate future housing demand. From Table 17 it appears that collectively, in Kannaland Municipality, there is no additional land to accommodate future housing, however, it should be noted that this surplus vacant residential land is only available in Zoar.

Table 17: Residential Land Required per Town/Settlement (Hectares)

Town/Settlement	Required for Low Density (Ha)	Required for Medium Density (Ha)	Total Required (Ha)	Vacant Residential Land Available (Ha)	Net Residential Land requirements (Ha)
	Current Gap				
Ladismith	53	21	74	46,23	27,77Ha deficit
Calitzdorp	44	17	61	33,28	27,72Ha deficit
Zoar	22	9	31	137,45	106,45Ha surplus

Van Wyksdorp	5	2	7	5,18	1,82Ha deficit
Other & Rural Areas	13	5	18	0	18Ha deficit
KNLM	137	54	191	222,14	31,14Ha deficit

New housing approvals in critical Blue/Green Drop risk areas will be prohibited until infrastructure upgrades are funded. Further to this, climate-resilient infrastructure standards such as water harvesting, stormwater retention, drought-resistant landscaping, are required to be considered.

6.1.3: Land Budget

This section focuses on evaluating the need for additional land within the Municipality, including its towns and settlements, to better understand their future urban development. The analysis is limited to urban or built-up land needs—such as areas for housing, social and economic amenities, industrial and business uses, public open spaces, and transport infrastructure. These requirements are estimated based on projected population growth and guided by CSIR land use standards. Essentially, the analysis forecasts how much additional land will be necessary to accommodate future residents and the services that they will require. The next section outlines the projected land needs and the key assumptions used in making these forecasts.

- **Residential:** There is insufficient vacant land available in Ladismith, Calitzdorp, Van Wyksdorp and other and rural areas to accommodate the housing requirement. On the other hand, Zoar has a surplus of vacant land available.
- **Industrial and warehousing:** A total of 7,08Ha of land is available for industrial use in Ladismith.
- **Business (includes Offices and Retail):** A total of 65,65Ha is available for commercial and business uses in Ladismith and Calitzdorp.

The table below describes the additional land requirements in Kannaland Municipality's towns and settlements. The additional land required shown as available indicates that there is land available to accommodate the land use per town. The extents shown as unavailable refers to the amount of land required per use but not available in each town.

Table 18: Additional Land Requirements (ha)- 2024-29

Land Use	Land Requirement (ha)					
	Ladismith	Calitzdorp	Zoar	Van Wyksdorp	Other and Rural Areas	KNLM
Residential	27,77 (unavailable)	27,72 (unavailable)	106,45 (available)	1,82(unavailable)	18 (unavailable)	31,14 (available)
Industrial and Warehouse	7,08 (available)	-	-	-	-	7,08 (available)
Business	36,27 (available)	29,38 (available)	-	-	-	65,65 (available)
Open Space	2,08 (available)	0,19 (available)	14,26 (available)	0,28(unavailable)	2,39 (unavailable)	13,86 (available)
Roads	3,12(available)	0,29 (available)	21,39 (available)	0,38(unavailable)	3,58 (unavailable)	20,84 (available)
Total Hectares	20,78 (available)	2,14 (available)	142,1 (available)	2,48 (unavailable)	23,97 (unavailable)	138,57 (available)

6.1.4: Bulk Infrastructure Requirements

The population projection will have a direct impact on bulk infrastructure due to the increase in demand and usage. At present, the existing bulk infrastructure in the municipality is not able to accommodate the existing population. The table below highlights the priority infrastructure projects that the municipality should focus on.

Table 19: High Priority Bulk Water Infrastructure Projects required in Kannaland Municipality

% Priority	Town	Project	Description
1	Calitzdorp	PRJ-KCW-001*	Calitzdorp: Bergsig bulk supply augmentation- Phase 1
2	Ladismith	PRJ-KLW-001*	Ladismith: Implement new Waterworks PRV 1 zone

3	Van Wyksdorp	PRJ-KVW-001*	Van Wyksdorp: Additional reservoir storage capacity at Plakkerskamp reservoir site
4	Zoar	PRJ-KZW-001*	Zoar: Bulk supply augmentation-Phase 1
5	Zoar	PRJ-KZW-003*	Zoar: Implement new Droevlei PRV zone
6	Calitzdorp	PRJ-KCW-002*	Calitzdorp: Implement Bergsig booster zone
7	Ladismith	PRJ-KLW-002*	Ladismith: Implement new Waterworks PRV 2 zone
8	Van Wyksdorp	PRJ-KVW-002*	Van Wyksdorp: Bulk supply augmentation to Stanley reservoir
9	Zoar	PRJ-KZW-002*	Zoar: Additional reservoir storage capacity at Droevlei
10	Calitzdorp	PRJ-KCW-003*	Calitzdorp: Bloekomlaan zone network upgrades- Phase 1
11	Ladismith	PRJ-KLW-005*	Ladismith: Additional reservoir storage capacity at Waterworks
12	Zoar	PRJ-KZW-006*	Zoar: Additional reservoir storage capacity at Karoolande
13	Calitzdorp	PRJ-KCW-005*	Calitzdorp: Bloekomlaan bulk supply augmentation- Phase 1
14	Calitzdorp	-	Calitzdorp: Equipped the deep borehole
15	Zoar	-	Zoar: Repair and maintenance of the WTW

6.1.5: Social Facilities Demand

Social amenities and infrastructure are required to expand with the housing supply, and the absence of this corresponding growth would result in overcrowding in schools, long queues at clinics and overused recreational areas, leading to service delivery issues and resident dissatisfaction. The increase in the demand for housing will result in an increased need for social facilities to accommodate the additional households. A social facilities threshold calculator was used to calculate the number of social facilities that would be needed to accommodate the additional houses across the municipality. The sum of the amount of housing on the waiting list in 2024 (3420) and the high growth ranking of households projected between 2025-2035 (936) is 4356 dwelling units and this figure was used to calculate the facilities required as shown in the table below.

There are 14 schools across the municipality, 4 primary healthcare institutions, 5 mobile/satellite clinics, and 1 district hospital that serves the municipality's healthcare requirements. Residents have access to 5 antiretroviral therapy treatment centres and 7 tuberculosis clinics. The municipal area was equipped with four provincial ambulances, equivalent to a ratio of 1.80 ambulances per 10 000 people. This exceeds the district average of 0.4 ambulances per 10 000 inhabitants. There are 2 police stations in the municipality. Finally, there are 3 cemeteries in Calitzdorp, 2 in both Ladismith and Zoar and 1 in Van Wyksdorp. When considering the projected social facility requirements in the table below against existing social facilities within the municipality and bearing in mind that the population trend indicates a decline, we can realistically estimate that new social facilities will not be required across the municipality for the next 5 years.

Table 20: Social Facilities Threshold

Social Facility	Calculated Requirement	Rounded Requirement
Early Childhood Development Centres	6,4614	6
Primary Schools	5,1691	5
Secondary Schools	2,5846	3
Community Sports Field	3,1015	3
Local Library	1,5507	2

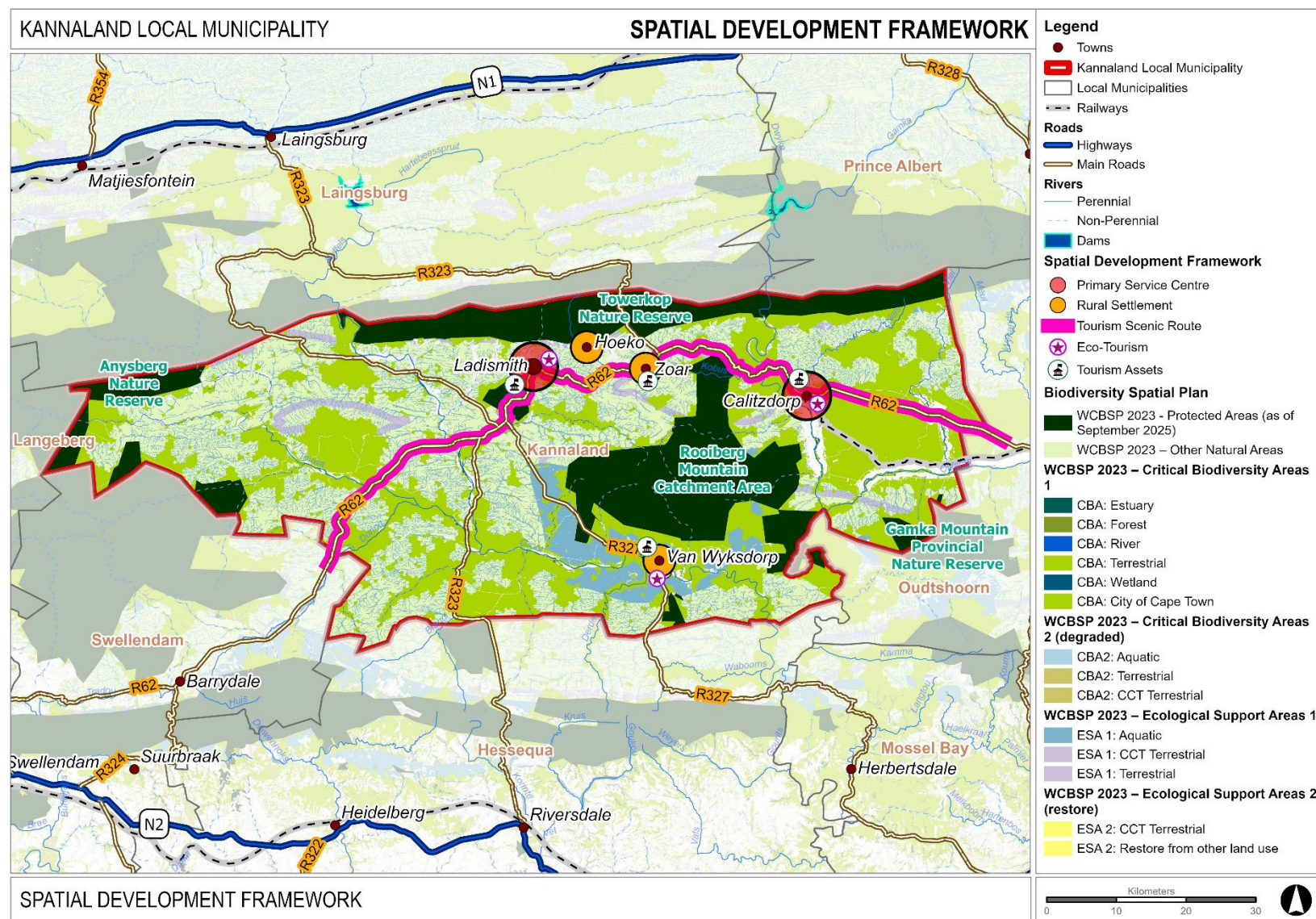
Community Health Care Centre	0,7754	1
District Hospital	0,0517	0
Children's Homes	0,3692	0
Homes for the Aged	0,2386	0
Community Halls / Centres	1,5507	2
Municipal Offices	0,3101	0
Firestations	0,2585	0
Public Open Space (Community Parks)	7,7537	8
Cemetries	3,1015	3
Police Stations	0,6203	1

6.2: Spatial Proposals

6.2.1: Composite Spatial Development Framework

The accompanying plan serves as the Spatial Development Framework for Kannaland Local Municipality. It is based on the earlier Spatial Development Concept and the representation of development elements throughout the municipal area. The plan is further supported by the following sections, which outline how its various components and municipality-specific aspects should be interpreted and implemented to promote sustainable development over the next five years. The spatial development framework will have a 10-20 year horizon.

Map 32 shows the composite spatial development framework map for Kannaland Local Municipality.



Map 32: Composite Spatial Development Framework

6.2.1.1: Conservation

The unique attributes, resources, and risks of the Klein Karoo are different from the Garden Route. These systems are, however, two different yet complementary, mutually reinforcing sub-regions. Designated Spatial Planning categories (SPCs) must be taken into account in terms of land use management, so that Critical Biodiversity Areas (CBAs) and protected areas are conserved and restored. Land use change should always favour rehabilitation of indigenous species in degraded areas that have the potential to connect protected areas, CBAs and Ecological Support Areas (ESA's).

Land uses in the rural areas of the Klein Karoo which includes the towns of Ladismith, Calitsdorp, Zoar and Amalienstein should be managed through the application of Spatial Planning Categories (SPC's) as set out in the Western Cape Rural Land Use Planning Guidelines and the Western Cape Biodiversity Spatial Plan, and ensure that all investment in the Klein Karoo landscape seeks to underpin the principles of spatial sustainability and spatial resilience.

The Kannaland Municipality SDF adopts and recommends the application of the Draft WCG Rural Land Use Planning and Management Guidelines (2017) and their definitions of rural and agricultural Spatial Planning Categories.

Greater detail on each SPC layer can be found in the Western Cape Rural Land Use Guidelines. The Kannaland SDF Map 33 sets out development proposals that are in line with the inherent land use suitability of its varying landscapes in terms of the biodiversity categories in the 2023 Western Cape Biodiversity Spatial Plan.

(i) Kannaland municipal area:

- Core 1 Areas: Critical Biodiversity Areas (CBA) and protected areas, these include habitats classified as highly irreplaceable, critically endangered, or endangered terrestrial (land), aquatic (rivers, wetlands, and estuaries) and marine habitats. It also includes essential biological corridors vital to sustain their process and pattern functionality. These areas must be regarded as "no-go" for development and must be kept in a natural state, with a management plan focused on maintaining or improving the state of biodiversity. There should be no further loss of natural habitat and degraded areas should be rehabilitated.
- Core 2 Areas: Consists of two areas: Critical Biodiversity Area 2 (Degraded) and Ecological Support Area 1. These areas are in a degraded or secondary condition that are required to meet biodiversity targets, for species, ecosystems, or ecological processes and infrastructure. These areas should be maintained in a natural or near-natural state with no further loss of natural habitat. These areas should be rehabilitated.

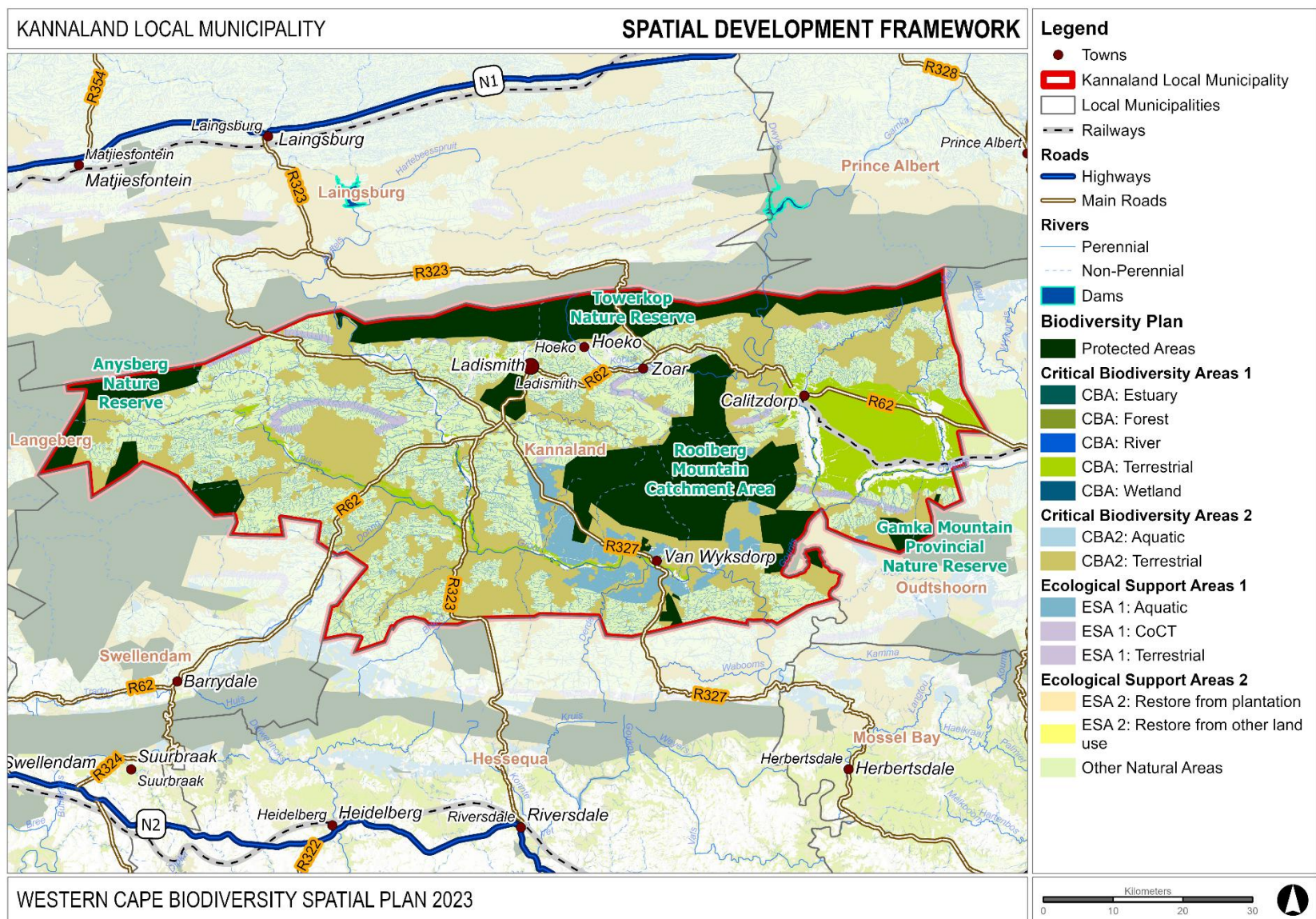
- Buffer 1 Areas: These areas may be degraded but still play an important role in supporting the functioning of Core Areas (either Protected Areas or CBAs) and are essential for delivering ecosystem services. These areas should be restored and/or managed to minimize impact on ecological infrastructure functioning; especially soil and water-related services. Two components of the rural landscape make up Buffer 1 areas:
 - (i) Ecological Support Area 2: Restore and/or manage to minimize impact on ecological infrastructure functioning; especially soil and water-related services.
 - (ii) Other Natural Areas: Minimize habitat and species loss and ensure ecosystem functionality through strategic landscape planning. Offers flexibility in permissible land-uses, but some authorisation may still be required for high impact land-uses.
- Buffer 2 Areas: This category includes areas designated as Other Natural Areas, located in an extensive and/or intensive agriculture matrix (i.e. livestock production) as the dominant land use. The Buffer 2 SPC requires that habitat and species loss is minimized and that ecosystem functionality is preserved through strategic landscape planning. Buffer 2 areas offer flexibility in permissible land-uses, but some authorisation may still be required for high-impact land-uses.
- Agriculture Areas: Comprises of existing and potential intensive agriculture footprint (i.e. homogenous farming areas made up of cultivated land and production support areas). It includes areas in which significant or complete loss of natural habitat and ecological functioning has taken place due to farming activities. Existing and potential agricultural landscapes should be consolidated and protected; sustainable agricultural development, land and agrarian reform, and food security should be facilitated and ecosystems must be stabilised and managed to restore their ecological functionality.
- Settlement Areas: This category includes all existing settlements, large and smaller towns, villages and hamlets. Settlements are delineated by municipalities in terms of an urban edge or by DEA&DP in terms of the 2014 NEMA Listing Notices as urban areas. The purpose is to develop and manage settlements in a sustainable manner. Wherever possible existing settlements should be used to accommodate non-agricultural activities and facilities.

A no-go policy is to be adopted for CBA1 and Protected Areas and that but development in CBA1 areas may allow “trade-offs” via Environmental Impact Assessments only.

The table below demonstrates Protected Areas, Critical Biodiversity Areas, Ecological Support Areas and other natural areas are converted to the various Spatial Planning Categories mentioned previously, as set out in the Western Cape Biodiversity Spatial Plan.

Table 21: Spatial Planning Categories

WCBSF Map Category →	Protected Areas	Critical Biodiversity Area 1 (Terrestrial/ Aquatic)	Critical Biodiversity Area 2 (Degraded)	Ecological Support Area 1 (Terrestrial/ Aquatic)	Ecological Support Area 2	Other Natural Areas (Natural to Near-natural / Degraded)	No Natural Remaining
Spatial Planning Category ↓	PA	CBA 1	CBA 2	ESA 1	ESA 2	ONA	NNR
CORE 1	•	•					
CORE 2			•	•			
BUFFER 1						•	
BUFFER 2					•	•	
AGRICULTURE							•
SETTLEMENT							•



Map 33: Western Cape Biodiversity Spatial Plan 2023

6.2.1.2: Agriculture

Agriculture plays a significant role in the Kannaland Municipality. It provides opportunities to increase employment and grow products for local and international markets. Agriculture contributes to the region's Gross Domestic Product (GDP), provides food security, and is a basis of many tourism activities. Protecting and promoting the agricultural economy is therefore a priority for the municipality.

The preservation of agricultural land and the integrity of agricultural operations must be protected and enhanced. The conversion of irrigated, arable land is not supported in terms of this SDF and the Subdivision of Agricultural Land, Act (Act 70 of 1970), section 3 (f), which states that "no area of jurisdiction, local area, development area, peri-urban area or other area ... of the definition of 'agricultural land' in section 1, shall be established on or enlarged so as to include, any land which is agricultural". See Map 34 that shows the extent of the agricultural crops of the municipality.

Development directed at ensuring water security for the agricultural sector and job creation for the inhabitants of the municipality is a priority. In order to achieve this, disaster risk management measures may be implemented in order to protect important agricultural land, resources, and employment that may be lost through flooding, water shortage, and wildfires.

This underscores the need to protect agricultural land as stipulated in the Draft Preservation and Development of Agricultural Land Bill (2016):

- It is in the national interest to preserve, and promote sustainable use and development of agricultural land for the production of food, fuel, and fibre for the primary purpose to sustain life further recognising that high value agricultural land is a scarce and non-renewable resources; and recognising that it is in the interest of everyone to have agricultural land protected, for the benefit of present and future generations;
- The sustainable development of agricultural land requires the integration of social, economic and environmental considerations in both forward planning and ongoing agricultural land management to ensure that development of agricultural land.

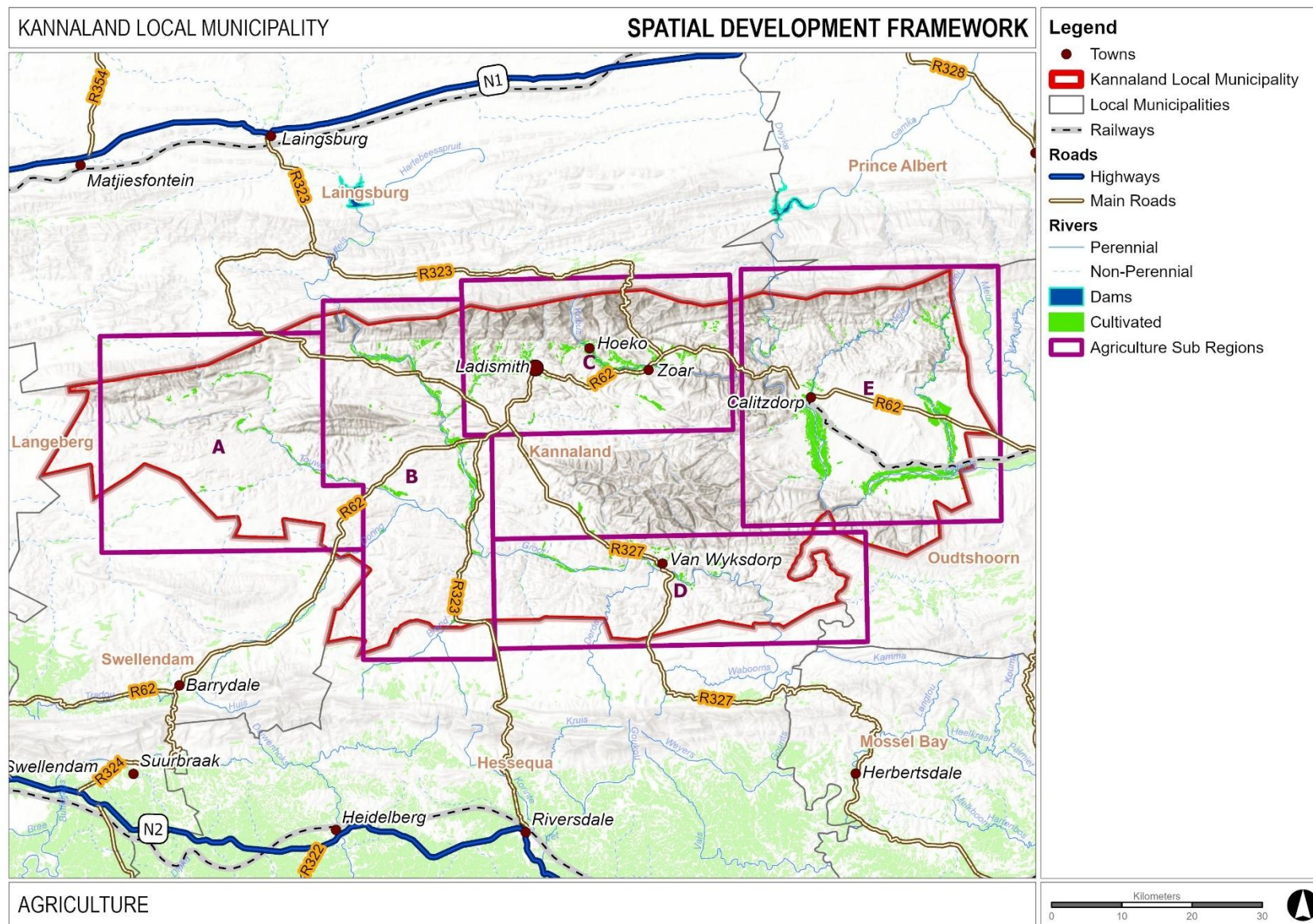
Given the above, the rural landscape and its agricultural resources must be protected and, where sustainable, expanded to create an agricultural economy which is commensurate with the assets and resources found within the municipality. The potential broadening of production and expansion of agricultural products should also be explored, in order to make a more significant contribution to food security, employment creation and gross value add of the municipality.

Agri-hubs and agri-processing zones have been identified in Garden Route District Rural Development Plan. This is only partially relevant to Kannaland Municipality as DR&DLR has designated the town of Oudtshoorn as the nearest Agri-hub and no Agri-hub has been identified within the municipal borders.

The agricultural crops that are produced in the municipality that need to be protected and enhanced are listed in the following table.

Table 22: Agricultural Sub Regions

Agriculture Sub Regions				
Kannaland West (A)	Grootrivier Area (B)	Ladismith & Calitzdorp (C)	Van Wyksdorp Area (D)	Calitzdorp Area (E)
Lucerne/ Medics	Lucerne/ Medics	Lucerne/ Medics	Lucerne/ Medics	Lucerne/ Medics
Natural Grazing	Other	Other	Olives	Other
Olives	Weeds	Wine grapes	Natural Grazing	Planted Pastures
Planted Pastures	Natural Grazing	Apricot	Other	Fallow
Fallow	Wine grapes	Plums	Fallow	Wine grapes
Other	Fallow	Peach	Apricot	Onions



Map 34: Agriculture

6.2.1.3: Tourism

The Kannaland Municipal Area holds substantial potential for tourism-led economic growth, supported by its rich historical, cultural, and natural assets. These features provide a strong platform for advancing local development, strengthening community cohesion, and preserving the area's distinctive cultural heritage. Targeted investment in tourism infrastructure, the rehabilitation of strategic attractions, and the promotion of cultural and recreational activities can elevate Kannaland Municipality's status as a viable, inclusive, and sustainable tourism destination.

Tourism is identified as a key economic driver and a major source of employment within the municipality. To unlock the sector's full potential, an integrated planning approach and focused policy interventions are required to address critical enablers and barriers to development.:

- **Accessibility**

Effective access to and within the municipality is fundamental to tourism growth. At present, inadequate transportation infrastructure—particularly the poor condition of road networks—limits the movement of tourists, most of whom rely on private vehicles. In addition, the unreliability of essential services such as electricity and water supply continues to detract from the visitor experience and dampens investor confidence. Addressing these infrastructural and service constraints is critical to improving regional connectivity, enhancing competitiveness, and supporting sustainable tourism development.

- **Amenities**

The presence and quality of amenities—both natural and built—play a significant role in enhancing a destination's appeal. Kannaland Municipality is endowed with diverse natural resources, including mountain ranges, rivers, wetlands, and dams, offering numerous opportunities for outdoor and eco-tourism activities such as hiking, boating, and nature exploration. Complementary to this, strategic investment in man-made amenities—such as visitor centres, event venues, and hospitality infrastructure—is needed to meet the expectations of a diverse tourist base and to encourage local enterprise development.

- **Attractions**

Tourism depends on distinctive attractions that motivate visitation. Kannaland Municipality's cultural and natural assets—including historic settlements, heritage buildings, scenic landscapes, and local festivals—form the foundation of its tourism offering. Enhancing these assets through cultural preservation, event programming, and strategic marketing will be crucial in increasing tourist numbers, extending their length of stay, and generating local economic benefits.

- **Accommodation**

The availability of suitable accommodation is essential to support overnight stays, in line with international tourism definitions. While larger hotel developments may be appropriate in urban centres, rural areas such as Kannaland Municipality are better suited to locally managed, high-quality accommodation offerings. These facilities should reflect the local identity and provide personalised experiences, thereby reinforcing inclusive economic development objectives and contributing to visitor satisfaction.

Key Tourism and Heritage Assets

Kannaland Municipality boasts several flagship attractions that support both tourism and agriculture as key economic sectors. Notably, the Calitzdorp Wine Route, featuring scenic vineyards and wine tastings, draws significant visitor interest. Nature-based tourism is supported by the Gamka Mountain Range and Route 62, offering dramatic landscapes, small-town charm, hiking trails, birdwatching opportunities, and access to local caves. The tranquil environment and natural beauty position the area as a destination for relaxation and reconnection with nature.

Agriculture continues to play a foundational role in the local economy. The municipality benefits from fertile soils and a moderate climate conducive to a range of agricultural activities. The integration of agri-tourism initiatives offers further potential to diversify the economy and enhance local value chains.

Preservation of Scenic and Cultural Landscapes

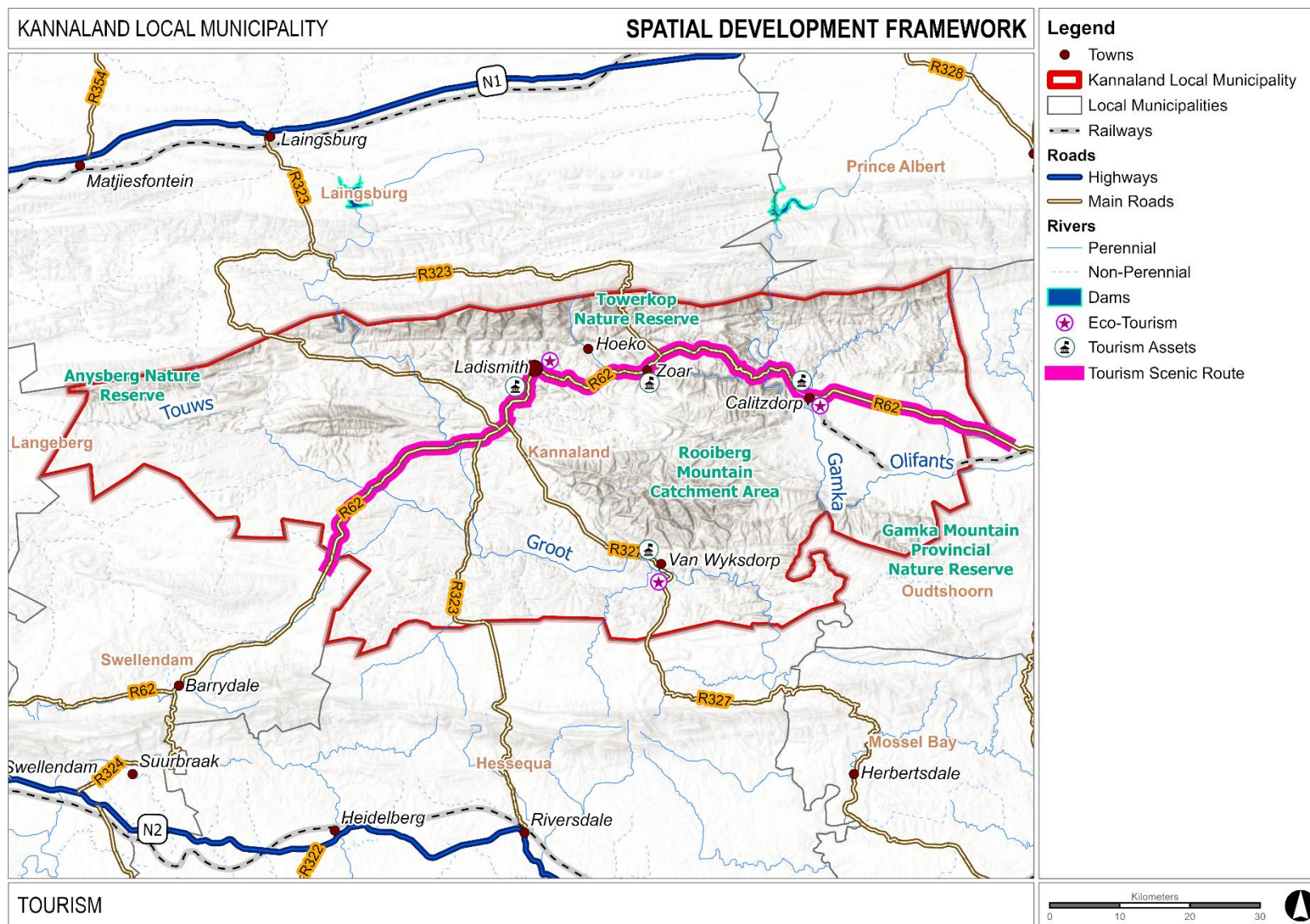
Recognising the economic and intrinsic value of Kannaland Municipality's landscapes and heritage, key areas have been identified for protection. These include agricultural landscapes, mountainous terrains, valleys, river corridors, and open plains. Historical urban fabric—such as the traditional streetscapes and vistas in Ladismith, Amalienstein (Zoar), and Calitzdorp—must be preserved through careful heritage management.

The 2013 Provincial Spatial Development Framework (PSDF) Heritage and Scenic Resources Specialist Study offers strategic guidance on settlement character and spatial form. These guidelines have been adopted within this Spatial Development Framework (SDF) and should inform all land use and development decision-making processes. New developments should be compact, contextually appropriate, and sensitive to the existing topography and historical layout of settlements.

Priority Scenic and Heritage Resources Identified:

- Scenic routes and passes: R62, Seweweekspoort, Rooiberg Pass, and Huisrivier Pass.
- Historic settlements and heritage assets: Amalienstein, Zoar, Calitzdorp, Ladismith, and Van Wyksdorp, featuring heritage buildings, churches, Boer War sites, and historic farmsteads.
- Notable landscapes: Towerkop, Rooiberg, and Anysberg Nature Reserves; key river systems such as the Groot, Gamka, Touws, and Olifants Rivers, which are vital for agriculture and ecological health.

To maintain the character and integrity of these assets, inappropriate development—especially along ridgelines and key visual corridors—must be strictly avoided. Protecting these irreplaceable resources is central to sustainable tourism development and long-term spatial planning in Kannaland Municipality.



Map 35: Tourism

6.2.1.4: Business Node

Economic activity is prevalent throughout human settlement areas within the municipality, much of it informal and operating without formal land use rights. Acknowledging and planning for these activities is essential in shaping a more functional and inclusive urban spatial structure.

Informal economic activities are widely dispersed, creating a mixed-use urban environment that offers certain advantages, such as vibrancy, accessibility, and livelihood opportunities. However, this informality should not preclude efforts to introduce greater structure, order, and spatial efficiency in the long-term development of settlement areas.

Insights drawn from Central Business District (CBD) development strategies highlight the benefits of clustering complementary land uses. Encouraging such clustering in settlement areas can help to optimise service delivery, improve accessibility, and create synergies between businesses and community services.

To support this, the creation of formalised business nodes within urban areas is proposed. These nodes should serve as designated areas where non-residential, business-related activities—such as government services, municipal offices, Home Affairs branches, retail shops, cafés, and restaurants—can be consolidated. Ideally, these nodes should be centrally located along main collector roads to ensure ease of access via public transport. Their design should prioritise pedestrian movement, incorporate public transport facilities (including taxi ranks), and provide adequate parking, while being guided by appropriate urban design frameworks.

These business clusters enable enterprises to benefit from mutual proximity and shared foot traffic. When located along high-mobility routes, they further benefit from visibility and accessibility, which can support commercial growth and employment creation.

6.2.1.5: Movement Networks (Rail, Road Air)

The standard of living for residents is heavily influenced by the state of transport infrastructure, which is essential in addressing the needs of both daily commuters and the broader community, thereby helping to reduce social issues. Well-designed and accessible transport systems enhance the quality of life for everyone, particularly individuals with disabilities, and support meaningful societal improvements (Naberushkina, 2022). To accommodate the growing number of commuters, it is vital that existing and future public transportation systems are effectively coordinated (Chetty and Phayane, 2012). The R62 corridor is a key economic and tourism asset that must be maintained and enhanced where appropriate, from a user perspective as well as from a road safety perspective. This east-west route is the economic lifeline of the municipality.

Specific focus is also needed on non-motorised transport within the municipality, within Ladismith and Calitzdorp and connecting historically under-served areas to the CBD. Non-motorised transport, particularly pedestrian movement, is the primary transport mode among residents. Key interventions for implementation in this area are pedestrian walkways, and cycle paths.

To promote regional mobility, it is essential to develop an affordable and accessible transport network that connects areas across municipal boundaries. In this context, the R62 plays a vital role by supporting both regional tourism and freight movement, thereby serving as an alternative route to the N2. Maintaining the R62 and other major roads in good condition is necessary to sustain a high-performing road network.

To ease congestion on the N2—especially during peak holiday periods—it is recommended that the R62 be upgraded to better accommodate tour buses and freight vehicles. Such improvements would enhance regional connectivity and logistics. Upgrading the R62 could yield three main benefits:

1. It would serve as an alternative freight route during peak seasons,
2. It would provide a backup route in case the N2 is closed due to emergencies, and
3. It would stimulate local economies along the R62 corridor, particularly in towns like Ladismith and Calitzdorp.

These proposals have significant budget implications for the Provincial Department of Transport and Public Works and should be incorporated into long-term planning for the R62's development. As a prominent tourism route—ranked by CNN as one of the world's top ten road trip destinations (Bremmer & Shadbolt, 2017)—it is vital to preserve the scenic appeal of the R62. Instead of building bypasses, land use conflicts should be addressed through thoughtful urban planning and street design to retain the route's attractiveness.

Examples of successful scenic freight routes include the Montagu–Barrydale section and portions of the N2. Specific road maintenance actions proposed include:

- Upgrading the Oudemuragie Road to De Rust,
- Ensuring regular upkeep of the Swartberg Pass gravel road,
- Including these routes in the Department of Transport and Public Works' asset management strategies.

Further, it is suggested to explore the installation of a weighbridge to manage heavy vehicle traffic through Kannaland and Oudtshoorn. Infrastructure maintenance should also be prioritized in Ladismith and Calitzdorp CBDs, as well as key routes like the R327 to Van Wyksdorp. Spatial development plans also highlight these areas as investment priorities.

Additionally, low-cost, high-impact interventions should be explored to enhance settlement appeal for tourism. This will require collaboration with the public and local business sectors to identify practical solutions.

The Kannaland Integrated Transport Plan highlights that improving mobility between rural settlements is a crucial social need. Local and provincial governments must work together to deliver affordable transport solutions to ensure residents can access essential services, education, and employment. Given that walking and cycling are the primary modes of transport for many, there is an urgent need for well-designed non-motorised transport (NMT) infrastructure.

Kannaland Municipality should develop and implement NMT strategies focusing on areas like Ladismith and Calitzdorp, while also recognizing the strategic role of Zoar as a midpoint between them. Enhancing connectivity between these settlements is vital to addressing socio-economic disparities.

A basic Mobility Strategy should be introduced—even at a reduced level—to guarantee minimum transport services. Authorities should also assess the feasibility of establishing a shuttle route connecting Calitzdorp, Zoar, Amalienstein, and Ladismith to support intra-municipal connectivity along the R62. Investment in rural pedestrian safety, NMT networks, and school transport safety should also be prioritized.

6.2.1.6: Flood Risk

Climate change is increasing the frequency and severity of extreme weather events, posing a growing risk to the Kannaland Municipality. Flood-prone areas must be carefully managed to protect lives, property, and infrastructure. When vital infrastructure is located in flood-risk zones, the resilience of these areas is reduced. Flooding, while natural, requires proactive planning. Sustainable urban drainage systems and eco-friendly rural practices should be implemented to reduce future flood risks and associated economic and social costs. Land use and infrastructure planning must integrate flood mitigation strategies, especially where towns intersect with river systems. Strict no-development zones should be enforced within the 1:100-year flood lines—especially along major rivers like the Gamka and Groot, and their tributaries such as the Prins, Derde, and Brand Rivers. Exceptions should only be made with strong hydrological justification. Buffer zones of 150 m for large rivers, 75 m for medium rivers, and 32 m for smaller rivers should be observed to protect water quality and habitats. Stormwater infrastructure must be designed with increasing flood risks in mind, avoiding hard structures in favour of sustainable drainage. Accurate flood line mapping should be incorporated into future planning, guiding where development is allowed and preventing pollution in waterways. Green infrastructure such as urban trees, bioswales and permeable pavements are to be introduced to improve stormwater management and microclimate regulation.

Climate change is a significant challenge faced by all municipalities including Kannaland Municipality. The municipality is aligned with the Western Cape Provincial Spatial Development Framework's (WCPSPDF) agenda to address climate change by creating and deploying strong adaptation and mitigation strategies. Some of the adaptation measures stipulated in the WCPSPDF include integrating water conservation and demand management into settlement planning and upgrading, the retrofitting of infrastructure to withstand extreme weather events such as flooding and finally, the safeguarding of agricultural land for long-term food security (Western Cape Provincial Spatial Development Framework, 2014).

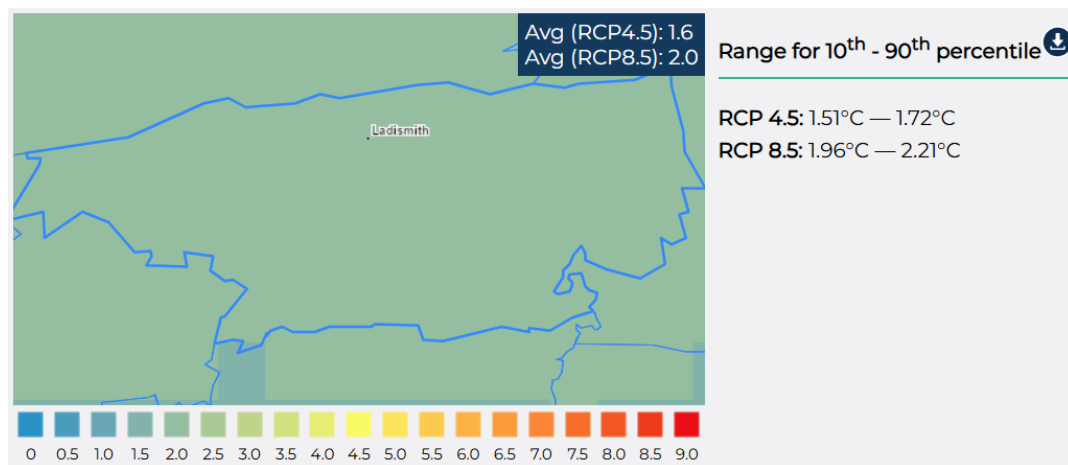
6.2.1.7: Climate Change Projections

The Council for Scientific and Industrial Research (CSIR) developed a Green Book Risk Profile Tool which is a dynamic interactive online planning support tool that was developed to support adaptation measures by providing scientific evidence of in each local municipality in South Africa on the likely risks it will face under a changing climate.

The following maps illustrate climate change metrics for projected changes in 1) temperature; 2) rainfall; 3) extreme rainfall events; and, 4) very hot days.

The projections are measured in terms of Representative Concentration Pathways (RCPs). RCPs describe different possible future trajectories for greenhouse gas concentrations in the atmosphere. RCP4.5 measures a response scenario with a high level of mitigation implementation whereas RCP8.5 measures a response scenario with a low level of mitigation implementation. The CSIR Green Book uses these pathways (specifically RCP4.5 and RCP8.5) to project potential future climate risks, such as temperature increases and flood risks, and to inform adaptation strategies. The 10th to 90th percentile results from the 6 models are also added to convey the spectrum of possible anticipated changes. For each metric, the projected change for the period 2021–2050, relative to the baseline period (1961–1990) is indicated (CSIR Greenbook Online, n.d.).

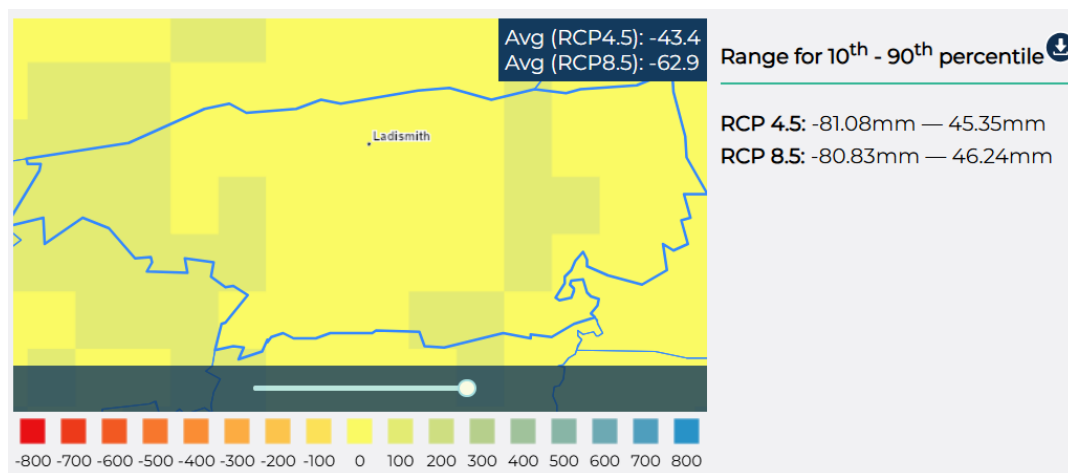
6.2.1.6.1. Average Temperature



The temperature projections between 2021 – 2050 indicate an average temperature increase of 1.6°C where high levels of mitigation measures are implemented (RCP4.5). On the other hand, if lower levels of mitigation are implemented (RCP 8.5), the average temperature increase will be 2.0°C. In the RCP8.5 low mitigation scenario, the climate is expected to be warmer and drier which has various implications on livelihoods and the economy (CSIR Greenbook Online, n.d.).

Map 36: Map of average temperature projected between 2021 -2050 (Image source: CSIR, n.d.)

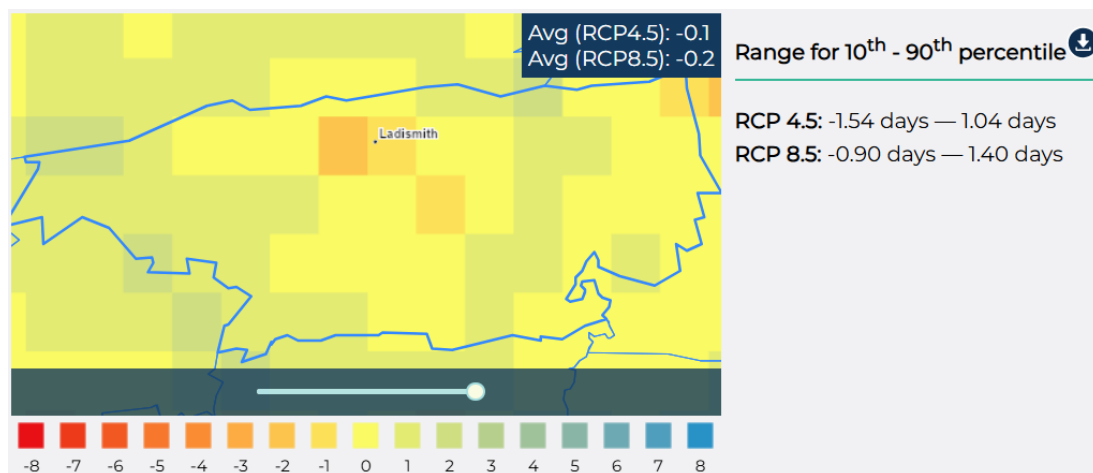
6.2.1.6.2. Average rainfall



The average rainfall projections between 2021 – 2050 indicate projected average rainfall readings of -43.4mm in a RCP4.5 scenario and -62.9mm in a RCP8.5 scenario (CSIR Greenbook Online, n.d.). Both instances indicate a decline in the amount of rainfall received for most of the low-lying areas in the region.

Map 37: Map of average rainfall projected between 2021 -2050 (Image source: CSIR, n.d.)

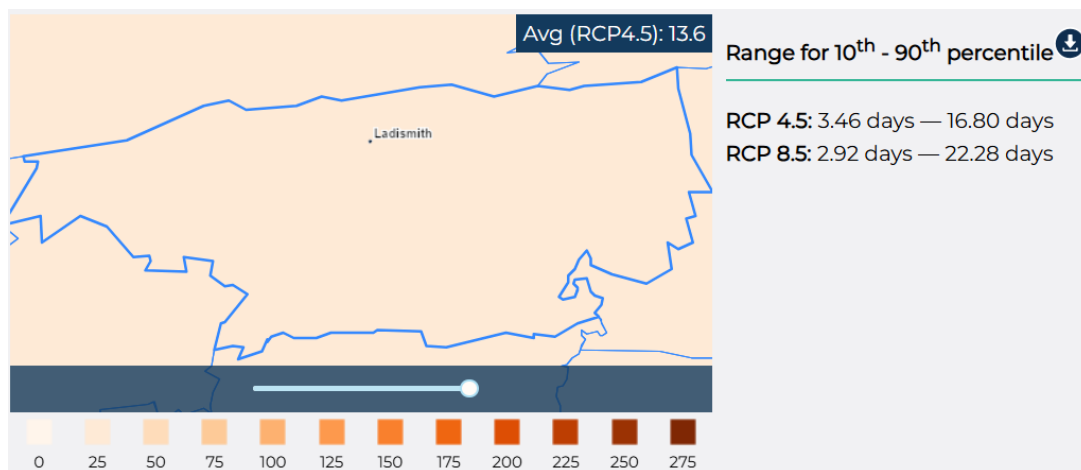
6.2.1.6.3. Extreme rainfall days



An extreme rainfall event (including severe thunderstorms and lightning) is defined as 20 mm of rain occurring within 24 hours. In the RCP4.5 scenario, the average number of extreme rainfall days is -0.1 whereas it is -0.2 in the RCP8.5 scenario (CSIR Greenbook Online, n.d.).

Map 38: Map of extreme rainfall projected between 2021 -2050 (Image source: CSIR, n.d.)

6.2.1.6.4. Very hot days



A very hot day is a day when the maximum temperature exceeds 35°C. The average in a RCP4.5 scenario is 13.6 days (CSIR Greenbook Online, n.d.). In the RCP8.5 scenario, this average would presumably be higher.

Map 39: Map of very hot days projected between 2021 -2050 (Image source: CSIR, n.d.)

Taking RCP8.5 as the worst-case scenario, the annual climate projections in the municipality are as follows by 2050:

- Average temperature is set to increase by 2.21 degrees,
- Average rainfall ranges will be between -80.83mm to 46.24mm,
- Extreme rainfall days range from 0 -1 to 1 and a half days, and
- The number of very hot days experienced will be between 3 to 22 days.

The above-mentioned projections for Kannaland Municipality align with the expected warming of 1.5 °C to 3 °C across the province by 2050 (Western Cape Climate Change Response Framework and Implementation Plan for the Agricultural Sector – 2016). The framework stated that extremely hot days and heatwaves are expected to occur more often. Winter rainfall is likely to decline over much of the province. Longer dry periods and more frequent droughts are anticipated, along with a higher likelihood of intense rainfall events and flooding, especially in late spring and early summer. Additional high-impact risks (include shifting patterns of frost and hail, unexpected cold spells, and stronger winds (Western Cape Climate Change Response Framework and Implementation Plan for the Agricultural Sector, 2016).

6.2.1.6.5. Climate Change: Adaptation Strategies in Agriculture

The SmartAgri Plan serves as a strategic guide enabling the agricultural sector to progress toward a resilient, sustainable, and productive future, notwithstanding uncertainties in climate projections. The SmartAgri Plan is grounded in the Western Cape Climate Change Response Strategy. One of the primary methods of adapting to the projected climate change scenarios is through employing conservation agriculture which is a farming approach based on minimal soil disturbance, maintaining continuous soil cover throughout the year, and effective crop rotations. Conservation agriculture enhances the soil's water-holding capacity, boosts the diversity and abundance of beneficial soil microorganisms, improves soil fertility, lowers surface soil temperatures, and reduces erosion and siltation—ultimately supporting better downstream water services for both agricultural and urban systems (Western Cape Climate Change Response Framework and Implementation Plan for the Agricultural Sector, 2016).

Another measure would be to prioritise the restoration of ecological infrastructure for increased landscape productivity, socio-ecological resilience and soil carbon sequestration. This strategy would enable better regulation of water flow, reduced erosion and sedimentation, fewer intense fires, and stronger resilience in fodder and crop production all enhance communities' capacity to cope with projected increases in major floods, droughts, extreme fire events, and growing variability in temperature and rainfall (Western Cape Climate Change Response Framework and Implementation Plan for the Agricultural Sector, 2016).

Another adaptive approach is to remove invasive alien plants and restore and manage affected riparian areas which would help increase water flow, making more water available for agriculture and other downstream users. This would restore ecosystem services that improve the quality of water flowing downstream, benefiting farmers and surrounding communities. It would also assist in reducing the frequency and intensity of fires in a climate expected to become warmer and drier, where the likelihood of wildfires is projected to rise (Western Cape Climate Change Response Framework and Implementation Plan for the Agricultural Sector, 2016).

A final adaptive measure is improving the knowledge base of farmers by sharing evidence-based climate change projections, the analysis of its impact on farmers and agriculture and the mitigation measures that can be put in place (Western Cape Climate Change Response Framework and Implementation Plan for the Agricultural Sector, 2016).

Together, these adaptive measures would strongly equip the agricultural sector and local farmers with the knowledge and tools to address anticipated extreme weather events as a result of climate change, such as flooding or drought. In addition, the measures impress the need to protect ecological infrastructure and water resources.

6.2.1.6.6. General Climate Change Adaptation and Mitigation Approaches

In order to build a climate-resilient and low-carbon municipality vulnerability to climate hazards needs to be removed in order to enhance ecosystems, resilience, and promote sustainable development. Various approaches to climate change adaptation exist as follows:

Water resource management is vital as it involves the protection of catchment areas, wetlands, and groundwater recharge zones in alignment with the Breede-Gouritz CMS. The promotion of greywater reuse, and water-efficient irrigation in agriculture is a strong adaptive measure. Lastly, the implementation of floodplain management and stormwater infrastructure upgrades would reduce flood risks (Garden Route SDF draft report, 2025).

In terms of functional ecosystems, the restoration of riparian corridors, wetlands, and degraded mountain catchments would strengthen natural infrastructure. The protection of critical biodiversity areas and ecological support areas as part of municipal green infrastructure is a firm adaptive measure. Finally, the promotion of reforestation and alien vegetation control would work to promote soil retention and unnecessary water loss (Garden Route SDF draft report, 2025).

From a built environment perspective, informal and low-income settlements should be upgraded to improve resilience against flood, fire, and heat. Another strategy is to incorporate green building standards and energy-efficient design in new developments (Garden Route SDF draft report, 2025).

In view of the onset of climate change, the need to employ renewable energy methods to mitigate impacts is imperative. Such methods include the identification of properties suitable for solar farms, biogas generation, and small-scale embedded generation (SSEG). An additional method is to encourage energy-efficient building standards and passive design principles in new settlements and housing projects. Finally, encouraging non-motorised transport (NMT) and public transport-oriented development would proactively reduce emissions from private vehicle use (Garden Route SDF draft report, 2025).

6.2.1.8: Urban Edge

An urban edge is a spatial delineation that defines the boundary between urban development and surrounding rural or natural areas. It is used as a planning tool to contain urban sprawl, protect high-value agricultural land in accordance with the Preservation and Development of Agricultural Land Act, safeguard biodiversity, and manage orderly urban growth. The urban edge within the municipality was last reviewed and updated as part of the 2013 Spatial Development Framework. Since the adoption of the 2013 SDF, settlement dynamics within the municipality have changed, including the expansion of informal settlements beyond the existing urban edge. In response, and in order to accommodate the municipal housing pipeline and the identification of new development areas within existing towns, a review and amendment of the urban edge is required. While overall population projections indicate a potential decline, a range of other spatial and socio-economic factors necessitate the adjustment of the urban edge.

The primary triggers informing the proposed extension of the urban edge within the municipal towns are the following:

- Housing demand: The municipality faces an ongoing housing backlog, with insufficient suitable land within the current urban edge to accommodate incremental upgrading, subsidised housing delivery and affordable rental housing.
- Informal settlement pressure: Informal settlements have continued to expand beyond the existing urban edge, indicating a misalignment between current settlement patterns and the approved urban development boundary.

6.2.1.9: Human Settlements

The municipality does not have delineated and gazetted Restructuring Zones and PSHDAs. It is recommended that the municipality identify priority spatial restructuring areas within the municipal area, serving as strategic nodes for integration and future development to improve accessibility and connectivity for residents. Various options for affordable housing mechanisms that can be implemented within the municipality are described in the table below.

Table 23: Affordable housing mechanisms

Mechanism / Programme	Applicability to Kannaland Municipality
Integrated Residential Development Programme	Kannaland's Municipality's 2025–2026 planning documents list IRDP as one of the main housing-assistance initiatives to meet backlog and provide housing for low- and middle-income households.
Upgrading Informal Settlements / Informal-Settlement Upgrade Programme	As a result of housing demand and the presence of informal dwellings, the municipality includes informal-settlement upgrading/regularisation as part of its human-settlement strategy.
State-subsidised housing for low-income households	Kannaland Municipality's 2015 "Housing Market Segments" report identifies state-subsidised housing for households earning below a certain threshold.
FLISP	For households whose income is above the lowest subsidy threshold, but below what standard market housing would require, there's recognition of a "supply & credit gap." This group may qualify for subsidy-linked programmes

6.2.2: Composite Spatial Structuring Elements

All the components in Section 6.2.1 of this report have been collated and synthesised into spatial structuring elements in Table 17, that are intended to guide the spatial proposals throughout the municipality.

Table 24: Composite Spatial Structuring Elements for Kannaland Municipality

Spatial Structuring Element	Description
Residential Development	- The residential development refers to locations of the housing pipelines for housing and identifies locations for future housing projects. Where necessary, feasibility studies need to be done Western Cape Province Department of Human Settlements, supporting development in principle. - These projects should be aligned with the principles of Western Cape Province Department of Human Settlements and Garden Route District Human Settlements Plan.
Business Development and the CBD	- The Central Business District is regarded as the main economic core of the towns which have a concentration of different business activities, industrial/commercial activities and social facilities. - CBD should be accessible to unlock public transport routes and encourage non-motorised transport. - Even though the CBD encourages a concentration of activities, it should not lose the character along these routes. - The heritage overlay zone should be considered in the development of the CBD. - They may include facilities that enhance tourism such as guest houses and hotels.
Business Node	- These nodes are areas where there will be a high intensity of businesses accompanied with other land uses that support them such as offices. - These nodes should be strategically located along main routes where there is a concentration of activities including industrial, businesses and social facilities. The intensity of the land uses should consider the character of the area. - Public transport should be encouraged to be able to support these nodes.
Industrial / Commercial Development	- The development in these areas include activities such as warehouses, factories, panel beaters, etc. - They should be located along high mobility routes to unlock logistics industry within the municipality to support these activities. - Social facilities and community facilities should not be included in these areas.
Social Facilities	The development in these areas include public and community facilities, including libraries and educational institutions such as crèches, schools, and other skills development facilities. They also include clinics.

Spatial Structuring Element	Description
Access	- The access points and roads (R62, R323, R327) to the towns should be upgraded and maintained - The landscape and scenic visuals in the access points should still embrace the sense of place.
Development spines	- The development spines are identified for economic and spatial purposes. - The strong transportation role of these routes enables economic activities to develop along movement corridors, especially at key intersections. This happens at multiple scales, from local development corridors along town main streets to higher-order routes.
Transit Oriented Facilities And Non Transit Orientated Facilities	- Public transport accessibility to be developed along development spine, preferably near the CBD (employment zone). - Non-Motorised Transport (NMT) as a spatial proposal in Kannaland Municipality would promote sustainable mobility, improve accessibility, and support local economic activity. Key measures include developing safe pedestrian and cycling routes between Ladismith, Calitzdorp, and Zoar, implementing traffic calming, providing lighting and shade, and ensuring climate-resilient infrastructure with proper stormwater management and flood protection.
Urban Edge	- The aim of an urban edge is to guide and control urban expansion—protecting environmental areas outside the municipality, preventing urban sprawl, making more efficient use of infrastructure, public facilities, and economic opportunities, and promoting higher-density development. - This urban edge should be implemented as a planning tool in order to promote the principles of densification, infill development, compact city, and to establish limits beyond which urban development should not be permitted.
Cemetery	Cemeteries sites should have a buffer of 500m.
Landfill site	Landfill sites should have a buffer of 500m.
Tourism	- The areas along Route 62 have been identified as areas that will promote tourism because of the scenic value it holds. - In areas where there are tourism activities then it should be accessible and should allow related facilities such as accommodation, restaurants and convenient shops. - The development around these areas should not compromise the visual aesthetic that will affect the scenic value and landscapes.
Heritage assets	The heritage assets which also cultural resources should be protected.

Spatial Structuring Element	Description
Surrounding agricultural land	Support agri-processing industries, farmer's markets, and other initiatives that add value to local agricultural products – apples, pears, wheat, barley and plums and livestock farming including sheep, goats, and cattle.

6.3: Spatial Proposals

This section highlights the spatial proposals for each town/settlement.

6.3.1: Ladismith Proposals

Table 25: Ladismith Spatial Proposals

Spatial Structuring Element	Proposals/Comments
Small Service Town	It acts as a main centre for public services such as municipal offices and other social services. It also serves as a economic node¹⁰.
Third Order Node	Perform the function of meeting the local convenience needs with basic social facilities. Limited development (low-cost housing) should be permitted in the smaller nodes to present long-term economic burdens on the respective local municipalities.¹¹
Residential Development	- Ladismith Parmalat 280 on RE/95 & erf 2267 which will be an Integrated Residential Development Programme that will yield approximately 280 units. - A Finance Linked Individual Subsidy Programme on Erf 1194 that will yield 29 units - Ladismith Golf Club which will be a finance Linked Individual Subsidy Programme on Erf 1128/95 that will yield 3 units.

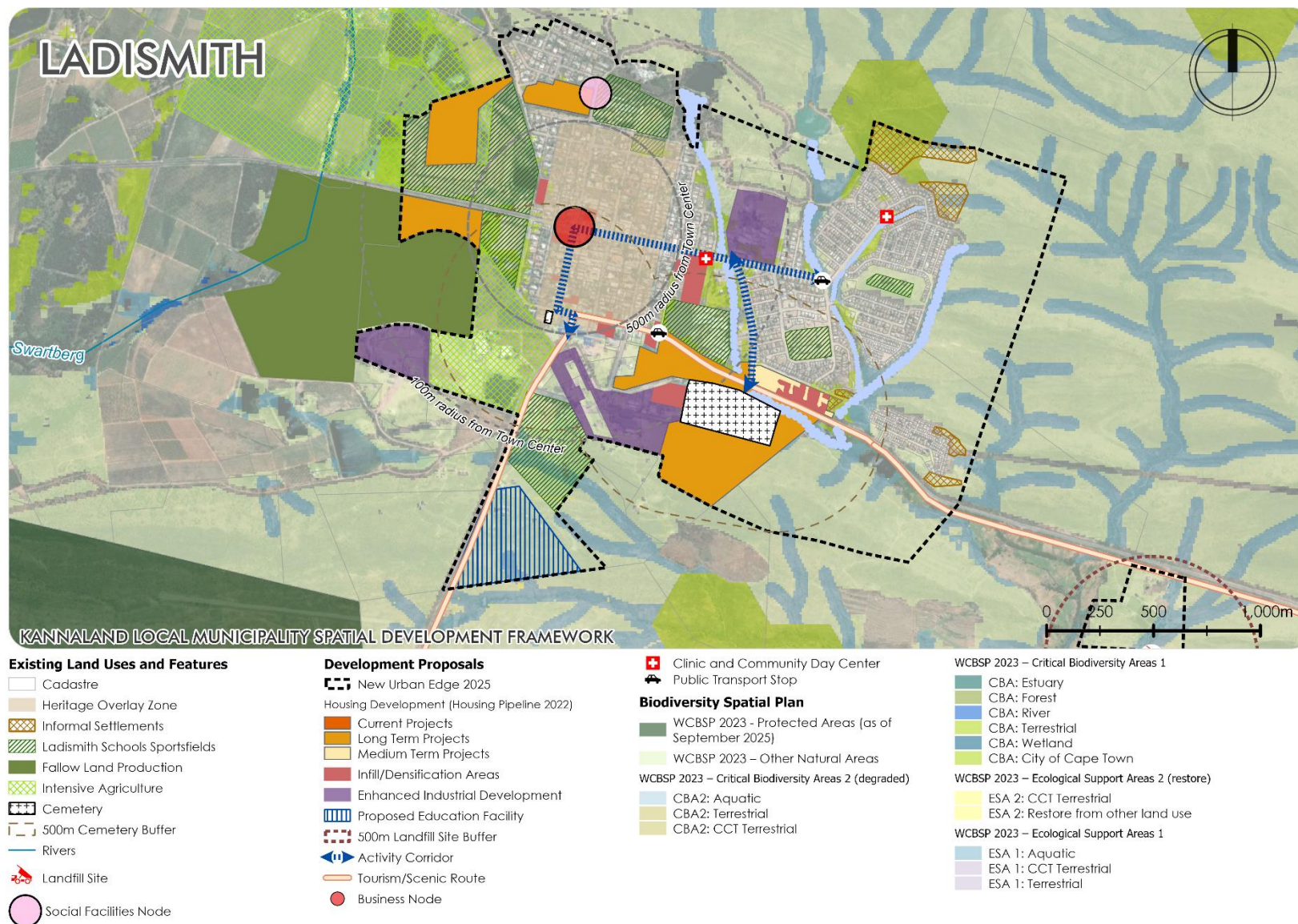
¹⁰ Settlement Hierarchy by CSIR

¹¹ Garden Route District Spatial Development Framework 2025 (Draft)

Spatial Structuring Element	Proposals/Comments
Business Development and the CBD	- The CBD is primarily concentrated along Van Riebeeck Street, extending towards the municipal complex and the central market area. - Direct expansion of commercial activities along this street, emphasising pedestrian-friendly developments and enhancing public spaces. - No decentralisation of CBD-development should be approved; hence no decentralised shopping centre or business complex should be accommodated.
Business Node	There is a suggestion for a business node along Van Riebeeck Street between Queen and Albert Street the clustering of non-residential uses such as shops, salons, restaurants, internet café, cell phone shop, etc.
Industrial / Commercial Development	- Enhance and upgrade the existing industrial area to the south. - Possible development of agri-processing west of R62 to support the agriculture base / market, allow for agricultural economic activities such as farmers markets. Scale, scope and access are concerns pertaining to this development.
Social Facilities	- Education, healthcare, and recreation facilities are required, given the town's role as a small service centre and the manufacturing activities which are within the town. - Extend the Thusong Centre to serve as a business hub. - New development of a private skills development school in Ladismith on Section 3 of the farm Ylands Valley no.95. - A new healthcare clinic in the east to accommodate the communities in the residential area. - Ladismith Clinic and Ladismith (Alan Blyth) Hospital planned to be upgraded.
Access	- Maintain and enhance existing primary access routes through surface road, particularly the R62 and R323. - Improve the surface road of R62 between Ladismith, Zoar and Calitzdorp. - Upgrading and maintained on all public transport routes.
Activity Corridor	Van Riebeeck Street, all the way to Golding Lane.
Transit Oriented Facilities and Non-Transit Orientated Facilities	- Taxi Rank to be developed along the Van Riebeeck Street development spine, preferably near the CBD (employment zone). - Promote NMT by development safe pedestrian and cycling routes implementing traffic calming, providing lighting and shade, and ensuring climate-resilient infrastructure with proper stormwater management and flood protection. - Propose infrastructure upgrades, landscaping, and integrated urban design interventions to enhance spatial quality, functionality, and long-term resilience within the town area.

Spatial Structuring Element	Proposals/Comments
Urban Edge	- Urban edge to be amended to accommodate the new skills development centre in Ladismith on the south of the town along the R62. - Expand the urban edge to accommodate housing pipeline as well as the informal settlements.
Spatial Reconstruction	- Physical integration through mobility and access will be strengthened by establishing connector routes, and pedestrian corridors linking previously separated neighbourhoods to economic and social hubs. - Densification and infill development is proposed to bridge spatial gaps and reduce spatial fragmentation by locating such opportunities close to centrally located areas with jobs, schools and transport. - Efficient land use management and brownfield redevelopment to undo spatial exclusion.
Cemetery	Appoint an appropriate service provider to undertake this work alongside a trained environmentalist by instruction and under the authority of the Environmental Manager.
Landfill site	- A landfill site buffer of 500m to be implemented as a health precaution. - The following to be undertaken: - License renewal; - Fencing of the site; and - Management: proper control of the site; monitoring of methane/carbon dioxide; monitoring volume and source of waste, sorting of waste and recycling.
Tourism	Enhance the mission route including the Lutheran mission complex and Church.
Heritage assets	- Protect built heritage assets and historic farmsteads, churches and burial sites especially those located within the heritage overlay zone delineated in the Kannaland SDF 2013. Other heritage assets include the Ladismith Cheese Factory, Georgian style, heritage synagogue and church buildings. - Upgrade and enhance the existing caravan park by allowing creative shops, social events (open-air cinemas) and hiking trails.
Surrounding agricultural land	Support agri-processing industries, farmer's markets, and other initiatives that add value to local agricultural products – apples, pears, wheat, barley and plums and livestock farming including sheep, goats, and cattle.
Climate Change	The promotion of greywater reuse, and water-efficient irrigation in agriculture is a strong adaptive measure

Spatial Structuring Element	Proposals/Comments
Infrastructure	• Refurbishment and Upgrading of Ladismith Wastewater Treatment Works. • Additional reservoir storage capacity at Waterworks.

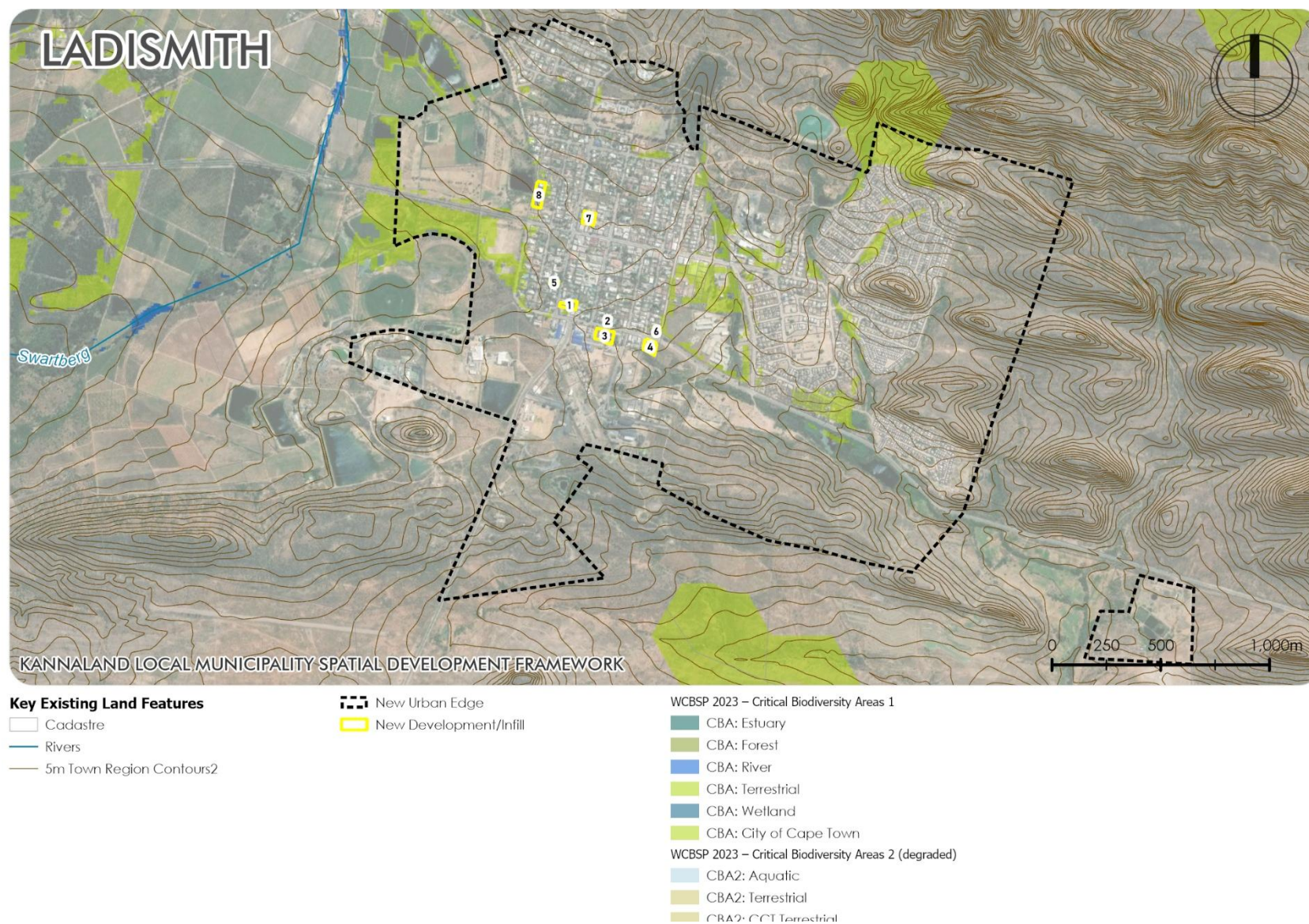


Map 40: Ladismith Spatial Proposals

The Western Cape Biodiversity Act, 2021 defines biodiversity offsets as “measurable conservation actions designed to counterbalance the residual adverse effects of any activity, or of the implementation of any plan, on biodiversity or ecological infrastructure after every effort has been made sequentially to avoid and minimise such effects, and to rehabilitate or restore damage, and includes the outcome of such measures” (WCBA, 2021: p.7). Consideration has been given to the delineation of biodiversity offset areas or trade off areas that allow for development projects in certain areas whilst ensuring that impacts on biodiversity are offset through conservation actions in designated offset receiving areas.

Table 26: Development Areas for Ladismith

New Development Area/Infill	Size (Ha)	Estimated Number of Dwelling Units	Notes	Priority
1	4.61	115 units	Infill Development	Low
2	0.98	9 units	Infill Development	Low
3	5.65	141 units	Infill Development	Medium
4	1.46	14 units	Infill Development	Medium
5	1.68	16 units	Infill Development	Medium



Map 41: Ladismith Biodiversity Trade-off Areas

6.3.2: Calitzdorp Proposals

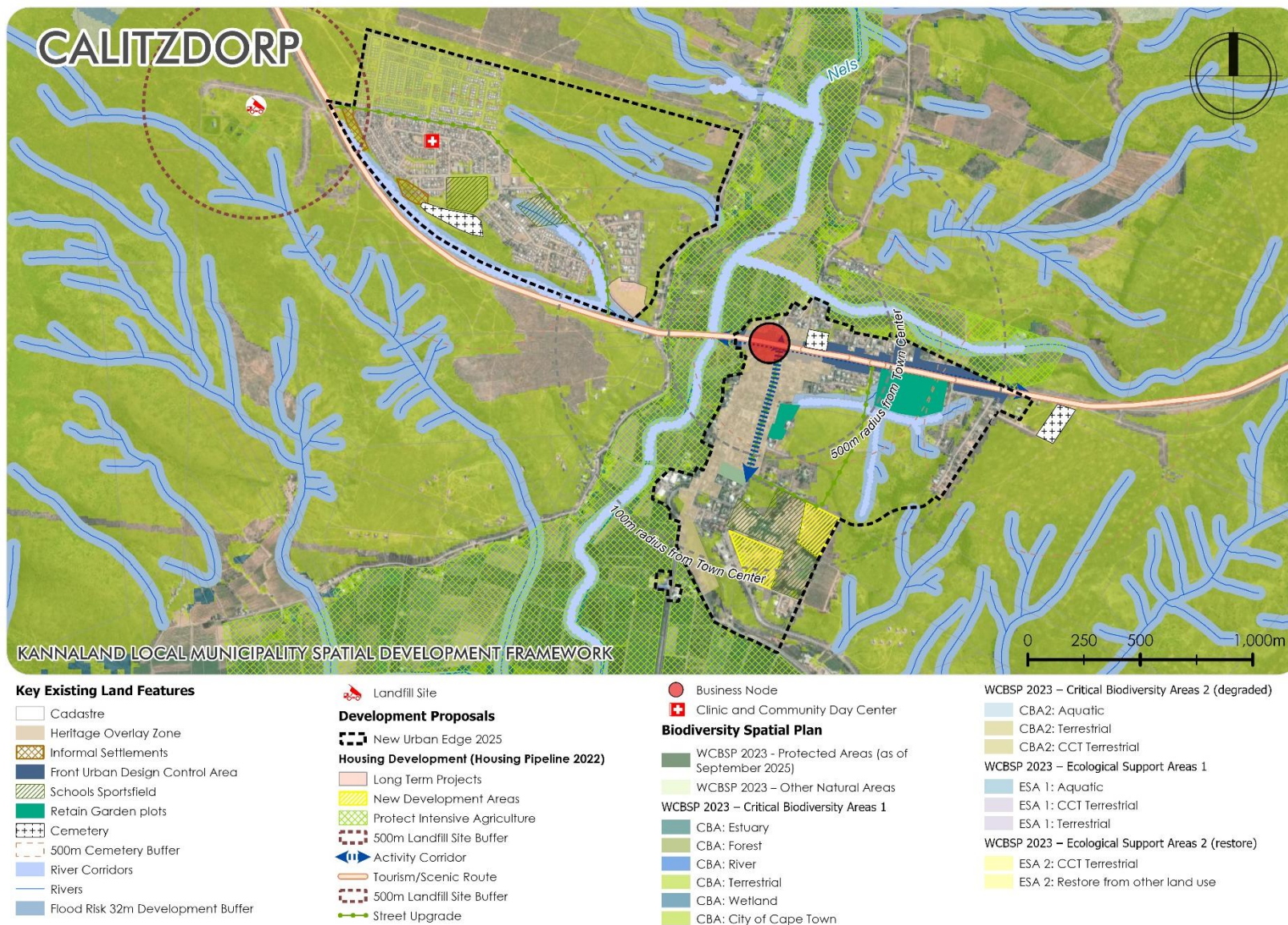
Table 27: Calitzdorp Spatial Proposals

Spatial Structuring Element	Proposals/Comments
Local Town/ Settlement Node It acts as a key service node, providing essential public services and acting as an economic and transport hub for surrounding settlements. ¹²	
Third Order Node Perform the function of meeting the local convenience needs with basic social facilities. Limited development (low-cost housing) should be permitted in the smaller nodes to present long-term economic burdens on the respective local municipalities. ¹³	
Residential Development	Calitzdorp Old Hospital Site on Erf 45 which will be either an Integrated Residential Development Programme or an Upgrading of Informal Settlements Programme that will yield approximately 30-50 units.
Business Node	- Business nodes can be developed along Voortrekker Road between Van Riebeeck Streek and Andries Pretorius Street which permits a clustering of business-related uses, round which other uses can cluster and grow. These business-related uses include shops, restaurants, guest houses etc. - Business development Calitzdorp will be favoured to support not only neighbourhoods and communities but also tourists at a convenience.
Access	- Enhance and maintain access point on the R62. - Upgrading and maintained on all public transport routes.
Activity Corridor	- Voortrekker Road and Andries Pretorius could mature into a development spine with gradual and acceptable land use transformation along the road. - Direct expansion of economic, social and commercial activities south-east along Voortrekker Road
Transit Oriented Facilities	Promote NMT by development safe pedestrian and cycling routes implementing traffic calming, providing lighting and shade, and ensuring climate-resilient infrastructure with proper stormwater management and flood protection.

¹² Settlement Hierarchy by CSIR

¹³ Garden Route District Spatial Development Framework 2025 (Draft)

Spatial Structuring Element	Proposals/Comments
And Non Transit Orientated Facilities	
Urban Edge	Amend urban edge to accommodate housing pipeline on the north west of the municipality.
Spatial Reconstruction	- Physical integration through mobility and access will be strengthened by establishing connector routes, and pedestrian corridors linking previously separated neighbourhoods to economic and social hubs. - Densification and infill development is proposed to bridge spatial gaps and reduce spatial fragmentation by locating such opportunities close to centrally located areas with jobs, schools and transport. - Efficient land use management and brownfield redevelopment to undo spatial exclusion.
Landfill site	Calitzdorp Transfer Station to control waste that goes to the landfill site.
Historic Assets	- Protect the boundaries of the heritage overlay zone that was delineated in the Kannaland SDF 2013. - Protect Calitzdorp Port and wine estates as well as spring water from SPA Gamka Mountain reserve (Cape Mountain Zebra)
Surrounding agricultural land	- Enhance agri-processing such as wine production, - Enhance eco-tourism to accommodate scenic drives, hiking trails, and 4x4 routes in the surrounding mountains and valleys. Popular spots include the Swartberg Pass, Gamkaberg Nature Reserve, and Rooiberg Pass.
Climate Change	The promotion of greywater reuse, and water-efficient irrigation in agriculture is a strong adaptive measure
Infrastructure	- Refurbish and upgrade of Calitzdorp Pumpstation - Bergsig bulk supply augmentation - Implement Bergsig booster zone - Bloekomlaan bulk supply augmentation - Equipped the deep borehole

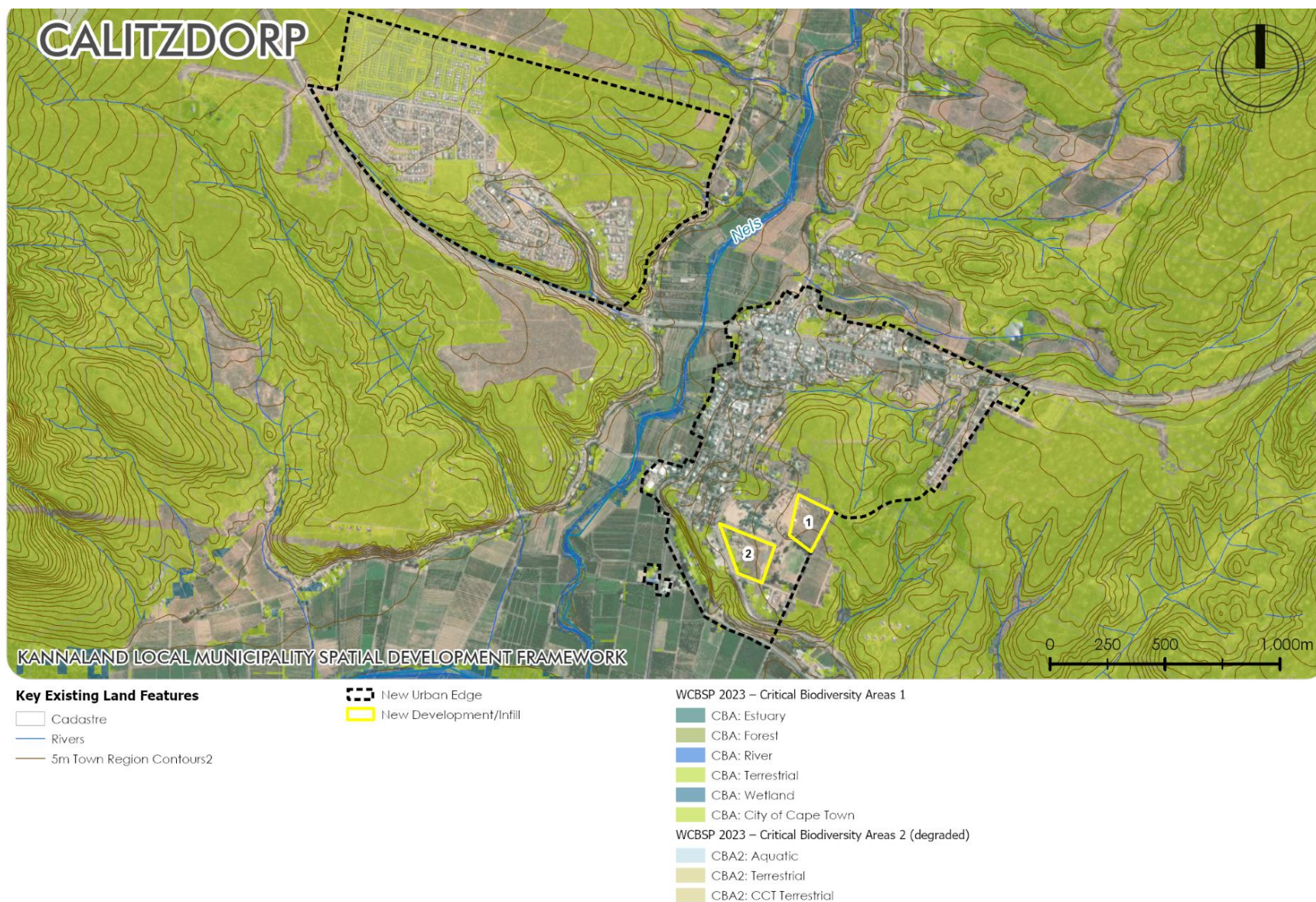


Map 42: Calitzdorp Spatial Proposals

The table below shows areas that have been identified for new development and an estimation of the number of dwellings which may be accommodated based on the size of the property and the corresponding map shows the location of these areas in the town.

Table 28: Development Areas for Calitzdorp

New Development Area/Infill	Size (Ha)	Dwelling Density	Estimated Number of Dwelling Units	Notes	Priority
1	2.61	10	26 units	Contains CBA 1. Trade off may be required through EIA determination.	Medium
2	3.18	10	31 units	Contains CBA 1. Trade off may be required through EIA determination.	Medium



6.3.3: Zoar Proposals

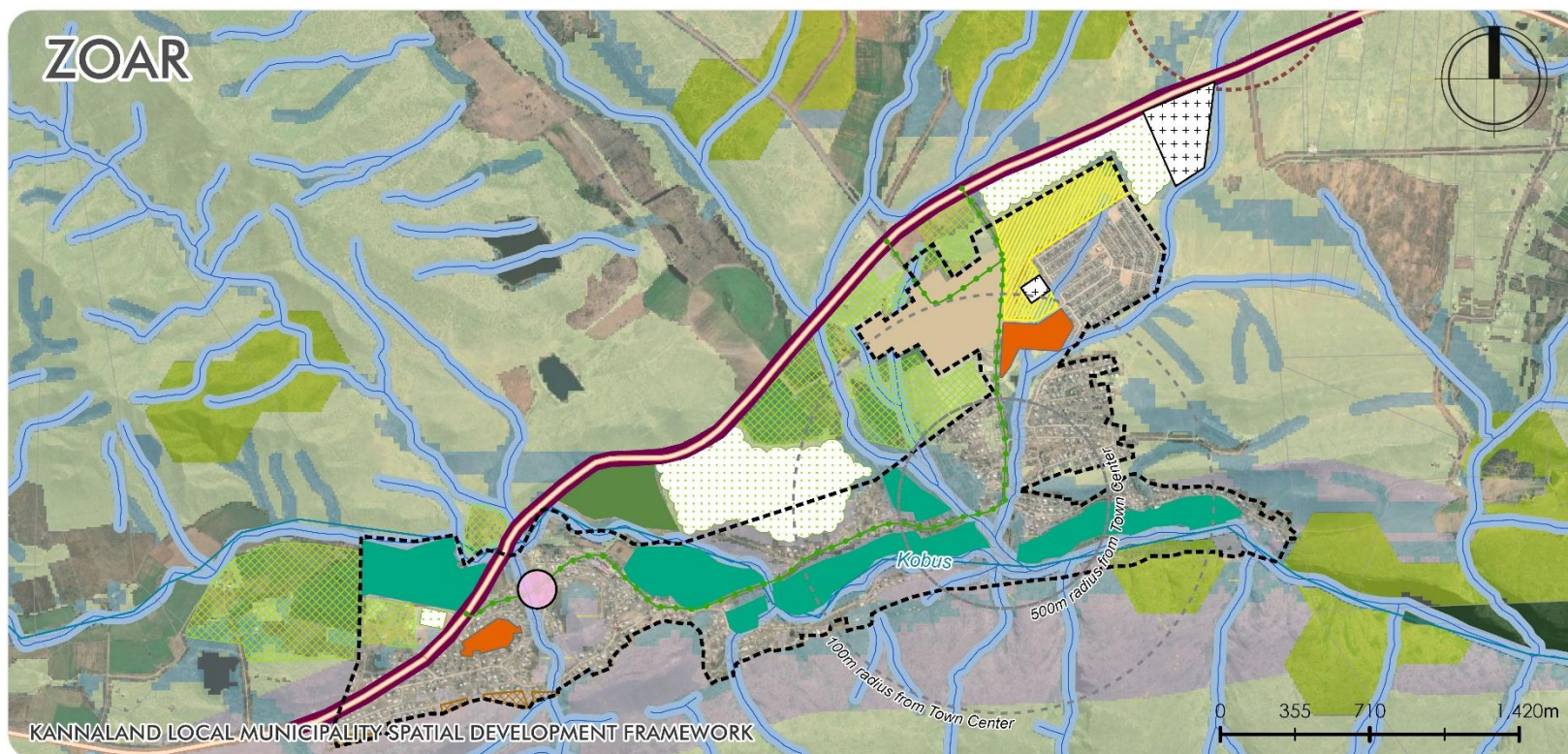
Table 29: Zoar Spatial Proposals

Spatial Structuring Element	Proposals/Comments
Local Town/ Settlement Node Provides essential services and supporting local economic activities within the Kannaland Municipality. While dependent on nearby larger towns for higher-order services, Zoar plays a critical role in meeting the daily needs of its residents and maintaining social cohesion.¹⁴	
Rural Service Node Perform the function of meeting the local convenience needs with basic social facilities. Limited development (low-cost housing) should be permitted in the smaller nodes to present long-term economic burdens on the respective local municipalities.¹⁵	
Residential Development	- Erf 3321 Zoar Protea Park Infill on erven 1834, 1835 (public open spaces) and erf 1836 which will be an Integrated Residential Development Programme that will yield approximately 100 units. - Upgrading of Informal Settlements Programme on erf 1416 that will yield approximately 65 units.
Industrial / Commercial Development	Have an industrial node along Hoof Street. This will feed into the vacant land that is zoned for industrial.
Social Facilities	Have a cluster of social facilities that will form a social facilities node
Access	Maintain access on the R62 which cuts across the town.
	Promote NMT by development safe pedestrian and cycling routes implementing traffic calming, providing lighting and shade, and ensuring climate-resilient infrastructure with proper stormwater management and flood protection.
Urban Edge	Amend urban to accommodate municipal vacant land on the south west of the town.
Heritage Assets	Protect the boundaries of the heritage overlay zone that was delineated in the Kannaland Municipality SDF 2013.

¹⁴ Settlement Hierarchy by CSIR

¹⁵ Garden Route District Spatial Development Framework 2025 (Draft)

Spatial Structuring Element	Proposals/Comments
	• Protect the historic mission stations offering donkey cart and hiking trails through vineyards and orchards, including indigenous cultural festivals. • Protect the Seweweekspoort Mountain biking, hiking, fynbos and protea flowers [also the National Flower]
Surrounding agricultural land	• Protect agricultural land around the town to create more job opportunities for the residents of Zoar.
Infrastructure	• Refurbish and Upgrade Zoar WWTW (Oxidation Ponds) • Bulk supply augmentation • Implement new Droevlei PRV zone • Additional reservoir storage capacity at Droevlei • Additional reservoir storage capacity at Karoolande • Repair and maintenance of the WTW



Key Existing Land Uses and Features

- Cadastre
- Heritage Overlay Zone
- Informal Settlements
- Fallow Land Production
- Intensive Agriculture
- Community Nature Reserves
- Garden Plots
- Cemetery
- Flood Risk 32m Development Buffer
- Rivers



Development Proposals

- New Urban Edge 2025
- Housing Development (Housing Pipeline 2022)
- Current Projects
- New Development Areas
- 500m Landfill Site Buffer
- Social Facilities Node
- Tourism/Scenic Route
- Road Upgrade
- Road Trees

Biodiversity Spatial Plan

- WCBSP 2023 - Protected Areas (as of September 2025)
- WCBSP 2023 - Other Natural Areas
- WCBSP 2023 - Critical Biodiversity Areas 1
- CBA: Estuary
- CBA: Forest
- CBA: River
- CBA: Terrestrial
- CBA: Wetland
- CBA: City of Cape Town

WCBSP 2023 - Critical Biodiversity Areas 2 (degraded)

- CBA2: Aquatic
- CBA2: Terrestrial
- CBA2: CCT Terrestrial

WCBSP 2023 - Ecological Support Areas 1

- ESA 1: Aquatic
- ESA 1: CCT Terrestrial
- ESA 1: Terrestrial

WCBSP 2023 - Ecological Support Areas 2 (restore)

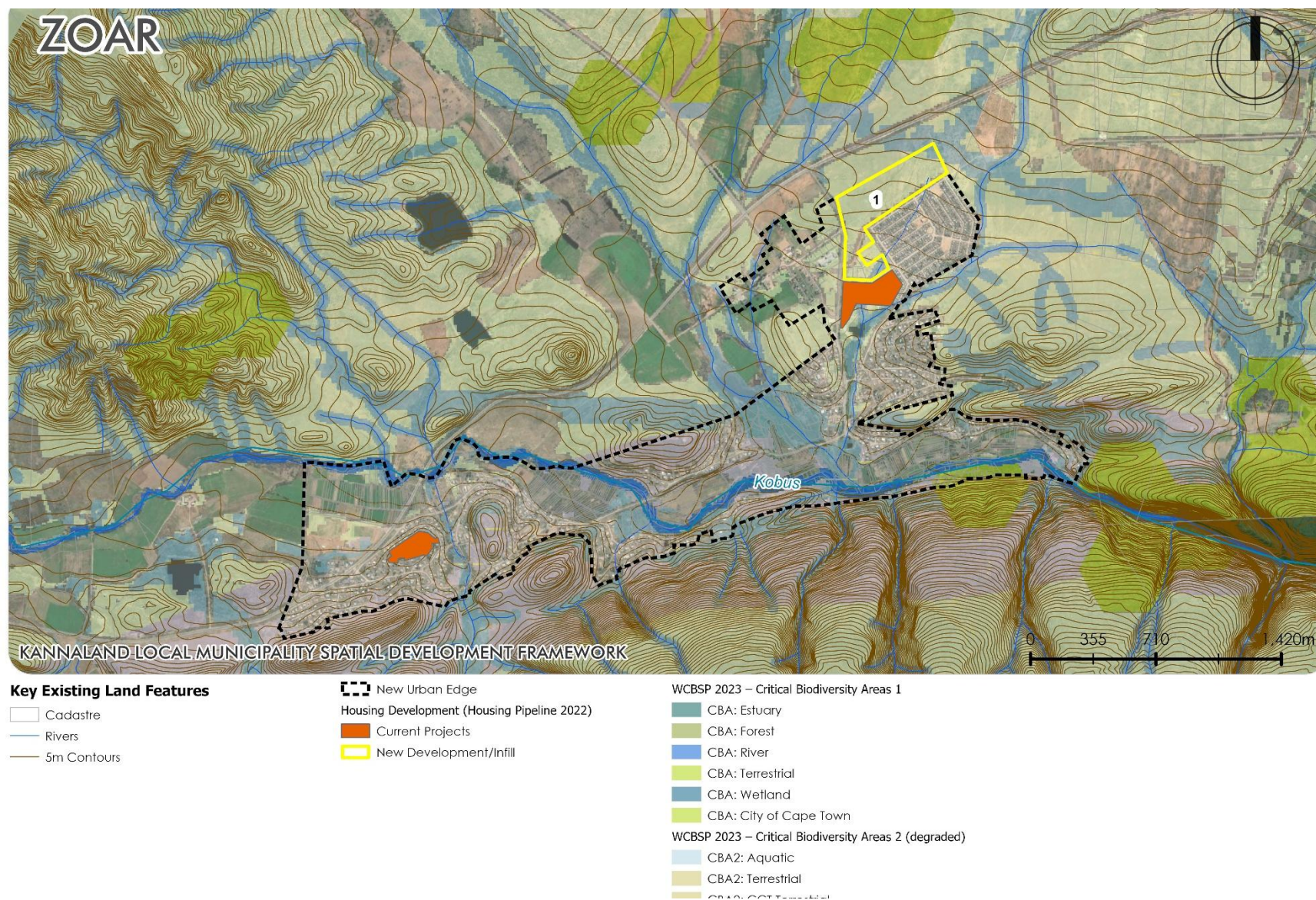
- ESA 2: CCT Terrestrial
- ESA 2: Restore from other land use

Map 44: Zoar Spatial Proposals

The table below shows areas that have been identified for new development and an estimation of the number of dwellings which may be accommodated based on the size of the property and the corresponding map shows the location of these areas in the town.

Table 30: Development Areas for Zoar

New Development Area/Infill	Size (Ha)	Dwelling Density	Estimated Number of Dwelling Units	Notes
1	17.89772	25	249 units	As per Human Settlement Pipeline



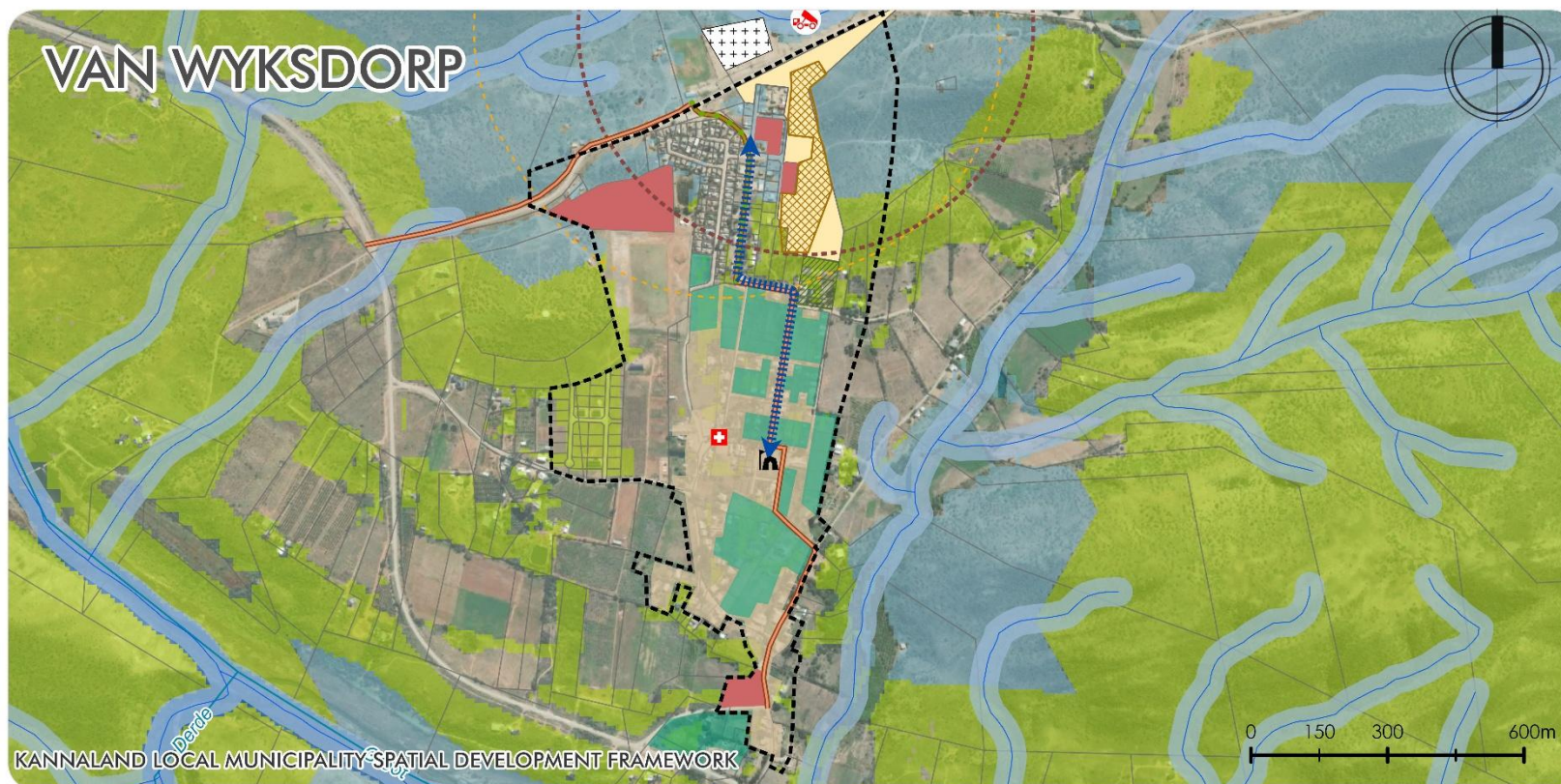
6.3.4: Van Wyksdorp Proposals

Table 31: Van Wyksdorp Spatial Proposals

Spatial Structuring Element	Proposals/Comments
Dense Rural Settlement Areas & Villages These are primarily residential and agricultural communities with limited service and economic functions. They typically depend on nearby towns and nodes for access to higher-order services. ¹⁶	
Rural Service Node Perform the function of meeting the local convenience needs with basic social facilities. Limited development (low-cost housing) should be permitted in the smaller nodes to present long-term economic burdens on the respective local municipalities. ¹⁷	
Residential Development	Erf 110 which will be either an Integrated Residential Development Programme or an Upgrading of Informal Settlements Programme that will yield approximately 100 units.
Social Facilities	Clinic or community date centre
Activity Corridor	Development Spines passing from north to south
Urban Edge	New urban edge to accommodate the densification areas
Historic Assets	Protect the Van Wyksdorp Fynbos processing, donkey cart rides to Anglo- Boer/ SA War grave sites.
Surrounding agricultural land	Protection, but allow agri-processing related uses should a market develop for it, because of proximity to market.
Infrastructure	- Refurbish and Upgrade Van Wyksdorp WWTW. - Additional reservoir storage capacity at Plakkerskamp reservoir site - Bulk supply augmentation to Stanley reservoir

¹⁶ Settlement Hierarchy by CSIR

¹⁷ Garden Route District Spatial Development Framework 2025 (Draft)



Key Existing Land Uses and Features

- Cadastre
- Heritage Overlay Zone
- Informal Settlements
- School Sportsfield and Open Space
- Retain Garden Plots
- Cemetery
- 500m Landfill Site Buffer
- Rivers
- Flood Risk 32m Development Buffer
- Landmark Focal Point - Nederduitse Gereformeerde Kerk



Development Proposals

- New Urban Edge 2025
- Housing Development (Housing Pipeline 2022)
- Medium Term Projects
- Infill Intensification Areas
- 500m Cemetery Buffer
- Activity Corridor
- Road Trees
- Road Upgrade
- Clinic and Community Day Center

Biodiversity Spatial Plan

- WCBSP 2023 - Protected Areas (as of September 2025)
- WCBSP 2023 - Other Natural Areas
- WCBSP 2023 - Critical Biodiversity Areas 2 (degraded)
- CBA2: Aquatic
- CBA2: Terrestrial
- CBA2: CCT Terrestrial
- WCBSP 2023 - Critical Biodiversity Areas 1
- CBA: Estuary
- CBA: Forest
- CBA: River
- CBA: Terrestrial

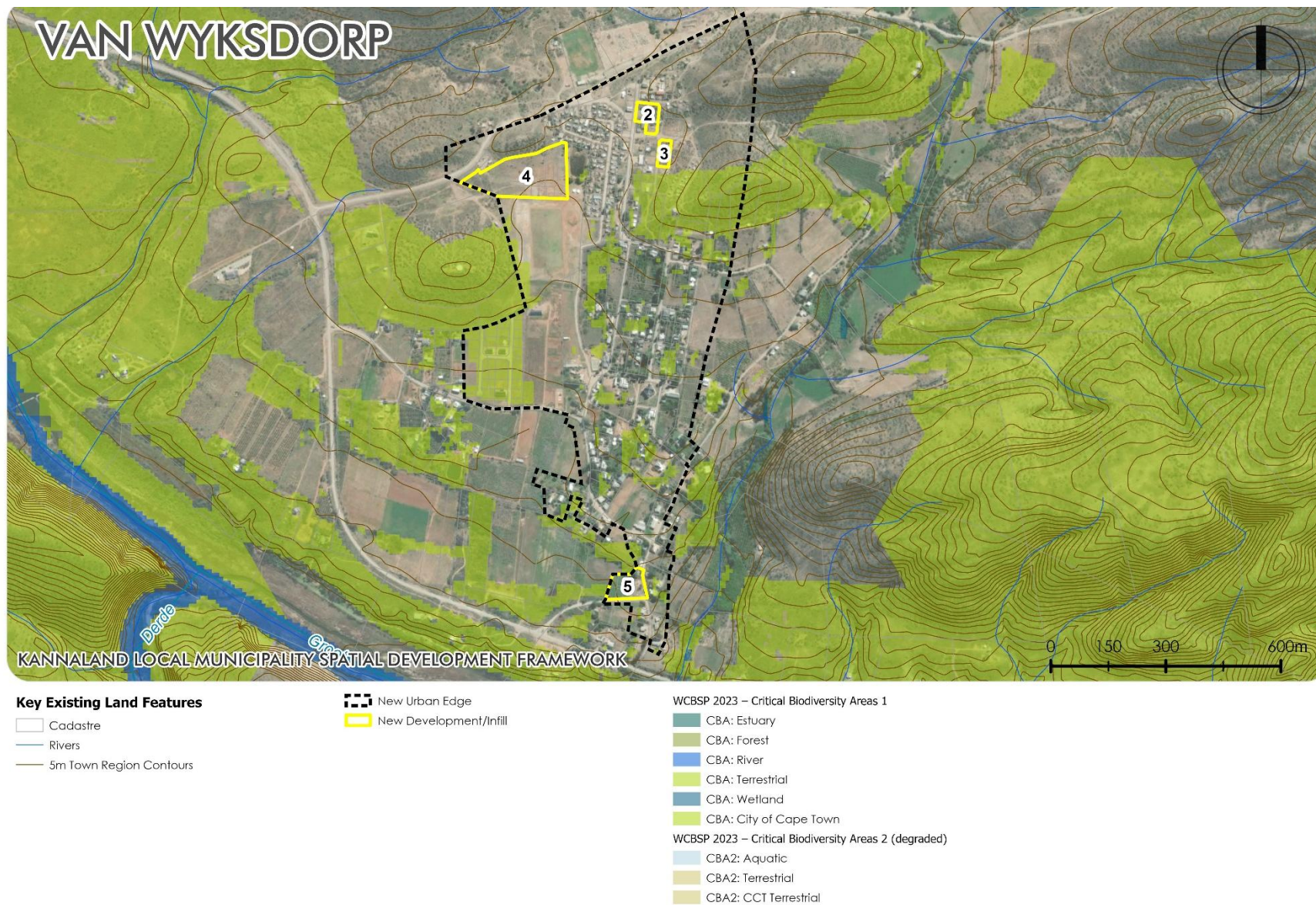
- CBA: Wetland
- CBA: City of Cape Town
- WCBSP 2023 - Ecological Support Areas 1
- ESA 1: Aquatic
- ESA 1: CCT Terrestrial
- ESA 1: Terrestrial
- WCBSP 2023 - Ecological Support Areas 2 (restore)
- SubCat1
- ESA 2: CCT Terrestrial
- ESA 2: Restore from other land use

Map 46: Van Wyksdorp Spatial Proposals

The table below shows areas that have been identified for new development and an estimation of the number of dwellings which may be accommodated based on the size of the property and the corresponding map shows the location of these areas in the town.

Table 32: Development Areas for Van Wyksdorp

New Development Area/Infill	Size (Ha)	Dwelling Density	Estimated Number of Dwelling Units	Notes
2	0.38	10	3 units	As per Human Settlement Pipeline
3	0.21	10	2 units	As per Human Settlement Pipeline
4	2.55	10	22 units	Trade off may be required through EIA determination.



Map 47: Van Wyksdorp Biodiversity Trade-off Areas

6.3.5: Compliance with SPLUMA Principles

SPLUMA principles aim to rectify historical spatial injustices, promote sustainable and efficient land use, enhance resilience to environmental pressures, and ensure transparent, fair, and efficient administration of land use planning. The spatial proposals for the municipality have been developed with these principles in mind:

6.3.5.1: Spatial Justice

Spatial justice addresses past injustices caused by apartheid-era planning by ensuring equitable access to land, resources, and services. The proposals aim to formalise informal settlements, ensuring these communities have access to essential services and are integrated into the urban fabric. Expansion areas and new growth opportunities are identified with a focus on inclusivity, ensuring all residents have equal opportunities for housing and economic participation, redressing spatial imbalances and promoting more equitable urban development.

6.3.5.2: Spatial Sustainability

Sustainability emphasises the need for environmentally responsible and resource-efficient planning. The proposals encourage the protection of agricultural lands surrounding the towns, advocating for agri-processing uses that sustain local economies without compromising environmental integrity. The promotion of open spaces and conservation areas aligns with this principle, aiming to preserve natural ecosystems and biodiversity. By directing growth to areas with existing infrastructure and advocating for densification, the intention is to minimise the ecological footprint of urban expansion, ensuring long-term environmental sustainability.

6.3.5.3: Efficiency

Efficiency in SPLUMA relates to the optimal use of resources, including land, to achieve economic prosperity and quality urban environments. The proposals for industrial and commercial development, especially in Villiers and Frankfort, are positioned to leverage existing transportation networks and economic hubs, thereby maximising the impact of investments and minimising unnecessary land consumption. Residential infill and densification strategies are meant to make the most efficient use of urban land, reducing sprawl and focusing development within defined urban development boundaries.

6.3.5.4: Spatial Resilience

Spatial resilience focuses on the ability of towns and cities to withstand and adapt to economic, social, and environmental shocks. By enhancing connectivity and integration within and between the municipal towns and the hinterland, the proposals aim to build robust urban systems that can adapt to changes and shocks. The emphasis on transit-oriented development and non-motorised transport options contributes to a more resilient urban form that can adapt to future transportation and mobility trends.

6.3.5.5: Good Administration

Good administration under SPLUMA implies transparent, coordinated, and efficient processes in spatial planning and land use management. By advocating for the formalisation of informal settlements and the strategic placement of social facilities, the proposals emphasise the need for fair and accessible planning processes.

7: LAND USE MANAGEMENT

The proposals outlined in this Municipal Spatial Development Framework (MSDF) must be implemented through appropriate zoning or rezoning of the affected properties within the Kannaland Land Use Management Scheme (LUMS), following the prescribed formal application procedures. The LUMS serves as a legal and regulatory framework that governs land use within the municipal jurisdiction. Its purpose is to guide land development in a manner that ensures compatibility and promotes public health, safety, orderly development, aesthetic quality, convenience, and overall well-being, while also supporting economic vitality and the preservation of heritage resources.

7.1: Objectives of a Land Use Management Scheme

7.1.1: Objectives of a Land Use Management Scheme (LUMS):

- Define and regulate appropriate land uses, providing clear guidance on permissible and prohibited activities for specific properties.
- Ensure legal and planning certainty for property owners while safeguarding property values.
- Promote, maintain, and enhance public amenities and shared spaces.
- Address and mitigate potential conflicts between incompatible land uses.
- Strike a fair balance between private property rights and the broader public interest.
- Support economic development through effective land use planning.
- Conserve natural resources and protect ecosystem services, including agricultural land and its productivity.
- Safeguard distinctive landscape features and environmentally sensitive areas.
- Protect heritage assets, as well as sites of religious, cultural, and historical importance.

7.1.2: Contents of a Municipal Land Use Management Scheme

The plan should include the following components:

- A comprehensive introduction outlining the context and purpose of the document.
- A clearly articulated vision along with supporting statements of intent to guide development.
- Identification of zones, management areas, and the corresponding management plans relevant to the area in question.
- Land use matrices and development control schedules specifying permissible, restricted, and prohibited land uses.
- Definitions of key terms and planning terminology used throughout the document.
- Applicable policies and guidelines to inform land use decision-making.
- Detailed procedures for submitting land use applications, obtaining consent, lodging appeals, and managing related administrative processes.
- Official land use scheme maps illustrating zoning and development designations.

7.1.3: General Guidelines for Development in Kannaland Municipality

All land use and development applications must align with applicable legislation, including SPLUMA and the Municipal Town Planning By-Laws. The following core requirements apply:

- Completed and signed municipal application form
- Power of attorney where an agent acts on behalf of the owner
- Proof of registered property ownership
- Motivation report for the proposed land use change
- Surveyor General diagram
- Locality and site development plans (where relevant)

- Water Use License Application for properties involving water bodies
- Minimum 500m buffer from landfill sites
- Compliance with waste management licensing conditions
- Adherence to NHRA processes for heritage-related applications
- Alignment with approved residential densification policy

Heritage Area Management Plans (as per SAHRA and NHRA Section 31) must include:

- Statement of significance and site description
- Historical context and environmental setting
- Identification of stakeholders and legal framework
- Record of past and current site use and condition
- SWOT analysis and guiding principles
- Visitor, conservation, and risk management strategies
- Clear objectives, implementation plan, and evaluation mechanisms
- Defined approval procedures and responsible entities

7.1.4: Land Use Management Implications and Overlay Zones

7.1.4.1: Heritage Overlay Zones

A heritage overlay zone was identified in the Kannaland Spatial Development Framework for 2013. If a new heritage overlay zone is formulated, it will require input from a heritage specialist and should address at least the following:

- The demarcation of the overlay zone area to include important streetscapes and buildings of heritage significance as well as the small holding area.
- The development rules that will apply to new development and alterations in this zone. These rules should give the municipality control over the bulk, height, placement, materials and architectural design of buildings and boundary walls as well as landscaping and aspects of the public realm such as parking and requirement for upgrading the public realm.

As much as the heritage overlay zone was mapped in the previously adopted spatial development framework of 2013, the municipality needs to compile a comprehensive heritage survey for all heritage resources within its jurisdiction so that they can comply with Section 31(1) of the National Heritage Resources Act.

7.1.4.2: Densification

According to the Kannaland Spatial Development Framework 2013, densification should be promoted in the following ways:

- Within areas that demonstrate strong economic potential at provincial, district, or local levels;
- Along major transportation corridors to enhance and support public transit systems;
- On the edges of open spaces to improve visibility and safety through passive surveillance;
- In zones designated for public-sector investment;
- In selected locations experiencing significant private-sector investment.

For each settlement where an urban edge is defined, the following elements should be mapped:

- Agricultural land and facilities related to agricultural processing near urban zones;
- Smallholdings, rural properties, and small-scale farms;

- Open spaces and natural areas at both urban and regional scales;
- Rivers and areas prone to flooding;
- Landscapes recognized for their significant environmental or cultural value.

7.1.4.3: Restructuring Overlay Zones

Restructuring Overlay Zones play a vital role in South Africa's urban planning frameworks by acting as a spatial planning tool to address historical inequalities and advance sustainable human development. Creating restructuring overlay zones as priority areas for growth and transformation, will foster a more inclusive, resilient, and liveable municipality that is intended to benefit all residents (Garden Route SDF draft report, 2025).

Restructuring Overlay Zones should be applied to areas that meet the following conditions:

- Areas located within the Urban Edge;
- Close to town centres, transport routes, schools, clinics and economic nodes;
- Areas with underutilised, vacant or low-density land;
- Inclusion of informal settlements, backyard dwelling concentrations or ageing housing stock;
- Can be serviced efficiently with existing or planned bulk infrastructure;
- Areas that are not located on high-value agricultural land or within environmentally sensitive areas.

There is a need to delineate and gazette a restructuring zone and PSHDAs within 12 months, however the implementation of this exercise lies solely with the Municipality's Human Settlements department.

7.1.4.4: Inclusionary Housing Overlay Zones

The objectives of Inclusionary Housing Overlay Zones are to:

- Facilitate access to well-located land for low- and moderate-income households;
- Promote mixed-income neighbourhoods;

- Support the municipal housing pipeline and incremental upgrading strategies;
- Reduce spatial inequality and travel costs;
- Align private development with public housing objectives;
- Leverage private investment to support affordable housing delivery.

Inclusionary housing must have a minimum percentage of total residential units that will be provided for affordable housing. Such housing should also enable efficient access to amenities. Inclusionary/affordable housing should be promoted and services reports should be made mandatory for rezoning applications in order to confirm water/wastewater and bulk services capacity. Land use guidelines that should be considered area given in Table 32.

Table 33: Land Use Guidelines

Spatial Area/ Land use category	Key guideline	LUMS mechanism	Priority
Urban core (town CBDs/ nodes: Ladismith, Calitzdorp)	Encourage mixed-use developments that integrate residential, commercial and recreational functions, Allow storeys according to the character of the area and where services are available	Business Zone with set out FAR and frontage controls Maintain CBD and Heritage Overlay Zone	High
Primary corridors (R62 spine & development spines)	Permit high intensity nodes at intersections Promote high intensity of development along development spines	Corridor Zone with non-motorised transport / Mobility Overlay which promotes pedestrian priority and taxi rank set-back controls.	High

	Require development to provide pedestrian access and taxi/stop integration		
Local Nodes (small commercial/ clinics/ schools)	Protect small scale retail and social services Provide parking and services access standards	Local Node Zone Consent Use for larger uses.	Medium
Residential	Maintain existing densities within existing neighbourhoods Allow incremental densification near nodes	Residential Zones with Density Incentive Overlay within 400–800m of nodes.	Medium
Infill & upgrading areas (informal settlement/ UISP sites)	Enable incremental tenure/upgrading Accelerate basic services	Integration / Upgrading Zone; shortened application procedures; service-clearance condition.	High
Agricultural hinterland (High potential Agriculture)	Protect primary agriculture Restrict non-farm subdivision Allow agro-processing with buffers	Agricultural Zone and Agricultural Protection Overlay with controls that sets out minimum parcel sizes and buffer rules.	High
Biodiversity / Critical Biodiversity Areas	Restrict development where CBA1 present Where trade-offs are accepted	Conservation Overlay (CBA1/2) with mandatory EIA/offset	High

	Require offsets and biodiversity plan	conditions ; no-go policy for CBA1 unless exceptional.	
Floodplain / 32m River Buffers	Prohibit sensitive development Require setback and stormwater management for permitted uses	Floodplain / 32m River Buffers with minimum setbacks & engineering conditions.	
Heritage and Tourism Nodes	Protect heritage assets Promote and uplift tourism small-scale tourism uses with design guidelines Protect existing delineated heritage overlay zone	Heritage Overlay Zone and Tourism Node Zone with design controls.	High
Fast-track investment/ HSP sites	For projects in housing pipeline that have land tenure, bulk clearance: enable shortened scheme procedures & priority CEF allocation.	Fast-Track / Priority Project Overlay shortened procedures, time-bound decision, CEF priority flag.	High

8: IMPLEMENTATION FRAMEWORK

The Implementation Framework provides the strategic and operational foundation for translating the Spatial Development Framework (SDF) into tangible outcomes. While the SDF sets out the long-term spatial vision, objectives, and structuring elements of the municipality, this section outlines the mechanisms, priority development areas, catalytic projects, infrastructure investment requirements, and partnership opportunities required to accomplish the vision for Kannaland Municipality. This framework will also enable ongoing evaluation and adaptive management to ensure that the SDF remains responsive to changing socio-economic, environmental, and fiscal conditions.

Aligned with the principles of the Spatial Planning and Land Use Management Act (SPLUMA) and other relevant national and provincial legislation, the Implementation Framework ensures that spatial proposals are supported by clear institutional arrangements, capital investment planning, land use management tools, and intergovernmental coordination. It bridges the gap between policy intent and on-the-ground delivery.

8.1: Implementation of Key Strategies

Key Strategy One: The Economy Is the Environment - Towards Sustainable Resource Use

The municipality must:

- Protect the natural resources where agricultural activities are prominent.
- Protect the distinct attributes and resources of Kannaland Municipality's Klein Karoo landscape.

Key Strategy Two: Accessibility For Inclusive Growth and Liveability

The municipality must:

- Enable access to economic opportunities, social services and recreational amenities.
- Improve road and pedestrian networks to easily connect communities with community facilities and economic opportunities.

Key Strategy Three: Sustainable Growth Management Enabling New Development Opportunities

The municipality must:

- Align service and infrastructure capacity with the need for jobs and social services.

- Recognise population dynamics in infrastructure investment.
- Optimise the accessibility network to improve livelihood and sustainable service delivery.

Key Strategy Four: Partnership-Driven Governance and Administration Towards Improved Financial and Non-Financial Sustainability and Resilience

The municipality must:

- must pursue a range of partnerships to achieve desired impacts.

8.2: Supporting Policies and Guidelines

Every spatial plan should ultimately identify projects that help achieve its intended goals. These projects can vary widely — from large or small capital investments to research initiatives, policy and guideline formulation, departmental restructuring, or amendments to by-laws. Implementation, therefore, extends beyond physical development; it also involves driving change through institutional, regulatory, and policy reforms. In accordance with SPLUMA requirements, the Implementation Framework must include:

- Supporting Policies and Guidelines to facilitate the execution of the spatial proposals; and
- A Capital Expenditure Framework that aligns projects with priorities, timeframes, and institutional responsibilities.

8.2.1: CBD Development

Promote sustainable and dynamic growth within all Central Business Districts (CBDs), while maintaining their unique character and functionality. This approach applies to all towns in the Local Municipality that contain a CBD. When preparing plans for Ladismith, Calitzdorp, and Van Wyksdorp CBDs, special attention should be given to the central public park to enhance its use and better integrate it with surrounding areas.

Key actions include:

- Updating zoning schemes to support mixed-use development.
- Encouraging development within the designated CBD boundaries.
- Establishing a defined transition zone between the CBD and adjacent residential areas.

- Specifying appropriate land uses and development parameters within this transition area to promote a well-structured urban form.
- Providing incentives for green building and the inclusion of public spaces.
- Setting clear guidelines for paving, pedestrian routes, and parking to strengthen the quality and character of public spaces.

8.2.2: Mixed Use

Promote vibrant and diverse urban areas by supporting mixed-use developments that integrate residential, commercial, and recreational functions. Allow home-based work where it aligns with the urban character and does not cause significant disruption. This applies to all towns within the Local Municipality that contain a CBD and its surrounding areas.

Key actions include:

- Establish zoning policies or overlay zones that permit a combination of housing, business, and leisure activities in identified areas.
- Introduce flexibility in building regulations to support multiple uses while maintaining safety and sustainability standards.
- Provide incentives for developers to include affordable housing and community facilities.
- Implement community participation processes to incorporate local perspectives and address potential development concerns.

8.2.3: Residential

Promote sustainable, forward-thinking, and inclusive residential development that meets future needs and improves overall quality of life. This applies to all towns within the Local Municipality where future residential growth is planned near existing settlements.

Key actions include:

- Integrating green building principles such as energy-efficient design, renewable energy use, and environmentally sustainable materials.
- Allowing a range of housing types to cater to diverse populations and evolving household patterns.
- Including universal accessibility features to support people with disabilities and the elderly.
- Providing green spaces, recreational areas, and community facilities to encourage social connection and enhance residents' well-being.

8.2.4: Tourism

Promote the vibrancy of tourism activities to uplift and enhance economic activities that will consequently promote employment in the identified areas. It applies to Ladismith, Calitzdorp and Van Wyksdorp where tourism activities are located.

Key actions include:

- Protecting the existing delineated heritage overlay zone that is set to protect the heritage assets of the towns.
- Enhance the tourism activities that exists within the towns to build the economy of the municipality.
- Maintain access roads that provide linkage to the economic activities to allow for accessibility.

8.2.5: Agriculture

Encourage the agro-processing and industrial industries located in Ladismith, Calitzdorp and Van Wyksdorp to boost the existing industrial and agricultural sector that provides most of the employment within the municipality.

Key actions include:

- Protecting the agricultural land by putting strict restrictions on the land uses that can be development on land that is zoned as agricultural land.
- Diversify the agricultural activities which will create job opportunities to the residents of the municipality

Table 34: Catalytic Projects

Key Regional Strategic Priority	Project	Budget	Responsible Actors	Timeframes	Priority
Resilient Agriculture	Agri-processing and Food Security Projects relating to the Agri-Park	R 12 million	• Department of Agriculture • Garden Route District Municipality	5-10 year	High

	Regional Fresh Produce Market (Feasibility Study and Business Plan developed and Economic Infrastructure provisioning – Ladismith and Zoar)		• Industrial Development Corporation • Development Bank of Southern Africa • Market Agents • Farmers Associations • Department of Public Works (land)		
A connected economy: transport and rural-urban integration and ICT	Accessibility Projects and Integrated Public Transport System (IPTS Route Expansion: George to Oudtshoorn and Ladismith)	R15 billion	• Department of Transport • Transnet • Garden Route District Municipality • B Municipalities • Development Bank of Southern Africa	20-30 years	Medium
Sustainable Local Energy Transition	Renewable Electricity Project (Kannaland)	R1.2 million	• Development Bank of Southern Africa	20- 30 years	Medium

			• Council for Scientific and Industrial Research • Department of Education • Deutsche Gesellschaft für Internationale Zusammenarbeit • Government Technical Advisory Centre • Eskom		
Planned and Funded Provincial Infrastructure Projects & Programmes	Ladismith - Ladismith Clinic - Replacement	R845000	Provincial Infrastructure Investment Projects and Programmes for the MTEF period 2025/26 – 2027/28	MTEF 1 2025/26 MTEF 2 2026/27	High
	Calitzdorp - Calitzdorp Clinic - R, R and R (Alpha)	R2950000	Provincial Infrastructure Investment Projects and Programmes for the MTEF period 2025/26 – 2027/28	MTEF 1 2025/26 MTEF 2 2026/27 MTEF 3 2027/28	High

	Ladismith - Ladismith (Alan Blyth) Hospital - R, R and R (Beta)	R10137000	Provincial Infrastructure Investment Projects and Programmes for the MTEF period 2025/26 – 2027/28	MTEF 1 2025/26 MTEF 2 2026/27 MTEF 3 2027/28	High
	Zoar - Amalienstein Clinic - R, R and R (Alpha)	R2263000	Provincial Infrastructure Investment Projects and Programmes for the MTEF period 2025/26 – 2027/28	MTEF 1 2025/26 MTEF 2 2026/27 MTEF 3 2027/28	High
	Ladismith - Alan Blyth Hospital - HT - R, R and R (Beta)	R680000	Provincial Infrastructure Investment Projects and Programmes for the MTEF period 2025/26 – 2027/28	MTEF 3 2027/28	Medium
	Zoar UISP (65)	R500000	Provincial Infrastructure Investment Projects and Programmes for the MTEF period 2025/26 – 2027/28	MTEF 2 2026/27	High

	Zoar Park Infill (100)	R29000000	Provincial Infrastructure Investment Projects and Programmes for the MTEF period 2025/26 – 2027/28	MTEF 2 2026/27 MTEF 3 2027/28	High
	Ladismith Parmalat (364)	R20180000	Provincial Infrastructure Investment Projects and Programmes for the MTEF period 2025/26 – 2027/28	MTEF 3 2027/28	Medium
	Calitzdorp (671) (transfer 124)	R1830000	Provincial Infrastructure Investment Projects and Programmes for the MTEF period 2025/26 – 2027/28	MTEF 1 2025/26	High
	Calitzdorp Security HSDG	R2012000	Provincial Infrastructure Investment Projects and Programmes for the MTEF period 2025/26 – 2027/28	MTEF 1 2025/26	High

	C1296 Ladismith-Calitzdorp	R24501000	Provincial Infrastructure Investment Projects and Programmes for the MTEF period 2025/26 – 2027/28	MTEF 2 2026/27	High
	C1296 Ladismith-Calitzdorp`b	R60000000	Provincial Infrastructure Investment Projects and Programmes for the MTEF period 2025/26 – 2027/28	MTEF 2 2026/27 MTEF 3 2027/28	High

Source: Western Cape Government 15/14/5/13 Budget Public Infrastructure Analysis AND Garden Route District Municipality Joint District and Metro Approach Implementation Plan (One Plan)

9: CAPITAL EXPENDITURE FRAMEWORK

This chapter links the spatial proposals which were formulated and depicts where capital spending should be prioritised.

9.1: Purpose and Legislative Requirements of a Capital Expenditure Framework

Section 21 of SPLUMA stipulates that a Capital Expenditure Framework (CEF) must form part of the Spatial Development Framework. The CEF provides a consolidated, strategic overview of a municipality's capital investment requirements over the short to medium term. It covers both infrastructure and broader development needs, outlines how these can be financed, and assesses the potential impact on the municipality's long-term financial sustainability.

The purpose of the CEF is to give effect to the spatial proposals outlined in the SDF by identifying where capital investment should be directed, which key interventions are needed, where they should occur, and who is responsible for implementation. This ensures that capital investment and project execution are guided by a coherent, long-term spatial, financial, and socio-economic strategy.

Although SPLUMA offers limited detail on the exact contents of a CEF, it is evident that this framework serves as a key tool for integrating a municipality's spatial development strategies with its Integrated Development Plan and budget. The CEF strengthens implementation by aligning spatial, financial, and programmatic planning. By clarifying what investments should occur, where, and in what order of priority, it promotes consistency between municipal strategies, plans, and policies—while reducing the risk of budget allocations that contradict or undermine the SDF.

It is crucial to understand that the CEF is a planning instrument, not a budgeting document. Therefore, the capital investments it outlines may exceed what the municipality can realistically fund within the planning period. Its main function is to identify investment needs and, under resource constraints, to enable strategic prioritisation over the short, medium, and long term (typically a 10-year horizon). Additionally, the CEF highlights potential funding sources and stakeholders—recognising that not all projects fall under the municipality's direct mandate. Many initiatives are undertaken by other spheres of government or state agencies, with their respective budgets providing for these investments.

9.2: Functional Areas

Kannaland Municipality's functional areas are expressed as follows:

Ladismith: A small service town that serves as the administrative centre of the municipality. The town is driven by agriculture and tourism. The R62 plays a crucial role in the economic development of the municipality.

Calitzdorp: A settlement node with basic social services and presents tourism and agricultural drivers for development.

Zoar: This functional area is a rural settlement with less economic activities even though it is located along the tourism route (R62).

Van Wyksdorp: this forms an isolated outlier due to geography and presents opportunities of agro-processing activities,

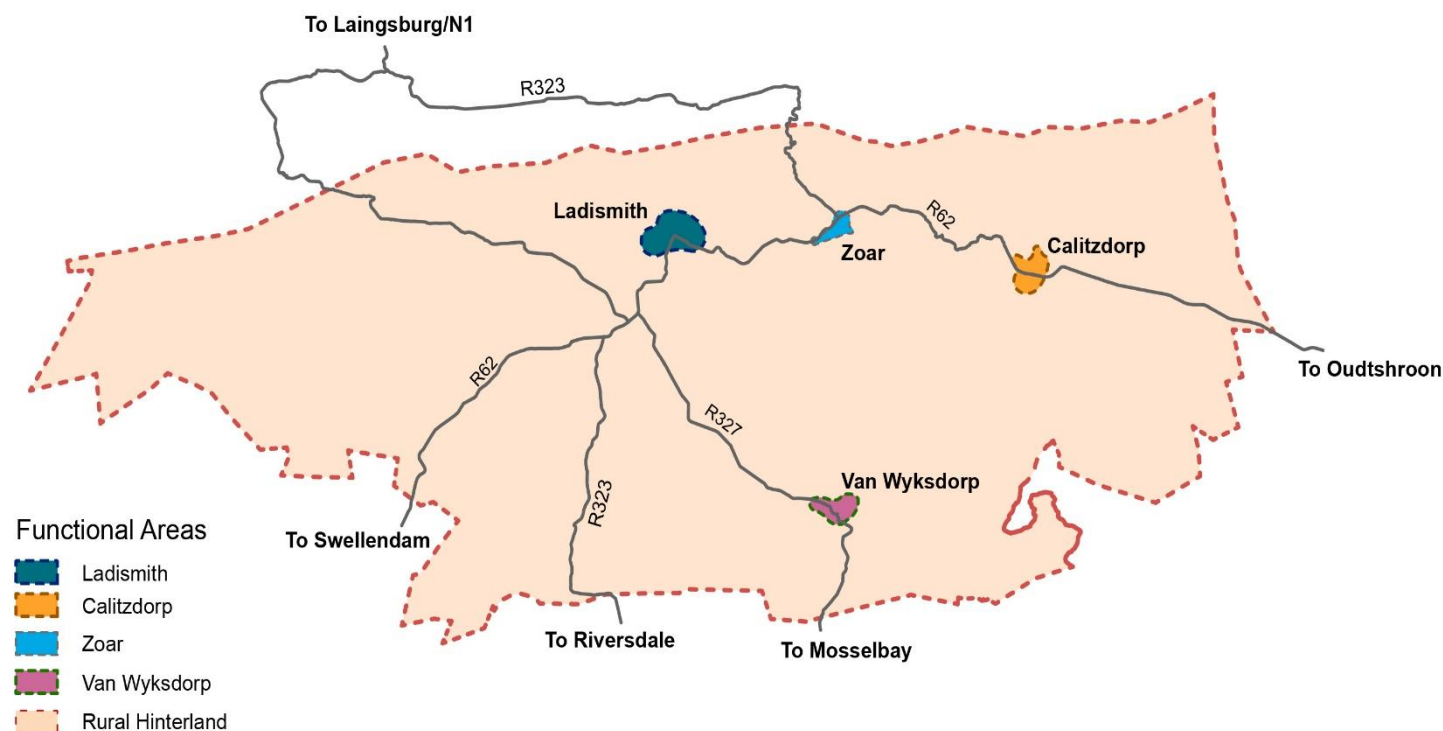


Figure 14: Kannaland Municipality's Functional Areas

9.3: Municipal Project List

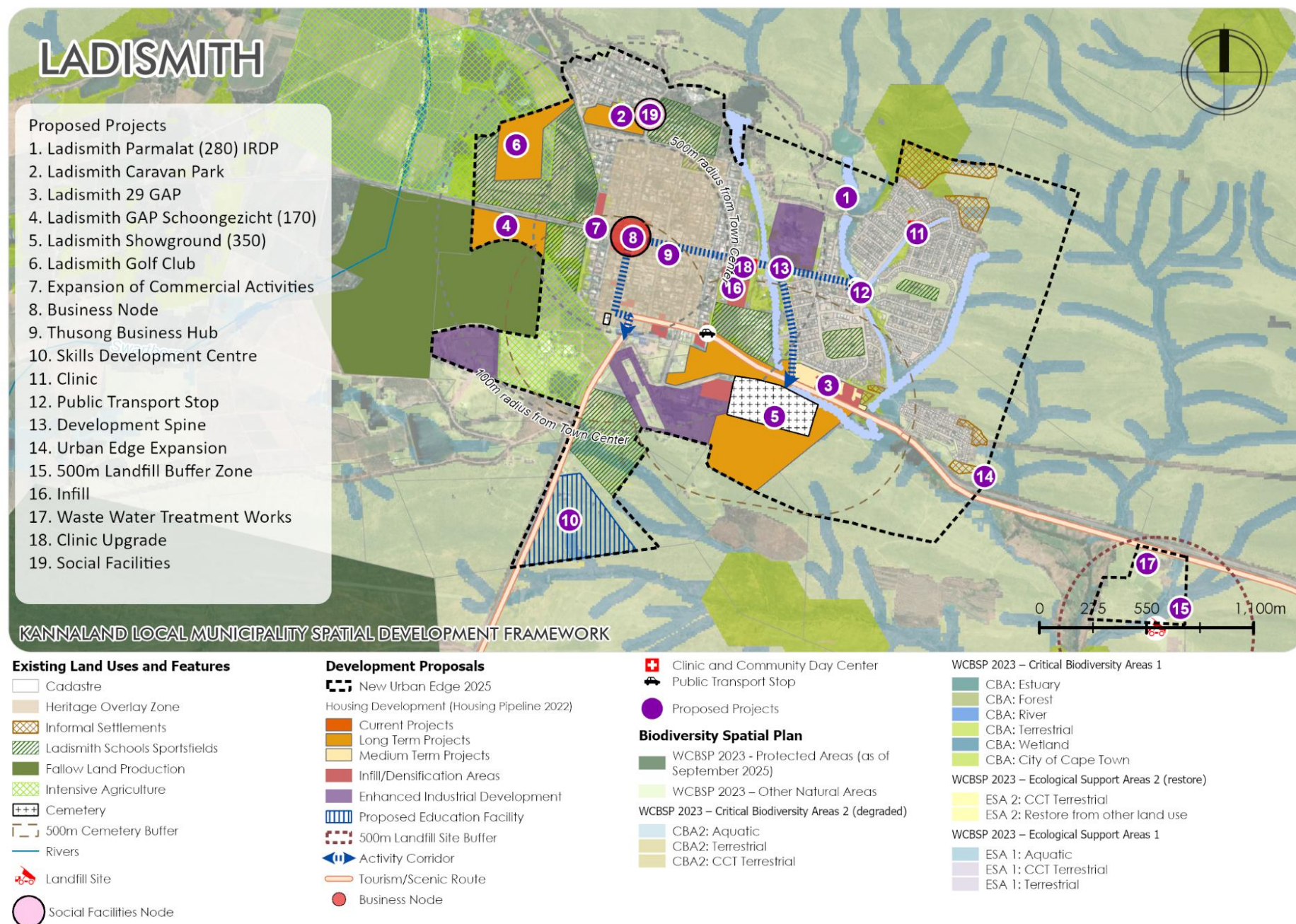
This section will look at the project list, as set out in earlier sections of this report, with the intention of formulating appropriate budgets. Some of the listed projects have already secured funding whereas others still require funding.

9.3.1: Functional Area: Ladismith

Table 35: Functional Area: Ladismith

Project/ Programme Description	Timeframe (Year)	Estimated Budget	Implementation Agent
Ladismith Parmalat 280 on RE/95 & erf 2267 which will be an Integrated Residential Development Programme that will yield approximately 280 units.	MTEF 3 2027/28	20180000	Western Cape Government Provincial Infrastructure Investment
A Finance Linked Individual Subsidy Programme on Erf 1194 that will yield 29 units	2025-2029	50 00000	Department of Infrastructure
Ladismith Golf Club which will be a finance Linked Individual Subsidy Programme on Erf 1128/95 that will yield 3 units.	2025-2029	8600000	Department of Infrastructure
New development of a private skills development school in Ladismith on Section 3 of the farm Ylands Valley no.95.	2025-2029	52 00000	Department of Education
A new healthcare clinic in the east to accommodate the communities in the residential area.	2025-2029	2300000	Department of Health
Upgrade Ladismith Clinic		R845000	Western Cape Government

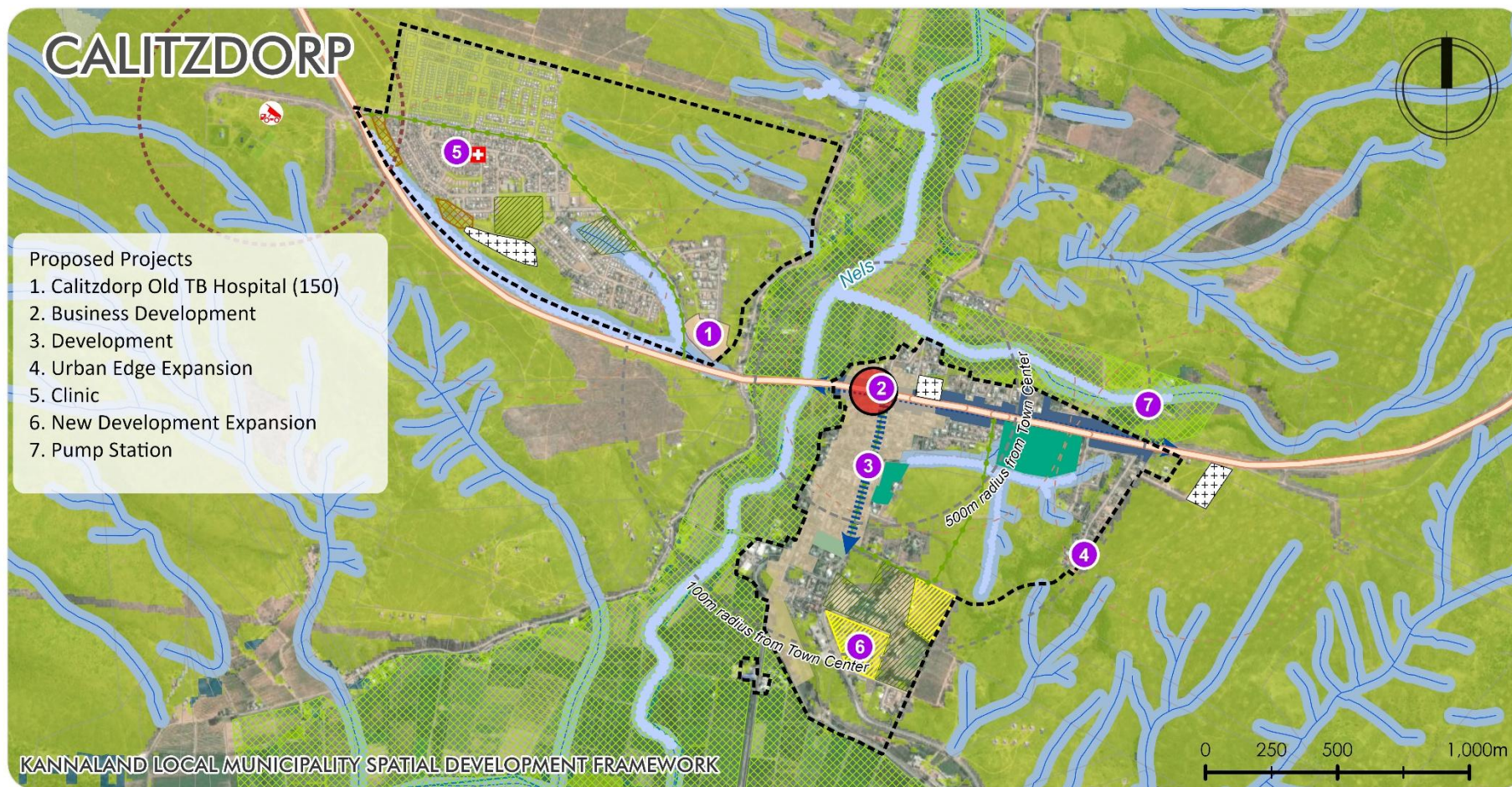
			Provincial Infrastructure Investment
Maintain and enhance existing primary access routes through surface road, particularly the R62 and R323.	2025-2029	40 00000	Department of Road and Transport
Improve the surface road of R62 between Ladismith, Zoar and Calitzdorp.	2025-2029	60 00000	Department of Road and Transport
Urban edge to be amended to accommodate the new skills development centre in Ladismith on the south of the town along the R62.	2025-2029	-	Municipality
A landfill site buffer of 500m to be implemented as a health precaution.	2025-2029	120 000 0	Municipality
The following to be undertaken: - License renewal; - Fencing of the site; and Management: proper control of the site; monitoring of methane/carbon dioxide; monitoring volume and source of waste, sorting of waste and recycling.	2025-2029	23 00000	Municipality
Refurbishment and Upgrading of Ladismith Wastewater Treatment Works.	2025-2029	24 00 0000	Department of Water and Sanitation



9.3.2: Functional Area: Calitzdorp

Table 36: Functional Area: Calitzdorp

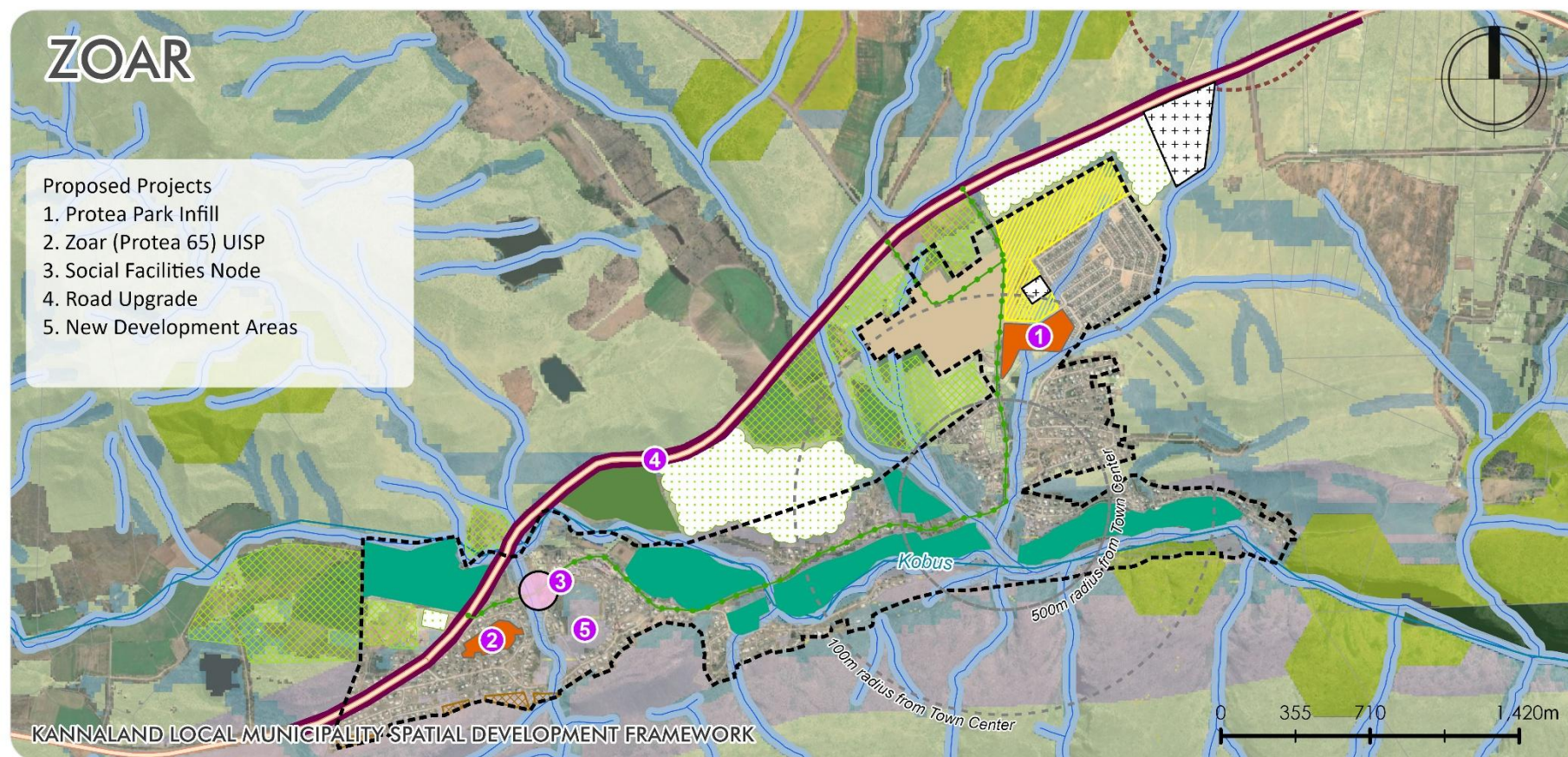
Project/ Programme Description	Timeframe (Year)	Estimated Budget	Implementation Agent
Calitzdorp Old Hospital Site on Erf 45 which will be either an Integrated Residential Development Programme or an Upgrading of Informal Settlements Programme that will yield approximately 30-50 units.	2025-2029	50 00000	Department of Infrastructure/Department of Human Settlements
Enhance and maintain access point on the R62.	2025-2029	40 00000	Department of Road and Transport
Amend urban edge to accommodate housing pipeline on the northwest of the municipality.	2025-2029	-	Municipality
Calitzdorp Transfer Station to control waste that goes to the landfill site.	2025-2029	960000	Municipality
Refurbish and upgrade of Calitzdorp Pumpstation	2025-2029	793 840,29	Department of Water and Sanitation



9.3.3: Functional Area: Zoar

Table 37: Functional Area: Zoar

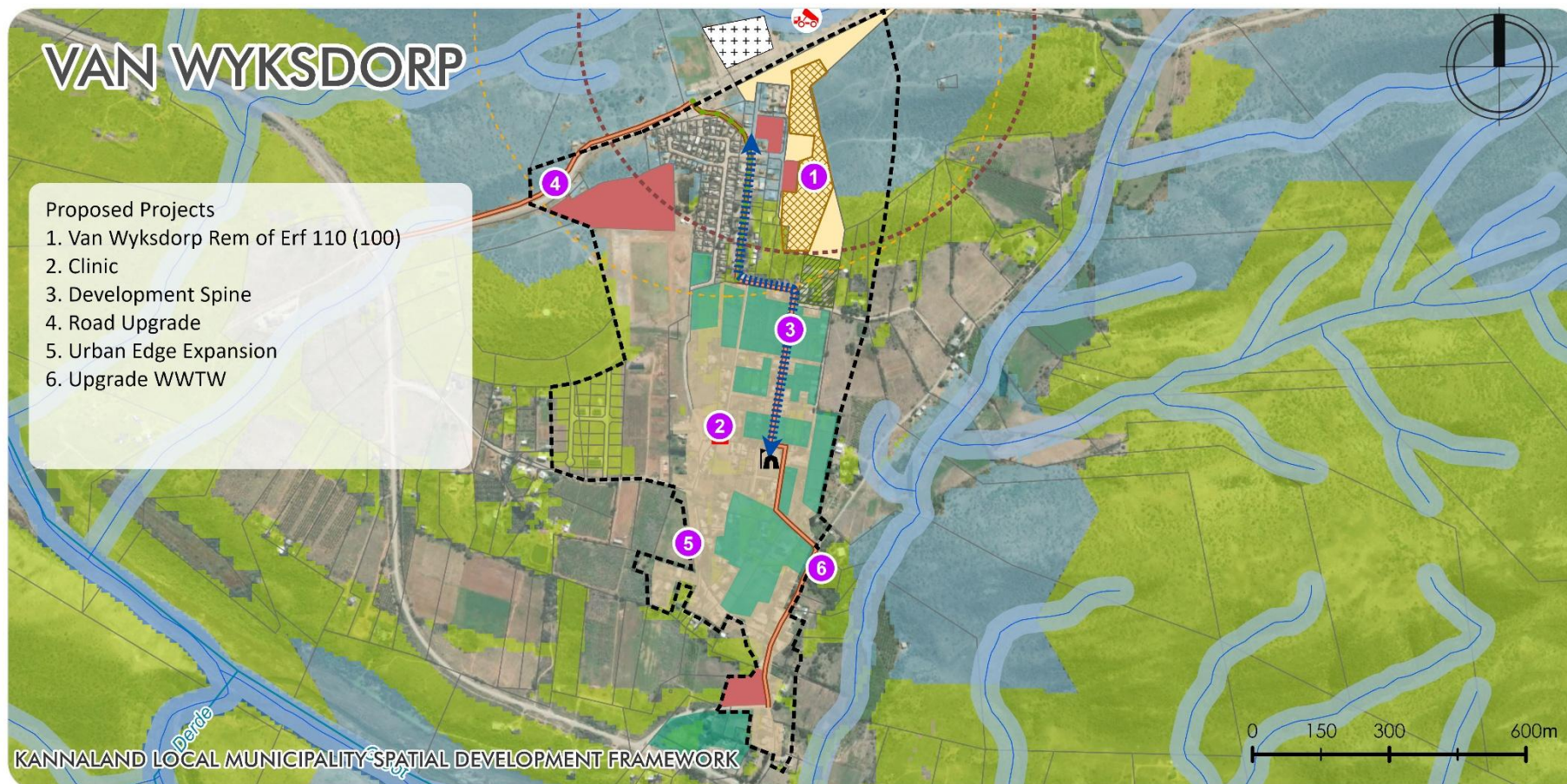
Project/ Programme Description	Timeframe (Year)	Estimated Budget	Implementation Agent
Erf 3321 Zoar Protea Park Infill on erven 1834, 1835 (public open spaces) and erf 1836 which will be an Integrated Residential Development Programme that will yield approximately 100 units.	MTEF 2 2026/27 MTEF 3 2027/28	29 000 000	Western Cape Government Provincial Infrastructure Investment
Upgrading of Informal Settlements Programme on erf 1416 that will yield approximately 65 units.	MTEF 2 2026/27	50 000 00	Western Cape Government Provincial Infrastructure Investment
Have a cluster of social facilities that will form a social facilities node.	2025-2029	50 000 00	Department of Public Works
Maintain access on the R62 which cuts across the town.	2025-2029	40 00000	Department of Roads and Transport
Amend urban edge to accommodate municipal vacant land on the southwest of the town.	2025-2029	-	Municipality
Refurbish and Upgrade Zoar WWTW (Oxidation Ponds)	2025-2029	3714 115,42	Department of Water and Sanitation



9.3.4: Functional Area: Van Wyksdorp

Table 38: Functional Area: Van Wyksdorp

Project/ Programme Description	Timeframe (Year)	Estimated Budget	Implementation Agent
Erf 110 which will be either an Integrated Residential Development Programme or an Upgrading of Informal Settlements Programme that will yield approximately 100 units.	2025-2029	15000000	Department of Infrastructure
Clinic or community date centre	2025-2029	2300000	Department of Health
New urban edge	2025-2029	-	Municipality
Refurbish and Upgrade Van Wyksdorp WWTW	2025-2029	4000000	Department of Water and Sanitation



Key Existing Land Uses and Features

- Cadastre
- Heritage Overlay Zone
- Informal Settlements
- School Sportsfield and Open Space
- Retain Garden Plots
- Cemetery
- 500m Landfill Site Buffer
- Rivers
- Flood Risk 32m Development Buffer
- Landmark Focal Point - Nederduitse Gereformeerde Kerk



Development Proposals

- New Urban Edge 2025
- Housing Development (Housing Pipeline 2022)
- Medium Term Projects
- Infill Intensification Areas
- 500m Cemetery Buffer
- Activity Corridor
- Road Trees
- Road Upgrade
- Clinic and Community Day Center
- Proposed Projects

Biodiversity Spatial Plan

- WCBS 2023 - Protected Areas (as of September 2025)
- WCBS 2023 - Other Natural Areas
- WCBS 2023 - Critical Biodiversity Areas 2 (degraded)
- CBA2: Aquatic
- CBA2: Terrestrial
- CBA2: CCT Terrestrial
- WCBS 2023 - Critical Biodiversity Areas 1
- CBA: Estuary
- CBA: Forest
- CBA: River
- CBA: Terrestrial

- CBA: Wetland
- CBA: City of Cape Town
- WCBS 2023 - Ecological Support Areas 1
- ESA 1: Aquatic
- ESA 1: CCT Terrestrial
- ESA 1: Terrestrial
- WCBS 2023 - Ecological Support Areas 2 (restore) SubCat1
- ESA 2: CCT Terrestrial
- ESA 2: Restore from other land use

9.4: Alignment of Sectoral Plans

The Spatial Development Framework serves as a long-term, cross-sectoral planning and coordination instrument, providing the spatial interpretation of the Municipality's Integrated Development Plan. While the SDF is shaped by various sector plans, it should also provide the overarching strategic and spatial direction that guides them. Accordingly, with the approval of this updated and revised SDF, it is essential that future reviews of the Municipality's sector plans use the SDF as a primary point of reference to ensure alignment and to maximise their effectiveness as implementation mechanisms of the SDF.

The following section outlines and evaluates the current status of the Municipality's sector plans in relation to the SDF. Table 39 below provides a summary of these plans, their current status, and the implications of the MSDF for each.

Table 39: Sector Plans Alignment

National KPA	Municipal KPA	Sector Plan	Status	Adopted by Municipal Council	Implication on SDF
KPA5: Basic Service Delivery	KPA1: Reliable Infrastructure	Water Master Plan	Complete and reviewed in the 2015/16 financial year. Needs to be reviewed.	February 2012	Identifies the current realities of water resources and availability within the municipality so that investment can be directed accordingly.
KPA5: Basic Service Delivery	KPA1: Reliable Infrastructure	Sewer Master Plan	Complete and was reviewed in the 2015/16 financial year	October 2009	Identifies capacity for sewage system and quality of sewage within the municipality so that investment can be directed accordingly and to support

					sustainable human settlements.
KPA5: Basic Service Delivery	KPA1: Reliable Infrastructure	Roads and Stormwater Management Plan	Not completed. The municipality plans to develop this plan during the 2015/16 financial year	Status unknown	Ensures there is an alignment between road and drainage investment with SDF growth areas, guiding sustainable and cost-effective development.
KPA5: Basic Service Delivery	KPA3: Safe Communities	Integrated Transport Plan	Completed. It needs to be reviewed.	May 2014	Ensures that the transport infrastructure investments reinforce the desired spatial vision set out in the SDF.
KPA5: Basic Service Delivery	KPA3: Safe Communities	Disaster Management Plan	Completed, with the assistance of the Garden Route District Municipality	February 2022	Ensures that spatial planning decisions proactively respond to disaster risks and climate-related vulnerabilities.
KPA5: Basic Service Delivery	KPA1: Reliable Infrastructure and KPA3: Safe Communities	Waste Management Strategy	Completed	October 2022	Ensures that spatial proposals should spatially depict landfill sites to
KPA5: Basic Service Delivery	KPA1: Reliable Infrastructure and KPA4	Human Settlement Plan	Completed	The 2023/24 – 2028/29 HSP was adopted by	Ensures that future human settlement development is spatially aligned with

				Council during August 2023.	infrastructure capacity and environmental sustainability
KPA3: Local Economic Development	KPA4: Socio-Economic Development	Local Economic Development Strategy	Completed	30 June 2023	Identifies economic activities within the municipality which will guide the SDF to place them in the appropriate locations
KPA5: Basic Service Delivery	KPA3: Safe Communities	Air quality management Plan	Completed, with the assistance of the Western Cape Province Government	2019	Ensures that development protects wellbeing and promotes low emission growth to ensure sustainability.
KPA5: Basic Service Delivery	KPA1: Reliable Infrastructure and KPA2: Service Delivery	Electricity Master Plan	Not yet developed	-	Identifies the availability of electricity and where it should be improved
KPA5: Basic Service Delivery	KPA2: Service Delivery	Alien Invasive Control Management Plan	Not yet developed	Not yet developed	

10: CONCLUSION AND WAY FORWARD

The Kannaland Spatial Development Framework (SDF) sets out a clear and practical long-term vision to guide sustainable growth and development across the municipal area. The report began with a detailed analysis of the technical status quo, which essentially captured the current state of Kannaland Local Municipality across a multi-sectorial spectrum by examining the bio-physical, built environment, and socio-economic components of the municipality in order to assess and understand the existing conditions, spatial patterns and influencing factors that shape the municipality and its towns. The analysis provided the foundation to extract key opportunities and key challenges as a means to synthesise the current state of affairs in an effort to direct planning and decision-making to wise resource allocation going forward. The analysis resulted in a unified vision statement and a spatial development concept.

The spatial development concept and spatial structuring elements were used to inform detailed town-level development plans. These plans provide guidance on land use allocation, identify areas for future growth, propose spatial integration strategies, and outline zones for focused development. Through its spatial proposals, the SDF establishes a coherent structure that strengthens the roles of Kannaland Local Municipality's key settlements—Ladismith, Calitzdorp and Zoar—while protecting valuable agricultural land, biodiversity resources, and cultural landscapes. The framework promotes compact settlement form, infill development, improved connectivity, and the integration of previously marginalised areas, ensuring a more efficient and inclusive spatial structure. The spatial proposals are underpinned by population growth forecasts and a land use budget, designed to meet projected development needs over the next five years, based on current trends and spatial demands.

The implementation plan translates the spatial proposals into actionable programmes, aligning municipal budgeting, infrastructure investment, and sector planning with identified priorities. By sequencing projects, identifying catalytic interventions, and clarifying institutional responsibilities, the SDF provides a realistic pathway from policy to delivery. It strengthens intergovernmental alignment and creates a platform for partnerships that can unlock economic opportunities, enhance service provision, and build local resilience. The Capital Expenditure Framework (CEF) provides further support to the implementation framework by linking spatial priorities to financial planning. It directs limited resources toward infrastructure upgrades, bulk services, transport networks, and community facilities that reinforce the desired spatial form. In doing so, the CEF ensures that investment decisions actively shape and support the municipality's development objectives rather than perpetuating fragmented growth patterns.

Collectively, the spatial proposals, implementation plan, and CEF position Kannaland Municipality to manage growth responsibly, address service backlogs, stimulate local economic development, and respond proactively to environmental risks. The SDF therefore serves not only

as a statutory planning instrument but as a strategic tool to guide co-ordinated, sustainable, and inclusive development for the long-term benefit of all communities within the Municipality.

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