

KOUKAMMA SPATIAL DEVELOPMENT FRAMEWORK

Review 2022

**Working Draft
Proposals/Guidelines**

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ACRONYMS

ABLMC	Aquatic Biodiversity Land Management Class
ABP	Area Based Plan
BLMC	Biodiversity Land Management Class
BRT	Bus Rapid Transport
CBA	Critical Biodiversity Area
CBD	Central Business District
CIP	Comprehensive Infrastructure Plan
CSIR	Council for Scientific and Industrial Research
DFA	Development Facilitation Act
ECBCF	Eastern Cape Biodiversity Conservation Framework
ECBCP	Eastern Cape Biodiversity Conservation Plan
ECPSDF	Eastern Cape Provincial Spatial Development Framework
ECSDP	Eastern Cape Spatial Development Plan
EIA	Environmental Impact Assessment
EMF	Environmental Management Framework
GDFI	Gross Domestic Fixed Investment
GDI	Gross Domestic Income
GDP	Gross Domestic Product
GVA	Gross Value Added
IDP	Integrated Development Plan
IDZ	Industrial Development Zone
ILUS	Integrated Land Use Scheme
KKKM	Koukamma Local Municipality
KPA	Key Performance Area
LED	Local Economic Development
LM	Local Municipality
LSDF	Local Spatial Development Framework
LUM	Land Use Management
LUPO	Land Use Planning Ordinance
MSDF	Metropolitan Spatial Development Framework
MSA	Municipal Systems Act
NBSAP	National Biodiversity Strategy and Action Plan
NDP	National Development Plan
NEMA	National Environmental Management Act
NMBM	Nelson Mandela Bay Municipality
NPC	National Planning Commission
NSDP	National Spatial Development Perspective
PGDP	Provincial Growth And Development Plan
PSDP	Provincial Spatial Development Plan
RDP	Reconstruction and Development Programme
REIPPP	Renewable Energy Independent Power Producer Programme
SBDM	Sarah Baartman District Municipality
SCU	Sustainable Community Unit
SDF	Spatial Development Framework
SEA	Strategic Environmental Assessment
SPLUMA	Spatial Planning and Land Use Management Act, 2013 (Act 16 of 2013)
SRV	Sundays River Valley
STEP	Subtopical Thicket Ecosystem Planning

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1 What is an SDF?

A Spatial Development Framework (SDF) is a framework that seeks to influence the overall spatial distribution of current and future land use within KKM to give effect to the vision, goals, and objectives of the municipal Integrated development Plan (IDP). The SDF has a longer time horizon (2030 and beyond to 2050) than the '5 year' IDP and therefore provides the long-term spatial context for the IDP. The key spatial plan of the SDF and the spatial perspective as well as the short term (5 year) spatial priorities are to be incorporated in the IDP as the SDF sector plan. Source – Adapted from the DRDLR Spatial Development Framework Guidelines

The KKM SDF covers the whole jurisdictional area of the municipality and has a longer-term focus to ensure the future growth and development does not result in unsustainable low density settlement sprawl and the destruction of the ecosystem and agricultural resources on which the KKM's economy depends. The unsustainable and destructive development will also prevent equitable access to resources and will perpetuate the spatial divisions of the past.

2 Legal Framework for the SDF

An indication of the legal requirements governing the review of the KKM SDF are summarised in the table below:

Legislation	Requirements for KLM SDF		
Municipal Systems Act, 32 of 2000 (MSA)	Spatial Planning and Land Use Management Act 16 of 2013 (SPLUMA)	Local Government: Municipal Planning and Performance Management Regulations	
Koukamma SPLUM By Law	<ul style="list-style-type: none"> • Sect 4 - The Municipality must draft a municipal spatial development framework in accordance with the provisions of sections 20 and 21 of the Act read with sections 23 to 35 of the Municipal Systems Act • Sect 4(2) A municipal spatial development framework does not confer or take away land use rights but guides and informs decisions to be made by the Municipality relating to land development • Sect 5 – Sets out the contents of municipal spatial development framework • Sect 6 – Deals with the Intention to prepare, amend or review municipal spatial development framework • Sect 6(b) – Requires that the municipality must publish a notice in a newspaper circulating in the area concerned in two of the official languages of the Province most spoken in the municipal area of the Municipality of its intention to prepare, amend or review the municipal spatial development framework and the process to be followed in accordance with section 28(3) of the Municipal Systems Act; • Sect 6(c) – Requires that KKM must inform the Member of the Executive Council in writing of its intention to review the municipal spatial development framework; and of the process to be followed. • Sect 6(d) - Requires that KKM must register relevant stakeholders who must be invited to comment on the draft municipal SDF • A project committee consisting of the Municipal Manager and municipal employees in the full-time service of the Municipality must be established to manage the SDF Review process and to make recommendations regarding the SDF to the Council • Sect 8(8) The Council must adopt the final municipal spatial development framework or final amendment or review of the municipal spatial development framework, with or without amendments, and must within 21 days of its decision give notice of its adoption in the media and the Provincial Gazette; and submit a copy of the municipal spatial development framework to the Member of the • 12(1) - A local spatial development framework or an amendment thereof comes into operation on the date of publication of the notice contemplated in section 11(2). 		

3 Study Area Overview

Kou-Kamma Local Municipality is situated in the Sarah Baartman District Municipality alongside the Indian Ocean coastline, in the southwestern area of the Eastern Cape Province. Kou-Kamma spans an area of 3 575.17 square km² and neighbours the Dr Beyers Naude Local Municipality in the North and the Kouga Local Municipality to the East and the Eden and George municipalities to the West. Kou-Kamma reports high unemployment and low levels of literacy. Settlements are scattered and situated far from each other, which pose challenges to the development of infrastructure and basic services such as water, sewage, electricity and sanitation. Two primary transportation routes traverset the municipality in a East-West direction. The N2 national route traverses the coastal/Tsitsikamma region, while the R62 Traverses the Langkloof. The municipality lacks north south linkages between these routes as well as to the hinterland of the country. Kou-Kamma Local Municipality is characterised by two diverse areas namely the coastal belt or Tsitsikamma area, which includes settlements such as Storms River, Coldstream and Clarkson and the Langkloof area, which is home to the towns of Kareedouw, Joubertina and Louterwater. The Langkloof is a famous deciduous fruit growing area. The two areas are separated by the Tsitsikamma Mountains. The administrative centre for the Kou-Kamma Municipality is Kareedouw which accommodates approximately 11% of the total population lives here. Joubertina, Ravinia and Tweeriviere accommodates another 11% of the total population and is considered the commercial centre of Kou-Kamma. Other settlements within the Kou-Kamma Municipality include: Nomphumelelo/Sandrif, Thornham, Woodlands, the Mfengu Farms, Eersterivier, Misgund, Krakeelrivier, Kwaaibrand, Koomansbos, Goesa, Witelsbos and Boskor. These settlements are divided into 6 electoral wards and are governed by a 10-member Council. Stormsriver is the primary tourism centre within the municipality. The Coastal area is characterised by a diverse and fast-growing economy driven by tourism and agriculture, a fast-growing population linked to the economic opportunities, a good water supply, and a wealth of holiday destinations and indigenous forests. – from <http://www.sarahbaartman.co.za/koukamma>.

Area	3 642.03km ²
Population (Census 2011)	40 663
Electoral Wards	6
Erven	8 431
Farm Portions	3 728
Households (CS 2016)	11 583 (4.5% are informal dwellings (shacks))



Figure 1 : Study Area

4 National Directives

4.1 State of the Nation Address (SONA) 2021

President Cyril Ramaphosa delivered the SONA to a hybrid Joint Sitting of the two houses of Parliament – the National Assembly and National Council of Provinces – in Cape Town on Thursday, 11 February 2021. He stated: “We, the people of South Africa, have over the past year experienced a terrible hardship. Like a wildfire that sweeps across the mountainous ranges where the fynbos grows, a deadly pandemic has swept across the world, leaving devastation in its path. As we have overcome before, we will overcome again and rise. But it is not just this disease that we must defeat. We must overcome poverty and hunger, joblessness and inequality.” Some of the SONA Key issues and their relevance to KKM are set out below:

SONA PRIORITY	KKM APPLICATION
Infrastructure investment project	<ul style="list-style-type: none"> It is primary focus is the provision and maintenance of infrastructure for spatially equitable social and economic development. It includes social infrastructure (human settlements, public institutions) and economic infrastructure (irrigation systems, factories, production technology, equipment and systems, as well as information and communication technology).
Water infrastructure projects	<ul style="list-style-type: none"> We have been speaking about the Umzimvubu Dam in the Eastern Cape for almost a decade, with little to show on the ground. Existing Water Sources and Future Bulk Supply Demands (Dams, Boreholes, Irrigation Schemes) Upgrade of Existing and Building of New Water Storage Facilities and Catchment Channels Installation of Water Harvesting Tanks Improvement of Blue Drop Performance (Development of WSDP with Operational and Monitoring of Implementation Plans) Installation of Smart Water Meter System (Improve Water Sources Management System)
Road projects	<ul style="list-style-type: none"> Upgrade of gravel and surfaced roads in Kareedouw, Clarkson, Mandela Park, Cold-Stream, Joubertina and Ravinia
Energy generation, transmission and distribution	<ul style="list-style-type: none"> Application for Funds to the Department of Energy Installation of Geysers to the Low-Cost Houses in Koukamma
Business support	<ul style="list-style-type: none"> Expedite the establishment and active participation of a local Business Development Forum and ensures that this structure plays a meaningful role in the decision making processes on Local Economic Development initiatives as well as the reviewal of the economic development strategies of the municipality in line with the Local Economic Development Theory and Practice
Land redistribution	<ul style="list-style-type: none"> Approximately 56 650 ha of land still need to be redistributed within the Kou-Kamma. This land reform should, as a first priority, be implemented in the key focus areas (primary and secondary nodes).
Persons with disabilities	<ul style="list-style-type: none"> This WPRPD updates the 1997 INDS, integrates obligations in the UNCRPD and responds to the Continental Plan of Action for the African Decade of Persons with Disabilities. (White Paper on the rights of persons with disabilities; approved by government 9 December 2015)
Employment stimulus	<ul style="list-style-type: none"> To provide a policy framework on which youth development programmes are based to inform Local Government youth development planning, implementation and monitoring To provide guidelines to municipalities on the design, implementation and monitoring of youth development programmes in their respective municipalities; and To provide guidelines to support municipalities and the Local Government role-players in mainstreaming youth development into their plans and programmes in line with the NPS
Climate change	<ul style="list-style-type: none"> Drought - It is very important to constantly assess rainfall in the area. The south african weather service provides maps every 10 days to show the deviation of the rainfall from the normal. A constant pattern of below normal rainfall will be the first indication that precautions in terms of drought should be taken.
	Coordinate disaster management activities

Table 1 : SONA - Koukamma Application

4.2 Spatial Planning and Land Use Management Act

The Spatial Planning and Land Use Management Act 16 of 2013 (SPLUMA) replaced the disparate apartheid era planning legislation with a new integrated land use planning system. The general principles set out in Chapter 2 of the SPLUMA apply to all of state organs and other authorities responsible for the implementation of legislation regulating the use and development of land, and provide set of development principles (Refer to Table which guide the preparation, adoption and implementation of any spatial development framework, policy or by laws concerning spatial planning and the development or use of land.

SLUMA PRINCIPLE	APPLICATION
Spatial Justice	<ul style="list-style-type: none"> • Past spatial and other development imbalances must be redressed through improved access to and use of land • Spatial development frameworks and policies at all spheres of government must address the inclusion of persons and areas that were previously excluded, with an emphasis on informal settlements, former homeland areas and areas characterized by widespread poverty and deprivation • Spatial planning mechanisms, including land use schemes, must incorporate provisions that enable redress in access to land by disadvantaged areas, informal settlements and former homeland areas • Land use management systems must include all areas of a municipality and specifically include provisions that are flexible and appropriate for the management of disadvantaged areas, informal settlements and former homeland areas • Land development procedures must include provisions that accommodate access to secure tenure and the incremental upgrading of informal areas • a Municipal Planning tribunal considering an application before it, may not be impeded or restricted in the exercise of its discretion solely on the ground that the value of land or property is affected by the outcome of the application
Spatial Efficiency	<ul style="list-style-type: none"> • Land development must optimise the use of existing resources and infrastructure. • Decision-making procedures must be designed to minimise negative financial, social, economic or environmental impacts. • Development application procedures must be efficient, streamlined, and timeframes adhered to by all parties
Spatial Sustainability	<ul style="list-style-type: none"> • Promote land development that is within the fiscal, institutional and administrative means of the Republic • Ensure that special consideration is given to the protection of prime and unique agricultural land • Uphold consistency of land use measures in accordance with environmental management instruments • Promote and stimulate the effective and equitable functioning of land markets • Consider all current and future costs to all parties for the provision of infrastructure and social services in land developments • Promote land development in locations that are sustainable and limit urban sprawl Result in communities that are viable
Spatial Resilience	<ul style="list-style-type: none"> • Spatial plans, policies and land use management systems must be flexible to ensure sustainable livelihoods in • communities most likely to suffer the impacts of economic and environmental shocks
Good Administration	<ul style="list-style-type: none"> • All spheres of government must ensure an integrated approach to land use and land development. • All government departments must provide their sector inputs and comply with any other prescribed requirements during the preparation or amendment of SDFs. • The requirements of any law relating to land development and land use must be met timeously. • The preparation and amendment of spatial plans, policies, land use schemes as well as procedures for development applications, must include transparent processes of public participation that afford all parties the opportunity to provide inputs on matters affecting them. • Policies, legislation and procedures must be clearly set out in a manner which informs and empowers the public.

Table 2: SPLUMA Principles

4.3 National Development Plan

The National Development Plan (NDP) aims to eliminate poverty and reduce inequality by 2030. The NDP provides a broad strategic framework to guide key choices and actions that will hold people accountable and find solutions to the country’s challenges. It set a vision of what the country will look like in 2030 and established a development strategy to achieve the Vision.



Figure 2:: NDP 2030 Vision (Business Day Insert)

Chapter 8 is of particular relevance to the KKM as it addresses the transformation of settlements and the national space economy.

- Upgrading of all Informal settlements on suitable, well-located land
- Increasing urban densities to support public transport and reduce sprawl
- Promoting mixed housing strategies and compact urban development in close proximity to services and livelihood opportunities
- Investing in public transport infrastructure and systems (with a special focus on commuter rail to achieve a reliable and coordinated public transport system)

4.4 Draft National Spatial Framework

The NDP calls for the development of a National Spatial Framework (NSF) to address spatial inefficiencies and inequalities, identify areas of opportunity and ensure proactive management of natural resources and ecosystems. The Draft NSF is currently undergoing consultation. It is necessary for the Koukamma SDF to take note of the outcomes of the NSF and to apply the principles contained therein.

FOUNDATION OF THE VISION

The National Spatial Development Vision is derived from the National Development Paradigm, with as its key pillars (1) the Constitution and the NDP, (2) the National Spatial Development Logic, and (3) the Post-1994 legal and policy framework. Its purpose is to provide a long-term guiding light for realising our desired Post-Apartheid Spatial Development Pattern.

THE NATIONAL SPATIAL DEVELOPMENT VISION

"All Our People Living in Shared and Transformed Places in an Integrated, Inclusive, Sustainable and Competitive National Space Economy"

THE NATIONAL SPATIAL DEVELOPMENT MISSION

"Making our Common Desired Spatial Future Together Through Better Planning, Investment, Delivery and Monitoring"



NSDF Purpose

- Target and direct all infrastructure investment and development spending decisions by national sector departments and State-Owned Entities.
- Guide and align plan preparation, budgeting and implementation across spheres and between sectors of government.
- Frame and coordinate provincial, regional and municipal Spatial Development Frameworks



Figure 3: NSDF Map - Koukamma

NSF Priority & National Action relevant to KKM

Rural Service Centre

- Rural development must be supported through a hierarchical network of prioritised service centres where people in rural areas and settlements can optimally be provided with core municipal services, social and government services, and where rural logistics and support can be provided to optimally support rural development.
- The NSDP identifies Joubertina as a Rural Service Centre.
- The primary linkages identified in the NSDF indicate economic linkages to the Knysna/Plettenberg Bay economic areas rather than to the Kouga or NMBM region.

National Coastal Corridor

- The Coastal Growth and Development Corridor along the eastern and south coasts (N2) is supported as an area of strong interconnection between high-value rural resource production, ecological resource regions, popular tourist destinations, comfortable climatic zones and urban nodes.
- This requires that small harbour development in support of the fishing, tourism and maritime economy at identified coastal regional development anchor and rural service centres be maintained, expanded and accelerated.

Key National Development Corridor and Regional Roads

- The N2 Coastal Corridor.

Agri-enterprise and Small Scale Farming Resource Region

- Productive use of high value agricultural land to support national food security.
- Rehabilitation of degraded land and effective land-use management.
- Improvement of rural-to-rural connections, market accessibility and key agricultural production infrastructure.
- Enhancement of connectivity through well-planned infrastructure investment and settlement consolidation in well-connected regional development anchors

Eco-resource Production Region and Ocean and Aqua-culture Production Region

- Enhance (1) the productive capacity, (2) environmental and livelihood quality, (3) cultural heritage, and (4) natural resource-access of these regions through effective agrarian practices and enterprise development programmes that are focussed on natural resource restoration and custodianship.
- Discourage further land and settlement development, and carefully manage existing settlements and land uses in productive agricultural regions that play a crucial role in national strategic water production, national food security and rural livelihoods.
- Pursue effective management and custodianship of national strategic water source regions.
- Ensure efficient rural-to-rural connectivity in rural regions, to enhance the prospects of making a life in these areas.
- Rehabilitate degraded land and ensure effective land use management, settlement consolidation, improved rural connectivity and an eco-resource related enterprise focus, to provide opportunities for livelihoods and industry development, and (2) support national water availability.
- Enhance and further expand the value and contribution of the Oceans' and Aqua Economy Areas to (1) local livelihoods and regional, and (2) national economic development.

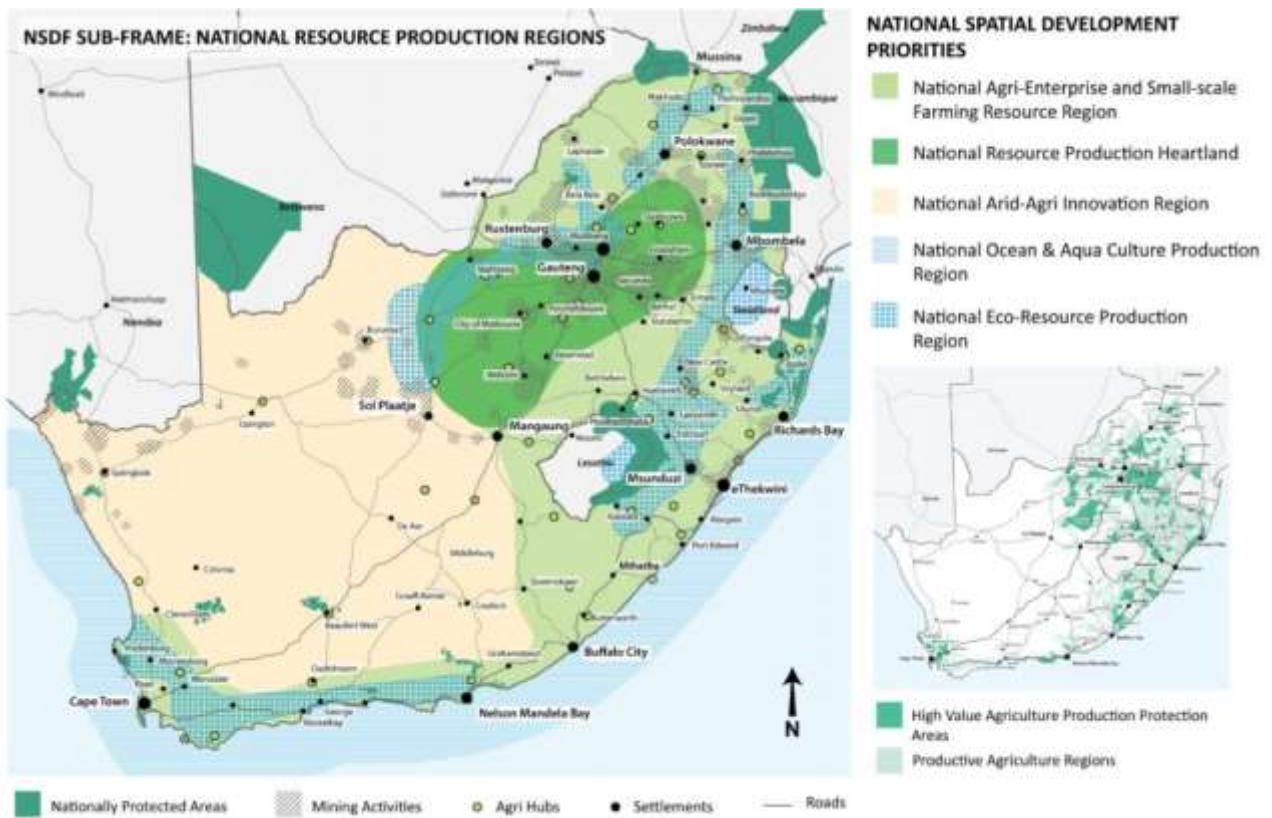


Figure 4: NSDF National Resource Production Areas

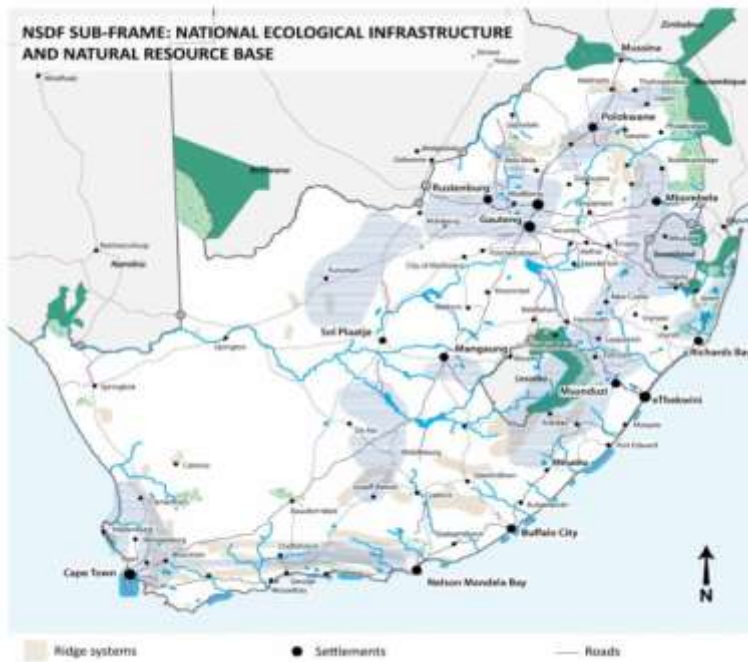


Figure 5: NSDF National Ecological Infrastructure and Resource Base

National Ecological Infrastructure and Natural Resource Base:

- Protect national ecological resources and national heritage areas.
- National spatial development is well-planned and well-managed to enable protection, as well as the effective use and beneficiation of national protected areas in accordance with the relevant regulations.
- Maintain and Strengthen the Full Range of Priority Protected Areas:
 - Transfrontier Parks;
 - Major National and Provincial Parks;
 - National Fresh Water Protection Areas; and
 - Marine Protected.

5 Provincial Directives

5.1 State of the Province Address (SOPA)

The Premier in his address has highlighted the following provincial focus areas which have relevance for the KKM SDF:

SOPA PRIORITY	KKM RELEVANCE
Infrastructure	<ul style="list-style-type: none"> • Through the Flood Relief Programme, funding to the tune of R177 million was made to upgrade the road infrastructure and storm water management system and is implemented in phases.
Agriculture	Drought and veld fires <ul style="list-style-type: none"> • Better community knowledge and understanding of how to prepare for and respond to fire • The main Fire Station was built in the Tsitsikamma area near the N-2 • The municipality is operating a full time fire service, there is currently one fire station situated in Tsitsikamma Sandrift because of the high fire risks in the area. • End hunger, achieve food security and improved nutrition and promote sustainable agriculture
Tourism	<ul style="list-style-type: none"> • Monitoring and evaluation of the development of Tourism Activity in the Huisclip Nature Reserve • Establish Partnership with Private business to develop a Management Plan and tourism activity in the Nature Reserve • Conduct trainings for tour guides • Identify tourism attractions and excursions • Revitalization of Assegaibos Station for Tourism attraction
Youth development strategy	<ul style="list-style-type: none"> • To provide a policy framework on which youth development programmes are based to inform Local Government youth development planning, implementation and monitoring • To provide guidelines to municipalities on the design, implementation and monitoring of youth development programmes in their respective municipalities.
Economic Growth	<ul style="list-style-type: none"> • These towns will be assisted to improve access to basic services with specific focus on transport hubs, roads, electricity, water and sanitation underpinned by local economic development
Human Settlement	<ul style="list-style-type: none"> • Accelerating the delivery of housing as a key strategy for poverty alleviation • Utilising provision of housing as a major job creation strategy

Table 3: SOPA - Koukamma Application

5.2 Provincial Spatial Development Framework (PSDF)

The single most important guideline for Municipal land use management and Municipal land use planning is the Provincial Spatial Development Plan (PSDP) for the Eastern Cape. The Plan provides a development vision for the Eastern Cape Province. The PSDP proposes a future spatial development outcome for the western region of the province.

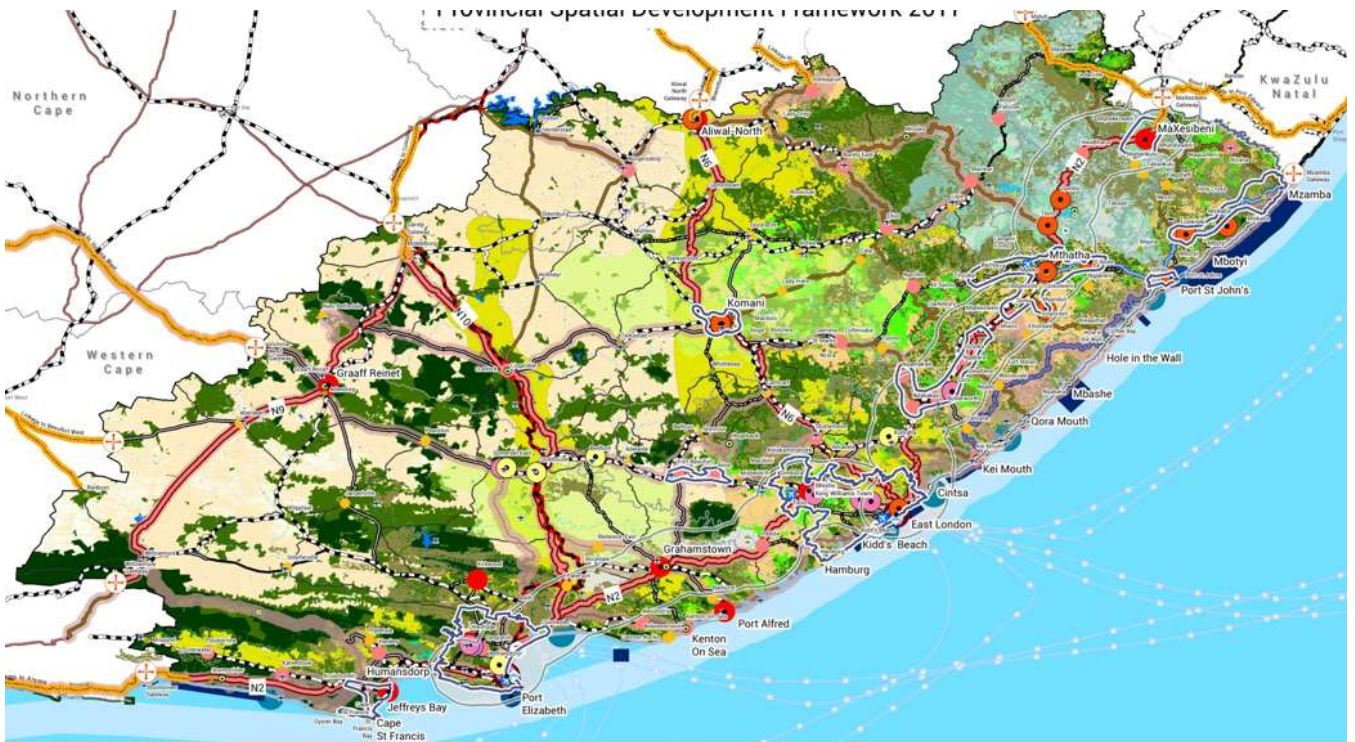


Figure 6:: PSDP 2019

EC PSDF	Alignment Factors
Environment	<ul style="list-style-type: none"> • ECBCP – Categorisation and Guidelines • Stategic Dams and Water Resources • Forestry Industry • Spatial depiction of climate change vulnerability and programme responses.
Social Development And Human Settlements	<ul style="list-style-type: none"> • Kareedouw and Joubertina Identified as Sub district centres • Misgund Louterwater and Stormsriver identified as sub local centres • No settlements highlighted for small town regeneration
Agricultural Regions and Rural Development	<ul style="list-style-type: none"> • Agri Park Alignment? • Dairy along the coast and Fruit Industry Inland, Grazing and Browsing capacity area. • Arable potential areas
Infrastructure	<ul style="list-style-type: none"> • Not highlighted as one of the ten infrastructure priority area
Economic	<ul style="list-style-type: none"> • The N2 national route (Transport and Tourism Route) • The Linkage from Kouga into the Baviaans MegaReserve and the section of the R62 are highlighted as tourism routes. • Stormsriver and Willowmore are economic gateways • Areas are identified for biomas production

Table 4 : PSDP Priorities and Objectives

6 Municipal Development Agenda

6.1 IDP Vision Statement

The municipal vision set out in the IDP is:

Vision	Strive to be a dynamic and responsibly governed area, which has an integrated, competitive and sustainable economy to better the urban and rural livelihoods of its communities.
Mission	To be a Municipality in which delivery and access to quality services creates an environment in which all citizens can prosper through socio-economic upliftment and accountable governance. It further depicts the purpose of existence of the Koukamma Municipality and how it seeks to create its relationship with the customers, local community and other related stakeholders in delivering its mandate of a developmental Local Government.
Values	<ul style="list-style-type: none"> • Integrity and Honesty • Affordable, Access and Quality Service • Inclusive and Responsive • Transparency and Accountability

Table 5: Municipal Development Agenda

6.2 Integrated Development Plan

To achieve the Vision the KKM have identified the following development priority areas,

- Municipal transformation and institutional development
- Provision of basic services
- Promotion of local economic development
- Financial viability, management and sustainability
- Good governance and public participation

The priority areas which have spatial implications for the SDF are briefly set out below.

Municipal Transformation and Institutional Development

Identification of critical skills in line with the Municipal Objectives and captured to the WSP Attraction of Scarce or Critical Skills (HR Prioritisation of Scarce Jobs) has been done as follows as outlined in the organogram:

- Director: Technical and Community Services
- **Town Planner**
- Manager: Civil Engineer (i.e. water & sanitation)
- Plumber
- ICT LAN Technician

Provision of Basic Services

Water Services

- Existing Water Sources and Future Bulk Supply Demands (Dams, Boreholes, Irrigation Schemes)
- Sustainable Bulk Water Supply Infrastructure Maintenance, Upgrade and Development
- Upgrade of Existing and Building of New Water Storage Facilities and Catchment Channels
- Installation of Water Harvesting Tanks

- Improvement of Blue Drop Performance (Development of WSDP with Operational and Monitoring of Implementation Plans)
- Installation of Smart Water Meter System (Improve Water Sources Management System)

Sanitation Services

- Sustainable Bulk Waste-Water Infrastructure Maintenance and Upgrade
- Overhauling of Existing Waste-Water Infrastructure and New Infrastructure Installation (Digesters to Full-Water Borne System and Install New Alternative Waste-Water Systems)
- Improvement of Green Drop Performance (Operational and Monitoring of Implementation Plans)

Electrification Services

- Installation of Bulk-Electrical Infrastructure Network
Installation of bulk electrical infrastructure network in Kareedouw
Application for funds for the bulk electrical infrastructure network
- Electrification of Low Cost Houses – (A number of low-cost houses Hermannskraal and Koomansbos)
- Installation of Street Lights and High-Mast
- Installation of Geysers to Low Cost Houses
- Application for Funds to the Department of Energy
- Installation of Geysers to the Low-Cost Houses in Koukamma

Road Infrastructure Network and Storm-Water Drainage Services

- Municipal Internal Streets (Paving, Surfacing and Graveling)
- Upgrade of gravel and surfaced roads in Kareedouw, Clarkson, Mandela Park, Cold-Stream, Joubertina and Ravinia.
- Provincial Roads - Upgrade of Langkloof Route (R62), Upgrade of Clarkson-Humansdorp Route (R102), Bloukrans Route (R102)

Human Settlement Services

- Destitute Houses
- Building of Low-Cost Houses in Koomansbos, Low-Cost Houses in Gri-Qua Rust
- Rectification Houses and New Housing Projects (Green-Fields, Social Houses,)
- Five (05) Year Plan on Environmental Health Services
- Review and Development of Integrated Waste Management System
- Licensing of Landfill Sites (Rehabilitation, Management and Maintenance of Land-Fill Sites and Establishment of Transfer Stations)
- Curbing of Illegal Dumping Sites and Driving Clean Settlement Campaign
- Five (05) Year Plan on Integrated Coastal Management Plan - Review and Develop a 5 Year ICMP
- Drive Working for Coast Campaign (Side-Walk Cleaning, Removal of Alien Vegetation)

Upgrade and Construction of Cemeteries

- Establishment, Upgrading and Management of New Cemeteries

Sport-Fields Development Services

- Upgrading of Sport-Field in Clarkson, Krakeel, Misgund

Multi-Purpose Community Centre and Community Halls

- Upgrading of Community Halls
- Construction of a New MPCC

Library Services

- Upgrading of Library in Clarkson
- Construction of Library in Kareedouw

Promotion of Local Economic Development

Facilitate the finalization of the LED Strategy including the establishment of meaningful partnerships with relevant sector departments and government agencies to source funding and soft infrastructure to ensure the implementation of Catalytic Business Ventures in pursuit of realizing economic stability within the municipal area. Ensure the participation and mainstreaming of PDI's in the Tourism Industry.

Major Economic Projects

- Honey Bush Tea Project
- Agri-Park Development
- Special Skills Development in Organic Gardens Project
- Guava Juice Irrigation Scheme
- Rock Art Centre
- Huisclip Nature Reserve
- Furniture Factory
- Brick and Paving Factory
- Implementation of the EPWP program

6.3 Municipal Budget Allocation

Table 7 Capital expenditure by project

DEPARTMENT	FUNCTION	ITEM DESCRIPTION	REGION	ORIGINAL BUDGET	FUNDING SOURCE	MSCOA PROJECT NUMBER
Corporate Services	Administration	Renovation of council chambers	Main Building	R 400 000.00	Internal funds	7471
	Administration	Acquisition of land	Krakeel	R 100 000.00	Internal funds	2460
	Administration	Furniture and Office Equipment	Main Building	R 80 000.00	Internal funds	7460
	ICT	Computers	Municipal Offices	R 300 000.00	Internal funds	6460
MMO & Mayors Office	MMO & Mayors Office	Furniture and Office Equipment	Main Building	R 80 000.00	Internal funds	2460
Technical & Community Services	Cemetries	Ablution facilities (Container)	Stormsrivier	R 60 000.00	Internal funds	13472
	Cemetries	Paving	Stormsrivier	R 100 000.00	Internal funds	13472
	Community Halls	Upgrading of community hall	Woodlands	R 300 000.00	Internal funds	12472
	Community Halls	Furniture (Tables & Chairs)	All wards	R 250 000.00	Internal funds	12472
	Electricity	Electrification of households	Krakeel	R 1 718 000.00	INEP	24460
	Electricity	Electrification of households	Louterwater	R 4 319 000.00	INEP	24460
	Electricity	Tools & Equipment	All wards	R 50 000.00	Internal funds	24472
	Fire Services	Tools & Equipment	All wards	R 80 000.00	Internal funds	16460
	Fire Services	Fire Engine	All wards	R 700 000.00	Internal funds	16460
	Fire Services	Furniture and Office Equipment	Blikkiesdorp	R 37 000.00	Internal funds	16460
	Library Services	Upgrading of library	Clarkson	R 180 000.00	DSRAC	11472
	Library Services	Upgrading of library	Misgund	R 200 000.00	DSRAC	11472
	Library Services	Upgrading of library	Stormsrivier	R 150 000.00	DSRAC	11472
	Waste Management	Fencing of landfill site	Woodlands	R 1 188 000.00	DEDEA	18460
	Waste Management	Fencing of landfill site	Coldstream	R 435 600.00	DEDEA	18460
	Sportsgrounds	Upgrading of sportsfields	All wards	R 150 000.00	Internal funds	17472
	Roads	Upgrading of Roads	Louterwater	R 14 555 900.00	MIG	20472
	Water Management	Jet Machine *2	All wards	R 200 000.00	Internal funds	23460
					R25 611 500.00	



In addition to the above the following in-kind transfers has been allocated to the municipality. A project relating to this allocation still needs to be confirmed:

- WSIG: R6000 000
- INEP (Eskom): R1 413 000

7 District Directives and Abutting SDF's

KKM shares borders with Kouga, Sundays River Valley, Beyers Naude (Old Baviaans LM Section) and Nelson Mandela Bay Municipalities and falls within the Sarah Baartman DM. Spatial Implications/Cross border issues requiring spatial alignment and administrative co-ordination are set out below:

SBDM	Eden 2012	George	Beyers Naude	Kouga 2020
Acknowledge the N2 coastal route	<ul style="list-style-type: none"> N2 Garden Route linkage between NMBM and the Western Cape, primarily a tourism route Langkloof alternative route key function for transport of produce to Western and Eastern Cape 	<ul style="list-style-type: none"> N2 Development Corridor Langkloof alternative route key function for transport of produce to Western and Eastern Cape 	<ul style="list-style-type: none"> N2 Development Corridor 	<ul style="list-style-type: none"> N2 Development Corridor
Biodiversity Footprint	<ul style="list-style-type: none"> Coastal Management integrated with Eden Koukamma Municipality and the Nelson Mandela Bay Municipality 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> Coastal Management integrated with Koukamma Municipality and the Nelson Mandela Bay Municipality
Protected Areas Networks	<ul style="list-style-type: none"> Baviaans Mega Reserve Planning Domain and conservation area 	<ul style="list-style-type: none"> Baviaans Mega Reserve Planning Domain and conservation area 	<ul style="list-style-type: none"> Baviaans Mega Reserve Planning Domain and conservation area 	<ul style="list-style-type: none"> Baviaans Mega Reserve Planning Domain and conservation area
ID Renewable energy areas – Wind and Hydro	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> Wind Resource Area
Tourism Focus Area	<ul style="list-style-type: none"> Tourism routes between the Western Cape NMBM, Beyers Naude and Kouga Municipalities Baviaanskloof tourism route between Patensie and Willowmore in the Western Cape (gravel and 4x4 route). Tourism routes between the Western Cape and Kouga Municipalities (Langkloof) and the N2 via Humansdorp (tarred roads). 	<ul style="list-style-type: none"> Tourism routes between the Western Cape NMBM, Beyers Naude and Kouga Municipalities 	<ul style="list-style-type: none"> Tourism routes between the Western Cape NMBM, Beyers Naude and Kouga Municipalities. Baviaanskloof tourism route between Patensie and Willowmore in the Western Cape (gravel and 4x4 route). 	<ul style="list-style-type: none"> Tourism routes between the Western Cape NMBM, Beyers Naude and Kouga Municipalities
Protect High Potential Agricultural Lands	<ul style="list-style-type: none"> Dairy Industry 	<ul style="list-style-type: none"> Langkloof Agri and Production Industry 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> Dairy Industry on Coastal Belt
Protect Forestry Areas	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> None
Protect Water Resources	<ul style="list-style-type: none"> National surface water Strategic Area 	<ul style="list-style-type: none"> Drinking Water Resource Irrigation resource 	<ul style="list-style-type: none"> Drinking Water Resource (Kouga Dam) 	<ul style="list-style-type: none"> Cross Border - Drinking Water Resource Irrigation resource

7.2 District Rural Development Plan

The objective of the DRDP is to formulate a plan that will guide investment and development in the rural areas of the Sarah Baartman District (SBD). One of the key thrusts is to address the needs of people who live in extreme poverty and who are subjected to underdevelopment in rural areas of the District. The RDP promotes the need for integrated and intensified government and private investment, and intervention leading to change in the livelihoods of rural communities. It is intended that outcomes of the DRDP be incorporated into the Municipal SDF's and IDPs. THE DRDP gives effect to to -Outcomes identified by Cabinet in 2012 with the purpose of framing public-service delivery projects. Outcome 7: Vibrant, equitable and sustainable rural communities and food security, emphasizes the importance of sustainable rural development. The DRDP vision for SBDM RDP was adopted as:

“The creation of equitable vibrant and sustainable rural communities with emphasis on poverty alleviation, service delivery, economic development and environment protection.”

The SBDM Functional Region - The DRDP approached rural development from the perspective of functional economic regions that thransend administrative boundaries. The demarcation of the Function Regions was based on the economic sectors with the highest potential for growth and expansion, their relevant linkages and influence on the total environment; being social, economic and physical. Functional Region 2 : Southern Coastal Region - The key elements of this functional region relevant to Koukamma are:

DRDP Element	Key factors
Economic Activity and Thrusts	<ul style="list-style-type: none"> Well-established citrus, deciduous fruit, maize and crop farming industries. Dairy farming is well established along the coastal belt from Humansdorp Limited forestry is located in the Tsitsikamma area. Humansdorp and Joubertina are the economic and service delivery hubs in the FR. The Langkloof area is an exporter of deciduous fruit. Pockets of land in Kareedouw and Joubertina, acquired through the land reform program. Abattoirs are located at Kareedouw and Joubertina. Several renewable energy (wind farm projects) have been developed in the region.. Expansion opportunities in this sector are anticipated.
Tourism	<ul style="list-style-type: none"> The internationally recognised Tsitsikamma National Park is located in the FR. The Baviaans Wilderness Area is located in the FR. The area is a well-established recreational and adventure tourism (The area forms part of the Garden Route corridor (The R62 tourist route)
Land Reform and Poverty Pockets	<ul style="list-style-type: none"> Poverty wards are contained in the urban settlements in the FR. The largest number of land reform farms in the District are located in the FR. Acquire land in the areas of highest poverty and where insufficient agriculture land is available
Infrastructure	<ul style="list-style-type: none"> All urban areas have appropriate infrastructure, however urgent maintenance is needed. A well planned and functional electricity network is provided by Eskom throughout the region. HV upgrading is planned for the Tsitsikamma, Melkhout, and Dieprivier network. The Thyspunt potential nuclear power site has been identified in the FR. Well established water scheme areas are located in the Humansdorp, Abattoirs are located at Kareedouw and Joubertina. Several renewable energy (wind farm projects) have been developed in the region,
Linkages and Networks	<ul style="list-style-type: none"> The N2, R62 provide access to the area. Regional distribution network are in need of maintenance and upgrade. The R335 is in urgent need of upgrade.

Table 6 : DRDP - Functional Region Key Elements

8 Spatial Principles

The SPLUMA Founding Principles will inform future land use decisions in KLM

The Founding Principles must guide preparation, adoption and implementation of the Spatial Development Framework, policy formulation concerning spatial planning and development or use of land. These objectives include the redress of spatial injustices and the integration of social economic and environmental considerations and land use management. SPLUMA reinforces and unifies the National Development Plan's vision and policies by using spatial planning mechanisms to eliminate poverty and equality while creating conditions for inclusive growth by seeking to foster a high employment economy that delivers on social and spatial cohesion.

The 5 Founding Principles set out in SPLUMA apply to the KLM SDF :

- **Spatial Justice** : past spatial and other development imbalances must be redressed through improved access to and use of land by disadvantaged communities and persons.
- **Spatial Sustainability** : spatial planning and land use management systems must promote the principles of socio-economic and environmental sustainability through encouraging the protection of prime and unique agricultural land, promoting land development in locations that are sustainable and limit urban sprawl, consider all current and future costs to all parties involved in the provision of infrastructure and social services so as to ensure for the creation of viable communities.
- **Efficiency** : land development must optimise the use of existing resources and the accompanying infrastructure, while development application procedures and timeframes must be efficient and streamlined in order to promote growth and employment.
- **Spatial Resilience** : securing communities and livelihoods from spatial dimensions of socio-economic and environmental shocks through mitigation and adaptability that is accommodated by flexibility in spatial plans, policies and land use management systems.
- **Good Administration** : all spheres of government must ensure for an integrated approach to land use and land development and all departments must provide their sector inputs and comply with prescribed requirements during the preparation or amendment of SDFs. This principle is the basis of this framework, largely because implementation of the spatial planning vision and objectives is not only highly dependent upon a strong coordinating role of central government, but is also predicated upon good governance mechanisms, incorporating meaningful consultations and coordination with a view to achieving the desired outcomes across the various planning spheres and domains.



9.3 Water Resource

The main drainage features of the study are:

- Bloukransriver (Forms the western boundary of the municipality)
- Kleinbos river
- Stormsriver
- Lottering Rivier
- Groot River
- Elandsbos Rivier
- Elands River
- Kruis River
- Vark River
- Kromme River which flows into the Churhill Dam (A water supply dam to the NMBM)
- Nationally significant surface water area (Tsitsikamma) - The Water Resource needs to be protected

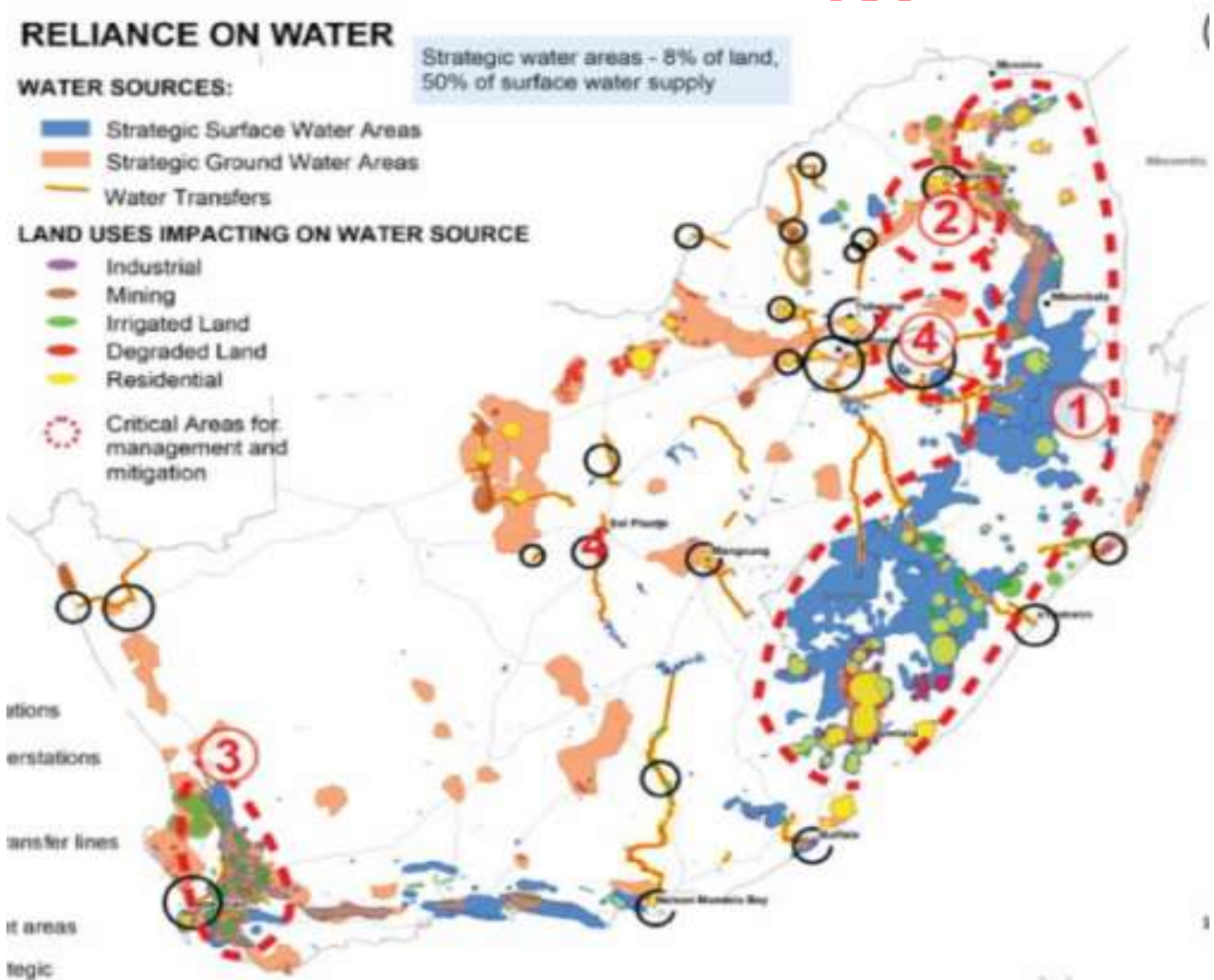


Figure 7: National Water Resources (NSDF)

The protection of these water resources has become a municipal priority.

9.4 Agriculture

12,2% has the highest agriculture potential soils in the SBDM, suitable for vegetables, deciduous fruit crops and honeybush. A large portion of the study area is taken up by forestry activities and specifically state forests, a portion of which now falls under the control of MTO Forestry (Pty) Ltd, in terms of an agreement with the Department of Water Affairs and forestry. The South African National Parks (Tsitsikamma and Stormsriver) managed indigenous forests are the biggest supplier of indigenous timber in the country. The amount of timber made available is subject to a Department of Water Affairs and Forestry quota. The Langkloof area of Koukamma and more specifically the western portion thereof is a productive deciduous fruit producing area. Apples and pears are the primary produce while wheat is cultivated in certain areas. The remaining areas of the Langkloof are utilised for livestock production including game, cattle, sheep and extensive goat farming. In the Tsitsikamma area forestry and wheat farming are common, although recently dairy farming has become prominent.

- Parts of the municipality, particularly along the R62 and along the coastal plain (south of the N2), have land classified by the DAgric as having high and medium land capability.
- Parts of the municipality, particularly along the coastal plain (south of the N2) and to the north east of the municipality, have land classified as having high and medium grazing capacity.
- The following field crops are present:

CATEGORY	HECTARES
Horticulture	6506.63
Non-pivot Ann CC / PP	12275.47
Partial irrigated Ann. CC / PP	2734.62
Old Fields	85.46
Pivot Irrigation	4290.03
Rainfed Annual CC / PP	12247.60
Subsistence Farming 1	185.57

Table 7: Agricultural Category Extents

- The current crop and pasture activity is concentrated in areas in the south and south east of the municipality, south of the N2 (i.e. pivot and non-pivot irrigation); areas along the R62, particularly to the west of the municipality (i.e. horticulture); and scattered areas to the north of the municipality, north of the R62 (i.e. rainfed).
- The region's extensive agricultural areas also add scenic value and character to the region, which contributes to Koukamma being one of South Africa's premier tourist destination.
- Water scarcity threatens agricultural production.
- The NSF identifies the Kouga and Koukamma farming areas as being significant to sNational Food Security.

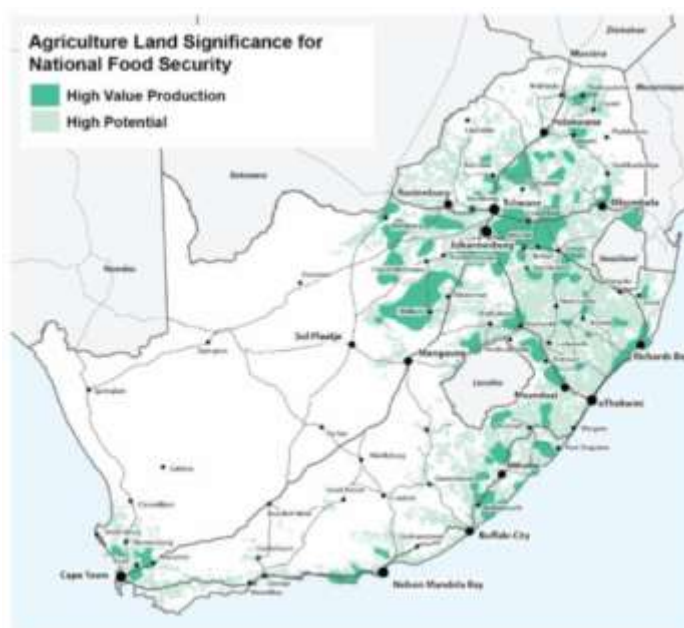


Figure 8; NSDF - Agric Land Significance for Food Security

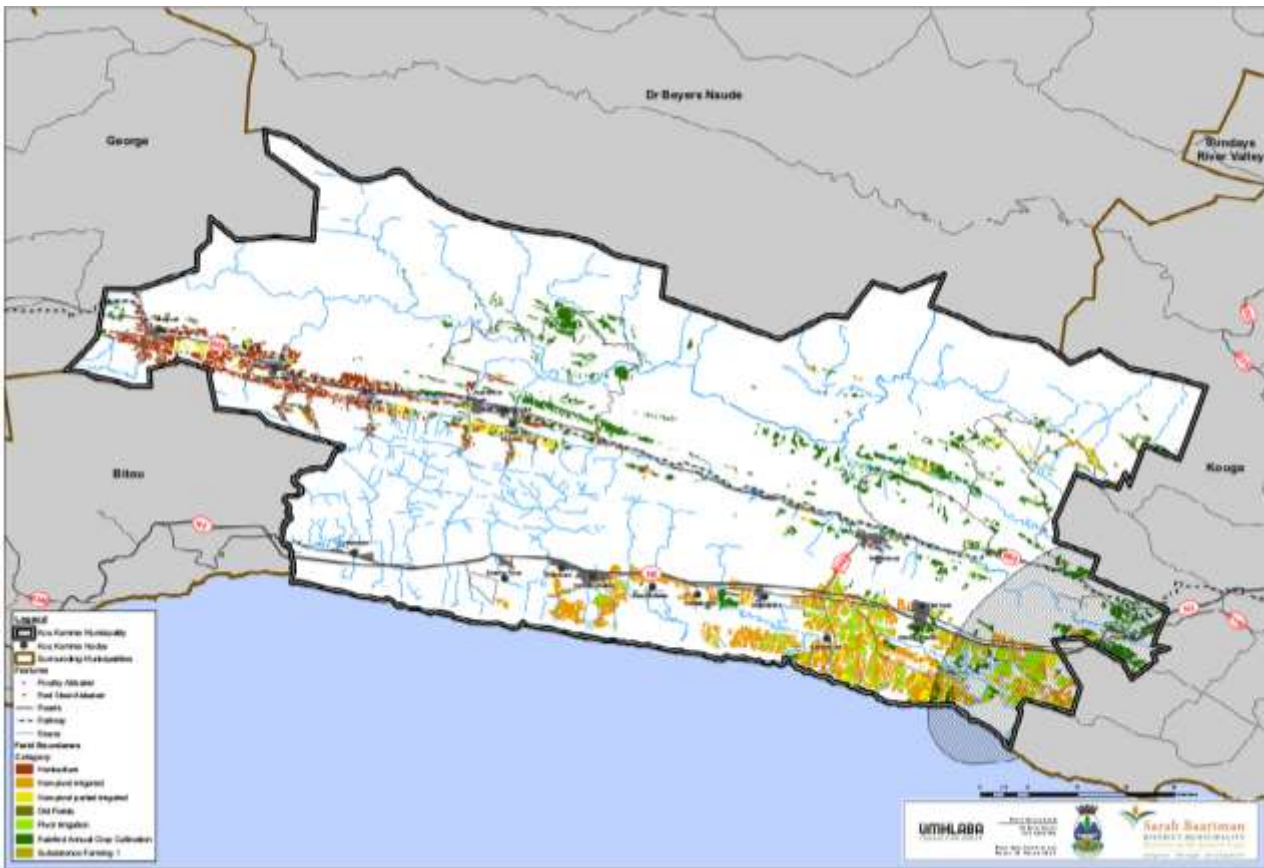


Figure 9: Field Crop Boundaries – THERE IS NO METADATA (I.E. NO DATE)

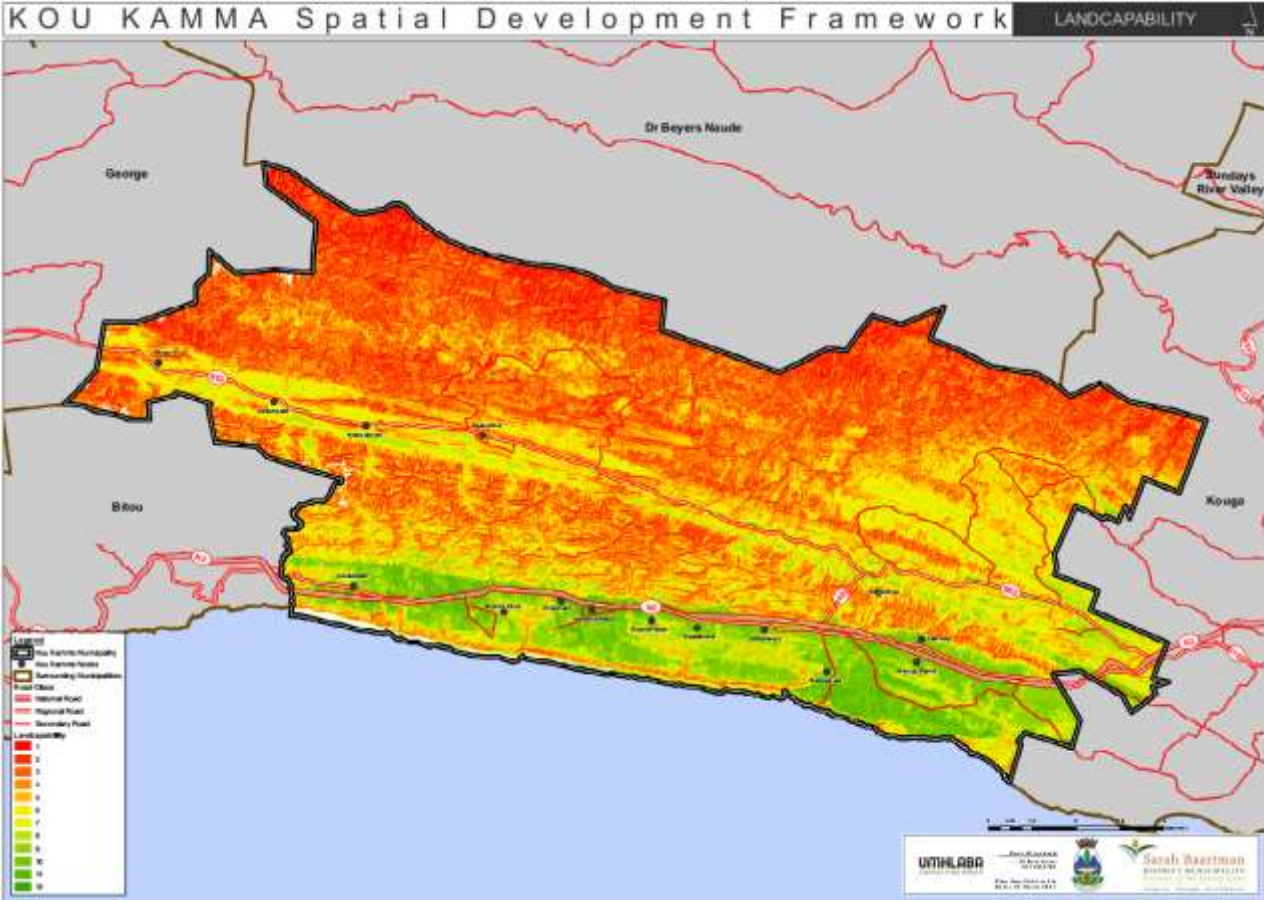


Figure 10: Land Capability

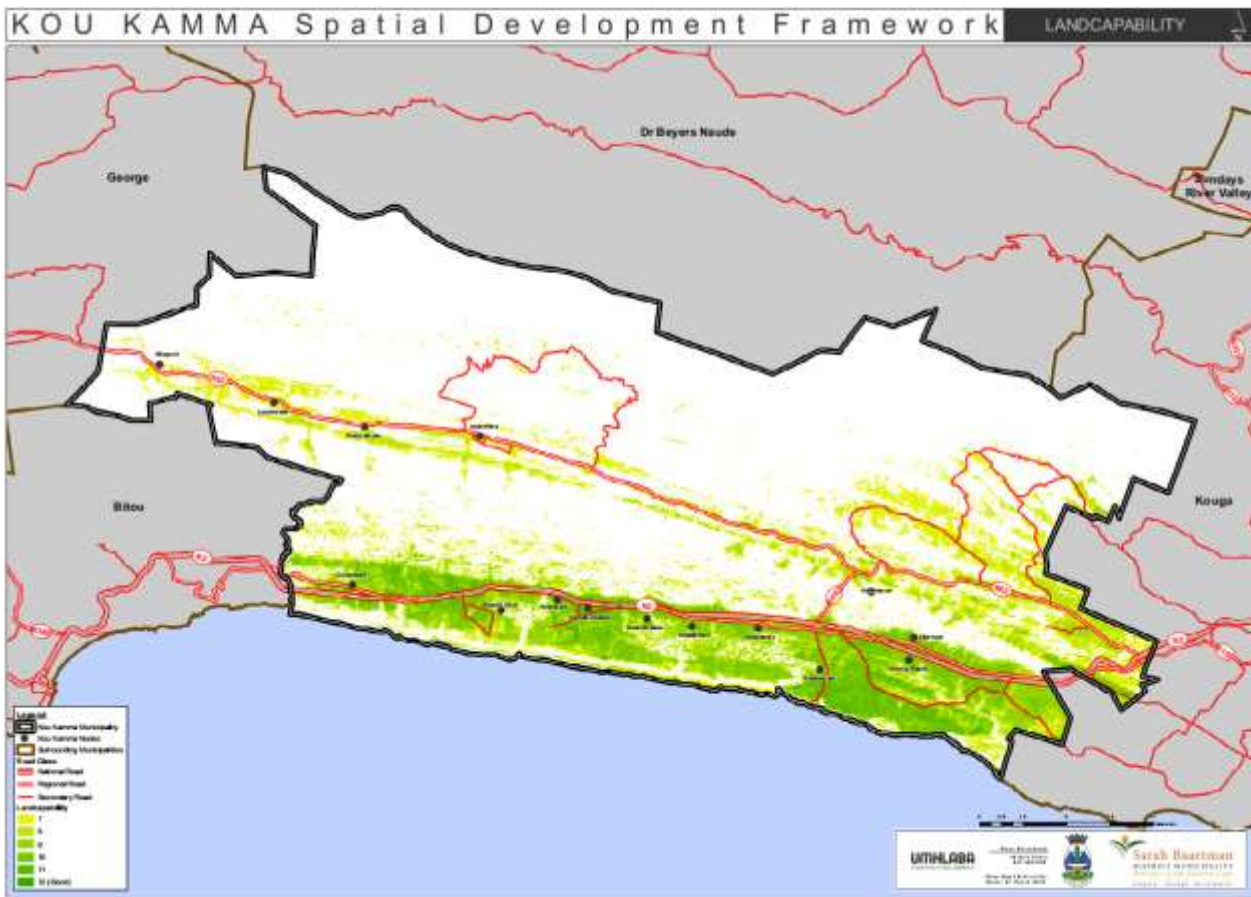


Figure 11: Higher Land Capability

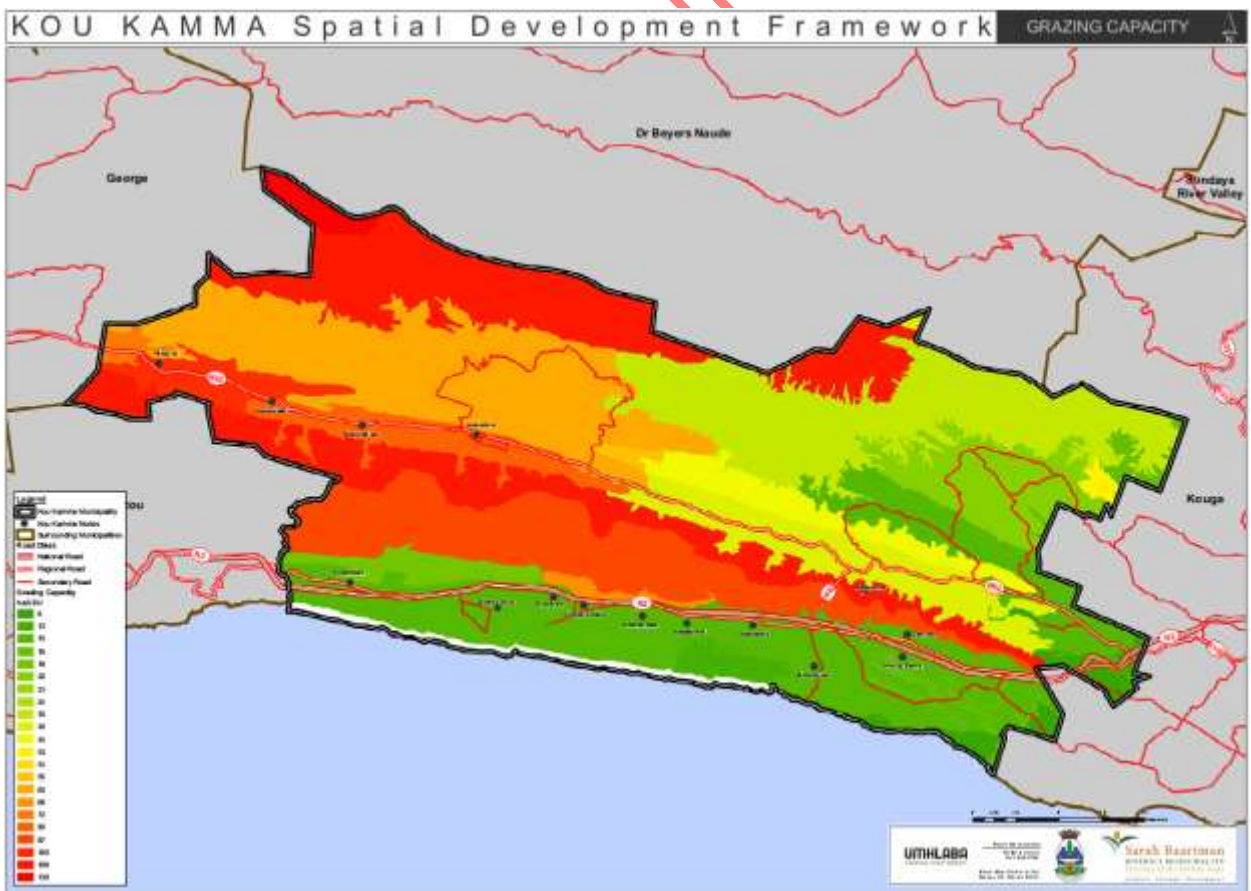


Figure 12: Grazing Capacity

9.5 Biodiversity

In the absence of a Municipal Strategic Environmental Assessment, Coastal Management Plans or an Environmental Management Plan the KKM SDF relies on the proposals of the Eastern Cape Biodiversity Conservation Plan (2007), which is currently under review. The Eastern Cape Biodiversity Conservation Plan (ECBCP) biodiversity conservation status is reflected on Figure 13:

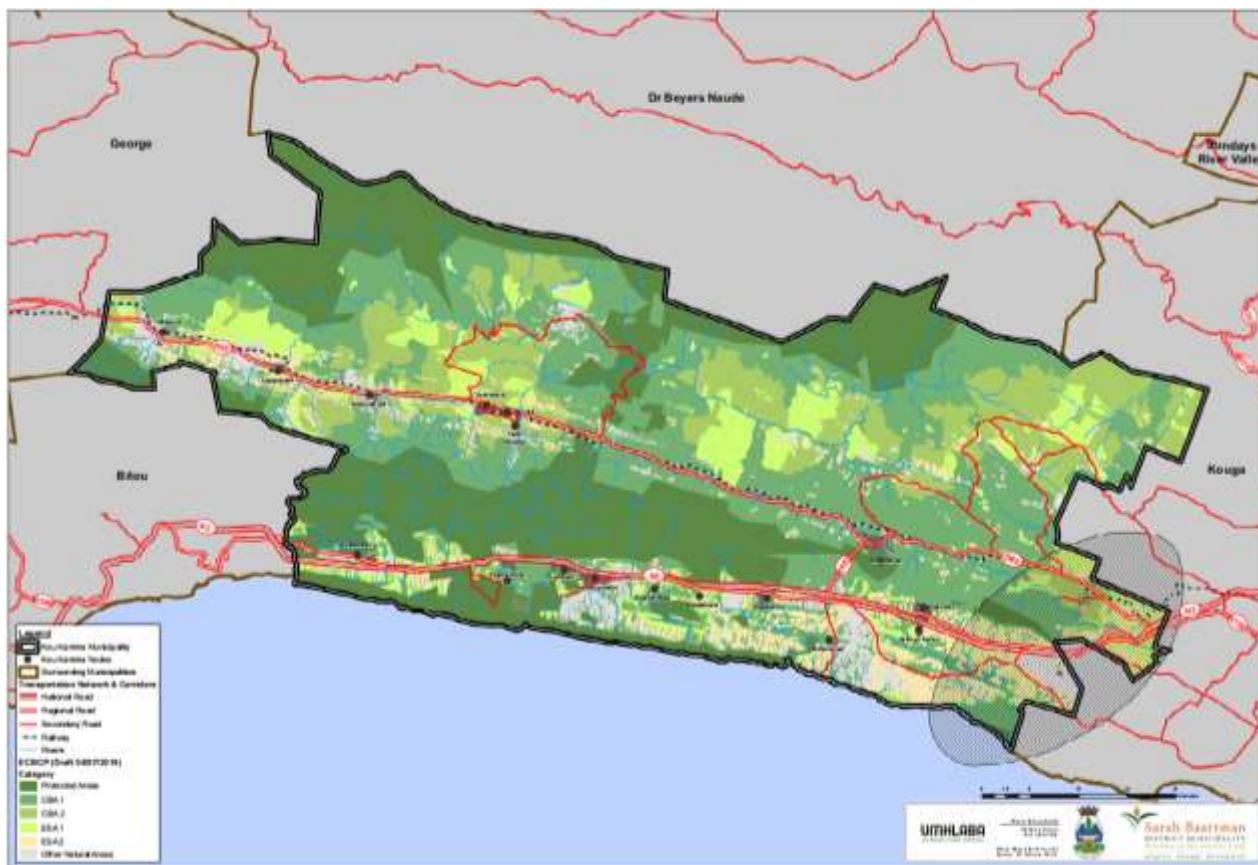


Figure 13: ECBCP (2019)

9.6 Forestry

A large portion of the study area is taken up by forestry activities and specifically state forests. A portion of which now falls under the control of MTO Forestry (Pty) Ltd. (MTO). The commercial forestry areas, reflected on the adjoining plan are confined to the Tsitsikamma region and span the entire length of the coastal plain and mountains and extend into the Western Cape. Refer to Figure 14

MTO is a private forestry company which has entered into a lease agreement with the state. This lease agreement protects MTO from land being arbitrarily removed from the lease area, by enabling mechanisms of compensation and reallocation of other areas. As a business entity and as a result of the long-term nature of forestry MTO's operations are undertaken as a unit from the Western Cape to the Eastern Cape. The loss of forestry compartments for whatever reason has a long-term impact on the operational and financial functioning of MTO.

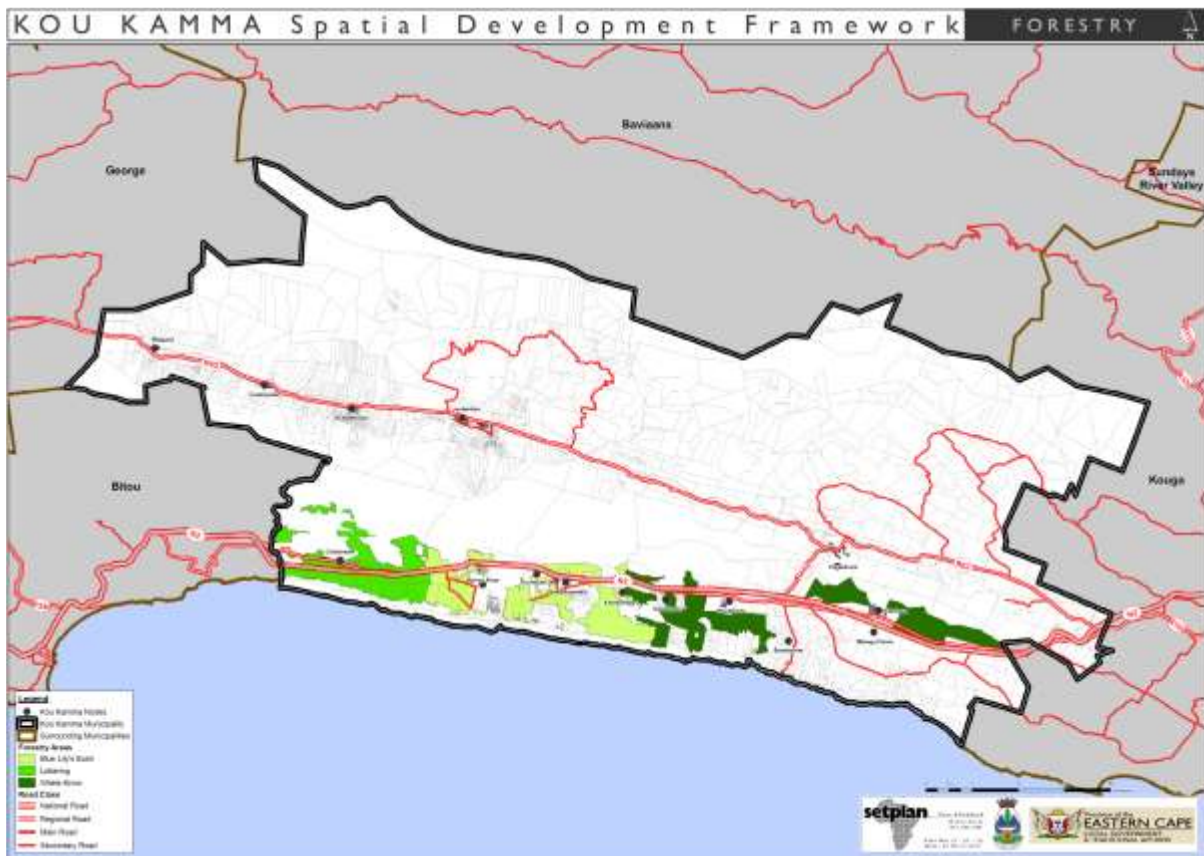


Figure 14:Forestry

9.7 Coastal Management

The Sarah Baartman District Municipality (SBDM) has developed a Coastal Management Programme (CMP) to guide integrated management of the coastal zone within the District. The CMP is structured to be a coherent municipal policy directive for coastal zone management which is consistent with relevant legislation, available programs and policies. It includes a 'Vision' for the management of the SBDM coastal zone including the sustainable use of coastal resources, objectives for the coastal zone, priorities and strategies, as well as performance indicators to measure progress.

The coastline of the SBDM is 320 KKM long, and includes 4 coastal LMs – Koukamma, Kouga, Sundays River Valley and Ndlambe LMs. The 1 KKM buffer inland from the high-water mark of the sea is used as the landward boundary of the study area. In addition, a catchment management approach has been adopted in this CMP, where a catchment area has been designated for each LM considering topography, land cover and physical boundaries.

The intention is to incorporate activities within the catchment that have bearing on what happens at the coast and to consider these in integrated coastal management planning. The seaward extent of the study area is 500m seawards of the high-water mark of the sea, however where important attributes occur beyond this distance, they are included in the program.

Nine principles have been identified for the SBDM coastal zone; these are:

- Approach coastal zone management holistically, using a 'catchment' approach that considers the inter-relationships of people and ecosystems
- Conserve natural, archaeological, cultural and heritage resources
- Prevent pollution and maintain a clean, healthy environment
- Promote sustainable and responsible economic development and natural resource utilization

- Create an informed and resilient community and place, where people have consideration for one another and their environment
- Preserve and respect 'sense of place' where the unique character and its intrinsic value is appreciated
- Promote collective responsibility for coastal zone management by the public and government
- Ensure equitable access to the coastal zone and freedom of movement for the whole community
- Prioritise safe use of the coastal zone for all people
- The study focus area as well as the relevant coastal buffers are set out on

The study area ('Cachment focus area') as well as the various buffer zones are reflected on Kou-Kamma is subject to these zones of the coastal management plan:

- The Tsitsikamma Marine Protected Area (MPA)
- The 1km buffer inland from the high-water mark of the sea is used as the landward boundary extent
- The 500m buffer seawards of the high-water mark of the sea is used as the seaward boundary extent

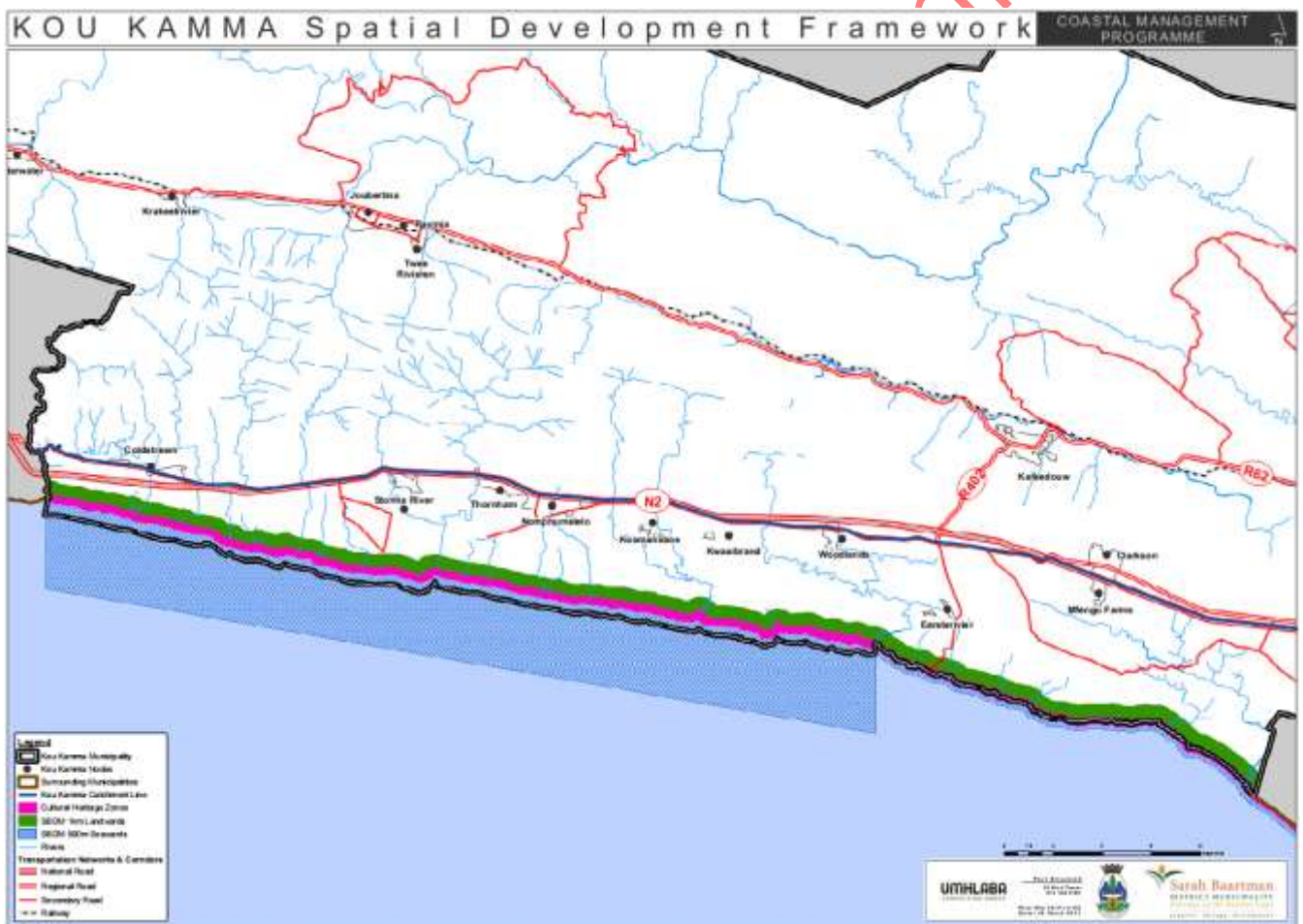


Figure 15 : Coastal Management Programme

10 Socio Economic Environment

This data has been sourced from the following sources:

- <https://census2011.adrianfrith.com/place/269>
- <https://wazimap.co.za/profiles/ward-21009004-kou-kamma-ward-4-21009004/#economics>

10.1 Population

- The 2016 Community Survey estimated the population size of the Kou-Kamma at 43688
- Growth from the 2011 Census figure at 40663 (Census 2011).

Population

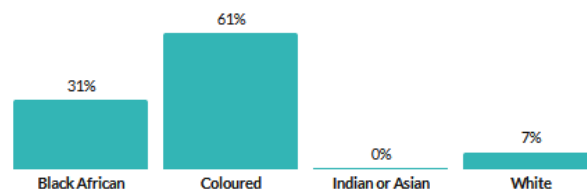
43 688

People

about 10 percent of the figure in Sarah Baartman: 479,922L

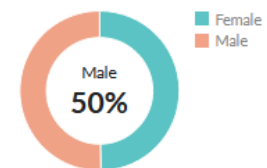
less than 10 percent of the figure in Eastern Cape: 6,996,976L

Population group



Source: Community Survey 2016

Sex



Source: Community Survey 2016

10.2 Education

- Within Kou-Kamma Local Municipality, the number of people without any schooling decreased from 2006 to 2016 with an average annual rate of -7.45%, while the number of people within the 'matric only' category, increased from 3,600 to 5,420. The number of people with 'matric and a certificate/diploma' increased with an average annual rate of 3.52%, with the number of people with a 'matric and a Bachelor's' degree increasing with an average annual rate of 5.36%. Overall improvement in the level of education is visible with an increase in the number of people with 'matric' or higher education

Educational level

63.6%

Completed Grade 9 or higher

about the same as the rate in Sarah Baartman: 63.03%

about the same as the rate in Eastern Cape: 64.66%

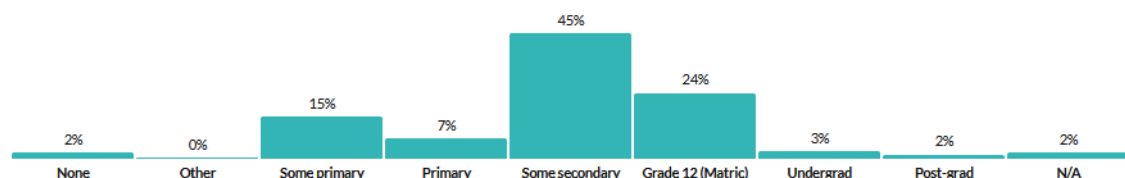
28.3%

Completed Matric or higher

about 90 percent of the rate in Sarah Baartman: 30.84%

about 90 percent of the rate in Eastern Cape: 32%

Population by highest educational level



* Universe: Individuals 20 and older
Source: Community Survey 2016

- The number of people without any schooling in Kou-Kamma Local Municipality accounts for 5.19% of the number of people without schooling in the district municipality, 0.27% of the province and 0.04% of the national. In 2016, the number of people in Kou-Kamma Local Municipality with a matric only was 5,420 which is a share of 7.63% of the district municipality's total number of people that has obtained a matric. The number of people with a matric and a Postgrad degree constitutes 6.00% of the district municipality, 0.44% of the province and 0.04% of the national
- The distribution of people with no schooling between genders is regarded as being equal with 7094 males with no schooling compared to 6732 females without schooling.
- Of those aged 20 years and older, 23% have some primary education, 10% have completed primary school, 40% have some secondary education, 19% have completed matric, and 3% have some form of higher education.
- 5% of the total Kou-Kamma population does not have any schooling.

10.3 Functional Literacy

- A total of 24 700 individuals in Kou-Kamma Local Municipality were considered functionally literate in 2016, while 6 740 people were considered to be illiterate. Expressed as a rate, this amounts to 78.57% of the population, which is an increase of 0.11 percentage points since 2006 (67.44%). The number of illiterate individuals decreased on average by -2.83% annually from 2006 to 2016, with the number of functional literate people increasing at 2.89% annually.
- Kou-Kamma Local Municipality's functional literacy rate of 78.57% in 2016 is higher than that of Sarah Baartman at 78.31%, and is higher than the province rate of 77.18%. When comparing to National Total as whole, which has a functional literacy rate of 83.31%, it can be seen that the functional literacy rate is higher than that of the Kou-Kamma Local Municipality.

10.4 Income and Poverty

- It was estimated that in 2016 9.46% of all the households in the Kou-Kamma Local Municipality, were living on R30,000 or less per annum. In comparison with 2006's 38.28%, the number is significant lower. The 96000-132000 income category has the highest number of households with a total number of 1 560, followed by the 72000-96000 income category with 1 550 households. Only 0.47% households fall within the 0-2400 income category.
- For the period 2006 to 2016 the number of households earning more than R30,000 per annum has increased from 61.72% to 90.54%. It can be seen that the number of households with income equal to or lower than R6,000 per year has decreased by a significant amount.
- The total personal income of Kou-Kamma Local Municipality amounted to approximately R 2.24 billion in 2016
- The per capita income in Kou-Kamma Local Municipality in 2016 is R 50,600 which is higher than both the Eastern Cape (R 37,800) and of the Sarah Baartman District Municipality (R 49,700) per capita income. The per capita income for Kou-Kamma Local Municipality (R 50,600) is lower than that of the South Africa as a whole which is R 53,800

10.5 Access to Health Care

- There are health facilities in all the major settlements with the District Hospital located in Kareedouw, the main administrative centre. Smaller communities are served by mobile clinics on set days.

Health Facilities

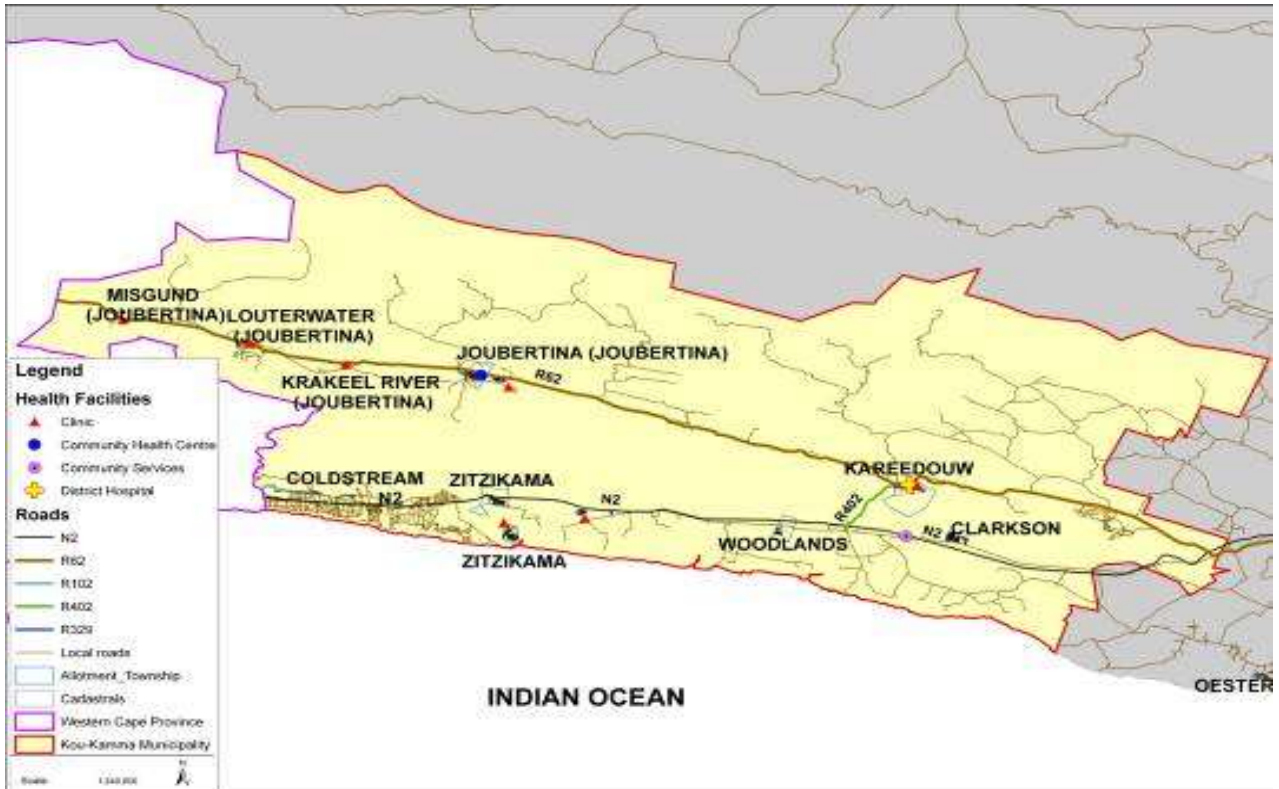


Figure 16: Health Facilities (From 2007 HSector Plan)

10.6 Access to Sanitation

- Kou-Kamma Local Municipality had a total number of 11 400 flush toilets (88.89% of total households), 358 Ventilation Improved Pit (VIP) (2.80% of total households) and 393 (3.08%) of total households pit Toilets
- When looking at the sanitation backlog (number of households without hygienic toilets) over time, it can be seen that in 2006 the number of Households without any hygienic toilets in Kou-Kamma Local Municipality was 2 720, this decreased annually at a rate of -8.98% to 1 060 in 2016.

Toilet facilities

92.5%

Have access to flush or chemical toilets

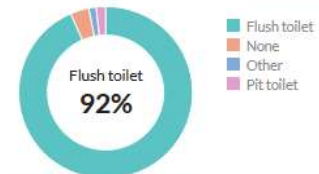
about 10 percent higher than the rate in Sarah Baartman: 84.57%
about double the rate in Eastern Cape: 47.29%

3.4%

Have no access to any toilets

about 1.5 times the rate in Sarah Baartman: 2.28%
about three-fifths of the rate in Eastern Cape: 6.03%

Population by toilet facilities



Source: Community Survey 2016

10.7 Access to Water

- 90.2% of households have access to piped clean water. 79.4% of the water is piped inside the house and 10.8% of the water is piped inside the yard
- Water is supplied to all formal households, businesses, neighbouring farms and approximately 7500 households in the informal settlements.

Water

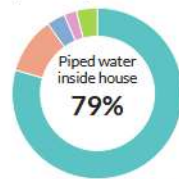
86.6%

Are getting water from a regional or local service provider

a little less than the rate in Sarah Baartman: 90.45%

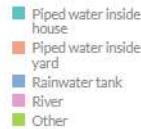
about 25 percent higher than the rate in Eastern Cape: 68.54%

Population by water source



Source: Community Survey 2016

Chart Options



Population by water supplier



Source: Community Survey 2016

Chart Options



10.8 Access to Refuse

Refuse disposal

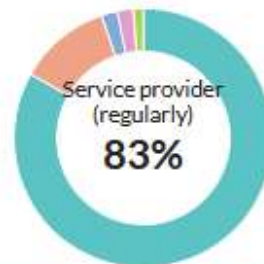
85.2%

Are getting refuse disposal from a local authority, private company or community members

about the same as the rate in Sarah Baartman: 87.4%

more than double the rate in Eastern Cape: 38.61%

Population by refuse disposal



Source: Community Survey 2016

Chart Options



10.9 Access to Electricity

Electricity

3.5%

Have no access to electricity

about two-thirds of the rate in Sarah Baartman: 5.36%

about one-third of the rate in Eastern Cape: 10.93%

Population by electricity access



Source: Community Survey 2016

Chart Options



10.10 Access to Housing

- There are approximately 9820 formal, 830 informal households and 152 other households.
- A percentage of households (7.4%) live in informal or traditional dwellings, which would form part of the housing backlog.
- There are approximately 9820 formal, 830 informal households and 152 other households.
- A percentage of households (7.4%) live in informal or traditional dwellings, which would form part of the housing backlog.

Households

11 583

Households

about 10 percent of the figure in Sarah Baartman: 138,181

less than 10 percent of the figure in Eastern Cape: 1,773,396

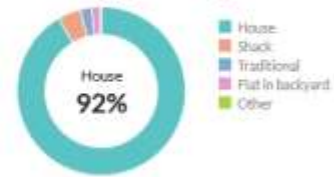
4.5%

Households that are informal dwellings (shacks)

about half the rate in Sarah Baartman: 9.38%

about three-fifths of the rate in Eastern Cape: 7.38%

Households by type of dwelling Chart Options



Source: Community Survey 2016

Households by type of dwelling (Table TYPEOFDWELLING)

Column	Kou-Kamma	
House	91.5%	10,601
Shack	4.5%	516
Traditional	2.1%	248
Flat in backyard	1.7%	195
Other	0.2%	23

2016

10.11 Crime Statistics and Policing

There are 3 police stations in the Koukamma area namely: Joubertina, Kareedouw and Storms River. The following criminal statistics were recorded for the period 2019 to 2020:

CRIME CATEGORY 2019/2020	Joubertina	Kareedouw	Stormsriver
CONTACT CRIMES (CRIMES AGAINST THE PERSON)			
Murder	8	4	4
Sexual Offences	32	12	12
Attempted murder	5	1	1
Assault with the intent to inflict grievous bodily harm	184	23	39
Common assault	104	23	26
Common robbery	7	4	5
Robbery with aggravating circumstances	19	12	4
Total Contact Crimes (Crimes Against The Person)	359	79	91
Total Sexual Offences			
Rape	27	10	12
Sexual Assault	2	1	0
Attempted Sexual Offences	1	1	0
Contact Sexual Offences	2	0	0
Total Sexual Offences	32	12	12
SOME SUBCATEGORIES OF AGGRAVATED ROBBERY			
Carjacking	0	0	1
Robbery at residential premises	3	4	0
Robbery at non-residential premises	4	0	2
Robbery of cash in transit	0	0	0
Bank robbery	0	0	0
Truck hijacking	0	0	0
CONTACT-RELATED CRIMES			
Arson	0	0	0
Malicious damage to property	73	13	17
Total Contact-Related Crimes	73	13	17
PROPERTY-RELATED CRIMES			

Burglary at non-residential premises	49	10	17
Burglary at residential premises	139	51	56
Theft of motor vehicle and motorcycle	0	1	1
Theft out of or from motor vehicle	38	6	14
Stock-theft	8	24	4
Total Property-Related Crimes	234	92	92
OTHER SERIOUS CRIMES			
All theft not mentioned elsewhere	192	28	59
Commercial crime	10	2	5
Shoplifting	6	6	2
Total Other Serious Crimes	208	36	66
Total 17 Community Reported Serious Crimes	874	220	266
CRIME DETECTED AS A RESULT OF POLICE ACTION			
Illegal possession of firearms and ammunition	3	0	0
Drug-related crime	316	45	81
Driving under the influence of alcohol or drugs	50	15	29
Sexual Offences detected as a result of police action	0	0	0
Total Crime Detected As A Result Of Police Action	369	60	110

FIGURE 27 : Crime Statistics (Source: SAPS)

11 Economy

Additional Source = ECSEC Koukamma Local Municipality Socio Economic Review and Outlook 2017.

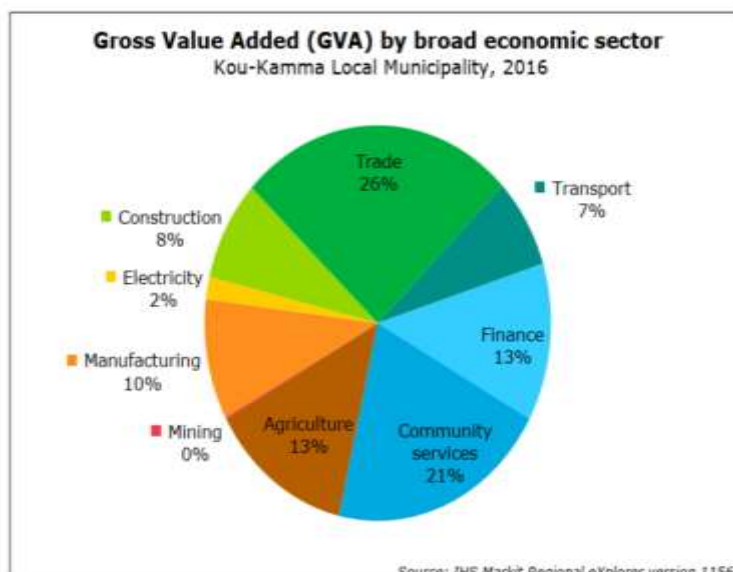
11.1 National Outlook – Post COVID

- Source = PWC Document - South Africa's economic outlook 16 February 2021
- In his State of the Nation Address (SONA) on 11 February 2021, President Cyril Ramaphosa commented that the largest number of jobs created in the 2021 economic recovery will come from the private sector. He added that Government continues to work with the private sector to create a more conducive business environment as an enabler of job creation
- A strict pandemic lockdown sharply reduced workplace activity and cost South Africa 1.3m jobs
- During the second half of 2020, the significant increase in unemployment as well as fewer restrictions on human movement fuelled a rise in societal discontent and associated protest action. While the Armed Conflict Location & Event Data Project (ACLED) classified most of these events as peaceful, the increase in protests underscored the severe economic damage of the pandemic.
 - PwC estimates that the South African economy contracted by 8.8% in 2020
 - Following the 2020 recession, PwC expects the global economy to expand by 4.7% in 2021. This projection is conditional on a successful deployment and spread of effective COVID-19 vaccines and continued accommodative fiscal, financial and monetary conditions. By the end of 2021, or early in 2022, we expect the global economy to revert to its pre-pandemic level of output.
 - The South African economy is expected to grow by 3.4% this year — but could expand by 6.7% in an upside scenario
 - Fewer than 500,000 jobs will be recovered this year, with a long road ahead to reduce the unemployment rate

11.2 Gross Value Added By Region (Gva-R)

Source = ECSEC Koukamma Local Municipality Socio Economic Review and Outlook 2017.

- The GVA-R variable provides a sector breakdown, where each sector is measured in terms of its value added produced in the local economy.
- Definition: Gross Value Added (GVA) is a measure of output (total production) of a region in terms of the value that was created within that region. GVA can be broken down into various production sectors.



- In 2016, the trade sector is the largest within Kou-Kamma Local Municipality accounting for R 675 million or 25.8% of the total GVA in the local municipality's economy. The sector that contributes the second most to the GVA of the Kou-Kamma Local Municipality is the community services sector at 20.6%, followed by the agriculture sector with 13.3%. The sector that contributes the least to the economy of Kou-Kamma Local Municipality is the mining sector with a contribution of R 4.5 million or 0.17% of the total GVA.

11.3 Sector Growth Forecast

TABLE 13. GROSS VALUE ADDED (GVA) BY BROAD ECONOMIC SECTOR - KOU-KAMMA LOCAL MUNICIPALITY, 2016-2021 [R MILLIONS, CONSTANT 2010 PRICES]

	2016	2017	2018	2019	2020	2021	Average Annual growth
Agriculture	200.4	215.5	219.5	224.7	230.9	236.7	3.39%
Mining	4.1	4.3	4.4	4.5	4.5	4.6	1.91%
Manufacturing	181.6	180.1	181.5	183.4	187.4	192.2	1.14%
Electricity	18.9	18.6	18.5	18.7	19.1	19.7	0.76%
Construction	137.5	138.7	141.0	143.5	147.3	153.0	2.16%
Trade	462.2	463.3	469.0	477.7	491.3	506.4	1.84%
Transport	132.2	132.8	134.6	136.5	140.0	144.0	1.73%
Finance	244.9	244.4	248.0	253.1	259.4	266.3	1.70%
Community services	384.7	388.0	386.9	390.0	395.7	403.7	0.97%
Total Industries	1,766.6	1,785.7	1,803.4	1,832.1	1,875.6	1,926.6	1.75%

Source: IHS Markit Regional eXplorer version 1156

- The agriculture sector is expected to grow fastest at an average of 3.39% annually from R 200 million in Kou-Kamma Local Municipality to R 237 million in 2021. The trade sector is estimated to be the largest sector within the Kou-Kamma Local Municipality in 2021, with a total share of 26.3% of the total GVA (as measured in current prices), growing at an average annual rate of 1.8%.

11.4 Tress Index

- Definition: The Tress index measures the degree of concentration of an area's economy on a sector basis. A Tress index value of 0 means that all economic sectors in the region contribute

equally to GVA, whereas a Tress index of 100 means that only one economic sector makes up the whole GVA of the region.

- In 2016, Kou-Kamma's Tress Index was estimated at 43.8 which are lower than the 47.7 of the district municipality and lower than the 47.7 of the province. This implies that - on average - Kou-Kamma Local Municipality is more diversified in terms of its economic activity spread than the province's economy as a whole

11.5 Location quotient

- Definition: A specific regional economy has a comparative advantage over other regional economies if it can more efficiently produce the same good. The location quotient is one way of measuring this comparative advantage
- For 2016 Kou-Kamma Local Municipality has a very large comparative advantage in the agriculture sector. The construction sector also has a very large comparative advantage.

11.6 Labour

- The working age population in Kou-Kamma in 2016 was 29 200, increasing at an average annual rate of 1.29% since 2006. For the same period the working age population for Sarah Baartman District Municipality increased at 1.67% annually, while that of Eastern Cape Province increased at 1.04% annually. South Africa's working age population has increased annually by 1.55% from 31.1 million in 2006 to 36.2 million in 2016.

11.7 Economically Active Population

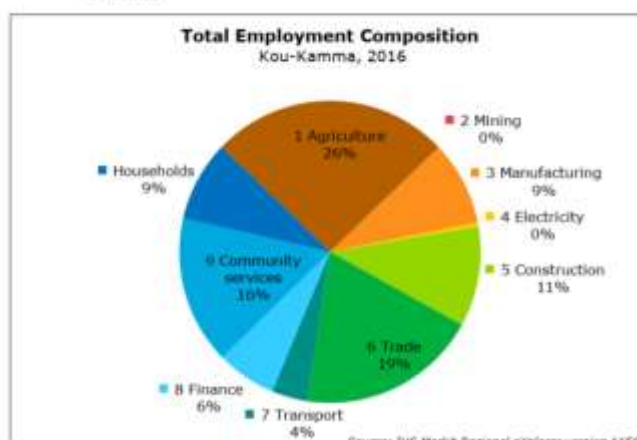
- Kou-Kamma Local Municipality's EAP was 21 600 in 2016, which is 48.78% of its total population of 44 300, and roughly 10.47% of the total EAP of the Sarah Baartman District Municipality. From 2006 to 2016, the average annual increase in the EAP in the Kou-Kamma Local Municipality was 1.42%, which is 0.41 percentage points lower than the growth in the EAP of Sarah Baartman's for the same period.
- In 2006, 48.0% of the total population in Kou-Kamma Local Municipality were classified as economically active which increased to 48.8% in 2016. Compared to the other regions in Sarah Baartman District Municipality, Kou-Kamma local municipality had the highest EAP as a percentage of the total population within its own region relative to the other regions

11.8 Total Employment

- Definition: Total employment consists of two parts: employment in the formal sector, and employment in the informal sector.
- In 2016, Kou-Kamma employed 21 900 people which is 12.92% of the total employment in Sarah Baartman District Municipality (170 000), 1.51% of total employment in Eastern Cape Province (1.46 million), and 0.14% of the total employment of 15.7 million in South Africa. Employment within Kou-Kamma increased annually at an average rate of 1.80% from 2006 to 2016.

The Kou-Kamma Local Municipality average annual employment growth rate of 1.80% exceeds the average annual labour force growth rate of 1.42% resulting in unemployment decreasing from 8.55% in 2006 to 9.94% in 2016 in the local municipality.

CHART 22: TOTAL EMPLOYMENT PER BROAD ECONOMIC SECTOR - KOU-KAMMA LOCAL MUNICIPALITY, 2016 [PERCENTAGE]



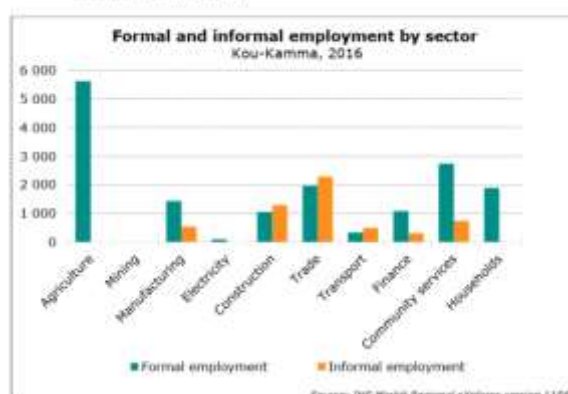
11.9 Employment per Sector

- In Kou-Kamma Local Municipality the economic sectors that recorded the largest number of employment in 2016 were the agriculture sector with a total of 5 620 employed people or 25.6% of total employment in the local municipality. The trade sector with a total of 4 250 (19.4%) employs thesecond highest number of people relative to the rest of the sectors. The mining sector with 2.94 (0.0%) is the sector that employs the least number of people in Kou-Kamma Local Municipality, followed by the electricity sector with 98.1 (0.4%) people employed.

11.10 Formal and Informal Employment

- The number of formally employed people in Kou-Kamma Local Municipality counted 16 200 in 2016, which is about 74.06% of total employment, while the number of people employed in the informal sector counted 5 690 or 25.94% of the total employment. Informal employment in Kou-Kamma decreased from 6 300 in 2006 to an estimated 5 690 in 2016.
- In 2016 the Trade sector recorded the highest number of informally employed, with a total of 2 280 employees or 40.14% of the total informal employment.

CHART 23: FORMAL AND INFORMAL EMPLOYMENT BY BROAD ECONOMIC SECTOR - KOU-KAMMA LOCAL MUNICIPALITY, 2016 (NUMBERS)



11.11 Unemployed

- Definition: The unemployed includes all persons between 15 and 65 who are currently not working, but who are actively looking for work. It therefore excludes people who are not actively seeking work (referred to as discouraged work seekers)
- In 2016, there were a total number of 2 150 people unemployed in Kou-Kamma, which is an increase of 542 from 1 600 in 2006. The total number of unemployed people within Kou-Kamma constitutes 5.86% of the total number of unemployed people in Sarah Baartman District Municipality. The KouKamma Local Municipality experienced an average annual increase of 2.95% in the number of unemployed people, which is worse than that of the Sarah Baartman District Municipality which had an average annual increase in unemployment of 1.98%.
- In 2016, the unemployment rate in Kou-Kamma Local Municipality (based on the official definition of unemployment) was 9.94%, which is an increase of 1.39 percentage points. The unemployment rate in Kou-Kamma Local Municipality is lower than that of Sarah Baartman.

Employment

55.9%

Employed

about 1.4 times the rate in Sarah Baartman:
41.18%

more than double the rate in Eastern Cape:
26.03%

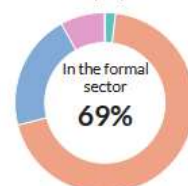
Population by employment status



* Universe: Individuals 15 and older
Source: Census 2011

Chart Options

Sector of employment



* Universe: Workers 15 and older
Source: Census 2011

Chart Options

12 Built Environment

12.1 Urbanisation/Population Distribution

The population distribution is reflected in Table 8 and on Figure 17.

- The largest percentage of the population resides in the towns of Joubertina, Kareedouw and Louterwater. The rural area includes various smaller settlements with a population of 11716 – (9% of Pop.)
- The large rural population gives a clear indication of the importance of rural development and the impact of rural development on socio economic growth and upliftment.
- 39% of persons reside in Joubertina, Kareedouw and Louterwater.
- Due to the vast travel distance and resulting isolation these nodes of population broadly function in settlement regions around Kareedouw, Joubertina, Louterwater, Clarkson and Nompumelelo/Sandrif – Refer to Figure 17.

71.19%	Urban	
28.81%	Rural	

Main Place Name	Sub-Place Name	Population	Population %	Type
Kou-Kamma NU	Blueliliesbush State Forest	229	0.56	Rural
Boskop	Boskop SP	90	0.22	Urban
Clarkson	Clarkson SP	1824	4.49	Urban
Coldstream	Coldstream SP	1657	4.07	Urban
Joubertina	Joubertina SP	6237	15.34	Urban
Kareedouw	Kareedouw SP	4985	12.26	Urban
Krakeel River	Krakeel River SP	1931	4.75	Urban
Louterwater	Louterwater SP	4829	11.88	Urban
Misgund	Misgund SP	415	1.02	Urban
Nompumelelo	Nompumelelo SP	2449	6.02	Urban
Sanddrif	Sanddrif SP	280	0.69	Urban
	SA2 (S Coldstream)	18	0.04	Rural
	SA7 (NW Kareedouw)	168	0.41	Rural
	SA8 (between Joubertina & Kareedouw)	179	0.44	Rural
	SA13 (NE Kareedouw)	299	0.74	Rural
	SA15 (E Kareedouw)	334	0.82	Rural
	SA18 (E Clarkson)	360	0.89	Rural
	SA65 (rural Krakeelrivier & Louterwater)	1090	2.68	Rural
	SA66 (S Clarkson coast)	1385	3.41	Rural
	SA67 (rural Joubertina & Heights)	1427	3.51	Rural
	SA68 (Clarkson, Kareedouw, Woodlands & coast)	1550	3.81	Rural
	SA69 (Louterwater & Misgund, Nuweplaas)	2164	5.32	Rural
	SA70 (W Misgund)	2228	5.48	Rural
Kou-Kamma NU	State Forest	24	0.06	Rural
Stormsrivier	Stormsrivier SP	1670	4.11	Urban
Thornham	Thornham SH	664	1.63	Urban
Tsitsikamma National Park	Tsitsikamma National Park SP	35	0.09	Urban
Kou-Kamma NU	Witelsbos AH	62	0.15	Rural
Kou-Kamma NU	Witelsbos Bosch Forest	199	0.49	Rural
Woodlands	Woodlands SP	1882	4.63	Urban
		40664	100	

Table 8: Population Distribution (Source: Stats SA)

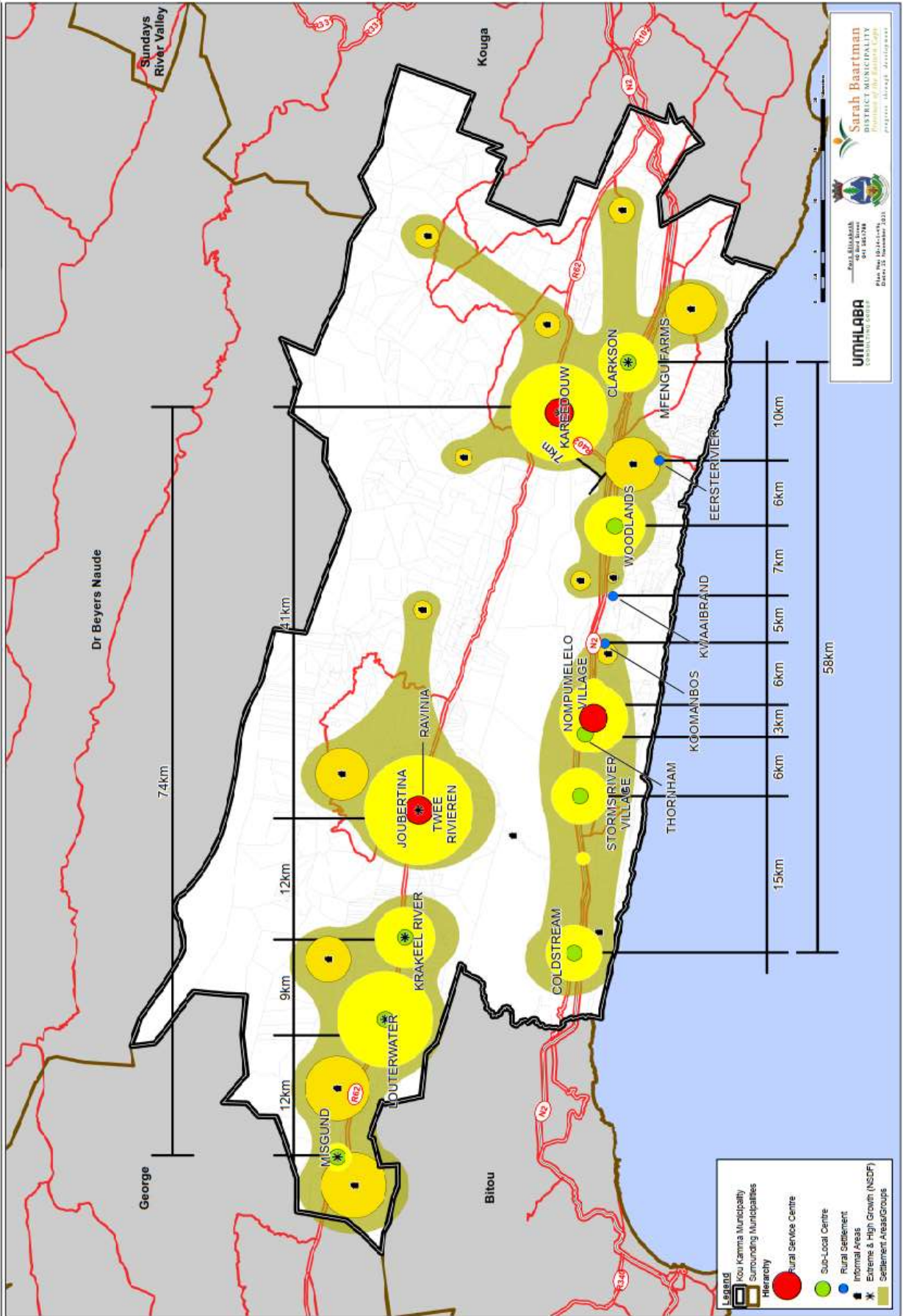


Figure 17: Population Distribution

12.2 Settlement Pattern and Function

Koukamma has a dispersed settlement pattern which has resulted from the linear development of settlements serving the agricultural economy and populations situated along the N2 and the R62.

- **Kareedouw** is the administrative centre and accommodates approximately 12% of the total population.
- The **Joubertina/Ravinia/Tweeriviere** node also serves as an administrative centre and accommodates approximately 15% of the total population. This node serves the broader agricultural sector and can be considered to be the commercial centre of the municipality.
- The **Nomphumelelo/Sandrif** node accommodates approximately 8% of the Tsitsikamma population and is suited to the provision of additional housing and social infrastructure.
- The **Stormsrivier** node accommodates approximately 4% of the population and is considered to be the primary tourism centre within the municipality. No significant commercial activity is present in this node.
- **Coldstream** accommodates approximately 3% of the population and is situated adjacent to the AC Whitcher Sawmill and the Lottering State Forestry Station. This settlement is primarily residential in nature and includes limited community and institutional uses. No significant commercial activity is present.
- **Thornham** is an informally structured residential area situated on privately owned land. The Department of Land Affairs have supported the Thornham community to establish a communal property association to enable development on the land to be managed effectively. No significant commercial activity is present apart from the saw mill.
- **Woodlands** is situated on the R102 route and consists of a number of large residential properties owned by 'Erfhousers' as well as a residential area consisting of subsidy houses and limited community and institutional uses. This node accommodates approximately 5% of the population of Koukamma.
- **Clarkson** consists of a number of large residential properties and a residential area consisting of subsidy houses and limited community and institutional uses. The settlement is situated on Moravian church owned land. The church together with the community are in the process of formalising the settlement in order to enable transfer of the properties to individual occupants.
- The **Mfengu Farms** consist of a number of small rural housing clusters situated on farms in the Tsitsikamma region of the municipality. A subsidy development has been undertaken on a Mfengu Farm just south of Clarkson. The development has delivered a number of subsidy houses which are communally owned.
- **Eersterivier** is situated on the coast and consists of a number of residential and holiday dwelling units. In addition the municipality have purchased a farm inland from the coastal resort and intend to accommodate subsidy housing there. The Oudebosch farm stall is situated at the intersection between the Eersterivier Road and the R102 Route. Limited commercial activity takes place here.
- **Misgund** consists of a number of loosely structured small farms as well as a small area of subsidy housing. Industry related to the fruit industry is located in the node. This settlement accommodates approximately 1% of the total population.

- **Louterwater** consists of a number of loosely structured small farms as well as a large area of subsidy housing. Industry related to the fruit industry is located in the node. This node accommodates approximately 7% of the population of Koukamma.
- **Krakeelrivier** consists of a number of loosely structured small farms as well as a large area of subsidy housing. Industry related to the fruit industry is located in the node. This node accommodates approximately 5% of the population of Koukamma.
- A number of rural nodes exist in the municipality, being **Kwaibrand, Koomansbos, Goesa, Witelsbos..** These nodes are either old stations, forestry housing or private communal settlements and currently not serviced by the local municipality.

12.3 Settlement Growth Projections

These growth projections have been sourced from <https://riskprofiles.greenbook.co.za>. This is a project of the CSIR which formed part of the base information gathered during the preparation of the NSDF.

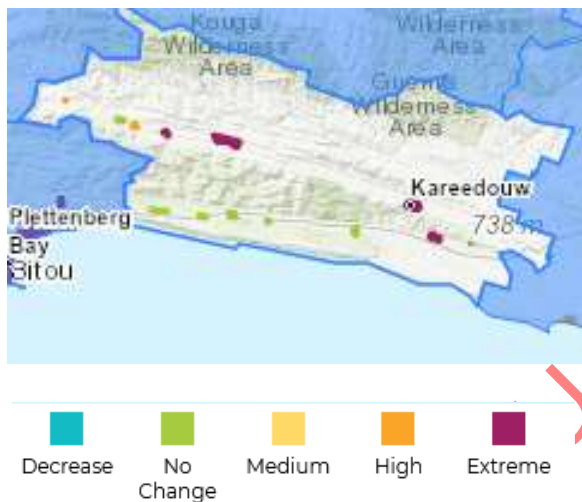


Table 9: NSF Growth Projections

Source: <https://riskprofiles.greenbook.co.za/>

Town	Pressure	2011	2030	2050
Clarkson	Extreme	1837	3037	4295
Boskor	No Change	92	93	92
Coldstream	No Change	1611	1636	1601
Joubertina	Extreme	6524	9878	13434
Kareedouw	Extreme	5184	8949	12904
Krakeel River	Extreme	2236	4464	6822
Louterwater 1	High	334	548	775
Louterwater 2	No Change	4800	4814	4795
Misgund	High	668	1079	1515
Nompumelelo	No Change	2661	2703	2645
Stormsrivier	No Change	1679	1706	1669
Woodlands	No Change	1882	1882	1882

12.4 Housing Demand and Land Budget

“A critical issue, identified in numerous planning documents and in discussions with sector representatives within the Kou-Kamma Local Municipality, is the availability of land and competition between land uses. Kou-Kamma is characterized by agriculture, forestry and human settlements competing for limited land. The area provides productive agricultural land for fruit and dairy farming, forestry, tourism and residential developments. The Kou-Kamma SDF highlighted the unavailability of land for emerging farmers, education facilities, food gardens and housing developments. This is due to urban settlements being surrounded by commercial farm land, state forests and nature reserves. From the Human Settlement Plan Summ in IDP”

The current housing demand (Backlog) totals 5120 dwellings. Refer to Table 11 and is made up as follows:

Informal Settlements

The following areas containing informal dwellings (Excluding backyard shacks) were identified.

Informal Settlement Name	Area	Hectares
Louterwater Informal Settlement Central	13184.04	1.32
Louterwater Informal Settlement East	20856.25	2.09
Krakeelrivier Informal Settlement West	9252.45	0.93
Krakeelrivier Informal Settlement South	7892.96	0.79
Ravinia Informal Settlement West	14845.93	1.48
Ravinia Informal Settlement East	26412.29	2.64
Woodlands Informal Settlement North	19690.06	1.97
Woodlands Informal Settlement West	9052.26	0.91
Woodlands Informal Settlement South	21096.56	2.11
Nomphumelelo Informal Settlement West	4921.31	0.49
Nomphumelelo Informal Settlement South	26194.59	2.62
Storms River Informal Settlement North	8729.02	0.87

Table 10: Informal Settlements

Housing Demand and Land Budget

The land budget required to address the housing and resulting settlement development demand is reflected in Table 11.

Notes and assumptions made re the housing demand calculations reflected on

- Household size = 4 persons/hh (The average across the municipality is 3.63)
- It is accepted the the backlog numbers are included in the growth figures
- The development density assigned to new housing development is 40 units per hectare (Nett), which equates to an erf size of 250m².
- The population growth figures were sourced from the NSDF.
- The totl land needed refers to all land needed to service the development. It would include streets, social facilities etc. This has been calculated by increasing the nett figure needed for housing by a factor of 1.4.

KOUKAMMA HOUSING BACKLOG

AREA	NO - HH	GROWTH	INFORMal	COMMUNAL/ RESTITION	LAND AVAILABLE	BULK SERVICES
MISGUND	531	X	X		Needs to be purchased from farmers	No
LOUTERWATER	548	X	X		Land needs to be identified and purchased	No
KRAKEEL	254	X	X		Land needs to be identified and purchased	No
JOUBERTINA	498				Land needs to be identified and purchased	No
HEIGHTS	150	X			Land needs to be identified and purchased	No
KAREEDOUW	592	X			Land needs to be identified and purchased	No
CLARKSON	386	X		X	Land needs to be identified and purchased	No
EERSTE RIVIER	200	X			Land available, was purchased for beneficiaries. Beneficiaries preferred to remain on the church land they are currently occupying. The land needs to be purchased.	No
BOSMAN GRONDE	60			X	Land available belonging to beneficiaries.	No
WOODLANDS	450	X	X		Land available, negotiations took place with owners. Owners not willing to sell.	No
WOODLANDS - NUWEPLAAS	30			X	Land available	No
SANDDRIFT:NOMPUMELELO VILLAGE	450	X	X		Land available belonging to beneficiaries.	No
SANDDRIFT - DESTITUDE	40		X			No
GRIQUA RUST - DESTITUDE	60	X			Land available belonging to beneficiaries. Developments commenced need funds to complete.	No
KOOMANSBOS	66			X	Land identified needs to be purchased.	No
THORNHAM	100	X		X	Land identified needs to be purchased.	No
HERMANUS KRAAL	20			X	Land identified needs to be purchased.	No
STORMS RIVER	336	X	X		Land identified needs to be purchased.	No
COLDSTREAM	229	X			Land identified needs to be purchased.	No
JANTJIES GRONDE	60			X	Land identified needs to be purchased.	No
PLAATJIES GRONDE	60			X	Land identified needs to be purchased.	No
TOTAL	5120					

Table 11: Housing Demand Table

				Backlog/Short Term Demand			Growth Demand 2011-2030						Total
Town	Pressure (NSDF)	2011 Persons(Census-NSDF)	IDP	Backlog Subsidy HH(Assumed to Incl Informal)	Tot. ha needed hh(@250m2/HH)	Tot ha Need 2030 Incl Other uses (40% increase)	Pop (Persons) at 2030	Persons per household	Change_11to30 Excl BKLog	hh = (p/p/hh)	Tot. ha needed hh(@250m2/HH)	Tot Ha Need 2030 Incl Other USes (40%)	Total (Ha) Land Demand (Backlog+Growth)
Boskor	No Change	92			0	0	93		1	0.25	0.01	0.01	0.01
Clarkson	Extreme	1837		386	9.65	13.51	3037		1200	300.00	7.50	10.50	24.01
Coldstream	No Change	1611		229	5.725	8.015	1636		25	6.25	0.16	0.22	8.23
Joubertina	Extreme	6524		498	12.45	17.43	9878		3354	838.50	20.96	29.35	46.78
Kareedouw	Extreme	5184		742	18.55	25.97	8949		3765	941.25	23.53	32.94	58.91
Krakeel River	Extreme	2236		254	6.35	8.89	4464		2228	557.00	13.93	19.50	28.39
Louterwater	No Change	5134		548	13.7	19.18	5362		228	57.00	1.43	2.00	21.18
Misgund	High	668		531	13.275	18.585	1079		411	102.75	2.57	3.60	22.18
Nompumelelo	No Change	2661		550	13.75	19.25	2703		42	10.50	0.26	0.37	19.62
Stormsrivier	No Change	1679		336	8.4	11.76	1706		27	6.75	0.17	0.24	12.00
Woodlands	No Change	1882		450	11.25	15.75	1882		0	0.00	0.00	0.00	15.75
Total		29508		4524	113.1	158.34	40789		11281	2820.25	70.51	98.71	257.05

Table 12: Land Budget Calculations

12.5 Roads and Transportation

The N2 route has been identified as a strategic transportation corridor within the Eastern Cape and Western Cape provinces.

The section of the N2 from Stormsriver to the intersection with the R102 has recently been realigned.

The R62 connects Humansdorp to George through the Langkloof. It provides the agricultural industries in the Langkloof with access to markets and distribution. The 102 which runs parallel and adjacent to the N2 and this route provides direct vehicular access to some of the Tsitsikamma settlements and to Plettenberg Bay. The Tsitsikamma mountain range creates a barrier to north-south vehicular movement, the only linkage between the Langkloof and the Tsitsikamma is the R404 which connects the N2/R102 to the R62 from Witelsbos to Kareedouw.

Rail Network

The railway line through the Langkloof is currently not functional and if the infrastructure of this railway line can be improved, it can be used for the transportation of agricultural producers and the use of the line for tourism should be invested with the introduction of a steam train.

Airports

There are no airports within the municipality and the closest being George and Port Elizabeth Airports and there are number of airfields which can provide emergency and light aircraft access. These include Kareedouw and Joubertina

Ports and Harbours

There are no ports and harbours, in Koukamma Municipality, however ski boat access to the sea is possible from Stormsriver Mouth and from Eersterivier.

Public Transport

Public transport is a huge challenge in Koukamma, currently there are no taxi associations existing and the community makes use of transport of private owners. Long distance buses are however available and operate in a Total Garage in Stormsriver next to the Stormsriver Bridge and the facilities are in a good condition.

Non-Motorised Transport

(i) Bicycle Transport

In Koukamma cycling is not a prevalent form of transport, but is predominantly a recreational sport activity in the Stormsriver area.

(ii) Scholar Transport

Koukamma has approximately 4348 scholars (Survey 2010), with 41.7 % receiving subsidy for transport.

Road Infrastructure

The Koukamma Local Municipality consists mostly of rural areas, hence the bulk of the road infrastructure are gravel roads. Through the Flood Relief Programme, funding to the tune of R177 million was made to upgrade the road infrastructure and storm water management system and is implemented in phases. Ultimately, backlogs in terms of roads and storm water management systems have been reduced but not fully addressed owing to budget constraints. The municipality has an inadequate operations and maintenance team that can carry out maintenance on the municipal streets and storm water management system. This results in maintenance backlogs and road network

deterioration. SANRAL has funded the maintenance of the R62 and currently on the way worth an amount of R160m.

- National Roads 90km
- Trunk Roads 133.9km
- Main Roads 26.05km
- District Roads 383.43km
- Minor 230.27km
- Total 863.75km

Condition of Roads in Koukamma Municipality

- Municipal Roads
- Condition Surfaced (length) Gravel(length)
- Good 14.54
- Fair 19.55
- Poor 22.3
- Very poor 2.6 7.19
- Total 59 7.19

Provincial Roads

- Condition Surfaced Gravel
- Good 12.6 0
- Fair 28.48 42.9
- Poor 50.85 194.57
- Very poor 16.71 210.61
- Total 108.85 448.08

Sidewalk and Pedestrian Crossing

There is an ominous need for sidewalks and pedestrian crossings and bridges, this is evident on the number of fatal accidents that have occurred on the R62 and N2 scholars of the Clarkson community have to cross the N2 to get to school which is very dangerous.

Rural Roads

The Rural Road Assessment Management System (RRAMS) programme includes an assessment of road conditions on all surfaced and gravel provincial and municipal roads as well as an audit of maintenance, rehabilitation and upgrading requirements for each assessed road in the district, and the assessment of municipal roads has been completed and the draft maintenance plan for internal road has been prepared.

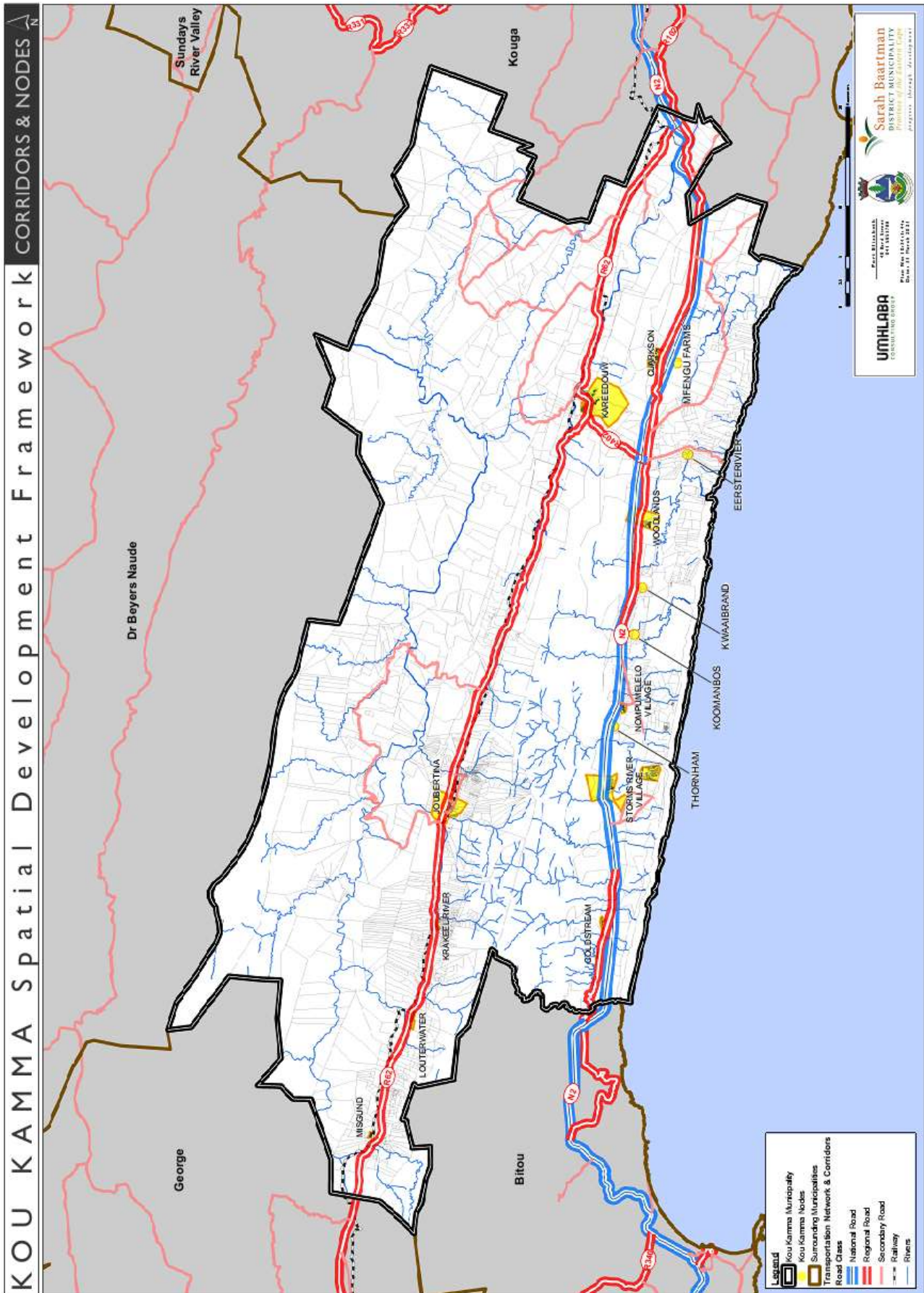


Figure 18: Transportation

12.6 Property Sales and Rates

- Between 2015 and 2019 there were 855 transfers with a value of R1 103 399 513
- The value of the current valuation roll is R6 674 450 090.
- There was a significant number of transfers recorded in 2015 relative to the succeeding years.
- 2016, 2017 and 2019 there is consistency in the number of transfers per year (however, there was a marked difference in the total value of the transfers in 2017).
- 2018 and 2019 there is consistency in the number of transfers per year.
- Total Number of transfers and corresponding value per year are reflected below:

Year	No of Transfers	Values (R)
2020	174	342 707 379
2019	132	142 606 591
2018	129	127 899 387
2017	167	113 244 120
2016	184	355 526 772
2015	243	364 122 643

Table 13: Property Transfers per year

12.7 Existing development outside the urban Edge

There is a trend toward the development of small rural settlements, estates, resorts or nature reserves outside the urban edges. These developments tend to result in the creation of a permanent residential units as apposed to resort or holiday accommodation.

Current planning approaches restrict this type of development due to the potential negative impact on the limited agricultural and environmental resources of the area. These developments can if sensitively approached, create additional housing accommodation without the need for the municipality to provide the normal municipal services beyond road access to the entrance and contribute to the municipal rates base.

An audit also needs to be undertaken of the developments along the Eersterivier Coast, which have historically been based on the development of resorts, which have over time have evolved into permanent accommodation as opposed to short term tourism accommodation.

12.8 Land Ownership

A summary of Land Ownership in Koukamma is set out in the tables below:

Land Owner	Hectares of land	% of land (approximate)
Koukamma Local Municipality	3398	0.93%
Sarah Baartman District Municipality	57	0.02%
Nelson Mandela Bay Municipality	3455	0.95%
State	113257	31.10%
Private & Other	244042	67.01%
Total	364210	100%

(Ovvo 30 March 2021)

The names of the respective entities that hold state land are reflected below.

Owner	Hectares
Hospital Trustees	1.35
Nasionale Behuisingsraad	32.93
Nasionale Regering Van Die Republiek Van Suid A Ka	57.35
Nasionale Regering Van Die Republiek Van Suid A Ka, Le Grange Louis Adolf, Le Grange Anne Dorothy	11.03
National Government Of The Republic Of South Africa	173.16
National Government Of The Republic Of South Africa	35160.53
Province Of The Eastern Cape	17.35
Provincial Government-Eastern Cape	1131.36
Provincial Government Of Eastern Cape	6457.71
Provincial Government Of The Eastern Cape	0.69
Provincial Housing Development Board-Eastern Cape	19.88
Republiek Van Suid-Afrika	12322.38
Republiek Van Suid-Afrika, Republiek Van Suid-Afrika	3161.31
Republiek Van Suid-Afrika, Republiek Van Suid-Afrika, Republiek Van Suid-Afrika, Republiek Van Suid-Afrika, Republiek Van Suid-Afrika	626.30
State	54083.72
Total	113257.05

State Owned Land (Ovvo 15 April 2021)

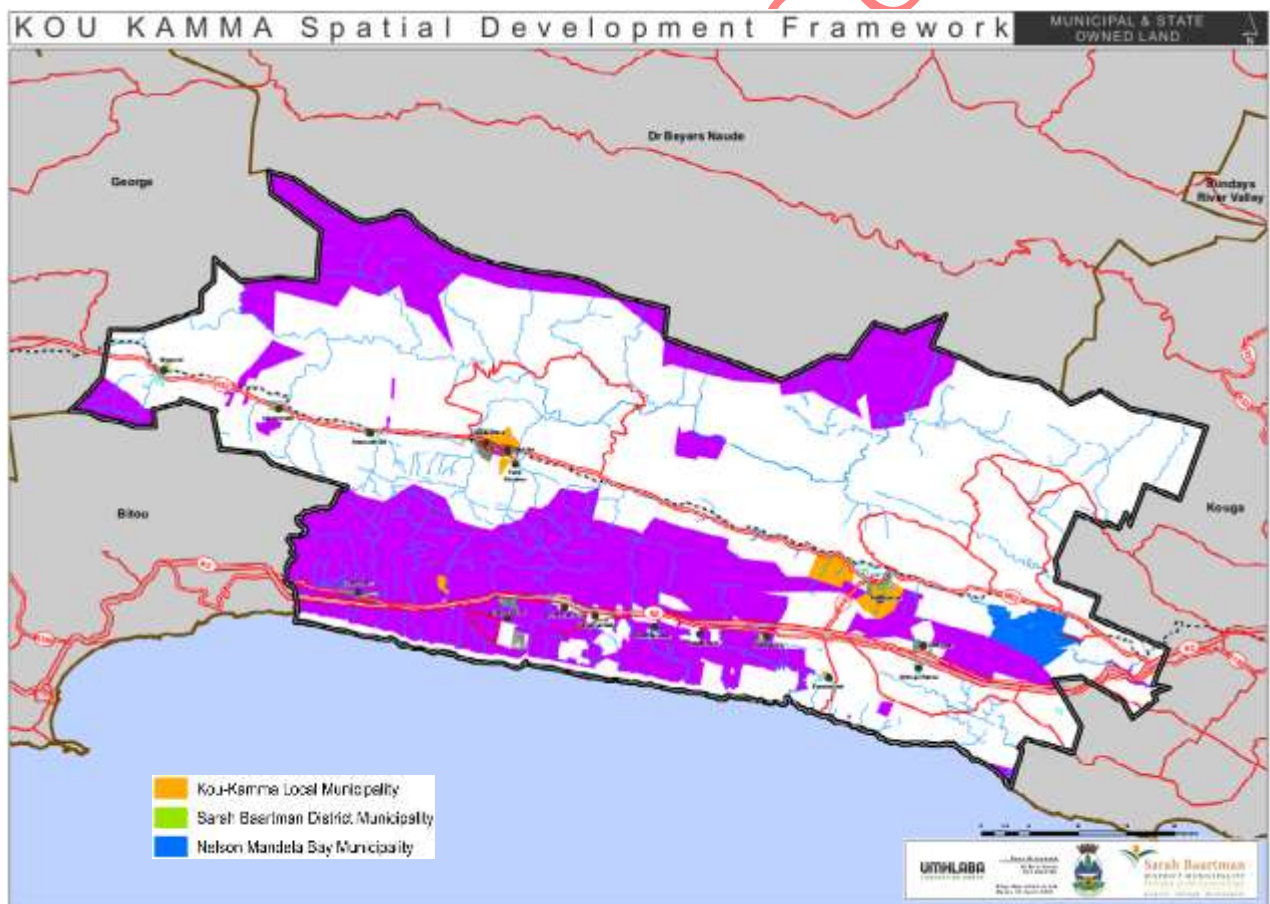


Figure 19: Ownership (East)

12.9 Land Reform

The Department of Rural Development compiled an Area Based Plan for the Sarah Baartman District Municipal Area (2008). An Area Based Plan essentially is a sector plan that seeks to address land related issues at a municipal level which is intended to form part of the IDP, informing the SDF and ILUS. Fundamentally the Plan seeks to integrate Land Reform into the municipal planning process wherein identified projects are supported during and post implementation phases to ensure sustainability.

“(ii) Kou-Kamma land reform

Approximately 56 650 ha of land still need to be redistributed within the Kou-Kamma. This land reform should, as a first priority, be implemented in the key focus areas (primary and secondary nodes). The following broad key deliverables are set for the Kou-Kamma LM (KKLM ABP & Land Availability Audit, 2008):

- 12 000 ha to be distributed before 2014.
- Average of approximately 2000 ha per annum between 2008 and 2014 to be redistributed.
- Approximately 6237 ha per annum between 2015 and 2025 to be redistributed

From Human Sett sum in IDP”

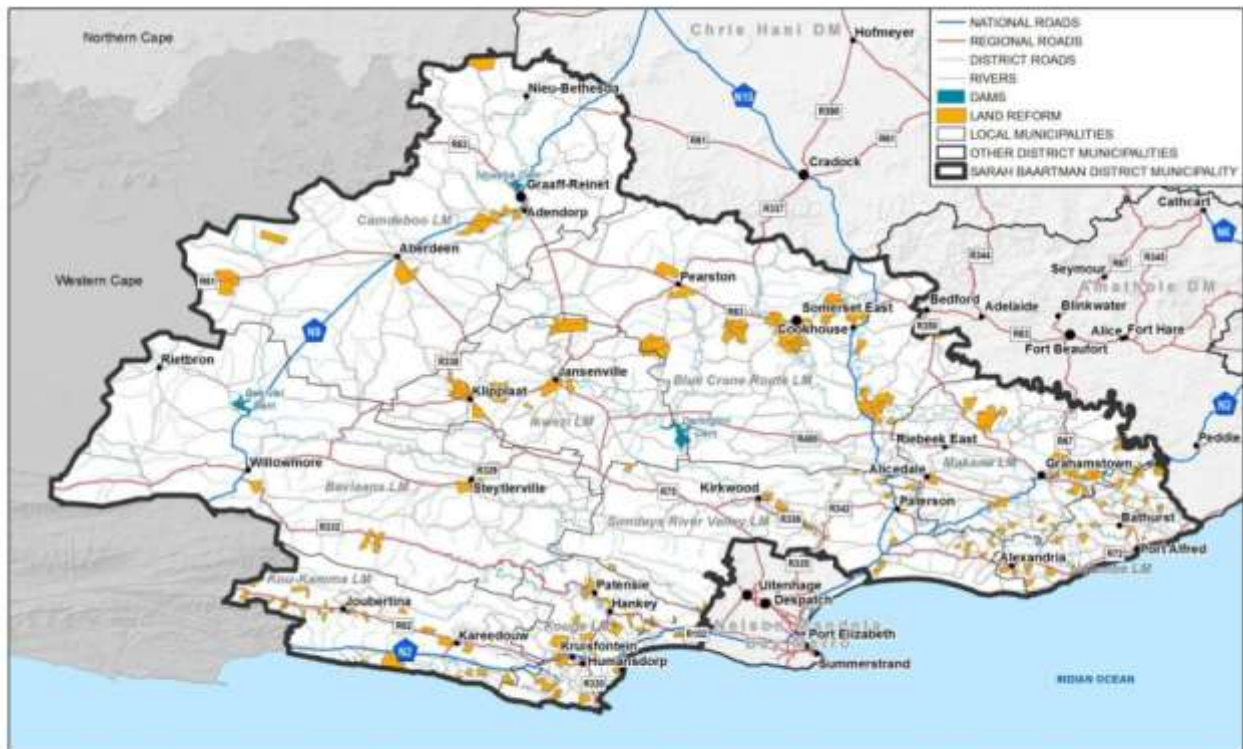
21 Digit Key	Land Parcel	Hectares
C03400000000043600000	436	42.17
C03400000000009600000	RE/96	1622.96
C03400000000010900000	109	1522.52
C03400000000024800000	248	482.91
C03400000000037200000	372	451.31
C03400000000045000000	450	86.93
C03400000000055600005	5/556	21.59
C03400000000079700000	RE/797	1129.32
C03400000000037300000	373	226.54
C03400000000035800000	RE/358	51.43
C03400000000024900009	9/249	92.45
C03400000000037100000	371	836.21
C03400000000066000003	3/660	487.30
C03400000000062600002	2/626	57.74
C03400000000037700000	R/377	533.80
C03400000000043600000	436	42.17
C03400000000009600000	RE/96	1622.96
C03400000000010900000	109	1522.52
C03400000000024800000	248	482.91
C03400000000035800040	40/358	0.57
C03400000000037200000	372	451.31
C03400000000045000000	450	86.93
C03400000000079700000	RE/797	1129.32
C03400000000089100000	RE/891	523.42
C03400000000037300000	373	226.54
C03400000000037100000	371	836.21
C03400000000035800013	13/358	159.89
C03400000000062600002	2/626	57.74
C03400000000037700000	R/377	533.80

Land Redistribution (Source: ECPSDP 2010)

21 Digit Key	Land Parcel	Hectares
--------------	-------------	----------

C03400000000010500000	105	412.64
C03400000000012700000	RE/127	454.39
C03400000000012800000	RE/128	543.29
C03400000000036900000	369	345.94
C03400000000040400000	404	315.31
C03400000000066000000	RE/660	42.10
C03400000000048100000	481	14.60
C03400000000066000019	19/660	245.50
C03400000000049100000	491	11.22
C03400000000010500000	105	412.64
C03400000000012700000	RE/127	454.39
C03400000000012800000	RE/128	543.29
C03400000000036900000	369	345.94
C03400000000040400000	404	315.31
C03400000000066000000	RE/660	42.10
C03400000000048100000	481	14.60
C03400000000049100000	491	11.22
C03400150000037700000	377	0.06
C03400150000051400000	514	0.06
C03400150000051700000	517	0.06
C03400150000051900000	519	0.06
C03400150000051300000	513	0.06

Land Restitution (Source: ECSPDP 2010)



Map 8 : Land Reform Investment

Source : UDEC GIS

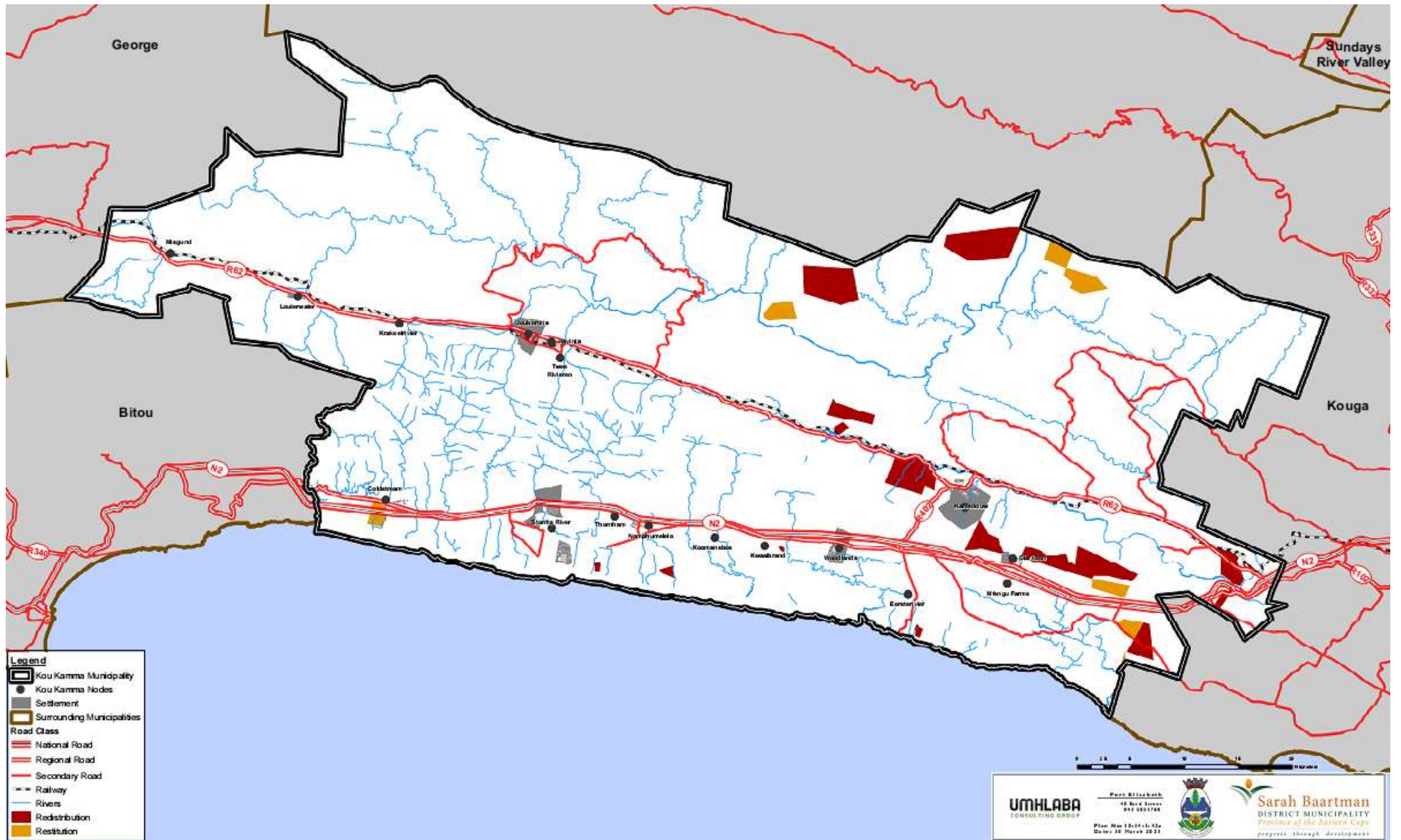


Figure 20: Land Redistribution

12.10 Renewable Energy Projects

List of projects

- Mfengu Wind Farm

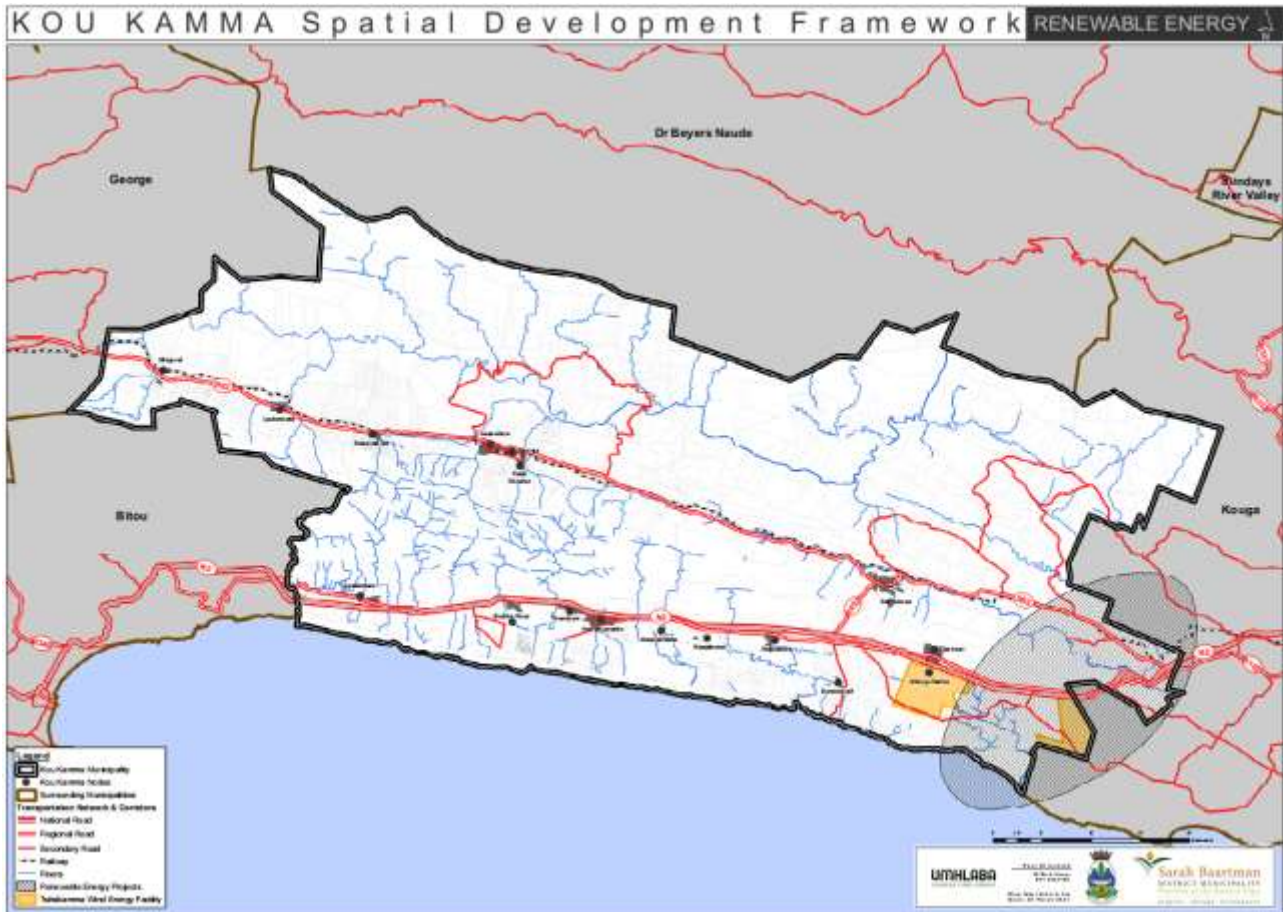


Figure 21: Renewable Energy Projects

12.11 Potable Water

- The Municipality is a Water Services Authority in terms of the Water Services Act, Act 108 of 1997 and it is legally mandated to ensure provision of water services to all settlements within its area of jurisdiction. In its current stature, the municipality provides water services to all areas within its mandated area with exception of privately owned areas such as Thornham, Sanparks, Tweerivier, Boskor and Witelsbos.
- The municipality is characterized by extensive agricultural activities and thus has numerous farm properties that are also not serviced by the municipality. Most of these areas have water and sanitation infrastructure that are privately established and meet the minimum standards. In some cases the municipality provides reasonable support when due to ensure efficiency of referred privately owned water and sanitation infrastructures.
- Koukamma Municipality renders water services to schools and clinics as part of its water provision services to urban and rural consumers. The Municipality does not presently monitor or record the level of services rendered within schools and/or clinics.
- Koukamma municipality have about 12 water supply systems that abstract water from both surface and ground water resources. The abstractions are outlined in the table below:

Town/ community	Source	Design abstraction (kl/d)
Kareedouw	Driekrone Waterfall to dam and Assegai River (only in peak periods) and 5 boreholes (one in operation)	2 400
Joubertina	Wabooms River Dam (Joubertina Dam) in mountain river	860
Krakeel	2 boreholes, raw water supply from Louterwater Irrigation Board from Krakeel River (2 hrs/10 days)	200
Louterwater	Same as Krakeel, plus 2 boreholes & Louterwater Irrigation Board	490
Sanddrif	Natural springs in mountains	360
Stormsrivier	Witklip River	290
Coldstream	Lottering River plus 2 boreholes that are not equipped	370
Clarkson	From mountain springs and streams (inclusive of two boreholes of which one is equipped)	250
Woodlands	Natural mountain spring plus 1 borehole	360
Misgund	3 boreholes, all equipped. Pumps 1.2 l/s for 24 hrs	100
Blikkiesdorp	Borehole next to the works	80
Koomansbos	Borehole system, 1 borehole with solar system as power source	80
	**TOTAL	5 820

- The yield of the available surface water resources proved to be insufficient to meet both domestic and agricultural needs. The perennial streams and small rivers that recharge the two major rivers (Kouga and Kromme) are based with the Koukamma region. The two major rivers ensure constant supply to the Churchill dam and Gamtoos dam that supplies the major cities in the Eastern Cape. Koukamma municipality only have access to the perennial streams and small rivers that have seasonal yield variation. In response to that, the municipality developed numerous groundwater sources to supplement the limited surface water supply.

12.12 Waste Water Services

- Most of the WWTP and pump stations are in a state of disrepair. Little or no maintenance has been done for many years and equipment has become non-functional and outdated. They have been used far beyond their designed life cycle.
- Business plans for the refurbishment of the WWTP's and pump stations have been compiled but the actual funding source being MIG is very limited and cannot accommodate the refurbishment project adequately.
- The lack of a proper operations and maintenance plan does not help either. Maintenance is being done on an adhoc basis and is more of a crisis management nature

12.13 Refuse Disposal

- The Waste Management Services are currently provided at Misgund, Louterwater, Krakeel, Joubertina, Ravinia, Kareedouw, Clarkson, Woodlands, Nompumelelo Village, Storms River, Coldstream, Kwaaibrand, Hermanuskraal, Koomansbos, Eerste Rivier Kruis, Wittekleibos, and Ekshupumeleni areas, but there are no services rendered at Goesa, Thornham, Boskor and coastal areas (Eerste Rivier, Konkiebaai, Skuitbaai and Fynbos Golf Estate).
- The Koukamma Municipality Waste Management consists of the collection, transportation and disposal of waste. recycle or reclaim which takes place in bigger scales in Kareedouw and Louterwater whilst reclaiming takes place at smaller scales in other areas where there are land fill sites. All removals are done by municipal employees, except for Kareedouw and surrounding areas

(New Rest, Mountain View, Kagiso Heights, Assegaibosch, and Uitkyk, where it is done by a private contractor appointed and paid by the Municipality.

- Strategic objectives of the function
 - (a) To adhere to licensing conditions attached to the licensing of Woodlands- and Twee Riviere land fill sites as well as the closure, and establishment of transfer stations at Louterwater-, Kareedouw-, Clarkson- and Coldstream sites.
 - (b) Relocation of the Uitkyk Refuse Dump site.
 - (c) Improvement of the service by acquiring more bakkies and trailers or trucks.
 - (d) Recycling activities at dump sites to be formalized.
 - (e) Maintenance and management of dump sites by acquiring the necessary plant and equipment.
 - (f) Training of Tip site operators.

12.14 Electrical Services

- Eskom supply.

12.15 Stormwater

- Koukamma Local Municipality at present experiences storm water problems at several locations throughout our area of jurisdiction.
- The legal requirement to determine flood lines (1:50 year) was only introduced in 1975. In 1978 the Act was amended to require the inclusion of the 1:100 year flood line on township plans.

12.16 Land Use Management

The Municipality's land use management system comprises of 3 key components:

Land Use Management Tools		Enabling Legislation	Land Use Regulators
Spatial Development Frameworks	<ul style="list-style-type: none"> • Eastern Cape Spatial Development Plan • Sarah Baartman District Municipality Spatial Development Framework • Koukamma Spatial Development Framework 	<ul style="list-style-type: none"> - The Spatial Planning and Land Use Management By-laws: Koukamma Local Municipality (Adopted 4 March 2016) - Municipal Systems Act 2000 (Act 32 of 2000) - Spatial Planning and Land Use Management Act, 2013 (Act 16 of 2013) 	<ul style="list-style-type: none"> - Department of Cooperative Governance and Traditional Affairs - Department of Rural Development & Land Reform - Sarah Baartman District Municipality - Koukamma Municipality
Schemes	<ul style="list-style-type: none"> • Integrated Land Use Scheme – Under development as part of this appointment 		

Table 14: Land Use Management Components

13 Human Resources and Institutional Capacity (Land Use)

- There is currently no dedicated planning resource in KKM. This service has been provided in the past by the erstwhile Kouga Development Agency and currently the SBDM is assisting.
- The Koukamma Municipal Planning Tribunal (MPT) has been established and is operational.
- Specific development records are not kept in a specific system (Zoning Register). Informal records have been kept since the operationalisation of the Koukamma Municipal Planning Tribunal.
- The evaluation of planning applications is currently being undertaken by the Chairperson of the MPT as there is no qualified staff member to do so.
- In view of the critical shortage of resources at both the SBDM and Koukamma Municipalities it is recommended that the COGTA be requested to provide immediate assistance.
- The current land use management system consists of the 2012 SDF and the Section 8 Scheme Regulations.
- No strategic planning at sub-SDF level has been undertaken beyond the preparation of preliminary nodal development plans together with the 2012 SDF.
- The municipality have implemented the OVVO Land and Information Management System in the Finance Directorate. The land use management and record keeping elements of this system have not been taken up in any of the other directorates.
- The lack of spatial planning capacity has due to the physical isolation and low intensity of development has not led to any spatial development misalignment issues. The potential for misalignment can be avoided by insuring that the SDF/IDP process is inclusive.
- SDF Implications and Issues - The complete lack of, or ready access to, suitably qualified planning staff will severely inhibit the implementation of the SDF proposals and plans. In addition there is no access to spatial information which is readily available to the municipality.

14 SWOT Analysis

Key Issues Summary

The following summarises the key issues as identified through the Status Quo Analysis :

- A segregated spatial pattern is still prevalent and needs to be addressed.
- The Sarah Baartman District currently has the highest number of independent renewable energy producers in the province. Opportunity exists to further expand on this investment and development.
- Lack of Municipal owned land for expansion of lower income and indigent populations
- Inadequate land for provision of basic social facilities, i.e. churches, community halls, sports facilities, etc.
- Lack of land for expansion and development of commonages and promotion of urban agriculture
- Residential integration and the promotion of mixed use development to support sustainability needs to be encouraged
- Ensure and maintain an adequate land use management system to ensure the implementation of the Spatial Development Framework
- Lack of capacity to deal with SPLUMA requirements and SPLUMA readiness
- Fragmented land use schemes and the need for an Integrated Land Use Scheme for the entire area
- There is a need to develop a food gardens plan to enhance food security for the urban poor.
- A significant proportion of Koukamma municipality is state owned and is under conservation land use practices (State forests, forestry, national parks, mountain catchments etc.). The human settlements and particularly those within the Tsitsikamma region are surrounded by conservation and commercial forestry/agricultural land use, making land access for commonage and settlement extension difficult.

Detailed settlement plans need to be prepared for each of the settlements so that the necessary strategic land can be identified and accessed through a participatory process.

- The N2 national route has been highlighted as a strategic transportation corridor along which economic opportunities and human settlement should be encouraged. The necessary bulk infrastructure to enable the implementation of this initiative needs to be established, while the expansion and integration of existing settlements along this route need to be encouraged.
- The area is supported by well-established citrus, deciduous fruit, maize and crop farming industries.
- Dairy farming is well established along the coastal belt from Humansdorp into the Western Cape Province boundary.
- The Forestry although currently struggling represents an opportunity for future enterprise development.
- Kareedouw and Joubertina are the economic and service delivery hubs.
- The Langkloof area is an exporter of deciduous fruit.
- Numerous pockets of land around Kareedouw and Joubertina, have been acquired through the land reform program.
- Abattoirs are located at Kareedouw and Joubertina.
- Renewable energy projects (wind farm projects) have been developed in the region, providing major spin-offs for investment in economic development. Expansion opportunities in this sector exist.
- The negative impact of human activity on the natural resources needs to be limited to ensure the sustainability of the regions economy.
- The biodiversity, agricultural potential and forestry provide the broad environmental resource framework on which the economy rests.
- As resources which underpin the Koukamma economy the biodiversity footprint, areas of higher agricultural potential and commercial forestry (timber Industry) need to be protected and expanded.
- Expansion of CBD areas and opportunities for industrial development – need to be encouraged and managed.
- Support tourism industry based on environmental sustainability principles
- The land use management system needs to be enabling for commercial and livelihood development.
- Low levels of investment in the rural area and limited opportunities for development, job creation and tourism development
- Identify areas for future rural livelihood prioritisation
- The western region of the Tsitsikamma is characterised by forestry plantation and related industry.
- The Langkloof Region of Kareedouw, Joubertina and Misgund is a high fruit producing region, whilst Honeybush Tea is also harvested in this region and the Baviaans Valley.
- The DRDLR has acquired approximately 989 cadastral farm portions, totalling 329 413 ha of land. Smaller farming units with larger agriculture potential were purchased Kou-Kamma Local Municipal regions, which are highly suitable for citrus, honeybush tea, vegetables and deciduous fruit farming.
- Misgund Farmer Production Support Unit is located in Misgund.
- Tourism and recreation facilities and opportunity are primarily located in the coastal regions - The N2 Garden Route linking the southern cape with the Port Elizabeth International Airport is popular amongst international tourists.
- The Tsitsikamma National Park presents opportunities for economic spinoffs and livelihood development opportunities.
- Impact of Climate Change:
 - Inadequate environmental management and environmental support strategic plans
 - Lack of environmental by-laws and environmental management strategies
 - The municipality is vulnerable to the effects of climate change due to its direct reliance on natural resources to sustain its economy. Changes in rainfall and temperature will have an impact on the Langkloof agricultural industry as well as the forestry and dairy industry in the Tsitsikamma region. The potential sea level rise and storm surges will have a negative impact on the operation of the Storms River and Natures Valley Camps of the Garden Route National Park. Negative impacts on these industries will have negative economic and social impacts throughout the municipality. The Municipality together with the associated roleplayers need to prepare a response document/policy which will enable the appropriate steps to be taken

to understand and minimise the potential negative impacts of climate change on the social and economic wellbeing of the residents of the municipality.

- The Governance pillar focuses on the vertical and horizontal alignment of the spatial plans of various elements of government. This review has not identified any areas of conflict. However the current level of spatial alignment in Koukamma has been achieved primarily due to the fact that the specific issues have to date not required active intervention. This situation cannot continue without having a detrimental impact on development and conservation. Having regard for this the following shared impact areas have been identified:
 - The Baviaans Megareserve and the biodiversity corridors on the east and west boundaries.
 - The Langkloof Agricultural Area (Agri-industry and Agri-tourism/R62 Route)
 - The N2 national route – A strategic transportation corridor/route in both the western and eastern cape provinces.
 - The N2 - Garden Route tourism.
 - The potential renewable energy area between Kouga and Koukamma.
 - The necessary partnerships required to maximise the potential of these areas need to be established and the existing cross border components of the relevant SDF's need to be taken up in the SDF/IDP's to follow.
- The SBDM and NSF SDF has highlighted the need to focus public investment in the areas which have the most potential for growth and has classified the settlements accordingly. This hierarchy has been based on the assessment of the settlements in their current form and has not adequately taken current local trends and long term planning initiatives into account. The hierarchy of nodes in Koukamma needs to acknowledge the potential importance of the Greater Sandrif/Thornham settlement area into account. This node is located on the N2 transportation corridor where the EC SDFP has proposed to focus investment. In addition this settlement due to its location has the potential to accommodate the greater proportion of the population growth within a consolidated urban area. This will enable the more effective delivery of services and facilities by the municipality as
- apposed to the delivery of services to smaller dispersed settlements. Given the above this node should be elevated to a Level 2 investment node.
- It is also acknowledged that the economic role of Kareedouw may decline due to its location on the R62 and its distance from the economic activity on the N2 route and the other settlements within the municipality
- The complete lack of, or ready access to, suitably qualified planning staff will severely inhibit the implementation of the SDF proposals and plans. In addition there is no access to spatial information which is readily available to the municipality.

Draft for Public Comment

STRENGTHS

- The biodiversity, agricultural potential and forestry provide the broad environmental resource framework on which the economy rests.
- Good renewable energy potential – both hydro (Micro-plants) and wind energy
- Well established transportation routes which serve all settlements (R62 and N2)
- A significant proportion of Koukamma municipality is state owned and is under conservation land use practices (State forests, forestry, national parks, mountain catchments etc.).
- The N2 national route has been highlighted as a strategic transportation corridor along which economic opportunities and human settlement should be encouraged. The necessary bulk infrastructure to enable the implementation of this initiative needs to be established, while the expansion and integration of existing settlements along this route need to be encouraged
- The area is supported by well-established citrus, deciduous fruit, maize and crop farming industries
- Dairy farming is well established along the coastal belt from Humansdorp into the Western Cape Province boundary
- Kareedouw and Joubertina are the economic and service delivery hubs
- Nonphumelelo/Sandrif – New settlement situated on the N2 National Route.
- Koukamma is a national resource area.
- The Langkloof Region of Kareedouw, Joubertina and Misgund is a high fruit production region
- Honeybush Tea resource which is harvested in the Langkloof and Baviaans Valley

OPPORTUNITIES

- Greater Sandrif/Thornham settlement area which is situated on the N2 has the potential to become a more significant node with broader settlement functions. •
- Support tourism industry based on environmental sustainability principles
- Expansion of CBD areas and opportunities for industrial/agri-processing development – need to be encouraged and managed.
- As resources which underpin the Koukamma economy the biodiversity footprint, areas of higher agricultural potential and commercial forestry (timber Industry) need to be protected and expanded.
- The land use management system needs to be enabling for commercial and livelihood development
- The Tsitsikamma National Park presents opportunities for economic spinoffs and livelihood development opportunities
- Renewable energy projects (wind farm projects) have been developed in the region, providing major spin-offs for investment in economic development. Expansion opportunities in this sector exist.
- Residential integration and the promotion of mixed use (Middle income and Gap Housing) development to support sustainability needs to be encouraged
- The N2 national route has been highlighted as a strategic transportation corridor along which economic opportunities and human settlement should be encouraged.
- The Forestry industry although currently struggling represents an opportunity for future enterprise development.
- Numerous pockets of land around Kareedouw and Joubertina, have been acquired through the land reform program
- Abattoirs are located at Kareedouw and Joubertina – Opportunities could be created for the development of local meat production.
- Honeybush Tea resource development.

WEAKNESSES

- Lack of Municipal owned land for expansion of lower income and indigent settlements
- Inadequate land for provision of basic social facilities, i.e. churches, community halls, sports facilities, etc.
- Lack of land for expansion and development of commonages and promotion of urban agriculture
- Economic activity is not evenly spread though the municipality•
- Ensure and maintain an adequate land use management system to ensure the implementation of the Spatial Development Framework
- Fragmented land use schemes and the need for an Integrated Land Use Scheme for the entire area
- There is a need to develop a food gardens plan to enhance food security for the urban poor
- Lack of a second north south transportation route – enabling a link from Coldstream to Landkloof.
- The Misgund Farmer Production Support Unit is situated in the western extreme of the municipality which limits access by the rest of the farming community.
- Lack of dedicated land use management capacity and resources.
- Low levels of investment in the rural area and limited opportunities for development, job creation and tourism development
-

THREATS

- A segregated spatial pattern is still prevalent and needs to be addressed
- The struggling forestry industry and the closure of processing facilities is a threat to livelihoods and may have up and downstream impacts on the municipal economy.
- Lack of capacity to deal with SPLUMA requirements and SPLUMA readiness
- The negative impact of human activity on the natural resources needs to be limited to ensure the sustainability of the region's economy
- The municipality is vulnerable to the effects of climate change due to its direct reliance on natural resources to sustain its economy. Changes in rainfall and temperature will have an impact on the Langkloof agricultural industry as well as the forestry and dairy industry in the Tsitsikamma region. The potential sea level rise and storm surges will have a negative impact on the operation of the Storms River and Natures Valley Camps of the Garden Route National Park.
- Lack of cooperation in shared impact areas – Baviaans Mega Reserve, Biodiversity (East and West)
- The complete lack of, or ready access to, suitably qualified planning staff will severely inhibit the implementation of the SDF proposals and plans.
- It is also acknowledged that the economic role of Kareedouw may decline due to its location on the R62 and its distance from the economic activity on the N2 route and the other settlements within the municipality

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15 SPATIAL VISION & CONCEPT

This Chapter sets out a vision and spatial concept for the spatial planning and land use management in the Municipal Area.

15.1 IDP Vision Statement and priority focus areas.

Strive to be a dynamic and responsibly governed area, which has an integrated, competitive and sustainable economy to better the urban and rural livelihoods of its communities. To achieve the Vision the KKM have identified the following development priority areas,

- Municipal transformation and institutional development
- Provision of basic services
- Promotion of local economic development
- Financial viability, management and sustainability
- Good governance and public participation

15.2 Spatial Vision

In order to achieve the IDP vision and enable the success in the identified priority areas the Municipality will have to operate within a spatial framework that:

- Is connected to and contributes towards the regional and national economy and spatial framework
- Connects settlements effectively (Linkages and connectivity)
- Creates a hierarchy of settlements which function differently (Serves residents effectively)
- Protects the natural resources (i.e. Ensures sustainability)
- Promotes access to and enables the use of these resources.
- Uses the available resources (Renewable energy, agriculture tourism etc.) to generate economic growth and social development within the urban settlements as well as in the rural area.

These spatial ideals are translated into a Spatial Vision for Koukamma

Koukamma is a municipal area that is integrated into the broader national and regional spatial framework and that protects and makes available resources equitably to support social and economic growth and development within the well-connected settlements and rural area.

This Vision is built on the following Objectives:

1. A network of Connected and Efficient Settlements
2. A well protected, accessible and managed natural resource base.
3. A well developed and inclusive rural economy that sustainably utilises resources for the benefit of all the residents.

16 Connected and Efficient Settlements

Well managed connected, compact, and sustainable human settlements with appropriate infrastructure, amenities and socio-economic opportunities.

Connectivity refers to the ability of people to access livelihood opportunities, social services and recreational amenities. This is largely dependent on the efficiency of the municipalities road network. This connectivity should enable access to the broader district, province and country as a whole, while at a settlement level it should ensure walkability to services.

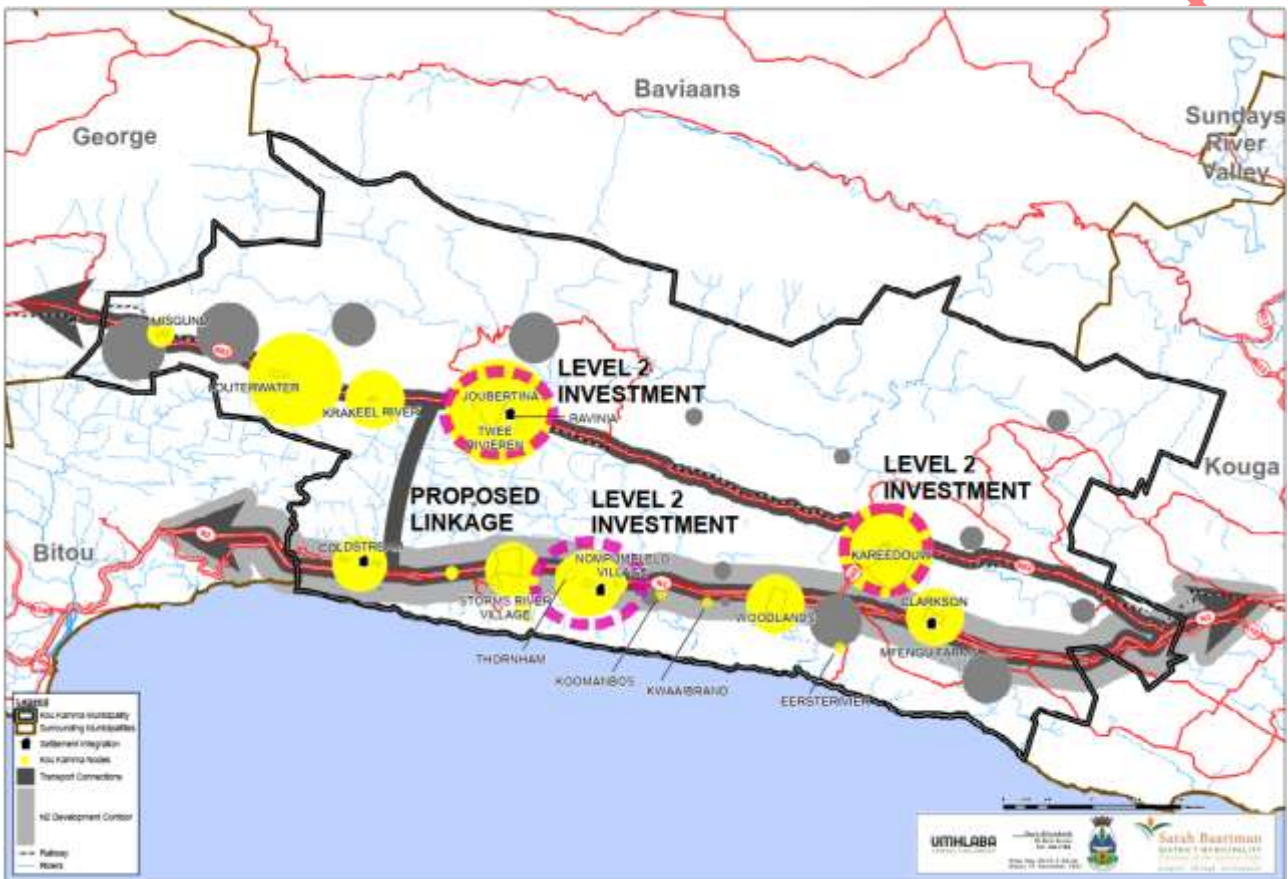


Figure 22: Connected and Sustainable Settlements

16.1 Densification/Intensification

Densification refers to development of more compact urban areas and is an attempt to direct development pressures towards opportunities for urban intensification within existing built up areas. This intensification occurs over time through infilling, dwelling conversions, redevelopment of degraded areas, land use changes, density increases and development of open land. Existing built up areas should therefore be used in the most efficient way to accommodate society's needs for further development, before consideration is given to the release of greenfield or new urban areas. This emphasis is consistent with the other aspects of sustainable development, including the efficient use of resources and reducing the need to travel.

Guidelines/Policy

- The aim is to achieve a minimum average gross density of 25 du/ha in the settlements in the next 20 years. To achieve a gross density of 25 units per hectare it is necessary to develop at nett densities above 40 units per hectare and preferably higher.
- New development areas should have areas where high density is developed at densities above 40 units per hectare and should achieve a gross density of 25 units per hectare.
- Densification will be encouraged in areas with good public transport accessibility, at concentrations of employment, commercial development and/or social amenities.
- Small-scale incremental densification should be permitted across the city, where appropriate and feasible in terms of infrastructure availability.
- The intensification of all types of land uses, not just residential land uses, should be encouraged, and a better mix of land uses should be supported
- In higher-density areas, the provision of open space should focus on accessibility rather than provision per person
- In order to effectively implement sustainable residential densification, the municipality will prepare a densification policy/approach which will set out the desired outcome as well as the implications for services infrastructure. These densification areas will be included in the ILUS as overlays or in the LSDF's that will be prepared.
- The incentives to encourage development can include higher rates charged for vacant residential property, a reduction in services contributions for second dwelling etc.
- Types of Densification:
 - Attached and detached second dwellings and conversion of non-residential buildings residential buildings.
 - Increasing of existing bulk rights to increase residential yield
 - Block consolidation of erven with redevelopment at higher densities
 - Subdivision and consolidation of land, and redevelopment at higher densities.
 - Higher-density infill on vacant and underutilised land.

16.2 Urban Edge

The implementation of an urban edge enables the protection of valuable resources as well as facilitating for efficient urban form

Guidelines/Policy

- The Urban Edge delineates the extent of urban settlement
- Urban development should be contained within the urban edge and within the guidelines as per the SDF land use proposals.
- Amendment of the urban edge is discouraged and should only be considered under special circumstances.
- Development outside the urban edge to be based on the rural land use management guidelines

16.3 Industrial

Industrial refers to existing and proposed industrial areas. Industrial development. Agri-processing is included in this category. Modern trends toward smaller and cleaner premises need to be taken into account when formulating the land use management parameters

Guidelines/Policy

- Industrial: to allocate land for future industrial and service delivery functions.
- Permit industry manufacturing, including warehousing, service trades, vehicle display areas, service stations and support facilities as defined in the ILUS.
- Excluding noxious trades or any specific activity that would have a negative impact on the surrounding urban fabric.
- Vehicular movement, loading and offloading and parking to be based on the ILUS regulations

16.4 Settlements

The provision of adequate housing facilities for the population of the study area is one of the key principles and priorities embedded in the constitution. The development of residential areas and creation of liveable environments is of critical importance for social sustainability and upliftment of the people residing within the study area. Settlement areas are seen to include the full spectrum of supporting and associated uses e.g.guest houses, crèches, home occupation, house shop and community facilities as well as open space and neighbourhood businesses and services.

Guidelines/Policy

- Maintain and improve residential character by building liveable and socially accepted residential areas.
- Addressing the current housing backlog mainly in the public housing category, should be prioritised.
- A balanced and co-ordinated approach should be followed across the study area to address the housing need and the public housing category linked to the housing subsidy programme.
- Residential areas and future expansion should be proactively identified, planned and surveyed.
- Residential/housing development should take place within the urban edge.
- All housing development should be subject to town planning approval procedure and building plan approval (Redbook Guidelines For Human Settlement Planning And Design)
- Strive to minimise or eradicate informal and/or shacks Continually monitoring and updating housing waiting list.
- While the majority of housing backlog is in the low-income category, middle and high income housing areas should also be made available as part of an integrated strategy to attract people with high skill levels, increase the rates base, promote local economic development and to ensure a variety of housing types.

16.5 Settlements Upgrading

The provision of adequate housing facilities for the population of the study area is one of the key principles and priorities embedded in the constitution. The development of residential areas and creation of liveable environments is of critical importance for social sustainability and upliftment of the people residing within the study area.

Guidelines/Policy

- The focus is to upgrade and formalise existing informal areas.
- Strive to eradicate informal housing and/or shacks
- Residential densities and non-residential land uses to be guided by detailed planning and accommodation of existing structures on-site.
- Detailed planning to include feasibility, no-go areas and development options.
- Residential densities up to 50 units per ha and above are encouraged.

- Settlement upgrading should only be undertaken where the site is suitable for the intended settlement development and the residents can be effectively integrated into the existing urban fabric.

Settlement Projects

- Approved housing projects indicate sites where housing projects are in the planning phase or implementation phase.
- Proposed future housing projects indicate sites that have been identified as potential sites for housing development.

16.6 Mixed Use

To create a specific urban environment of mixed use through the redevelopment, infill and expansion or conversion of existing buildings or vacant land.

Mixed use is focussed on combining compatible land uses in a manner which will enable higher intensity and diverse development.

Guidelines/Policy

- The intention of the Mixed Use categorisation is to increase development intensity within the demarcated mixed use area. Permit multiple uses to support commercial, high density residential, office, entertainment and support facilities without negatively impacting on the surrounding development.
- Departures from the ILUS development parameters can be considered in specific cases to improve development, density and footprint.
- Manufacturing and light industrial activities not permitted.
- Residential densities in excess of 50 units per ha to be promoted.
- Site development plans for all developments to be submitted for consideration prior to submission of a land use or building plan application.

16.7 Settlements : Business

Business districts, secondary business nodes and informal business activity are one of the most important formative agents within the urban structure given the past segregated planning policies. The placing, development and expansion of future business areas can play a major role in assisting the restructuring of the urban form.

This component refers to the current and proposed sites for Business / Commercial use and include any land uses where enterprise for commercial and/or professional services and/or retail uses are to take place.

Guidelines/Policy

- Business/commercial related land use should be confined to the core urban areas (central business district) and secondary/lower order nodes.
- The infiltration of business/commercial uses into a residential area or the periphery of the CBD should not be permitted (this excludes small house shops).
- In order to attract investment, the provision of land for business purposes with the associated infrastructure should be provided on a pro-active basis.
- The development of SMME should be encouraged in selected locations in or near business nodes and the CBD.
- House enterprises and house shops should be permitted in residential areas.
- The central business district should be demarcated.

- Close linkages between business development and the local economic development plan and strategies should be implemented and co-ordinated on a sub-regional and district level.

16.8 Community Facilities

Community facilities provide an essential collective support system for the urban population. With proper planning the provision of community facilities can create liveable urban environments and contribute towards social upliftment of the relevant communities.

Guidelines/Policy

- The range and number of basic social services and community facilities that meet the needs of the poorer communities should be provided.
- As a general principle, community should have equitable access to primary health care, education and social services.
- Encourage multiple use of community facilities, i.e. adult education, health care, indoor sports, community centre, etc.
- Existing community facilities should be developed and strengthened to avoid duplication and should function as integrating factors for the relevant communities and urban areas.
- The **CSIR Guidelines for the Provision of Social Facilities** for South African Settlements should be utilised as a guideline to determine what level of service provision is applicable and sustainable.
- Redevelopment of currently vacant or under-utilised social facility is to be carefully considered against the potential future population growth and resulting future need for such or similar facilities.

16.9 Targeted Infrastructure, Social and Community Investment

Prioritised and focus development and investment in accordance with the settlement hierarchy and associated function of each settlement. This will minimise negative impacts on natural environmental resources of it is essential that human settlement and economic activities be focussed on the sites of most impact and potential for sustainable benefit.

The table below depicts the hierarchy of settlements, with the Nomphelelo/Sandrif node elevated to a Sub-District level node. The hierarchy of settlements is adopted from the draft EC PSDF as well as the SBDM SDF and augmented to address all the Koukamma settlement areas.

Settlement Type	Settlement Name	Settlement Function	Spatial Planning Priority
Sub District Centres	Kareedouw and Joubertina, Nompumelelo/Sandrif,	<ul style="list-style-type: none"> • Municipal-scale administrative centre • Municipal-scale service centre for commercial and social goods and services • Residential development covering limited range of economic bands (Middle-income-Low-income) • Potential for value-adding agro-financial processes • Potential for event-related tourism events 	<ul style="list-style-type: none"> • Land Management & Administration - CBD Revitalisation and associated planning • Sustainable Human settlement Programme and infrastructure investment – Public-funded settlement development only in relation to defined need (Backlog and growth associated with current population trends and economic development potential) • Urban development at higher densities in integrated human settlements • Maintenance and upgrade of existing infrastructure
Sub-Local Centre	Misgund, Coldstream, Clarkson, Louterwater, Krakeelrivier, Woodlands, Stormsriver	<ul style="list-style-type: none"> • Minor administrative functions • Minor service centre for social goods and services • Focused support of local economic initiatives agriculture-based 	<ul style="list-style-type: none"> • Prevent urban expansion beyond the planned accommodation for backlogs in human settlements (Focus on the formalisation of informal dwellings and back yard shacks) and infrastructure • Areas where higher order facilities should be focused in first instance • Maintenance and upgrade of existing infrastructure • Basic level of service extension with provision for higher levels of service where feasible and sustainable • Local planning to maximise use of existing resources • Identify adequate commonage land to enable food security and economic activity associated with stock
Rural Settlement	Koomansbos, Eersterivier, Kwaalbrand, Thornham	<ul style="list-style-type: none"> • Primarily residential and livelihood subsistence function • Some provision of limited social goods and services 	<ul style="list-style-type: none"> • Basic level of service extension • Local land use schemes to be negotiated • Prevent urban expansion beyond the current planned for. Accommodation of backlogs in infrastructure and settlement (formalisation of the informal dwellings only) • Identify adequate commonage land to enable food security and economic activity associated with stock

Table 15: Settlement Hierarchy and Function

16.10 Connectivity

- Connectivity should enable access to the broader district, province and country as a whole, while at a settlement level it should ensure walkability to services.

- North South accessibility is severely constrained by the eastwest orientation of mountain ranges. This enhances the need to ensure effective east west linkages as well as seek long term linkages across the mountain ranges.
- Undertake effective infrastructure implementation and maintenance.
- Promote walkability within settlements – Focus settlement development at nodes and in close proximity to primary routes and community facilities.
- Virtual accessibility through IT infrastructure is just as important as physical connections and needs to be prioritised particularly due to the distribution of settlements.
- The municipality also forms part of the larger “coastal economy corridor” stretching between Port Elizabeth and Cape Town.
- Investigat the revitalisation of the railway infrastructure.
- The physical integration of Thornham/Nomphumelelo/Sandrif, Joubertine/Tweeriviere/Ravinia and Clarkson/Ekupumleni through infill and infrastructure investment is highlighted:

17 Protected Natural Resources and Integrated Environmental Management

The Koukamma economy is dependent on its natural resource base. These include extensive areas of significant biodiversity and higher potential agricultural land which needs to be utilised in an environmentally sustainable manner. The role these natural resources play in supporting livelihoods as well as their potential to improve the quality of life in Koukamma cannot be underestimated. Care should therefore be taken to ensure that the use of these resources to enable economic opportunities is not done at the expense of their long term sustainability. The management and protection of this resource will also require intergovernmental and inter institutional cooperation. This resource base forms the basis on which rural development depends. The heritage and cultural resources have in the past not received sufficient attention.

- Implementation of the Integrated Environmental Management Procedures as well as Regulations promulgated in terms of the National Environmental Management Act (107 of 1998)
- Adopt and utilise the biodiversity information and maps associated with the Garden Route Initiative.
- Ensure appropriate use of the coastline, i.e. balancing conservation with development and ensuring that no new coastal developments are undertaken unless these adjoin an existing development.
- Adherence and enforcement of the National Heritage Resources Act (Act 25 of 1999). In particular in relation to archaeological sites, middens, paleontological sites, structures older than 60 years and national monuments.

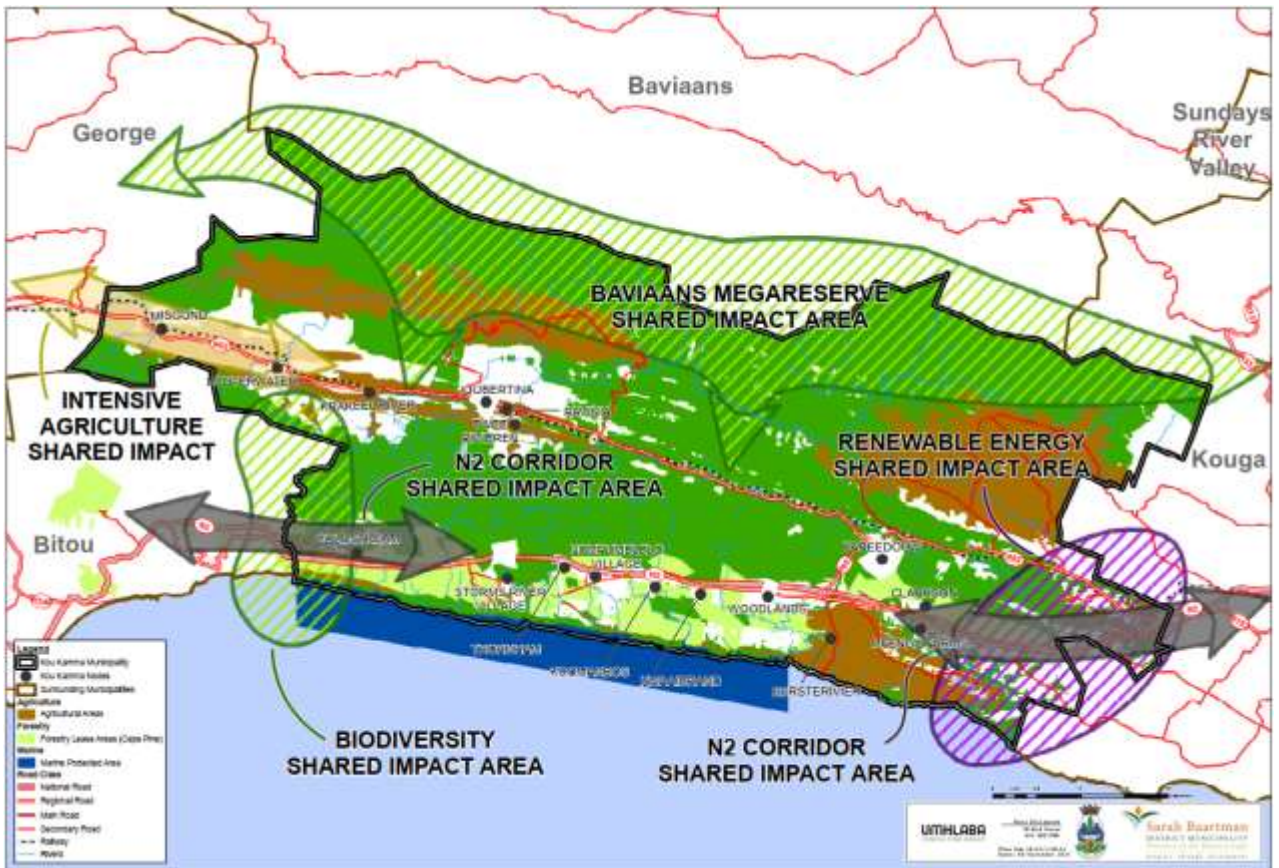


Figure 23: Protect Natural Resources/Integrated Environmental Management

- Protection of the natural forests through the adherence to the National Forest Act.
- The following environmentally sensitive areas should be protected from development: State forests, areas within 30metres from water courses; along major river systems; game reserves and nature sanctuaries; steep slopes greater than 1:6; historic heritage sites and water catchment areas.
- SANP are to be consulted were any proposed land use change is envisaged in close proximity (Within 250m of the border of such land) to SANP managed land.
- Undertake a strategic environmental assessment of the SDF proposals.
- Intensive farming activities should not result in the destruction of core environmental areas.
- Land which has high potential for agricultural production should not be utilised for non-agricultural purposes which will detrimentally affect production potential.
- The rehabilitation of river systems that have been degraded through inappropriate development and land use activities.
- Prevent inappropriate land usage within the water resource catchments.
- Protect commercial forestry land from encroachment.
- Protect the resources through the establishment of settlement edges, beyond which urban development should not occur.

17.1 Biodiversity Guidelines

A Strategic Environmental Assessment, Environmental Management Plan and Coastal Setback Lines have not been prepared for the Koukamma Municipality and in the absence of these the Draft Eastern Cape Biodiversity Conservation Plan – Currently in draft form is to be used as a key conservation and biodiversity management tool. The 'Guidelines for Land Use Planning and Decision making need to be taken into account when considering land use change applications within the rural area.

Protected Areas:	<ul style="list-style-type: none"> Protected Areas are managed through Protected Area Management Plans by the relevant Management Authority.
<p>Critical Biodiversity Area 1 (CBA1):</p> <p>Maintain in natural or near-natural state that secures the retention of biodiversity pattern and ecological processes.</p>	<ul style="list-style-type: none"> Ecosystem and species must remain intact and undisturbed. Since these areas demonstrate high irreplaceability, if disturbed, biodiversity targets will not be met. Important: these biodiversity features are at, or beyond, their limits of acceptable change. If land use activities are unavoidable in these areas, and depending on expert opinion of the condition of the site, a Biodiversity Offset must be designed and implemented.
<p>Critical Biodiversity Area 2 (CBA2):</p> <p>Maintain in natural or near-natural state that secures the retention of biodiversity pattern and ecological processes.</p>	<ul style="list-style-type: none"> Ecosystem and species must remain intact and undisturbed. There is some flexibility in the landscape to achieve biodiversity targets in these areas. It must be noted that the loss of a CBA2 area will require re-assessment and may elevate other CBA 2 areas to a CBA 1 category. These biodiversity features are at risk of reaching their limits of acceptable change. If land use activities are unavoidable in these areas, and depending on the condition of the site, set-aside areas must be designed in the layout and implemented. If site specific data confirms that biodiversity is significant, unique highly threatened or that a Critically Endangered or Endangered species is present, Biodiversity Offsets must be implemented
Ecological Support Area 1 (ESA1):	<ul style="list-style-type: none"> These areas are not required to meet biodiversity targets, but they still perform essential roles in terms of connectivity, ecosystem service delivery and climate change resilience. These systems may vary in condition and maintaining function is the main objective, therefore Ecosystems still in natural/near natural state should be maintained and Ecosystems that are moderately disturbed/degraded should be restored.
<p>Ecological Support Area 2 (ESA2):</p> <p>Maintain current land use with no intensification.</p>	<ul style="list-style-type: none"> These areas have already been subjected to severe and/or irreversible modification and are not required to meet biodiversity targets, but they may still perform some function with respect to connectivity, ecosystem service delivery and climate change resilience. As the objective is to maintain remaining function, areas should not undergo any further deterioration in ecological function and opportunities to change land use practices to improve ecological function (i.e. cultivation agriculture to livestock grazing agriculture) are desirable in ESA2 areas.

Table 16: Biodiversity Guidelines (ECBCF)

17.2 Coastal Management Programme Guidelines

COMPONENT	DIRECTIVE/GUIDELINE
(70) A11. The protection and management of CBAs and ESAs	The protection/management of CBAs and ESAs as identified in the GR Biodiversity Sector Plan and CBA Map; and the development of coastal management lines and regulations to give these effects will allow the Koukamma LM to respond to and adapt to the impacts of climate change. Make sure that ecological infrastructure is protected and managed in development planning.
(72) B2. Incorporate biodiversity priority areas	Incorporate biodiversity priority areas (e.g. CBAs and ESAs in CBA maps and systematic biodiversity plans/Bioregional Plans, the estuarine functional zone, river floodplains, wetlands, forests, and unique habitats) and areas with archaeological/cultural/heritage value into the municipal SDF and other planning documents to guide planning, and prevent destruction of these areas. For archaeological/cultural/heritage sites, a high sensitivity area of 200 m from the high-water mark of the sea is recommended in the Kouga LM, especially in the area between Cape St Francis and the Tsitsikamma Estuary, and between the Kabeljous and Van Stadens Estuaries. Inappropriate development in these sensitive areas must not take place, and archaeological/heritage specialist studies must be done before land use change takes place.
(73) B3. Development Planning	In development planning, make sure that ecological processes and drivers (e.g. riparian areas, sand movement corridors, animal movement paths, seed dispersion mechanisms, fire etc.) are adequately incorporated in the open space network by means of connected corridors that facilitate processes. Cognisance must be taken of the size of corridors and the functional aspects of the process areas. Advice from an ecological specialist will need to be sought in designing these corridors
(74) B4. Wetlands and watercourses must be protected	Wetlands and watercourses must be protected, and their functionality maintained. The interconnectivity of aquatic environments with the groundwater environment and the coastal zone with regards to flow and freshwater requirements must be considered in development and conservation planning (especially for stormwater management planning in urban areas and water abstraction).

(75) B5. Consider fire dynamics	Consider fire dynamics required to maintain biodiversity in thicket/fynbos mosaic areas that often occur in coastal dune areas. Fire is necessary to maintain diversity and boundaries of vegetation types, but too frequent fires may also disrupt ecosystem quality and functioning and destroy lives, properties and infrastructure.
(82) B20. All surface and groundwater abstraction points	All surface and groundwater abstraction points must be registered, and a long-term monitoring plan instated. Impacts on the aquifer, dependent natural ecosystems and groundwater quality must be assessed and monitored. Over abstraction must not take place, and sustainable yields must be determined via specialist geohydrological investigations, hydrocensus, and a groundwater model. A Water Use Authorisation is required for groundwater abstraction from the Department of Water and Sanitation which includes monitoring and compliance aspects.
(83) B22. Create a 'Green Estuary Index'	Create a 'Green Estuary Index' as a mechanism to encourage estuary management (as Blue Flag Beach status is used for beaches and marine waters)
(93) C18. Land use planning and building regulation	Land use planning and building regulation approval processes must consider the impact of light pollution from residences (private and tourism) along the coastline
(95) D4. Development plans/upgrades	Development plans/upgrades must only be focused in areas identified as 'nodes' or 'development areas' within planning documents.
(96) D5. Development planning	Development planning must consider dynamic coastal and aquatic process areas, important habitats, and sensitive archaeological areas. It is advised that these features be incorporated into future updates to planning documents for the area (e.g. the Koukamma SDF). Risks associated with the position of current structures and infrastructure in these areas need to be assessed, and design mitigation measures implemented to prevent risks/hazards to the public and structures, and simultaneously to allow for coastal processes to continue. Where risks cannot be adequately addressed, structures should be 'set-back'. This will assist in protecting structures and infrastructure from possible impacts of climate change (e.g. flooding, sea-level rise, storm surges) and allow for ecosystem functioning. Typical high risk areas include: <ul style="list-style-type: none"> • Areas within 100 m of the highwater mark of the sea (in the absence of a coastal management line as required by the ICMA) • Sand process corridors • 1:100 year floodline of rivers • Estuarine functional zone • Wetlands and their buffer areas • Critical biodiversity areas • Important archaeological sites • Areas below the coastal management line (to be determined)
(98) D17. Communal food garden projects	Communal food garden projects must be established in urban nodes to address food security, and sustainable development
(100) D19. Sewage systems and stormwater infrastructure	Sewage systems and stormwater infrastructure need to be upgraded and maintained in the Ocean View – Pellsrus area to prevent flooding of homes in lower lying areas, overflow of sewage into streets and public areas, and generally unhealthy living conditions.
(107) D51. Development setback lines	Development setback lines as referred to in the EIA Regulations and listed activities need to be approved and endorsed by the Provincial MEC for them to have effect; and be used in land use planning. The inclusion of setback lines in SDFs must therefore ensure adequate engagement with relevant state departments; and required approvals. Public participation and engagement with landowners in the coastal zone would be a key requirement of the development of these lines. The lines cannot be developed on an ad hoc basis along the coastline. Note that development setback lines in the EIA Regulations are not the same as coastal management lines referred to in the Integrated Coastal Management Act (ICMA).
(108) D53. Development in SWSAs	Development in SWSAs and major aquifer areas must consider possible impacts on these important water resources in land use planning (e.g. related to stormwater management, abstraction, flow modification, water quality impacts).

Table 17: Coastal Management Guidelines

18 Inclusive Rural Development

A well developed and inclusive rural economy that sustainably utilises resources for the benefit of all the residents. This is enabled by integrated and broad based agrarian transformation leading to sustainable livelihoods, increased rural economic development and improved land reform. Koukamma will remain a well established tourism and recreation destination by safeguarding the character of its unique natural, cultural and working landscapes, townscapes and seascapes, and by opening-up new tourist and facilities in the rural areas.

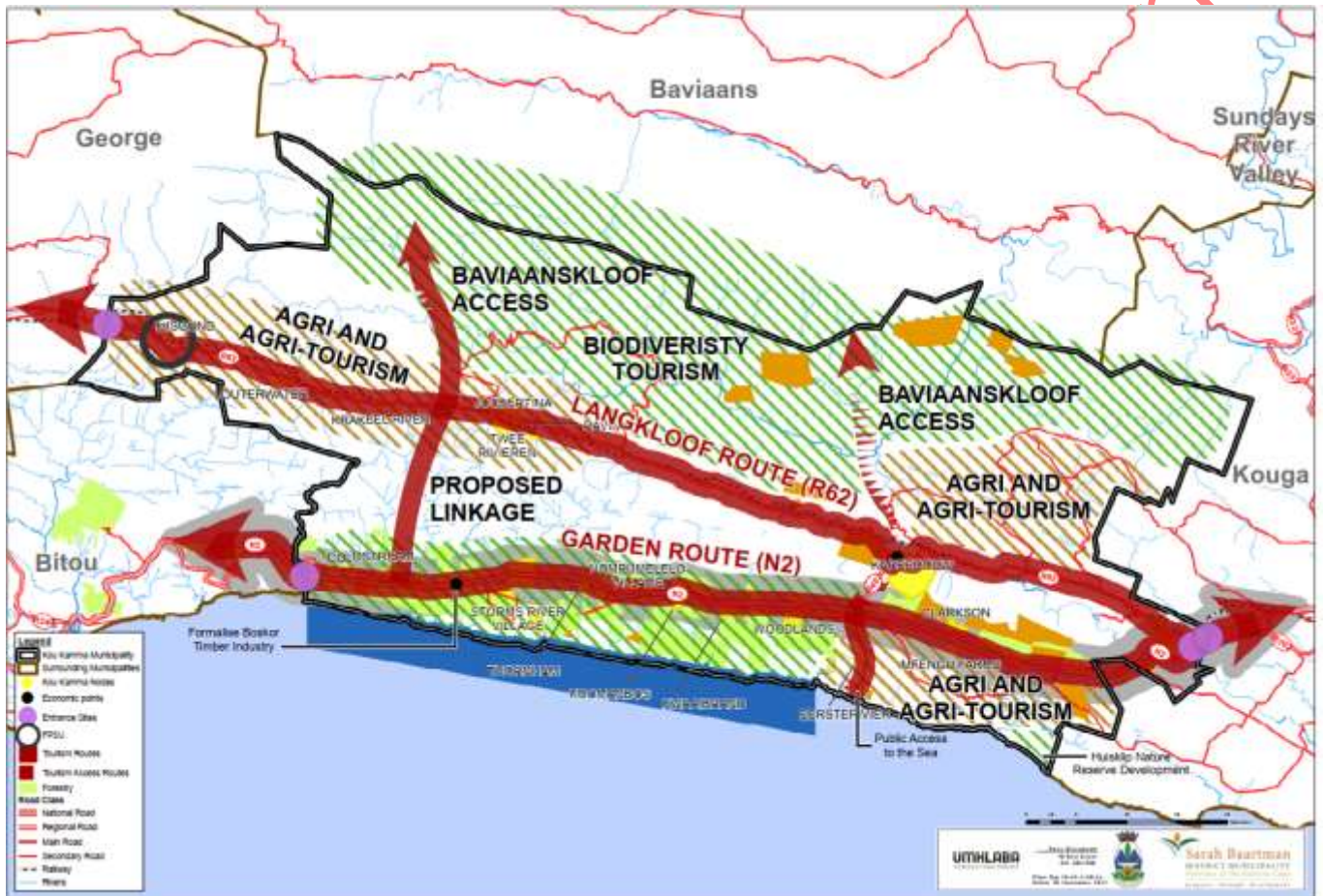


Figure 24: Inclusive Rural Development

18.1 Agriculture

Safeguard the existing and potential farming and forestry areas as productive landscapes, primary economic assets and a food security resource, equal in value to urban land

The alignment of the urban edges for the various settlement areas were determined in close co-operation with the National Department of Agriculture. The Department of Agriculture acknowledge the demand for future growth, but at the same time needs to implement its mandate to protect scarce agricultural resources and high potential agricultural land. The urban edge alignment is therefore based on support by the Department of Agriculture and their input. Future development and subdivision of agricultural land is subject to the relevant legislation (Currently the Subdivision of Agricultural Land Act, 1970 (Act 70 of 1970)). The priority is to ensure land term food security and to provide for land and agrarian reform.

Guidelines/Policy

- Land with agricultural potential **must** be conserved for agriculture purposes.
- Farm buildings and associated structures (e.g. one homestead, barns, agri-worker housing, etc.) should be clustered within the farmstead precinct.
- New buildings should be erected on previously disturbed footprints within or adjacent to the farm werf and not on cultivated land and should not detract from the functionality and integrity of farming practices and landscapes and be of an appropriate scale and form.
- Camp sites of multiple free standing or linked structures of a temporary nature may include caravans and tents, but excludes mobile homes (plettenberg homes or ship containers) and are conventionally seen as being part of resort developments, but can also be permitted on agricultural land, dependant on scale.
- Camping establishments should be restricted to a low impact scale and intensity in keeping with the context of the area and its surrounding character.
- Additional dwelling units should be restricted to 1 unit per 10ha, to a maximum of 5 units; 175m² maximum floor area including garaging and building height of 1 storey (6.5m).
- Additional dwelling units should be non-alienable, whether individual erf, sectional title, share block or other.
- Large scale resorts and tourist and recreation facilities that detract from the functionality and integrity of productive farming landscapes should not be allowed.

18.2 Non-Agricultural Land Use

These land uses are normally associated with demands in the rural area for non-agricultural or service related industries. The shift towards tourism and eco-related activities further necessitates clear policy guidelines with respect to non-agricultural uses in the rural area. These uses often provide an alternative income for the farm. Care must however be taken not to negatively impact on the long term sustainability of the agricultural resource.

Guidelines/Policy

- In general development in the rural area should not have a significant negative impact on:
 - Biodiversity.
 - Agricultural land (Current or future farming activity).
 - Mineral resources use.
- No rural development should require extension to the municipal reticulation network or have negative cost implications for the municipality.
- In principle these non-agricultural uses need to be entirely self sufficient from a servicing perspective. This requires that the development be responsive for the provision of electricity, stormwater, water, waste water and solid waste management. The municipality should not be encumbered with the collection of solid waste or waste water at all and the development should be required to deliver the waste to the nearest certified disposal site.
- Only non-agricultural land uses that compliments the rural and agricultural communities should be permitted.
- Non-agricultural land uses should be directly aimed at service provision of the immediate surrounding agricultural area.
- The general restrictions, policy and guidelines with respect to subdivision of agricultural land would apply.
- This includes involvement of the Department of Agriculture and other line departments.
- Site development plans for all rural non-agricultural land uses should be prepared and approved by Council.

18.3 Rural Business

Appropriate rural businesses associated with the opportunities and demands of the rural space need to be provided in a manner that does not detract or inhibit the agricultural activities.

Guidelines/Policy

- Rural location bound businesses (land uses ancillary to agriculture) include farm stalls and farm shops, restaurants and venue facilities (e.g. conferences and weddings) businesses should preferably be located on the farm to consolidate the farmstead precinct, and complement the farm's operations.
- A farm shop should be limited to selling of daily requisites to agri-workers and employees of the farm and farm stalls to selling products produced and processed on the farm to tourists and travellers. Each should be limited to a maximum floor space of 100m² including storage facilities.
- Restaurant and venue facilities to be limited to a maximum floor space of 500m² and to be of a scale compatible with the farmstead precinct and/or surrounding rural context

18.4 Industry and Mining

Appropriate rural/agricultural industry associated with the opportunities and demands of the rural space economy need to be provided in a manner that does not detract or inhibit the agricultural activities nor negate the drive toward sustainable settlements.

Guidelines/Policy

- All non-place-bound industry (land uses not ancillary to agriculture e.g. transport contractors, dairy depots, fabricating pallets, bottling and canning plants, abattoirs and builder's yards) should be located within urban areas.
- Extractive industry (i.e. quarrying and mining) and secondary beneficiation (e.g. cement block production, concrete batch plants, pre-mix asphalt plants) have to take place at the mineral or material source. If the mine will result in an impact on biodiversity a biodiversity offset must be implemented.
- All place-bound agricultural industry related to the processing of locally sourced (i.e. from own and/or surrounding farms) products, should be located within the farmstead precinct in the agricultural area.
- Industry in rural areas should not adversely affect the agricultural potential of the property.
- Agricultural industry should be subservient or related to the dominant agricultural use of the property and/ or surrounding farms.
- All industries should exclude any permanent on-site accommodation for workers or labourers.
- The subdivision of agricultural land to accommodate industrial activities should be discouraged and only used as a last resort so as not to fragment the agricultural landscape.

18.5 Tourism and Resort Development

The importance of tourism in the study area and in the district as a whole should not be underestimated. This industry has shown tremendous growth and are major contributed to the areas local economy and job creation. The sustainability of tourism and related resort developments are based on sound, land use management guidelines with respect to placing of these units within the urban and agricultural environment. As a result of the location of tourism related use often close to natural areas, along scenic routes and intensive agricultural productive areas their development may lead to negative impact on the character of the rural and agricultural areas or the release of productive agricultural land. Given the economic benefits from tourism related development, their development and use should be managed to the advantage of retaining natural environments and without destroying agricultural resources.

Guidelines/Policy

Additional dwelling units:

- Additional dwelling units should be restricted to 1 unit per 10ha, to a maximum of 5 units; 175m² maximum floor area including garaging and building height of 1 storey (6,5m).
- Additional dwelling units should be non-alienable, whether individual erf, sectional title, share block or other.

Camping:

- Camp sites of multiple free standing or linked structures of a temporary nature may include caravans and tents, but excludes mobile homes (plettenberg homes or ship containers) and are conventionally seen as being part of resort developments, but can also be permitted on agricultural land, dependent on scale.
- Camping establishments should be restricted to a low impact scale and intensity in keeping with the context of the area and its surrounding character.

Resource Based:

- A resort development should be closely associated with a resource which clearly advantaged and distinguished the site, in terms of its amenity value, from surrounding properties.
- Resorts may not be located within productive agricultural landscapes, but must be situated adjacent to a rural feature or resource (e.g. dam, river) that offers a variety of leisure and recreation opportunities (e.g. hiking, mountain biking, water based activities), and is well connected to regional routes.

Rezoning and Subdivision:

- Rezoning to resort zone should not be entertained for properties of which the size is less than 50 ha. Only in exceptional circumstances should more than 50 units be allowed.
- Subdividing and alienating individual units in rural resort developments is not be allowed. The resort development itself may not be subdivided and alienated from the original farm (whether individual erf, sectional title, share block or other).

Scale and Development Type:

- Rural resorts should be compact and clustered in nodes and a range of accommodation types is encouraged. The building height of any new resort unit should be restricted to that of a single storey (6,5m).
- The maximum floor area of a resort unit should be limited to 120m², including garaging.
- Large scale tourist accommodation should preferably be provided in or adjacent to existing towns and rural settlements. Tourist accommodation in the rural landscape could be allowed if, of an appropriate scale and form, appropriate to the SPC.
- Tourist accommodation situated outside of the urban edge should be clustered in visually discreet nodes, preferably make use of existing buildings or new buildings on disturbed footprints, located within or peripheral to the farmstead, reinforce rural landscape qualities, and cater exclusively for the temporary accommodation for in transit visitors.
- Whilst it is preferable that they be located within the farmstead, dispersed rental units should be on existing farm roads, in visually unobtrusive locations, and be selfsufficient in terms of servicing.

Bread in breakfast, guest farms and guest houses:

- Tourist accommodation - Bed in breakfast, guest farms and guest houses should be of a scale and built form that is consistence with the character of the rural environment and should not exceed ten rooms. Facilities exceeding this requirement should be regarded as a resort, which will require rezoning.

18.6 Subdivision of Agricultural Land

The subdivision of sustainable agricultural units into non-sustainable units reduces the agricultural production potential of farming units. Further implication of the loss of rural character, the creation of new rural nodes and problems relating to service provision. In order to maintain agricultural sustainability and feasibility, subdivision of sustainable agricultural units should be subject to certain policy requirements.

Guidelines/Policy

- Subdivision on all agricultural land should be subject to the stipulations and requirements of the Subdivision of Agricultural Land Act, 1970, (Act 70 of 1970).
- Agricultural land may only be considered for subdivision on the basis of proof that the sustainability of subdivided units into economic sustainable productive units.
- Applications for subdivision of agricultural land should generally be accompanied and supported by a report addressing issues of sustainability and soil quality.

18.7 Small Scale Farming

The economic advantages and prospects of establishing small scale farming projects should be emphasised. Development of small-scale farming projects to make a significant contribution to local economic development for rural communities together with creating opportunities for prospective farmers.

Small scale farming activities can generally be defined as planned farming activities on a relatively small scale and can include traditional small holdings and larger communal farming operations without the residential component. These activities would normally be associated with emerging farmers and new farmer development.

Guidelines/Policy

- Small-scale farming (Inc. emerging farmers) can be established near settlements and along logistics routes.
- A minimum holding size of 8000m² is **recommended** and should include an independent water source and preferably be linked to a (DRDLR) land reform project.
- Small scale farming should only be established on land which will support the sustainable utilisation of the agricultural resources.
- Small scale farming should be developed to enable the previously disadvantaged or emerging farmer access to land for agricultural purposes and contribute to the strengthening of the agricultural sector, including job creation and employment.
- The establishment of small scale farming on municipal “commonages” should be carefully weighed up against land availability for more dense and higher impact development such as residential and community facilities.
- Small scale farming with a residential component should not be established where such a settlement will create a new town or rural node.
- Small scale farming projects should support the sustainable utilisation of agricultural resources

18.8 Smallholdings

New smallholding developments should not be permitted in the rural landscape but should be located on suitable land inside the urban edge.

18.9 Settlement

In general the provision of housing and associated services to rural communities should take place in existing settlements.

Guidelines/Policy

- No new settlement should be permitted except agri-villages focussed on the accommodation of Farm Workers or the formalisation of state housing eg forestry or conservation settlements.
- The establishment of new agri-village settlements should only occur when there are compelling reasons not to use existing settlements.
- Off-the-farm settlement of agri-workers should only be considered when this is the preferred option of target beneficiaries, and existing settlements are too far away to commute to.

18.10 Rural Residential

In general the provision of housing and associated services to rural communities should take place in existing settlements however there is a need to provide residential opportunities within the rural setting (Outside of the Urban or Rural Edge) without negatively impacting on the natural and agricultural resources of the municipality.

Guidelines/Policy

- Low density rural housing and eco-estates
- Low density residential and eco-estate development.
- Low density is defined here as covering 0.2% (please see text box below for clarification) or less of a property.
- It makes provision for rural housing development such as low-density, lifestyle estates, multi-ownership of reserves, eco-estates (but excluding golf estates).

ECBCP 2019 – EXPLANATORY NOTE: It is important to clarify how the 0.2% was derived. Several zoning schemes throughout South Africa enforce a land use policy on agricultural land which restricts the development of dwelling units on agricultural land. The number of units permitted is 1 per 10 ha. This has been used as the basis for what can be considered rural development. For the purposes of the ECBCP2019 land use guidelines this policy (1 dwelling unit per 10 ha) was adapted and converted to an area based unit. This was done by determining a reasonable area of influence of a single rural dwelling unit (200m² including household gardens). This area was then multiplied by the number of units permitted in terms of the policy to be developed on 100ha in a rural area (=10 in 100 ha) in order to determine the development footprint on 100ha. The ECBCP2019 therefore defines rural housing and eco-estates as development footprints that cover 200m² per 10ha or 0.2ha per 100ha or 2ha per 1000ha, **irrespective of the number of units.**

- Traditional/Communal and Low-medium density rural development
- This land use type may range in density from low to medium density and describes rural housing development.
- Low-medium density is defined here as a development footprint (including gardens and agricultural fields and parking areas) covering between 0.2-10% of a designated area/property. It includes infrastructure associated with rural landscapes, including the villages, recreational and service facilities and agricultural fields/gardens. This land use type may result in impacts not in keeping with the land use management objectives of CBAs but may be in keeping with ESAs on a case-by-case basis and under specific authorisation conditions.

The following conditions should be observed for all rural development applications:

- Intensive recreational developments (e.g. golf and polo estates) which result in significant habitat loss and which represent urban development outside the urban edge, are not compatible with CBA management objectives.
- Any infrastructural developments in CBAs should be avoided with respect to Traditional Communal Areas (Existing) and Rural Communal Settlements (New). Rural residential development (houses and infrastructure) within CBAs and ESAs MUST be clustered into distinct residential precincts.⁵⁰
- Residential developments within ESAs must consider the functionality of the ESA, which may be related to connectivity and their role as biodiversity corridors. In these cases, residential houses and

infrastructure should not disrupt or fragment the corridor, or establish impermeable fences or boundaries to disrupt movement of fauna

18.11 Settlement

In general, the provision of housing and associated services to rural communities should take place in existing settlements.

Guidelines/Policy

- No new settlement should be permitted except agri-villages focussed on the accommodation of Farm Workers or the formalisation of state housing e.g. forestry or conservation settlements.
- The establishment of new agri-village settlements should only occur when there are compelling reasons not to use existing settlements.
- Off-the-farm settlement of agri-workers should only be considered when this is the preferred option of target beneficiaries, and existing settlements are too far away to commute to.

18.12 Agri-Worker Housing

Agri-worker dwellings part of normal farm operations

Guidelines/Policy

- Units should be non-alienable, whether individual erf, sectional title, share block or other.
- Building height of agri-worker dwelling unit to be restricted to that of a single storey (6,5m) with a maximum floor area of 175 m².
- The placement of the dwelling units should not undermine the sustainable utilisation of agricultural resources and should be clustered near rural movement routes, existing services and housing stock where-ever possible.
- The number of units must reasonably be connected to the bona-fide primary farming and agricultural activities on the land unit.

18.14 Community Facilities

In general the provision of community facilities and associated services to rural communities should take place in existing settlements.

Guidelines/Policy

- Location within the rural landscape may be required in exceptional circumstances when travel distances are too far or rural population concentrations justifies the location of community facilities in rural areas.
- New community facilities should preferably be located on regional accessible roads, in settlements and not in isolated locations “on-farm” facilities should use existing farm structures or existing footprints in disturbed areas and areas of low agricultural potential.
- The nodal clustering of community facilities in service points should be promoted, with these points also accommodating mobile services.

19 Consolidated Spatial Framework

The composite spatial framework integrates the spatial strategies and policies to reflect the spatial intentions of the municipality. The “Protected Natural Resources and Integrated Environmental Management” strategies are framed to support overall resource resilience of the Municipality and to capitalise on its extensive environmental and biodiversity assets. The composite SDF includes the latest ECBCP spatial mapping of CBAs and the protected and conservation areas. This CBA mapping has however been carried out at a broad scale and needs to be ground-truthed to inform land use planning at the municipal scale.

The “Connected and Efficient Settlements component of the SDF identifies what is needed to improve access to community facilities and livelihood opportunities. This will enable equitable access by all communities to the the municipalities growth oppotunities. This strategy and policies also establish a clear settlement hierarchy, where the role and development priorities and appropriate investment level for each settlement type are clearly articulated.

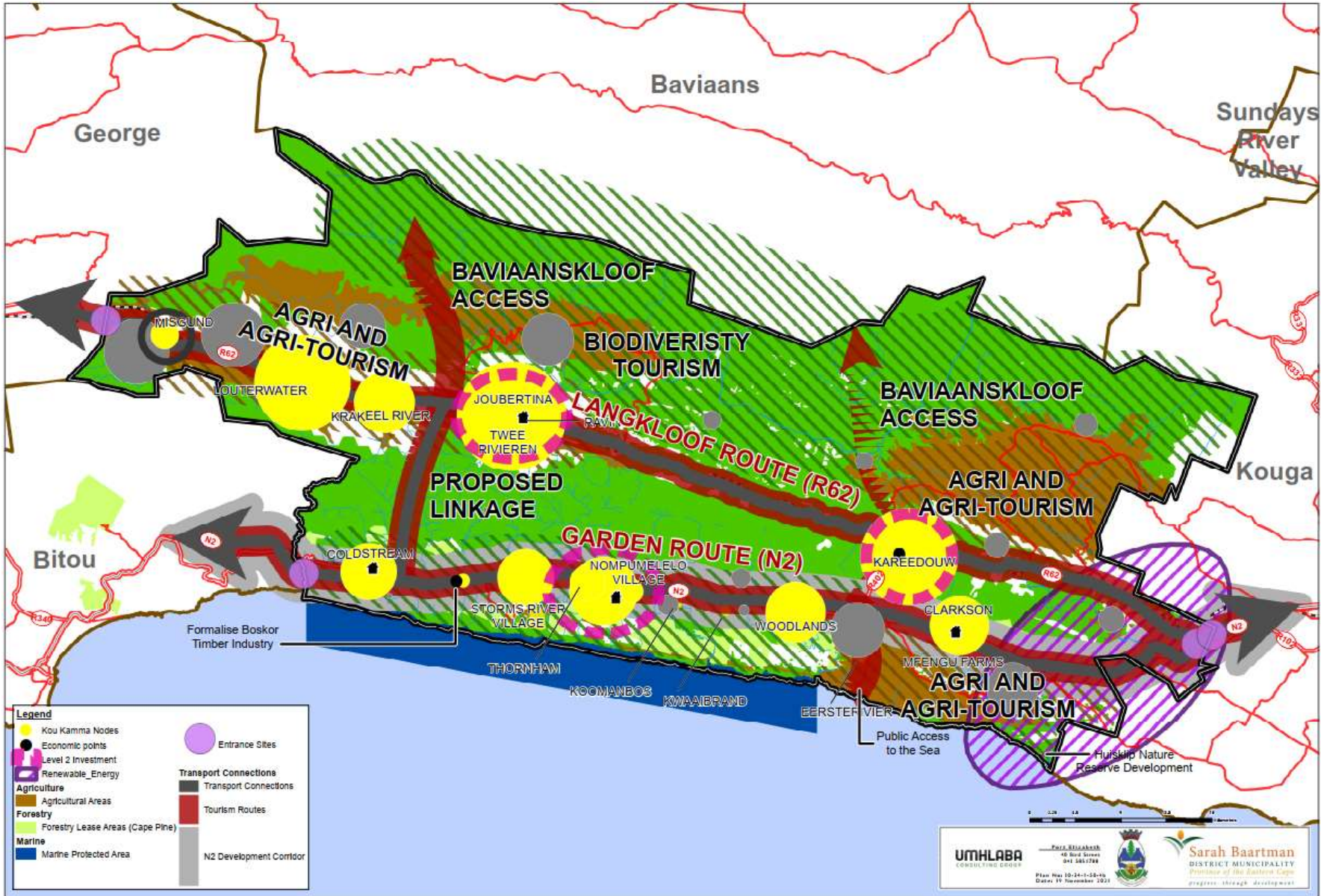


Figure 25 Municipal Spatial Framework

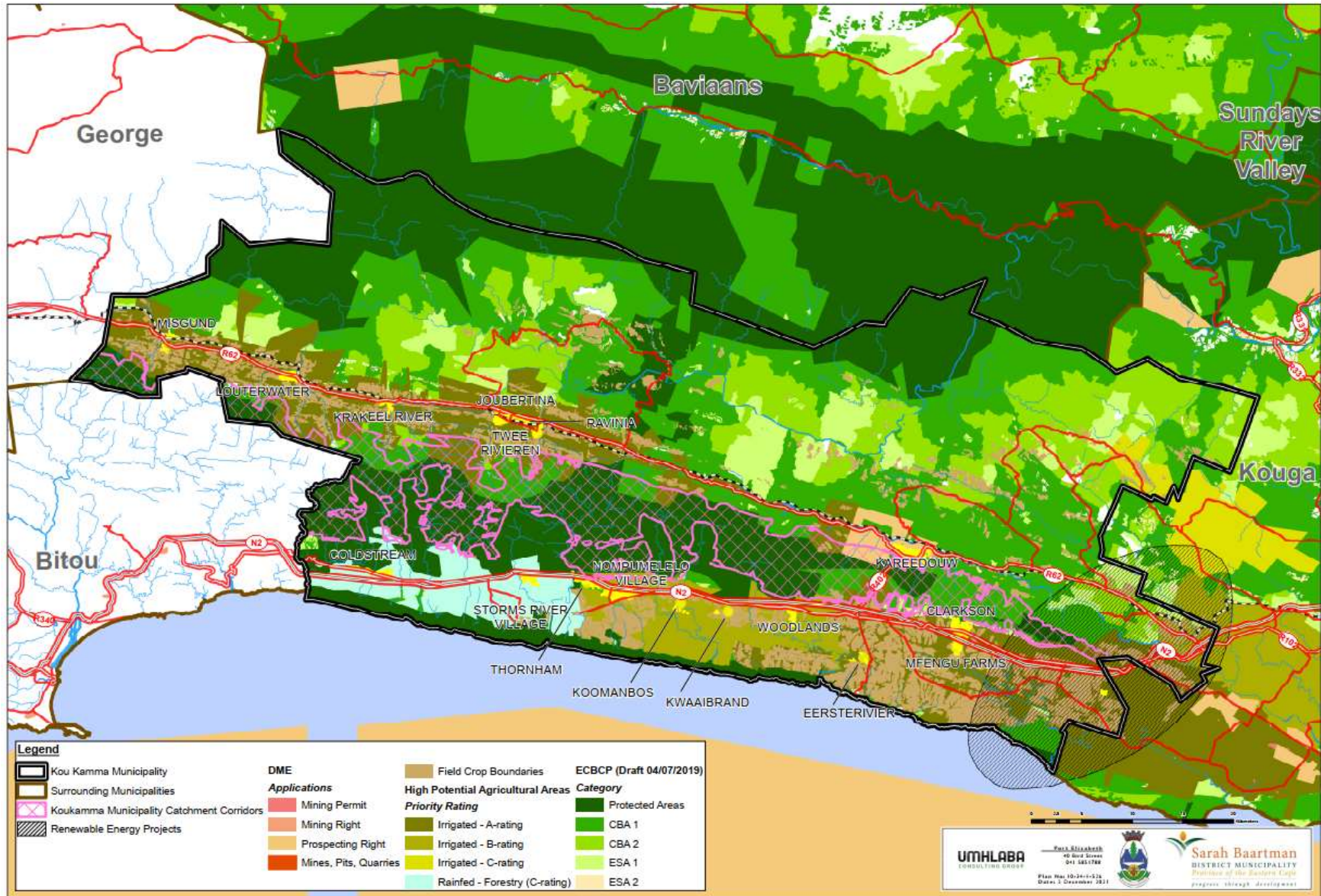


Figure 26: Rural Land Management Plan

20 Settlement Frameworks

The Koukamma Land Use Management System proposes the preparation of nodal spatial development plans. These plans will form the intermediate spatial planning tool between the Spatial Development Framework and the detailed planning proposals, which will take place in each settlement.

The scope of this document does not enable detailed planning to be undertaken for all the nodes within the municipality. In view of this the methodology has been adopted of addressing all primary and secondary nodes briefly, rather than addressing a limited selection in detail.

The primary and secondary settlements are therefore briefly addressed in the following chapters. These initial spatial development plans address the following:

- Preparation of “base-mapping” for the node.
- Establish broad guidelines to enable the municipality to assess land development proposals.
- Identify strategic land parcels which are to be accessed or utilised for future land requirements.
- Identify areas where planning funding is to be focused.

NOTE:

These spatial development plans are intended to provide the Municipality with a preliminary framework to enable short term decision making. Detailed nodal development plans need to be formulated to address the medium term and long term decision making needs of the Municipality. The formulation of these detailed plans is to be prioritised for the primary nodes of Kareedouw, Stormsrivier, Joubertina/Ravinia/Tweeriviere and Nomphumelelo/Sandrif. Urban Edges can be established during the formulation of these development plans.

21 Kareedouw Framework

Context

- Kareedouw is the administrative seat of the Koukamma Municipality and is situated at the eastern access to the Langkloof. This node is situated on the R62 Route which runs the length of the Langkloof.
- The R402 Route is an 8 km route which crosses the Kareedouw Mountain and provides easy access between the N2 and Kareedouw.

Urban Form (Infill and Densification, Nodes and Corridors and Human Settlement)

- Residential development is situated to the south of the R62
- The residential areas are fragmented as a result of apartheid practices as well as topographic constraints.
- Settlement development should not be permitted to expand further to the East as this will perpetuate the segregated settlement pattern and create homes further from amenities.
- The Kareedouw node can be divided into five areas; the central area and the four residential suburbs of New Rest, Mountain View, Kagiso Heights
- Vacant and underutilised land is situated to the north of the urban area
- Industrial land uses are present to the west of the town
- Business uses are concentrated in a linear pattern along the R62
- Funding is currently being sought to upgrade Van Riebeeck Street in order to facilitate better pedestrian movement, informal markets and provide parking areas.
- Various community and institutional uses are present, including a private hospital at the eastern entrance to the town.
- There are sportsfields in Uitkyk, Kareedouw Central, New Rest and Kagiso Heights The squash club is situated near the municipal buildings.
- Numerous sports fields are present.
- The area south of the town is dominated by the Kareedouw Berg Nature Reserve.
- There is a need to provide FLISP and Social Housing

Environmental Impact

- The Kareedouw Mountain is included in a local proclaimed nature reserve (Blouberg Nature Reserve). This reserve contains pristine mountain fynbos, which needs to be protected. The limited harvesting of the wild flowers within the reserve provides income to the harvesters on a limited scale. The firebreaks within the reserve need to be maintained to prevent fires spreading to the surrounding properties and plantations. The opportunity exists to develop a hiking trail in the reserve.
- The impact of the node on the water resources in the area needs to be effectively managed, while pollution from the industries needs to be monitored.
- The environmental sensitivity is reflected on Figure 27.
- Most of the land surrounding the urban area is classified as "Not Vulnerable". An area of "Critically Endangered" land is situated to the south west of the town.



Figure 27: Kareedouw Biodiversity

Potable Water

- Driekrone Waterfall to dam and Assegai River (only in peak periods) and 5 boreholes (one in operation).
- The current supply is adequate to deal with the current demand and future development.
- The water treatment plant is situated south of the municipal buildings.
-

Sewer

- The sewerage treatment plant to the north-west of the town can accommodate the current need. Additional development may require the upgrading of this facility. No additional land will be required.
- Sections of the town (Older areas) are not served with a waterborne system

Roads and Stormwater

- The roads in Mountain View and New Rest require additional maintenance due to the slope of the ground. The roads and storm water systems need to be upgraded.
- The tarred roads in the town are in reasonable condition and some maintenance is required. Van Riebeeck Street is earmarked for upgrading in terms of an IDP project.

Solid Waste

- The illegal refuse site between Kagiso Heights and Mountain View needs to be closed and rehabilitated. The existing licensed site has sufficient capacity for the foreseeable future.

Electricity

- Eskom supplies the entire node with electricity

Ownership

- The Municipality owns large tracts of land to the south of the town. This land is designated as a nature reserve and cannot be utilised for other purposes. Smaller municipal owned portions closer to the 'built-up' area can be utilised for infill development.

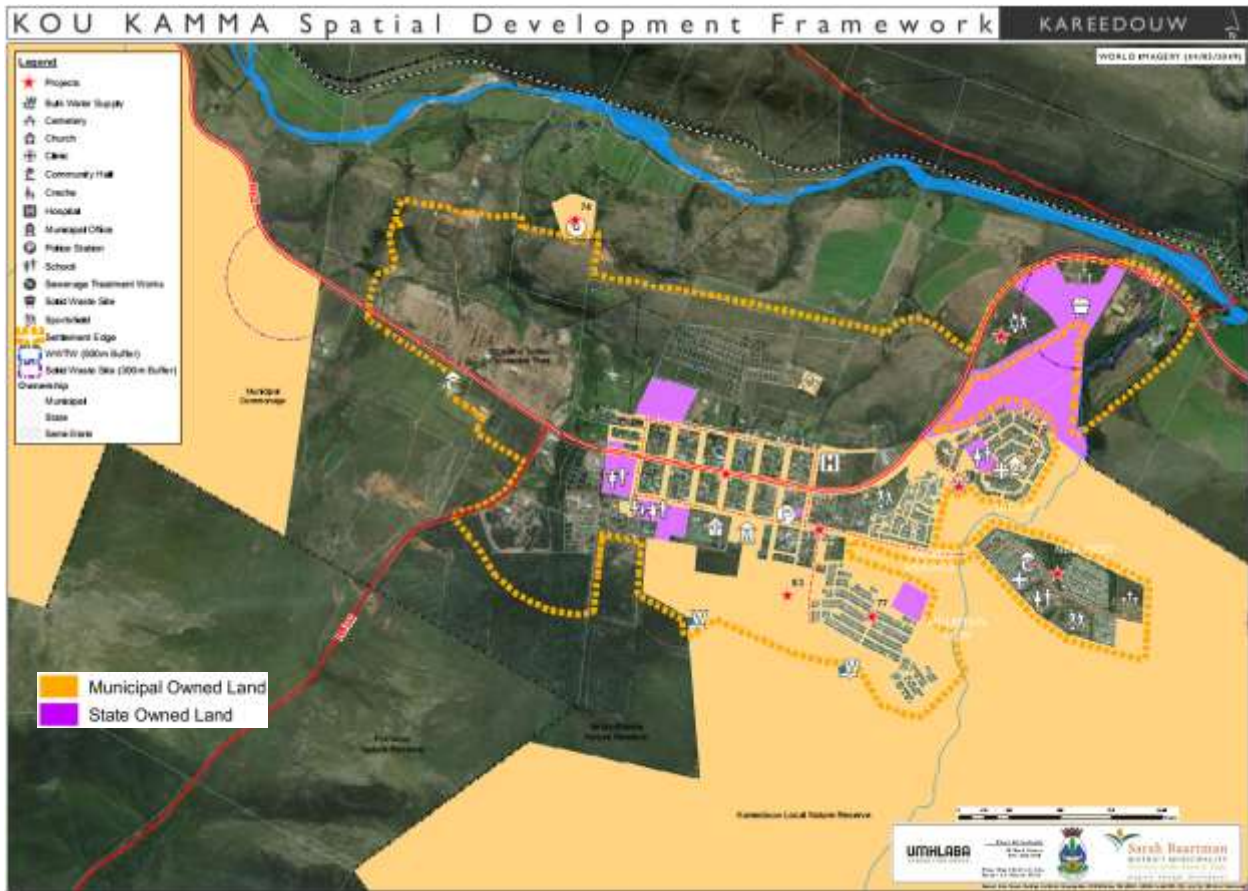


Figure 28: Ownership Kareedouw (Owio 2021)

Land Needs

- The required land budget is set out below.

Town	Pressure (NSDF)	2011 Persons(Census-NSDF)	Backlog HH(assumed to Incl Informal) Subsidy	Tot. ha needed hh/@250m2/HH)	Tot ha Need Backlog Incl Other uses (40%)	Pop (Persons) at 2030	Change_11to30 Excl BKlog	Tot. ha needed hh/@250m2/HH)	Tot ha Need 2030 Incl Other Uses (40%)	Total (ha) Land Demand (Backlog+Growth)
Kareedouw	Extreme	5184	742	18.55	25.97	8949	3765	23.53	32.94	58.91

Table 18: Kareedouw Land Budget

AREA	NO	GROWTH	INFORMATION	COMMUNAL/ RESTITUTION	LAND AVAILABLE	BULK SERVICES
Kareedouw	592	X			Land needs to be identified and purchased	No bulk services

Table 19: Kareedouw Housing Backlog



Figure 29: Kareedouw Framework Plan

21.1 Preliminary Land Management Proposals

ID	F_LU,C,50	Node_Name,C,100	Prop_Descr,C,254	Ownership,C,254	Parcel_N_1,C,254	SDF_Catego,C,254	Hectares,N,19,11
1	Future Authority	Kareedouw	A portion of this land surrounding the cemetery is to be investigated for the expansion thereof. (Also See area 20)		Erven 979 and 978, Parts of Portions 15, 24, 28, 31, 61 and 69 of Farm 254	Future Settlement (Res) & Authority	3.54
4	Future Business	Kareedouw	Is situated at the intersection between the Link Road to the N2 National Route and the R62 this area is earmarked for business development. This could include light industrial development which is aesthetically suited to a node/entrance. This site also accommodates the potential redevelopment of the old Reselvier Factory Site.		Part of Portion 49 and 54 of Farm 254		6.24
5	Future Residential	Kareedouw	The area directly to the south of the 'built-up' area is suitable for residential development.		Parts of portions 62 and 63 of Farms 254, parts of Erven 2, 155, 314 and 346	Future Settlement (Res)	56.87
10	Future Business	Kareedouw	This proposed business area forms a linear pattern along the main road through the node. The current trend towards the establishment of businesses here is to be supported.		Numerous privately owned properties.		3.11
20	Future Residential	Kareedouw	The area is situated directly to the north of the town and is suitable for residential development. A portion of this land surrounding the cemetery is to be investigated for the expansion thereof. The sewerage reticulation to the eastern portion of this area of land will need to be investigated as it lies on the opposite side of the watershed to the treatment works. (Also see area 1)		Erven 979 and 978, Parts of Portions 15, 24, 28, 31, 61 and 69 of Farm 254	Future Settlement (Res) & Authority	68.03
21	Future Business	Kareedouw	This area forms is made up of the block of under utilised land from the Entrance to Uitkyk to Krom Street - This site is identified for more intensive business and light industrial use. This site can also include the provision of Gap Housing etc.		Erven 201 and part of Erf 2		9.06
22	Future Business	Kareedouw	The area is made up of the vacant land surrounding the Kareedouw Hospital. The properties can be utilized for business development and the accommodation of a taxi rank facility.		Erven 201 and part of Erf 2		2.93
23	Future Residential	Kareedouw	The area is situated to the east of New Rest and can accommodate approximately 40 residential stands. Alternatively the area can be investigated for use as a cemetery expansion area. Use for cemetery will create an effective development edge.	Municipal	Erf 155	Future Settlement (Res)	2.13
25	Future Industrial	Kareedouw	Situated in the core of the settlement between Mountain View and the old settlement area this site is identified for the development of institutional uses.				1.54

ID	F_LU,C,50	Node_Name,C,100	Prop_Descr,C,254	Ownership,C,254	Parcel_N_1,C,254	SDF_Catego,C,254	Hectares,N,19,11
26	Future Industrial	Kareedouw	Situated in the core of the settlement between Mountain View and the old settlement area this site is identified for the development of institutional uses.				0.62
273	Future Industrial	Kareedouw	This area is situated to the South of the "Woodline" industrial area. Additional land can be made available here for the extension of the industrial area. It will be imperative that the non-noxious i.e. light industry be locate to the east of the area while the more intrusive industrial uses be located in close proximity to the sewerage treatment works.				16.96
274	Future Industrial	Kareedouw	This area is situated to the south and east of the "Woodline" industrial area. Additional land can be made available here for the extension of the industrial area. It will be imperative that the non-noxious i.e. light industry be locate to the east of the area while the more intrusive industrial uses be located in close proximity to the sewerage treatment works.		Portion 45 and 58 of Farm 254.	Future Settlement (Res) & Industry	15.50

Table 20: Kareedouw Land Use Proposals

21.2 Kareedouw Actions

The spatial planning actions required to achieve the Framework are reflected below:

ID	Settlement	Project Description	Project	Category	Label	Located
77	Kareedouw	Provision of High Mast Lights	Streetlights	Technical Services	Streetlights	
76	Kareedouw	Repair and maintenance of streetlights	Electricity/Streetlights	Technical Services	Electricity/Streetlights	
75	Kareedouw	Installation of Prepaid Water Meters	Domestic Water Meters	Technical Services	Domestic Water Meters	No
74	Kareedouw	Upgrading of sewerage system to a full Water Borne System	Water and Sanitation	Technical Services	Water and Sanitation	
73	Kareedouw	Replacement of AC Pipes with suitable and efficient PVC Pipes	Replacement of AC Pipes with PVC Pipes	Technical Services	Replace AC Pipes with PVC Pipes	No
78	Kareedouw	Extension, fencing and Ablution facility to the cemetery	Upgrading of cemeteries	Community Service	Upgrade Cemeteries	
79	Kareedouw	New Landfill site - Appoint a service provider to conduct an Environmental Impact Assessment / Basic Assessment Report	Facilitate EIA/BAR for the establishment of new land fill site	Community Service	EIA/BAR for New Land Fill Site	No
80	Kareedouw	Paving and upgrading of all roads	Roads	Technical Services	Roads	
81	Kareedouw	Production of Timber Products	Develop a Timber Factory plant at Renselfier Manufacturing	LED	Develop Timber Factory Plant	No
82	Kareedouw	Establishment of recreational facility	Recreational Facility	Community Service	Recreational Facility	No
83	Kareedouw	Building of new RDP Houses	Housing	Department of Human Settlement	Housing	
84	Kareedouw	Upgrading of the Sportfield	Sportfield	Community Service	Sportfield	

ID	Settlement	Project Description	Project	Category	Label	Located
85	Kareedouw	Construction of Stall for SMME's	Business Hub	Community Service	Business Hub	No
86	Kareedouw	Revitalization of Assegaaibos Station for Tourism attraction	Tourism Hub	Department of Tourism	Tourism Hub	No
87	Kareedouw	Development of a Skills Hub and Innovation Centre	Business incubation Centre/ Hub	LED	Business Centre/Hub	No
88	Kareedouw	Upgrade water source/supply	Commissioning of Bore holes and raising of weir	Technical Services	Commissioning Bore Holes & Raising Weir	No
89	Kareedouw	Repair of Dams at Drie krone and raise weir	Drie Krone Dams	Technical Services	Drie Krone Dams	No
90	Kareedouw	Building of Clinic at New Rest	Clinic	Department of Health	Clinic	
		Precinct Plan - The Central Business District (CBD)	Kareedouw Precinct Plan	Community Service	Kareedouw Precinct Plan	
		Identify land for the development of FLISP and Social Housing project implementation	FLISP and Social Housing	Department of Human Settlement	FLISP and Social Housing	
		Identify land for food gardens	Identify land for food gardens	Community Service	Food gardens	

Table 21: Kareedouw Actions

22 Joubertina/Ravinia/Tweeriviere Framework

Context

- This node is situated 42 km west of Kareedouw on the R62 Route. The node consists of three distinct geographical areas. Joubertina, is a low-density urban development with municipal offices and a business area. Ravinia is situated 1 km to the east of Joubertina and consists of higher density low cost housing. Twee Riviere was situated outside the Joubetina TLC and was managed by the District Council.
- The fragmented pattern needs to be consolidated and facilities integrated to improve efficiency.
- The land uses within the development are uncoordinated and do not facilitate tourist or business use thereof..

Ownership

- The municipality own large portions of land surrounding Ravinia, but no other significant properties.

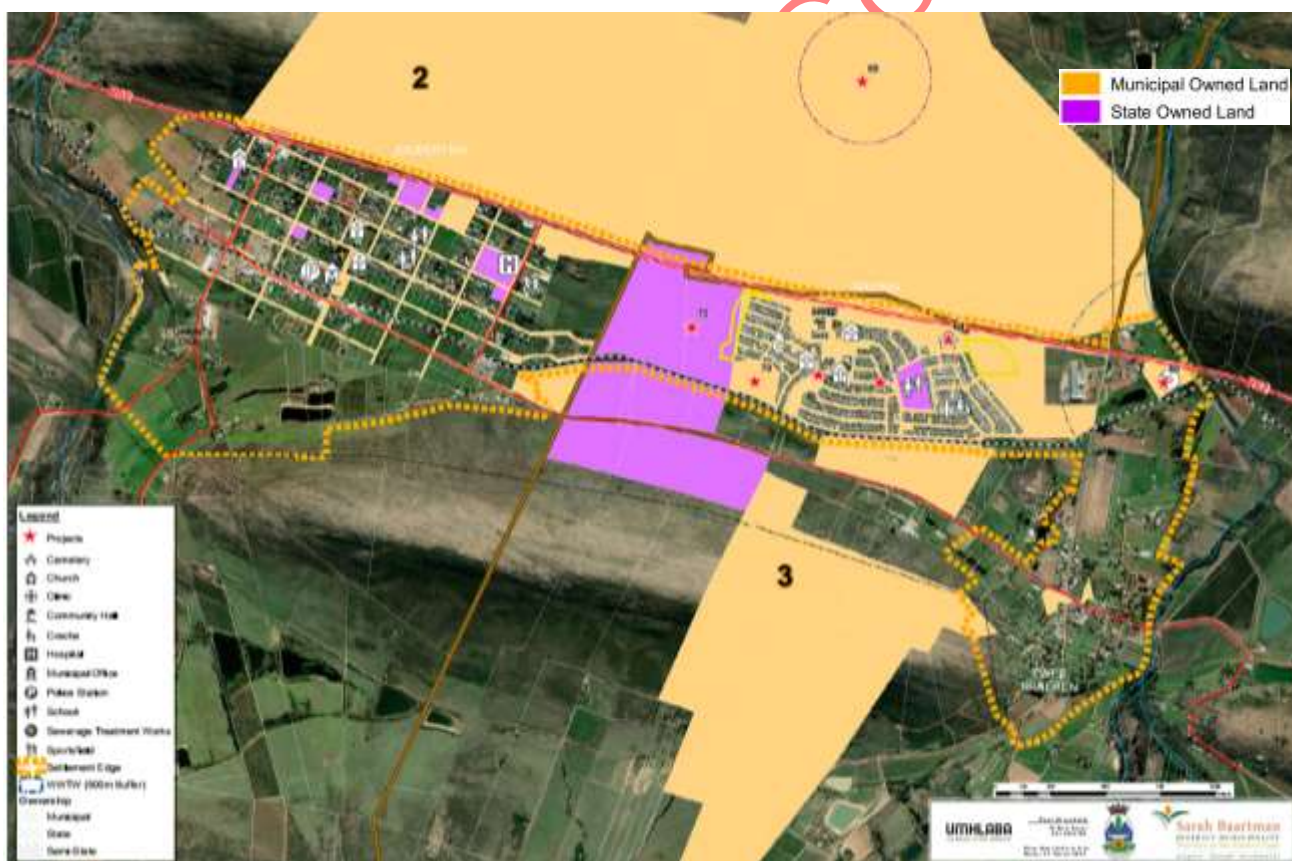


Figure 30: Ownership Joubertina (Ovvio 2021)

Urban Form (Infill and Densification, Nodes and Corridors and Human Settlement)

- This node consists of three distinct and segregated areas, being Joubertina, Twee riviere and Ravinia.
- Joubertina is a low density residential area which includes municipal offices, a hospital and established business area
- Ravinia is situated 1km to the east of Joubertina and consists of a predominantly subsidy housing area. A school, clinic, community hall and crèche are present.
- Tweeriviere is a conglomeration of small farm portions to the East of Tweeriviere, which accommodates industry, dwelling houses and business uses.
- Business, financial institutions, a hotel and industries are present in the node. Vacant business stands enable expansion if necessary.
- Numerous bed and breakfast facilities are present within and surrounding the node.
- Industries primarily associated with the fruit industry are located along the railway line, which provides access to the Port Elizabeth harbour. Additional industrial land is available along the railway.
- Commonage is available, which needs to be managed and accessed in a sustainable manner.

Environmental Impact



Figure 31: Joubertina Environmental Footprint

Potable Water

- The water supply from the Joubertina Dam is not sufficient to supply the current users during dry periods. Additional housing including the current 300 houses will place an additional burden on the supply. Alternative sources need to be investigated. The current reticulation system in Joubertina needs to be upgraded.

Sewer

- Ravinia is the only area currently serviced with a full waterborne sewerage system. The other areas utilize on-site systems. The upgrading of these systems needs to be investigated, taking cognizance of the water supply shortage.

Roads and Stormwater

- The steep slopes in the area mean that the road and storm water systems require constant maintenance. These systems need to be expanded and upgraded.

Solid Waste

- A solid waste service is rendered by the municipality.

Electricity

- Eskom undertakes the electricity supply to the node. Additional capacity exists to accommodate expansion.

Land Needs

The required land budget is set out below.

Town	Pressure (NSDF)	2011 Persons (Census-NSDF)	Backlog HH (Assumed to be Informal) Subsidy to Incl	Tot. ha needed hh (@250m ² /HH)	Tot ha Need Backlog Incl Other uses (40%)	Pop (Persons) at 2030	Change_11to30 BKLog Excl	Tot. ha needed hh (@250m ² /HH)	Tot ha Need 2030 Incl Other Uses (40%)	Total (ha) Land Demand (Backlog+Growth)
Joubertina	Extreme	6524	498	12.45	17.43	9878	3354	20.96	29.35	46.78

Table 22: Joubertina Land Budget

AREA	NO	GROWTH	INFORMATION	COMMUNAL/ RESTITUTION	LAND AVAILABLE	BULK SERVICES
Joubertina	498	X			Land needs to be identified and purchased	No bulk services

Table 23: Joubertina Housing Backlog

22.1 Joubertina Management Proposals

ID	F_LU,C,50	Node_Name,C,10 0	Prop_Descr,C,254	Ownership,C,25 4	Parcel_N_1,C,25 4	SDF_Catego,C,25 4	Hectares,N,19,1 1
28	Future Authority	Joubertina	The area is situated to the east of Ravinia and adjacent to the access road to Twee Riviere. The area is suitable for the expansion of the residential use in Ravinia, while the area adjacent to the Tweeriviere access road is earmarked for business and industrial development. The area to the east of the existing cemetery is to be investigated for the expansion thereof.		Portions 442 and 443 (Municipal) of Farm 358 and Portion of Portion 1 of Farm 366 (Municipal)		1.79
29	Future Institutional	Joubertina	The area is set aside for the "rock art centre"		Portions 105 to 109, 305 to 308, 380 and 388 of Farm 358		0.55
30	Future Authority	Joubertina	The area is situated between the Joubertina and Ravinia and is earmarked for residential development. The area surrounding the existing cemetery in Joubertina is to be investigated for the expansion thereof.		Erf 481, Farm 409, Portion 68 of Farm 358		4.16
31	Future Residential	Joubertina	The area is situated between the Joubertina and Ravinia and is earmarked for residential development. The area surrounding the existing cemetery in Joubertina is to be investigated for the expansion thereof.		Erf 481, Farm 409, Portion 68 of Farm 358		37.68
36	Future Business	Joubertina	The area is situated to the east of Ravinia and adjacent to the access road to Twee Riviere. The area is suitable for the expansion of the residential use in Ravinia, while the area adjacent to the Tweeriviere access road is earmarked for business and industrial development. The area to the east of the existing cemetery is to be investigated for the expansion thereof.		Portions 442 and 443 (Municipal) of Farm 358 and Portion of Portion 1 of Farm 366 (Municipal)		6.78
37	Future Residential	Joubertina	The area is situated to the east of Ravinia and adjacent to the access road to Twee Riviere. The area is suitable for the expansion of the residential use in Ravinia, while the area adjacent to the Tweeriviere access road is earmarked for business and industrial development. The area to the east of the existing cemetery is to be investigated for the expansion thereof.		Portions 442 and 443 (Municipal) of Farm 358 and Portion of Portion 1 of Farm 366 (Municipal)		1.45
38	Future Residential	Joubertina	The area is situated to the east of Ravinia and adjacent to the access road to Twee Riviere. The area is suitable for the expansion of the residential use in Ravinia, while the area adjacent to the Tweeriviere access road is earmarked for business and industrial development. The area to the east of the existing cemetery is to be investigated for the expansion thereof.		Portions 442 and 443 (Municipal) of Farm 358 and Portion of Portion 1 of Farm 366 (Municipal)		9.86

Table 24: Joubertina Land Use Proposals

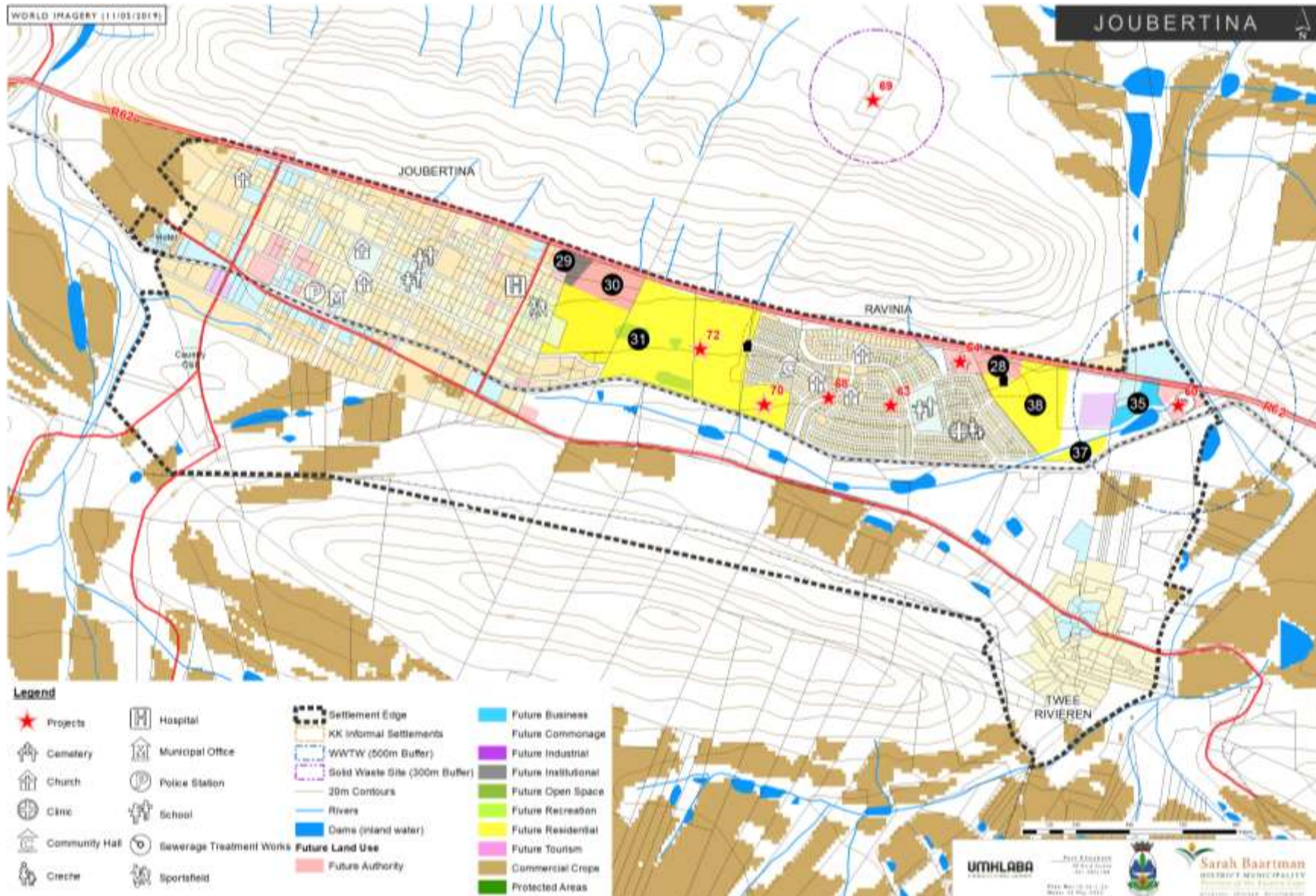


Figure 32: Joubertina Framework Plan

22.2 Joubertina Actions

The spatial planning actions required to achieve the Framework are reflected below:

ID	Settlement	Project Description	Project	Category	Label	Located
63	Ravinia	1) Repairs and maintenance of streetlights 2) Provision of additional High Mast Lights	Electricity/Streetlights	Technical Services	Electricity/Streetlights	
62	Ravinia	Installation of Prepaid Water Meters	Domestic Water Meters	Technical Services	Domestic Water Meters	No
61	Ravinia	Supply of JOJO Tanks	Water	Technical Services	Water	No
60	Ravinia/Tweeriviere	Refurbishment of waste water treatment plant	Water and Sanitation	Technical Services	Water and Sanitation	
64	Ravinia	Fencing of the existing cemetery	Upgrading of cemeteries	Community Service	Upgrade Cemeteries	
65	Mooiuitsig/Ravinia	Environmental Impact Assessment/Basic Assessment Report for the establishment of a new cemetery	Facilitate development of EIA or BAR for establishment of cemetery	Community Service	Cemetery Establishment	No
67	Ravinia	Construction of a new Library (Feasibility Study)	Library Facilities	Community Service	Library Facilities	No
68	Ravinia	1) Paving of gravel roads (Phase 2 & 3) 2) Construction of Speed humps	Roads	Technical Services	Roads	
69	Ravinia	Fencing of the existing landfill site, construction of a shelter and gravelling of the access road	Landfill Sites	Technical Services	Landfill Sites	
66	Ravinia	Building of a School that caters for special need children	Provision of Educational Facilities	Department of Education	Provide Educational Facilities	No
70	Ravinia	1) Construction of an indoor Sports Centre 2) Upgrading and maintenance of existing Sports field	Sports Facilities	Community Service	Sports Facilities	
71	Ravinia	Establishment of recreational facilities	Recreational Facility	Community Service	Recreational Facility	No
72	Ravinia	Provision of new RDP Houses	Housing	Department of Human Settlement	Housing	
		Precinct Plan - The Central Business District (CBD)				
		Identify land for the development of FLISP and Social Housing project implementation				
		Identify land for food gardens				

Table 25: Joubertina Actions

23 Misgund Framework

Urban Form (Infill and Densification, Nodes and Corridors and Human Settlement)

- The old Misgund node consists of a conglomeration of small farm portions which contain residential, agricultural industry and business land uses.
- A newer area (South of the railway station) containing vacant even a hotel site and industrial uses.
- An area to the north of the newer area is currently being developed for subsidy housing (Approximaltey 400 units).

Environmental Impact

- The area is characterised by numerous streams and wetland areas

Environmental Impact

- The area is characterised by numerous streams and wetland areas
- The land surrounding Misgund to the north and east is classified as CBA and should not be affected by development.
- The areas to the west and south are not as environmentally sensitive but are currently farmed and should also not be impacted on by development pressures.
- In view of the above opportunities for human settlement should therefore ideally be sought within the current urban edge.

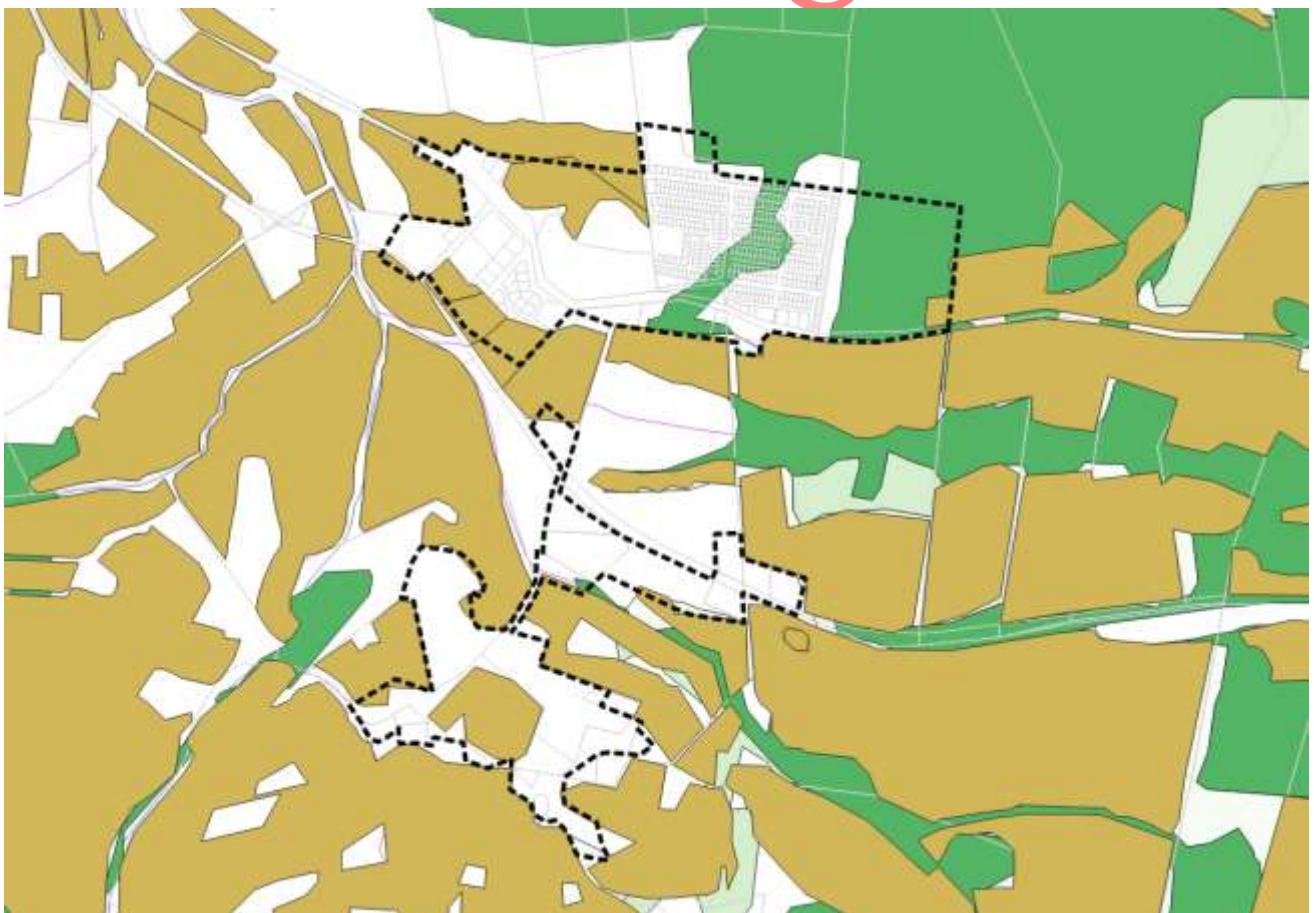


Figure 33: Misgund Biodiversity Footprint

Ownership

- The majority of the land surrounding the node is in private ownership.



Figure 34: Ownership Misgund (Owio 2021)

Potable Water

- 3 boreholes, all equipped. Pumps 1.2 l/s for 24 hrs

Sewer

- ????????

Roads and Stormwater

- ????????

Roads

- ????????

Solid Waste

- A solid waste service is rendered by the municipality.

Electricity

- ????????

Land Needs

Town	Pressure (NSDF)	2011 Persons(Census-NSDF)	Backlog HH(Assumed to Incl Informal)	Subsidy to Incl	Tot. ha needed hh(@250m2/HH)	Tot ha Need Backlog Incl Other uses (40%)	Pop (Persons) at 2030	Change_11to30 BKLog	Excl	Tot. ha needed hh(@250m2/HH)	Tot ha Need 2030 Incl Other Uses (40%)	Total (ha) Land Demand (Backlog+Growth)
Misgund	High	668	531		13.275	18.585	1079	411		2.57	3.60	22.18

Table 26: Misgund Land Budget

AREA	NO	GROWTH	INFORMATION	COMMUNAL/ RESTITUTION	LAND AVAILABLE	BULK SERVICES
MISGUND	531	X	X		Needs to be purchased from farmers	No bulk services

Table 27: Misgund Housing Backlog

23.1 Preliminary Land Management Proposal

ID	F_LU,C,50	Node_Name,C,100	Prop_Descr,C,254	Ownership,C,254	Parcel_N_1,C,254	SDF_Catego,C,254	Hectares,N,19,11
52	Future Business	Misgund	Future Business. These properties could also be utilised for industrial purposes.				0.869870774
60	Future Residential	Misgund	These areas are situated to the east and west of the subsidy housing development. Portions of these areas are to be used for the extension to the residential area while the northern portions can be utilised for municipal commonage.		Portions 20 and 90 of Farm 285 and Portion 2 of Farm 288		13.01609999
62	Future Residential	Misgund	These areas are situated to the east and west of the subsidy housing development. Portions of these areas are to be used for the extension to the residential area while the northern portions can be utilised for municipal commonage.		Portions 20 and 90 of Farm 285 and Portion 2 of Farm 288		12.50246778

Table 28: Misgund Land Use Proposals

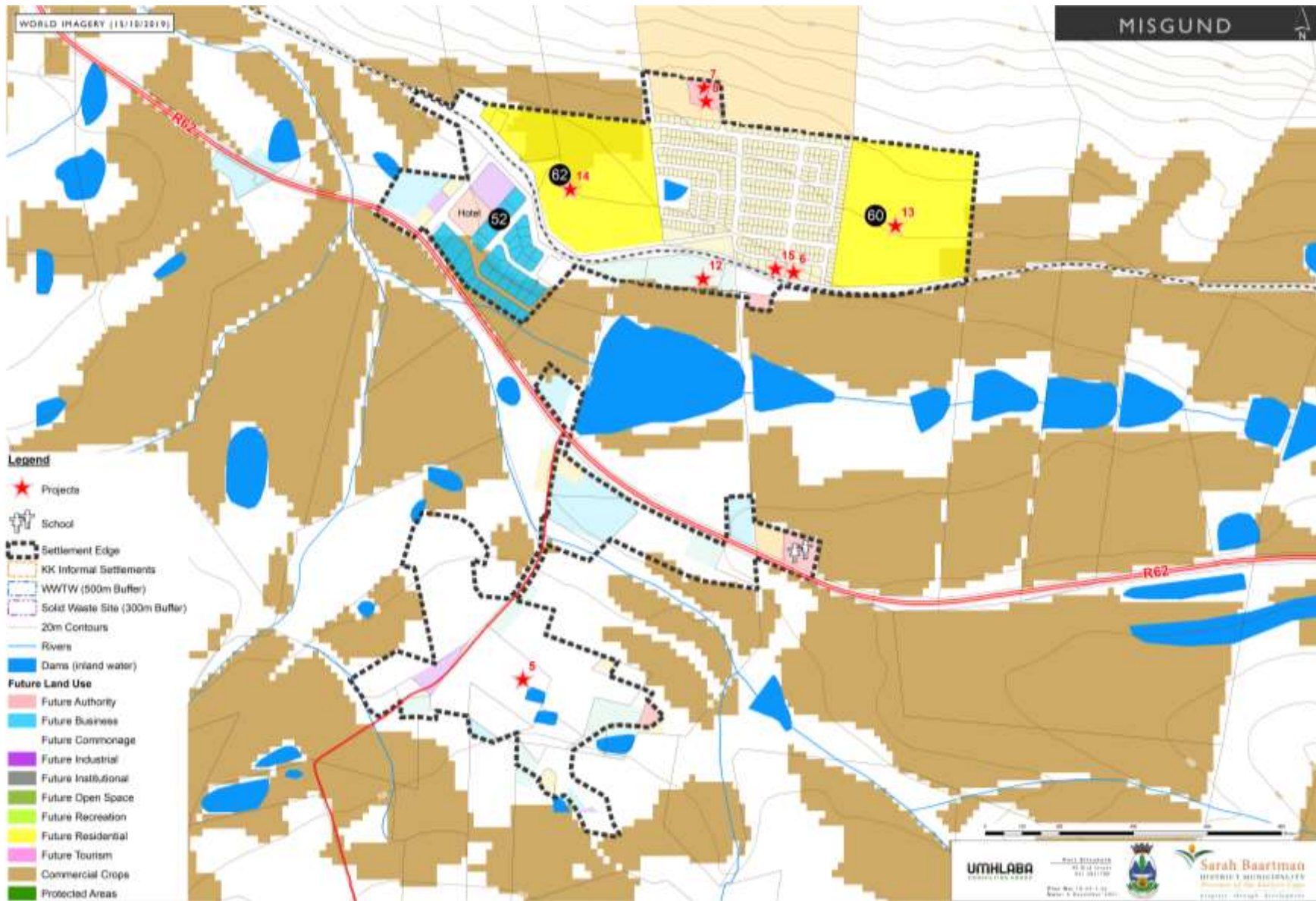


Figure 35: Misgund Framework Plan

23.2 Actions

The spatial planning actions required to achieve the Framework are reflected below:

ID	Settlement	Project Description	Project	Category	Label	Located
2	Misgund	Misgund Bulk Water Supply	Water	DWS	Water	No
3	Misgund	Condition assessment and Re-commissioning of 3 existing Boreholes	Water	Technical Services	Water	No
4	Misgund	Installation of Prepaid Water Meters	Domestic Water Meters	Technical Services	Domestic Water Meters	No
5	Misgund	Supply of JOJO tanks	Water Storage	DWS	Water Storage	No
7	Misgund	Extension and upgrade of existing cemetery	Burial sites / cemeteries	Community Service	Burial sites / Cemeteries	
8	Misgund	Ablution Facilities at existing cemetery	Burial sites / cemeteries	Community Service	Burial sites / Cemeteries	
9	Misgund	Provision of library facilities in the area	Library Facilities	Community Service	Library Facilities	No
10	Misgund	Provision of Furniture for the existing Misgund MPCC	MPCC	Community/Technical Services	MPCC	No
11	Misgund	Paving of gravel roads	Roads	Technical Services	Roads	No
12	Misgund	Transfer of a Primary School	Education	Office of the Premier	Education	
6	Misgund	Establish a clinic closer to the settlements	Health care facilities	Department of Health	Health Care Facilities	
14	Misgund	Establishment of new Sport facility	Establish new Sports field	Community Services	Establish New Sportsfield	
13	Misgund	Application for new Housing Project	Housing	Technical Services	Housing	
17	Misgund	Establishment of community Creche	Community Creche	Department of Education	Community Creche	No
16	Misgund	Fixing and Maintaining of High Mass Lights	Street Lights	Technical Services	Street Lights	No
15	Misgund	Establishment of Recreational Facility Identify land for the development of FLISP and Social Housing project implementation	Recreation Facility	Community Services	Recreation Facility	
		Identify land for food gardens				
		Precinct and formalisation Plan				
		Identify land for cemeteries				
		Densification Policy				

Table 29: Misgund Actions

24 Krakeel Framework

Urban Form (Infill and Densification, Nodes and Corridors and Human Settlement)

- The older portion of the town is situated in the eastern portion of the node and is made up of a conglomeration of small farm portions.
- Residential, business and industrial uses occur in a unstructured form.
- The newer portion of the town is made up of subsidy residential development and is situated in the western part of the node.
- A school churches and sportsfields are present.
- A cemetery is present at the entrance to the node. .

Environmental Impact

- The area is characterised by numerous streams and wetland areas.
- The settlement is surrounding by existing agriculture as well as biodiversity.
- New settlement development should be undertaken within the urban edge.

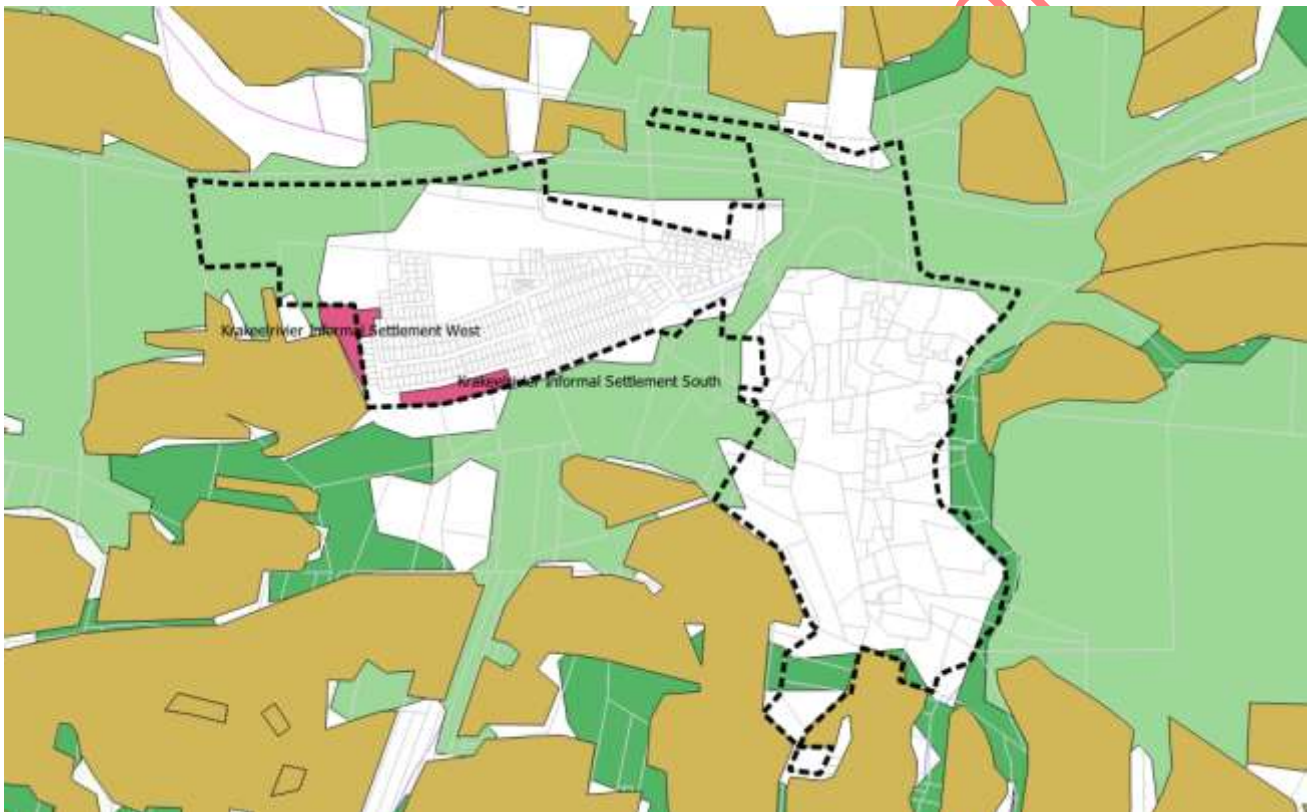


Figure 36: Krakeel River Resource and Biodiversity Footprint.

Potable Water

- 2 boreholes, raw water supply from Louterwater Irrigation Board from Krakeel River (2 hrs/10 days)

Sewer

- ????????

Roads and Stormwater

- ????????

Solid Waste

- A solid waste service is rendered by the municipality.

Electricity

- Provided by Eskom

Ownership

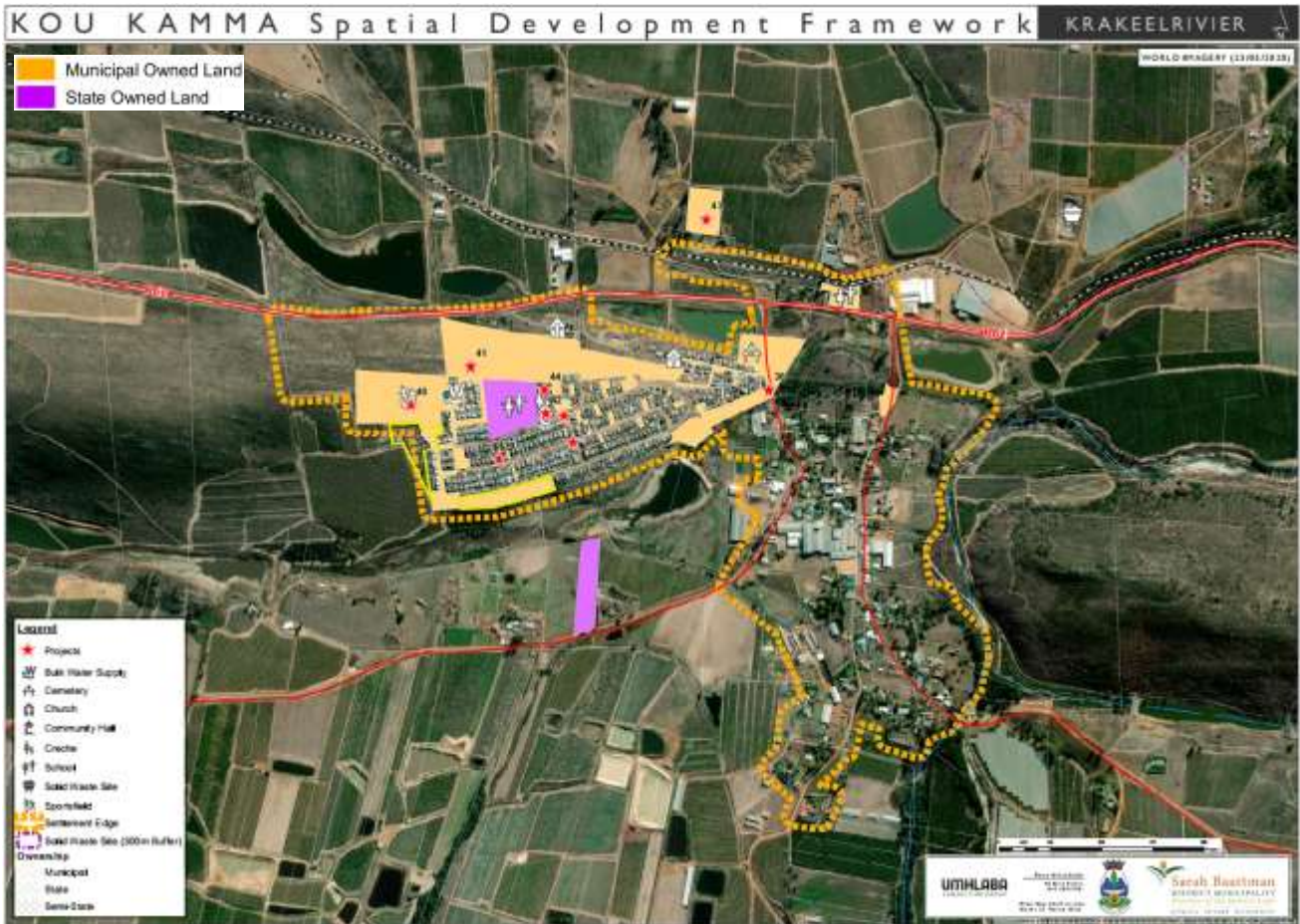


Figure 37: Ownership Krakeel River (Ovvio 2021)

Land Needs

Town	Pressure (NSDF)	2011 Persons(Census-NSDF)	Backlog HH(Assumed to Incl Informal)	Subsidy	Tot. ha needed hh(@250m2/HH)	Incl Other uses (40%)	Pop (Persons) at 2030	Change_11to30 Excl BKLog	Tot. ha needed hh(@250m2/HH)	Tot ha Need 2030 Incl Other Uses (40%)	Total (ha) Land Demand (Backlog+Growth)
Krakeel River	Extreme	2236	254		6.35	8.89	4464	2228	13.93	19.50	28.39

Table 30:Krakeelrivier Land Budget

AREA	NO	GROWTH	INFORMATION	COMMUNAL/ RESTITION	LAND AVAILABLE	BULK SERVICES
KRAKEEL	254	X	X		Land needs to be identified and purchased	No bulk services

Table 31:Krakeelrivier Housing Backlog

Draft for Public Comment

24.1 Preliminary Land Use Management Proposals and Actions

ID	F_LU,C,50	Node_Name,C,100	Prop_Descr,C,254	Ownership	Parcel_N_1,C,254	SDF_Catego,C,254	Hectares,N,19,11
41	Future Residential	Krakeelrivier	The property is owned by the Cacadu District Municipality and is situated to the north of the subsidy residential area.		Portion of Farm 442 and Farm 445		5.475542724
301	Future Residential	Krakeelrivier	Informal settlement is occurring in this area. There is a need to investigate whether it would be possible to formalise a residential area here or whether alternative land needs to be sought.				

Table 32: Krakeel Land Use Proposals

The spatial planning actions required to achieve the Framework are reflected below:

ID	Settlement	Project Description	Project	Category	Label	Located
34	Krakeel	Refurbishment of the 3 existing boreholes	Water and Sanitation	Technical Services	Water and Sanitation	No
35	Krakeel	Installation of Prepaid Water Meters	Domestic Water Meters	Technical Services	Domestic Water Meters	No
36	Krakeel	Repairs and Maintenance of streetlights	Electricity/Streetlights	Technical Services	Electricity/Streetlights	
37	Krakeel	Installation of High Mast Lights	High Mast Lights	Technical Services	High Mast Lights	
38	Krakeel	Paving of gravel roads (2018/2019)	Upgrading of Gravel Roads	Technical Services	Upgrade Gravel Roads	
39	Krakeel	Provision of Library facilities and equipment (Feasibility study)	Library Equipment	Community Service	Library Equipment	
40	Krakeel	Maintenance of existing sport field	Sports Facilities	Community Service	Sports Facilities	
41	Krakeel	Provision of new RDP houses	Housing	Technical Services	Housing	
42	Krakeel	Maintenance of the existing Community Hall	Community Hall	Community Service	Community Hall	
43	Krakeel	Extension and provision of ablution blocks, fencing and shelters for cemeteries	Provision of adequate cemetery services	Community Service	Cemetery Services	
44	Krakeel	Establishment of recreational facility -	Recreational Facility	Community Service	Recreational Facility	
		Identify land for the development of FLISP and Social Housing project implementation				
		Identify land for food gardens				
		Precinct and formalisation Plan				
		Densification Policy				

Table 33 :Krakeelrivier Actions

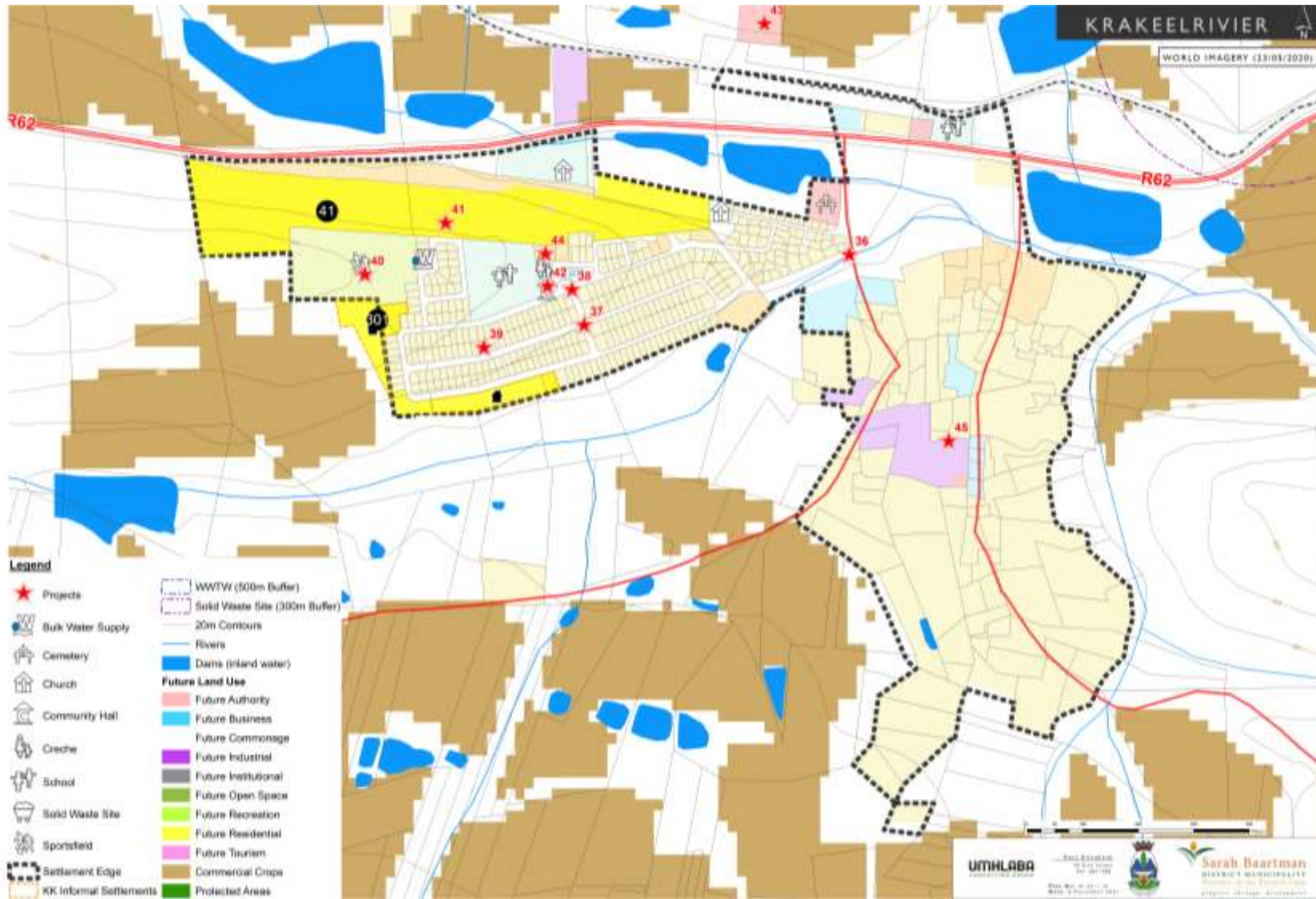


Figure 38: Kakeel Framework Plan

25 Coldstream Framework

Urban Form (Infill and Densification, Nodes and Corridors and Human Settlement)

- The node is predominantly residential with the AC Whitcher wood processing plant being the primary non-residential use.
- The current housing units are newly constructed subsidy scheme units or forestry housing which is being transferred to the current occupants
- The area is divided into Puntjiesbos to the west, Die Rye in the centre and Laurel Ridge to the east.
- The Coldstream forestry station is situated at the eastern extreme of the node
- The node is surrounded by commercial and natural forestry land uses.
- Vacant middle income properties have been planned in Die Rye and Laurel Ridge but have not been serviced.
- The existing cemetery in Puntjiesbos is full. An area is set aside for a cemetery in Die Rye

Environmental Impact

- The node borders on indigenous and cultivated forest both these areas are protected in terms of legislation.
- Proposed development needs to take place within the urban edge.

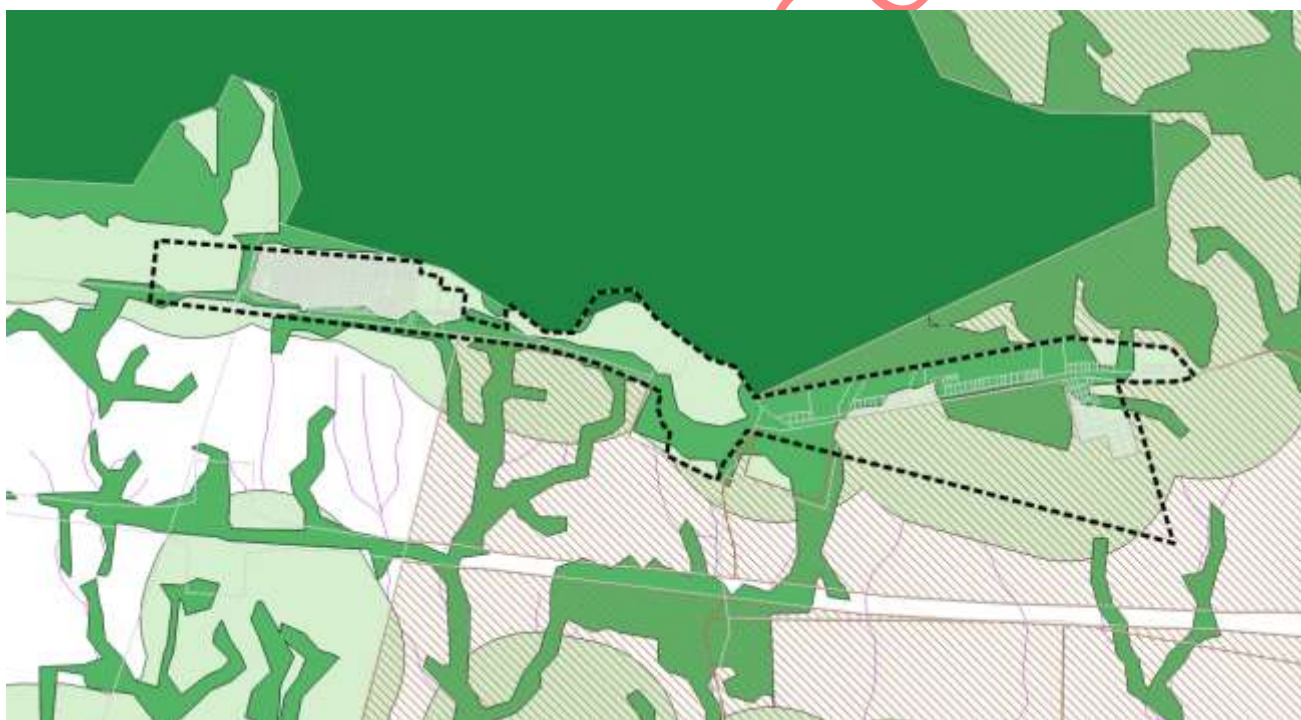


Figure 39: Coldstream Resources and Biodiversity Footprint

Potable Water

- Lottering River plus 2 boreholes that are not equipped

Sewer

- Waterborne sewerage is available at Puntjiesbos and Laurel Ridge, with treatment works situated to the North West and south east respectively. Die Rye is serviced by on-site systems. The current systems have capacity to accommodate the current and future needs of the node.

Roads and Stormwater

- Upgrading of gravel roads required.

Solid Waste

- A solid waste site is situated in close proximity to the Vark River

Electricity

- Eskom supplies electricity

Ownership



Figure 40: Ownership Coldstream (Ovvio 2021)

Land Needs

Town	Pressure (NSDF)	2011 Persons(Census-NSDF)	Backlog HH(Assumed to Incl Informal)	Subsidy to Incl	Tot. ha needed hh(@250m2/HH)	Tot ha Need Backlog Incl Other uses (40%)	Pop (Persons) at 2030	Change_11to30 BkLog	Excl	Tot. ha needed hh(@250m2/HH)	Tot ha Need 2030 Incl Other Uses (40%)	Total (ha) Land Demand (Backlog+Growth)
Coldstream	No Change	1611	229		5.725	8.015	1636	25		0.16	0.22	8.23

Figure 41: Coldstream Land Budget

AREA	NO	GROWTH	INFORMATION	COMMUNAL/ RESTITION	LAND AVAILABLE	BULK SERVICES
COLDSTREAM	229	X			Land identified needs to be purchased.	No bulk services

Figure 42: Coldstream Housing Backlog

Draft for Public Comment

25.1 Preliminary Land Management

ID	F_LU,C,50	Node_Name,C,100	Prop_Descr,C,254	Ownership,C,254	Parcel_N_1,C,254	SDF_Catego,C,254	Hectares,N,19,11
66	Future Residential	Coldstream	The area is situated to the west of Puntjiesbos and is to be accessed to enable residential expansion		Farm 396		9.51
67	Future Recreation	Coldstream	A large property to the east of and adjacent to Laurel Ridge has been set aside for development as a sportsfield.		Erf 159		2.07
68	Future Business	Coldstream	The area is a vacant business erf between Die Rye and Laurel Ridge.		Erf 137		0.14
69	Future Residential	Coldstream			Erven 173, 171, 191, 219, 231 and 236		2.43
70	Future Residential	Coldstream	The areas are situated to the north of and adjacent to the erven in Die Rye. The area is to be utilised for the expansion of the Die Rye residential area.		Erven 173, 171, 191, 219, 231 and 236		5.53
72	Future Residential	Coldstream	The areas are situated to the north of and adjacent to the erven in Die Rye. The area is to be utilised for the expansion of the Die Rye residential area.		Erven 173, 171, 191, 219, 231 and 236		2.31
73	Future Residential	Coldstream	The areas are situated to the north of and adjacent to the erven in Die Rye. The area is to be utilised for the expansion of the Die Rye residential area.		Erven 173, 171, 191, 219, 231 and 236		1.56
75	Future Residential	Coldstream	The areas are situated to the north of and adjacent to the erven in Die Rye. The area is to be utilised for the expansion of the Die Rye residential area. The expansion of the cemetery can be accommodated in this area (Erf 231).		Erven 173, 171, 191, 219, 231 and 236		2.21
76	Future Residential	Coldstream	The area is situated to the south of Laurel Ridge and is to be utilised for additional housing		Farm 407		10.69
275	Future Residential	Coldstream	This area is situated between Die Rye and the R102. It is currently utilised for forestry purposes. It should continue to be used for tis purpose untill such time as additional land is required for human settlement purposes.		Farm 407		34.98

Table 34:Coldstream Land Management

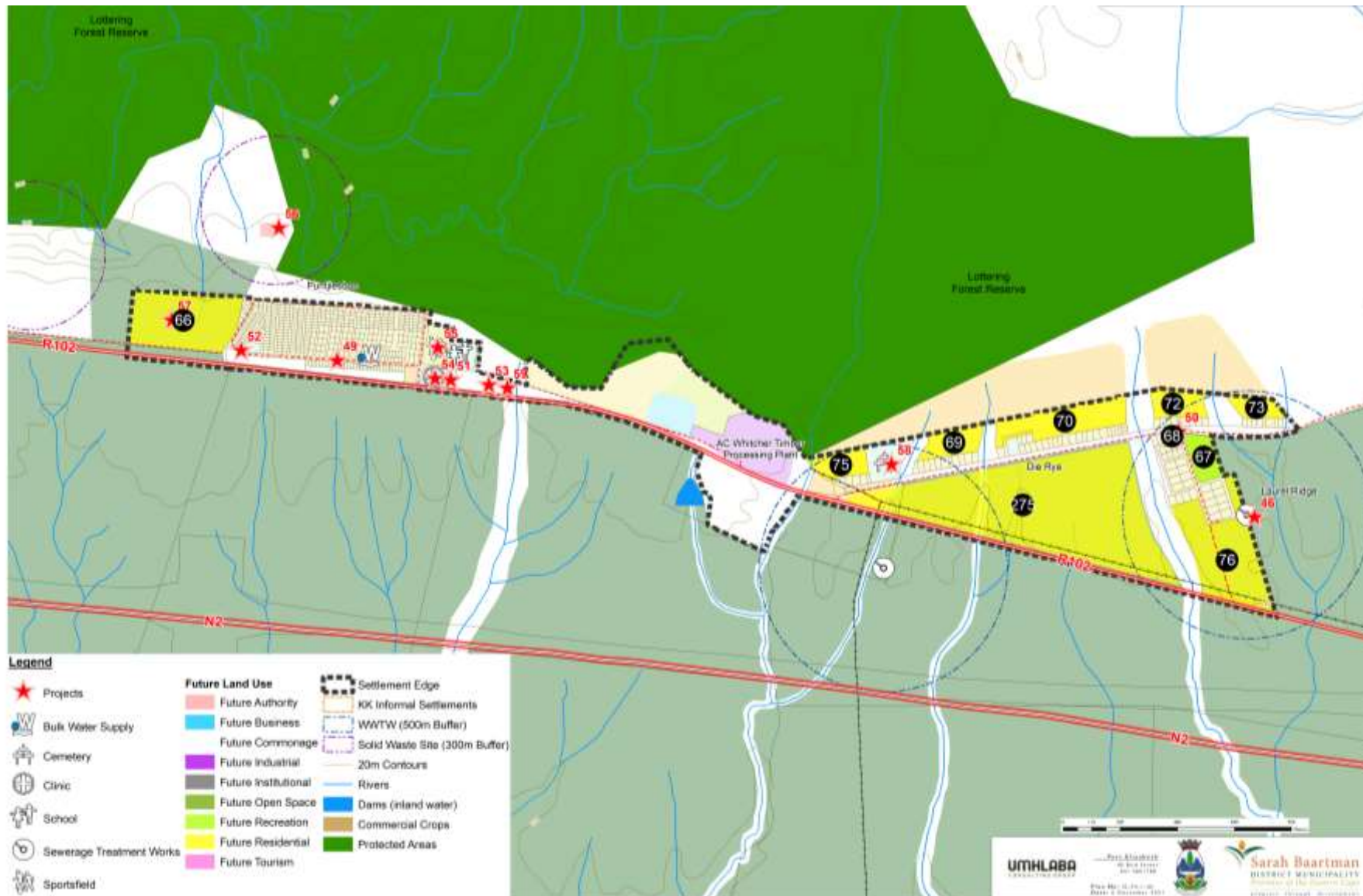


Figure 43: Coldstream Framework Plan

25.2 Actions

The spatial planning actions required to achieve the Framework are reflected below:

ID	Settlement	Project Description	Project	Category	Label	Located
45	Coldstream	Construction of a catchment dam to service an area of Koukamma	Catchment Dam	Technical Services	Catchment Dam	No
46	Coldstream	Upgrading of sewerage system to a full Water Borne System	Water and Sanitation	Technical Services	Water and Sanitation	
47	Coldstream	Installation of Prepaid Water Meters	Domestic Water Meters	Technical Services	Domestic Water Meters	No
48	Coldstream	Supply of Jojo Tanks	Water Storage	Technical Services	Water Storage	No
49	Coldstream	Provision of adequate streetlights	Electricity/Streetlights	Technical Services	Electricity/Streetlights	
50	Coldstream	Paving of gravel roads(Laurel ridge & Die Rye)	Upgrading of gravel Roads	Technical Services	Upgrade Gravel Roads	
51	Coldstream	Establishment of a new Post Office	Post Office	Community Service	Post Office	
52	Coldstream	Naming of Streets	Street Names	Community Service	Street Names	
53	Coldstream	Provision of Library facilities and equipment	Library Equipment	Community Service	Library Equipment	
54	Coldstream	Improve clinic services	Health care facilities	Community Service	Health Care Facilities	
55	Coldstream	Maintenance of existing sport field	Sports Facilities	Community Service	Sports Facilities	
56	Coldstream	Upgrading of dumping site	Landfill Sites	Community Service	Landfill Sites	
57	Coldstream	Provision of new RDP Houses	Housing	Department of Human Settlement	Housing	
58	Coldstream	Extension, fencing and Ablution Facility at existing cemetery	Upgrading of cemetery	Community Service	Upgrade Cemetery	
59	Coldstream	Establishment of recreational facility	Recreational Facility	Community Service	Recreational Facility	
		Identify land for the development of FLISP and Social Housing project implementation				
		Identify land for food gardens				
		Precinct and formalisation Plan				
		Identify land for cemeteries				
		Densification Policy				

Table 35: Coldstream Actions

26 Louterwater Framework

Urban Form (Infill and Densification, Nodes and Corridors and Human Settlement)

- The Louterwater node consists of a new high density residential area in the west, which accommodates primarily subsidy scheme dwellings. A school, community hall and clinic are present.
- A number of suitably zoned non-residential erven are vacant.
- Approximately 2km's to the west a conglomeration of small farms is clustered around the station. This area is characterised by residential, limited business and industrial uses associated with agricultural production.

Ownership



Figure 44: Ownership Louterwater (Owvio 2021)

Potable Water

- 2 boreholes, raw water supply from Louterwater Irrigation Board from Krakeel River (2 hrs/10 days), plus 2 boreholes & Louterwater Irrigation Board

Sewer

- ????????

Roads and Stromwater

- ????????

Solid Waste

- A solid waste service is rendered by the municipality.

Electricity

- ???????

Environment



Figure 45 : Louterwater resource and Biodiversity Footprint

Land Needs

Town	Pressure (NSDF)	2011 Persons (Census-NSDF)	Backlog HH (Assumed to Incl Informal) Subsidy to Incl	Tot. ha needed hh (@250m2/HH)	Tot ha Need Backlog Incl Other uses (40%)	Pop (Persons) at 2030	Change_11to30 Excl BKLog	Tot. ha needed hh (@250m2/HH)	Tot ha Need 2030 Incl Other Uses (40%)	Total (ha) Land Demand (Backlog+Growth)
Louterwater	No Change	5134	548	13.7	19.18	5362	228	1.43	2.00	21.18

Table 36: Louterwater Land Budget

AREA	NO	GROWTH	INFORMATION	COMMUNAL/ RESTITUTION	LAND AVAILABLE	BULK SERVICES
Louterwater	548	X	X		Land needs to be identified and purchased	No bulk services

Table 37: Louterwater Housing Backlog

26.1 Preliminary Land Management

ID	F_LU,C,50	Node_Name,C,100	Prop_Descr,C,254	Ownership,C,254	Parcel_N_1,C,254	SDF_Catego,C,254	Hectares,N,19,11
43	Future Business	Louterwater	The area on either side of the main access to the subsidy residential area is earmarked for business development		Portion 149 of Farm 300		1.481686343
45	Future Institutional	Louterwater	Development of school				3.627119662
46	Future Business	Louterwater	The area on either side of the main access to the subsidy residential area is earmarked for business development		Portion 149 of Farm 300		1.23944444
47	Future Open Space	Louterwater	Proposed Open space.				0.635053683
48	Future Residential	Louterwater	An area to the south west of the current residential area has been identified for future residential expansion.		Erf 797		5.669939181
49	Future Commonage	Louterwater			A portion of Portion 9 of Farm 295.		47.49828319
50	Future Residential	Louterwater	The area to the east of the subsidy housing area, which is currently occupied by informal housing, is to be formalised for residential purposes.		Erf 80 and surrounding properties		7.223166271
300	Future Residential	Louterwater	The area to the east of the subsidy housing area, which is currently occupied by informal housing, is to be formalised for residential purposes.				

Table 38: Louterwater Land Management Proposals

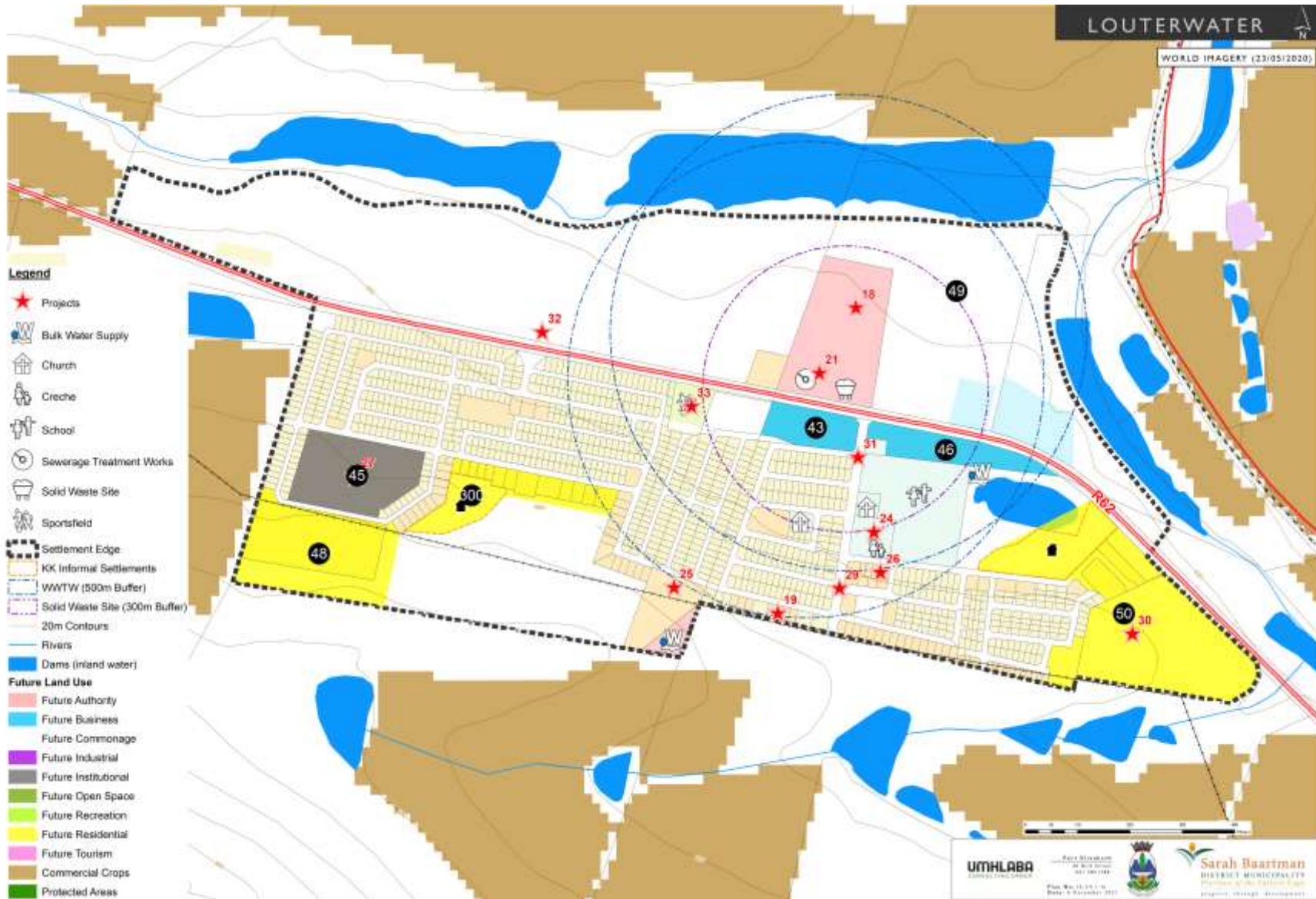


Figure 46: Louterwater Framework Plan

26.2 Actions

The spatial planning actions required to achieve the Framework are reflected below:

ID	Settlement	Project Description	Project	Category	Label	Located
18	Louterwater	Infrastructure refurbishment for the Waste Water Treatment Works	Water and Sanitation	Technical Services	Water and Sanitation	
19	Louterwater	Refurbishment of dilapidated water infrastructure, Fencing of raw water dam, Construction of 500kl reservoir	Water and Sanitation	Technical Services	Water and Sanitation	
20	Louterwater	Commissioning of 2 Boreholes	Water and Sanitation	Technical Services	Water and Sanitation	No
21	Louterwater	Upgrading of bulk sewer infrastructure	Sanitation	Technical Services	Sanitation	
23	Louterwater	Supply of JOJO tanks	Water Storage	Technical Services	Water Storage	No
22	Louterwater	Installation of Prepaid Water Meters	Domestic Water Meters	Technical Services	Domestic Water Meters	No
25	Louterwater	Extension and upgrade of the existing cemetery	Burial sites / cemeteries	Community Service	Burial sites / Cemeteries	
26	Louterwater	Provision of library facilities	Library Facilities	Community Service	Library Facilities	
24	Louterwater	Extension of Clinic	Health care facilities	Department of Health	Health Care Facilities	
27	Louterwater	Building of a new high school	High School	Department of Education	High School	
28	Louterwater	Building of a new MPCC	Community Hall	Technical Services	Community Hall	No
29	Louterwater	Paving of Roads	Roads	Technical Services	Roads	
31	Louterwater	Fixing and Maintenance of Streetlights	Streetlights	Technical Services	Streetlights	
32	Louterwater	Establishment of Recreational Facility	Recreational Facility	Community Service	Recreational Facility	
33	Louterwater	Installation of Sport field lights	Electrification	Technical Services	Electrification	
30	Louterwater	New housing development	New Housing	Department of Human Settlement	New Housing	
		Identify land for the development of FLISP and Social Housing project implementation				
		Identify land for food gardens				
		Precinct and formalisation Plan				
		Identify land for cemeteries				
		Densification Policy				

Table 39: Louterwater Actions

27 Clarkson Framework

Urban Form (Infill and Densification, Nodes and Corridors and Human Settlement)

- Clarkson is characterized by a mixed land use pattern consisting of residential, rural/agricultural land uses. The numerous streams and wetlands that occur within the node have determined the urban form. Refer to Map 49.
- The node is briefly described below:
 - The residential area consists of approximately 600 residential erven.
 - Subsidy housing dominates the urban form
 - A number of spaza shops, two schools, a community hall, clinic and church are present.
 - A new cemetery has been developed to the north of the residential area.
 - Sportsfields and the sewerage treatment works are situated to the south of the R102 Route.

Environmental Impact

- This node is characterized by numerous streams and wetlands which bisect the urban fabric. These natural features need to be acknowledged in future and current development and their integrity preserved.

Infrastructure

- The current bulk infrastructure is sufficient to address current needs as well as limited expansion. The CCPT are currently responsible for the maintenance of the existing infrastructure within the node. Limited funding and a lack of suitable equipment and manpower have led to a deterioration of the services. Specific and urgent attention needs to be given to the maintenance of the gravel roads and storm water drainage channels.

Potable Water

- From mountain springs and streams (inclusive of two boreholes of which one is equipped).
- Water is provided to each stand from a reservoir.

Sewer

- Sewerage and wastewater are accommodated in a waterborne reticulation system. The treatment works is located to the south of the R102 route.

Roads and Stormwater

- Gravel Roads and graded storm water management..

Solid Waste

- A solid waste service is rendered by the municipality.

Electricity

- Eskom provides electricity.

Ownership

- The land ownership pattern for Clarkson is reflected on Map 47. The Moravian Church currently owns the majority of the land within the node. Individual ownership of the properties has therefore not been possible. In order to address the land ownership issue as well as facilitated the development of infrastructure and community facilities the Clarkson Communal Property Trust (CCTP) entered into a ninety-nine years lease agreement with the Moravian church.
- To date individual ownership was made possible via a participation agreement entered into between the individual and CCPT. The funding for the housing units was accessed via an institutional subsidy in terms of the now amended Housing Act.

- The Moravian Church has agreed to transfer the lease area to the Koukamma Municipality. This will enable full ownership of individual properties by the current occupants. This process is currently under way

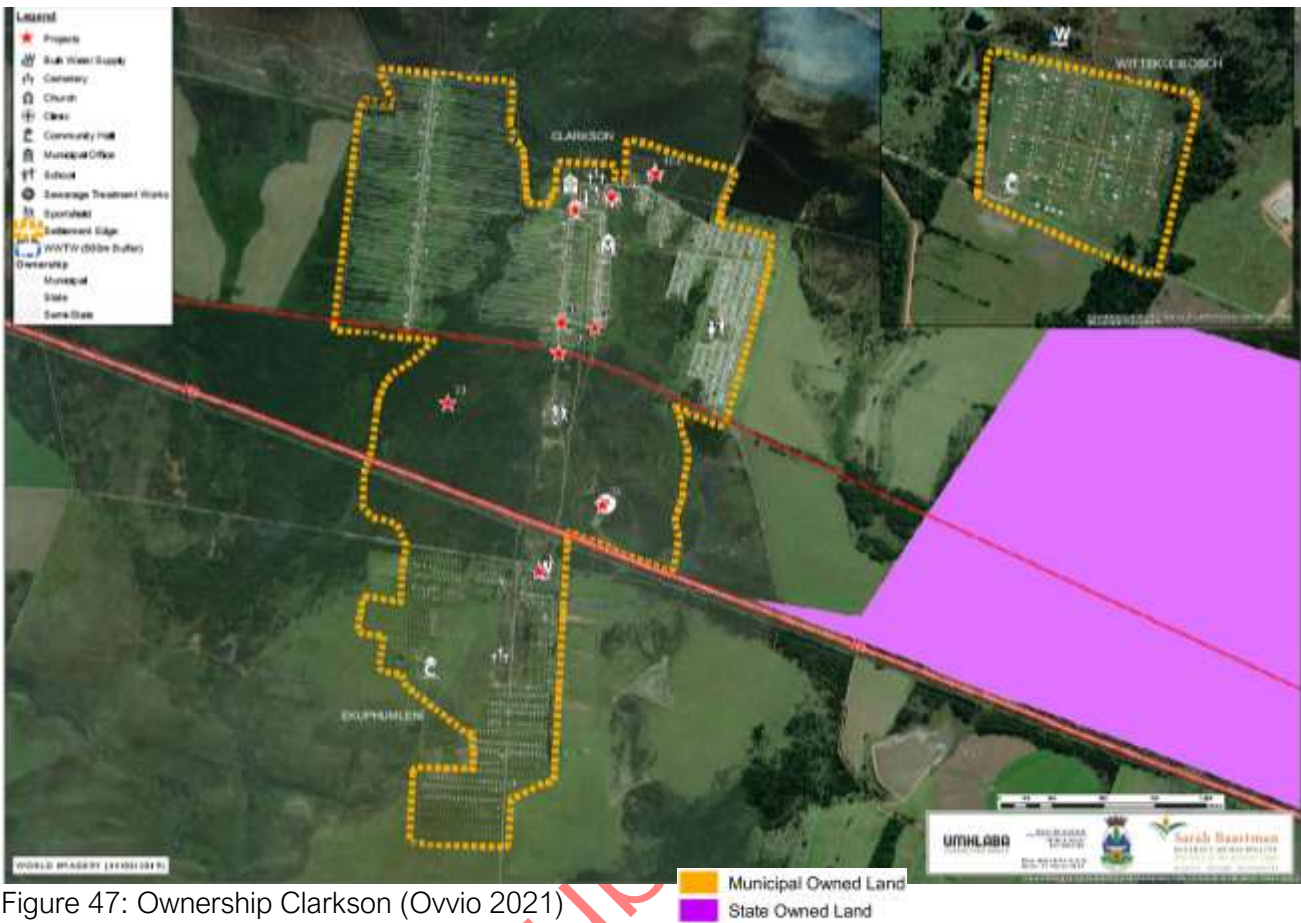


Figure 47: Ownership Clarkson (Ovvio 2021)

Clarkson Land Needs

Town	Pressure (NSDF)	2011 Persons(Census- NSDF)	Backlog HH(Assume Subsidy)	Tot. ha needed hhl@250m2	Tot ha Need Backlog Incl Other uses	Pop (Persons) at	Change_11t 030 Excl BKlog	Tot. ha needed hhl@250m2 /HH)	Tot ha Need 2030 Incl Other Uses (40%)	Total Land Demand (Backlog+Gr)
Clarkson	Extreme	1837	386	9.65	13.51	3037	1200	7.50	10.50	24.01

Table 40 Clarkson Land Budget

AREA	NO	GROWTH	INFORMATION	COMMUNAL/ RESTITUTION	LAND AVAILABLE	BULK SERVICES
CLARKSON	386	X		X	Land needs to be identified and purchased	No bulk services

Table 41 Clarkson Housing Backlog

27.1 Preliminary Land Use Management Proposals

ID	F_LU,C,50	Node_Name,C,100	Prop_Descr,C,254	Ownership,C,254	Parcel_N_1,C,254	SDF_Catego,C,254	Hectares,N,19,11
164	Future Residential	Clarkson	These properties are utilised as smallholdings with a residential component as well as an agricultural component. This dual use should be encouraged until there is no other alternative but to utilise this land for residential development purposes.				23.1797387
165	Future Residential	Clarkson	These properties are utilised as smallholdings with a residential component as well as an agricultural component. This dual use should be encouraged until there is no other alternative but to utilise this land for residential development purposes.				19.28995697
166	Future Residential	Clarkson	These properties are utilised as smallholdings with a residential component as well as an agricultural component. This dual use should be encouraged until there is no other alternative but to utilise this land for residential development purposes.				8.815235953
167	Future Residential	Clarkson	These properties are utilised as smallholdings with a residential component as well as an agricultural component. This dual use should be encouraged until there is no other alternative but to utilise this land for				11.60965293

			residential development purposes.				
168	Future Institutional	Clarkson	Proposed cemetery expansion		Portion fo the Remainder of Farm 375		5.44364407
171	Future Business	Clarkson	Proposed business.		Portion fo the Remainder of Farm 375		0.372646637
216	Future Residential	Mfengu Farms	Human settlement development within the urban edge.				1.204829532
265	Future Residential	Wittekleibosch	Human settlement development within the urban edge.				0.405496908
279	Future Residential	Clarkson	Human settlement development within the urban edge.		Portion of the Remainder of Farm 654		54.03770226

Table 42:Clarkson Land Management

Draft for Public Comment

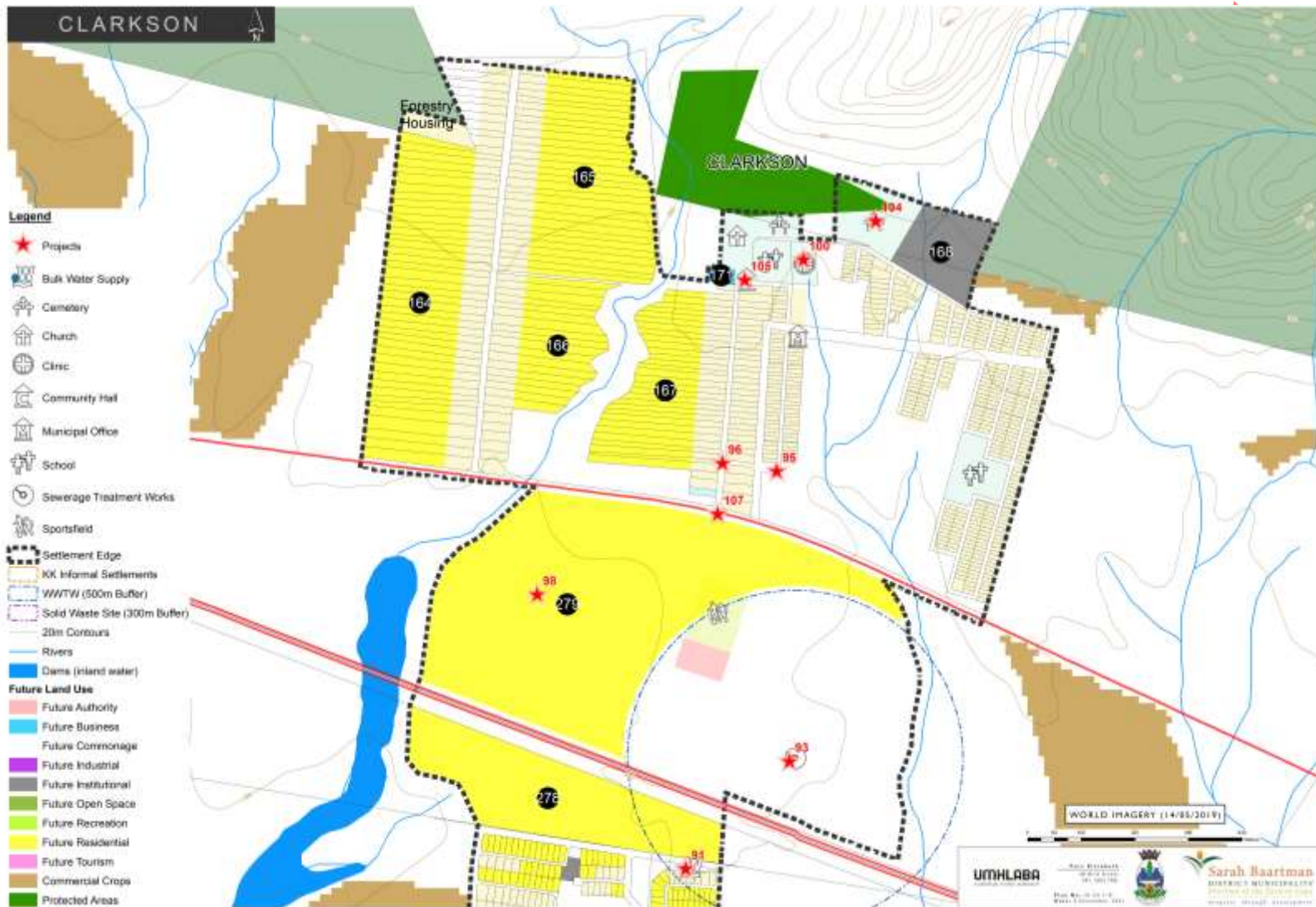


Figure 48: Clarkson Framework Plan

27.2 Actions

The spatial planning actions required to achieve the Framework are reflected below:

ID	Settlement	Project Description	Project	Category	Label	Located
91	Clarkson, Snyklip, Doriskraal	Upgrading of water reticulation	Water and Sanitation	Technical Services	Water and Sanitation	
93	Clarkson	Upgrading of sewerage system to a full waterborne system	Water and Sanitation	Technical Services	Water and Sanitation	
94	Guava Juice, Wittekleibos, Snyklip	Replacement of VIP toilet system with Flush toilets (Feasibility study)	Water and Sanitation	Technical Services	Water and Sanitation	No
92	Clarkson, Snyklip, Doriskraal	Provision JOJO tanks phase 2	Water and Sanitation	Technical Services	Water and Sanitation	No
95	Clarkson, Guava Juice, Wittekleibos, Snyklip	Paving of gravel roads	Upgrading of gravel Roads	Technical Services	Upgrade Gravel Roads	
96	Clarkson, Wittekleibos, Guava Juice	Fixing and Maintenance of streetlights	Electricity/Streetlights	Technical Services	Electricity/Streetlights	
97	Snyklip, Doriskraal, Eersterivier	Provision of Streetlights	Streetlights	Technical Services	Streetlights	No
98	Clarkson, Snyklip, Eersterivier, Doriskraal	Provision of new RDP houses	Housing	Technical Services	Housing	
99	Snyklip, Wittekleibos	Electrification of 6 Snyklip and 2 Wittekleibos houses	Electrification	Technical Services	Electrification	No
100	Clarkson	Extension of the clinic in Clarkson	Provision of adequate medical centres	Community Service	Provide Medical Centres	
101	Wittekleibos, Guava juice, Snyklip, Eersterivier	Establishment of new sportsfields	Provision of sport facilities	Community Service	Provide Sport Facilities	No
102	Clarkson	Rehabilitation of Landfill site	Landfill Sites	Community Service	Landfill Sites	No
103	Clarkson	Provision of Library Facility (Feasibility study)	Library Facility	Community Service	Library Facility	No
104	Clarkson/Eersterivier	Extension, fencing, ablution block at existing Cemetery	Burial site/Cemeteries	Community Service	Burial site / Cemeteries	
105	Clarkson	Upgrading of the existing Community Hall	Community Halls	Community Service	Community Halls	
106	Clarkson	Establishment of recreational facility	Recreational Facility	Community Service	Recreational Facility	No
107	Clarkson	Construction of a Pedestrian Bridge	Pedestrian Bridge	SANRAL	Pedestrian Bridge	

Table 43: Clarkson Actions

28 Woodlands Framework

Context

- This node can be divided into three distinct area, being:
- **29 Smallholdings (Erfhouers)** – These properties are owned by individual families who have organized themselves into a grouping generally referred to as “Erfhouers”. This grouping currently registering a communal property trust in order to communally own the Woodlands Commonage. The Department of Housing, Local Government and Traditional Affairs currently own the commonage, while the “Erfhouers” own the grazing rights. This Department has indicated its willingness to transfer the property to the “Erfhouers” for a nominal fee. This decision has however never been implemented.
- **Woodlands Village** – This area consists of recently built low cost houses, which were funded by the Department of Housing, Local Government and Traditional Affairs. This area forms the core of the Woodlands node and accommodates community facilities and enables engineering services to be provided throughout the node.
- **The Mfengu Community** at Nuweplaas (Palmietrivier) – This farm (Farm Pnn2/584) is one of the properties of which the amaMfengu’s were dispossessed of during forced removals of 1977. The Tsitsikamma Development Trust (TDT) on behalf of the amaMfengu’s has currently submitted a land restitution claim for this farm, as it was not returned to the TDT together with other farms in 1994. This farm is owned by the State and has been lease to a commercial farmer. An 80 ha portion of the farm was excluded from this lease in order to facilitate the settlement of approximately 150 Mfengu families.

Urban Form (Infill and Densification, Nodes and Corridors and Human Settlement)

- 423 residential properties in the Woodlands Village
- 29 Smallholdings which are owned by individual families. The properties are used for agricultural and residential purposes.
- Spaza shops are the only business in the area.
- No municipal commonage exists.
- A large ‘commonage which is owned by the State and over which the Woodlands Erhouers have grazing rights.
- The Woodlands Village consists of recently constructed subsidy housing.
- The Mfengu community at Nuweplaas (Palmietrevier). This property is situated to the west of the Woodlands Village and is utilised for agricultural purposes.

Potable Water

- Natural mountain spring plus 1 borehole.
- Water is abstracted from a small stream to the north of the N2. this supply is sufficient for the current development.
- Any additional development will require additional bulk infrastructure and environmental authorization

Sewerage

- Woodlands Village is serviced with a small-bore sewerage system, while a treatment works is situated to the south of the node. Any additional development, which utilizes a full waterborne system, will necessitate the upgrading of the treatment works and the outfall sewers. No additional land will be required. The ownership of the land on which the treatment works is situated needs to be investigated

Roads and Stormwater

- The main road into Woodlands is also utilized by MTO vehicles, which accelerate the wear and tear on the road surface. The roads in Woodlands are in fair condition and are in need of maintenance.

Solid Waste

- The current waste site adjacent to the sewerage treatment works can accommodate the short-term future needs of the node. Additional land may be required. The ownership and authorization of this site needs to be investigated

Electricity

- Eskom supplies electricity

Environmental Impact

- A waterfall and stream are present on the Woodlands Commonage.



Figure 49: Woodlands Biodiversity Footprint

Ownership



Figure 50: Ownership Woodlands (Owvio 2021)

Land Needs

Town	Pressure (NSDF)	2011 Persons (Census-NSDF)	Backlog Subsidy HH (Assumed to Incl Informal)	Tot. ha needed hh (@250m2/HH)	Tot ha Need Backlog Incl Other uses (40%)	Pop (Persons) at 2030	Change_11to30 Excl BKLog	Tot. ha needed hh (@250m2/HH)	Tot ha Need 2030 Incl Other Uses (40%)	Total (ha) Land Demand (Backlog+Growth)
Woodlands	No Change	1882	450	11.25	15.75	1882	0	0.00	0.00	15.75

Table 44: Woodlands Land Budget

AREA	NO	GROWTH	INFORMATION	COMMUNAL/ RESTITUTION	LAND AVAILABLE	BULK SERVICES
Woodlands	450	X	X		Land available, negotiations took place with owners. Owners not willing to sell.	No bulk services

Table 45: Housing Backlog

28.1 Land Use Management Proposals

ID	F_LU,C,50	Node_Name,C,100	Prop_Descr,C,254	Ownership,C,254	Parcel_N_1,C,254	SDF_Catego,C,254	Hectares,N,19,11
156	Future Business	Woodlands	This area is situated within the node and is located adjacent to the community hall. This area is owned by the Koukamma Municipality and is to be utilised for business purposes.		Erf 135 Woodlands		0.274148484
157	Future Commonage	Woodlands	The area is situated to the north west of the node between the N2 National Route and the R102. This property is to be accessed for commonage purposes		Portion 2 of Farm 584.		16.22685227
158	Future Residential	Woodlands	The area is situated to the south east of the node and will accommodate the expansion of the existing residential development		Remainder of Erf 1 Woodlands		11.50620591
159	Future Commonage	Woodlands			Remainder of Erf 1 Woodlands		5.284403735
160	Future Residential	Woodlands	The area is situated to the west of the node and encompasses the north eastern corner of the amaMfengu owned Nuweplaas farm. This area is to be utilised for residential purposes		Portion 2 of Farm 584.		20.68449698
161	Future Authority	Woodlands	The existing cemetery situated on Erf 4 Woodlands, which is owned by the Eastern Cape Provincial Government. This property is to be transferred to the Koukamma Municipality.		Erven 3,4 and 5 Woodlands		2.520487929
162	Future Residential	Woodlands	The property is located to the east of the main access road and adjoins the existing cemetery. The property is ideally situated to enable the extension of the cemetery in a westerly direction, while the remainder of the area can be utilised for the development of additional housing, business and community facilities e.g. Churches, crèches etc. These erven are owned by the Eastern		Erven 3,4 and 5 Woodlands		0.747889625

			Cape Provincial Government and are to be accessed by the Municipality for the above purposes.				
163	Future Business	Woodlands			Erven 3,4 and 5 Woodlands		0.475370855
280	Future Residential	Woodlands	Identified for future settlement development. These areas are privately owned and are currently utilised as smallholdings with some being actively utilised for agricultural purposes. These uses should be encouraged to continue until the other identified land has been completely utilised for settlement purposes.				29.86058001
281	Future Residential	Woodlands	Identified for future settlement development. These areas are privately owned and are currently utilised as smallholdings with some being actively utilised for agricultural purposes. These uses should be encouraged to continue until the other identified land has been completely utilised for settlement purposes.				14.92494125

Table 46:Woodlands Land Management

Draft for PUC

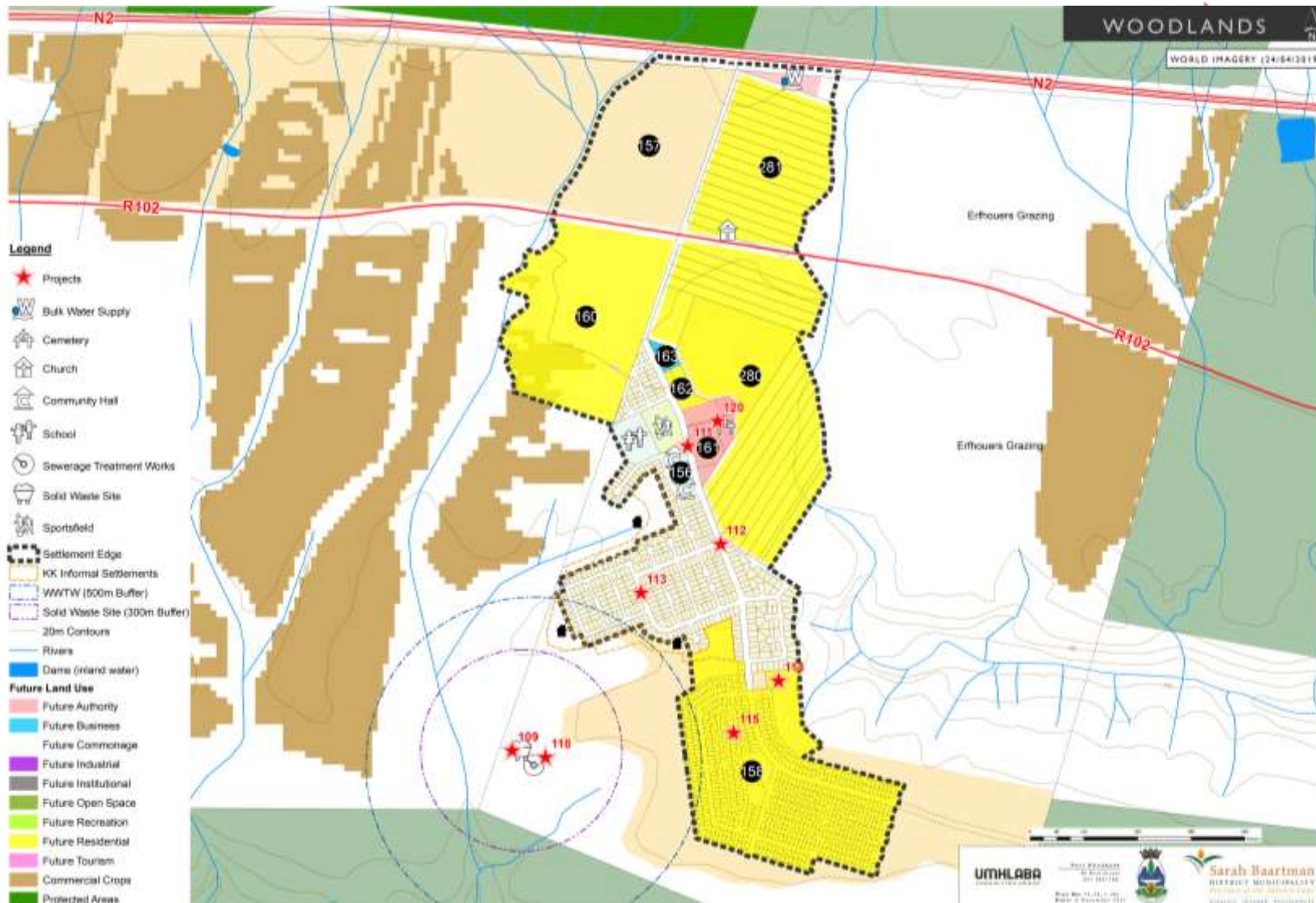


Figure 51: Woodlands Framework Plan

28.2 Actions

The spatial planning actions required to achieve the Framework are reflected below:

ID	Settlement	Project Description	Project	Category	Label	Located
108	Woodlands / Palmiet Rivier	Upgrading of current water facilities and provision of alternative water sources (JOJO Tanks)	Water and Sanitation	Technical Services	Water and Sanitation	No
109	Woodlands	Upgrading of sewerage system to a full Water Borne System	Water and Sanitation	Technical Services	Water and Sanitation	
110	Woodlands	Installation of Prepaid Water Meters	Domestic Water Meters	Technical Services	Domestic Water Meters	No
111	Woodlands / Harmanuskraal / Kwaaibrand	Paving of gravel roads	Upgrading of Gravel Roads	Technical Services	Upgrade Gravel Roads	
112	Woodlands / Harmanuskraal / Kwaaibrand	Repair and maintenance of streetlights	Electricity/Streetlights	Technical Services	Electricity/Streetlights	
113	Woodlands	Construction of a new High Mast and repair of the existing High Mast Lights	Electricity/Streetlights	Technical Services	Electricity/Streetlights	
114	Woodlands / Kwaaibrand	Maintenance of Sport field lights	Electrification	Technical Services	Electrification	
115	Woodlands	Provision of new RDP houses	Housing	Technical Services	Housing	
116	Woodlands	Establishment of a new clinic	Provision of adequate medical centres	Department of Health	Provide Medical Centres	No
117	Woodlands	Construction of a netball court	Provision of sport facilities	Community Service	Provide Sport Facilities	No
118	Woodlands	Upgrading of dumping site (Fencing, Access Road, Ablution Block)	Landfill Sites	Community Service	Landfill Sites	
119	Woodlands	Construction of the new MPCC	Community Halls	Community Service	Community Halls	No

120	Woodlands	Extension and upgrading (Fencing and Ablution block) of existing Cemetery	Burial sites/ Cemetery	Community Service	Burial sites / Cemetery	
121	Woodlands / Palmiet Rivier	Establishment of recreational Facility	Recreational Facility	Community Service	Recreational Facility	No
122	Woodlands	Provision of Library Facilities	Library Facilities	Community Service	Library Facilities	No
123	Harmanuskraal	Building of Destitute Houses	Destitute Houses	Department of Human Settlement	Destitute Houses	No
124	Kwaaibrand	Transfer of SAFCOL Houses to Koukamma Municipality	Transfer of Houses	Koukamma	Transfer of Houses	No
125	Woodlands	Construction of New Hall	New Hall	Technical Services	New Hall	No
		Identify land for the development of FLISP and Social Housing project implementation				
		Identify land for food gardens				
		Precinct and formalisation Plan				
		Identify land for cemeteries				

Table 47: Woodlands Actions

29 Thornham, Nomphumelelo & Sandrif Framework

Urban Form (Infill and Densification, Nodes and Corridors and Human Settlement)

- **Sanddrif** is located in the centre of the Tsitsikamma region and has been identified a growth point. Its central location makes it ideal for the location of regional facilities e.g. sport fields, municipal offices, major refuse disposal site etc. The area adjoins the N2, which is one of the major tourist routes in the country. This area forms part of the “Garden Route”.
- Sandrif is fragmented with no definite settlement or land use pattern.
- The node is dominated in the west by the Nomphumelelo residential area and in the east by the Blikkiesdorp development.
- Vacant residential erven are present in Blikkiesdorp. Planned erven surrounding the Blikkiesdorp have not been registered.
- The area between the two residential areas is utilised for agriculture and certain portions are vacant.
- To the north of the Nomphumelelo residential area is an area known as Griekwa Rus. This area is planned to accommodate 50 dwelling houses and a business component. Only 10 of the dwellings have been constructed and the business area remains vacant.
- **Thornham** is a unique area situated between the Stormsrivier and Nompumelelo Village. The community owns the land in individual shares.
- The estates of these owners are currently being wound up with the assistance of the Department of Land Affairs.
- Thornham is characterized by a mixture of residential and agricultural uses which occur in an uncontrolled pattern.
- The following bullets summarize the existing spatial form:
 - Low density residential with mixed urban agriculture.
 - A primary school, church, clinic and post office are located in the centre of the area.
 - No formal transportation routes exist.
 - Services are rudimentary.
 - The numerous streams and wetland areas have determined the current development pattern.

Environmental

- Water abstraction from the various rivers in the area needs to be thoroughly investigated and any abstraction activities appropriately authorized. The Sand River and Kruis River are heavily utilized for agricultural and domestic use.
- The area is characterised by numerous streams and wetland areas.
- The Western portion of the node (Thornham West) is classified as highly sensitive while the rest of the Thornham component is characterised by drainage features which traverse the area from north to south. Development opportunity should therefore be located in ‘pockets outside of these areas.



Figure 52 :Nompumelelo Biodiversity Footprint

Potable Water

- Thornham and Farm 496 have limited water supply systems, which are sufficient for the current requirements. Nompumelelo Village obtains water from a weir in the Sand River. This supply will not accommodate additional requirements. The KrUIS River is the possible source for additional supply. The ability of these rivers to accommodate the future demand needs to be investigated.

Sewerage

- A waterborne sewerage system with a treatment works serves Nompumelelo Village, while septic tanks are utilized in the other areas of the node.

Solid Waste

- No formalized solid waste disposal site is present in the area. The need for a regional waste site needs to be investigated and the necessary land acquired. A possible site being south of Nompumelelo Village

Roads and Stormwater

- The existing transportation routes take the form of formal and informal roads in varying states of repair

Electricity

- Eskom provides electricity

Ownership

- The node is surrounded by state owned land, while a large portion of land surrounding Blikkiesdorp is owned by the SBDM District Municipality. The 29 Safcol houses on Farm 496 are in the process of being transferred to the current occupants.
- The properties which constitute the area known as Thornham are privately owned

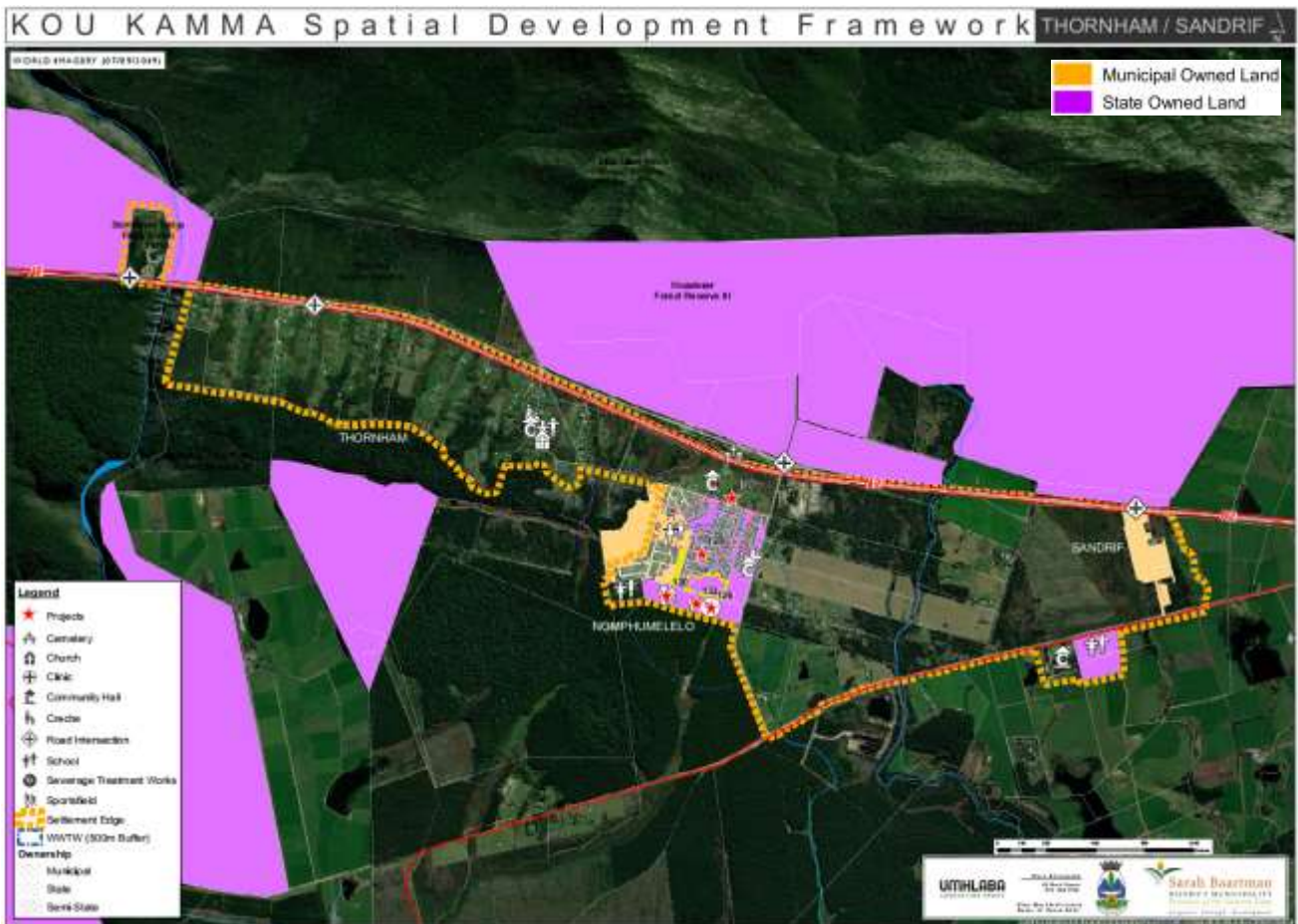


Figure 53: Ownership Nompumelelo Sandrif Thornham (Ovio 2021)

Land Needs

Town	Pressure (NSDF)	2011 Persons (Census-NSDF)	Backlog HH (Assumed to Incl Informal)	Tot. ha needed hh (@250m2/HH)	Tot ha Need Backlog Incl Other Uses (40%)	Pop (Persons) at 2030	Change_11to30 Excl BKLog	Tot. ha needed hh (@250m2/HH)	Tot ha Need 2030 Incl Other Uses (40%)	Total (ha) Land Demand (Backlog+Growth)
Nompumelelo	No Change	2661	550	13.75	19.25	2703	42	0.26	0.37	19.62

Table 48: Nompumelelo Land Budget

AREA	NO	GROWTH	INFORMATION	COMMUNAL/ RESTITUTION	LAND AVAILABLE	BULK SERVICES
Sanddrift.nompumelelo village	450	X	X		Land available belonging to beneficiaries.	No bulk services
Sanddrift - destitute	40		X			

Table 49: Nompumelelo Housing Backlog

29.1 Land Management Proposals

Node_Name,C,100	Prop_Descr,C,254	Ownership,C,25 4	Parcel_N_1,C,25 4	SDF_Catego,C,25 4	Hectares,N,19,1 1
Thornham	Proposed business node to take advantage fo the proximity to the N2 and the recognise the current activities.				2.706806851
Thornham	It is envisaged that the informal housing will be formalised and services upgraded to accommodate the additional residents. The accommodation of subsidy houses will take place in close proximity to the existing church, clinic etc. Business opportunities exist at appropriate positions along the N2 National Route. The upgrading of the N2 National Route has had a major impact on the transportation network in the area and will establish opportunities for business and higher density residential development at the designated access points.				22.10887341
Thornham	Proposed business node to take advantage fo the proximity to the N2 and the recognise the current activities.				2.692784891
Nompumelelo/Sandriif	Proposed business node to take advantage fo the proximity to the N2 and the recognise the current activities.		Portion 2 of Farm 496		0.167532274
Nompumelelo/Sandriif	This area is in private ownership and encompasses the properties between the Nompumelelo residential area and the N2/R102 Route. This area is to be utilised for the formalisation of the Grikwa Rus (residential) and for the development of business (Retail and tourism facilities, while the area directly to the south thereof is to be utilised for residential purposes.		Farm 472		6.997011498
Nompumelelo/Sandriif	The area encompasses the farms situated to the east of the Nompumelelo residential area. The area is to accommodate future residential expansion of the node, while the eastern portions are to be utilised for commonage purposes (Until required for human settlement needs - An alternative location for the establishment of commonage is then to the sought. The area at the intersection with the N2/R102 and the Nompumelelo access road is to be utilised for the development of retail and tourism facilities (Business).		Remainder, Portion 1 and 2 of Farm 478, 479 to 481, Portion 1 of Farm 482, Farms 483 and 484, portion of the Remainder of Farm 490, Farms 491, 492, 494, 495 and 867.		0.859944019
Nompumelelo/Sandriif	This area is in private ownership and encompasses the properties between the Nompumelelo residential area and the N2/R102 Route. This area is to be utilised for the formalisation of the Grikwa Rus (residential) and for the development of business (Retail and tourism facilities, while the area directly to the south thereof is to be utilised for residential purposes.		Farm 472		3.236078228

Nompumelelo/Sandrif	The area encompasses the farms situated to the east of the Nompumelelo residential area. The area is to accommodate future residential expansion of the node, while the eastern portions are to be utilised for commonage purposes (Until required for human settlement needs - An alternative location for the establishment of commonage is then to be sought. An area is to be identified for the development of a regional sports facility.		Remainder, Portion 1 and 2 of Farm 478, 479 to 481, Portion 1 of Farm 482, Farms 483 and 484, portion of the Remainder of Farm 490, Farms 491, 492, 494, 495 and 867.		7.014908991
Nompumelelo/Sandrif	Proposed business node to take advantage for the proximity to the N2 and the recognise the current activities.				0.597188829
Nompumelelo/Sandrif	The area is situated to the east of the existing Blikkiesdorp development and is to be utilised for the development of additional middle income housing. A provisional layout plan been prepared and partially implamented.		Portion 2 of Farm 496		6.546655538
Nompumelelo/Sandrif	The area encompasses the farms situated to the east of the Nompumelelo residential area. The area is to accommodate future residential expansion of the node, while the eastern portions are to be utilised for commonage purposes (Until required for human settlement needs - An alternative location for the establishment of commonage is then to the sought. The area at the intersection with the N2/R102 and the Nompumelelo access road is to be utilised for the development of retail and tourism facilities (Business). An area is to be identified for the development of a regional sports facility.		Remainder, Portion 1 and 2 of Farm 478, 479 to 481, Portion 1 of Farm 482, Farms 483 and 484, portion of the Remainder of Farm 490, Farms 491, 492, 494, 495 and 867.		56.05475511
Nompumelelo/Sandrif	A layout plan has been approved on Farm 496 which can accommodate approximately 600 households. This area is situated to the west of Blikkiesdorp and is to accommodate a combination of subsidy and middle income housing. The provisional layout plan has been reflected and accommodates an area for the development of a school and other community facilities.		Portion 2 of Farm 496		25.20242209
Nompumelelo/Sandrif	Forms part for the proposed human settlement development and should be used as a sports field.		Portion 2 of Farm 496		10.62088897

Table 50:Nompumelelo Land Use Proposals

Draft

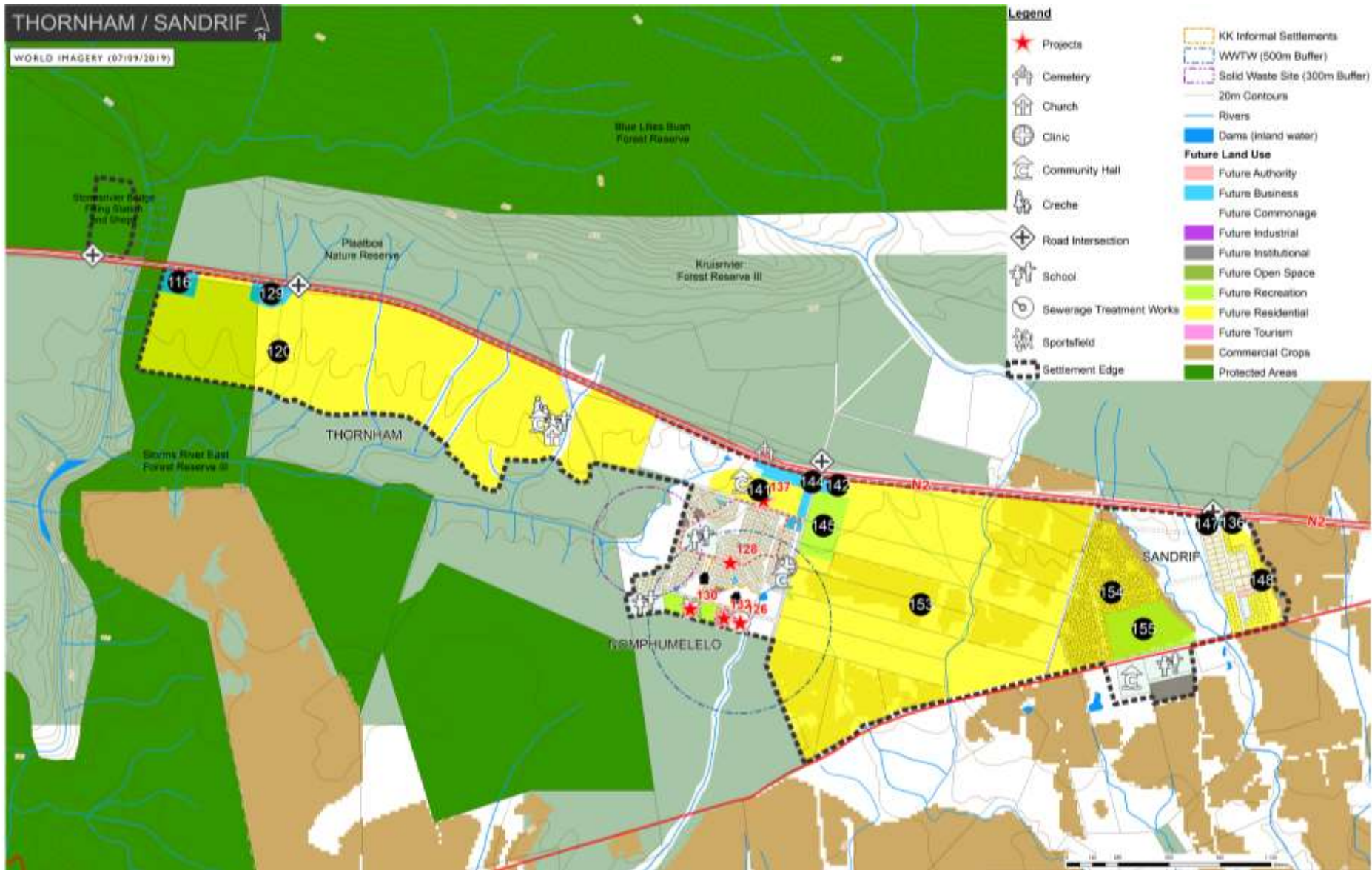


Figure 54: Nomphumelelo Framework Plan

29.2 Actions

The spatial planning actions required to achieve the Framework are reflected below:

ID	Settlement	Project Description	Project	Category	Label	Located
126	Nompumelelo Village	Upgrading of sewerage system to a full Water Borne System	Water and Sanitation	Technical Services	Water and Sanitation	
127	Nompumelelo Village	Installation of Prepaid Water Meters	Domestic Water Meters	Technical Services	Domestic Water Meters	No
128	Nompumelelo Village	Repair and maintenance of streetlights	Electricity/Streetlights	Technical Services	Electricity/Streetlights	
129	Nompumelelo Village	Electrification of Informal houses at Riemvasmaak	Electrification	Technical Services / ESKOM	Electrification	No
130	Nompumelelo Village	Maintenance of Sport field lights	Electrification	Technical Services / ESKOM	Electrification	
131	Nompumelelo Village	Establishment of an operational day hospital / Clinic	Provision of adequate medical facilities	Department of Health	Provide Medical Centres	No
132	Nompumelelo Village	Extension and provision of ablution blocks , fencing and shelters for Cemeteries	Provision of adequate cemetery services	Community Service	Provide Cemetery Services	
133	Nompumelelo Village	Provision of a High School	Education	Department of Education	Education	No
134	Nompumelelo Village	Provision of Library facilities and equipment	Library Facilities	Community Service	Library Facilities	No
135	Nompumelelo Village	Construction of a Netball Court	Sports Facilities	Community Service	Sports Facilities	No
136	Nompumelelo Village	Establishment of Recreational Facility	Recreational Facility	Community Service	Recreational Facility	No
137	Nompumelelo Village	Building of new Houses	New Housing	Technical Services	New Housing	
138	Nompumelelo Village	Provision of JOJO Tanks	JOJO Tanks	Technical Services	JOJO Tanks	No
139	Nompumelelo Village	Installation of Highmast Lights	Highmast Lights	Technical Services	Highmast Lights	No
140	Nompumelelo Village	Provision of Indoor Sport Center	Indoor Sport Centre	Community Service	Indoor Sport Centre	No
		Identify land for cemeteries (Long Term)				
		Precinct Plan				
		Identify land for food gardens				
		Identify land for cemeteries				

Table 51: nompumelelo Actions

30 Stormsrivier Framework

Urban Form (Infill and Densification, Nodes and Corridors and Human Settlement)

- This node consists of two distinct areas, being an older establishment higher income area and a newer low-cost housing area. This node forms the hub of the tourism industry in the Tsitsikamma region.
- The two distinct residential areas being the older established village and the newer subsidy housing development known as Stormsrivier West dominate the settlement pattern.
- The village is characterized by large properties (low density), broad streets and established business/tourism core and numerous community facilities. In contrast the Stormsrivier West area is characterized by small properties and subsidy housing.
- The node is surrounded by commercial and natural forestry areas
- The residential component consists of a 'subsidy housing' dominated area (Stormsrivier West) and the older residential are known as the village.
- There are currently 60 residential properties in the village while 440 exist in the Stormsrivier West development.
- Numerous bed and breakfast/guest houses/backpackers are operating from erven in the village.
- The business component is concentrated in the south-eastern portion of the node
- No industry is present
- One primary school and a community hall are situated in Stormsrivier West
- The police station and forestry station are situated east of the village area.
- No formal cemetery is present
- Illegal occupation of the subsidy housing has a negative impact on the accuracy of the housing backlog figures.

Potable Water

- The water supply to the village is by roof-runoff and boreholes, while the Stormsrivier West area is supplied from an abstraction facility in a disused quarry which is augmented with water from the Witteklip river. This supply has not been authorized by the Department of Economic Affairs Environment and Tourism

Sewer

- The Stormsrivier West area is served by a waterborne sanitation system, while the village area is serviced by septic tanks

Road and Stormwater

???????

Solid Waste

- Solid waste is currently disposed of at the Nomphumelo waste site

Electricity

- Eskom provides electricity

Environmental

- The node is surrounded by indigenous and cultivated forest, which is protected by legislation. A fynbos conservation area is situated between the N2 and the "Village" residential area.
- Environmental authorization of the sewage treatment works as well as the abstraction of water from the Witteklip river need to be obtained. The potential for pollution of the Witteklip River needs to be guarded against.
- The node is surrounded by land classified as CBA./Protected area.
- Any development in close proximity to the area classified as "CBA" will be subject to stringent environmental scrutiny.

- Potential development will need to be confined to within the urban edge, while also ensuring that the appropriate buffers are preserved between the development and the protected areas.



Figure 55: Storms River Biodiversity Footprint

Land Needs

Town	Pressure (NSDF)	2011 Persons (Census-NSDF)	Backlog HH (Assumed Informal) Subsidy to Incl	Tot. ha needed hh (@250m ² /HH)	Tot ha Need Backlog Incl Other uses (40%)	Pop (Persons) at 2030	Change_11to30 BKLog Excl	Tot. ha needed hh (@250m ² /HH)	Tot ha Need 2030 Incl Other Uses (40%)	Total (ha) Land Demand (Backlog+Growth)
Storms rivier	No Change	1679	336	8.4	11.76	1706	27	0.17	0.24	12.00

Figure 56: Stormsriver Land Budget

AREA	NO	GROWTH	INFORMATION	COMMUNAL/ RESTITUTION	LAND AVAILABLE	BULK SERVICES
STORMS RIVER	336	X	X		Land identified needs to be purchased.	No bulk services

Figure 57: Stormsriver Housing Backlog

Ownership

- It is clear that the municipality do not own any land on the perimeter of the urban area. The node is entirely surrounded by state owned property.

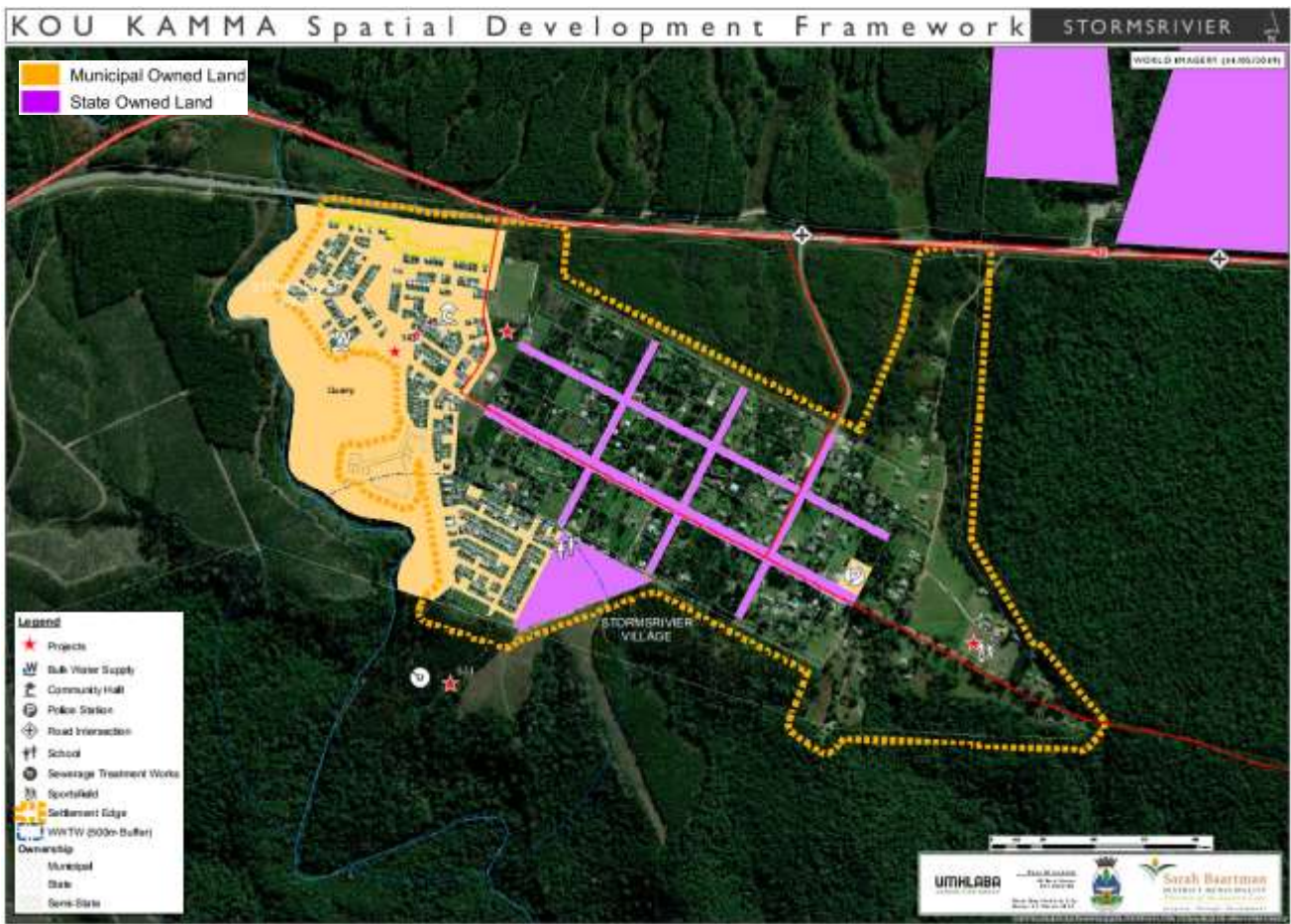


Figure 58:Ownership Storms River (Ovvo 2021)

Draft for Public

30.1 Land Management Proposals

ID	F_LU,C,50	Node_Name,C,100	Prop_Descr,C,254	Ownership,C,254	Parcel_N_1,C,254	SDF_Catego,C,254	Hectares,N,19,11
78	Future Residential	Stormsriver	The area is situated to the south of Stormsriver West and was originally earmarked for the development of a cemetery, but unsuitable soil conditions have prevented this. The area is suitable for the development of additional houses. Approximately 12 additional residential sites can be accommodated here. Additional erven can be accommodated if the portion of the forest reserve can be utilised for this purpose.		Ervern 607 to 619		0.089188942
79	Future Business	Stormsriver	Proposed business development or Community Facility		Erven 235, 259, 377 and 395		0.061242798
81	Future Business	Stormsriver	Proposed business development or Community Facility		Erven 235, 259, 377 and 395		0.046247641
82	Future Business	Stormsriver	Proposed business development or Community Facility		Erven 235, 259, 377 and 395		0.059981523
86	Future Institutional	Stormsriver	The area is situated to the west of Stormsriver West on land to the south of the 'quarry'. The area can be utilized for the accommodation of additional residential sites or the development of a community centre. 10 Additional residential sites can be accommodated here together with a site for a community centre or recreation area. If the centre and recreation area are not required or the need for residential properties is greater, additional residential sites can be accommodated here. The development of the open space, which accommodates the quarry, needs to be addressed. The adequate fencing of the site and limited rehabilitation thereof needs to be undertaken		Erf 139		0.690950147

90	Future Residential	Stormsriver	The development of the open space, which accommodates the quarry, needs to be addressed. The adequate fencing of the site and limited rehabilitation thereof needs to be undertaken.		Ervern 607 to 619		0.618591973
91	Future Business	Stormsriver	This area recognises the existing retail/tourism core of the settlement.		Portion of Erf 578		0.85675539
99	Future Residential	Stormsriver	The area is situated to the north east of the existing urban area and is developed with forestry housing. This area is to be utilized for the development of additional housing, while a portion of the area is to be utilized for the enhancement of the tourism potential of the area. The development of this area for housing will require the installation of a water borne sewerage system, which can enable the upgrading of the older properties in the village from the existing septic tank systems.				8.23427146
100	Future Tourism	Stormsriver	The area has been earmarked for the development of tourism facilities. The SANP have identified this area for the development of a new rest camp and associated facilities.				16.45004791

Figure 59: Stormsriver Land Management Proposals

Draft for P

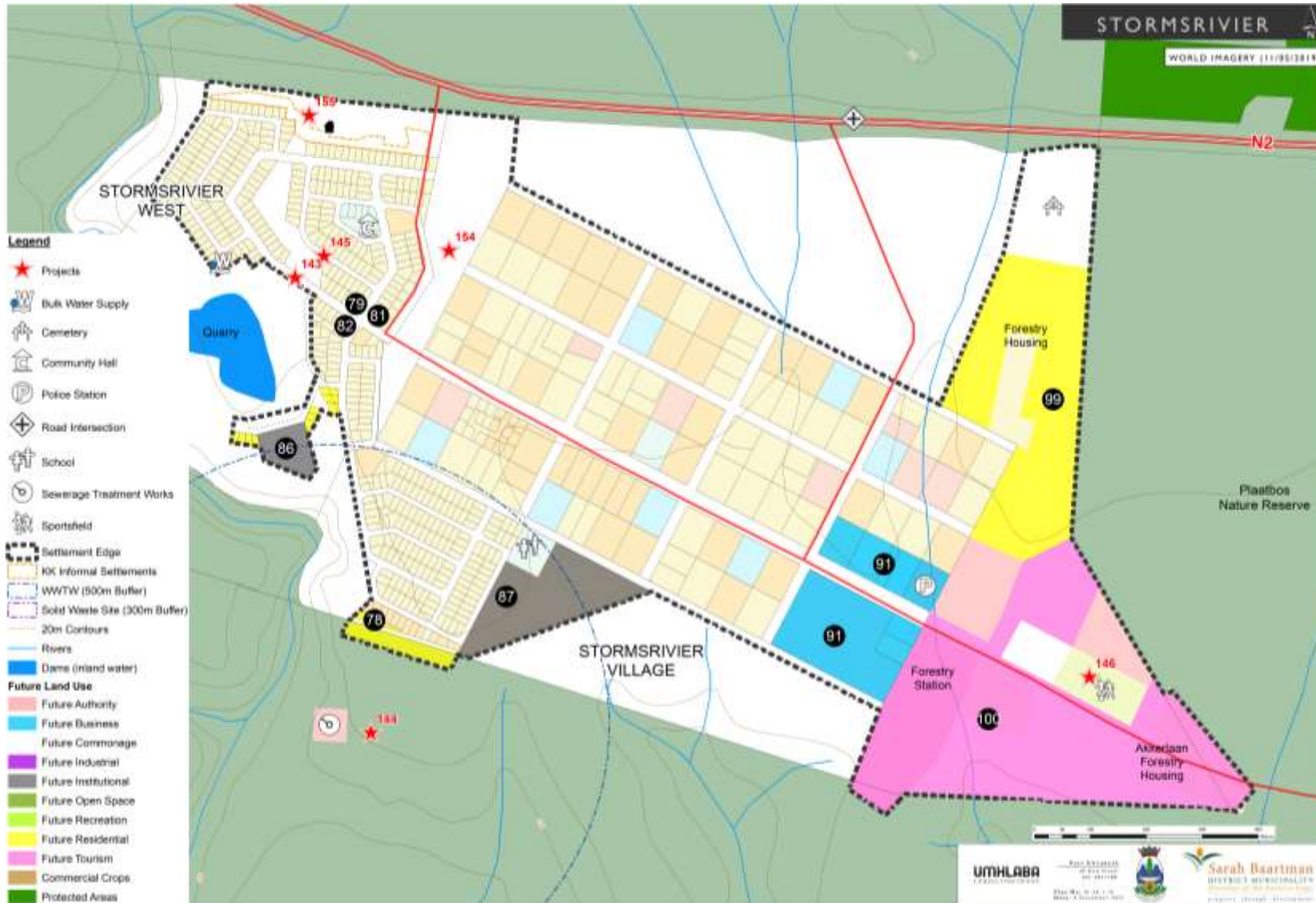


Figure 60: Stormsrivier Framework Plan

30.2 Actions

The spatial planning actions required to achieve the Framework are reflected below:

ID	Settlement	Project Description	Project	Category	Label	Located
141	Stormsriver	Supply of Jojo tanks	Water Storage	Technical Services	Water Storage	No
142	Stormsriver	Upgrading of Stormsriver Low Pressure Water Mains / Water Meters / Installation of Chemical Dosing Pumps	Water and Sanitation	Technical Services	Water and Sanitation	No
143	Stormsriver	Upgrading of Stormsriver Gravel Road to Paved Road	Roads Infrastructure	Technical Services	Roads Infrastructure	
144	Stormsriver	Upgrading of sewerage system to a full Water Borne System	Water and Sanitation	Technical Services	Water and Sanitation	
145	Stormsriver	Fixing and Maintenance of streetlights	Electricity/Streetlights	Technical Services	Electricity/Streetlights	
146	Stormsriver	Installation of Sport field Lights	Electrification	Technical Services	Electrification	
149	Stormsriver	Upgrading of the Dumping site	Land fill site	Technical Services	Land Fill Site	No
152	Stormsriver	Construction of new MPCC	Integrated Development Centre	LOTTO	Integrated Development Centre	No
147	Stormsriver	Construction of the Clinic	Clinic	Department of Health	Clinic	No
148	Stormsriver	Construction of water Reservoir	Water Reservoir	Technical Services	Water Reservoir	No
150	Stormsriver	Ablution blocks and Shelters, Paving for Cemeteries	Provision of adequate cemetery services	Community Service	Provide Cemetery Services	No
151	Stormsriver	Provision of Library facilities and equipment	Library Facilities	Community Service	Library Facilities	No
153	Stormsriver	Construction of a Netball Court	Sports Facilities	Community Service	Sports Facilities	No
155	Stormsriver	Establishment of Recreational Facility	Recreational Facility	Community Service	Recreational Facility	No
154	Stormsriver	Building of new RDP Houses	Housing	Department of Human Settlement	Housing	
		Informal Settlement formalisation Investigation				
		Identify land for the development of FLISP and Social Housing project implementation				
		Identify land for food gardens				
		Prepare Precinct Plan				

Table 52: Stormsriver Actions

31 Eersterivier (Inland) Framework

Urban Form (Infill and Densification, Nodes and Corridors and Human Settlement)

- The Eersterivier nodal area extends along the Eersterivier Road from its intersection with the R102 in a southerly direction to the coast.
- The area is made up of the following land uses:
 - A retail development (Oudebosch Farm Stall) at the intersection between the R102, the link road to Kareedouw and the N2 National Route.
 - Agricultural activity (Primarily dairy farming)
 - The municipal farm (Farm 619)
 - The Moravian Church Mission and the associated Eersterivier–Kruis informal residential area.

Environmental Impact

- The area surrounding the municipal farm and the Eersterivier (Church) settlements is surrounded by sensitive biodiversity areas as well as existing agricultural practices.
- Proposed development should be located within the existing urban footprints.



Figure 61: Eersterivier (Inland) Resource and Biodiversity Footprint.

Ownership

- The municipal farm, (Farm 619) in the Humansdorp Registration District – 33,5ha is surrounded by privately held property. Access to the municipal farm will cross two land portions being Farm 620 and Portion 9 of Farm 628.
- A disused military radio establishment is located to the east of the coastal development – State owned.

Land Needs

AREA	NO	GROWTH	INFORMATION	COMMUNAL/ RESTITION	LAND AVAILABLE	BULK SERVICES
Eersterivier	200			X	Land available, was purchased for beneficiaries. Beneficiaries preferred to remain on the church land they are currently occupying. The land needs to be purchased.	No bulk services

Figure 62:Stormsriver Housing Backlog

Draft for Public Comment

31.1 Preliminary Land Use Management Proposals

ID	F_LU,C,50	Node_Name,C,100	Prop_Descr,C,254	Ownership,C,254	Parcel_N_1,C,254	SDF_Catego,C,254	Hectares,N,19,11
228	Future Residential	Eersterivier	This is the least sensitive portion of the farm purchased in order to relocate a settle the Eersterivier Church community. The community would prefer to remain on the 'church' land. This area is retained for settlement purposes should it be not viable for the settlement to be formalised on the 'chuch ' property.				0.004127138
302	Future Residential	Eersterivier	These are church owned properties where the formalisation of the existing settlements need to be investigated. The current residents would prefer to remain on these land parcels than be relocated to the recently purchased municipal farm.	Private			
303	Future Residential	Eersterivier	These are church owned properties where the formalisation of the existing settlements need to be investigated. The current residents would prefer to remain on these land parcels than be relocated to the recently purchased municipal farm.	Private			

Table 53: Eersterivier Land Use Proposals

31.2 Actions

The spatial planning actions required to achieve the Framework are reflected below:

ID	Settlement	Project Description	Project	Category	Label	Located
	Eersterivier	Eerste River – Facilitate Access to coast	Facilitate Access to coast			
	Eersterivier	Eerste River – Investigate the feasibility of the formalisation of the existing church housing.	formalisation of the existing church housing.			
	Eersterivier	Eerste River - Coastal resort feasibility study	Coastal resort feasibility			

Table 54: Eersterivier Actions

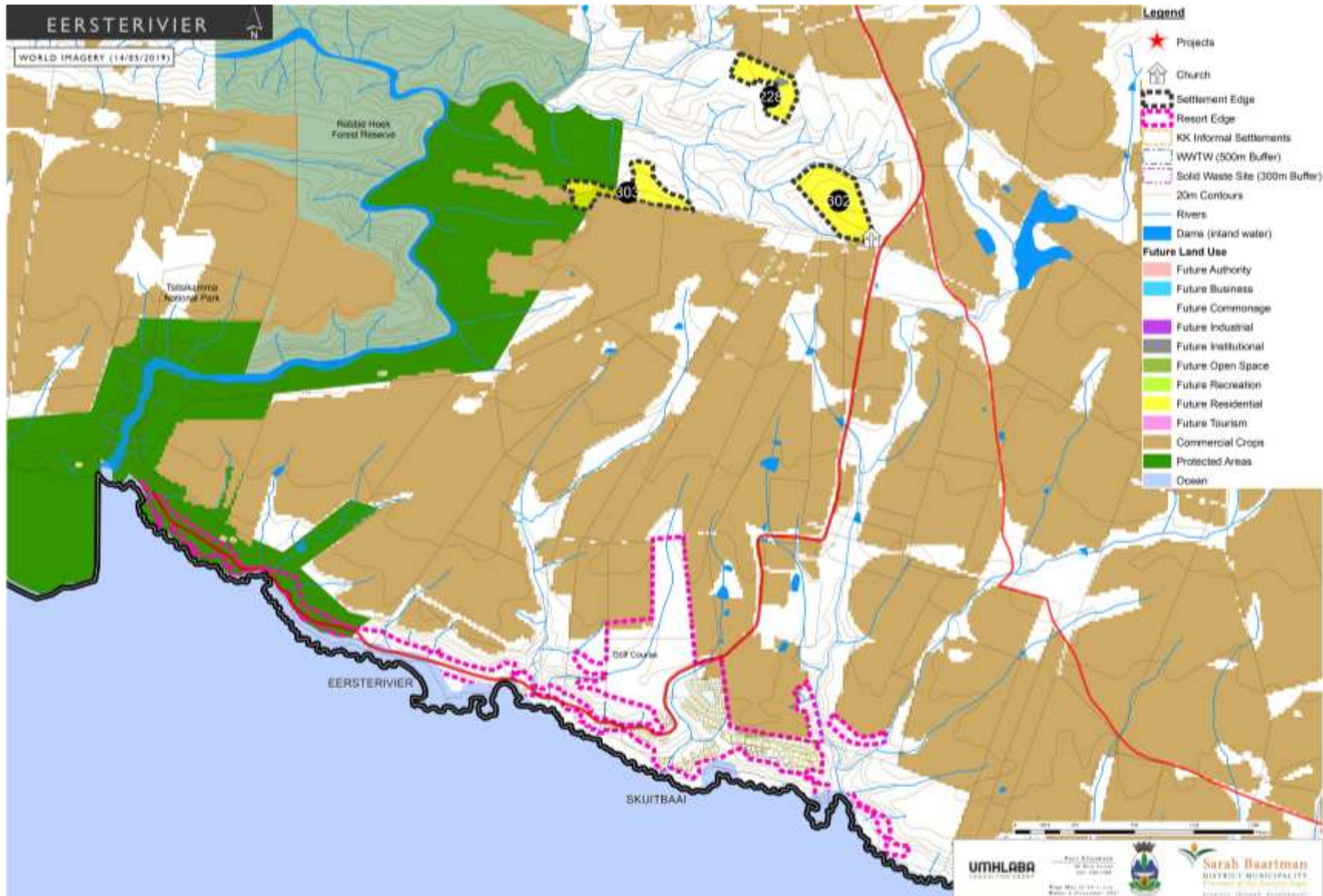


Figure 63: Eersterivier (Inland) Framework Plan

32 Eersterivier Resort

Urban Form (Infill and Densification, Nodes and Corridors and Human Settlement)

This coastal development is recognised as a private coastal resort complex made up of individually owned smaller resorts. These resorts are reflected on Figure 64.



Figure 64: Eerste Rivier Resorts (City Scope Town Planners)

a. Eersterivier Holdings

Probably the first of the resorts in this region started in the late 1940's when fishermen erected rudimentary shelters, merely to stay overnight while angling. These were mostly residents from the wider region and as far as Port Elizabeth. In 1965, the company that was formed, Eerster Rivier Holdings Pty Ltd, took transfer of the land, Portion 34 of the farm Eerste Rivier 626. With improved security, overtime the quality of structures improved to this day, with luxury houses. Currently there are 14 dwellings.

b. Eersterivier Strand

In the early 1950's some farmers from mostly the Langkloof leased land, being Portion 61 of the farm Eerste Rivier 626, from a local farmer, where they also erected very basic cottages. Only after approximately 1967 when the group could take transfer of the land, the security of tenure improved, resulting in better quality structures being developed. The original Company converted to a Shareblock Company in 1986, called Eersterivier Strand Ltd. A total of 96 houses have been developed and a few stands are still vacant. Eersterivier Strand is occupied by a few permanent residents.

c. Oubos

Approximately at the same time, a grouping of owners acquired the land between Eersterivier Strand and the Groot River, now being known as the farm Oubosstrand No 759 (a consolidation of various parts of the former farm Eerste Rivier 626). The resort Oubos was established with a total of 45 houses and a few vacant stands sold on Share Block. The land area of Oubos was recently extended and also declared a private nature reserve.

d. Konkiebaai

Konkiebaai also had a similar informal origin of friends coming together to create holiday homes on Portion 53 of the farm Eerste Rivier 626. In 1965 the company Konkiebaai Pty Ltd was formed. Some 8 stands were marked out of which one is still vacant.

f. **Dutch Reformed Church Camping Site**

In the early 1960's a local farmer donated a portion of land of the farm Eerste Rivier 626 to the Dutch Reformed Church for the purposes of a campsite for youth groups and religious gatherings. Over time a small hall, accommodation facilities and ablutions were developed. No casual camping or caravans are accommodated here, but only accommodation in organised groups. After a consolidation the land is now known as the farm Portion 766.

g. **Kammabaai**

More recently, in 1984/5 a group of investors procured approval for a resort on Portion 40 of the farm Eerste Rivier 626. A total of 33 stands were created on a Shareblock Scheme of which to date 19 houses were erected.

h. **Skuitbaai**

At approximately the same time, approval was given on Portion 69 of the farm Eerste Rivier 626 for the development of Skuitbaai, consisting of 90 stands, plus what at the time was known as the Dirk Fourie Golf Club. In 2000 the Shareblock Scheme was cancelled and full title farm subdivisions were formed. The golf course was later also subdivided off the estate. There are a number of vacant stands still in the Estate.

i. **Heidestrand**

In 1996 a group of investors purchased Portion 66 of the farm Eerste Rivier 626 and procured approval for 10 houses. The land is registered in the name of Heide Strand Aandeleblok Pty Ltd. The resort is fully developed.

j. **Fynbos Golf Club**

The erstwhile Dirk Fourie Golf Club, mentioned in Par g. above, was subdivided as Portion 70 of the farm Eerste Rivier 626 and together with also Portions 12 and 13 of the same farm, was the subject of an application for 16 housing units, over and above the golf clubhouse and associated facilities. Six units have been developed and are known as Fynbos Ridge, while a further 10 erven are in a planning phase.

k. **Silver Leaf Estate**

Silver Leaf Estate, was created in 2004 and constitute 50 full title subdivisions of the former Portion 224 of the farm Eerste Rivier 626. Also known as Skuitbaai Golf Park, only approximately five dwellings have been built to date.

l. **Heidehof**

Part of Portion 271 of the farm Eerste Rivier 626, also known as Heidehof, is located between Skuitbaai and Heidestrand and forms a natural rounding off of existing development areas, surrounding a deep gorge of natural beauty. The areas of the land which are located outside of the formal farming areas (grazing under pivot irrigation) and not yet too far onto the slopes of the gorge, are well suited for purposes of nature-orientated accommodation such as chalets and/or a bush camp. The area is already developed as a private sanctuary for the owners' own use.

Environmental Impact

- This resort complex is situated in close proximity to the high water mark and in some cases right onto the high water mark.
- As Coastal Management Lines (Integrated Coastal Management Act (Act No 24 of 2008) and Development Setback Lines in terms of the National Environmental Management Act (Act No 107 of 2008: EIA Regulations) have not been gazetted for Koukamma Municipality. Development along the coast is managed in terms of SPLUMA (Zoning rights) as well as the NEMA (Listed Activities which are triggered when these activities are undertaken within 100m and in some cases 1km from the High-Water Mark).
- Until these lines have been demarcated all development within the resort complex should be 'authorised' by the DEDEAT prior to consideration by the municipality in terms of the National Building Regulations and applicable zoning parameters.

Ownership

- The properties are privately owned,
- No public access to the coast is currently permitted.

Potable Water

- Private reticulation.
- All of the settlements are fitted with full reticulation, from reservoirs. Each company has its own reservoirs, with exception of Konkibaai, who is supplied by partly Eersterivier Strand and partly from Kammabaai. Most are metered, not so much for billing purposes, but for leak detection.
- Reservoirs are mostly supplied by boreholes and extraction and some from selected streams and purified.
- Some of the older settlements, such as Eersterivier Strand and Eersterivier Holdings still have remnants of rainwater collection and individual storage tanks, but is used simply to supplement supply in peak periods.
- Some owners route their piped supply via the storage tanks to secure an uninterrupted supply in cases of maintenance, etc

Sewer

- Private reticulation.
- A number of commercial package plants at houses that are located in vulnerable locations
- The bulk of dwellings are fitted with septic tanks, flowing either into french drains or into conservancy tanks. Extraction by honeysuckers either by the Municipality or private contractors, whoever is available on call.

Roads

- The road network is privately owned and maintained.

Solid Waste

- Refuse is collected once a week (or twice in peak periods) by a contractor. Refuse is dumped at Kareedouw landfill site.

Electricity

- Electricity is provided directly by Eskom.

Land Management

- As this development is a private resort complex which does not serve a full settlement function a preliminary resort development edge is reflected in this SDF. This delineation is merely a broad indication of where the proposed units have and possibly will be developed and is not intended to serve as a Coastal Management Lines (Integrated Coastal Management Act (Act No 24 of 2008)) or Development Setback Lines (National Environmental Management Act (Act No 107 of 2008: EIA Regulations)).
- In order to manage development and unsure that the necessary environmental controls are effectively implemented all development within the resort should be undertaken within the context of an approved Site Development Plan.
- These Site Development Plans can be submitted for each of the individual resorts but would need to be framed within the context of an overarching Site Development Plan.
- These Site Development Plan will need to be approved by the DEDEAT prior to approval by the municipality.

33 Other Settlement Edges

The designation of these urban edges are in now way an acknowledgement that these developments have all the necessary development 'rights' or authorisations. These edges have been set out in order to firstly highlight the need to determine the development extents and to protect the surrounding natural resources from expansion pressure. No further development beyond these preliminary edges should be permitted until an LSDF has been prepared and approved.

33.1 Mfengu Farms (Ekhumleni/Wittekleibos)

- Context - In 1994 the amaMfengu community received the majority of the land they had been dispossessed of during the 1977: Black Spot Removal Programme". Currently the Tsitsikamma Development Trust (Mfengu) owns 19 farms of which 12 are leased to commercial farmers, while the remaining seven are utilized by the amaMfengu community for residential and farming purposes. The TDT have submitted an application to the Department of Housing and Local Government for the establishment of 650 dwellings on portions of three of these farms. It is proposed to establish 450 units at Ekuphumleni and 200 at Wittekleibos. Currently there are four nodes of dwelling being; Ekuphumleni, Wittekleibos, Doriskraal and Snykclip. Ekuphumleni and Wittekleibos have been developed with formal subsidy communal housing.
- Ownership - The properties referred to as the Mfengu Farms are all in private ownership. These farms are registered in the name of Tsitsikamma Development Trust

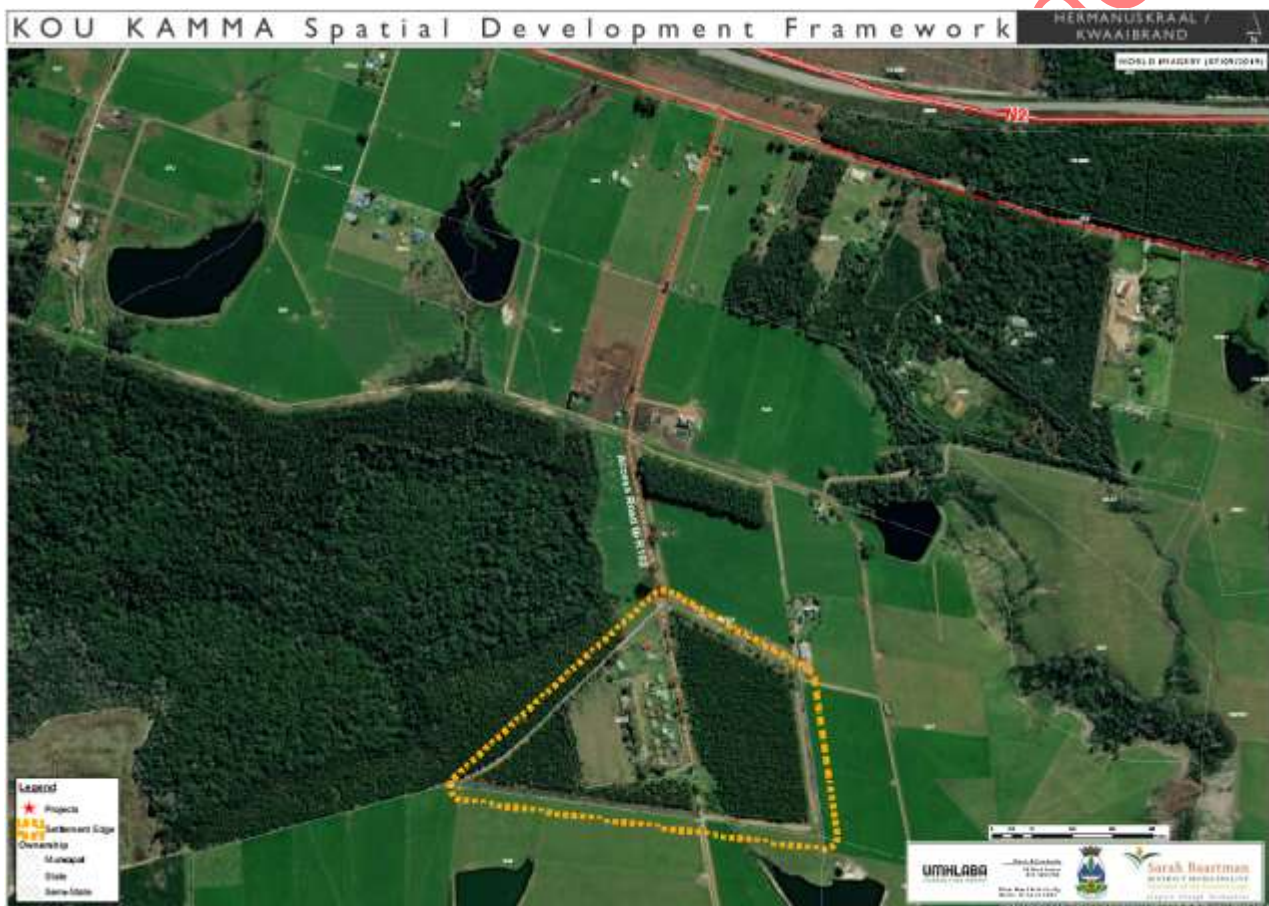


Figure 65:Wittekleibos and Ekuphumleni Settlement Edges.

- Land Management - From a land management perspective the priority is to confine all settlement development within the urban edges..

33.2 Hermanuskraal / Kwaaibrand

- Locality – Hermanuskraal/Kwaaibrand is located between Woodlands and Sanddrif/Nompumelelo/Thornham, approximately 1km south of the N2.
- Access – Access to Hermanuskraal/Kwaaibrand is gained via Kwaaibrand Road. Kwaaibrand Road is a gravel road which travels south from the R102.
- What it consists of – Hermanuskraal/Kwaaibrand consists of ±15 settlement dwellings, a primary school (Hermanuskraal Primary School) and a sports field.
- Land Ownership – Portion 3 of Farm 524 - NATIONAL GOVERNMENT OF THE REPUBLIC OF SOUTH AFRICA (Government)
- Housing Backlog – 20 (Kou-Kamma Housing Backlog 2021)
- Land Management - From a land management perspective the priority is to confine all settlement development within the urban edges and to undertake a feasibility study to determine whether the formalisation of the existing and additional housing.



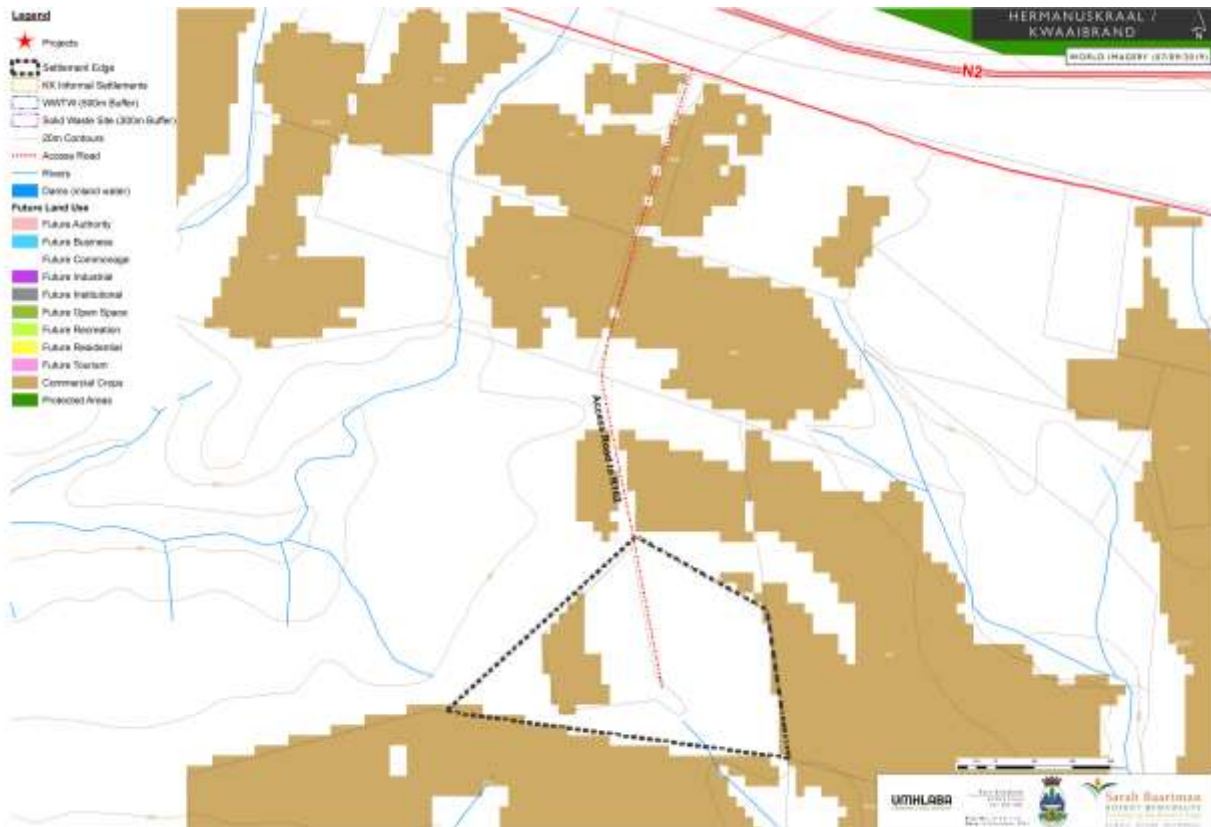


Figure 66: Hermanuskraal / Kwaaibrand

33.3 Koomansbos

- Locality – Koomansbos is located between Woodlands and Sanddrif/Nompumelelo/Thornham, approximately 2km south of the N2.
- Access – Access to Koomansbos is gained from the R102, which becomes a gravel road which travels south to Koomansbos.
- What it consists of – Koomansbos consists of ±40 settlement dwellings.
- Land Ownership – Farm 515 (Kock Family Communal Prop Assoc - Association), Farm 516 (Asia Family Communal Prop Assoc - Association), Farm 517 (National Government Of The Republic Of South Africa - Government), Farm 518 (Alexander Family Communal Prop Assoc - Association), Farm 519 (Moravian Church In South Africa - Church), Farm 520 (Sezoe & Savier Vereniging Vir Gemeenskaplike Eiendom - Company), Remainder Of Farm 521 (Moravian Church In South Africa - Church), Portion 1 Of Farm 521 (Harvey Family Communal Prop Assoc - Association).
- Parent Farm (Remainder of Farm 523) - NATIONAL GOVERNMENT OF THE REPUBLIC OF SOUTH AFRICA (Government).
- Housing Backlog – 66 (Kou-Kamma Housing Backlog 2021)
- Land Management - From a land management perspective the priority is to confine all settlement development within the urban edges and to undertake a feasibility study to determine whether the formalisation of the existing and additional housing.



Figure 67: Koomansbos

33.4 Goesa

- What is consists of – Goesa consists of ±8 settlement dwellings, a lodge (Pearsons Place), an electrical substation and a WWTW.
- Land Ownership – Farm 427 - ORSMOND INV PTY LTD (Company).

- Land Management - From a land management perspective the priority is to confine all settlement development within the urban edges and to undertake a feasibility study to determine whether the formalisation of the existing and additional housing.

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Figure 68: Goesa

33.5 Witelsbos

- Locality – Witelsbos is located approximately 4km west of Woodlands along the R102 (i.e. north and south of the R102).
- Access – Access to Witelsbos is gained via the R102, approximately 4km west of Woodlands.
- What it consists of – Witelsbos consists of ±20 settlement dwellings, businesses, a bed and breakfast (BnB) and a post office.
- Water Supply - Borehole system, 1 borehole with solar system as power source
- Land ownership – portion 1 of farm 556 (jeffrey nancy cecilia - private person), portion 3 of farm 556 (morena thuso timbers c c - close corporation), portion 6 of farm 556 (bower & lombard beleggings c c - close corporation), farm 559 (national government of the republic of south africa - government), remainder of farm 841 (shand trust - trust), portion 1 of farm 841 (mikes mechanical & tractors c c - close corporation), portion 2 of farm 841 (johan schlechter trust – trust / damant hutton - private person), portion 3 of farm 841 (damant hutton - private person), portion 4 of farm 841 (oelofsen johannes gideon - private person) and remainder of farm 880 (national government of the republic of south africa - government).
- Land Management - From a land management perspective the priority is to confine all settlement development within the urban edges and to undertake a feasibility study to determine whether the formalisation of the existing and additional housing.

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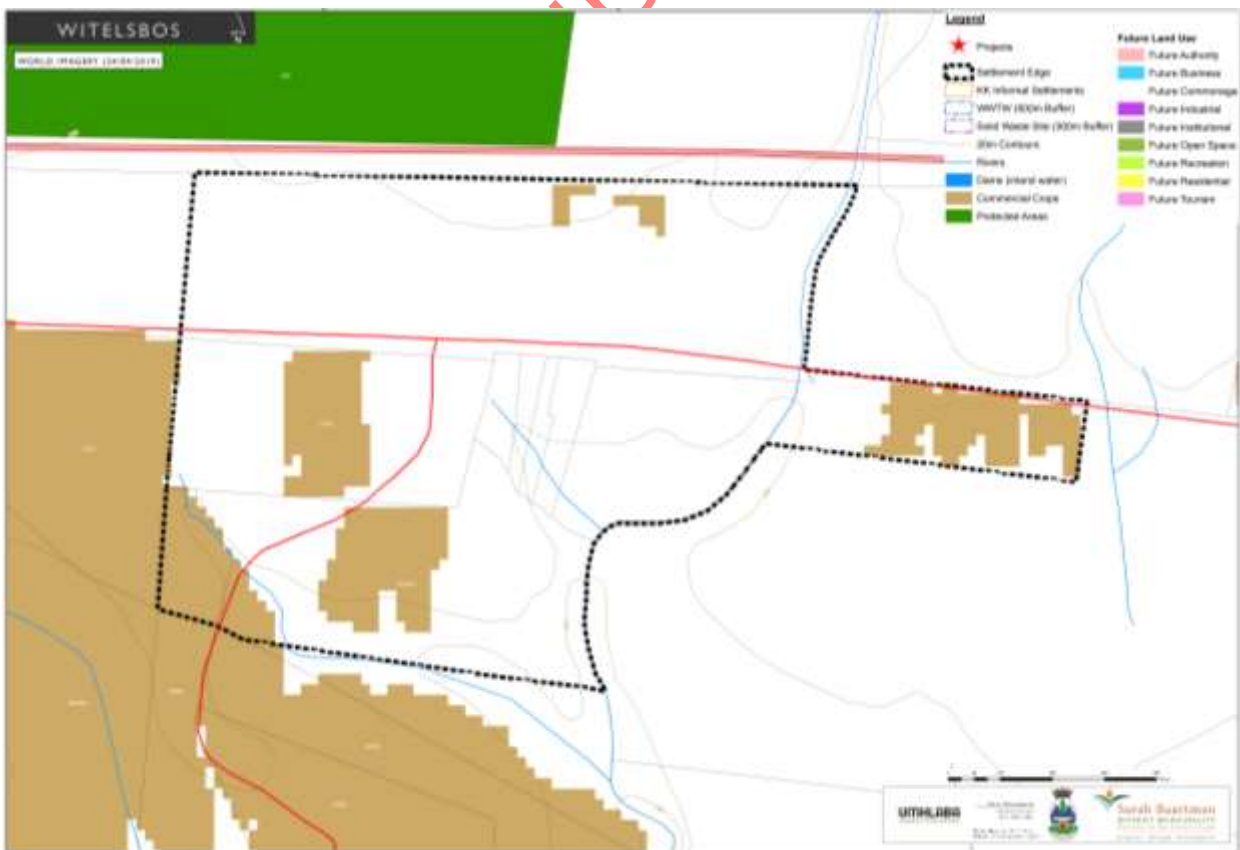


Figure 69: Witelsbos

33.6 Boskor

- Locality – Boskor is located between Storms River and Coldstream, along the N2.
- Access – Access to Boskor is gained along the N2, approximately 6.5km west of Storms River.
- What is consists of – Boskor consists of ±50 settlement dwellings, a sawmill and a resort.
- Land Ownership – Farm 419 - SWARTLAND INV PTY LTD (Company).
- Land Management - From a land management perspective the priority is to confine all settlement development within the urban edges and to undertake a feasibility study to determine whether the formalisation of the existing and additional housing.



Draft for



Figure 70: Boskor

34 Implementation Plan

This is a consolidated list of all infrastructure that the municipality requires to ensure sustainable development over a longer term planning period.

The development of an effective Implementation Plan is currently constrained by the accessibility of external departmental budgets and projects and the lack of integrated infrastructure plans, which include the cost of maintenance and upgrading (For new and existing assets). These problems will be alleviated by the introduction of the District Integrated Planning Model as part of a National initiative to improve service and infrastructure delivery. This has not been launched in Sarah Baartman District yet.

The project tables set below will be updated and aligned after Public Comment.

34.1 Municipal Projects

Id	Settlement	Proj_Description	Project	Category	Label	Located	Budget	Funding
201	Louterwater	Sanitation: Flush Existing System And Map Sewer Network	Water and Sanitation	Technical Services	Water and Sanitation	No	R6670000	OTP
202	Louterwater	Upgrading of Louterwater WTW	Water and Sanitation	Technical Services	Water and Sanitation	No	R2950000	OTP
203	Krakeel	Construction of new WWTW	Water and Sanitation	Technical Services	Water and Sanitation	No	R2500000	OTP
204	Joubertina	Refurbishment of Traffic Testing Route		Technical Services		No	R26930000	OTP
205	Joubertina	Replacement of existing AC Pipes with PVC		Technical Services		No	R4467859.48	OTP
206	New Rest	Pilot Project: Design and installation of 40m High Mast Light		Technical Services			R667859.48	OTP
207	Mountain View, Kagiso, Uitkyk	Kareedouw: Refurbishment of Oxidation Ponds		Technical Services			R2250000	OTP
208	Clarkson	Refurbish Pump Station		Technical Services		No	R2950000	OTP
211	Woodlands	Upgrading of WWTW		Technical Services		No	R4060000	OTP
212	Langkloof and Tsitsikamma	Electricity: Installation of Streetlights / High Mast Lighting		Technical Services		No	R10000000	OTP
301	Misgund	Procurement of Two Potato Planters	FPSU	FPSU		No	R600000	
302	Misgund	Procurement of Two Potato Harvesters	FPSU	FPSU		No	R600000	
303	Misgund	Procurement of Chemicals	FPSU	FPSU		No	R600000	

Table 55: Municipal Wide Projects

Draft for Public Comment

35 Monitoring, Amendments and Review

35.1 Monitoring

To monitor planning performance a set of measurable performance indicators are required to be integrated into the Municipal Performance Management System. As the municipality does not have any dedicated planning resources or capacity to implement and monitor land use management indicators none have been formulated. The current focus will be to ensure that the necessary resources and capacity is established to enable the formulation and measurement of indicators during this financial year to enable incorporation into the follow SDF and IDP review process. It is important that these indicators be easily measurable and that systems be set in place to enable effective and accurate reporting. Examples of indicators include reporting on:

- Land use applications and building plans approved and that achieve densification.
- The conversion of vacant land (Inside the urban edge) to a new usage.
- Building plans and land use applications that are focussed on employment i.e. Business, Industrial, Intensive feed farming etc.
- The overall share of new development applications in the settlements identified for growth as compared to smaller settlements.
- Applications which achieve a range of housing types accommodating different income groups.
- Agricultural land lost through redevelopment for alternative uses.
- Environmentally sensitive land which is 'protected through incorporation into a reserve or similar.
- The numbers of 'illegal' land uses reported.
- The numbers of community facility (Land Uses and Building Plans) i.e. creches, play schools, schools etc.

The OVVO Land Use and Financial Management GIS system is utilised to enable the necessary data to be captured and reported on. The following data is currently integrated:

- Cadastral – Surveyor General data as well as registered land parcels (Deeds Office property – The Property Master List - Valuations). This ensures that the information is spatially linked
- The land use and zonings in the Zoning Scheme.
- Real land use data.
- Approval of land use applications
- Approval of building plans
- Valuation Roll and Supplementary Valuations
- Financial Data

35.2 Amendment and Review

The procedure, including public participation processes, for the amendment of the Municipal SDF are prescribed by SPLUMA and are set out in Section 8 of the Kou kamma Municipality: Municipal Land Use Planning Bylaw, 2015. A minor review should be undertaken each year, while a substantial review or a redraft should be undertaken every 5 years. Five-year and annual reviews are to be aligned with the IDP and budget planning and approval process.