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**AMENDMENT OF THE KNYSNA
MUNICIPAL SPATIAL DEVELOPMENT
FRAMEWORK (MSDF)**

KNYSNA MUNICIPAL SPATIAL DEVELOPMENT FRAMEWORK | October 2025

TSHANI
CONSULTING C.C.



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SUMMARY OF STAKEHOLDER ENGAGEMENTS

[illegible]

DATE	CONSULTATION TYPE									ENGAGEMENT DESCRIPTION
	PC	ISC	FOCUS GROUP	WORKSHOP	COUNCIL MEETING	SOCIAL MEDIA	NEWSPAPER NOTICE	GAZETTE	MEC NOTICE	
14/08/2024			x							Sedgefield Ratepayers and Residents Association
15/08/2024			x							Knysna Public Open Day
15/08/2024			x							Knysna Internal Engineering
15/08/2024			x							Knysna Ward Committee
PHASE 4										
25/11/2024	x									Phase 4 Spatial Proposals Extended Management Team & Project Committee
06/12/2024		x								Phase 4 Spatial Proposals Intergovernmental Steering Committee Meeting
PHASE 5										
06/02/2025			x							Knysna Internal Department Discussion (Engineering; LED; Planning)
06/02/2025					x					Council Workshop Session 1
27/02/2025					x					Council Workshop Session 2
12/03/2025					x					Special Council Meeting
20/03/2025							x			Knysna -Plett Herald (Notice of the Draft Knysna MSDF 60-Day Public Participation)
20/03/2025								x		Western Cape Provincial Gazette Notice (Notice of the Draft Knysna MSDF 60-Day Public Participation)
20/03/2025							x			Action Ads (Notice of the Draft Knysna MSDF 60-Day Public Participation)
26/03/2025							x			The Edge (Notice of the Draft Knysna MSDF 60-Day Public Participation)
10/04/2025									x	MEC (Notice of the Draft Knysna MSDF 60-Day Public Participation)
15/04/2025			x							Ward 4 - 2025/26 IDP/ Budget/ MSDF/ LSDF Consultation
16/04/2025			x							Ward 1 - 2025/26 IDP/ Budget/ MSDF/ LSDF Consultation (1)
23/04/2025			x							Ward 8 - 2025/26 IDP/ Budget/ MSDF/ LSDF Consultation
29/04/2025			x							Ward 6 - 2025/26 IDP/ Budget/ MSDF/ LSDF Consultation
30/04/2025			x							Ward 2 - 2025/26 IDP/ Budget/ MSDF/ LSDF Consultation (1)

[illegible]

DATE	CONSULTATION TYPE									ENGAGEMENT DESCRIPTION
	PC	ISC	FOCUS GROUP	WORKSHOP	COUNCIL MEETING	SOCIAL MEDIA	NEWSPAPER NOTICE	GAZETTE	MEC NOTICE	
03/06/2025			x							Internal Infrastructure Services and Human Settlement
04/06/2025			x							SANRAL Meeting - N2 Bypass at Knysna
13/06/2025			x							Internal Meeting with Knysna Municipality on 60 Day Public Participation Comments
19/06/2025	x									Phase 6, 7 & 8 Project Committee Meeting
23/06/2025		x								Knysna MSDF Phase 6, 7 & 8 Intergovernmental Steering Committee
23/06/2025			x							Knysna Discussion with DEA&DP
04/07/2025			x							Discussion with DEA&DP, SANParks and Knysna Municipality
17/07/2025			x							Cross Boundary discussion with GRDM, Bitou Municipality and George Municipality
22/07/2025			x							Internal Knysna consultation session with Infrastructure Services / IHS / IDP

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LIST OF ACRONYMS

CBA	Critical Biodiversity Areas
CBD	Central Business District
CML	Coastal Management Line
CPZ	Coastal Protection Zone
CSIR	Council for Scientific and Industrial Research
DALRRD	Department of Agriculture, Land Reform, and Rural Development
DSDF	District Spatial Development Framework
DWS	Department of Water and Sanitation
Du	Dwelling Unit
ECD	Early Childhood Development
EIA	Environmental Impact Assessment
EMF	Environmental Management Framework
EMO	Environmental Management Officer
ESAs	Ecological Support Areas
FAR	Floor Area Ratio
FPSU	Farmer production support unit
GDP	Gross Domestic Product
GDPR	Gross Domestic Product by Region
GEF	Global Environment Facility
GIS	Geographical Information System
GRDM	Garden Route District Municipality

GRNP	Garden Route National Park
ICT	Information and Communication Technology
IDP	Integrated Development Framework
IGF	Intergovernmental Forum
IGR	Inter-Government Relations
IGRFA	Intergovernmental Relations Framework Act
IRDSS	Integrated Rural Development Sector Strategy
IUCN	International Union for Conservation of Nature
KM	Knysna Municipality
KMSDF	Knysna Municipality Spatial Development Framework
KPI	Key Performance Indicator
LED	Local Economic Development
LSDF	Local Spatial Development Framework
LUM	Land Use Management
LUMS	Land Use Management Scheme
MPA	Marine Protected Area
MSDF	Municipal Spatial Development Framework
NSDF	National Spatial Development Framework
NEMA	National Environmental Management Act
NGO	Non-Governmental Organisation
NMT	Non-Motorized Transport

PSDF	Provincial Spatial Development Framework
SACPLAN	South African Council for Planners
SANPARKs	South African National Parks
SDF	Spatial Development Framework
SDGs	Sustainable Development Goals
SEA	Strategic Environmental Assessment
SEP	Strategic Environmental Plan
SKEP	Succulent Karoo Ecosystem Programme
SMMEs	Small Medium and Micro Enterprises
SPC	Spatial Planning Category

SPIsys	Spatial Planning Information System
SPLUMA	Spatial Planning and Land Use Management Act 16 of 2013
SWOT	Strengths, Weaknesses, Opportunities, and Threats
TOR	Terms of Reference
TREP	Township and Rural Entrepreneurship Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
WC	Western Cape
WULA	Water Use License Application
WWF	World Wildlife Fund
WWTW	Waste Water Treatment Works

A: INTRODUCTION

The Spatial Planning and Land Use Management Act (SPLUMA), 2013 requires national, provincial, and municipal spheres of government to prepare Spatial Development Frameworks (SDFs) that establish a clear vision that must be developed through a thorough inventory and analysis based on national spatial planning principles and local long-term development goals and plans. SDFs are thus mandatory in all three spheres of government. Section 12(2) confirms that all three spheres must participate in each other's spatial planning and land use management processes. Each sphere must be guided by its own SDF when making land use and development decisions.

This document serves as the Final MSDF report prepared by **TSHANI CONSULTING CC**.

A1. BACKGROUND AND OBJECTIVES

Drawing from the provisions of Spatial Planning & Land Use Management Act (2013) (SPLUMA), when preparing a Spatial Development Frameworks, Knysna Municipality must ensure that it prepares a document that:

- 1) Interprets and represent the spatial development vision of the Municipality as provided for by the current IDP and alignment with the municipal sector plans.
- 2) Guide decision making in developments across all sectors of governments specifically in Knysna Municipality and Western Cape Provincial Government, in its spatial planning and land use management processes.
- 3) Contribute to a coherent, planned approach to spatial development in national, provincial, and municipal spheres.
- 4) Provide clear and accessible information to the public and private sector and provide direction for investment purposes.
- 5) Include previously disadvantaged areas, rural areas, informal settlements, slums and landholdings of state-owned enterprises and government agencies and address their inclusion and integration into the spatial, economic, social, and environmental objectives of the relevant sphere.
- 6) Address historical spatial imbalances in development.
- 7) Provide direction for strategic developments.
- 8) Take cognisance of any environmental management instrument adopted by the relevant environmental management authority to ensure sustainable developments and alignment with policies and legislation relevant to mineral resources, sustainable utilisation, and protection of agricultural resources.
- 9) Ensure direct public/stakeholder participation and engagements through accessible mechanisms in line provisions provided for by the Knysna Municipal Communications Department.

Considering the above insertion from SPLUMA, the purpose of the Knysna MSDF is:

“to guide the spatial distribution of current and future land uses, infrastructure investment, development, and protection of the natural environment, considering financial realities, whilst giving effect to the vision, goals, and objectives of the municipal Integrated Development Plan (IDP)”.

The main objective of the project is to amend the current SDF to meet the required standards set by the responsible Provincial Government, through the implementation of the Comprehensive SDF Guidelines developed by DALRRD. Practical lessons during the implementation process should be well documented and recommendations made where the guidelines require improvement.

A2. PROJECT PHASING

An Eight (8) phase approach to this MSDF amendment process is being utilised as suggested in the TOR. The following table highlights the project phases:
Knysna Municipality decided to **establish an Intergovernmental Steering Committee** to amend the 2020 Municipal Spatial Development .

Table 1: Project Phasing

Phases	Status
PHASE 1: Inception	Completed
PHASE 2: Status Quo	Completed
PHASE 3: Spatial Concept	Completed
PHASE 4: Draft MSDF	Completed
PHASE 5: Achieving Support for Draft MSDF	Completed
PHASE 6: Implementation Framework	Completed
PHASE 7: Final MSDF Council Adoption	Current
PHASE 8: Close Out	Upcoming

B: SPATIAL PLANNING CATEGORIES (SPCS)

Municipalities should use the Spatial Planning Categories, as outlined in the WC PSDF, as the foundation of spatial planning. The following considerations need to be adhered to when developing or reviewing municipal plans:

- Alignment of provincial spatial structuring elements (e.g., nodes, zones, corridors).
- Hierarchy of towns and settlements as well as considering the recommendations and strategies proposed by the Socio-Economic Potential.
- Strengthening of alignment between neighbouring local plans as proposed and represented in the PSDF and
- To utilise SPC's as basis of future land use development proposals.

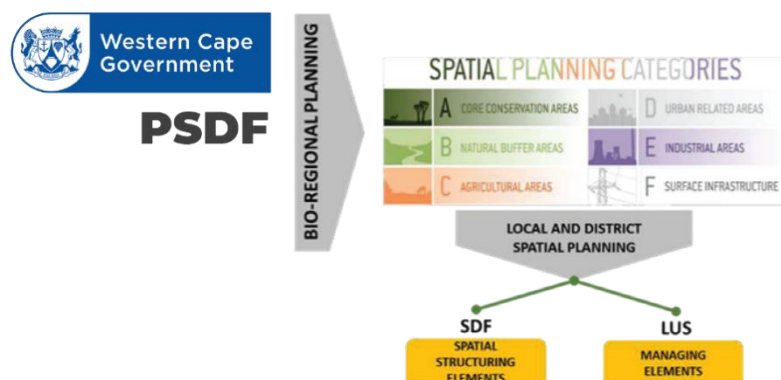


Diagram 1: SPC Integration to SDF

The Spatial Planning Categories provide the basis for managing land uses. The general conditions guiding what activities may occur within each category are generally in accordance with those set out below:

Table 2: SPCs

SPC	TYPE OF DEVELOPMENT
	Core SPCs, comprising formally protected natural areas in Knysna Municipality include Goukamma and Featherbed Nature Reserves. These are critical biodiversity-protected areas, and there are critically endangered or vulnerable ecosystems within the Municipality. The Knysna town area also forms a Core SPC.
	These are areas where there is Endangered Vegetation, commonly called Sensitive Biodiversity Areas. All land within the conservation corridors outside of the formally protected nature areas, see Core 1 above. Landowners should be encouraged to give their land in this category conservation status which may include tourism activities to provide income to manage the land. <i>This includes private land with conservation agreements or areas practising sustainable land management. Including Knysna Forest, Knysna River, Goukamma Nature Reserve, and Garden Route National Park.</i>

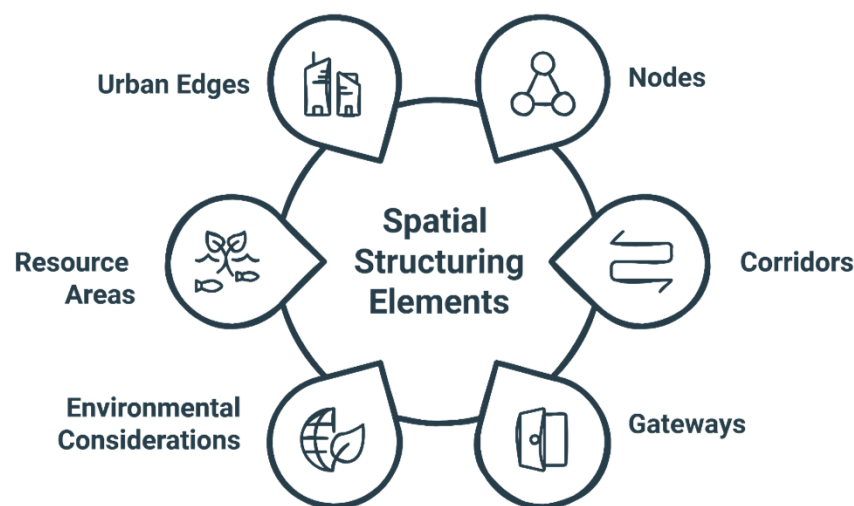
SPC	TYPE OF DEVELOPMENT
 C AGRICULTURAL AREAS	Extensive Agriculture: Areas outside Critical Biodiversity Areas should be managed to enhance biodiversity and veld capacity using rotational grazing. Intensive Agriculture Areas (I.a) Irrigation Farming Areas: Protect highly productive irrigation areas from urban development due to their significant infrastructure investment. Intensive Agricultural Areas (I.b) Dry land Farming Areas: Safeguard these areas as important agricultural resources, including parts of Knysna town, Matjiesfontein (if Transnet land is acquired), and Vleiland commonages, especially fertile soils for high-intensity small-scale farming. <i>Knysna Municipality includes extensive agricultural lands, primarily used for forestry, dairy farming, Vegetable farming, and other forms of agriculture.</i>
	This includes the areas that are or will be used for urban-related activities. All these areas should be included in a defined Urban Edge. <i>Knysna town itself serves as the primary urban center within the Municipality, providing residential, commercial, and administrative services.</i>

SPC	TYPE OF DEVELOPMENT
 E INDUSTRIAL AREAS	Extractive Industry (E.e) These include all mining activities in the Municipality. This also includes quarrying. The promotion of settlements at mines should not be encouraged. The labour force to support mines should be accommodated in the existing urban areas or proposed rural nodes (if found viable). <i>Industrial areas in Knysna are limited but include Timber processing, boat building, etc.</i>
	Wind and solar energy generation (F.i) These include all wind and solar energy generation facilities. These facilities should be promoted to support the supply of electricity in the Municipality and the provision of basic services to those in need. These projects are to be sensitively placed to not negatively impact the surrounding urban, agricultural or natural environment. <i>This includes infrastructure like roads, railways, public buildings (e.g., schools, hospitals), and utilities (e.g., water supply, electricity).</i>

C: SPATIAL STRUCTURING ELEMENTS

Spatial structuring elements are fundamental characteristics of the Knysna area that serve as the cornerstone for developing spatial proposals. These elements are shaped by the region's inherent opportunities and play a pivotal role in guiding the focus of spatial planning initiatives.

This section is derived from the Strategic Framework and Concept Plan, aiming to build on the concept plan and identify spatial structuring elements to facilitate growth. The Following are the identified Spatial Structuring Elements:



The proposals are aligned with the National Spatial Development Framework (NSDF), Provincial Spatial Development Framework (PSDF),

District Spatial Development Framework (DSDF), and other relevant frameworks.

To enhance the objectives of efficiency, sustainability, accessibility, integration, equality, and good governance, the following strategies must be employed in developing policies and processes:

- **Adopting a growth management approach**
- **Understanding Knysna's unique development context**
- **Utilizing a municipality-wide approach to development**
- **Implementing area-based development initiatives and interventions**
- **Identifying marketable opportunities**
- **Providing development guidelines**

Efficient urban planning hinges on strategically allocating resources to areas with significant potential to yield maximum impact. Essential to this approach are structuring elements that provide critical guidance for development and spatial planning within the Knysna Spatial Development Framework. These elements are articulated in detail below.

The Spatial Development Framework for Knysna Municipality is structured around interconnected nodes, networks, and surfaces. At its core is the dynamic flow of people, goods, and services, which acts as the catalyst for establishing functional relationships among otherwise disparate elements. Specific routes delineate a network of interactions, guiding the movement of these essential components. At points where these networks intersect,

activity nodes naturally evolve. These nodes vary in scale and function based on the intensity and nature of interactions they facilitate, thereby forming a hierarchical system of interconnected nodes and networks.

Complementing this one-dimensional network are surfaces that fill the spaces between nodes and networks, weaving together the entire spatial fabric. These surfaces not only serve as connective tissue but also provide areas for integrated development and utilization. By integrating nodes, networks, and surfaces, the framework ensures a cohesive and efficient urban form, fostering sustainable growth and development within the municipality of Knysna.

C1. NODES

Nodes are clusters of diverse land uses, ideally incorporating high-density residential areas alongside public transport and inter-modal transport hubs. In line with national legislation and international standards, nodal development must also support the principle of universal access. This principle emphasizes the intentional design of spaces and facilities to be accessible to everyone, regardless of age, gender, or ability, at all times.

Nodes are typically characterized by mixed-use development, integrating retail, transportation, office spaces, industrial facilities, and residential areas. These hubs facilitate extensive interactions among people and organizations, optimizing transactions and the exchange of goods and services. Strategically located at intersections, nodes serve as catalysts for

new growth and development, maximizing accessibility and functionality.

From an efficiency standpoint, clustering community, social, and business facilities around accessible points are crucial:

- Centralized facilities enhance community cohesion and promote social interactions.
- Shared services among multiple neighbourhoods improve efficiency in resource utilization.
- Concentrated clusters ensure convenient access for residents and visitors alike.
- Key principles for developing and managing nodes include:
- Restricting urban non-residential land uses (business, retail, community facilities) to nodal areas to support their effective development.
- Locating nodes at major access points within urban areas, typically at intersections of major mobility routes.
- Investing significantly in infrastructure, public spaces, and social services within nodes.
- Promoting mixed-use, high-intensity activities, and higher-density residential development without strict limitations on Floor Area Ratios (FARs), coverage, and building height.
- Minimizing large parking lots along streets to encourage pedestrian-friendly environments.
- Placing buildings close to street boundaries to facilitate pedestrian movement and define public spaces.

- Encouraging extroverted development patterns that engage with the surrounding community.
- Designing site layouts and building configurations that support public transport and pedestrian access.

These principles aim to enhance the functionality, accessibility, and sustainability of nodes within municipalities, fostering vibrant and inclusive urban environments.

National Spatial Development Framework Settlement Classification and System of Nodes 2022

The Knysna Spatial Development Framework (SDF) draws upon guidance from the National Spatial Development Framework (NSDF) 2022, the Western Cape Provincial Spatial Development Framework (PSDF) 2014, Garden Route District Spatial Development Framework (DSDF) 2017, and the previous Knysna Municipal Spatial Development Framework (MSDF) 2020 to define and categorize nodal areas within the municipality. These nodes align with the NSDF's System of Nodes, which categorizes settlements based on their strategic roles and development priorities.

The Knysna Municipality hosts a number of settlements (defined to include a residential component), each of which plays its own distinctive role in the regional economy, as summarised in **Table 3** below. These roles help frame the contribution of each settlement to the broader regional development and economic system.

Table 3: Settlement Type and Function/ Role

Settlement Type	Function / Role
Regional (Services) Centre	Main urban centre in terms of location of new housing, jobs, services and facilities with a focus on development and densification. The centre hosts main health, education, cultural facilities as well as government services. As an economic hub it contains industry, services sector and Innovative business environments.
Secondary Regional Service Centre	Urban centres with a special function (often tourism related) as well as a role in terms of servicing the surrounding areas and containing a mix of economic activities and services.
Rural Settlement	A rural or recreational nodal point characterised by community functions, as well as a state of permanence (settled population). Such settlements function as agri-service centres, tourism centres, educational centres, individually or providing a combination thereof.
Coastal Hamlets	Coastal Hamlets are small, low-density rural settlements located along the coastline, typically characterized by limited infrastructure, a close relationship with the natural environment, and a reliance on fishing, tourism, or subsistence livelihoods. They often serve as seasonal

Settlement Type	Function / Role
	or recreational nodes and are sensitive to environmental and climate-related risks.
Rural Hamlet	Small residential clusters without commercial or business uses. Populations range from 30 to 200 people.

Table 4 below presents the classification of towns within Knysna Local Municipality according to various planning frameworks: NSDF (2022), WC PSDF (2014), Garden Route DSDF (2020), the Knysna MSDF (2020) and Spatial Planning Categories (SPC). The Knysna Municipal Spatial Development Framework (SDF) has been harmonized with the settlement classifications outlined in the NSDF.

Table 4: Nodal Classification

Town Name	NSDF (2022)	PSDF (2014)	GRDM (2017)	KMSDF (2020)	SPC Category	Recommended Term
Knysna	Rural Service Centre	Regional Centre	Specialised Centre (Coastal)	Regional Services Centre	Main Town	Regional Services Centre
Sedgefield	Smaller Town	Secondary Settlement	Specialised Centre (Coastal)	Secondary Regional Service Centre	Local Town	Secondary Regional Service Centre
Karatara	Smaller Town		Village	Rural/ Tourism Settlement	Rural Settlement	Rural Settlement
Rheenendal			Village	Rural/ Tourism Settlement	Rural Settlement	Rural Settlement
Buffels Bay			Specialised Centre (Coastal)	Rural (Rural Hamlet/ Coastal Hamlets)	Resorts & Tourism-Related Areas	Coastal Hamlets
Brenton – on - Lake				Rural (Rural Hamlet/ Coastal Hamlets)	Resorts & Tourism-Related Areas	Coastal Hamlets
Brenton-on-Sea				Rural (Rural Hamlet/ Coastal Hamlets)	Resorts & Tourism-Related Areas	Coastal Hamlets
Belvidere				Rural (Rural Hamlet/ Coastal Hamlets)	Resorts & Tourism-Related Areas	Coastal Hamlets
Noetzie				Rural (Rural Hamlet/ Coastal Hamlets)	Resorts & Tourism-Related Areas	Coastal Hamlets
East Brook					Farmsteads	Rural Hamlet
Elandskraal					Farmsteads	Rural Hamlet
Kraaibosch					Farmsteads	Rural Hamlet
Bibby's Hoek					Farmsteads	Rural Hamlet
Gouna					Farmsteads	Rural Hamlet

Town Name	NSDF (2022)	PSDF (2014)	GRDM (2017)	KMSDF (2020)	SPC Category	Recommended Term
Charlesford					Farmsteads	Rural Hamlet
Windhuetel					Farmsteads	Rural Hamlet
Buffelsnek					Farmsteads	Rural Hamlet
Diepwalle					Farmsteads	Rural Hamlet
Brackenhill					Farmsteads	Rural Hamlet
Bergvallei					Farmsteads	Rural Hamlet
Springfield					Farmsteads	Rural Hamlet
Middelert					Farmsteads	Rural Hamlet
Farleigh					Farmsteads	Rural Hamlet
Goudveld					Farmsteads	Rural Hamlet
Vrystaat					Farmsteads	Rural Hamlet
Swaneberg					Farmsteads	Rural Hamlet
Protea Valley					Farmsteads	Rural Hamlet
Brammekraal					Farmsteads	Rural Hamlet
Fairview					Farmsteads	Rural Hamlet
Kruisfontein					Farmsteads	Rural Hamlet
Bergvallei					Farmsteads	Rural Hamlet

Role and function of these settlements should be managed with due respect for their role in the system of settlements in the KM and their local economy, as set out in **Table 5** below. Proper management of function will ensure

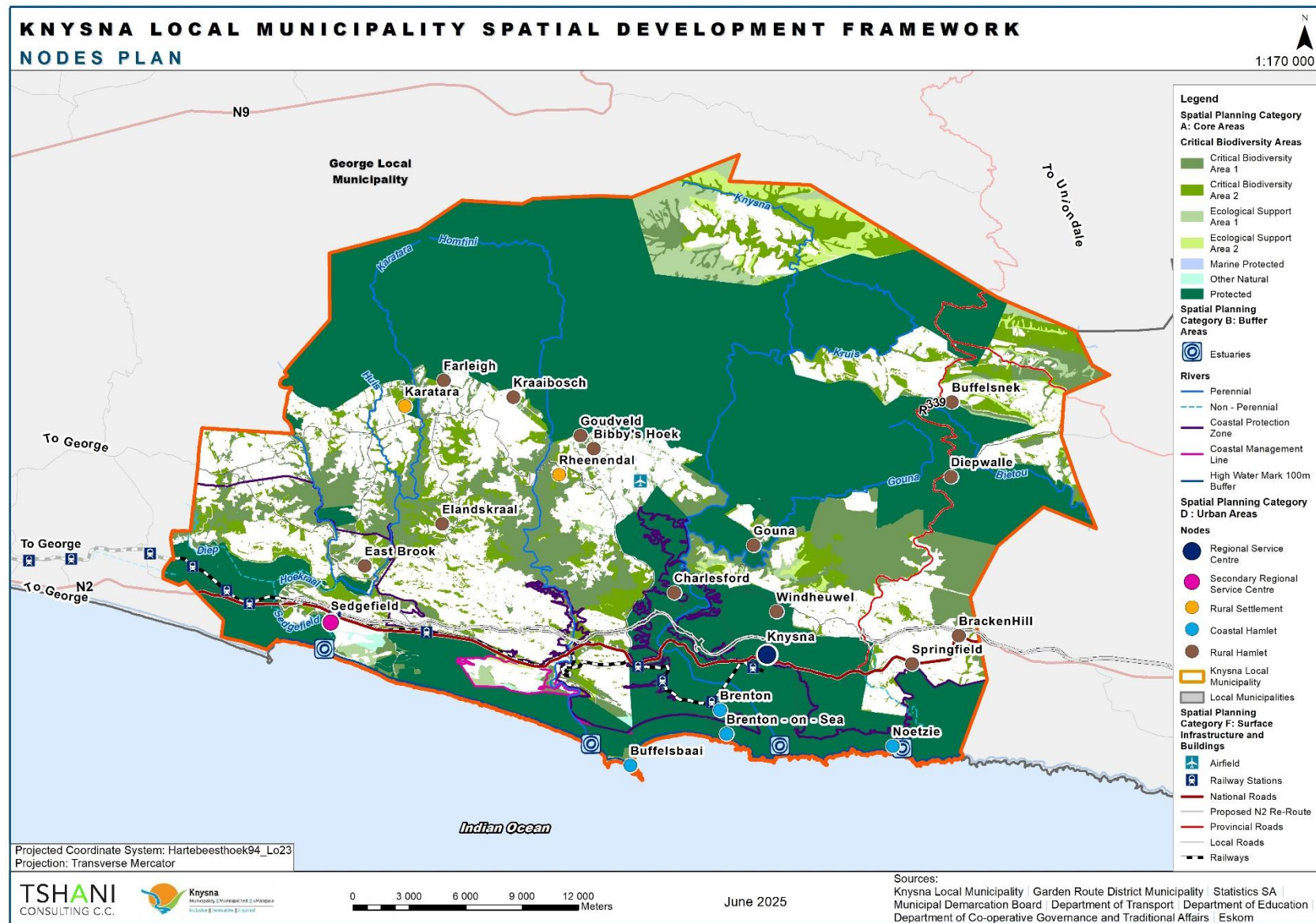
alignment with the settlements' roles and support the sustainable development of both the local and regional economy.

Table 5: Settlement Hierarchy and Appropriate Development

Table 3: Settlement Hierarchy and Appropriate Development		
Settlement	Role and Function	
Regional (Services) Centre: Main urban centres in terms of location of new housing, jobs, services and facilities with a focus on development and densification. The urban centres accommodate main health, education, cultural facilities as well as government services. These economic hubs contain industry, services sector and Innovative business environments.		
Knysna Town (including Northern Areas and Industrial Area)	This MSDF provides extensive direction for appropriate development in Knysna town. Developable land is scarce and must be optimally utilised to meet the demand for housing (across all income groups) and economic development.	
Secondary Regional Services Centre: Urban centres with a special function (often tourism related) as well as a role in terms of servicing the surrounding areas and containing a mix of economic activities and services.		
Sedgefield	General	Development must be in keeping with guidelines as set in the 2014 PSDF study Scenic and Cultural Resources Study and Local Spatial Development / Urban Design Frameworks.
	Private Residential	Within urban edge only and keeping in character with a walkable, compact urban environment
	Subsidised Residential	Informal settlement upgrading should be a priority. Housing development should be limited to responding to existing need with clearly communicated/ explained limits to growth and growth management mechanisms. Under-utilised sites, not limited to public land, should be identified throughout the settlement which could be acquired and formally developed for affordable housing based on a detailed survey of housing need and affordability parameters.
	Services & Facilities	Promote and cluster facilities to support resident and visitor convenience. A suitably located truck stop is needed in Sedgefield.
	Economic Activities	Within the urban edge, focus on activities that support the local tourism and surrounding rural economy.
Coastal Hamlets: Small, low-density rural settlements located along the coastline, typically characterized by limited infrastructure, a close relationship with the natural environment, and a reliance on fishing, tourism, or subsistence livelihoods. They often serve as seasonal or recreational nodes and are sensitive to environmental and climate-related risks.		

Settlement	Role and Function	
Buffels Bay Brenton – on - Lake Brenton-on-Sea Noetzie	General	Development must align with the 2014 PSDF Scenic and Cultural Resources Study and applicable Local Spatial Development or Urban Design Frameworks, maintaining the unique coastal and rural character.
	Private Residential	Development must occur within the defined urban edge and reflect the scale and character of the hamlet, preserving a low-impact, walkable, and compact form.
	Subsidised Residential	Focus on informal settlement upgrading and meeting current housing needs only, with strict growth limits and clear growth management. Identify and prioritise small, under-utilised parcels—public and private—for affordable housing guided by local needs assessments.
	Services & Facilities	Cluster basic services and community facilities to support resident needs, ensure accessibility, and align with the hamlet's scale and environmental sensitivity.
	Economic Activities	Encourage small-scale, locally appropriate economic activities—such as tourism, artisanal production, and subsistence livelihoods—within the urban edge, enhancing the coastal economy while preserving the settlement's character.
Rural/Tourism Settlement: <i>Permanent residential settlement, meeting the local convenience needs with basic social facilities for the surrounding rural communities</i>		
Rheenendal Karatara	General	There are severe bulk services constraints in these settlements. Development should be located where there are existing services that can be upgraded. Municipal reticulation networks or infrastructure extensions to accommodate existing need within the urban edge only. Development must be in keeping with guidelines as set in the 2013 PSDF study Scenic and Cultural Resources Study. Addressing basic needs, development of social facilities, economic opportunities for the local community and local conveniences is supported and should be prioritised above extensive housing development projects.
	Private Residential	Limited development permitted under condition that it creates long-term economic activities and promotes a walkable, compact urban environment.

Settlement	Role and Function	
	Subsidised Residential	Informal settlement upgrading should be a priority. Residential development should be limited to meeting existing demand.
	Economic Activities	Attracting economic investment that creates job opportunities for existing residents should be the focus of public sector attention in these villages. Potential for tourism attractions linked to agricultural activity and surrounding natural landscape should be explored. Agri-processing and cottage industries should be supported. Suitable remaining land within the urban edge should be prioritised for these uses. Sustainable leveraging of biodiversity for economic development is strongly supported.
<i>Rural (Rural Hamlet and Coastal Hamlets): Small remote clusters without commercial or business uses embedded in forestry or agricultural areas or on the coastline</i>		
Rural Hamlet: (East Brook; Elandsdraal; Kraaibosch; Bibby's Hoek; Gouna; Charlesford; Windhewel; Buffelsnek; Diepwalle; Brackenhill; Bergvallei; Springfield; Middelerf; Farleigh; Goudveld; Vrystaat; Swaneberg; Protea Valley; Brammekraal; Fairview)	General	No extension of municipal reticulation networks or infrastructure. There are severe bulk services constraints in these settlements. Development must be within the carrying capacity of this infrastructure or sustainability off-grid and should not place a risk or not increase the risks of infrastructure failure and/or the burden/ impact of this on natural ecosystem services and local economies. Development must be in keeping with guidelines as set in the 2013 PSDF study Scenic and Cultural Resources Study Infill development within the existing footprint should be of public benefit and linked to economic activity in the area (for example, local agriculture, biodiversity, recreational activity).
	Private Residential	No new residential development permitted outside of existing land use rights provided that these are permitted in terms of all relevant legislation.
	Subsidised Residential	Only farmworkers employed in the area or existing residents with tenure who are qualifying beneficiaries
	Services and Facilities	Promote connectivity and provision of remote or mobile services as well as self-sustainable facilities.
	Economic Activities	If it supports/diversifies agriculture, supports tourism or broadens the value chain creating linked employment opportunities.



Plan 1: Nodes

C2. CORRIDORS

A **"corridor"** is a linear geographic area or strip of land that serves as a channel for movement, connectivity, and development. Corridors are often designed to link different parts of a city, region, or country, supporting transportation, infrastructure, economic activities, and environmental functions.

C2.1 ALIGNMENT OF CORRIDORS TO THE NSDF, PSDF, DSDF AND PREVIOUS MSDF

The alignment of corridors within the Knysna Spatial Development Framework (SDF) has been carefully structured to maintain consistency with higher-level planning frameworks, including the National Spatial Development Framework (NSDF), Western Cape Provincial Spatial Development Framework (PSDF), Garden Route District Spatial Development Framework (DSDF), and the previous Knysna Municipal SDF (MSDF).

Each of these frameworks plays a crucial role in defining strategic corridors that support regional connectivity, economic development, and sustainable growth. By aligning with these frameworks, the Knysna SDF ensures that the classification and role of its corridors are consistent and integrated at the national, provincial, and district levels. This alignment strengthens the municipality's ability to implement coherent development strategies that address both local priorities and broader regional objectives.

Knysna Municipal SDF has adopted the corridor Classification established by the previous MSDF.

C2.2 CORRIDORS WITHIN KNYSNA

According to Table 6: Corridor Classification, the N2 is designated as a "National Road," while the R339 and R340 are classified as "Main Road" These classifications are visually represented in Plan 2. The identified corridors within Knysna Local Municipality have the following characteristics:

N2 NATIONAL COASTAL CORRIDOR – CAPE TOWN TO ERMELO

The N2 Highway in South Africa is one of the country's major national roads, stretching along the southeastern coastline. It runs from Cape Town in the Western Cape to Ermelo in Mpumalanga, covering approximately 2,255 kilometers. The N2 is notable for passing through several key cities, towns, and scenic regions.

Significance:

- **Economic Importance:** The N2 serves as a major trade route, facilitating the movement of goods and people along the coastal regions, particularly between Cape Town, Durban, and the eastern seaboard.
- **Tourism:** It is known for scenic routes like the Garden Route, one of the most famous tourist destinations in South Africa.
- **Regional Connectivity:** The N2 connects major economic hubs, ports, and rural areas, making it essential for both local and long-distance travel.

R339 AND R340 – ENHANCING AGRICULTURAL AND TOURISM LINKS

These are corridors that strengthen the connections between the agriculture and tourism sectors. They facilitate the movement of agricultural products and provide access for tourists to explore the region's agricultural attractions.

These corridors play essential roles in supporting Knysna Municipality's economic and tourism activities, ensuring effective local travel and connectivity.

R340, GOUNA ROAD, OLD CAPE ROAD, GRAY STREET, PHANTOM PASS, RHEENENDAL ROAD, BARRINGTON ROAD, KARATARA ROAD, HOOGEKRAAL ROAD, SEVEN PASSES ROAD

Table 6: Corridors Classification

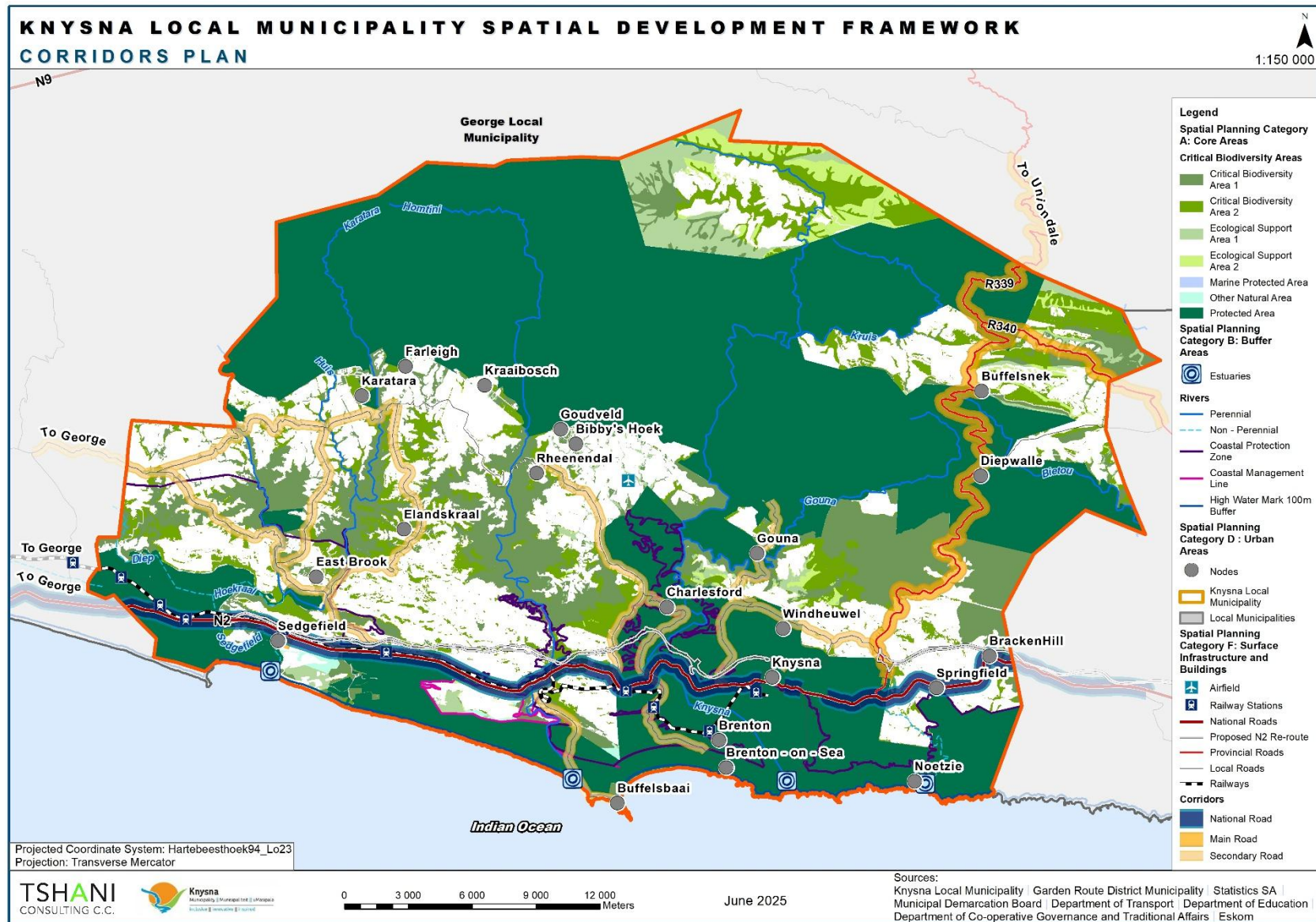
Corridor Name	NSDF (2022)	PSDF (2014)	DSDf (2017)	KMSDF (2020)	Recommended Term
N2	Key Regional Road	National Road	Existing National East West Routes	National Road	National Road
R339			Upgrade Inland to Coastal Routes	Main Road	Main Road
R340				Secondary Road	Secondary Road
Gouna Road				Secondary Road	Secondary Road
Old Cape Road				Secondary Road	Secondary Road
Gray Street				Secondary Road	Secondary Road
Phantom Pass				Secondary Road	Secondary Road
Rheenendal Road				Secondary Road	Secondary Road
Barrington Road				Secondary Road	Secondary Road
Karatara Road				Secondary Road	Secondary Road
Hoogekraal Road				Secondary Road	Secondary Road
Seven Passes Road				Secondary Road	Secondary Road

Recommended Term: Secondary Roads

These roads collectively provide critical local and regional connectivity, serving as complementary links to the primary corridors. Their roles include:

- Supporting access to residential, agricultural, and rural areas.
- Enhancing mobility within towns and peri-urban areas.
- Facilitating tourism by providing scenic or alternative routes, especially in the case of Phantom Pass and Seven Passes Road.

This classification underlines the importance of these corridors in sustaining local economies, improving accessibility, and promoting regional integration.



C3. GATEWAYS

Gateways refer to key entry or access points that serve as significant connections between different geographic areas, regions, or transportation networks. These points can be physical locations such as cities, towns, transport hubs, or infrastructure elements (like highways, ports, or airports), through which people, goods, and services move. Gateways often act as strategic nodes that facilitate trade, economic activities, and the flow of resources.

PRIMARY GATEWAYS:

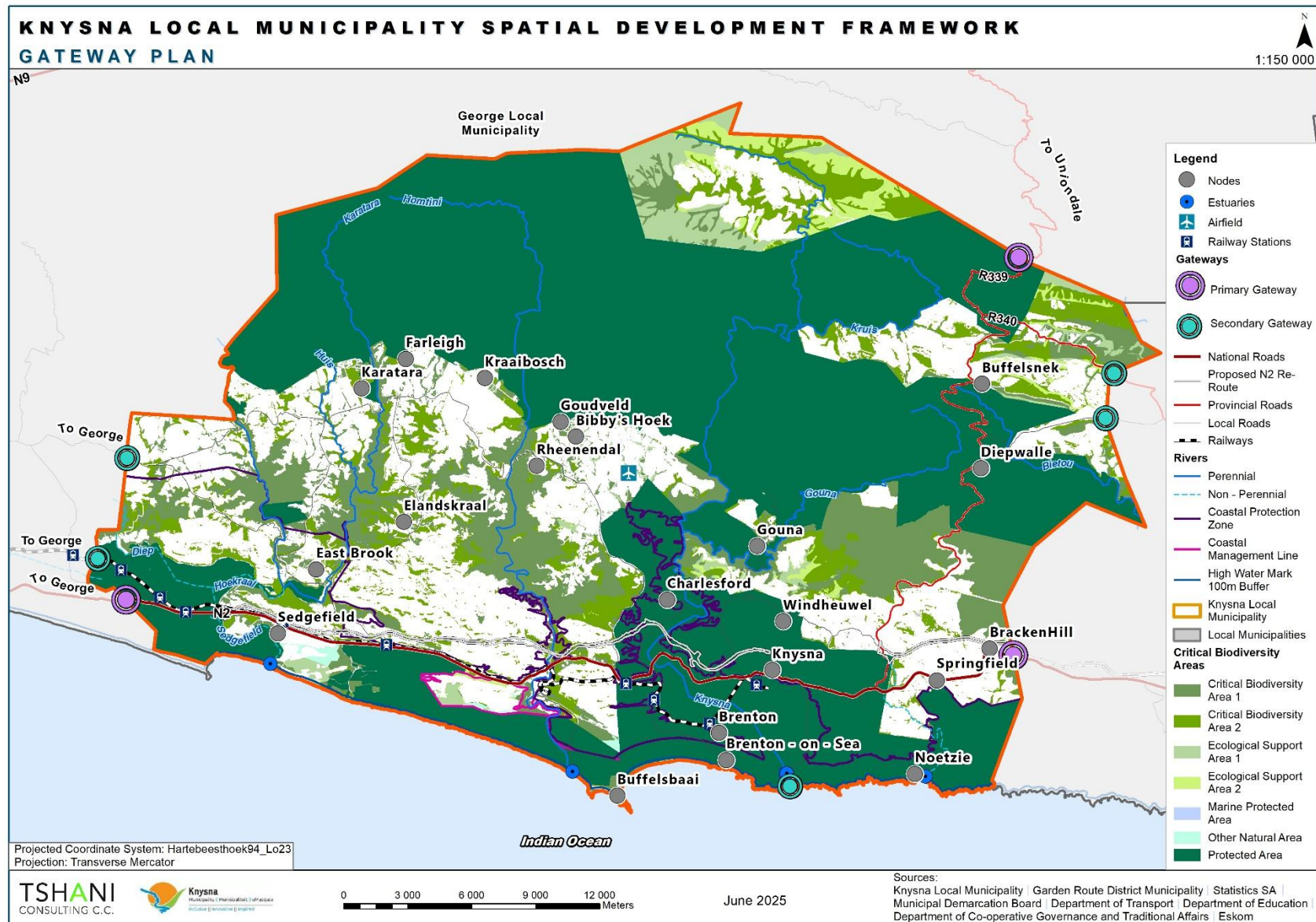
1. **Western Gateway - Entrance from the N2 Highway (Cape Town Direction):** The Western Gateway serves as a primary access point to Knysna from the direction of Cape Town via the N2 Highway. This gateway is a crucial entry for visitors and goods entering the municipality from the Western Cape, linking Knysna to major urban centers like George and Cape Town. Its strategic location makes it a vital conduit for tourism, trade, and regional connectivity, providing first impressions of the area and contributing to the economic flow into Knysna. Enhancing this gateway with well-planned infrastructure and signage can significantly improve accessibility and the visitor experience, while ensuring the smooth movement of vehicles along this busy route.
2. **Eastern Gateway - Entrance from the N2 Highway (Eastern Cape Direction):** The Eastern Gateway marks the entry into Knysna from the Eastern Cape via the N2 Highway, providing a critical link to cities such as Plettenberg Bay and Gqeberha. As a significant point of access for travelers and commerce from the eastern regions, this gateway plays a key role in facilitating economic integration and movement between the Western and Eastern Cape provinces. Its importance in regional logistics and tourism underlines the need for careful management of transport infrastructure and land use to ensure that this entry point remains efficient and welcoming for visitors and goods alike.
3. **Uniondale Gateway - Entrance from the R339 (to Uniondale):** The Uniondale Gateway, accessed via the R339, provides an entry point into Knysna from the inland town of Uniondale and surrounding rural areas. This route passes through the Garden Route National Park (GRNP), which has important environmental and conservation implications for any proposed upgrades. While less traveled than the N2, the R339 is significant for local agriculture, forestry, and rural tourism. It connects the hinterlands to Knysna's coastal economy, serving as a key corridor for local produce and residents. Its rustic charm and scenic value offer potential for eco-tourism and rural development initiatives. Any upgrading plans must carefully consider the GRNP's protected status to ensure sustainable development that respects the park's ecological sensitivity.

SECONDARY GATEWAYS:

1. **Secondary Gateway – Knysna George Railway (to George):** The Knysna George Railway serves as a historic secondary gateway, connecting Knysna to George via a scenic rail route. Though not currently in operation, this railway once played a vital role in transporting passengers and goods between these two key Garden Route towns. The railway has the potential to be revitalized as a heritage or tourism corridor, offering unique experiences that highlight the natural beauty and cultural significance of the area. Reintroducing or repurposing this secondary gateway could boost tourism, enhance regional connectivity, and preserve an important part of Knysna's heritage while providing an alternative mode of transport to George.
2. **Secondary Gateway - Entrance from the Sevm Passes Road (To George):** The entrance from the Seven Passes Road provides a secondary, more rural route between Knysna and George. This historic road, winding through lush forests and traversing several passes, offers a slower-paced but picturesque alternative to the N2 Highway. The Seven Passes Road is an essential gateway for those seeking a scenic

and more leisurely route between these two towns, appealing to tourists and locals alike. Its importance lies in its function as both a transport link and a cultural asset, offering access to lesser-known areas of natural beauty. Maintaining and promoting this route as a secondary gateway can enhance eco-tourism and provide economic opportunities for the rural communities along its path.

3. **Secondary Gateway - Entrance from the R340 (To Plettenberg Bay):** The entrance from the R340 offers a secondary gateway between Knysna and Plettenberg Bay, providing an alternative route to the more commonly used N2 Highway. This road links the rural hinterlands to the coastal areas, playing a key role in supporting local agriculture and providing a scenic route for travelers. As a secondary gateway, it facilitates access to Plettenberg Bay while also opening up potential for rural tourism, agri-tourism, and eco-tourism in the surrounding areas. The R340 serves as a critical connection for smaller communities and businesses, ensuring regional mobility and contributing to the economic fabric of the greater Knysna area.



Plan 3: Gateways

C4. ENVIROMENTAL CONSIDERATIONS

Environmental considerations refer to the assessment and integration of ecological, climatic, and geographical factors into planning and decision-making processes. These considerations encompass a range of elements, including the impact of human activities on natural resources, ecosystems, and biodiversity. In the context of spatial development frameworks, environmental considerations aim to identify, analyze, and address the potential risks and benefits associated with land use, infrastructure development, and resource management. This approach seeks to promote sustainable practices that protect the environment, enhance resilience to climate change, and ensure the well-being of communities. By incorporating environmental considerations, municipalities can create balanced development strategies that align economic growth with ecological integrity and social equity.

As a municipality characterized by its diverse ecosystems and unique geographical features, Knysna faces a range of environmental challenges that must be addressed within its spatial development framework. The region's delicate balance between urban growth, ecological preservation, and community well-being necessitates a comprehensive approach to environmental planning. This section explores key environmental considerations, including fire hazard management, water resource planning, flood risk preparedness, coastal management, heat wave adaptation, critical biodiversity areas (CBAs), ecological restoration, and sustainable land use

practices. By integrating these considerations into planning processes, Knysna can foster resilience against climate change impacts while promoting sustainable development and enhancing the quality of life for its residents.

C4.1 FIRE HAZARD MANAGEMENT

Fire risk management is a foundational component of climate resilience, spatial planning, and long-term municipal sustainability. The devastating Knysna fires of 2017 demonstrated the ecological, social, and economic costs of unmanaged fire risk. As such, this MSDF recognises fire hazard management not only as a land use and environmental concern, but as a critical cross-cutting issue that affects infrastructure planning, biodiversity protection, water security, and the long-term viability of settlement development.

HIGH-RISK AREAS

Given that Sedgefield, Karatara, and Brenton-on-Sea exhibit a higher risk for wildfires due to their vegetation and climatic conditions, it is crucial to implement targeted fire hazard management strategies in these areas. Establishing firebreaks and implementing controlled burns can reduce fuel loads and limit the spread of wildfires. Collaborating with local fire departments to conduct regular training and simulations can bolster community readiness. Knysna Municipality can also draw on international models such as California's "Firewise Communities" and Australia's "Fire Adapted Communities," which emphasize community-wide fire risk reduction through defensible space, indigenous fire-resilient landscaping,

and local community training programs. These fire mitigation strategies are not standalone but are integrated with spatial development priorities, water catchment protection, and ecological corridor planning.

POST-FIRE RECOVERY

The aftermath of significant fire events, such as the Knysna Fires of 2017, requires comprehensive recovery plans prioritizing erosion control and soil stabilization to prevent degradation. Ongoing alien vegetation management is also critical to reduce fire risk and support ecosystem recovery. While re-wilding may be appropriate for natural areas, much of the affected land comprises commercial forestry, where recovery will focus on sustainable forest management. Careful species selection and appropriate planting locations are essential to avoid increasing future fuel loads and fire danger. Community engagement remains important, with initiatives like volunteer planting and citizen science monitoring supporting restoration. Utilizing local seed banks will also aid the recovery of indigenous flora in a sustainable manner.

SUSTAINABLE BIOMASS USE

Invasive Alien Plant Species (IAPs), while contributing to fire risk, also present an opportunity as a biomass feedstock for renewable energy. Exploring IAP-based fuel production aligns with national policy frameworks (e.g., the Biofuels Regulatory Framework, 2020) and supports both ecological restoration and local economic development in fire-prone areas such as Knysna.

INTEGRATED FIRE BREAKS AND ECOLOGICAL CORRIDORS

Historical fire management plans for Knysna Municipality (including earlier ecological corridor designs and fire break strategies developed in the early 2000s) are being reviewed and integrated into the updated spatial framework. These corridors not only serve to limit fire spread but also enhance biodiversity connectivity. Spatial alignment with CBA and ESA data further supports defensible spaces and ecological buffers around urban edges.

C4.2 RAINFALL PATTERNS AND WATER MANAGEMENT

WATER RESOURCE PLANNING

The substantial variability in annual rainfall (ranging from 800 mm to 2000 mm) presents unique challenges for water resource management within Knysna. In low-rainfall areas, the implementation of robust water conservation practices is essential. These may include rainwater harvesting systems, greywater recycling, and the promotion of drought-resistant landscaping. In contrast, areas experiencing high rainfall necessitate the development of advanced stormwater management systems, including retention ponds, swales, permeable surfaces, and Sustainable Urban Drainage Systems (SUDS) to manage surface runoff effectively. Best practices from international programs, such as Singapore's "Active, Beautiful, Clean Waters," which integrates urban streams as public spaces alongside stormwater gardens and rainwater harvesting at all scales, have been considered to inform local water-sensitive urban design.

DROUGHT PREPAREDNESS

With the risk of prolonged dry periods, especially in low-rainfall regions, it is vital to create drought preparedness plans that include contingency measures for agriculture and urban water supply. Establishing community gardens and promoting xeriscaping can enhance local resilience while conserving water resources.

C4.3 FLOOD HAZARD PREPAREDNESS

LOW AND MEDIUM-RISK AREAS

Flood risks in the northern regions of Knysna require proactive mitigation strategies to safeguard communities and infrastructure. This can involve constructing levees, flood walls, and enhancing natural buffers such as wetlands that absorb excess water. Additionally, integrating flood risk assessments into land-use planning can help direct development away from vulnerable zones.

EROSION CONTROL

Erosion control measures, such as planting native vegetation along riverbanks and implementing bioengineering techniques, can protect both natural and built environments from the damaging effects of floods. Collaborating with local farmers to implement sustainable agricultural practices that reduce soil erosion can further enhance the resilience of surrounding ecosystems.

C4.4 COASTAL MANAGEMENT STRATEGIES

HIGH-RISK COASTAL AREAS

Given that all coastal and estuarine settlements in Knysna are vulnerable to flooding, resilience measures must be prioritized municipality-wide, not only

in Buffels Bay. These strategies include elevating critical infrastructure, establishing natural coastal buffers, and enhancing early warning systems to protect settlements and key assets from coastal flood risks.

HABITAT PROTECTION

Protecting coastal ecosystems—such as wetlands, estuaries, and dune systems—is vital for maintaining biodiversity, mitigating coastal erosion, and ensuring essential ecosystem services. Coastal dunes, in particular, play a crucial role in buffering storm surges and providing habitat for unique flora and fauna. Conservation programmes should prioritise the restoration and protection of these ecosystems, with special attention to dune rehabilitation and sustainable dune management practices. Engaging local communities, such as through the Dunes & People (D&P) project, in monitoring, restoration, and education efforts can strengthen ecological resilience, promote stewardship, and integrate local knowledge into long-term coastal management.

C4.5 HEAT WAVE ADAPTATION

COMMUNITY HEALTH MEASURES

Heat waves pose a significant health risk, particularly to vulnerable populations, making it crucial to address these impacts through public health initiatives. Establishing community cooling centers, enhancing public transportation access to these facilities, and implementing shaded public spaces can provide relief during extreme heat events. Furthermore, public awareness campaigns focusing on the dangers of heat stress and how to mitigate risks can empower residents to take precautionary measures.

URBAN PLANNING CONSIDERATIONS

Urban areas in the northern parts of Knysna, which experience more intense heat wave events, require thoughtful urban planning that incorporates green infrastructure. Drawing on successful examples such as Melbourne's "Urban Forest Strategy," which doubled canopy cover and reduced temperatures by up to 4°C, the MSDF encourages mandatory tree planting in all new developments, protection of existing trees, and the creation of pocket parks in every neighbourhood. Additionally, the use of green roofs, cool roofs, and vegetated pergolas in public spaces is promoted to further mitigate urban heat effects and enhance residents' quality of life.

C4.6 CRITICAL BIODIVERSITY AREAS (CBAS)

Critical Biodiversity Areas in Knysna are vital for preserving biodiversity and maintaining ecological balance. However, the spread of invasive alien vegetation in CBA 1 & 2 poses a significant threat, potentially displacing indigenous plant species and disrupting the local ecosystem. To mitigate this, control measures such as targeted eradication programs, reforestation with native species, and continuous monitoring should be implemented. Zoning regulations that restrict development in these areas and encourage sustainable land-use practices aligned with biodiversity objectives are essential for habitat preservation.

COMMUNITY INVOLVEMENT

Active community participation is crucial in the management of CBAs. Engaging local residents in initiatives like alien vegetation control, reforestation projects, and regular monitoring can strengthen environmental

stewardship. However, meaningful involvement is closely linked to improved living conditions and access to education and social infrastructure. Strengthening education systems, addressing basic service delivery, and enhancing community wellbeing are vital to empower residents to take part in conservation. Educating the community about the importance of CBAs, their role in preserving biodiversity, and involving them in hands-on conservation activities can help foster a deeper sense of responsibility and commitment to protecting the environment.

C4.7 ECOLOGICAL RESTORATION

POST-FIRE ECOSYSTEM RECOVERY

In the wake of fire disasters, implementing ecological restoration projects is critical for revitalizing affected natural and conservation areas. Strategies should focus on reintroducing native species, restoring natural habitats, and monitoring ecosystem health in these zones. In commercial forestry areas, restoration will follow established plantation re-establishment and forestry management plans. Collaborating with local universities and conservation organizations can provide valuable expertise and resources for these efforts.

WATER QUALITY MANAGEMENT

Effective water quality management practices are necessary to protect the health of aquatic ecosystems in Knysna. Implementing regular water quality monitoring programs, promoting pollution prevention initiatives, and educating the public about the impacts of runoff and waste can significantly improve the ecological health of local rivers and estuaries.

C4.8 LAND USE AND ZONING REGULATIONS

SUSTAINABLE DEVELOPMENT PRACTICES

Integrating sustainability principles into land-use planning is essential for the long-term resilience of Knysna. This includes developing zoning regulations that prioritize conservation in high-risk fire and flood areas while promoting sustainable agricultural practices in rural regions. Implementing strict guidelines for development near sensitive ecosystems can help safeguard biodiversity and preserve natural resources.

ZONING FOR CLIMATE RESILIENCE

Adapting zoning regulations to account for climate change projections is vital for future-proofing development. This may include limiting development in

flood-prone areas, promoting higher-density infill development in urban centers to reduce sprawl, and implementing incentives for green building practices.

Integrating these environmental considerations into the planning framework for Knysna Municipality will not only enhance the resilience of the community but also foster sustainable development that aligns with ecological principles. By prioritizing proactive measures in fire management, water resource planning, flood risk mitigation, and community engagement, Knysna can effectively navigate the challenges posed by climate change and environmental degradation while ensuring a thriving future for its residents.

C5. RESOURCE AREAS

Resource Areas refer to land within Knysna Municipality that holds significant value due to cultural, historical, economic, ecological, or recreational importance. These areas are actively preserved and managed to maintain their unique characteristics and functions, benefiting both residents and the broader region. Identification of resource areas is based on their contribution to the municipality's natural heritage, socio-economic value, and their role in preserving Knysna's distinct sense of place and visual identity.

Knysna Municipality is endowed with a diverse array of resource areas that play critical roles in local planning strategies, ecological resilience, and sustainable development. The following categories are central to the municipality's approach:

1. **Forestry:** The forests within the Knysna area are significant both ecologically and economically. It is important to distinguish between commercial timber plantations and indigenous forests, as each serves different roles and requires tailored management approaches. Commercial timber plantations primarily support timber production and economic activity, while indigenous forests are critical for biodiversity conservation, carbon sequestration, and cultural and recreational values. The municipality supports the implementation of Forest Stewardship Council (FSC)-certified sustainable forestry practices for commercial plantations. Additionally, there is potential to develop value-added wood product manufacturing and to enhance the use of indigenous forests and plantations as educational and recreational spaces—such as forest schools, canopy walkways, and wellness tourism initiatives inspired by Shinrin-yoku and global examples like Vancouver's Stanley Park. Consistent naming conventions distinguishing these forest types will be applied throughout all maps and text.
2. **Agriculture:** Agricultural areas contribute to local food security, economic resilience, and landscape preservation. The municipality encourages sustainable practices and is exploring innovative models such as **"Agrihoods"**—mixed-use developments that integrate small-scale sustainable farming with residential environments, promoting food resilience and healthy living. **Long-Term Farmer Production Support Units (FPSUs)** are in place to aid productivity and environmental stewardship.
3. **Nature Reserves:** Knysna's nature reserves protect rare and endemic biodiversity while offering opportunities for education and recreation. To deepen community engagement, the municipality supports the development of **interpretive trails, citizen science programs**, and research partnerships with academic and conservation institutions. These efforts aim to promote stewardship and awareness, taking inspiration from models like the **Eden Project in the UK**.
4. **Estuaries:** Estuarine systems are sensitive ecological zones essential to marine biodiversity, serving as nurseries and supporting various bird

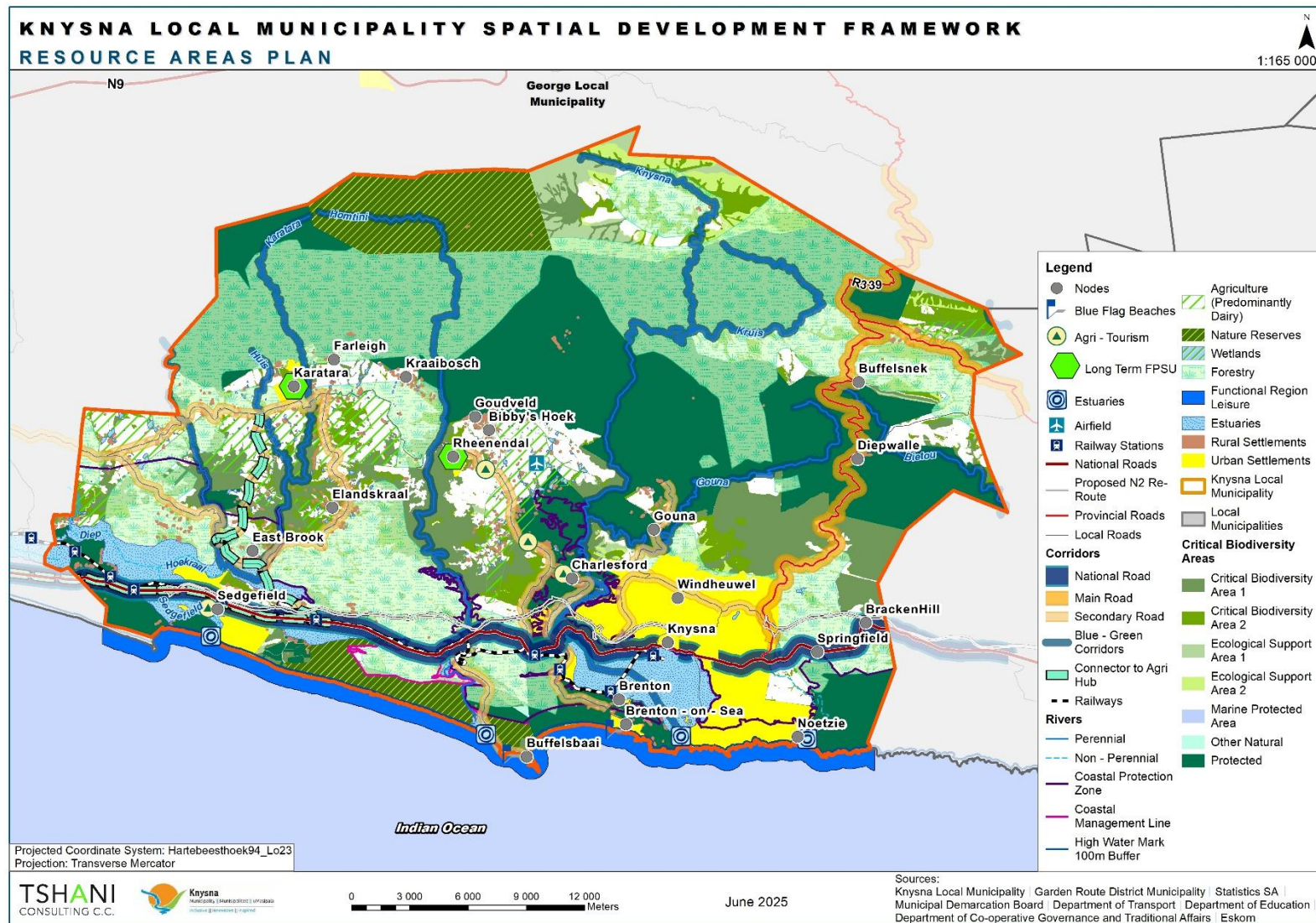
species. These areas face ongoing threats from pollution and development pressure. Their protection involves **careful spatial planning**, regular monitoring, and **community-based conservation** programs to safeguard long-term ecological integrity.

5. **Functional Region of Leisure along the Coastline:** Knysna's coastline supports a broad range of leisure and tourism activities that underpin the local economy. Enhancements to this functional leisure zone may include **investment in boardwalk infrastructure, clear wayfinding systems, universal access ramps**, and **dune rehabilitation**, drawing on examples like **Bondi Beach in Sydney** to balance environmental sustainability with world-class user experience.
6. **Blue Flag Beaches:** Recognised for high standards in environmental management, water quality, and safety, Blue Flag beaches are vital assets for tourism and community wellbeing. Their status reflects not only environmental quality but also effective stewardship and infrastructure investment.
7. **Long-Term Farmer Production Support Units (FPSUs):** FPSUs are strategic agricultural zones supported through provincial programmes to enhance productivity, value chains, and environmental compliance. They serve as hubs for coordinated support to emerging and existing farmers in both commercial and subsistence sectors.
8. **Blue-Green Corridors along Rivers:** Blue-green corridors integrate biodiversity, stormwater management, and recreational value. These

“nature highways” link ecological zones and urban areas, supporting species movement, climate resilience, and community access to green infrastructure.

9. **Environmentally Protected Areas:** These zones are designated to restrict development and conserve priority ecosystems, endangered species, and critical biodiversity. Their protection is fundamental to the municipality's climate adaptation and conservation strategies.
10. **Heritage and Recreation:** Knysna Municipality will actively coordinate with relevant departments to manage heritage resources effectively, ensuring that the historical and ecological significance of the Swartvlei/Sandpiper area guides sustainable management goals. The MSDF recognizes Sedgefield's critical shortage of accessible recreational spaces and the urgent need to preserve the last remaining east-west dune corridor—a valuable ecological and cultural asset currently under threat from development. Protecting this corridor is a priority to maintain biodiversity, cultural heritage, and community wellbeing.

Knysna's resource areas are interconnected ecological and socio-economic systems. Their protection and sustainable use are vital for supporting the municipality's long-term development vision. By integrating best practices, innovative models, and strong community stewardship, these areas will continue to contribute to resilience, sustainability, and inclusive growth.



Plan 4: Resource Areas

C6. URBAN EDGES

An **urban edge** is a clearly defined boundary **separating urban areas from surrounding rural or non-urban regions**.

In the Knysna Municipality, urban edges manage the growth of towns such as Knysna, Sedgelyield, Brenton-on-Sea, Buffels Bay, Karatara, and Rheenendal. These boundaries ensure efficient land use, balance community needs with environmental and economic objectives, and guide infrastructure investment, while preserving sensitive natural landscapes that support biodiversity and the tourism economy.

The delineation of Urban Edge expansion areas has raised valid concerns regarding the extent, location, and consultation process involved. A precautionary approach will be taken to proposed expansion areas that are located in marginal, low-lying, flood-prone regions, adjacent to estuaries and sensitive ecological zones, including areas within the **Coastal Management Line (CML)**, **Coastal Protection Zone (CPZ)**, **Estuarine Functional Zone (EFZ)**, **Knysna Protected Environment (KPE) Designated Control Area (DCA)**, **below the High Water Mark (HWM)**, and areas containing **Critically Endangered (CE)** and **Endangered (E)** vegetation types such as **Knysna Sand Fynbos** and **Garden Route Shale Fynbos**.

KEY FUNCTIONS OF THE URBAN EDGE

Sustainable Densification:

- Encourages compact urban development to maximize existing infrastructure.

- Supports higher urban densities to reduce land consumption and enhance public transport.
- Promotes mixed-use development to improve accessibility and walkability.

Development Control:

- Controls the outward spread of urban areas to prevent inefficient land use.
- Prevents leap-frog development by ensuring sequential urban expansion.
- Preserves the character of rural settlements by maintaining clear growth boundaries.

Protecting Natural and Agricultural Lands:

- Safeguards high-value agricultural land from encroachment.
- Protects biodiversity and ecological networks by restricting development in sensitive areas.
- Supports sustainable land management by maintaining a balance between urban growth and environmental conservation.

Guides Infrastructure Investment:

- Directs development toward areas with existing services to reduce costs.
- Prevents overburdening municipal resources by ensuring planned, phased expansion.
- Enhances service delivery efficiency by concentrating development within defined growth areas.

DEVELOPMENT GUIDELINES WITHIN THE URBAN EDGE

- All development must follow a **sequential growth pattern** to prevent leap-frogging and infrastructure inefficiencies.
- Urban expansion must align with environmental protection, particularly in wetlands such as those in Buffels Bay.
- Areas located within or adjacent to the CML, CPZ, EFZ, HWM, and KPE DCA must undergo enhanced scrutiny.
- Development should be avoided in saltmarsh areas and regions with critically endangered vegetation types.
- Flood-prone areas and steep slopes must be excluded from development unless justified through risk mitigation and environmental clearance.
- Waste management strategies must prioritize recycling and landfill reduction to support sustainability goals.
- Residential and commercial development should avoid flood-prone areas to mitigate environmental risks.

URBAN GROWTH MANAGEMENT STRATEGIES:

1. **Compact City Approach:** Increasing density in central urban areas, such as Knysna Town, to optimize land use and reduce sprawl.
2. **Environmental Sensitivity:** Ensuring rigorous environmental impact assessments (EIAs) for all new developments, particularly in coastal and rural zones.

3. **Growth Boundary Sizing:** Expanding urban edges based on projected housing and infrastructure needs while maintaining agricultural land protection.
4. **Agricultural Protection:** Creating transition zones in areas like Karatara to balance urban growth and agricultural productivity.

GUIDELINES FOR GROWTH BOUNDARY SIZING

The municipality needs to anticipate future growth patterns, particularly in Knysna and Sedgefield, to avoid reactive development strategies that could overwhelm municipal resources and infrastructure. As such, growth boundaries should be carefully sized based on:

- **Projections of housing and infrastructure needs**
- **Densification strategies** that reduce the need for outward expansion
- **Protection of agricultural land** from encroachment

Agricultural Protection is a priority in boundary delineation. The proposed expansion of the urban edge in areas like Karatara, which includes agricultural land, aims to balance the need for urban growth with the support of the agricultural sector. This expansion would convert agricultural land into a **Transition Zone**, facilitating urban expansion while maintaining support for the agricultural economy.

However, the rural character of areas like Karatara demands careful consideration of the ecological and economic impacts, ensuring that high-value agricultural land is protected while fostering sustainable urban expansion. This balance between **densification** and **agricultural protection** will ensure that growth is both efficient and environmentally responsible.

HUMAN SETTLEMENT OBJECTIVES

To ensure sustainable human settlements, the following objectives are set:

- **Proximity to Employment:** Ensuring that residential areas are located near key employment hubs will reduce commuting times, lower transportation costs, and improve overall quality of life.
- **Public Transport Systems:** The development of reliable, affordable public transport systems is crucial to promoting inclusivity, reducing private vehicle use, and improving access to services.
- **Densification:** Promoting increased urban density will enable more efficient resource use and support vibrant, connected communities.

Integrated planning will connect residential areas with key employment and service centers, fostering cohesive urban environments that support sustainable growth and better resource management.

ENVIRONMENTAL AND DEVELOPMENT PROTOCOLS

Inside the urban edges, all new developments must undergo an **Environmental Impact Assessment (EIA)**. This ensures compliance with environmental regulations and mitigates adverse effects on local ecosystems.

BIODIVERSITY PROTOCOLS

Expanding the urban edge, particularly into biodiversity hotspots, requires careful scrutiny to prevent long-term ecological damage. The municipality will work closely with stakeholders, including conservationists and environmental experts, to ensure that any urban edge expansion is balanced with the protection of biodiversity.

Ecological impact assessments will be mandatory before approving any developments, particularly in the northern and eastern regions of Knysna, and near Karatara's agricultural lands. This process ensures that growth strategies prioritize the preservation of natural resources while supporting the municipality's development goals.

C6.1 SERVICES EDGE

The **Services Edge** represents the previous urban edge and defines where Knysna Municipality prioritizes infrastructure and service provision to support urban growth.

It ensures that urban expansion occurs efficiently, leveraging existing infrastructure while preventing premature service demands.

Within the Services Edge:

- Infrastructure and services must be prioritized for densification and infill development.
- In certain areas, adjustments or augmentations to existing infrastructure may be required instead of developing entirely new infrastructure systems.

The Services Edge remains contained within the Urban Edge, reinforcing structured, phased urban growth. Any development beyond this boundary but within the Urban Edge must be carefully managed to prevent undue strain on municipal resources. Developers outside the Services Edge must independently fund infrastructure, with cost-sharing mechanisms implemented over time as development expands.

By maintaining a well-defined Services Edge, the municipality can:

- Direct infrastructure investment to areas best suited for sustainable growth.
- Optimize service delivery efficiency while avoiding unnecessary expansions.

- Establish clear service responsibilities, ensuring developments outside the Services Edge do not create unintended municipal obligations.

C6.2 TRANSITION ZONE

The Transition Zone is the designated future growth area situated between the Services Edge and the Urban Edge.

It functions as a strategic urban expansion reserve, supporting a phased and sustainable transition between urban and rural land uses. While development is permitted within this zone, it must follow a coordinated and sequential approach to avoid premature sprawl and unstructured growth.

Key Development Considerations:

- **No Restriction on Development Type:** Various forms of development will be considered within this zone, provided they align with planning and infrastructure requirements.
- **Sequential Development:** Urban expansion within the Transition Zone should be phased, ensuring that development occurs in a structured manner and integrates with existing urban areas.
- **Infrastructure and Service Provision:** Currently, there is no access to bulk services. Developers are responsible for infrastructure provision. If development is municipal-led, the municipality should incorporate provisions for bulk service supply in its long-term infrastructure planning.

- **Environmental and Site Assessments:** A detailed evaluation of site-specific environmental conditions, must be undertaken before any development is considered.
- **Slopes:** Before any development within this region, a detailed assessment of the Environmental conditions including a slope assessment is to be undertaken and submitted to the municipality for approval.

Legislative and Compliance Requirements:

All development proposals within the Transition Zone must comply with applicable national, provincial, and municipal legislation. The need for specialist assessments—such as Environmental Impact Assessments (EIAs), geotechnical investigations, and engineering reports—will be determined through the relevant statutory processes, administered by competent authorities (e.g., the Department of Forestry, Fisheries and the Environment for EIAs).

Approval and Compliance Requirements:

- Town Planning Land Use Management (LUM) Process
- Engineering Requirements (services, geotechnical assessments, etc.)
- Environmental Impact Assessment (EIA)
- Feasibility Studies
- Public Participation

Note: The list above is not exhaustive. All compliance requirements will be defined through the appropriate legal frameworks and determined by the relevant authorities. The MSDF does not substitute statutory approvals.

Infrastructure required to support development within both the Services Edge and Transition Zone is supported, subject to the applicable approval processes. This structured approach ensures that development is implemented responsibly, balancing spatial growth with environmental sustainability and infrastructure capacity.

C6.2.1 SETTLEMENT PLANS

In Knysna, Sedgefield, Brenton-on-Sea, Buffels Bay, Karatara, and Rheenendal, the delineation of the Urban, Services, and Transition Edges plays a critical role in managing future growth. The Transition Zone serves as a designated space for long-term urban expansion and should only be considered for development once all feasible opportunities within the Urban Edge have been utilized.

Each settlement's growth must be guided by phased development, ensuring infrastructure investment is prioritized within the Urban Edge before any expansion into the Transition Zone. This approach supports sustainable urban management while preventing premature development that could undermine compact growth objectives.

C6.2.2 LAND USE CONSIDERATION WITHIN THE TRANSITION ZONE

Land use considerations within the Transition Zone in Knysna include, but are not limited to:

- **Industrial:** Light industry, technology parks, and eco-friendly business parks.
- **Residential:** Medium-density housing and mixed-use areas.

- **Commercial:** Office parks and retail hubs.
- **Public Facilities:** Social, educational, and healthcare facilities.
- **Transport and Logistics:** Taxi ranks, truck stops, and logistics hubs.
- **Tourism:** Lodges, adventure tourism, and eco-tourism.
- **Infrastructure and Service-Related Uses:** Infrastructure required to support growth within service edges and transition zones, including waste transfer facilities, wastewater treatment works, waterworks, cemeteries, and other essential services.

All infrastructure proposals within the Services Edge and Transition Zones must follow the due process undertaken by the respective municipal departments, ensuring alignment with long-term development strategies and service delivery requirements.

C6.2.3 RATIONALE BEHIND THE URBAN EDGE EXPANSION

The proposed expansion of the urban edge is informed by the need to accommodate long-term growth, address land shortages for priority land uses, and support the spatial restructuring objectives of the municipality. This section outlines the key motivations behind the proposed adjustments, including the demand for well-located land for housing, industrial development, and social infrastructure, as well as the need to enhance spatial efficiency, environmental sustainability, and economic resilience.

C6.2.3.1 RESIDENTIAL DENSITY SAMPLING

In planning for sustainable, equitable, and efficient human settlements, it is essential to understand how land is currently used for residential purposes. Residential density sampling plays a key role in this process by providing spatially grounded evidence of settlement patterns, the intensity of land use, and the capacity of existing neighbourhoods. This information supports spatial planning decisions related to infrastructure provision, land budgeting, and urban restructuring.

To this end, a focused residential density sampling exercise was conducted to better understand existing settlement patterns across a range of representative neighbourhoods within the municipality. The purpose of this analysis is threefold:

- To establish a realistic baseline for current gross residential densities;
- To inform future housing land demand and allocation within and beyond the existing urban footprint; and
- To assess the alignment of prevailing densities with the municipality's strategic goals of compact urban form, efficient infrastructure provision, and spatial equity.

This exercise provides essential input into decisions about urban edge expansion, spatial restructuring, and the prioritisation of land for other critical non-residential land uses.

DENSITY ANALYSIS METHODOLOGY

Four sample areas were selected to reflect the range of urban typologies in the municipality—from low-density suburban housing to medium-density formal townships:

- **Knysna Heights** (formal, low-density)
- **Hornlee** (formal, medium density)
- **Rexford** (formal, low-density)
- **Concordia** (formal, medium density)

A dot-count method using high-resolution aerial imagery and GIS analysis was applied to estimate the number of existing dwelling units (DUs). Gross density was then calculated using:

Density (Units per hectare) = Number of houses / area in Hectares

Table 7: Sample Areas

Sample Area	Extent (ha)	Estimated Dwelling Units	Gross Residential Density (DUs/ha)
Knysna Heights	37.3 ha	171 DUs	4.58 DUs/ha
Hornlee	8.77 ha	175 DUs	19.95 DUs/ha
Rexford	73.9 ha	308 DUs	4.17 DUs/ha
Concordia	26.3 ha	623 DUs	23.69 DUs/ha

These gross figures account for all land within the sample boundaries, including streets, public spaces, and some environmentally constrained or vacant parcels. Notably, all dwellings observed were single-unit structures, with no evidence of multi-storey or high-density developments.

Findings and Interpretation

The analysis reveals a **wide variation in residential intensity**:

- **Concordia and Hornlee** exhibit moderate gross densities (20+ DUs/ha), consistent with the municipality’s long-term spatial goals.
- **Knysna Heights and Rexford**, by contrast, reflect **low-density sprawl**, with fewer than 5 DUs/ha.

This disparity highlights significant opportunities for **spatial restructuring**. In areas like Knysna Heights and Rexford, strategic densification through **infill housing, subdivision, or redevelopment** into more compact typologies (e.g., row housing, duplexes, or walk-up flats) could significantly improve land use efficiency and infrastructure delivery costs.

C6.2.3.2 URBAN EDGE EXPANSION FRAMEWORK AND HOUSING LAND REQUIREMENTS:

Integrating Population Growth and Land Use Planning in Knysna Municipality
POPULATION PROJECTIONS (2022–2045)

The municipality's population, estimated at **96,055 in 2022**, is projected to reach **123,537 by 2045**, based on an annual growth rate of 1.1%. This translates into over **27,000 new residents**, all of whom will require access to housing, services, infrastructure, and economic opportunities.

Formula is as follows:

Future Population = $96,055 \times (0.011)^t$ (where t = years since 2022)

Table 8: Population Growth

Year	Population	Growth (Since 2022)
2022	96055	Baseline
2025	99259	+3204
2030	104841	+8786
2035	110735	+14680
2040	116961	+20906
2045	123537	+27482

HOUSEHOLD GROWTH AND DENSITY-BASED SCENARIOS

Using an average household size of 3 people per unit, projected population growth will result in approximately **11,160 additional households** between 2022 and 2045. To model how much land will be needed to accommodate this growth, three residential density scenarios were tested:

Scenario 1: Higher Density Average

- Densities used: 23.69 and 19.95 units/ha.
- Average: $(23.69 + 19.95) / 2 = 21.82$ units/ha

This scenario assumes future development will occur in higher-density, more compact urban areas.

Scenario 2: Lower Density Average

- Densities used: 4.17 and 4.58 units/ha.
- Average: $(4.17 + 4.58) / 2 = 4.375 \approx 4.38$ units/ha

Represents more dispersed, lower-density rural or peri-urban settlement patterns.

Scenario 3: Split Density (Mixed Development Pattern)

Assumes that 50% of the housing demand is met at **21.82 units/ha**, and 50% at **4.38 units/ha**.

Land requirement is calculated separately for each component and then summed.

CURRENT BACKLOG & LAND AREA REQUIREMENTS

Using the backlog of 9,491 housing units and the future household projections, the following land requirements were calculated:

Required Hectares = Number of Households / Average Households per hectare

Table 9: Current Backlog & Land area requirement

SCENARIO 1 (21.82 du/ha)	SCENARIO 2 (4.38 du/ha)	SCENARIO 3 (50% @ 21.82 du/ha & 50% @ 4.38 du/ha)
434.97	2166.89	1300.93

The **mixed-density scenario (Scenario 3)** presents the most balanced and realistic approach, aligning with existing patterns while steering toward greater land efficiency.

FUTURE LAND AREA REQUIREMENTS

Table 10: Land Required for Housing

YEAR	POPULATION	NUMBER OF HOUSEHOLDS	REQUIRED LAND FOR HOUSING (HA)			ADDITIONAL LAND NEEDED FOR HOUSING(VS. 2025) (HA)		
			SCENARIO 1 (21.82 du/ha)	SCENARIO 2 (4.38 du/ha)	SCENARIO 3 (50% @ 21.82 du/ha & 50% @ 4.38 du/ha)	SCENARIO 1	SCENARIO 2	SCENARIO 3
2025	99259	33086.33	1516.33	7553.96	4535.14	Baseline	Baseline	Baseline
2030	104841	34947	1601.6	7978.77	4790.19	85.27	424.81	255.05
2035	110735	36911.67	1691.64	8427.32	5059.48	175.31	873.36	524.34
2040	116961	38987	1786.76	8901.14	5343.95	270.43	1347.18	808.81
2045	123537	41179	1887.21	9401.6	5644.41	370.88	1847.64	1109.27

FUTURE LAND AREA REQUIREMENTS – OTHER USES

While residential needs dominate the conversation, **non-residential land uses must be treated with equal urgency**. Strategic land reservations are needed not only to accommodate future population growth but to sustain Knysna's economy, public health, and environmental resilience. The following uses are of **critical importance**:

1. INDUSTRIAL LAND – BOAT BUILDING & TIMBER PROCESSING

Based on the population and average household size of 3, the municipality must plan for **expanding urban edges** to accommodate growth while maintaining sustainable density.

Step 1: Number of Households = Population / Average Household Size

Step 2: Required Hectares = Number of Households / Average Households per hectare

Knysna has a **long-standing marine manufacturing and timber heritage**, both of which are under significant spatial pressure.

- **Boat-building enterprises**, vital to local employment and export value, have indicated that **a lack of suitable industrial expansion space** is threatening their ability to operate in the municipality. Without intervention, these industries may relocate, resulting in job losses and the erosion of sectoral expertise.

- Similarly, **timber processing facilities** are limited in growth due to zoning and environmental constraints in current industrial precincts.

There is an **urgent need to identify and service new industrial precincts**, preferably located close to existing logistics corridors and marine access points. These precincts must cater for:

- Boat and yacht manufacturing
- Wood product processing
- Small-scale fabrication and linked SMEs

2. TERTIARY EDUCATION AND SKILLS DEVELOPMENT

The absence of a local **tertiary college or vocational training centre** has long been identified as a developmental gap. As the town grows, so too will the demand for accessible, affordable post-school education and upskilling.

A designated, accessible site must be reserved for a **TVET or higher education campus**, integrated with transport routes and youth-dense residential areas. The college will:

- Address local skills shortages.
- Provide pathways to employment.
- Enhance long-term economic resilience.

3. COMMERCIAL AND MIXED-USE DEVELOPMENT

With projected population growth and increased urbanisation, there will be increased demand for:

- **Retail space**
- **Service nodes**
- **Neighbourhood-scale commercial centres**

Strategic mixed-use nodes should be encouraged near existing settlements and new growth areas, especially where public transport infrastructure is planned or being upgraded. Commercial land allocation must be **spatially balanced** to prevent congestion in the town centre and promote equitable access to services and jobs.

4. ENVIRONMENTAL AND CIVIC INFRASTRUCTURE

The following land uses must be **urgently prioritised and protected**:

- **Wastewater Treatment Works (WWTW):** Existing WWTW capacity is already nearing limits. With growth, additional land must be secured to allow expansion or the development of a **new facility**.
- **Waste-to-Energy Plant:** In line with sustainability targets, a waste-to-energy facility would help reduce landfill pressure, generate energy, and create jobs.
- **Regional Cemetery:** A single, regional burial site will be required, as existing cemeteries are near capacity. This site must be well-located but buffered from residential areas, with good access and environmental safeguards.

LAND BUDGETING FOR SUPPORTING USES

To account for the about mentioned strategic needs an estimated **25% additional land** will be required. The table below reflects the total projected 25% land area requirements:

Table 11: Additional Land Required For Other Uses

YEAR	ADDITIONAL FUTURE LAND NEEDED FOR OTHER USES(HA)		
	SCENARIO 1	SCENARIO 2	SCENARIO 3
2030	21.3175	106.2025	63.7625
2035	43.8275	218.34	131.085
2040	67.6075	336.795	202.2025
2045	92.72	461.91	277.3175

TOTAL FUTURE LAND REQUIREMENT

The table below reflects the total projected land area requirements:

Table 12: Total Future Land Required

YEAR	TOTAL FUTURE LAND REQUIRED (HOUSING & OTHER USES)		
	SCENARIO 1	SCENARIO 2	SCENARIO 3
2030	106.5875	531.0125	318.8125
2035	219.1375	1091.7	655.425
2040	338.0375	1683.975	1011.0125
2045	463.6	2309.55	1386.5875

C6.2.3.3 CONCLUSION

The evidence clearly supports the following recommendations:

- **Densify low-performing residential areas** like Rexford and Knysna Heights, using subdivision, backyard units, and row housing.
- **Prioritise medium-density forms** (e.g., walk-up flats, duplexes) in new developments, with densities no lower than 20 DUs/ha.
- **Immediately reserve and zone land for non-residential strategic uses**

C6.1 KNYSNA URBAN EDGE

The 2020 Knysna Municipal Spatial Development Framework (MSDF) identified that the current urban edge has limited capacity to accommodate the town's future growth. To address this, the urban edge is being expanded towards areas previously earmarked for development in the 2008, 2017, and 2020 MSDFs. This expansion is designed to meet Knysna's evolving needs while maintaining a careful balance with environmental considerations, ensuring that growth is both sustainable and in line with the town's long-term development goals.

KEY AREAS OF FOCUS:

Industrial Development:

The expanded urban edge will support the continued growth of key industries such as forestry and boat-building, which are vital to Knysna's economy. By providing dedicated industrial spaces, this expansion will foster job creation, stimulate economic activity, and enhance the town's competitiveness. The industrial zones will be carefully planned to ensure they integrate well with the surrounding environment and infrastructure.

Residential Growth:

As housing demand continues to rise, the expansion creates structured opportunities for residential development. By focusing on planned growth areas, this expansion will prevent uncontrolled urban sprawl, ensuring more efficient and sustainable land use. The expanded urban edge will provide space for new housing without compromising the integrity of the town's natural surroundings.

Social Infrastructure:

To meet the needs of a growing population, additional space will be allocated for essential social infrastructure, including schools, healthcare facilities, and community centers. This will ensure that Knysna's residents have access to vital services and amenities, enhancing their quality of life and supporting the town's long-term well-being.

Business Expansion:

The expansion also provides opportunities for the growth of commercial and business areas, which will help strengthen the local economy. By accommodating new businesses and expanding existing ones, the plan fosters a diverse and resilient economic base, contributing to Knysna's sustainability and job creation.

INFRASTRUCTURE CONSIDERATIONS:

To support these developments, the rerouted N2 highway will run north of the expanded urban edge areas, providing a crucial transportation link for industrial activities. This new route will improve logistics efficiency, enhance accessibility to the industrial zones, and further stimulate economic growth by ensuring that goods and services can be transported more efficiently within the region.

A BALANCED APPROACH TO GROWTH:

This urban edge expansion ensures that Knysna can meet its future economic, residential, and community needs while minimizing environmental impacts. By expanding in a controlled manner and focusing on previously identified growth areas, the plan promotes sustainable development that aligns with the town's long-term spatial planning goals. The expansion supports a balanced approach

that allows for continued growth without compromising Knysna's natural environment or the quality of life for its residents.

ADDITIONAL MOTIVATIONS FOR SPECIFIC URBAN EDGE EXPANSIONS**Belvidere Urban Edge Expansion:**

This expansion aligns with the municipal land audit, documented developer interest, and spatial planning priorities. Site-specific studies submitted for properties including 15/216, 13/216, and 45/216 confirm suitability for low-impact residential development. A biodiversity sensitivity analysis undertaken by David Hoare Consulting (Pty) Ltd found the site to have low ecological value, being dominated by alien vegetation, with only a minor patch of degraded secondary fynbos present. The proposed footprint affects less than 4% of the total area, avoids all Critical Biodiversity Areas, and includes rehabilitation of degraded land to support indigenous vegetation recovery. The development is expected to have a net positive biodiversity impact.

Motivation for the Inclusion of RE14/216 and RE37/216 – Belvidere Area:

These properties are strategically located between existing urban development, the railway corridor, and other properties already included in the urban edge. Their inclusion supports logical spatial continuity and infrastructure efficiency. Historically, the 2008 SDF designated them as part of the Charlesford rural node for rural tourism purposes. Their removal in 2020 occurred during limited public engagement due to COVID-19 restrictions and was based on outdated or inaccurate environmental overlays, including their placement below the Coastal Management Line despite their elevation. Reintegration into the urban edge

corrects these errors and restores policy consistency while supporting Knysna's tourism economy through controlled, environmentally sensitive development.

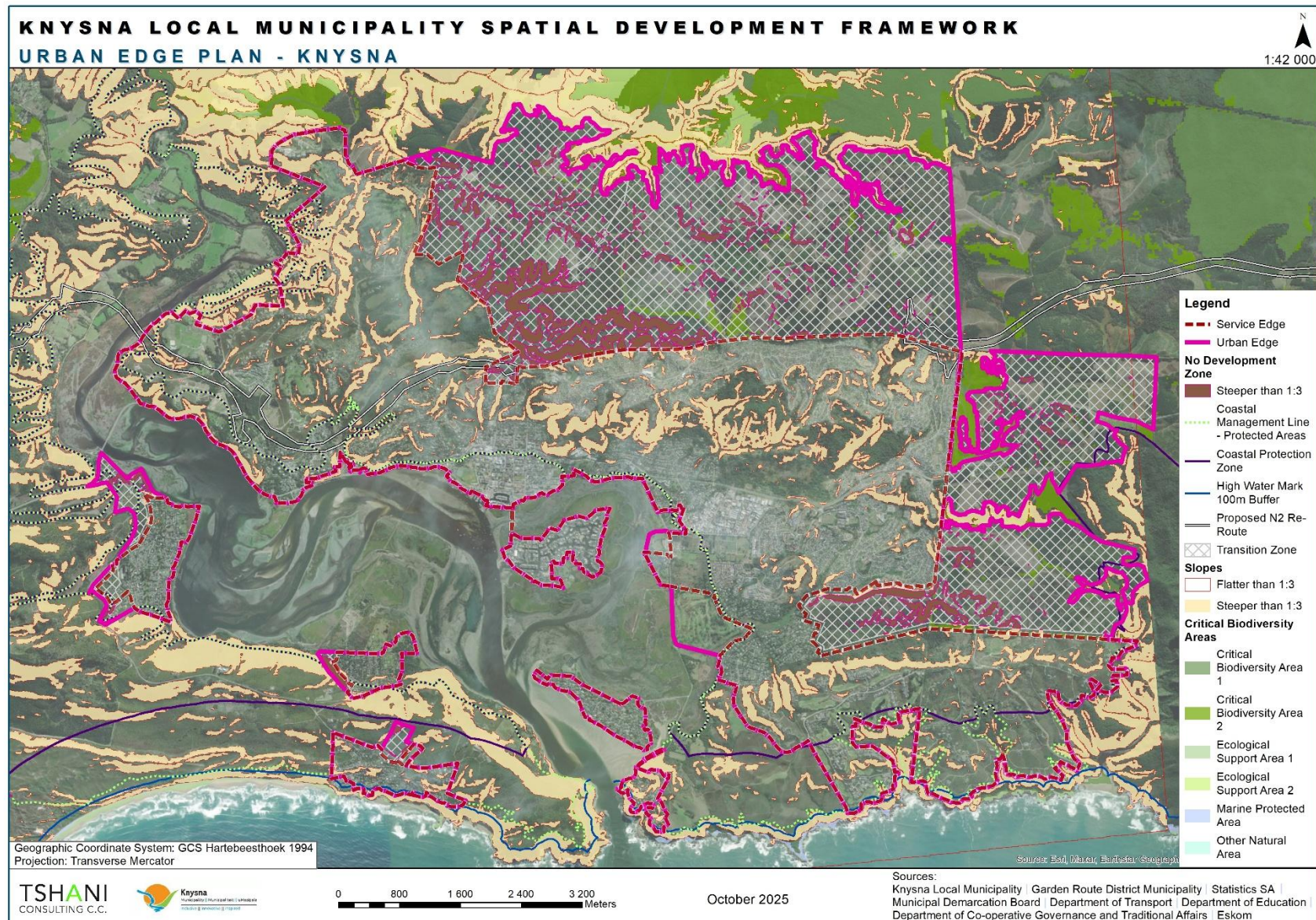
Knysna Golf Course Urban Edge Expansion:

Documentation supports the inclusion of Erven 12403, 2725, 2232, and 2233. A wetland delineation and WULA approval confirmed that approximately 40% of Erf 12403 is suitable for development, with no new ecological risks identified. Historically, these erven have consistently been included in the 2008 and 2017 SDFs. Their exclusion in 2020 is not substantiated by any new data. The site is already serviced by municipal infrastructure on three sides, supporting its

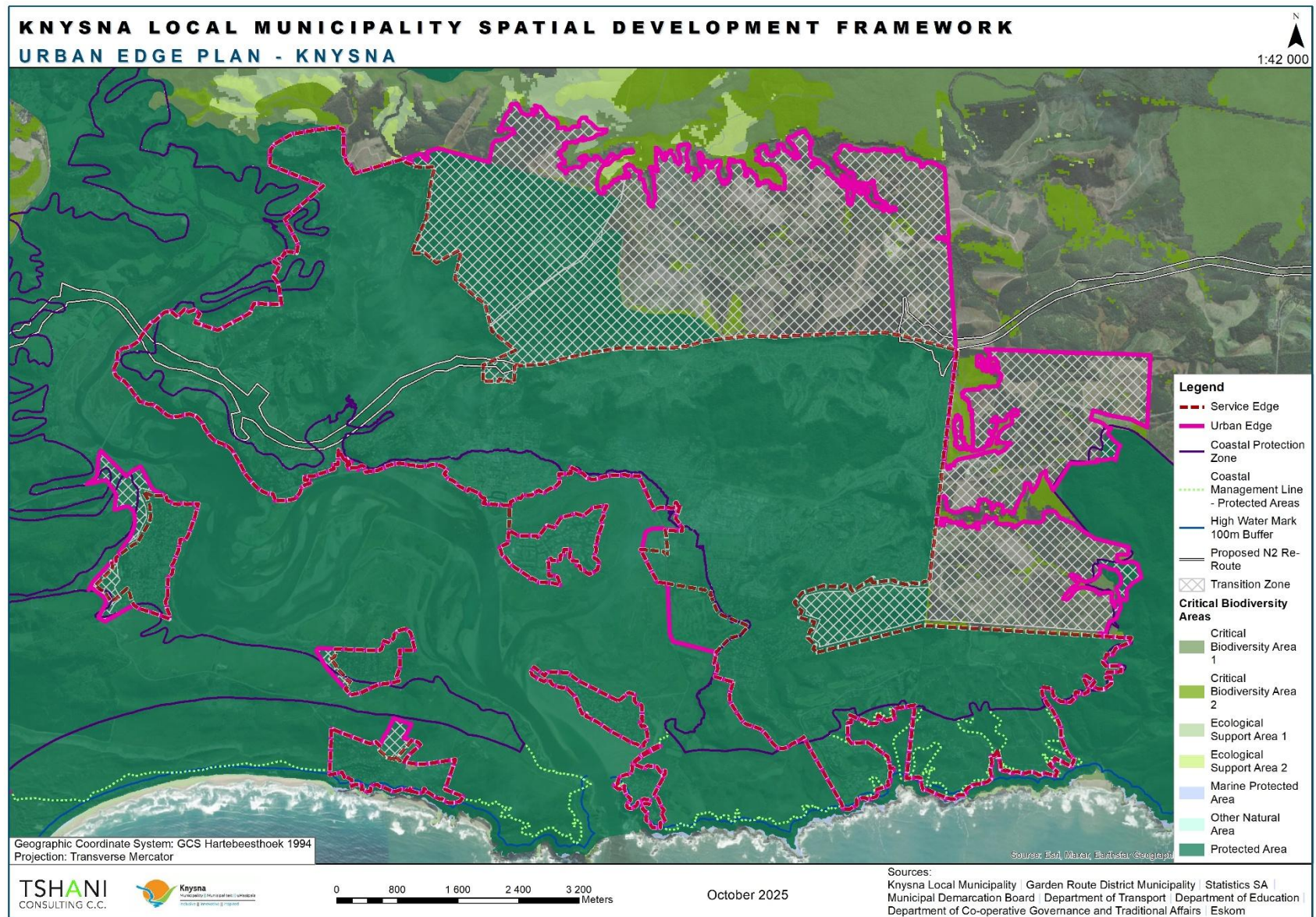
integration into the service and urban edge. These erven offer logical infill development opportunities that align with Knysna's spatial efficiency and infrastructure optimisation goals.

Environmental Safeguards:

All proposed expansions will remain subject to site-specific environmental assessments at rezoning or development application stage. This ensures that sensitive vegetation is protected and development aligns with infrastructure capacity, ecological thresholds, and disaster risk management protocols.



Plan 5: Knysna Urban Edge (With Slopes)



Plan 6: Urban Edge - Knysna

C6.2 SEDGEFIELD URBAN EDGE

The urban edge of Sedgefield has been extended to include the Housing Development Zone identified in the 2024/25 Sedgefield Local Spatial Development Framework (LSDF). This strategic expansion is designed to accommodate the town's growth while considering its unique geographical limitations, such as the surrounding oceans, lakes, and topography. By focusing on the most feasible direction for growth, this expansion ensures that development aligns with the town's environmental constraints and promotes long-term sustainability.

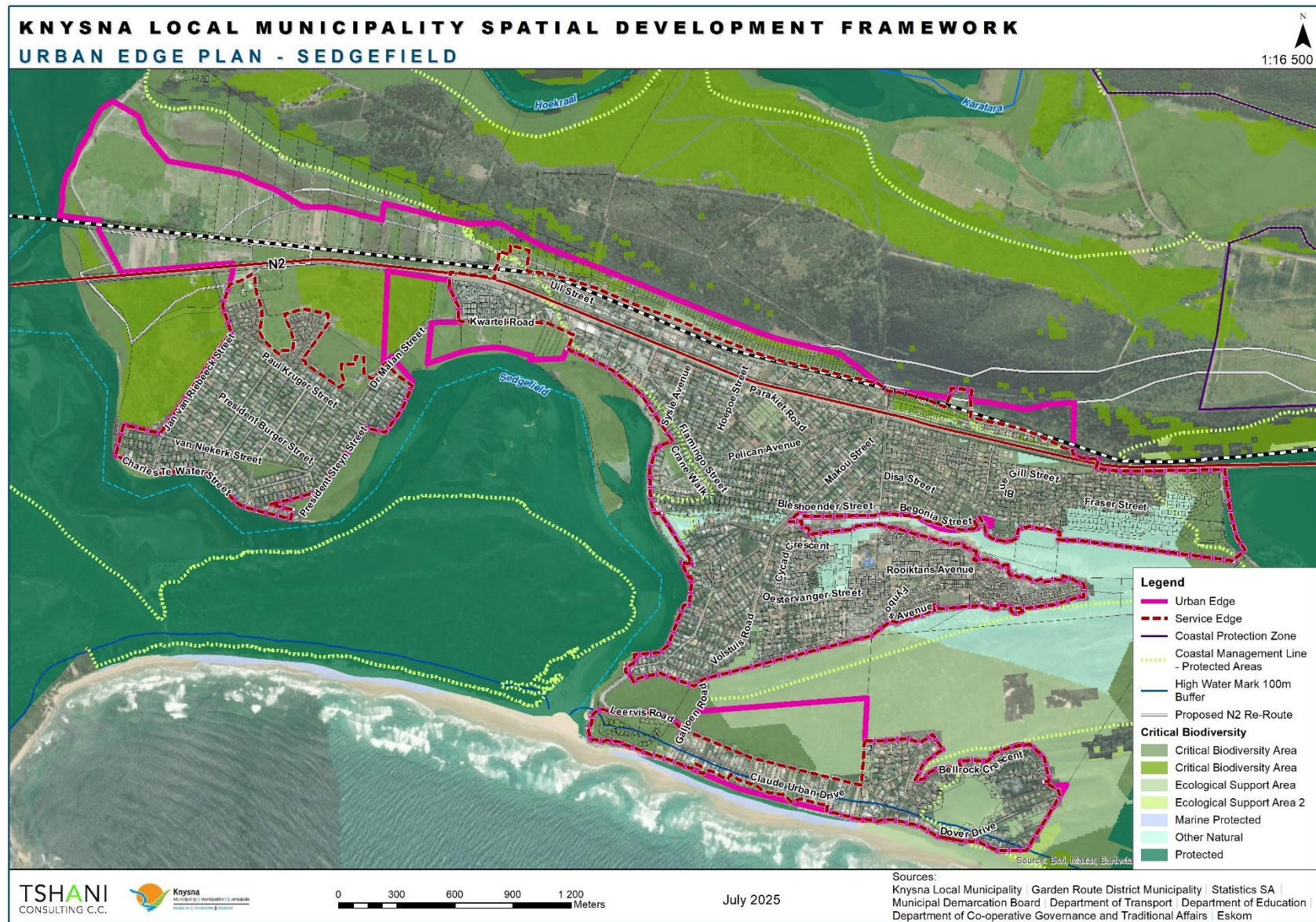
KEY CONSIDERATIONS:

- **Geographical Constraints:** Sedgefield is encircled by natural features, including oceans, lakes, and a diverse topography, leaving limited available land for expansion. The revised urban edge takes these geographical limitations into account, identifying the Housing Development Zone as the most viable area for development. This approach minimizes land-use conflicts and maximizes the potential for growth in the town's most accessible and suitable locations.
- **Sustainable Growth:** The Housing Development Zone is strategically located to facilitate balanced, sustainable urban growth. The zone has been carefully selected to ensure that residential development can take place while respecting Sedgefield's environmental and topographical

features. By focusing on the Housing Development Zone, the expansion plan helps create an urban environment that can grow without overextending the available land or harming the surrounding ecosystems.

BENEFITS:

- **Environmental Protection:** The expansion of the urban edge toward the Housing Development Zone directs residential development to areas that have the least environmental impact. This strategy helps protect the town's sensitive coastal and wetland areas, ensuring that they are preserved for future generations while allowing for planned, controlled growth. The development will be focused away from ecologically sensitive areas, reducing the pressure on the natural environment and safeguarding biodiversity.
- **Support for Sustainable Growth:** The expanded urban edge and Housing Development Zone support sustainable growth by balancing development with the preservation of Sedgefield's natural beauty and ecological integrity. The plan respects the town's unique topographical features, ensuring that urbanization does not disrupt its scenic landscapes or ecosystems. This approach provides the space needed for residential development while ensuring that Sedgefield retains its environmental value and quality of life for its residents.



Plan 7: Urban Edge – Sedgefield

C6.3 KARATARA URBAN EDGE

The urban edge has been expanded to accommodate agricultural growth and the associated infrastructure needs, fostering the continued development of the agricultural sector while prioritizing sustainability. This expansion recognizes the importance of agriculture to the local economy and the necessity of providing sufficient space for both urban development and agricultural activities.

AGRICULTURAL PROTECTION AND STRATEGIC PLANNING:

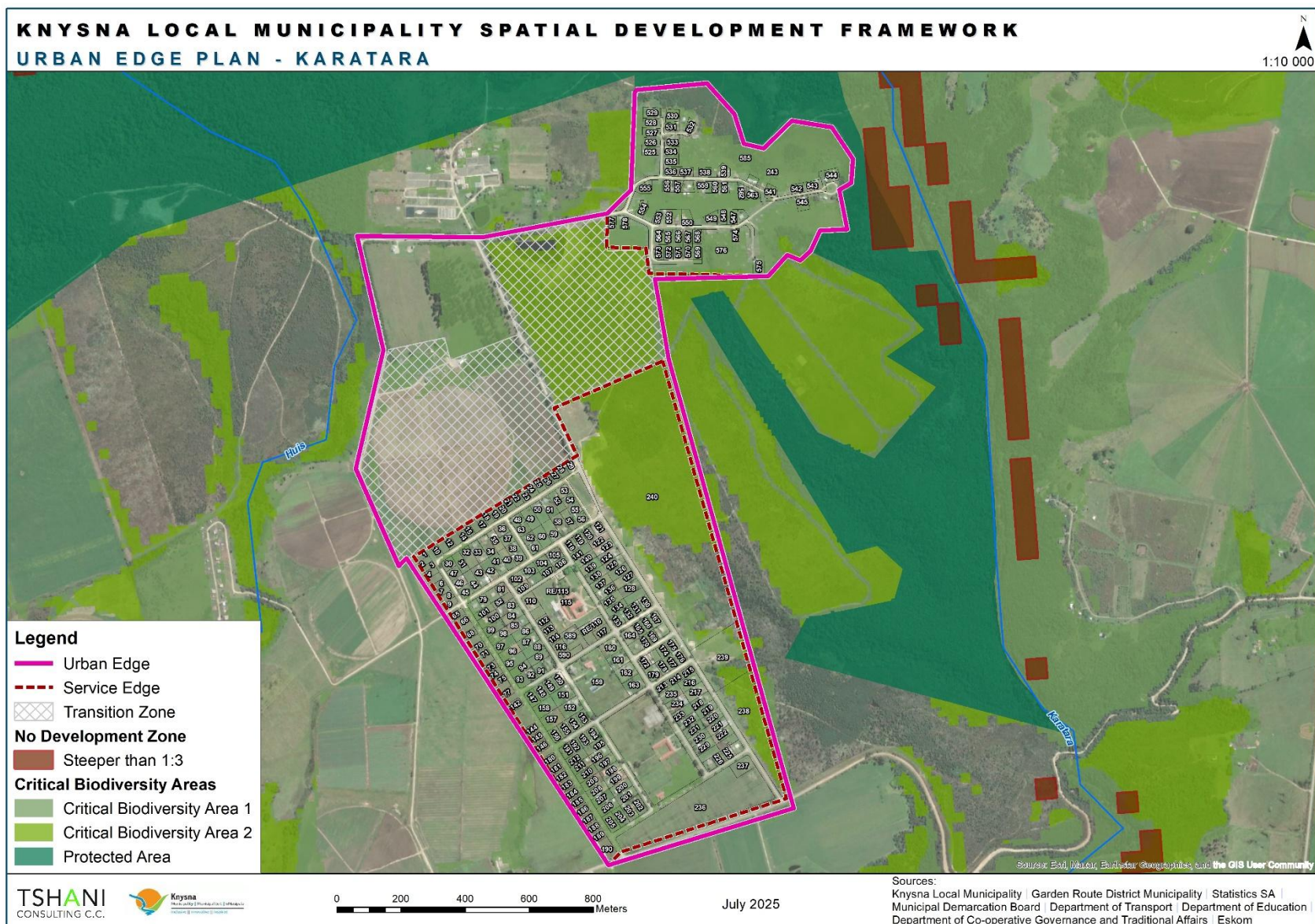
- In areas such as Karatara, the urban edge has been extended to balance the needs of urban growth with the preservation of agricultural land. To achieve this, agricultural land is designated as a Transition Zone, which allows for controlled and sustainable development. This zone will accommodate urban expansion without encroaching on vital farmland.
- The Transition Zone concept ensures that agricultural activities continue to thrive, and agricultural land is not lost to urban sprawl. It

provides a buffer between urban development and agricultural areas, promoting both development and the preservation of essential food production zones.

OUTCOME AND LONG-TERM VISION:

This approach guarantees that urban development occurs in a way that supports both the agricultural sector and future urban needs. By maintaining a clear distinction between urban and agricultural land, the expansion ensures that agriculture remains a central component of the region's economy and that urban growth does not negatively impact food production or environmental sustainability.

The outcome of this expansion is a balanced and sustainable growth model that allows for the necessary infrastructure to support a growing population, while also preserving the region's agricultural heritage and resources for future generations.



C6.4 RHEENENDAL URBAN EDGE

The urban edge has been extended to accommodate a range of developments, including agricultural expansion, light industrial space, a regional cemetery, and new residential areas, to meet the growing demands of the region. This expansion is designed to provide sufficient space for economic, social, and residential needs, while promoting sustainability and long-term planning.

KEY CONSIDERATIONS:

- **Agricultural Expansion:** The expansion provides land to support the continued growth of agriculture, ensuring that farming activities can thrive while addressing the increasing demand for agricultural products. This growth will also facilitate related activities such as food processing, storage, and distribution.
- **Light Industrial Space:** Recognizing the need for economic development, the urban edge expansion includes designated areas for light industry. This will foster local economic growth, create job opportunities, and support the diversification of the regional economy

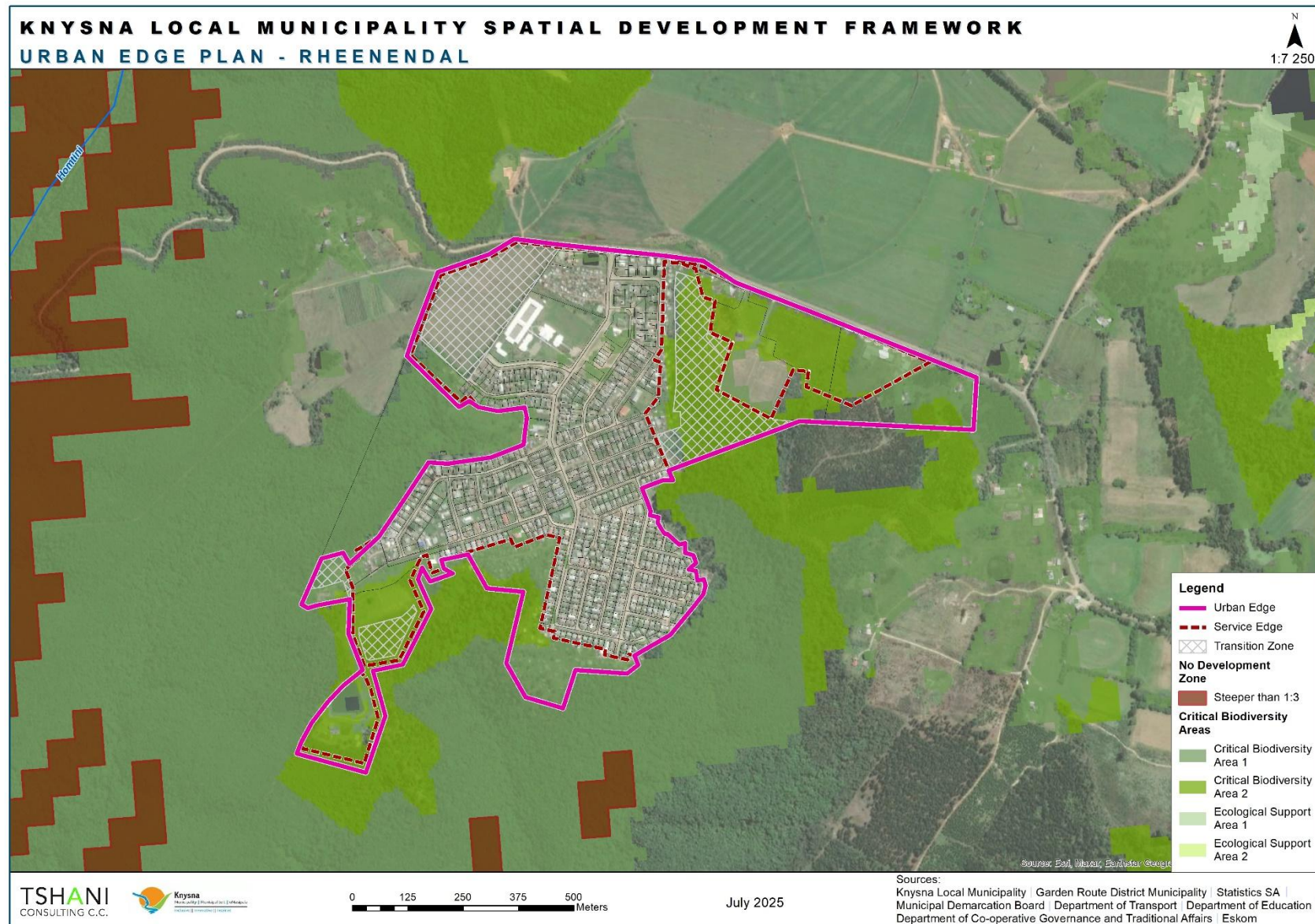
by providing space for non-heavy industrial activities that are compatible with surrounding land uses.

- **Residential Development:** The expansion includes space for new residential areas to accommodate the growing population. With increasing urbanization, the provision of additional housing will ensure that there is enough space for homes, meeting the demand for affordable and sustainable living options.

OUTCOME AND BALANCED GROWTH:

This urban edge expansion is designed to promote balanced and sustainable growth by carefully allocating space for agriculture, light industry, public services, and residential development. The expansion supports a multi-faceted approach to growth, where each sector is given the space and resources it needs to flourish, without compromising the others.

Ultimately, this expansion ensures that all the region's needs—economic, social, and residential—are met in a way that respects environmental sustainability and creates a harmonious balance between development and land preservation.



Plan 9: Urban Edge - Rheenendal

C6.5 BRENTON - ON - LAKE & BRENTON-ON-SEA URBAN EDGE

The urban edges for Brenton-on-Sea and Brenton-on-Lake have been largely retained, with only minor amendments introduced to support structured growth within existing boundaries and to accommodate limited, strategic development opportunities. This approach maintains the overall containment of the towns while promoting residential infill and preserving their distinctive coastal character.

KEY CONSIDERATIONS:

Preserving Tourism and Holiday Areas: The decision to maintain the existing urban edges helps safeguard the tourism and holiday-oriented character of Brenton-on-Sea and Brenton - on - Lake. These areas are essential to the local economy, attracting visitors due to their scenic beauty and relaxed atmosphere. By preventing outward expansion, the town's unique charm and appeal as tourist destinations can be preserved, ensuring the long-term viability of the tourism industry.

Residential Infill: Instead of outward expansion, residential infill is being actively encouraged within the current urban boundaries. This approach allows for the accommodation of new residents and growth while maintaining the integrity and character of these towns. Infill development focuses on optimizing existing infrastructure and resources, creating more efficient and sustainable urban environments.

Strategic Expansion: While the overall approach promotes containment, select urban edge adjustments have been initiated by the municipality to support inclusive planning and to better integrate settlement patterns,

based on the findings of the Knysna Municipal Land Audit. These adjustments include:

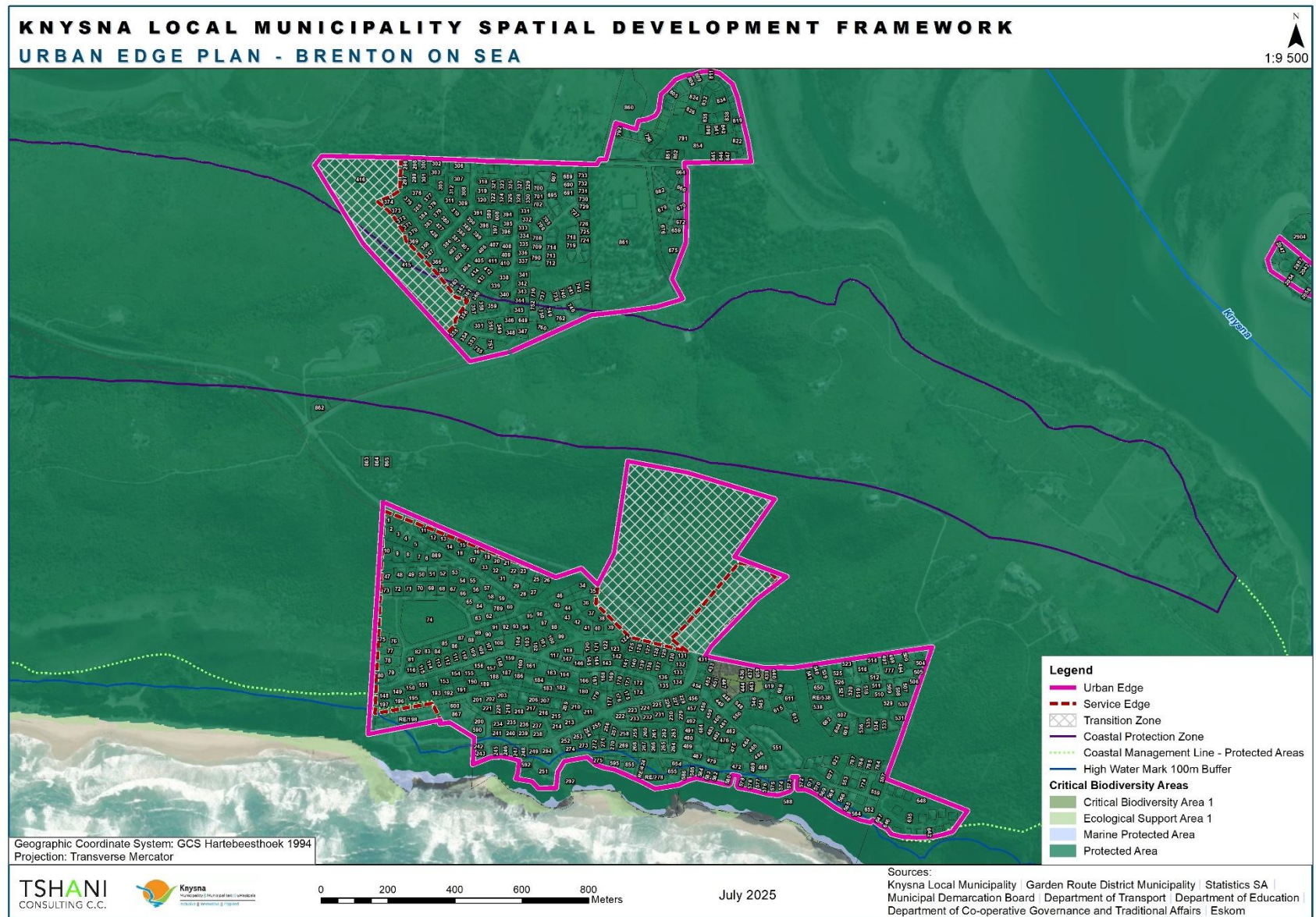
- **Portion 79**, earmarked for future housing development;
- **Portion 81**, released via open tender for the development of a conference centre; and
- **Erven 415 and 416**, identified for residential development in Brenton-on-Lake.

Although these areas fall within environmentally sensitive zones, including Protected Areas and the Coastal Management Line, any future land use and development will be subject to strict environmental and coastal management regulations. These proposals enable more inclusive and spatially responsive transformation in well-located areas while ensuring environmental compliance.

OUTCOME:

The refined urban edge strategy balances growth with conservation priorities. By combining targeted expansion with a strong emphasis on infill, it accommodates housing and economic needs without compromising the tourism value and environmental quality of Brenton-on-Sea and Brenton-on-Lake. This integrated approach promotes sustainable coastal development, enhancing long-term livability and resilience.

Note: Any minor urban edge adjustments or expansions proposed for Brenton-on-Lake and Brenton-on-Sea are aligned with the findings of the Knysna Municipal Land Audit, which identified available and underutilised land parcels suitable for infill and limited, strategic development.



Plan 10: Urban Edge - Brenton-on-Sea

C6.6 BUFFELS BAY URBAN EDGE

This section outlines the strategic management of the urban edge in Buffels Bay, focusing on the exclusion of the Buffels Bay Caravan Parks from the urban edge to preserve their recreational and tourism value, while promoting controlled growth within the established boundaries. The approach balances urban development with environmental and community considerations.

CARAVAN PARKS EXCLUSION FROM URBAN EDGE

The Buffels Bay Caravan Parks have been intentionally excluded from the urban edge but are retained within the services edge, as they are fully serviced by the municipality. This strategic decision preserves the parks' distinctive character and natural environment, ensuring they remain an integral part of the area's recreational and tourism offerings.

STRATEGIC INTENT:

The exclusion of the caravan parks from the urban edge is designed to prevent high-density urban development within these spaces. By doing so, the parks are maintained as recreational and tourism areas, which contribute significantly to the area's appeal and sustainability. This approach allows the parks to continue serving as valuable spaces for leisure and tourism,

preserving their character and preventing overdevelopment that could compromise their natural beauty and function.

REMAINING EDGE:

The remainder of the urban edge has been preserved to support urban infill development, ensuring that growth occurs within the established boundaries of the area. This approach encourages more efficient use of existing land and infrastructure while respecting environmental considerations and community needs. Infill development supports the town's growth without extending the urban edge and impacting sensitive areas such as the caravan parks.

OUTCOME:

This approach strikes a balance between sustainable urban development and the protection of Buffels Bay's unique spaces and natural resources. By excluding the caravan parks from the urban edge, the area's recreational and tourism value is safeguarded, while the rest of the urban boundary accommodates structured growth. The strategy ensures that development occurs in a controlled manner that respects both the natural environment and the community's needs, promoting long-term sustainability for the region.



Plan 12: Buffels Bay Urban Edge

C6.7 SETTLEMENT EDGES (RURAL HAMLETS)

The Settlement Edge

C6.7.1 DEVELOPMENT PROPOSALS

- **Settlement Edges:** Clearly defined boundaries should be established to guide development and prevent uncontrolled expansion.
- **Rural Character and Aesthetics:** Any development must respect the low-density nature of these settlements, ensuring that architectural styles incorporate locally available materials to maintain the traditional character.

C6.7.2 INFRASTRUCTURE CONSIDERATIONS

- **Near the Urban Edge:** In cases where rural hamlets are close to existing urban boundaries, their inclusion within the urban edge may be considered, allowing for full-scale bulk services where feasible.
- **Further from the Urban Edge:** Settlements that remain outside the urban edge should prioritize self-sustaining infrastructure solutions,

including off-grid systems and renewable energy sources such as solar power.

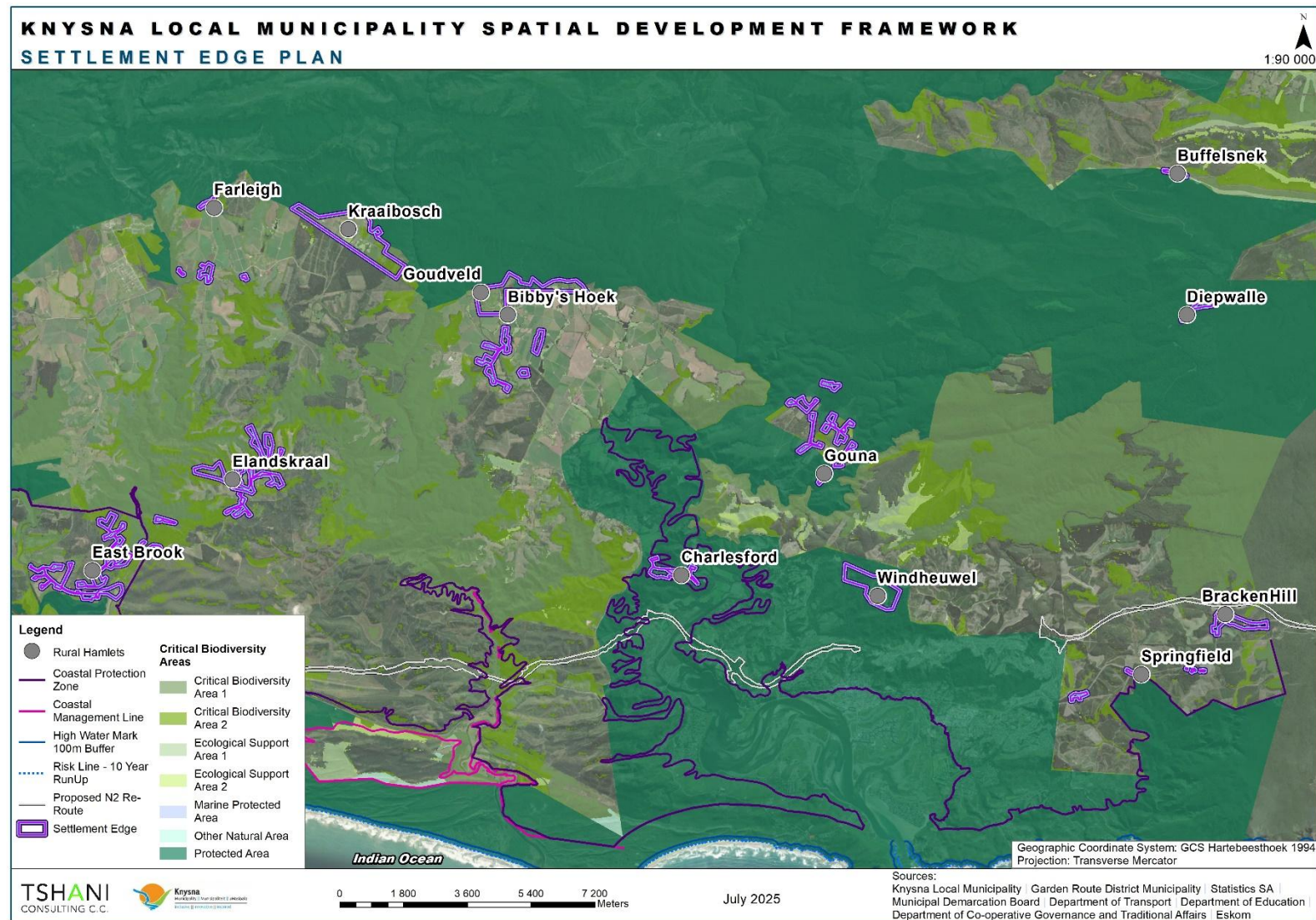
- **Access and Connectivity:** Development should utilize existing access routes to minimize environmental impact and reduce the need for new infrastructure.

C6.7.3 SOCIAL AMENITIES

- Essential services and amenities should be integrated into these settlements to support local communities while maintaining their rural character.

C6.7.4 LAND OWNERSHIP AND TENURE

- **Title Transfer:** Ownership should be formalized through the transfer of land titles to qualifying beneficiaries.
- **Common Areas:** Shared spaces and public-use areas should remain under the administration of the Knysna Municipality to ensure proper management and service provision.



Plan 13: Settlement Edges

C7. OVERALL SPATIAL STRUCTURING ELEMENTS

Spatial Structuring Elements are pivotal in guiding the growth and development of Knysna Municipality. They provide a framework for organizing land use, guiding sustainable development, and enhancing the character of the municipality's unique environment. The importance of each element is highlighted below:

1. **Nodes:** These are central to organizing and integrating activities within Knysna Municipalities towns and settlements, ensuring essential services and amenities are well-distributed and accessible. Nodes, such as the KnysnaTown, Sedgefield and Rheenendal, promote vibrant, mixed-use developments that enhance community life and economic activity.
2. **Corridors:** Crucial for enhancing connectivity and mobility across Knysna Municipalities settlements, corridors support efficient transportation and movement. The N2 highway, linking Knysna to surrounding towns, and key routes connecting Rheenendal, Brenton-on-Sea, and Buffels Bay, play a major role in supporting cohesive urban and rural development.
3. **Environmental Areas:** Essential for preserving Knysna's unique natural landscapes, including the Knysna Estuary, indigenous forests, and coastal areas. Protecting these environmental assets ensures biodiversity, maintains environmental quality, and supports the tourism economy while promoting sustainable resource management.
4. **Gateways:** Key entry points, such as the N2 into Knysna and the approach roads into Sedgefield and Buffels Bay, serve as significant identifiers for the municipality. These gateways help manage traffic flow, create welcoming environments, and influence the first impressions of residents and visitors.
5. **Resource Areas:** Important for safeguarding and managing regions with cultural, historical, economic, or environmental significance. This includes areas of agricultural importance in Karatara, forestry operations in Rheenendal, key tourism resources like the beaches of Brenton-on-Sea, Buffels Bay, and Knysna Estuary. These areas support local heritage, stimulate economic activities, and maintain the distinct character of the municipality.
6. **Urban Edges:** Urban edges play a crucial role in managing Knysna's growth by preventing sprawl and promoting efficient land use. Defining the transition Zone between the urban edge and the services edge enables controlled expansion while supporting sustainable, balanced development. This approach helps protect sensitive natural landscapes and ensures that growth occurs without compromising the environment.

By integrating these elements—**Nodes, Corridors, Environmental Areas, Gateways, Resource Areas, and Urban Edges**—Knysna Municipality can achieve balanced, sustainable growth. This approach optimizes land use, preserves environmental quality, and enhances the overall quality of life for residents and visitors alike.

D: SPATIAL DEVELOPMENT FRAMEWORK

The Spatial Development Framework (SDF) for the Knysna Municipality should guide and structure development activities and the built environment to accommodate the aspirations of its residents while preserving the area's natural landscapes and ensuring effective service delivery. The SDF must establish a comprehensive framework to inform decision-making and actions over several years, aiming to create integrated, livable urban and rural spaces.

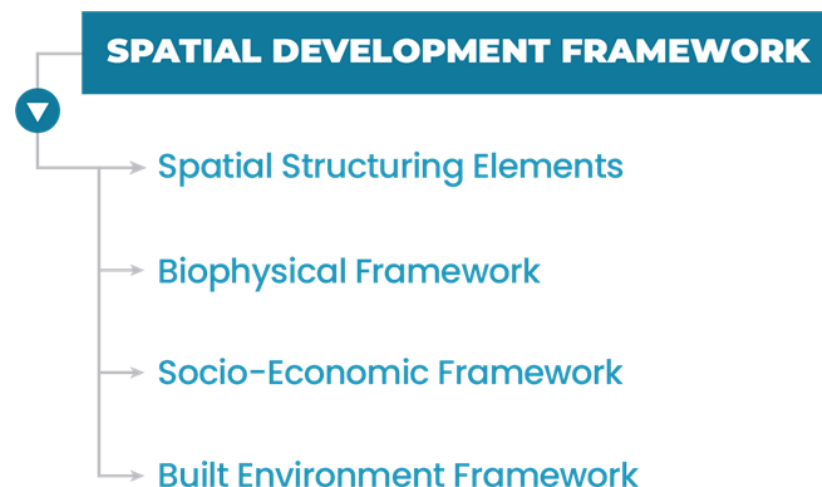
This phase builds upon the Strategic Framework and Concept Plan, with a focus on identifying spatial proposals that support growth. These proposals align with the National Spatial Development Framework (NSDF), Provincial Spatial Development Framework (PSDF), the District Spatial Development Framework (DSDF), and the previous Knysna Municipal Spatial Development Framework.

To achieve objectives of efficiency, sustainability, accessibility, integration, equity, and good governance, the following strategies are essential in developing policies and processes:

- Adopting a growth management approach
- Understanding Knysna's unique development context within the Garden Route
- Applying a municipality-wide approach to development
- Implementing area-based development initiatives and interventions
- Identifying marketable opportunities
- Providing clear development guidelines

The structure of the Knysna Municipal SDF incorporates the Spatial Structuring Elements identified, aligning them with the three pillars of the Spatial Planning and Land Use Management Act (SPLUMA).

Diagram 2: Elements of the Spatial Development Framework



The 2017 Western Cape Biodiversity Spatial Plan (WCBSP) highlights that Spatial Planning Categories (SPCs) are not meant to function as blueprints for land-use classification or zoning schemes. Rather, they provide a strategic framework to guide land-use decision-making across all levels of planning. SPCs aim to promote a structured process that encourages collaboration among stakeholders to support sustainable development. Importantly, the designation of SPCs does not modify existing zoning, land-use regulations, or legislation.

SPCs enhance clarity and consistency in decision-making, potentially leading to better zoning laws and regulations. Additionally, they establish a standardized

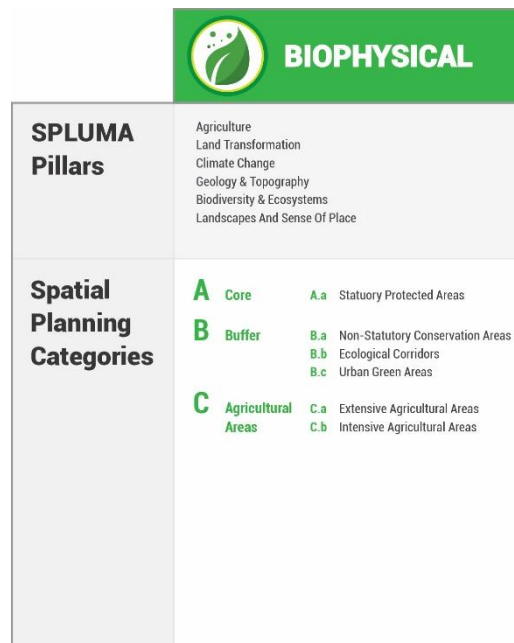
approach for land-use decisions across the province, ensuring alignment between zoning regulations and these categories.

The diagram below demonstrates how the Spatial Planning Categories align with the SPLUMA pillars.

	 BIOPHYSICAL	 SOCIO ECONOMIC	 BUILT ENVIRONMENT
SPLUMA Pillars	Agriculture Land Transformation Climate Change Geology & Topography Biodiversity & Ecosystems Landscapes And Sense Of Place	Regional Space Economy Demographics & Social Conditions Cultural Heritage & Tourism Employment Local Economy & Business Key Economic Sectors Rural Development	Settlement Patterns Settlement Role, Hierarchy & Function Spatial Structure & Form Built Heritage Land Use & Activity Patterns Infrastructure Transport & Movement Networks Housing
Spatial Planning Categories	A Core A.a Statutory Protected Areas B Buffer B.a Non-Statutory Conservation Areas B.b Ecological Corridors B.c Urban Green Areas C Agricultural Areas C.a Extensive Agricultural Areas C.b Intensive Agricultural Areas	D Urban Related D.f Institutional Areas D.g Authority Areas D.i Business Areas D.j Service Related Business D.k Special Business D.l SMME Incubation D.m Mixed Use Development Areas D.q Resorts & Tourism Related Areas	D Urban Related D.a Main Towns D.b Local Towns D.c Rural Settlements D.d Tribal Authority Settlements D.e Communal Settlements D.h Residential Areas D.n Cemeteries D.o Sports Fields & Infrastructure D.p Airport & Infrastructure D.r Farmsteads & Outbuildings E INDUSTRIAL AREAS E.a Agricultural Industry E.b Industrial Development Zone E.c Light Industry E.d Heavy Industry E.e Extractive Industry F SURFACE INDUSTRIAL BUILDINGS F.a National Roads F.b Main Roads F.c Minor Roads F.d Public Streets F.e Heavy Vehicle Overnight Facilities F.f Railway Lines F.g Power Lines F.h Telecommunication Infrastructure F.i Renewable Energy Structures F.j Dams & Reservoirs F.k Canals F.l Sewerage Plants & Refuse Areas F.m Mixed Use Development Areas

D1. BIOPHYSICAL FRAMEWORK

This sub-category focuses on incorporating environmental considerations into spatial planning to promote current public benefits and ensure sustainable social and economic use. It also addresses the conservation, development, and sustainable management of agricultural land, safeguarding long-term food security in South Africa.



The Biophysical Framework is broken down into four spheres as follows:

1. Environmental Framework
2. Climate Change
3. Agricultural Framework
4. Rural Development Framework

SPC A: CORE AREAS

Category A is consistent with UNESCO's biosphere reserve 'Core Area'. It comprises natural areas that are relatively undisturbed by human activities or that have the potential to be restored to such a state. It should have statutory

conservation status. For practical planning and management purposes, two sub-categories have been identified, namely:



A.a: Wilderness Areas

Wilderness areas in South Africa are declared under the Forest Act, 1984 (Act 122 of 1984), defining them as natural, unmodified areas with minimal human impact, preserved to maintain their primeval character.



A.b: Other Statutory Conservation Areas

Statutory conservation areas, such as national parks, nature reserves, and marine reserves, are designated for ecosystem conservation, biodiversity protection, sustainable recreation, and limited natural resource use.

Core areas in Knysna Municipality include: Knysna Estuary, Knysna Forest, Goukamma Nature Reserve, Noetzie Conservancy, Benton on Sea, and Buffalo Bay.

SPC B: BUFFER AREAS

This category is consistent with UNESCO's biosphere reserve 'Buffer Area' and 'Transition Area 1'. The buffer area is a clearly defined area surrounding the core area. Category B serves as a buffer between Category A (Core Areas) and Category C (Transition Areas), and extends the conservation efforts to areas where there has been a greater degree of human modification, but in which there are substantial environmental features worthy of conservation. This can include degraded conservationworthy areas that have the potential to be rehabilitated to a natural or near natural state. For practical planning and management purposes, four sub-categories have been identified, namely:



B.a: Public Areas

Statutory conservation land refers to permanently protected areas within or around Core Areas, such as nature reserves, contractual national parks, national monuments, and heritage sites.



B.b: Private Areas

De facto conservation areas in private ownership, without statutory conservation status, but ideally within a registered conservancy.



B.c: Ecological Corridors

Ecological Corridors/Areas are regions with significant natural vegetation or potential for indigenous flora restoration, creating a network of connected natural corridors. These include:

- Natural linkages supporting ecosystem processes, e.g., rivers.
- Naturally vegetated areas without formal conservation status.
- Rehabilitated tracts of Category C areas.



B.d: Rehabilitation Areas

Areas significantly modified or degraded but suitable for rehabilitation to a natural or near-natural state, ideally rezoned under existing schemes (e.g., Open Space III).

D1.1 ENVIRONMENTAL FRAMEWORK

The Environmental Framework for Knysna establishes comprehensive strategies to conserve natural ecosystems, protect biodiversity, and promote sustainable resource management. It identifies environmentally sensitive areas, enforces regulations to prevent ecological degradation, and incorporates climate resilience measures to strengthen sustainability efforts. This framework aligns

land use planning with environmental goals, balancing growth with conservation. By addressing environmental risks like flooding, erosion, and pollution, it supports long-term ecological health while guiding responsible development and infrastructure planning in Knysna.

There are three (3) types of conservation areas that can be found within the Knysna Municipal area:

- **Rivers Systems**
- **Critical Biodiversity Areas**
- **Ecological Support Areas**

River systems encompass the entire natural water network within a drainage basin. They are vital landscape features, acting as the main channels for transporting weathered materials from upland areas to lakes and seas, where much of the sediment is ultimately deposited. Rivers can also deposit sediments, forming accumulations within channels and across floodplains.

Critical Biodiversity Areas (CBAs) are essential regions identified through systematic biodiversity planning to meet targets for ecosystem health, species preservation, and ecological processes. Ecological Support Areas (ESAs), though not directly meeting biodiversity targets, are crucial for sustaining the ecological functionality of CBAs and providing ecosystem services. Both CBAs and ESAs can be found in terrestrial and aquatic environments.

ESAs are designated zones within a municipality recognized for their ecological importance and need for protection. They are identified for their unique habitats, biodiversity, and essential ecological functions. ESAs play a key role in conserving natural resources, protecting biodiversity, and maintaining

ecological stability, supporting the long-term health of ecosystems and fostering sustainable development practices.

The Western Heads Goukamma Conservancy, registered with CapeNature for the conservation of the critically endangered Knysna Sand Fynbos, has been identified as a CBA 1 and must be recognised and protected as such. This area contributes significantly to the municipality's biodiversity network and must be included in planning frameworks and development controls to support the conservation of endemic species and sensitive habitats.

D1.1.1 NATURAL RESOURCE AREAS

Preserving the unique landscapes and biodiversity of Knysna is essential for sustaining the region's environmental health and natural resources. This involves protecting Knysna's physical, biological, and cultural assets, including its indigenous forests, estuaries, wetlands, and nature reserves. Assessing these natural resources provides insights into their current status, exploitation trends, and opportunities for sustainable management. Conservation should be recognized as a distinct land use, dedicated to preserving significant areas for purposes like nature reserves, biodiversity habitats, and sustainable tourism.

Knysna contains Critical Biodiversity Areas (CBAs) and Ecological Support Areas (ESAs), which include formally protected zones and conservation areas. While some regions benefit from formal protection, others are vulnerable to environmental degradation. The municipality faces challenges related to habitat loss, pollution, and urban development pressures. Recognizing the importance of these ecosystems is vital for maintaining their health; proactive conservation

and management strategies are essential to safeguard Knysna's biodiversity and natural resources for future generations.

In Knysna, natural resource areas are rich with diverse ecosystems and resources critical for ecological balance, tourism, and local livelihoods. Key natural resource areas include:

1. **Forests:** Knysna is home to extensive indigenous forests, such as the Diepwalle Forest, part of the Knysna-Tsitsikamma Forest. These forests support biodiversity, provide timber, and offer recreational opportunities, making them essential for conservation as some of the few remaining large forests in South Africa.
2. **Estuaries and Wetlands:** The Knysna Estuary, one of the most important in South Africa, is a biodiverse habitat that supports various fish species, birdlife, and unique marine organisms like the Knysna Seahorse. Wetlands around Knysna, including those in Brenton and Sedgefield, provide critical ecosystem services, such as flood control and water purification, while supporting local biodiversity.
3. **River Systems:** Rivers like the Knysna, Goukamma, and Karatara play crucial roles in water supply, sediment transport, and biodiversity support. They contribute to both terrestrial and marine ecosystems by transporting nutrients and sustaining riparian habitats.
4. **Coastal and Marine Areas:** Knysna's coastal zones, including beaches like Buffalo Bay and Brenton-on-Sea, are popular for recreation and serve as habitats for marine life, providing essential ecological functions and protection against coastal erosion.

5. **Biodiversity and Conservation Areas:** The Goukamma Nature Reserve form part of the Goukamma Cluster, which is included in the Garden Route Complex World Heritage Site and Nature Reserves. These conservation zones are home to diverse flora and fauna and play a critical role in ecological health, biodiversity conservation, and environmental education. Their World Heritage status further emphasizes their international ecological and cultural significance, warranting ongoing protection and stewardship.

One of Knysna's notable conservation assets is the **Brenton Blue Butterfly Special Nature Reserve**, proclaimed in Provincial Gazette 25134 by Proclamation No. 939/2003 in terms of the Environmental Management Act (Act 73 of 1989). This reserve protects the critically endangered Brenton Blue Butterfly (*Orachrysops niobe*) and its unique habitat, underscoring the municipality's responsibility to conserve highly sensitive and irreplaceable biodiversity areas.

6. **Agricultural Land:** While not extensive, Knysna has designated agricultural areas that support local farming and food production. Agriculture in the region is generally aligned with sustainable practices to prevent ecological degradation.

These natural resource areas are vital for maintaining ecological balance, supporting the local economy through tourism and resource use, and preserving Knysna's unique environmental heritage.

D1.1.2 STRATEGIC WATER SOURCE AREAS

Knysna's water security depends heavily on the health and protection of the Outeniqua and Tsitsikamma Mountains, designated as Strategic Water Source Areas (SWSAs). These mountainous regions serve as critical "water factories," capturing high rainfall and feeding key river systems that supply freshwater to Knysna, George, Plettenberg Bay, and other parts of the Garden Route. Their dense indigenous forests, wetlands, and well-preserved catchments regulate water flow, improve water quality, and buffer against drought and floods.

Role of the Garden Route National Park

The Garden Route National Park, which spans large portions of these mountain ranges, plays a pivotal role in conserving the upper reaches of rivers that drain into the Knysna Estuary and surrounding water bodies. By maintaining intact ecosystems, the park supports natural water filtration and recharge, critical for sustaining reliable water supply and healthy estuarine environments that underpin local biodiversity and livelihoods.

Threats to SWSAs

Despite their importance, these source areas face increasing pressure from several fronts:

- **Land-use changes:** Illegal encroachment, deforestation, and inappropriate agricultural or urban development risk degrading catchments, reducing infiltration, and increasing sediment loads in rivers.
- **Climate change:** Shifts in rainfall patterns and increased frequency of droughts can alter water availability and stress ecosystems.
- **Invasive species:** Non-native plants can disrupt natural water cycles by altering evapotranspiration and soil conditions.

- **Pollution:** Runoff containing chemicals, waste, or sediments can degrade water quality downstream.

Management and Protection Measures

To secure Knysna's water future, integrated catchment management is essential, involving:

- **Strict land-use regulation and enforcement** within and adjacent to SWSAs to prevent degradation.
- **Restoration initiatives** targeting degraded forests and wetlands to enhance natural water retention and filtration.
- **Collaboration between conservation authorities, municipalities, and local communities** to promote sustainable practices.
- **Monitoring and research** to track water quality, quantity, and ecosystem health for adaptive management.
- **Public awareness and education** campaigns to highlight the value of water source areas and promote stewardship.

By prioritising the protection of the Outeniqua and Tsitsikamma Mountains as SWSAs and supporting the role of the Garden Route National Park, Knysna can maintain a resilient water supply system critical for social well-being, economic activities, and ecological sustainability.

D1.1.3 ENVIRONMENTAL MANAGEMENT GUIDELINES

In alignment with the Critical Biodiversity Areas of the Western Cape, Knysna identifies several key biodiversity priority areas:

- **Critical Biodiversity Areas (CBAs)**
- **Ecological Support Areas (ESAs)**

Protected areas and conservation efforts are vital to maintaining long-term ecological integrity, particularly within the Cape Floristic Region—a global biodiversity hotspot. Ongoing spatial planning draws on available biodiversity datasets, including CBAs, ESAs, and recent Key Biodiversity Area (KBA) layers. However, it is acknowledged that fine-scale mapping remains a challenge in certain areas. Localities such as Noetzie, where patches of critically endangered Knysna Sand Fynbos are present, highlight the need for continued updates and verification of vegetation data to guide development decisions.

Fire plays a critical ecological role in maintaining fynbos ecosystems. The exclusion of natural fire regimes—especially from CBAs—is ecologically detrimental and may lead to biodiversity loss. Environmental management must incorporate appropriate fire strategies in consultation with CapeNature and other relevant authorities.

Urban expansion continues to pose risks to high-biodiversity and high-potential agricultural areas. Spatial planning must therefore discourage development in ecologically sensitive zones, while guiding appropriate growth to less vulnerable areas. Tools such as fine-scale vegetation maps, Environmental Management Overlays, and Environmental Impact Assessments are essential in this process. Wetland systems are similarly under pressure. The MSDF reinforces the application of a 100m ecological buffer around wetlands, which is to be applied to both mapped and unmapped watercourses—such as the unnamed stream flowing west of Noetzie Beach—to protect riparian and estuarine linkages and maintain ecological function.

Environmental management need not be intensive across the entire municipality, but targeted protection of sensitive ecological assets remains a

central priority—particularly within CBAs, ESAs, wetlands, and conservation buffer areas. The following subsections provide land-use specific guidance.

D1.1.3.1 FORMAL RESIDENTIAL:

New residential developments will be assessed based on their potential environmental impacts—natural, economic, social, and aesthetic. Development in environmentally sensitive or agriculturally valuable areas will be discouraged. "No-Go" zones will be defined for areas with geotechnical, hydrological, or infrastructural constraints.

Sufficient open space must be incorporated into residential layouts to preserve natural habitat connectivity. Development near CBAs will require comprehensive environmental impact assessments (EIAs). Conservation-compatible land uses, such as low-impact tourism and eco-accommodation, are preferred in these sensitive areas.

It is noted that the proposed expansion of Portion 79 of Farm 216 Uitzicht for mixed-use purposes falls within a mapped Critical Biodiversity Area. This raises concerns from stakeholders and is acknowledged as a significant environmental constraint. The municipality confirms that any such proposals must undergo a detailed environmental assessment process and may not be supported if found to compromise ecological integrity.

D1.1.3.2 INFORMAL RESIDENTIAL:

The unmanaged expansion of informal settlements will be avoided due to their often high ecological footprint and service delivery challenges. Existing informal areas should be formalised with the provision of essential infrastructure and environmental upgrading.

D1.1.3.3 INDUSTRIAL / COMMERCIAL:

A desirable industrial environment should minimize pollution (air, water, noise) and be designated for specific industrial activities. Non-agricultural industrial activities within agricultural zones should be discouraged. Strict pollution control measures must be enforced, particularly in sensitive areas adjacent to watercourses. **Environmental Management Plans** are required for all industrial activities and will be monitored by a dedicated Environmental Management Officer (EMO).

D1.1.3.4 AGRICULTURE:

Agricultural practices within Knysna should prioritize sustainable methods that enhance biodiversity and ecological integrity. Agricultural activities should be designed to avoid degrading natural ecosystems and should focus on preserving existing vegetation, especially in sensitive areas. Practices that contribute to soil erosion, water pollution, or habitat destruction must be mitigated through best management practices.

D1.1.3.5 INDIGENOUS VEGETATION:

Knysna Municipality is home to diverse ecosystems, including various indigenous plant species. Protecting and managing existing indigenous vegetation is crucial for maintaining local biodiversity. Whole plant removal is prohibited in protected areas. Firewood harvesting should be limited to dry, dead, and fallen branches or trees to ensure the sustainability of these resources.

D1.1.3.6 CRITICAL BIODIVERSITY AREAS (CBA):

CBAs are irreplaceable ecological assets and must be excluded from inappropriate development. The municipality recognises the conservation

significance of the Western Heads Goukamma Conservancy and its designation as a CBA 1 area. This area, which supports the critically endangered Knysna Sand Fynbos, is registered with CapeNature and forms part of the broader Garden Route biodiversity network. Development proposals within or near CBAs must undergo detailed environmental scrutiny, and land use decisions will be guided by the provincial biodiversity spatial planning categories.

The Western Heads–Goukamma Conservancy, registered with CapeNature, plays a vital role in conserving the critically endangered Knysna Sand Fynbos and forms part of the Garden Route National Park expansion. It is correctly identified as a **CBA 1** and must remain protected under the MSDF. The Draft MSDF acknowledges this area's ecological sensitivity and supports the preparation of a Western Heads Precinct Plan that ensures development aligns with conservation priorities. Low-impact, nature-based tourism may be supported where compatible with biodiversity objectives. Feedback from the WHGC has been noted and informs the refinement of the MSDF's environmental policies.

D1.1.3.7 ENVIRONMENTALLY SENSITIVE AREAS (ESAS):

ESAs are crucial for maintaining biological diversity and ecosystem health. These areas include wetlands, wildlife habitats, and steep slopes. Protection of ESAs is a priority for Knysna Municipality, as these areas provide recreational opportunities, protect against natural hazards, and contribute to community goals such as open spaces and parks.

ENVIRONMENTAL IMPACT ASSESSMENTS/AUTHORIZATION:

According to the Environmental Impact Assessment Regulations under NEMA (107/1998), specific activities require environmental authorization prior to commencement. Activities necessitating such authorization include:

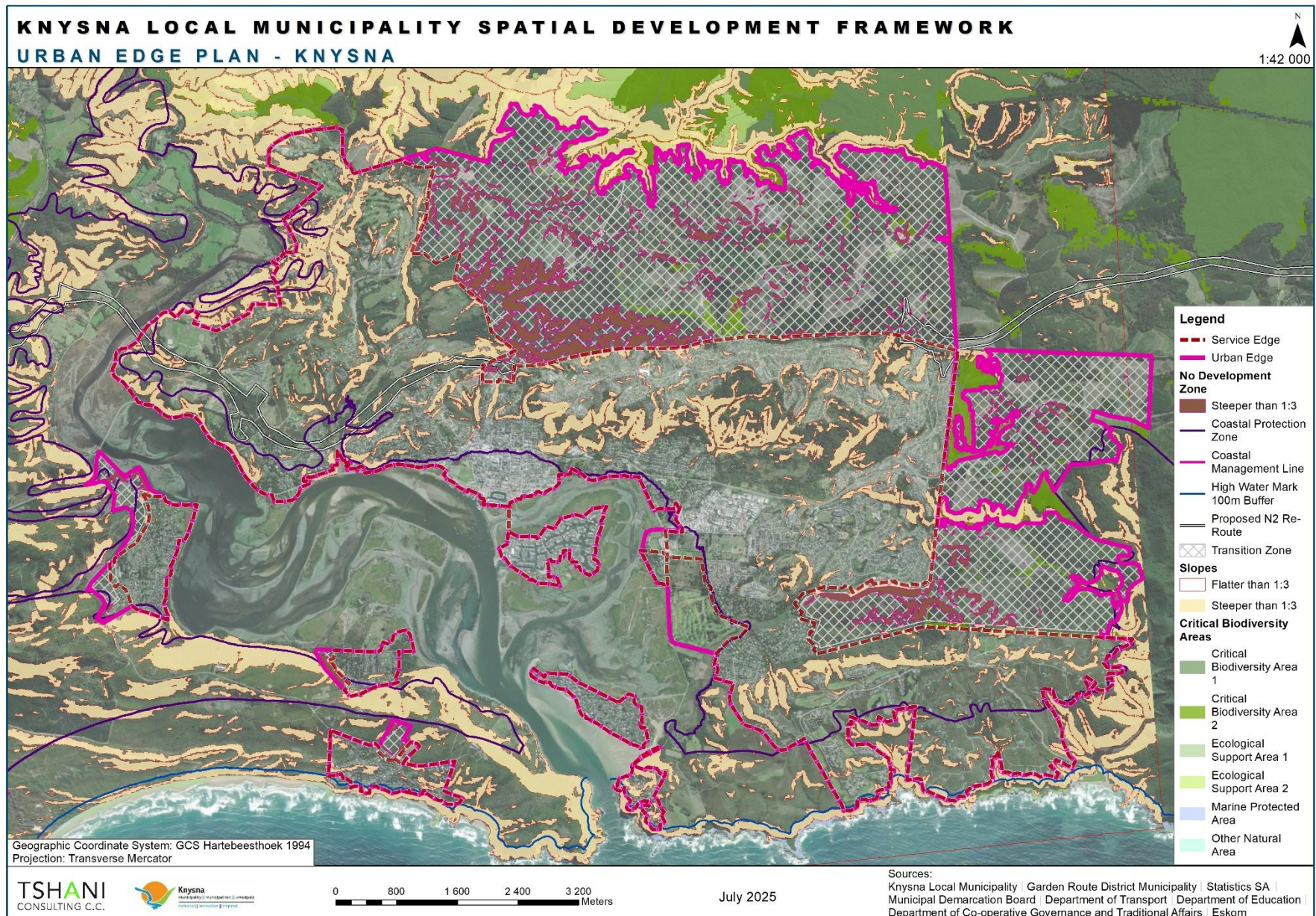
- Development within protected areas and within 5-10 km of protected areas.
- Development adjacent to or within watercourses.
- Removal of natural vegetation.
- Construction of service pipelines and roads.
- Facilities for agriculture outside designated zones.
- Mining activities and large-scale animal concentration facilities.
- Development of vacant or derelict land exceeding certain thresholds.

WETLANDS:

A 100-meter ecological buffer zone is recommended around wetlands to maintain their ecological integrity. Developments within 500 meters of wetlands will require a Water Use License under the National Water Act. Additionally, development should be prohibited within the 1:100-year flood line of rivers and streams or a minimum of 100 meters where no flood line is established.

SLOPES

The plan below highlights the slopes in Knysna town steeper than 1:3.



OPEN SPACE:

Natural open spaces are essential for maintaining ecological integrity and enhancing community well-being. They also improve the area's attractiveness and tourism potential. Valuable environmental components, such as wetlands, rivers, endangered ecosystems, and forests, should be designated as open space, ensuring their protection and preservation.

D1.2 CLIMATE CHANGE FRAMEWORK

Climate change presents significant and growing risks to Knysna's ecosystems, infrastructure, heritage, and economy. The municipality is increasingly vulnerable to climate-related hazards such as droughts, wildfires, floods, and coastal storms. These events disproportionately affect vulnerable communities, particularly those in low-income or informal settlements located in high-risk areas. In response, the MSDF adopts an integrated, forward-looking approach that embeds climate resilience into spatial planning, infrastructure investment, and land use decision-making. This approach supports both climate change mitigation (reducing emissions and protecting carbon sinks) and adaptation (reducing exposure and vulnerability to climate impacts).

Knysna Municipality acknowledges the need to consider all climate change factors comprehensively in the MSDF's implementation. This includes prioritizing critical biodiversity corridors such as the Swartvlei Estuary and the coastal area of Sedgfield (from Gerickes Point to Groenvlei), where sustainable development will enhance community resilience while safeguarding vital coastal and drift sand ecosystems.

Knysna's economy, heavily influenced by tourism, agriculture, and forestry, faces significant vulnerabilities due to climate change. Key impacts include rising temperatures, unpredictable precipitation, shifting rainfall patterns, and altered growing seasons. These changes threaten water availability, critical for both rain-fed and irrigated farming, and could exacerbate existing challenges like droughts and floods. The region's reliance on natural resources for tourism and agricultural production means that any decrease in their availability could jeopardize food security and economic stability.

The municipality experiences a temperate coastal climate, with mild, wet winters and warm, dry summers. However, climate change is projected to increase the frequency and intensity of extreme weather events, such as storms, flooding, and heatwaves. These phenomena pose risks not only to agricultural productivity but also to local infrastructure, ecosystems, and community well-being. As climate change accelerates, Knysna is expected to encounter shifts in temperature and rainfall patterns, potentially leading to reduced vegetation cover, lower agricultural yields, and increased susceptibility to pests and diseases.

To mitigate these risks, it is crucial for Knysna Municipality to actively reduce greenhouse gas emissions and implement strategies that enhance climate resilience. Protecting critical areas, such as coastal ecosystems, wetlands, and indigenous forests, is essential for maintaining biodiversity and microclimates that facilitate climate adaptation.

Knysna must adopt two main strategies: **Climate Mitigation**, which focuses on reducing greenhouse gas emissions and enhancing carbon absorption, and **Climate Adaptation**, which aims to enable communities to adjust to climate

variability. The municipality will collaborate with regional partners to develop a comprehensive Climate Change Response Plan, integrating it into broader Disaster Management strategies. Funding for climate-related initiatives will be sought through the Integrated Development Plan (IDP), alongside efforts to raise awareness through education and community engagement.

D1.2.1 CLIMATE CHANGE INITIATIVES

The following initiatives are proposed to address climate change impacts, particularly water scarcity, flooding, and carbon emissions, while promoting sustainable development in Knysna Municipality:

WATER SOURCE IDENTIFICATION AND CONSERVATION

- Identify and establish alternative water sources, such as rainwater harvesting and desalination, to supplement existing supplies.
- Promote water conservation measures and responsible water use throughout the municipality.
- Increase public awareness about water scarcity and encourage community participation in water-saving initiatives.

FLOOD PROTECTION

- Implement stringent development standards and location criteria to safeguard properties from flood risks.
- Integrate flood resilience into infrastructure planning, particularly in areas prone to flooding.

CLIMATE RISK ZONES AND SPATIAL PLANNING GUIDANCE

From a spatial planning perspective, climate adaptation requires the clear identification and regulation of areas exposed to climate-related hazards. The MSDF integrates spatial guidance for the following climate risk zones, where development should be limited or redirected:

- **Coastal Management Lines**, as established under the Integrated Coastal Management Act;
- **1:100-year flood lines** for rivers and flood-prone areas, where data is available;
- **River buffers and setback lines** from major and minor watercourses;
- **Sea-level rise and coastal erosion risk areas**, informed by current national and provincial data.
- These risk zones will be visually incorporated into the Spatial Proposals Maps and overlaid on priority planning areas to inform future land use decisions. No new urban development is supported within these areas unless for essential infrastructure or uses compatible with environmental management, such as ecosystem restoration, green infrastructure, or nature-based solutions. This approach supports long-term community resilience and protects critical ecological and hydrological systems.

SUSTAINABLE URBAN DEVELOPMENT

- Encourage compact, walkable urban development that supports public transport and reduces reliance on private vehicles.

- Discourage vehicle-dependent development patterns to lower carbon emissions and enhance air quality.

ENVIRONMENTAL PROTECTION

- Preserve and protect ecologically sensitive areas identified in local Biodiversity Spatial Plans, including coastal zones and estuaries.
- Prioritize the conservation of these critical habitats in future urban planning processes.

GREEN INFRASTRUCTURE

- Develop public facilities with sustainable design principles and secure financial strategies for their maintenance.
- Utilize recycled water in municipal facilities to conserve freshwater resources.

CLIMATE RISK SPATIAL GUIDANCE

To support climate adaptation, the MSDF discourages or restricts development in high-risk areas vulnerable to sea level rise, erosion, flooding, and storm surges—particularly coastal floodplains, estuarine edges, and river corridors. These areas will be delineated using updated hazard and climate vulnerability mapping, and managed using nature-based solutions such as wetland protection, dune restoration, and flood-compatible open space. Infrastructure planning will avoid intensification in such zones and promote relocation or retreat where feasible. These spatial measures will be refined through local development plans and the municipal Disaster Risk Reduction Strategy.

Table 13: Climate Change Impacts for Knysna Municipality

Projection	Possible Impacts
Higher mean annual temperature	• Increased evaporation leading to reduced water availability, affecting both agriculture and tourism. • Higher risk of wildfires impacting ecosystems and properties.
Higher maximum temperatures and heatwaves	• Heat stress on residents, livestock, and wildlife, with increased health risks, especially for vulnerable populations. • Decreased agricultural productivity and increased pest activity.
Higher minimum temperatures and fewer frost days	• Risks to crops requiring winter chilling, such as certain fruits. • Increased demand for cooling energy, stressing local energy supplies.
General drying trend	• Decreased river flow and water quality, affecting aquatic ecosystems. • Increased fire risk due to prolonged dry conditions.
Shifts in seasonality	• Unpredictable rainy seasons complicating agricultural planning and operations.
Intensification of rainfall events	• Increased flood risk, straining urban drainage systems and increasing soil erosion. • Higher risks to human life and infrastructure.
Sea Level Rise	• Coastal flooding and erosion • Saltwater intrusion affecting freshwater • Damage to infrastructure and displacement
Water Security	• Reduced freshwater availability • Increased demand and competition • Risks to water quality and supply reliability

D1.2.2 STRATEGIES FOR CLIMATE CHANGE MITIGATION

The following Section outlines key actions and initiatives aimed at reducing the municipality's carbon footprint and enhancing resilience to climate change impacts.

AGRICULTURE:

- **Promoting Sustainable Practices:** Encourage local farmers to adopt sustainable practices such as crop rotation, integrated pest management, and organic farming to enhance resilience against climate variability.
- **Climate-Resilient Crop Cultivation:** Support farmers in transitioning to drought-resistant crops and improve water management techniques to adapt to changing climate conditions.
- **Agroforestry and Regenerative Agriculture:** Promote agroforestry as part of a broader regenerative agriculture approach, combining tree planting with practices that enhance soil health — such as cover cropping, composting, and minimal tillage. These methods not only sequester carbon in biomass but also significantly increase carbon storage in soils, improving fertility and long-term productivity. Agroforestry systems will be designed to balance agricultural output with biodiversity enhancement, using buffer zones and habitat corridors that avoid conflict between farming and wildlife. Promote agroforestry as part of a broader regenerative agriculture approach, combining tree planting with practices that enhance soil health — such as cover cropping, composting, and minimal tillage. These methods

not only sequester carbon in biomass but also significantly increase carbon storage in soils, improving fertility and long-term productivity. Agroforestry systems will be designed to balance agricultural output with biodiversity enhancement, using buffer zones and habitat corridors that avoid conflict between farming and wildlife.

HUMAN HEALTH:

- **Heat Mitigation Plans:** Develop heat action plans to protect vulnerable populations during extreme heat events. Public health campaigns can educate residents on managing heat stress and staying hydrated.
- **Disease Preparedness:** Enhance surveillance for climate-sensitive diseases, such as those spread by mosquitoes, and promote community awareness and health initiatives.

HUMAN SETTLEMENTS:

- **Climate-Resilient Housing:** Encourage the integration of sustainable building practices in new developments, focusing on energy efficiency and water conservation.
- **Disaster Preparedness:** Conduct assessments of vulnerable areas and establish comprehensive emergency plans, including community education and training for disaster response.

WATER MANAGEMENT:

- **Groundwater Quality Monitoring:** Regularly monitor groundwater quality to identify and address issues impacting public health and safety.

- **Water Conservation Initiatives:** Promote the adoption of water-saving technologies and practices in households and industries to reduce demand and enhance supply reliability.

CLIMATE CHANGE MITIGATION

Land use patterns play a central role in building long-term climate resilience. The MSDF promotes compact, accessible settlements, reduced sprawl, and the conservation of ecological buffers such as forests, wetlands, and dune systems. These spatial principles will guide land development decisions, reduce exposure to hazards, and protect carbon-rich and climate-regulating landscapes. The MSDF further aligns with the Eden District Disaster Management Framework to ensure coherent risk mitigation across the region.

D1.2.3 DISASTER MANAGEMENT

Disaster management focuses on reducing or avoiding potential losses from hazards (e.g., loss of life, livelihoods, and economic impact). The following phases are critical to effective disaster management, as outlined by the CSIR (2020):

- **Mitigation/Prevention:** Focus on preventing exposure to disasters and reducing vulnerability to minimize impacts.
- **Preparedness:** Plan and train emergency responders to enhance the effectiveness of disaster response efforts.
- **Response:** Implement coordinated efforts to minimize disaster impacts and provide immediate assistance to affected communities.
- **Recovery:** Strive to "build back better" following a disaster, enhancing community resilience and infrastructure for future challenges.

Regular reviews of the Disaster Management Strategy are essential to ensure that Knysna's communities are prepared to withstand natural disasters and other emergencies, adapting to changing climate conditions and ensuring the safety and well-being of all residents.

D1.3 ENVIRONMENTAL RECOMMENDATIONS

Environmental recommendations focus on sustainable practices and strategies to protect and enhance Knysna's natural resources while promoting long-term ecological health.

STRATEGIC ENVIRONMENTAL PLAN DEVELOPMENT

The municipality should formalize a Strategic Environmental Plan (SEP) that not only aligns with the Western Cape's environmental frameworks but also integrates insights from the CSIR Green Book and SANParks' 10-year expansion priorities for the Garden Route National Park (GRNP). This SEP will ensure that comprehensive environmental assessments and studies, particularly those focusing on ecologically sensitive and expansion areas, are conducted well before initiating construction on municipal projects. Through this plan, Knysna can safeguard natural assets, uphold climate resilience, and enhance alignment with national conservation initiatives, creating a foundation for sustainable growth and environmental stewardship.

ECOLOGICAL INFRASTRUCTURE INVESTMENT FRAMEWORK (EIIF)

The municipality should adopt the Ecological Infrastructure Investment Framework (EIIF) to guide the protection, rehabilitation, and enhancement of ecological infrastructure.

This framework supports the identification of priority investment areas where ecological systems deliver essential services—such as water purification, flood attenuation, and biodiversity support—and helps maximise socio-economic and environmental returns. Integrating EIIF into planning processes will strengthen the municipality’s capacity for climate adaptation and sustainable service delivery.

MANAGE RISK, SAFEGUARD RESILIENCE

The **integrity of Knysna's environmental and economic assets** must be central to securing a sustainable and resilient future. This strategy ensures that land use and settlement growth are managed to protect and rehabilitate Knysna’s natural assets—essential systems that support life, livelihoods, and offer potential prosperity. These assets also buffer the impacts of climate change and extreme events, protecting life and property. The goal is to provide Knysna with a sustainable and resilient base for future prosperity.

CATCHMENT AREA REHABILITATION

Prioritize the rehabilitation of critical catchment areas to improve water quality and supply, particularly:

- **Knysna River** and **Gouna River** (immediate priority for Knysna town)
- **Salt, Bigai, Bongani Rivers**, and **Hoogekraal**
- **Karatara River** (supplies Karatara and Sedgfield)
- **Homtini/Goukamma River**

These catchments provide vital water resources and their rehabilitation will improve ecosystem health and resilience.

COASTAL MANAGEMENT LINE (CML)

The **Coastal Management Line (CML)** has been delineated to address risks of coastal erosion and sea level rise, ensuring **public safety** and preserving Knysna's **aesthetic values**. Development within the CML will be managed with firm land-use controls to mitigate risk and minimize environmental impact.

BLUE-GREEN CORRIDORS

Establish **blue-green corridors** along Knysna, Homtini, Karatara, Sedgfield, and Gouna Rivers. These corridors will protect biodiversity, provide recreational opportunities, connect natural habitats, and improve climate resilience.

SOUTHERN TRANSITION ZONE AND NOETZIE ECOLOGICAL CORRIDOR

The MSDF recognises the high ecological sensitivity of the Southern Transition Zone, particularly east of Noetzie Road, as confirmed by the Knysna Environmental Management Framework (KEMF). This area includes extensive Critical Biodiversity Areas (CBAs 1 & 2) and Ecological Support Areas, and functions as a vital ecological corridor linking the Knysna Estuary and Eastern Heads with the Noetzie Conservancy and Sinclair Nature Reserve.

Given its steep, erosion-prone slopes, complex drainage systems, and sensitive wetland and estuarine linkages, this area is unsuitable for medium- to high-density development. Future land use should be limited to low-impact, eco-tourism activities—subject to rigorous environmental assessments and aligned with the KEMF. This approach aims to safeguard hydrological function, prevent ecological fragmentation, and protect the long-term integrity of Knysna’s only remaining coastal corridor.

MUNICIPAL OPEN SPACE NETWORK

Develop a **Municipal Open Space Network** to connect urban green spaces with conservation areas. This network will:

- Integrate with NMT systems to connect communities and provide access to green spaces.
- Support biodiversity by facilitating wildlife movement between habitats.
- Provide active and passive recreational spaces for residents, improving urban livability.
- Feature a Central Park in Knysna's town center to promote social cohesion, inclusion, and civic pride.

FORESTRY STEWARDSHIP AND ECOSYSTEM MANAGEMENT

Encourage sustainable forestry practices, balancing economic benefits with environmental protection. The Forestry Stewardship Council (FSC) grading principles must be followed to manage commercial plantations, focusing on alien species clearing, wetland rehabilitation, and wildlife corridor establishment. Collaborating with forestry stakeholders will support sustainable use of resources.

INVASIVE ALIEN PLANT SPECIES (IAPS) MANAGEMENT

It is proposed that a targeted approach to IAP management be adopted as part of Knysna's broader environmental resilience strategy. This includes coordinated clearing efforts in high-risk areas such as catchments, river corridors, and urban edges, where invasive vegetation significantly increases wildfire risk and places pressure on water resources. The programme should be

aligned with national initiatives such as Working for Water and integrated into local fire management and ecological restoration projects. In addition, opportunities to use cleared biomass for sustainable fuel production should be explored, supporting green energy and local job creation.

SCENIC AND VISUAL PROTECTION GUIDELINES

Implement strict land-use guidelines to protect Knysna's scenic landscapes and natural viewsheds. These protections are vital for maintaining Knysna's appeal as a tourist destination and preserving the visual identity of the area.

COMMUNITY ENGAGEMENT AND EDUCATION

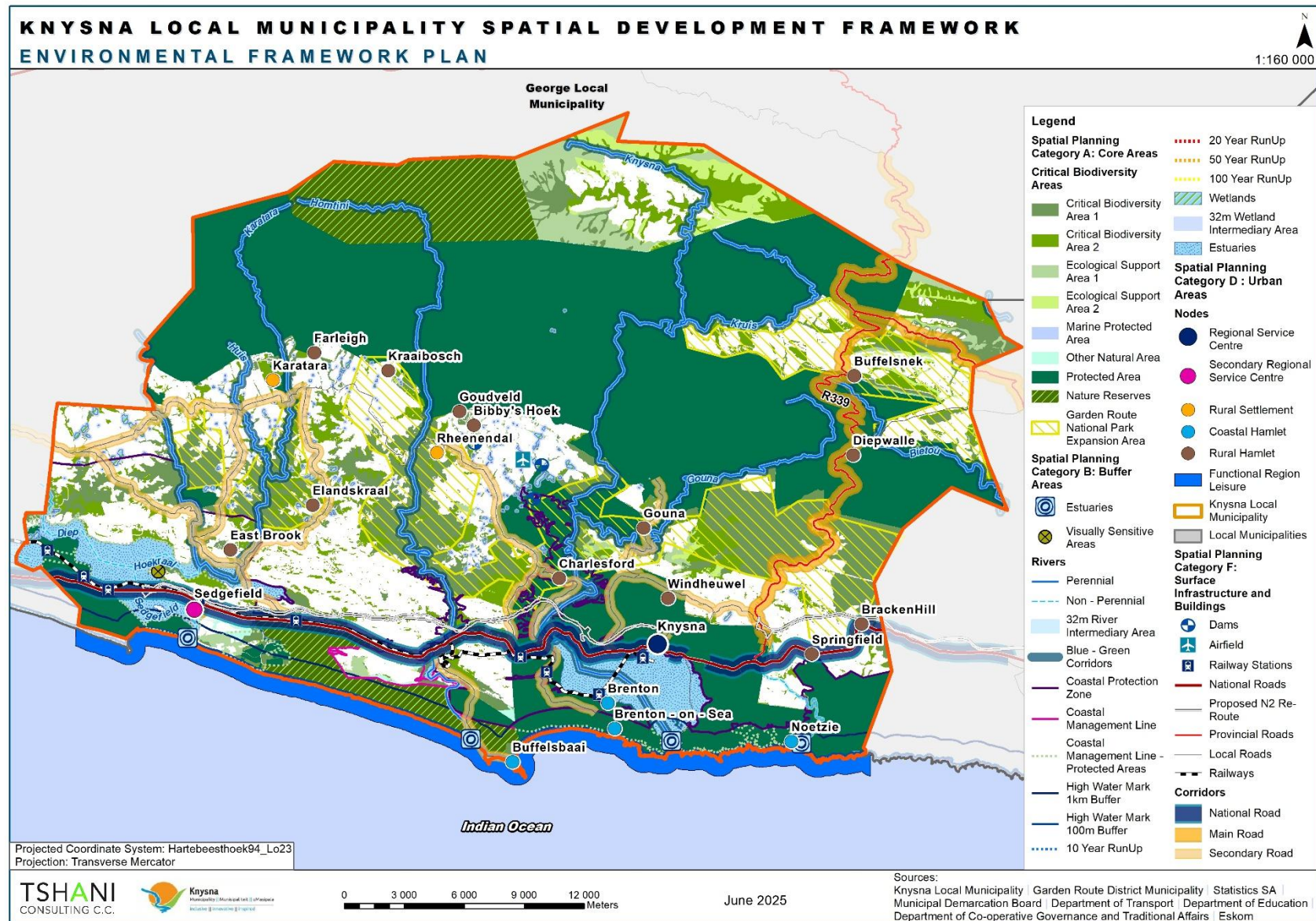
Enhance community engagement by promoting public awareness of conservation zones, blue-green corridors, and the coastal management framework. Public education initiatives should foster environmental stewardship and encourage compliance with conservation and land-use regulations.

MARINE BUFFER ZONE

Develop a **500-meter marine buffer zone** along the coast, from Noetzie to Sinclair/Harkerville. This buffer zone will reduce land-based pollution, safeguard marine biodiversity, and mitigate threats from offshore exploration activities.

MONITORING AND ADAPTIVE MANAGEMENT

Establish a **monitoring and adaptive management framework** for environmental interventions, such as blue-green corridors and catchment restoration projects. Regular assessments will ensure these projects remain effective and adaptable in response to changing environmental conditions



Plan 14: Environmental Framework

D1.4 AGRICULTURAL FRAMEWORK

An **Agricultural Framework** is a strategic plan that governs the sustainable use and management of agricultural land and resources. It balances agricultural productivity with environmental conservation, rural development, and socio-economic growth. The framework typically includes best practices for land use, soil and water management, biodiversity preservation, and climate resilience. It also prevents urban encroachment, promotes agri-business, and ensures food security while aligning with broader agricultural and environmental goals.

For **Knysna Municipality**, the Agricultural Framework identifies key agricultural areas, regulates land use to prevent urban sprawl, and supports agri-business and agri-tourism, especially in the Karatara and Rheenendal areas. It integrates environmental, economic, and social considerations to enhance food security, generate employment, and stimulate the local economy, while safeguarding biodiversity and managing natural resources sustainably. The framework aligns with regional and national planning strategies, including climate resilience and sustainable development.

Commercial agriculture in Knysna, while limited, focuses on producing crops or livestock for local and export markets. Potential exists for expanding organic farming, forestry, and value-added agri-products that align with the region's environmental strengths. Livestock farming, particularly cattle and small-scale poultry, is present, with growth potential in sustainable forestry and agri-tourism.

D1.4.1SPC C: AGRICULTURAL AREAS (KNYSNA MUNICIPALITY)

This category aligns with UNESCO's biosphere reserve 'Transition Area 2,' emphasizing sustainability and cooperative engagement among stakeholders.

Known as the 'cooperation area,' it is crucial that all relevant stakeholders participate to ensure that development and land uses adhere to sustainable practices. This category is essential for maintaining Knysna's unique rural landscape, with agriculture and forestry as the dominant activities, including resource extraction for food and other materials. Two sub-categories are identified within this area:



C.a: Extensive Areas

Category C areas support land uses leveraging the area's economic potential, including private properties with consumptive uses that maintain ecological processes.



C.b: Intensive Areas

Category C supports land uses leveraging economic potential, including private areas for consumptive uses like intensive agriculture and forestry.

GENERAL PURPOSES

- Category C includes extensive natural vegetation that acts as a buffer for Category B areas, helping preserve the surrounding ecosystems.
- These areas represent the urban-rural interface, affecting the sustainability of both rural and urban environments in Knysna.
- They accommodate a wide range of agricultural activities, including forestry.
- Opportunities for low-impact resort development and recreational activities exist within this category, contributing to rural tourism and local economic development.

D1.4.1.1 SUB-CATEGORY C.A: EXTENSIVE AGRICULTURAL AREAS

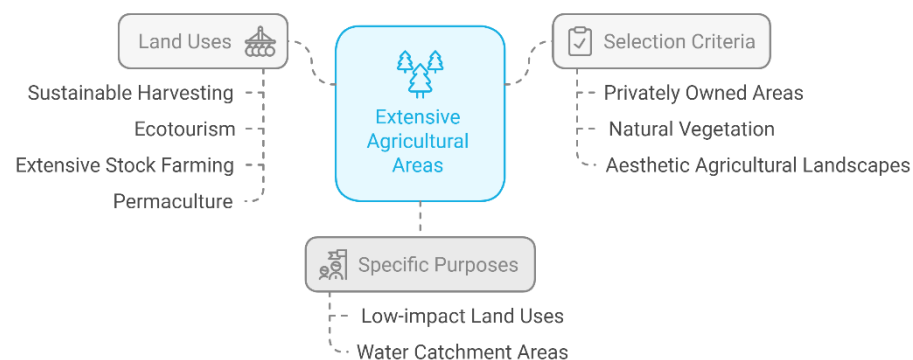
This sub-category supports land uses that capitalize on the economic and ecological potential of the area while allowing natural processes to continue. It includes private properties used for consumptive purposes, such as agriculture, with an emphasis on maintaining ecological balance.

Specific Purposes

- C.a promotes low-impact land uses, including the sustainable harvesting of wildflowers, buchu, rooibos, ecotourism, extensive stock and game farming, and permaculture.
- It includes water catchment areas managed for conservation, contributing to the region's water security.

Selection Criteria / Principles

- Privately owned areas zoned for agricultural purposes (Agriculture I & II).
- Extensive agricultural areas covered with natural vegetation.
- Agricultural landscapes of high aesthetic value that enhance the rural character of Knysna.



D1.4.1.2 SUB-CATEGORY C.B: INTENSIVE AGRICULTURAL AREAS

C.b supports land uses focused on maximizing the economic potential of agricultural areas, where intensive agriculture and forestry are prevalent. It includes privately owned areas designated for consumptive purposes, including intensive farming practices.

Specific Purposes

- This sub-category caters to conventional intensive agricultural enterprises, such as crop farming, dairy farming, and aquaculture.
- It also accommodates resource extraction activities, such as timber production from forestry.
- Natural vegetation within C.b provides opportunities for establishing ecological corridors, contributing to environmental sustainability.

Selection Criteria / Principles

- Private properties where intensive agricultural practices already occur.
- Areas zoned Agriculture Zone I and II according to the Knysna Zoning Scheme.
- Agricultural areas where extensive environmental impacts have occurred, placing environmental health and sustainability at risk.

This structure helps maintain Knysna's agricultural productivity while ensuring that sustainable practices are embedded within both extensive and intensive agricultural areas. Balancing rural development and environmental stewardship is key to supporting the region's long-term resilience and growth.

D1.4.2 AGRICULTURE AS AN ECONOMIC SECTOR

Agriculture and forestry are key sectors in the Knysna Municipal Area, contributing to both local economic activity and social well-being. Although not the primary

drivers compared to tourism, these sectors provide essential unskilled and semi-skilled employment, particularly in rural areas like Karatara, Rheenendal, and Sedgfield.

Historically, the agricultural sector within Knysna has been relatively small, with its growth largely driven by the forestry sub-sector. However, the recent collapse of the local forestry industry has presented significant challenges, particularly for communities like Karatara, where forestry activities are the largest source of employment. In response, a timber cluster has been developed to revitalize this sector, focusing on addressing the decline and creating new opportunities within the wood-manufacturing and processing industries.

The economy of Sedgfield remains reliant on silviculture and wood-manufacturing, alongside tourism. Rheenendal faces similar economic vulnerability, with limited diversification and the Leeuwenbosch Dairy standing as one of the few large-scale employers in the area.

In 2021, agriculture, forestry, and fishing contributed R244.9 million to Knysna's total Gross Domestic Product by Region (GDPR) of R6,260.0 million. Despite its modest contribution, the sector remains vital for sustaining rural livelihoods.

Looking forward, there are efforts to explore high-value niche crops within Knysna to diversify agricultural activities. These opportunities aim to leverage the region's unique climate and geography to introduce more economically viable and sustainable agricultural practices, potentially opening new markets and boosting local economic resilience.

In addition to economic output, these sectors contribute to food security, supplying local and external markets. The natural forests and landscapes also serve as a foundation for eco-tourism activities, further linking agriculture and forestry to Knysna's tourism sector.

Both agriculture and forestry support sustainable land management practices, aligning with Knysna's environmental conservation goals and the broader vision for sustainable development in the municipality..

D1.4.3 PROMOTING AGRICULTURE AND FORESTRY AS AN ECONOMIC SECTOR IN KNYSNA

To promote agriculture and forestry as vibrant economic sectors in Knysna, it is essential to focus on initiatives that can stimulate growth, diversification, and sustainability. Given the historical significance of forestry and the growing potential of agriculture, strategic efforts should be made to leverage existing resources and explore new opportunities that align with Knysna's economic and environmental goals.

1. Revitalizing the Forestry Sector

The challenges faced by the local forestry industry have significantly impacted the economy, particularly in communities like Karatara, where forestry has traditionally been a major employer. While the sector hasn't entirely collapsed, it has experienced a marked decline due to a shift in focus from commercial logging to conservation and sustainable forest management. This shift has led to reduced timber production and changes in employment, creating a need for revitalization.

To address these challenges, a range of targeted initiatives can help revitalize the local timber sector and stimulate economic growth. These initiatives include:

- **Corporate-Sponsored Tree Planting Programs:** Encourage businesses to fund tree planting efforts, restoring local forests and providing green branding opportunities. This will not only help restore the forest ecosystem but also generate positive corporate social responsibility benefits.
- **Community-Driven "Adopt-a-Forest" Programs:** Engage local communities in the maintenance and restoration of designated forest areas. These initiatives can foster a sense of ownership and stewardship while creating opportunities for small-scale timber projects and sustainable wood harvesting.
- **Eco-Tourism and Timber Education Trails:** Develop tourism initiatives that promote sustainable forestry practices and educate visitors on the history and importance of the local timber industry. Timber education trails can offer guided experiences that showcase wood craftsmanship and sustainable forest management, enhancing the area's tourism appeal.
- **Environmental Education and Skills Development Programs:** Partner with local schools to promote environmental education through tree-planting activities and forestry workshops. Additionally, offer skills development programs to equip individuals with the knowledge needed for sustainable forestry and wood-product manufacturing.

Focusing on these initiatives will help create new jobs, foster sustainable practices, and ensure the resilience of the timber sector in Knysna Municipality. By prioritizing community engagement and targeted interventions, Knysna can gradually rebuild the local timber economy while aligning with environmental and conservation goals.

2. **Exploring High-Value Niche Crops**

Knysna has the potential to diversify its agricultural sector by exploring high-value niche crops that are well-suited to its climate and geography. Opportunities in specialty crops such as basil, rosemary, thyme, and lavender, alongside organic vegetables like kale, spinach, and bell peppers, can open up new markets for local farmers.

Additionally, exotic fruits such as dragon fruit, pawpaw, and guava can capitalize on local consumer demand and niche markets. Promoting agro-processing facilities to add value to these agricultural products before they reach the market will help farmers increase their income and create jobs across the value chain.

Government and private sector partnerships can provide support through funding, technical assistance, and market access, ensuring that local farmers can successfully implement these high-value crop initiatives and contribute to a more resilient agricultural economy in Knysna.

3. **Sustainable Agriculture and Agroforestry**

Promoting sustainable agricultural practices will not only boost the economy but also contribute to Knysna's environmental conservation goals. Encouraging agroforestry—integrating trees and crops on the same land—can enhance biodiversity, improve soil health, and contribute to climate change

resilience. Sustainable land management practices will ensure that agricultural activities are environmentally responsible while maintaining the long-term productivity of the land.

4. **Supporting Rural Communities**

Karatara and Rheenendal serve as key agricultural nodes within the municipality, with both identified as Long-Term Agri Farmer Production Support Units (FPSUs). These areas are crucial for the livelihoods of local communities and should receive targeted support to enhance agricultural activities. Providing training and skills development to workers in these areas will equip them to engage in both traditional and modern agricultural and forestry practices. Access to resources such as land, water, and agricultural inputs is critical, as is facilitating access to markets to ensure that small-scale farmers and producers can reach buyers effectively.

5. **Leveraging Eco-Tourism**

The natural forests of Knysna not only support forestry but also serve as a foundation for eco-tourism. Promoting forest conservation and sustainable tourism activities—such as forest hikes, wildlife viewing, and educational tours—can complement agricultural and forestry initiatives. These activities will help diversify income streams, ensuring that natural resources are utilized in ways that benefit both the economy and the environment.

6. **Public-Private Partnerships**

To effectively promote agriculture and forestry, collaboration between the public and private sectors is essential. Initiatives such as investment in infrastructure (roads, processing facilities, irrigation systems), financial support for small-scale farmers, and incentives for sustainable practices will

be key. The private sector can play a role in driving innovation, market access, and supply chain development, while the government ensures regulatory support and development funding.

By implementing these strategies, Knysna can unlock the potential of its agriculture and forestry sectors, creating a more resilient and diversified economy while ensuring sustainable development for future generations.

D1.4.4 LONG TERM FPSU'S

In an effort to bolster agricultural productivity and support local farmers, the Knysna Municipality proposes the establishment of two Long-Term Farmer Production Support Units (FPSUs) in the agricultural nodes of Karatara and Rheenendal. These FPSUs will serve as vital centers for agricultural support and development, aimed at enhancing the efficiency, sustainability, and profitability of farming in the region.

The nearest Agri-Hub, located in Oudtshoorn approximately 60 to 70 kilometers away, plays a crucial role in this support system. The Oudtshoorn Agri-Hub functions as a central resource center, offering access to vital agricultural information, training programs, and networking opportunities for farmers. It also facilitates market access and promotes sustainable agricultural practices. The establishment of the FPSUs will complement the Agri-Hub's activities by providing localized support tailored to the specific needs of farmers in Karatara and Rheenendal. Additionally, collaboration between the FPSUs and the Oudtshoorn Agri-Hub can enhance agricultural practices and productivity, ensuring that local farmers benefit from a wider network of support and resources.

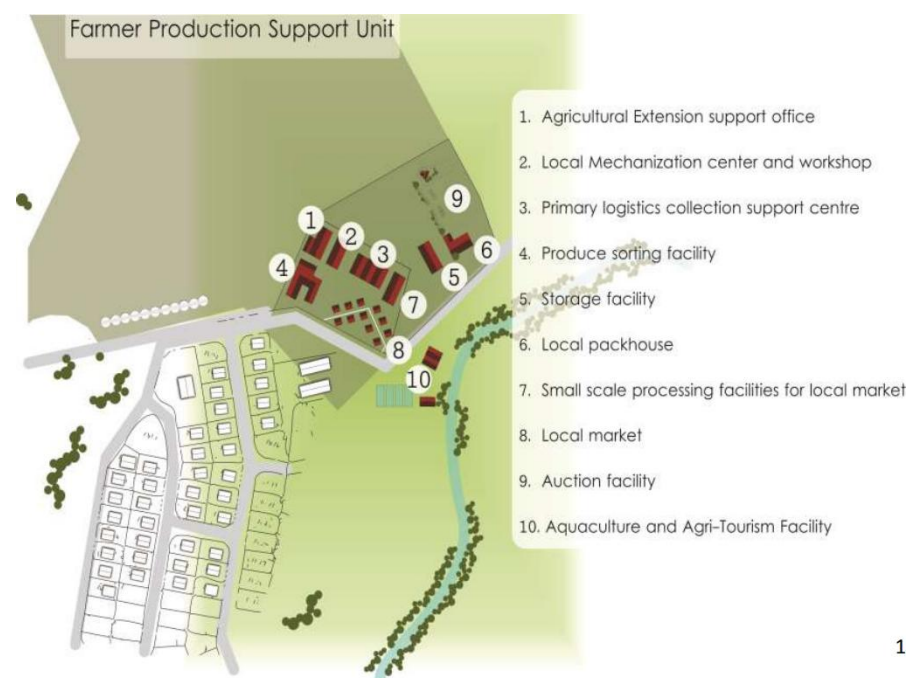
OBJECTIVES OF FPSUS

The FPSUs will focus on several key areas of support:

1. **Agricultural Input Supply Control:** Ensure the quality, quantity, and timely delivery of agricultural inputs to enhance farmers' productivity.
2. **Extension Support and Training:** Collaborate with universities and agricultural organizations to empower farmers through training and practical skills development.
3. **Mechanization Support:** Offer training in tractor operation and other mechanization techniques to improve efficiency and productivity.
4. **Machinery and Servicing Workshops:** Provide facilities for machinery maintenance and repair, ensuring farmers have access to essential services.
5. **Local Logistics Support:** Deliver farming inputs and facilitate the transportation of post-harvest goods to enhance the agricultural supply chain.
6. **Primary Produce Collection and Handling:** Support the collection, sorting, and packaging of produce, including local storage for perishables.
7. **Processing for Local Markets:** Establish small-scale processing facilities to add value to local products, such as milling and packaging.
8. **Auction Facilities and Market Information:** Serve as auction venues for direct sales, providing market information through ICT tools to inform farmers' decisions.
9. **Support Services:** Offer small business development, banking, and energy access to foster a supportive environment for agricultural growth.

IMPACT ON LOCAL COMMUNITIES

The FPSUs in Karatara and Rheenendal will enhance Knysna Municipality's agricultural landscape by boosting output, improving livelihoods, and contributing to regional economic development. They will also promote community collaboration among farmers, empowering them to work together for mutual benefit.



RECOMMENDED STRATEGIES AND FACILITIES FOR FPSUS IN KNYSNA

To enhance the agricultural and forestry sectors in Knysna, particularly in the communities of Karatara and Rheenendal, the following strategies and facilities are proposed for the establishment of Farmer Production Support Units (FPSUs):

1. **Training and Extension Services:** Develop comprehensive training programs that address both sustainable agricultural and forestry practices. Partner with local universities and agricultural specialists to provide workshops covering topics such as organic farming, pest management, agroforestry, and innovative forestry techniques. This hands-on approach will enable farmers to adopt modern practices while preserving traditional knowledge and enhance their ability to transition from forestry to agriculture where applicable.
2. **Market Access and Development:** Facilitate connections between local farmers and regional markets to promote and sell agricultural and forestry products. Implement initiatives such as farmer's markets, online sales platforms, and collaborations with local retailers to increase visibility and demand for local produce. This will help establish a stronger market presence for both sectors and create opportunities for diversification.
3. **Support for Forestry-Based Economies:** Given the significance of forestry in Sedgefield, Karatara, and surrounding areas, FPSUs should offer targeted support to forestry operations. This includes the provision of high-quality seedlings and training on sustainable harvesting practices, which will help mitigate challenges faced by the forestry sector and promote its recovery, ensuring a balance between forestry and agricultural development.
4. **Storage and Processing Facilities:** Establish local storage facilities to reduce post-harvest losses, allowing farmers to store their products until they can be sold at market. Additionally, develop small-scale processing units that can transform raw agricultural and forestry products into value-added goods, thus increasing local employment opportunities and enhancing the economic viability of both sectors.
5. **Local Logistics Support:** Create logistical solutions to assist farmers in efficiently transporting their products to markets. This could involve partnerships with local transport companies to facilitate the movement of agricultural goods and improve access to broader markets. Effective logistics will help farmers maximize their reach and profitability.
6. **Agro-Tourism and Education:** Leverage Knysna's natural beauty and agricultural heritage by promoting agro-tourism initiatives. Encourage local farmers and foresters to host visitors on their farms, offering educational tours and experiences that highlight sustainable farming and forestry practices. This not only promotes local produce but also enhances community engagement and appreciation for the region's agricultural diversity.
7. **Communal Grazing Land and Livestock Management:** To support small-scale livestock farming while ensuring road safety and urban amenity, suitable communal grazing areas should be identified, particularly on the periphery of settlements such as Karatara and Rheenendal. These areas can be linked to FPSUs to provide fodder support, livestock extension services, and basic infrastructure such as water points and fencing. It is recommended that the Municipality, in collaboration with local communities and traditional authorities, identify appropriate land parcels and undertake formal land use

applications where necessary. This approach will reduce the presence of free-roaming cattle in urban areas, improve livestock health, and enhance the economic viability of small-scale animal husbandry.

By implementing these tailored strategies and facilities within the Farmer Production Support Units (FPSUs), Knysna can enhance its agricultural and forestry sectors, fostering sustainable growth and economic resilience in local communities. This approach recognizes the ongoing transition occurring in key forestry areas while supporting the sustainable growth of both industries. These initiatives will not only support existing farmers in Karatara and Rheenendal but also create new opportunities for economic development, environmental stewardship, and community engagement. By fostering collaboration and providing essential resources, Knysna can enhance economic resilience, create employment opportunities, and promote environmental stewardship throughout its communities.

D1.4.5 AGRICULTURAL RESOURCES IN KNYSNA MUNICIPALITY

Knysna's agricultural resources are concentrated in its rural areas, with significant potential for farming and forestry activities. The key agricultural resources include:

1. **Forestry:** Knysna is well-known for its timber resources, particularly indigenous hardwood forests, as well as commercial plantations of pine and eucalyptus. The forestry sector plays a vital role in the local economy, contributing to both timber production and the tourism industry.
2. **Crop Production:** Agriculture in Knysna is largely focused on small-scale and subsistence farming. The region supports the production of various crops, including vegetables, fruit (such as citrus and deciduous fruits), and other horticultural produce.
3. **Livestock Farming:** Livestock farming, including cattle, sheep, and poultry, is another important agricultural activity in the area. Dairy farming is also present in some parts, contributing to local food supply chains.
4. **Viticulture:** Although not as prominent as in other parts of the Western Cape, viticulture is emerging in parts of Knysna due to suitable climatic conditions for vineyards.
5. **Agri-Tourism:** With the scenic landscapes, there is growing interest in combining agriculture with tourism, such as offering farm stays and promoting local products, which contributes to the agri-tourism economy.
6. **Long-Term Agri Farmer Production Support Units (FPSUs):** Areas like Karatara and Rheenendal have been identified as long-term FPSUs, indicating a focus on supporting agricultural development and providing farmers with resources, skills, and infrastructure.

These resources are essential for supporting local livelihoods and promoting sustainable development within the agricultural sector of Knysna.

D1.4.6 VALUE CHAINS

For **agriculture and forestry** in Knysna, the value chains can be broken down as follows, focusing specifically on these two sectors:

AGRICULTURE VALUE CHAIN:

- **Primary Production:** Includes crop farming (e.g., vegetables, berries, honey bush) and livestock (dairy, poultry, cattle). Emerging practices like hydroponics, aquaponics, and organic farming cater to niche markets.
- **Processing & Packaging:** Local processing of products like honey bush tea and dairy, adding value before packaging for sale.
- **Distribution & Retail:** Products are sold locally through markets, retailers, and cooperatives, with niche products potentially exported to high-end markets.
- **Agri-Tourism:** Local farms and products are also linked to tourism, allowing direct-to-consumer sales to visitors.

FORESTRY VALUE CHAIN:

- **Primary Production:** Commercial pine and eucalyptus plantations supply timber; indigenous forests support eco-tourism.
- **Processing:** Timber is processed into products like furniture and building materials. Knysna is known for artisanal woodworking.
- **Distribution & Export:** Products are sold locally or exported, with sustainability certifications adding market value.
- **Tourism Link:** Artisanal wood products are sold to tourists, enhancing the connection between forestry and tourism.

CROSS-SECTOR SYNERGIES (AGRICULTURE AND FORESTRY):

- **Agroforestry:** Combining forestry and agricultural practices, such as growing crops or raising livestock alongside trees, can improve land productivity and sustainability. This approach can increase output while maintaining ecological balance.
- **Niche Market Products:** Both sectors offer opportunities for high-value niche products like organic food, honey bush tea, sustainably harvested timber, and artisanal wooden goods.
- **Sustainability and Conservation:** There is a growing market for sustainably sourced products in both agriculture and forestry. Certification schemes for organic agriculture and sustainable forestry practices can boost the value of products and open up export opportunities.
- **Environmental Tourism:** The beauty of Knysna's forests and agricultural landscapes draws tourists, providing another revenue stream for local producers and creating opportunities for agri-tourism and eco-tourism experiences.

These value chains in agriculture and forestry have the potential to grow through sustainable practices, innovation in high-value products, and better integration into both local and international markets.

D1.4.7 RECOMMENDATIONS FOR AGRICULTURE AND FORESTRY DEVELOPMENT

The agriculture and forestry sectors are vital to Knysna's economy and environment. To enhance their potential, the following recommendations are proposed:

PROMOTE SUSTAINABLE PRACTICES

- **Agriculture:** Focus on organic farming, permaculture, hydroponics, and aquaponics to maximize land use and meet growing demand for eco-friendly products.
- **Forestry:** Adopt sustainable forestry and agroforestry to balance productivity with forest conservation.

LEVERAGE DIGITAL AGRICULTURE

Invest in digital technologies, including precision farming and crop monitoring, to increase productivity, lower input costs, and enhance decision-making.

DEVELOP NICHE MARKETS

Support the production of niche agricultural products like organic horticulture, herbal teas, and high-quality timber. These products can tap into premium local and export markets, especially in health-conscious and eco-friendly sectors.

STRENGTHEN VALUE CHAINS AND LOCAL PROCESSING

Expand local processing for agricultural products and timber to add value and create jobs. This includes establishing facilities for processing honey bush tea, dairy, and timber, ensuring that more value remains within Knysna.

Link the **Long-Term Farmer Production Support Units (FPSUs)** in **Karatara** and **Rheenendal** with the **Agri-Hub in Oudtshoorn** to improve access to resources and markets, driving local development.

EXPAND AGRI AND FORESTRY TOURISM

Develop **agri-tourism** by offering farm stays, local food markets, and educational tours to attract visitors and generate additional revenue for farmers.

Strengthen **forestry tourism** through eco-friendly woodcraft exhibitions, guided forest walks, and sustainable timber showcases, tying the forestry sector to Knysna's tourism offering.

ENCOURAGE CLIMATE-RESILIENT STRATEGIES

Encourage climate-resilient agricultural practices and forestry management to adapt to changing climate conditions, safeguard natural resources, and ensure long-term sustainability.

By implementing these strategies, Knysna can enhance the productivity and sustainability of its agriculture and forestry sectors while creating new economic opportunities through value-added processing and tourism integration.

D1.4.8 THE SDF PROPOSES

The following proposals are tailored to the unique context of Knysna Municipality, aiming to enhance the agriculture and forestry sectors while ensuring sustainability, economic growth, and community engagement:

LAND USE AND SPATIAL PLANNING

Urban-Agri Buffers: Establish buffer zones between urban areas and agricultural lands to minimize conflicts, protect farmland, and preserve the ecological integrity of both areas.

INFRASTRUCTURE DEVELOPMENT

Logistics and Access Roads: Improve rural road networks to facilitate easy access to markets, processing facilities, and support services for farmers, reducing transportation costs and enhancing market reach.

SUPPORT FOR SMALL-SCALE FARMERS

Establishment of Local Cooperatives: Facilitate the formation of cooperatives among small-scale farmers to enhance collective bargaining power, access to resources, and market opportunities.

Technical Training and Support: Implement regular training workshops on sustainable farming practices, financial literacy, and business management to empower local farmers with essential skills.

PROMOTION OF NICHE MARKETS

Focus on High-Value Products: Encourage the cultivation of high-value niche products such as organic vegetables, mushrooms, and herbs that cater to emerging market trends and consumer preferences for sustainability.

Sustainable Natural Resource Harvesting: Support the identification and promotion of locally appropriate, biodiversity-aligned products such as buchu and other medicinal or aromatic plants, especially in areas surrounding Sedgefield. These can contribute to rural livelihoods while conserving local ecosystems.

Cultural Livelihoods: Recognise and support traditional livelihoods, including small-scale fishing and Khoi cultural practices, as part of a broader inclusive rural economy.

AGRI-TOURISM DEVELOPMENT

Promotion of Existing Attractions: Enhance marketing efforts for local agri-tourism sites to attract visitors and showcase unique offerings.

Collaborative Marketing Campaigns

To enhance agri-tourism in Knysna, cohesive branding and promotional materials should be developed to create a recognizable identity for the sector. Additionally, leveraging social media will boost visibility and highlight visitor experiences, attracting more tourists and benefiting the local economy.

Accessibility Improvements

- **Signage:** Enhance wayfinding to improve access to agri-tourism sites.
- **Transportation Options:** Collaborate with local transport providers to offer shuttle services connecting attractions.

CLIMATE ADAPTATION AND RESILIENCE

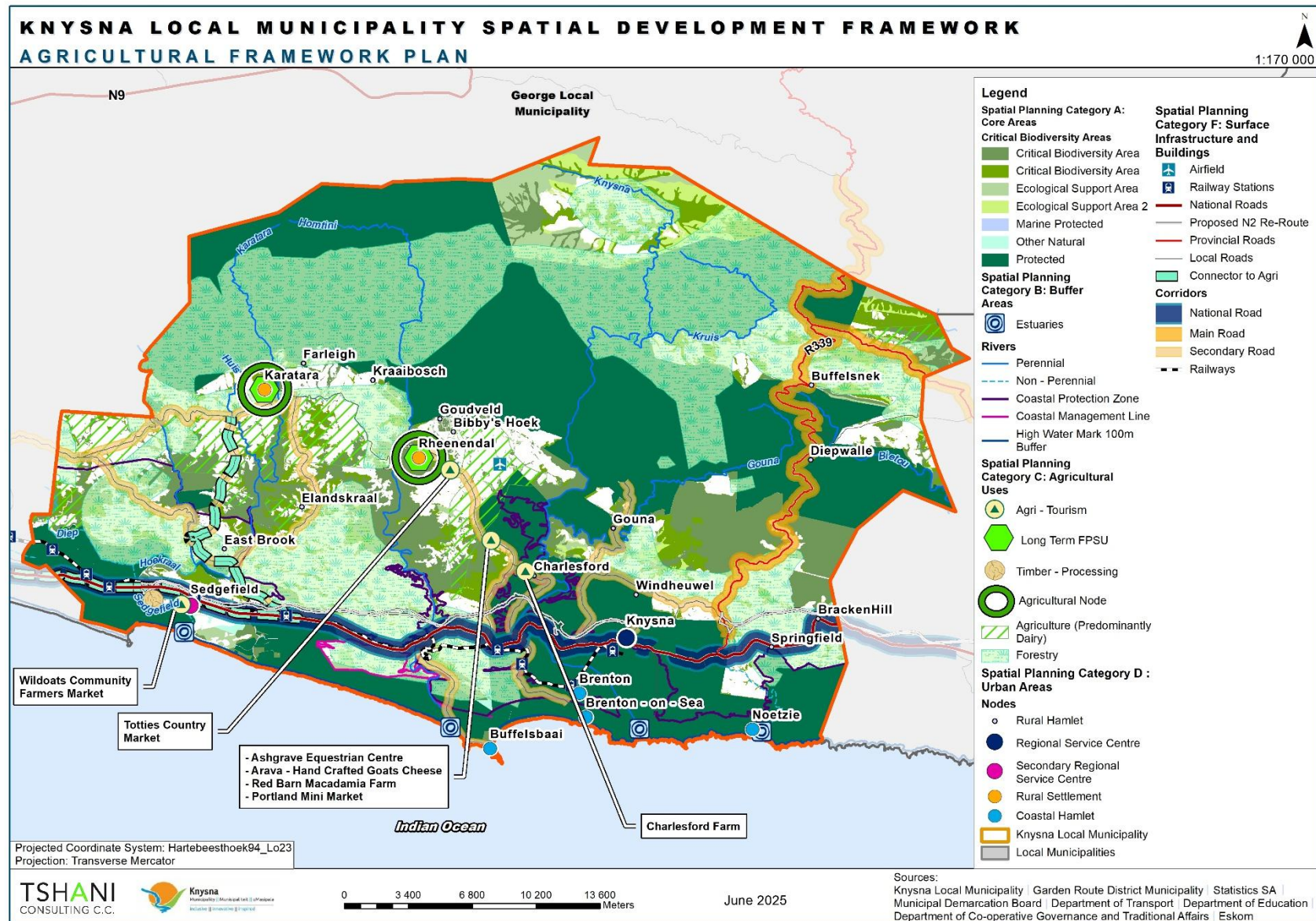
Sustainable Land Management Practices: Promote agroecological practices that enhance soil health, increase biodiversity, and improve resilience against climate change impacts, such as crop rotation and cover cropping.

COMMUNITY ENGAGEMENT AND EDUCATION

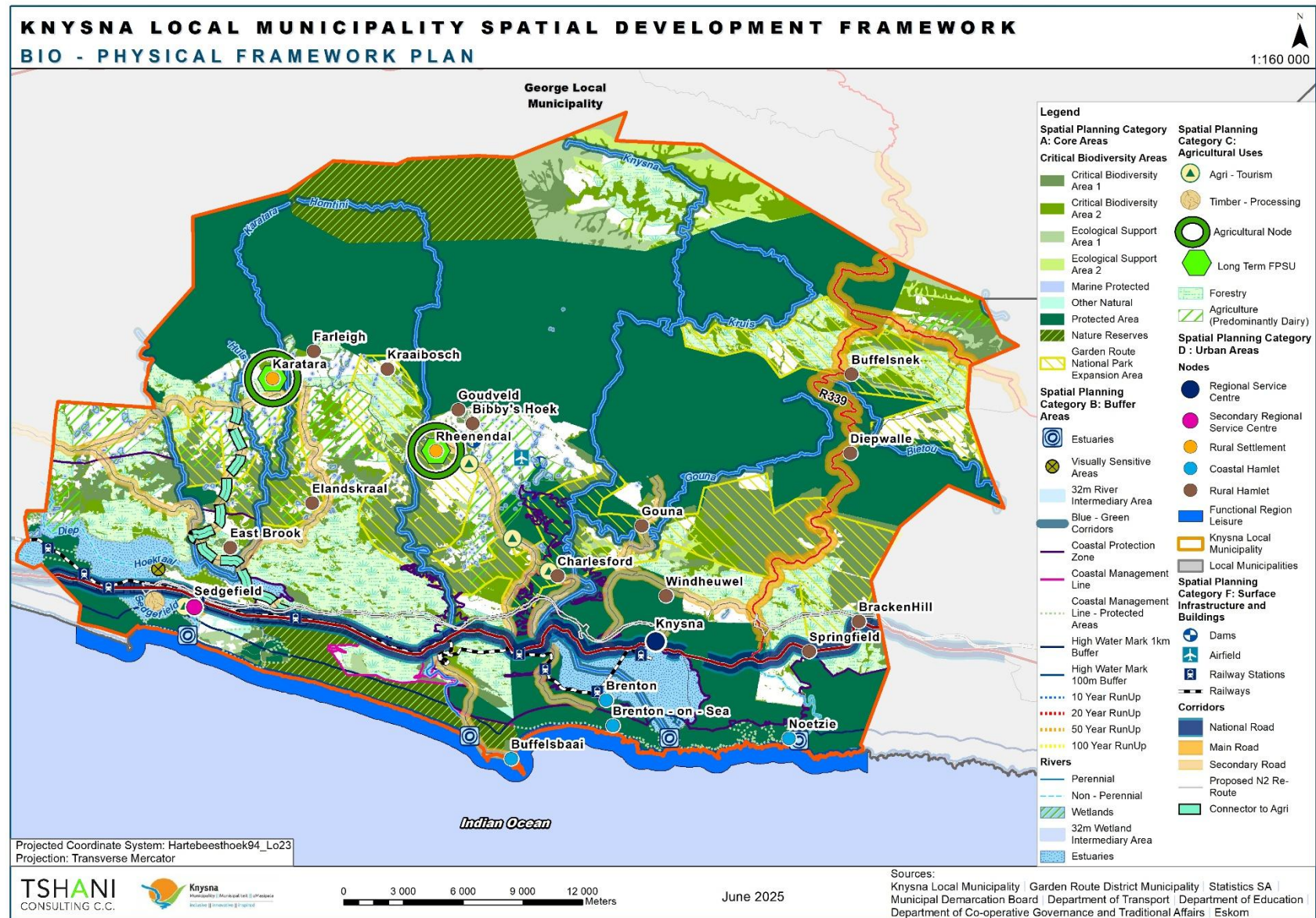
Community Workshops and Forums: Organize regular workshops and forums to engage community members in discussions about agricultural and forestry policies, challenges, and opportunities.

School and Youth Programs: Implement educational programs in local schools that focus on agriculture, sustainability, and environmental stewardship, fostering a new generation of informed agricultural leaders.

By implementing these realistic proposals, Knysna Municipality can enhance the agricultural and forestry sectors, driving sustainable development while supporting local communities and economies. These actions will also help address current challenges, fostering resilience and adaptability in the face of changing environmental and economic conditions.



Plan 15: Agricultural Framework



D2. SOCIO-ECONOMIC FRAMEWORK

The Socio-Economic Framework aims to address the key social and economic challenges specific to the Knysna Municipality. This includes initiatives for skills development within the municipality and the identification of necessary social amenities. Additionally, the framework highlights the importance of tourism, as the SWOT analysis has revealed significant potential for growth in this sector.

SOCIO ECONOMIC	
SPLUMA Pillars	Regional Space Economy Demographics & Social Conditions Cultural Heritage & Tourism Employment Local Economy & Business Key Economic Sectors Rural Development
Spatial Planning Categories	D Urban Related D.f Institutional Areas D.g Authority Areas D.i Business Areas D.j Service Related Business D.k Special Business D.l SMME Incubation D.m Mixed Use Development Areas D.q Resorts & Tourism Related Areas

The Socio-Economic Framework is structured into three main components:

- 1. Economic Framework
- 2. Tourism Framework
- 3. Social Facilities Framework

D2.1 SPATIAL PLANNING CATEGORY D

Spatial Planning Category D outlines a framework that focuses on managing urban-related areas, aligned with UNESCO's Biosphere Reserve 'Transition Area 3'. The category encompasses a range of urbanized areas and settlements that require integrated development planning to ensure sustainable use of resources,

minimize environmental degradation, and manage waste and pollution effectively.

CATEGORY OVERVIEW:

To accommodate urban settlements and their infrastructure, with an emphasis on sustainable resource management and minimizing environmental impact.

SUB-CATEGORY BREAKDOWN:

	D.a: METROPOLITAN CITY
Major metropolitan areas or the capital towns of districts.	
Purpose: Provide for residential, business, and institutional needs, including essential services for sustainable development.	
	D.b: MAIN LOCAL TOWN
The seat of a Category B Municipality within a district.	
Purpose: Similar to D.a, focusing on local-scale governance and infrastructure.	
	D.c: LOCAL TOWN
Smaller towns within a Category B Municipality's jurisdiction.	
Purpose: Provide residential, business, and municipal services on a local level.	
	D.d: RURAL SETTLEMENTS
Rural settlements under Category B Municipalities.	
Purpose: Provide accommodation and services for rural communities associated with surrounding areas.	
	D.e: INSTITUTIONAL SETTLEMENTS

Settlements centered around rural institutions like educational or detention facilities.

Purpose: Offer housing and services for communities tied to these institutions.



D.f: ON-FARM SETTLEMENTS

Rural agricultural nodes with a small urban-like character.

Purpose: Provide housing and community services for agricultural workers.



D.g: FARMSTEADS

Main homesteads on farms.

Purpose: Support farm management through housing and logistical infrastructure.



D.h: RESORTS & TOURISM

Rural areas dedicated to tourism and resort development.

Purpose: Diversify land use by promoting sustainable tourism on marginal agricultural land.



D.i: OTHER URBAN-RELATED AREAS

Miscellaneous urban areas not covered by the other sub-categories.

Purpose: Accommodate unique urban-related cases.

employment opportunities, enhance competitiveness, and foster entrepreneurship, while ensuring alignment with the municipality's spatial planning goals. It also prioritizes equitable access to economic opportunities, balancing both urban and rural development to drive inclusive growth throughout the region.

A diverse range of South Africans agree that significant changes are needed to drive economic growth, address the current crisis, and establish a framework for long-term stability and prosperity. South Africa requires a new consensus to achieve this, focusing on opportunities for public and private investment to strengthen the economy, tackle unemployment, poverty, and inequality.

The Western Cape's "Growth for Jobs" (G4J) strategy aligns with these objectives, specifically targeting sustainable, inclusive growth by 2035. This strategy prioritizes key areas such as attracting investment, enhancing exports, boosting infrastructure, and developing green energy solutions to create a climate-resilient economy. By fostering partnerships with the private sector and reducing red tape, G4J aims to triple exports, attract significant new investments, and develop pathways for local job creation and skills development.

Knysna, with its unique natural assets, vibrant tourism sector, and strategic Garden Route location, presents considerable potential for growth within this framework. Its economic revitalization lies in leveraging environmental resources, promoting eco-tourism, and investing in niche industries like agri-processing, renewable energy, and sustainable forestry. In alignment with the G4J strategy, targeted investment in tourism infrastructure, coastal and

D2.2 ECONOMIC FRAMEWORK

The **Economic Framework** for Knysna focuses on promoting sustainable economic growth, strengthening the local economy, and attracting investment. It identifies key sectors for development, emphasizes the importance of strategic infrastructure upgrades, and supports spatial initiatives such as industrial zones, business hubs, and commercial precincts. The framework aims to create

estuarine management, and small business support can help Knysna build a more resilient local economy and reduce dependency on seasonal tourism.

To maximize these opportunities, Knysna Municipality must implement spatial strategies that promote sustainable growth while safeguarding its natural assets. The local land-use management framework should balance development with ecological preservation by adhering to the Coastal Protection Zone (CPZ), Coastal Management Line (CML), and Estuary Management Plan. This aligns with the G4J's emphasis on responsible, climate-conscious development that integrates environmental protection with economic goals.

By focusing on these investment areas, Knysna can accelerate growth, create jobs, and transform itself into a sustainable development hub. This transformation would benefit both residents and the broader region, creating a model of growth that emphasizes resilience, inclusivity, and ecological stewardship.

D2.2.1 PRIMARY ECONOMIC SECTOR

The primary economic sector involves the extraction and production of natural resources. It includes activities such as agriculture, forestry, fishing, mining, and oil extraction. This sector is fundamental to the economy as it provides the raw materials needed for other industries. It employs a significant portion of the workforce, particularly in rural areas, and is closely linked to environmental sustainability and resource management. As economies develop, the primary sector often experiences shifts due to industrialization and urbanization, but it remains essential for food production and raw material supply.

PRIMARY ECONOMIC SECTOR

GDP of R177.9 million and employing 2,341 individuals.



FORESTRY



AGRICULTURE



FISHING

D2.2.1.1 FORESTRY

Knysna's forestry sector is historically rooted in indigenous forests and commercial plantations, contributing significantly to the local economy. Timber production from hardwoods, particularly yellowwood, supports sawmilling and the manufacturing of high-value wood products. However, the sector faces environmental and regulatory challenges, as sustainable forest management is critical for long-term viability. The decline of commercial forestry activities in certain areas also presents economic and land-use challenges.

To ensure the sustainability and growth of the forestry sector, the following recommendations are proposed:

- **Sustainable Forestry Practices:** The municipality should focus on promoting sustainable timber harvesting methods. Certification under schemes like the Forest Stewardship Council (FSC) can enhance market access for local wood products and ensure compliance with environmental regulations. This can be complemented by:

- Implementing sustainable management practices in the **Knysna Forest** and surrounding plantations, ensuring that logging operations are monitored for compliance with sustainability standards.
- Encouraging the use of native species for timber production can diversify forestry outputs while preserving biodiversity.
- **Value-Added Processing:** Expanding the local wood processing industry to include more value-added products like furniture, woodcraft, and eco-friendly building materials can drive economic growth. Investment in training and skills development within this sector could create new employment opportunities.
- **Forest Tourism Development:** The scenic forests in Knysna offer significant potential for eco-tourism. By expanding forest-based tourism activities such as guided hikes, canopy tours, and forest retreats, Knysna can attract tourists while preserving its natural resources.
 - Expand on the eco-tourism trails and viewpoints within the **Knysna Forest** and around the **Garden Route National Park**, with appropriate signage and facilities to enhance visitor experience.
 - Develop partnerships with local tour operators to offer immersive experiences, such as birdwatching tours, tree planting events, and educational workshops on forest ecology and conservation.

These recommendations aim to enhance the sustainability and economic viability of Knysna's forestry sector while preserving its rich natural heritage. By promoting sustainable practices, fostering value-added processing, developing

eco-tourism, engaging local communities, and investing in research, Knysna can ensure that its forestry sector continues to thrive in harmony with its environment.

D2.2.1.2 AGRICULTURE

Knysna's agricultural sector is characterized by small-scale farming activities, including livestock, horticulture, and poultry. While agriculture plays a vital role in sustaining rural livelihoods, it faces significant constraints due to limited water availability, soil degradation, and the small size of arable land. However, there are niche opportunities, such as organic farming and the production of specialty crops like honeybush tea, that present avenues for growth and sustainability.

To promote the sustainable development of agriculture in Knysna, the following strategies and spatial proposals are recommended:

- **Water-Efficient Farming:** Given the region's vulnerability to drought, it is essential to adopt water-saving agricultural practices.
 - Implement community-wide workshops on techniques such as drip irrigation and rainwater harvesting. Identify pilot farms in areas like **Rheenendal** and **Karata**, where these practices can be showcased and replicated.
- **Agri-Processing Initiatives:** Expanding the local agri-processing sector is crucial to maximizing the value of agricultural products.
 - Develop an **Agri-Processing linked to the long term FPSUs in Knysna Industrial Area**, where small-scale processors can collaborate to produce goods like honeybush tea, artisanal cheese, and organic vegetables.

- **Agri-Tourism Development:** The picturesque rural landscapes of Knysna present significant potential for agri-tourism ventures.
 - Support farms in **Knysna** as agri-tourism destinations. These locations can offer farm stays, educational tours, and farm-to-table dining experiences that highlight local produce.

D2.2.2 SECONDARY ECONOMIC SECTOR

The secondary economic sector encompasses manufacturing and industrial activities that transform raw materials into finished goods. This sector includes industries such as construction, automotive, textiles, and electronics. It plays a vital role in economic development by adding value to raw materials and creating jobs, particularly in urban areas. The secondary sector is also a key driver of innovation and technological advancement, as businesses strive to improve production efficiency and product quality. As economies evolve, the secondary sector may experience changes due to globalization and shifts in consumer demand, but it remains a critical component of economic growth and development.

SECONDARY ECONOMIC SECTOR

GDP of R3,742.2 million and employing 19,975 individuals.



MANUFACTURING



ELECTRICITY, GAS
& WATER



CONSTRUCTION

D2.2.2.1 MANUFACTURING

Knysna's manufacturing sector plays a vital role in the local economy, particularly through its connection to forestry and timber processing. The region has a strong tradition of producing high-quality furniture and wood products, supported by both indigenous forests and commercial plantations. Other manufacturing activities include food processing, light engineering, and boat building. However, the sector is relatively small, and challenges such as limited access to markets and competition from larger manufacturing hubs constrain its growth.

To strengthen and expand Knysna's manufacturing industry, the following strategies are proposed:

- **Value-Added Production:** There is potential for growth in high-value sectors such as custom-made furniture and eco-friendly building materials. By investing in value-added processing, such as crafting locally sourced timber into finished products, Knysna can boost its manufacturing output while creating jobs and promoting economic diversification.
- **Support for Small Manufacturers:** The municipality should provide support for small and medium-sized manufacturers through initiatives such as skills development programs, access to finance, and business incubators. This will help smaller enterprises thrive and contribute to the local economy.

- **Promotion of Green Manufacturing:** Knysna's unique environmental setting positions it as an ideal location to promote green manufacturing practices. Incentivizing the production of environmentally friendly products, like solar-powered goods or recycled materials, can align the sector with sustainable development goals while attracting eco-conscious consumers.

D2.2.2.2 ELECTRICITY, GAS, AND WATER

The electricity, gas, and water sectors are essential for both the daily functioning of Knysna's residents and its long-term economic growth. Electricity is primarily sourced from the national grid, while water management is a significant concern due to the region's frequent droughts and reliance on surface water sources. Gas is less prominent but still necessary for certain industries and households. Ensuring the sustainability of these utilities is critical, especially in the face of climate change and growing population pressures.

Key recommendations for the sector include:

- **Renewable Energy Investments:** To reduce dependency on the national grid and promote environmental sustainability, the municipality should explore investments in renewable energy sources such as solar and wind power. By incentivizing private and public sector adoption of clean energy solutions, Knysna can ensure a more resilient and green energy supply.
- **Water Resource Management:** Given Knysna's vulnerability to drought, it is essential to prioritize water conservation and improve infrastructure to reduce water losses. This includes investing in rainwater harvesting

systems, upgrading aging water pipes, and encouraging the use of water-efficient technologies across households and industries.

- **Energy Efficiency Programs:** Promoting energy-saving initiatives within residential, commercial, and industrial sectors will help reduce overall electricity consumption. This can involve introducing incentives for energy-efficient appliances, promoting solar water heaters, and implementing public awareness campaigns around energy conservation.

D2.2.2.3 CONSTRUCTION

The construction sector in Knysna is crucial for addressing housing shortages, upgrading infrastructure, and supporting economic development. The sector contributes significantly to job creation and is tied to other industries such as manufacturing, real estate, and tourism. However, the construction industry faces challenges related to environmental regulations, particularly in sensitive coastal and forested areas, and the high costs associated with sustainable building practices.

To support the continued growth of the construction sector, the following initiatives are recommended:

- **Sustainable Construction Practices:** Encouraging the use of eco-friendly building materials and methods, such as energy-efficient designs and green roofing, can reduce the environmental impact of new developments. This aligns with Knysna's commitment to sustainability and helps mitigate the challenges posed by climate change.
- **Public Infrastructure Investment:** Continued investment in public infrastructure, including roads, water systems, and waste management

facilities, is essential for both economic growth and improving the quality of life for residents. This also presents an opportunity to incorporate climate-resilient infrastructure in anticipation of future environmental challenges.

- Affordable Housing Development:** To address the housing backlog, the municipality should focus on promoting affordable housing developments. This includes supporting the construction of mixed-use residential projects that cater to a range of income levels and provide access to essential services, while also stimulating the local construction industry.

D2.2.3 TERTIARY ECONOMIC SECTOR

The tertiary economic sector, or service sector, focuses on providing intangible services rather than goods. It includes a wide range of activities such as retail, hospitality, healthcare, education, finance, transportation, and entertainment. This sector is a significant contributor to GDP and a major source of employment across various skill levels, reflecting a shift towards knowledge-based economies. Additionally, it drives innovation and globalization, with businesses expanding services internationally and emphasizing customer satisfaction. As economies develop, the importance of the tertiary sector is expected to grow, making it essential for policymakers and business leaders to focus on its dynamics and contributions.

TERTIARY ECONOMIC SECTOR

GDP value of R1,168.9 million, employing 4,447 individuals.



D2.2.3.1 WHOLESALE AND RETAIL TRADE

The wholesale and retail trade sector is a vital pillar of Knysna's economy, directly benefiting from the region's robust tourism industry. With a diverse array of offerings—from artisanal crafts to essential goods—local businesses cater to both residents and visitors, contributing significantly to job creation and community vibrancy. However, this sector faces several challenges, including seasonal demand fluctuations, particularly during off-peak tourist seasons, and increasing competition from larger urban centers and online retailers.

To fortify the resilience and growth of Knysna's wholesale and retail trade sector, the following comprehensive actions and spatial proposals are recommended:

DIVERSIFICATION OF PRODUCTS AND SERVICES:

- **Niche Market Development:** Encourage retailers to expand their product lines by focusing on niche markets, such as eco-friendly goods, handmade crafts, and locally produced food items. Workshops on sustainable practices can also be offered to educate retailers on sourcing and marketing these products.
- **Collaboration with Local Producers:** Facilitate partnerships between retailers and local farmers, artisans, and manufacturers to create unique products that highlight Knysna's cultural heritage. For instance, a collaboration between a local craft brewery and a retail shop could lead to exclusive merchandise, attracting tourists interested in local products.
- Identify specific zones within the retail district, such as **Thesen Island** and **Knysna Waterfront**, for specialty shops focusing on locally made goods and sustainable products.

IMPROVING MARKET ACCESSIBILITY:

- **Logistical Enhancements:** Strengthening transportation and logistical networks is crucial for boosting the competitiveness of local retailers. This can include upgrading key road infrastructure leading into the retail districts to facilitate easier access for suppliers and customers alike.

MARKETING AND BRANDING INITIATIVES:

- **Joint Marketing Campaigns:** The municipality should initiate joint marketing efforts with local retailers to promote Knysna as a unique shopping destination. This can include creating a unified brand for the retail sector that highlights the diversity and quality of products available. Additionally, regular meetings will be held with local business chambers to

strengthen partnerships and gather input that will further enhance this initiative.

- **Digital Presence:** Encourage retailers to enhance their online presence through training on e-commerce platforms and social media marketing. This not only helps local businesses reach a wider audience but also allows them to showcase their unique offerings to potential tourists.

These detailed proposals aim to bolster the wholesale and retail trade sector in Knysna, fostering a vibrant marketplace that supports local entrepreneurs, attracts visitors, and enhances the overall economic resilience of the community

D2.2.3.2 TRANSPORT, STORAGE, AND COMMUNICATION

Knysna's transport, storage, and communication sector is fundamental for connecting the town to regional markets and facilitating local economic activities. The existing road network serves as a crucial artery for transporting goods and people, while the communication infrastructure supports the increasing demand for digital services. However, challenges remain in maintaining and upgrading the aging transport infrastructure and ensuring equitable access to reliable communication networks across all communities.

To enhance the effectiveness of this sector and address its challenges, the following key priorities and detailed spatial proposals are recommended:

- **Infrastructure Modernization:** Investment in the modernization of transport infrastructure, including roads, public transport systems, and storage facilities, is critical to improving mobility within Knysna and its surrounding areas.

- Prioritize the upgrade of key transport routes such as the **N2 Bypass** and the **R339**, which serve as main conduits for goods and services. Implement a comprehensive **Transport Master Plan** that identifies key corridors for enhancement and integrates them with local development plans.
- Develop multi-modal transport hubs at strategic locations, such as near the **Knysna Waterfront** and **Central Business District**, to facilitate seamless transfers between different modes of transport (e.g., buses, taxis, and bicycles). These hubs can incorporate storage facilities for goods to support local businesses and ease congestion in the town center.
- **Promotion of Non-Motorized Transport (NMT):** Given Knysna's scenic environment and tourism-driven economy, promoting non-motorized transport options such as cycling and walking can reduce congestion, improve air quality, and boost eco-tourism.
 - Create a network of safe pedestrian pathways and dedicated cycling lanes connecting key attractions, ideally this could follow the path of the Knysna Estuary. Implement traffic calming measures in residential neighborhoods and near schools to ensure the safety of pedestrians and cyclists.
 - Launch a **Bike Share Program:** In collaboration with local businesses and tourism operators, the municipality should offer bike rentals at various locations throughout the town. An app could be introduced, particularly during festive seasons, to manage bike availability and accessibility, ensuring smooth rentals

for both residents and tourists. Additionally, community events and challenges, such as "Car-Free Days," can be organized to promote walking and cycling and encourage active transportation.

Strengthening Public Transport Services: Enhancing the public transport system can significantly improve mobility for residents and visitors.

It is proposed that a new taxi rank be developed near the CBD to increase capacity and accessibility. This facility should be strategically positioned to serve key commercial areas, residential neighborhoods, and tourist destinations, ensuring ease of access for all users.

To ensure effective use of the facility and address rising safety concerns, the strengthening of law enforcement resources is critical. Recent engagements with the Greater Knysna Business Chamber (GKBC) and taxi associations—who are now GKBC members—highlighted the need for secure, well-managed infrastructure to support the sector.

Potential sites under consideration include:

1. The Waterfront Drive railway parking area, possibly extending across to a corner of the adjacent sports field;
2. The open area opposite TOPSAW along Waterfront Drive, behind the new food and vegetable outlet;
3. The rooftop of the Checkers building, which was reportedly promised to the taxi association during the development phase.

By implementing these detailed spatial proposals and key priorities, Knysna can enhance its transport, storage, and communication sector, supporting economic growth and improving the quality of life for residents. Investing in infrastructure modernization, promoting non-motorized transport, expanding digital

connectivity, and strengthening public transport services will position Knysna as a more connected and accessible town, ultimately benefiting its communities and businesses.

D2.2.3.3 FINANCE, INSURANCE, REAL ESTATE, AND BUSINESS SERVICES

The finance, insurance, real estate, and business services sector in Knysna is essential for providing critical services that support the town's economic and social development. The real estate market is driven by both residential demand and commercial property development, particularly due to the town's popularity as a tourist destination and its appeal to retirees and second-home buyers. Financial and business services, including banking, insurance, and consulting, provide the necessary support for local businesses and individuals. However, challenges in this sector include high property prices and the need for more affordable financial services tailored to the local population. The following initiatives are recommended to strengthen the sector:

- **Affordable Real Estate Development:** The real estate market must focus on developing more affordable housing options to cater to a broader demographic. This includes promoting mixed-use developments that combine residential, retail, and commercial spaces, creating more vibrant and accessible communities.
- **Improved Financial Inclusion:** Expanding access to affordable financial services, including banking, insurance, and investment products, is essential for local businesses and residents. Financial institutions should tailor their offerings to meet the unique needs of the local economy, particularly by supporting small business development and providing financial literacy programs.

D2.2.3.4 GENERAL GOVERNMENT

The general government sector plays a critical role in shaping the economic and social landscape of Knysna by providing essential services, enforcing regulations, and promoting community well-being. Local government initiatives are crucial for creating a business-friendly environment that promotes private-sector investment and job creation. However, challenges such as limited financial resources, bureaucratic inefficiencies, and the need for stronger public engagement can hinder effective governance.

To enhance local government's efficacy and its impact on economic development, the following strategies, in line with G4J objectives, are recommended:

STRENGTHENING PUBLIC-PRIVATE PARTNERSHIPS

Encouraging partnerships between government and the private sector is essential for fostering sustainable job creation.

- **Establish a Business Investment Facilitation Desk:** This can streamline approval processes, reduce red tape, and attract new investments by providing a single point of contact for businesses looking to invest in Knysna.
- **Local Incentive Programs:** Develop targeted incentives for businesses in high-potential sectors like tourism, green energy, and digital technology to support job creation aligned with G4J's economic goals. This includes potential tax relief or subsidies for businesses that commit to local hiring and upskilling.

STRENGTHENING PUBLIC PARTICIPATION

Effective public participation fosters transparency, accountability, and the development of policies that reflect local needs.

- **Community Engagement Forum:** Meeting quarterly, this forum can gather public input on critical issues and host theme-based workshops on topics such as infrastructure development or climate resilience. By incorporating digital platforms, such as online surveys and feedback channels, more residents can engage meaningfully.

RESOURCE ALLOCATION AND FINANCIAL MANAGEMENT

Enhanced financial management is vital for efficient resource allocation, allowing the local government to maximize its impact on critical development projects.

- **Comprehensive Financial Audit and Management Framework:** Conduct an audit to identify opportunities for improved budgeting, reporting, and performance metrics. A streamlined financial framework can ensure resources are used effectively in key areas such as infrastructure, public safety, and social services, driving the growth needed to support job creation.

DIGITAL TRANSFORMATION AND E-GOVERNMENT INITIATIVES

Using technology to streamline service delivery aligns with G4J's focus on enhancing productivity and access to services.

- **Integrated Online Service Platform:** Develop a digital platform where residents can access services, submit applications, and report issues. This platform could also display key metrics, budgets, and progress on municipal projects, fostering transparency.

- **Digital Skills Training for Government Staff:** Equip local government employees with digital skills to manage e-government initiatives effectively, thereby improving the efficiency and responsiveness of services.

DEVELOPING ENERGY RESILIENCE AND GREEN ECONOMY PROJECTS

Aligned with G4J's focus on a low-carbon economy, promoting green energy initiatives can enhance Knysna's resilience and attract investments in sustainable projects.

- **Renewable Energy Projects:** Collaborate with private-sector partners to explore solar, wind, and other renewable energy projects, particularly for areas experiencing energy instability.
- **Sustainable Tourism Development:** Invest in eco-tourism infrastructure and services that align with environmental preservation, which can position Knysna as a destination for sustainable tourism, a key job-creating sector.

D2.2.3.5 COMMUNITY, SOCIAL, AND PERSONAL SERVICES

In Knysna Municipality, community, social, and personal services form the backbone of societal well-being, addressing the diverse needs of residents and promoting social cohesion. These services encompass education, healthcare, social welfare, and recreational activities, all crucial for enhancing the quality of life. However, challenges such as resource constraints, accessibility, and the need for community engagement highlight the importance of strategic planning and investment in these sectors.

To strengthen community, social, and personal services in Knysna, the following detailed proposals are recommended:

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- **Integrated Service Delivery Models:** Establish comprehensive service delivery systems that address multiple community needs in a single location.
 - Develop Community Hubs in under-served areas such as Karatara and Rheenendal, strategically located near public transport routes to maximize accessibility. These hubs will serve as central points for delivering essential services, effectively bridging gaps in healthcare, education, and social support.
 - Each hub should feature multi-purpose facilities equipped with classrooms for educational programs, health clinics for primary care and preventive services, and versatile spaces for community events and workshops. The design should incorporate environmentally friendly materials and layouts that promote inclusivity and comfort.
 - **Enhancing Healthcare Access with Specialized Care:** Improve healthcare services by expanding specialized care and leveraging Knysna’s strong medical reputation. Upgrade facilities in Knysna Central and establish clinics for orthopedics, dermatology, and cosmetic surgery. Nearby institutions such as **Knysna Provincial Hospital** and **Life Knysna Private Hospital** can partner to offer advanced treatments and clinical support, creating a robust network for specialized care.
 - Knysna’s medical sector is renowned for its high-quality services, including trauma care and specialized treatments, supported by its natural beauty, making it a prime location for medical tourism.
 - **Support for Vulnerable Groups:** Develop targeted programs to assist marginalized and at-risk populations
 - Identify areas with higher concentrations of vulnerable individuals, such as the **Hornlee** and **Old Place** neighborhoods. Launch initiatives focused on youth development, such as mentorship programs, skills training, and employment opportunities for at-risk youth, in collaboration with local businesses and NGOs.
 - **Promoting Recreational and Cultural Activities:** Encourage social cohesion and healthy lifestyles through recreational and cultural programs.
 - Develop multi-functional **community parks** in underserved neighbourhoods such as **Thesen Island**, **Knysna Heights**, and **Hornlee**. These parks can include facilities for various sports, playgrounds, picnic areas, and walking trails that cater to all age groups.
 - Designate areas for **cultural hubs** near central locations like **Knysna Central** and **Knysna Waterfront**, featuring amphitheatres and community gathering spaces to host local arts, crafts, and cultural events.
 - There is strong public support for transforming service-oriented infrastructure near Knysna Waterfront—such as parking and waste facilities—into multifunctional cultural and ecological spaces. These interventions could create an internationally celebrated waterfront experience, reflecting the town’s creative identity and boosting its social and economic vibrancy.
-

These comprehensive proposals aim to create a more resilient and engaged community in Knysna, enhancing the delivery of social and personal services. By prioritizing integrated service delivery, healthcare access, community empowerment, and recreational opportunities, Knysna can foster a healthier, more inclusive environment for all its residents.

D2.2.3.6 TOURISM

Tourism plays a pivotal role in Knysna's economy, offering unique experiences that draw visitors to its natural beauty, cultural heritage, and recreational activities. Despite its significance, the sector faces challenges related to seasonality, environmental sustainability, and the need for diversification. To strengthen Knysna's tourism industry and ensure its long-term viability, a strategic approach with targeted spatial proposals is essential.

To enhance the tourism sector's resilience and sustainability, the following detailed actions and spatial proposals are recommended:

- **Sustainable Tourism Development:** Implement eco-friendly tourism initiatives that focus on conservation and minimal environmental impact.

- Establish eco-lodges and glamping sites in environmentally sensitive areas like the **Garden Route National Park** and around the **Knysna Estuary**. These sites should adhere to sustainable building practices and use renewable energy sources.
- Offer guided eco-tours focusing on the region's biodiversity, such as birdwatching and nature trails that educate visitors about local flora and fauna while promoting conservation efforts.
- **Spatial Planning for Tourism Infrastructure:** Enhance accessibility to tourist attractions through well-planned infrastructure.
 - Create a **Tourist Precinct** along the waterfront, integrating pedestrian pathways, bike lanes, and green spaces. This area can connect the **Knysna Heads** to the **Estuary** and **Thesen Island**, featuring lookout points, picnic areas, and information kiosks.
 - Develop a weekly **Waterfront Market** where local artisans, food vendors, and farmers can showcase their products, encouraging visitors to engage with the local economy and culture. See examples below:



Image 1: Bay Harbour Market, Cape Town



Image 2: Wellington Harbourside Market, New Zealand



Image 3: Green Market Square, Cape Town

- **Diversification of Tourism Offerings:** Broaden the scope of experiences available to visitors.
 - **Designate specific zones for adventure tourism:** Designate specific zones for adventure tourism activities, such as the Simola Golf & Country Estate and Knysna Forest. These zones can host mountain biking trails, hiking paths, and water sports facilities. Additionally, building on the success of the annual Knysna Marathon, which attracts participants from across the country, a dedicated cycle route can be promoted and marketed on a similar scale to attract cyclists and adventure enthusiasts.
 - Launch seasonal events, such as a **Knysna Food and Wine Festival**, showcasing local produce, seafood, and wines. These

events could include pop-up restaurants and culinary experiences at local farms to attract food enthusiasts. While the Knysna Waterfront is privately owned, alternative centrally located public spaces—such as the existing Waste Transfer Station site once relocated—should be considered as key venues for such events. This site offers high accessibility and the potential to become a vibrant public gathering space in the short term. Over the longer term, the site could evolve into a riviera-style development that permanently integrates artisanal fairs and festivals into its design, supporting local enterprise, placemaking, and tourism development.

- **Eco-Tourism and Timber Education Trails:** Introduce tourism initiatives that emphasize sustainable forestry practices and the history of the timber industry. Develop dedicated trails that guide visitors through the rich history and practices of the local timber industry. These trails can feature stops at significant sites, such as historic sawmills, indigenous forest areas, and woodcraft workshops, offering insights into the cultural and economic role of timber in the region.
- **Enhancing Marketing Efforts:** Strengthen Knysna's visibility as a premier tourist destination.
 - Collaborate with local businesses to create all-inclusive packages combining accommodation, dining, and activities. Promote these packages through digital marketing channels and partnerships with travel agencies.

- Target niche markets, such as wellness tourism, by promoting local spas, retreats, and health workshops. Consider organizing wellness retreats in serene locations like **Buffalo Bay**. In recent years, with the immense stressful lives that people experience, there has become a gaining popularity of Yoga retreats that allows attendees to get a break from the usual daily lives and connect with nature for 2-7 days and consume meals made from organic produce and healthy cuisine. Such proposals can be accommodated in the Knysna Municipality and the municipality can identify key themes that will contribute to the creation of a unified "Brand for Knysna," positioning the area as a premier wellness destination. These themes could include **natural tranquility**, highlighting the serene beauty of locations like Buffalo Bay and the surrounding forests; **holistic wellness**, focusing on health retreats, yoga, and rejuvenating experiences; **sustainable tourism**, emphasizing eco-friendly practices and local, organic products; and **community connection**, fostering engagement through local workshops and wellness events. This brand will encapsulate the town's unique offerings and appeal to those seeking tranquility, relaxation, and holistic experiences.

- **Transportation and Connectivity Improvements:** Improve access and mobility within the tourism sector.
 - Implement a Hop-On Hop-Off bus service that connects major attractions, including the Knysna Elephant Park, Monkeyland, and the Estuary, making it easier for tourists to explore without a

vehicle. The service should also link key cultural stops such as the Knysna Museum, the Old Gaol and Court House, the Timber Village, and the Knysna Art Gallery, providing visitors with an easy way to experience both the natural and cultural heritage of the area. Additional stops could include Hunter's Home, Goukamma Nature Reserve, and the Knysna Heads, further enriching the experience for tourists who wish to explore Knysna's diverse offerings.

- There is strong public support for exploring the revival of the historic railway line as a scenic heritage route connecting key nodes such as the Waterfront, Brenton on Lake, and Belvidere. A restored steam train could serve both as a nostalgic cultural experience and a functional link across the lagoon, with potential to boost tourism, heritage preservation, and local enterprise.
- **Community and Cultural Engagement:** Involve local communities in tourism initiatives.
 - Designate a **Cultural District** in the **Knysna town center**, where local artisans and performers can showcase their talents. Create a space for cultural markets, art exhibitions, and live performances, enhancing the cultural tourism experience.
 - Host a **Monthly Artisan Fair:** A Monthly Artisan Fair could be held at the Knysna Waterfront, featuring local crafts, traditional foods, and cultural performances. This event would foster community pride and provide visitors with an opportunity to engage with the region's heritage. To enhance visibility and encourage competition, stalls will be selectively managed to feature diverse

local businesses and products. Marketing will focus on social media to broaden reach and attract both locals and tourists.

Additionally, this fair could provide a platform for local musical artists, offering live performances that celebrate Knysna's cultural talent. This approach not only supports local artists but also taps into entertainment tourism by providing unique experiences that encourage visitors to explore Knysna's artistic scene.

These detailed spatial proposals, combined with strategic actions, will enhance Knysna's tourism sector, promoting sustainable growth while benefiting both residents and visitors alike. By investing in infrastructure, diversifying offerings, and engaging the community, Knysna can position itself as a leading eco-tourism destination while preserving its unique character and environment.

D2.2.4 VALUE CHAINS

Knysna's value chains refer to the various stages involved in the production, processing, and distribution of goods within key economic sectors, including agriculture, forestry, tourism, and manufacturing. These value chains highlight the flow of products and services from raw material extraction to the final consumer. Here's an overview of the main value chains in Knysna:

D2.2.4.1 FORESTRY VALUE CHAIN:

Knysna is historically known for its timber and forestry resources. The value chain involves the following stages:

- **Forestry (Plantation & Harvesting):** Commercial plantations of pine and eucalyptus trees are grown, harvested, and processed. Indigenous forests are protected but contribute to the tourism value chain.
- **Primary Processing:** Logs are transported to sawmills for cutting into timber.
- **Manufacturing:** Timber is processed into various products, including furniture, construction materials, and wooden goods.
- **Distribution and Retail:** Processed wood and wood products are sold domestically or exported.
- **Forestry Tourism:** The natural forests are also part of eco-tourism activities, including forest walks and conservation-related tourism.

D2.2.4.2 AGRICULTURE VALUE CHAIN:

Agriculture in Knysna includes crop farming, livestock, and niche products. The value chain stages are:

- **Farming (Production):** This includes the cultivation of crops (e.g., vegetables, berries, honey bush tea, and herbs) and livestock rearing (e.g., dairy, cattle, and poultry).
- **Processing:** Products are processed locally (e.g., honey bush tea processing, dairy product packaging, etc.) to add value.
- **Packaging:** Processed goods are packaged for retail, either for local markets or for export.
- **Distribution:** Products are distributed through wholesalers, local markets, and retailers.

- **Niche and Organic Markets:** High-value products such as organic horticulture, honey bush, mushrooms, and herbs are sold to premium markets, both locally and internationally.

D2.2.4.3 TOURISM VALUE CHAIN:

Tourism is a critical sector in Knysna, driven by its natural beauty, forests, coastline, and estuary. The value chain includes:

- **Attractions:** Natural attractions like the Knysna Forest, Knysna Estuary, beaches, and eco-tourism sites, as well as events like the Knysna Oyster Festival.
- **Accommodation and Hospitality:** Hotels, guesthouses, lodges, and B&Bs provide accommodation for tourists.
- **Tour Operators and Travel Services:** Local operators organize activities such as boat tours, hiking, wildlife tours, and cultural experiences.
- **Food and Beverage:** Local restaurants, cafes, and food producers serve tourists, often featuring locally sourced products.
- **Retail and Souvenirs:** Handicrafts, local products, and souvenirs are sold to visitors, with local artisans and producers benefiting.

D2.2.4.4 MANUFACTURING VALUE CHAIN:

Manufacturing in Knysna is closely tied to its forestry and agricultural resources, as well as artisanal and small-scale production. Key stages include:

- **Raw Material Sourcing:** Timber from local forestry and agricultural by-products are sourced for manufacturing.
- **Processing and Production:** Wood products (e.g., furniture, wooden crafts) and food products (e.g., dairy, honey bush tea) are manufactured.

- **Distribution and Export:** Finished goods are distributed through local, regional, and international channels.
- **Retail:** Artisanal goods, food products, and wood crafts are sold in local markets and to tourists.

D2.2.4.5 RENEWABLE ENERGY AND ENVIRONMENTAL VALUE CHAIN:

Knysna is also looking to tap into opportunities in renewable energy, particularly as part of its commitment to sustainability. The value chain could include:

- **Renewable Energy Generation:** Solar, wind, or biomass projects that leverage local resources.
- **Installation and Services:** Local businesses could be involved in the installation and maintenance of renewable energy systems.
- **Environmental Management:** Services related to conservation, water management, and sustainable agriculture feed into this value chain.
- **Cross-Sector Opportunities:**
- **Agri-Tourism:** Combining agriculture with tourism, such as farm stays, local food markets, and eco-tourism, adds value to both sectors.
- **Green Economy:** The push towards sustainability, environmental conservation, and renewable energy can create synergies across agriculture, forestry, and tourism.

By addressing constraints and leveraging identified opportunities, Knysna can develop these value chains to enhance economic growth and sustainability.

D2.2.5 KNOWLEDGE ECONOMY

A key trend at local, provincial, and national levels is the shift towards knowledge and information-based economies. The World Bank (2012) defines knowledge economies around four pillars:

1. Institutional frameworks that encourage entrepreneurship and effective knowledge utilization.
2. Access to skilled labor and strong educational systems.
3. ICT infrastructure and widespread digital accessibility.
4. A dynamic innovation landscape involving collaboration between academia, the private sector, and civil society.

In Knysna, there are several opportunities and challenges for transitioning towards a knowledge-based economy. This transition aligns closely with the Provincial Strategic Plan 2025–2030, which identifies **Innovation, Culture, and Governance** as key priorities. It also supports the provincial **Growth for Jobs** strategy, which highlights **Technology and Innovation** as a Priority Focus Area (PFA). These frameworks provide a strategic foundation to guide local knowledge economy initiatives and investment.

Key opportunities and challenges include:

- **Gap in Tertiary Education:** The absence of local universities and limited access to higher education creates a significant gap. Establishing educational facilities linked to institutions such as UNISA, CPUT, or Nelson Mandela University could help bridge this gap and provide accessible higher education. Partnerships with online education platforms can also be explored to offer digital learning opportunities.

- **Expanding Skills Training Programs:** There is a need for training initiatives focusing on key local sectors like agriculture, forestry, and tourism. Programs should aim to upskill residents in areas such as agri-business, sustainable farming practices, and hospitality management. Strengthening connections between established businesses and local entrepreneurs can foster mentorship and knowledge-sharing, boosting the local economy.
- **ICT Infrastructure Expansion:** Limited ICT infrastructure in remote parts of Knysna constrains access to digital resources and services. Investments in expanding broadband coverage and improving internet connectivity across the municipality would help support education, business development, and e-commerce, allowing rural communities to participate more fully in the digital economy.
- **Leveraging the Natural Environment:** Knysna's natural assets present an opportunity to integrate eco-tourism with educational programs. Establishing research and training centers focused on marine biology, forestry management, or sustainable tourism can tap into Knysna's rich biodiversity, attracting students, researchers, and eco-tourists while fostering a culture of environmental stewardship.
- **Supporting Innovation Clusters:** Encouraging the development of small innovation hubs or coworking spaces can stimulate local entrepreneurship. These spaces could serve as collaborative environments for startups, researchers, and creative professionals to share resources and ideas, particularly in areas such as green technology, sustainable forestry, or digital media.

- **Linking Knowledge Economy Initiatives with Healthcare Proposals:** The development of a knowledge-based economy in Knysna can benefit from a targeted focus on the healthcare sector. Establishing specialized healthcare services and research in specific medical fields—such as wellness, rehabilitation, and targeted procedures—would not only cater to local and regional needs but also attract medical tourism, aligning with Knysna's economic goals. Creating research facilities and partnerships within the healthcare sector could foster job creation and support skills development, contributing to the town's innovation landscape. Additionally, collaborations with educational institutions and healthcare providers would enhance research and development opportunities, helping Knysna position itself as a leader in healthcare innovation within the region.

Building a Resilient Knowledge Economy

Fostering a knowledge-based economy is essential for Knysna's long-term growth. This includes supporting industries with high research and development (R&D) potential, such as sustainable agriculture, eco-tourism, and forestry. Creating innovation clusters, expanding digital infrastructure, and upskilling the workforce will prepare the community for future economic challenges. By embracing these opportunities within the frameworks of the Provincial Strategic Plan and Growth for Jobs strategy, Knysna can establish itself as a regional leader in sustainability, technology, and education, driving inclusive and innovative growth for its residents.

D2.3 LOCAL ECONOMIC DEVELOPMENT

Local Economic Development (LED) in Knysna focuses on stimulating sustainable economic growth and improving residents' quality of life by encouraging collaboration among local communities, businesses, and government.

The LED approach aims to address socio-economic challenges and foster diverse economic opportunities within the municipality. Key objectives include:

- Poverty Alleviation
- Improving Rural Livelihoods
- Broadening the Economic Base
- Encouraging Entrepreneurship and Small Business Incubation
- Supporting Artisan and Entrepreneurial Development
- Promoting Local Industrial Development and Support Infrastructure
- Sustainable Economic Development Initiatives
- Employment Creation and Youth Skills Training
- Promoting Innovation and Skills Development

The integrity of Knysna's economic base is closely tied to its environmental assets. Tourism, eco-tourism, and agriculture rely on healthy natural systems, scenic landscapes, and biodiversity. The MSDF prioritizes protecting key ecological and agricultural resources—such as wetlands, river corridors, estuaries, and high-potential agricultural land—through appropriate spatial guidelines, land use overlays, and rural edge management, directing development away from sensitive areas.

While revitalisation and infrastructure reinforcement remain central to sustainable growth—focusing on renovating existing housing stock and strengthening essential services—some spatial expansion is acknowledged as necessary to accommodate demand from larger industries seeking additional space. This managed expansion will balance industrial growth with community development and environmental sustainability.

The plan supports preserving sense of place and landscape character, recognizing their role in attracting investment, supporting rural enterprises, and enhancing local identity. Scenic resources and natural assets will be managed to secure sustainable livelihoods and diversify Knysna's rural and township economies.

Environmental education remains pivotal in fostering a resilient local economy. The municipality encourages partnerships with schools, NGOs, and environmental agencies to integrate biodiversity and climate literacy into education and community programs. Community-based stewardship initiatives, particularly those engaging youth, will be supported to build a culture of sustainability and resilience.

D2.3.1 EMPLOYMENT AND ECONOMIC OPPORTUNITY

Knysna's current employment base is concentrated in SANParks, forestry, and small-scale farming, with limited diversification. To broaden the economic base and create new jobs, the LED strategy supports:

- Small business incubation programs to nurture local entrepreneurs.

- Development of artisan and entrepreneurial initiatives linked to local culture and skills.
- Expansion of local industrial development with supporting infrastructure to attract and sustain medium and large enterprises.
- Strengthened mentorship and networking between established businesses and emerging entrepreneurs.

These efforts aim to create a more diverse and resilient economy, generating opportunities across sectors while reducing over-reliance on a few industries.

D2.3.2 YOUTH AND SOCIAL DEVELOPMENT

Youth in Knysna face significant challenges including limited access to safe recreational spaces, digital education, and after-school programs. The LED plan prioritizes:

- Creation of safe, accessible recreational and cultural spaces tailored for youth engagement.
- Implementation of digital literacy and education initiatives to enhance employability.
- Development of after-school and skills training programs in collaboration with schools, NGOs, and community organizations.
- Support for youth entrepreneurship and employment pathways to reduce poverty and social vulnerability.

D2.3.3 REVITALISATION AND MANAGED GROWTH

The municipality adopts a revitalisation-first approach for residential and community development, focusing on:

- Renovation and upgrading of existing housing stock to improve living conditions.
- Reinforcement and expansion of essential infrastructure including water, sanitation, electricity, and roads.
- Promotion of green economy sectors such as regenerative agriculture and eco-tourism to support sustainable growth.
- Recognition that some spatial expansion is required to meet industrial land demand, with careful management to minimize environmental impact and maintain community cohesion.

This balanced approach aligns with the Knysna MSDF Phase 2 priorities for addressing basic needs and community development.

D2.3.4 RETAIL AND SOCIAL INFRASTRUCTURE DEVELOPMENT

Retail hubs are vital for supporting local economies and community convenience. Existing and planned facilities include:

- The Xolweni and Rhobololo retail hubs, with ongoing expansions such as Kunjani Mall.
- Proposed retail developments in Ethembeni to extend local economic activity.
- Social infrastructure including homeless shelters and dormitory facilities in Heidivalei to address vulnerable populations.

The integration of retail and social infrastructure supports local employment, enhances service access, and strengthens community wellbeing.

D2.3.5 RURAL SETTLEMENTS AND ECONOMIC DEVELOPMENT

Rural settlements such as Karatara, Rheenendal, and Buffels Bay require targeted economic development strategies. The LED plan:

- Identifies rural economic opportunity zones linked to catalytic infrastructure investments.
- Promotes incentive frameworks aligned with national funding programs to stimulate rural SMMEs and agri-processing industries.
- Provides clearer implementation guidance for establishing rural economic hubs, supporting diversified livelihoods, and improving access to markets and services.

D2.3.6 TOWNSHIP/RURAL ECONOMIES

The term **‘township economy’** refers to enterprises and markets established within township areas, primarily operated by local entrepreneurs to meet the needs of their communities. These enterprises are distinct from those run by individuals outside the townships and are characterized by high levels of poverty, unemployment, and low income, along with significant distance from major economic centers.

Townships in Knysna include both formal and informal settlements predominantly inhabited by African, Coloured, and Indian communities. Many township enterprises operate informally and can take various legal forms, including for-profit and non-profit organizations registered under the Companies Act, as well as cooperatives under the Cooperatives Act.

KEY SECTORS OF THE TOWNSHIP ECONOMY IN KNYSNA

The following sectors and clusters have been identified as vital components of the township/rural economy in Knysna:

SUPPORT FOR THE TOWNSHIP ECONOMY

The **Department of Small Business Development** has initiated the **Township and Rural Entrepreneurship Programme (TREP)** to support and empower township economies in Knysna. This program aims to transform opportunities in these areas into productive business ventures by creating supportive platforms and fostering a conducive regulatory environment for entrepreneurs.

OBJECTIVES OF TREP:

- To overcome the legacy of economic exclusion by establishing an environment conducive to entrepreneurial activity.
- To provide dedicated business support to enterprises in township and rural areas, including access to funding and resources.

AVAILABLE SUPPORT SCHEMES:

- Small-scale bakeries and confectioneries support program
- Autobody repairers and mechanics support program
- Butcheries support program
- Clothing, leather, and textile support program
- Personal care support program
- Spaza shop support program
- Shisanyama and cooked food support program

FOCUS AREAS FOR DEVELOPMENT

The **Spatial Development Framework (SDF)** identifies **Knysna township areas, such as Hornlee and New Horizons**, as key targets for township and rural entrepreneurship programs. Given the socio-economic challenges in these areas, including unemployment, poverty, and limited business opportunities, these initiatives are crucial for fostering local economic growth and community empowerment.

D2.3.7 INFORMAL TRADING

Informal trading is deeply woven into the socio-economic fabric of Knysna, coexisting with various economic activities throughout its history and continuing into the future. This sector plays a crucial role in job creation, providing employment opportunities for many who might otherwise face economic hardship. Like the formal economy, informal trading acts as a mechanism for poverty alleviation, contributing to reduced crime rates by providing legitimate income sources.

The informal economy serves as a primary employment avenue for a significant portion of Knysna's urban and rural poor, contributing substantially to the local economic output. According to Statistics South Africa, over two million individuals were engaged in the informal economy (excluding agriculture) as of 2015, reflecting a considerable workforce reliant on this sector.

Unfortunately, municipal planners often perceive the informal economy solely as a spatial issue, concentrating on where to designate informal trading zones instead of recognizing its integral role in the local economy and its potential to

alleviate unemployment. Consequently, regulating informal business activities falls under the jurisdiction of the local government.

GROWTH OF INFORMAL TRADING AND CHALLENGES

Knysna has witnessed rapid growth in informal trading, particularly in the Central Business District (CBD), where traders are increasingly concentrated. This expansion has presented challenges in accommodating informal traders within the existing urban framework. Limited designated spaces have resulted in overcrowding, inadequate infrastructure, and conflicts over space utilization. Without structured planning, these issues could hinder the sector's contribution to economic growth and urban vibrancy.

PROPOSED INFORMAL TRADING HUB

To address these challenges and support the sustainable growth of informal trading, a dedicated Informal Trading Hub is proposed at a more strategically located site that aligns with broader transport and urban restructuring objectives.

Preferred locations include:

- The current Knysna Waste Transfer Station site, once it is relocated out of the town centre. This would unlock valuable, centrally located land suitable for economic activities, including informal trade.
- The Knysna Train Station precinct, which functions as a transport node with high foot traffic and connectivity potential, making it an ideal location for informal traders to access a steady customer base.

These locations are more conducive to informal economic activity due to their proximity to existing commuter movement, visibility, and access.

The envisioned Informal Trading Hub will provide a structured space equipped with essential infrastructure such as shelter, sanitation facilities, waste disposal, and lighting. The hub aims to:

- Enhance the visibility and accessibility of informal traders.
- Improve trading conditions by ensuring a clean and regulated environment.
- Facilitate economic inclusivity by integrating informal traders into the broader urban economy.
- Reduce congestion within the CBD by redirecting informal trading activities to designated, well-managed spaces near high-foot-traffic zones.

INTEGRATION INTO URBAN PLANNING AND POLICIES

The development of an Informal Trading Hub aligns with economic sustainability goals by fostering entrepreneurship, increasing job opportunities, and supporting small-scale businesses. To ensure its success, the following policies should be integrated into Knysna's urban planning framework:

- **Zoning Regulations:** Designate informal trading areas near key transport nodes and future redevelopment sites.
- **Infrastructure Development:** Invest in essential infrastructure to enhance the working conditions of informal traders and create a more organized trading environment.
- **Permit-Based System:** Implement a structured permit system that regulates trading spaces while providing traders with legal recognition and business security.
- **Stakeholder Engagement:** Collaborate with informal traders' associations and relevant stakeholders to develop policies that support their needs while maintaining urban aesthetics and functionality.

- **Training and Support Programs:** Offer skills development programs, financial literacy workshops, and access to micro-financing to enable traders to scale their businesses.

KEY ACTIONS AND INTERVENTIONS

To support informal trading in Knysna, the following actions and interventions are proposed:

- **Formalizing Informal Trader Stalls:** Establish designated areas for informal trading, ensuring stalls meet specific regulations while maintaining accessibility.
- **Implementing Permit-Controlled Stalls:** Create a system for issuing permits for informal traders, helping to regulate and manage trading activities effectively.
- **Enacting By-Laws:** Develop local by-laws that govern informal trading, outlining operational standards, health regulations, and compliance measures.
- **Integrating Informal Trading into LED Policies:** Incorporate informal trading regulations into the municipality's Local Economic Development (LED) by-laws to ensure alignment with broader economic goals.

DESIGNATED AREAS FOR ACTION

Key areas earmarked for these interventions include:

- The Knysna Train Station precinct, serving as a logical transport and activity hub.
- The redeveloped waste transfer station site, once relocated, allowing reintegration of underused land into the urban fabric.
- Other high-footfall areas adjacent to the CBD and tourist destinations.

These sites offer better long-term prospects for informal trading hubs, ensuring economic vibrancy, efficient land use, and improved urban management.

Some examples of formalising Informal trader stalls are shown below:



D2.3.8 SMALL, MEDIUM, AND MICRO ENTERPRISES (SMME) DEVELOPMENTS

Small, Medium, and Micro Enterprises (SMMEs) are essential to Knysna's economic landscape, driving growth and fostering entrepreneurial spirit. The focus on SMME development is aimed at equipping local entrepreneurs with business management and financial skills, thereby unlocking a wide spectrum of opportunities across various sectors.

SMME development is recognized as a critical strategy for boosting economic growth and improving the overall quality of life within the municipality. However, the success of these initiatives hinges on supportive policies, financial assistance, and a conducive environment fostered by local government.

SMMEs contribute to economic development in several ways:

- **Job Creation:** By establishing new businesses and expanding existing ones, SMMEs provide employment opportunities to local residents.
- **Innovation:** SMMEs often lead to the exploration of innovative industries, particularly in sectors like tourism, agriculture, and eco-friendly practices.

- **Reduction of Unemployment:** By stimulating local economies, SMMEs help to curb unemployment rates, particularly among youth and disadvantaged groups.
- **Addressing Inequality:** SMMEs can play a crucial role in addressing socio-economic disparities within the community.
- **Low Barriers to Entry:** Many industries supported by SMMEs require minimal skills, making entrepreneurship accessible to a broader demographic.
- **Harnessing Entrepreneurial Skills:** SMMEs encourage local individuals to leverage their skills and creativity, fostering a vibrant business community.

Given Knysna’s predominantly rural character, targeted approaches are essential for expanding SMME development beyond urban centers. These strategies include:

- **Awareness Programs:** Raising awareness about the importance and potential of SMMEs among residents and aspiring entrepreneurs.
- **Financial Support:** Establishing funding opportunities and grants tailored for local SMMEs to ensure access to necessary capital.
- **Knowledge Empowerment:** Providing resources and information on best practices in business management and operations.
- **Skills Development:** Offering training and workshops to equip entrepreneurs with the skills needed to thrive in the marketplace.

Support for Local Businesses: Knysna can enhance its business services sector by fostering innovation and entrepreneurship. This can be achieved through the provision of affordable co-working spaces—shared work environments that offer

essential amenities at reduced rates, making them accessible for small businesses and startups. Additionally, access to mentorship programs will connect entrepreneurs with experienced business leaders who can offer guidance, industry insights, and practical support. Together, these initiatives will encourage the growth of small enterprises and drive economic diversification.

SMME development is also a powerful tool for promoting empowerment, particularly among previously disadvantaged groups, such as women and rural residents. By nurturing local entrepreneurship, the municipality can enhance employment opportunities and foster individual and community empowerment.

SMME PROGRAMMES IN KNYSNA

To facilitate effective SMME development, the following programmes and specific interventions are proposed, along with the associated responsibilities:

Table 14: SMME

Programme	Specific Intervention	Responsibility
SMME relief programme	Assist local SMME’s to access national support programs	Knysna Municipality (KM)
	Provide a rates reduction intervention to businesses operating in the municipal facilities	KM
	Provide municipal financial support for stock acquisition for SMME’s	KM
Informal traders’ relief programme	Develop the informal trader’s database	KM
	Assisting informal traders to access national support through formalisation	KM
	Waiver permit and licence charges for a prescribed period	KM
	Offer stock stipends to the informal traders	KM

Programme	Specific Intervention	Responsibility
	Promote and facilitate bulk buying for informal traders to cut on stock costs	KM
	Promote product diversity amongst informal traders	KM
Buy local campaign programme	Conducting campaigns for the local people to buy from the local informal traders	KM
	Conducting campaigns for the local people to buy their goods and services from the local SMME's.	KM
	Facilitate government buying from local SMME's	KM
	Promote business to business buying activities	KM
Capability programme	Educate local communities about the importance of buying local and from informal traders	KM
	Advocate for municipal policy reviews that promotes re-entry into the informal trading sector	KM

Through these programmes and interventions, Knysna Municipality aims to create an enabling environment that supports the growth of SMMEs, fosters entrepreneurship, and promotes sustainable economic development across the region.

D2.4 REDUCTION OF RED TAPE

Establishing and nurturing a conducive business environment is essential for developing a competitive and dynamic economy in Knysna. The challenges posed by bureaucratic hurdles and red tape in interactions with government entities are significant barriers to economic progress and growth within the municipality.

Central to fostering this enabling environment is the concept of "ease of doing business" (EDB), as defined by the World Bank Group. This concept measures how effectively regulatory frameworks support the establishment and operation of local enterprises. In Knysna, addressing red tape is critical to enhancing EDB and creating a vibrant business ecosystem.

UNDERSTANDING RED TAPE

Red tape refers to unnecessary procedures, licenses, forms, and regulations that inflate costs associated with government interactions. It can involve outdated or convoluted processes that hinder competitiveness and impede economic growth. Specifically, red tape can burden local businesses in several ways:

- **Increased Costs and Delays:** Excessive regulations can lead to higher operational costs and delays, making it difficult for businesses to compete in local and global markets.
- **Barriers to Business Establishment:** Complicated procedures can discourage new businesses from entering the market and stifle the growth and sustainability of existing enterprises.

MITIGATING RED TAPE

To effectively mitigate red tape, Knysna Municipality must deploy a range of targeted strategies aimed at improving service delivery and promoting a business-friendly environment. The quality of service is dependent on three main factors: people, processes, and technology. These elements must intersect harmoniously to create a "sweet spot of service quality" that aligns with the needs of businesses.

Reducing red tape requires a structured and coordinated approach encompassing the following steps:

1. **Identifying Red Tape Issues:** Conduct surveys and workshops to gather input from local businesses regarding the specific bureaucratic challenges they face. Engaging with the business community will provide valuable insights into the most pressing issues.
2. **Consultative Process Design:** Implement a participatory and consultative process involving both business stakeholders and knowledgeable municipal officials to collaboratively address identified red tape challenges. This approach ensures that proposed solutions are practical and aligned with the needs of local enterprises.
3. **Root Cause Analysis:** Utilize tools such as the Fish Bone diagram to identify the root causes of red tape issues. Understanding the underlying factors will enable the municipality to address the problems effectively rather than just treating the symptoms.
4. **Developing a Red Tape Action Plan:** Create a comprehensive Red Tape Action Plan that outlines actionable solutions for each identified issue. This plan should include clear timelines, responsible parties, and measurable outcomes to ensure accountability.
5. **Appointing a Red Tape Champion:** Designate a Red Tape Champion within the municipality responsible for overseeing the implementation of the action plan. This individual will act as a liaison between businesses and the government, ensuring that the efforts to reduce red tape are sustained and effectively communicated.

By prioritizing the reduction of red tape, Knysna Municipality can enhance the business environment, stimulate economic growth, create jobs, and foster a more competitive local economy. This initiative not only benefits businesses but also contributes to the overall prosperity and quality of life for residents in the region.

D2.5 SKILLS DEVELOPMENT AND TRAINING

Skills development and training are essential for enhancing personal and professional growth in today's dynamic economic landscape. These initiatives not only improve technical skills but also foster essential soft skills, making individuals more adaptable and valuable in the workforce. Effective training programs identify local skill gaps, offer tailored learning experiences, and assess outcomes to ensure relevance. Embracing a culture of continuous learning is vital for maintaining competitiveness and fostering innovation. Ultimately, investing in skills development benefits individuals, businesses, and the broader community by driving progress and economic growth.

Rationale for Intervention: Establishing training institutions in Knysna is pivotal for equipping the local labor force with the skills necessary to drive economic growth. By focusing on local industry needs, these institutions can play a critical role in addressing unemployment and underemployment while promoting sustainable development.

Objectives: To support economic growth through learning, teaching, research, and commercialization activities aligned with Knysna's key economic sectors.

Key Action Areas: To effectively support economic growth through training and educational initiatives, the following actions will be prioritized:

- **Industry-Relevant Training Programs:** Collaborate with local businesses and industry representatives to develop training and educational content that aligns with current and future skill requirements in sectors such as tourism, agriculture, renewable energy, and marine industries.
- **Access to Skilled Labor:** Create pathways for local businesses to connect with skilled labor through internships, apprenticeships, and mentorship programs. Facilitating knowledge transfer partnerships can enhance workforce capabilities.
- **Focus on Renewable Energy and Agri-Business:** Establish specialized training programs in renewable energy and agribusiness to enable locals to participate in relevant projects. This will not only create job opportunities but also foster sustainable practices within these industries.
- **Promoting Lifelong Learning:** Encourage a culture of continuous education through workshops, short courses, and online training platforms. Collaborating with educational institutions can provide flexible learning opportunities for residents.
- **Developing a Tertiary Institution:** Propose the establishment of a tertiary institution in Knysna dedicated to enhancing educational access and skills development in the region. The institution will offer a range of programs tailored to local industries, including sustainable tourism, agriculture, and renewable energy.

Explore the establishment of a sustainable tertiary institution outside the urban edge to address critical higher education gaps and serve as a long-term catalyst for innovation, research, and inclusive economic growth in Knysna.

- **Partnerships for Relevance:** Foster partnerships with local businesses, government entities, and educational organizations to ensure that training programs are relevant and responsive to market needs. This collaboration will create research opportunities that align with Knysna's development goals.

By implementing these strategies, Knysna can enhance its human capital, support local industries, and empower residents to take advantage of emerging economic opportunities. The emphasis on skills development and training will contribute significantly to the sustainable development of Knysna and its surrounding areas, fostering a resilient and adaptable workforce ready to meet the challenges of the future.

D2.6 STRENGTHENING OF INSTITUTIONAL ARRANGEMENTS

1. Knysna Economic Partnership Agreement

The Knysna Economic Partnership Agreement aims to foster collaboration between the municipality, local businesses, and community organizations. This partnership will create a framework for shared goals in economic growth, focusing on job creation, local business support, and sustainable development. Through regular meetings and joint initiatives, the agreement will ensure a unified approach to tackling Knysna's economic challenges and leveraging opportunities for growth.

D2.7 SMALL TOWN REVITALISATION

The revitalization strategy for Knysna focuses on leveraging the town's unique characteristics and key economic sectors to build a robust local economic and spatial foundation. The Spatial Development Framework (SDF) provides strategic guidelines for prioritizing infrastructure and development efforts in Knysna, which is recognized for its potential as a vibrant small town.

REVITALIZATION INITIATIVES

The revitalization programs aim to promote economic growth in Knysna by enhancing local employment opportunities and commercial activities. The municipality's location along significant transport corridors positions it favorably for economic development. Key strategies include:

- **Livelihoods Planning:** This approach emphasizes people-centered planning, ensuring that land-use systems serve the community's needs. By integrating cultural and communal zones, the planning process addresses the specific needs of Knysna's diverse populations, particularly in historically marginalized areas.
- **Enhancement of Commercial Areas:** Revitalizing key retail spaces in the town center and along main access routes will boost tourism and improve the overall aesthetic of the area. Upgrades to lighting, facades, and pedestrian-friendly infrastructure will create a more inviting environment for visitors, encouraging longer stays and increased economic activity.
- **Tourism and Connectivity Enhancements:** Strengthening connections between Knysna and regional transport hubs will facilitate easier access for tourists. Initiatives to promote local attractions, such as the Knysna D,

Estuary activities, and nature reserves, will enhance the town's appeal and diversify its tourism offerings.

KEY REVITALIZATION PROGRAMS

- **Agri-Processing Support Programme:** This initiative focuses on expanding small agri-businesses by connecting them with government support, improving product competitiveness, and promoting ventures such as artisanal food production and organic farming, which align with Knysna's ecological values.
- **Town Beautification Programme:** Enhancing Knysna's visual appeal through improved street furniture, signage, and public spaces is vital for positioning the town as an attractive destination. This includes upgrading public parks and waterfront areas, creating vibrant community spaces that encourage social interaction and tourism.
- **Skills Development and Youth Empowerment:** Training and employment initiatives targeting youth will equip the next generation with the skills needed for the local job market, particularly in sectors like hospitality, tourism, and technology. Collaborations with local businesses can provide apprenticeships and work experience.
- **Contractor Support Programme:** Assisting local SMMEs in accessing government tenders and services will promote entrepreneurship and local job creation. This includes capacity-building workshops and resources to navigate the tendering process effectively.

These revitalization initiatives align with the Knysna and Garden Route Local Economic Development Strategies, aiming to stimulate economic growth, enhance tourism, and create sustainable job opportunities for the community.

D2.8 RURAL DEVELOPMENT FRAMEWORK

Rural development in Knysna is focused on empowering rural communities to take charge of their futures, addressing rural poverty through the sustainable management of natural resources. This participatory approach encourages residents to apply their indigenous knowledge to changing circumstances, fostering adaptability and resilience.

LAND REFORM PROGRAM

The Land Reform Program aims to broaden access to land and address historical imbalances in land ownership throughout South Africa, including Knysna. This complex initiative affects various sectors—agriculture, housing, conservation, and industry—requiring coordinated efforts at local, provincial, and national levels. For effective implementation, land reform should be integrated into planning and service delivery processes to contribute to sustainable, inclusive development.

Key principles guiding future land reform efforts in Knysna include:

- **Project Clustering:** Organizing land reform initiatives based on geographic and social contexts to optimize resource use and support local communities.
- **Support for Emerging Farmers:** Settling emerging farmers near transport routes and arable land, ensuring access to essential support services.

Additionally, encouraging links with the tourism sector through farm-to-table experiences, local produce markets, and agritourism opportunities will enhance the appeal of Knysna as a destination for culinary and agritourism experiences.

- **Access to Social Services:** Prioritizing off-farm settlements close to essential social services, improving quality of life and economic opportunities.
- **Alignment with Local Economic Development (LED):** Ensuring that high-impact projects align with Knysna's LED strategy, which may include eco-tourism, aquaculture, and sustainable forestry, enhancing both economic viability and environmental conservation.

KEY STRATEGIES

The rural development strategies relevant to Knysna include:

1. **Diversification of the Rural Economy:** Encouraging a shift from dependence on agriculture towards a more diverse economic base, including tourism, sustainable fisheries, and eco-friendly enterprises. Promoting eco-tourism and agri-tourism can significantly enhance the local economy, given Knysna's rich natural resources and scenic beauty.
2. **Small Town Regeneration (STR) Programme:** Revitalizing small towns within the municipality to strengthen local economies and improve the quality of life for residents. Partnerships among public, private, and community organizations will help reinvigorate economic activity.
3. **Rural-Urban Linkages:** Strengthening connections between rural areas and Knysna's urban center to integrate rural communities into broader

economic activities. Enhancing transport links and facilitating access to urban markets will improve opportunities for rural entrepreneurs.

4. **Infrastructure Development:** Investing in transport and ICT infrastructure is critical for improving connectivity and market access for rural areas. Improved roads and communication networks will facilitate trade and access to services for rural residents.

INTEGRATED RURAL DEVELOPMENT SECTOR STRATEGY (IRDSS)

The Knysna Spatial Development Framework (SDF) aligns with the principles outlined in the Department of Agriculture, Land Reform and Rural Development's (DALRRD) Integrated Rural Development Sector Strategy (IRDSS) 2023. This strategy emphasizes sustainable land use, infrastructure development, and local economic revitalization. The 2023 DALRRD Strategic Plan complements this framework by focusing on rural economic growth through land use optimization and infrastructure improvements, which are critical for shaping Knysna's SDF.

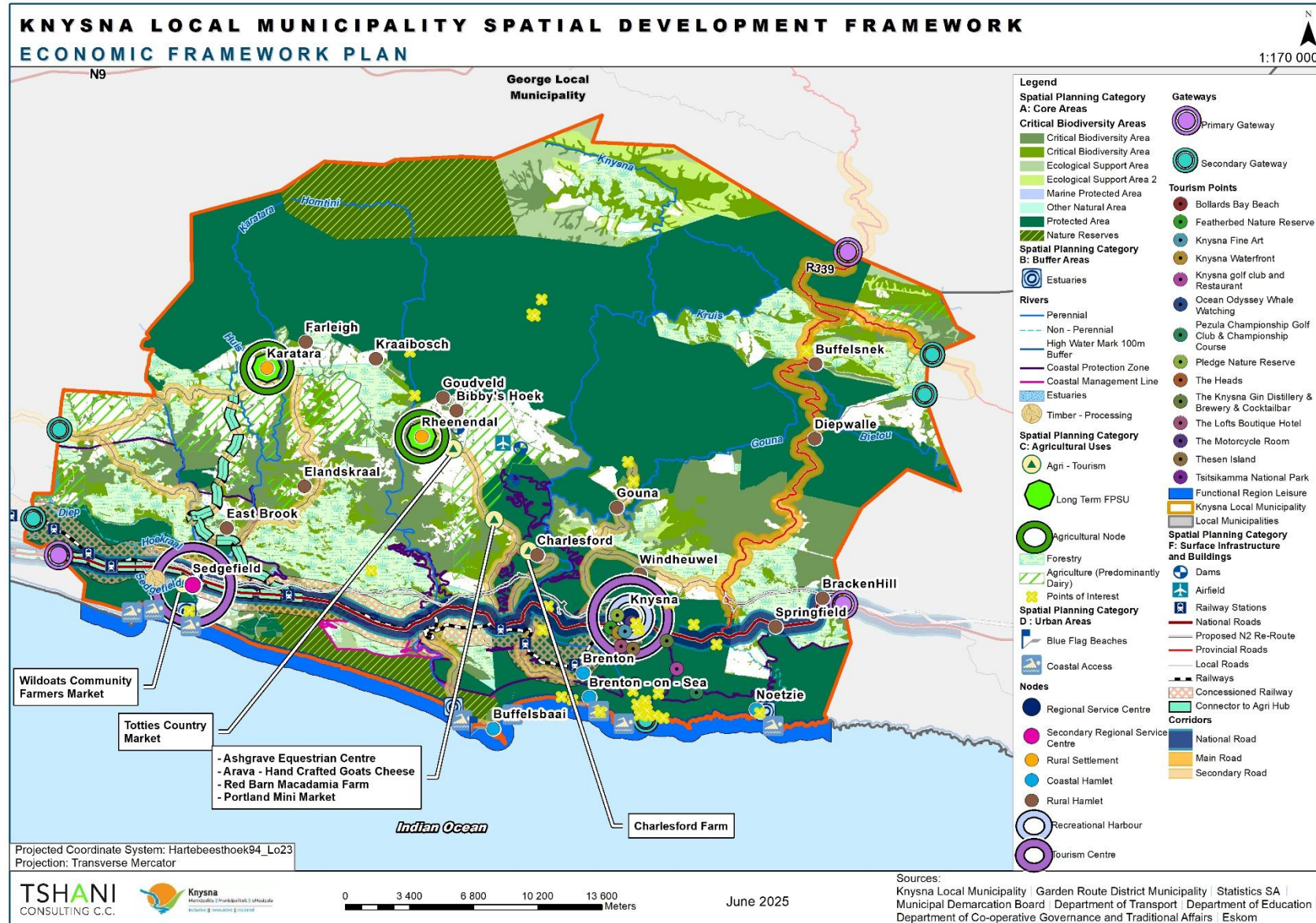
KEY CONSIDERATIONS FOR THE KNYSNA SDF

When developing the Knysna Spatial Development Framework (SDF), the following considerations should be prioritized:

- **Rural Development Focus:** Ensure alignment with the DALRRD 2023 IRDSS, emphasizing sustainable land use, service provision, and economic sustainability to support rural growth without uncontrolled sprawl.

- **Land Use Optimization:** Balance agricultural, residential, and commercial land uses while preserving natural spaces and promoting sustainable practices to protect Knysna's unique environment.
- **Infrastructure Needs:** Invest in critical infrastructure—transport, water, and energy systems—to support economic growth and connectivity for rural communities.
- **Community Involvement:** Incorporate community input into the SDF to ensure that local needs and priorities shape development plans, fostering social cohesion and ownership.
- **Sustainable Energy and Environment:** Leverage Knysna's potential for renewable energy, particularly in solar and wind, to ensure that future developments are sustainable and cost-effective. Integrate environmental conservation into land use planning to protect natural resources.
- **Economic Stimulation through Mixed-Use Development:** Encourage mixed-use developments that combine housing, agriculture, and commercial spaces, stimulating local economies, creating jobs, and improving service delivery in rural settlements.

By integrating these considerations, Knysna Municipality can ensure a balanced and progressive Spatial Development Framework that supports both economic and environmental sustainability, fostering rural growth while controlling urban sprawl.



D2.9 TOURISM FRAMEWORK

Tourism is a key economic driver in Knysna, underpinned by its abundant natural landscapes, rich cultural heritage, and diverse adventure opportunities. The sector holds significant strategic importance for economic development and transformation across the municipality's wards, providing Knysna with a clear competitive advantage due to its unique combination of sea, mountains, forests, rivers, lakes, nature reserves, and wildlife. Situated along the busy N2 highway through the Garden Route, Knysna is accessible from major cities across the Western Cape, Eastern Cape, and beyond.

Addressing challenges related to seasonality, environmental sustainability, and diversification is essential to foster resilient tourism growth. This framework provides structured guidelines and targeted proposals to develop Knysna's tourism sustainably and inclusively, maximizing economic benefits, enhancing visitor experiences, and preserving the region's natural and cultural assets.

Tourism encompasses organized activities related to leisure, business, medical, or religious visits, as well as social visits to friends or family. The framework aims to guide infrastructure development, marketing, stakeholder collaboration, and cultural preservation to attract a diverse visitor base.

While Knysna attracts considerable visitors, there is an opportunity to increase both the average length of stay and visitor spending, which currently lags behind other areas in the Western Cape.

Strategic Goals and Objectives

- **Promote diverse tourist attractions:** Attract domestic and international visitors by showcasing Knysna's unique natural, cultural, and adventure offerings.
- **Market accommodation options:** Facilitate diverse lodging choices to enhance visitor satisfaction.
- **Conduct visitor research:** Understand visitor motivations and preferences to tailor services and improve experiences.
- **Improve accessibility information:** Promote connections via George Airport (70 km away), including shuttle and public transport options to Knysna.

Through strategic planning and effective marketing efforts, the Knysna Municipality can leverage its rich tourism potential to bolster economic growth and community prosperity.

Policy Framework for Eco- and Heritage-Tourism Development

- **Environmental sensitivity:** The MSDF includes policies to regulate tourism land uses, especially in environmentally sensitive areas, requiring assessments of development scale, mass, and visual impact.
- **Low-impact design:** Encourage context-sensitive, low-impact tourism infrastructure that complements natural landscapes and preserves heritage values.
- **Visual impact assessments:** Mandatory for developments near sensitive ecological or heritage sites.

Urban Character and Sense of Place

- **Preservation of town character:** Development in Knysna and Sedgefield must adhere to urban design principles safeguarding scale, architectural vernacular, public realm quality, and integration with natural surroundings.
- **Special precincts and view corridors:** Identify areas requiring controls to protect scenic and heritage values.

Local Economic Empowerment Through Tourism

- **Community participation:** Spatial interventions will enable greater involvement of local communities, especially historically disadvantaged groups, by designating community tourism nodes where informal and emerging entrepreneurs can engage in crafts, food, performances, and tours.
- **Support for infrastructure and skills:** Promote investment and skills development in these nodes to enhance economic resilience.

D2.9.1 TOURISM CENTERS

- **Knysna:** Develop vibrant centers showcasing local culture, history, and attractions to enhance visitor engagement.
- **Sedgefield:** Position as a key destination with unique natural and cultural offerings.

D2.9.2 KNYSNA TOURISM ROUTES PROPOSALS

Knysna's tourism routes offer an immersive journey through its stunning landscapes, rich cultural heritage, and vibrant community experiences. These routes cater to diverse interests, blending nature, adventure, and cultural discovery to create a uniquely sustainable tourism experience.

- **Garden Route Scenic Route:** The Knysna Municipal stretch of this route emphasizes Knysna's distinct natural beauty and its unique attractions along the Garden Route. Visitors should stop in Knysna while travelling this route to experience the iconic **Knysna Heads**, a dramatic geological formation with unparalleled views, and the tranquil **Featherbed Nature Reserve**, which is accessible only by ferry. The **Knysna Forest**, South Africa's largest indigenous forest, offers opportunities to explore ancient trees and rare bird species. The **Knysna Elephant Park** provides an ethical wildlife experience with rescued elephants, further enhancing Knysna's eco-tourism appeal.

Actions: Promote outdoor activities such as hiking, bird watching, and water sports. Develop interpretive signage and guided tours to highlight the area's unique ecological and geological features. Encourage sustainable visitor behavior to protect these natural attractions.

- **Eco-Tourism Route:** Focus on eco-friendly experiences in the Garden Route National Park and Knysna Estuary with eco-lodges, glamping, renewable energy use, and educational eco-tours.
- **Actions:** Establish eco-lodges and glamping sites in conservation areas that adhere to sustainable building practices and renewable energy usage. Offer guided eco-tours such as birdwatching and forest hikes, providing educational insights into the local flora, fauna, and conservation efforts.

- **Adventure Tourism Zones:** This route caters to thrill-seekers, offering activities in areas such as **Simola Golf & Country Estate** and the **Knysna Forest**, where outdoor adventure opportunities abound.

Actions: Develop dedicated mountain biking trails, hiking paths, and water sports facilities. Expand the Knysna Marathon's reach by promoting a dedicated cycle route and positioning Knysna as a premier destination for adventure tourism, including endurance events and high-adrenaline outdoor experiences.

- **Cultural Heritage Route:** This route highlights Knysna's rich cultural and historical heritage, taking visitors through significant sites such as the **Knysna Museum**, **Old Gaol**, **Timber Village**, and the **Knysna Art Gallery**.

Actions: Establish a Cultural District in Knysna's town center that provides spaces for local artisans to showcase their work, offers live cultural performances, and hosts a heritage market. Promote township tours that engage visitors with local traditions, crafts, and history, deepening their understanding of Knysna's diverse cultural roots.

D2.9.3 TOURISM NODES

The following tourism nodes are identified within the Knysna Municipality, each serving as a hub of activity and helping to distribute the economic and visitor benefits across the region:

- **Knysna Waterfront:** A bustling hub featuring shops, restaurants, and boat cruises, making it a focal point for visitors.

Actions: Enhance this pedestrian-friendly area by connecting the Knysna Heads, Estuary, and Thesen Island. Install bike lanes, lookout points, picnic areas, and visitor information kiosks along the waterfront. Host a weekly Waterfront Market featuring local artisans, food vendors, and craftspeople to support the local economy.

- **Thesen Island:** Known for its beautiful homes, boutiques, and restaurants, this area enhances the visitor experience with its scenic beauty and recreational opportunities.

Actions: Strengthen the area's appeal by incorporating more public spaces, art installations, and events like open-air concerts, while preserving its tranquil charm.

- **Noetzie Beach:** A small but pristine and highly scenic beach featuring sea, river, hills covered with indigenous forest, and the iconic "castles." It attracts local, domestic, and international tourists seeking a natural, uncommercialized beach experience.

Actions: Urgently upgrade the first 1 km of the DR1771 road leading to Noetzie Beach, which currently has deep potholes, eroded gullies, sewage runoff, and visibility issues caused by overgrown alien lantana in the road reserve. This section passes through the Hlalani informal/formal settlement and was scheduled for tarring in 2013 following township approval, but the upgrade has not been completed. The poor road condition and unsafe driving environment have discouraged visitors. The upgrade will improve access, safety, and the overall visitor experience, helping to realize Noetzie's tourism potential.

- **Rheenendal:** Offering rich history and natural beauty, Rheenendal is ideal for eco-tourism activities such as hiking, bird watching, and exploring historical sites.
Actions: Develop eco-tourism trails, promote educational experiences at historical sites, and create immersive bird-watching programs.
- **Buffalo Bay:** Known for its pristine beaches, this area is perfect for water-based activities like surfing, swimming, and fishing, attracting both adventure-seekers and families.
Actions: Build infrastructure for beach activities, including surf schools, picnic areas, and eco-friendly facilities for visitors to enjoy the beach responsibly.
- **Sedgefield:** As South Africa's first official "Slow Town," Sedgefield provides a unique experience with its vibrant craft markets, scenic routes, and outdoor adventures like paragliding and mountain biking.

Actions: Promote Sedgefield as a key location for relaxed tourism, featuring craft markets, seasonal festivals, and promoting outdoor activities such as paragliding and hiking.

- **Timber Education and Eco-Tourism Trails:** Establish trails that highlight Knysna's timber industry heritage and sustainable forestry.
Actions: Create routes that include historic sawmills, indigenous forest areas, and woodcraft workshops to educate visitors about the timber industry's significance.
- **Adventure Tourism Nodes:** Designate adventure tourism zones to cater to outdoor enthusiasts.
Locations: Key sites include Simola Golf & Country Estate, Knysna Forest, and Knysna Heads.
Activities: Provide mountain biking, hiking, and water sports options, leveraging the popularity of the Knysna Marathon and promoting new cycling routes.

D2.9.4KNYSNA TOURISM AND HERITAGE ATTRACTIONS

The following attractions have been identified within the Knysna Municipality:

HERITAGE SITES:

- **Knysna Museum:** This museum showcases the area's rich history, including its indigenous cultures, colonial past, and the development of the timber industry.
- **Old Gaol:** A historical site that tells the story of the region's penal history and has been transformed into a cultural venue for events and exhibitions.
- **Littoral Active Zone (LAZ):** This culturally and ecologically rich corridor stretches from Gerickes Point to Hooggekraal. It includes Khoisan heritage sites, shell middens, ancient sand dunes, a fossil dune ridge, and remnants of early transport routes and WWII activity. The area holds strong tourism and cultural value and requires ecological protection and maintained public access, particularly to historically significant viewpoints like Round Hill.
- **Milkwood Mine Museum:** Although currently closed to the public since the COVID-19 pandemic, efforts are encouraged to work with SANParks to reopen this unique attraction. Reviving the site could enhance tourism in the Rheenendal area and support broader heritage tourism initiatives. The Greater Knysna Business Chamber is reportedly exploring investment opportunities to support its reactivation.

SCENIC ROUTES:

- **Garden Route National Park:** This park offers numerous trails, picnic spots, and views of the iconic Knysna Heads, drawing nature lovers and outdoor enthusiasts.
- **Elephant Sanctuary:** Providing opportunities to interact with rescued elephants, this sanctuary highlights conservation efforts and promotes educational tourism.

NATURE ATTRACTIONS:

- **Knysna Estuary:** A key site for water-based activities like kayaking, sailing, and fishing, the Estuary is essential for eco-tourism and attracts many visitors each year.
- **Robberg Nature Reserve:** Located nearby, this reserve is known for its scenic coastal trails and diverse wildlife, ideal for hiking and nature exploration.
- **Knysna Elephant Park and Goukamma Nature Reserve:** Ethical wildlife experiences and conservation-focused nature trails.
- **Swartvlei Drift Corridor:** A dynamic ecological system and Critical Biodiversity Area, important for ecosystem-based climate resilience and as a buffer against extreme weather events.

AGRI-TOURISM POINTS

- **Widoats Community Farmers Market:** Promote local produce and crafts, enhancing community engagement and supporting local farmers.
- **Totties Country Market:** Foster a family-friendly atmosphere that attracts visitors looking for fresh goods and unique local products.
- **Ashgrave Equestrian Centre:** Offer equestrian activities and experiences, tapping into the growing interest in rural tourism.

- **Arava Handcrafted Goats Cheese:** Showcase artisanal cheese-making, providing tours and tastings to visitors.
- **Red Barn Macadamia Farm:** Highlight macadamia farming and its benefits, offering educational tours.
- **Portland Mini Market:** Create a quaint shopping experience that promotes local crafts and produce.
- **Charlesford Farm:** Emphasize sustainable farming practices and eco-tourism.

BLUE FLAG BEACHES

Enhance Promotion Strategies: Develop targeted marketing campaigns that showcase the unique features and benefits of the Blue Flag beaches. This can include social media promotions, partnerships with local businesses, and collaborations with tourism boards to attract visitors.

Infrastructure Improvements: Invest in infrastructure upgrades around Blue Flag beaches to enhance visitor experience, including improved access roads, parking facilities, and amenities such as restrooms, showers, and signage that highlight safety and environmental information.

RECREATIONAL HARBOUR

Enhance recreational harbor facilities to support boating, fishing, and other water-based activities, fostering economic growth in the tourism sector.

COASTAL ACCESS

Ensure robust and inclusive coastal access across all coastal towns, enhancing connectivity to natural resources, improving the tourism experience, and supporting recreational and educational use of the estuary while preserving environmental quality.

Key interventions include:

- **Jetty Upgrades and Interpretation:** Upgrade existing jetties around the Knysna Lagoon to enhance their functionality, safety, and visitor appeal. Incorporate interpretive signage, illustrated maps, and ecological information to promote environmental awareness and create engaging educational nodes. Consider opportunities for low-impact amenities such as seasonal artisanal kiosks that draw residents and tourists to these key public spaces.
- **Design-led Jetty Policy Review:** Engage SANParks and other relevant authorities to review the current moratorium on new jetties. Promote a design-led approach that enables sensitively designed, ecologically responsible jetty developments that improve access and celebrate Knysna's lagoon as a key heritage and tourism asset.
- **Blue Flag Beach Infrastructure:** Upgrade infrastructure at key coastal access points, with a focus on Buffalo Bay and Brenton-on-Sea. Replace the current Brenton-on-Sea walkway with a new architecturally integrated boardwalk that protects dune ecosystems and enhances the visitor experience.
- **East Heads Piazza Activation:** Explore the transformation of the parking area adjacent to East Heads Café into a people-centered coastal plaza. Options include constructing an elevated public space over the existing parking or improving sustainable transport links from formal parking areas. This would reclaim prime lagoon-edge land for public enjoyment and promote Knysna's identity as a design-forward coastal destination.

- **Project-Level Coastal Planning:** Continue detailed planning for key access upgrades, such as at Sandpiper Nature Reserve, ensuring integration of ecological protection, recreational use, and public access.

D2.9.5 DIVERSIFICATION OF TOURISM OFFERINGS

To appeal to a wider range of visitors and mitigate seasonality, Knysna's tourism offerings will be diversified:

- **Eco-Tourism & Wellness Tourism:** Promote Knysna as a premier wellness destination.
Actions: Target wellness tourism by promoting local spas, retreats, and health workshops. Develop wellness retreats in serene areas like Buffalo Bay with yoga sessions and healthy cuisine. Establish a cohesive "Brand for Knysna" highlighting themes of tranquility, wellness, sustainability, and community connection.
- **Culinary and Agri-Tourism:** Create unique culinary experiences and agritourism to attract food and nature enthusiasts.
Actions: Launch seasonal events like a Knysna Food and Wine Festival with pop-up restaurants, farm-to-table experiences, and tours of local farms.
- **Township Tourism:** The Knysna Municipality has more to offer tourists than just the towns and natural beauty. The unique culture and traditions of the locals and people residing in the villages also provide a unique

offering which many people would like to experience. This offering is on the rise in various areas of South Africa as many tourists (including international tourists) seek this type of experience.

Actions: It is thus proposed that sites / communities be identified where a package can be put together with certain activities, with varying number of days for tourists to experience this lifestyle. This could include staying in a traditional home, partaking in activities, eating local food, viewing a village sunrise and sunset and basically experiencing the daily activities of a local village resident in the Knysna Municipality.

D2.9.6 RESORT DEVELOPMENT BEYOND THE URBAN EDGE

Promote eco-sensitive resort developments outside the Urban Edge that contribute to local economic growth while preserving natural assets. Implement stringent environmental controls including:

- Careful site selection minimizing ecological impact
- Green building practices
- Renewable energy and water conservation
- Waste management systems
- Conservation plans ensuring long-term ecological health

Balancing tourism growth with conservation safeguards Knysna's heritage and environment.

D2.9.7 TRANSPORTATION AND CONNECTIVITY IMPROVEMENTS

Ease of access and mobility are essential for tourism growth:

- **Hop-On Hop-Off Bus Service:** Implement a bus service connecting major attractions.

Stops: Knysna Elephant Park, Monkeyland, Knysna Museum, Timber Village, Knysna Art Gallery, Goukamma Nature Reserve, Knysna Heads, and Hunter's Home.

Benefits: Reduces traffic congestion and enhances the visitor experience by offering convenient, eco-friendly transportation options.

D2.9.8 COMMUNITY AND CULTURAL ENGAGEMENT

To strengthen community involvement and enhance cultural tourism:

- **Cultural District:** Create a vibrant area for local artisans and performers in the Knysna town center.

Features: Include spaces for cultural markets, art exhibitions, and live performances.

- **Community Events:** Host regular events, such as a Monthly Artisan Fair and seasonal markets.

Objectives: Engage locals and visitors, support small businesses, and celebrate Knysna's diverse culture and heritage.

D2.9.9 PROMOTING THE TOURISM SECTOR

- **Facilitating Collaborative Ventures with Stakeholders:** The municipality can play a pivotal role in fostering collaborations between investors, local businesses, and community organizations, enhancing local economic development (LED) initiatives.
- **Establishing Program-Level Partnerships:** Local governments frequently forge partnerships with diverse stakeholders to streamline program-level LED initiatives, cultivating a shared community vision for tourism development.

D2.9.10 CRITICAL SUCCESS FACTORS FOR THE TOURISM SECTOR

For Knysna to thrive as a premier tourism destination, the following factors are fundamental:

1. Support from the municipality's council and top management.
2. Adequate budget allocation and proper planning.
3. Competent human resources to drive tourism development and marketing efforts.
4. Promotion of sustainable tourism practices to preserve Knysna's natural and cultural resources.



D2.10 SOCIAL FACILITIES

Social facilities are fundamental in shaping human settlements by providing essential services like healthcare, education, recreation, cultural engagement, and communal spaces. In Knysna, access to these facilities is crucial for attracting and retaining residents, thereby supporting the town's goal of enhancing the quality of life for its growing population. These services contribute directly to the social and economic vibrancy of Knysna by facilitating community well-being.

As part of Knysna's broader goals for sustainable urban development, which focus on livable and resilient communities, there is a need to improve access to social facilities in alignment with the town's Spatial Development Framework (SDF). This includes the promotion of a university near Simola, across the river, to strengthen educational infrastructure. In addition, a comprehensive assessment of the economic and planning viability of this development is necessary to ensure its proper integration within the spatial planning framework. These considerations are essential to creating balanced and resilient urban areas that cater to both current and future populations.

The following section presents an analysis of the availability and distribution of social facilities across Knysna's municipal jurisdiction, referencing CSIR Human Settlement Guidelines. This aims to ensure that future developments are sustainable, responsive to local needs, and environmentally compatible.

SPC D. URBAN-RELATED AREAS

Sustainable urban development requires balancing competing interests in land-use planning. A primary goal of the Knysna Spatial Development Framework (SDF) is to revitalize existing settlements while ensuring that future

developments are environmentally sustainable, supportive of human well-being, and economically viable. Standard town planning criteria will guide evaluations of development applications and land-use adjustments. These criteria include:

- **Protecting natural and unique resources** to preserve Knysna's biodiversity and ecological heritage.
- **Safeguarding land and coastal elements** to prevent degradation and ensure long-term ecological health.
- **Preventing urban sprawl** by promoting compact, efficient land use that conserves valuable open spaces.
- **Strengthening and densifying existing nodes** to make efficient use of existing infrastructure and services.
- **Considering the cumulative impact of developments** to avoid overstressing local resources and infrastructure.

Social facilities are integral to this vision, as they not only provide necessary services but also support community resilience and cohesion. Access to a comprehensive range of social facilities ensures that all residents, from families to the elderly, feel valued and connected within their communities. Recognizing the unique needs of each area, we have structured this analysis by town rather than by ward to allow for more targeted and locally responsive planning

Table 9 presents the recommended thresholds and minimum requirements for social facilities across Knysna Municipality, based on CSIR guidelines. This information serves as a planning benchmark, helping to ensure that new developments and community expansions provide adequate and equitable

access to essential services. Key facilities and their respective planning thresholds include:

Table 15: CSIR Human Settlement Guideline

Facility	Planning Threshold	
	Walking Distance	Minimum Requirements
Crèche	2 km Radius	2 400 – 3 000 people
Primary School	5 km Radius	1 000 – 7 000 people
Secondary/ High School	5 km Radius	2 500 – 12 500 people
Library	8-10 km Radius	20 000 – 70 000 people
Clinic	5 km Radius	24 000 – 70 000 people
Hospital	30 km Radius	300 000 – 900 000 people
Police Station	8 km Radius	60 000 – 100 000 people
Post Office	5-10 km Radius	10 000 – 20 000 people
Pension Pay Points	5 km Radius	Variable
Community Halls	10 km Radius	10 000 – 60 000 people
Shops	10 km Radius	1 x 5000 people
Cemetery	15 km Radius	8.8Ha / 50 000 people

INTEGRATED PLANNING APPROACH

An integrated planning approach is crucial to ensure that social facilities are well-supported by infrastructure and meet the community's needs. As Knysna's population is projected to grow significantly by 2040, existing facilities must be assessed against future demand. The maps provided illustrate the distribution of current social facilities across towns and project the requirements based on 2024 and 2029 population forecasts, aligned with CSIR guidelines. This analysis highlights facility shortfalls, helping direct strategic investments to enhance Knysna's social infrastructure.

Table 10 outlines the overall social facility requirements for Knysna Municipality, considering population projections from 2016, 2024, and 2029. The analysis

indicates substantial shortfalls in crèches and primary schools, driven by population growth.

Table 16: Social Facilities – Overall

Year			2016	2024		2029	
Population			101454	110734		116960	
Facility	Planning Threshold		Existing	Required	Shortfall	Required	Shortfall
	Walking Distance (Radius)	Minimum Requirements (People)					
Early Childhood Development	2km	2400-3000	18	42	24	44	26
Primary School	5km	1000-7000	11	28	17	30	19
Secondary School	5km	2500-12500	4	15	11	16	12
Library	8-10km	20000-70000	13	3	0	3	0
Clinic	5km Radius	24000-70000	8	3	0	3	0
Hospital	30km	300000-900000	3	1	0	1	0
Police Station	8km	60000-100000	2	2	0	2	0
Post Office	5-10km	10000-20000	2	8	6	8	6
Community Halls	10km	10000-60000	9	4	0	4	0
Cemetery	15km	8.8Ha/50000	8	0	0	0	0
Shortfall: Number of Social Facilities that are less than what is required							

Table 11 focuses on Knysna town and its neighboring areas, Brenton - on - Lake and Brenton on Sea. With a projected population increase to 87720 by 2029, this area shows the greatest shortfall in crèches and primary schools, with 35 and 17 additional facilities needed, respectively. This emphasizes a critical need for expanded early and primary education facilities, reflecting the family-oriented growth expected in these areas.

Table 17: Social Facilities – Knysna, Breton - on - Lake & Breton on Sea

Year			2016	2024		2029	
Population			76091	83051		87720	
Facility	Planning Threshold		Existing	Required	Shortfall	Required	Shortfall
	Walking Distance (Radius)	Minimum Requirements (People)					
Early Childhood Development	2km	2400-3000	18	31	13	33	15
Primary School	5km	1000-7000	7	21	14	22	15
Secondary School	5km	2500-12500	4	12	8	12	8
Library	8-10km	20000-70000	7	2	0	2	0
Clinic	5km Radius	24000-70000	5	2	0	2	0
Hospital	30km	300000-900000	3	1	0	1	0
Police Station	8km	60000-100000	1	2	1	2	1
Post Office	5-10km	10000-20000	1	6	5	6	5
Community Halls	10km	10000-60000	5	3	0	3	0
Cemetery	15km	8.8Ha/50000	0	0	0	0	0
Shortfall: Number of Social Facilities that are less than what is required							

Table 12 details social facility requirements for Sedgefield, which will see a modest population growth to 11739 by 2029. Here, primary and secondary schools show the largest projected shortfalls, with Sedgefield needing up to three additional primary and secondary schools combined. This is likely due to both population density and limited existing educational infrastructure. The demand for crèches is also significant, reflecting a need to support families and young children. Sedgefield's location as a smaller yet growing town makes these educational facilities central to sustainable development.

Table 18: Social Facilities – Sedgfield

Year			2016	2024		2029	
Population			13299	14515		11739	
Facility	Planning Threshold		Existing	Required	Shortfall	Required	Shortfall
	Walking Distance (Radius)	Minimum Requirements (People)					
Early Childhood Development	2km	2400-3000	0	6	6	5	5
Primary School	5km	1000-7000	2	4	2	3	1
Secondary School	5km	2500-12500	0	2	2	2	2
Library	8-10km	20000-70000	2	1	0	1	0
Clinic	5km Radius	24000-70000	1	1	0	1	0
Hospital	30km	300000-900000	1	1	0	1	0
Police Station	8km	60000-100000	1	1	0	1	0
Post Office	5-10km	10000-20000	1	1	0	1	0
Community Halls	10km	10000-60000	2	1	0	1	0
Cemetery	15km	8.8Ha/50000	0	0	0	0	0

Shortfall: Number of Social Facilities that are less than what is required

Table 13 provides insight into Karatara’s social facility needs, with a population expected to reach 1117 by 2029. Although Karatara is relatively small, there is a need for additional secondary school capacity and support services, such as post offices and police stations, to meet minimum requirements. The need for social facilities is modest here, but each category remains essential to providing a full range of services for residents.

Table 19: Social Facilities – Karatara

Year			2016	2024		2029	
Population			969	1057		1117	
Facility	Planning Threshold		Existing	Required	Shortfall	Required	Shortfall
	Walking Distance (Radius)	Minimum Requirements (People)					
Early Childhood Development	2km	2400-3000	0	1	1	1	1
Primary School	5km	1000-7000	1	1	0	1	0
Secondary School	5km	2500-12500	0	1	1	1	1
Library	8-10km	20000-70000	1	1	0	1	0
Clinic	5km Radius	24000-70000	1	1	0	1	0
Hospital	30km	300000-900000	1	1	0	1	0
Police Station	8km	60000-100000	0	1	1	1	1
Post Office	5-10km	10000-20000	0	1	1	1	1
Community Halls	10km	10000-60000	1	1	0	1	0
Cemetery	15km	8.8Ha/50000	0	0	0	0	0
Shortfall: Number of Social Facilities that are less than what is required							

Rheenenal's projected population increase to 4929 by 2029, as shown in **Table 14**, will drive demand primarily for early childhood and primary education facilities, with two additional crèches and one more primary school required. This community also has a shortfall in secondary schools, which limits local options for adolescents and may impact retention. Expanding school facilities is therefore a priority for Rheenenal to meet the needs of families settling in the area.

Table 20: Social Facilities – Rheenendal

Year			2016	2024		2029	
Population			4276	4557		4929	
Facility	Planning Threshold		Existing	Required	Shortfall	Required	Shortfall
	Walking Distance (Radius)	Minimum Requirements (People)					
Early Childhood Development	2km	2400-3000	0	2	2	2	2
Primary School	5km	1000-7000	1	2	1	2	1
Secondary School	5km	2500-12500	0	1	1	1	1
Library	8-10km	20000-70000	1	1	0	1	0
Clinic	5km Radius	24000-70000	1	1	0	1	0
Hospital	30km	300000-900000	1	1	0	1	0
Police Station	8km	60000-100000	0	1	1	1	1
Post Office	5-10km	10000-20000	0	1	1	1	1
Community Halls	10km	10000-60000	1	1	0	1	0
Cemetery	15km	8.8Ha/50000	0	0	0	0	0
Shortfall: Number of Social Facilities that are less than what is required							

Table 15 highlights the facility requirements for Buffelsbay, projected to grow to 1047 residents by 2029. Though relatively small, Buffelsbay faces a shortfall across several facility types, including primary and secondary schools, a library, and a post office. This suggests that even with modest population increases, Buffelsbay would benefit from essential community infrastructure investments to provide residents with basic services within a reasonable distance.

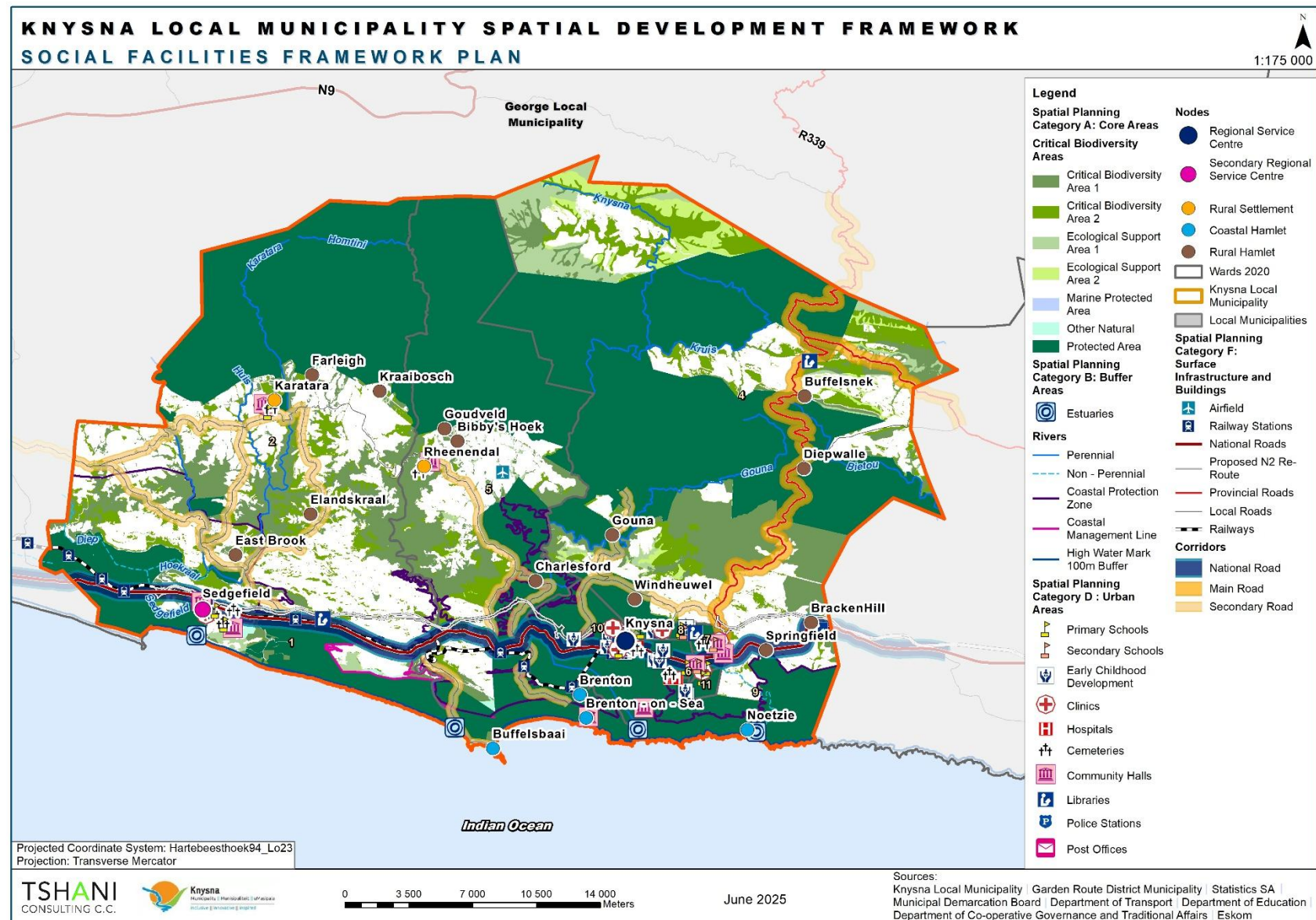
Table 21: Social Facilities – Buffelsbay

Year			2016	2024		2029	
Population			908	991		1047	
Facility	Planning Threshold		Existing	Required	Shortfall	Required	Shortfall
	Walking Distance (Radius)	Minimum Requirements (People)					
Early Childhood Development	2km	2400-3000	0	1	1	1	1
Primary School	5km	1000-7000	0	1	1	1	1
Secondary School	5km	2500-12500	0	1	1	1	1
Library	8-10km	20000-70000	0	1	1	1	1
Clinic	5km Radius	24000-70000	0	1	1	1	1
Hospital	30km	300000-900000	1	1	0	1	0
Police Station	8km	60000-100000	0	1	1	1	1
Post Office	5-10km	10000-20000	0	1	1	1	1
Community Halls	10km	10000-60000	0	1	1	1	1
Cemetery	15km	8.8Ha/50000	0	0	0	0	0
Shortfall: Number of Social Facilities that are less than what is required							

Table 16 covers the social facility requirements for the Remainder, with a projected population of 6815 by 2029. Crèches and primary schools are particularly in short supply, highlighting a need to support young families and promote access to foundational education. Additional infrastructure, including a clinic, post office, and police station, will also be necessary to support residents in this area.

Table 22: Social Facilities – Remainder

Year			2016	2024		2029	
Population			5912	6452		6815	
Facility	Planning Threshold		Existing	Required	Shortfall	Required	Shortfall
	Walking Distance (Radius)	Minimum Requirements (People)					
Early Childhood Development	2km	2400-3000	0	3	3	3	3
Primary School	5km	1000-7000	0	2	2	2	2
Secondary School	5km	2500-12500	0	1	1	1	1
Library	8-10km	20000-70000	2	1	0	1	0
Clinic	5km Radius	24000-70000	0	1	1	1	1
Hospital	30km	300000-900000	1	1	0	1	0
Police Station	8km	60000-100000	0	1	1	1	1
Post Office	5-10km	10000-20000	0	1	1	1	1
Community Halls	10km	10000-60000	0	1	1	1	1
Cemetery	15km	8.8Ha/50000	0	0	0	0	0
Shortfall: Number of Social Facilities that are less than what is required							



Plan 19: Social Facility Framework - Overall

D3. BUILT ENVIRONMENT FRAMEWORK

“The man-made surroundings that provide the setting for human activity, ranging in scale from buildings and parks or green space to neighbourhoods and cities that can often include their supporting infrastructure such as water supply or energy networks.”

BUILT ENVIRONMENT		
SPLUMA Pillars	Settlement Patterns Settlement Role, Hierarchy & Function Spatial Structure & Form Built Heritage Land Use & Activity Patterns Infrastructure Transport & Movement Networks Housing	
Spatial Planning Categories	D Urban Related D.a Main Towns D.b Local Towns D.c Rural Settlements D.d Tribal Authority Settlements D.e Communal Settlements D.h Residential Areas D.n Cemeteries D.o Sports Fields & Infrastructure D.p Airport & Infrastructure D.r Farmsteads & Outbuildings E INDUSTRIAL AREAS E.a Agricultural Industry E.b Industrial Development Zone E.c Light Industry E.d Heavy Industry E.e Extractive Industry F SURFACE INDUSTRIAL BUILDINGS F.a National Roads F.b Main Roads F.c Minor Roads F.d Public Streets F.e Heavy Vehicle Overnight Facilities F.f Railway Lines F.g Power Lines F.h Telecommunication Infrastructure F.i Renewable Energy Structures F.j Dams & Reservoirs F.k Canals F.l Sewerage Plants & Refuse Areas F.m Mixed Use Development Areas	

D3.1 LAND USE PROPOSALS

Balancing diverse interests in land-use planning is essential for Knysna's urban development. The Knysna Municipal Spatial Development Framework (MSDF) focuses on revitalizing existing settlements while ensuring that future developments prioritize environmental preservation, community well-being, and economic efficiency.

The MSDF outlines strategies for environmental, economic, spatial, social, and infrastructure development, guiding both the Municipality and the public. This approach ensures growth is sustainable and responsive to community needs while preserving Knysna's unique character.

Key planning criteria include:

- **Natural Resource Preservation:** Protecting biodiversity and beauty.
- **Coastal Feature Protection:** Safeguarding landscapes from harm.
- **Urban Sprawl Prevention:** Managing growth to protect rural areas.
- **Existing Hub Consolidation:** Enhancing infrastructure and community engagement.
- **Impact Assessment:** Evaluating the collective effects of developments.

By adhering to these principles, Knysna can ensure that growth benefits all residents and stakeholders.

D3.1.1 KNYSNA

Knysna serves as the Regional Services Centre. The N2 remains a crucial national route, facilitating regional mobility and tourism, while the PSDF highlights its importance as a key transport corridor. Strategically located along the Garden Route, Knysna is approximately 70 km east of George and 60 km west of Plettenberg Bay, establishing itself as a vital node in the region's tourism and economic landscape.

The town connects to surrounding communities and natural attractions through several key road networks:

- The N2 traverses Knysna, linking it to George in the west and Plettenberg Bay in the east, providing direct access to major urban centers along the Garden Route.
- The R340 connects Knysna to the scenic Wilderness area and the Outeniqua mountains, enhancing accessibility to outdoor tourism activities.
- Knysna is located within a unique ecological region, encompassing the Knysna Estuary and surrounding sensitive ecosystems, which are crucial for biodiversity and tourism. It also serves as a commercial distribution hub for the broader region, particularly in sectors like tourism, retail, and local craftsmanship. Given its significant role in the regional economy, Knysna's development should be strategically planned to enhance its existing functions.

Ongoing developments indicate potential for further expansion, albeit limited by environmental constraints and the need to balance growth with sustainability. Future growth is anticipated primarily to the north and east of the N2, with the

Central Business District (CBD) proposed to continue along Main Street, the town's main commercial artery.

Zoning for Climate Resilience

To future-proof development in the face of increasing environmental risks, zoning regulations in Knysna must adapt to incorporate climate resilience principles. The integration of proactive environmental planning is essential to safeguard infrastructure, protect natural resources, and ensure long-term sustainability. Key considerations include:

- **Limiting Development in High-Risk Areas:** Restrict development in flood-prone zones, steep slopes, and ecologically sensitive areas such as estuarine buffers and fire-prone zones.
- **Promoting Compact Urban Growth:** Encourage higher-density infill development within the urban edge to minimize sprawl, preserve green infrastructure, and reduce emissions from transport.
- **Incentivizing Green Building Practices:** Introduce development controls and incentives for eco-efficient construction, including rainwater harvesting, solar energy use, and permeable surfaces.
- **Supporting Fire and Water Management:** Coordinate zoning with disaster risk reduction by maintaining defensible space in fire-prone areas and incorporating climate-smart water resource planning.
- **Community Engagement and Equity:** Ensure that climate-resilient zoning fosters inclusive planning, addressing the needs of vulnerable communities and integrating public input into risk mitigation strategies.

By embedding climate resilience into the planning framework, Knysna can mitigate environmental risks while fostering sustainable development aligned

with ecological principles. This ensures a thriving and adaptable future for the municipality, reinforcing its role as a leading regional node along the Garden Route.

To support strategic growth and investment, the Knysna Municipality is encouraged to designate specific areas where shortened land use development procedures will apply. These areas should include:

- **Knysna Town CBD:** All properties within the demarcated CBD will qualify for expedited land use approvals to facilitate investment and urban regeneration.
- **Medium-Density Developments:** Projects that promote medium residential densities within the Services Edge of Knysna Town will also benefit from streamlined approvals, supporting more efficient land use and affordable housing delivery.
- **Local Skills Development Initiatives:** Developments aimed at enhancing local skills training and economic empowerment within the Services Edge will be eligible for the same incentives.
- **Tourism-Based Developments:** Across the entire municipality, tourism-related initiatives that align with Knysna's economic growth strategy will also be prioritized for expedited approvals.

These measures ensure that investment in critical growth sectors is actively encouraged while maintaining alignment with Knysna's broader spatial and economic objectives.

D3.1.1.1 RESIDENTIAL

MEDIUM-DENSITY RESIDENTIAL DEVELOPMENT LOCATION PROPOSALS

- Southeast of Simola Golf and Country Estate.
- South of Simola Golf and Country Estate along the N2.
- Just north of the N2, to the west of the R339.

The proposed medium-density residential development aims to address Knysna's housing needs by offering inclusive, sustainable, and socially integrated living spaces. Key features include:

HOUSING TYPOLOGIES AND DENSITY

- **Density:** Up to 35 dwelling units per hectare.
- **Housing Types:** Incorporate a mix of townhouses, duplexes, apartments, and walk-up units, with aesthetics aligned with SDF guidelines.
- **Incremental Upgrading:** Encourage upgrading within housing areas to maintain neighbourhood cohesion.

DESIGN PRINCIPLES

- **Consistency:** Align with existing medium-density developments to foster neighborhood integration.
- **Pedestrian-Friendly:** Prioritize walkable streets, sidewalks, and green spaces, while promoting non-motorized transport (NMT) like cycling paths for healthier lifestyles.

ACCESSIBILITY & CONNECTIVITY

- **Transport Links:** Ensure seamless access to public transport and key roads, especially the N2, for enhanced connectivity.
- **Brownfield Development:** Focus on utilizing underdeveloped urban land.

SUSTAINABLE LIVING

- **Resource Efficiency:** Use energy-efficient appliances and rainwater harvesting to reduce environmental impact.
- **Green Spaces:** Incorporate parks and natural areas for eco-friendly design.

SOCIAL DEVELOPMENT

- **Affordable Housing:** Support IRDP grants to maintain affordability.
- **Basic Services:** Ensure housing developments include essential utilities and services.

To meet Knysna's housing needs, prioritize high-density areas like Heidevallei and strategic infill locations for faster land use approvals aligned with urban growth strategies.

AFFORDABLE HOUSING DEVELOPMENTS IDENTIFIED RESTRUCTURING ZONES NORTH OF THE KNYSNA CBD AREA AND EAST OF THE R339.

The proposal for affordable housing developments aims to provide diverse and accessible housing options that address the needs of low- to middle-income families in Knysna. These zones may also be designated for streamlined land use application processes to accelerate much-needed housing delivery.

RESIDENTIAL INFILL

Utilize vacant land within the urban area that is not earmarked for other purposes for residential infill projects. This approach maximizes the use of existing infrastructure and reduces urban sprawl, while ensuring that new developments align with the following principles:

- **Density:** Residential infill developments must adhere to the maximum density of 20 dwelling units per hectare.

- **Diverse Housing:** A variety of housing types should be incorporated to address diverse community needs, such as single-family homes, townhouses, and small-scale apartments.
- **Character Preservation:** Developments must maintain the rural ambience of the town, ensuring that architectural styles and landscaping are compatible with the existing neighborhood character.
- **Service Availability:** All proposed developments will be contingent on the availability of municipal services such as water, sanitation, and electricity.

This balanced approach ensures sustainable growth while preserving the unique identity of the area.

FORMALISATION OF INFORMAL SETTLEMENTS

A proposal to formalize informal settlements in Knysna, providing residents with legal land tenure and access to basic services.

The proposed residential developments in Knysna, including medium-density housing, affordable housing initiatives, residential infill, and the formalisation of informal settlements, aim to create a comprehensive and inclusive housing strategy. By fostering socio-economic diversity and ensuring access to essential services, these initiatives seek to enhance the quality of life for all residents in Knysna.

HEIDEVALLEI HOUSING

The Heidevallei Housing Development, as outlined in the Knysna Housing Pipeline, aims to address housing shortages and promote social integration through a sustainable, spatially integrated community of 2800 units. This proposal envisions Heidevallei as a high-density residential hub with a balanced

mix of housing, green spaces, and essential amenities, designed to meet the growing demand for affordable, dignified living in Knysna.

LAGOON VIEW

The Lagoon View Social Housing Development is situated within the Knysna restructuring zone and also forms part of the gazetted Knysna PSHDA. The project area is situated on Erf 17301 Knysna and Erf 3409 Knysna. The project is divided into 2 phases, Phase 1 is situated on Erf 17301 Knysna is complete and owned by the Knysna Municipality whereas Phase 2 is situated on Erf 3409 and is yet to be developed.

PROTEA TERRACE (ERF 3534)

Protea Terrace (Erf 3534), zoned General Residential, requires infrastructure upgrading. Infill development is recommended to optimise land use and housing yield.

MELKHOUT FLATS: ERF 1343 (GENERAL RESIDENTIAL ZONING)

Structural and Aesthetic Upgrades: Renovations to existing flats will ensure they meet current housing standards and provide improved living conditions. Focus will be on structural stability, modern amenities, and energy efficiency.

Infill Housing Blocks: The introduction of infill blocks will expand capacity, particularly for families and smaller households, ensuring that space is maximized without compromising community space.

WEST VIEW COURTS (ERVEN 568 & 571)

West View Courts (Erven 568 & 571), zoned General Residential, require infrastructure and building upgrades. Enhancements will improve living conditions and area resilience.

D3.1.1.2 BUSINESS/COMMERCIAL & MIXED USE DEVELOPMENT

Business and commercial development is proposed within the existing Central Business District (CBD) of Knysna, with a focus on transforming residential areas into business zones. This initiative aims to enhance the economic vitality of the CBD and support local businesses. Additionally, a strategic approach to **increasing residential densities within the CBD** is proposed to optimize land use, support business growth, and promote a more vibrant, walkable urban environment. Higher-density mixed-use developments will be encouraged to integrate commercial, office, and residential uses, fostering a dynamic urban core.

INFORMAL TRADING AND ECONOMIC GROWTH

The informal trading sector in Knysna has been growing at a significant rate, particularly within the CBD. Informal traders contribute to local economic development, providing essential goods and services while fostering entrepreneurship. However, this rapid growth has led to challenges such as overcrowding, congestion, and inadequate infrastructure to support traders effectively.

To address these challenges, it is proposed that an **Informal Trading Hub** be established at the **corner of George Rex Drive and Vigilant Drive**. This designated trading space will provide a structured environment for informal traders, incorporating:

- **Designated trading stalls** to improve organization and accessibility.
- **Basic infrastructure** such as sanitation, waste disposal, and electricity to enhance operational efficiency.

- **Integrated transport access** to improve the movement of traders and customers.
- **Security and lighting** to create a safe trading environment.

The Informal Trading Hub aligns with economic sustainability goals by:

- Supporting **local businesses** and ensuring that informal traders operate within a well-managed, inclusive urban space.
- Enhancing **urban planning efficiency**, reducing congestion within the CBD, and promoting orderly economic activities.
- Providing opportunities for **small-scale entrepreneurs** to formalize their businesses and access broader markets.

MIXED-USE DEVELOPMENT AND INCREASED DENSITIES IN THE CBD

In addition to the transformation of residential properties, mixed-use developments are proposed within the CBD. These developments will combine **high-density residential, commercial, and retail spaces** to create vibrant, multifunctional areas that promote community engagement and accessibility.

The proposal aims to:

- Encourage **higher-density residential units above commercial spaces** to support a live-work environment.
- Maximize land efficiency through **vertical expansion**, reducing urban sprawl.
- Improve pedestrian connectivity, creating an attractive and safe environment for residents and visitors.
- Enhance investment incentives by allowing for **land use scheme amendments and streamlined approval processes** for mixed-use projects in well-located CBD areas.

To further integrate this approach, **higher building height allowances and increased floor area ratios (FARs)** may be considered in strategic locations to accommodate increased densities, ensuring that developments contribute positively to the urban form.

PROPOSED RETAIL AND SHOPPING CENTRES IN THE NORTHERN SUBURBS

As Knysna continues to expand, there is a growing need for accessible retail and commercial services in the northern suburbs, including Xolweni, Rhobololo, Concordia, and Joodse Kamp. These areas are home to a significant portion of Knysna's population, yet residents often have to travel to the CBD for shopping and essential services. To promote local economic growth, reduce travel distances, and enhance community convenience, the development of decentralized shopping centres is proposed. Key Retail Nodes and Proposed Locations:

1. **Xolweni and Rhobololo** – Establish a community shopping hub with grocery stores, small businesses, and essential services.
2. **Joodse Kamp** – Introduce a neighbourhood shopping centre to cater to daily consumer needs, including fresh produce, pharmaceuticals, and convenience retail.

D3.1.1.3 ADDITIONAL PROPOSALS FOR COMMUNITY INFRASTRUCTURE

In conjunction with the business and commercial proposals, there are plans to improve community infrastructure in the northern suburbs of Knysna:

Schools and Creches: The establishment of additional schools and creches is proposed to address the educational needs of the growing population. These facilities will provide essential services for families and contribute to the overall development of the community.

Sports Fields: The development of sports fields in the northern suburbs is also proposed to promote physical activity and community engagement. These fields will serve as venues for local sports, events, and recreational activities, fostering a sense of community and well-being.

Proposed Homeless Shelter in Knysna Town

Knysna, like many urban centers, faces a growing challenge in addressing homelessness. A lack of adequate shelter and supportive services for the homeless population has significant social and economic implications. To address this critical issue, the establishment of a dedicated homeless shelter in Knysna Town is proposed.

The primary goals of the proposed homeless shelter are to:

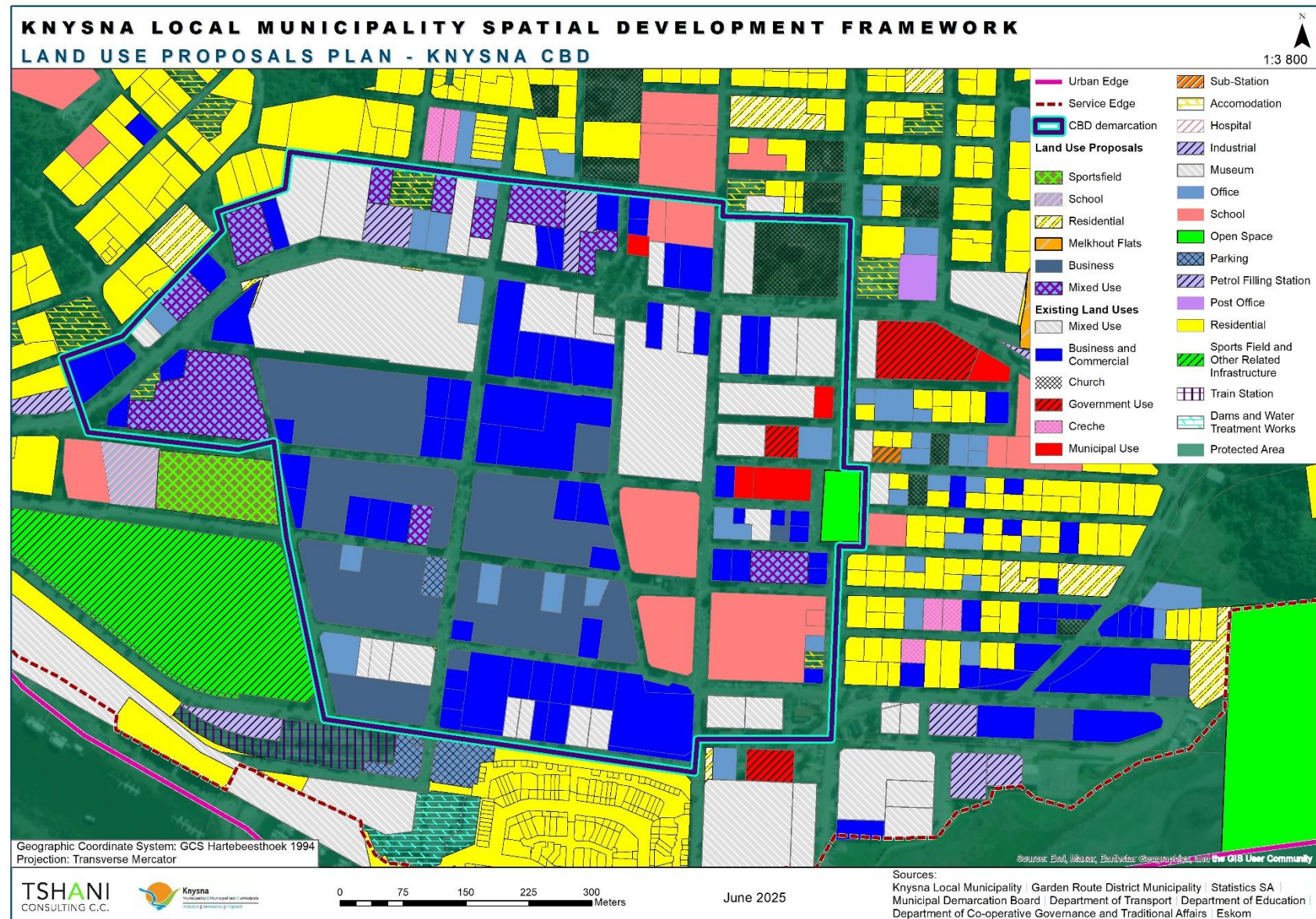
1. Provide a safe and dignified space for individuals experiencing homelessness.
2. Facilitate access to basic necessities such as food, hygiene facilities, and sleeping arrangements.
3. Connect residents to social services, healthcare, and employment opportunities to support long-term reintegration into society.
4. Foster community awareness and partnerships to address the root causes of homelessness.

A homeless shelter in Knysna Town is a vital initiative to address an urgent need within the community. By offering a safe haven and pathways to self-sufficiency, the shelter will serve as a cornerstone for Knysna's commitment to social inclusion and resilience.

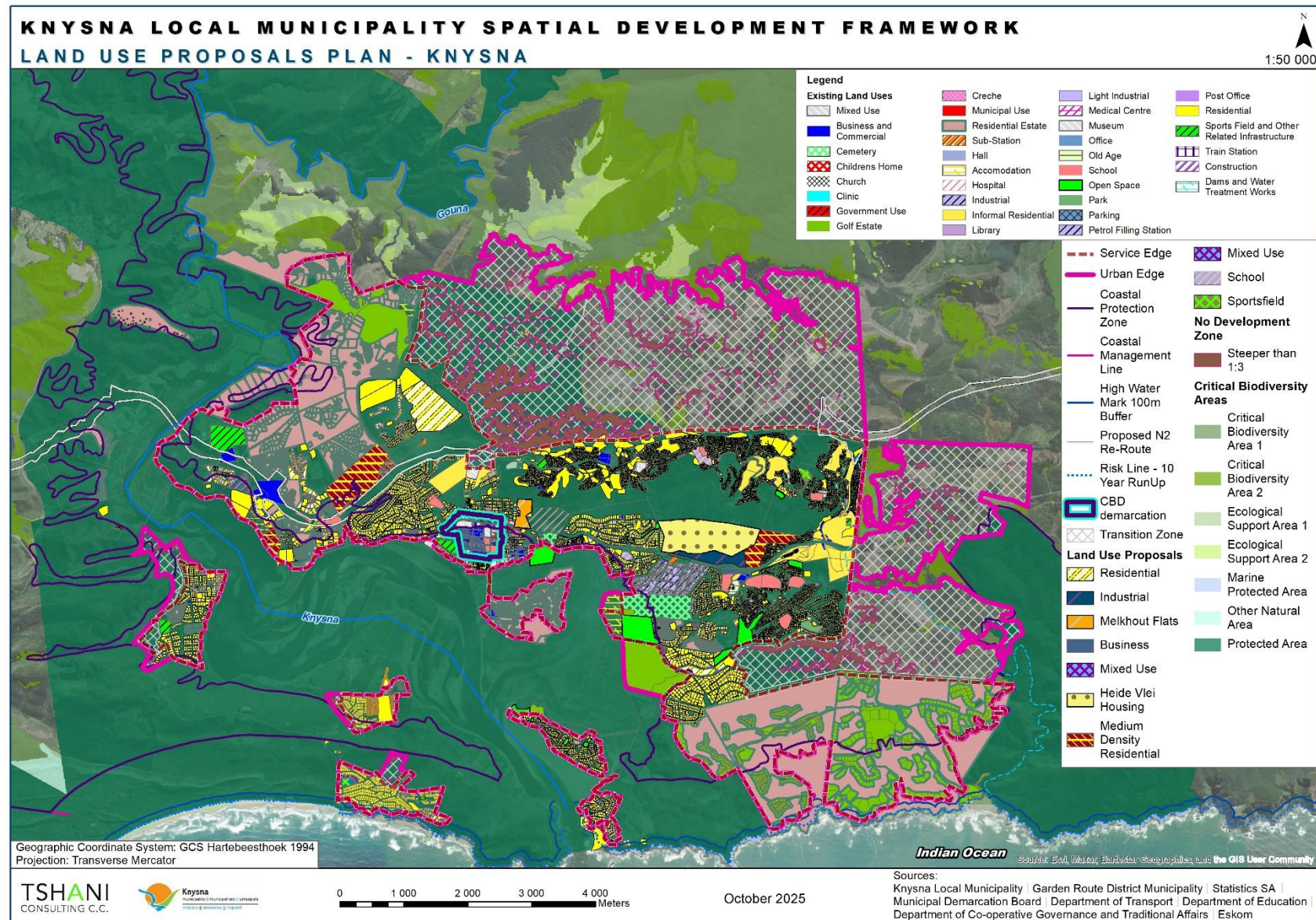
The proposed developments aim to create a dynamic urban environment that fosters economic growth, enhances the attractiveness of Knysna as a destination, and improves the overall quality of life for residents.

D3.1.1.4 INDUSTRIAL EXPANSION

Due to a lack of capacity in the existing industrial areas, there is a proposal for the expansion of industrial space to support key local industries, particularly yacht building, which plays a crucial role in the region's economy. To prevent stagnation and avoid the potential relocation of this important industry, it is essential to identify new industrial zones specifically designed to accommodate boat-building expansion. By increasing industrial capacity, the proposal aims to foster job creation, encourage economic diversification, and reinforce the overall industrial base of Knysna. To facilitate growth and investment, the Municipality may identify specific industrial expansion zones where land use amendments and expedited development processes can support the establishment of new industrial facilities while ensuring regulatory compliance.



Plan 20: Land Use Proposals - Knysna CBD



Plan 21: Land Use Proposals - Knysna

D3.1.2 SEDGEFIELD LSDF LAND USE PROPOSALS

D3.1.2.1 OPEN SPACE SYSTEM

OP1 - Passive Open Spaces

- Preserve ecological integrity by aligning with conservation legislation and safeguarding indigenous vegetation.
- Control alien species, manage stormwater, prevent dumping, and mitigate fire hazards through proactive maintenance.
- Prohibit informal settlement encroachment in sensitive ecological areas.
- Introduce low-impact walking and cycling trails to improve access and encourage environmental appreciation.

Connect to a broader open space network to enhance ecological corridors and community mobility.

OP2 – Private Open Spaces

- Maintain biodiversity while supporting flexible, well-designed recreational spaces adaptable to various community uses.
- Provide age-inclusive play zones and multipurpose amenities.
- Apply consistent landscape and urban design standards to unify private open space quality.

OP3 – Coastal, Wetland and Estuary Management Zones

- Uphold national coastal access requirements and Coastal Management Lines (CMLs).
- Enable temporary, low-impact public facilities such as picnic areas, trails, bird hides and mosaic-themed signage.
- Restrict all permanent infrastructure and enhance waste, lighting, and safety design standards.
- Emphasise Swartvlei estuary's sensitivity by using interpretive signage and managing visitor access.
- Link these natural systems to the surrounding passive and active open space assets.

OP4 – Recreation Precinct

- Support a multi-use recreation zone through upgraded public facilities and open-air programming.
- Include Mosaic-themed signage, natural materials, and design motifs to reinforce local identity.
- Cater to diverse uses such as picnicking, camping, and cultural gatherings with inclusive infrastructure and amenities.

OP5 – Sports Precinct

- Accommodate a range of indoor and outdoor sports functions via secure, accessible, and well-lit precincts.
- Integrate with surrounding open spaces and provide shared-use infrastructure such as parking and seating.
- Partner with local sports groups in planning, programming, and maintenance.

OP6 – Informal Settlement Encroachment Areas

- Identify ecologically vulnerable zones and enforce no-settlement policies in dunes and wetlands.
- Collaborate with HDA and provincial housing bodies to prepare brownfield development strategies.
- Implement rapid response policies for emergency housing needs that protect open spaces.
- Improve site monitoring and patrol systems and engage affected communities in co-managed protection and education programmes.

OP7 – Dune Preservation Areas

- Enforce no-development zoning and maintain wide buffer areas to limit dune erosion and vegetation loss.
- Support responsible access through boardwalks and designated routes.
- Introduce public education campaigns, interpretive signage, and dune rehabilitation projects.
- Prioritise these zones as key environmental assets in Sedgefield's long-term resilience strategy.

OP8 – Conservation Areas

- Legally protect key habitats and conduct ecological surveys to guide management.
- Encourage low-impact recreation such as birdwatching and hiking while restricting sensitive zone access.
- Create learning spaces (e.g. trails, info centres) to foster community stewardship.
- Embrace biodiversity restoration efforts to improve climate adaptation and ecosystem services.

OP9 – Active Open Spaces (including Seafront and Boardwalks)

- Activate coastal and inland open spaces through environmentally integrated infrastructure like pathways, decks, and trails.
- Blend natural design with recreation through seating, restrooms, and soft landscaping.
- Celebrate cultural heritage with mosaic features and interpretive signage.
- Encourage long-term resident involvement in care and custodianship of public open space assets.

General Guidelines for the Open Space System:

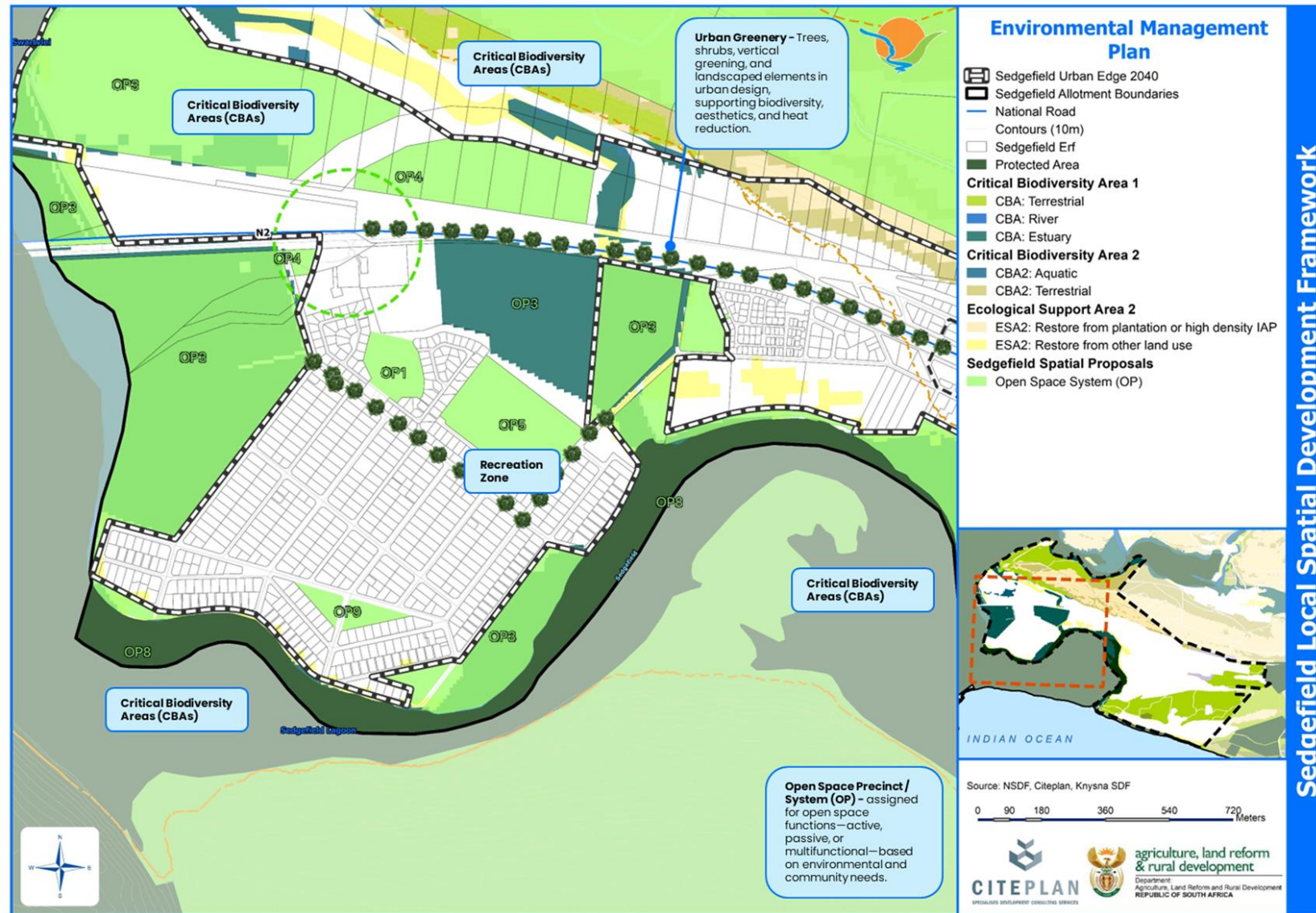
- Reinforce ecological resilience, climate adaptation, and recreational equity throughout the open space network.
- Avoid hard infrastructure solutions in sensitive zones; prefer nature-based solutions.
- Encourage multifunctional landscapes that combine biodiversity, leisure, education, and flood control.
- Incorporate clear signage, lighting, and inclusive amenities to enhance safety and accessibility.

- Promote mosaic and village character design across all public infrastructure and signage.
- Ensure all open space zones remain free of invasive settlement, are legally zoned and demarcated, and are monitored via community partnerships and municipal enforcement.

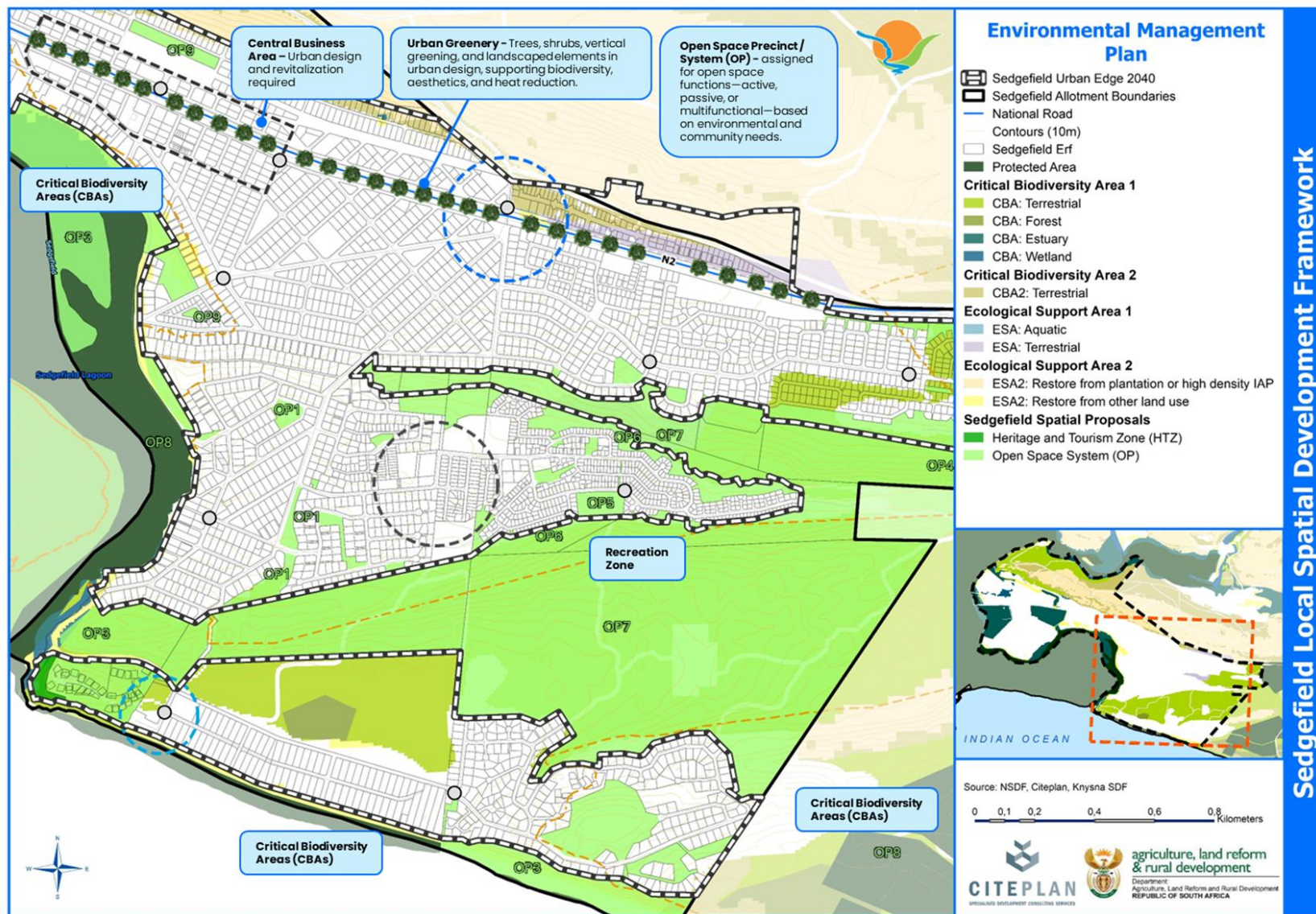
Alignment with Community Comments:

- Safeguards for Island Village and dunes have been strengthened (OP1, OP6, OP7).
- Mosaic identity is now embedded in open space signage, paving, and interpretation (OP3, OP4).
- Increased public access and environmental awareness efforts (e.g., trails, signage, education) have been prioritised.
- Informal housing pressures are proactively addressed via policy, planning and land identification strategies (OP6).

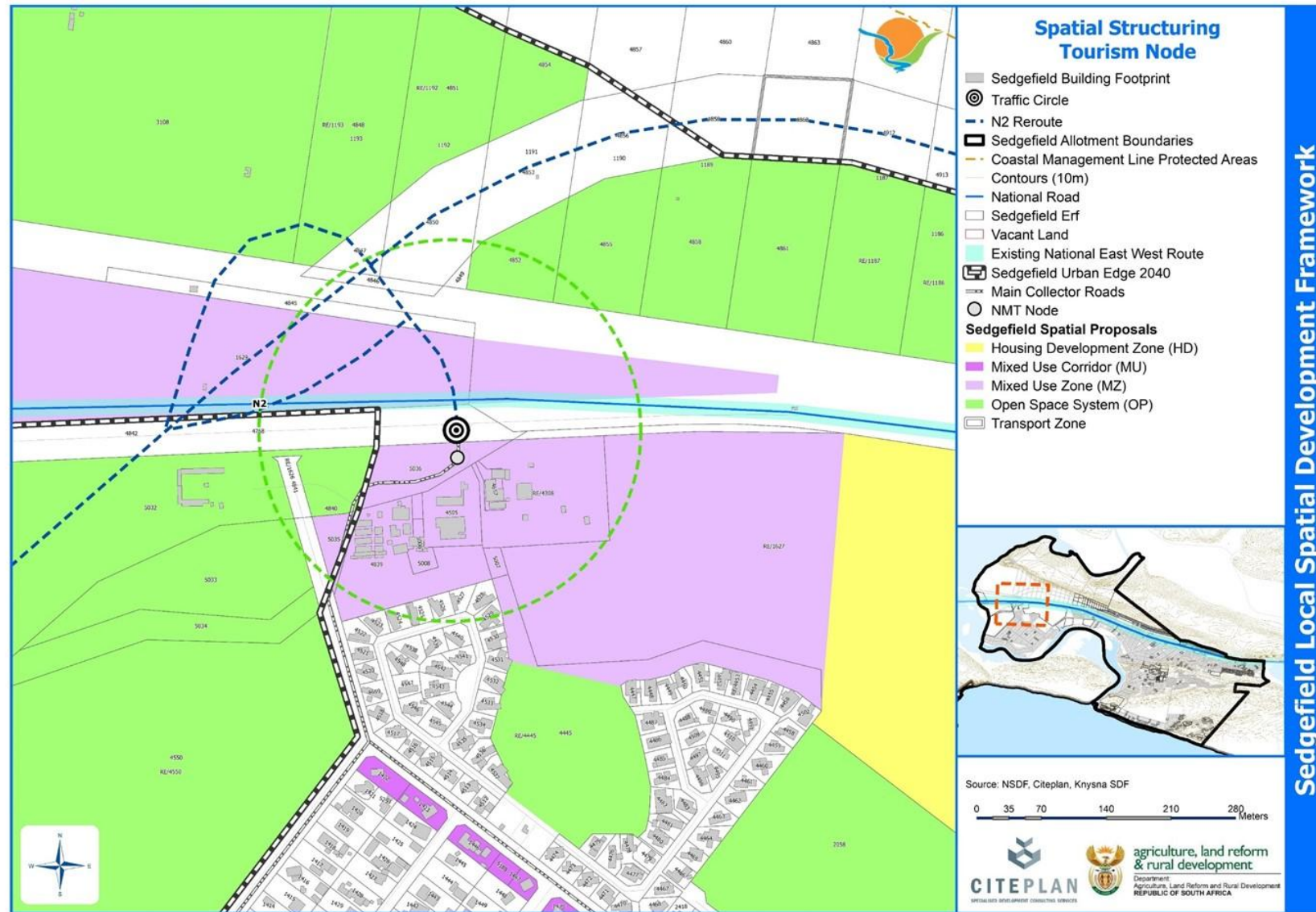
These updates respond to community feedback and position Sedgfield's open space system as a vital tool for biodiversity protection, tourism development, heritage expression, and social equity.



Plan 22: Environmental Protection Overlay Zone (Sedgefield LSDF 2025)



Plan 23: Environmental Protection Overlay Zone (2) (Sedgefield LSDF 2025)



Plan 24: Spatial Structuring Tourism Node (Sedgefield LSDf 2025)

D3.1.2.2 DENSIFICATION AREAS

The designated Densification Zones (DZ1–DZ3) promote compact residential development aligned with infrastructure availability, topography, and access to social facilities. These zones respond to community concerns regarding housing availability, affordability, and appropriate integration with neighbourhood character and environmental features. All proposals must incorporate incremental building height transitions, inclusive public spaces, and integration with the open space system.

DZ1 – Western Densification Zone near Kwartel and Main Service Road

- Support a maximum of 60 dwelling units per hectare.
- Encourage infill development and second dwellings to meet family housing needs.
- Provide a built form transition of 2 to 3 to 4 storeys to preserve view corridors and avoid abrupt height shifts.
- Incorporate pocket parks, play areas, and footpaths into layouts to support a walkable and child-friendly neighbourhood.
- Align with Mixed-Use Corridor MU1 and support Non-Motorised Transport (NMT) integration.

DZ2 – Central Densification Zone along Swallow, Sysie, Mossie and Duiwe Streets

- Allow for **up to 60 dwelling units per hectare** through infill, extensions, and managed redevelopment.
- Protect mature trees and preserve neighbourhood character while enabling densification.

- Encourage gradual built form change, stepping from 2 to 3 to 4 storeys where appropriate.
- Incorporate measures to mitigate traffic and parking pressure.
- Promote coordinated upgrading of infrastructure to support higher occupancy.

DZ3 – High-Density Zone along Oestervanger Street

- Permit densities of **80–120 dwelling units per hectare** to support compact growth near the western neighbourhood node.
- Encourage mixed housing typologies (e.g., walk-ups, row housing, micro-apartments) to meet various income needs.
- Enforce a building height hierarchy from 2–3–4 storeys to optimize ocean views and integrate with topography.
- Prioritise walkability, shared courtyards, and integration with parks, sidewalks, and transit stops.
- Align with Smutsville Upgrading Zone and support brownfield development opportunities.

Other Densification Areas

Support additional densification along designated Collector Roads and Corridors (e.g., Main Service Road), limited to **20 dwelling units per hectare**, subject to:

- Service availability and infrastructure capacity
- Consent of surrounding neighbours
- Urban design controls and streetscape compatibility
- Inclusion of public realm enhancements such as street trees, paths, and lighting

General Guidelines for Densification Zones:

- Apply a stepping height approach (e.g., 2–3–4 storeys) to protect views and prevent overshadowing.
- Integrate green infrastructure and public space within densification layouts.
- Ensure that densification enhances access to schools, healthcare, and childcare.
- Avoid development in Sensitive Environmental Areas or Climate Adaptation Overlay Zones.
- Promote inclusionary housing and mixed-income developments in DZ2 and DZ3.

D3.1.2.3 HOUSING DEVELOPMENT AREAS (HD)**HD1 – High-Density Greenfield Residential Development near Smutsville Neighbourhood Centre**

- Located adjacent to the proposed neighbourhood centre.
- Support a density of up to 120 dwelling units per hectare.
- Primarily for social and subsidized housing typologies.
- Prioritise pedestrian-friendly planning, including sidewalks, public transport links, and community green spaces.
- Encourage three-storey walk-ups and clustered layouts to maximise land use efficiency.
- Integrate climate-adaptive infrastructure and rainwater harvesting.

HD2 – Relocation of Informal Settlements

- Facilitate the relocation of approximately 50 households currently occupying informal sites.

- Restore the impacted land for educational and recreational use, particularly a sports ground for Smutsville Primary School.
- Engage community stakeholders in planning to ensure tenure security and social stability.

HD3 – Oestervanger Street High-Density Residential Development

- Approximately 0.5 hectares.
- Allow for up to 80 dwelling units per hectare.
- Encourage development of flats/apartments close to the neighbourhood centre and transport routes.
- Consolidation and rezoning of affected parcels will be required.
- Include shared courtyards and street-facing units to foster community interaction.

HD4 – Medium-Density Development (North-East of N2)

- Support a density of up to 50 dwelling units per hectare.
- Suitable for medium-income households, retirement villages, or old-age homes.
- Integrate supportive land uses such as clinics, day centres, and green spaces.
- Address topography and environmental constraints through sensitive urban design.

HD5 – Low-Density Housing (Steep Slopes, Possible Dune Encroachment)

- Density capped at 35 dwelling units per hectare.
- Located in geotechnically constrained terrain—development subject to feasibility and environmental screening.

- Possible land acquisition may be necessary if ownership lies with SANRAL or the HDA.
- Layouts must Minimise earthworks and preserve natural vegetation.

HD6 – Medium-Density Development in Sensitive Ownership Areas

- Up to 35 units per hectare.
- Development aligned with HD5 conditions; site ownership to be clarified (potentially SANRAL/HDA).
- Requires coordination with relevant authorities to unlock for residential use.
- Prioritise clustered development and resilient infrastructure.

HD7 – Low-Density Residential Development (Estuarine Interface Zone)

- Maximum of 20 dwelling units per hectare.
- The area overlaps with the Coastal Management Line and may be flood prone.
- All developments are subject to specialist environmental and hydrological studies.
- Development footprint to be limited and clustered; buffer zones and green infrastructure required.

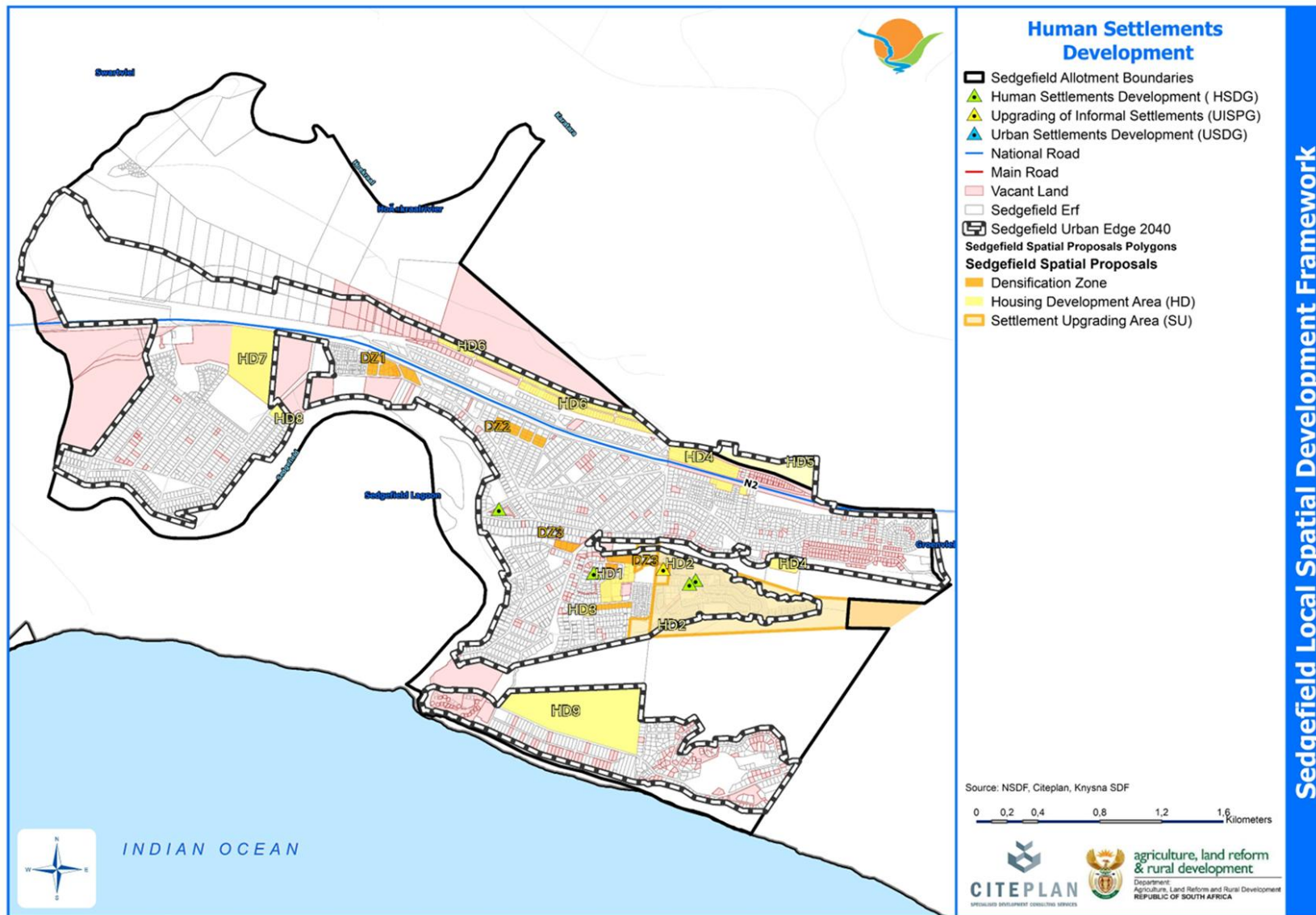
Architectural character must align with coastal sensitivity and town aesthetic.

HD8 – High-Density, High-Income Residential Development (Coastal Management Zone Overlap)

- Density up to 50 dwelling units per hectare.
- Intended for high-income residential use, with architectural standards that reflect Sedgefield's character.
- Development must be guided by specialist environmental, coastal hazard, and flood risk studies.
- Design must incorporate climate adaptation principles including elevated structures, permeable surfaces, and coastal setbacks.
- Promote clustered development to protect sensitive environmental areas and maintain open space connectivity.

General Guidelines for Housing Development Areas:

- Encourage compact and efficient land use while preserving sensitive ecosystems.
- Prioritise brownfield and infill over greenfield expansion unless justified.
- Integrate housing areas with public amenities, transport networks, and the open space system.
- Implement height and density transitions to maintain scenic views and Minimise landscape intrusion.
- Apply inclusive urban design principles that reflect Sedgefield's slow-town, mosaic, and climate-resilient ethos.



Plan 25: Human Settlements Development and Density Zones(Sedgefield LSDF 2025)

D3.1.2.4 MIXED-USE CORRIDOR DEVELOPMENT

MU1 – High-Intensity Mixed-Use Corridor (Central Business Area of Sedgefield)

- Encourage high-intensity mixed-use development along the main business node.
- Limit building height to two storeys to retain the low-rise village aesthetic.
- Apply corridor-specific design standards to support future upgrading and coordinated renewal.
- Ensure adequate parking through integrated on-site and on-street options.
- Supported land uses:
- Retail, restaurants, and commercial businesses
- Service stations and convenience shops

MU2 – Medium-Intensity Mixed-Use Corridor (North of the N2 abutting CBD)

- Promote mixed-use development with medium intensity to complement the CBD.
- Maintain a balanced integration of residential, office, and commercial uses.
- Reinforce a coherent urban form with pedestrian-friendly infrastructure.
- Encourage applications that respond to local needs and tourism opportunities.

MU3 – Low-Intensity Mixed-Use Development (Eastern Entrance along N2 from Knysna)

- Permit low-scale mixed-use activity to enhance the entrance character from Knysna.
- Uses must be contextually appropriate and maintain compatibility with adjacent uses.
- Restrict high-impact activities to preserve the area's scenic and residential value.

MU4 – Very Low-Intensity Mixed-Use Consent Zone (Paul Kruger Street)

- Support individual consent-use applications that maintain residential character.
- Focus on low-impact home occupations, guest lodging, and tourism-related activities.
- Reinforce built environment consistency and avoid cumulative impact from intensification.

General Guidelines for Mixed-Use Corridors:

- Promote pedestrian-friendly streetscapes with active ground-floor uses.
- Require development proposals to respect existing building scales and rhythms.
- Encourage vertical and horizontal mixed-use forms where appropriate.
- Facilitate public transport access and shared mobility integration.
- Apply environmental and visual impact assessments for significant proposals.
- Integrate green infrastructure and stormwater-sensitive design elements.

- Ensure inclusive access and universal design for all public realm enhancements.

D3.1.2.5 MIXED-USE ZONES

MZ1 – Temporary Sport and Recreation Development (Flood Susceptibility Area)

- Allow temporary sport and recreation use in this flood-prone area west of Sedgefield.
- Support installations that enhance tourism and artistic identity aligned with the mosaic gateway theme.
- Avoid permanent structures; focus on low-impact, removable recreational amenities.

MZ2 – Arts, Crafts and Tourism-Oriented Development (Western Gateway)

- Encourage creative industries, craft markets, artisan studios, and tourism-related activities.
- Emphasize cultural and heritage identity aligned with Sedgefield's village character.
- Include uniform signage and pedestrian-friendly design interventions.

MZ3 – Light Industry, Artisan and Service-Based Zone

- Facilitate light industrial and artisanal land uses such as micro-brewing, woodworking, crafts, and local manufacturing.
- Support vehicle services (repairs, truck services), fire support, and low-intensity logistics.
- Prohibit noxious or heavy industry; maintain a tourism-aligned, small-scale production focus.

MZ4 – Smutsville Neighbourhood Centre

- Provide a decentralized hub of retail, medical, health, and basic community services.
- Locate facilities within walking distance of Smutsville residents.
- Ensure integration with local road networks and pedestrian infrastructure.

MZ5 – Coastal Tourism Zone (Myoli Beach Area)

- Allow restaurants, cafes, entertainment venues, and beach-oriented retail aligned with the tourism economy.
- Ensure alignment with Coastal Management Lines and Climate Adaptation Proposals.
- Consider dune encroachment risks and integrate environmental buffers into planning.

General Guidelines for Mixed-Use Zones:

- Support mixed-use activities that contribute to local economic development and employment.
- Ensure context-sensitive design that reflects surrounding character and topography.

D3.1.2.6 COMMUNITY SERVICES

IS1 – Education Node

- Provision of education and related uses.
- Includes schools, crèches, tertiary facilities, and support activities.
- Provision for worship facilities and related uses.
- Includes places of assembly.
- Provision of a wide range of community facilities, including institutions.

IS2 – General Institutional Use

- Provision for worship facilities and related uses.
- Includes places of assembly.
- Provision of a wide range of community facilities, including institutions.

IS3 – Retirement Home and Old Age Care

- Utilisation for frail care and special needs facilities.
- Designate areas for special housing to accommodate a retirement village or similar-natured development to cater for vulnerable communities.

D3.1.2.7 MUNICIPAL AND GOVERNMENT

- Government and municipal uses, including magistrates' courts, municipal offices, police stations, and others.
- Ensuring the safety and accessibility of facilities for all individuals.
- Installing clear signage to facilitate access to services.
- Incorporating the town's aloe character into landscaping features.
- Allocating adequate parking areas, including wheelchair-friendly spaces.

D3.1.2.8 HERITAGE AND TOURISM ZONE

The Heritage and Tourism Zone areas in Sedgefield are to be protected and utilised to support tourism, heritage, cultural, and recreational activities. Permitted land uses must align with the zone's purpose. Development density should match the coastal character of the town, with a maximum height of two stories to maintain Sedgefield's low-key atmosphere. Where possible, development should follow the mosaic-themed approach outlined in the Local Spatial Development Framework. Signage and development should align with Sedgefield's design approach, ensuring uniform and standardised signage.

D3.1.2.9 TRANSPORTATION DEVELOPMENT

Transportation development initiatives aim to improve mobility and accessibility within the urban fabric. Efforts are directed towards facilitating pedestrian and non-motorised traffic flow from the Central Business Area along the various mixed-use corridors towards the N2, incorporating wider sidewalks and designated bike lanes to ensure safe passage.

Additionally, plans include the provision of covered transportation infrastructure along the N2, potentially at the Shell filling station area, to offer shelter for commuters waiting for public transport or rideshare services. Moreover, there is a focus on enhancing access to settlements located east and west of the proposed Central Business Area by improving sidewalks and footpaths, fostering community integration and accessibility across the town.

D3.1.2.10 INFRASTRUCTURE DEVELOPMENT

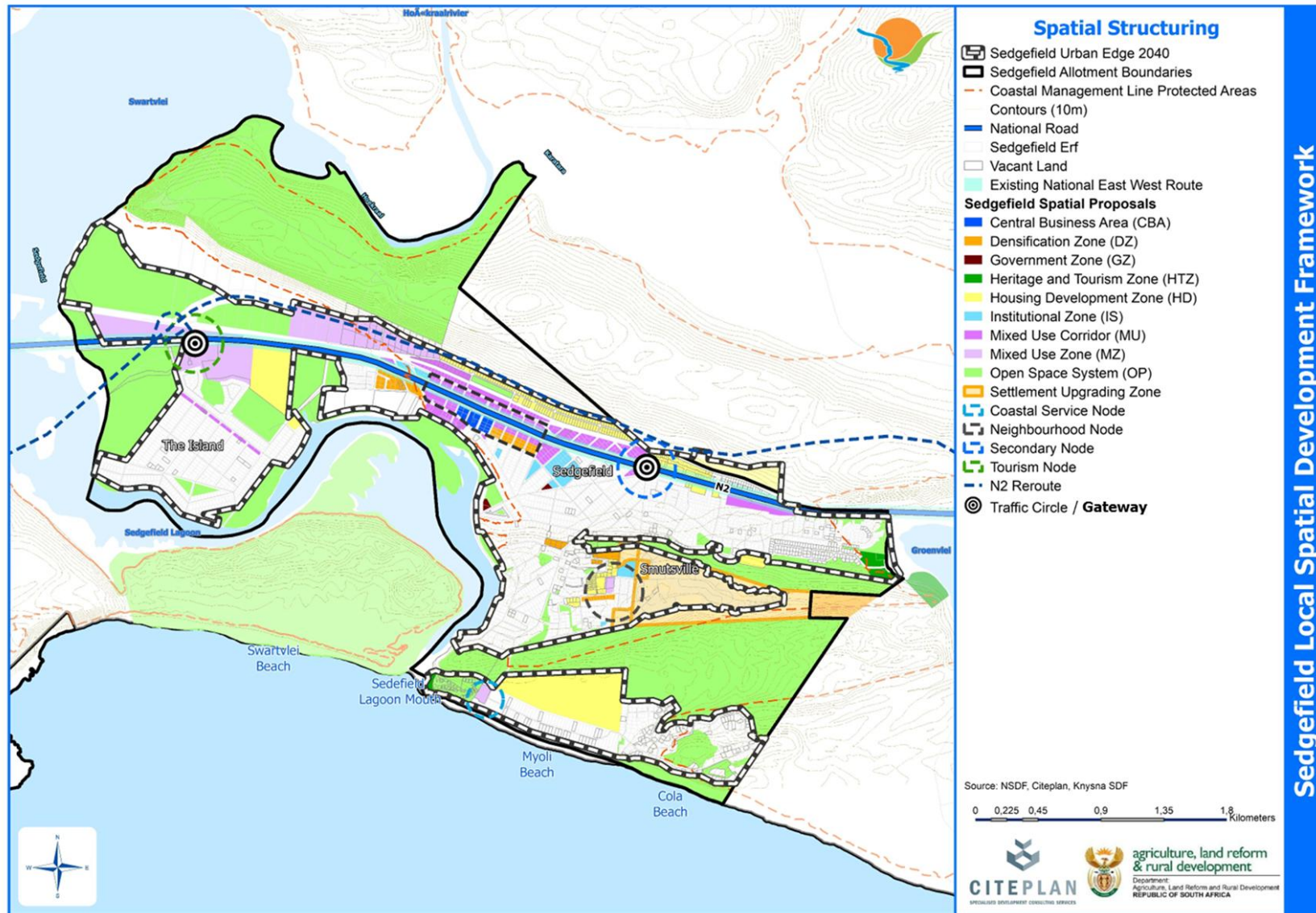
To ensure the continued growth and well-being of the town, several critical infrastructure development projects are identified:

Implement speed bumps strategically placed within residential areas and near schools to improve road safety and reduce speeding incidents.

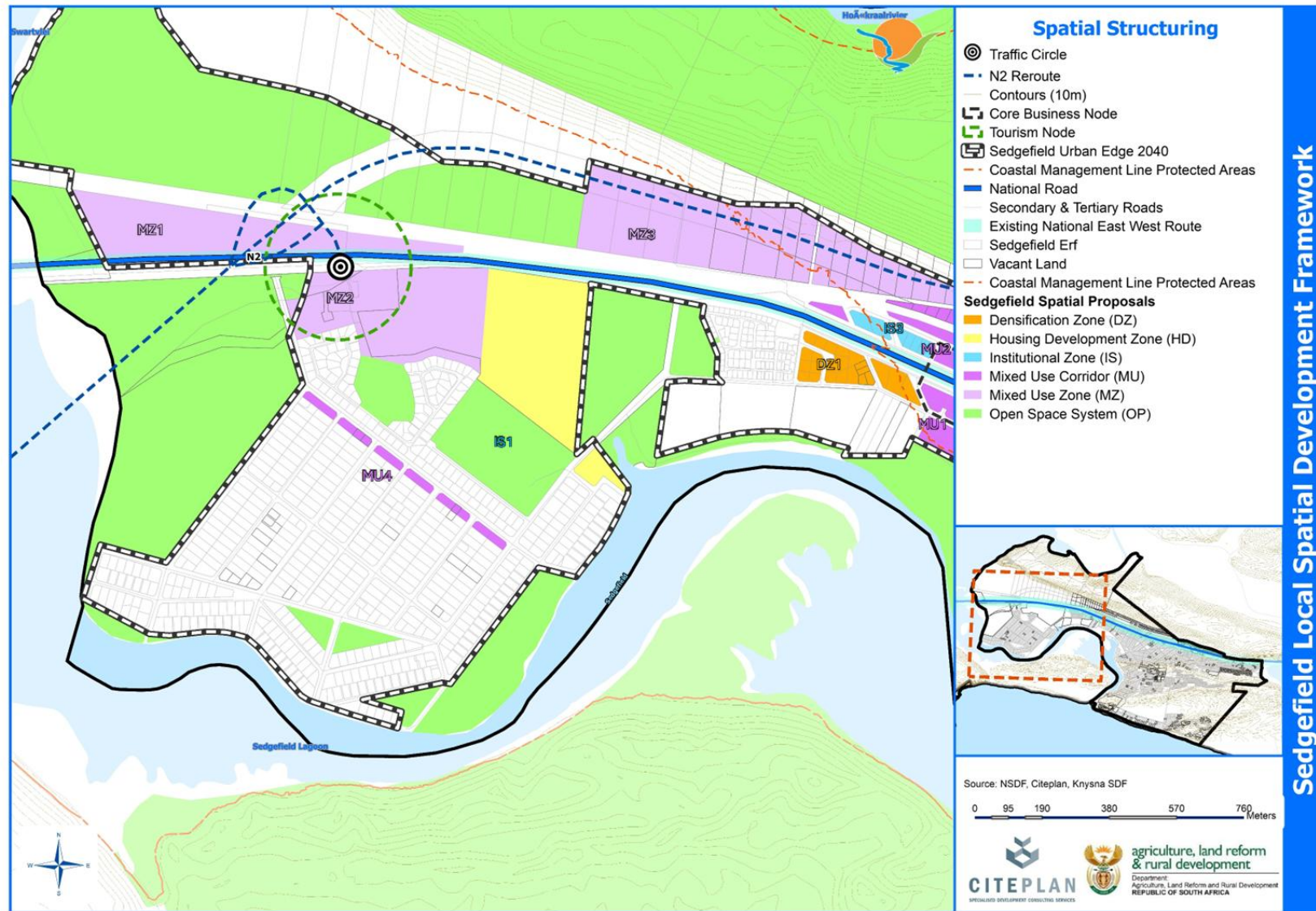
Deploy Wi-Fi towers in public areas and key locations to ensure residents and tourists have access to dependable internet services.

Build sidewalks along major roads and pedestrian routes to encourage walking and cycling as alternative modes of transportation.

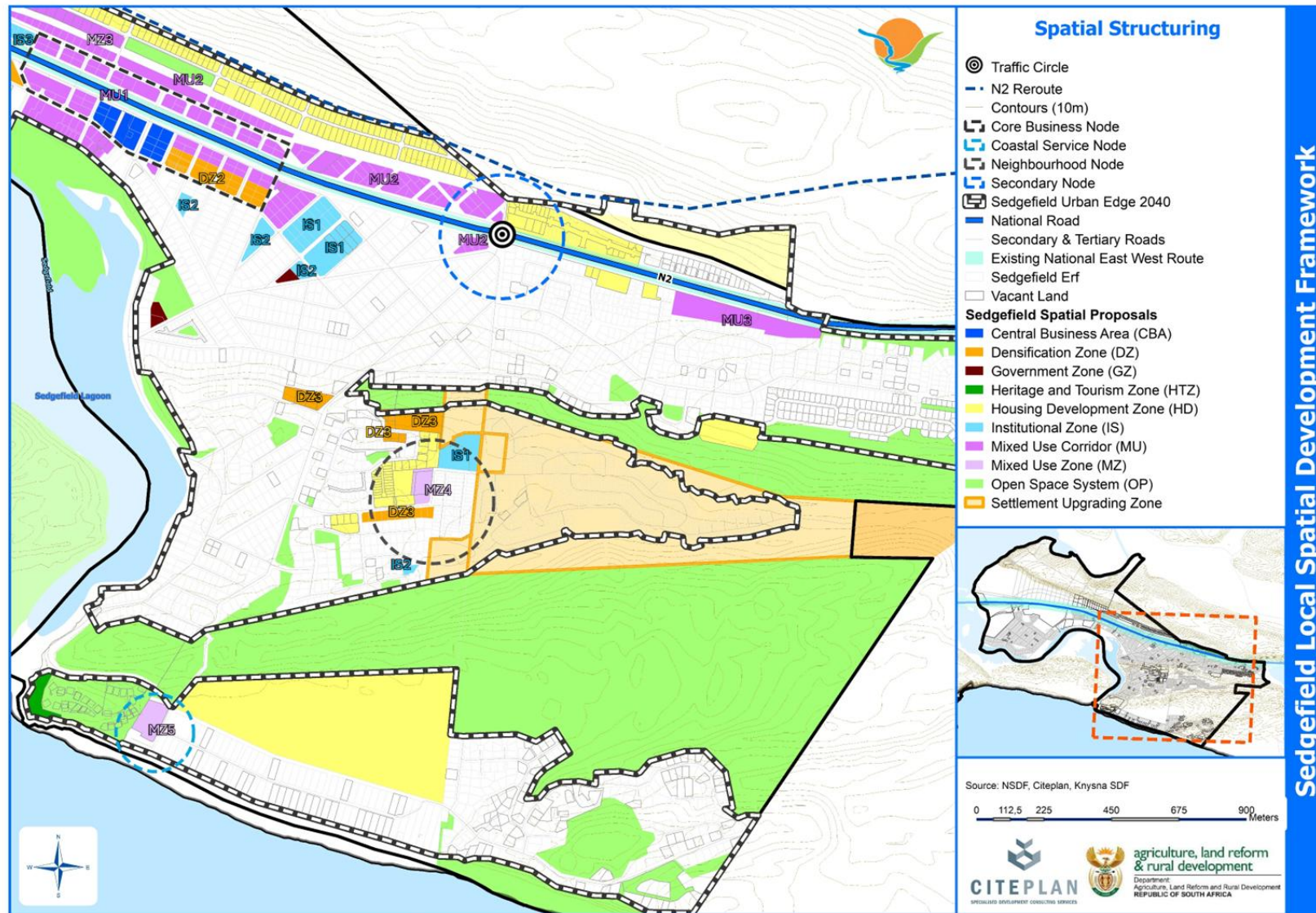
Upgrade identified key intersections to enhance traffic flow and safety.



Plan 26: Sedgefield LSDF 2025



Plan 27: Sedgefield LSDF 2025 (West)



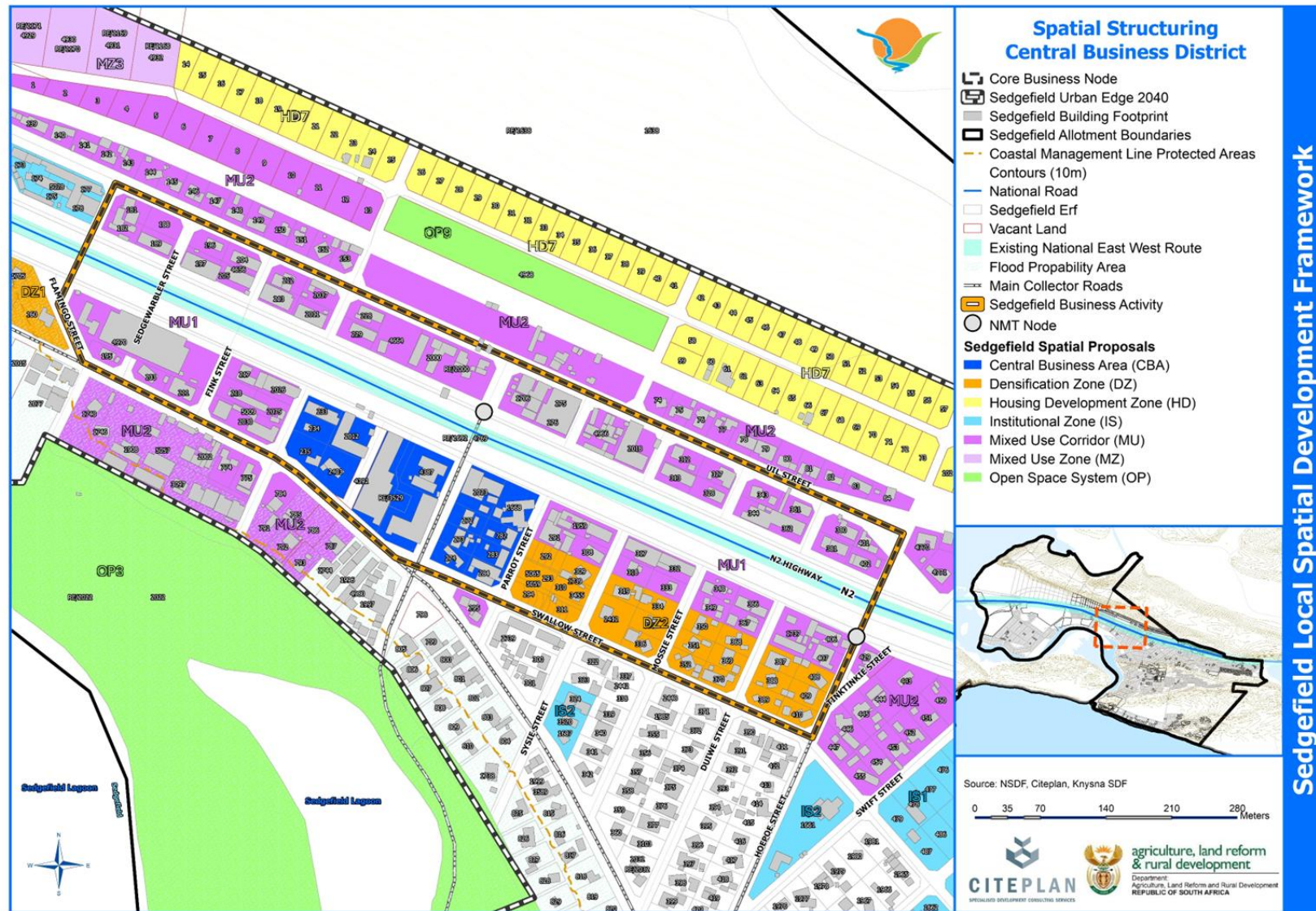
Plan 28: Sedgefield LSDF 2025 (East)

D3.1.2.11 CENTRAL BUSINESS DISTRICT (CBD)

The central business district (CBD) of Sedgefield lacks a clear definition and would benefit from a hybrid approach that integrates a linear layout along Main Service Road, potentially extending the CBD across the N2. Enhancing the aesthetic design and character of this strip-like CBD requires prioritising streetscape and urban design guidelines, particularly focusing on upgrading and improving Main Service Roads on both sides of the N2. It is envisaged that the building heights of the CBD be limited to two storeys.

General guidelines are to be considered:

- Give priority to the renovation and revitalisation of existing structures to promote urban renewal and preserve historical character.
 - Enhance the streetscape with aesthetically pleasing street furniture and greenery to create a welcoming and pedestrian-friendly environment.
 - Designate areas within the CBD for attractive pedestrian spaces that encourage community gatherings and social interactions.
 - Promote a mix of retail, business, and service establishments to diversify economic activities and enhance vibrancy.
 - Encourage efficient land use by prioritising retail spaces on ground floors and offices or residences above to maximise space and functionality.
 - Ensure adequate parking facilities are provided and explore traffic flow improvements to accommodate the needs of visitors and residents.
 - Limit building height to three storeys to maintain the scale of the CBD and preserve scenic views of the surrounding area.
 - Incorporate elements of local culture and heritage into building design and public spaces to reinforce the town's identity.
-



Plan 29: Sedgefield LSDF (2025) - Central Business District

D3.1.3 KARATARA

Karatara, located about 20 km east of Knysna, is a rural settlement supporting agriculture and forestry. It is connected by the R340 and local rural roads and surrounded by fertile land, forests, and river corridors. The settlement plays a significant role in sustaining rural livelihoods through farming, forestry, and small-scale craftsmanship.

Classified as having **Low Social Need / Medium Development Potential**, Karatara's development focus is on improving access to services, enabling sustainable rural development, and supporting community-based livelihoods. Infill development and upgrading of infrastructure within the existing settlement footprint are prioritised.

Future growth is guided by spatial efficiency, rural character preservation, and protection of natural assets. High-value agricultural land and environmentally sensitive areas, such as river corridors, floodplains, steep slopes, and wetlands, are excluded from the urban edge and designated as conservation or agricultural protection zones.

A revised **Transition Zone**, now located on previously disturbed and non-arable land at the settlement edge, supports small-scale, low-impact activities such as agro-processing, ECD facilities, and clustered forestry worker housing. The zone is intended to be rural-supportive and aligned with environmental constraints.

D3.1.3.1 RESIDENTIAL

Residential growth focuses on addressing the local housing backlog through densification and land optimisation within the existing built-up area.

1. **Karatara Welsyndorp and Bosdorp Infill Projects**

These projects provide for 357 housing opportunities at 40 units per hectare, targeting existing communities and former forestry workers. Development occurs within the urban edge, promoting spatial consolidation.

2. **Karatara Housing Development (257 Units)**

Developed under the IRDP, this project supports affordable, integrated housing and is part of the Knysna Housing Pipeline. It includes open space, basic services, and walkable access to social infrastructure.

Subdivisions and upgrades of existing erven are encouraged to accommodate incremental growth without expanding the settlement footprint into agricultural or ecologically sensitive areas.

D3.1.3.2 AGRO-PROCESSING LINKED TO THE LONG-TERM FARMER PRODUCTION SUPPORT UNIT (FPSU)

A small agro-processing facility is proposed within the Transition Zone on non-arable land. This facility will be linked to the long-term Farmer Production Support Unit (FPSU), adding value to local produce and supporting employment.

- **Skills Training:** Agro-processing training is planned for youth and former forestry workers to stimulate rural livelihoods and local entrepreneurship.

D3.1.3.3 LOCAL ECONOMIC ACTIVITY

Designated space within the settlement supports small-scale commercial activities such as local shops, home-based enterprises, and craft markets to serve the immediate community and reduce dependence on Knysna.

D3.1.3.4 Secondary School

A future secondary school is proposed within the settlement footprint, based on accessibility and population thresholds. It will reduce travel distances and improve learner retention.

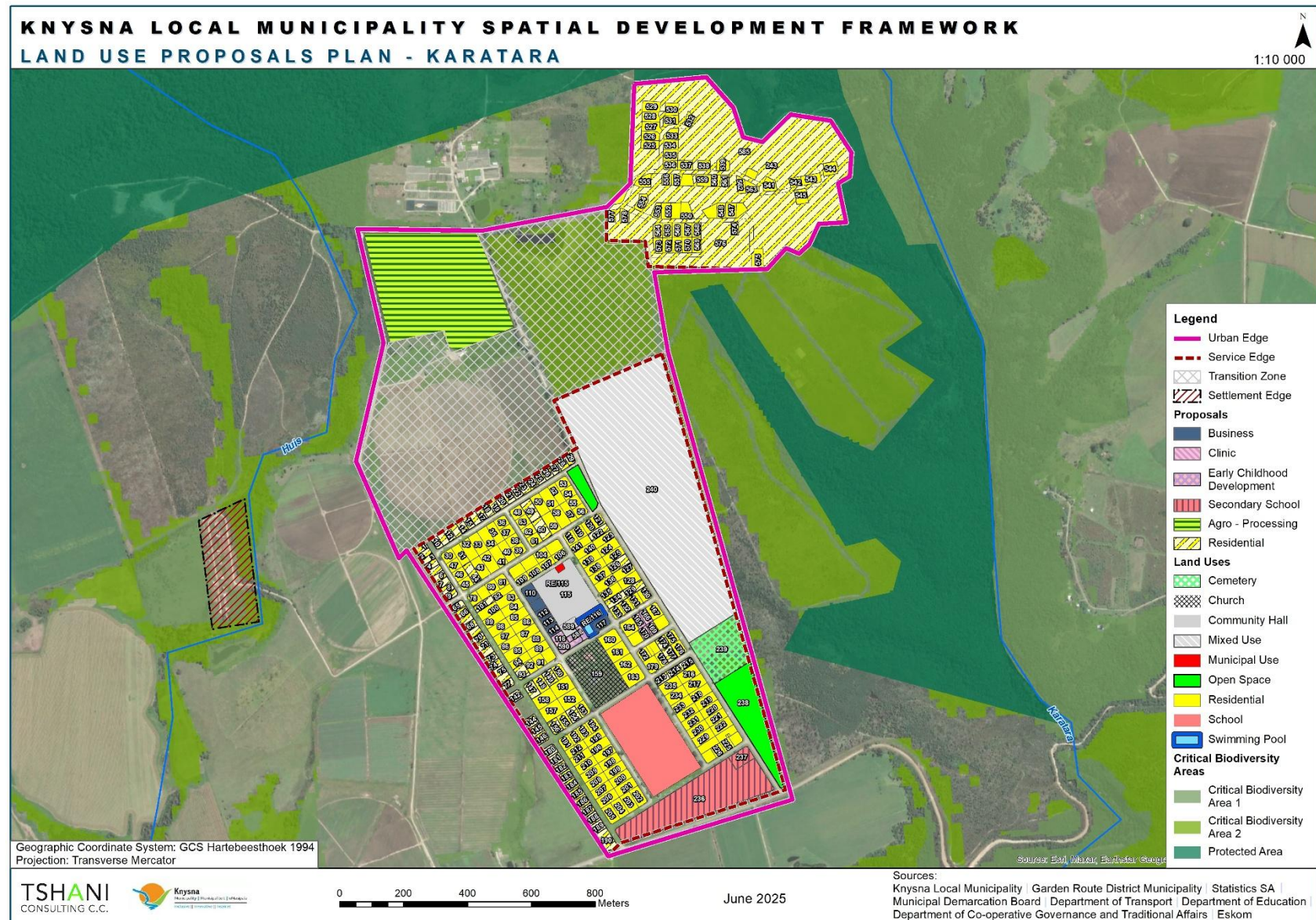
D3.1.3.5 EARLY CHILDHOOD DEVELOPMENT (ECD) FACILITIES

New ECD facilities are proposed within the settlement and Transition Zone to serve young children and support caregivers. These will be integrated with community centres and accessible to all households.

D3.1.3.6 STREAMLINING DEVELOPMENT PROCESSES:

To promote appropriate growth while protecting Karatara's environmental assets:

- The updated Transition Zone is restricted to land with a slope gentler than 1:4 and previously disturbed areas.
- High-value agricultural land, wetlands, and river corridors are excluded from development.
- Land use scheme amendments apply only to infill and agro-supportive areas, allowing faster implementation of projects without promoting sprawl.
- Development is guided by compact, walkable patterns that support cost-effective service delivery and ecological sustainability.



Plan 30: Land Use Proposals - Karatara

D3.1.4 RHEENENDAL

Rheenendal, located 14 km northeast of Knysna, is an important rural settlement supporting local agriculture and natural resources. It is connected to Knysna via Rheenendal Road and Phantom Passes Road, facilitating trade and access. The area's biodiversity and fertile land support farming, forestry, and small-scale crafts, contributing to the local economy.

Rheenendal requires careful planning to sustain its agricultural base while considering environmental conservation and maintaining its rural character. Future growth may include community amenities like markets and recreational facilities. Classified with Low Social Need / Medium Development Potential, development should focus on sustainable rural growth, improving services like water and sanitation, and supporting agricultural practices.

Proposals should prioritize essential services and educational initiatives to enhance residents' quality of life. While electricity and water infrastructure are limited, there are opportunities for enhancements. Vacant land within and around Rheenendal offers potential for residential and community development, preserving the area's rural charm and environment.

D3.1.4.1 RESIDENTIAL

Rheenendal's residential strategy focuses on expanding housing opportunities to accommodate local needs and improve living conditions.

1. Rheenendal Future Expansion Areas and Housing Infill Project

Planning includes 157 new housing units with a density of 40 units per hectare. These developments will provide a mix of housing types to address various local demands, supporting community growth and resilience.

2. Formalization of Informal Areas

The proposal includes formalizing existing informal settlements to enhance living conditions and integrate these areas into the broader residential framework.

3. Rheenendal Housing Development (146 Units)

The Rheenendal Housing Development, as included in the Knysna Housing Pipeline, is a targeted initiative aimed at providing quality housing to residents in need. With 146 units planned, this project is designed to support the Upgrading of Informal Settlements Programme (UISP) by creating a well-organized, environmentally mindful residential community that is integrated into the fabric of Rheenendal.

D3.1.4.2 EXPANSION OF LIGHT INDUSTRIAL AREAS

Expanding light industrial activities in Rheenendal will support local economic development by creating job opportunities and diversifying the economy. Light industrial zones can accommodate workshops, small-scale manufacturing, and craft production, leveraging the community's skills and local resources.

Strategic Location: New light industrial developments should be situated near existing infrastructure and road networks (such as Rheenendal Road) to minimize environmental impact and facilitate easy access for transportation and trade.

D3.1.4.3 AGRO-PROCESSING LINKED TO THE LONG-TERM FPSU (FARMER PRODUCTION SUPPORT UNIT)

Agro-Processing Facilities: The development of agro-processing centers will support agricultural practices and local food systems by adding value to raw agricultural products. These facilities will provide opportunities for farmers to process produce locally, increasing income potential and reducing waste.

Link to Long-Term FPSU: By aligning agro-processing initiatives with the FPSU, local farmers will benefit from shared resources, skills training, and market access, fostering a resilient agricultural community.

D3.1.4.4 MIXED-USE DEVELOPMENT TO SUPPORT LOCAL BUSINESS AND COMMERCIAL ACTIVITY

Supporting Local Enterprises: Mixed-use developments will create spaces that combine residential, commercial, and small-scale industrial uses, promoting local business growth. This approach will cater to the community's needs for retail, services, and office spaces while enhancing the economic viability of Rheenendal.

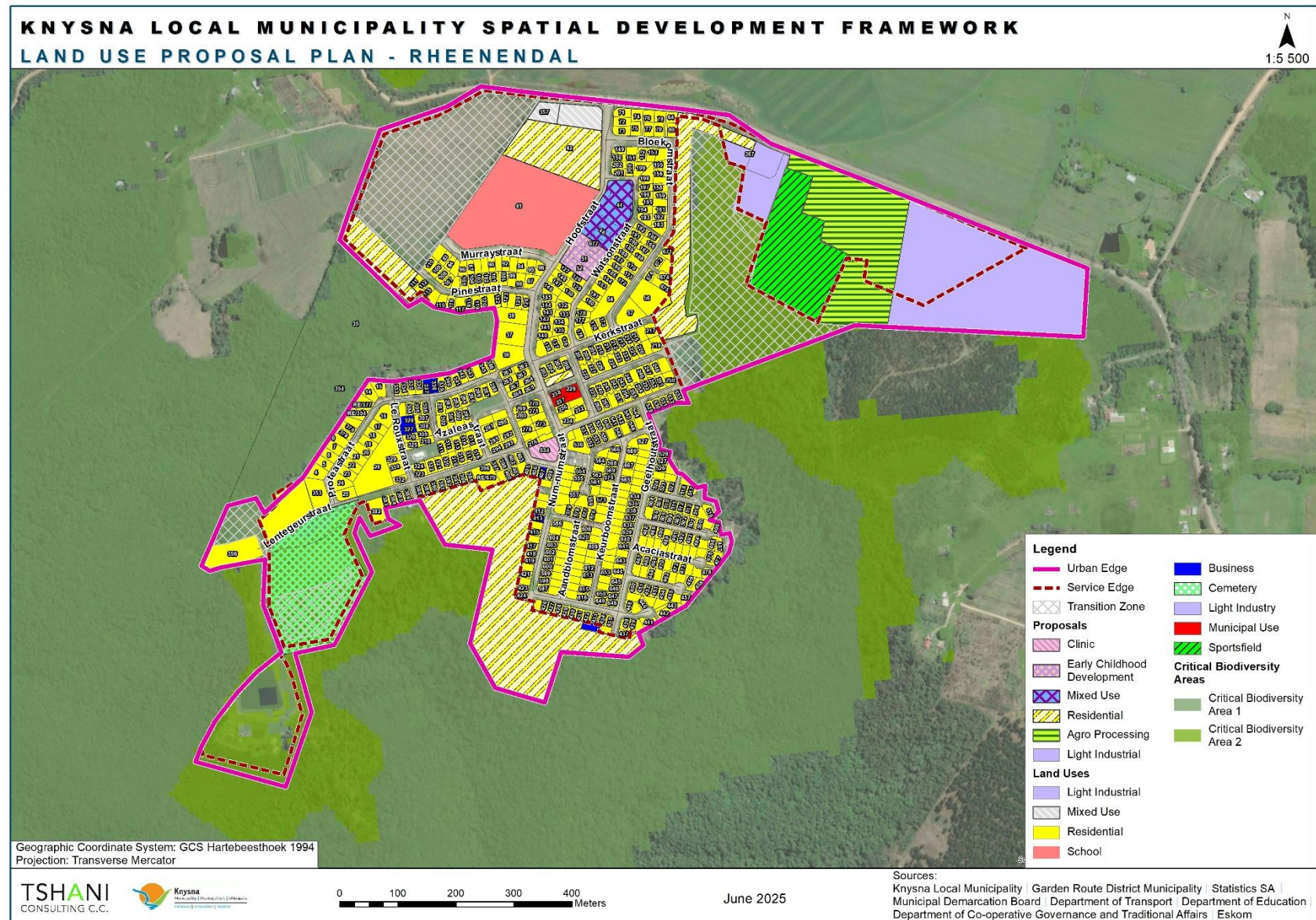
Location Consideration: Mixed-use areas should be developed near key roadways and existing community hubs to maximize accessibility and encourage the integration of commercial activities within the settlement.

D3.1.4.5 ADDITIONAL COMMUNITY FACILITIES

Early Childhood Development (ECD) Centers: Establishing ECD centers will address the educational needs of young children, fostering early learning and development. These facilities will also support working parents by providing accessible childcare services.

D3.1.4.6 STREAMLINING DEVELOPMENT PROCESSES

To support the growth of Rheenendal and align with its focus on business, agriculture, and industry, areas where shortened land use development procedures are applicable include regions identified for business, agricultural development, and industrial activities, particularly around the town's periphery. In these zones, land use schemes have been amended to streamline the approval process, ensuring that business, agricultural, and industrial developments are implemented efficiently. The introduction of more flexible land use procedures enables faster implementation of these ventures and related infrastructure projects, supporting the town's growth while promoting its economic base and environmental sustainability.



Plan 31: Land Use Proposals - Rheenendal

D3.1.5 BRENTON - ON - LAKE & BRENTON ON SEA

Brenton-on-Sea is classified as a *Coastal Hamlet* within the Knysna Local Municipality. It is located approximately 15 km west of Knysna, along the coastline, providing access to beaches and marine resources.

The hamlet is connected to surrounding areas through key road networks:

- Local roads link Brenton-on-Sea to adjacent coastal and rural communities.

Brenton-on-Sea's coastal setting is characterized by its beaches and natural landscapes, contributing to local tourism and recreational activities. The hamlet primarily functions as a residential area, catering to both permanent residents and holidaymakers. Given its classification as a coastal hamlet, it requires careful planning to maintain its character while improving local amenities and services.

As development occurs, there are opportunities for expansion, but this must be balanced with environmental protection measures. Future growth may involve enhancing community facilities, such as recreational areas and improved beach access.

According to the Provincial Spatial Development Framework (PSDF), Brenton-on-Sea is categorized as a coastal settlement with *Low Social Need / Medium Development Potential*. The key focus areas should include:

- Sustainable Coastal Development.
- Enhancement of Tourism and Recreational Opportunities.
- Improvement of Access to Basic Services, including water, sanitation, and waste management.
- Addressing Infrastructure Needs for Residents and Tourists.

- Preservation of Coastal Environments through Conservation Initiatives.

Proposals should prioritize the improvement of essential services and infrastructure to enhance the quality of life for residents and the experience of visitors. Educational initiatives on environmental stewardship will support community engagement and sustainable practices.

The PSDF identifies areas within and around Brenton-on-Sea for potential residential development to accommodate future growth. While upgrades to bulk infrastructure for electricity and water services may be necessary, opportunities exist to enhance these services to support development. The water supply for Brenton-on-Sea is primarily sourced from local reservoirs and groundwater, necessitating careful management to ensure sustainability.

Vacant land is available within and around Brenton-on-Sea, presenting opportunities for residential and community developments that align with the hamlet's character while promoting sustainable growth and environmental conservation.

D3.1.5.1 RESIDENTIAL

The residential strategy for Brenton - on - Lake/Brenton-on-Sea aims to complement the existing character of the area while addressing housing needs.

1. Infill Residential Development

The proposal focuses on infill residential development, ensuring new housing blends with the current housing types, which predominantly consist of single-family homes and holiday cottages. Development will maintain the area's low-

density character and coastal aesthetic while utilizing vacant land not designated for other purposes.

D3.1.5.2 MAINTAIN THE PROTECTED/NATURE RESERVE AREA

Conservation Priority: The existing protected and nature reserve areas around Brenton-on-Sea and Belvidere will be maintained and reinforced to ensure the continued preservation of local biodiversity, natural habitats, and scenic landscapes. These areas serve as vital ecological buffers and recreational spaces for residents and tourists.

Environmental Education: Educational signage and community outreach programmes will be introduced to promote awareness, local stewardship, and engagement in environmental conservation efforts.

D3.1.5.3 SPORTS AND RECREATIONAL CLUB

Community Facilities: A sports and recreational club will be proposed to provide residents and visitors with access to leisure activities, fostering a healthy lifestyle and social cohesion. The facility should include amenities like sports fields, tennis courts, and a community center.

D3.1.5.4 BUSINESS DEVELOPMENT FOR EVERYDAY NEEDS

Local Convenience Stores: The proposal includes designated zones for small-scale business developments, such as convenience shops and cafes, to cater to the daily needs of residents and holidaymakers. This development will reduce the need for travel to other areas for basic supplies.

Encouraging small businesses can boost the local economy while maintaining the area's character as a coastal hamlet.

D3.1.5.5 PUBLIC OPEN SPACE AS A PARK

Community Park Development: A public park will be designated to provide open green space for recreation, relaxation, and events. This park should incorporate natural landscaping, playground equipment, and walking trails.

D3.1.5.6 TRANSITION AREA

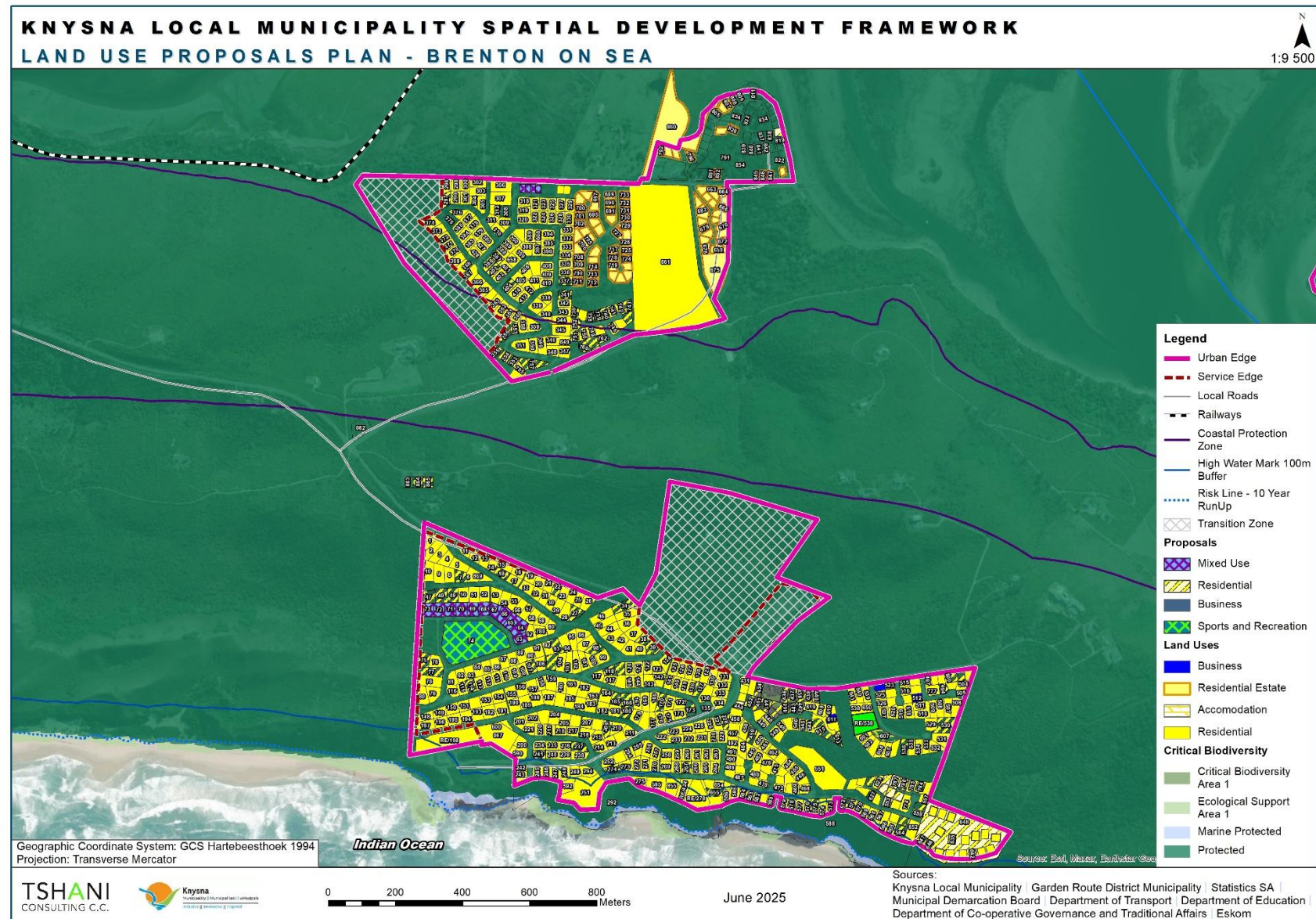
As these expansion areas fall within Protected Areas and the Coastal Management Line, any future land uses must align with environmental and coastal management regulations.

The land use intentions, as identified in the Knysna Municipal Land Audit, include:

- **Portion 79:** potential housing development
- **Portion 81:** open tender for a conference centre
- **Erven 415 & 416:** residential development

D3.1.5.7 STREAMLINING DEVELOPMENT PROCESSES

To support the growth of Brenton-on-Lake and Brenton-on-Sea as tourism towns, areas proposed for mixed-use or business development will benefit from shortened land use development procedures. These areas, particularly within the town's core and key tourism zones, have had their land use schemes amended to streamline the approval process. This approach ensures that tourism-related developments, such as hospitality, retail, and mixed-use projects, can be implemented efficiently. The introduction of more flexible land use procedures will facilitate faster implementation of tourism infrastructure, supporting the towns' growth while enhancing their role as vibrant, sustainable tourism destinations.



Plan 32: Land Use Proposals - Brenton - on - Lake/ Brenton-on-Sea

D3.1.6 BUFFELS BAY

Buffels Bay is a Coastal Hamlet located approximately 15 km south of Knysna, within the Knysna Local Municipality. Known for its scenic beaches and natural beauty, this area offers abundant opportunities for coastal recreation, contributing significantly to local tourism and outdoor activities. The hamlet primarily serves as a residential area, home to both permanent residents and visitors.

D3.1.6.1 CONNECTIVITY

Buffels Bay is well-connected to surrounding areas through key local access roads, which provide convenient travel routes to neighboring communities and nearby natural attractions.

D3.1.6.2 PLANNING AND DEVELOPMENT

Strategic planning is essential for preserving Buffels Bay's unique character while improving the provision of services and amenities. Future development opportunities should focus on enhancing community facilities, such as recreational spaces and beach access points, to serve both residents and tourists.

The Provincial Spatial Development Framework (PSDF) categorizes Buffels Bay as a coastal settlement with low social need and medium development potential.

The following key areas are identified for development:

- **Sustainable Coastal Development**
- **Enhancement of Tourism and Recreational Amenities**
- **Improvement of Access to Basic Services** (e.g., water, sanitation, waste management)
- **Preservation of Coastal Environments** through conservation initiatives

The PSDF also highlights the potential for residential development within Buffels Bay to accommodate future growth. However, any new development must be aligned with the area's character and focused on sustainable practices. Essential upgrades to bulk infrastructure, including electricity and water services, may be required, with particular attention to the sustainable management of local water supplies from reservoirs and groundwater sources.

There is vacant land available within and around Buffels Bay, presenting opportunities for residential and community development. Any new developments should prioritize environmental conservation while enhancing the quality of life for both residents and visitors.

D3.1.6.3 RESIDENTIAL

The residential development approach for Buffels Bay aims to preserve the area's existing character. The focus will be on infill development that aligns with the current style of low-density, single-family homes and holiday cottages. This approach ensures efficient use of vacant land that is not designated for other purposes.

Additionally, a proposal has been put forward to designate Erf 210 as public open space, further enhancing community amenities and providing additional recreational areas.

D3.1.6.4 EXCLUSION OF BUFFELS BAY CARAVAN PARKS FROM THE URBAN EDGE AND INCLUSION IN THE SERVICES EDGE

The Buffels Bay Caravan Parks have been purposefully excluded from the Urban Edge and included within the Services Edge to preserve the area's unique character and protect its natural environment. The exclusion from the Urban Edge is a deliberate strategy to prevent high-density urban development within

the caravan parks, ensuring they remain primarily as recreational and tourism spaces that continue to contribute to the region's appeal.

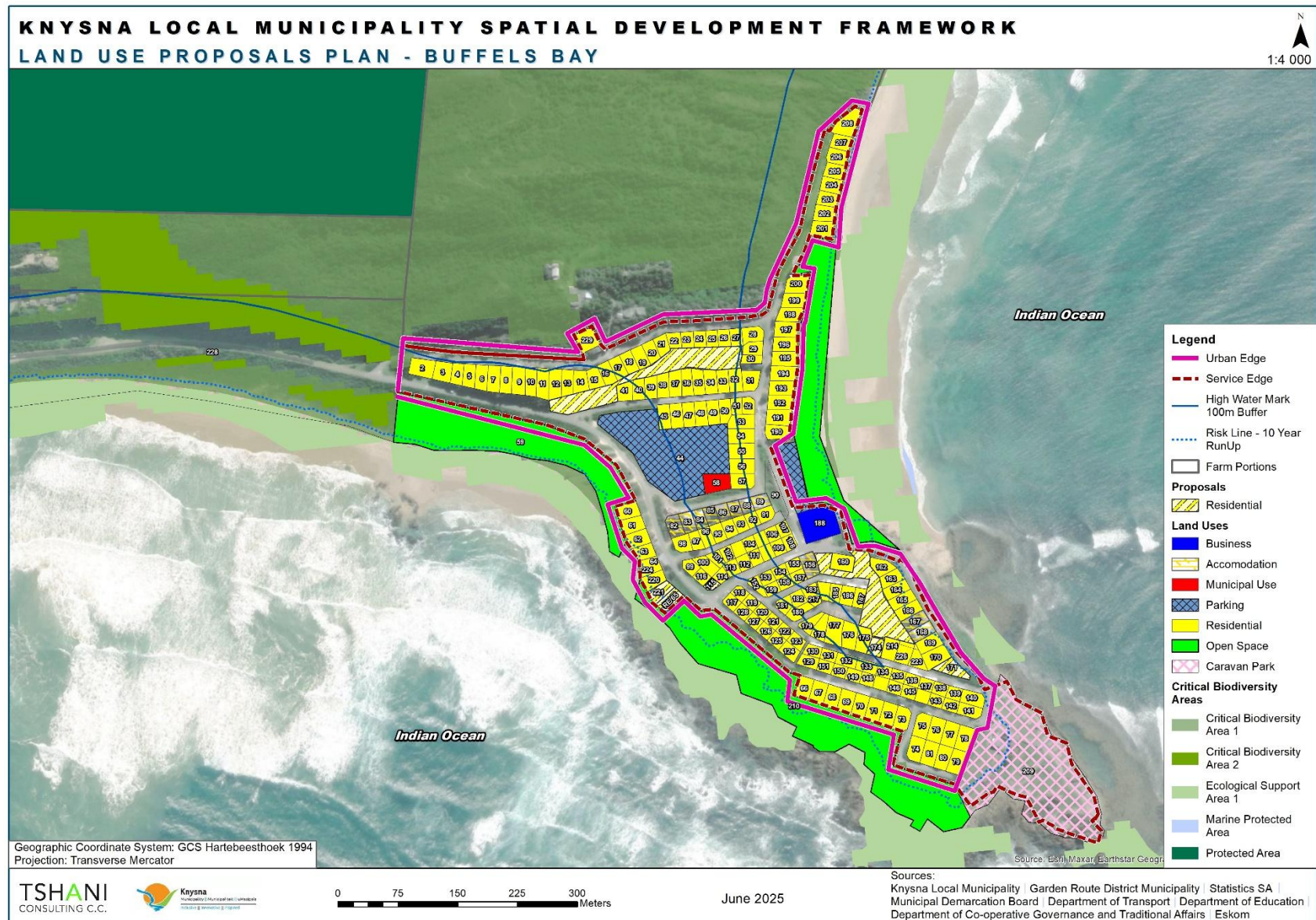
The caravan parks will be serviced by the municipality but are intended to remain small-scale and focused on their role as leisure destinations. This approach prevents the parks from being converted into high-density urban developments that could compromise their existing purpose and the overall character of the area. By excluding the parks from the Urban Edge, the municipality ensures that development pressures do not encroach upon these spaces, maintaining their value as areas for relaxation, nature-based activities, and tourism.

Including the parks within the Services Edge allows for the provision of necessary services—such as water, electricity, and waste management—while maintaining the parks' character. This strategic approach ensures that the parks can continue to serve as recreational spaces for both residents and visitors, free from the risks of urban sprawl and inappropriate development. In this way, the municipality

can balance service provision with the conservation of the parks' rural and recreational qualities, ensuring their sustainability and long-term appeal as a leisure destination.

D3.1.6.5 STREAMLINING DEVELOPMENT PROCESSES IN BUFFELS BAY:

To support the growth of Buffels Bay as a key tourism destination, areas proposed for mixed-use or business development will benefit from shortened land use development procedures. These areas, particularly within the town's core and key tourism zones, have had their land use schemes amended to streamline the approval process. This approach ensures that tourism-related developments, such as hospitality, retail, and mixed-use projects, can be implemented efficiently. The introduction of more flexible land use procedures will facilitate faster implementation of tourism infrastructure, supporting Buffels Bay's growth while enhancing its role as a vibrant, sustainable tourism hub.



Plan 33: Land Use Proposals - Buffels Bay

D3.2 SUSTAINABLE HUMAN SETTLEMENTS

The housing demand in Knysna remains significant, with 9,491 applicants currently listed on the Western Cape Housing Demand Database (as of August 2024). This demand stems from factors including in-migration, high need for affordable housing, and constrained bulk infrastructure—which limit the capacity for new residential development. The dataset reveals a diverse applicant base by age, income, and spatial preference.

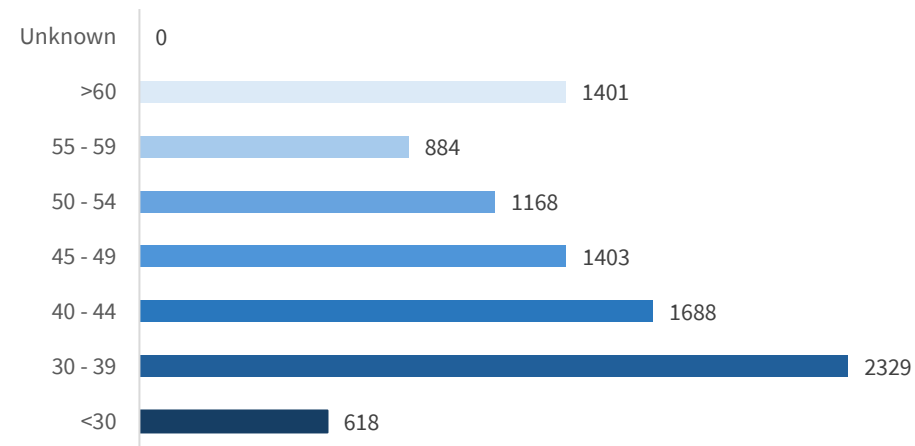
To meet this demand, the municipality is rolling out an Inclusionary Housing Policy, aligned with the Western Cape Inclusionary Housing Policy Framework (IHPF). It mandates that a share of units in private developments be allocated to lower-income households in well-located, high-demand areas. The policy is supported through incentives such as density bonuses, fast-tracked approvals, and reduced charges. This approach advances spatial justice by enabling mixed-income communities and equitable access to opportunities..

D3.2.1 AGE DISTRIBUTION OF HOUSING APPLICANTS

The applicant age breakdown shows:

- Majority (30–54 years): Indicates strong need for housing suitable for working adults and families.
- Over 1,400 applicants aged 60+: Underscores need for senior-friendly housing and assisted-living options.

AGE BREAKDOWN OF APPLICANTS ON WAITING STATUS



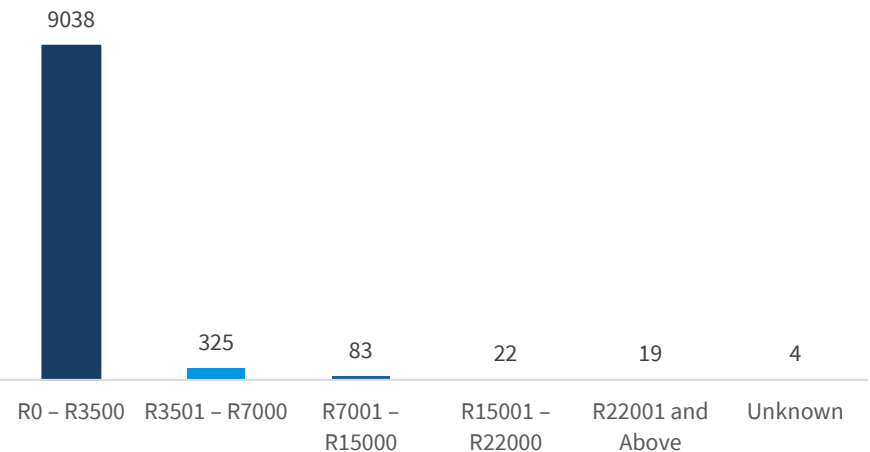
Implication: A diverse housing mix is essential—including accessible senior units, compact rentals or starter homes for younger adults, and family-oriented units. Public transport, social spaces, and targeted job programs for youth should complement these offerings to support the demographic profile.

D3.2.2 INCOME LEVELS AND AFFORDABILITY

Income data shows:

- 9,038 applicants (95.2%) earn < R3,500/month and qualify for fully subsidized houses.
- A growing “gap market” (earning R3,500–R22,000/month) needs affordable rental or ownership options.

INCOME LEVEL OF APPLICANTS ON WAITING STATUS

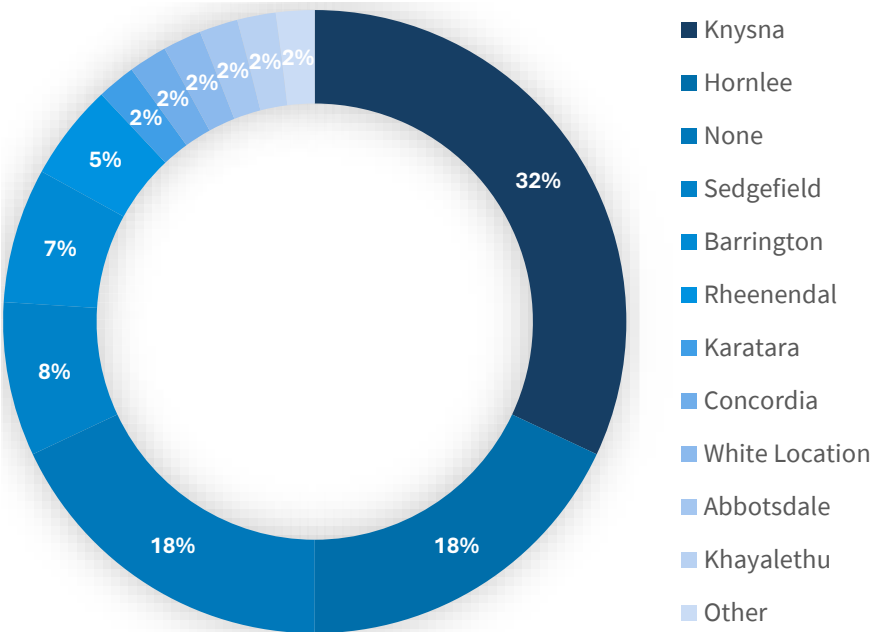


Implication: Meeting this income spectrum requires subsidies for lower-income households and programs like social housing, FLISP (Finance Linked Individual Subsidy Programme), and inclusionary housing to serve the gap market. The municipality will incentivize private-sector contributions through a combination of benefits and regulations.

D3.2.3 GEOGRAPHIC PREFERENCES

Applicants expressed location preferences:

- Knysna central: 32%
- Hornlee: 18%
- Other suburbs and flexible (“None”): remainder



Implication: Demand exceeds supply in urban centers, indicating spatial mismatch. Municipalities should pursue densification and land releases in priority areas. The “None” category suggests some flexibility—creating opportunities for infill development in underutilized zones.

D3.2.4 HOUSING BACKLOG PROJECTIONS FOR THE NEXT 5-10 YEARS

Based on current backlog (9,491) and a stable population growth rate of 1.1% per year:

Table 23: Housing Backlog Projections

Timeline	Projected Demand	Planned Supply	Estimated Backlog
2029 (5 yrs)	~10,791 units	500 units	~10,291 units
2034 (10 yrs)	~12,268 units	1,000 units	~11,268 units

These projections—not accounting for pipeline delays or land constraints—highlight that existing delivery rates are insufficient. Assumptions include average household size of X persons; all figures are rounded for consistency.

D3.2.5 ACCOMMODATING URBAN GROWTH

Using the Western Cape Government's population projections, the urban land and housing projections indicate the need for additional housing to accommodate expected household growth.

- **State-assisted housing:** Additional 2,664 units required over 10 years—based on provincial household formation models.
- **Densification & Inclusionary Housing:** Smaller lot sizes and mixed-use zoning are vital. The 2020 Zoning By-Law already permits second dwellings.
- **Private-sector demand:** ~81 affordable units annually needed in Knysna town and Sedgefield. Inclusionary policies will mandate contributions from private developments.
- **Elderly housing:** With demographic aging, there's growing need for retirement villages, assisted-living complexes, and senior-focused accommodation near services.
- **Backyard dwellings:** Specifically Knysna town as well as some of the other towns in Knysna are experiencing backyards. This is where residential properties, develop a second or 3rd dwelling on their property which they often use to rent to willing residents. This phenomenon, while provides well located housing to those in need, if not properly managed, it could put a strain on infrastructure services and if zoning regulations are not followed, could be negative to neighbouring properties.

It is thus advised that a Backyard Dwelling Policy be developed where this plan identifies areas in the municipality where this can be allowed, with notification to the LM. This would ensure that the municipality plans for this and in designated areas where services needs can be met and where property sizes are big enough to be able to accommodate a 2nd or 3rd dwelling.

A Backyard Policy has been developed for Hornlee. This would need to be reviewed and the whole LM be addressed before implemented / revised to include all areas of the Knysna Municipality. The policy provides proposals for incorporating backyard / 2nd dwelling on properties with different slope types and how developers can design and develop a 2nd dwelling according to the property's land / slope type.

D3.2.6 PHSHDA HOUSING PROJECTS

The following projects fall within the Knysna PHSHDA and are aimed at accelerating the provision of integrated human settlements, aligned with spatial transformation objectives and the National Housing Code:

- **Heidevallei Housing Development:** A planned 2,800-unit integrated development promoting affordable, high-density housing with green spaces and essential amenities.
- **Lagoon View Social Housing:** Located within the Restructuring Zone. Phase 1 (Erf 17301) is complete; Phase 2 (Erf 3409) remains undeveloped.
- **Protea Terrace (Erf 3534):** Requires infrastructure upgrades and infill development to optimise land use.

- **Melkhout Flats (Erf 1343):** Upgrades to existing flats are planned, along with new infill blocks to expand capacity.
- **West View Courts (Erven 568 & 571):** Needs infrastructure and building upgrades to improve living conditions.

D3.2.7 RELEASE OF STATE-OWNED LAND FOR HOUSING

Affordable housing delivery in Knysna is constrained by limited availability of well-located land. Significant public land parcels remain underutilised, representing an opportunity to address the housing backlog through strategic land release.

Project Overview:

This project proposes the identification, transfer, and planning of strategic state-owned land parcels within Knysna Municipality for integrated housing development. By unlocking these sites, the project aims to fast-track affordable housing delivery aligned with spatial transformation goals and national housing policies.

Objectives:

- Identify suitable state-owned land parcels with high development potential.
- Facilitate intergovernmental coordination for land transfer to the municipality or housing agencies.
- Undertake land use planning, rezoning, and servicing to prepare sites for housing development.
- Promote integrated, mixed-income communities that improve access to services and economic opportunities.

Expected Outcomes:

- Increased supply of affordable, well-located housing units.
- Enhanced spatial integration and reduced urban sprawl.
- More efficient use of public land assets.
- Strengthened partnerships between government spheres.

Implementation Responsibility: Department of Human Settlements in partnership with Knysna Municipality and relevant state agencies.

D3.2.8 DENSIFICATION AND MINIMUM ERF SIZES

To promote efficient land use and address both population growth and housing affordability, Knysna Municipality has established specific guidelines for minimum erf sizes and densification policies.

Inclusionary housing principles will be integrated into densification strategies to ensure that well-located urban areas include mixed-income developments. The municipality will explore the introduction of overlay zones through the Municipal Planning By-Law (MPBL) to facilitate inclusionary housing implementation.

Key Densification & Inclusionary Housing Principles:

1. Urban Infill & Inclusionary Housing: Encourage vacant or underutilized land for high-density, mixed-income developments.
2. Promote higher density residential development including identifying areas for consolidation and development of 2-3 storey walk ups in certain residential / mixed use areas.
3. Mixed-Use Development: Require inclusionary housing components in large-scale mixed-use projects.

- 4. Transport Integration: Align inclusionary housing with public transport corridors to reduce commuting costs.
- 5. Strategic Densification: Apply inclusionary housing requirements in high-demand areas, ensuring equitable housing distribution.
- 6. Developing and implementing a Backyard Dwelling Policy

Table 24: Minimum Erf Sizes for Different Development Types

Development Type	Minimum Erf Size	Notes
Duet Developments	800m ²	Suitable for smaller family units or shared residential spaces.
Single Residential Units	500m ² per unit	Requires a minimum erf size of 1000m ² for two units per plot.
Multiple Residential Units	3000m ²	Minimum erf size per unit/density is 150m ² .

Key Principles of Knysna’s Densification Policy

- 1. **Urban Infill:** Encourage the use of vacant or underutilized land within existing urban areas to maximize current infrastructure and service capabilities.
- 2. **Mixed-Use Development:** Support developments that integrate residential, commercial, and recreational spaces to foster dynamic, accessible neighborhoods.
- 3. **Transport Integration:** Align densification efforts with public transport plans to reduce reliance on private vehicles and enhance connectivity across the municipality.

- 4. **Preserving Livability:** Ensure densification projects maintain high-quality living conditions through adequate provision of green spaces, recreational areas, and community facilities.
- 5. **Heritage and Character Conservation:** Balance densification with the preservation of Knysna’s unique character and neighborhood heritage.
- 6. **Strategic Densification:** Focus densification efforts along key corridors and collector routes to optimize accessibility and land use efficiency.
- 7. **Service Availability:** Approve densification projects only where essential services—water, electricity, and sanitation—are adequately available.
- 8. **Community Consent:** Require consent from neighboring property owners to foster community support and minimize potential conflicts.
- 9. **Traffic Management:** Evaluate and address the impacts of densification on traffic to prevent congestion and ensure road safety.
- 10. **Parking Requirements:** Ensure adequate on-site parking is included in all developments to accommodate increased residential densities without straining existing parking resources.

This approach to densification seeks to enhance land use efficiency while preserving the natural beauty, character, and quality of life in Knysna Municipality.

D3.2.9 IMPLICATIONS & RECOMMENDATIONS

The following spatial policy interventions are recommended to address Knysna's housing demand:

1. **Targeted Infill and Densification:** Prioritise infill development in Knysna and Hornlee to accommodate urban growth and reduce urban sprawl.
2. **Public-Private Partnerships:** Use public land and development incentives to attract private sector delivery of affordable housing.
3. **Inclusionary Housing:** Require private developments in high-demand areas (e.g., Knysna CBD, Hornlee) to include a % of affordable units.
4. **Subdivision Incentives:** Enable subdivision of larger plots—such as 1,000 m² properties—where infrastructure capacity permits, to facilitate small-scale rental units and incremental densification.
5. **Zoning Reform:** Amend the Zoning Scheme to support small-scale rental units, boarding houses, and higher-density residential formats.
6. **Serviced Site Programmes:** Where formal development is delayed, promote serviced land release with incremental support to beneficiaries.
7. **Land Release Strategy:** Identify and fast-track land acquisition, rezoning, and servicing of priority housing sites.

D3.3 INCENTIVES FOR HOUSING DELIVERY AND URBAN DEVELOPMENT

The 2016 IHSP and 2019 SDF emphasize incentivizing private investment on well-located land. Measures include reducing development contributions, offering delayed payment schedules, and granting density bonuses.

Focus areas include:

- A dedicated **Urban Development Zone:** to spur CBD revitalization, enhance property value, and support walkable, vibrant neighborhoods.

- A revised Inclusionary Housing policy targeting restructured zones and priority investment sectors.
- **Priority Investment Areas:** with fast-track zoning, relaxed controls, and incentives tied to spatial, social, or economic impact.
- Redevelopment of public land for mixed-income housing near employment and services.
- Provision of integrated **socio-economic facilities**—such as shared community hubs—within development layouts, aided by public-private synergies.

These incentives align with the Garden Route Housing Sector Plan, promoting inclusive and strategic urban growth.

INCLUSIONARY HOUSING POLICY:

Within Knysna town, inclusionary housing should be applied in the revised restructuring zone identified in this SDF.

Incentives should be structured to reduce development costs and improve project viability, ensuring affordability for a defined market segment, including social rental and gap housing.

PRIORITY INVESTMENT AREAS:

Incentives should be directed towards development in designated Priority Investment Areas, including expedited land use processes, relaxation of certain development controls, and contribution reductions where developments meet defined spatial, social, or economic objectives.

STATE-SUBSIDISED HOUSING:

Housing delivery programmes should focus on redeveloping vacant or underutilized land within existing settlements.

This approach ensures that households retain affordable, preferably walkable access to jobs, social services, and amenities.

UTILIZATION OF STATE-OWNED LAND:

Public land within the restructuring zone and greater Knysna town area must be prioritized, assessed, and released for development that advances social integration and affordable housing.

These sites should be strategically located near employment centers, services, and social amenities to support mixed-income communities.

PROVISION OF SOCIO-ECONOMIC FACILITIES:

All new housing developments must integrate socio-economic facilities within their town planning layouts and budgets.

Innovative solutions such as clustered facilities, shared spaces, and partnerships with the private sector should be explored to enhance service delivery and community access.

These strategies align with the broader Garden Route Housing Sector Plan objectives, ensuring that Knysna's urban growth is sustainable, inclusive, and strategically directed to maximize economic and social benefits.

D3.4 SPATIAL PRINCIPLES**PROMOTE SOCIO-ECONOMIC INTEGRATION**

- Facilitate mixed-use, mixed-income areas—especially around town centers and transit corridors
- Situate social infrastructure centrally to promote equity

- Define **Integration Zones** and **Social-Housing Restructuring Zones** as priority areas for public transport and affordable-housing investment

DIVERSIFY HOUSING TYPOLOGIES

- Support a range of housing types and densities for diverse tenure and affordability needs—including for retirees and first-time buyers
- Encourage residential infill and redevelopment in urban cores, coupled with infrastructure upgrades

TARGETED DENSIFICATION

- Set densification targets based on local infrastructure capacity, heritage and ecological constraints, and transport access
- Employ design guidelines to maintain settlement identity while allowing increased density

D3.5 CEMETERIES

Knysna faces significant challenges in providing dignified and sustainable burial services due to limited cemetery space and an increasing demand for cremation services. A multi-faceted approach is required to address these challenges, ensuring that burial practices remain respectful, inclusive, and environmentally sustainable. The following key initiatives aim to enhance cemetery management:

D3.5.1 ASSESSMENT OF CURRENT FACILITIES

A comprehensive audit of Knysna's existing cemeteries will assess:

- **Capacity:** Evaluating remaining burial spaces and planning for interim solutions where necessary.
- **Condition:** Examining infrastructure such as pathways, fencing, water access, and drainage.

- **Accessibility:** Ensuring accessibility for individuals with disabilities and other mobility needs.
- **Historical and Cultural Significance:** Preserving historically significant gravesites and burial grounds.

This assessment will inform decisions on expanding or repurposing existing sites and highlight the need for new developments, including crematorium services.

D3.5.2 RECOMMENDATIONS

To meet future needs, a regional cemetery is necessary. The municipality could consider **Knysna Town** as a location for this cemetery. However, as alternatives, **Karatara** or **Rheenendal** should also be considered based on factors such as accessibility, environmental impact, and alignment with municipal planning objectives.

Site Selection Process: A thorough selection process will include:

- **Geotechnical Surveys:** Assessing soil stability and suitability for burials and suitability for burial, including drainage and erosion risk.
- **Environmental Impact Assessments:** Evaluating potential impacts on groundwater, air quality, and biodiversity.
- **Community Consultation:** Engaging stakeholders to incorporate cultural and social considerations.

- **Proximity to Regional Facilities:** Ensuring accessibility for communities across the municipality.

Sites will be selected based on accessibility, environmental impact, and long-term planning goals.

D3.5.3 SUSTAINABLE PRACTICES

Knysna will adopt eco-friendly burial practices to minimize environmental impact, including:

- Establish **natural burial zones** with biodegradable practices
- Use **solar power** for lighting and water systems
- Introduce **green landscaping** with indigenous vegetation
- Consider **multi-layer grave plots**, where permitted, for efficient land use

D3.5.4 GOVERNANCE AND LONG-TERM MANAGEMENT

Governance measures for sustainable cemetery services will include:

- **Operational Policies:** Clear guidelines for cemetery management.
- **Financial Planning:** Developing a sustainable funding model.
- **Digital Capacity Monitoring:** Tools to track available space and forecast future needs.

This approach will ensure the sustainability and availability of cemetery services for Knysna's growing population.

D3.6 BULK INFRASTRUCTURE

Bulk infrastructure underpins Knysna's growth, supports job creation, and enhances service delivery. As the municipality experiences increasing pressure on existing networks due to urban expansion, tourism, and environmental constraints, strategic and spatially aligned investments in infrastructure are essential. The infrastructure network must support key sectors—particularly tourism, agriculture, trade, and light manufacturing—while ensuring inclusive access and long-term sustainability.

SPC-F SURFACE INFRASTRUCTURE

A robust and well-maintained infrastructure network is a prerequisite for economic resilience and improved quality of life. However, Knysna faces significant challenges, including aging infrastructure in older urban areas, service deficits in rural settlements such as Rheenendal and Sedgefield, and informal development in areas like Hornlee and Smutsville. Addressing these deficits requires coordinated funding mechanisms, cross-sectoral planning, and a long-term approach to asset management.

Priority Areas and Interventions

The following spatially targeted upgrades are prioritised:

- **Rheenendal (Rural Node):** Upgrade water reticulation and storage capacity to improve household access and agricultural resilience. Currently, frequent outages during peak summer periods pose risks to livelihoods and health.

- **Hornlee (High-Density Residential):** Replace aging sewer pipelines and expand capacity of feeder lines to reduce frequent overflows and environmental contamination of adjacent watercourses.
- **Smutsville and Sizamile (Sedgefield Peri-Urban Areas):** Extend formalised stormwater and sanitation infrastructure to eliminate informal discharge into the lagoon system and reduce environmental degradation.
- **Knysna CBD and Industrial Area:** Invest in smart water and electricity metering, aligned with business continuity requirements, to manage peak demand and improve leak detection and load regulation.

A **sustainable land management approach** remains central, including:

- Integrating public transport routes (e.g., N2 corridor and Old Cape Road) with residential and employment nodes.
- Ensuring that land use approvals for densification projects in Knysna Heights, Paradise, and the Brenton areas are conditional on existing engineering infrastructure capacity assessments and upgrade commitments.

Compliance and Risk Management

Before approving new development applications, municipal services must meet the following conditions:

- Confirmed capacity in WWTW facilities (notably the Knysna and Sedgefield plants).
- Environmental authorisations where applicable (e.g., development near estuary or wetland systems).

- Pre-construction provision of bulk infrastructure plans (water, sanitation, roads, and stormwater), especially in high-risk areas for pollution such as the Knysna Estuary and Goukamma River catchment.

The municipality will continue to pursue smart infrastructure solutions, including:

- **GIS-integrated infrastructure mapping** to identify pressure points and coordinate upgrade timelines.
- **Public-private infrastructure partnerships**, particularly for tourism and commercial precincts along the Waterfront and Thesen Island, where high footfall places seasonal stress on electricity, waste, and water services.

D3.6.1 GREEN BUILDING DESIGN

Green building practices are essential for ensuring that new developments in Knysna are environmentally responsible and resource-efficient throughout their life cycles. The following strategies may be incorporated into building design:

- **Safeguarding Water Resources:** Implementing rainwater harvesting systems and minimizing water usage in buildings to conserve this vital resource.
- **Minimizing Waste and Maximizing Reuse:** Utilizing durable materials and strategies to reduce construction and demolition waste through recycling and reusing materials.
- **Promoting Health and Well-being:** Designing buildings to maximize natural light and ventilation, contributing to the comfort and enjoyment of occupants.

- **Energy Efficiency:** Incorporating renewable energy sources and low-carbon technologies to meet the energy needs of buildings, thereby reducing dependency on the municipal grid.
- **Creating Resilient and Flexible Structures:** Designing buildings to withstand the effects of climate change and natural disasters, allowing for adaptability in their use over time.
- **Integration with Surrounding Environments:** Ensuring accessibility to public transport and amenities is considered in building design, promoting non-motorized transportation (NMT) options.

D3.6.2 GREEN INFRASTRUCTURE TECHNOLOGY

Proposed interventions in Knysna aim to address gaps in service delivery and infrastructure:

- **Rainwater Harvesting:** Collecting and utilizing rainwater for various purposes, such as irrigation and household use, to reduce reliance on municipal supplies.
- **Stormwater Management:** Implementing systems for collecting and treating stormwater runoff to recharge groundwater and irrigate gardens, thus reducing flooding and erosion.
- **Solid Waste Recycling:** Developing comprehensive waste management strategies to reduce landfill waste and promote recycling initiatives within the community.
- **Greywater Reuse:** Encouraging the recycling of gently used water for non-potable purposes, such as irrigation, to promote water conservation.

- **Solar Energy:** Promoting the installation of solar panels on residential and commercial buildings to harness renewable energy, particularly in areas without reliable electricity access.

D3.6.3ELECTRICITY

To meet the electrical needs of the municipality, exploring renewable energy alternatives is crucial. The following points highlight potential strategies:

- **Renewable Energy Assessment:** Given the ongoing issues with electricity supply, especially during peak tourist seasons, it is essential to conduct feasibility studies for renewable energy sources like solar and wind. Identifying suitable sites for development can support local energy generation while reducing reliance on the municipal grid.
- **Solar Energy Opportunities:** With its favorable climate for solar energy generation, Knysna should encourage the adoption of photovoltaic systems on residential, commercial, and public buildings. Collaboration with local stakeholders can enhance community engagement in solar initiatives.
- **Alternative Energy Sources:** Investigating the potential for biogas and other renewable resources can provide sustainable energy solutions for local industries and communities.
- **Infrastructure Constraints and Upgrades:** It is noted that the current bulk electricity supply, particularly via the Eastford substation, faces capacity limitations that constrain additional demand in areas like Belvidere Estate and surrounding developments. While exploring renewable energy alternatives is critical, addressing bulk supply

constraints in collaboration with Eskom remains a priority to ensure reliable power provision for future growth and densification.

D3.6.4WATER

Knysna is renowned for its picturesque Estuary and coastal access, making water transportation a vital component of its tourism infrastructure. The Estuary supports a range of recreational activities, including boat tours, fishing, and water sports, which significantly contribute to the local economy. Enhancing water transport infrastructure can further facilitate tourism and improve the movement of goods.

Knysna Municipality relies on a combination of surface water and groundwater sources for its water supply. In light of increasing population growth and rising water demand, key initiatives to enhance water management include:

- **Water Resource Management:** Develop a comprehensive strategy to monitor and maintain the municipality's water sources, ensuring long-term sustainability and resilience against climate variability. This includes investing in upgrades to existing infrastructure, such as treatment plants and distribution systems. Based on recent assessments, instead of developing a new wastewater treatment facility, the existing Wastewater Treatment Works (WWTW) will be expanded to accommodate future demand. This approach leverages existing infrastructure, reduces environmental impact, and offers a cost-effective solution to wastewater management.

- **Water Supply Monitoring:** Implement advanced monitoring systems to track water usage and manage resources efficiently, allowing for better responses to drought conditions or increased demand.
- **Pump Station Reliability:** Invest in upgrading and maintaining local water pump stations to improve capacity and operational reliability, particularly during peak demand periods. This includes assessing energy supply, mechanical resilience, and backup systems to minimize water outages in vulnerable areas.

Water Supply Challenges and Solutions: Belvidere Estate currently relies on four boreholes for potable water supply, which may limit capacity for expanded residential development. The municipality recognizes these constraints and is investigating options to augment water supply infrastructure and improve pump station reliability. Investments will focus on enhancing the resilience and capacity of water supply systems, including possible upgrades to borehole infrastructure and distribution networks, to mitigate outages and meet growing demand.

- **Community Engagement:** Involve local communities in water conservation initiatives through educational programs on sustainable water use practices. Encouraging resident participation in water-saving measures will enhance the effectiveness of conservation efforts.

D3.6.4.1 DEVELOPMENT OF WATER TRANSPORT INFRASTRUCTURE:

- **Marina Development:** Invest in expanding the existing marina to accommodate various types of watercraft, including tourist boats, yachts, and commercial vessels.

- **Boat Launch Facilities:** Improve and maintain boat launch facilities to enhance accessibility for both residents and tourists. This includes ramps, docking areas, and adequate parking for vehicles and trailers.

D3.6.4.2 ENHANCING ACCESSIBILITY TO THE ESTUARY:

- **Water Access Points:** Develop designated access points around the Estuary to facilitate public access to water transport services, ensuring that residents and tourists can easily reach the water.
- **Pathways and Signage:** Install pathways and signage leading to these access points, improving wayfinding for visitors and promoting a seamless transition from land to water transportation.

By focusing on enhancing water transportation services in Knysna, particularly in the context of tourism and goods transportation, the municipality can leverage its natural resources to boost economic growth. The expansion of the existing WWTW will further support these efforts by improving wastewater management in a sustainable and cost-effective manner. Strengthening water transport infrastructure will enhance the visitor experience while promoting environmental stewardship and long-term resilience in Knysna's water systems.

D3.6.5 SANITATION

Knysna operates several wastewater treatment facilities, including those serving the central town and surrounding areas. Key initiatives should include:

- **Assessment and Compliance:** Conducting thorough assessments of existing wastewater treatment facilities to ensure they meet national standards for operation and discharge. Regular audits and evaluations will

help identify areas for improvement and ensure compliance with environmental regulations.

- **Infrastructure Upgrades:** Exploring opportunities to upgrade and optimize treatment plants to enhance efficiency and compliance with regulatory standards. The proposed wastewater treatment plant will play a crucial role in alleviating pressure on the current system and improving overall sanitation in the municipality.

Sewerage Capacity and Treatment Constraints: The existing sewer plant located on Erf 328 Belvidere was originally designed for limited capacity and does not support significant additional residential densification or development. Consequently, further development in this area must be carefully managed to avoid exceeding system capacity. The planned expansion and upgrade of the Wastewater Treatment Works (WWTW) will improve overall municipal sanitation capacity but may not fully alleviate localized constraints in Belvidere. Additional investment and strategic planning will be required to address sewer discharge and infrastructure limitations to enable sustainable growth.

- **Community Trust Building:** Implementing regular monitoring and transparent reporting on water quality and treatment capacity to build trust within the community. Keeping residents informed about the status of wastewater management efforts will promote accountability and encourage community involvement in sanitation initiatives.

D3.6.5.1 OPERATIONAL BENEFITS:

The upgrading and expansion of the Waste Water Treatment Works will provide the following benefits:

- **Enhanced Water Quality:** Algae and wetland technology will improve the quality of treated wastewater, ensuring compliance with environmental regulations.
- **Cost-Effectiveness:** This approach offers a lower-cost solution for upgrading the existing plant, reducing the need for major capital investment.
- **Sustainability:** The use of natural treatment technologies supports sustainable wastewater management while minimizing environmental impact.
- **Future Scalability:** The expansion of the current plant provides the flexibility for future growth and further upgrades as wastewater demands increase.

D3.6.5.2 RECOMMENDATION:

It is recommended that the existing wastewater treatment works be upgraded and expanded as a short-term solution. The use of algae and wetland wastewater treatment technology can be incorporated to meet required water quality standards. In the long term, the municipality should consider developing a new treatment works to effectively address future wastewater demands.

D3.6.6 REFUSE REMOVAL

Efficient waste management is essential for maintaining environmental health, promoting sustainability, and supporting Knysna's development goals. To address growing waste management needs and improve long-term sustainability, the following initiatives are proposed:

- **Development of a Waste Transfer Facility** to streamline waste collection and disposal.
- **Implementation of Recycling and Waste Diversion Programs** to reduce landfill dependency and promote sustainable waste management.
- **Community Awareness and Engagement Campaigns** to encourage responsible waste disposal and recycling practices.
- **Infrastructure Planning for Future Expansion** to accommodate potential growth and evolving waste management technologies.

D3.6.6.1 RECYCLING AND WASTE DIVERSION INITIATIVES

To complement the waste transfer facility, initiatives will be introduced to encourage waste reduction and recycling:

- **Recycling Infrastructure:** Establishing facilities for sorting, processing, and temporarily storing recyclable materials such as glass, plastics, paper, and metals.
- **Green Recycling Initiatives:** Implementing eco-friendly programs such as composting organic waste, processing green waste for mulch, and upcycling projects to reduce landfill dependency.
- **Community Engagement:** Encouraging public participation through awareness campaigns and incentive programs to promote responsible waste disposal and recycling.

Site Identification Approach:

- Suitable land for recycling infrastructure and green initiatives will be identified **in conjunction with** the waste transfer facility site selection process.
- Locations will be determined through **feasibility studies** considering:
 - Proximity to waste sources and transfer facilities
 - Environmental and social impacts
 - Logistical efficiency and operational viability
- Final decisions will align with municipal spatial planning and stakeholder input.

D3.6.6.2 OPERATIONAL & ENVIRONMENTAL BENEFITS

The establishment of a waste transfer facility, alongside recycling initiatives, will provide multiple benefits:

- **Improved Waste Management:** Enhancing efficiency by centralizing waste collection, reducing illegal dumping, and streamlining disposal processes.
- **Environmental Sustainability:** Promoting waste reduction, lowering landfill dependency, and minimizing environmental impacts.
- **Economic Opportunities:** Creating local jobs, supporting small-scale recycling enterprises, and reducing long-term municipal costs associated with landfill expansion.

By strategically selecting a suitable site and incorporating sustainable waste management practices, Knysna can enhance refuse removal services while advancing its environmental and economic development objectives.

D3.6.6.3 RECCOMENDATIONS

It is recommended that a new Waste Transfer Station be established near the N2, on a site that offers easy accessibility, potential for future expansion, and minimal disruption to both urban development and the surrounding environment. The chosen location should undergo a detailed feasibility study to ensure it meets operational, environmental, and logistical needs, supports the municipality's long-term waste management goals, and complies with all necessary development guidelines.

Site Selection Process

The site selection will be based on comprehensive feasibility studies, considering environmental impact, waste deposition rates, and logistical factors, with adherence to relevant development guidelines.

D3.7 MOVEMENT AND TRANSPORTATION

The Movement and Transportation section outlines the strategic approach to enhancing connectivity and mobility within Knysna Municipality. Efficient movement networks are essential for supporting economic growth, providing access to social services, and promoting sustainable land use patterns. This section examines existing transportation infrastructure, identifies key routes and corridors, and highlights opportunities for improvement and expansion. The focus is on creating an integrated, accessible, and resilient transport system that accommodates various modes of transport while fostering regional linkages and reducing environmental impacts.

ROAD NETWORK:

Knysna is well-connected by the N2 national route, which serves as a major transport corridor linking the Eastern and Western Cape provinces. While the N2 facilitates efficient movement for goods and tourists, it also experiences congestion, especially during peak tourist seasons. Strategic interventions such as traffic calming measures, improved signage, and enhanced landscaping along the route are essential to mitigate congestion and enhance the aesthetic appeal of the area. Key regional roads, such as the R339 and R400, provide vital connections to surrounding towns and rural areas, with plans to upgrade certain sections to improve accessibility and stimulate economic growth.

RAIL CONNECTIVITY:

Knysna was historically served by a railway line connecting it to the greater Garden Route region. While the rail infrastructure is currently inactive, there is significant potential to revitalize and expand rail services under the new concessionaire. Enhancing rail infrastructure—particularly by extending the track to the industrial area—would facilitate efficient freight transport, reducing road congestion and supporting local businesses. Additionally, renewed rail services could bolster tourism by offering scenic and convenient connections to major attractions, such as the Garden Route National Park. Prioritizing rail development outside the CBD for freight operations would optimize logistics while preserving the passenger station's role in tourism and mobility.

NON-MOTORIZED TRANSPORT (NMT):

Knysna has existing pedestrian and cycle pathways, particularly around the town center and waterfront areas. Expanding and upgrading these pathways is crucial for improving safety and access for non-motorized users. Prioritizing the development of dedicated cycling lanes and improving pedestrian infrastructure, such as crossings and sidewalks along key routes, will encourage walking and cycling as sustainable transport options.

PUBLIC TRANSPORT:

Currently, Knysna has a limited public transport system, primarily consisting of minibus taxis and a few long-distance bus services. Exploring opportunities to develop a more structured public transport system, including regular bus routes that connect key areas of the municipality, is essential to improving mobility for residents and visitors alike. Additionally, creating a public transport hub in line with provincial transport strategies could enhance connectivity and accessibility within the region.

A key priority is the establishment of a new taxi rank in Knysna Town to improve access to public transport and accommodate the growing demand for taxi services. This facility should be strategically located within the urban core, ensuring seamless integration with other transport modes and reducing congestion in high-traffic areas.

D3.7.1ROADS

Knysna is strategically located along the N2 national route, a crucial transportation corridor linking the Western Cape and Eastern Cape. However, traffic congestion, particularly during peak tourist seasons, hampers local accessibility and economic activity. To address these challenges, a bypass of the N2 has been proposed, designed to redirect through traffic away from the town center, enhance local connectivity, and promote economic growth.

D3.7.1.1 DEVELOPMENT OF THE N2 BYPASS WITH GREENFIELD ALIGNMENT:

The proposed N2 Bypass is a strategic, high-mobility corridor that will begin at the Garden Route Mall in George and reconnect with the existing N2 just east of Plettenberg Bay. This new alignment is designed to enhance regional accessibility, reduce congestion within Knysna, and improve travel efficiency between key destinations along the Garden Route.

The bypass will function as a high-capacity route, engineered to support the efficient movement of goods and people—critical for unlocking local economic development and bolstering the tourism sector. A multi-lane design will accommodate varying traffic volumes, ensuring safe, fast, and reliable travel.

ACCESS POINTS:

- **Knysna's Potential for Multiple Access Points:** Knysna is positioned to benefit from multiple access points to the bypass. These connections will directly link the town's commercial hubs, residential areas, and tourist destinations to the new route. This enhanced connectivity will

relieve pressure on the CBD, improve traffic distribution, and stimulate local economic activity by improving access to and from the town.

- **Sedgefield's Limited Access Point:** While Sedgefield is expected to have a single access point, this will still provide a crucial connection to the bypass. Traffic management strategies will ensure efficient circulation and accessibility within the town, with the bypass helping to redirect through-traffic away from local roads, thereby improving overall safety and mobility.

ADDRESSING THE MISSING SECTION DUE TO HDA LAND TRANSFER:

A portion of the previously demarcated N2 Bypass alignment, located above Knysna Town, is no longer available for road development due to the land being transferred to the Housing Development Agency (HDA). As a result, this section of the bypass no longer has an approved or protected alignment.

To address this, a new route alignment will need to be identified as part of the detailed design phase of the project. This process will include technical studies, environmental assessments, and intergovernmental coordination to determine the most feasible alternative alignment that still meets the strategic mobility objectives of the bypass.

This adjustment underscores the importance of initiating the detailed design process, during which the new alignment above Knysna Town can be confirmed and secured in coordination with all relevant stakeholders, including the HDA.

PHASED, LONG-TERM IMPLEMENTATION

The N2 Bypass is a **critical long-term infrastructure priority** with a projected implementation horizon of **10 to 15 years**. To ensure its success, a structured, phased approach is proposed:

1. **Public Engagement and Support Building**

Host **public meetings and stakeholder engagements** to confirm community support for the bypass. Broad-based agreement is essential to move the project forward and ensure alignment with local development goals.

2. **Reinstatement on SANRAL's Project List**

Engage with **SANRAL** to have the N2 Bypass formally reinstated on its national project pipeline. This is a key step to unlocking further technical and financial support.

3. **Appointment of Consultants for Detailed Design (3–5 Years)**

Once prioritised by SANRAL, appoint professional consultants to undertake the **detailed design process**. During this stage:

- The **exact alignment**—including the section above Knysna town—will be finalised.
- Environmental and geotechnical conditions will be assessed.
- Infrastructure integration and mitigation measures will be developed.

4. **Securing Land and Approvals**

Parallel to design, **land access negotiations, regulatory approvals**, and coordination with landowners (including the HDA) must be undertaken.

5. **Construction Phase**

Following the completion of the design and approvals, the **construction of the bypass** will commence. This will be implemented in **manageable phases**, guided by available funding and logistical sequencing.

This forward-planning framework ensures the bypass is **strategically implemented** to maximise **regional accessibility**, support **economic growth**, and promote **transport sustainability** over the long term.

D3.7.1.2 UPGRADING AND MAINTAINING LOCAL ROAD CONNECTIONS:

- **Key Access Points:** Strategically design multiple access points along the bypass to connect with local roads, enhancing traffic flow and providing convenient access to commercial areas, tourist attractions, and residential neighborhoods.
- **Local Road Enhancements:** Prioritize upgrades to local roads that will serve as critical access routes to the bypass. This includes resurfacing, widening, and improving intersections to accommodate expected increases in traffic volumes.

D3.7.1.3 NON-MOTORIZED TRANSPORT (NMT) INFRASTRUCTURE:

- **Dedicated Pathways:** Develop dedicated pedestrian and cycle pathways along the bypass to ensure safe access for non-motorized users. These pathways should connect key destinations such as schools, parks, and shopping centers, promoting active transportation options.
- **Green Corridors:** Integrate green corridors along the bypass to enhance biodiversity and provide recreational opportunities for residents, contributing to overall environmental health and aesthetics.

D3.7.1.4 PUBLIC TRANSPORT INTEGRATION:

- **Public Transport Nodes:** Establish strategically located public transport nodes along the bypass to serve as hubs for local and regional bus services, ensuring efficient mobility for residents and visitors. In

addition, the need for a new taxi rank in Knysna Town should be acknowledged, enhancing public transport access across the area.

- **Collaboration with Transport Authorities:** Work with regional transport authorities to develop bus routes that utilize the bypass, improving access to major destinations and fostering public transport use. Additionally, address the railway connectivity between Knysna and Sedgefield, recognizing the Estuary bridge as a weak point that requires assessment for potential improvements. Consider integrating these rail transport enhancements with broader urban mobility strategies to ensure a cohesive transport network.

D3.7.1.5 ENVIRONMENTAL CONSIDERATIONS:

- **Environmental Impact Assessments (EIAs):** Conduct thorough EIAs for the bypass project to identify and mitigate potential ecological impacts, ensuring that natural habitats and resources are preserved.
- **Sustainable Construction Practices:** Incorporate sustainable construction practices into the project, such as using eco-friendly materials and implementing efficient drainage systems to minimize environmental impact.

D3.7.1.6 TRAFFIC MANAGEMENT AND SAFETY:

- **Traffic Flow Optimization:** Implement intelligent traffic management systems to enhance traffic flow along the bypass and connecting roads, reducing congestion and improving safety.
- **Safety Features:** Design the bypass with safety in mind, incorporating clear signage, adequate lighting, and dedicated lanes for cyclists and pedestrians to ensure user safety.

The proposed N2 bypass, designed for high mobility, will start at the Garden Route Mall in George and connect to the existing N2 east of Plettenberg Bay. This project is a critical step toward improving regional transport connectivity, alleviating congestion, and promoting sustainable mobility in Knysna. By integrating the bypass into the broader transport network, prioritizing non-motorized and public transport users, and maintaining environmental sustainability, Knysna can develop a more efficient, resilient transportation system that meets both current and future mobility needs.

To further enhance traffic flow and safety at the George Rex Drive and N2 intersection, it is recommended that dedicated turning lanes be introduced for northbound and southbound traffic, along with optimized traffic signal timing to alleviate peak-hour congestion. Additionally, the feasibility of a roundabout or other traffic management interventions should be explored to improve circulation and minimize delays.

D3.7.2RAIL

The **Outeniqua Choo Tjoe** is a heritage train service that used to run between Knysna and George, primarily catering to tourism. While its current potential emphasizes leisure travel, there is significant potential for this railway to contribute to local transport and economic activities.

D3.7.2.1 INTEGRATED TRANSPORT HUB DEVELOPMENT:

Develop a dedicated transport hub at the Knysna railway station, integrating the **Outeniqua Choo Tjoe** with local bus services, taxis, and non-motorized transport (NMT) facilities.

- This hub would facilitate seamless transfers between various modes of transport, enhancing accessibility for both residents and tourists.

Key Features:

- Provision of ticketing and information centers for tourists and locals.
- Adequate parking facilities for private vehicles, bicycles, and NMT.
- Designated areas for public transport drop-off and pick-up.

D3.7.2.2 RAILWAY CORRIDOR REVITALIZATION:

- **Spatial Enhancement:** Revitalize the railway corridor to enhance its role in the municipality's transport network and scenic tourism.
- **Green Spaces:** Develop green belts and parks along the railway line, promoting biodiversity and recreational opportunities, creating a pleasant environment for tourists and residents alike.
- **Tourist Attractions:** Incorporate viewing platforms, picnic spots, and walking trails along the railway corridor, highlighting natural landscapes and heritage sites.

D3.7.2.3 ECONOMIC DEVELOPMENT ZONES:

Identify and designate economic development zones near key railway stations, focusing on:

- Craft markets and local artisan workshops that utilize the train for distributing goods.

- Visitor centers providing information on local attractions and activities linked to the railway.

These zones will create job opportunities, promote local businesses, and increase foot traffic from tourists arriving by train.

D3.7.2.4 FREIGHT AND LOGISTICS INTEGRATION:

- **Strategic Planning:** Develop plans for integrating freight services into the railway operations to support local industries.
- **Infrastructure Improvements:** Ensure that loading and unloading facilities at stations are adequately designed for both tourism and freight, allowing for efficient movement of goods while maintaining the heritage aesthetic.
- **Collaboration with Local Businesses:** Partner with local producers to facilitate the transport of goods to markets, thus enhancing economic resilience and sustainability.

D3.7.2.5 SUSTAINABLE PRACTICES:

Eco-friendly Solutions: Promote sustainable practices within railway operations, such as:

- Utilizing renewable energy sources for station operations.
- Encouraging waste reduction and recycling initiatives along the railway line and at stations.

Biodiversity Conservation: Implement measures to protect and enhance the natural environment surrounding the railway corridor, aligning with broader municipal sustainability goals.

D3.7.2.6 PROMOTION OF HERITAGE AND CULTURE:

- **Cultural Linkages:** Use the railway as a platform to promote Knysna's cultural heritage, organizing events and festivals that celebrate local traditions and history.
- **Tourism Packages:** Develop tourism packages that combine train rides with visits to local attractions, enhancing the overall visitor experience and encouraging longer stays.

The concession of the **Outeniqua Choo Tjoe** railway service aim to create a vibrant, integrated transport system that benefits both tourism and local economic development. By enhancing connectivity, fostering community engagement, and promoting sustainable practices, these strategies will contribute to the overall growth and resilience of Knysna Municipality.

D3.7.3AIR

Knysna does not have its own airport and relies heavily on the aviation facilities available in nearby towns, particularly **George** and **Plettenberg Bay**. These airports provide essential connectivity for both residents and tourists, facilitating access to domestic and international destinations.

D3.7.3.1 STRENGTHENING TRANSPORT LINKS TO NEARBY AIRPORTS:

- **Dedicated Transport Routes:** Establish dedicated transport routes, such as shuttles or express bus services, connecting Knysna to George Airport and Plettenberg Bay Airport.
- **Schedule Coordination:** Work with local transport operators to align schedules with flight times, ensuring convenient transfers for passengers traveling to and from these airports.

- **Signage and Wayfinding:** Install clear signage and wayfinding systems in strategic locations throughout Knysna, directing travelers to transport hubs offering connections to the airports.

D3.7.3.2 PROMOTION OF AIR CONNECTIVITY:

- **Marketing Campaigns:** Launch marketing campaigns to promote the importance of airport connectivity for tourism and business development in Knysna.
- **Collaboration with Local Businesses:** Encourage local tourism operators, hotels, and businesses to offer packages that include transportation to and from the airports, enhancing the visitor experience and boosting local economies.

D3.7.3.3 Partnerships with Airport Authorities:

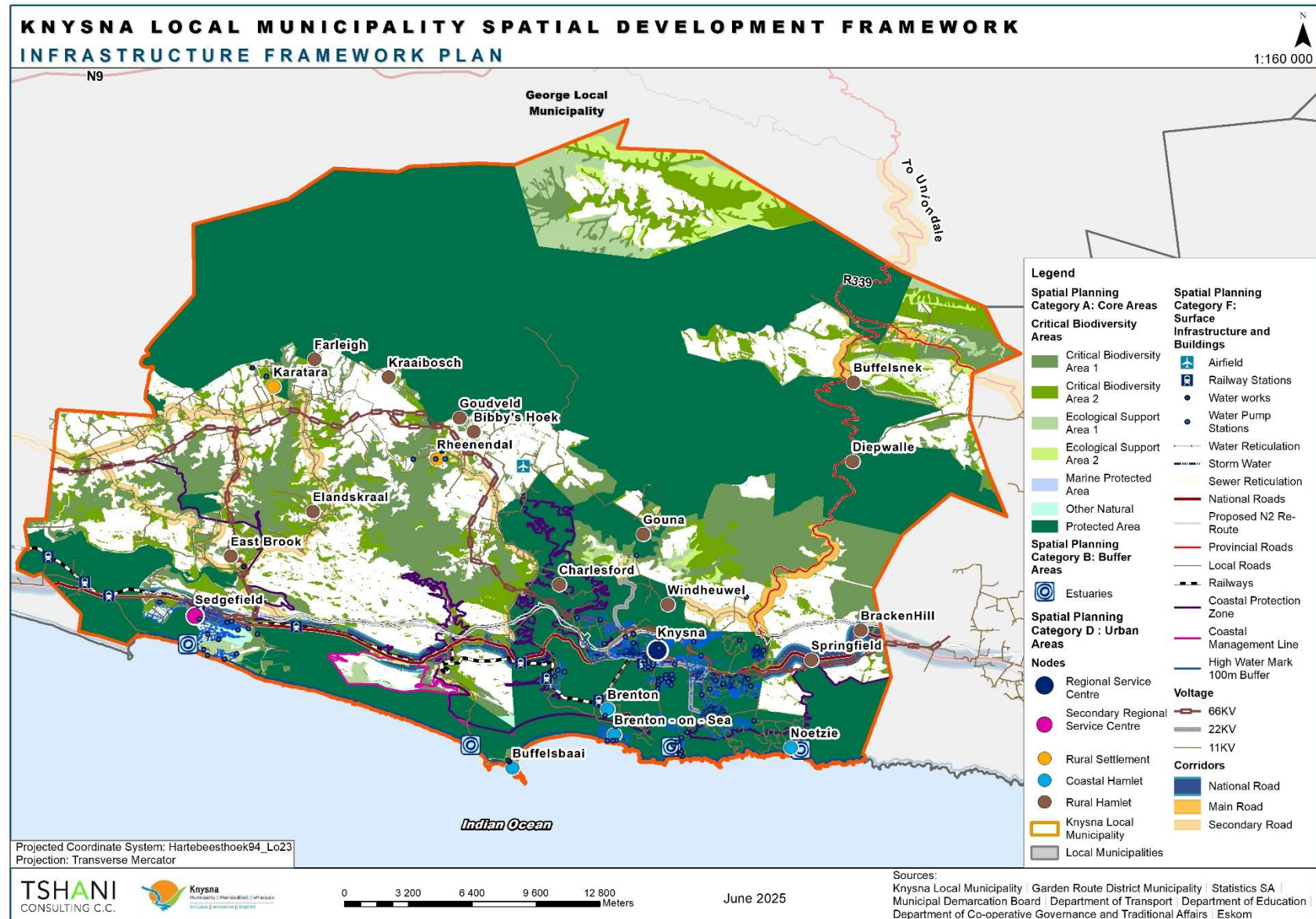
- **Collaborative Agreements:** Establish partnerships with the management of George and Plettenberg Bay airports to facilitate joint marketing efforts, coordinated transport services, and potentially improved facilities for passengers from Knysna.

By focusing on strengthening the links to **George** and **Plettenberg Bay** airports, Knysna can enhance its air connectivity without the need for formal aviation infrastructure. This approach will not only facilitate access for residents and tourists but also support local economic growth by promoting tourism and business opportunities.

D3.7.4 UPDATES TO THE MASTER PLANS

To support Knysna's long-term growth, updates to key master plans are required to ensure the sustainability and efficiency of essential services. The following infrastructure plans need to be revised and upgraded:

- **Water Supply and Management:** Address increasing demand by enhancing reservoir capacity, improving pipeline networks, and implementing water conservation strategies.
- **Electricity and Energy:** Expand and modernize the electrical grid to accommodate increased density, integrating renewable energy sources where feasible.
- **Refuse Management and Waste Disposal:** Develop an improved waste management plan, incorporating recycling initiatives and evaluating waste-to-energy solutions.
- **Sanitation and Sewage Systems:** Upgrade and expand sewage treatment facilities to handle population growth and prevent environmental contamination.
- **Roads and Transport Infrastructure:** Enhance the road network to accommodate increased traffic, focusing on key intersections such as **George Rex Drive and the N2**. Prioritize public transport integration and non-motorized transport options.



Plan 34: Infrastructure Framework

D4. GOVERNANCE FRAMEWORK

For a governance framework for the Knysna Municipality Spatial Development Framework (SDF), the following structure is recommended:

D4.1 INTERGOVERNMENTAL COLLABORATION AND COOPERATION:

- **Establish an Intergovernmental Forum (IGF)** in accordance with the Intergovernmental Relations Framework Act (IGRFA) to facilitate cross-municipal and provincial collaboration. This forum should comprise representatives from local municipalities, district municipalities, provincial government departments, and relevant national departments.

Create sub-committees within this forum to address key spatial issues specific to Knysna, such as infrastructure, economic development, land use management, and environmental sustainability. This approach will enable the integration of sectoral plans with spatial objectives.

Strengthen Capacity and Integration: Establish inter-departmental working groups, comprising staff from various municipal departments, to work collaboratively on key spatial development initiatives. These working groups should align their goals and performance indicators to ensure cross-functional integration and avoid siloed decision-making.

D4.2 COMMUNITY ENGAGEMENT AND PARTICIPATION:

- **Knysna Municipality should promote inclusive decision-making** by ensuring public participation in the spatial planning process. This includes involving local communities, private sector stakeholders, and civil society in planning discussions and feedback sessions.

- **Establish transparent communication channels** to share updates, decisions, and progress related to the SDF with the public, fostering trust and accountability.
- **Inclusive, Ongoing Engagement:** Go beyond initial consultation by ensuring continuous community participation throughout the life of the SDF. This can be achieved through regular town hall meetings, online platforms, and stakeholder advisory panels.

D4.3 MONITORING AND REVIEW MECHANISM:

- **Implement a monitoring system** within the governance framework to track the progress of SDF implementation. This system should periodically assess how well the SDF aligns with regional development goals and local needs.
- **Set up a review mechanism** to allow for adjustments to the SDF in response to changing socio-economic conditions, land use patterns, or emerging regional priorities.
- **Dynamic Data Integration:** Incorporate GIS-based monitoring tools that allow for real-time tracking of the SDF's impact on land use, infrastructure development, and socio-economic conditions. This can enhance the municipality's ability to respond quickly to shifts in urban growth patterns.
- **Public-Accessible Dashboards:** Create an online platform or dashboard where the public can track the SDF's progress. This ensures transparency and provides a forum for public feedback, which can then inform the review process.

D4.4 CAPACITY BUILDING AND SUPPORT:

- **Provide support for municipal staff and stakeholders** involved in SDF implementation through training programs, ensuring they possess the necessary skills to plan, manage, and execute spatial development projects effectively.
- **Where needed, the municipality should leverage regional expertise and partnerships** to enhance its governance and operational capacity.
- **Cross-Sector Collaboration:** Encourage cross-sectoral capacity building by linking municipal staff to regional, provincial, and national training opportunities. Foster partnerships with academic institutions for research and training on urban planning, sustainability, and governance.
- **Mentorship and Knowledge Transfer:** Develop a mentorship program where experienced practitioners in urban planning and spatial development can provide guidance to junior staff members. Leveraging external expertise is key for enhancing governance capabilities.

D4.5 ADDRESSING SILOED WORKING METHODS:

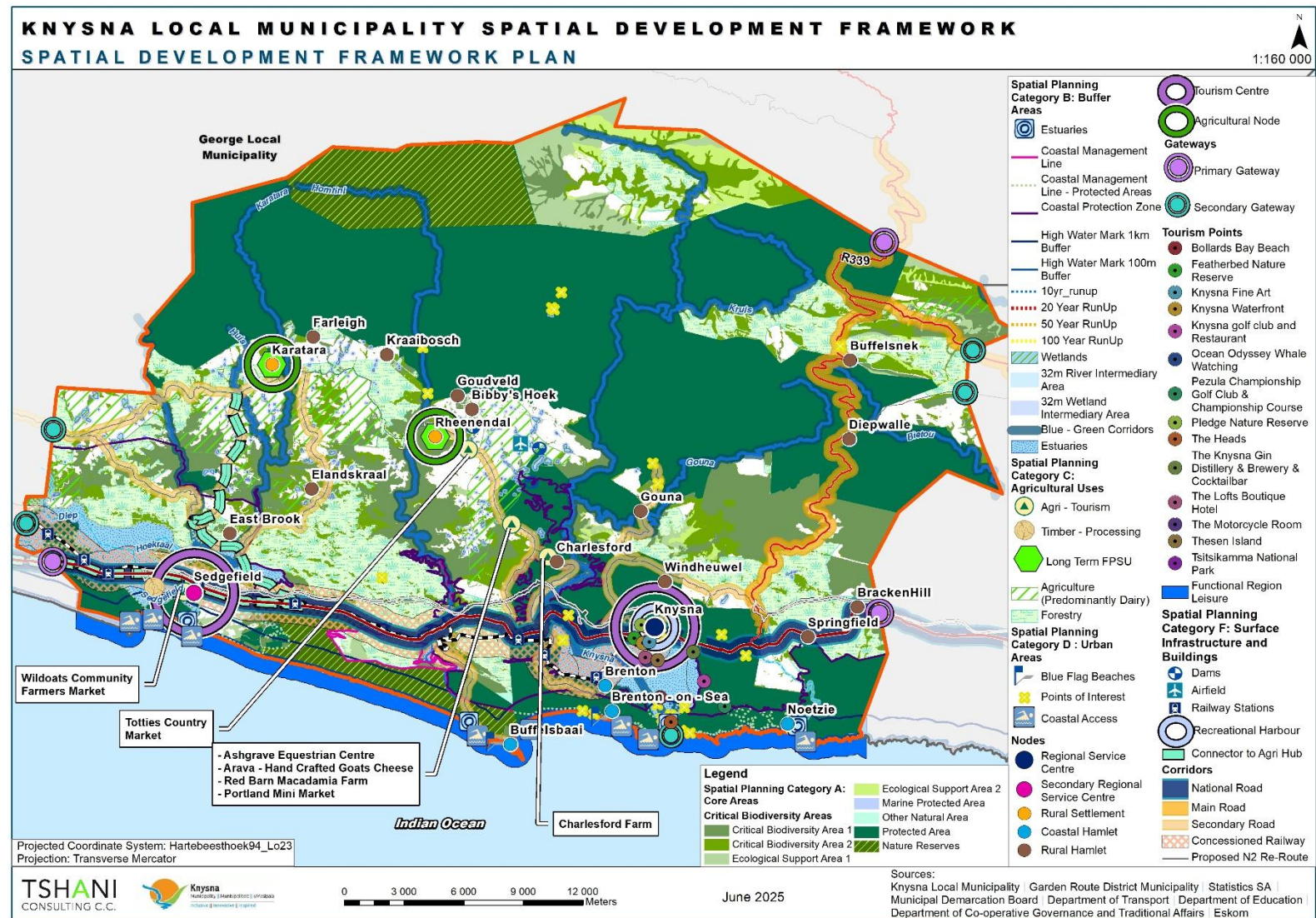
- **Foster Cross-Departmental Collaboration:** Create inter-departmental working groups made up of staff from various sectors such as planning, housing, infrastructure, and economic development. These teams will ensure integrated approaches to projects and common outcomes, avoiding fragmented decision-making.

- **Centralized Communication Platform:** Establish an internal digital platform to centralize information, documents, and updates, ensuring all departments have access to key data and can collaborate effectively on projects.
- **Shared Goals and KPIs:** Develop shared objectives and KPIs across departments that prioritize integrated spatial development and ensure alignment with regional and local development goals.
- **Leadership Commitment:** Municipal leadership must demonstrate a commitment to breaking down silos by facilitating joint initiatives, holding regular meetings, and ensuring departments align their efforts. Senior leaders should champion cross-departmental cooperation as a core value.
- **Monitoring and Continuous Improvement:** Implement regular assessments of collaboration efforts, using feedback loops from staff to refine cross-departmental engagement processes.

This governance framework ensures accountability, collaboration, and community involvement in Knysna's spatial development while aligning with regional strategies. The addition of strategies to break down silos will improve coordination and enhance the municipality's ability to meet its development goals efficiently and inclusively.

D5. OVERALL SPATIAL DEVELOPMENT FRAMEWORK

The overall Municipal Spatial Development Framework for Knysna integrates all identified frameworks, including built environmental, socio-economic, and biophysical aspects. These frameworks collectively serve as the foundation for the municipality's future development trajectory.



Plan 35: Overall Spatial Development Framework

E: GUIDELINES

E1. SPATIAL PLANNING CATEGORIES

SPCs (Special Planning Categories) are generally consistent with UNESCO's Man and the Biosphere (MAB) Programme and encompass all land zonings specified under the existing Knysna Municipality: Spatial Planning and Land Use Management By-law, 2021 and the Knysna Municipality: Zoning Scheme By-law, 2020. The designation of SPCs does not alter existing zoning or land-use regulations or legislation. Instead, SPCs clarify and facilitate coherent decision-making, leading to improved zoning laws and regulations.

Furthermore, SPCs provide a framework for standardizing land-use decisions throughout the Western Cape. It is advisable that all Knysna Municipality: Spatial Planning and Land Use Management By-law, 2021 and the Knysna Municipality: Zoning Scheme By-law, 2020 align with the SPCs. These categories should be applied in land-use classification at all levels of planning in Knysna, particularly concerning the preparation of Integrated Development Plans (IDPs) and Spatial Development Frameworks (SDFs).

A comprehensive set of SPCs and sub-categories has been developed to guide detailed land-use planning at both the district and local municipal levels. These sub-categories can be adjusted as necessary to accommodate site-specific requirements within districts and local municipalities.

Some key applications of SPCs in decision-making and planning include:

1. The SPCs establish a system whereby all land units or entities within Knysna will eventually be recorded in the Spatial Planning Information System (SPISys), facilitating effective administration of land-use issues.
2. The SPCs can illustrate both the current official land use and the desired land use for all land within a planning area. They also identify specific types of land uses not included in the existing Knysna Municipality: Spatial Planning and Land Use Management By-law, 2021 and the Knysna Municipality: Zoning Scheme By-law, 2020, allowing for a non-statutory and more detailed land-use classification.
3. The SPCs indicate desired land usage, which may sometimes align with the current zoning of properties while differing in other instances.
4. Existing Knysna Municipality: Spatial Planning and Land Use Management By-law, 2021 and the Knysna Municipality: Zoning Scheme By-law, 2020 should be amended or upgraded to incorporate these new concepts, with the expectation that the Provincial Model Scheme Regulations will feature new overlay zonings in this regard.
5. The SPCs facilitate decision-making regarding applications for changes in land use. It is important to note that an SPC designation differing from current zoning implies that any new development will be considered a diversion from the status quo, necessitating consideration by the relevant authorities in accordance with specific guidelines.
6. The application of SPCs in natural landscapes—particularly SPC A and SPC B, and to some extent SPC C areas—primarily pertains to the natural landscape, which encompasses inhabited (human-made) landscapes (SPC C.b, D, E, and F).

E1.1 SPATIAL PLANNING CATEGORY A & B: CORE AND BUFFER AREAS

SPC A Areas in Knysna consist of sites of high conservation importance, encompassing terrestrial land, aquatic systems (such as rivers, wetlands, and estuaries), and marine environments (including beaches and rocky headlands). Given their irreplaceable ecological value, these areas should be safeguarded from development or restored to enhance their ecological functioning. **Key**

Strategies and Interventions Related to SPC A & B:

- **Implementation of Air Quality and Waste Management Plans:** Enforce provincial and local municipal air quality and waste management plans to ensure a sustainable environment.
- **Conservation of Ecological Corridors:** Protect existing ecological corridors and consolidate and rehabilitate remnants that connect coastal ecosystems with one another and with terrestrial ecosystems.
- **Securing Additional SPC A Areas:** Collaborate with organizations such as the World Wildlife Fund (WWF), International Union for Conservation of Nature (IUCN), Succulent Karoo Ecosystem Programme (SKEP), South African National Parks (SANParks), and the Global Environment Facility (GEF) to identify and secure additional potential SPC A areas.
- **Establishment of Protected Areas:** Develop a network of protected areas that includes diverse coastal landscapes, ecosystems, habitats, communities, species, and culturally significant sites. This initiative will integrate the Special Management Area concept with effective Stewardship agreements.

E1.2 SPATIAL PLANNING CATEGORY C: AGRICULTURE AREA

The protection and sustainable management of high-potential agricultural land, particularly areas along the Knysna River and those within existing irrigation schemes, are crucial for achieving sustainable economic growth and food security. High-potential agricultural land located near urban settlements faces significant pressure from non-agricultural developments, which can adversely affect its productivity. Therefore, prioritizing the protection of these lands is essential, and measures must be implemented to create conditions conducive to sustainable agriculture. **Key Strategies and Interventions Related to Category**

C:

- **Align with Sustainable Development Goals (SDG 2 and 12):** Promote sustainable agriculture and rural development to ensure long-term food security.
- **Development of an Agricultural Master Plan:** Create a comprehensive plan for the region to identify and protect the most fertile land for agricultural purposes.
- **Consider Rezoning Low-Potential Agricultural Land:** Utilize rezoning as a strategy to stimulate sustainable economic development by unlocking the potential of non-agricultural uses. Encourage game farms to consolidate landholdings, creating extensive SPC B areas that support biodiversity conservation, managed as Special Management Areas.
- **Promote Local Processing and Services:** Encourage the processing of agricultural products locally and the provision of farm services to bolster the rural economy, enhance agricultural viability, and reduce rural poverty.

E1.3 SPATIAL PLANNING CATEGORY D: URBAN AND RURAL AREAS

The relationship between rural and urban areas in Knysna is evolving, recognizing the interdependence between these spaces. Rural and urban areas now coexist, fostering various economic, social, and environmental interactions.

Key Strategies and Interventions Related to Category D:

- **Provide Quality Spatial Data:** All levels of government, particularly municipalities, must offer spatial data and interpretations to support decision-making and adaptive management, making regional natural resource information widely accessible through platforms like SPISYS.
- **Streamline Township Establishment Processes:** Accelerate the procedures for township establishment to promote sustainable urban and rural development.
- **Prioritize Investment in Urban and Rural Development:** Align government spending and private sector investment with the socio-economic potential of towns and the needs of local communities.
- **Enhance Subsidized Housing Settlements:** Improve the quality of subsidized housing through innovative planning, design, and cross-subsidizing.
- **Ensure Sustainable Development Practices:** Scale and design developments in accordance with the environmental carrying capacity.

E1.4 SPATIAL PLANNING CATEGORY E: INDUSTRIAL AREAS

Leveraging natural resources presents key opportunities for economic diversification in Knysna. Industrial activities, both large and small-scale, can significantly contribute to regional development.

Key Strategies and Interventions Related to Category E:

- **Develop Industrial Amenities and Infrastructure:** Invest in essential industrial amenities and infrastructure within defined development corridors, ensuring alignment with available environmental and infrastructural capital.
- **Implement Efficient Water Use Strategies:** Develop strategies for efficient water usage and conservation at industrial sites, particularly in mining operations.
- **Rehabilitate Mined Land:** Ensure continuous rehabilitation of mined areas for agricultural and rural development projects.
- **Adjust Risk-Identification Processes:** Incorporate health risks related to heat exposure in industrial activities, especially for underground mining.
- **Prepare an Industrial Development Strategy:** Formulate a provincial strategy to guide industrial development effectively.
- **Develop a Disaster Risk Reduction Plan:** Create a Provincial Disaster Risk Reduction and Adaptation Plan to address potential risks associated with industrial activities.

E1.5 SPATIAL PLANNING CATEGORY F: SURFACE INFRASTRUCTURE AND BUILDINGS

An efficient and responsive infrastructure network is vital for ongoing economic development in Knysna. Addressing key challenges such as inadequate infrastructure in rural areas and the rise of informal settlements in urban zones is crucial. **Key Strategies and Interventions Related to Category F:**

- **Master Infrastructure Plan Development:** Create a Master Infrastructure Plan to coordinate investments and improve mobility and infrastructure development across the region.
- **Integrate Infrastructure Planning:** Ensure that road, built, and bulk infrastructure development is incorporated into overall planning activities throughout the area.
- **Conduct Strategic Environmental Assessments:** Assess areas suitable for renewable energy generation to streamline administrative and development processes.
- **Consider a Carbon Tax:** Implement tariffs that penalize high carbon dioxide emissions in the manufacturing and transportation sectors.
- **Enhance Mobility in Rural Areas:** Investigate ways to improve affordable and sustainable mobility in rural regions through non-motorized transport initiatives, including safer pedestrian pathways.
- **Guidelines for Development:** The Spatial Planning and Land Use Management Act (SPLUMA) mandates that municipalities develop comprehensive Land Use Schemes throughout their jurisdictions within five years. This is a crucial component of the Integrated Development Plan (IDP).

Table 25: Land Use Categories

LAND USE CATEGORY	DEVELOPMENT OBJECTIVE	LAND USE TYPE	COMMON TERMS	LUMS GUIDELINES PREFERRED OUTCOMES
Environmental Areas	To protect main biodiversity areas, natural resources, and the ecological systems through the integration of SDFs, environmental policy and other spatial frameworks	Conservation	Nature Reserves, heritage sites, cultural tourism	• <i>Typical Land Uses:</i> Conference facilities; tourism, leisure, and adventure activities, limited residential accommodation. • <i>Level of infrastructure and services:</i> limited infrastructure, management should include maintenance of existing trails and limited facilities, access
		Core	Wetlands, Protects areas	
Human Settlements	To manage and facilitate the development of integrated sustainable human settlements, with appropriate infrastructure, socioeconomic opportunities, and social amenities	Towns and Settlement Regions	Small Towns/ Local service centres	• <i>Typical Land Uses:</i> Residential, business and offices, industrial parks, government and administration, transportation, leisure, and recreation • <i>Level of infrastructure and services:</i> Basic to Full municipal services • <i>Typical Land Uses:</i> Residential, large business and offices, industrial parks, government and administration, transportation, leisure and recreation, busy CBD
		Major Settlements	Cities/ Large Towns/Large urban built-up areas with CBDs, industrial complexes etc	

LAND USE CATEGORY	DEVELOPMENT OBJECTIVE	LAND USE TYPE	COMMON TERMS	LUMS GUIDELINES PREFERRED OUTCOMES
		Dispersed Settlements	Villages/homesteads/Resorts	• <i>Level of infrastructure and services</i>: Full municipal services • <i>Typical Land Uses</i>: Residential, agriculture and farming, shops, sporting facilities, resorts, nature, taverns, access roads • <i>Level of infrastructure and services</i>: Basic services • <i>Typical Land Uses</i>: Residential, social facilities, shops, access roads, • <i>Level of infrastructure and services</i>: Basic services
		Informal Settlements	Informal settlements	• <i>Level of infrastructure and services</i>: Basic services
Resource Areas		Agriculture, forestry, oceans	Commercial and subsistence farming, commercial plantations,	• Tourism attraction, agricultural activity, rural development, youth empowerment, infrastructure development
Infrastructure	To promote efficient and integrated infrastructure and transportation systems	Strategic transport routes, telecommunications, sustainable energy	Higher order infrastructure (rail, roads, sea, air), radio telecommunications, green buildings, solar panels, cellular masts, water services	• Requirements of NEMA are applicable. • Certain applications will require EIA and Special Consent Applications (e.g., cellular masts, radio telecommunications)

All applications are required to comply with the requirements of the applicable legislation such as the Spatial Planning and Land Use Management Act, Municipal Town Planning By-Laws. The following general guidelines are applicable to applications:

1. **Site Development Plans:** Must include details on development, density, layout, landscaping, and more.
2. **Water Bodies:** Developments near water bodies require Water Use License Application (WULA) and adherence to buffer zones.
3. **Water Abstraction:** Requires prior approval from the Department of Water and Sanitation (DWS) and may need a full Environmental Impact Assessment (EIA).
4. **Heritage Structures:** Compliance with the National Heritage Act is required for developments affecting heritage sites.
5. **Community Impact:** High-impact land use changes must follow municipal planning by-law procedures.

6. **Green Building Standards:** Newly constructed buildings should meet Green Building Standards, and retrofitting is encouraged for existing buildings.

This table provides a structured overview of land use categories, emphasizing the objectives, types, common terms, and guidelines for development to ensure sustainable land management and development.

E2. COOPERATIVE GOVERNANCE APPROACH TO SPATIAL PLANNING

The Constitution mandates interdependent planning responsibilities among government spheres, requiring provinces to:

- Implement planning policies and regulations from Schedules 4 and 5.
- Monitor and support municipal functions.

SPLUMA Framework:

- Promotes consistency and uniformity in spatial planning and land use management.
- Requires provincial coordination with national policies and strategies of local municipalities.

Proposals for SDF Governance in Knysna Municipality:

- Control peri-urban sprawl through land use regulations.
- Regular capacity-building for municipal planners, adhering to guidelines from SACPLAN.
- Ongoing support to local municipalities in cooperative governance through the Western Cape Department of Environmental Affairs and Development Planning and the Western Cape Department of Local Government.

E3. LAND USE MANAGEMENT FRAMEWORK

“Bringing nature back to the city is a way to address urban sprawl. When cities feel more connected to nature, people are more inclined to live there rather than moving out and developing untouched land.” — Stone Gossard

E3.1 WHAT IS A LAND USE MANAGEMENT SYSTEM?

Land Use Management refers to the system of legal requirements and regulations that govern land to achieve desirable and harmonious development of the built environment. This encompasses Land Use Guidelines and the regulation of land, including Zoning Schemes and Building Regulations.

In South Africa, the new planning system links strategic decisions from the Integrated Development Plan (IDP) with the Spatial Development Framework (SDF) to achieve a desired spatial form. The Land Use Management System (LUMS) is a critical tool for ensuring this vision is realized.

The White Paper on Spatial Planning and Land Use Management defines the broader scope of LUMS, which goes beyond mere development control to include the following activities:

- Regulation of land-use changes, such as rezoning from residential to commercial.
- Management of "greenfields" development (previously undeveloped land).
- Regulation of land subdivision and consolidation.
- Oversight of informal settlement regularization and upgrading.
- Proactive municipal involvement in development through public-private partnerships.

LUMS addresses two primary concerns: the resistance to uncontrolled development and the promotion of desirable development. The resistance stems from concerns about:

- **Environmental impact:** Unregulated development can harm ecosystems, cultural landscapes, and environmental quality.
- **Health and safety:** Poorly managed development can lead to overcrowding, unsafe construction, and public health risks.
- **Social control:** Development controls can exclude certain groups or activities from specific areas.
- **Infrastructure efficiency:** Inadequate infrastructure and services can result from uncoordinated development.
- **Property valuation:** Unregulated development can affect land values, influencing property taxes.
- **Aesthetic impact:** Development controls help maintain the visual appeal of an area.

On the other hand, promoting desirable development is driven by:

- **Market vs. government needs:** Government intervention may be necessary to address development gaps not covered by the market.
- **Investment attraction:** Adjusting development controls can incentivize investment in targeted areas, contributing to local economic goals.

Knysna's approach, in line with national policy, is to implement a comprehensive Land Use Management System across the municipality. Given the area's diversity, different zones will require tailored regulations to address their unique characteristics and needs.

This section outlines the proposed Land Use Management Guidelines for Knysna, which will shape the development of the LUMS. These guidelines focus on:

- Maintaining the urban edge.
- Promoting densification in specific areas (e.g., Urban Renewal Areas).
- Managing resources and regulating agricultural land subdivision.
- Allowing appropriate land-use changes (e.g., from residential to non-residential).
- Identifying areas within and outside the urban services core.
- Designating special areas for focused management (e.g., public-funded housing, rural settlements, land reform areas).

E3.2 PURPOSES OF A LAND USE MANAGEMENT SYSTEM

The primary aim of a Land Use Management System (LUMS) is to foster coordinated, environmentally sustainable development in Knysna. Key objectives include:

- Reducing spatial inequality.
- Promoting efficient land use.
- Encouraging integrated planning.
- Supporting development in historically marginalized areas.
- Protecting environmentally sensitive regions.
- Balancing human and economic development with biodiversity conservation.
- Maintaining ecological corridors between critical biodiversity areas.
- Enhancing infrastructure and public transport systems.
- Preserving cultural heritage through regulatory oversight.

The Knysna Local Municipality's Zoning Scheme, 2020, governs land use within the municipality and sets out development controls for each zone. This scheme aligns with the vision and proposals detailed in the Spatial Development Framework (SDF).

E4. SHORTENED APPLICATION PROCEDURES

SPLUMA enhances flexibility and responsiveness in schemes by allowing for the incremental introduction of regulations and shortened provisions in specific areas. It promotes incentives and enables municipalities to adapt to policy applications and priorities. This framework emphasizes the ability of municipalities to effectively enforce their schemes.

Guidelines for Facilitating High-Density Development:

To foster high-density development (HS), it is crucial to ensure that planning guidelines and zoning regulations allow for flexible use of land while maintaining access to necessary infrastructure. Proposals to consider in the Land Use Management System (LUMS) include:

- Identifying suitable areas for high-density residential development in line with SDF priorities.
- Adjusting zoning regulations to support mixed-use developments and affordable housing.
- Creating a streamlined approval process for developments in designated growth zones.

Proposals from the SDF to be Considered in LUMS:

- Ensure land use zoning aligns with the Spatial Development Framework (SDF) goals.

- Designate areas for economic activity, tourism, and residential growth, with emphasis on high-density urbanization.
- Provide incentives for eco-friendly and sustainable development within LUMS.

Identification of Sector Plans Needing Updates:

- Transportation Master Plan: To align with current and future mobility needs, particularly for high-density areas.
- Housing and Infrastructure Development Plan: To ensure integration with current development priorities and future growth targets.
- Environmental Management Plan: To ensure sustainability in land use and spatial development.

E5. GUIDELINES APPLICABLE TO URBAN EDGE

As a result of the “Urban Edge Policy Framework: North Eastern Urban Edge Case Study 2007,” certain principles were formulated. These principles serve as a guide for the review and determination of the urban edge for Knysna Municipality.

E5.1 URBAN EDGE PRINCIPLES

From a study of planning issues, agriculture, environmental matters, infrastructure, and consultations, certain principles have been formulated as follows:

E5.1.1 FUNCTION OF THE URBAN EDGE

The urban edge serves several functions:

- A defensible boundary to restructure the urban area and integrate segregated social groups and urban uses;

- A growth management tool to limit urban sprawl, promote densification, and ensure efficient land use within the urban area;
- A conservation tool to protect certain environmental elements from development in the short to medium term.

E5.1.2 HIGHER ORDER PRINCIPLES

The establishment and amendment of the urban edge should be guided by the following principles:

- Proven need to accommodate population growth in line with Knysna's SDF goals, with a review every five years;
- Need for city restructuring (integration of housing, employment, and community facilities);
- Development of vacant and under-developed land within the urban area to counteract sprawl;
- Economic feasibility of providing municipal services;
- Maximizing the efficiency of land use within and along the urban edge;
- Proactive management of urban growth, ensuring protection and enhancement of environmental resources;
- Achieving social, economic, and ecological sustainability in development;
- Preservation of agricultural land for economic use;
- Compatibility of proposed urban uses with agricultural activities outside the urban edge.

E5.1.3 LOWER ORDER PRINCIPLES

- Preservation of ecological corridors, agricultural land, and open spaces as green belts;

- Clear distinction and separation of urban and rural uses;
- Consideration of service infrastructure capacity when defining the urban edge;
- Visual impact of development along the urban edge and views of the rural area.

E6. OVERLAY ZONES AS SPATIAL REGULATORY TOOLS

In Knysna Municipality, overlay zones are being introduced as **strategic planning instruments** to help manage development more responsively and to ensure spatial planning decisions align with **local realities**, including housing needs, climate risks, and infrastructure capacity.

An **overlay zone** introduces additional development controls or incentives over and above the existing base zoning of an area as set out in the municipality's Land Use Scheme. It **does not replace** the base zoning but **supplements it** with provisions targeted at specific planning priorities, such as **affordable housing, climate resilience, or ecological protection**.

Overlay zones are given legal effect through **amendments to the Municipal Planning By-law (MPBL)** and serve as spatial tools that translate the intentions of the **Municipal Spatial Development Framework (MSDF)** into actionable mechanisms.

Overlay zones may be used to:

- **Restrict development** in environmentally sensitive or hazard-prone areas (e.g. Knysna River floodplain, coastal erosion zones, steep slopes), or

- **Enable and incentivise development** in key strategic locations (e.g. areas near public transport, economic centres, or earmarked for inclusive housing).

E6.1 WHY OVERLAY ZONES MATTER IN KNYSNA

Overlay zones are particularly valuable for a **complex urban-rural municipality** like Knysna, where land supply, ecological sensitivity, infrastructure constraints, and housing pressure intersect. Their benefits include:

- **Spatial Precision:** Allows the municipality to apply rules tailored to local risk, opportunity, and infrastructure realities—for example, stricter controls in the Goukamma wetland area, or densification allowances near taxi ranks and economic nodes.
- **Policy Implementation:** They bridge the gap between high-level MSDF strategies and land use applications, ensuring alignment between long-term vision and day-to-day decisions.
- **Incentivising Development:** In key investment zones (e.g. Hornlee, CBD edge, Northern Brenton), overlays may allow increased floor factors or reduced parking standards to attract developers.
- **Clarity for All Parties:** Overlay zones make land use parameters transparent for property owners, developers, and municipal officials—reducing confusion, discretion, and time delays.
- **Protection of Environmental and Agricultural Assets:** Critical in areas like the Rheenendal agricultural belt or the coastal biodiversity corridor, overlays can help enforce land use restraint to protect resources.

E6.2 OVERLAY ZONES IN THE KNYSNA MSDF

The following overlay zones are proposed as part of the MSDF's strategic toolkit. The **specific geographic application** of these overlays will be defined through the **review of the MPBL and Land Use Scheme**, and guided by further technical studies, public consultation, and municipal priorities.

1. INCLUSIONARY HOUSING OVERLAY ZONE (IHOZ)

To support spatial transformation and housing affordability objectives, this overlay will introduce mechanisms to require or incentivise **affordable and gap housing contributions** in new developments. It will be aligned with the municipality's Inclusionary Housing Policy and may include provisions such as:

- Thresholds for inclusionary housing triggers
- Mechanisms for on-site or off-site delivery
- Guidelines for tenure, typology, and integration

2. CLIMATE RESILIENCE OVERLAY ZONE (CROZ)

This overlay will be used to regulate development in areas **vulnerable to climate-related risks**, such as flooding, slope instability, wildfires, or coastal erosion. It will introduce risk-responsive development conditions and may require:

- Site-specific risk assessments
- Building design measures to enhance resilience
- Infrastructure upgrades to support adaptation

3. ECOLOGICAL AND AGRICULTURAL PROTECTION OVERLAY ZONES (EAPUZ)

To safeguard **ecological networks**, sensitive environmental assets, and **high-value agricultural land**, this overlay will impose restrictions on land use change, subdivision, and development. The intention is to:

- Prevent urban encroachment into sensitive or strategic resource areas
- Support ecosystem services and landscape connectivity
- Protect viable agricultural production for long-term food security

E6.3 LEGAL INTEGRATION AND IMPLEMENTATION

The MSDF proposes that overlay zones become an integral part of **Knysna's land use regulatory framework** through:

1. **Review of the Municipal Planning By-law (MPBL):** Introduce enabling provisions for overlay zones.
2. **Zoning Scheme Amendment:** Define overlay categories, legal mechanisms, and integration protocols.
3. **Spatial Identification Process:** Use future studies, datasets, community input, and technical screening to delineate overlay zone boundaries.
4. **Development Guidelines:** Prepare overlay-specific parameters, thresholds, and procedures for land use applications.

Overlay zones will be **phased in** over time, with their application reviewed periodically as part of the MSDF update cycle.

E6.4 FREQUENTLY ASKED QUESTIONS (FAQS)

1. Will the Overlay Zone increase my property value and therefore my rates?

No. The overlay zone itself does not rezone your property. Rates may only change if the property is revalued due to **development uptake**, not because of the zone designation alone.

2. For how long will the Overlay Zone apply?

Once adopted through the **MPBL amendment process**, overlays form part of the legal land use framework and remain in effect until formally revised or repealed.

3. Will there be extra costs if I want to use the extra rights in an overlay?

Yes. These may include:

- Standard **building plan scrutiny fees**
- **Development Charges (DCs)** if you increase bulk or density
Fees are set out in the municipality's annual **tariff schedule**.

4. Will this allow high-rise buildings in my neighbourhood?

No. Overlay zones are designed to promote **context-sensitive change**, often through **small-scale densification** (e.g. second units, minor subdivisions). Design guidelines and height limits remain in force.

5. I live in a heritage building. Will overlay zones override that?

No. Existing **heritage protections remain fully in force**. If your property is in a **Heritage Protection Overlay Zone (HPOZ)**, those controls apply regardless of any new development rights.

6. Will this increase traffic congestion?

Large developments still require a **Transport Impact Assessment (TIA)**. Overlay zones do not waive infrastructure assessments—they simply provide the spatial conditions for better-aligned development.

7. Why wasn't my area included?

Overlay zones are being applied in **phases**, focusing first on areas identified as strategic in the MSDF. Further areas may be considered as data, demand, and performance indicators evolve.

8. Will this change my neighbourhood overnight?

No. Overlay zones guide **gradual, managed change**. They are planning tools—not mandates for immediate redevelopment.

E7. RURAL HAMLETS (DEVELOPMENT OUTSIDE THE URBAN EDGE)

Forestry villages, also referred to as rural hamlets, serve as important settlements within rural areas. These villages accommodate forestry workers and their families while maintaining the rural landscape. To ensure sustainable development, growth within these villages must be carefully managed, with new development restricted to designated settlement edges.

E7.1 POLICY OBJECTIVES

- To formalize and protect the settlement boundaries of existing forestry villages.
- To provide guidance for appropriate land use and development within these settlements.
- To ensure that any new development supports the long-term sustainability of these communities.
- To prevent urban sprawl and the fragmentation of surrounding agricultural and conservation land.

E7.2 LAND USE AND ZONING

- **Settlement Areas:** Development is permitted within designated settlement boundaries.
- **Agricultural and Conservation Buffer Zones:** Land outside the settlement edge must remain designated for agriculture, forestry, or conservation purposes.

- **Permitted Uses:** Within settlement boundaries, land uses should include residential, local business, social facilities, and small-scale service infrastructure.
- **Prohibited Uses:** Large-scale commercial, industrial, or high-density residential development is not permitted.

E7.3 DEVELOPMENT CONTROLS

- **Density:** Residential development should maintain a low-density character, with a maximum of [X] dwelling units per hectare.
- **Building Footprint:** New structures must conform to a small-scale, clustered development pattern, ensuring minimal environmental impact.
- **Architectural Guidelines:** Buildings should utilize locally available materials and reflect the rural character of the village.
- **Infrastructure:** Development must align with self-sustaining infrastructure solutions, including off-grid water, sanitation, and energy systems.

E7.4 INFRASTRUCTURE AND SERVICE PROVISION

- Roads must be maintained to provide safe access but should not encourage expansion beyond settlement edges.
- Basic services, including water, sanitation, and electricity, should be provided in a sustainable and environmentally responsible manner.
- Waste management solutions should prioritize recycling, composting, and responsible disposal to prevent environmental degradation.

E7.5 ECONOMIC AND SOCIAL DEVELOPMENT

- Support for local employment in forestry, agriculture, eco-tourism, and small-scale rural enterprises.

- Promotion of community-based land management to prevent speculative development and unauthorized expansion.
- Encouragement of cooperative models for housing and service provision to enhance social cohesion.

E7.6 IMPLEMENTATION AND COMPLIANCE

- All new developments must be approved through a Site Development Plan (SDP) that aligns with this policy.
- Development outside settlement boundaries will not be permitted unless exceptional circumstances justify it and are approved through a formal amendment process.
- Compliance monitoring will be undertaken to ensure adherence to zoning, density, and environmental requirements.

This policy ensures that existing forestry villages remain viable, sustainable, and well-integrated into their rural surroundings. By restricting growth to defined settlement edges, the policy seeks to protect agricultural and conservation land while allowing these communities to develop in a controlled and responsible manner.

E8. REVIEWING URBAN EDGES BETWEEN SDF REVIEWS

The Knysna Municipality should adopt a proactive, adaptable approach to reviewing urban edges between formal SDF reviews. Urban edges play a crucial role in managing the spatial growth of the municipality, guiding development while preserving the natural environment. To ensure these boundaries remain relevant and effective, the following strategies should be employed:

1. **Ongoing Monitoring and Data Collection:** Regularly collect and analyze data related to urban growth, land use trends, and population dynamics. This will help identify shifts in development pressures and inform necessary adjustments to the urban edge. Information from land use applications, zoning changes, and population growth should be continuously updated to provide real-time insights.
2. **Stakeholder Engagement and Public Consultation:** Engage with key stakeholders, including local communities, environmental groups, property developers, and landowners, to gather input on urban edge boundaries. Public consultations should be held periodically to ensure that the urban edge remains aligned with the needs and aspirations of all stakeholders while balancing environmental and infrastructural capacity.
3. **Integration with Other Planning Tools:** Ensure that the review of urban edges is informed by the integration of other planning instruments such as Environmental Management Frameworks (EMFs), Conservation Plans, and Infrastructure Master Plans. This integrated approach will help identify critical areas for preservation, avoid overburdening infrastructure, and promote sustainable development patterns.
4. **Climate Change and Environmental Considerations:** Regularly assess the impact of climate change on urban edge planning. Changes in weather patterns, sea-level rise, and other environmental shifts could necessitate modifications to existing urban edge boundaries. Prioritize environmental

sustainability by avoiding urban sprawl into ecologically sensitive or high-risk areas.

5. **Flexibility and Phased Adjustments:** The urban edge should not be seen as a rigid boundary but as a flexible guideline that can be adjusted in response to evolving needs and circumstances. The municipality should adopt a phased approach for adjustments, allowing for incremental changes that support long-term development goals while ensuring that each decision is well-grounded in evidence and community input.

6. **Incorporating Infrastructure Capacity:** Ensure that changes to the urban edge are aligned with the capacity of existing infrastructure, such as transportation, water, and waste systems. Infrastructure capacity should be assessed regularly to ensure that any expansion within or beyond the urban edge can be supported without overburdening existing services.

By adopting these strategies, the Knysna Municipality will be able to maintain a responsive, sustainable urban growth model that aligns with both current and future needs while protecting natural resources and improving the quality of life for residents.

F: CONCLUSION

"The strength of spatial planning lies in its ability to integrate diverse interests and create a framework that promotes sustainable development while preserving the character of the land." — Andreas Faludi

The Knysna MSDF outlines a clear path for sustainable development through its spatial frameworks, structuring elements, and governance framework. These include the Environmental Framework, Climate Change Strategy, Agricultural and Biophysical Frameworks, Economic and Tourism Framework Plans, Social Facility Ward-Based Plans, Infrastructure Framework, and Built Environment Framework Plan.

Together, these frameworks provide a strategic approach to balancing growth, environmental protection, and infrastructure needs, while fostering social equity and economic resilience. This report offers a solid foundation for Knysna's future development, ensuring that growth is sustainable, inclusive, and well-coordinated.



Image 4: Knysna Heads



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