



nelson mandela bay
MUNICIPALITY



MUNICIPAL SPATIAL DEVELOPMENT FRAMEWORK

2025/26

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LIST OF ACRONYMS

4IR	Fourth Industrial Revolution
ACSA	Airports Company of South Africa
AIDC	Automotive Industry Development Centre
ARC	Agricultural Research Council
ASEZ	Automotive Special Economic Zone
BCMM	Buffalo City Metropolitan Municipality
BEPP	Built Environment Performance Plan
BRT	Bus Rapid Transit
CARA	Conservation of Agricultural Resources Act
CBA	Critical Biodiversity Area
CBD	Central Business District
CCTV	Closed Circuit Television
CDC	Coega Development Corporation
CDSIA	Chief Dawid Stuurman International Airport
CEF	Capital Expenditure Framework
CITP	Comprehensive Integrated Transport Plan
CoGTA	Cooperative Governance and Traditional Affairs
CPZ	Coastal Protection Zone
CPZL	Coastal Protection Zone Limit
CRDFS	Climate Resilient Development Framework/Strategy
CSIR	Council for Scientific and Industrial Research
CSL	Coastal Setback Line
DALRRD	Department of Agriculture, Land Reform and Rural Development
DBSA	Development Bank of Southern Africa
DCoG	Department of Cooperative Governance
DDM	District Development Model
DEA	Department of Environmental Affairs
DEDEAT	Department of Economic Development, Environmental Affairs and Tourism
DHET	Department of Higher Education and Training
DHS	Department of Human Settlements
DFFE	Department of Forestry, Fisheries and the Environment
DRDLR	Department of Rural Development and Land Reform
DWS	Department of Water and Sanitation
EC	Eastern Cape
ECBCP	Eastern Cape Biodiversity Conservation Plan
ECDC	Eastern Cape Development Corporation
ECPTA	Eastern Cape Parks and Tourism Agency
ECRDA	Eastern Cape Rural Development Agency
EDGE	Economic Development, Growth and Employment
EFZ	Estuarine Functional Zone
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
EPWP	Expanded Public Works Programme
EV	Electric Vehicle
EXCO	Executive Council
FHF	First Home Finance
FLISP	Finance-Linked Individual Subsidy Programme
GDP	Gross Domestic Product
GDS	Growth and Development Strategy
GIS	Geographic Information System
HDA	Housing Development Agency
HSDG	Human Settlements Development Grant
HSSP	Human Settlements Sector Plan
ICC	International Convention Centre
IDP	Integrated Development Plan
IDZ	Industrial Development Zone
IGR	Intergovernmental Relations

IPPN	Independent Power Producers Network
IPTN	Integrated Public Transport Network
IPTS	Integrated Public Transport System
IRDP	Integrated Residential Development Programme
IUDF	Integrated Urban Development Framework
IWMP	Integrated Waste Management Plan
LED	Local Economic Development
LSDF	Local Spatial Development Framework
MIG	Municipal Infrastructure Grant
MPAC	Municipal Public Accounts Committee
MPRDA	Mineral and Petroleum Resources Development Act
MSDF	Municipal Spatial Development Framework
MTREF	Medium-Term Revenue and Expenditure Framework
NDP	National Development Plan
NEMA	National Environmental Management Act
NHRA	National Heritage Resources Act
NMBMM	Nelson Mandela Bay Metropolitan Municipality
NMU	Nelson Mandela University
NSDF	National Spatial Development Framework
OTP	Office of the Premier
PGDP	Provincial Growth and Development Plan
PHSHDA	Priority Human Settlement Housing Development Area
PIAs	Priority Investment Areas
PPA	Power Purchase Agreements
PPP	Public-Private Partnership
PRASA	Passenger Rail Agency of South Africa
PSC	Project Steering Committee
PSDF	Provincial Spatial Development Framework
PV	Photovoltaic
SACPLAN	South African Council for Planners
SANRAL	South African National Roads Agency Limited
SEZ	Special Economic Zone
SHRA	Social Housing Regulatory Authority
SIA	Social Impact Assessment
SMME	Small, Medium and Micro Enterprise
SPLUMA	Spatial Planning and Land Use Management Act
SSEG	Small-Scale Embedded Generation
SRAC	Sports, Recreation, Arts and Culture
STA	Spatial Targeted Area
STAS	Spatial Target Areas
SWOT	Strengths, Weaknesses, Opportunities and Threats
TNPA	Transnet National Ports Authority
TOR	Terms of Reference
TOD	Transit-Oriented Development
UISP	Upgrading of Informal Settlements Programme
USDG	Urban Settlements Development Grant
VW	Volkswagen
VWSA	Volkswagen Group South Africa
WfW	Working for Water
WSIG	Water Services Infrastructure Grant
WWTP	Wastewater Treatment Plant

FOREWORD

The unique character of the Nelson Mandela Bay Municipality is shaped by its rich maritime heritage, diverse and dynamic communities, and its strategic location as a major economic gateway in the Eastern Cape. As home to the cities of Gqeberha, Kariega, and surrounding settlements, Nelson Mandela Bay Municipality stands as one of South Africa's key metropolitan centres, renowned for its manufacturing strength, coastal tourism assets, and vital port-related industries.

As a hub for automotive production, logistics, education, and innovation, the Metro plays a pivotal role in regional and national development. Its deep-water ports, world-class industrial zones, and coastal ecosystems position Nelson Mandela Bay as a metropolitan area with significant opportunities for economic expansion, environmental stewardship, and social transformation. The Metro's blend of natural assets, cultural vibrancy, and economic potential continues to make it a leading contributor within the Eastern Cape and the country at large.

The Nelson Mandela Bay Municipal Spatial Development Framework (MSDF) represents our collective commitment to guiding the future growth and development of the Metro in a sustainable, inclusive, and resilient manner. Developed through collaborative engagements with communities, government stakeholders, private sector partners, and civil society, the MSDF aligns with national and provincial legislative requirements and strategic priorities. This updated framework ensures a balanced approach to land use, infrastructure planning, environmental management, and economic opportunity.

As we chart the path for the next 20 years, we acknowledge the invaluable participation of our residents and partners whose insights have shaped this vision. The MSDF aims to build a spatially just, economically competitive, and environmentally secure Metro where all people can live, work, and prosper with dignity.

We invite all stakeholders to join us in driving forward this shared vision and ensuring the long-term prosperity of Nelson Mandela Bay Metropolitan Municipality and the broader Eastern Cape region.

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EXECUTIVE MAYOR

SECTION A: INTRODUCTION AND BACKGROUND

The Nelson Mandela Bay Metropolitan Municipality (NMBMM) (herein referred to as NMBM interchangeably with NMBMM) appointed Tshani Consulting CC to review and develop their Municipal Spatial Development Framework (MSDF).

The Nelson Mandela Bay Municipal Spatial Development Framework has been developed to comply with the provisions of the Spatial Planning and Land Use Management Act (SPLUMA) 2013, Municipal Systems Act (MSA) of 2000, and the Department of Land Reform & Rural Development (DLRRD) SDF's Guidelines of 2017.

As such, the Nelson Mandela Bay Metropolitan Municipality SDF is developed as a product intended to promote a sustainable metropolitan area, ensure legal compliance with SPLUMA, and provide clear guidance for growth and development.

In addition to the requirements of legal compliance and sustainability, an SDF must provide for the localization of national and provincial sector-specific policies and guidelines. Central to the process is the drive towards redressing the imbalances of the past which resulted in the spatial segregation of people, land use, and socio-economic activities.

A1. PROJECT PHASING

The development of the Nelson Mandela Bay Municipal Spatial Development Framework followed the following phases:



Diagram 1: Project Phasing

A1.1. PROJECT METHODOLOGY ALIGNMENT WITH SPLUMA

The development of this NMBM MSDF has been aligned with the elements of the SPLUMA Act, as set out in Section 21, and has been addressed in the identified sections mentioned below:

SPLUMA Section 21. A municipal spatial development framework must -	Section of report
a) Give effect to the development principles and applicable norms and standards set out in Chapter 2	Addressed in Phase 2 report
b) Include a written and spatial representation of a five-year spatial development plan for the spatial form of the municipality;	Overall, SDF Map in Section F
c) Include a longer-term spatial development vision for the municipal area which indicates a desired spatial growth and development pattern for the next 10 to 20 years;	Section B
d) Identify current and future significant structuring and restructuring elements of the spatial form of the municipality, including development corridors , activity spines and economic nodes where public and private investment will be prioritised and facilitated;	Section C
e) Include population growth estimates for the next five years	Section B 1
f) Include estimates of the demand for housing units across different socio-economic categories and the planned location and density of future housing developments;	Section D 1.3
g) Include estimates of economic activity and employment trends and locations in the municipal area for the next five years;	Section D 2.1
h) Identify, quantify and provide location requirements of engineering infrastructure and service provision for existing and future development need for the next five years;	Section D 1.7
i) Identify the designated areas where a national or provincial inclusionary housing policy may be applicable;	Section D 1.3
j) Include a strategic assessment of the environmental pressures and opportunities within the municipal are, including the spatial location of environmental sensitivities, high potential agricultural	Section D 3

SPLUMA Section 21. A municipal spatial development framework must -	Section of report
land and coastal access strips, where applicable;	
k) Identify the designated areas in the municipality where incremental upgrading approaches to development and regulation will be applicable;	Section D 1.3
l) Identify the designation of areas in – i. More detailed local plans must be developed; and ii. Shortened land use development procedures may be applicable and land use schemes may be so amended;	Section E 1.1 Section G
m) Provide the spatial expression of the coordination, alignment and integration of sectoral policies of all municipal departments;	Section D Section F
n) Determine a capital expenditure framework for the municipality's development programmes, depicted spatially;	Section G
o) Determine the purpose, desired impact and structure of the land use management scheme to apply in that municipal area; and	Section E
p) Include an implementation plan comprising of – i. Sectoral requirements, including budgets and resources for implementation. ii. Necessary amendments to a land use scheme. iii. Specification of institutional arrangements necessary for implementation. iv. Specification of implementation targets, including dates and monitoring indicators; and v. Specification, where necessary, of any arrangements for partnerships in the implementation process.	Section E Section G

Table 1: SPLUMA Compliance

SECTION B: STRATEGIC FRAMEWORK

The strategic framework for the NMBMM SDF provides an overarching guide for developing a long-term vision and actions to manage spatial development, balancing economic, social, and environmental goals through a coordinated process. It serves as a strategic plan that establishes the basis for more detailed spatial plans and their implementation.

The key component of the Strategic Framework includes outlining population growth estimates for the municipal area, which form the basis of the estimated population. Thereafter defining long-term visions, identifying the guiding principles, selecting strategic themes, developing Objectives and Strategies, outlining the desired and appropriate scenario for development and concluding with a Conceptual Plan which aims to be the first spatial representation of the vision.

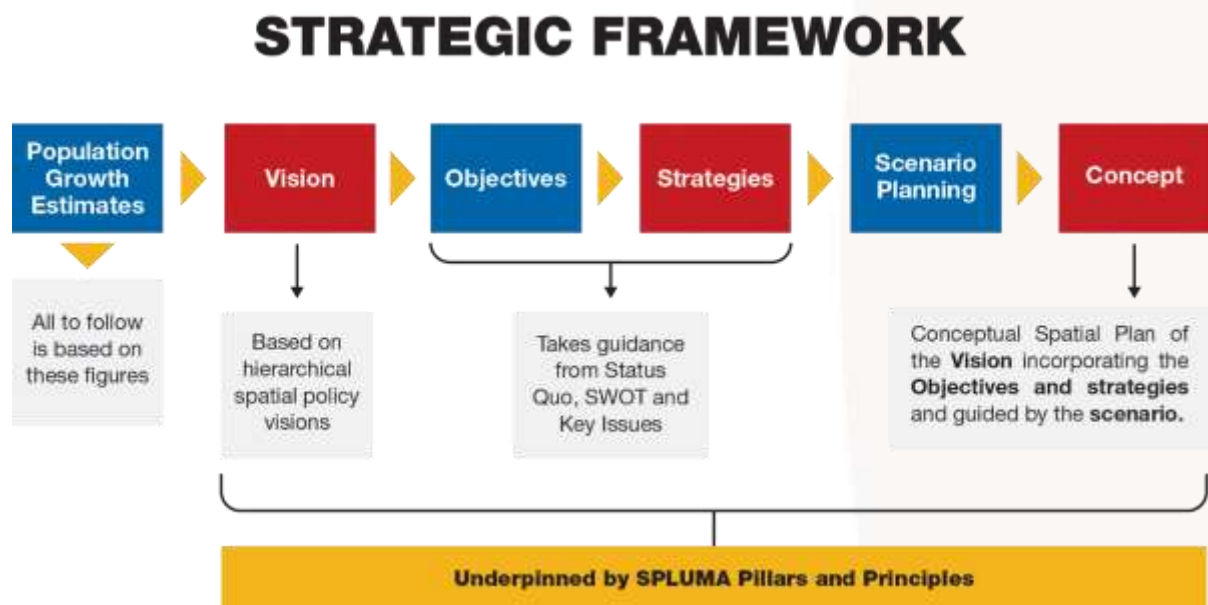


Diagram 2: Strategic Framework

B1. POPULATION GROWTH ESTIMATES

Since the MSDF addresses a 10–20-year timeline, it is essential to estimate the future growth of the population to these milestones to ensure that sustainable planning takes place in cognisance the expected growth of the population.

The population dynamics of NMBM is an intricate one, with residents often temporarily or permanently relocating, as well as in-migration and movement of people from other towns seeking job opportunities in a larger city / metropolitan such as the NMBM. Through these ups and downs, an overall population incline is expected as seen in previous years in the NMBM.

Table 2 and 3 outlines the population, household and housing demand projections, through to the year 2034.

It is essential that the estimated growth rate is reassessed on a regular basis and especially every time the MSDF is reviewed, to ensure that the most accurate estimate is being planned for. Figures such as the current population, current number of households, current housing demand, and average annual growth rate percentage must be verified to ensure that the most accurate available data is utilised.

2025 Population	2025 estimated No. of Households	Current Demand (2025)	% Population Growth Rate p/a	% Household Growth Rate p/a
1 262 939	379 192	132 622	1.04 %	1.66 %

Table 2 Latest available data, estimated to 2025

	2026	2028	2030	2032	2034
Projected Population	1 263 264	1 264 401	1 265 003	1 266 970	1 269 625
Projected No. of Households	385 486	398 391	411 727	425 510	439 754
Projected Demand	134 001	136 803	139 663	142 583	145 565

Table 3: Projected Population, Household and Demand 2026-2034

B2. REVIEW OF THE MSDF VISION

Developing a vision for a Metropolitan Municipality needs to be underpinned by:

Vision Guidelines: SPLUMA Spatial Principles

Vision Directives: Government Policy Visions

The Spatial Planning and Land Use Management Act, 2013 (Act 16 of 2013) (SPLUMA), states that all spatial development should conform to the normative principles set out in SPLUMA (2016). These principles are outlined below to ensure that the development vision of NMBM aligns with them.

The vision is also centred on or aligned with the visions depicted in the various governmental policy above in the hierarchy such as the National Spatial Policy of the National Spatial Development Framework (NSDF, 2022) and the Provincial Spatial Plan which would be the Eastern Cape PSDF, 2020. The vision should also take cognisance of the higher order policy documentation representing of spatial form where the vision of the Metropolitan Municipality, should take direction from these higher order policy vision statements.

The aim of this vision is to direct the growth of the metro based on its strengths and the vision will also aspire to positively impact the issues pertaining to the metro.

B2.1. VISION GUIDELINES: SPLUMA SPATIAL PRINCIPLES

Chapter 8 of the National Development Plan (NDP) states that all spatial development should conform to the following normative principles: **spatial justice**, **spatial sustainability**, **spatial efficiency**, **spatial resilience**, and **spatial quality**. Based on the findings of the analysis of spatial implications identified in the previous chapters in this MSDF, the aforementioned NDP spatial principles are adopted to remedy the spatial form of the Nelson Mandela Bay Municipality. The metro's Spatial Vision is expanded upon through the respective desired outcomes of the spatial principles, as follows:

Principles	Desired Outcomes	Strategic Application in the NMBMM
<i>Spatial Justice</i>	• Past spatial and other development imbalances should be redressed through improved access to, and utilisation of land. • Spatial development frameworks and policy at all spheres of government should address the inclusion of persons and areas that were previously excluded, with an emphasis on informal settlements and areas characterised by widespread poverty and deprivation. • Spatial planning mechanisms, including zoning schemes, should incorporate provisions that enable redress in access to land by disadvantaged communities and persons. • Land use management systems should include all areas of a Municipality and specifically include provisions that are flexible and appropriate for the management of disadvantaged areas and informal settlements. • Land development procedures must include provisions that accommodate access to, and facilitation of, security of tenure and the incremental upgrading of informal areas. • A competent authority contemplated in this Act or other relevant authority considering an application before it may not be impeded or restricted in the exercise of its discretion solely on the ground that the value of land or property will be affected by the outcome of the application; and • The right of owners to develop land in accordance with current use rights should be recognised.	• Directs the Municipal SDF process to seek spatial planning and land use management solutions that effectively promote redress of circumstances that were caused by past politically based policies, which resulted in inequitable and fragmented spatial arrangements in urban and rural settlement layout designs as well as unequal levels of access to land and associated resources. • Highlights the need to identify opportunities where the spatial configuration of settlements and/or land holdings may be transformed by the development of strategically located land to promote the integration of settlements and better located opportunities for the socio-economic upliftment of disadvantaged communities. <u>Strategic Imperative:</u> • Identify spatial integration opportunities and implement sustained programmatic interventions to achieve spatial transformation and the development of key, centrally located sites within the district

Principles	Desired Outcomes	Strategic Application in the NMBMM
<i>Spatial Sustainability</i>	- Promote land development that is spatially compact, resource-frugal and within the fiscal, institutional and administrative means of the relevant competent authority in terms of this Act or other relevant authority. - Ensure that special consideration is given to the protection of prime, unique and high potential agricultural land. - Uphold consistency of land use measures in accordance with environmental management instruments. - Promote and stimulate the effective and equitable functioning of land markets. - Consider all current and future costs to all parties for the provision of infrastructure and social services in land developments. - Promote land development in locations that are sustainable and limit urban sprawl. - Results in communities that are viable; and - Strive to ensure that the basic needs of all citizens are met in an affordable way. - The sustained protection of the environment should be ensured by having regard to the following: - Natural habitat, ecological corridors and areas with high biodiversity importance.	- Places emphasis on balancing land development and market-driven initiatives against the imperative to conserve the natural resource base (ecological infrastructure) and to manage resource usage in a sustainable manner. - Highlights the need to ensure that the provision of infrastructure and social facilities – including the post-development maintenance thereof – is adequately planned for. - Again, emphasise the importance of consolidating settlement footprints and promoting spatial integration. - Directs that spatial planning strategies should prioritise long-term sustainable solutions rather than short-term political and/or market-driven initiatives <u>Strategic Imperative</u> - Embed evidence-based wise land use management and ensure that all land development decisions lead to sustainable outcomes where residents are well-connected to social and economic opportunities and have access to adequate infrastructure and social

Principles	Desired Outcomes	Strategic Application in the NMBMM
	- The provincial heritage and tourism resources. - The economic potential of the relevant area or region. - The provision and conservation of, and the management of the demand for, energy should be considered in land use planning. - The safe utilisation of land should be ensured by taking into consideration factors such as sea-level rise, storm surges, flooding, fire hazards and geological formations. - Development should be principle-driven and should prioritise long-term social, economic, and environmental benefits over short-term benefits.	services that are within the financial means of the metro Municipality to develop and maintain over time.
Spatial Efficiency	- Land development should optimise the use of existing resources, infrastructure, agriculture, land, minerals, and facilities. - Integrated cities and towns should be developed, whereby— - The social, economic, institutional, and physical aspects of land development are integrated. - Land development in rural and urban areas in support of each other is promoted. - The availability of residential and employment opportunities in close proximity to, or integrated with, each other is promoted. - A diverse combination of land uses is promoted.	- Promotes compaction of settlements and the avoidance wherever possible of extending settlement footprints or the development of so-called satellite townships that was a feature of Apartheid settlement strategies, which require the extension or development of new associated services infrastructure networks. - Also addresses the need to strengthen the positive and reciprocal relationships between urban settlements and rural hinterland areas by identifying what urban settlements do for the rural areas and how the assets and livelihoods offered in the rural

Principles	Desired Outcomes	Strategic Application in the NMBMM
	- the phenomenon of urban sprawl in urban areas is discouraged and the development of more compact towns and cities with denser habitation is promoted. - Historically distorted spatial patterns of settlement are corrected; and - The quality and functionality of the public spatial environment is promoted; and - policy, administrative practice, and legislation should promote speedy land development.	areas hold benefits for the urban parts of the metro Municipality. - Places focus on urban design interventions to promote mixed land uses in appropriate localities as well as improve the quality of public spaces. <u>Strategic Imperative:</u> - Promote and implement more compact spatial development in both urban and rural settlements, with a wider mix of land uses to promote the efficient use of scarce resources and build on existing infrastructure networks
<i>Spatial Resilience</i>	- Flexibility in spatial plans, policy and land use management systems is accommodated to ensure sustainable livelihoods in communities most likely to suffer the impact of economic and environmental shocks. - Effects and impacts of climate change - Wary of natural disasters	- Emphasizes the need to be more aware of the challenges of climate breakdown as well as unforeseen and potentially extreme events, and to plan accordingly. - Highlights the need to allow for flexibility in urban design and urban management. <u>Strategic Imperative:</u> - Ensure adaptability in the Municipality's planning and development programmes to accommodate spatial planning and land use management changes

Principles	Desired Outcomes	Strategic Application in the NMBMM
		necessitated by Climate Breakdown and socio-economic trends. Resilience against the effects of a pandemic
<i>Spatial Quality</i>	- All spheres of government should ensure an integrated approach to land use planning. - All government departments must provide their sector inputs and comply with any other statutory requirements during the preparation or amendment of spatial development frameworks. - The requirements of any law relating to land development and land use must be met timeously. - The preparation and amendment of spatial plans, policy, zoning schemes and procedures for land development and land use applications, should include transparent processes of public participation that afford all parties the opportunity to provide inputs on matters affecting them.	- Directs that spatial planning and land use management are core municipal planning activities to be underpinned by cooperative governance arrangements. - Again, emphasises the importance of speedy administrative processes in dealing with land development. - Places strong emphasis on the need for an effective administration to engage in meaningful partnerships with key public and private sector stakeholders. <u>Strategic Imperative:</u> Integration of effort in ensuring a multi-lateral (multi-stakeholder) governance approach to spatial planning and land use management

Table 4: Spatial Principles informing the NMBM SDF

B2.2. VISION DIRECTIVES: GOVERNMENT POLICY VISIONS

As stated in the introduction section of B1, in developing the MSDF vision for Nelson Mandela Bay Municipality, it is essential it aligns with the vision statements expressed in higher order policy frameworks. This alignment ensures coherence between the NSDF, the EC PSDF, and the NMBM IDP, reinforcing the principle of cooperative governance.

The following overarching policy visions are outlined in Diagram 3:



Diagram 3: Higher Order Policy Vision Statements

In addition to being aligned to the higher order policy frameworks, the spatial vision has also been developed in consultation with the public and community members. Public Meetings have been held through the process of developing the MSDF and input into the vision has been received from the public. This is essential to the MSDF as it aims to address the needs of the community and to be able to serve and positively benefit the community.

B2.3. NMBM SPATIAL VISION

The NMBM has an existing vision in its Integrated Development Plan (IDP), the SDF provides the spatial expression of that vision. Accordingly, it requires its own spatial vision closely linked to the IDP, to guide the metro's spatial growth while leveraging its strengths and addressing key challenges.

SPLUMA also requires that an MSDF should provide a short-term (5-10 years) as well as a long-term (10-20 years) in order to address short-term needs while having foresight into the long-term vision plan for the municipal space.

The long-term vision is provided first in order to provide the long-term foresight for the municipality, thereafter the short-term vision aims to visualise realistically how the municipality can aim to address which aspects within the short-term period.

The following statements contributed towards the draft Vision:

- **Spatial Sustainability & Spatial Efficiency:** The NMBM aims to move along with the 4th industrial Revolution and enhance its digital presence, ensuring equitable access to online services for residents, businesses, tourists, etc. – promoting a **smart city**.

- **Spatial Resilience & Spatial Sustainability:** Establish a safe and secure environment that protects all users and enhances community resilience - **safe**
- **Spatial Justice:** Build a liveable, inclusive city that addresses basic needs for all its users and promotes equitable access to services and opportunities - **Liveable city:**
- **Spatial Quality & Spatial Sustainability:** Encourage sectoral contribution to the GDP, creating employment and fostering sustainable livelihoods - **Economic growth**

The following short and concise long-term (10-20 year) vision is proposed:



Diagram 4: NMBM SDF Proposed long-term vision

In order to achieve this vision in the long term, the following short-term (5-10 years) vision is proposed:



Diagram 5: NMBM SDF Proposed short-term vision

B3. OBJECTIVES AND STRATEGIES

For NMBM SDF, the Objectives and Strategies were identified based on key themes which are linked to the Three (3) pillars of SPLUMA: Built Environment, Socio Economic and Biophysical as depicted in Diagram 6 below. The Spatial Frameworks section of this report, where detailed proposals are discussed, aims to address these objectives and strategies through tangible, implementable proposals.



Diagram 6: Themes deriving from SPLUMA Pillars

The Objectives and Strategies also explicitly refer to the SPLUMA Principles, ensuring alignment with the act and providing foundation for proposals that will contribute to achieving the desired outcomes outlined in the SPLUMA Principles.

It is also emphasised that the themes and detail of the Strategic Objectives and Strategies are inter-related and/or inter-dependent. For example, human settlements are impacted by, and impact on the environment and climate change; infrastructure, social services and amenities are directly related to human settlements, and may be impacted on by climate change etc.

B3.1. STRATEGIC OBJECTIVES

Objectives are the specific, measurable goals that stem directly from the municipal vision through reflecting the desired future state of the metropolitan municipality. They are tailored to the unique context and challenges of the area and outlines what the municipality wants to achieve in physical, social, economic, or environmental terms.

To do this, the data extracted from the Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis and the outcome of the Status Quo is utilised as a base to expand on the strengths and opportunities and suggest solutions for the weaknesses and threats.

The Strategic Objectives for the NMBM SDF are outlined as follows:

Theme	Objective
Economic sectors	1. To be a municipality with economic resilience through a diversified economy to be able to compete with other metropolitan municipalities in South Africa
	2. Economic development and growth in certain identified sectors
	3. To acknowledge and aim to provide support to SMME's as well as to the growing Informal Sector to ensure economic sustainability
	4. To promote the metro as a one with a thriving tourism sector and to promote the features which are attractive to tourists
	5. To attract local and international tourists

Theme	Objective
Climate Change and the Environment	6. To prioritise spatial sustainability through protecting the natural resources
	7. To prioritise spatial sustainability through mitigating against the effects of natural disasters
	8. Prioritise Climate change resilience and to ensure that the effects of climate change are being considered in all policies and developments
Human Settlement	9. To offer inclusive Human Settlement options for residents to promote spatial justice
	10. To provide dignified housing options withing close proximity to access to services and amenities to increase accessibility
	11. To promote residential densification in key locations to offer spatial efficiency
	12. To address spatial disparities through human settlement development
Transportation / Mobility	13. To aim for spatial justice through allowing free movement of all residents via their chosen mode of transportation, including pedestrians, cyclists, taxi, bus, private, rail, etc.
	14. To promote linkages between residential areas and economic opportunities as an initiative for spatial justice
	15. To develop an effective and integrated public transport system for spatial efficiency that promotes access to opportunity through mobility
Social and Skills Development	16. To promote social inclusion and cohesion to support spatial justice
	17. Ensure the promotion of continuous skills development of residents to ensure financial sustainability and economic resilience
Safety and security	18. To ensure that all residents and visitors to the metro feel safe in all public & private spaces throughout the municipality
Infrastructure	19. To provide for the municipal Infrastructure needs
	20. To ensure that all residents have access to services

Theme	Objective
Social Services and amenities	21. To ensure that all residents are able to access various necessary social amenities within adequate distance from their place of residence
Rural Development	22. Contain development within the Urban edge and limit urban sprawl outside the urban edge 23. Promote agricultural activity in areas where land is suitable 24. Maintain the general characteristics of coastal villages and rural towns while allowing them to expand their economic stance within the metro

Table 5: Strategic Objectives

B3.2. SPATIAL STRATEGIES

Spatial Strategies are detailed actionable actions which are based on the objectives and further aim to achieve the spatial vision. They aim to provide a strategic direction for the objectives. The Spatial Strategies will be further expanded on in the detailed Spatial Framework Proposals section of the MSDF in Chapter D below.

The Spatial Strategies outlined below are linked to the SPLUMA Principles. The table below highlights the Objective “number” as identified in the Objective table above, and One (1) or more strategy has been proposed for each objective.

The Spatial Strategies for the NMBM SDF are outlined in Table 6:

Theme	Objective	Strategy	SPLUMA Principle
Economic sectors	1	a. Support emerging markets that focus on local entrepreneurship b. Rejuvenation of declining sectors and specific sectors which need rejuvenation	Spatial Resilience Efficiency
	2	c. Create more jobs regarding the sectors which are thriving d. Promote these sectors nationally and internationally	Spatial Sustainability Spatial Resilience
	3	e. Provide initiatives to support the growth of SMMEs and local enterprises	Spatial Sustainability

Theme	Objective	Strategy	SPLUMA Principle
		f. Develop policies that provide support and can aim to manage Informal Traders	Good administration
	4	g. Promote the development of tourist infrastructure that will enhance tourism.	Spatial Sustainability
	5	h. To market tourism opportunities of the Metro more widely to attract tourism markets	Spatial Sustainability
Climate Change and the Environment	6	i. To ensure integrated management and prioritisation of the metros natural and man-made cultural landscape resource high potentials j. To protect and conserve high potential agricultural land	Efficiency Spatial justice
	7	k. Plan according to the effects of potential for natural disasters- mitigation and adaptation	Spatial Resilience
	8	l. To plan and develop in order to not add to the effects of climate change and to rather ensure climate resilient planning	Spatial Resilience
Human Settlement	9	m. The development of inclusive Integrated Sustainable Human Settlements which don't operate in isolation from services	Spatial justice
	10	n. Identifying Key Land parcels for Human Settlement / mixed use development through the RZs and PSHDAs	Spatial justice
	11	o. Consolidate and densify settlements where appropriate	Spatial Sustainability
	12	p. To ensure that developments are planned to ensure integration and mixed income developments	Spatial Sustainability

Theme	Objective	Strategy	SPLUMA Principle
Transportation / Mobility	13	q. Identify nodes and corridors that require linkages	Efficiency
		r. Maintenance and upgrading of the road network to allow for smart growth and to allow for the safe movement via all transportation modes	Spatial Resilience
	14	s. Provide access to tourist routes, social amenities, job opportunities, retail needs, etc.	Spatial Sustainability
	15	t. To identify the major mobility routes and map out a system of movement linkages which the public transportation system can utilise	Spatial justice
		u. To promote rail movement as a mode of transport	Spatial Sustainability
	16	v. Provide for the necessary social amenities to serve the needs of locals	Spatial justice
Social and Skills Development	17	w. To promote skills development in local communities	Spatial justice & Good administration
		x. To promote courses and programmes in colleges and universities in sectors which are in demand in the municipality	Spatial Sustainability & Efficiency
Safety and security	18	y. To promote development of “eyes on the street” to create the sense of safety and security z. To support and goals of local law enforcement in the municipality	Spatial Resilience Good administration
Infrastructure, Social Services & Amenities	19	aa.Recycling and converting waste into something productive bb.Reducing reliance on costly municipal services networks	Spatial Resilience Efficiency

Theme	Objective	Strategy	SPLUMA Principle
	20	cc. Accelerate the provision of basic services for all communities	Spatial Sustainability
	21	dd. Prioritize access to social amenities to support community livelihoods.	Spatial justice
Rural Development	22	ee. Restrict leapfrogging development, especially outside of the urban edge ff. Densification within the urban edge	Spatial Sustainability Efficiency
	23	gg. Propose agricultural support mechanisms and programmes within the identified agricultural intensive areas for farm owners to upskill themselves	Spatial Resilience
	24	hh. Promote the allowance of resort development ii. Promote township Tourism in rural towns	Spatial Sustainability Spatial Justice

Table 6: Spatial Strategies

B4. ALTERNATIVE SCENARIO DEVELOPMENT

Scenario Planning is a methodological process that creates and evaluates multiple plausible futures based on current trends, uncertainties, and strategic choices. It's not about predicting the future but about preparing for different possibilities. It helps municipalities visualize how different strategies might play out under varying conditions and aims to bridge between strategic intent and future uncertainty.

Scenario planning was completed for the NMBM to provide the possible scenarios for future development of the metro while assessing how they would affect the metro. **The following key aspects were considered:**

- The vision and development of the NMBM and the nodal areas
- The need for development, expansion, and economic development
- The supply and possible future expansions, capacities, and allowances of infrastructure
- The availability and usability of municipal and vacant land
- The size and purpose of the urban edge, considering the activities and localities which are to be included
- Densification and infill development
- Nodes and corridors
- The current and possible future status of small holdings
- Population growth and migration patterns
- Strengths, weaknesses, and opportunities that exist within the Municipality

For the NMBM SDF to effectively the identified objectives, the MSDF needed to consider various scenarios for achieving development/growth. An investigation was conducted to understand the relationship and the differences between 'controlled' and 'uncontrolled' development. This was done to highlight the necessity for managed and structured planning. SPLUMA requires responsible planning and risk assessments, as outlined in the sections below:

B4.1. SCENARIO 1: UNCONTROLLED DEVELOPMENT

‘Uncontrolled Development’ is growth and development that occurs in a “haphazard outcome” or development that continues at Status Quo (if this has been happening already), without positive intervention.

This scenario responds to immediate needs, but its actions do not take cognisance of external/outcoming factors or consider long-term sustainability.

This proposal is at first seen as positive, as development takes place according to the immediate needs, however, the following negative impacts could be an outcome of this scenario:

- Could result in sprawling settlements without consideration of densification principles.
- Risk of development in environmentally sensitive areas without proper planning and areas experiencing worsened effects of climate change.
- Increasing lanes on major traffic congested roads without considering needs for pedestrians and bottle neck points.
- Segregated housing development without thought of integration.
- Decline of economic areas and or regions if they are not constantly maintained and promoted.
- Growth of informal settlements without identification of land parcels and housing developments of those on the housing waiting list.
- Worsening infrastructure if not regularly maintained, augmented and new infrastructure planned for.

Through the above, it is clear that a detailed study is required to address each issue effectively. Proposals should ensure they benefit the maximum number of residents and that activities act in synergy.

Should the NMBM be allowed to grow in a haphazard manner with no spatial direction, this would result in:

- Poor land use management,
- Declining in environmental quality,
- Uncontrolled and rapid settlement growth, as seen through sprawling Informal Settlements throughout the Metropolitan etc.

From an infrastructural point of view, this scenario does not allow for sustainable forward planning, potentially resulting in higher future service costs.

B4.2. SCENARIO 2: ACCELERATED DEVELOPMENT

The accelerated development scenario assumes exceptional growth rates, possibly at uncontrollable rate. Various services and infrastructural needs may not be able to support this growth.

Public sector interventions would be the key driving force. Future development will be led purely by economic rationale/driving forces, meaning investment will focus on areas of maximum economic impact rather than equitable distribution or improved spatial integration.

The following are identified as features of this growth scenario:

- Infrastructure upgrade remains government led and is not shifted to the private sector investment in low growth / marginal markets should be highly focused and strategically aimed at high potential nodes and corridors
- The emphasis will gradually shift from government investment in social services and non-revenue generating subsidy housing to new income generating commercial development
- High investment in certain sectors which would mean less funds for other sectors which would result in decline / decay in those sectors

While this scenario at first might seem positive towards economic growth, it is purely serving a vested interest and lacks the thought of the impacts on the sectors where funds are diverted from.

B4.3. SCENARIO 3: MANAGED DEVELOPMENT

Managed development aims to establish proper development controls and guidelines to ensure effective, well-thought-out development that accounts for all individuals, and sectors while ensuring Spatial Sustainability.

It is basically pro-active planning that identifies areas of development potential, areas which require revitalisation and/or upgrading, and also identifies controls for areas which need limited or no development in the areas that require protecting and identifying 'spatially target areas' to direct the limited financial resources for investment.

It assesses the pros and cons of each development and aims to find a middle ground that would balance sustainability and accessibility. This scenario ensures that development in all sectors is prioritised and that the necessary supporting amenities and infrastructure is developed in line with growing sectors to ensure that all persons have access to their various needs and services.

B4.4. SCENARIO 4: ENVIRONMENTAL AND CLIMATE CHANGE PROPOSED AND ENVIRONMENTAL GUIDELINES SHOULD BE FOLLOWED.

This scenario places focus on Environmental consideration of development and aim to ensure that all developmental proposals consider the sustainability of the natural assets.

This scenario is imperative for the NMBM area considering the metro has unique areas of Biodiversity as well as being located along the coast with identified marine conservancy/protected areas.

Promoting environmental sustainability also include the promotion renewable energy use, recycling materials, or use devices that save energy and water. Secondly sustainable waste disposal which means municipalities can reduce the amount of waste that they produce, which reduces costs and means that there is less waste to dispose of, thirdly, pollution meaning that municipalities should implement ways to reduce pollution, reduce the need to travel and lastly, climate change, the municipality should take it upon themselves to educate its residents about climate change, its impacts and mitigation measures. The effects of climate change require dedicated effort and developed plans to ensure climate sustainability.

B4.5. PREFERRED SCENARIO: SCENARIO 3 + 4

A combination of scenario's 3 and 4 represents an approach that aligns with the vision and objectives of this MSDF. Development is promoted in 'Spatially Targeted Areas' to enable focused and direct investment, while also ensuring environmental protection and mitigation of climate change impacts. This approach further ensures the controlled allocation of land uses in the most appropriate manner. **It considers factors such as:**

- Current balance of land uses, current land development trends
- Proximity of erven to major transport routes and other land uses within and outside the identified node
- Identification of spatially targeted focus areas within the municipality for investment and growth
- Preferred future land uses identified and assigned to erven
- Ensure that principles of Sustainable Community Planning (SCUs) are considered in planning, whereby the fundamental goal is defining planning areas in terms of a reasonable walking distance i.e. 2 km or 30 minutes from a central area and to ensure accessibility. The SCU principles are found under the following principles:
 - Integration and Sustainability in terms of poverty alleviation, gender equality, the environment, participation, mixed use development, local economic development, accessibility, corridor development, safety and security, variation and flexibility, densification, and reducing urban sprawl

B5. SPATIAL DEVELOPMENT CONCEPT

A spatial development concept is a high-level, spatial interpretation of all elements discussed in the Strategic Framework Section for the municipal space. It is the conceptual backbone of what will become the overall Spatial Development Framework plan, guiding how land uses, infrastructure, natural systems, and urban functions should be arranged to achieve the municipality's long-term vision, objectives and strategies.

The concept for the NMBM provides strategic and spatial guidance for the restructuring of the metropolitan area, guiding the desired spatial distribution of various land uses and activities across the Metro. It indicates where certain types of developments should or could take place, how these areas relate to other areas, and what development standards should apply. The spatial development concept is based on a system of interrelated and integrated spatial elements which together make up the desired spatial development form for the municipal area. These spatial elements are made up of **nodes of; built up areas of business, industrial, residential; system of corridors; areas of environmental preservation; within defined edges and boundaries, with consideration of development outside of said boundaries.**

Generally, land is a scarce resource. Consequently, the unwise allocation of land uses will result not only in the wastage of land itself but also in the inefficient use of other resources. It is therefore essential that land be planned in the most optimal manner.

The purpose of the MSDF is to provide a guide to promote the wise demarcation and responsible allocation of land uses. Moreover, land use planning is a strategic and integrative process and needs to embody a wide range of considerations and interests. It is therefore imperative that once planning is done that it be continually reviewed as circumstances change.

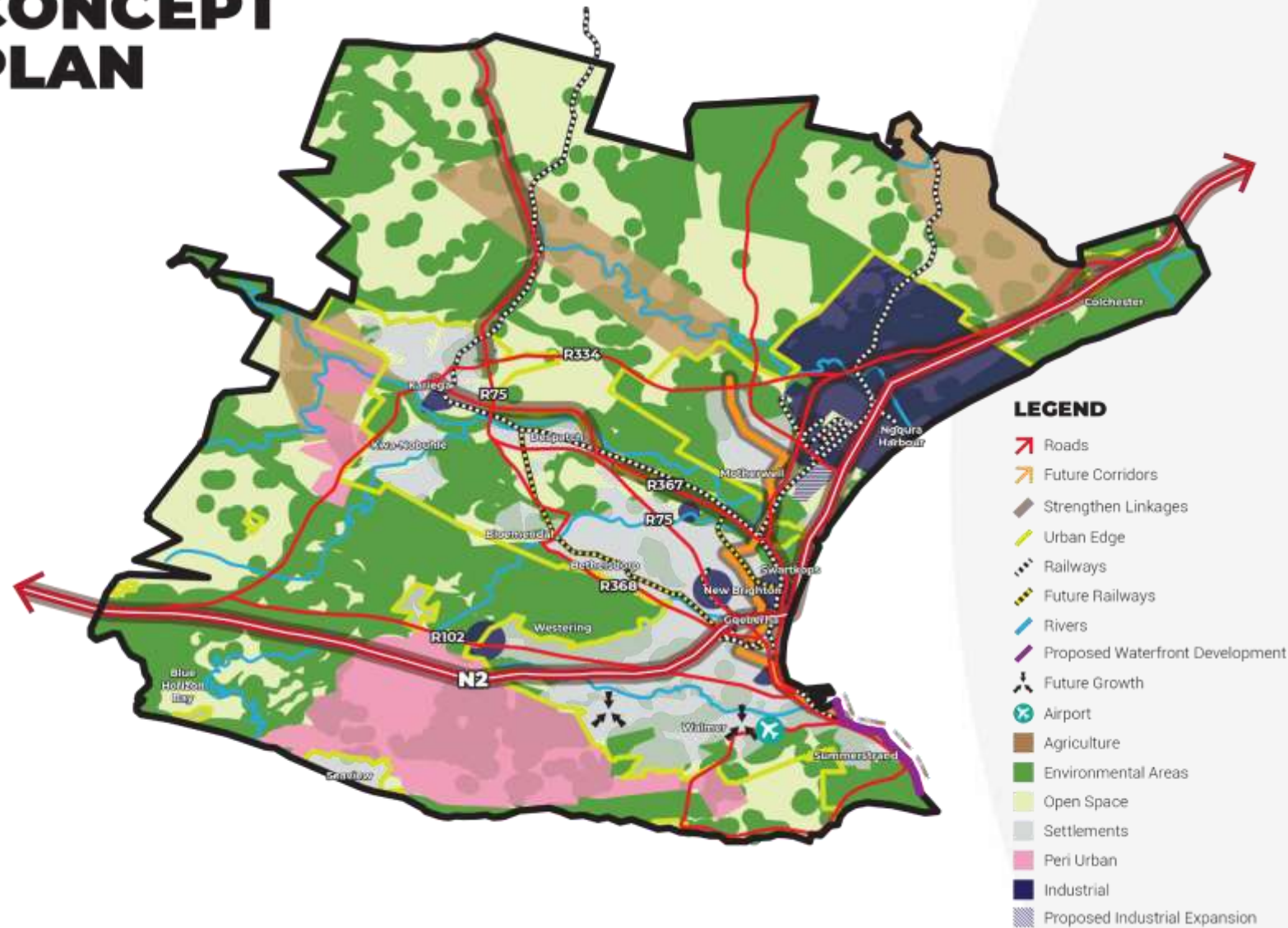
Planning therefore implies a commitment. This commitment must extend to both the planning process, the plan itself and the development/implementation of the plan. The process must be transparent, democratic and just. Only through a legitimate process can a legitimate plan be produced. Once the plan has been produced the owners of the plan must ensure both its enforcement and adaptability to new circumstances, otherwise the question "Why must we Plan?" may justifiably be asked.

This report and accompanying plans attempt to allocate land to specific uses in a balanced way. It proposes a sequence of development and identifies priorities for further attention. Finally, to achieve the vision embodied within the spatial development framework, the support and commitment of politicians, officials, investors and the general public are required.

Key Features of the Concept Map is as follows:

- **Economic sectors**
 - Promote coastal tourism through allowing coastal villages to be promoted as relaxing beach resort areas.
 - Identifying areas for Industrial expansion around the Coega SEZ
 - Promotion of coastal tourism in Gqeberha through lifestyle and waterfront development between Humewood and Cape Recife
 - Promote cruise liners to dock at the port
- **Climate Change and the Environment**
 - Maintain and protect natural assets within the metro
 - Adhere to required buffers for natural assets
- **Human Settlement**
 - Focus major growth and development areas near the west and Summerstrand region
 - Identify and prioritise key land parcels in the Metro for Human Settlement Development
 - Constrain development within the Urban Edge and densify within this area as well
 - Allocate and support the growing student presence in the Metro
- **Transportation / Mobility**
 - Identify Key movements routes within the metro to link economic activity such as from COEGA SEZ to the port
 - Identify and strengthen movement routes from outside the metro to the port and airport such as from Key Agricultural neighbouring towns and LMs such as Humansdorp & Kirkwood
 - Promote the use of rail as a mode of transport
- **Social and Skills Development**
 - Promote support for SMMEs, Farmers
 - To provide an environment which supports and facilitates skills development
- **Safety and security**
 - Incorporate elements of SCUs for all developments
 - Prioritise crime prevention through the design of urban spaces and developments
- **Infrastructure, Social Services and amenities**
 - Upgrade infrastructure needs in alignment with human settlement growth
 - Ensure that residents and visitors have easy access to social amenities
- **Rural Development**
 - Retain the general characteristics of the Peri-urban and Rural Zones

CONCEPT PLAN



Map 1: Concept

SECTION C: SPATIAL STRUCTURING ELEMENTS

Spatial structuring elements are fundamental characteristics of the Nelson Mandela Bay Municipal area that form the cornerstone for developing spatial proposals. Shaped by the region's inherent opportunities, these elements play a pivotal role in guiding the focus of spatial planning initiatives.

This section builds on the Strategic Framework and the concept plan, identifying spatial structuring elements to guide and facilitate growth. The following spatial structuring elements have been identified:



Diagram 7: Spatial Structuring Elements

The proposals are aligned with the National Spatial Development Framework (NSDF), Provincial Spatial Development Framework (PSDF), and other relevant frameworks.

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

- Adopting a growth management approach
- Understanding the metro'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. Central to this approach are structuring elements that provide critical guidance for development and spatial planning within the NMBM Spatial Development Framework. These elements are articulated in detail below.

The Spatial Development Framework for Nelson Mandela Bay 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 spatial fabric of the municipality. 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.

The following table outlines the Spatial Structuring Settlements for the NMBM SDF, highlighting the terminology utilised in the various policy alignment documents, and the recommended terminology for this SDF review:

It is noted and emphasised that the concept of Sustainable Community Planning (SCU) will be applied when developing each of the elements discussed below, specifically within urban nodes, as well as linking them to the network of corridors, between the Gateways, tourism zones, and Special development zones.

SPATIAL STRUCTURING ELEMENTS				
ELEMENT	NSDF, 2022	EC PSDF, 2019	NMBM SDF, 2015	NMBM SDF, 2025
Activity Nodes & Marginalised Residential areas	Nodes of Competitiveness	- Provincial Centre - District Centre Local Centre	Activity Nodes	Activity Nodes / Urban Hubs
	-	-	-	Marginalised Residential areas
Corridors / Rail	- National Development Corridors - Transnational Development Corridors	- National Roads - Regional Roads	Urban Corridors	Urban Corridors / Rail
			Activity Spines	Activity Spines
Gateways	-	-	-	Gateways
Natural Open Space & Green Systems	National Ecological Infrastructure System	- Critical Biodiversity Areas - Nature Reserves - Water courses	Natural Open Space & Green Systems	Natural Open Space & Green Systems
Urban Edge/s	Urban Edge Rural region	Settlements Regions	-	Urban Service Edge/s
Special Development Incentive Areas (Integration Zones, Restructuring Zones, PSHDA's & Growth Areas)	- Rural Restructuring Zones - Resource Critical Regions - Special Intervention Zones	-	-	Special Development Incentive Areas (Integration Zones, Restructuring Zones & Urban Development Zones)

Table 7: Spatial Structuring Elements

C1. NODES AND MARGINALISED RESIDENTIAL AREAS

C1.1. 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 should 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 nodes 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 is 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 coverage and building height.
 - Minimizing large parking lots along streets to encourage pedestrian-friendly environments.
 - Allow for active street frontages with retail and restaurant business spillage onto the pedestrian sidewalks (where space permits) to encourage pedestrian movement and active and vibrant spaces and to integrate the public and private realm
 - 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 NMBM Spatial Development Framework (SDF) draws upon guidance from the National Spatial Development Framework (NSDF) 2022, the Eastern Cape Provincial Spatial Development Framework (PSDF) 2019, and the previous Nelson Mandela Bay Municipal Spatial Development Framework (MSDF) 2015 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.

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 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 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 8: NSDF Settlement Type and Function/Role

Eastern Cape Provincial Spatial Development Framework, 2019

The EC PSDF, 2019 identifies the hierarchy of settlement and the definitions used for the classification of settlements. The categorization below has been used as a point of departure in refining and re-categorizing towns. With the categorisation below in mind the concept of future metro regions was introduced into the settlement categorisation dialogue.

NODAL TYPE	FUNCTION OF SETTLEMENTS AND ASSOCIATED TYPICAL AND LAND USES
<i>District centre</i>	- District-Level administrative centre - Major district service centre for commercial goods and services - Centre of educational excellence - Residential development (high and low income)
<i>Sub District Centres</i>	- Municipal-scale administrative centre - Municipal scale service centre for commercial and social goods and services - Residential development covering full range of economic bands (Middle and low income)
<i>Local Centres</i>	- Municipal-scale Administrative Centre - Local-scale Service Centre for commercial and social goods and services - Residential development covering limited range of economic bands (Middle-income– Low-income) - Potential for value-adding agro-industrial processes
<i>Sub Local Centre</i>	- Minor Administrative Functions - Minor service centre for social goods and services - Focused support of local economic initiatives – agriculture-based
<i>Rural Villages</i>	- Primarily residential and livelihood subsistence function - Basic provision of limited social goods and services

Table 9: Nodal Type

The Table 10 presents the classification of allotments within the Nelson Mandela Metropolitan Municipality according to the NSDF (2022), EC PSDF (2019), the Nelson Mandela Bay MSDF (2015).

Allotment Name	NSDF (2022)	PSDF (2019)	NMBM SDF (2015)	Recommended Term
Gqeberha	National Urban Nodes	Provincial Centre / Existing Metro	Metropolitan Node	Primary Node
Kariega	-	Provincial Centre	Metropolitan Node	Primary Node
Despatch	-		Metropolitan Node	Primary Node

Table 10: Allotment Classification

C1.1.1. Primary Nodes

The MSDF identifies the CBD's of Gqeberha, Kariega and Despatch as nodes of primary significance in shaping the economic form and identity and interface of the NMBM. These are considered the geo-economic nodes, forming the central core of the Metro's economic network and having a greater sphere of influence relative to other nodes.

The Metropolitan nodes define an inner core area of approximately 10km radius, where densification and restructuring initiatives are proposed to be concentrated. The Gqeberha CBD emerges as the primary CBD for the Nelson Mandela Bay Metropolitan Municipal Area.

While the Gqeberha CBD is higher order than the Primary nodes of Kariega CBD and Despatch CBD, it is still however noted that in respect of the NMBM Municipality in totality and considering the role that each of these nodes play within their communities, they act as the Primary Node.

The second motivation for them also being Primary Nodes is due to the MSDF being a long-term spatial plan and having a 10-20 year outlook, it is envisioned that the nodes of Kariega CBD and Despatch CBD are promoted at such and their nodal presence is strengthened within their context and that they develop into their unique functions serving the roles that is envisioned for them as discussed through the MSDF.

Developments to address the following in these nodes are supported:

- urban decay and the erosion of quality urban environments leading to disinvestment.
- encourage the relocation of low-cost housing into the inner core to reverse the trend of relocating families to the periphery.
- decentralisation of core functions of urban core.
- unsustainable public transport system.
- influx of informal and incompatible land use.
- serious loss of valuable heritage assets and open space.
- infiltration of illegal and non-conforming land uses into previously well-established developments.
- vehicular and pedestrian traffic congestion.
- encouragement of industrial expansion.
- possibility if densification and infill development in areas in the vicinity of the CBD.
- consolidation of smaller erven for integrated and bigger developments.

Number	Node Type	Description of Locality
1	Primary Node	Gqeberha CBD
2		Kariega CBD
3		Despatch CBD

Table 11: Primary Nodes



C1.1.2. Regional Nodes

These nodes are located more or less centrally to residential areas (i.e. residential suburbs), with a broader sphere of influence and the potential to stimulate growth, which may lead to integration with the core economic areas.

The nodes offer significant retail, commercial and ancillary functions that have emerged in response to the decline of the CBD (Metropolitan Nodes).

Njoli/ Kenako Node is identified as the regional node for urban/ catalytic intervention with the objective of linking and integrating the previously segregated townships of Ibhayi and Bethelsdorp. The key elements in this node include: Njoli Square a National Treasury funded Civic Complex that forms an anchor development initiative around the historic Njoli Square. Development is encouraged along routes that link Njoli Square, Kenako Mall, Eastern Cape Training Centre (ETC), Straundale Industrial Area, Vista Campus, Dora Nginza hospital, and developments at the corner of Spondo and Njoli Road in order to integrate and strengthen the linkage between these areas.

Mixed-use development is recommended along strategic intersections along the Khulani Corridor, a major transport link and development corridor, designed to link the Gqeberha CBD with the townships of Ibhayi and Motherwell. Housing provision should be made for the Vistarus informal settlement adjacent to the Vista Campus. *For definition and Guidelines on Mixed Use development, see section E1.4.*

Chatty Jachtlakte Node: This node is identified as the second primary node in great need of catalytic interventions to unlock the development potential of this newly developed area. It is situated to the West of Njoli around the intersection of the Bloemendal Arterial and Stanford Road. This Node is at the core of the Greenfields component of the Zanemvula Mega Project, developed as an initiative of the National Department of Human Settlements, Provincial Department of Human Settlements and the Municipality.

Key elements in this node include:

- The convergence of Stanford Road, Bloemendal Arterials and the MR448 (Old Uitenhage Road). Stanford Road is one of the primary links between the Gqeberha CBD and Kariega. The Bloemendal Arterial on the other hand is not yet fully developed but serves as an important southb/South linkage between the R75 and Stanford Road. MR 368 still serves as an important secondary link between Gqeberha and Kariega and has the potential to link the Njoli and Chatty Jachtlakte nodes.
- An estimated 54 000 residential development opportunities in Joe Slovo West; Bethelsdorp North; Khayamnandi; the Chatty developments and the Jachtlakte/KwaNobuhle is envisaged to provide densities adequate enough to sustain socio-economic activities in the area.
- It is recommended that large tracts of vacant and serviced land in the greenfield development areas be utilized for catalytic high-density infill and mixed-use development.

N2 Development/Bay West Node: The Baywest node is recognised as a regional node due to the scale of ongoing projects. The N2 Development/Bay West project includes a super-regional shopping centre, a mixed-use residential development (8000 residential opportunities), a 400 000m² high-tech warehouse, offices, a motor city, and light industrial area. The development of the Baywest Mall and the ancillary developments/services is seen as an anchor that will stimulate developments in the immediate vicinity i.e. opportunity to promote intensification of residential densities, light industries etc. within ±2 kms of the node.

Greenacres Node: Greenacres is an existing and well-established node. Pressure for expansion which towards Fernglen and Cotswold is recognised. Notwithstanding recommendations of the Newton Park Local Spatial Development Framework, with regard to Fernglen and Cotswold, it is recommended that the policy plan be reviewed to address the development pressure around these two areas. Fernglen and Cotswold should remain as residential and not any form of business creeping into that space. Cotswold facing Cape Road is the only area where development creep is permitted. The aim for this area is to protect the residential character. Title Deed Restrictions that contradict municipal land use management objectives, without invoking mandates of other legislative instruments, should be removed.

Newton Park has not fully developed as we intended as a city. If and only when Newton Park is fully business, then we can only look at other opportunities to expand.

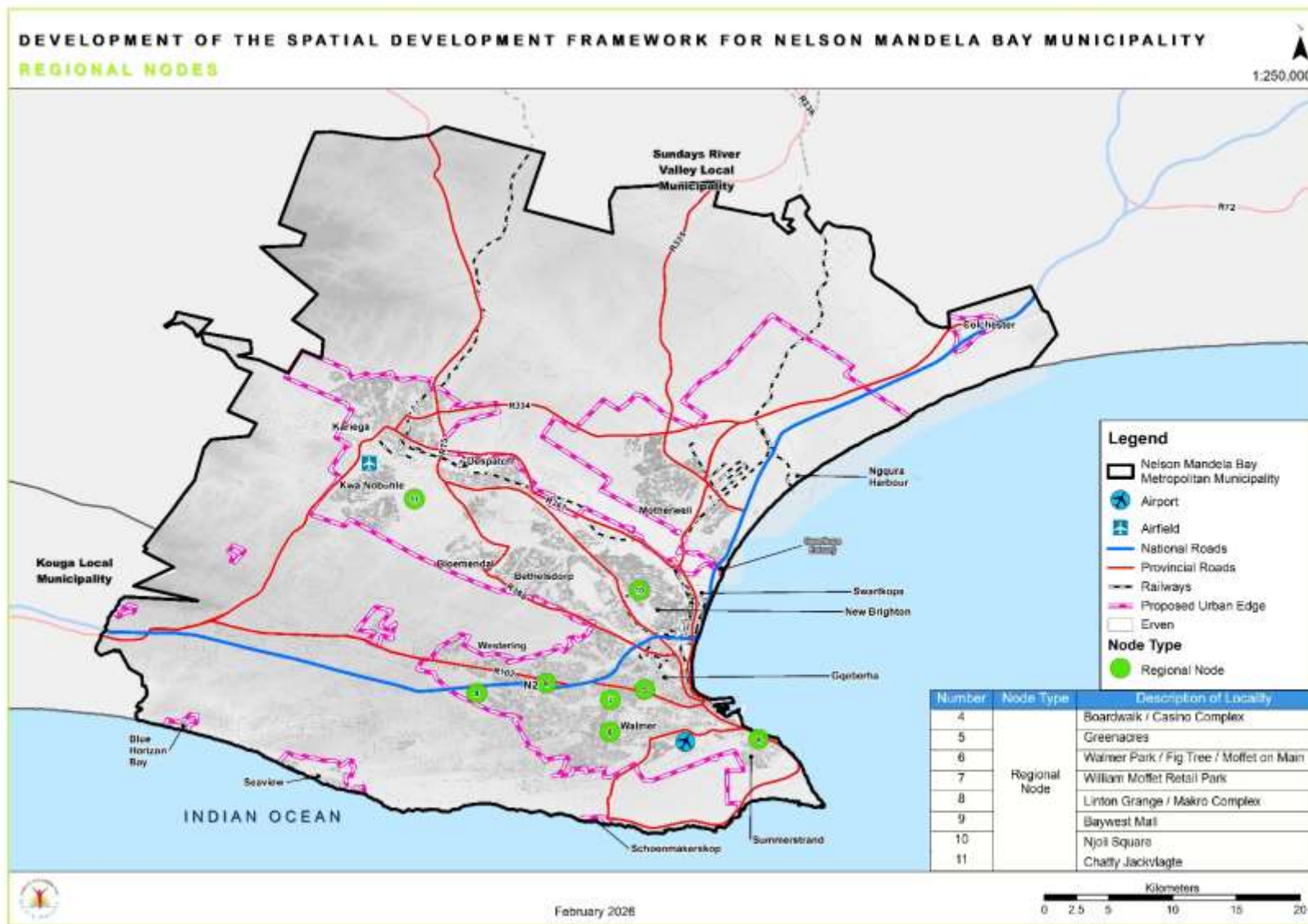
Boardwalk/Casino Complex Node: The boardwalk node is centred in the Boardwalk extending to Pick 'n Pay in 8th Avenue Summerstrand, Sasol Garage at the Corner of Strandfontein Road and 2nd Avenue,. The following are recommended for this node:

- Supporting, sustaining and maintaining existing and new hotel accommodation facilities between Second Avenue and Happy Valley.
- Promoting tourism activities and related recreation land uses in support of existing and proposed tourist accommodation.
- Ensuring linkages between accommodation facilities, the existing Boardwalk and beachfront developments and proposed SANDF precinct developments.
- Mixed uses development with a strong component of recreational facilities to strengthen the beach front.

Number	Node Type	Description of Locality
4	Regional Node	Boardwalk / Casino Complex
5		Greenacres
6		Walmer Park / Fig Tree / Moffet on Main
7		William Moffet Retail Park

Number	Node Type	Description of Locality
8		Linton Grange / Makro Complex
9		Baywest Mall
10		Njoli Square
11		Chatty Jackvlagte

Table 12: Regional Nodes



Map 3: Regional Nodes

C1.1.3. Local Nodes

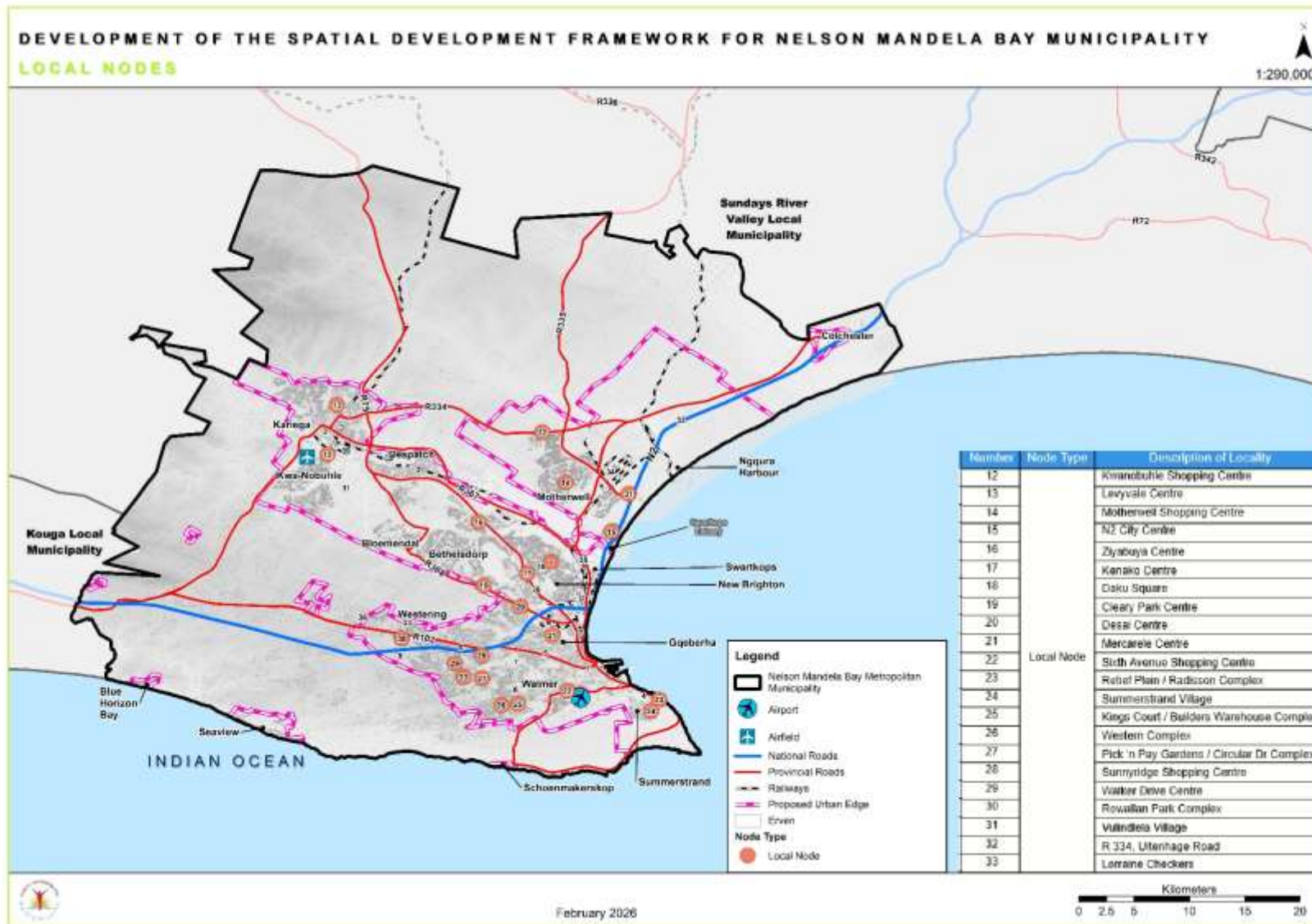
The following nodes are recognised as potential nodes to stimulate development.

- Motherwell Interchange Node (Vulindlela Village)
- Red Location Cultural Precinct
- KwaNobuhle Shopping Centre
- Levyvale Centre
- Motherwell Shopping Centre
- Ziyabuya Centre
- Cleary Park Centre
- Mercantile Centre
- Sixth Avenue Shopping Centre
- Summerstrand Village
- Retief Plein / Radisson Complex
- Kings Court/ Builders Warehouse Complex
- Western Complex
- Walmer Park/ Fig Tree/ Moffat on Main
- William Moffat Retail Park
- Pick 'n Pay Gardens / Circular Dr Complex
- Sunridge Shopping Centre
- Walker Drive Centre
- Linton Grange / Makro Complex
- Rowallan Park Complex

Number	Node Type	Description of Locality
12	Local Node	KwaNobuhle Shopping Centre
13		Levyvale Centre
14		Motherwell shopping Centre
15		N2 City Centre
16		Ziyabuya Centre
17		Kenako Centre
18		Daku Square
19		Cleary Park Centre
20		Desai Centre
21		Mercarele Centre
22		Sixth Avenue Shopping Centre
23		Retief Plein / Radisson Complex
24		Summerstrand Village

Number	Node Type	Description of Locality
25		Kings Court / Builders Warehouse Complex
26		Western Complex
27		Pick 'n Pay Gardens / Circular Dr Complex
28		Sunnyridge Shopping centre
29		Walker Drive Centre
30		Rowallan Park Complex
31		Vulindlela Village
32		R 334, Uitenhage Road
33		Lorraine Checkers

Table 13: Local Nodes



Map 4: Local Nodes

C1.1.4. Industrial Nodes:

The SDF recognises the following as the major industrial Zones for promotion of certain industrial nodes within the NMBM.

Coega SEZ (CDC): The development of the Coega SEZ presents significant potential for job creation and economic growth nearby suburbs, especially Wells Estate, Bluewater Bay, Amsterdamhoek and Motherwell, and the whole Municipality. Gap-housing opportunities should be created in these residential areas to accommodate the anticipated workforce. Residential developments to meet this growth should be located as close as possible to the Coega SEZ to support accessibility and reduce commuting pressures.

Deal Party (DP): The area comprises small, medium and large industrial enterprises. Large industries should be encouraged to relocate to the Coega SEZ, while industrial land and facilities can be recycled for SMME development. Upgrades are required for Burman Road, Baxter Street and Old Grahamstown Road to support current and future industrial activity.

Struandale (SD): Part of the Njoli/Kenako Node, this industrial zone should encourage infill development and recycling of land and buildings for light industries and SMME facilities. State owned land in the area to be used for housing developments in line with the Human Settlement Plan proposals. Upgrades are proposed for Straunway and a portion of Mavuso Road linking Straunway and Njoli Road.

North End (NE): The area comprises small, medium and large industrial enterprises. It boasts of major industries such as Coca Cola, Cadbury, Firestone and Aspen Pharmaceutical and General Motors (South Africa). The North End industrial area requires revitalisation, including road linkages and street upgrades.

It is proposed that the North End Industrial area become a Pharmaceutical SEZ where pharmaceutical manufacturing gravitates to this region for sharing of general resources

Greenbushes (GB): Industrial land uses in this area are recommended for light industries compatible with the residential developments in the area. Noxious uses may be permitted on merit, considering the impacts on living conditions. Noxious uses are limited in the sense of no manganese or toxic mining or storage. The aim is to promote agricultural and industrial activity in Green Bushes with function venues and warehousing relating to industry.

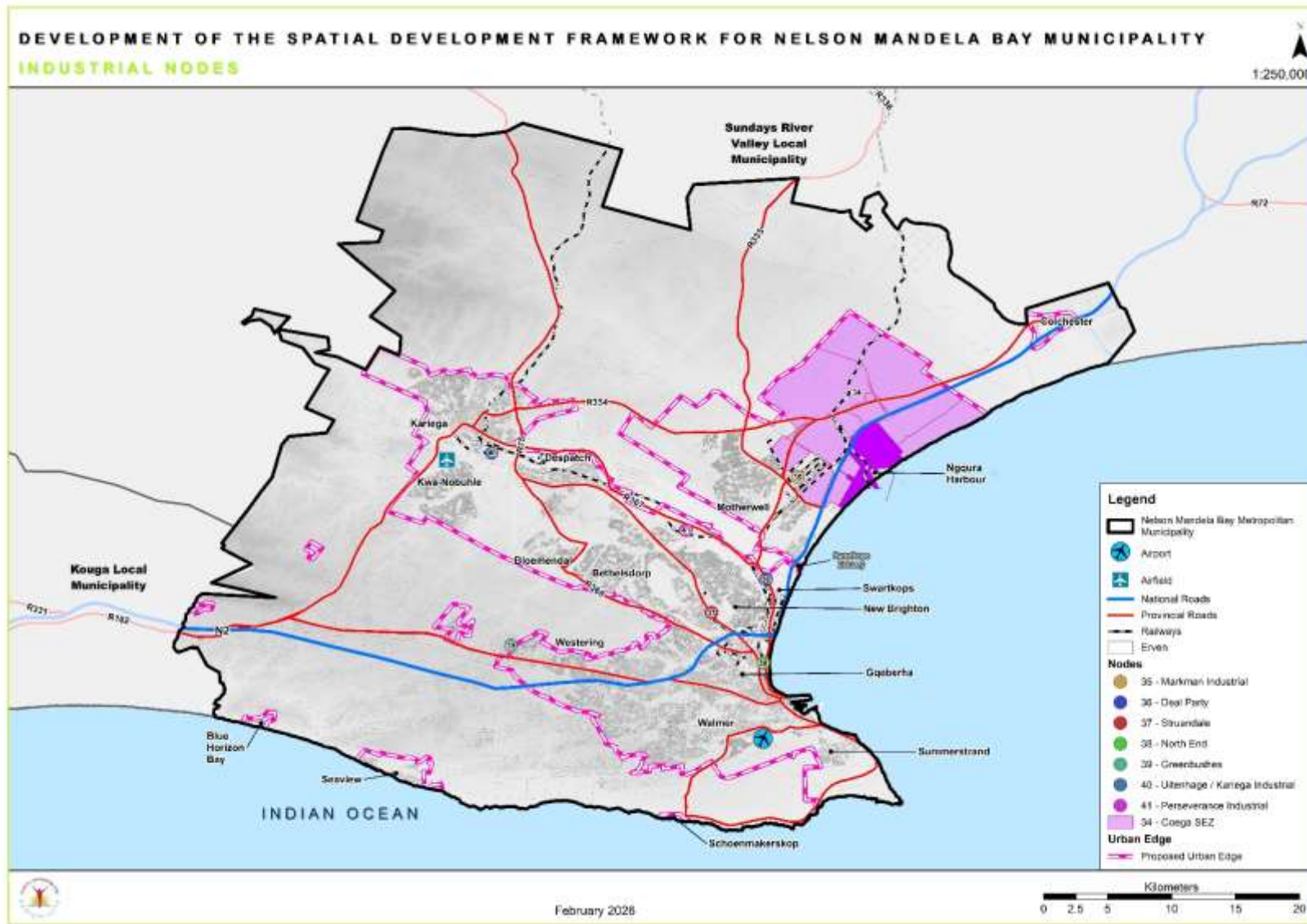
Markman (MM): Not all sites designated for industrial use have been developed. There is a need to stimulate activity in the area to complement Coega SEZ development. There is a need to improve the aesthetic appeal of the Markman Industrial area by introducing attractive gateways along MR450, relocating illegal industries, improving basic services such as potholes, water leaks, etc.; improve safety and security and generally improving the quality of the environment in the area. Approximately 28% (60Ha) of this 220Ha industrial estate remains unsold and is owned by the Local Authority and a further 30Ha is vacant but in private ownership (CDC, Property Market Study 2005 quoted in Urban Econ, 2008). Potential exists for integrating the redevelopment of the area with the Coega SEZ.

Uitenhage Industrial (UD): A well-established industrial area that still contains pockets of underutilised land and buildings. It is home to VW Motor Plant and associated Nelson Mandela Bay Municipality Logistics Park (NMBMLP.) Residential extensions are proposed to connect KwaNobuhle towards Jachtlakte Industrial to promote physical integration with Khayamnandi and Chatty areas. Link road to the N2 from KwaNobuhle and PE – Uitenhage via Stanford Road.

Perseverance Industrial: Covering approximately 2.5km², this industrial area is situated near Ibhayi, and Despatch, with access to the N2. Companies located here include large multinational operations, auto industry suppliers, exporters, fast-moving consumer goods companies, logistics operators, and small- to medium-sized manufacturing, engineering, and transport businesses.

Number	Node Type	Description of Locality
34	Industrial Nodes	Coega SEZ
35		Markman Industrial
36		Deal Party
37		Struandale
38		North End
39		Greenbushes
40		Uitenhage / Kariega Industrial Node
41		Perseverance Industrial

Table 14: Industrial Nodes



Map 5: Industrial Nodes

C1.1.5. Coastal Nodes

The Coastal Nodes comprise the coastal villages within the Rural Management Policy Area. Each village possesses a unique character, typically featuring low-density residential development. **Small-scale passive recreation uses are recommended to support the lifestyle and character of these communities while preserving the natural and cultural environment.** The aim is to protect the character of these coastal villages by providing a functional urban edge to manage development as well as to improve the existing service levels and development standards.

Number	Node Type	Description of Locality
42	Coastal Nodes	Seaview, Kini Bay and Beachview
43		Blue Horizon Bay
44		Colchester
45		Schoenmakerskop

Table 15: Coastal Nodes

Seaview: is a picturesque coastal village. It is known for its scenic beauty, tranquil atmosphere, and proximity to nature. The village often attracting retirees, nature lovers, and holidaymakers.

Kini Bay: A quiet coastal hamlet with rustic charm and no commercial development. It is known for its seclusion and natural beauty, making it ideal for peaceful getaways. Residents enjoy a laid-back lifestyle, often centered around nature and the ocean.

Beachview: A scenic village with dramatic coastal views and a strong sense of community. It is home to Beachview Beach, known for its rocky shoreline and tidal pools.

Blue Horizon Bay: A conservation-minded village with rich biodiversity and panoramic views. The area hosts antelope, reptiles, birds, and seasonal whale migrations and offers views of both the Indian Ocean and inland Cape-fold mountains.

Colchester: A riverside village and gateway to Addo Elephant National Park. Offers river cruises, fishing, and access to coastal dune fields. The village is 5 km from the Addo Elephant Park Southern Gate, making it a popular tourist stop.

Schoenmakerskop: A rugged coastal village with dramatic cliffs and peaceful coves. Features rocky shores, picnic spots, and shell-laden beaches. There have been frequent sightings of dolphins and other marine life in the area.

The consolidated list of nodes, as well as which LSDF they are located within and if they fall within an Integrated Zone, a Restructuring Zone or a PSHDA is indicated in Table 16 below.



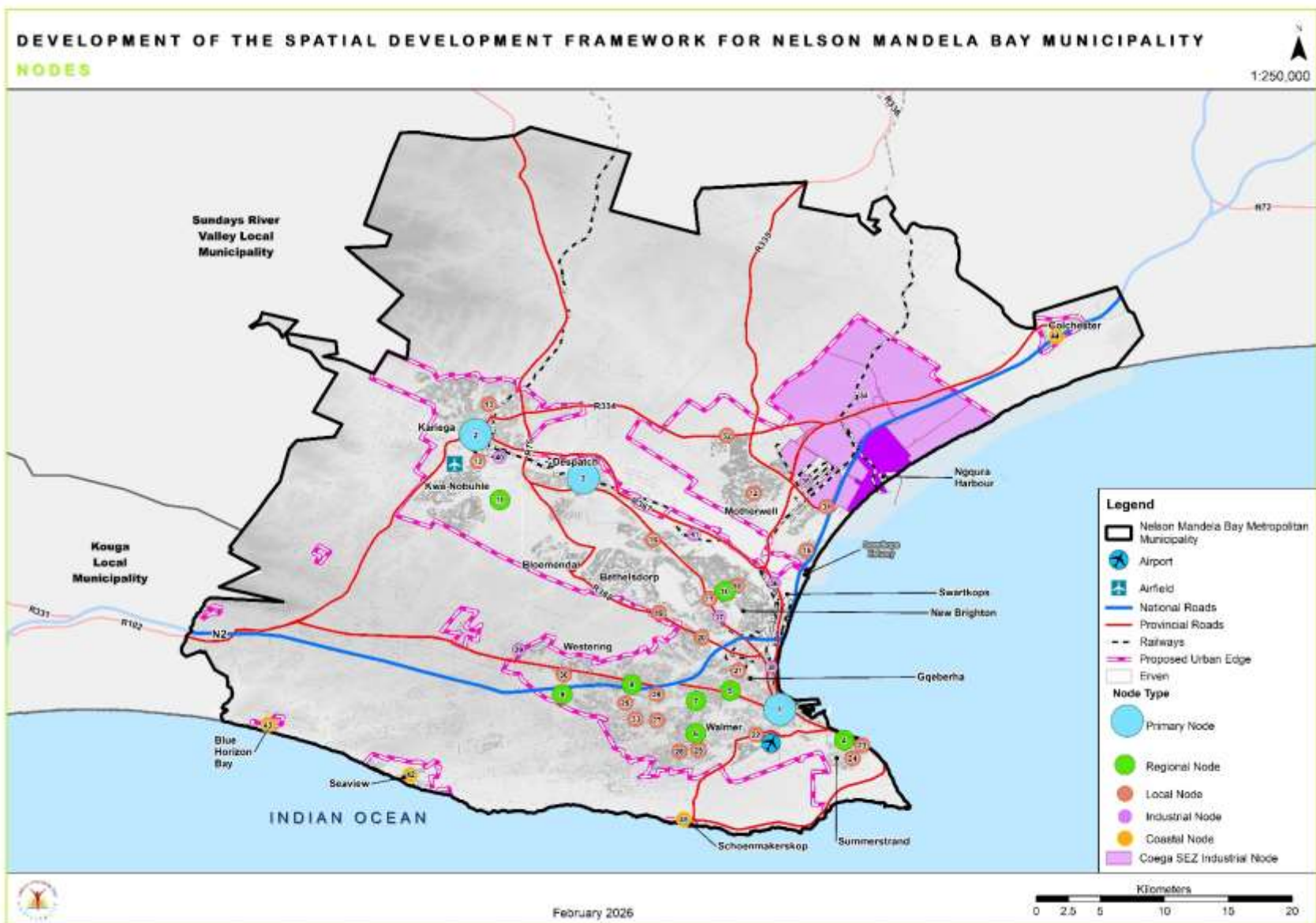
Number	Node Type	Description of Locality	LSDF	IZ / RZ / PSHDA
1	Primary Node	Gqeberha CBD	Inner City LSDF, 2013 2010 Stadium Precinct LSDF, 2009	2010 Stadium Precinct RZ
2		Kariega CBD	Uitenhage and Despatch LSDF, 2013	Uitenhage-Despatch-KwaNobuhle Corridor PHSHDA
3		Despatch CBD	Uitenhage and Despatch LSDF, 2013	Dispatch CBD RZ Kariega-Despatch-KwaNobuhle Corridor PHSHDA
4	Regional Node	Boardwalk / Casino Complex	Summerstrand LSDF, 2016	
5		Greenacres	Cape Road LSDF, 2014	
6		Walmer Park / Fig Tree / Moffet on Main	Walmer LSDF	Baywest Development Area PSHDA
7		William Moffet Retail Park	Loraine / Fairview LSDF	Baywest Development Area PSHDA
8		Linton Grange / Makro Complex	Western Suburbs LSDF Cape Road LSDF, 2014	Baywest Development Area PSHDA
9		Baywest Mall	Western Suburbs LSDF	Bay West/N2 hub RZ
10		Njoli Square	Ibhayi LSDF, 2017	Bethelsdorp Corridor PSHDA
11		Chatty Jackvlagte	KwaNobuhle / Zanemvula / Bloemendal LSDF	Uitenhage-Despatch-KwaNobuhle Corridor PHSHDA

Number	Node Type	Description of Locality	LSDF	IZ / RZ / PSHDA
12	Local Node	KwaNobuhle Shopping Centre	KwaNobuhle / Zanemvula / Bloemendal LSDF	Uitenhage-Despatch-KwaNobuhle Corridor PSHDA
13		Levyvale Centre	Uitenhage and Despatch LSDF, 2013	
14		Motherwell shopping Centre	Motherwell / Bluewater Bay / Wells Estate LSDF	
15		N2 City Centre	Motherwell / Bluewater Bay / Wells Estate LSDF	Bay West/N2 hub RZ
16		Ziyabuya Centre	New Brighton / Njoli / Ibhayi LSDF	
17		Kenako Centre	Ibhayi LSDF, 2017	Bethelsdorp Corridor PSHDA
18		Daku Square	Ibhayi LSDF, 2017	Bethelsdorp Corridor PSHDA
19		Cleary Park Centre	Helenvale / Gelvandale / Bethelsdorp LSDF	Bethelsdorp Corridor PSHDA
20		Desai Centre	Helenvale / Gelvandale / Bethelsdorp LSDF	Bethelsdorp Corridor PSHDA
21		Mercarele Centre	Walmer LSDF	Bethelsdorp Corridor PSHDA
22		Sixth Avenue Shopping Centre	2010 Stadium Precinct LSDF, 2009	
23		Retief Plein / Radisson Complex	Summerstrand LSDF, 2016	

Number	Node Type	Description of Locality	LSDF	IZ / RZ / PSHDA
24		Summerstrand Village	Summerstrand LSDF, 2016	
25		Kings Court / Builders Warehouse Complex	Walmer LSDF	
26		Western Complex	Walmer LSDF	
27		Pick 'n Pay Gardens / Circular Dr Complex	Loraine / Fairview LSDF	
28		Sunnyridge Shopping centre	Cape Road LSDF, 2014	
29		Walker Drive Centre	Western Suburbs LSDF	Baywest Development Area PSHDA
30		Rowallan Park Complex	Western Suburbs LSDF	Baywest Development Area PSHDA
31		Vulindlela Village	Motherwell / Bluewater Bay / Wells Estate LSDF	
32		R 334, Uitenhage Road	Motherwell / Bluewater Bay / Wells Estate LSDF	
33		Lorraine Checkers	Loraine / Fairview LSDF	
34	Industrial Nodes	Coega SEZ	Coega IDZ LSDF	Coega Vulindlela RZ
35		Markman Industrial	Motherwell / Bluewater Bay / Wells Estate LSDF	
36		Deal Party	Ibhayi LSDF, 2017	Coega Vulindlela RZ

Number	Node Type	Description of Locality	LSDF	IZ / RZ / PSHDA
37		Struandale	Ibhayi LSDF, 2017	Bethelsdorp Corridor PSHDA
38		North End		Amsterdamhoek RZ Bethelsdorp Corridor PSHDA
39		Greenbushes		Greenbushes RZ
40		Uitenhage / Kariega Industrial Node		Uitenhage-Despatch-KwaNobuhle Corridor PSHDA
41		Perseverance Industrial		
42	Coastal Nodes	Seaview, Kini Bay and Beachview	Rural Management Policy	
43		Blue Horizon Bay	Rural Management Policy	
44		Colchester	Rural Management Policy	
45		Schoenmakerskop	Rural Management Policy	

Table 16: NMBM Nodes



Map 7: Nodes

C1.2. MARGINALISED RESIDENTIAL AREAS

Marginalised Residential Areas within the context of NMBM refer to urban settlements that have been historically excluded from equitable access to resources, services, infrastructure, and opportunities due to systemic spatial injustice—particularly under colonial and apartheid regimes

Marginalised areas are defined as areas within the municipality which predominantly function as residential areas. These areas are often relatively dense and typically incorporates non-residential services and amenities.

It is noted that all marginalised areas require public intervention to bridge the developmental gap. Through transversal engagement - both within the municipality and with provincial and national spheres of government - it is essential that resources are aligned in order to improve the quality of life within these areas.

Marginalised areas comprise of the following settlement areas within the NMBM including informal settlements:

The Marginalised Residential Areas include but not limited to:

- Motherwell
- Helenvale
- Bethelsdorp
- KwaZakhele
- Ibhayi
- Algoa Park
- KwaNobuhle
- Bloemendal
- Swartkops
- Walmer Location

The Municipality has a dedicated programme for the elimination and upgrading of informal settlements, as outlined in the Informal Settlements Upgrading Plan (NMBM: Human Settlement Directorate, 2008). This Plan, developed in 2008, initially included 107 informal settlements and subsequently form the basis for the Human Settlements Plan and the Human Settlements Sector Plan, approved in December 2012.

The informal settlements are managed through a matrix of in-situ upgrading/destination areas, programmed over time, prioritised and implemented according to priority and the availability of funding. Relocation is considered a last resort wherever possible, settlements are formalised in-situ but in cases where in-situ upgrading cannot accommodate all residents due to density or other factors and, remaining residents are relocated as close as possible to their original location. Informal settlements in

stressed areas—such as under power lines, on tip sites, floodplains, or other unsuitable locations—are relocated to new sites.

To date 48 informal settlements have been upgraded in situ, and 18 green field sites have been developed for relocation on an incremental basis with full water and sanitation and basic roads. This includes more than 37 403 sites.

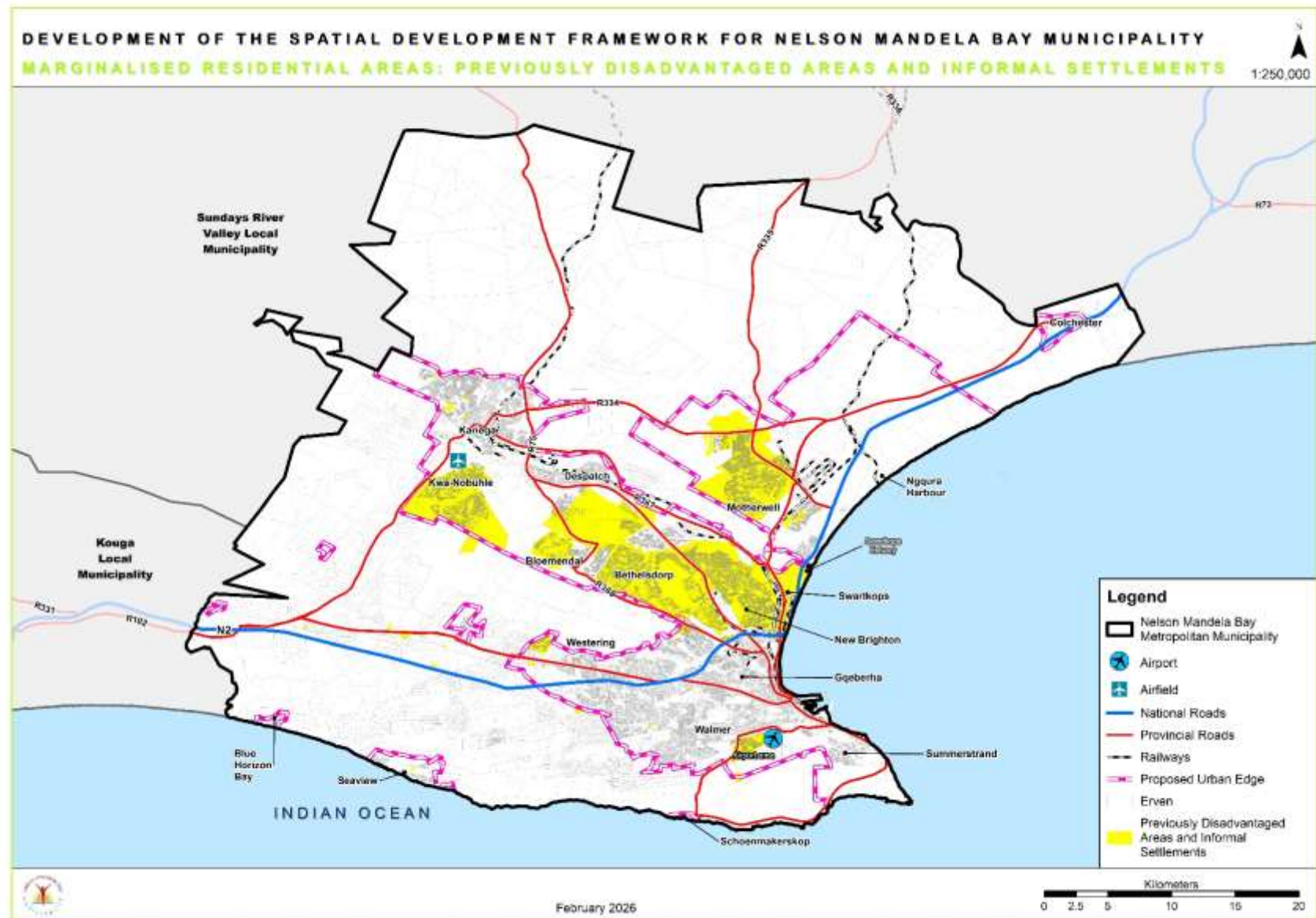
Informal settlements outside the urban edge in the marginalised areas will not conform to the development parameters of the Rural Management framework they fall under. However, their potential and development will be subject to the necessary feasibility studies and possible infrastructure provision determined by the municipality. The municipality will be inclined to develop a policy or guidelines for the management and development of such informal settlements.

The NMBM's focus is on creating a pipeline of projects that implementation the national housing programmes across the City. This approach ensures that housing opportunities can accommodate as many households as possible, acknowledging that not all residents of the City need a state subsidised low-cost house (RDP house). NMBM is aiming to increase awareness and use of all the national housing programmes available in the market.

A programme is underway to integrate a comprehensive city-wide “National Housing Needs Register” for housing opportunities. This will help the city and its private players to plan and budget for housing on a well-informed basis about the demand for housing.

The concept of SRU will be a key component when considering development within these areas.





Map 9: Marginalised Residential Areas: Informal Settlements and Townships

C2. CORRIDORS AND RAIL

The alignment of corridors within the NMBM Municipal Spatial Development Framework (MSDF) has been carefully structured to ensure consistency with higher-level planning frameworks, including the National Spatial Development Framework (NSDF), Eastern Cape Provincial Spatial Development Framework (EC PSDF), and the previous NMBM 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 NMBM SDF ensures that the classification and role of its corridors are consistent and integrated at the National, Provincial, and Metropolitan levels. This alignment strengthens the municipality's ability to implement coherent development strategies that address both local priorities and broader regional objectives.

C2.1. CORRIDORS/ACTIVITY 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.

The primary transport network includes three of the five major transport arteries, namely:

Harrower/Stanford Road

This road runs in a north-westerly direction, linking the PE CBD with Gelvandale, Helenvale, Bethelsdorp and Bloemendal (Chatty). The long-term integrated road network planning provides for the extension of Stanford Road from its current point of termination in the Chatty/ Zanemvula development area, to the Uitenhage CBD area. This extension is reflected in the current planning of the Jachtlvakte / KwaNobuhle Estate residential developments.

Provincial Route R75

The R75 runs in a north-westerly direction and links Gqeberha, Despatch and Uitenhage, as well as the locations of Ibhayi, Algoa Park, Missionvale, Govan Mbeki, KwaDwesi and KwaMagxaki.

Khulani Corridor

The Khulani Corridor refers to the north-south linkage between PE CBD, Ibhayi, Njoli and Motherwell along SheyaKulati, Daku and Dibanisa Roads.

Old Cape Road (R101)

Provincial Route R101, Old Cape road is a westerly linkage between the PE CBD and the Western Townships of Westering, Kabega, Rowallan Park and Bridgemeade.

Heugh/Buffelsfontein Road

This southern route links the PE CBD to the Western Coastal area of Seaview.

William Moffet Expressway

This road is a north-south linkage between Heugh Road / Buffelsfontein Road and Old Cape Road.

The N2

The N2 runs from west to north through the urban area, serving as a primary linkage between the major urban areas of Nelson Mandela Bay Municipality. These arteries and transport links form the structural framework of the Integrated Public Transport System (IPTS) in the municipality, which comprises both road and rail network links. Refer to Table 18 below.

C2.2. RAIL

There is an existing passenger rail link between the PE CBD and Kariega via New Brighton, Sydenham, Swartkops, Redhouse and Despatch. This is part of the Gqeberha – Graaff-Reinet Line.

The planning of a future passenger rail link between Gqeberha CBD and Motherwell via a proposed new Motherwell Rail Corridor parallel to Tyinira Street (Motherwell) is well under way. There is a long-term possible linkage between Coega and Kariega. This is a high-priority project driven by PRASA and detailed route alignments and station designs for the Motherwell Project have been finalised.

After finalisation of the design, on 15 February 2019, the Department of Environmental Affairs granted PRASA Environmental Authorisation for the construction of this 7,86km long and 35m wide section of the Motherwell Rail Corridor and associated Rail Stations in Motherwell. An MOU is yet to be signed by all parties and construction is anticipated in 2023/24. PRASA has confirmed their long-term interest in a passenger rail link between Gqeberha and Kariega via Bethelsdorp, Chatty, Jachtlakte and KwaNobuhle along a route alignment that has been in existence for a long time. The route is partially compromised by existing developments that will require attention at the appropriate time.

A narrow-gauge rail line (Apple Express) exists between Humerail (Gqeberha) and Loerie, which is located west of Nelson Mandela Bay Municipality. This line originally served as a goods line between Gqeberha and Loerie but fell into disuse. In December 2017, through private sector volunteers and public sector involvement, a small portion of the Apple Express line became temporarily operational for tourist purposes. The line and engines have been worked on through cooperation with the public and private sector since 2017.

The protection of this reserve is key for the preservation and to avoid invasion.

The re-operationalisation of the tourist line is nearing completion. Test runs were undertaken in March 2020. There are continued investigations to operationalise the rail line between Humerail and N2/Baywest Precinct for passenger rail purposes or alternatively tourism trips.

Corridor Name	NSDF (2022)	PSDF (2019)	NMBM SDF (2015)	Recommended Term
N2	Key National Road	Strategic Transport Route	National Road	Key National Road
R102	-	-	Primary Corridor	Regional Route
R368	-	-	Primary Corridor	Regional Route
R75	-	-	Primary Corridor	Regional Route
R367	-	-	Primary Corridor	Regional Route
R334	-	-	Primary Corridor	Regional Route
R368	-	-	Primary Corridor	Regional Route
R335	-	-	Primary Corridor	Regional Route

Table 17: Corridors aligned with Policy Hierarchy

Number	Corridor Type	Description of Locality	LSDF	IZ / RZ / PSHDA
1	National Corridor	N2	- Western Suburbs LSDF - Cape Road LSDF - North End / 2010 Stadium / Central LSDF - Ibhayi LSDF, 2017 - Motherwell LSDF - Coega IDZ LSDF	Baywest Nodal Development PSHDA
2	Primary Corridors	R102	- North End / 2010 Stadium / Central LSDF - Western Suburbs LSDF - Cape Road LSDF	Baywest Nodal Development PSHDA

Number	Corridor Type	Description of Locality	LSDF	IZ / RZ / PSHDA
3		R368	- North End / 2010 Stadium / Central LSDF - Bethelsdorp LSDF - KwaNobuhle / Bloemendal LSDF - Despatch LSDF	Uitenhage Despatch KwaNobuhle Corridor PSHDA
4		R75	- Uitenhage LSDF - Despatch LSDF - Ibhayi LSDF, 2017	- Uitenhage Despatch KwaNobuhle Corridor PSHDA - Bethelsdorp Corridor
5		R367	- Uitenhage LSDF - Despatch LSDF - Ibhayi LSDF, 2017	- Uitenhage Despatch KwaNobuhle Corridor PSHDA - Bethelsdorp Corridor
6		R334	- Uitenhage LSDF - Motherwell / Bluewater Bay / Wells Estate LSDF - Coega IDZ LSDF	Uitenhage Despatch KwaNobuhle Corridor PSHDA
8		R335	Motherwell / Bluewater Bay / Wells Estate LSDF	-
9		Khulani Corridor	Gqeberha to Motherwell via Njoli	
10	Trunk Roads	Metropolitan Roads		
11	Rail	Existing Rail		
12	Rail	Future Rail	Ibhayi to Kariega Coega / Motherwell to the North-west Urban Edge	

Table 18: NMBM Corridors



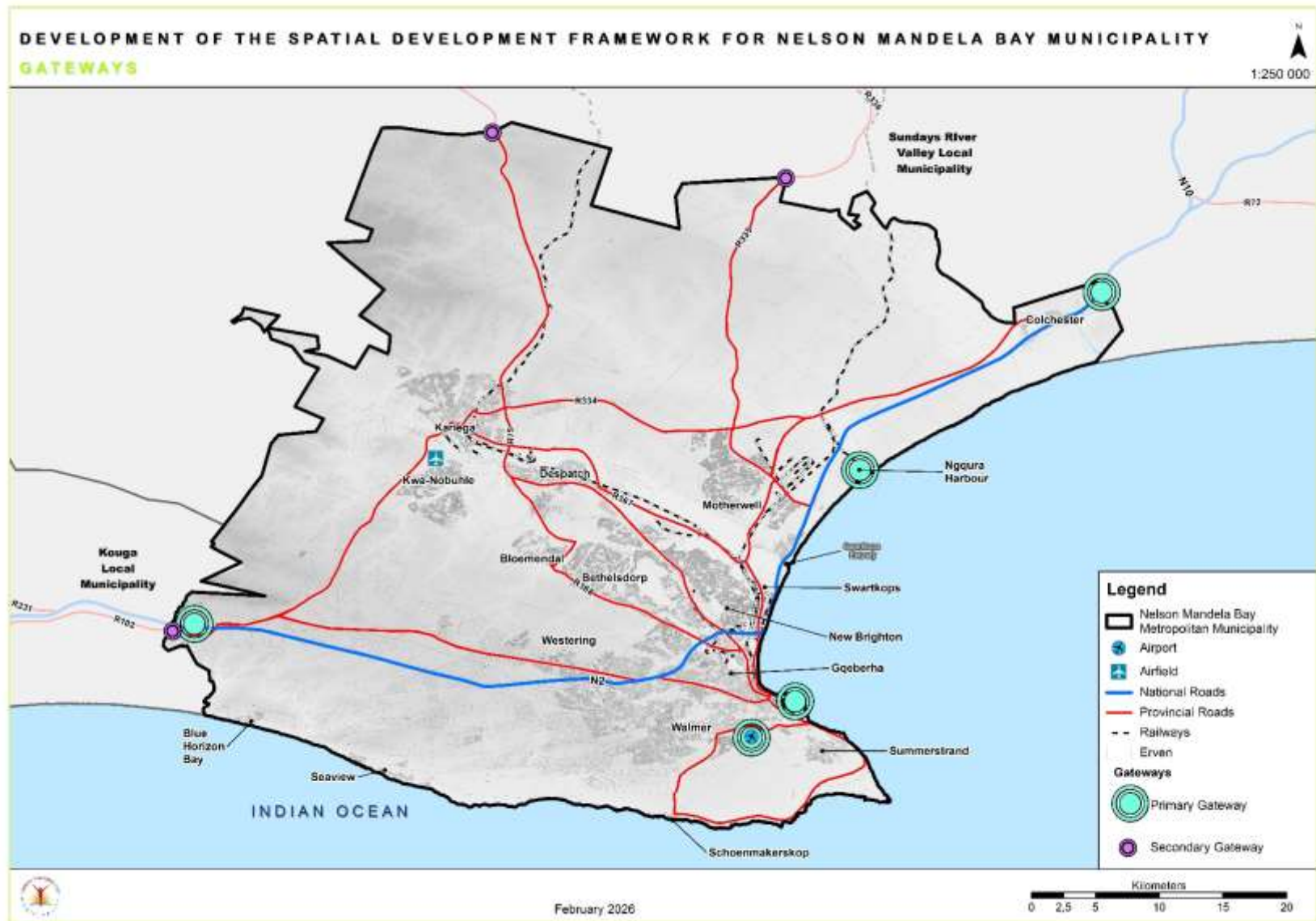
C3. GATEWAYS

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

The following Gateways have been identified within the NMBM Municipality:

GATEWAYS	
Primary Gateway	Gqeberha Port / Harbour
	N2 North East (from Eastern Cape Province)
	N2 South West (from Western Cape Province)
	Chief Dawid Stuurman International Airport
	Port of Ngqura
Secondary Gateway	R 335 (from Addo)
	R 75 (from Graaff-Reinet, and Willowmore via the R 329)
	R 102 / R 331 (Hankey / Kareedouw)

Table 19: Gateways



Map 11: Gateways

C4. NATURAL OPEN SPACE

The open space and green system within the metro provides a diverse range of environments, including conservation areas, Critical Biodiversity Areas, Protected Areas, Nature Reserves, watercourses, ridges, heritages sites, etc. These natural systems are considered Spatial Structuring Elements, as they restrict where development can occur and guide urban growth around these features.

Existing natural environmental resources are economic assets, promoting liveability and viability of communities. The open space and green system should be protected and enhanced to ensure that ecosystems can effectively deliver services. It also strengthens social bonds in places where those kinds of ties are so badly needed. Planning should allow the City to manage growth and development in ways that preserve, protect, and enhance the environment. Protecting the natural visual quality of the area also increases attractiveness, liveability and investment potential.

The Main objectives of the open space network are to:

- Conserve, protect and develop natural resources in the Metro.
- Provide interaction between the built and natural environment.
- To address the interface between the land use typology green system.
- To promote the sustainable use and management of the open space network
- Development is restricted within these areas
- To provide a stormwater corridor/ system along open spaces

The NMBM open space network plays a fundamental role in shaping the city through the conservation of ecological resources, which are major structuring elements guiding urban development. The green system supports both urban and rural landscapes, contributing to quality of life and sustainable development. It also informs planning and management tools due to its spatial, social, and technical dimensions.

The open space network provides opportunities for all residents to access natural resources, enhancing both urban and rural environments. The planning, inventory, and operational management of NMBM's nature reserve network and green infrastructure focuses on conserving ecosystem values and functions, restoring natural systems, maintaining watershed health, and supporting natural resources necessary for agriculture and aquaculture.

The following generic principles should apply to the natural open space system:

- The natural open space system should be protected from intrusive, irresponsible and *ad hoc* developments that damage the ecological integrity as well as visual quality of these areas. These include urban development, mining activities and agriculture etc.

- Properties with portions of ecological sensitivity should be excluded from Open Space provision of properties.
- Gqeberha MOSS must integrate and link recreational opportunities that promote ecological, economic and social objectives.
- In certain areas where natural open space network is currently affected by activities, the municipality must intervene in order to ensure that ecological corridors can be created and are able to function appropriately.
- Focus should be placed on and resources allocated to those consolidated natural open space areas where long term ecological sustainability can be achieved.
- When developing properties which have a portion of ecologically sensitive areas, these should be excluded from Open Space Provision
- No polluted water to enter public open spaces

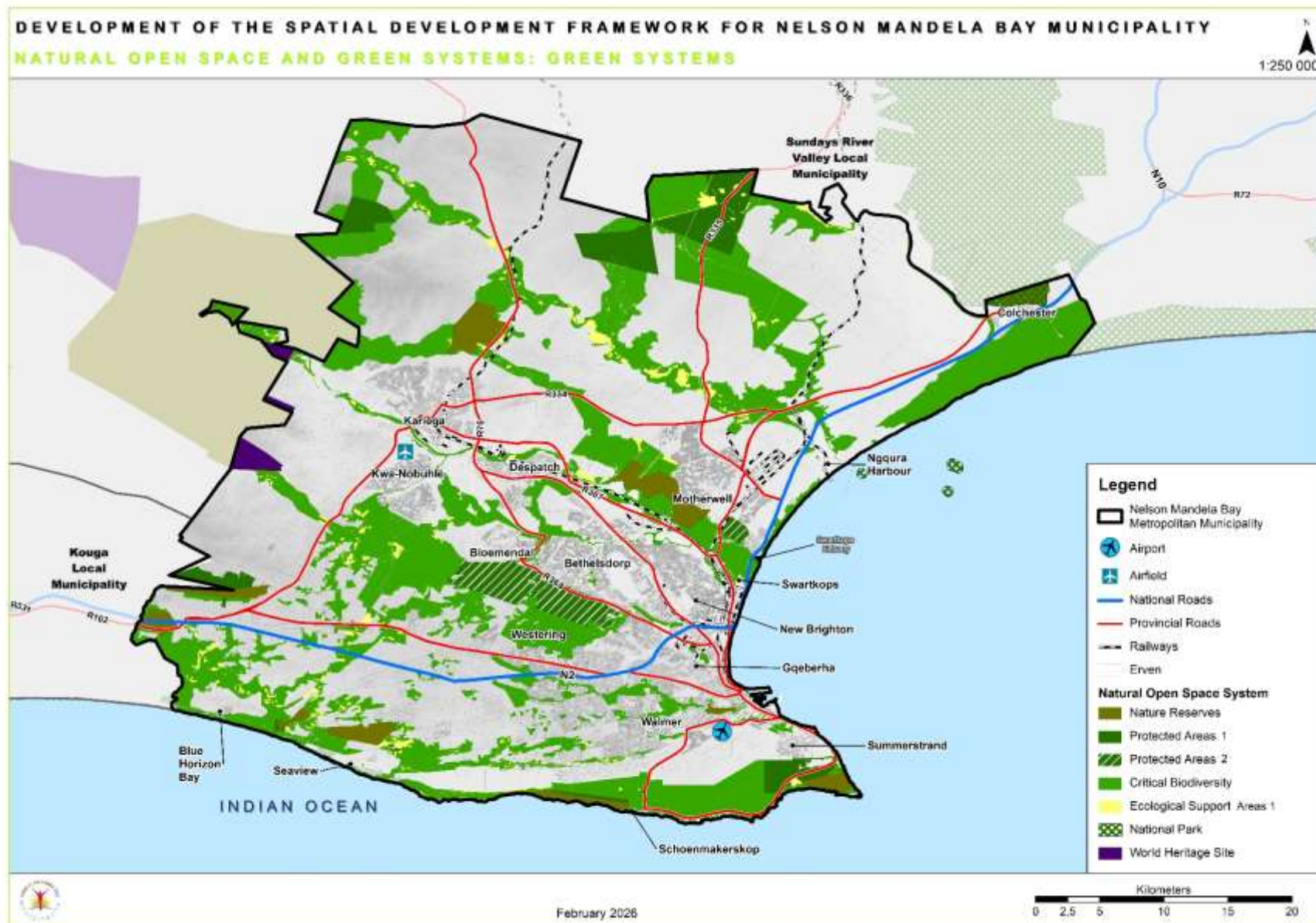
The Natural Open Space System is divided into the “Green Systems”, Map 12, and the “Blue Systems”, Map 13, for ease of viewing the information and is thereafter consolidated in Map 14 below .

Green Systems consist of:

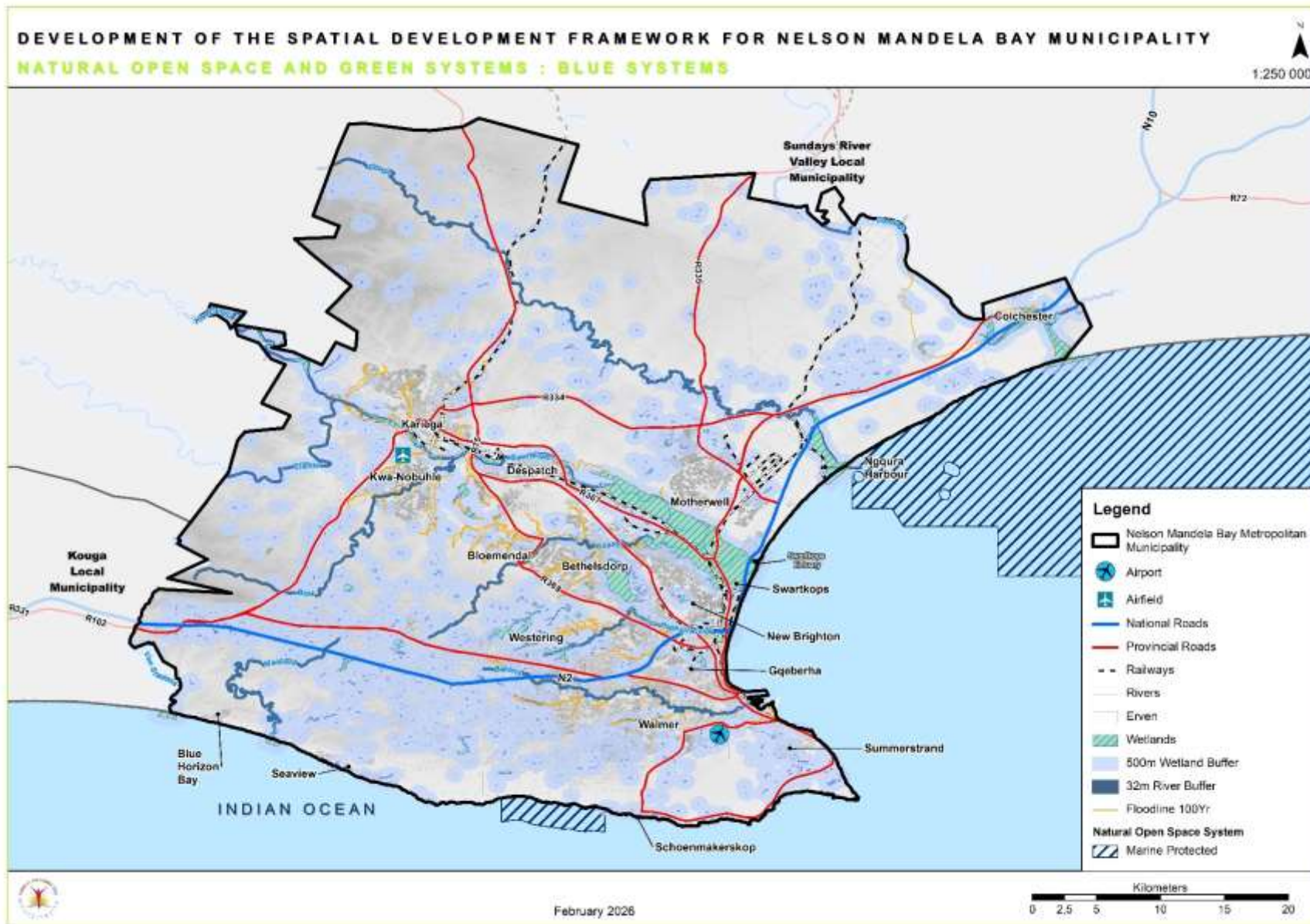
- Critical Biodiversity Areas
- Nature reserves
- Protected Areas
- Ecologically Support areas
- National Parks
- World Heritage Sites

Blue Systems consist of:

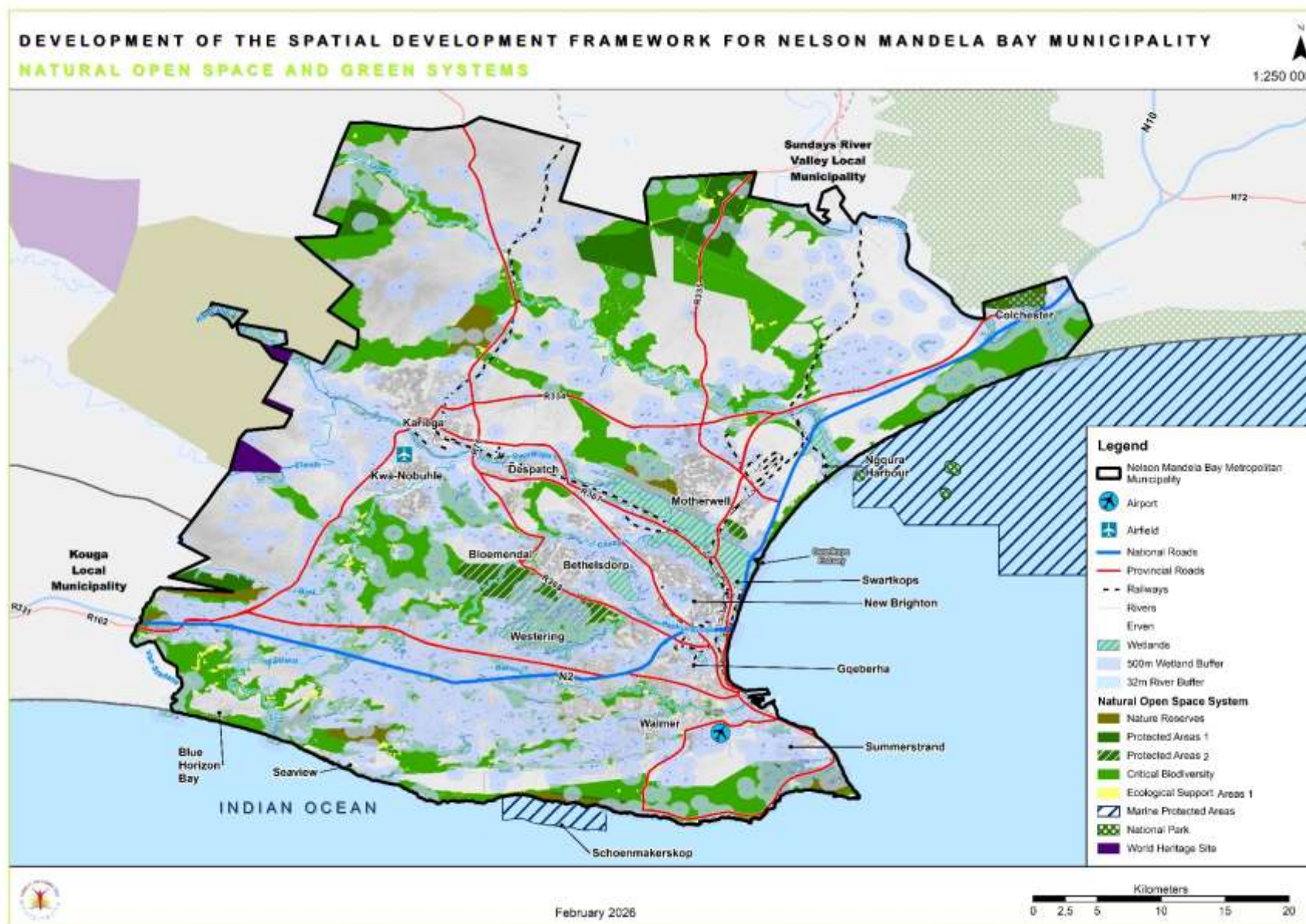
- Wetlands and its development buffer
- River systems and its development buffer
- Marine Protected areas
- Estuaries



Map 12: Natural Open Space: Green Systems



Map 13: Natural Open Space: Blue Systems



Map 14: Natural Open Space and Green Systems

C5. URBAN EDGE/S

The **Urban Edge** is a **demarcated boundary line** used to demarcate the limit of urban expansion. It **defines the extent of permissible urban development**. It is primarily a tool to contain urban sprawl and promote densification within an existing urban area.

The purpose of the Urban Edge is as follows:

- Prevent uncontrolled expansion into rural or environmentally sensitive areas.
- Encourage efficient infrastructure use and service delivery.
- Contain urban sprawl
- Promote densification and infill development
- Support sustainable urban form and reduce commuting distances.

In a spatial planning context, in terms of DEDEAT, the definition of an **Urban Edge** and a **Development Edge** differs, as outlined below:

In contrast, the **Development Edge** is a **broader concept that includes not only the urban edge but also other boundaries that guide where development may occur**. It can include coastal edges, rural development edges, or environmental buffers.

The purpose of a Development Edge is as follows:

- Manage growth in peri-urban and rural areas.
- Protect ecological systems and agricultural land.
- Align development with environmental and economic priorities.

In terms of the NMBM MSDF, the MSDF will focus mostly on the Urban Edge within the NMBM.

Regarding the Urban Edge, the management and the growth of the metro aims to contain development to strategic locations where infrastructure, services and job opportunities can be supported. This boundary ensures efficient optimal land use, balancing community needs with environmental and economic objectives. The urban edge guides infrastructure investment, while preserving sensitive natural landscapes, which supports both biodiversity and the tourism economy.

The Key Functions of the Urban Edge are as follows:

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.
- Promotes LSDFs to identify areas of densification within the Urban Edge

- Density should be encouraged in the following areas
 - PHSDAs
 - Restructuring Zones
 - Along Integration Zones
 - Within identified Growth Areas

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.

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 leapfrogging and infrastructure inefficiencies.
- Urban expansion must align with environmental protection, particularly in wetlands.
- Areas located within or adjacent to the Coastal Management Line 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.

The Key functions of the Development Edge are as follows:

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.

Managing peri-urban development:

- Provide guidelines for development within the peri urban areas
- Protect the natural and unique fabric of these areas through the controls
- Limit the urban development within these areas

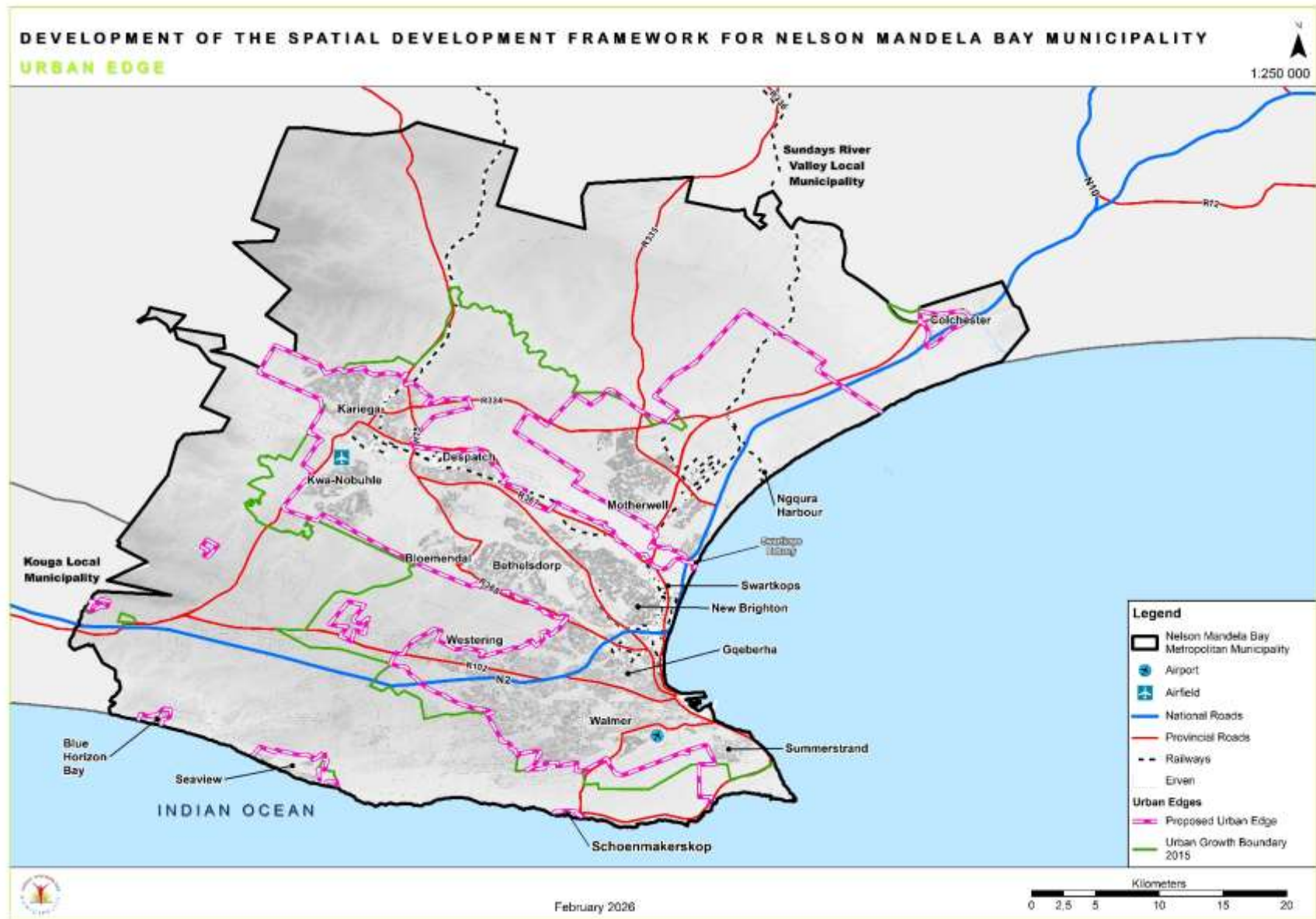
Map 15 below outlines the Urban edges proposed for the MSDF.

The development of this urban edge bares reference with the MSDF 2009 (page 4-6) and the 2015 MSDF (page 88, 189-192) which was used as a guide for developing and refining the current proposed urban edge.

The delineation of the urban edge was intentionally tightened. The reasons are as follow:

- The municipality aims to prioritize development within existing settlements, including utilization of vacant land, underused parcels, and infill opportunities.
- The compact urban form objective seeks to promote densification and efficient land use.
- Extending development outward places, significant pressure on the municipality due to high cost of bulk infrastructure, especially when servicing areas that are distant from established networks.

The map also indicates the 2015 Urban Growth Boundary from the 2015 MSDF. The latter boundary is indicated for reference to the proposed Urban and Development Edge. The previous Urban Edge included environmentally sensitive areas which should have been excluded however, due to development pressure and lack of maximising development in the inner boundary, it was essential to reduce the urban edge to make sure that infrastructure is maximised.



Map 15: Urban Edge

C6. SPECIAL DEVELOPMENT INCENTIVE AREAS

Spatially Incentivised Areas define the focus of investment within municipal space through a series of designated zones. These zones are identified for specific growth purposes and have distinct development objectives.

The purpose of this section is to outline the various zones and their intended functions. Four (4) types of Special Development Incentive Areas are identified:

- Integration Zones (IZs)
- Restructuring Zones (RZs)
- Priority Human Settlement Housing Development Areas (PHSHDAs)
- Growth Areas (GAs)

Each zone is numbered, mapped, and consolidated into an overall map for reference. Proposals for these zones will be addressed in the Frameworks section that follows.

C6.1. INTEGRATION ZONES

Integration zones are spatial planning elements designed to facilitate spatial targeting of investment aimed at promoting spatial transformation along spatially targeted corridors.

The Urban Network consists of two Integration Zones, each forming part of a city or city region-wide TOD network. Each zone comprises a transit spine that connects two anchors via mass public transport (rail or bus), for example:

- The CBD and an urban hub (a township node with the highest investment potential), or
- The CBD and another primary metropolitan business node.

Between the two Integration Zone anchors, a limited number of intermediate nodes are strategically positioned at key intersections. These nodes connect marginalised residential areas (townships and informal settlements) and economic nodes (commercial and industrial areas) via feeder routes. The Urban Hub links to secondary township nodes within the marginalised peripheral township. Each Integration Zone includes a hierarchy of TOD precincts, which are located and prioritised within the node structure described above. Integration Zones traverse some of the poorest parts of the city, where catalytic development is targeted.

The Integration Zones have a buffer of around 800m wide from the centre and should not cut across a property.

Integration Zone	Priority
Khulani / Njoli / Motherwell	IZ 1
Stanford Road	IZ 2

Table 20: Integration Zones

The Khulani/ Njoli / Motherwell Integration Zone has been prioritised above Stanford Road due to the advanced development of Njoli Square and Red Location Precinct Programme and proposed Motherwell Passenger Corridor in that zone.

The Gqeberha CBD is the anchor for both Integration Zone 1 and Integration Zone 2 and holds significant potential for inner city revitalisation with initiatives as included in the Port Baakens Catalytic Land Development Programme.

The Integration Zones are described below:

INTEGRATION ZONE 1 (IZ1) (CBD/KHULANI/ NJOLI):

This Integration Zone connects the Inner-City area through the Njoli Hub to Motherwell and incorporates the Khulani Corridor between Stanford Road, Njoli Square, and Motherwell. It also includes Secondary Hubs such as Kenako/Vista and Red Location and presents opportunities for urban regeneration and intensified mixed-use development along the Khulani Corridor and around the Njoli Hub.

Njoli Precinct Plan:

Approved by Council on 5 December 2019, the Njoli Precinct Plan seeks to create an economic node that links and integrates the previously segregated townships of Ibhayi and Bethelsdorp. The plan encourages mixed-use and higher-density development along routes connecting:

- Njoli Square
- Kenako Mall
- Eastern Cape Training Centre (ETC)
- Struandale Industrial Area
- Vista Campus
- Dora Nginza Hospital
- Developments at the corner of Spondo and Njoli Road

These interventions aim to strengthen integration and connectivity across the area.

Key Strategies:

- Enhance accessibility and connectivity within the corridor.
- Promote precinct-based development for mixed-use growth.
- Facilitate in-situ informal settlement upgrading.
- Support cultural and tourism development initiatives.

INTEGRATION ZONE 2 (IZ2) (STANFORD ROAD):

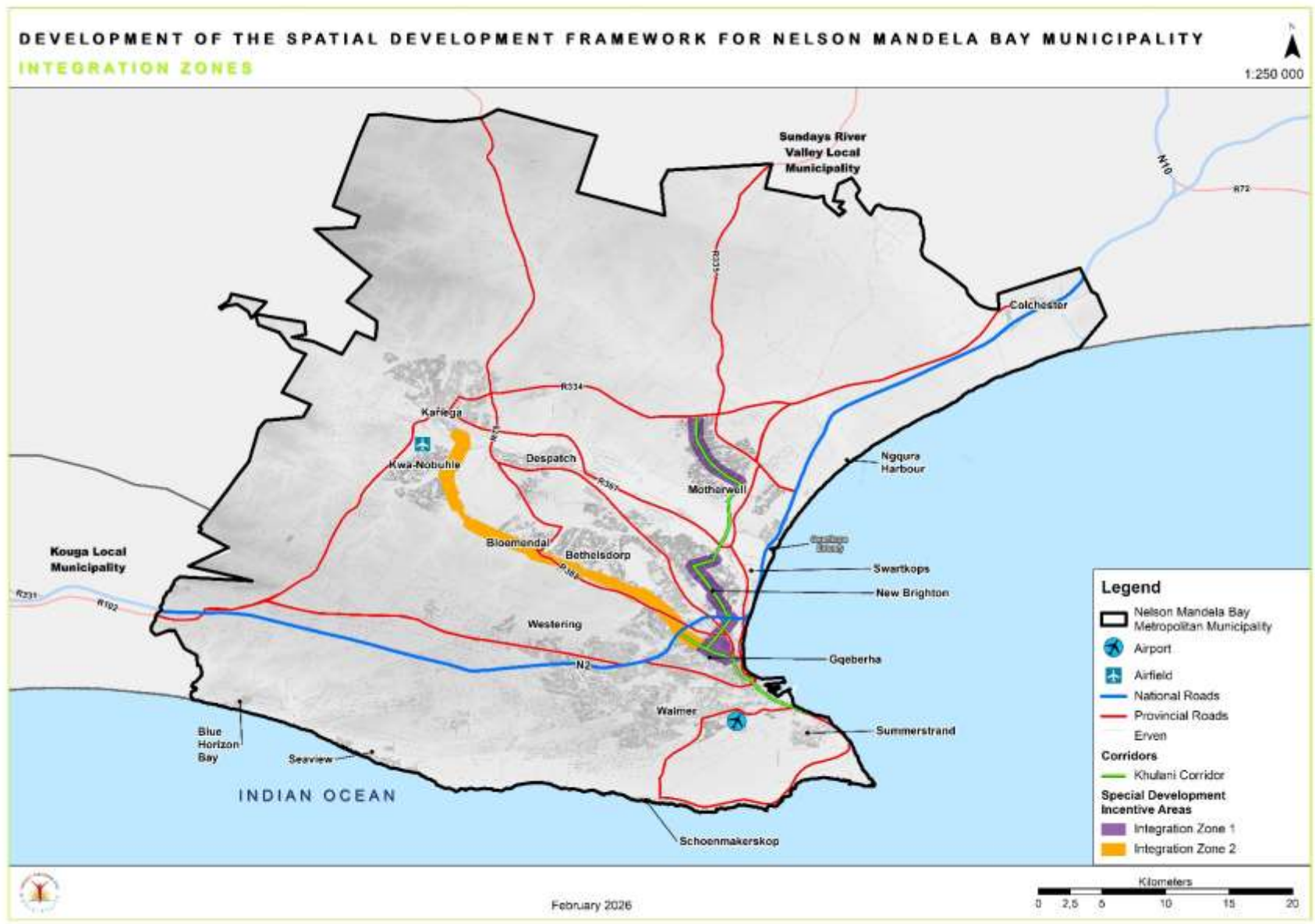
This Integration Zone runs along Stanford Road and extends to Kariega, forming a spatial link between Integration Zone 1, the Chatty Jachtlakte Hub, and Kariega CBD.

Key Characteristics:

- The corridor is narrow due to environmental and spatial constraints, which limits scope for catalytic development.
- Catalytic interventions are focused primarily on modal interchanges, such as the Cleary Park Modal Interchange.
- The extent of this Integration Zone around the Zanemvula Chatty Hub has been expanded to include:
 - Chatty / Jachtlakte
 - Zanemvula
 - KwaNobuhle Estate Housing Projects

Chatty Jachtlakte Economic Node:

- Located at the intersection of Bloemendal Arterial and Stanford Road.
- Represents the core of the greenfield component of the Zanemvula housing area.
- Developed as a joint initiative by the National Department of Human Settlements, Provincial Department of Human Settlements, and the Municipality.
- Catalytic interventions are needed to unlock the node's development potential and stimulate growth in this newly developed area.



Map 16: Integration Zones Map

C6.2. RESTRUCTURING ZONES

Restructuring Zones are urban areas targeted for interventions to address historical spatial inequalities and promote equitable access to housing, services, transportation, and economic opportunities.

Restructuring Zones are essential components of South Africa's urban planning strategy, driven by the need to rectify past inequalities and **promote sustainable human development**. By focusing on these areas, municipalities can work towards creating more **inclusive, resilient, and liveable urban environments** for all residents.

Key Concepts:

- Designated areas within municipalities focused on urban regeneration.
- Improve socio-economic conditions by enhancing access to resources, services, and opportunities.
- Foster inclusive growth and community development by targeting underdeveloped or neglected urban spaces.

The following lists the Gazetted RZs in the Nelson Mandela Bay Metropolitan Municipality:

Name of Node	Name of Restructuring Zone area
Gqeberha (Port Elizabeth)	Summerstrand
	Fairview
	2010 Stadium Precinct
	Newtown Park
	Stanford Road
Kariega (Uitenhage, 10km radius)	Uitenhage CBD
	Dispatch CBD
	Florida Farms
Coega SEZ (10km radius)	Coega Vulindlela
	Wells Estate
	Amsterdamhoek
Baywest Node (10km radius)	Baywest/ N2 hub
	Lorraine
	Hunters Retreat
	Kabega Park
	Persons Vlei

Table 21: Gazetted Restructuring Zones

The NMBM Human Settlements Sector Plan, 2012 has identified Six (6) Restructuring Zones which been identified and approved by the Council and Provincial Authorities, namely:

Number	Name
1	Mandate Area of the Mandela Bay Development Agency
2	Walmer Allotment Area (Walmer Heights, Walmer Downs and Walmer)
3	Mount Road Allotment Area (Mount Croix,
4	Fairview
5	Uitenhage CBD
6	Despatch CBD

Table 22: NMBM HSP outlined RZs

The HSSP further indicates that an additional ten (10) Restructuring Zones have been identified and approved by Council, but these have not yet been approved by Provincial Authorities. A broad-brush analysis of the proposed Restructuring Zones is discussed below:

Number	Name	Remarks
7	Parsonsvlei	Large tracts of privately owned land situated 10kms west of the CBD
8	Lorraine	Potential for infill development on privately owned land approximately 12-15km south west of the CBD.
9	Motherwell	Situated between 25-30km from the CBD and 5-10 km from Coega. Designated as a Presidential Urban Renewal Programme and comprises large tracts of publicly owned land with infill potential and informal housing. Although it is located far from the CBD and major employment areas although proximity to Coega IDZ and Markman Industrial Area is a major advantage.
10	Chatty Phases	Essentially a Greenfields relocation area on publicity owned land situated 15-20km from the CBD and far from established employment areas, amenities and facilities. The density of existing development is low, and area lacks population threshold to support significant services.
11	Summerstrand	Located 5kms for the East of CBD, in a high-income residential area and major tourist destination in the City. Publicly and privately owned vacant land is limited and the bulk of development would require redevelopment of existing properties at higher densities. Proximity to the university makes it ideal for development of student accommodation. The cost to access land, property and social resistance to change is likely to be high.

Number	Name	Remarks
12	Wells Estate	Situated 10kms to the North-East of the CBD, with ease of access to the City via the N2, (±10 minutes) to the Coega IDZ (±5kms), close to the St Georges/ Wells Estate, Coastal Recreation belt (±10 minutes' walk), has large tracts of publicly owned land, portion of which is already planned and developed for low cost (RDP) Housing. Vacant land adjacent to the Bluewater Bay and Amsterdamhoek suburbs which is ideal for the development of an Integrated Residential area.
13	Hunters Retreat	Situated approximately 15kms on the western outskirts of the City along the N2. Part of the area is earmarked for the development of the Bay West Regional Shopping Mall and Integrated Residential development. Area is characterised by large tracts of vacant public and privately owned land that can be developed around the proposed Regional Mall for a variety of mixed uses (e.g. residential, retail, commercial, etc.)
14	Newton Park	Situated 5kms for the west of the CBD and contains significant residential, commercial, retail and community facilities, including the 42 000m ² . Greenacres Regional Shopping Centre. Opportunity exists to redevelop existing and developed residential properties some of which have been zoned for Business III or Business I in line with the out-dated Policy Plan for the Newton Park Area. Area is ideal for residential intensification served by a major public transport corridor (Cape Road) to the west of the City due to the large size of residential erven, low coverage, single storey and low-density nature of the existing development.
15	2010 World Cup Stadium and Environ	The 2010 Stadium Precinct and Environs is earmarked for regeneration for leisure and entertainment, residential intensification, SMME development and retail given the good location at the northern edge of the CBD and at the confluence major routes, public transport corridors and IPTS Routes (Harrower/ Stanford Road, Govan Mbeki, Kempston Road and Commercial Road).
16	Greenbushes	Situated 14km to the west of the City Centre and contains large tracts of mostly privately owned land that is suitable for the development (light) industries and integrated residential development. Destination points for the IPTS along the Cape Road Corridor.

Table 23: NMBM HSP outlined RZs

These areas are indicated in Map 17:



NELSON MANDELA BAY MUNICIPALITY MUNICIPAL SPATIAL DEVELOPMENT FRAMEWORK

C6.3. GROWTH AREAS

Growth areas are spatial areas identified as having potential for future growth and development within the NMBM.

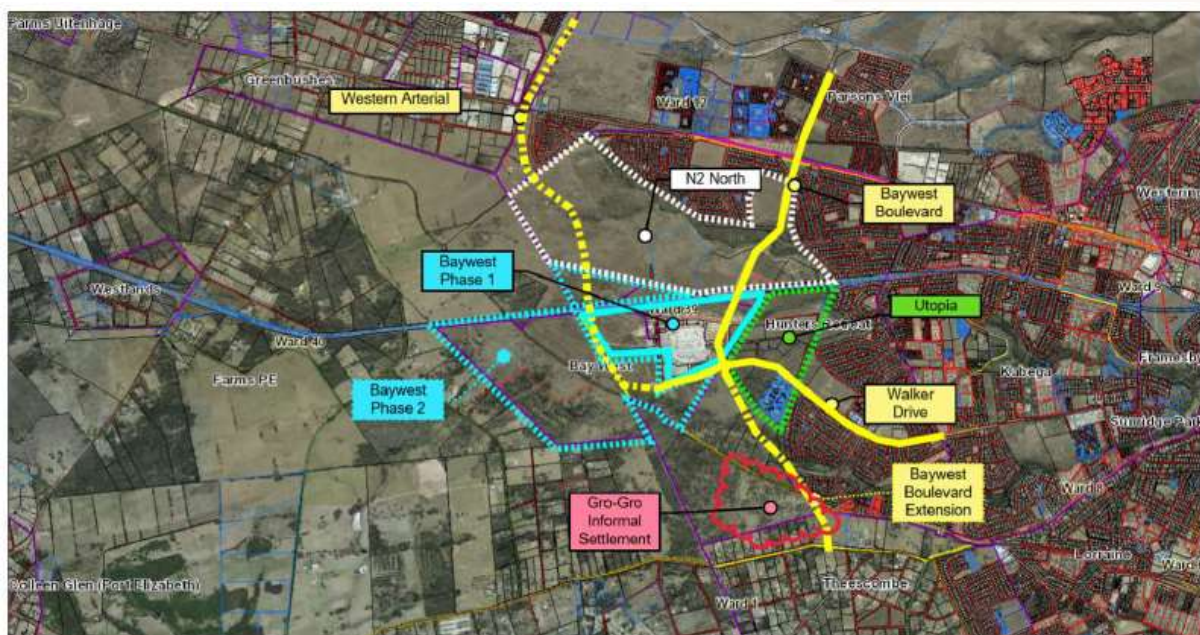
There are 4 growth areas identified as follows:

No.	Name of Growth area
GA 1	N2 / Baywest region
GA 2	Fairview region
GA 3	Walmer / Airport region
GA 4	Motherwell region

Table 24: Growth Areas

GA 1: BAYWEST/ N2 NODAL DEVELOPMENT AREA

- The Baywest / N2 Growth Area is anchored by the regional Baywest Mall that opened in May 2015.
- This Growth Area is also identified as one of the National Department of Human Settlements Catalytic projects referred to as the N2 Nodal Development Catalytic Project.
- Includes surrounding areas such as Kuyga extension, and Westbrook.
- A direct road linkage between the Baywest/N2 Node and Chatty/Zanemvula has been identified (Proposed Western Arterial) as high priority



GA2: FAIRVIEW REGION

- Located within an 8 km radius of the CBD, adjacent to the William Moffet Expressway and Circular Drive activity corridors.
- Key developments in this area include social rental and finance linked subsidy programme (FHF) housing developments from the 2015 and 2016 period.
- Large tracts of land are still available for development (It should be noted that this is privately owned land).
- Challenge of water and sanitation expansion to allow for new densities

GA 3: WALMER / AIRPORT REGION

- Includes the Walmer residential area, combining well established residential and economic development with new integrated residential projects.
- Requires bulk infrastructure upgrades, particularly the Driftsands collector sewer and stormwater management systems.
- Fountain Road commercial facilities are earmarked for development and upgrade as part of this economic node.

GA 4: MOTHERWELL

- Motherwell is prioritised for transformation due to its history as a dormitory town.
- Under-serviced in terms of economic and social facilities, existing amenities often sub-standard.
- Major township extensions (Motherwell Extensions 12, 29, 30 and 31) implemented through municipal human settlement programme.
- Significant developments include the Motherwell Shopping Centre, Clinic, Thusong Centre (to be redeveloped as a Traffic Centre), Motherwell Community Centre, and the higher density Sakhasonke Housing Project.
- The planning of a future passenger rail link between Gqeberha CBD and Motherwell via a proposed new Motherwell Rail Corridor parallel to Tyinira Street (Motherwell) is well under way.

The 4 Growth Areas are shown on Map 18:



C6.4. PRIORITY HUMAN SETTLEMENT AND HOUSING DEVELOPMENT AREAS (PHSHDAS)

The Priority Human Settlements and Housing Development Areas (PHSHDAs) are designated regions focused on addressing housing needs through intergovernmental cooperation and integrated planning to expedite housing delivery. They are identified based on housing demands that current programs cannot meet, specifically targeting low-income earners through upgrading urban areas, accelerating shelter provision, and addressing high-demand locations with low housing supply.

The PHSHDAs aim to promote spatial transformation and revitalization of towns, enhancing livelihoods and dismantling apartheid-era spatial patterns. They also align with several national housing programs, including the Integrated Residential Development Programme and the Social Housing Programme. A significant portion of public funding will be directed to the PHSHDAs to attract private sector investment.

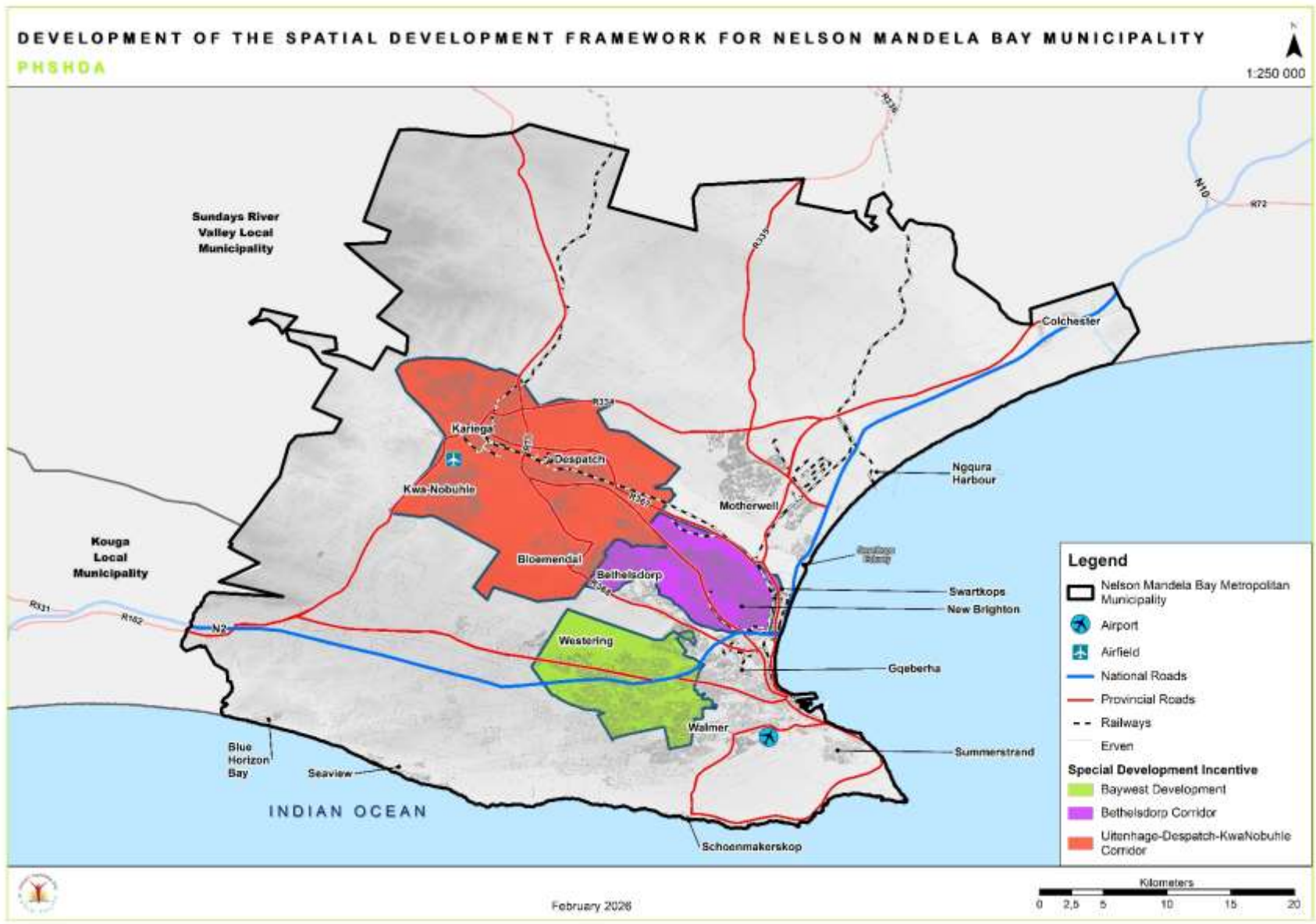
It is proposed that PHSHDA Development Plans are developed for each of the 3 Gazetted PHSHDA areas to focus Human Settlement Development within these areas.

These areas are to be utilised for spatial targeting of utilisation of funds which are linked to development of infrastructure and housing.

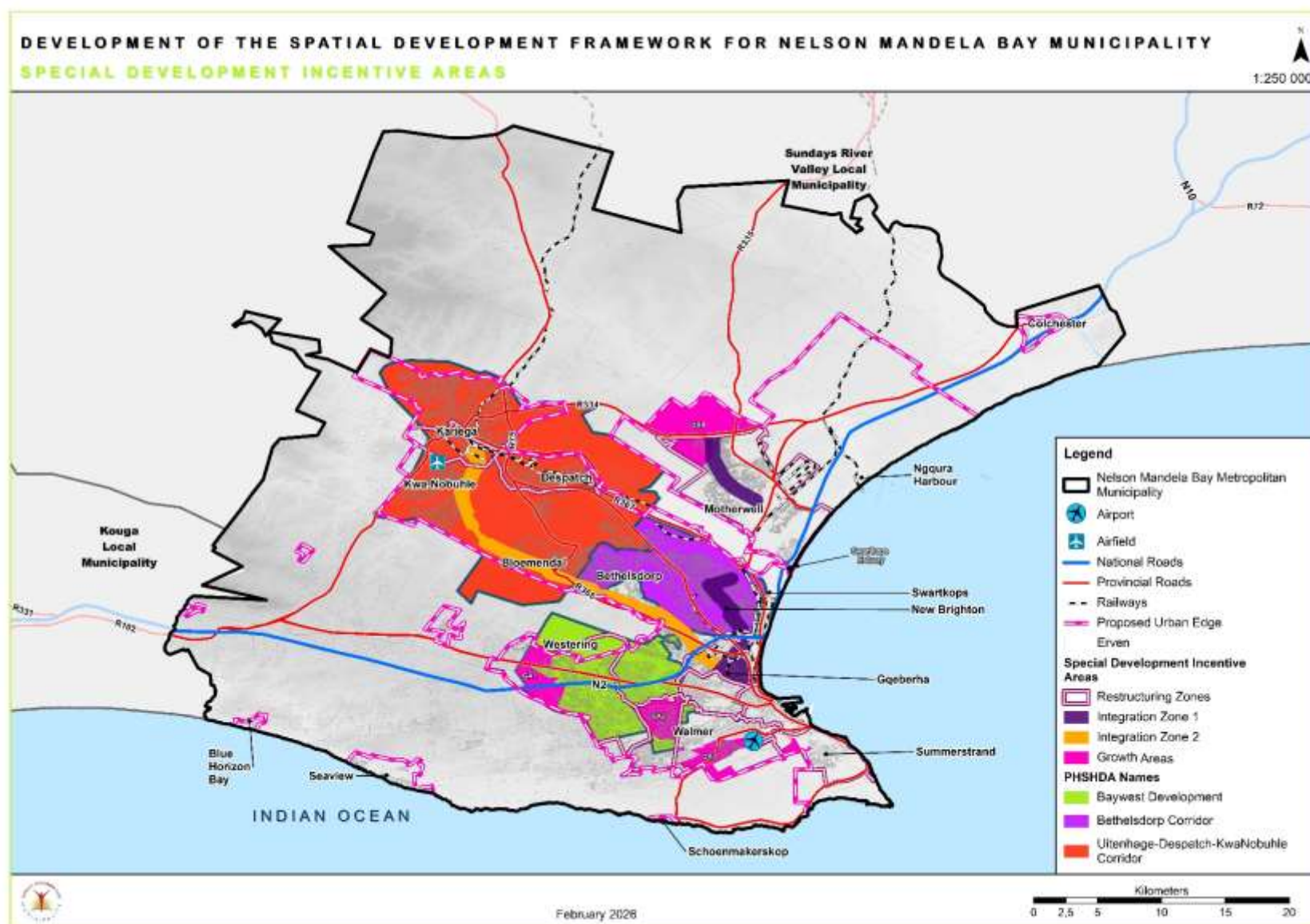
The following lists the Gazetted PHSHDAs in NMBM:

Name of Allotment	Number	Name of PHSHDA
Gqeberha (Port Elizabeth)	1	Baywest Corridor
	2	Bethelsdorp Corridor
Kariega (Uitenhage, 10km radius)	3	Uitenhage-Despatch-KwaNobuhle Corridor

Table 25: PHSHDAs



Map 19: PHSHDAs



Map 20: Special Development Incentive Areas

C7. SPATIAL TARGETED AREAS

The Nelson Mandela Bay Municipality is the largest Metro within the Province of the Eastern Cape covering an approximate area of 1,959 km².

The NMBM Municipality is characterized by:

- A CBD in decline; offices buildings converted into student accommodation with no accompanying amenities to it.
- Rising tourism throughout the metro municipality
- Coastal tourism developing into a mixed-use destination i.e. tourism, retail, etc.
- Industrial areas on the periphery of the CBD in a state of decline
- The automotive industry typically led by Western car manufactures struggling due to the rising influence of car manufactures from the East
- Ports with huge capacity to handle cargo for both export and import performing at low rates on a global scale
- Large tracts of agricultural land surround the entire urban area to the north

With the current unstable economic climate within South Africa and globally, reliance on the government's limited funding places strain on institutions. What is required is grounding, stability, and more focused investment to cater for community needs and resilience in specific areas

These specific areas require focused investments and should align to National Treasury's Spatial Targeting principles.

According to the South African National Treasury, spatial targeting is, 'a strategic approach within the municipal environment that involves deliberately focusing capital investment in specific geographic areas to more effectively achieve municipal objectives'

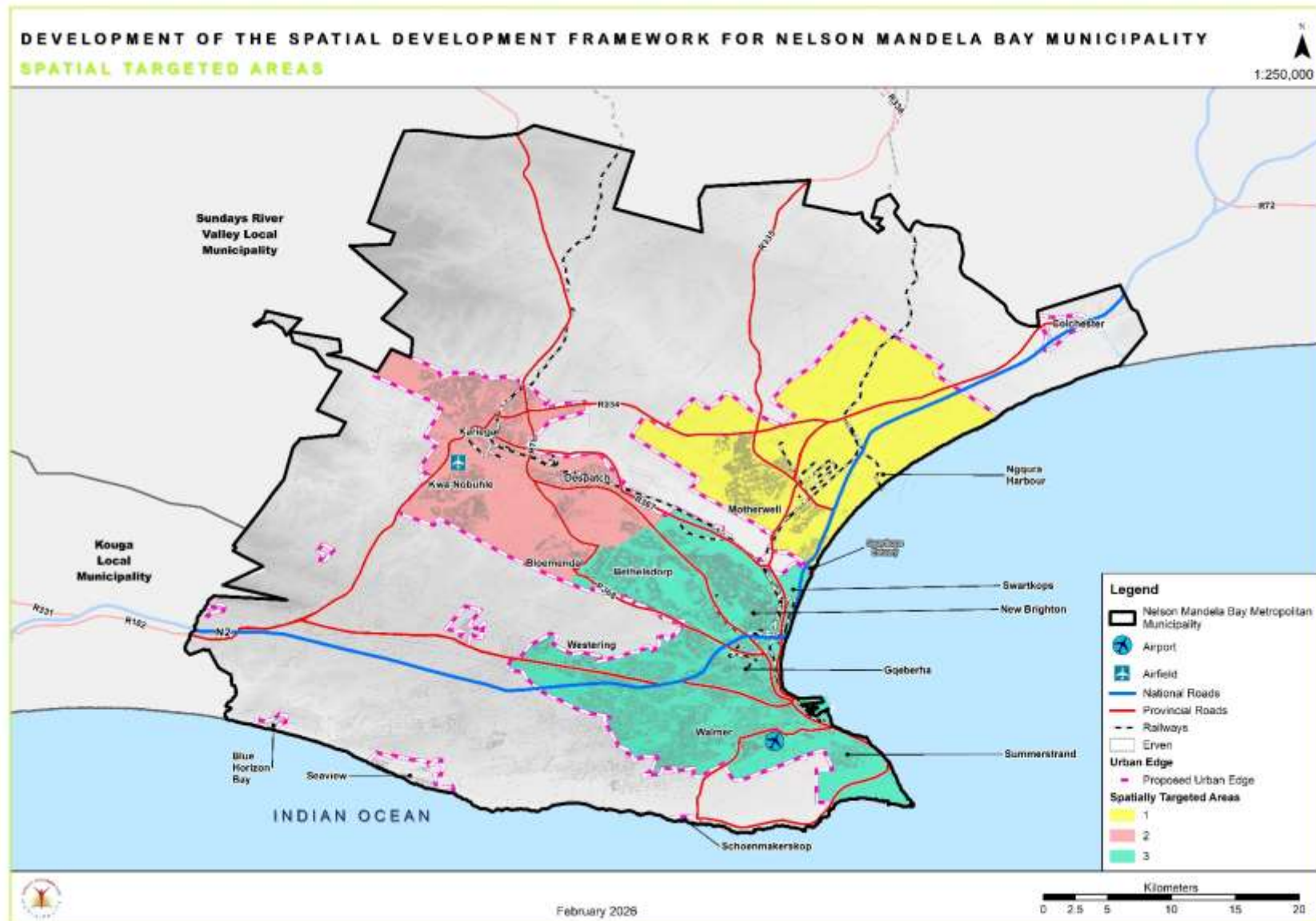
KEY CONCEPTS OF SPATIAL TARGETING

Purpose: To promote spatial transformation by addressing historical spatial inequalities and improving service delivery in underserved areas.

Application: Used to guide public-sector planning, budgeting, and investment decisions toward areas that can yield the greatest developmental impact.

Alignment: Supports principles from the Spatial Planning and Land Use Management Act (SPLUMA), the National Development Plan (NDP), and the Integrated Urban Development Framework (IUDF).

As a result, for the NMBMM, we are recommending 3 Spatial target/focus Areas i.e.



Map 21: Special Targeted Areas

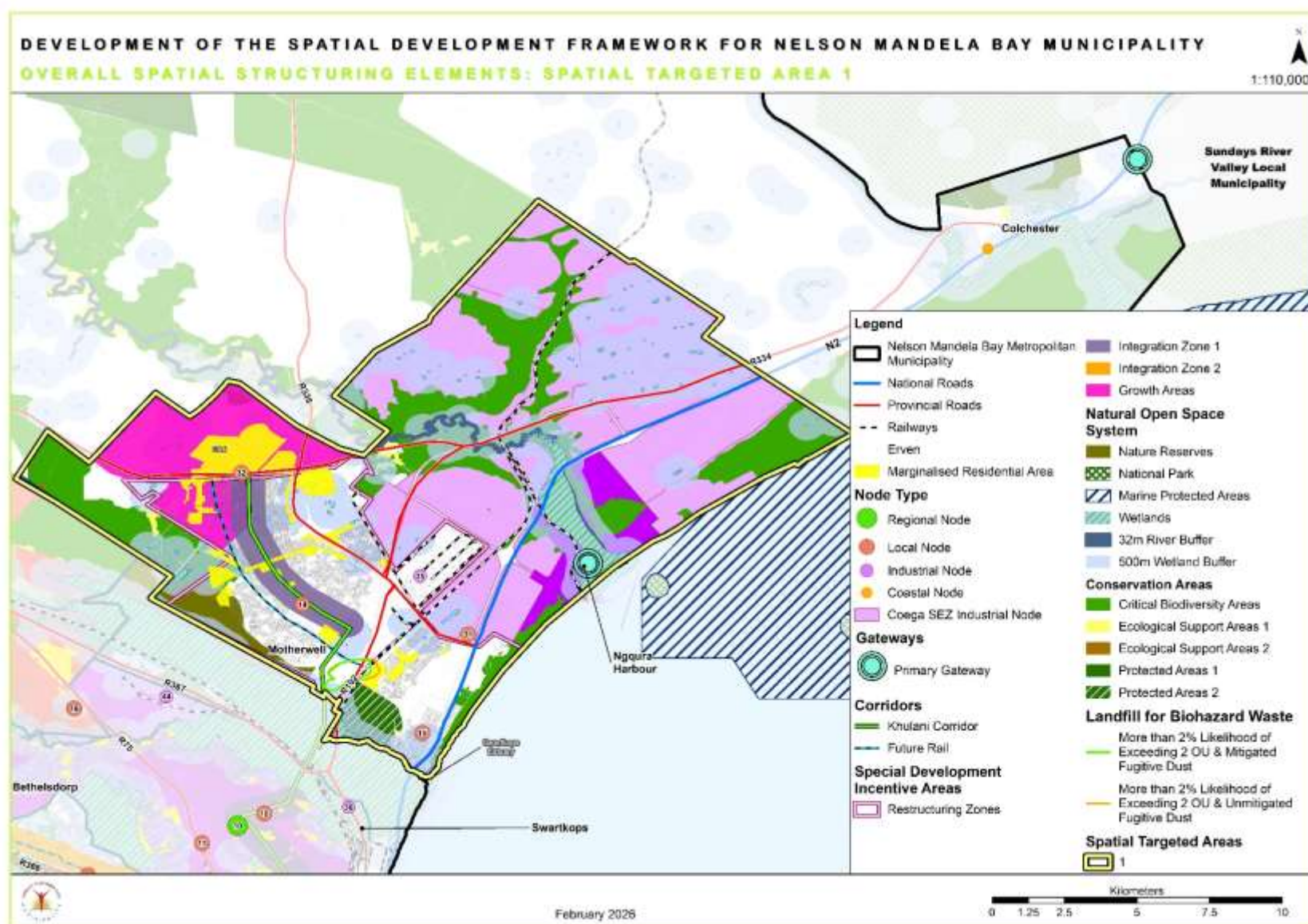
The following Maps overlay all Spatial Structuring Elements as presented above in Section C. The Spatial Targeted Areas are used to zoom into the 3 regions to highlight the consolidated Spatial Structuring Elements. This is done for ease of reading and to understand the impacts of the various elements on space.

These consolidated Maps will be used when developing the Spatial Frameworks to follow and will guide and structure where what types of development that can occur in terms of these various Spatial Structuring Elements.

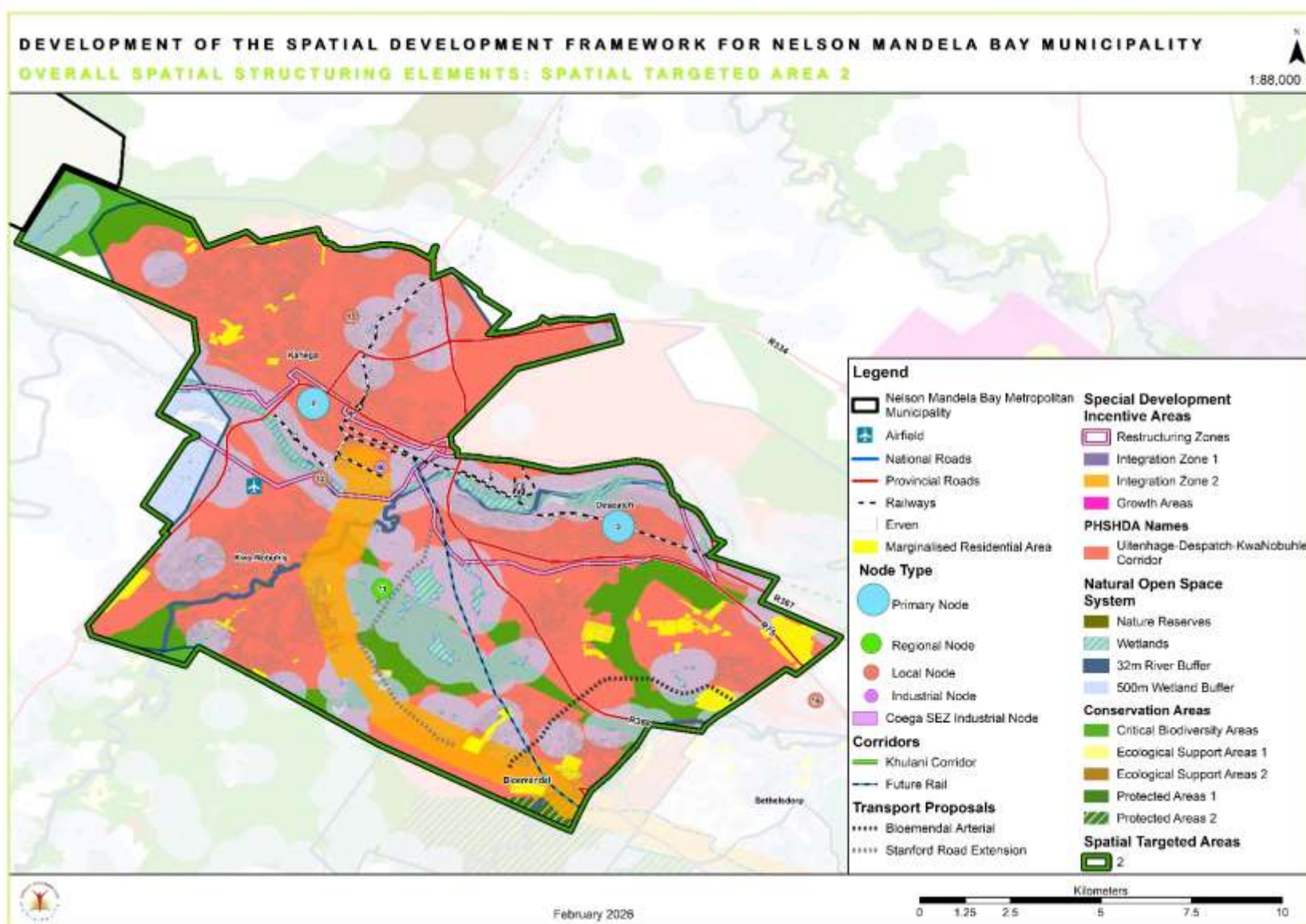
The following table summarizes Section C.6 within the context of the Spatial Targeted Areas and depicts the which Special Incentive Area falls within what Spatial Targeted Area. The Maps 22-24 depict each STA and the Special Incentive Areas that fall within it.

Spatial Targeted Areas (STA)	Integration Zone (IZ)	Restructuring Zone (RZ)	Growth Area (GA)	Priority Human Settlements Housing Development Areas (PHSHDAs)	Local Spatial Development Areas (LSDFs)	Other Proposals
STA 1	IZ 1	RZ 9 RZ 12	GA 4	-	LSDF 10 LSDF 11	Future rail
STA 2	IZ 2	RZ 5 RZ 6 RZ 10	-	PHSHDA 3	LSDF 8 LSDF 12 LSDF 13	Standford Rd Extension Future Airport region Extension NMBM Logistics Park Bloemendal Arterial Jachtlakte Phase 2 Development Future rail
STA 3	IZ 1 IZ 2	RZ 2 RZ 4 RZ 7 RZ 8 RZ 11 RZ 13 RZ 14 RZ 15 RZ 16	GA 1 GA 2 GA 3	PHSHDA 1 PHSHDA 2 PHSHDA 3 (small portion)	LSDF 1 LSDF 2 LSDF 3 LSDF 4 LSDF 5 LSDF 6 LSDF 7 LSDF 9	Khulani Corridor Future rail Gateway – Port Gateway – Airport

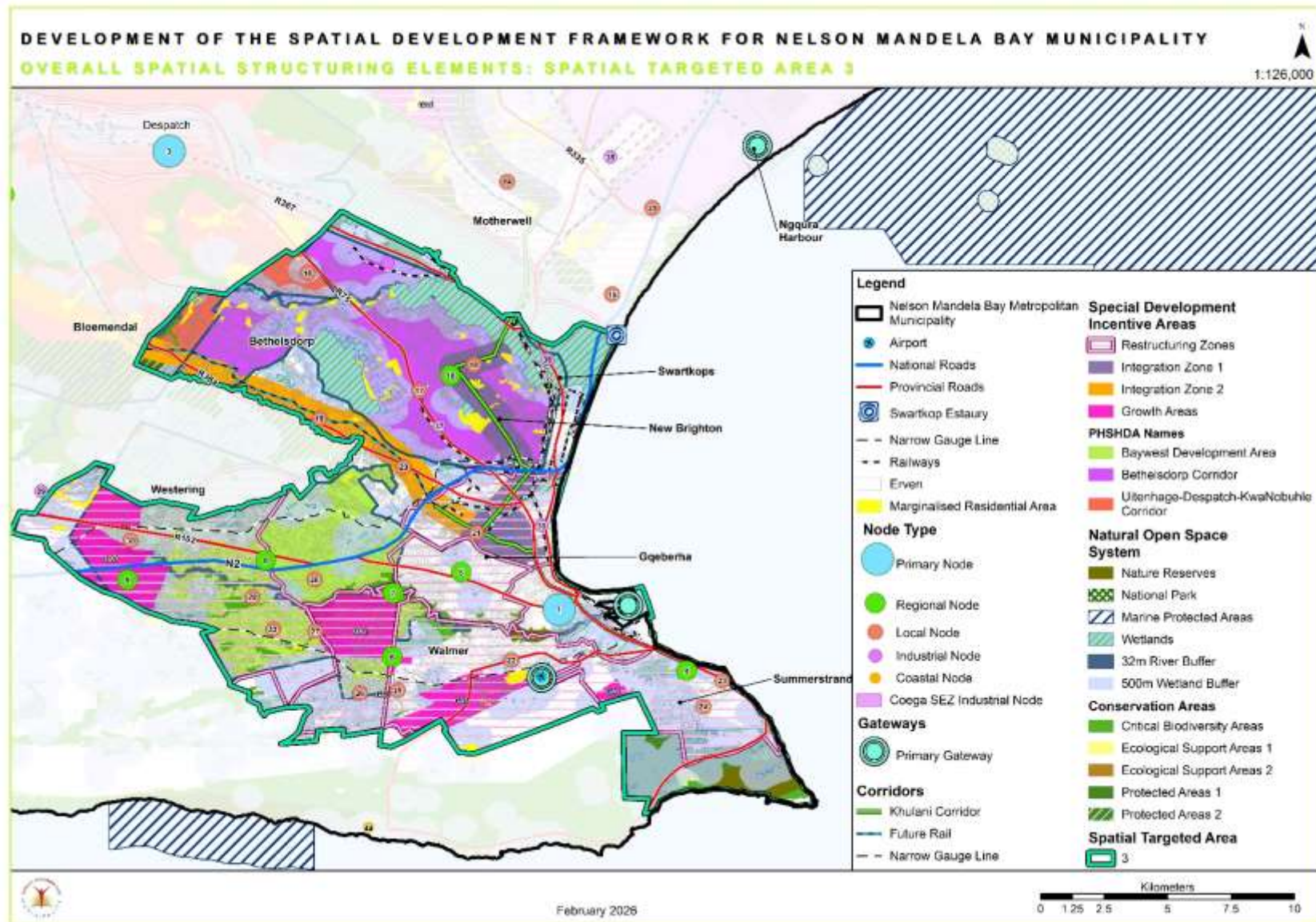
Table 26: Special Development Incentive Areas in terms of the STAs



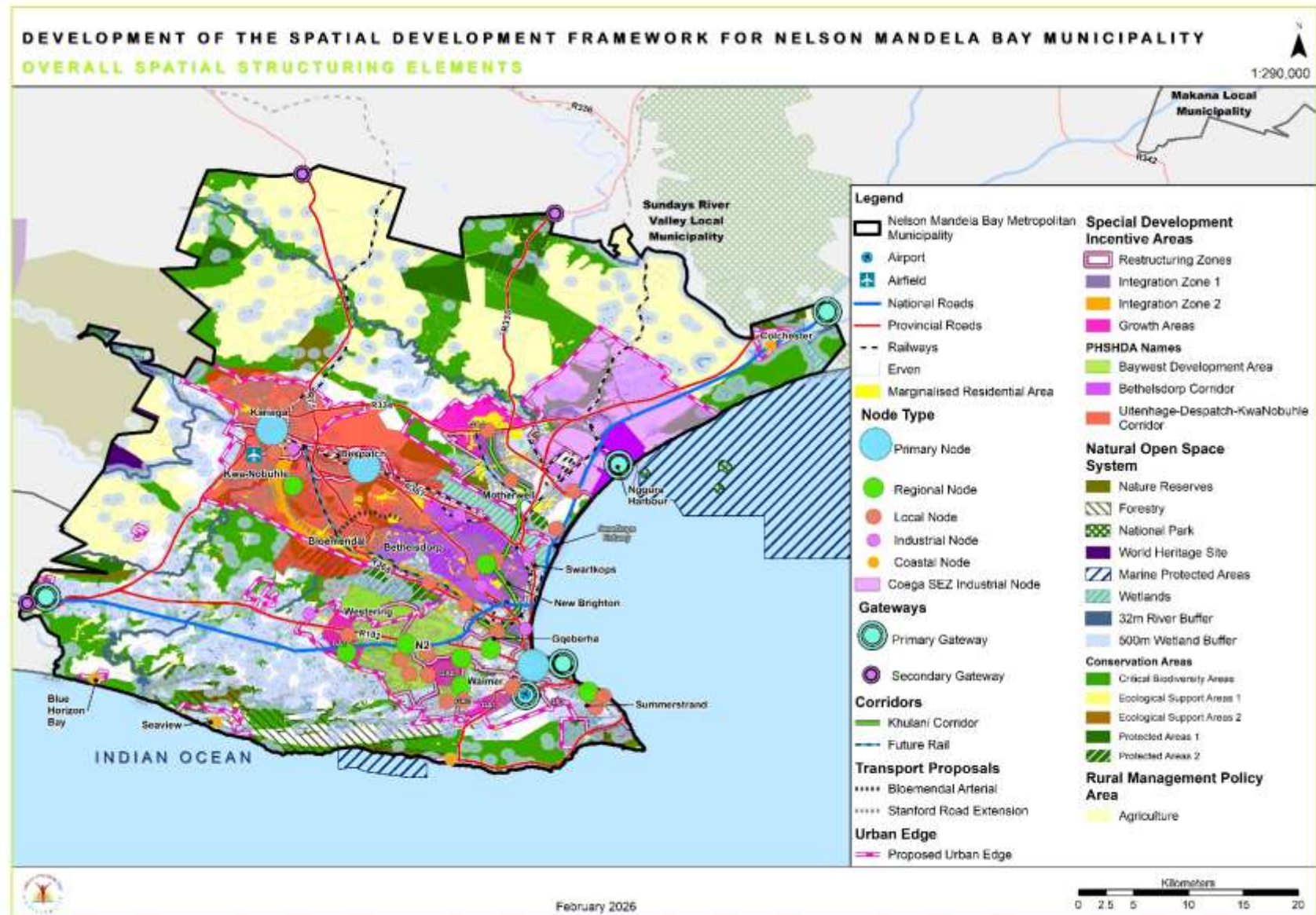
Map 22: Overall Spatial Structuring Elements: Spatial Targeted Area 1



Map 23: Overall Spatial Structuring Elements: Spatial Targeted Area 2



Map 24: Overall Spatial Structuring Elements: Spatial Targeted Area 3



Map 25: Overall Spatial Structuring Elements Plan

SECTION D: SPATIAL DEVELOPMENT FRAMEWORK

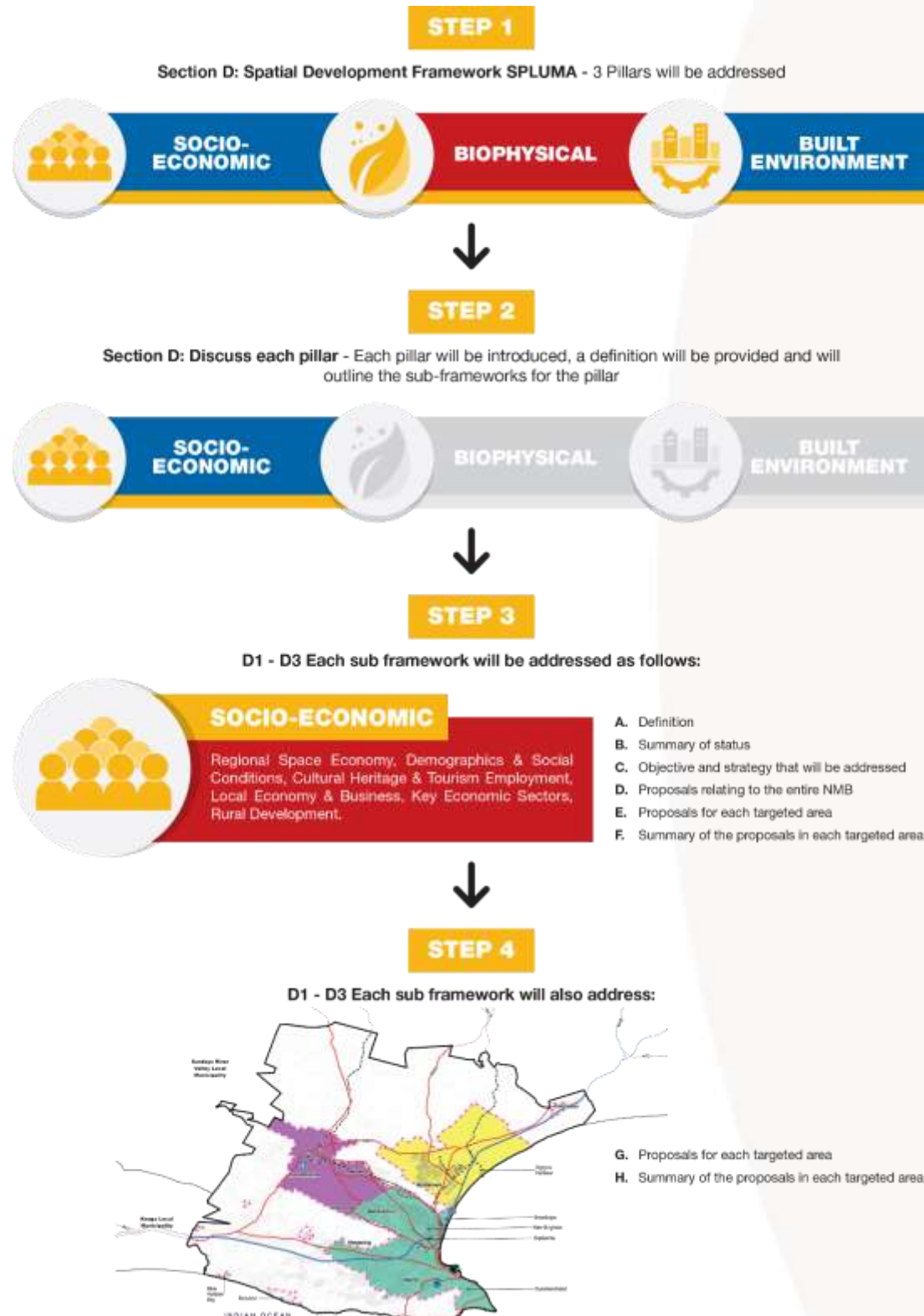


Diagram 8: Structure of the Spatial Development Framework

D1. BUILT ENVIRONMENT FRAMEWORK

The Built Environment Framework pillar focuses on the physical and infrastructural components of urban and rural spaces within the Municipality. It forms the strategic spatial representation of existing and future built form, infrastructure, and land use patterns. It guides the location, scale, and nature of development. This Framework aims to promote spatial efficiency, sustainability, and resilience by optimizing land use and infrastructure investment.



The framework is structured into key sub-components that will be addressed in detail:

- **Land Framework** – This section addresses the land issues and proposals relating to the NMBM
- **Local Spatial Development Frameworks (LSDFs)** – discusses the LSDFs developed in NMBM, the issues that are to be addressed in the review of the LSDFs and the proposals as an outcome of the MSDF which is to be considered as part of the review.
- **Human Settlement Framework** – addressing the Human Settlement situation and proposals and highlighting how SCUs can be incorporated in Human Settlement projects. It also includes all programmes, and future HS projects applicable to the NMBM, and speaking to the demand and land needs
- **Density Framework** – indicates where and what densities can be accommodated in the NMBM
- **Infrastructural / Engineering Framework** – addresses the Infrastructural backlog and highlights the future projects
- **Urban Design Framework** – proposes Urban Design elements which can be incorporated in developmental proposals, also to be considered and addressed in the review of the LSDFs.

D1.1. LAND FRAMEWORK

As seen through the assessment of the STAs, in the section above, land within the NMBM is split between the area within the main urban edge and the area outside of it. All land within the urban edge, is governed by the MSDF and Local Spatial Development Frameworks (LSDFs). For land outside of the urban edge, this is governed by the MSDF and the Rural Development Policy.

The development of land relies greatly on the ownership of the land parcels as indicated on the map below. The MSDF recommends that a detailed study is developed to identify the potential future use of municipal land for revenue generation for all land parcels within the municipal space. The MSDF further proposes that feasibility studies are developed for large municipal owned land parcels for future Human Settlement Development.

Encroachment on Municipal Land

The Municipality recognizes the challenges posed by household encroachment on municipal land. In line with SPLUMA and the Housing Act, the Municipality shall prohibit settlement in high-risk areas, prioritize relocation to serviced sites, and consider conditional regularization where appropriate. All interventions shall be community-driven, rights-based, and aligned with the principles of spatial justice and sustainable urban development.

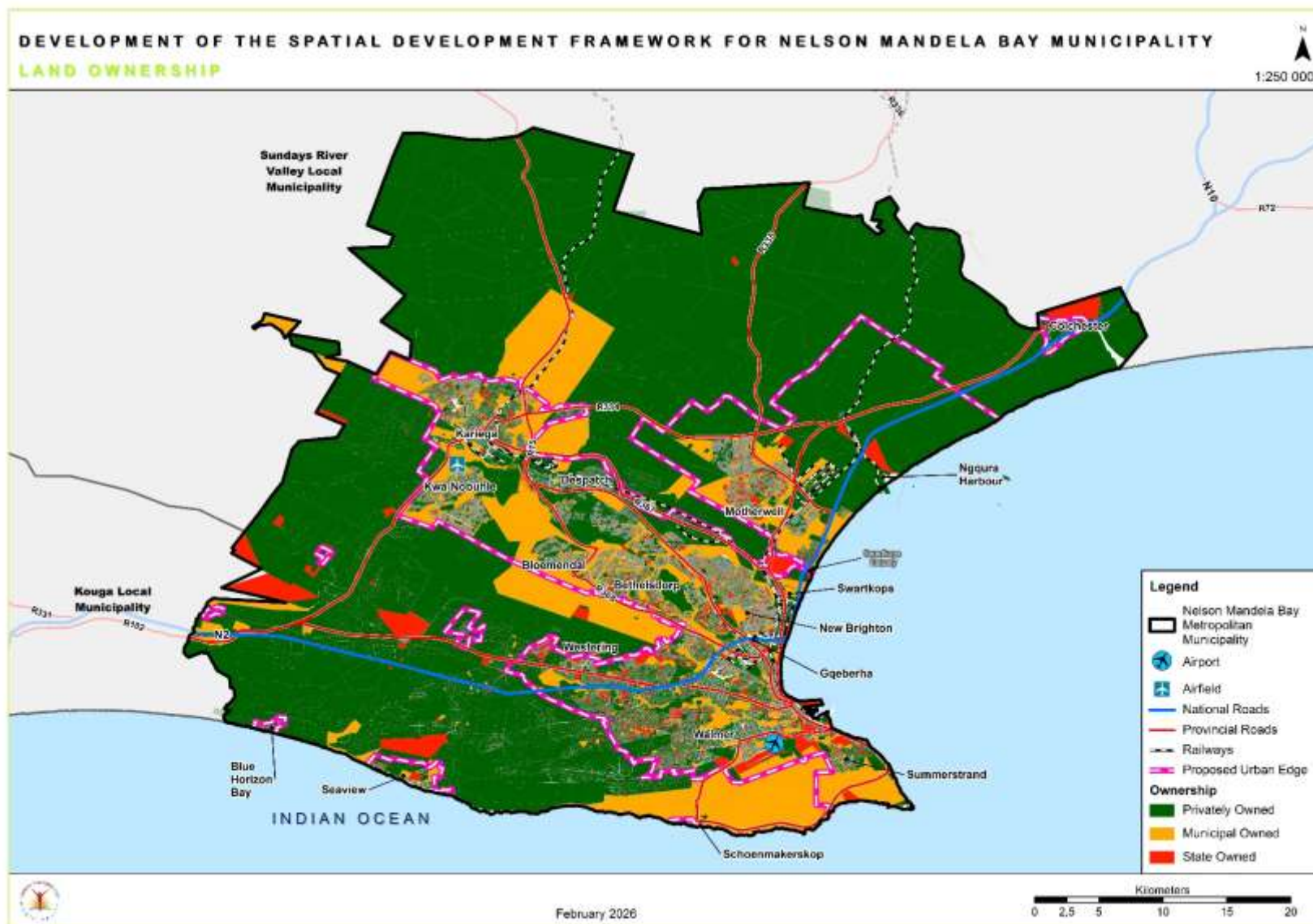
The Municipality should maintain an updated spatial inventory of all municipal land, including public open spaces, road reserves, utility corridors, and land earmarked for future public facilities.

Encroachments should be classified into categories in terms of High-risk encroachments (e.g., floodplains, servitudes, landfill buffer zones, transport corridors) and Manageable encroachments (e.g., non-critical open spaces, underutilized municipal land).

Households occupying high-risk municipal land shall be prioritized for relocation to designated serviced sites within the municipal housing pipeline. Relocation shall be conducted in accordance with the Housing Act, SPLUMA, and relevant human rights frameworks, ensuring community consultation and minimizing social disruption.

Where encroachment does not pose immediate risk, the Municipality may consider regularization through tenure upgrading, re-blocking, or layout adjustments to maintain access for emergency and service vehicles. Such regularization shall be conditional upon compliance with municipal by-laws and zoning schemes.

The Municipality shall implement awareness campaigns to inform communities of the risks and legal implications of encroaching on municipal land. Participatory planning processes shall be mandatory before enforcement or relocation actions are undertaken



Map 26: Land Ownership

D1.2. LOCAL SPATIAL DEVELOPMENT FRAMEWORKS (LSDFS)

The NMBM is unique in that many areas within the metro are able to operate in silo, while also within a network of the municipality. Such is seen through the detailed assessment of the LSDFS developed within the municipality.

The identified focus areas outline the spatial boundaries of existing LSDFS and also highlight new areas where future LSDFS will be required to guide and manage emerging development and growth.

Since the adoption of the LSDFS, periodic assessments have been conducted, identifying specific inputs and considerations that need to be addressed during the LSDF review process. These are summarised in Table 27:

Table 27 below thus identifies the current spatial boundaries of the various LSDFS:

Name of Allotment	Number	Name of LSDF
Gqeberha (Port Elizabeth)	1	North End / 2010 Stadium / Central
	2	Cape Road
	3	Lorraine / Fairview / Heatherbank Precinct
	4	Walmer
	5	Western Suburbs
Summerstrand	6	Summerstrand / Humewood / Happy Valley
Bloemendal Bethelsdorp	7	Helenvale / Bethelsdorp / Algoa Park
	8	Bloemendal / Khayamnandi
Swartkops	9	New Brighton / Njoli / Ibhayi / Soweto on Sea / Veeplas / Kwamagxaki / Redhouse
Motherwell	10	Motherwell / Bluewater Bay / Wells Estate
	11	Coega SEZ
Kwa-Nobuhle	12	KwaNobuhle / Zanemvula / Bloemendal
Kariega	13	Uitenhage and Despatch

Table 27: LSDFS in NMBM and associated Allotments

Since the development of the various LSDFS, assessments have been made of the LSDFS and identified certain inputs which need to be addressed when the LSDFS are reviewed, which are highlighted in Table 28 below:

The key proposals from the different LSDFs are summarised as follows:

	Spatial Targeted Areas	Key Issues Identified	Proposed MSDF Response
Inner City (2013)	STA 3	• Parking shortages, lack of vacant land, water pressure issues, ageing infrastructure • Steep Slope for housing developments. • Mixed Use Definition not adequately defined. • Not enough public transport.	• Reflect parking study in SDF; prioritise urban regeneration and costed implementation strategy • Incorporate proposals from Government Precinct Plan document into the LSDF. • Alternative modes of transport such as TOD should be emphasized in the LSDF. • Port Precinct Plan: the Waterfront Plan and Govan Mbeki Precinct should be included in the LSDF. • Proposal for the narrow gauge (apple express) to be included in the LSDF
2010 Stadium Precinct	STA 3	• Parking shortages, lack of vacant land, water pressure issues, ageing infrastructure • Several erven intended to be a component of the Taxi Rank were sold off. • Schauderville has a lot of grey (zoning for existing community facilities) but there are proposals for social housing in the green area or multi-purpose centre. • Industry is moving from the area due to vagrants and crime	• Social housing to be placed next to the “Dry Lake” because the land is flat and there are work opportunities and Dry Lake can be rehabilitated. • Industrial sites that aren’t operating are being converted to residential opportunities (student accommodation); churches and creche. There’s a social demand. • Incorporate the heritage assessment in the specification when reviewing the LSDF. • Proposal for the vacant land in Sydenham to be used for social housing. • Find alternative ways (soft activities) for the use of the vacant abandoned Municipal owned buildings instead of selling them.

	Spatial Targeted Areas	Key Issues Identified	Proposed MSDF Response
		Consists of heritage buildings that are not known.	
Cape Road (2014)	STA 3	Limited vacant land, peak-hour congestion, old sewer infrastructure, stormwater runoff	- Prioritise road maintenance, stormwater upgrades, and strategic densification - PE Golf course reconsideration to allow for integrated housing options
Happy Valley (2012)	STA 3	Shortage of beachfront parking, aged sewer and electrical infrastructure, safety concerns in open spaces	Incorporate coastal management, safety-focused open space strategy, and transport node improvements
Helenvale LSDF 2010	STA 3	- Infrastructure challenge near the narrow houses due to high density in the area. - Safety and health awareness	- Algoa Park mostly has open land that's ideal for infill development. - Propose different infill housing typologies for Algoa Park e.g., Gap Housing, FLISP etc. - Open Space between Missionvale and Salt Lake was proposed for social housing in 2016/2017 (part of the restructuring zones). - Amend the infill land proposal to a sport field in the LSDF. (Erf 349, New Brighton) - Promote soft activities/uses such as cultural/ creative centres in the area. Provide land portions or dual zonings to allow such activities. - Infill proposal near the police station is steep but can be developed preferably for walk-ups instead of single residential. - Proposal for infill sites in Extension 6 Malaba area.

	Spatial Targeted Areas	Key Issues Identified	Proposed MSDF Response
Summerstrand (2017)	STA 3	Limited space for expansion, student accommodation pressures, conflicting views on density	Refine coastal development guidelines; encourage appropriate densification
Motherwell LSDF (2010)	STA 1	- Coega changed from Industrial Development Zone to Special Economic Zone in legislations in 2014, it needs to be changed as well in the SDF. - Boundaries of Zones 6 and 11 are now combined. - Pressure on the Fishwater's WWTW. - Cemetery in a Flood zone - No pedestrian walking paths	- Inclusion of the Coega SEZ into the new LSDF and show the combined boundaries of the Zones 6 and 11. - Reflect that funds for bulk infrastructure have been received. They will cover wastewater treatment works, the RE (Return Effluent) that will take pressure off Fishwater Flats. Motherwell will also fall under this facility. - There is accommodation for expansion of Motherwell North to be accommodated with the facilities that's been constructed within the SEZ. - Emergency Centre will be developed in the future near the Medical Centre. 10 hectares have been identified for solar. Zones 10 and 14 are to be developed any soon, they are being made available for solar projects. In terms of a hydrogen projects, 100mega watts will be generated and farm areas are yet to be identified outside the SEZ. - Inclusion of the Port of Ngqura Precinct Plans. - Consideration of a 500m buffer between a cemetery and residential development. LSDF should consider expansion of industrial expansion or other uses.

	Spatial Targeted Areas	Key Issues Identified	Proposed MSDF Response
			• Pedestrian crossing or a bridge should be developed to reduce accidents.
Bethelsdorp LSDF 2017	STA 3	• Conflicting land uses (mining, housing, agriculture), habitat degradation, illegal access • The LSDF spans across eight densely populated wards. • Not enough cemeteries. • Mixed Use Definition not adequately defined. • Insufficient number of Social Amenities, i.e., Schools	• Recommend zoning adjustments; apply for environmental protection status; increase security and enforcement capacity • Split the LSDF into two due to the extensive coverage. • Definition of Mixed-Use to be refined to specify acceptable and unacceptable uses. • LSDF to consider into incentivization strategies, specifically addressing zoning regulations for mixed-use areas. • Areas designated for mixed-use should not solely permit residential development. • Areas designated as residential should have allowances for mixed-use developments, such as combining residential and commercial spaces, with consensus on the parameters of mixed-use. • Additional Social Amenities are required.
Lorraine (2008)	STA 3	• Water leaks, stormwater limitations, high residential growth pressure. • The cemetery buffer (500m from the property boundary) will affect all forms of	• Finalise stormwater and water infrastructure master plans; manage development pressure along Circular Drive • Feasibility study whether the area requires an airport expansion or housing developments.

	Spatial Targeted Areas	Key Issues Identified	Proposed MSDF Response
		development as it has impact on feasibility. • Conflicting land uses	
Greater Walmer (2013)	STA 3	• Poor pedestrian infrastructure, mixed-use conflicts, uncoordinated land use patterns • . Access to the Fairview area is a challenge. • No adequate bulk infrastructure for high densities.	• Implement public realm upgrades; strengthen zoning enforcement and pedestrian infrastructure • The LSDF ought to take heed of the land that is a servitude for power lines as there could be a potential for invasion. • The greenbelt along William Moffet should be maintained and kept for its ecological function/purpose. It should not be incorporated into any residential development serving private open space function as it is not functional for the practicality of a residential development, even if it is on privately owned land. • Conditions of approval for second and third dwellings should be put to place in order to administer the intent of permitting second and third dwelling units as sectional titles. • Residential character of the Charlo area needs to be protected as there is a potential business/commercial growth (north side of Circular Drive). • William Moffet is currently the business corridor in the area (due to a design issue). 17th Avenue is also potentially turning into a business hub in lieu of a residential area. Applications should be considered. • The area between Boundary line and Seaview Road needs to be incorporated

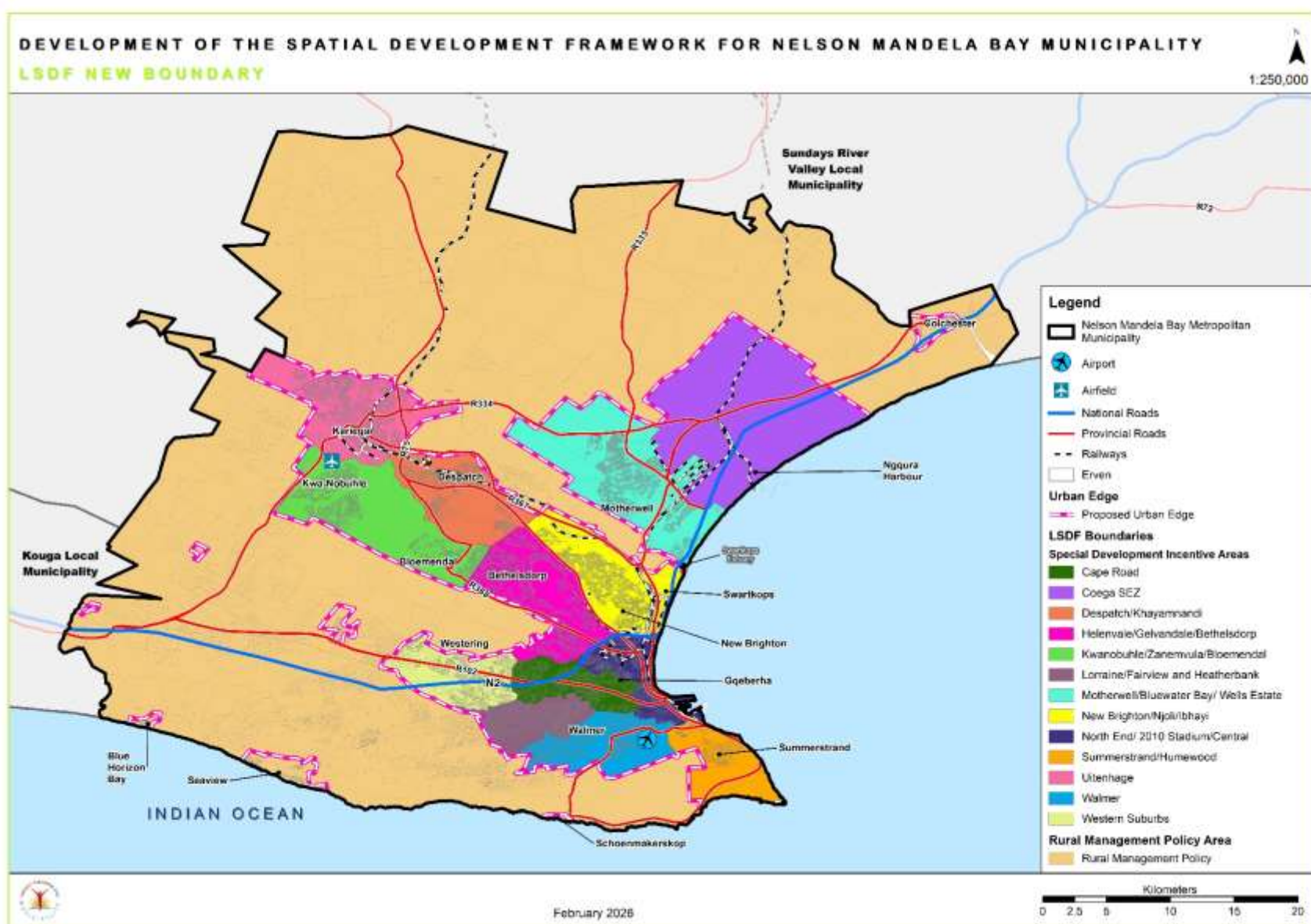
	Spatial Targeted Areas	Key Issues Identified	Proposed MSDF Response
			in the new Walmer LSDF and in the Bioregional Plan. • A portion of Mount Pleasant is part of the critical biodiversity area, as such, it is important to note what land use rights protecting biodiversity can be imposed in the area. • Property sizes in Walmer will impel the City to impose conditions on the sizes of developments, which could be a remedial issue until the road issues are resolved. Capital Investments of the LSDF need to impose such road infrastructure projects. • The Walmer golf course needs to be properly amended and reconsidered as there are business/industrial proposals in the works. • Walmer is a niche area, however, the LSDF needs to find a balance between the residential character as well as the commercial/business character. • Walmer Heights needs to be relooked at, also considering that it is within the cemetery buffer. • The tram proposal and rail need to be considered in the LSDF review.
Uitenhage & Despatch (2013)	STA 2	• Dated infrastructure, poor branding, low private investment, lack of public amenities. • Mixed Use definition not adequately stressed.	• The Uitenhage airport has been identified as a potential site for revitalization. It is proposed that the airport could be transformed into a cargo airport, necessitating changes to the landing strip to accommodate proper industrial usage. • Transformation of the vacant land near Corkwood Mall: A vacant land area in

	Spatial Targeted Areas	Key Issues Identified	Proposed MSDF Response
		• Lack of adequate bulk infrastructure/services • Delineation of the Kariega Precinct which encompasses three blocks.	close proximity to Corkwood Mall, near Caledon Road Union, has been earmarked for commercial development. • The single strip of residential properties along Caledon Road is suggested to be converted into commercial properties. • An area close to R334 Uitenhage in KwaNobuhle has been designated for light industrial use. • Utilization of land donated by Sovereign foods: A portion of land donated by Sovereign Foods to the municipality has remained unused due to obstructions. A promising proposal is to extend Rocklands phase 2 using this land. • Integration of John Street into the Kariega Precinct Plan, potentially for social housing purposes, and explore strategies to rejuvenate the industrial usage component that extends to Kyle Street.
Ibhayi (2017)	STA 2	• Lack of developed parks, informal settlements, road link deficiencies • Fully built up • Discussions on conversion of school sites that's close to the Chris Hani Informal Settlement. Decommission the school site for infill (social housing) purposes.	• Improve community facility access; formalise informal settlements; prioritise integration through road networks • Proposal to make a mixed-use industrial area and make it amicable. • Proposal to make eco-tourism along the estuary. Other proposals are residential use. Preserve the environment (estuary) while identifying proposals that will be suitable for the area. • There needs to be a buffer to the environmental side and built-up side of Motherwell that'll help with sewage or any other waste related matters.

	Spatial Targeted Areas	Key Issues Identified	Proposed MSDF Response
		• Not adequate social amenities. • Historical community that doesn't have a proper general plan nor a layout plan creating a problem with width of road, parking and high density. • No adequate affordable housing.	• Feasibility study for the relocation of the Chris Hani Informal Settlement. • LSDF to consider developments in Algoa Park where there is a possibility for RDP settlements/ FHF / FLISP social housing.
Njoli Square (2010)	STA 2	Overcrowding, poor trading infrastructure, informal business pressure	Provide formal trading infrastructure; support infill and mixed-use development; upgrade economic infrastructure

Table 28: MSDF Proposed input in LSDFs

It should be ensured that when these LSDFs are reviewed, the concerns listed in the table and summary above are to be considered and addressed.



Map 27: LSDF New Boundary

D1.3. HUMAN SETTLEMENTS FRAMEWORK

Sustainable Human Settlements are spatially integrated, socially inclusive, economically viable, and environmentally responsive living environments that provide equitable access to housing, infrastructure, services, opportunities, and amenities—designed to support long-term human well-being and ecological balance.

The Sustainable Human Settlements Framework is the section of the SDF Frameworks which forms part of the Built Environment Framework and delves into the Human Settlements issues and proposals applicable to the municipality.

It is largely guided by the municipal Human Settlements Sector Plan or provides proposals thereto. It addresses all elements of Human Settlements, including projecting the Housing Demand, outlining the projects and proposals related to all the various Human Settlement Programmes available to the municipality.

The NMBM District One Plan, 2021 indicates that in order for the NMBM to achieve sustainable and integrated human settlements, **the following objectives must be pursued for all communities:**

- Access to adequate accommodation that is suitable, relevant, appropriately located, affordable and fiscally sustainable.
- Access to basic services such as water, sanitation, refuse removal and electricity.
- Security of tenure, irrespective of ownership or rental, formal or informal structures.
- Access to social services and economic opportunities within a reasonable distance.

The Housing Sector Plan of the municipality was adopted by council in 2012 and needs to be updated as there have been a number of housing/human settlements strategies which have been developed and their inclusion and alignment into a Human Settlement Plan is essential.

The IDP, 2025/26 indicates that the strategic objectives of the NMBM Municipality linked to Human Settlements are as follows:

- 'Provide dignified housing and sanitation and accelerate access to improved services to indigent households to create safe and decent living conditions for all residents.
- 'Provide a built environment that promotes integration, inclusivity and accessibility'.
- 'Ensure implementation of a spatial transformation agenda which addresses the spatial disparities of the past'.

The delivery of housing provides an opportunity to transform settlements and the development trajectory of the City whilst at the same time reducing segregation and inequality. In fulfilling its mandate, the following challenges have been experienced by the Municipality.

The Human Settlement challenges being faced in the municipality are as follows:

A housing market in which poor households cannot participate.

- An ongoing housing affordability problem across various sub-markets, particularly the gap market.
- Weak spatial planning and governance capabilities.
- The high cost of well-located land for development.
- The inability to adequately respond to the diverse needs of low-middle income households.
- The absence of a range of typologies and tenure types to support the needs of poor households.
- The nonacceptance of new housing typologies and tenure type by poor households.
- The limited success of social housing to provide rental accommodation at scale.
- The escalating cost of development for government, resulting in a reduced number of housing units delivered.
- Uncontrolled growth of informal settlements flowing from the unlawful land invasions.
- Poverty and unemployment in informal settlements
- Lack of a clear and implementable program to change the spatial footprint of the NMBM.
- Low densities that create frustrations which lead to land invasions.
- Land is still made available in the periphery of the City.

The NMBM Municipality currently has Level 2 accreditation which means the municipality has been granted authority to plan, manage, and administer national housing programmes within its jurisdiction.

D1.3.1. HOUSING DEMAND & PROJECTED NEED

The current housing demand in the metro is estimated at **132 622** as indicated in Table 29 below.

In order to adequately plan, it is essential to consider the potential future need based on calculating the current need against the expected growth of the population in the metro.

The population growth has been extracted from the STATS SA table as submitted by the NMBM Statistics department. This population growth projects to 2034 and thus all calculations have been conducted until 2034.

The number of households and the household growth rate have been extracted from the Statistical Overview for the NMBM, compiled in April 2025.

The projected Demand has been calculated using the current demand as a base and projecting the figure using the Population growth rate as extracted from the Statistical Overview for the NMBM, compiled in April 2025. It must be further noted that the figures represented below have been calculated incrementally, thus continuously increase, as opposed to a moment in time.

2025 Population	2025 estimated No. of Households	Current Demand (2025)	% Population Growth Rate p/a	% Household Growth Rate p/a
1 262 939	379 192	132 622	1.04 %	1.66 %

Table 29 Latest available data, estimated to 2025

	2026	2028	2030	2032	2034
Projected Population	1 263 264	1 264 401	1 265 003	1 266 970	1 269 625
Projected No. of Households	385 486	398 391	411 727	425 510	439 754
Projected Demand	134 001	136 803	139 663	142 583	145 565

Table 30: Projected Population, Household and Demand 2026-2034

Using the projected demand, the projected land needs can be calculated. The calculation below as indicated in Table 31 is conducted at varying densities to gain an understanding of the amount of land which would be required at the varying densities.

Land Needs	2026	2028	2030	2032	2034
Low density 30 du/ha units	4 467 ha	4 560 ha	4 655 ha	4 753 ha	4 852 ha
Medium Density 60 du/ha	2 233 ha	2 280 ha	2 328 ha	2 376 ha	2 426 ha
High Density 100 du/ha	1 340 ha	1 368 ha	1 396 ha	1 426 ha	1 456 ha

Table 31: Future Land Needs at varying densities

The above table indicates that including housing provision at varying densities is essential to ensure that the level of sprawling is limited and allow to accommodate and address the housing needs.

While the above table addresses the land needs of the municipality due to population growth, when assessing the impacts of population growth, there are many other factors / actions that should be taken such as assessing the impact on the social amenities and the future need of said facilities as well as infrastructural needs. These needs are discussed in their respective sections such as Section D2 regarding Social Amenities and further below in Section D1 for Engineering Proposals.

Other factors that are to be considered with regards to future population is that of retaining the educated or skilled workforce population. This concept is also dealt with in Section D2, Economic Framework.

SUSTAINABLE COMMUNITY UNITS IN HUMAN SETTLEMENT DEVELOPMENT

It is essential that the principles of Sustainable Community Units (SCUs) are applied to all Human Settlement proposals and projects in the NMBM. The principles that are to be addressed in this framework is majorly the concept of Integration where the theory of SCUs emphasises the development of spaces which include:

- functional – mixed use areas with good infrastructure and services
- social – different social and cultural groups
- economic – a mix of different income groups and economic activities

The SCU plan suggests that higher densities should specifically be encouraged at central nodes and along transport corridors, also in existing areas, together with infilling and redevelopment. Densities in most areas can be doubled without reducing access to open space. 70–100 housing units per hectare can function efficiently; semi-detached housing can achieve 50–60 units/ha, and two-storey townhouses are a space and cost-efficient option. Higher density housing requires political support and community acceptance, based on awareness of its benefits and the costs of urban sprawl. The urban edge as a boundary that limits urban sprawl is a concept embodied in the Spatial Development Frameworks of larger South African cities

D1.3.2. INFORMAL SETTLEMENTS AND MARGINALISED AREAS

There are approximately 164 informal settlements in the metro which comprise of approximately 51 729 households. These settlements have seen a steady rise since. There is a process of recognizing them through a Council decision has not yet been made.

The Municipality has, with support from officials at the National Department of Human Settlements responsible for NUSP, classified its informal settlements into 5 clusters utilizing the NUSP categorisation A, B1, B2 and C.

Cluster Name	No. of Informal Settlements	No. of Households
Ibhayi Cluster	11	3 546
Northern Area (Bloemendal) Cluster	10	5 322
Kariega Cluster	5	6 800
Motherwell Cluster	3	922
Citywide Cluster	10	3 122

Table 32: Informal Settlements per cluster in NMBM

Proposal for RDP -90 houses, FLISP 97 Houses and Social Housing – estimate of 175 units (block of flats). In the Citywide Cluster.

INCREMENTAL SETTLEMENT UPGRADING PROGRAMME

Incremental settlement is the process by which legally recognised settlements are created over time in an incremental manner through the involvement and actions of a range of role-players including government, communities and the private sector.

The Informal Settlements Upgrading Programme Strategy (ISUS) sets out how the municipality will respond to the current housing needs as well as land invasions. These are then added to the National Housing Needs Database (which contains record of existing and new housing stock) to effectively deal with the current housing circumstances and projected household growth in a manner that meets defined needs and contributes to integrated and sustainable human settlements within available resources (funds, land and management capacity).

The Informal Settlements Upgrading Policy (ISUP) places specific emphasis on in-situ upgrading (with relocation as a last resort/option), tenure security, access to basic services and ultimately creating opportunity for long-term shelter development and settlement consolidation through a combination of public and private investments and efforts.

The National Upgrading of Informal Settlements Programme (UISP) is funded through the National Upgrading of Informal Settlements Programme Grant (UISPG). This upgrading is to take place on a holistic basis and focuses not only on housing but also community participation and other services and amenities which are delivered by all spheres of government and the private sector.

Since 2008, 55 informal settlements have been in-situ upgraded, and 18 green field sites have been developed for relocation on an incremental basis with full water and sanitation and basic roads. Altogether 38 098 serviced sites have been developed.

The current and future relocation projects are depicted in the table below.

UISP Projects:

PROJECT NAME/ INFORMAL SETTLEMENT NAME	PROJECT DESCRIPTION	NUSP CATEGORY
Ekuphumleni (In-situ)	Single Flushing Toilets	A
	Bulk Infrastructure - Upgrading of Matomela Substation	
	Refuse Removal	
	Community health risk assessment, profiling and vulnerability assessment, Epidemiological analysis, equipment and facilities for social compacts	
Walmer (Erf. 1948) TRA (Greenfields)	Temporary Relocation Area	B1
Walmer Development	Bucket Eradication	B1
	Community health risk assessment, profiling and vulnerability assessment, Epidemiological analysis, equipment and facilities for social compacts	
	Disconnection of electrical services	
Inkatha/Enkuthazweni	Bulk infrastructure - Upgrading of Matomela Substation	A
Mandela Village	Bucket Eradication	A
	Refuse Removal	
Motherwell NU30 (Erf. 40009 and 40016)	Water: Installation of Standpipes and Associated Water Meter	A
	Bulk infrastructure - Power Transformation at Motherwell Main Substation	
Motherwell - NU31	Hygiene Services	B2
	Water: Installation of Standpipes and Associated Water Meter	
Vistarur	Hygiene Services	B1
	Water: Installation of Standpipes and Associated Water Meter	
	Permanent Civil Engineering Services for Sewer	
	Permanent Civil Engineering Services for water	
	Provision of Service Connections and Bulk Infrastructure	
	Installation of area lighting and Disconnection of Electrical Services	

PROJECT NAME/ INFORMAL SETTLEMENT NAME	PROJECT DESCRIPTION	NUSP CATEGORY
Westville	Alternative sanitation solutions	A
	Water: Installation of Standpipes and Associated Water Meter	
Jachtlakte	Single Flushing Toilets	A
	Water: Installation of Standpipes and Associated Water Meter	
	Bulk infrastructure establishment (New Substation - Booysens Substation)	
Joe Slovo Kariega	Single Flushing Toilets	A
	Water: Installation of Standpipes and Associated Water Meter	
Red Location	Single Flushing Toilets	A
	Water: Installation Associated Water Meter	
	Development of Drop-Off Site	
Rosedale PH2	Single Flushing Toilets	A
	Water: Installation of Associated Water Meter	
	Development of Drop-Off Site	
Doornhoek	Single Flushing Toilets	A
	Water: Installation of Associated Water Meter	
Kamesh Erf 3179	Communal Ablution Facilities	A
	Water: Installation of Associated Water Meter	
Malabar Phase 2	Single Flushing Toilets	A
	Water: Installation of Associated Water Meter	
	Bulk Infrastructure - Upgrading of Malabar Substation	
Ebhongweni	Single Flushing Toilets	A
	Water: Installation of Associated Water Meter	
Qaqawuli/Silvertown	Development of Drop-off Site	B2
Edongweni	Development of Drop-off Site	B2
Moeggesukkel (Uit)	Communal EnvirLoo	C
McCarthy	Communal EnviroSan Conservancy	A/C
Afganistan	Communal - Single Modular	C
7de Laan	Communal EnviroSan Conservancy	C
Fitchet Corner	Communal EnvirLoo	C
Zweledinga - SeaView	Communal EnvirLoo	C

PROJECT NAME/ INFORMAL SETTLEMENT NAME	PROJECT DESCRIPTION	NUSP CATEGORY
New Rest - SeaView	Communal EnvirLoo	C
Westville	Communal EnvirLoo	A
Ericadene	Communal EnvirLoo	C
Lorraine	Communal - Single Modular	A
Ngxazula	Communal - Single Modular	C
Kuyga 4	Communal - Single Modular	C
Kuyga 5	Communal EnviroLoo	C
Kuyga 1	Communal EnviroLoo	C
	Communal EnviroLoo	C
(Missionvale Salt Pans)	Communal EnviroLoo	TBC
Govan Mbeki	Communal EnviroLoo	C
	Stand-pipe and water meter	
Vukani	Communal EnviroLoo	TBC
Mokaba Street	Communal EnviroLoo	TBC
Ramaphosa West 2	Communal EnviroLoo	C
Ramaphosa West 2	Communal EnviroLoo	C
Khayalile (Rhamaphosa)	Communal EnviroSan Conservancy	TBC
	Stand-pipe and water meter	
New Town	Communal EnviroSan Conservancy	C
Nomakanjeni	Communal EnviroLoo	TBC
Asinavalo	Communal EnviroLoo	TBC
Elephant Park	Communal EnviroLoo	A
Lingeletu 1	Communal EnviroLoo	TBC
Lingeletu 2	Communal EnviroLoo	TBC
Emthini Village	Communal EnviroLoo	TBC
Tinktinkie	Communal EnviroLoo	TBC
Rosedale Ext	Communal EnviroLoo	A
Old Lapland	Communal EnviroLoo	TBC
St Albans 1	Communal EnviroLoo	C
St Albans 2	Communal EnviroLoo	C
Kuyga 2	Communal - Single Modular	C
	Stand-pipe and water meter	
Kuyga 3	Communal - Single Modular	C
	Stand-pipe and water meter	
Kuyga 4	Stand-pipe and water meter	C
Kuyga 5	Stand-pipe and water meter	C
Fairview	Communal EnviroLoo	C

PROJECT NAME/ INFORMAL SETTLEMENT NAME	PROJECT DESCRIPTION	NUSP CATEGORY
	Stand-pipe and water meter	
Sherwood (Van Rooyen Land)	Communal EnviroLoo	C
	Stand-pipe and water meter	
Masakhane Village	Communal - Single Modular	A
Zwide Cemetery	Communal - Single Modular	C
Rolihlala	Communal EnviroLoo	A
KwaNoxolo	Communal EnviroLoo	C
Goba Str	Communal EnviroLoo	TBC
Duka Str	Communal EnviroLoo	TBC
Dikiza Street	Communal - Single Modular	A
St Albans 3	Communal EnviroLoo	C
	Stand-pipe and water meter	
Kuyga 6	Communal - Single Modular	C
	Stand-pipe and water meter	
Parsonsvlei	Stand-pipe and water meter	TBC
Malibongwe	Stand-pipe and water meter	TBC
Federation	Stand-pipe and water meter	TBC
Ezigamtriyeni	Stand-pipe and water meter	TBC
Shamrock	Stand-pipe and water meter	C
Qunu 2	Stand-pipe and water meter	A
Mc Kaizer Missionvale	Stand-pipe and water meter	TBC
Missionvale - Aloes Valley 1	Stand-pipe and water meter	TBC
Missionvale - Aloes Valley 2	Stand-pipe and water meter	TBC
Missionvale - GG's Grounds	Stand-pipe and water meter	TBC
Missionvale - Greenfields	Stand-pipe and water meter	TBC
Missionvale - Mckays Ground	Stand-pipe and water meter	TBC
Missionvale - Muller Ground	Stand-pipe and water meter	TBC
Rolihlala/Vista Village	Stand-pipe and water meter	B2
Seadatt Ground	Stand-pipe and water meter	TBC
Watervillage	Stand-pipe and water meter	TBC
Ext 34	Stand-pipe and water meter	A
Midrand	Stand-pipe and water meter	TBC
JS West Invasions 1	Stand-pipe and water meter	TBC
JS West Invasions 2	Stand-pipe and water meter	TBC
JS West Invasions 3	Stand-pipe and water meter	TBC
JS West Invasions 4	Stand-pipe and water meter	TBC
JS West Invasions 5	Stand-pipe and water meter	TBC

PROJECT NAME/ INFORMAL SETTLEMENT NAME	PROJECT DESCRIPTION	NUSP CATEGORY
JS West Invasions 6	Stand-pipe and water meter	TBC
JS West Invasions 7	Stand-pipe and water meter	TBC
JS West Invasions 8	Stand-pipe and water meter	TBC
JS West Invasions 9	Stand-pipe and water meter	TBC
JS West Invasions 11	Stand-pipe and water meter	TBC
JS West Invasions 10	Stand-pipe and water meter	TBC
Winnie Mandela	Stand-pipe and water meter	TBC
Ekupholeni	Stand-pipe and water meter	B2
Khayamnandi	Stand-pipe and water meter	TBC
Lilitha	Stand-pipe and water meter	TBC
Ncinane	Stand-pipe and water meter	TBC
Mphumelelwueni	Stand-pipe and water meter	TBC
Bhaloyi	Stand-pipe and water meter	TBC
Khayalihle	Stand-pipe and water meter	TBC
Old Hlalani	Stand-pipe and water meter	TBC
Mandela B	Stand-pipe and water meter	TBC
Mandela C	Stand-pipe and water meter	TBC
Mandela A	Stand-pipe and water meter	TBC
Green Card	Stand-pipe and water meter	A
Rubber Village	Stand-pipe and water meter	TBC
Covid 19	Stand-pipe and water meter	TBC
Zinto	Stand-pipe and water meter	A
KwaNobuhle Area 11	Stand-pipe and water meter	TBC
Heron Rd	Stand-pipe and water meter	TBC
Mtshini Wam	Stand-pipe and water meter	C
Colchester Ndlovini	Stand-pipe and water meter	TBC
Khayelitsha	Stand-pipe and water meter	TBC
Motherwell North	Stand-pipe and water meter	TBC
Unknown - Erf 17682/316	Stand-pipe and water meter	TBC
Area K - Ward 33	Stand-pipe and water meter	TBC
Emijondolo	Stand-pipe and water meter	TBC
Ramaphosa	Stand-pipe and water meter	C
MK 32 Families	Stand-pipe and water meter	A
Buyambo	Stand-pipe and water meter	TBC

Table 33: UISP Project

D1.3.3. RESTRUCTURING ZONES

Restructuring Zones (RZ) are identified in terms of the Social Housing Act (16/2008): Social Housing Regulations. These are zones where higher density social housing is permitted and subsidised and are legally gazetted.

RZs aim to bring about Spatial Restructuring by bringing lower income people into areas where there are major economic opportunities and from which they would otherwise be excluded because of the dynamics of the land market on the one hand and the effects of land use planning instruments on the other hand, etc.

- Social Restructuring by promoting a mix of race and classes.
- Economic Restructuring by promoting spatial access to economic opportunity and promoting job creation
- Focus on Social Housing through a rental co-operative housing option for low to middle income persons at a level of scale and built form which requires institutionalised management, and which is provided by accredited social housing institutions or in accredited social housing projects.

Restructuring Zones are essential components of South Africa's urban planning strategy, driven by the need to rectify past inequalities and **promote sustainable human development**. By focusing on these areas, municipalities can work towards creating more **inclusive, resilient, and liveable urban environments** for all residents.

The following lists the Gazetted RZs in the Nelson Mandela Bay Metropolitan Municipality:

Name of Allotment	Name of Restructuring Zone area
Gqeberha (Port Elizabeth)	Summerstrand
	Fairview
	2010 Stadium Precinct
	Newtown Park
	Stanford Road
Kariega (Uitenhage, 10km radius)	Uitenhage CBD
	Dispatch CBD
	Florida Farms
Coega SEZ (10km radius)	Coega Vulindlela
	Wells Estate
	Amsterdamhoek
Baywest Node (10km radius)	Baywest/ N2 hub
	Lorraine
	Hunters Retreat
	Kabega Park

	Parsons Vlei

Table 34: Gazetted RZs

The NMBM Human Settlements Sector Plan, 2012 has identified Six (6) Restructuring Zones which have been identified and approved by the Council and Provincial Authorities, **namely:**

- Mandate Area of the Mandela Bay Development Agency
- Walmer Allotment Area (Walmer Heights, Walmer Downs and Walmer)
- Mount Road Allotment Area (Mount Croix,
- Fairview
- Uitenhage CBD
- Despatch CBD

The HSSP further indicates that an additional ten (10) Restructuring Zones have been identified and approved by Council, but these have not yet been approved by Provincial Authorities. A broad-brush analysis of the proposed Restructuring Zones is discussed in Table 34:

Name	Remarks
Parsonsvlei	Large tracts of privately owned land situated 10kms west of the CBD
Lorraine	Potential for infill development on privately owned land approximately 12-15km south west of the CBD.
Motherwell	Situated between 25-30km from the CBD and 5-10 km from Coega. Designated as a Presidential Urban Renewal Programme and comprises large tracts of publicly owned land with infill potential and informal housing. Although it is located far from the CBD and major employment areas although proximity to Coega IDZ and Markman Industrial Area is a major advantage.
Chatty Phases	Essentially a Greenfields relocation area on publicly owned land situated 15-20km from the CBD and far from established employment areas, amenities and facilities. The density of existing development is low, and area lacks population threshold to support significant services.
Summerstrand	Located 5kms for the East of CBD, in a high-income residential area and major tourist destination in the City. Publicly and privately owned vacant land is limited and the bulk of development would require redevelopment of existing properties at higher densities. Proximity to the university makes it ideal for development of student

Name	Remarks
	accommodation. The cost to access land, property and social resistance to change is likely to be high.
Wells Estate	Situated 10kms to the North-East of the CBD, with ease of access to the City via the N2, (±10 minutes) to the Coega IDZ (±5kms), close to the St Georges/ Wells Estate, Coastal Recreation belt (±10 minutes' walk), has large tracts of publicly owned land, portion of which is already planned and developed for low cost (RDP) Housing. Vacant land adjacent to the Bluewater Bay and Amsterdamhoek suburbs which is ideal for the development of an Integrated Residential area.
Hunters Retreat	Situated approximately 15kms on the western outskirts of the City along the N2. Part of the area is earmarked for the development of the Bay West Regional Shopping Mall and Integrated Residential development. Area is characterised by large tracks of vacant public and privately owned land that can be developed around the proposed Regional Mall for a variety of mixed uses (e.g. residential, retail, commercial, etc.)
Newton Park	Situated 5kms for the west of the CBD and contains significant residential, commercial, retail and community facilities, including the 42 000m ² . Greenacres Regional Shopping Centre. Opportunity exists to redevelop existing and developed residential properties some of which have been zoned for Business III or Business I in line with the out-dated Policy Plan for the Newton Park Area. Area is ideal for residential intensification served by a major public transport corridor (Cape Road) to the west of the City due to the large size of residential erven, low coverage, single storey and low-density nature of the existing development.
2010 World Cup Stadium and Environ	The 2010 Stadium Precinct and Environ are earmarked for regeneration for leisure and entertainment, residential intensification, SMME development and retail given the good location at the northern edge of the CBD and at the confluence major routes, public transport corridors and IPTS Routes (Harrower/ Stanford Road, Govan Mbeki, Kempston Road and Commercial Road).
Greenbushes	Situated 14km to the west of the City Centre and contains large tracts of mostly privately owned land that is suitable for the development (light)

Name	Remarks
	industries and integrated residential development. Destination points for the IPTS along the Cape Road Corridor.

Table 35: RZs identified in HSP

PROPOSALS FOR RZ'S:

It is proposed that when Local Spatial Development Frameworks (LSDF's) are reviewed, they include a component which identifies key land parcels within the RZ's for social housing development. These sites are to be mapped and discussed with the Social Housing Regulatory Authority (SHRA) and request for these sites to be prioritised on their plans.

It is proposed that increased densities are accommodated in these areas. The desired densities would be between 60-100 dwelling units per hectare. Higher densities should be along the Integration Zones and movement high movement corridors and lower densities moving further from these corridors.

The developments should also accommodate concepts of Mixed Use (as discussed in the Land Use Management Guidelines section of the report) through allowing for each of access of residents to social amenities and other services.

GUIDELINES FOR RZS

- Identify land parcels within RZs for Social housing through the LSDFs
- Partnerships to be created between the municipality and implementing entities such as the Social Housing Institutions (SHIs), New Co-operatives, Existing accredited SHIs and accredited, Co-operatives, Private Sector Companies and Public-Private Partnerships (PPP)
- Feasibility studies for land parcels
- Apply for funding for various social housing grants such as Restructuring capital grant, Top-up from provinces, Staff gear-up grant, Project acquisition and feasibility grant, Pre-accreditation grant and the General capacity building grant

These RZ's areas are depicted on Map 28 below:



D1.3.4. PRIORITY HUMAN SETTLEMENT AND HOUSING DEVELOPMENT AREAS (PHSHDAS)

The Minister of Human Settlements, Water and Sanitation has promulgated what are known as Priority Human Settlement and Housing Development Areas (PHSHDA's). are geographically designated zones in South Africa where integrated and concentrated interventions are made to create sustainable communities, address historical spatial inequalities, and improve residents' access to economic opportunities, social services, and adequate housing.

The PHSHDA programme, facilitated by the National Department of Human Settlements, focuses on revitalizing towns, strengthening livelihoods, and fostering integrated urban forms to overcome apartheid-era spatial patterns.

Three PHSHDAs have been identified for Nelson Mandela Bay. These are as follows:

PHSHDA Name	PHDA Place	Ward Numbers
Bay West Corridor	Bay West, Bethelsdorp, Charlo, Cotswold, Fairview, Fernglen, Framesby, Gelvandale, Hunters Retreat, Kabega, Korsten, Lorraine, Malabar, Mangold Park, Mill Park, Mount Pleasant, New Brighton, Newton Park, Parsons Vlei, Sunridge Park, Thees	6, 8, 9, 12, 39
Bethelsdorp Corridor	Algoa Park, Bethelsdorp, Bloemendal, Ibhayi, Korsten, KwaMagxaki, New Brighton, Redhouse, Swartkops	11, 14, 15, 16, 17, 18, 19, 20, 21, 22, 24, 25, 26, 27, 28, 30, 31, 33, 34, 35, 37
Kariega-Despatch-KwaNobuhle Corridor	Bethelsdorp, Bloemendal, Despatch, KwaDwesi, KwaMagxaki, KwaNobuhle, Kariega	29,36, 38, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53

Table 36: Gazetted PHSHDAs in NMBM

These areas are selected based on their potential to:

- Enable densification and mixed-use development
- Improve access to transport, jobs, and services
- Leverage national grant funding and private sector partnerships
- Support inclusive, sustainable urban growth

In turn, a significant portion of public funding will be directed to the PSHSDA with the intention of attracting private-sector investments.

The MSDF proposes that PSHSDA Plans are developed for each of the 3 PSHSDAs in the NMBM in order to identify projects and Human Settlement initiatives that can be prioritised. Map 29 below provides a description spatially of where the PSHSDA's are located.

PHSHDA PROPOSALS

The defined and gazetted PSHSDAs are well located and are able to make a direct positive impact to the spaces affected. It is, however, noted that the boundaries of the PSHSDAs, do not adequately follow the Urban Edge of the NMBM.

New areas such as Walmer location, Motherwell and Wells Estate are areas which the city is prioritising development and investment. These areas have also been identified by the city as marginalised areas where projects have been identified and grant funding is being prioritized by NMBM. Government funds should be motivated to be allocated to PSHSDAs. The NMBM is to initiate this with the Department of Human Settlements.

The MSDF proposes that the boundaries of the PSHSDA are updated and re-gazetted to ensure that they are in line with the developmental goals of the metropolitan municipality.

In addition to, or simultaneously with, the MSDF proposes that the PSHSDA Development plans are developed for the 3 PSHSDAs. These would be the Development Plans that focuses and outlines the development of these 3 spaces while outlining the Human settlement proposals within the areas and how to facilitate and support the housing situation in these areas.

It is proposed that increased densities are accommodated in these areas. The desired densities would be between 60-100 dwelling units per hectare. Higher densities should be along the Integration Zones and movement high movement corridors and lower densities moving further from these corridors.

The developments should also accommodate concepts of Mixed Use (as discussed in the Land Use Management Guidelines section of the report) through allowing for each of access of residents to social amenities and other services.

Map 29 below highlights these proposals.

PHSHDAs emphasize the synchronization of key national housing programmes to ensure cohesive and impactful delivery. **These include:**

- Integrated Residential Development Programme (IRDP)
- Social Housing Programme in Restructuring Zones
- Informal Settlement Upgrading Programme (ISUP)
- First Home Finance

- Special Presidential Package (SPP) for Revitalisation of Distressed Mining Communities
- Enhanced People's Housing Process (EHPH)

By aligning these programmes within PSHDAs, municipalities can leverage funding, streamline implementation, and promote mixed-income, mixed-use development models. Three PSHDAs have been identified within Nelson Mandela Bay Municipality, selected for their strategic location, development potential, and ability to support spatial restructuring.

PSHDAs are envisaged to be utilised as a tool for spatial targeting development of infrastructure and Human Settlements and grant spending.

STANDARDS FOR PSHDA DEVELOPMENT PLANS

To ensure consistency and quality in PSHDA implementation, municipalities are required to prepare PSHDA Development Plans that adhere to the following standards:

Guidelines	Interpretation
Vision Statement	Articulate a clear spatial and developmental vision for the PSHDA
Infrastructure Planning	Outline proposed infrastructure upgrades and service delivery mechanisms
Spatial Proposals	Define land use patterns, zoning intentions, and development typologies
Movement Systems	Plan for integrated transport networks, pedestrian pathways, and mobility corridors
Open Space and Amenities	Design public spaces, recreational areas, and community facilities
Land Use Guidelines	Refer to municipal spatial policy documents for land use guideline
Programmes and Projects	Identify catalytic projects, restructuring elements, and priority interventions
Implementation Plan	Detail timelines, cost estimates, and funding source
Roles and Responsibilities	Clarify institutional arrangements across public, private, and intergovernmental actors
Investment Prioritization	Highlight areas for public investment and opportunities for private sector participation
Infrastructure Needs	Assess bulk and connector infrastructure requirements to support development

Table 37: Guidelines for PSHDAs

The Restructuring Zones and PSHDA frameworks are deeply linked. Restructuring Zones provide the spatial lens through which municipalities like Nelson Mandela Bay can target urban regeneration and

inclusive housing development. PSHDAs, meanwhile, offer the national policy and funding mechanism to operationalize these spatial priorities. Where Restructuring Zones identify the “where,” PSHDAs define the “how” by integrating housing programmes, aligning infrastructure investment, and catalysing private-sector participation.



D1.3.5. POSSIBLE DEVELOPMENT INCENTIVES FOR RZ AND PSHDA AREAS

Developments which are proposed in line with the MSDF proposals for these areas are allowed added incentives to developers. These incentives will be outlined in detailed in an Incentives Policy which the MSDF proposes that the NMBM develop. Until this policy is implemented, the following guidelines (with consultation with the NMBM) could be applicable to the respective area (with consultation with the NMBM):

- Possible flexibility for parking ratios
- Increased density
- Possible for land to be available on a long-term lease
- Added incentives if developers assist to provide infrastructure
- Possible reduced Development levies / Capital Contributions
- Shortened application procedures

D1.3.6. SOCIAL HOUSING PROGRAMME

Social Housing is a form of housing delivery in the overall South African housing market.

The Social Housing Act, 2008 defines Social Housing as:

“A rental or co-operative housing option for low-income persons at a level of scale and built form which requires institutionalised management and which is provided by accredited social housing institutions or in accredited social housing projects in designated restructuring zones”

The relates directly to the Social Housing Programme whereby the programme aims to promote spatial, social, and economic integration by locating housing in RZs and thus aiming to integrate previously segregated communities. It also aims to provide affordable rental housing through targeting low-medium income households who cannot afford private rentals.

There are many other forms of social housing included but not limited to the types mentioned below:

- Apartment type housing in the form of medium density and higher density housing with a varying number of rooms to provide for a variety of family numbers.
- RDP housing which is a design that is usually one house on one plot and may include 2-3 bedrooms.
- Hostels which could include a studio apartment type setup which is more for single persons who would require less space.

The primary purpose of the development of social housing is the development of quality, affordable residential property for low to middle income households, and in particular formerly disadvantaged

members of the community. This includes families with special needs such as the disabled, young adults with a regular income and single parent families.

D1.3.7. INCLUSIONARY HOUSING

Section 21(i) of SPLUMA indicates that designated areas be identified where a national or provincial housing policy may be applicable. At present there is no approved inclusionary housing policy at a National level or within the Province or the City.

Inclusionary housing in South Africa means the harnessing of private initiative in its pursuit of housing delivery to middle/higher income households to also provide (include) affordable housing opportunities in order to achieve a better socio-economic balance in residential developments and also contribute to the supply of affordable housing.

The Inclusionary Housing scheme focuses on engaging private sector companies and individuals willing to participate in these initiatives. It encourages leveraging equity in land, property, systems, and resources to co-develop targeted properties in well-located areas that align with spatial reprioritization and transformative goals. When a developer seeks new or additional land use rights, Inclusionary Housing requires them to contribute towards affordable housing by offering units for rent or sale at lower prices than their market counterparts. Depending on the specific development location, this contribution can be integrated into the development itself, provided in another development, or made as a cash contribution. **The aim is always to create affordable housing opportunities in well-located areas in collaboration which would benefit:**

- Company employees.
- Households residing on farms or agricultural lands, facilitating alternative tenure forms related to Communal Property Rights for low-income families with a history of working and living on farms.
- Backyard dwellers whose primary property owners may subdivide their properties, allowing family members or current renters to access low-cost housing benefits.

Pilot programs featuring alternative housing designs and structures that promote energy-efficient building technologies and climate resilience. These initiatives typically involve partnerships between the Municipality and various entities interested in developing replicable, energy-efficient solutions for informal settlements and forestry areas.

The proposed Future Integrated Human Settlement areas are identified as being areas that should include inclusionary housing.

D1.3.8. HUMAN SETTLEMENT PROPOSALS FOR NMBM

The following outlines high-level Human Settlement proposals for the NMBM according to municipal Developmental goals:

- Upgrade and development in key populated Marginalised areas

- Promote Human Settlement Development in identified and Gazetted Restructuring Zones
- Promote Human Settlement Development in identified and Gazetted PSHDAs
- Promote Human Settlement Development along the Integration Zones
- Offer mixed use development to ensure the best use of space
- Incorporate the concepts of SCUs in all developments
- New Developments should include the developments of Housing Clusters as referred to in the SCU guidelines whereby Housing Clusters are between 30-50 units and should include areas of common space, playgrounds, creches, common parking area, encourage pedestrian mobility, layouts which enable surveillance of open spaces to create safety and to accommodate a variety of size of units to serve varying needs and to promote diversity within residential spaces
- Update / review of the Metro Human Settlement Sector Plan

FUTURE HUMAN SETTLEMENT PROPOSALS

Key land parcels within the Urban Edge have been identified for Future Human Settlement Development. They include current projects in the NMBM as well as other land parcels identified through the SDF which do not have many environmental considerations and are within the urban edge.

These areas are labelled as “Future Housing” and are shaded in ‘yellow’, in Map 30.

The areas are further discussed below and are numbered according in Map 30 and 31. These areas are as follows:

1. East of Kariega
2. Zanenvula / Khayamnandi / Joe Slovo West / Bethelsdorp Area C
3. Chatty / Jachtylakte / Jachtylakte Phase 2
4. Algoa Park / Helenvale / Malabar
5. Baakens South End (Social and inclusionary housing)
6. Baywest Area: N2 Nodal Development – Integrated Human Settlement
7. West of Walmer

The aim of these developments is to provide for integrated housing offering a range of options and housing types to serve the needs of various income groups.

1. **East of Kariega:** The land parcel identified east of Kariega is proposed for the expansion of Kariega, towards Despatch, and in close proximity to various industrial areas nearby. This area has been identified due to this reason as well as being along 2 key movement routes of the R75 and the R334. The land parcel is also within the urban edge. At a density of 70 du/ha, the

land parcel is expected to accommodate approximately 21 000 units with the consideration of 30% for roads, open spaces, mixed use, etc.

2. Zanemvula / Khayamnandi / Joe Slovo West / Bethelsdorp Area C: is mixed housing development that comprises the following:

- $\pm 22\,715$ housing opportunities
- The construction of approximately 13327 new houses in Chatty, Joe Slovo West, Bethelsdorp North.
- The informal settlement upgrade of approximately 1565 units.
- The rectification of approximately 7500 units Soweto- on -Sea; and
- The erection of some 323 rental units.

The Status of the proposed development is as follows:

- A draft Business Plan for the replanning and rectification
- Soweto on Sea was submitted and discussed with the Regional office of the Eastern Cape Department of Human Settlements. A proposal was submitted to include Soweto on Se on the 2024 / 2025 ECDHS Business Plan. NMBM currently conducting studies for the required relocations and deregistration of sites.

3. Chatty / Jachtlakte Proposal is a green-field development that consists of eight land parcels with two implementation phases referred to as Phase 1 and 2. The development will yield about 12 000 housing opportunities. The proposed project constitutes of $\pm 12\,000$ housing opportunities (Single Residential, Apartments, Townhouses). Phase 1 consists of = $\pm 4\,743$ units.

The Status of the Project is as follows:

- Phase 1 is in implementation; 332 serviced sites completed; 327 Top Structures completed.
- Phase 2 is at the planning stage and requires funding allocation for bulk infrastructure.
- The area is served by a major arterial road which will enable the development of internal infrastructure to the first phase of development. Phase 2 of the project requires extension of the bulk services and Stanford Roads before development of the internal infrastructure can proceed.

4. Algoa Park / Helenvale: Infill project being developed as a destination area for beneficiaries relocated from the de-densification of Helenvale. The project target is to yield 3000 units, among rental (social) housing, FHF / FLISP, GAP and Open Market Housing.

1 514 units, among rental (social) housing, FHF / FLISP, GAP and Open Market Housing.

The Status of the project is as follows:

- Land assembly is not complete, land parcels owned by the Department of Public Works have not yet been made available for this development.
- There is no service agreement between NMBMM and Imizi therefore the Metro is regarded as the Project Owner and Developer. Once the land assembly process is concluded, the

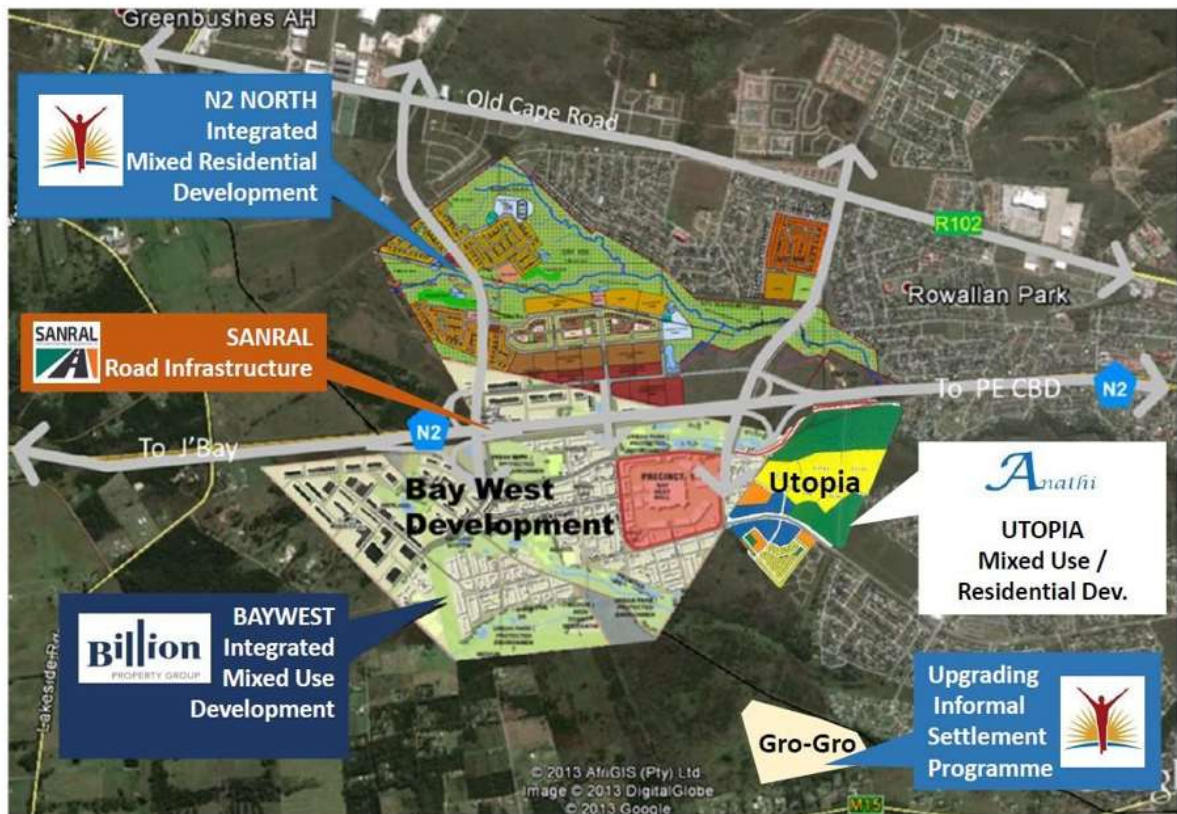
project will be repackaged and go out on tender to invite social housing institutions to submit development proposals.

5. **Baakens (South End) Mixed-use Precinct:** A well-located land parcel within the NMBM, and the development of vacant heritage land into a mixed model housing precinct, the development has great potential. The development plan includes public space, bicycle path, river rehabilitation and a smartie train.
6. **The N2 Nodal Development:** is proposed as a Catalytic Project for the NMBM. The proposed development comprises of 4 sub-projects that are projected to yield over 12,100 new housing opportunities on Greenfields's land and relocate the small informal settlement of Gro-Gro with approximately 210 units to the N2 North or other surrounding housing projects. The sub-projects are Baywest development (Phase 1 & 2), Utopia Estate Mixed Use Development, N2 North Integrated Development.

The Status of the Development is as follows:

- Baywest development: Phase 1 Complete & Phase 2 is pending availability of Bulk Infrastructure.
- Utopia Estate Mixed Use Development: Phase 1 is in construction stage & Phase 2 in Planning & Implementation stage.
- N2 North Integrated Development: Pre & Planning stage
- Bulk Infrastructure is not sufficient - BFI funding was not approved and referred by National Treasury for project preparation by DBSA's Infrastructure Fund. An MOU between Nelson Mandela Bay Metro (NMBM) and Infrastructure Fund (IF) for the project preparation of the BFI Funding application was concluded. NMBM, IF & ISA are currently conducting required feasibility studies in preparation for the submission of the BFI application in the 2025 window.

N2 Nodal Development



7. **West of Walmer:** The land parcel identified to the West of Walmer is proposed for the expansion of Walmer, towards the west, and is in close proximity to existing housing and mixed-use activity. This area has been identified due to its location to other areas like Walmer, Baywest, Summerstrand, etc. It is also in close proximity to the airport and is within the urban edge. It is envisioned that middle income / GAP housing is proposed for the Baywest and Walmer area. At a density of 70 du/ha, the land parcel is expected to accommodate 10 927 units.

Student Accommodation

Student accommodation models are also to be provided for in the areas close to their need. The Summerstrand LSDF and the Inner City LSDF and Walmer LSDF, when reviewed, should identify land parcels for student accommodated as well as to employ some of the densification initiatives to accommodate student accommodation. The LSDFs should further address sub sectors and amenities to support the student accommodation such as internet cafes, activity spots for students and offer a safe and accessible movement within the area.

FUTURE INTEGRATED HUMAN SETTLEMENT PROPOSALS

Over and above the existing and proposed municipal housing projects as identified above, which include all different typologies, there is always the prospect of being able to respond to extraordinary growth. This extraordinary growth that we mention, could be related to possible Industrial Development take-off

at the Coega SEZ, new car manufactures coming into the Metro, increase in import and export and/or new investment.

As a result of the afore-mentioned prospects, the NMBM SDF has identified strategically located land areas to accommodate increase housing demands which may happen in a longer-term future (30-40 years). These strategically located land parcels will cater for not only housing but Integrated Sustainable Human Settlements which will include educational, retail, healthcare, etc opportunities to support the livelihoods of those families intending to live there.

Three strategically located land parcels have been identified and have been categorised as “Future Integrated Human Settlement” areas. These areas will also enable the development of both public- and private-funded accommodation in various forms, ranging from innovative land-first approaches to rental accommodation aimed at different sectors in the market and on to ownership units.

All areas, except No. 5 are predominantly located outside of the urban edge and thus the development of these Future Integrated areas have specific caveats for development and cannot be developed based on normal markets demand. These caveats are discussed in detail below.

In all cases, the strategic imperative is to strive for efficient urban design and integrated and coordinated approaches to implementation with multiple agencies of government and the private sector. This would be to ensure that outcomes are consistent with NMBM’s Development philosophy and the BEPP.

The plans overleaf illustrate the locality of the key Future Integrated areas that have been identified. The following comments are to be noted in this regard:

- The plans outline areas that are deemed at high-level to be suited to land development processes aimed at urban settlement, including a range of accommodation options as well as a mix of compatible land uses.
- They do not represent definitive blueprint proposals for development of individual land areas, as all of these would need to be subject to due process, including detailed feasibility studies; infrastructure planning assessments; and environmental authorisation and land development application procedures.
- The plans also do not “reserve” land areas for any specific form of development (i.e. public-funded or private-funded housing development) but outline areas that are strategically located and which could be seen to offer opportunities for addressing future housing needs in an integrated sustainable human settlement development approach.
- It is emphasised that, from the perspective of the overall strategic spatial targeting approach that is advocated in this MSDF, residential development aimed at accommodating the lower-income sectors of the market should largely be focused on the Motherwell and Kwa-Nobuhle areas so as to permit the consolidation over time of mass-transport routes and services with these areas and the areas where economic opportunities are seen to prevail now and to intensify in the short term as well as the existing industrial areas.

Development of four (4) well-located Future Integrated areas, adjacent to areas of economic opportunities, and/or along identified development corridors, that access economic focal areas:

1. Northwest of Motherwell - 6 117.82 ha
2. West of Kwa-Nobuhle - 764.23 ha
3. West of Greenbushes - 1 401.73 ha
4. Walmer Area - 319.14 ha

A Key factor to note regarding the proposed Future Integrated is that their development has certain prerequisites and is linked to mass economic development that would require an increased number of additional employees within that area.

The caveats/prerequisites for each of the identified Future Integrated areas are outlined below:

1. **Northwest of Motherwell:** Future Integrated in the Motherwell area is specifically linked to the economic expansion of the COEGA SEZ industrial development and Ngqura Port Development. Housing development in Motherwell is triggered when existing facilities and housing opportunities within the STA 1 cannot accommodate the influx of new business and employees. This will include the currently proposed Growth Areas and PHSHDA areas.

At a density of 70 du/ha, removing an estimated 20% for environmental considerations, and another 30% for roads and open spaces in the development, the area can accommodate approximately 214 123 units.

2. **West of Kwa-Nobuhle:** This area has been identified should there be a need to expand Kwa-Nobuhle.

At a density of 70 du/ha, removing an estimated 20% for environmental considerations, and another 30% for roads and open spaces in the development, the area can accommodate approximately 26 748 units.

3. **West of Greenbushes:** This area has also been identified as a need to expand along the west should the N2 Nodal Development be well received and have good take up and there is a need to expand the development.

At a density of 70 du/ha, removing an estimated 20% for environmental considerations, and another 30% for roads and open spaces in the development, the area can accommodate approximately 49 060 units.

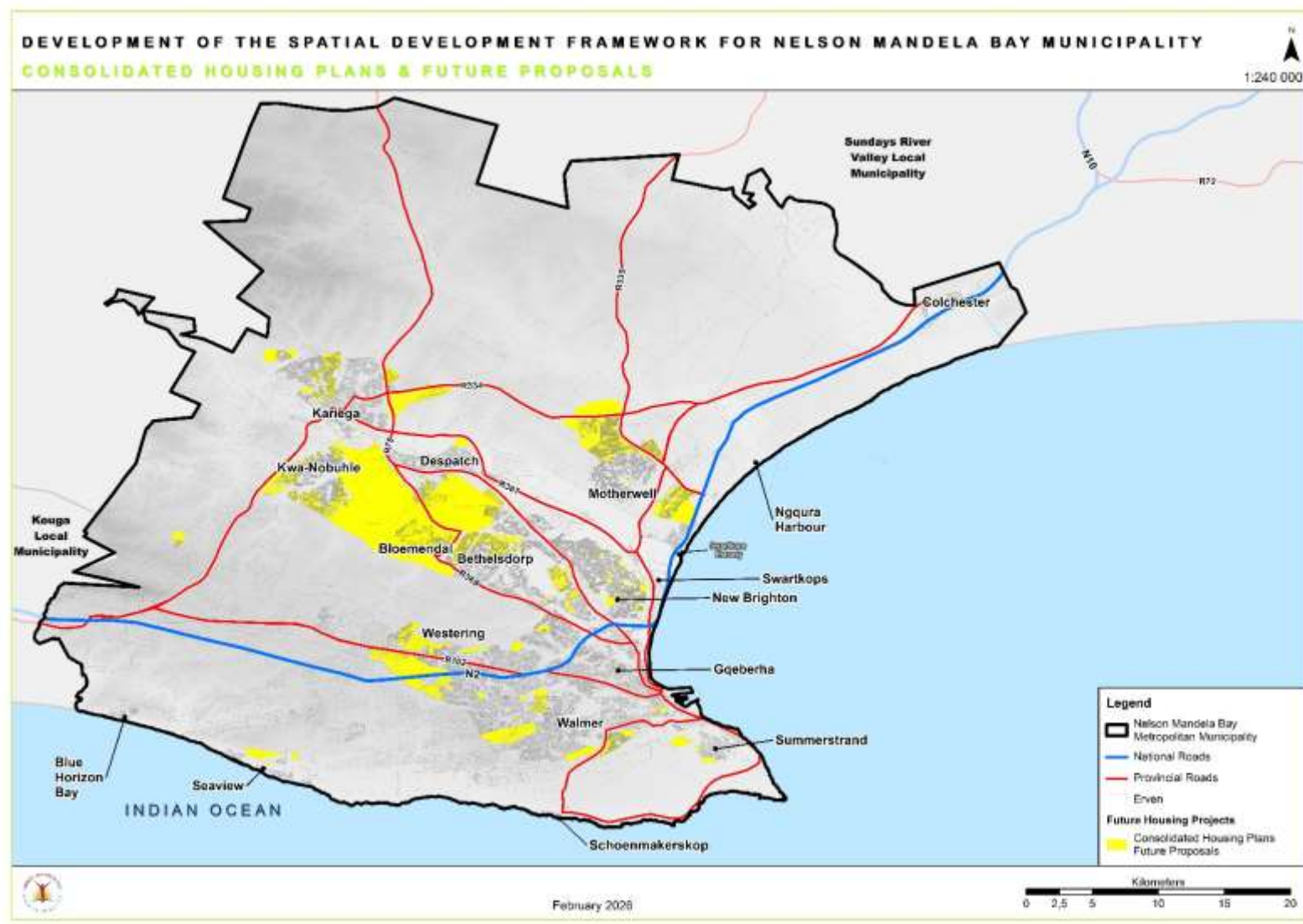
4. **Walmer area:** Future Integrated development is proposed south of the airport. This site is considered ideal for first-time home buyers, social housing, and higher-density housing, due to its proximity to urban amenities. This falls within STA 3.

At a density of 70 du/ha, removing an estimated 20% for environmental considerations, and another 30% for roads and open spaces in the development, the area can accommodate approximately 12 510 units.

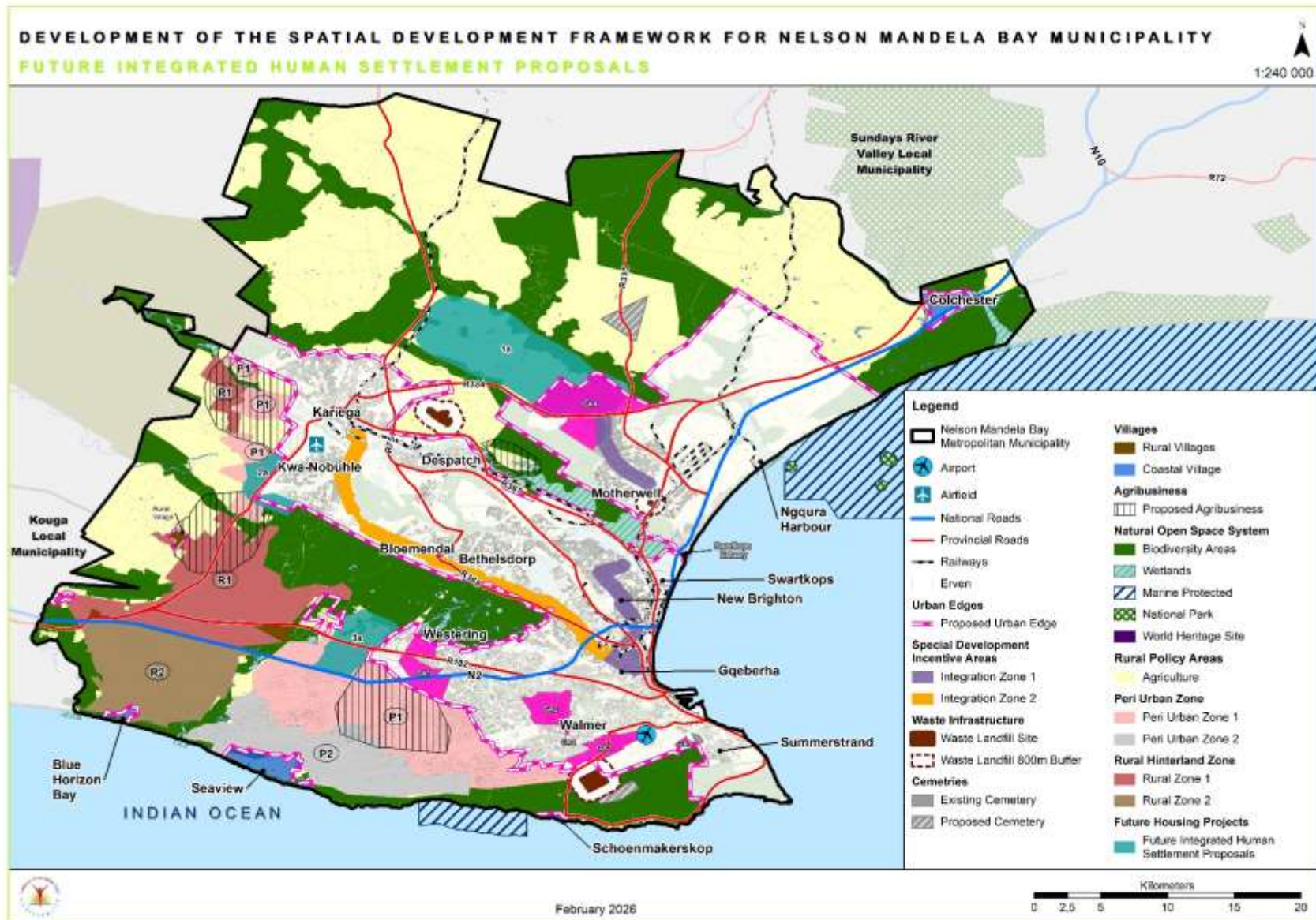
Guidelines for the development of these areas

Should the above prerequisites be met and there is seen a need for any of these developments, **the following due diligence procedures are required (non-necessarily in this order):**

- Feasibility study to assess the demand and the need for housing development and the amount of land required
- Extension of the urban edge to include the required land
- Township establishment
- EIAs, traffic studies, Infrastructure needs and other required studies
- The initiative requires updates to land use guidelines to ensure alignment with municipal, provincial and national policies.



Map 30: Consolidated Housing Plan and Future Proposals

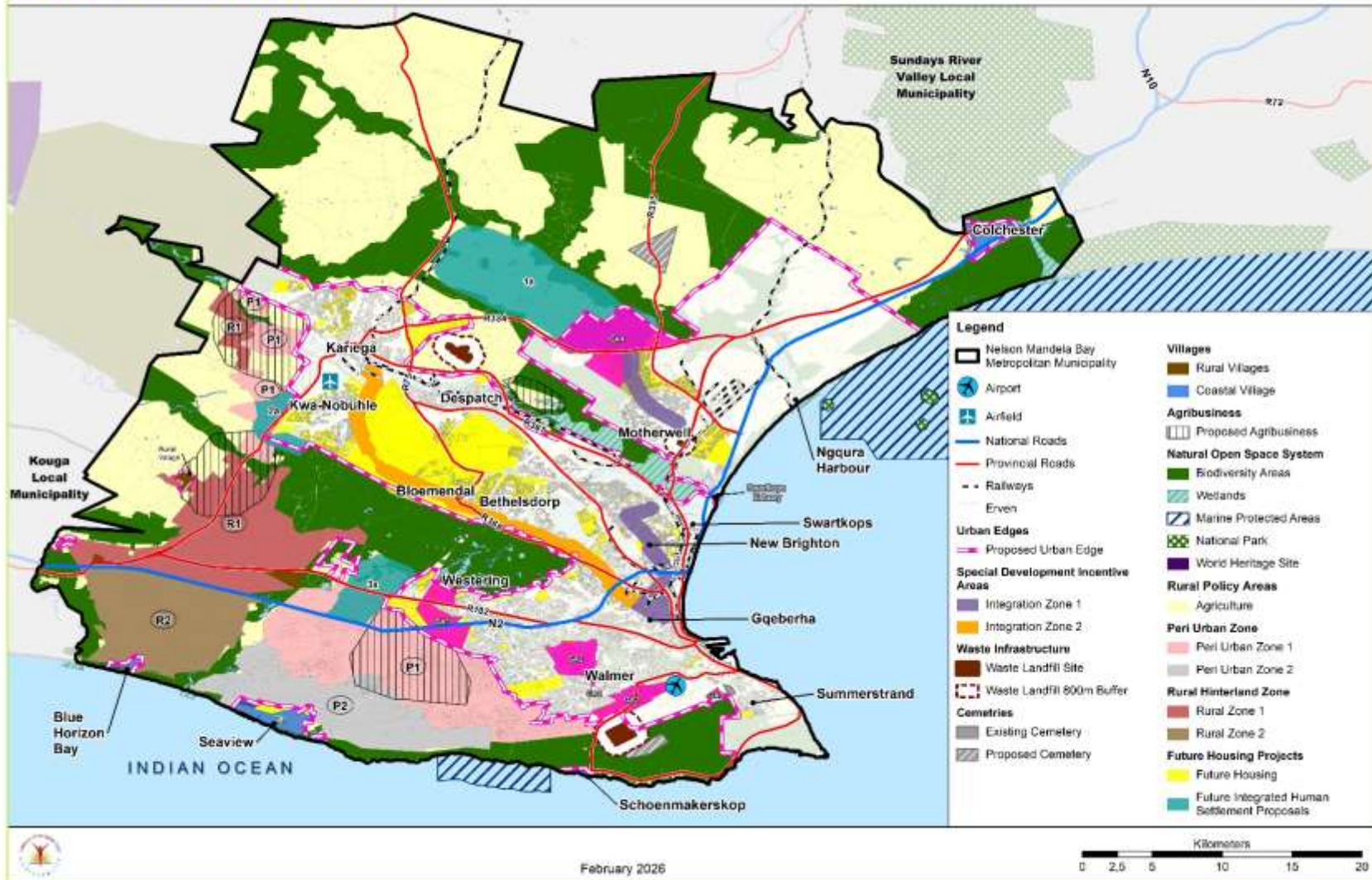


Map 31: Future Integrated Human Settlement Areas

DEVELOPMENT OF THE SPATIAL DEVELOPMENT FRAMEWORK FOR NELSON MANDELA BAY MUNICIPALITY

HUMAN SETTLEMENTS FRAMEWORK

1:240 000



Map 32: Human Settlements Framework

D1.4. DENSIFICATION STRATEGY

Densification is the process of accommodating more people within a defined space as compared to the present number of people in the same space. The Urban Edge Policy for NMBM indicates that compaction and densification is also not only a function of residential densities, but also of the location, intensity and typology of a range of urban functions and services.

The NMBM Concept of SCUs also discusses the importance of densification whereby it states that Densification creates more compact structures that improve access to work services and public transport. It also provides for a more efficient use of infrastructure. Densification will be achieved through reduced erf-size, alternative housing types and mixed development. Within existing areas densification will include infilling and redesign.

The Urban Edge Policy and the NMBM Concept of SCUs provide rationale for densifying the city (i.e. increasing the gross overall density), stems from the following needs:

- Managing the spatial growth of the city,
- Increasing efficiency and cost effectiveness,
- Increasing convenience and quality of live,
- Creating the necessary population thresholds for economic growth and healthy businesses in specific areas.
- Densification must contribute to the overall structure and functionality of the metropolitan area in that it takes place in a balanced, focused and structured way
- Appropriate higher density housing opportunities at appropriate locations must be provided for all income groups.
- Areas targeted for densification should be well served by public transport in future.

It further indicates that the objectives of densification and compaction are:

- Minimizing /Reducing the Footprint of the City
- Preventing the Destruction of Agricultural and Environmental Sensitive Areas.
- Improving the Use of Public Transport and Facilitating Pedestrianisation
- Improving the Efficiency of Urban Areas
- Reducing Inequality
- Increasing the Marketability of the City
- To adhere to legislative directives

The Rural Management Policy for the NMBM indicates that the current density situation in the NMBM increases dramatically between the higher and lower income neighbourhoods.

Most of the former “white” neighbourhoods have densities within the 1 to 10 du/ha category whilst in the northern areas (Bethelsdorp, Gelvandale and Korsten areas) the density ranges from 11 to 40 du/ha.

The Ibhayi, Motherwell, Bloemendal, Khayamnandi and Kuyga Areas have the highest net density in the Metro. These densities range between 21 and 100 du/ha. These areas are also primary residential in character with minimal retail recreational and open space land uses prevailing.

The Municipality is experiencing a significant number of dwelling units that are developed on erven designed for single residential zone 1 and sectionalized, creating ad hoc densification. This trend has resulted in developments that often place pressure on infrastructure, social amenities and alters the neighbourhood character. It is important to highlight that the mushrooming of such ad hoc densification has largely been driven by development economics to the detriment of the urban form and infrastructure capacity. This was enabled by weak land use management regulatory frameworks, wherein developers capitalised on the loopholes existing in the repealed land use schemes. The NMBM Land Use Scheme, 2023 has tried to close this loophole to preserve order in the Municipal area by introducing Regulation 44 (a) (b) & (c) as means of preventing such ad hoc densification, unless the LSDF specifies.

- It is recommended that ad hoc densification on erven that were meant for single residential zone 1 be discourage and medium to high-density developments as forms of densification be permitted as per the directives of the MSDF/LSDFs.

The Proposed Scenario in the context of the Nelson Mandela Bay Metropolitan Municipality:

- Strengthening the existing major business routes and commuter routes in the Metro by the addition of high-density development alongside.
- Intensifying development around existing public open space where appropriate. Intensification refers to the subdivision of the existing appropriately located and designed (erf form) Brown fields erven.
- The Greenfields development of certain strategic sites, which, although located on the periphery of the city could nevertheless the easily integrated into either the rail or road transport system. Environmental considerations rather than cadastral boundaries informed the perimeters of such external Greenfield sites.

It is proposed that Densification be promoted by:

1. Allowing the development of smaller residential erven. This includes the subdivision of larger erven to smaller sizes such that they would be in keeping with the surrounding densities.
2. Encouraging higher densities in 'low cost' housing developments.
3. Encouraging development of flats and townhouses (cluster housing) and Social Housing in areas of high accessibility and strategic sites.
4. Discouraging subdivision of agricultural land (outside of the Urban Edge) by setting a minimum subdivision size of 10ha.
5. Setting a maximum rural residential density of 1 du/ha, except in designated Rural villages where the range of generic settlement models proposed

DENSITY PROPOSALS INSIDE THE URBAN EDGE

Purpose: Encourage efficient use of land and services within existing urban areas.

Key Guidelines:

- Prioritise infill development, brownfield redevelopment, and densification to reduce pressure on undeveloped land (NMBM Land Use Scheme, 2023).
- Allow higher densities where supported by infrastructure and aligned with the zoning parameters (NMBM Land Use Scheme, 2023).
- Densities of 40 du/ha to 100 du/ha: are proposed within the urban edge and designated areas of 80-100du/ha. It is proposed that when LSDFs are reviewed, these plans are to identify areas of higher density
- 2nd, 3rd, 4th dwelling units: LSDFs are also proposed to identify areas / erven where 2nd, 3rd and 4th dwelling units can be allowed and the guidelines such as minimum erf size, parking requirements, etc. for said developments. This proposal would allow for certain properties at certain locations to allow up to 4 dwelling units on the property.
- Areas to allow for consolidation: LSDFs are also proposed to identify areas where consolidation can be allowed. This would allow for properties to be consolidated and larger housing developments with more units such as duplex housing or town house housing developments in certain areas
- Discouraging ad hoc consolidation of erven in an areas meant for single residential zone 1 sites to develop cluster houses, as means of circumventing the NMBM Land Use Scheme, 2023 Regulation 44 (a) (b) & (c).
- Allow for increased densification around major corridors or IZs: LSDFs to also propose for increased densification in these areas and could apply some of the above proposals for these areas.
- Introduce mixed use developments: in addition to increasing densities, mixed use developments are proposed where singular developments accommodate retail, business or office use on the ground floor and residential further above to offer ease of access for residents as well as to promote safety and 24h activity.

Density proposals outside the Urban edge

Key Guidelines:

- Maintain lower densities – refer to the Rural Framework for detailed desired densities.
- Restrict development to agriculture, conservation, and low-impact rural uses (NMBM Land Use Scheme, 2023).

- Prohibit urban-scale residential, commercial, or industrial development unless specifically approved by Council, supported by environmental and infrastructure feasibility studies (NMBM Land Use Scheme, 2023).

Protect prime agricultural land and ecological corridors through application of overlay zones (Schedule 8 – Ecological/Agricultural Protection Overlay Zone, p.65).

De-Densification

Dedensification refers to reducing the population density of an area, often by relocating households or restructuring settlements to ease overcrowding. In South Africa, it has been applied mainly in informal settlements to address health, safety, and service delivery challenges.

It involves lowering the number of people per unit of land or housing area, usually to improve living conditions, reduce risks, or comply with planning standards. Overcrowded settlements increase risks of disease spread, fires, and poor sanitation.

Areas such as Helenvale are proposed for de-densification. This can be achieved by:

- Moving households from overcrowded informal settlements to new housing developments or serviced sites.
- Expanding plots or reconfiguring layouts to reduce density while keeping communities intact.
- Adding infrastructure (roads, sanitation, electricity) to spread households more evenly.
- Identifying underutilized land within metropolitan boundaries for resettlement.
- Combining in-situ upgrading (improving existing settlements) with greenfield development (new housing projects).
- Ensuring transport links so relocated communities remain connected to jobs and services.

Challenges also exist with regards to de-densification, whereby consideration needs to be given to:

- Avoid forced removals of residents,
- Cost of relocation
- Community resistance

D1.5. SPECIAL DEVELOPMENT INCENTIVE AREAS – GROWTH AREAS AND INTEGRATION ZONES

Growth Areas and Integration Zones are 2 of the 4 Special Development Incentive areas outlined in the Spatial Structuring Elements Section of the report (Section C). The other 2 areas, Restructuring Zones and PHSHDAs are discussed earlier in the Built Environment Framework.

Developments which are proposed in line with the MSDF proposals for these areas are allowed added incentives to developers. These incentives will be outlined in detailed in an Incentives Policy which the

MSDF proposes that the NMBM develop. Until this policy is implemented, the following guidelines (with consultation with the NMBM) could be applicable to the respective area (with consultation with the NMBM):

- Possible flexibility for parking ratios
- Increased density
- Possible for land to be available on a long-term lease
- Added incentives if developers assist to provide infrastructure
- Possible reduced Development levies / Capital Contributions
- Shortened application procedures

D1.5.1. GROWTH AREAS

Growth Areas are defined in the NMBM BEPP as being defined areas that have potential for future growth. The following 4 Growth Areas have been identified:

No.	Name of Growth area
GA 1	N2 / Baywest region
GA 2	Fairview region
GA 3	Walmer & Airport / Summerstrand region
GA 4	Motherwell region

Table 38: Growth Areas

GA 1: BAYWEST/ N2 NODAL DEVELOPMENT AREA

The potential of the Baywest/ N2 Node as a catalyst for intensified integrated and mixed-use development has contributed to the inclusion of the larger development area of this node as a Growth Area. This Growth Area has the potential to attract private sector investment in the development of the node which should be harnessed because of its potential to be a significant generator of rates income.

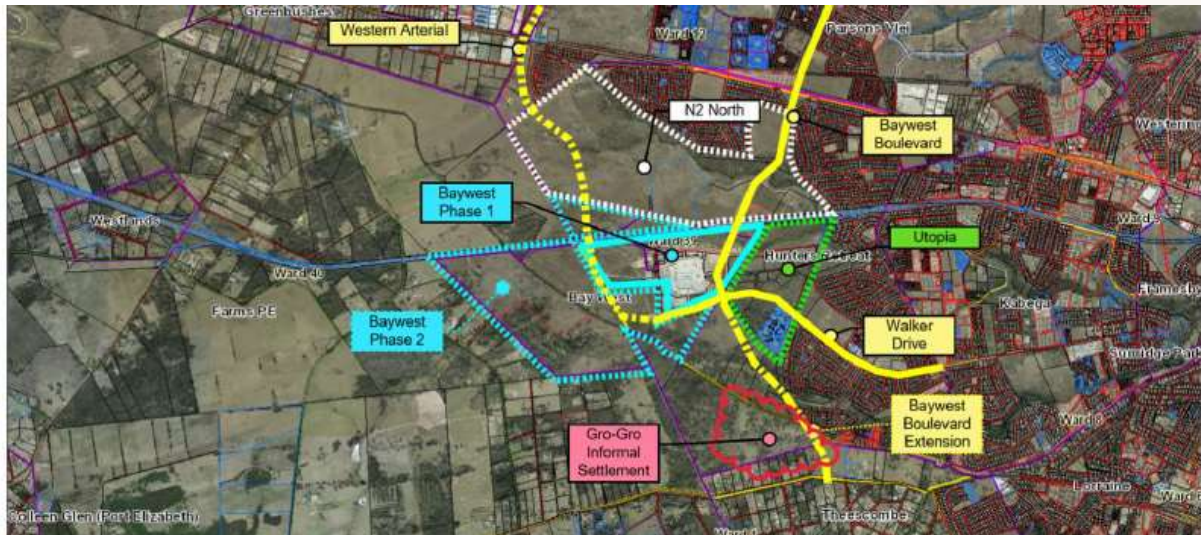
The Baywest / N2 Growth Area is anchored by the regional Baywest Mall that opened in May 2015. This growth area will expand to include further intensified mixed use and residential development, which if developed at full capacity, will deliver approximately 10 000 permanent job opportunities and approximately 8 200 residential opportunities aimed at the low-, middle- and high-income markets. Housing typologies will range from higher density rental and ownership apartments to low density single residential units for varied socio-economic sectors.

This Growth Area is also identified as one of the National Department of Human Settlements Catalytic projects referred to as the N2 Nodal Development Catalytic Project.

Other developments such as the Kuyga extension, Westbrook and Parsonslei form part of the larger N2 nodal development area and contribute to additional mixed use and residential development with a potential to yield an estimated 6 500 residential opportunities.

A direct road linkage between the Baywest/N2 Node and Chatty/Zanemvula has been identified as a high priority in order to enhance the accessibility of this node to the northern townships of the Metro. This is important from an integration, access, convenience and job opportunity perspective.

The key strategy for this Growth Area is the development of a growth node comprising of integrated residential and economic development.



GA2: FAIRVIEW REGION

Fairview West area is located within an 8 km radius of the CBD and is adjacent to the William Moffet Expressway and Circular Drive activity corridors. It forms part of a land restitution area from which large numbers of people were relocated.

A number of housing projects, comprised of mixed residential typologies aimed at the lower income groups, contribute to the area being identified for substantial development potential and to enhance spatial transformation.

The key strategy for this Growth Area is focussed on densification and spatial transformation of this node as a high density integrated and mixed housing area.

The key developments in this area are the social rental and First Home Finance (FHF), previously Finance Linked Subsidised (FLISP) housing developments developed in the 2015 and 2016 period. These developments have brought higher density populations into this emerging area. In addition, new commercial developments are taking place along William Moffet Expressway and along Circular Drive that form the boundaries of this node. This region also makes provision for Community Residential Units (CRUs). In addition to this, there is need for public schools in the region.

The intervention strategy for this growth area has been to support and facilitate the social housing developments. The commercial developments have been facilitated by the recently approved Local Spatial Development Framework.

Noting that there are large tracts of privately owned vacant land, it is of utmost importance to have homogenous planning which should be done in consideration of the holistic area until there is an LSDF that will guide development in depth in the area.

The Spatial Development Framework promotes a managed and context-sensitive transition between industrial and residential land uses in order to ensure compatibility, protect residential character, and support long-term spatial sustainability.

Where industrial areas interface with existing or proposed residential neighbourhoods, a graduated land use transition shall be encouraged. This may include:

- Introduction of mixed-use and commercial buffer zones (e.g., business parks, offices, light industrial, service industries);
- Medium-density residential or live-work typologies adjacent to non-noxious industrial activities;
- Green buffers, open space systems, landscaped corridors, and mobility linkages;
- Performance-based development controls addressing noise, traffic, air quality, and visual impacts.

Heavy and noxious industrial activities shall not be supported in this growth area.

All development applications shall demonstrate alignment with the holistic spatial vision of the metropolitan area, taking into account:

- Infrastructure capacity and long-term capital investment planning;
- Public transport accessibility;
- Environmental sensitivity and climate resilience;
- Social integration and access to economic opportunities;
- Cumulative impacts within the broader functional urban system.

Land use changes will therefore be assessed not only on their individual merit, but on their contribution to the overall spatial logic and long-term development trajectory of Nelson Mandela Bay Municipality.

GA 3: WALMER / AIRPORT / SUMMERSTRAND REGION

This Growth Area is a combination of existing well established residential and economic development as well new integrated residential development. The area also includes the 1266 Summerstrand new proposals, and this is a viable site for Human Settlement expansion abutting the airport.

The key strategy for this Growth Area is spatial transformation and integrated residential development for lower income communities.

The intervention strategy of the Municipality for this area has been to collaborate with the Provincial Department of Human Settlements to fast track the formalisation of the informal settlements in the area. In addition, major funding was provided for the much-needed bulk infrastructure such as the Driftsands collector sewer and stormwater management. The development and upgrade of Fountain Road

commercial facilities is a project of this economic node. In addition, sport fields and other amenities have been prioritised and developed. Detailed layout planning and environmental authorisation for the major developments have been prioritised.

The development of the Walmer Links social rental and finance linked (FLISP) housing, now referred to as First Home Finance (FHF) was made possible through the provision of municipal land.

GA 4: MOTHERWELL REGION

Motherwell is prioritised for transformation by the Municipality, primarily because of its history as a dormitory town. It is under serviced in terms of economic and social facilities and amenities. Even where those facilities and amenities exist, the quality is sub-standard. Major extensions to the township area (Motherwell Extensions 12, 29, 30 and 31) have taken place as part of the municipal human settlement programme. This development, which is rolled out as an integrated residential development, will yield almost 12 500 residential opportunities for approximately 50 000 people.

Significant developments in this area are the Motherwell Shopping Centre and Clinic. Other existing facilities such as a Thusong Centre (to be redeveloped as a Traffic Centre), the Motherwell Community Centre and the higher density Sakhasonke Housing Project are located in this area. The node will also serve as the terminal point for the Khulani Corridor, as well as a future modal interchange.

The node has the potential to develop substantially particularly when the planned Motherwell Rail Corridor is implemented. The future Motherwell rail station forms a strong focal point in this node.

The intervention strategy of the municipality for this area is implemented through the Motherwell Urban Renewal Programme (MURP) that has a dedicated office within the Economic Development, Tourism and Agriculture Directorate. The office deals only with Motherwell projects and programmes, including spatial, cultural and economic interventions.

It is further motivated that this GA be included in the revised PHSHDA boundary, including Walmer.

D1.5.2. Integration Zones

An integration zone is a spatial planning element facilitating spatial targeting of investment aimed at spatial transformation.

The following 2 Integration Zones have been identified:

Integration Zone	Priority
Khulani / Njoli / Motherwell	IZ 1
Stanford Road	IZ 2

Table 39: Integration Zones

INTEGRATION ZONE 1 (IZ1) (CBD/KHULANI/ NJOLI):

This Integration Zone links the Inner-City area through the Njoli Hub to Motherwell and incorporates the Khulani Corridor between Stanford Road, and Njoli Square and Motherwell. It includes Secondary Hubs Kenako/ Vista and Red Location and holds potential for urban regeneration and intensified mixed use development along the Khulani corridor and around the Njoli Hub.

The key strategy for this Integration Zone is focused on Accessibility and precinct development, in-situ informal settlement upgrading and cultural / tourism development.

INTEGRATION ZONE 2 (IZ2) (STANFORD ROAD):

This Integration Zone along Stanford Road and its extension to Uitenhage serves as a spatial link between Integration Zone 1, the Chatty Jachtlakte Hub and Uitenhage CBD. Environmental and spatial constraints make it a very narrow corridor with limited scope for catalytic development intervention.

This would be limited to modal interchanges along Stanford Road such as the Cleary Park Modal interchange. The extent of the Integration Zone around the Zanemvula Chatty Hub has been amended to incorporate the Chatty/Jachtlakte, Zanemvula and KwaNobuhle Estate Housing Projects.

The Chatty Jachtlakte economic node within this integration zone needs catalytic interventions to unlock the development potential of this newly developed area. It is situated at the intersection of the Bloemendal Arterial and Stanford Road. This Node is at the core of the greenfield component of the Zanemvula housing area which was developed as an initiative of the National Department of Human Settlements, Provincial Department of Human Settlements and the Municipality.

Key elements in this node include:

- The convergence of Stanford Road, Bloemendal Arterial and the MR448 (Old Uitenhage Road). Stanford Road is a primary link between the Gqeberha CBD and Kariega. The Bloemendal Arterial on the other hand is not yet fully developed but serves as an important North/South linkage between the R75 and Stanford Road. MR 368 still serves as an important secondary link between Gqeberha CBD and Kariega and has the potential to link the Njoli and Chatty Jachtlakte nodes.
- An estimated 54 000 residential opportunities in Joe Slovo West, Khayamnandi; the Chatty developments and Jachtlakte/KwaNobuhle is being developed, and it will provide densities sufficient to sustain socio-economic activities in the area.

Overall Proposals for Growth Areas and Integration Zones

It is proposed that increased densities are accommodated in these areas and in residential areas along the Integration Zones. The desired densities would be between 60-100 dwelling units per hectare. Higher densities should be along the Integration Zones and movement high movement corridors and lower densities moving further from these corridors.

The developments should also accommodate concepts of Mixed Use (as discussed in the Land Use Management Guidelines section of the report) through allowing for each of access of residents to social amenities and other services.

Public transportation routes and Bus and Taxi stopped should be located along the Integration Zones to ease movement and accessibility.

Various social amenities can also be promoted along the route to act as these routes are promoted to have high movement of people, goods and services.

D1.6. TOWNSHIP REVITALIZATION STRATEGY

Nelson Mandela Bay Municipality is driving township revitalisation efforts aimed at tackling past inequalities and unlocking local economic opportunities. When we talk about township or urban revitalisation, it's essentially about transforming underdeveloped, under-served, or declining areas into vibrant, inclusive, and sustainable communities. **The process usually involves multiple interrelated elements, each addressing a specific dimension of urban life, such as:**



Diagram 9: Township Revitalisation Elements

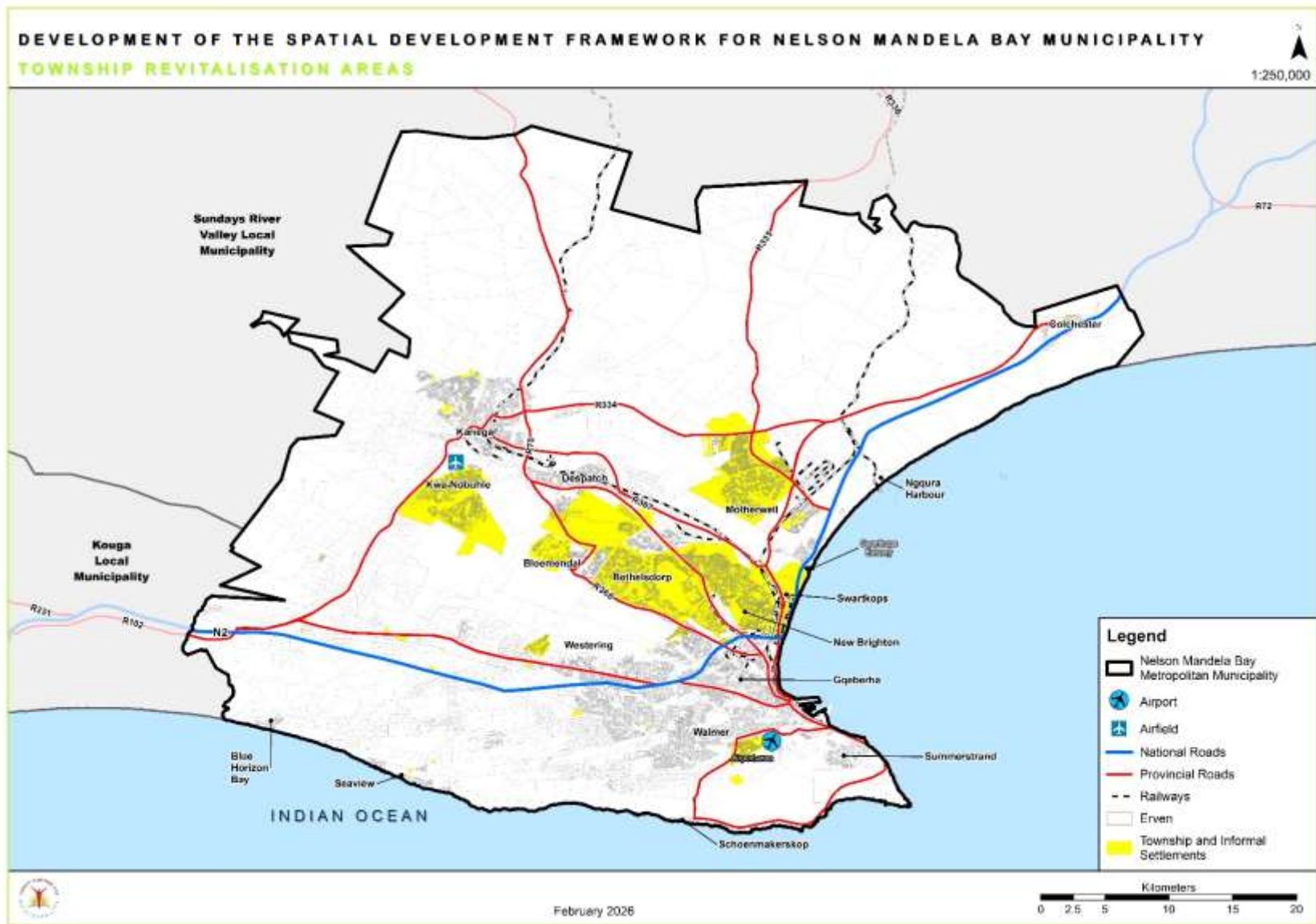
D1.6.1. TOWNSHIPS FOR REVITALISATION:

- Motherwell
- Helenvale
- Bethelsdorp
- KwaZakhele
- Ibhayi (National Treasury Grant Programme)
- Wells Estate- Kuague Informal Settlements
- Algoa Park
- KwaNobuhle
- Bloemendal
- Swartkops
- Walmer Location Area excluding Erf 1226, Summerstrand

D1.6.2. OVERALL RATIONAL FOR SELECTION:

These townships and settlements were prioritised because they:

1. Carry apartheid spatial legacies – poorly located, underserved, and economically marginalised.
2. Have high population density and urgent housing needs.
3. Face infrastructure backlogs (roads, drainage, sanitation, electricity).
4. Struggle with unemployment and poverty, requiring economic upliftment.
5. Hold strategic potential for integration with industrial hubs, ports, and tourism assets.
6. Represent nodes where investment can have multiplier effects, improving both living conditions and economic growth.



Map 33: Township Revitalisation Areas Plan

D1.6.3. CHALLENGES FACING IDENTIFIED AREAS WITHIN THE NMBM:

The NMBM has identified several locations and informal settlements for revitalisation, each with unique challenges stemming from historical inequalities, underinvestment, and rapid population growth. Motherwell, one of the largest townships in the metro, faces high population density and expanding informal settlements. The township struggles with housing backlogs, overcrowding, and limited access to economic opportunities, which are exacerbated by inadequate infrastructure and safety concerns. Improving transport connectivity and creating pathways to nearby employment nodes, such as the Coega SEZ and Ngqura Port, is essential to enhancing livelihoods for residents.

Bethelsdorp and KwaZakhele are older townships with deteriorating housing stock and infrastructure. Both face high unemployment rates, poverty, and social challenges, including substance abuse and crime. Schools, healthcare facilities, and recreational spaces are under pressure, and public areas require significant maintenance and upgrading. Targeted investments in social infrastructure, youth development, and skills training are needed to support the local economy and improve quality of life.

The broader Ibhayi area, which includes Zwide, Veeplaas, Soweto-on-Sea, Struandale, and KwaMagxaki, is densely populated and under-serviced. Residents face significant backlogs in water, sanitation, and stormwater management, while informal settlements continue to grow. Economic opportunities remain limited, and the area suffers from poor integration with the rest of the metro, leaving many residents isolated from employment and social services. Addressing these spatial and infrastructure challenges is critical to creating more inclusive and resilient communities.

Helenvale, Algoa Park and KwaNobuhle present somewhat different challenges. Algoa Park is a transitional area experiencing urban decline and underinvestment, with uneven housing quality and weak economic activity. KwaNobuhle, located near major industrial hubs, suffers from high unemployment and informal settlement growth despite proximity to potential job opportunities. Strategic interventions in these townships can focus on linking residents to the industrial sector, encouraging local entrepreneurship, and improving infrastructure to attract investment.

Bloemendal is a semi-rural area with limited basic services, poor road networks, and inadequate housing. Residents face high levels of poverty and limited access to employment, making infrastructure and social service interventions essential. Swartkops, on the other hand, faces environmental pressures, including pollution from the estuary and aging housing, and requires both environmental rehabilitation and economic revitalisation.

The Walmer Location Area offers strategic opportunities for mixed-use development and integration with nearby townships but currently suffers from service delivery gaps and poor transport connectivity. Investments in logistics, industrial linkages, and public transport can help realise its potential as a gateway hub. New Brighton, with its rich cultural and heritage significance, faces poverty, infrastructure decay, and safety challenges. Heritage and cultural assets remain underutilised, presenting opportunities to combine tourism with economic empowerment initiatives.

Informal settlements and human settlement projects such as Joe Slovo, Wells Estate, Khayamnandi Extension, Missionvale Garden Lots, Motherwell NU 29 and NU 30, Nkatha Seyidi – Enkuthazweni, and Rosedale face urgent housing and service delivery challenges. Many residents live in overcrowded conditions without secure tenure, access to water, sanitation, or formal roads. These areas require a combination of housing formalisation, infrastructure provision, and economic inclusion initiatives to ensure sustainable development.

Across all townships, common challenges include spatial segregation, high unemployment, inadequate infrastructure, housing pressures, social challenges such as crime and substance abuse, environmental degradation, and limited institutional capacity for service delivery. Addressing these challenges in a coordinated and integrated way is critical to the success of any township revitalisation strategy. Targeted interventions should focus on improving living conditions, creating economic opportunities, and fostering sustainable, vibrant, and inclusive communities across the metro.

D1.6.4. INTEGRATED URBAN DEVELOPMENT FRAMEWORK (IUDF)

IUDF is South Africa's national urban policy framework that guides how cities and towns should be planned, managed, and developed to achieve inclusive, resilient, and sustainable urban spaces. For the NMBM, the IUDF provides a useful roadmap to shape township revitalisation, spatial transformation, and economic growth. The following table identifies the **key elements and the objectives** for township development. *Source: Integrated Urban Development Framework, 2016*

IUDF Element	Main Objective
Spatial Integration	Create compact, connected, and inclusive urban forms that overcome spatial inequality.
Inclusive Economic Growth	Enable broad-based participation in the economy, supporting livelihoods and reducing inequality.
Efficient Land Governance	Improve land management, ensure equitable access, and promote sustainable land use.
Integrated Transport & Mobility	Develop safe, affordable, and accessible transport systems that connect people to opportunities.
Integrated Urban Infrastructure	Provide reliable, sustainable, and resilient infrastructure to support settlements and economic activity.
Empowered Active Communities	Strengthen citizen participation in planning and decision-making for inclusive development.

IUDF Element	Main Objective
Effective Urban Governance	Build capable, coordinated, and accountable institutions to deliver integrated urban development.

Table 40 IUDF Key Element and Objectives

D1.6.5. SUSTAINABLE COMMUNITY PLANNING

The Sustainable Community Unit (SCU) development principles guide Sustainable Community Units (SCUs) and township revitalisation in the NMBM.

Core Development Principles	NMBM Context
Poverty alleviation and the satisfaction of basic needs	Prioritise access to water, sanitation, housing, healthcare, and education as a foundation for sustainable communities
Focus on special needs groups – HIV/AIDS affected persons, children, the aged and people with disabilities	Ensure planning responds to the needs of HIV/AIDS-affected households, children, the elderly, and people with disabilities.
Gender equality and equity	Promote equitable access to opportunities, services, and resources for women and men.
The environment – physical, social and economic	Balance physical, social, and economic development with environmental stewardship, green spaces, and climate resilience
Participation and democratic processes	Strengthen community participation in planning, decision-making, and monitoring of development initiatives.
Local economic development	Support township economies, SMMEs, informal traders, and skills development to create jobs and livelihoods locally.
Accessibility – public transport and pedestrian focus	Design for affordable public transport, safe pedestrian movement, and integration with regional mobility networks.
Mixed use development	Combine residential, commercial, community, and recreational land uses to create vibrant, efficient neighbourhoods.
Corridor development	Guide growth along transport and activity corridors to improve connectivity and support compact urban form.
Safety and security	Enhance urban design, street lighting, and community policing to ensure safe public spaces and reduce crime.
Variation and flexibility	Encourage diverse housing types, adaptable land uses, and innovative layouts that respond to changing community needs.

Core Development Principles	NMBM Context
Densification	Promote medium- to high-density housing in appropriate areas to Optimise land use, reduce costs, and support public transport.
Reducing urban sprawl	Contain unchecked expansion by consolidating development within existing urban footprints, improving efficiency and sustainability.

Table 41: SCUs in Township Revitalisation

D1.6.6. TOWNSHIP REVITALISATION STRATEGIES

The township revitalisation strategies for the NMBM align the IUDF principles with local spatial priorities and the Sustainable Community Unit (SCU) development principles to promote inclusive growth, improved services, and enhanced quality of life. These strategies integrate housing, infrastructure, economic development, and community empowerment, while prioritising poverty alleviation, social inclusion, gender equity, environmental sustainability, accessibility, and local economic development. By applying these principles, townships are transformed into connected, vibrant, safe, and resilient communities that are fully integrated into the broader metro economy.

Element	Township Revitalisation Strategy
Spatial Integration & Built Environment Transformation	Restructure fragmented settlement patterns by upgrading informal settlements, releasing land for mixed and medium-density housing, and connecting townships to economic nodes (Coega, Kariega, Walmer/Airport).
Inclusive Economic Growth	Build township economies through enterprise support, township tourism, urban agriculture, and linkages to formal value chains.
Efficient Land Governance	Improve land use management to unlock land for housing, enterprise, and community facilities while securing property rights.
Integrated Transport & Mobility	Enhance affordable mobility to connect people with economic and social opportunities.
Integrated Urban Infrastructure	Invest in reliable and sustainable infrastructure to support inclusive growth.
Empowered Active Communities	Strengthen citizen participation and community-driven development in township revitalisation.

Element	Township Revitalisation Strategy
Effective Urban Governance	Ensure institutional capacity, accountability, and cross-sector coordination for township development.

Table 42: Township Revitalisation Strategies

D1.6.7. TOWNSHIP REVITALISATION PROPOSALS PER SPATIAL TARGET AREA

Township Revitalisation in NMBM is recognised as a multidisciplinary, cross-cutting programme, aligned to the Integrated Urban Development Framework (IUDF). Sustainable outcomes depend on integrating economic development, infrastructure upgrades, social services, urban management, and governance capacity, while also ensuring community participation and inclusivity.

SPATIAL TARGET AREA 1:

Local Economic Development

- Establish a Fresh Produce Market
- Establish Local Economic Support Unit in Motherwell.
- Facilitate linkages to Coega SEZ & Ngqura Port.
- Expand urban agriculture projects.
- Upgrade informal trading areas with infrastructure.

Built Environment

- Upgrade informal settlements
- Extend IPTS connectivity.
- Invest in and to allow for densification bulk infrastructure upgrades (roads, sanitation, stormwater) to allow for densification
- PRASA rail connectivity.

Social & Community Facilities

- Upgrade schools with digital hubs.
- New parks, refurbish sports facilities, and cultural hubs.
- Expanded health & clinic facilities.
- Schools: upgraded with digital hubs.
- Health: expanded clinics and health facilities.
- Community: new parks, sports facilities, cultural hubs.

SPATIAL TARGET AREA 2:

Local Economic Development

- Establish Local Economic Support Unit in KwaNobuhle.
- Promote township tourism (KwaZakhele heritage links relevant to nearby).
- Urban agriculture expansion (Kariega & Despatch peri-urban land).
- Skills & entrepreneurship training centres.

Built Environment

- Upgrade informal settlements (Khayamnandi in Kariega).
- Bulk infrastructure upgrades to allow for densification (older parts of KwaNobuhle & Kariega).
- New bulk infrastructure to link Bloemendal and Kariega e.g., Stanford Road expansion.
- Release land for medium-density housing (Bloemendal).

Social & Community Facilities

- Upgrade schools & clinics across Despatch/Kariega.
- Health: clinics upgraded across Despatch/Kariega.
- Recreation: street lighting for safe public spaces.

Urban Management

- Establish township-level Urban Management Units.
- Community monitoring forums in KwaNobuhle & Bloemendal.
- Street lighting in hotspots (safety and infrastructure)

SPATIAL TARGET AREA 3:

Local Economic Development

- Heritage route marketing (New Brighton).
- Township tourism (Walmer cultural centres, Summerstrand tourism linkages).
- Product promotion (crafts, food markets, events).

Built Environment

- Bulk infrastructure upgrades to allow for densification in Bethelsdorp Area C & Zwide (linked to New Brighton).
- Release land for housing near Airport Area, Algoa Park (Walmer/Gqeberha nodes).
- Secure tenure via title deeds.

Social & Community Facilities

- Upgrade libraries, clinics & community centres (Bethelsdorp, New Brighton, Walmer).

- Parks & cultural hubs (Swartkops, Gqeberha).
- Sports facilities upgrades (Summerstrand sports/tourism synergy).
- Beach Front Upgrades

Urban Management

- Urban Management Unit in Bethelsdorp.
- Strengthen waste management & green economy SMME projects (Swartkops focus on recycling).

Effective Urban Governance: Township-focused urban management units and institutional capacity.

D1.7. BULK INFRASTRUCTURE FRAMEWORK

To support ongoing economic development in the Nelson Mandela Bay Municipality, an effective, competitive, and responsive infrastructure network is essential. The responsibility for providing the necessary bulk services rests with the relevant departments, municipal and parastatals who must ensure that the needs of economic sectors, human settlements, and the rural hinterland are met.

Infrastructure refers to the facilities and structures required for the effective functioning of an economy and society. This includes roads, railways, power generation and transmission, communications, water supply, waste management, and housing. Strong infrastructure underpins social and economic development. Cities and towns that invest in infrastructure improve their competitiveness, enhance liveability, and strengthen connectivity with surrounding regions.

New technological advancements in smart urban systems, renewable energy, mass transit, and telecommunications are increasingly shaping cities into centres of innovation, culture, and diversity. These are the global trends that successful cities are embracing. With rapid urbanisation in Nelson Mandela Bay Municipality, there is still opportunity for the Municipality to adopt these approaches.

Engineering services must meet adequate standards before new developments or densification are approved. Services such as water reticulation, sewage disposal, solid waste management, electricity supply, and stormwater systems are particularly critical. A well-functioning environment is one where all urban areas are sufficiently serviced across these functions. The impacts of new infrastructure on the environment must also be assessed prior to installation, to ensure that treatment plants, landfills, and related facilities have sufficient capacity and that pollution is prevented in all forms.

To ensure sustainable outcomes, the Municipality will implement a comprehensive maintenance strategy, emphasizing lifecycle management of infrastructure assets. This includes regular inspections, preventative maintenance, and timely upgrades to extend service life and reduce long-term costs.

Infrastructure planning and design will also integrate climate resilience, with considerations for extreme weather events, urban flooding, and other climate-related risks. This ensures that all new and upgraded

infrastructure is robust, adaptive, and capable of supporting the Municipality's population and economy under changing environmental conditions.

The Nelson Mandela Bay Municipality (NMBM) continues to face long-standing service delivery challenges linked to infrastructure backlogs, aging systems, and inadequate maintenance. To meet the expectations of residents and industry, the Metro must strengthen its bulk infrastructure as the foundation of a Well-Run, Opportunity-Driven, Caring, Inclusive, Safe, and Forward-Thinking City.

Investment in new infrastructure, rehabilitation of aging systems, and systematic clearance of backlogs are critical not only for reliable service delivery but also to attract investment and stimulate job creation.

To curb infrastructure vandalism and criminal damage, the following interventions are recommended:

- **Community Reporting and Incentives:** Establish a reward system for reporting illegal connections, coupled with a programme to regularise or replace illegal connections, alongside targeted public education campaigns.
- **Enhanced Law Enforcement:** Improve Metro policing and establish a specialised copper theft unit.
- **Municipal Court System:** Increase the funds dedicated municipal court to expedite prosecution of electricity and copper theft offenders and other bylaw violation relating to infrastructure.
- **Infrastructure Protection:** Reduce non-technical electricity losses through innovation in infrastructure security and monitoring.
- **Road Infrastructure Protection:** Minimise damage from overloaded trucks by constructing weighbridges and enforcing penalties.

D1.7.1. WATER SERVICES

Water security remains one of NMBM's most pressing challenges, as highlighted in Phase 2 (Situational Analysis). To ensure a resilient and sustainable water supply system, the Municipality must prioritise investment in the upkeep and modernisation of water infrastructure, address maintenance backlogs, and implement efficient water management practices. Partnerships and innovative funding models will also be essential to overcome fiscal constraints.

NMBM relies on a **mix of surface water and groundwater sources**, supported by an integrated bulk supply system with a combined system input value of almost **200,000 m³/day**. While the Municipality currently has sufficient treatment capacity (**44.86% of total capacity unused as of June 2024**), actual supply remains restricted due to Department of Water and Sanitation (DWS) allocations linked to dam levels, particularly at **Impofu Dam**, which remains below 50%.

The municipal water and sanitation network is extensive, comprising:

- 10 storage dams,

- 8 water treatment works,
- 650 km of large-diameter pipelines delivering bulk treated water,
- 4,800 km of reticulation pipelines,
- 61 reservoirs and 28 water pump stations,
- 3,600 km of wastewater collection pipelines and 83 sewage pump stations,
- 7 wastewater treatment plants for domestic and industrial use, and
- continuous monitoring of trade effluent discharges.

Despite this extensive infrastructure, **non-revenue water remains high** (48.66% in 2023/24, up from 42.77% in 2022/23), alongside **real water losses of 34.8%**. Addressing these inefficiencies is as critical as augmenting bulk water sources. In 2023/24, the Municipality repaired more than **32,600 leaks** and replaced **18.3 km of pipelines**, yet backlogs remain.

At the same time, the Municipality is committed to ensuring **equity in access**. Informal settlements are prioritised through the provision of **standpipes (870 installed, with 78 added in 2023/24)** and **water tanks** where reticulation is not feasible. In the same period, **1,103 state-subsidised houses** were connected to the water network. Potable water quality compliance remains consistently high (**97.9% microbiological, 97.7% chemical**).

KEY STRATEGIC PRIORITIES

To overcome current challenges and secure long-term resilience, NMBM is pursuing the following strategic priorities:

- **Water Resource Management:** Develop and implement a comprehensive long-term water security strategy, including protection and monitoring of supply sources, upgrading treatment works, and strengthening bulk and reticulation systems.
- **Smart Monitoring:** Deploy advanced telemetry and SCADA systems to improve operational efficiencies, enable real-time leak detection, and ensure timely responses during droughts or peak demand.
- **Pump Station Reliability:** Upgrade and maintain pump stations with a focus on energy supply, mechanical resilience, and redundancy to reduce outages.
- **Community Engagement:** Promote water conservation through education campaigns and participatory initiatives, encouraging households and businesses to adopt sustainable water-use practices.

ONGOING AND PLANNED INVESTMENTS:

The Municipality is currently implementing a portfolio of strategic projects aimed at strengthening bulk water security, **upgrading infrastructure, and diversifying supply**:

- **Nooitgedagt Phase 3 and Low-Level Scheme (R550m+):** Ensures sustainable bulk water supply for the Metro and supports both residential and economic development needs.

- **Non-Revenue Water Programme (R1.4bn):** A 10-year business plan to reduce water losses, backed by a loan of R415m, with targeted leak reduction, metering improvements, and system optimisation.
- **Borehole Water Exploration & Development (R200m + R370m):** Expanding groundwater as a supplementary source of bulk water, with treatment facilities under development.
- **Return Effluent Schemes (Coega SEZ, R950m):** Industrial reuse projects to reduce freshwater demand and ensure sustainable water for economic zones.
- **Sea Water Desalination (R1.5bn):** Proposed 60Ml/day climate-resilient desalination facility in Coega, subject to EIA and partnerships with CDC.
- **Sundays River Scheme (R1bn):** Long-term project to augment bulk supply, pending feasibility through the Algoa Reconciliation Study.
- **Backlog on Maintenance (R1bn):** Addressing water and sanitation infrastructure backlogs to restore reliability and reduce service interruptions.
- **Chelsea Bulk Water Pipeline Upgrade (R120m):** Feasibility and design work underway to support Chelsea and surrounding areas with improved water supply reliability.
- **Urban Expansion Supply Lines:**
 - *Chatty JVT Bulk Water (R100m),*
 - *Greenbushes Bulk Water Main (R50m),*
 - *Willow Road Watermain (R50m),*
 - *Amanzi Reservoir & Gqeberha Line (R75m)* – all supporting rapid housing and industrial growth.
- **Pipeline Rehabilitation (R410m):** East–west bulk pipeline upgrades to strengthen supply interconnections across NMBM.
- **Emergency Water Funding (R208m):** Dedicated allocation for rapid interventions during droughts and service failures.

FUTURE PROPOSALS AND STRATEGIC DIRECTIONS

In addition to the current capital programme, NMBM is actively pursuing proposals that will embed resilience in the long-term water supply system:

- **Expansion of Groundwater Schemes:** Future borehole fields to be developed as modular schemes that can be scaled during droughts.
- **Expansion of Effluent Reuse:** Beyond Coega, treated effluent reuse schemes are being considered for other industrial and irrigation areas to further reduce freshwater demand.
- **Integrated Desalination Programme:** Building on the Coega project, feasibility for modular desalination plants at other coastal points to diversify supply.

- **Sandbulk River Catchment Management (R2.5m initial):** Strengthening catchment conservation to protect water quality and long-term yields.
- **Water Loss Reduction Acceleration:** Intensifying NRW interventions with smart meters, AI-driven leak detection, and predictive maintenance.
- **Smart City Water Networks:** Full integration of telemetry/SCADA into a metropolitan water control centre for proactive management.

DROUGHT RESILIENCE:

NMBM experiences severe drought approximately once every four years, with devastating impacts on water security, economic activity, and household well-being. The recent multi-year drought underscored the need for **permanent resilience strategies** rather than crisis-driven responses. To this end, the Municipality has adopted a layered approach that balances infrastructure investment, demand management, institutional coordination, and community engagement.

1. Diversification of Supply Sources

The Municipality is pursuing a diversified water portfolio to reduce reliance on rainfall-dependent dams and strengthen resilience to climate variability. Key initiatives include:

- **Nooitgedagt Water Scheme (Phases 3 & Low-Level Scheme):** Securing long-term surface water supply for urban growth.
- **Groundwater Expansion:** Exploration and development of new wellfields supported by modular treatment facilities.
- **Desalination at Coega (60MI/d, R1.5bn):** A climate-resilient supply option independent of rainfall.
- **Effluent Reuse Schemes (Coega Return Effluent & SEZ Industrial Reuse):** Recycling treated wastewater for industrial use to ease pressure on freshwater sources.
- **Catchment and Dam Management (e.g., Sandbulk River initiative):** Protecting upstream ecosystems to sustain yields and water quality.

2. Aggressive Demand Reduction

Reducing consumption and water losses is as important as expanding bulk supply. The Municipality is scaling up:

- **Non-Revenue Water Business Plan (R1.4bn):** Leak detection, metering upgrades, pressure management, and predictive maintenance.
- **Smart Monitoring (SCADA and smart meters):** Real-time tracking of flows, losses, and demand spikes.
- **Restrictions & Tariffs:** Tiered water-use tariffs and enforcement of by-laws during drought periods.
- **Behaviour Change & Awareness:** Ongoing campaigns to embed water-saving practices across households, schools, and businesses.

3. Emergency Augmentation Measures

Recognising that long-term projects take time, NMBM has established rapid-response measures to buffer against shocks:

- **Emergency Water Funding (R208m):** Allocated for drought interventions, including emergency boreholes and mobile treatment plants.
- **Pipeline & Network Upgrades (R410m east-west connector):** Improving flexibility and resilience of bulk supply routes.
- **Reservoir Expansion (e.g., Amanzi Reservoir, R75m):** Increasing storage to bridge peak demand.
- **Temporary Modular Desalination Units:** Containerised, fast-deployable systems for short-term drought relief.

4. Integrated Governance & Institutional Partnerships

Building resilience requires strong institutional coordination.

- Alignment with the **Algoa Reconciliation Strategy (DWS):** Ensures local plans reinforce national water security objectives.
- Partnerships with **Amatola Water, Coega Development Corporation, private investors, and industries** to co-fund and accelerate alternative schemes.
- **Municipal Emergency Response Teams:** Established to coordinate logistics, water trucking, and supply management during droughts.

5. Building Community & Social Resilience

Equity remains central to the Municipality's drought strategy.

- **Prioritisation of Informal Settlements and Vulnerable Communities:** Standpipes, tanks, and trucking during supply shortfalls.
- **Household-Level Drought-Proofing:** Promotion of rainwater harvesting, greywater reuse, and storage tanks.
- **Citizen Participation:** Leak reporting and monitoring through digital platforms and hotlines.

NMBM recognises that it cannot simply “build its way out of drought.” Instead, resilience will come from **an integrated portfolio of supply diversification, demand reduction, emergency readiness, and community partnerships**. Through this approach, the Metro aims to withstand cyclical droughts while ensuring water for growth, equity, and long-term sustainability.

D1.7.2. WASTEWATER INFRASTRUCTURE

A professional wastewater management strategy must align with the principles of the National Waste Management Strategy, ensuring that services are efficient, environmentally sustainable, and socially inclusive. Effective wastewater infrastructure is essential for public health, economic development, and environmental protection.

The Nelson Mandela Bay Municipality (NMBM) currently manages wastewater services through an extensive network of 3,600 km of sewer pipelines, 83 pump stations, and 7 wastewater treatment works (WWTWs), which collectively treat both domestic and industrial effluent. As of June 2024, approximately 24.4% of the Metro's wastewater treatment capacity remained unused, indicating that while there is system-wide capacity to meet current demand, aging infrastructure, population growth, and industrial expansion continue to place pressure on specific treatment plants and conveyance systems.

During the 2023/24 financial year, NMBM connected 1,103 state-subsidised housing units to the sewer network, ensuring dignified sanitation for new households. In addition, the Municipality strengthened compliance monitoring, with 64% of registered trade effluent industries inspected and the recruitment of two new inspectors to enforce discharge regulations. These steps mark important progress towards safeguarding public health and protecting receiving water bodies.

CORE PRINCIPLES:

- **Integrated Planning:** Wastewater management must be addressed holistically, linking with land use planning, housing delivery, and environmental management. This approach ensures that infrastructure development is aligned with urban growth and ecosystem resilience.
- **Waste Minimisation and Reuse:** Initiatives such as the **Fishwater Flats Biogas Project** demonstrate the potential of wastewater treatment facilities to move beyond disposal and towards resource recovery. Scaling up reuse of treated effluent for industrial processes, irrigation, or environmental flows will be essential for resilience.
- **Efficient Collection and Transportation:** Sewer networks, rising mains, and pump stations must be upgraded regularly to address blockages, overflows, and capacity shortages, particularly in fast-growing areas like Motherwell, Walmer Heights, and Coega.
- **Safe Treatment and Disposal:** Compliance with **Blue Drop and Green Drop certification programmes** remains a priority, ensuring facilities protect public health while meeting environmental standards.
- **Sustainability and Climate Resilience:** New projects should incorporate **energy-efficient processes, biogas recovery, and enhanced effluent reuse schemes**, reducing both operational costs and environmental footprint.

EXISTING AND PLANNED STRATEGIC PROJECTS:

To address immediate challenges while planning for long-term resilience, the Municipality has prioritised a portfolio of wastewater infrastructure projects across the Metro. These include:

- **Upgrading Fishwater Flats WWTW (Metro-wide):** Critical expansion and modernisation of the city's largest wastewater facility, enabling improved effluent quality, increased capacity, and integration of biogas technology. This project underpins sanitation service delivery, supports industrial growth, and reduces solids disposal volumes.
- **Development of Coega WWTW and Return Effluent Scheme (STA1):** Essential to support the growth of the Coega SEZ and ensure sustainable industrial wastewater management. The project, linked to Fishwater Flats upgrades, represents a cornerstone of economic infrastructure.
- **Kelvin Jones WWTW Augmentation (STA2):** Expansion of capacity to accommodate population growth in Kariega and surrounding areas, ensuring compliance with environmental standards while preventing pollution.
- **Cape Recife WWTW Upgrade (STA3):** A key intervention to support coastal development while ensuring environmentally compliant treatment capacity.
- **Driftsands WWTW and Bulk Sewer Upgrades (STA3):** Expansion of both collection (bulk sewer lines) and treatment works to relieve over-capacity conditions and support ongoing housing development.
- **Motherwell North, Walmer Heights, and Chatty/JVT Collector Sewers:** Bulk sewer projects designed to unlock housing and mixed-use development while relieving pressure on existing infrastructure.
- **Swartkops Low Level Sewer Rehabilitation:** To reduce environmental risks and improve reliability of conveyance infrastructure in this critical catchment.
- **Public Toilet Upgrades (City-wide):** Investment in dignified sanitation facilities for public spaces, strengthening inclusivity and accessibility.
- **Bucket Eradication Programme:** Continuation of efforts to eliminate the remaining bucket toilets within three years, ensuring universal access to safe sanitation.

STRATEGIC OUTLOOK AND PROPOSALS

The future provision of wastewater infrastructure in the Nelson Mandela Bay Municipality must directly support the **spatial restructuring objectives** of the SDF, ensuring that investments are aligned with planned growth nodes, integration zones, and catalytic development areas. Key strategic proposals include:

1. Prioritise Wastewater Infrastructure in Growth Nodes:

- Expand and upgrade treatment capacity at **Fishwater Flats, Kelvin Jones, Cape Recife, and Driftsands WWTWs** to accommodate anticipated urban growth and catalytic housing programmes in Spatial Target Areas (STAs).
- Prioritise bulk sewer collector projects in **Motherwell North, Walmer Heights, Chatty/JVT, and Kariega** to unlock land for housing and mixed-use development.

2. Enable Economic Development Through Strategic Infrastructure:

- Advance the **Coega WWTW and Return Effluent Scheme** to meet the needs of the Coega SEZ and surrounding industrial zones, providing secure sanitation infrastructure to underpin job creation and investment.
- Promote industrial effluent reuse in key economic zones, reducing freshwater demand while ensuring sustainable waste management.

3. Promote Environmental Sustainability and Compliance:

- Ensure all WWTWs achieve and maintain **Green Drop certification**, with effluent quality that safeguards riverine and coastal ecosystems.
- Strengthen monitoring and rehabilitation of sewer outfalls, especially in **sensitive catchments such as Swartkops**, to protect ecological integrity and community health.

4. Advance the Circular Economy in Wastewater Services:

- Scale up resource recovery initiatives such as **biogas generation at Fishwater Flats**, nutrient recovery, and the reuse of treated effluent for irrigation and industrial processes.
- Integrate wastewater planning with the Metro's broader **climate adaptation and energy transition strategies**, reducing both carbon footprint and operational costs.

5. Improve Equity and Dignified Sanitation:

- Eradicate remaining bucket toilets within the short to medium term, ensuring universal access to safe and dignified sanitation.

- Upgrade **public sanitation facilities** in strategic transport hubs and community centres to support inclusivity and accessibility.

6. Institutional Strengthening and Long-Term Resilience:

- Implement a structured **Asset Management Programme** to systematically refurbish pump stations, outfall sewers, and aging treatment works.
- Explore **public-private partnerships and national funding collaborations** (with Amatola Water, CDC, and DWS) to secure investment for large-scale wastewater infrastructure upgrades.

D1.7.3. ELECTRICITY

The Nelson Mandela Bay Municipality provides electricity to consumers within Gqeberha, Despatch, Kariega and parts of Thornhill, Summit and Gamtoos through electrification programmes catering to both formal state subsidized houses as well as households in undeclared areas. The Municipality's licenced area covers 1 959km with an approximate Notified Maximum Demand of 650 MVA. The Municipality serviced 371 847 customers with safe electricity as of 30 June 2024. The current housing development requires that the Municipality develops and extends electricity bulk infrastructure to build capacity to accommodate the growth of electricity customers. The current simultaneous maximum demand for electricity is 622 87 MVA.

To meet the growing demand, NMBM continues to **invest in and expand bulk electrical infrastructure**, maintaining a network that is reliable, resilient, and capable of supporting population growth, economic development, and industrial expansion. A reliable electricity supply underpins business continuity, healthcare, education, and overall quality of life.

CHALLENGES IN ELECTRICITY PROVISION

Key challenges include:

- Limitations in the distribution infrastructure capacity:
Certain areas of the old 6.6 kV networks require upgrading to 11 kV or 22 kV to meet the changing demand profile. For example, Newton Park, originally developed for domestic use, has shifted to business and commercial activities, requiring portions of the network to be upgraded. In general, 22 kV is preferred for industrial areas.

Capacity is being added at key substations to support current and future growth:

1. **Pearl Substation** – serving Mieve (commercial and industrial areas)
2. **Motherwell Main Substation** – supporting social housing developments on the outskirts
3. **Chelsea Substation** – covering rural areas
4. **Kulati Substation** – Ibhayi area, including infill developments in low-income and residential zones

In addition, several areas are in the process of converting from 6.6 kV to 11 kV networks, addressing aging medium-voltage infrastructure and increasing available capacity. These areas include:

- Walmer
- Gelvandale
- Aloa Park
- Young Park
- Korsten & Dyers
- Newton Park
- Pure industrial areas (Dilpate, Straundale, Crawford, and Nieve)

Upgrades are being planned and implemented based on 5-, 10-, and 20-year projections to ensure that infrastructure keeps pace with current and future demand. While limitations exist in certain sections of the network, these interventions will progressively increase capacity and reliability across the Metro.

- Integrating of the increasing penetration of photovoltaic (PV) systems within the municipal network and the revenue.
- Non-technical electricity losses of 18.36% as at June 2024, primarily due to theft (incl. theft through illegal connections), meter tampering, billing errors, and non-issuance of accounts.

In response, the municipality has implemented programmes to upgrade certain networks to address existing limitations and is diversifying its electricity portfolio to allow private producers to connect to the grid. This includes enabling wheeling agreements within NMBM. An amnesty programme was also introduced to address non-technical electricity losses.

INFRASTRUCTURE DEVELOPMENT AND MAINTENANCE

The municipality has embarked on extensive upgrades and maintenance projects to improve network reliability:

- **Substation Upgrades:** Kragga Kamma (MV upgrade complete with SCADA automation), Deal Party 22kV (in progress), Chelsea (medium voltage introduction), Mabandla (indoor switchboard replacement), Motherwell Main (22kV upgrade in progress), Bethelsdorp (11kV extension), Matomela and Kwaford (re-configuration and upgrades), Booysens (construction), and Kulati (upgrade).
- **Maintenance Backlog & Maintenance Backlog Relief:** Targeted initiatives are underway to reduce outages, prevent distribution network failures, and improve energy reliability for high-demand users. Addressing the maintenance backlog involves a combination of repairs, general maintenance, and replacement programmes across the network. SCADA-enabled automation supports remote monitoring and rapid response, optimising maintenance team deployment and reducing customer downtime.

Current limitations include constrained resources, which prevent the immediate resolution of the entire backlog. To address this, an application for BFI funding is being completed, which will finance strategies and projects aimed at reducing the backlog, supporting replacement programmes, and strengthening the network's capacity. A critical requirement remains the availability of funding to procure services capable of executing both backlog relief and capacity expansion projects.

Communication infrastructure supporting SCADA operations is also being addressed, as vandalism in certain areas has caused communication breaks that exacerbate maintenance challenges. The combination of targeted funding, automation, and structured replacement and maintenance programmes will progressively reduce backlogs and improve overall network reliability.

FREE BASIC ELECTRICITY

In line with municipal policy, 31 707 households qualified for **Free Basic Electricity** in 2023/24, receiving 75 kWh per household per month to support basic household energy needs.

RENEWABLE ENERGY PROSPECTS

The municipality is actively exploring renewable energy options to enhance energy security and reduce reliance on traditional sources:

Solar Energy:

- NMBM has strong potential for solar energy deployment. Opportunities include **photovoltaic (PV) systems** ranging from rooftop units for residential and commercial buildings to **large-scale solar farms**.
- Solar water heating projects also present opportunities for reducing demand on the electricity grid.
- Planned solar installations include sites across STA3, such as Albany Road and other municipal facilities, to diversify energy supply.
- Solar energy is central to the municipality's strategy to mitigate rising electricity costs and support sustainable growth.

Wind Energy:

- The municipality is exploring **wind energy potential**, particularly in areas suitable for wind farms. Wind energy can complement solar PV by providing a more balanced and continuous renewable energy supply.
- Discussions are ongoing regarding land allocation for wind farms, ensuring environmental considerations and urban integration.

Environmental Considerations:

- **Highly sensitive areas:** Specific hydropower and solar potential sites that have been classified as no-go zones due to environmental sensitivity. These designations typically come from environmental assessments and strategic environmental management plans, such as those conducted under the National Environmental Management Act (NEMA), Strategic Environmental Assessments (SEA), or provincial biodiversity and renewable energy development guidelines.
- **Moderately sensitive areas:** Renewable energy projects require environmental authorization and mitigation measures.
- **Transformed areas:** Already disturbed sites are prioritised for renewable infrastructure where environmental impacts can be managed effectively. Service coverage currently extends all the way to Gamtoos and Thornhill, though technically it ends at the Von Stadens Bridge. These service areas are in the process of being transferred to the respective municipalities in which they fall.

Nelson Mandela Bay Municipality (NMBM) can bulk-meter these areas, allowing the receiving municipalities to manage internal distribution. Similarly, Colchester is still in the process of being handed back to NMBM from Eskom.

STRATEGIC PROJECTS AND INITIATIVES

To strengthen energy security and supply reliability, the following projects are being planned, implemented within NMBM:

- **Closed Cycle Gas Turbine (CCGT) generation** for peak energy demand, including a CCGT power station at Ngqura.
- **Thyspunt Nuclear Plant** (Eskom) for long-term energy security.
- Integration of renewable energy sources into the municipal grid.
- Electrical grid upgrades to address ageing infrastructure and ensure industrial and domestic energy security.
- Regional gas infrastructure initiatives to diversify energy supply.
- Municipal solar panel installations at various sites to supplement grid electricity and reduce operational costs.

These initiatives form part of the **2024 Electricity Master Plan**, which prioritises:

- Grid reinforcement, particularly in high-growth areas such as Motherwell and Coega SEZ.
- Integration of renewable energy into the municipal grid, including solar and wind energy projects.
- Regular maintenance and upgrading of infrastructure to improve reliability and reduce technical and non-technical losses.
- Long-term energy security and climate resilience, supporting municipal operations and private sector investment.

LONG-TERM OUTLOOK

NMBM's electricity strategy aligns with city growth objectives, focusing on:

- **Create a smart energy network**
- **Reliable and resilient supply** to meet increasing demand.
- **Infrastructure upgrading** to modern standards.
- **Innovative and sustainable energy solutions**, including solar power, wind power, waste to energy and other technology sources
- Collaboration with national departments, private partners, and green economy initiatives to ensure the municipality remains **resilient, sustainable, and prepared for future electricity challenges**.

D1.7.4. SOLID WASTE

The Nelson Mandela Bay Municipality (NMBM) operates four landfill sites and 18 drop-off facilities. Of these, Arlington (Spatial Target Area 3) and Koedoeskloof (Spatial Target Area 2) remain operational, while Ibhayi and KwaNobuhle (Spatial Target Area 2) are closed and earmarked for rehabilitation. Expansion of Arlington and Koedoeskloof is planned, alongside an increase in the number of drop-off facilities to improve accessibility and reduce illegal dumping.

STRATEGIC OBJECTIVES

Priority objectives identified in the IDP and Integrated Waste Management Plan (2021–2027) include:

- Replacement and structured maintenance of refuse compactors.
- Installation of permanent concrete litter bins in CBDs and taxi ranks.
- Construction of a wet cell at Koedoeskloof.
- Updated site development plans for Arlington and Koedoeskloof.
- Infrastructure improvements at both landfill sites.
- Refurbishment of the mobile exhibition unit for community awareness.
- Maintenance and expansion of basic waste management services.
- Development of updated policies, strategies, and by-laws to ensure compliance with national and provincial legislation.

INFRASTRUCTURE NEEDS

The waste management system requires **significant expansion**, particularly for transfer stations, drop-off facilities, and landfill capacity. No comprehensive long-term masterplan currently exists, which is a critical gap given long lead times for budgeting, land acquisition, and construction. Immediate priorities identified in the IWMP include:

- Expansion of landfill facilities to accommodate housing growth.
- Development of a comprehensive Waste Infrastructure Masterplan.

- New transfer stations, drop-off sites, and regional landfill capacity at Arlington.
- Upgrades to ageing landfills to ensure compliance and environmental protection.

AWARENESS AND EDUCATION

The Municipality conducts ongoing awareness campaigns through flyers, school outreach, business engagements, and a mobile exhibition unit. Future efforts will:

- Annually review campaign cost-effectiveness.
- Regularly update awareness materials.
- Expand outreach through promotional give-aways.
- Develop targeted educational materials addressing local issues.

WASTE MINIMISATION

NMBM has introduced **“separation at source” programmes** in several suburbs (Linton Grange, Bramhope, Westering, Taybank, Moregrove, and Western Hills) and supports recycling facilities at Kragga Kamma and Hunters Retreat. To strengthen waste minimisation and the circular economy, further initiatives include:

- Local litter-control programmes.
- Expanded recycling and composting strategies.
- Establishment of Material Recovery Facilities (MRFs).
- Entrepreneurship support and job creation through recycling value chains.
- Waste beneficiation projects to convert waste into reusable products or energy.
- Training and skills development programmes.

STRATEGIC PROJECT PIPELINE

The following priority projects form part of NMBM’s Solid Waste strategic programme, aligning with the **NSDF, PSDF, the One Plan, and the MSDF vision**:

1. Landfill Capacity & Compliance

- **Expansion of Koedoeskloof Landfill:** Five-phase expansion (14 cells over 40 years) starting with Cell A (southern extension), with urgent EIA and design processes. (R83m, MIG/HSDG, 3 years).
- **Landfill Upgrades & Rehabilitation:** Rehabilitation of ageing landfill cells and compliance upgrades. (R724m, MIG, Top Priority).

2. Fleet & Operational Efficiency

- **Fleet Recapitalisation and Modernisation:** Acquisition of smart, fuel-efficient refuse trucks. (R420m, MIG + own funding).
- **Construction of SWM Fleet Depot:** Centralised facility for housing and maintaining solid waste vehicles. (R30m).

- **SWM Depot Upgrades (Operations):** Safety and operational efficiency upgrades. (R30m).

3. Institutional Capacity & Governance

- **Construction of SWM Headquarters:** New administrative headquarters for solid waste management. (R50m).

4. Community Access & Drop-Off Facilities

- **Drop-Off Sites (x18):** Community-based disposal facilities across wards. (R111m, MIG + PPP).
- **Procurement of Waste Containers:** Skip bins, sprico bins, and wheelie bins for household and commercial use. (R280m).

5. Circular Economy & Recycling

- **Material Recovery Facilities (MRFs):** Sorting and processing of recyclables. (R180m, Green Economy Fund + MIG).
- **Waste Beneficiation Project:** Converting waste into reusable products or energy. (R30m, Green Economy Fund + PPP).

6. Public Environment & Sanitation

- **Public Toilets Upgrade Programme:** Refurbishment of public toilets in key public nodes. (R10m).

STRATEGIC PROPOSALS

- Development of new regional landfill capacity at Arlington and upgrades to Koedoeskloof.
- Scaling up recycling and material recovery facilities in line with the IWMP (2021–2027).
- Modernising fleet and operational depots to improve service efficiency.
- Expanding community access to decentralised drop-off sites and waste containers.
- Strengthening waste beneficiation and circular economy initiatives.
- Coordinated site identification with Town Planning and other directorates to secure future waste management land parcels.
- Implement a network of strategically located drop-off sites across NMBM to improve waste collection, recycling, and public access to waste disposal facilities. This initiative addresses current operational challenges and enhances service delivery, environmental management, and community participation in sustainable waste practices.

Note: Several candidate waste sites are ready for council approval.

REGULATORY COMPLIANCE FOR NEW WASTE INFRASTRUCTURE

All proposed new waste management facilities must comply with national and local legislation to ensure environmental protection, public health, and operational safety. Requirements differ by facility type:

1. Drop-Off Sites

Must comply with the **National Environmental Management Act (NEMA, Act 107 of 1998)** and relevant Environmental Impact Assessment (EIA) requirements.

- Licensing under **NEM:WA (Act 59 of 2008)** may be required depending on waste type and volume.
- Compliance with municipal by-laws and the **Occupational Health and Safety Act (Act 85 of 1993)** is mandatory.
- Operational standards include proper waste segregation, containment, signage, stormwater management, and prevention of littering or illegal dumping.

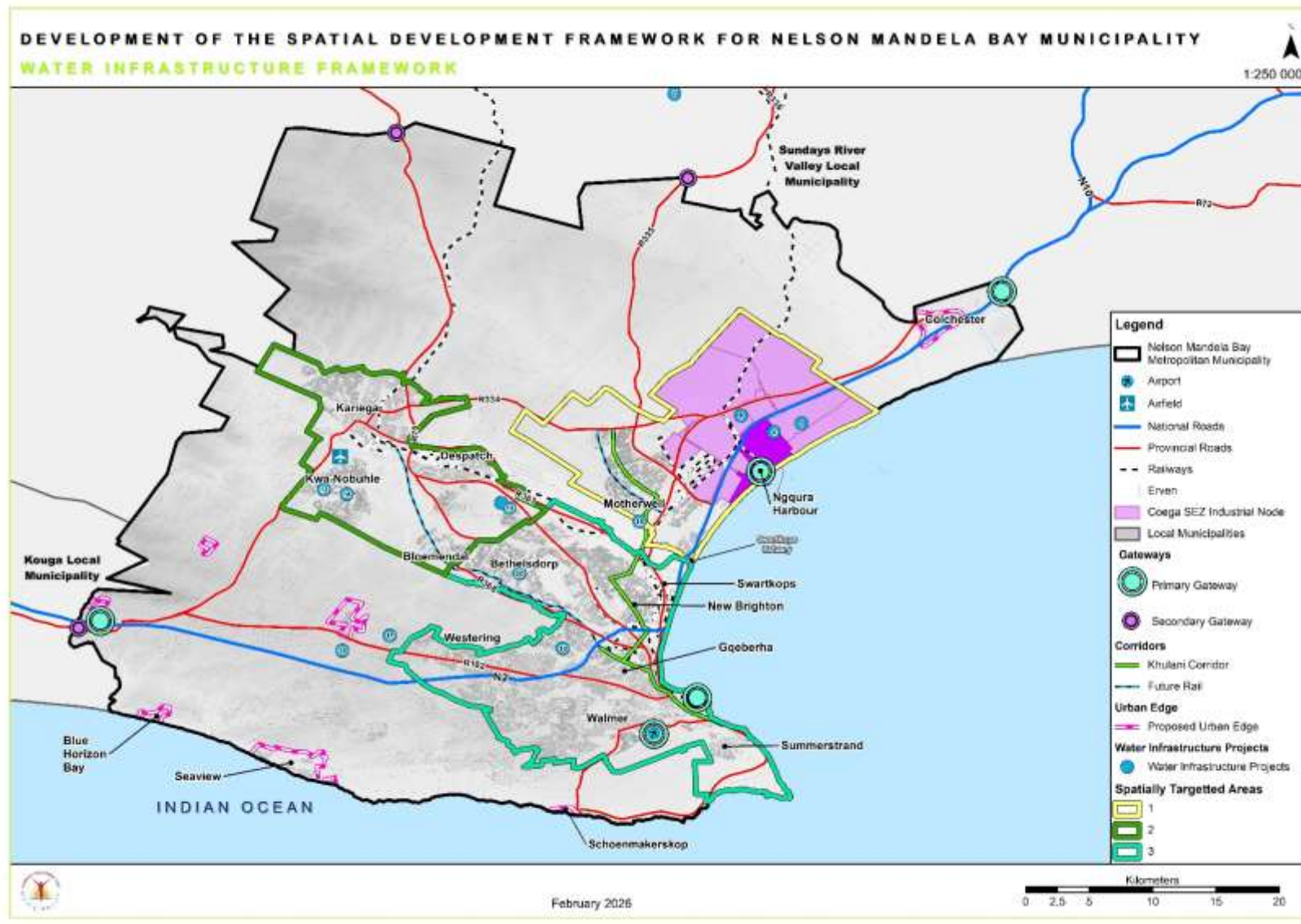
2. Waste Transfer Stations

- Require a **NEM:WA waste management licence** for design, construction, and operation.
- Must comply with NEMA, including EIA or Basic Assessment processes to address noise, dust, odours, and potential groundwater contamination.
- Infrastructure requirements include hardstanding's, weighbridges, drainage, fencing, security, and fire prevention measures.
- Must meet **Occupational Health & Safety (OHSA)** standards and provide staff with appropriate PPE.
- Monitoring and reporting of waste volumes, types, and destinations, as well as emergency response planning, are required.

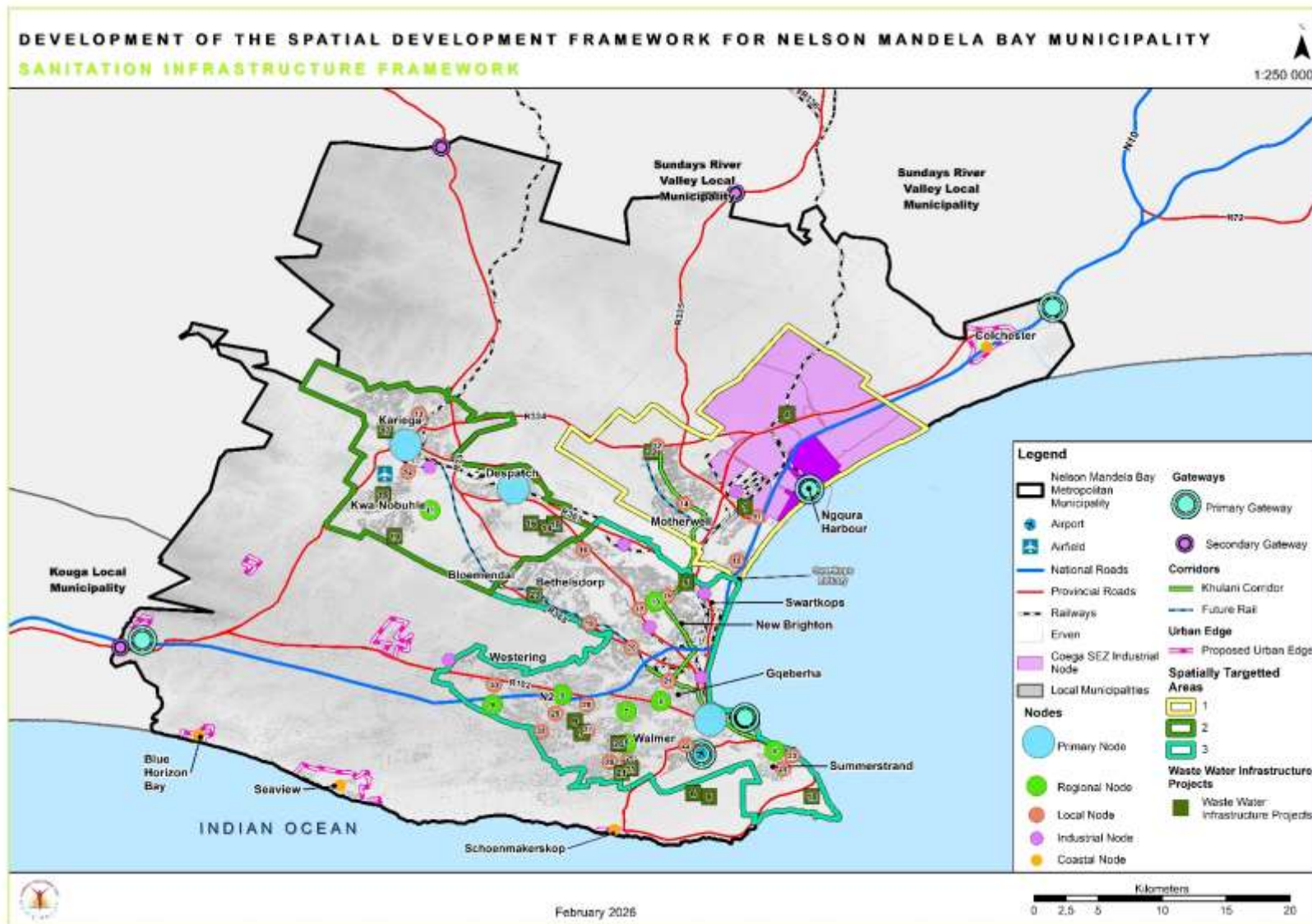
3. Landfills

- Full **NEM:WA waste management licence** is mandatory, specifying permitted waste types (general, hazardous, inert).
- Must comply with NEMA and undergo a detailed **EIA**, including studies on groundwater, surface water, air quality, biodiversity, and socio-economic impacts.
- Design and engineering must follow **DWAF Minimum Requirements for Waste Disposal by Landfill**, including liners, leachate collection and treatment, gas management, stormwater control, and post-closure rehabilitation.
- Operational and health & safety measures include daily cover, access control, equipment maintenance, and emergency response planning.
- Continuous environmental monitoring and periodic reporting to DFFE or the relevant provincial authority are required.

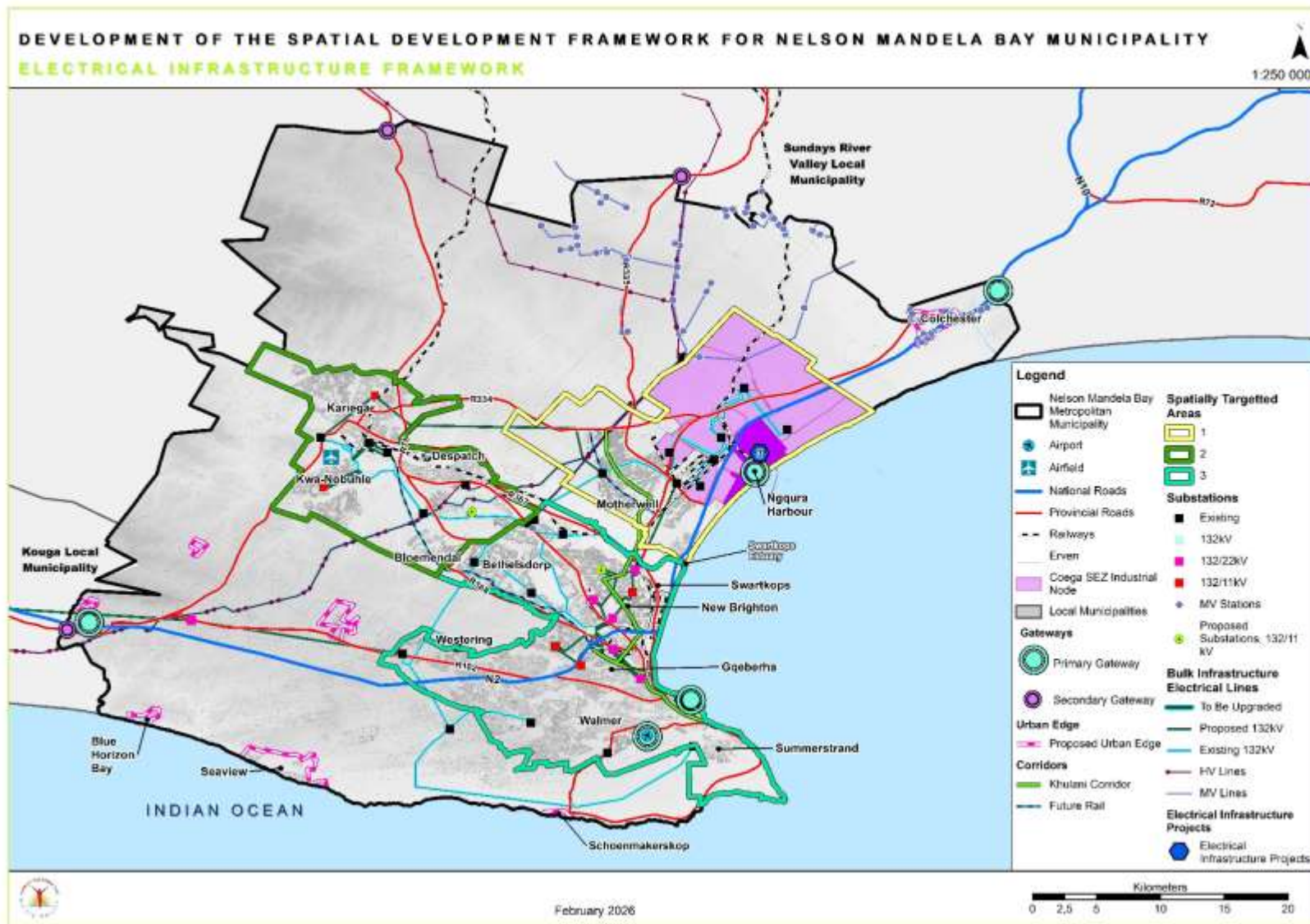
By ensuring that each facility type meets its specific regulatory requirements, NMBM can provide sustainable, safe, and environmentally responsible waste management services.



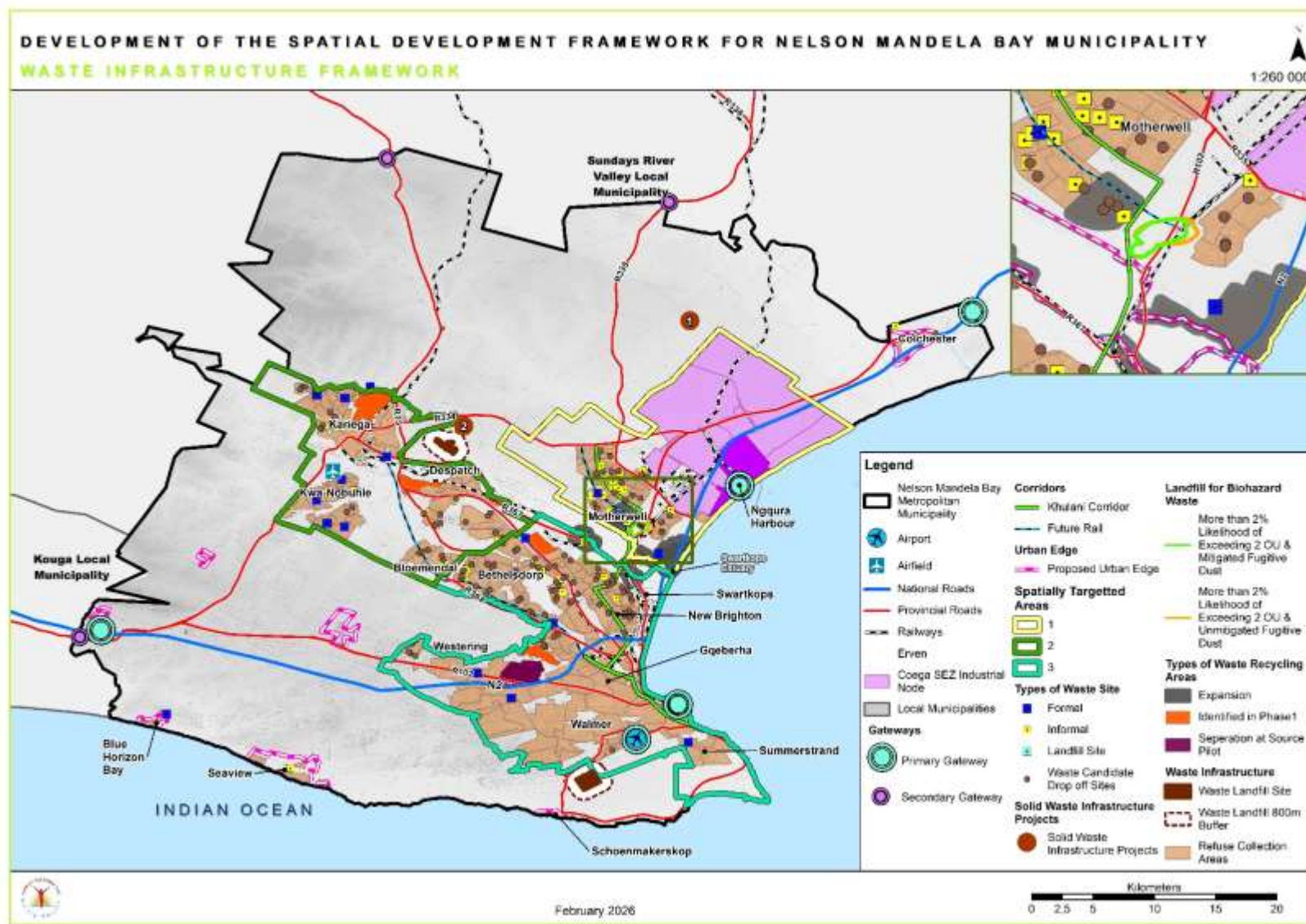
Map 34: Water Infrastructure



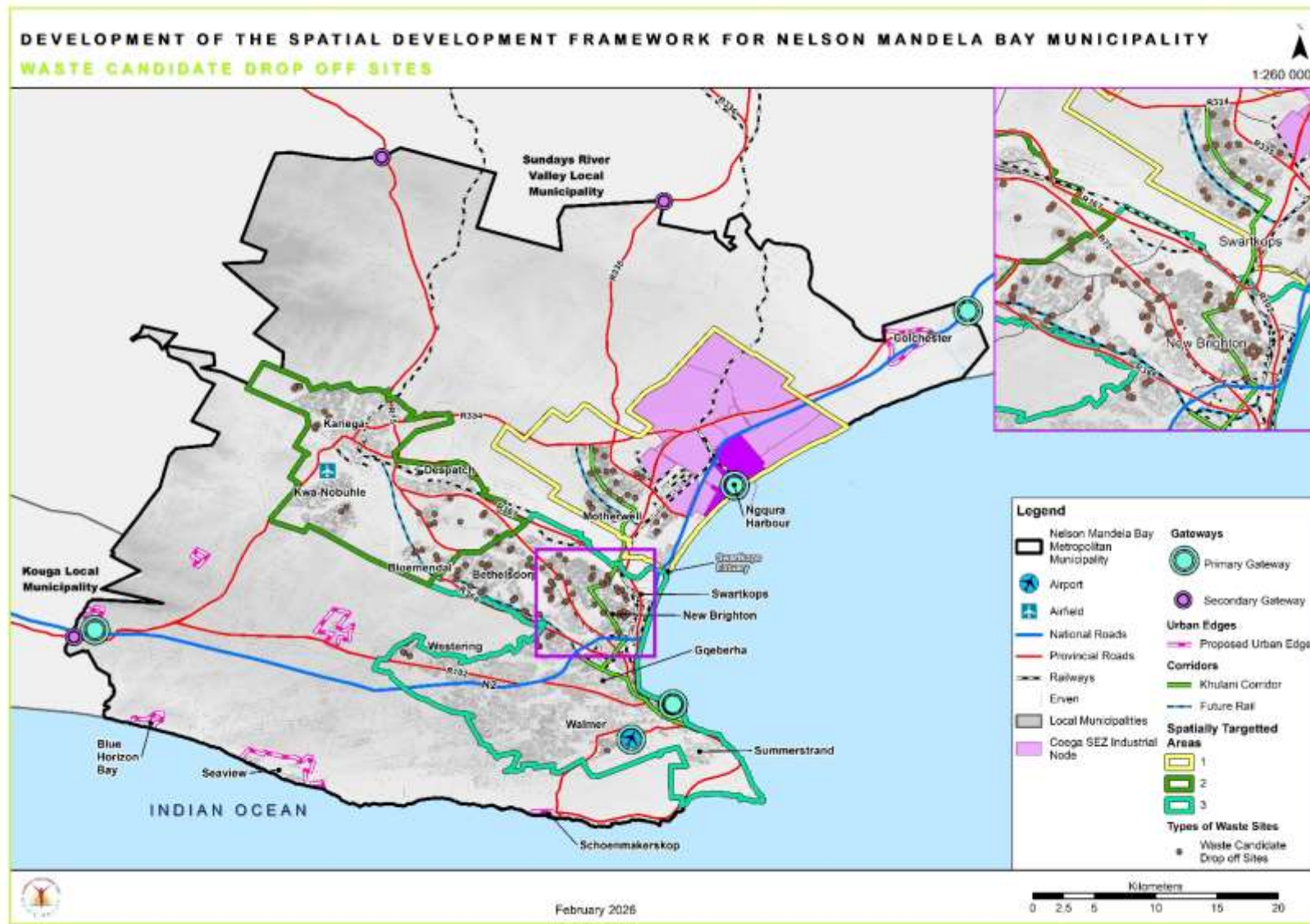
Map 35: Sanitation Infrastructure (Waste Water)



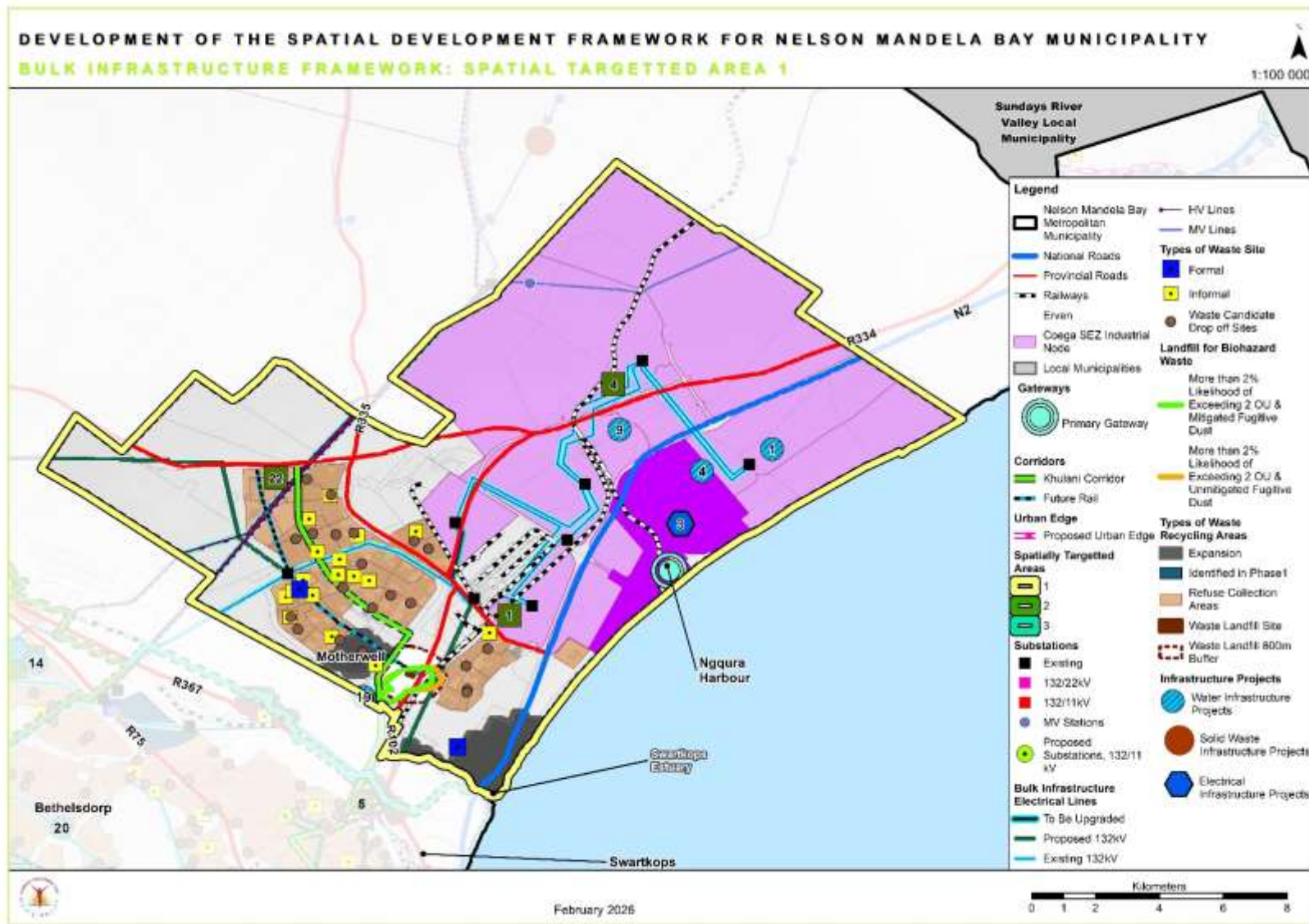
Map 36: Electrical Infrastructure



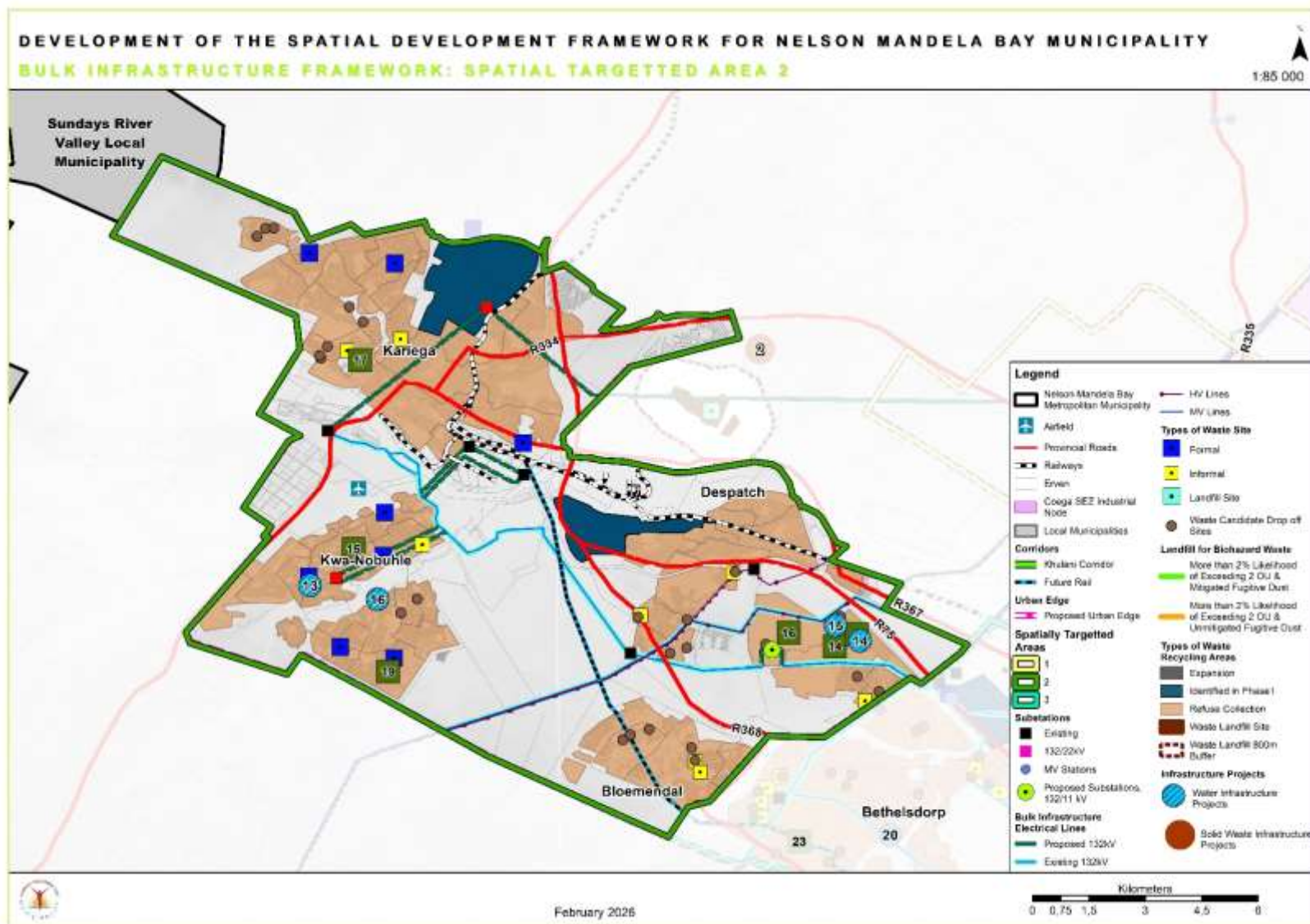
Map 37: Solid Waste Infrastructure



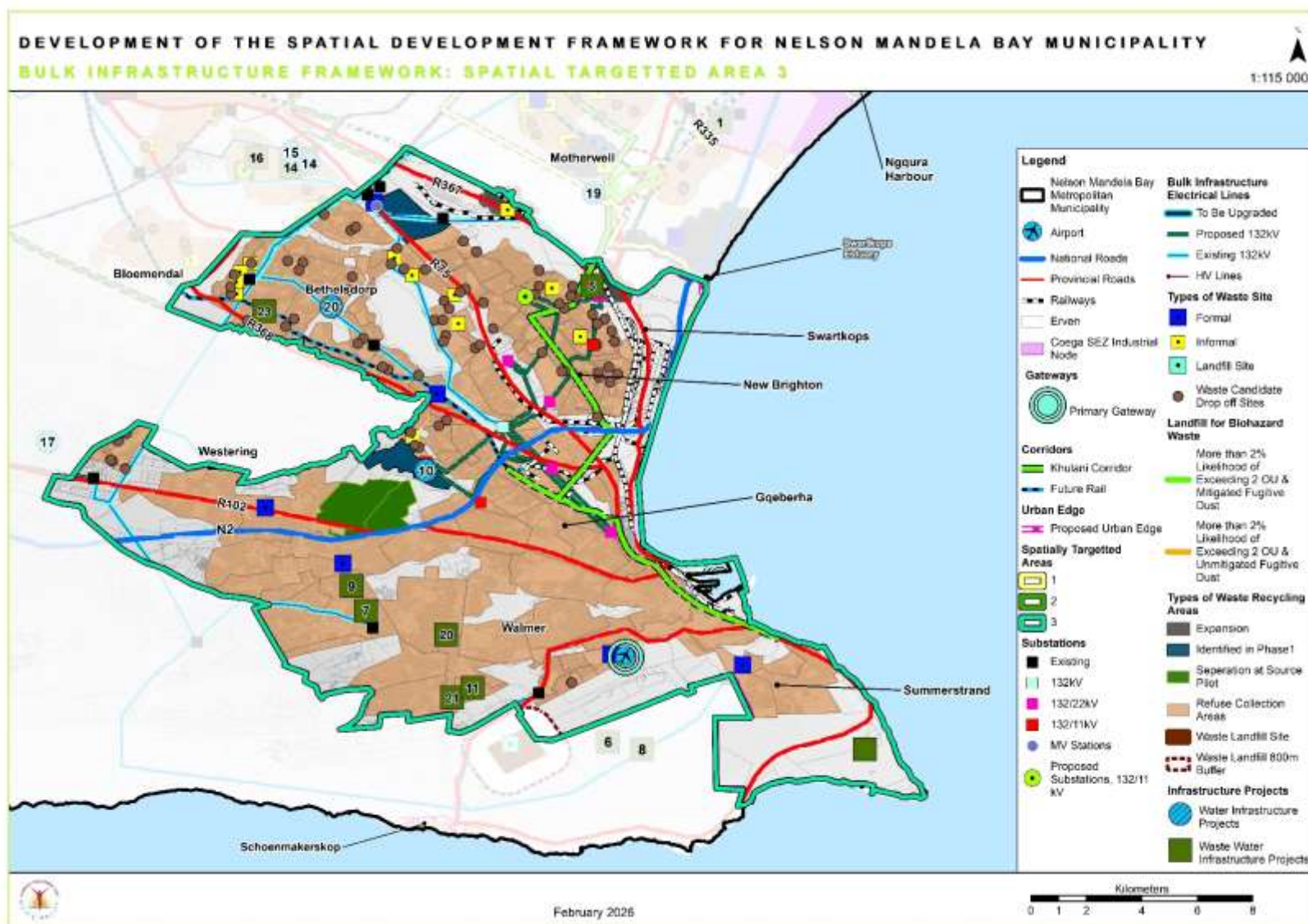




Map 40: Overall Bulk Infrastructure Framework - Spatial Targeted Area 1



Map 41: Overall Bulk Infrastructure Framework - Spatial Targeted Area 2



Map 42: Overall Bulk Infrastructure Framework - Spatial Targeted Area 3

D1.8. TRANSPORT AND MOBILITY INFRASTRUCTURE

The Nelson Mandela Bay Municipality (NMBM) is the logistical gateway to the Eastern Cape, connecting the province to national and international markets. To support economic growth, equitable access, and urban integration, the municipality is prioritising investments in road, public transport, and freight infrastructure.

Road network improvements have been identified through the transport model to improve capacity as well as to improve access and connectivity to development areas as indicated in the Transport Needs Assessment as well as in the Spatial Development Framework, Urban Network Strategy Framework.

Projects identified are categorised as follows:

- Base Year Road Network Improvements (Approved, budgeted projects – 2022 -2025)
- Short Term Road Network Improvements (2025 - 2029)
- Medium Term Road Network Improvements (2030 - 2039)
- Long Term Road Network Improvements (2040 onwards)

D1.8.1. ROAD INFRASTRUCTURE

Roads have the potential to not only bridge the geographical divide but also to provide communities with access to better social and economic opportunities. It is therefore important that roads are assessed and maintained in the context of their **spatial network, classification, and surface condition**.

KEY STRATEGIC ROADS WITHIN NMBM INCLUDE:

- N2
- Cape Road
- Kragga Kamma Road
- R75
- Kempston Road
- Glen Hurd Drive
- Main Road Walmer
- Heugh Road
- Buffelsfontein Road
- Stanford Road

PROPOSED INTERVENTIONS INCLUDE:

- Completion of the **Western arterial Link Road**, strengthening east–west connectivity.
- Implementation of **N2 and N2 Bypass projects** to enhance freight efficiency between ports, the Coega SEZ, and regional economic hubs.

- Upgrading of **township road networks** in Motherwell, KwaZakhele, and Bethelsdorp to improve accessibility, support public transport integration, and promote social inclusion.
- Rehabilitation and resurfacing of arterial and secondary roads, prioritising high-traffic corridors to reduce travel times and support economic activity.
- Incorporation of **green infrastructure measures**, such as permeable pavements, improved stormwater management, and roadside vegetation, to enhance environmental resilience and urban aesthetics.

CONNECTIVITY LINKS:

1. Baywest Boulevard - Kragga Kamma Road
2. Stanford Road – Mission Road (New Alignment) – Second Bridge (Baywest SANRAL office)
3. Cuyler Street – Mel Brooks Alignment
4. Summer Strand, Strandfontein / Second Avenue Intersection - Walmer alignment
5. Stanford Road – Kwanobuthle / Despatch alignment
6. Spondo – Straunway - Daku – Dibanisa – Seyisi Road – Mahambethlala – Grahamstown Road – John Tallant – N2
7. N2 – Blue Water Bay (Weinronk) – Motherwell

The following key projects are intended to improve access and connectivity:

Short term

- **Extension of Stanford Road (Bloemendal Arterial to Kwanobuhle Access Road):** The extension of Stanford Road in the Zanemvula - Jachtylakte area through to the Kariega Central area is an important linkage road which will provide a connection between the two areas thus allowing greater access from the poorer area of Chatty and Jachtylakte to the resources, amenities, and jobs in the Kariega CBD. The completion of this link will also increase the overall transportation network accessibility from the western areas of the city.
- **Bloemendal Arterial (Old PE / Kariega Road to R75):** This is a critical link that connects the Njoli and Chatty / Jachtylakte Hubs. The linkage will strengthen access and integration by spatially linking the two areas. By improving connectivity between areas, economic activity will also increase.
- **Kwanobuhle Southern Arterial Phases 2 and 3:** This road link will improve access from Kwanobuhle to the Jachtylakte development area and the employment areas to the east. It will also form a network of roads with the extension of Stanford Road and the Bloemendal Arterial.
- **Extend Bramlin Street from Malabar to Kariega Road:** Bramlin Street provides access to the Malabar area and to the developing residential areas in the west and north of Cape Road. It provides an alternative to the N2 freeway which is congested during peak traffic periods and will improve access to the employment areas in Struandale.
- **Diaz Road Arterial between Diaz Road and Redhouse Chelsea Arterial:** This link will provide an alternative means of access to the developing residential areas and business areas to the north of Cape Road.

- **Link Road from Grahamstown Road to Kwazakhele:** This road link will provide a convenient alternative for vehicles and pedestrians to access the New Brighton and Kwazakhele areas. The nearest alternative access is some distance away and results in thousands of pedestrians crossing busy rail lines to access employment opportunities in the northern section of Deal Party.

Long term:

- **Neptune Road Extension to MR460:** Neptune Road is one of the main arterials in the Coega SEZ. It is proposed to extend Neptune Road northwards to intersect with Addo Road / MR460 Kariega link road intersection. This will improve the road links between Kariega and the SEZ.
- **Extend William Road through Cotswold to Cape Road:** This proposal is intended to relieve traffic congestion at the intersection of Cape Road and Disa Avenue and provide an alternative route through Newton Park.
- **Construct Link Road between R367 Union Avenue and MR460:** This long-term proposal will be required when the adjacent area is developed.
- **Standford Road Extension to Botha Street:** This link will extend Stanford Road to intersect Botha Street at the Despatch West interchange with Trunk Road 63 and will improve access to the Jachtlakte area.
- **Mission Road Realignment and Upgrading (Baywest to Stanford Road):** This road will replace the southern section of Mission Road on a new alignment to link to the Baywest interchange on the N2 and will improve connectivity between the greater Kariega area and the western nodal development in the Greenbushes area.

RAIL CORRIDORS TO BE PROTECTED:

- **Motherwell Spur**
- **Standford Road Corridor**
- **Narrow Gauge Corridor**

KEY ISSUES:

Frequent storm surges and flooding along the N2 corridor disrupt mobility, damage infrastructure, and limit accessibility between settlements and economic nodes. These events also affect emergency response times and logistics, posing risks to safety and economic activity. To **ensure that water does not reach the road**, the solution will focus on **intercepting, redirecting, dissipating, or blocking water before it reaches the carriageway**. There is no single fix—successful prevention requires a **layered engineering approach** combining coastal, stormwater, and road-design interventions.

RECOMMENDATIONS:

- Collaborate with **SANRAL** to assess and implement **route expansion or realignment** in vulnerable sections to improve traffic flow and provide alternative routes during flood events.
- Upgrade and **expand drainage infrastructure** along the corridor to ensure effective stormwater management and reduce road surface flooding.
- Integrate **climate resilience measures** into corridor planning, including raised road sections, retention ponds, and permeable surfaces where feasible.
- Strengthen coordination between the **municipality, SANRAL, and disaster management units** to align maintenance, early warning, and emergency response systems.
- Incorporate **green infrastructure solutions** such as vegetated swales and flood buffer zones to manage runoff naturally and protect adjacent ecosystems.
- Conduct **risk and vulnerability assessments** to identify high-risk areas and prioritise targeted interventions.
- Ensure that future development adjacent to the N2 considers **setback regulations and climate-adaptive design standards** to reduce exposure to flood hazards.

LONG-TERM PLANNING:

Coastal and flood-resilient infrastructure upgrades

- Reinforcing sea walls and breakwaters
 - Installing energy-dissipating structures (like gabions) to protect embankments
 - Redesigning vulnerable stretches with elevated roadbeds or flood-tolerant profiles
- These align with broader best practices in stormwater and coastal roadway design.

D1.8.2. PUBLIC TRANSPORT

A safe, affordable, and inclusive public transport system is central to reducing congestion, increasing mobility, and promoting economic participation.

PROPOSED INTERVENTIONS INCLUDE:

- Expansion of the **Integrated Public Transport System (IPTS)** with dedicated lanes, interchanges, and feeder routes connecting Uitenhage, KwaNobuhle, Motherwell, and the CBD.
- Formalisation and upgrading of **taxi and bus ranks** in high-growth nodes such as Cleary Park, Korsten, and Njoli.
- Deployment of **advanced ticketing and scheduling systems** to improve service reliability, operational efficiency, and user experience.
- Integration of **non-motorised transport (NMT)** infrastructure, including pedestrian pathways and cycling lanes, to improve last-mile connectivity and promote sustainable mobility.
- Development of multimodal transport hubs that seamlessly connect bus, taxi, cycling, and pedestrian networks.

D1.8.3. PORTS AND FREIGHT CORRIDORS

NMBM's ports and freight corridors are key to regional economic competitiveness, particularly for the automotive, manufacturing, and logistics sectors.

PROPOSED INTERVENTIONS INCLUDE:

- Expansion of capacity at the **Port of Ngqura** and upgrades at the **Port of Port Elizabeth** to handle increased cargo volumes and accommodate larger vessels.
- Upgrading of the **Kariega–Coega–Ngqura rail corridor** to enhance freight efficiency, reduce road congestion, and strengthen logistics linkages to the Coega SEZ and national rail network.
- Development of **intermodal logistics hubs** to integrate road, rail, and port operations, supporting efficient cargo movement and enabling economic clustering.
- Encouragement of **green logistics solutions**, such as rail electrification and low-emission freight vehicles, to reduce carbon emissions and align with sustainability objectives.
- Collaboration with private sector and Transnet for investment in advanced cargo handling and operational efficiency technologies.

FUTURE VISION

The future of transport and mobility in NMBM is a **fully integrated, resilient, and sustainable system**. Strategic investments will:

- Enhance regional and local connectivity.
- Support the growth of the Coega SEZ and other industrial hubs.
- Improve access to social services, employment, and economic opportunities for residents.
- Encourage low-carbon mobility solutions, including NMT and renewable energy-powered public transport.
- Strengthen the municipality's position as a logistics and economic gateway for the Eastern Cape.

D1.8.4. TRAFFIC AND TRANSPORTATION PLAN

Nelson Mandela Bay's transport network is multi-modal, with road, rail, maritime, and air infrastructure, but road transport dominates. Private vehicle use is high, leading to congestion in the CBD, industrial hubs, and along commuter corridors during peak periods. Minibus taxis form the mainstay of public transport, supported by the Algoa Bus Company and the Integrated Public Transport System (IPTS). Passenger rail services are limited to the Gqeberha–Kariega line, which suffers from low frequencies and declining ridership. Freight rail capacity exists but is underutilised, resulting in heavy truck traffic on port access routes.

Key challenges include:

- High dependence on road-based transport for both passengers and freight.
- Inconsistent service quality and informal operations in the taxi industry.

- Road safety issues, with pedestrian accident hotspots.
- Maintenance backlogs and uneven traffic management systems.

D1.8.5. TRANSPORT NEEDS

The transport system requires several needs such as:

- Public Transport: Improve network coverage, increase frequency, ensure affordability, and enhance reliability, particularly in underserved and outlying communities.
- Road Network: Address congestion at major intersections and corridors, rehabilitate deteriorating roads, and improve road safety infrastructure.
- Integration: Strengthen intermodal connections between buses, taxis, rail, and non-motorised transport facilities.
- Equity: Ensure access for low-income residents, persons with disabilities, and those in rural/peri-urban areas.
- Sustainability: Reduce car dependency by promoting public transport and active mobility and integrate land-use planning with transport investment.

D1.8.6. COMPREHENSIVE INTEGRATED TRANSPORT PLAN

Nelson Mandela Bay Metro has developed Comprehensive Integrated Transport Plan (CITP) for the future development of each specific transport sub-system, namely the public transport system, the major road network, the freight network, the non- motorised transport network, traffic safety and provisions for special needs passengers. *Source: Comprehensive Integrated Transport Plan, 2023-2028.*

PUBLIC TRANSPORT PLAN

The Policies and Strategies for the provision of public transport services in the Nelson Mandela Bay Municipality must support the Municipality's long-term vision and objectives, not only for public transport provision and management, but also to support economic activity and development.

IPTN

Nelson Mandela Bay Municipality, like many other South African cities, is developing an Integrated Public Transport Network (IPTN) in line with both national and local priorities. Work on the system began years ago, with major infrastructure such as dedicated public transport lanes starting before 2010 to prepare for the FIFA World Cup. However, the complete rollout of the IPTN has faced delays due to various challenges. A key part of moving forward has been engaging and negotiating with existing public transport operators to ensure their inclusion, transformation, and empowerment within the new system. This consultation process is considered essential for the project's long-term success and for securing industry support. The IPTN will be the mechanism by which public transport is transformed to provide amongst others:

- Integrated transportation services across all modes.

- The appropriate choice of mode per route or corridor based on demand.
- Extensive municipal coverage of public transport network.
- Scheduled and reliable public transport services.
- Reduced competition between modes along routes.
- Coordinated land use and transport planning, implementation, and management
- Centralised management of public transport at local municipality level.

The above requires the transition of the existing public transport system over time, which consists of:

- Kariega – Gqeberha CBD commuter rail service.
- Contracted bus services.
- Uncontracted bus and mini-bus taxi services operated by licensed and unlicensed operators.

COMMUTER RAIL

Commuter rail services within Nelson Mandela Bay Metropolitan area and the rest of South Africa are currently planned, operated and maintained by the Passenger Rail Agency of South Africa (PRASA) Group. This includes short and long-distance passenger services, long-distance coach services, maintenance and capital projects, facilities management and investment.

Corridor	Priority	Supporting Narrative
Kariega – CBD (existing corridor)	C	There are a relatively low number of passengers using this corridor, and there are limited drivers of change identified that could boost overall demand
Motherwell Loop	A	The large catchment served by rail reinforces this corridor as an 'A' priority
Stanford Road Corridor	C	The score is lower for this corridor because the market to Kariega is limited, but new developments such as Jachtlakte will boost numbers
Coega Loop	B	The 'B' classification should be reinforced in response to the employment growth that could be delivered
Realigned Kariega – CBD	C	Proposed scheme would deliver modest journey-time savings, but the number of passengers likely to benefit is small
Motherwell to Kariega	C	As noted above, the Motherwell catchment serves a major residential area, but the connection to Kariega

Corridor	Priority	Supporting Narrative
		would introduce wholly new journey patterns, although competition with other modes is limited.

Table 43: Rail Corridor Prioritization

It is expected that the following will be undertaken in the next 5-year period:

- Planned improvements to the Kariega - Gqeberha service as outlined in the PRASA Eastern Cape Regional Strategic Plan. It is expected to include new rolling stock, increased peak and off-peak service frequencies and station upgrades. No capacity upgrades are expected to be required
- Detailed business case, pre-feasibility, design and construction of the Motherwell loop. It is not anticipated that the service will come online within the next five-year period.

MINIBUS SERVICES

The following taxi associations are in operation in NMBMM

Association Name	Registration Number	Total Members (2019)	Total Vehicles (2019)
Algoa Taxi Association	RASECA0133470	654	406
East Cape Long Distance Taxi Association	RASECA0333520	162	120
Northern Areas Taxi Association	RASECA0333469	367	231
Norwich Long Distance Taxi Association	RASECA0333505	469	289
Gqeberha Uncedo Service Taxi Association	RASECA0133476	1 041	666
Gqeberha And Districts Taxi Association	RASECA0333468	1 359	1 150
Kariega And District Taxi Association	RASECA0333506	560	436
Kariega Uncedo Service Taxi Association	RASECA0333508	567	211

Association Name	Registration Number	Total Members (2019)	Total Vehicles (2019)
Kariega Taxi Association	RASECA0333528	124	81
Western Suburbs Taxi Association	RASECA0333451	131	147
Total		5434	3737

Table 44: Minibus Services

Minibus taxi services will be integrated through formalised routes, regulated operating licences, and upgraded ranks with better passenger facilities. Across the system, investment will be directed into intermodal hubs, automated fare collection systems, and real-time passenger information. The plan also prioritises service expansion to industrial hubs, new growth areas, and low-income residential zones, ensuring that affordability and accessibility remain central objectives. *Source: Comprehensive Integrated Transport Plan, 2023-2028*

BUS

The formal facilities used by Algoa Bus Company and the Integrated Public Transport System (IPTS) operators—those permitted under their contracts and operating licences—must be clearly identified. In November 2020, a survey was carried out to assess each facility, recording its type, physical condition, and whether it was formally built or informally established. The findings are presented in Table 45.

At present, there is insufficient information to determine whether these facilities have the capacity to meet service demand. In other words, it is not yet possible to confirm if the available infrastructure can fully support the required level of operations. Due to the COVID-19 lockdown from March 2020 onwards, it was not possible to conduct on-site surveys or observe how the facilities were being used during normal operations. Further details on these facilities are provided in Chapter 3 and in a separate report titled *Comprehensive Integrated Transport Plan and Integrated Public Transport System, Public Transport Facility Surveys: Bus, Survey Analysis Technical Report, Draft 2, March 2021*.

No	Rank Name	Location	Operator	Latitude	Longitude
1	Durban Road Terminal	Corner of Durban Road and Drosdy Street, Kariega CBD Shopping Centre	IPTS (Future)	-33.771775	25.40125
2	Norwich Bus Terminal	Strand Street – Gqeberha CBD	Algoa Bus	-33.961667	25.624352

3	Durban Road Bus Stop	Durban Road, Kariega CBD	Algoa Bus	-33.772532	25.400282
4	Science Museum Terminal	Corner of Durban Road and Drosdy Street, Kariega CBD Science Museum	IPTS (Future)	-33.772500	24.402278

Table 45: Bus Routes

TRANSPORT INFRASTRUCTURE STRATEGY

There is a need to strengthen the metro's physical transport network while supporting future growth. Road interventions include resurfacing and widening primary arterials, improving intersections prone to congestion, and prioritising maintenance for heavily used or damaged routes. Public transport infrastructure will be expanded through new intermodal facilities, improved bus depots, and better-equipped taxi ranks. Rail infrastructure will be upgraded to enhance commuter services and freight movement. Freight corridors to the ports will be improved to handle high truck volumes while minimising impacts on residential areas. The strategy also promotes the use of intelligent transport systems (ITS) for traffic signal coordination, incident detection, and real-time monitoring to optimise traffic flow.

Source: Comprehensive Integrated Transport Plan, 2023-2028

NON-MOTORISED TRANSPORT (NMT) PLAN

Promotes safe, accessible, and continuous pedestrian and cycling routes throughout the metro. Sidewalk networks and cycle paths will be expanded, especially along major public transport corridors and in areas with high pedestrian activity such as schools, markets, and business districts. Infrastructure will follow universal design principles to accommodate all users, including persons with disabilities. Safety measures will include improved lighting, formalised crossings, and traffic calming in accident-prone zones. The plan also calls for better integration of NMT facilities with bus, taxi, and rail stations, as well as the provision of secure bicycle parking and support for cycling initiatives such as community bike-share schemes. *Source: Comprehensive Integrated Transport Plan, 2023-2028*

FREIGHT TRANSPORT STRATEGY

Aims to improve efficiency, reduce environmental impacts, and strengthen the metro's role as a logistics hub. A key goal is to shift bulk and container freight from road to rail, thereby reducing congestion, road damage, and emissions. Improved road and rail access to both the Port of Gqeberha and the Port of Ngqura will facilitate trade, with dedicated abnormal load and hazardous material routes in place for safety. The Nelson Mandela Bay Logistics Park and other freight hubs will be developed to consolidate goods movement and reduce inefficiencies. Overload control through weighbridges and truck staging areas will be strengthened, supported by stricter enforcement to improve safety and road longevity. Freight planning will be closely aligned with spatial development and industrial growth strategies.

Source: Comprehensive Integrated Transport Plan, 2023-2028

PUBLIC TRANSPORT SAFETY AND SECURITY

There is a need to address the physical safety of infrastructure, operational safety of services, and the personal security of passengers. Facility upgrades will include enhanced lighting, CCTV surveillance, and secure waiting areas, particularly at high-traffic bus and taxi ranks. Operational measures involve stricter vehicle roadworthiness checks, regular driver training, and the enforcement of speed and safety regulations. Passenger safety awareness campaigns will promote safe behaviour and encourage reporting of unsafe conditions. Law enforcement presence will be increased at key public transport nodes, with coordinated efforts between Metro Police, SAPS, and transport operators to tackle crime hotspots and protect commuters. *Source: Comprehensive Integrated Transport Plan, 2023-2028*

D1.8.7. TRANSIT-ORIENTATED DEVELOPMENT (TOD) IN NMBM

Integration with freight: Clear IPTN priority corridors help separate passenger and freight flows, which is critical for NMBM where industrial trucking overlaps heavily with commuter movement.

- **Spatial imbalance:** Much of the formal job base (industrial, port, Coega SEZ) is concentrated along the eastern and northern periphery, while large communities live in older townships (New Brighton, Motherwell, KwaZakhele, Korsten) or in the western suburbs (Kariega/Uitenhage). TOD helps reduce the “commuter city” effect by promoting more balanced, mixed-use nodes around public transport hubs.
- **CBD Revitalisation:** The Govan Mbeki corridor is still the symbolic and functional heart of the Metro, but it competes with peripheral shopping malls and industrial parks. TOD along Govan Mbeki, with mid-rise mixed-use buildings, safe pedestrian environments, and improved public transport access, could re-anchor the CBD as a vibrant, inclusive urban hub.
- **Township Integration:** Motherwell, New Brighton, and Zwile are large, dense areas but are often mono-functional (mainly residential). Introducing TOD principles at key intersections (Motherwell NU2 taxi/bus interchange, Red Location in New Brighton, Njoli Square in KwaZakhele) would bring retail, services, and employment closer to residents — reducing long travel distances.
- **Private investment leverage:** By clearly designating TOD precincts, the Metro can attract private developers to invest in housing and commercial projects aligned with transport infrastructure, rather than fuelling sprawl.

D1.8.8. TRANSIT-ORIENTATED DEVELOPMENT (TOD) IN NMBM

The Metro has an IPTN plan. **If implemented properly, its impacts would be:**

- **Structuring Spine:** A route along Govan Mbeki Avenue → Kempston Road → Korsten → Motherwell → Coega/Ngqura could serve as the primary urban corridor, shaping future development. This would connect the CBD with industrial bases and the SEZ while threading through high-density communities.

- **Reduced Congestion:** Dedicated bus lanes would take pressure off arterials that currently suffer from freight/passenger competition (Kempston Rd, R75). By moving large volumes of commuters efficiently, it eases private car dependence.
- **Economic Accessibility:** Reliable IPTN services would give low-income households cheaper, safer, and faster access to jobs in the SEZ, port, and CBD. This reduces inequality caused by spatial separation.
- **Catalyst for TOD:** Every BRT station becomes a mini hub for TOD. For example:
 - CBD station → high-density mixed-use redevelopment.
 - Korsten station → light industrial + housing upgrade.
 - Motherwell NU2 station → civic/commercial growth node.
 - Coega/Ngqura station → worker housing and service facilities.

OVERALL IMPACT ON THE METRO

- If NMBM advances TOD and a well-defined route together, the effects include:
- More compact, efficient, and inclusive growth (rather than sprawling eastward only).
- Revitalisation of the CBD and townships as economic engines, not just dormitory zones.
- Improved mobility justice, giving poorer residents reliable, affordable access to jobs.
- Stronger global competitiveness, since efficient freight and worker movement enhances Coega/Ngqura's position as a logistics hub

D1.8.9. KEY TRANSPORTATION PROGRAMMES

Gqeberha (Port Elizabeth) – North End / 2010 Stadium / Central

- Develop an integrated public transport hub in North End, linking the IPTN, taxi, and bus services, with seamless ticketing, clear signage, and safety features, complemented by continuous pedestrian and cycling corridors connecting the stadium, CBD, and harbour.
- Introduce a comprehensive event transport plan for stadium days, including shuttle services from park-and-ride sites, temporary bus lanes, and clear wayfinding to reduce congestion.

Cape Road Corridor

- Convert selected lanes into dedicated IPTN with signal priority to improve reliability, while enhancing pedestrian safety through widened sidewalks, raised crossings, and improved lighting along commercial stretches.

Lorraine / Fairview

- Establish secure park-and-ride facilities linked to frequent feeder buses connecting to main IPTN lines, reducing private car dependency and congestion along major arterials.

Walmer

- Upgrade airport access roads with resurfacing, optimised traffic signals, and clear tourist-friendly signage, while adding protected cycling and walking paths linking the airport, schools, and retail centres.

Western Suburbs

- Extend bus and taxi coverage to underserved areas and rehabilitate main arterials to improve connectivity with central Gqeberha, supported by community engagement to ensure services meet local needs.

Summerstrand / Humewood

- Implement a seasonal tourist shuttle linking hotels, beaches, and attractions, alongside upgrades to beachfront promenades with lighting, seating, and landscaping to improve safety and appeal.

Bloemendal / Bethelsdorp / Helenvale / Gelvandale

- Modernise taxi ranks with shelter, sanitation, and lighting, while introducing “safe routes to school” programmes with marked crossings, speed calming, and pedestrian priority zones.

Despatch / Khayamnandi

- Upgrade rural and peri-urban roads to all-weather standards and formalise taxi stopping areas to improve safety, integrating services with Kariega and Gqeberha transport networks.

Swartkops

- Improve freight capacity with upgraded bridges, turning lanes, and signal systems, while enhancing waterfront pedestrian access to support tourism alongside industrial activity.

New Brighton / Njoli / Ibhayi

- Expand and modernise Njoli Square as a major multimodal hub, integrating bus and taxi services with safe pedestrian access, enhanced lighting, and efficient loading bays.

Motherwell / Bluewater Bay / Wells Estate

- Extend BRT services into Motherwell with high-frequency peak-hour operations, coupled with flood-resilient road upgrades and heavy vehicle diversion routes to protect residential streets.

Coega SEZ

- Separate freight and commuter traffic via dedicated heavy vehicle corridors, integrate rail spurs into the SEZ to reduce road freight, and deploy intelligent transport systems for traffic monitoring.

Kwa-Nobuhle / Zanemvula / Bloemendal

- Use smaller, flexible buses to provide regular feeder services in low-density areas, while upgrading main access roads and enforcing speed limits to improve safety.

Kariega (Uitenhage)

- Revitalise the Kariega–Gqeberha commuter rail service with reliable schedules and upgraded stations, supported by a new multimodal interchange for taxis, buses, and rail.

Colchester Region (Proposed Focus Area)

- Introduce eco-friendly shuttle connections between Colchester, Addo Elephant National Park, and Gqeberha, alongside upgraded N2 access points and new cycling and walking trails linking lodges, the riverfront, and the village centre.

D1.8.10. DESCRIPTIVE PROPOSALS PER SPATIAL TARGETING AREA

SPATIAL TARGETING AREA 1 AND SPATIAL TARGETING AREA 2

RAIL SIDING REHABILITATION AND EXTENSION FROM NMBM LOGISTICS PARK TO COEGA/NGQURA

Freight efficiency in Nelson Mandela Bay hinges on better integration between the Logistics Park in Uitenhage/Kariega, the automotive industry, and the Coega/Ngqura port platform. The rehabilitation of existing sidings and the extension of a direct rail link will allow cargo to be loaded and consolidated inland, reducing the reliance on trucks for long-haul port trips. This is particularly important for containers, automotive components, and bulk goods that currently add to road congestion. Rail stuffing at origin would lower costs for exporters, improve turnaround times at Ngqura, and reduce the environmental impact of heavy freight on the metropolitan road network. It positions Coega as a true multimodal gateway while enhancing the global competitiveness of the automotive and logistics sectors. Spatially represented on the plan below.

SPATIAL TARGETING AREA 3

PRIORITY BUS LANES ON GOVAN MBEKI & KEMPSTON

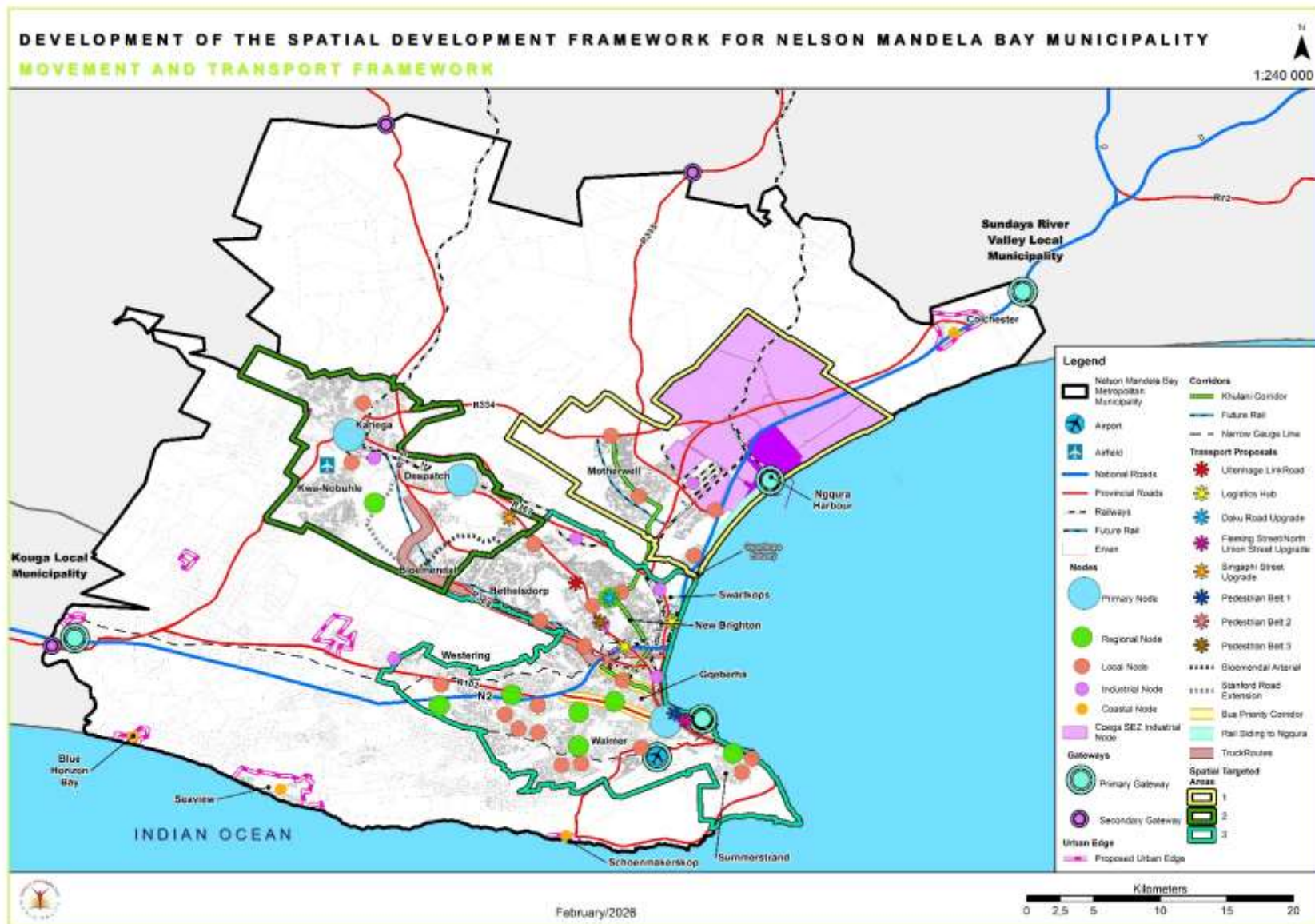
The creation of dedicated bus priority lanes along Govan Mbeki Avenue and Kempston Road would provide a backbone for reliable, high-capacity public transport. Govan Mbeki, as the civic and commercial spine of the inner city, already carries heavy commuter flows by minibus taxi and bus. Introducing a continuous bus lane, supported by upgraded stations and pedestrian-friendly crossings, would anchor the CBD as a public transport hub. Kempston Road, linking Korsten, Sidwell and Deal Party, is both an industrial corridor and a working-class commuter route. Providing a bus-priority facility here would not only improve travel times but also connect industrial workers directly with housing areas, relieving congestion and giving public transport a competitive edge over private cars. Spatially represented on the plan below.

a) Defining Truck Routes, Last-Mile Hubs, Pedestrian Belts, and Development Envelopes

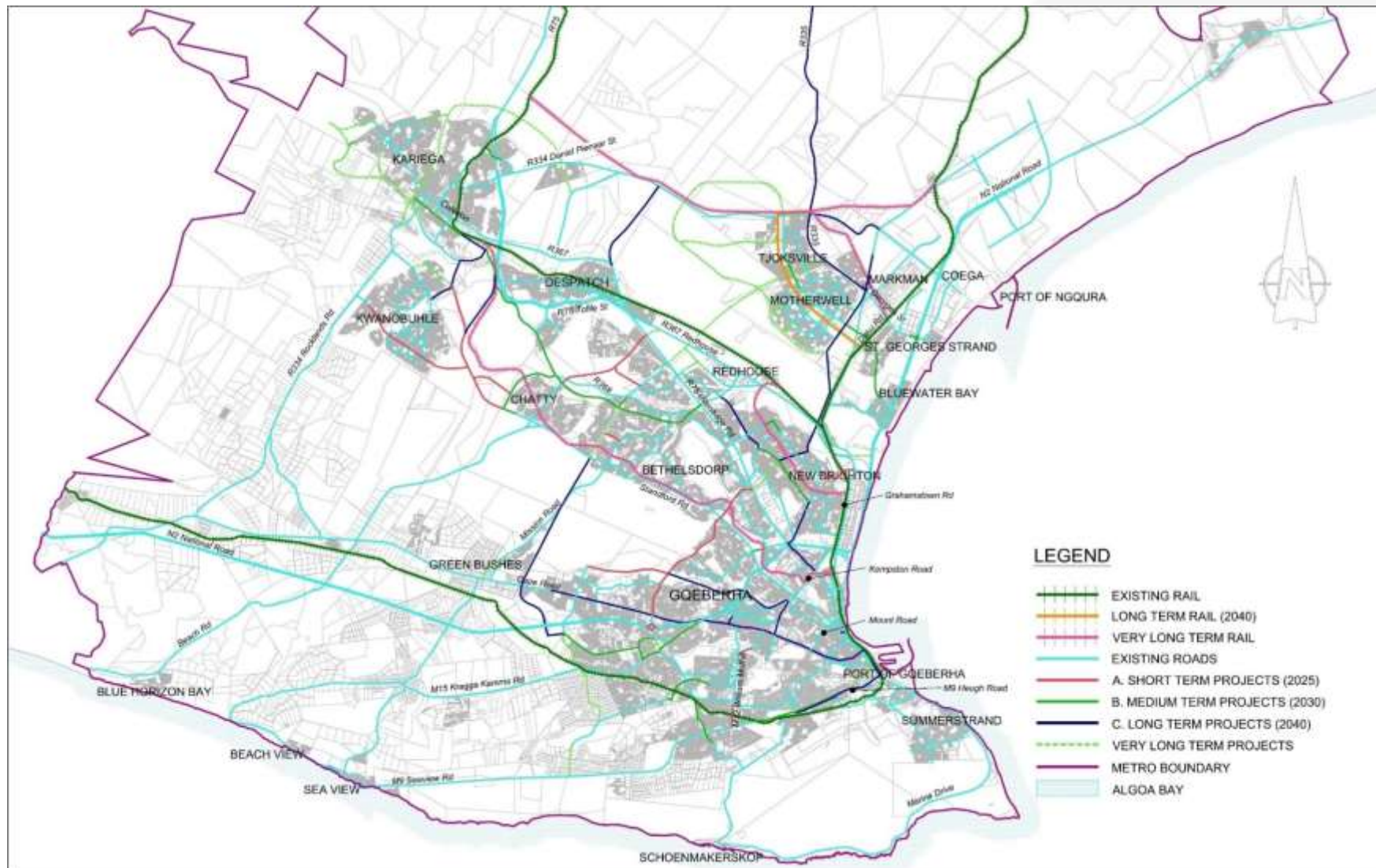
The coexistence of freight and people in the Metro requires careful spatial management. Truck routes should be formalised to channel heavy vehicles along designated arterials such as Kempston Road, the N2, R75 and Struandale corridors. By contrast, last-mile logistics hubs, located at Deal Party, Markman and Coega, would act as transfer points where cargo is shifted to smaller, cleaner vehicles for urban delivery. This reduces heavy truck intrusion into sensitive residential or commercial zones. Complementing this, pedestrian belts such as Govan Mbeki Avenue, Korsten and Motherwell nodes should be reinforced as safe, walkable precincts with wider pavements, active frontages and reduced freight movement. Around these belts, development envelopes can be delineated where mixed-use housing, retail and services cluster, ensuring freight and community life do not conflict but rather reinforce the structure of a balanced urban system. Spatially represented on Map 42.

b) Logistics Micro-hub and Mid-Rise Mixed-Use to Balance East-Heavy Growth

Nelson Mandela Bay Municipality's growth trajectory has been strongly eastward, concentrated around Coega SEZ and Motherwell. To balance this pattern, investment in logistics micro-hubs and mid-rise mixed-use precincts within the central and western parts of the Metro becomes vital. Micro-hubs, embedded near public transport interchanges in the CBD, New Brighton and Korsten, would support e-commerce distribution and last-mile logistics without generating large-scale truck congestion. At the same time, mid-rise mixed-use development — combining residential, commercial, and light industrial in walkable, transit-oriented nodes — would create opportunities for inclusive urban growth closer to where people already live. This form of intensification offers a counterweight to the east-heavy pull of Coega, diversifying growth patterns while strengthening the CBD and historic townships as viable, attractive places for both business and residents. Spatially represented on Map 42.



Map 43: Movement and Transport Framework



Map 44: Long Term Road Network

D1.8.11. SMART CITIES AND TRANSPORTATION

Nelson Mandela Bay Municipality's transportation system faces multiple challenges, including severe congestion in urban cores, limited integration between different transport modes such as buses, minibus taxis, and rail, and significant infrastructure maintenance backlogs. Many residents from peripheral settlements endure long and costly commutes to access economic hubs, exacerbating socio-economic exclusion. These conditions contribute to high transport-related greenhouse gas emissions and undermine both productivity and quality of life.

SMART CITY IMPACTS ON TRANSPORTATION

The application of smart city principles to transportation can fundamentally transform mobility in the Metro. Intelligent Transport Systems (ITS) can use real-time traffic monitoring, IoT sensors, and AI-powered analytics to optimise traffic flow, reduce congestion, and respond quickly to incidents. Dynamic traffic signal control can minimise waiting times, while digital platforms can provide commuters with accurate, real-time information about routes, schedules, and disruptions. Integrated mobility systems, supported by unified digital ticketing, can streamline travel between buses, taxis, and potential future rail services.

Sustainable transport modes would also be prioritised, with expanded cycling and pedestrian infrastructure encouraging non-motorised travel and reducing dependence on private vehicles. Electric buses and the installation of charging infrastructure could significantly cut emissions, while shared mobility services such as car-sharing and ride-hailing could be integrated into public transport planning. Data-driven planning would play a central role, using commuter flow patterns and geo-analytics to optimise routes, prioritise infrastructure investments, and improve last-mile connectivity. Safety would be enhanced through CCTV surveillance at public transport hubs, AI-enabled predictive policing, and smart street lighting in pedestrian-heavy areas.

EXPECTED BENEFITS

The transformation of Nelson Mandela Bay's Municipal transport system under a smart city model would bring substantial benefits. Residents would experience shorter travel times, reduced congestion, and more reliable public transport services. Transport costs would decline, particularly for low-income communities who rely on public and shared modes. Improved accessibility would help bridge socio-economic divides, enabling greater participation in economic and social life. Environmental gains would include lower greenhouse gas emissions and improved air quality, while enhanced safety measures would create more secure computing environments. Collectively, these changes would make mobility in Nelson Mandela Bay Municipality more efficient, equitable, and sustainable, reinforcing the Metro's broader smart city ambitions.

D1.9. SMART CITY DEVELOPMENT FOR NELSON MANDELA BAY MUNICIPALITY:

Nelson Mandela Bay Municipality is facing the combined pressures of rapid population growth, rising service delivery demands, and intensifying climate-related risks. These challenges are compounded by spatial fragmentation, socio-economic inequality, and infrastructure maintenance backlogs. A smart city approach offers an integrated, technology-enabled, and citizen-centred development path that can strengthen governance, stimulate economic growth, and enhance quality of life. By combining advanced information and communication technologies with a strong focus on inclusivity, sustainability, and resilience, Nelson Mandela Bay Municipality can position itself as a leading example of urban innovation in South Africa.

HOW A SMART CITY WORKS

Smart cities utilize their web of connected IoT devices and other technologies to achieve their goals of improving the quality of life and achieving economic growth. **Successful smart cities follow four steps:**

- **Collection** - Smart sensors throughout the city gather data in real time.
- **Analysis** - Data collected by the smart sensors is assessed in order to draw meaningful insights.
- **Communication** - The insights that have been found in the analysis phase are communicated with decision makers through strong communication networks.
- **Action** - Cities use the insights pulled from the data to create solutions, optimize operations and asset management and improve the quality of life for residents.

According to global frameworks, a fully functional smart city has four interconnected components:

- **Safe City** – Protecting residents from crime, disasters, and emergencies through integrated monitoring, rapid response systems, and resilient infrastructure.
- **Digital City** – Using ICT and data analytics to improve municipal efficiency, offer online services, manage assets in real time, and enhance citizen engagement.
- **Sustainable City** – Balancing human activity with environmental health through renewable energy, green transport, recycling, and eco-friendly urban design.
- **Efficient City** – Optimising the use of resources, streamlining municipal processes, reducing waste, and improving service delivery without increasing costs.

Application to Nelson Mandela Bay Municipality

- **Safe City** – Deploy integrated surveillance, predictive policing, smart traffic control, and disaster response systems, coordinated from a central municipal command centre.

- **Digital City** – Expand online governance, centralise municipal data, improve access to services through mobile apps, and enhance cybersecurity.
- **Sustainable City** – Promote electric buses, cycle paths, water-efficient systems, renewable energy adoption, urban agriculture, and community recycling programmes.
- **Efficient City** – Use smart grids, automated waste collection, predictive maintenance for infrastructure, and process digitisation to improve productivity and reduce costs.

D1.9.1. SMART TECHNOLOGIES FOR NELSON MANDELA BAY MUNICIPALITY

Technologies could include smart parking systems, intelligent traffic management for road, rail, and port connectivity, IoT-enabled waste management, smart street lighting, environmental sensors for air and water quality, and retrofitted smart buildings. These systems should improve mobility, safety, energy efficiency, and environmental resilience.

PARTNERSHIPS

Public–private partnerships (PPP) will be crucial for financing and delivering smart city initiatives. Transparent collaboration between the municipality, private sector, research institutions, and communities will ensure that projects are sustainable, inclusive, and tailored to local needs.

SMART CITY PRINCIPLES

These principles are considered when considering the Afrocentric Smart City initiative or project. They help ensure that investment in future improvements and smart city initiatives always focusses on the overall objectives of our community. The principles have been derived from the lessons learnt from the examples from the different scales (Global, African and South African).

COMMUNITY-FIRST

We will focus first and foremost on achieving community benefit, then on realising technology-based solutions. Smart initiatives will be convenient, simple, and inclusive. We will empower our community by encouraging participation and growing digital capacity.

“Consider urban life before urban place; consider urban place before technology.”
(Source: Robinson, 2016)

The rate of change is increasing in modern society – and specifically in cities as they grow. Larger cities create more wealth, more efficiently, than smaller cities. In doing so, they attract residents, grow bigger still, and accelerate wealth creation further. This self-reinforcing process results in an ever-increasing demand for resources. It powered the growth of cities in the developed world through the Industrial Revolution; it is powering the growth of cities in emerging markets today; and it is driving the overall growth in global population.

COLLABORATIVE

Smart city design and delivery will be grounded in community consultation and collaborative development. Shared action will drive buy-in and community ownership of smart initiatives. Partnerships with other smart organisations will increase reach and lead to further success.

“Management companies, local authorities and developers should have a genuinely engaging presence in social media so that they are approachable informally.”
(Source: Robinson, 2016)

Developments carried out according to plans developed in collaboration with existing residents have provided some of the most interesting examples of successful placemaking. Social media, virtual reality and other digital technologies offer the opportunity to enable richer, more widespread consultations and explorations of planned developments by the communities that they will affect.

INNOVATIVE

Curiosity, optimism, and innovation will drive transformation. Dynamic and creative thinking will support new ideas that are more efficient and effective. Nelson Mandela Bay Municipality will develop skills and processes to apply innovation and smart thinking to all facets of our City.

“Any new development should demonstrate that all reasonable steps have been taken to ensure that information from its technology systems can be made openly available without additional expenditure. “
(Source: Robinson, 2016)

Those forces of the information economy may only ever be resolved in specific contexts rather than in universal principle. But any new development or supporting technology system that adds to the cost of allowing data associated with it to be openly exploited in principle adds a potential impediment to future economic and social productivity.

OUTCOME FOCUSED PLANNING

Our smart city approach will consider community-led outcomes, rather than technology for its own sake. We will deliver project, programs and policies that meet the needs and objectives of our community.

“Planning, usage and other policies governing the use of urban space and structures should facilitate innovation and changes of use, including temporary changes of use.”
(Source: Robinson, 2016)

Most urban spaces and developments fail immediately; time is required for them to attract and adapt to the uses that they will eventually successfully support. That condition of success will be more rapidly achieved or new developments, and will be sustained for longer, if it is possible to easily adapt them.

TRANSPARENT & ACCOUNTABLE

Council will remain transparent, accountable and focused on protecting the privacy of our community by only capturing non-identifiable data. Key decisions will be developed in collaboration and based on

data. Open data and clear performance metrics and targets will ensure Council's progress is assessable by the community.

INCLUSIVE

Nelson Mandela Bay Municipality is a place for people of all cultures, backgrounds, and abilities. No one will be left behind by smart cities as inclusivity, accessibility and equity is built into smart initiatives and projects.

“Developments should offer the opportunity of serendipitous interaction and innovation between stakeholders from different occupations and the public at large.”

(Source: Robinson, 2016)

Spatial modelling techniques can predict the impact of planned developments on these characteristics of the cities surrounding them – i.e. whether they will improve or worsen connectivity between value-creating districts in different economic sectors and the participants of the economy which is the people

SUSTAINABLE

We will use smart technology to improve environmental protection and resource management. Nelson Mandela Bay Municipality will be future ready, implementing sustainable planning that accounts for city growth and invests in long-term solutions.

“Transport plans supporting new developments should demonstrate that they have not only provided for traditional transport demand, but also that which might be created by online business models and other social technologies.”

(Source: Robinson, 2016)

There is a truth about social media, information marketplaces and related “Smarter City” technologies that is far too rarely explored, but that has serious implications. It is that rather than removing the need to travel and transport things, these technologies can dramatically increase our requirements to do so.

SUSTAINABLE CONSUMERISM

It is economically and environmentally sensible to reduce our use of energy. One way to do so is to make better use of the information from city systems and buildings that describe energy usage.

“Any data concerning a new development that could be used to reduce energy consumption within that development, or in related areas of a city, should be made open.”

(Source: Robinson, 2016)

As consumer awareness of energy costs and sustainability has increased, developers of residential communities that have provided state-of-the-art technologies for sustainable living have reported strong demand.

SMART CITY RECOMMENDATIONS PER SPATIAL TARGETING AREA

SPATIAL TARGETING AREA 1

Motherwell should focus on connectivity and inclusion. Investments in digital access, safer mobility, and community-based innovation will reduce marginalisation.

- Expand fibre, 5G, and free Wi-Fi in community hubs and taxi ranks.
- Pilot rooftop solar, micro-grids, and energy-efficient streetlights.
- Safer pedestrian routes and digital ticketing for taxis/buses.
- CCTV and smart lighting in crime hotspots.
- ICT hubs and training centres to build youth digital skills.

SPATIAL TARGETING AREA 2

Here the priority is linking smart city systems to the industrial and manufacturing economy while empowering surrounding townships.

- High-speed connectivity in Kariega's industrial district.
- Smart transport linking workers from KwaNobuhle/Bloemendal to factories.
- Rooftop solar and smart grid pilots in industrial zones.
- Surveillance and safety tech in CBD and residential precincts.
- TVET innovation labs to grow township entrepreneurs.

SPATIAL TARGETING AREA 3

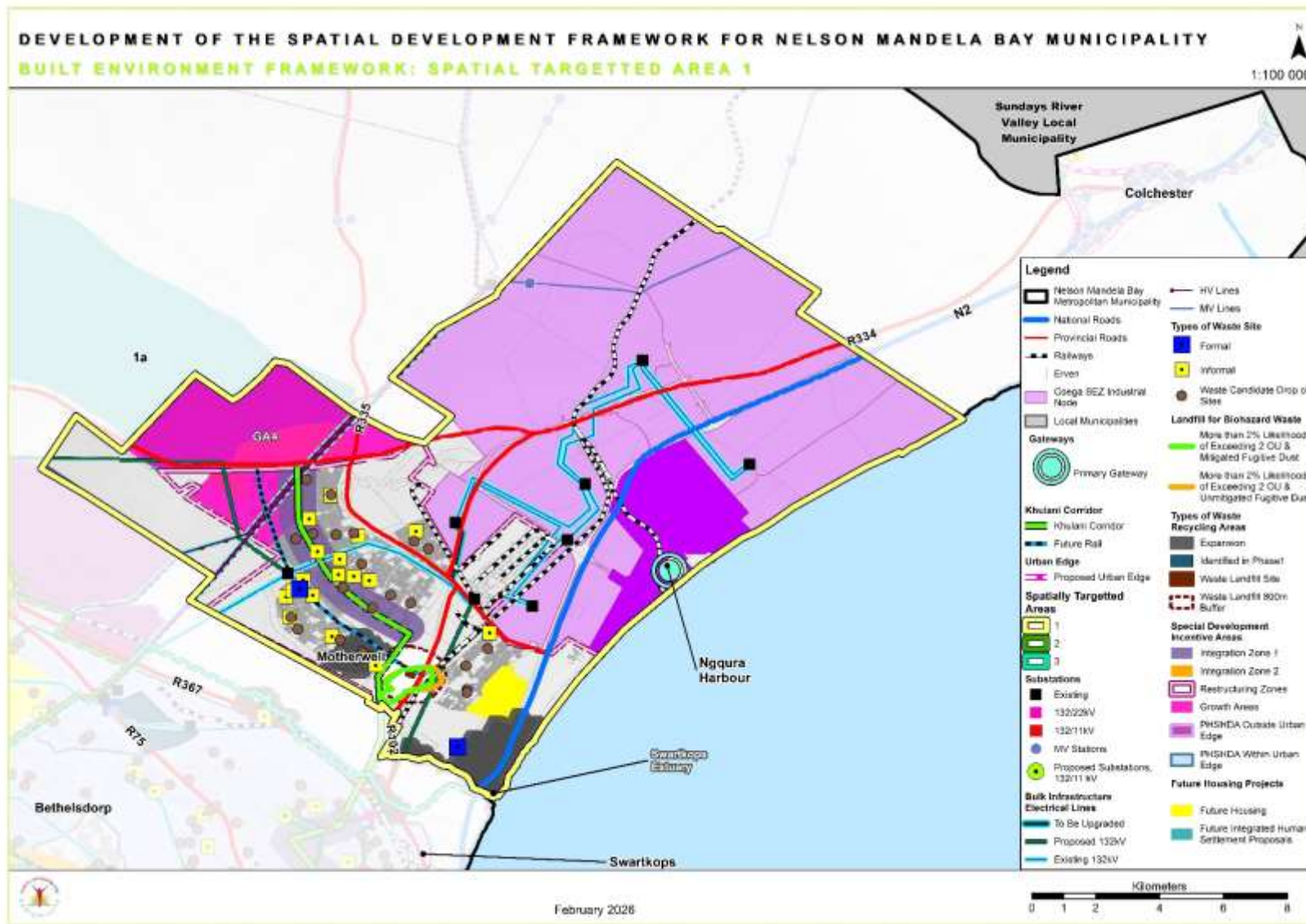
This area should anchor the metro's digital backbone and innovation economy, balancing township revitalisation with CBD upgrades.

- Fibre and 5G upgrades in CBD, New Brighton, and Bethelsdorp.
- Bus-priority lanes, smart ticketing, and safe cycling in CBD/New Brighton/Summerstrand.
- Green retrofits for Walmer & Summerstrand; solar farms near Swartkops.
- Expanded CCTV and safety systems in CBD and townships.
- Nelson Mandela University and CBD hubs driving digital entrepreneurship.

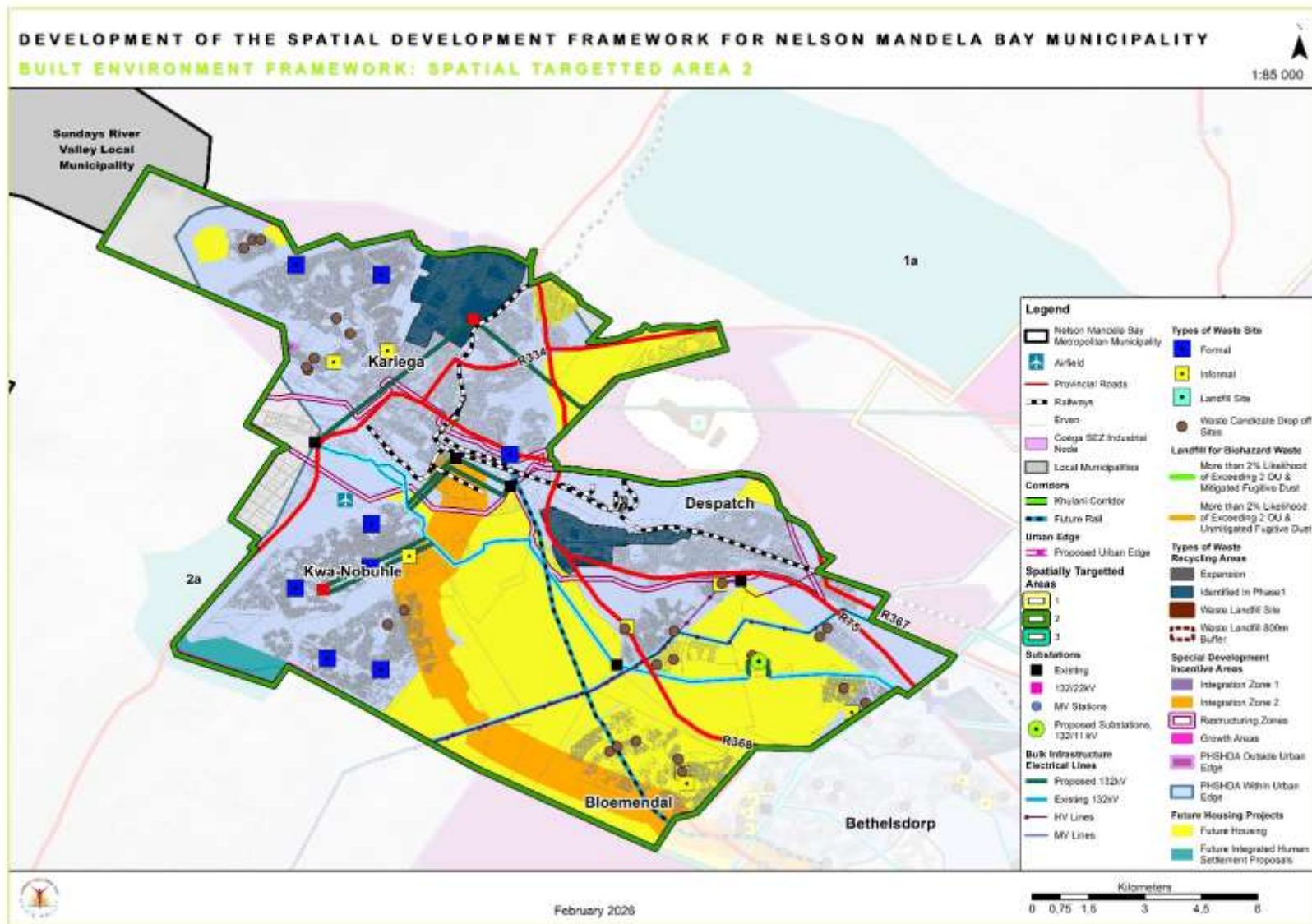
METRO WIDE

Some systems apply everywhere, ensuring integration across all targeting areas.

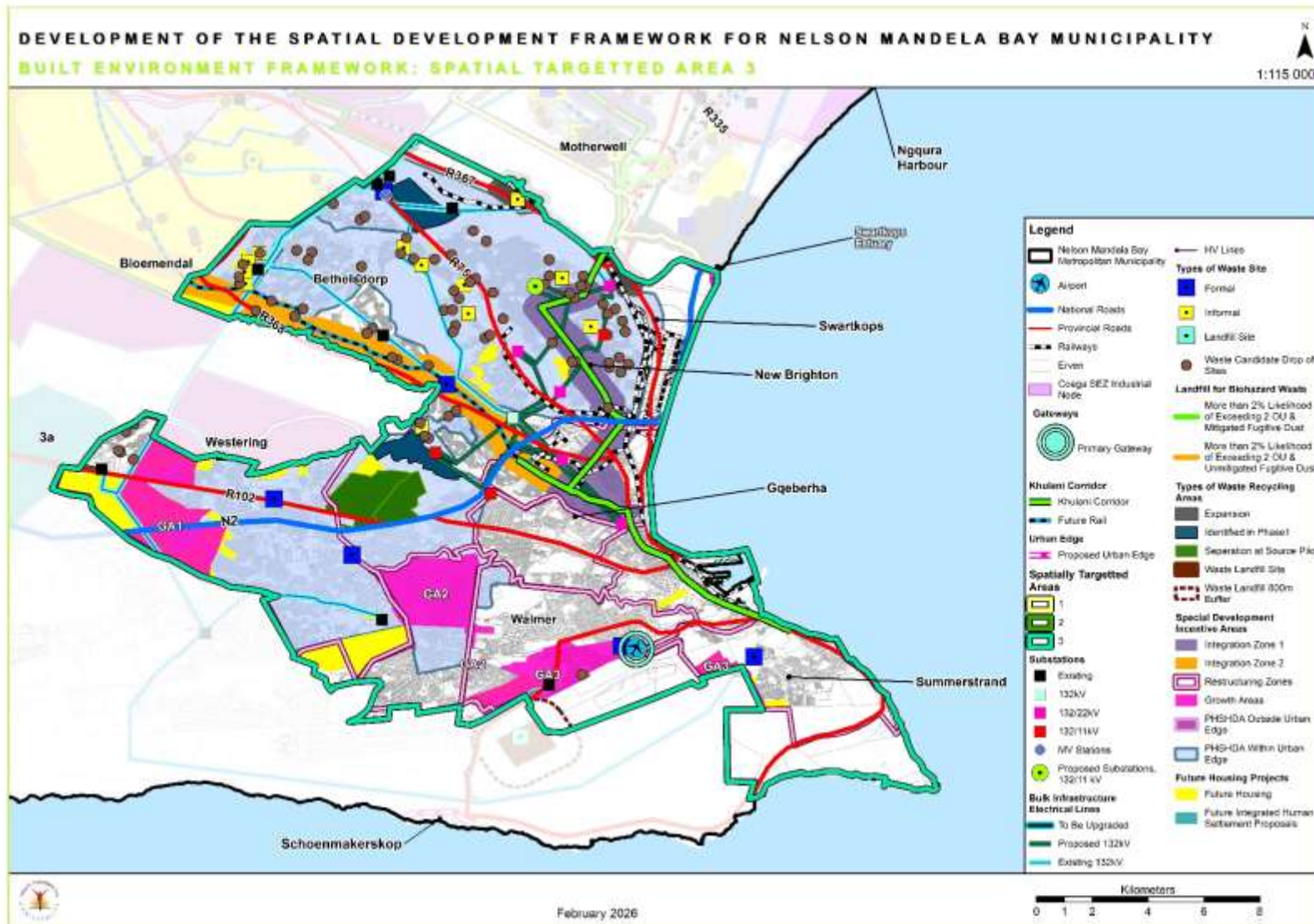
- Comprehensive Smart City Strategy with timelines & funding.
- Strong cybersecurity for municipal data.
- Open data and civic platforms for participation.
- Digital literacy programmes for schools, townships, and informal settlements.



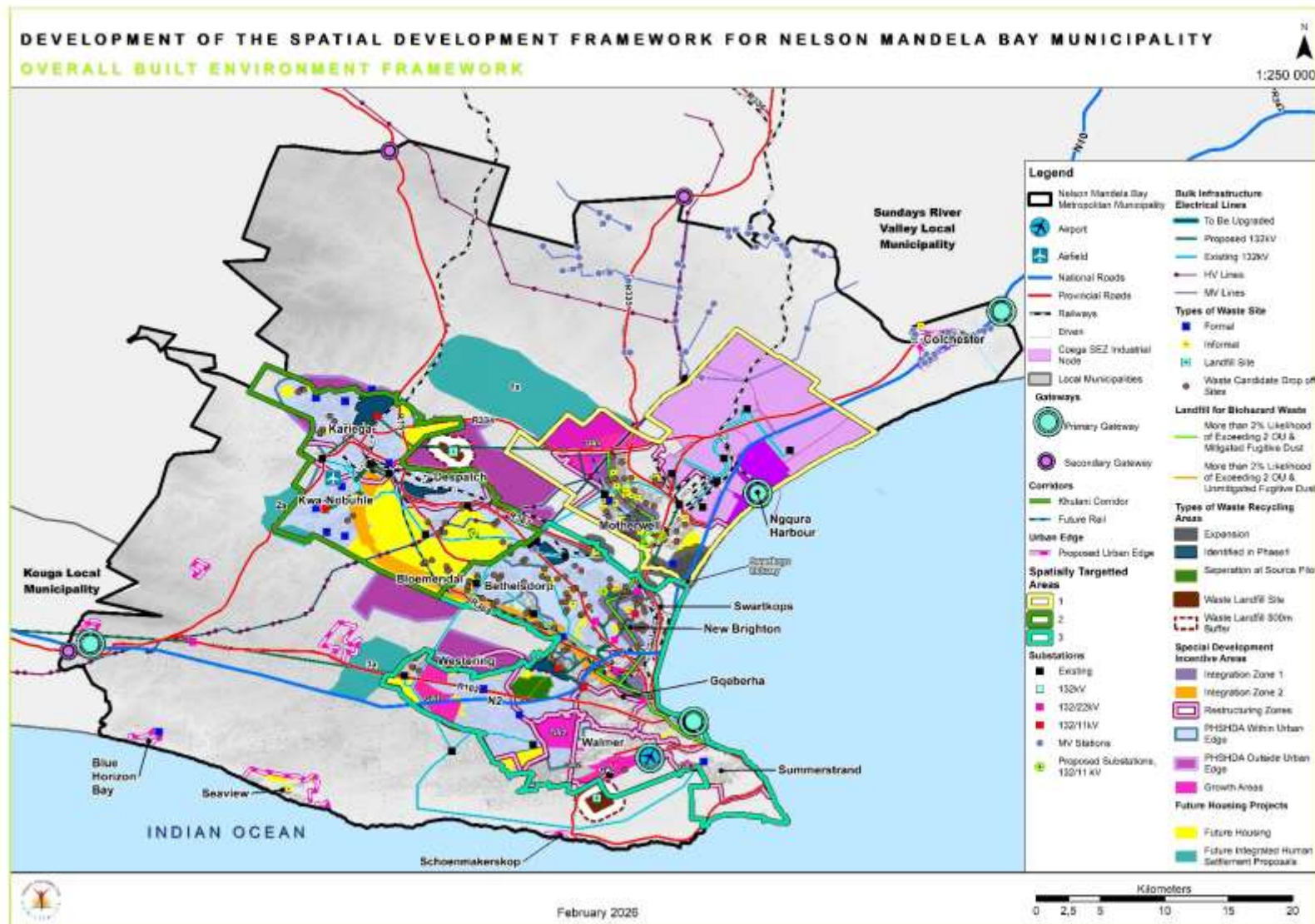
Map 45: Overall Built Environment Framework: STA 1



Map 46: Overall Built Environment Framework STA 2



Map 47: Overall Built Environment Framework STA 3



Map 48: Overall Built Environment Framework

D2. SOCIO ECONOMIC FRAMEWORK

The Socio-Economic Framework layer captures the human and economic dynamics that influence spatial planning. It identifies, analyses, and responds to the key social and economic conditions within Nelson Mandela Bay Municipality (NMBM).



Drawing on the Phase 2 Status Quo Analysis, SWOT assessment, Key Issues, and the Strategic Framework outlined earlier in this report, it develops interventions and proposals that promote inclusive growth, improved livelihoods, and sustainable development.

In the context of NMBM, this framework outlines targeted strategies and proposals to address the Metro's pressing socio-economic challenges, including high unemployment, inequality, poverty, and service delivery backlogs. It seeks to align economic development opportunities with practical interventions in key sectors and spatial areas, while addressing infrastructure deficits, skills mismatches, and economic exclusion. The ultimate goal is to support spatial and economic transformation, ensuring that all communities benefit from growth and development initiatives.

The framework is structured into key sub-components that will be addressed in detail:

- **Economic Sub-Framework** – focusing on sectoral development strategies such as automotive manufacturing, ports and logistics, renewable energy, agribusiness, technology and innovation, and skills development.
- **Local Economic Development Framework** – highlighting strategies for informal trading, township renewal, and SMME development.
- **Tourism and Hospitality Framework** – addressing opportunities for township and cultural tourism, stadium precinct development, coastal and marine tourism, eco-tourism, and events and business tourism.
- **Social Facilities Framework** – reviewing the provision and distribution of social facilities and cemeteries to ensure equitable access.
- **Agricultural Framework** – promoting commercial and smallholder farming, agro-processing, food security initiatives, and sustainable land management.
- **Rural Development Framework** – strengthening rural economies through infrastructure investment, service delivery, agrarian reform, and support for rural enterprises and communities

D2.1. ECONOMIC FRAMEWORK

This section presents Nelson Mandela Bay Municipality's (NMBM) economic development strategy as part of the broader socio-economic framework. It provides a targeted and sector-based approach to stimulate inclusive growth, economic resilience, and structural transformation within the metro.

Recognising both the legacy challenges and the metro's untapped potential, this section outlines how spatially aligned economic interventions can unlock investment, support job creation, and drive innovation.

The Economic approach is anchored in the vision of building a diversified, sustainable, and opportunity-rich urban economy, leveraging NMBM's competitive advantages such as its dual-port infrastructure, established automotive industry, growing renewable energy potential, emerging innovation ecosystem, and peri-urban agricultural assets.

Each of the subsections that follow delves into a strategic economic sector, Automotive Manufacturing, Ports and Logistics, Renewable Energy, Agribusiness, Technology and Innovation, Tourism and Skills Development with detailed analysis and practical proposals tailored to current dynamics, future trends, and the municipality's unique spatial-economic context.

The section tells a coherent story: from industrial modernisation and infrastructure expansion to digital transformation, human capital development, and the green economy. It illustrates how NMBM can transition from a historically constrained economy to one that is future-focused, inclusive, and globally competitive.

The economic approach is anchored in a vision of building a diversified, sustainable, and opportunity-rich urban economy, leveraging NMBM's competitive advantages such as:

- dual-port infrastructure,
- established automotive industry,
- growing renewable energy potential,
- emerging innovation ecosystem, and
- peri-urban agricultural assets.

The subsections that follow address the key economic sectors and thematic areas:

- Industrial Sector
- Ports and Logistics Development
- Agri-Business and Agricultural Value Chains
- Automotive Manufacturing Renewal and Innovation
- Local Economic Development (LED) and Small, Medium, and Micro Enterprise (SMME) Support
- Tourism and Hospitality (*covered separately but aligned with this framework*)
- Technology, Innovation, and Skills Development

Together, these elements tell a coherent story: from industrial and port-based growth to digital transformation, human capital development, and the green economy. This positions NMBM to transition from a historically constrained economy to one that is future-focused, inclusive, and globally competitive.

D2.1.1. INDUSTRIAL & INNOVATION GROWTH

Nelson Mandela Bay Municipality (NMBM) is a key economic hub within the Eastern Cape, anchored by a strong industrial heritage in automotive manufacturing, logistics, and agro processing.

The automotive sector, concentrated in Kariega/Uitenhage, Struandale, Deal Party, North End, Korsten, Markman, Perseverance, and the Coega Special Economic Zone (SEZ), remains the largest contributor to the metro's Gross Domestic Product (GDP), while nearby Kirkwood, Sundays and Gamtoos River Valleys drives the province's citrus industry, the second-largest GDP contributor. Despite this, the automotive sector faces global disruptions from the rising presence of Chinese car manufacturers and U.S. tariffs, raising questions about its long-term sustainability.

The municipality benefits from strategic infrastructure, including the Ports of Port Elizabeth and Ngqura, and a diversified manufacturing base spanning automotive OEMs and suppliers, pharmaceuticals, beverages, engineered components, and logistics. To secure a future-ready economy, NMBM is focusing on diversification through the Blue Economy, the Fourth Industrial Revolution (4IR), and agro-industrial value chains, while fostering innovation and entrepreneurship via dedicated precincts and hubs. This strategic transition seeks to leverage existing strengths while building resilience and competitiveness in emerging sectors.

The following are the key Industrial Nodes within the Metro and their specific industrial offerings:

COEGA SPECIAL ECONOMIC ZONE INCLUDING PORT OF NGQURA

Coega is adjacent to the deep-water Port of Ngqura, structured into sector-specific zones automotive, metals, logistics, energy, chemicals. Flagship tenants include Sundale Schreiber (dairy), DCD Wind Towers (renewables), and numerous logistics/processing firms serviced by on-site customs control and bulk infrastructure.

Ngqura is South Africa's newest deep-water port and container trans-shipment hub; national planning places bulk growth including manganese, liquids and container efficiency improvements at Ngqura over the medium term.

Why it matters?

- Green hydrogen and green ammonia hub work is actively marketed by the Coega Development Corporation (CDC), positioning Coega for power export projects that leverage renewable resources and port proximity

- Transnet National Ports Authority (TNPA) has live procurement for liquid bulk infrastructure at Ngqura supportive of fuels and chemicals
- National policy is directing EV/NEV manufacturing incentives from 2026 which Coega can leverage for new OEM/component investments.

MARKMAN INDUSTRIAL AREA

Markman industrial area is an established heavy general industry zone, northeast of Gqeberha, historically hosting logistics yards and bulk storage. Following constraints at the Port Elizabeth bulk ore terminal, municipal documentation shows **bulk ore stockpiling migrated into Markman**, which also faces environmental, and security challenges reported in the press.

Pivotal Shifts:

- **Bulk minerals to Ngqura.** As manganese export capacity is consolidated at Ngqura, Markman can transition from exposed bulk stockpiles to **cleaner logistics/processing**, light manufacturing and **vehicle distribution** reducing dust and improving land use efficiency.
- **Industrial resilience.** Public-private safety and road upgrades will unlock **brownfield reinvestment**, warehousing and **supplier parks** leveraging proximity to Coega.



KARIEGA INDUSTRIAL AREA

- Kariega is home to Volkswagen Group South Africa (VWSA) the metro's largest OEM with ongoing export programmes and supplier ecosystems clustered in the Nelson Mandela Bay Logistics Park (NMBLP) (CDC-operated) that supports just-in-time sequence supply to VWSA
- Goodyear South Africa has announced it will cease local tyre manufacturing in Kariega, underlining the need for supplier repurposing and new product mandates.

PERSEVERANCE INDUSTRIAL AREA

- Recognised by NMBM as an industrial suburb east of Despatch/Kariega with mixed light industrial and warehousing; supports the Kariega automotive value chain and regional distribution.
- With its relatively uncongested plots and arterial access, Perseverance is suited to **modern DCs, tier-2/3 component makers**, and **EV aftermarket distribution** (chargers, spares), complementing Kariega and NMBLP.

STRUANDALE INDUSTRIAL AREA

- **Isuzu Motors South Africa** runs its vehicle assembly operations there; **Ford's Struandale Engine Plant** also anchors the precinct's engineering manufacturing capability. **Eveready** (batteries) is another long-standing manufacturer in the area.
- With on-site OEM capability and skilled labour, Struandale is a strong candidate for **ICE to EV drivetrain localisation (e-axles, motor sub-assemblies)**, **aftermarket remanufacturing**, and **industrial energy efficiency retrofits** supported by national EV and green-industry incentives.

DEAL PARTY INDUSTRIAL AREAS

- **Schaeffler South Africa (LuK)** operates a major driveline component facility here; **Aspen Pharmacare** runs a centralised warehouse in Deal Party supporting its nearby Korsten production complex. Proximity to the Port of Port Elizabeth automotive terminal and rail links make Deal Party a logistics manufacturing hybrid node.
- Expect continued **warehouse automation and value-added logistics**, plus **EV-era component localisation** (bearings, clutches → e-powertrain equivalents and thermal management). TNPA has recently invested in the Port of **Port Elizabeth automotive berth**, reinforcing the near-port automotive logistics value proposition that Deal Party serves.

NORTH END INDUSTRIAL AREA

- North End is one of the metro's oldest industrial suburbs, historically tied to pharmaceuticals and light manufacturing, **Aspen's flagship site** traces back to the Lennon factory on **North End Lake**. There's also a dense cluster of motor trade, light engineering and distribution.
- North End's close-in location suits **last-mile distribution**, **cold-chain upgrades**, and **brownfield conversions** to higher-tech light industry (medical devices, packaging) linked to Aspen's ecosystem and the ports.

KORSTEN INDUSTRIAL AREA

- **Aspen Pharmacare** operates major sterile and non-sterile production lines at multiple Korsten addresses, one of the metro's most advanced pharma manufacturing footprints.
- With global shifts to **health security** and localisation of APIs finished dose forms, Korsten is well-positioned for **pharma capacity expansions**, **clean-utility (steam/RO/air) upgrades**, and **specialised warehousing** (GxP compliant), supported by the established Aspen platform.



KEY PROPOSALS PER SPATIAL TARGETING AREA

SPATIAL TARGETING AREA 1: SPATIAL PROPOSALS FOR COEGA SPECIAL ECONOMIC ZONE INCLUDING PORT OF NGQURA, PARTLY MARKMAN (AFTER BROWNFIELD UPGRADES):

- **Blue Economy Park – Coega SEZ**
 - Establish a Blue Economy Industrial Park within the Coega SEZ, focusing on aquaculture (fish farming, seaweed cultivation), marine biotechnology, ship repair, and ocean energy systems (wave, tidal, and offshore wind).
 - Anchor investment in marine engineering, boatbuilding, and port services, aligned with the Oceans Economy Bid Book and Transnet's port expansion plans.
 - Integrate training and skills development in partnership with TVET colleges, Nelson Mandela University (NMU), and maritime training academies to build a blue workforce pipeline.
- **Green hydrogen & green ammonia (Coega).** CDC's positioning as a **green hydrogen/ammonia hub** enables upstream electrolyser/local component manufacturing, midstream storage/handling, and downstream export. This complements potential **LNG/liquid bulk** terminal investments at Ngqura and supports a diversified energy-carriers platform.
- **Battery and critical-minerals value chains.** The Eastern Cape is strategically positioned to participate in manganese-centric battery materials (precursor/blends) and module/pack

assembly for local and export markets, aligning with national plans to develop a critical-minerals strategy and EV components. Coega's port-proximate, controlled environment is a natural host.

- **Port-led logistics & value-added services.**

Container trans-shipment and bulk growth at Ngqura encourage consolidation of DCs, cold-chain and light processing in Coega, Markman (post-rehabilitation).

SPATIAL TARGETING AREA 2: SPATIAL PROPOSALS FOR KARIEGA, PERSEVERANCE INDUSTRIAL AREAS AND LINKAGES TO ADDO CORRIDOR:

- **Agro-Processing Expansion – Kariega & Addo Corridor**
 - Strengthen and expand citrus and agricultural value chains by developing new agro-processing infrastructure near Kariega and Addo.
 - Establish cold-storage, packaging, juicing, and food innovation facilities to improve global competitiveness and exports.
 - Link smallholder and emerging farmers into supply chains through cooperatives and contract farming models.
 - Promote diversification into high-value crops, bio-based products, and agro-logistics, supported by efficient transport and port linkages.

SPATIAL TARGETING AREA 3: SPATIAL PROPOSALS FOR STRUANDALE, DEAL PARTY, NORTH END AND KORSTAN INDUSTRIAL AREAS

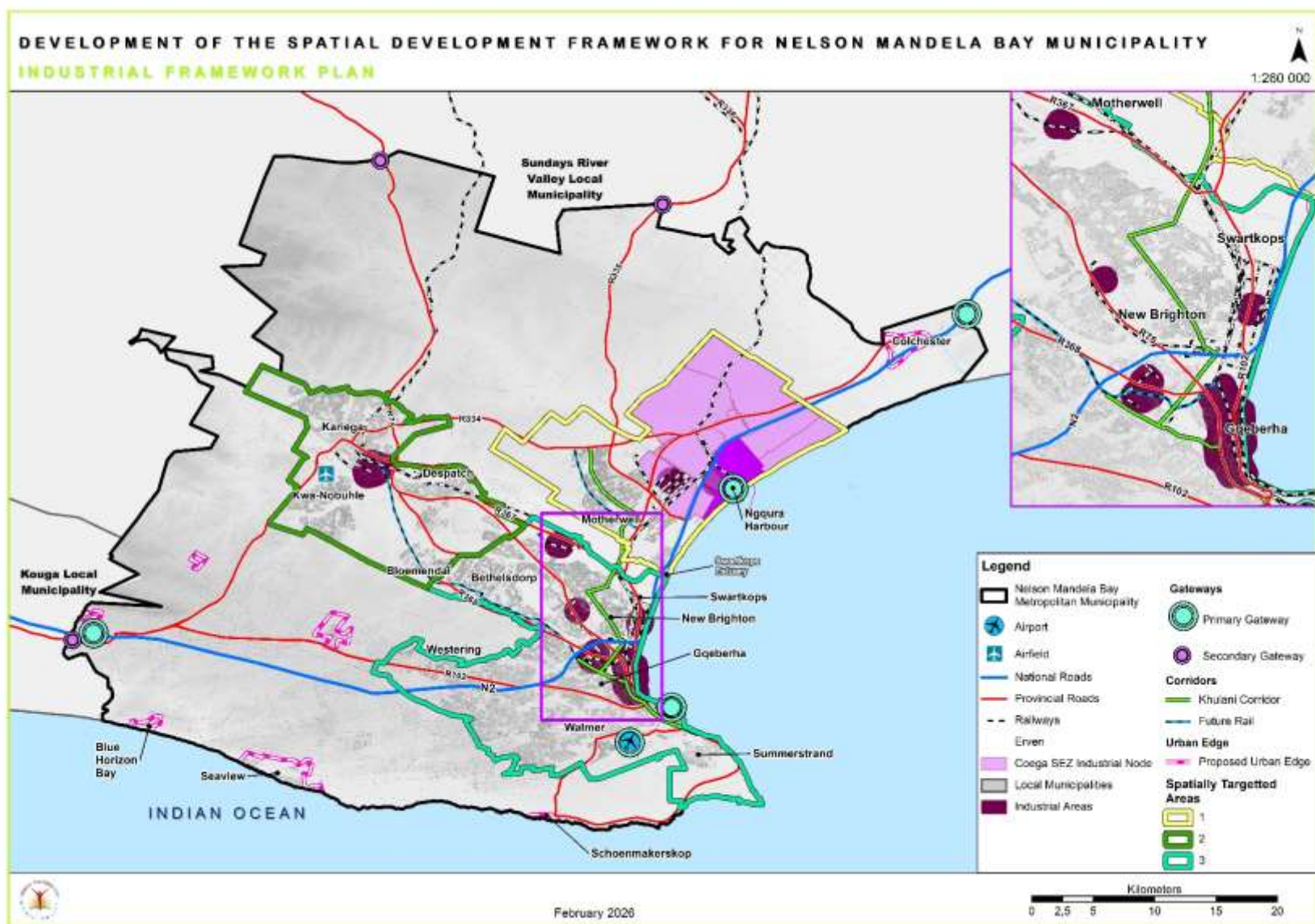
- **4IR Hub – Robotics, AI, and Smart Logistics**
 - Develop a Fourth Industrial Revolution Hub linked to NMU's Innovation Corridor and industry research clusters.
 - Focus areas: robotics, artificial intelligence, data analytics, Internet of Things (IoT), 3D printing, drone applications, and smart logistics systems.
 - Partner with automotive, aerospace, and logistics companies to pilot automation and digital supply chain solutions.
 - Position NMBM as a continental leader in industrial innovation for advanced manufacturing and logistics technology.
- **Health & life sciences manufacturing (Korsten–North End cluster).** Building from **Aspen's** world-class operations, there's scope for **fill-finish expansions, ancillary medical devices/packaging, and GxP logistics** (Deal Party).

CROSS-CUTTING (ALL AREAS, esp. BROWNFIELD SITES & CBD-LINKED INNOVATION)

Cross-cutting interventions target systemic challenges and opportunities that impact all spatial areas, with a strong focus on unlocking the potential of underutilised brownfield sites and strengthening linkages with the CBD.

- **Innovation Districts & Digital Incubators**
 - Incentivise the development of innovation districts in the inner city, townships, and key growth nodes to host co-working spaces, makerspaces, and digital incubators.
 - Provide affordable workspace, mentorship, and seed funding for SMMEs and startups in technology, creative industries, and digital services.
 - Establish a Metro Innovation Fund to attract venture capital and support high-growth enterprises.
 - Encourage collaboration between academia, private sector, and civil society to build an inclusive innovation ecosystem.
- **Brownfield upgrades & precinct management.** Industrial improvement districts (safety/maintenance services), road rehab, dust control and digital infrastructure can quickly lift investment appetite in **Markman, North End, Korsten industrial areas** unlocking warehousing conversions and SME supplier growth tied to EV and health-manufacturing pipelines.
- **Port-led logistics & value-added services.**
 - **Near-port automotive logistics** remain strategic; TNPA has **deepened and strengthened** Port of Port Elizabeth's automotive berth, which underpins finished-vehicle and component flows that Deal Party/North End firms serve.
- **Container trans-shipment and bulk growth at Ngqura** encourage consolidation of DCs, cold-chain and light processing in Coega, Markman (post-rehabilitation), and Perseverance.

Map 49 highlights the industrial framework for the NMBM.



Map 49: Industrial Framework

D2.1.2. AUTOMOTIVE MANUFACTURING

The automotive manufacturing sector remains a cornerstone of the Nelson Mandela Bay Municipality (NMBM) economy, contributing significantly to GDP, exports, employment, and local supply chain development. Anchored historically by global Original Equipment Manufacturers (OEMs) such as Volkswagen, Isuzu, Ford, FAW and BAIC and supported by a robust ecosystem of component suppliers and logistics platforms, NMBM has earned its place as South Africa's leading automotive hub.

However, the global automotive landscape is undergoing profound structural change. Western OEMs are consolidating operations, rationalising global production footprints, and in some cases, divesting from less profitable or strategically peripheral markets. This is evident by recent plant closures, restructuring, and capital reallocation toward electric mobility, artificial intelligence, and software-driven services, mostly within their core markets in Europe and North America. Such shifts have begun to reshape the investment appetite of traditional Western OEMs in South Africa.

Conversely, Chinese OEMs are rapidly ascending as dominant global players, driven by aggressive innovation in electric vehicles (EVs), vertically integrated supply chains, and strong backing from industrial policy at home. Brands such as BYD, BAIC, Geely, Chery, GWM (Great Wall Motors), and Haval are now penetrating African markets with growing force. Their vehicles, often EV or hybrid-powered are competitively priced and increasingly accepted in South Africa's consumer market. In this context, NMBM has a strategic opportunity to position itself as a preferred location for Chinese OEM investment and assembly operations on the African continent.

With global momentum moving toward electrification, smart manufacturing, and decarbonisation, the municipality must adapt to these shifts by reinforcing its competitive advantages, including its dual-port infrastructure, established automotive clusters, industrial land availability, and supportive institutions like the Automotive Industry Development Centre Eastern Cape (AIDCEC).

KEY PROPOSALS PER SPATIAL TARGETING AREA

SPATIAL TARGETING AREA 1,2 and 3

Respond to the OEM Transition: Western Retrenchment vs. Eastern Expansion

- Engage proactively with emerging OEMs from China and other BRICS economies to attract new investment in assembly plants, R&D centres, and supplier development programmes.
- Promote the metro as a gateway to the African EV market, particularly through Coega SEZ and the Nelson Mandela Bay Logistics Park (NMBLP).
- Position NMBM as an ideal platform for joint ventures between established Western OEMs and rising Eastern players.

Strengthen Supply Chain Development and Localisation

- Expand the AIDCEC's supplier development programmes, with special focus on Tier 2 and Tier 3 local manufacturers.
- Incentivise localisation of core automotive components such as body panels, wiring harnesses, lithium-ion battery casings, and infotainment systems.

- Foster supplier clustering within logistics parks to enhance economies of scale and reduce logistics costs.
- Establish Automotive Service hubs and incubation centres in the NMBM in collaboration with the industry

Facilitate Investment in Electric Vehicle (EV) Technologies

- Align local economic strategy with the South African Automotive Masterplan (SAAM) 2035, which targets 1.4 million vehicles per year, increased local content, and greater EV market penetration.
- Attract investment in EV assembly, battery recycling, and EV charging infrastructure by marketing Coega IDZ and NMBLP as EV-ready platforms.
- Partner with national agencies (IDC, DTIC, DSI) to support OEMs such as Stellantis, which recently signed an MoU to explore local vehicle manufacturing.

Accelerate Industry 4.0 and Smart Manufacturing

- Support factories and SMEs in adopting automation, robotics, AI, and IoT to align with global production standards.
- Fund digital transformation and compliance with ISO/TS 16949 through targeted grants and blended finance schemes.
- Encourage real-time manufacturing systems for just-in-time delivery and improved productivity.

Enhance Skills Development and Workforce Transition

- Collaborate with Nelson Mandela University (NMU), TVET colleges, and the AIDCEC to offer training in EV systems, electronics, mechatronics, and battery technologies.
- Expand training in non-metallic composite materials, applicable across automotive, aerospace, and marine industries.
- Develop a skills pipeline from youth development to professional engineering aligned with OEM demands, i.e. aftermarket services like panel beating and industrial painting, auto electricians and motor mechanics

Promote R&D and Innovation Ecosystems

- Foster research partnerships between academia and industry in areas like energy efficiency, EV propulsion, lightweight materials, and autonomous vehicles.
- Establish NMBM as a national innovation testbed for smart mobility, connected vehicles, and green logistics solutions.
- Support incubators and start-ups working in EV tech, battery storage, and sustainable transport solutions.

The automotive manufacturing sector continues to be a pillar of NMBM's industrial base. However, maintaining relevance in a changing global economy requires strategic responsiveness. By adapting to the shifting centre of gravity from Western OEMs to emerging Chinese and BRICS manufacturers, and by investing in EV readiness, smart production systems, and skills development, the metro can future-proof its position as South Africa's automotive powerhouse. The next decade offers a critical window for NMBM to lead in mobility transformation, economic diversification, and inclusive industrial growth.

D2.1.3. PORT AND LOGISTICS

The Phase 2 analysis highlighted NMBM as one of South Africa's most strategically positioned logistics hubs. Anchored by two commercial ports, the Port of Port Elizabeth and the Port of Ngqura and supported by national road, rail, and air transport networks, the metro is uniquely placed to serve as a gateway for both domestic and international trade. Together with the Coega SEZ, these assets form the backbone of a globally competitive industrial and logistics corridor.

Despite this strategic positioning, the analysis confirmed that both ports are severely underperforming when benchmarked against global rankings, with operational inefficiencies undermining their full potential. The Port of Ngqura, though a modern deep-water transshipment hub, remains significantly underutilised due to hinterland connectivity challenges and competition from Durban and Cape Town. The Port of Port Elizabeth, by contrast, is constrained by outdated infrastructure, congestion, and environmentally harmful manganese stockpiles that limit urban regeneration opportunities and conflict with the city's tourism and liveability agenda. Collectively, these constraints weaken the metro's competitive edge in logistics and diminish its role in global trade.

At the same time, new opportunities are emerging. Increasing container traffic, expansion of the automotive and agribusiness export sectors, and ambitions to participate in the hydrogen economy and offshore energy industries require a modern, integrated, and sustainable logistics system. The Coega SEZ offers enormous potential to attract logistics-intensive industries such as e-commerce warehousing, automotive logistics, and energy component manufacturing provided the supporting port and transport infrastructure is upgraded.

Unlocking this potential requires a tripartite alliance between Transnet, NMBM, and the Coega SEZ, supported by industry stakeholders, to drive a shared Industrial and Logistics Strategy. Such collaboration is essential for aligning port master plans with city-level economic priorities, upgrading rail and road corridors, and ensuring that growth in freight and logistics translates into local jobs, skills development, and SMME opportunities.

This section therefore outlines the Port and Logistics framework, which sets a roadmap for repositioning NMBM as a competitive, green, and smart logistics gateway. The framework is built around five strategic thrusts:

1. **Promoting Green and Smart Logistics** – embracing sustainability, digitalisation, and innovation in freight systems.
2. **Fostering Skills Development and Industry Partnerships** – building a local talent pipeline for logistics and port-related industries.
3. **Modernising Rail and Road Freight Systems** – enhancing intermodal connectivity between ports, industrial nodes, and national markets.
4. **Developing Strategic Spatial Platforms** – leveraging the Coega SEZ, Nelson Mandela Bay Logistics Park, and inland logistics hubs as engines of growth.

5. Strengthening Dual-Port Infrastructure and Operations – repositioning Ngqura and Port Elizabeth ports to complement each other and align with regional development priorities.

Taken together, these interventions aim to transform Nelson Mandela Bay Municipality into a globally recognised logistics gateway that links sub-Saharan Africa to international markets. By integrating green innovation, inclusive development, and infrastructure modernisation, the metro can convert its ports and logistics corridors into a powerful driver of economic growth, regional integration, and sustainable industrialisation.

The TNPA Precinct Plans were not approved at the time of developing this MSDF.

KEY PROPOSALS PER SPATIAL TARGETING AREA:

PROMOTE GREEN AND SMART LOGISTICS

- Encourage adoption of clean transport technologies, including electric freight vehicles and solar-powered logistics facilities.
- Support planning and piloting of a Hydrogen Valley logistics corridor connecting Coega to Gauteng.
- Digitalise the logistics ecosystem using real-time cargo tracking, customs automation, and integrated logistics platforms.

Addressing these challenges aligns directly with the Smart City Strategy, which seeks to leverage technology, sustainability, and innovation to transform urban systems. In this context, promoting Green and Smart Logistics becomes a critical enabler.

FOSTER SKILLS DEVELOPMENT AND INDUSTRY PARTNERSHIPS

Partner with Nelson Mandela University (NMU) and industry to develop training programmes in:

- Port operations and marine logistics
- Freight management and customs brokerage
- Warehouse automation and supply chain analytics

Modernise Rail and Road Freight Systems

Collaborate with Passenger Rail Agency of South Africa (PRASA) and Transnet Freight Rail to improve freight rail infrastructure and services connecting the ports with:

- Kariega industrial zone
- Motherwell and Markman industrial nodes
- National markets (Gauteng, Durban, Cape Town)
- Support the implementation of rail sidings at key production and warehousing sites to reduce road congestion.
- Upgrade logistics-supportive road corridors including:
 - Harrower/Stanford Road corridor
 - Chatty–Jachtlakte–KwaNobuhle corridor

- Motherwell–Markman–Ngqura access roads

SPATIAL TARGETING AREA 1

Develop the Coega SEZ as a Global Logistics Gateway

- Strengthen the role of the Coega SEZ as the regional freight and logistics hub for sub-Saharan Africa.
- Attract investment into logistics-intensive industries such as e-commerce warehousing, automotive logistics, and energy components.
- Support rail and road freight consolidation platforms within the SEZ, linked to export-oriented manufacturers and agribusiness clusters.
- Facilitate establishment of off-dock container depots, value-added logistics services, and bonded warehouses.

SPATIAL TARGETING AREA 2

Expand the Nelson Mandela Bay Logistics Park (NMBLP)

- Upgrade infrastructure in Precinct A and implement development of Precinct B (126 hectares) to accommodate new logistics and automotive suppliers.
- Integrate NMBLP with national freight corridors, including the R75, Stanford Road, and N2, and future rail links.
- Support warehousing, parts distribution, and just-in-time logistics to major OEMs (VW, Isuzu, Ford).
- Advance feasibility for designation of NMBLP as a Special Economic Zone (SEZ) extension of Coega.

Develop Multimodal Logistics Platforms and Inland Hubs

- Identify land for inland logistics depots and intermodal facilities in areas such as Kariega, Markman, and the Zanemvula precinct.
- Support freight consolidation centres that serve agricultural producers, especially citrus and perishable goods.
- Promote air freight expansion from Chief Dawid Stuurman International Airport, especially for high-value, time-sensitive cargo.

SPATIAL TARGETING AREA 1 & 3

Strengthen Dual-Port Infrastructure and Operations

- Enhance port functionality and cargo capacity at the Port of Ngqura (deep-water transshipment hub) and the Port of Port Elizabeth (specialised automotive and dry bulk terminal).
- Relocate manganese and tank farm operations from the Port of Port Elizabeth to the Port of Ngqura to free up prime urban-port interface land for redevelopment.
- Expand offloading, container handling, and cold storage capacity to accommodate growth in agri-exports and perishables.

- Collaborate with TNPA to align port master plans with metro-level spatial and economic plans.

The Port and Logistics Framework anchors NMBM's role as a gateway city, linking Africa to global trade networks. By leveraging its port infrastructure, SEZ platforms, logistics parks, and transport networks, the city can drive regional integration, economic transformation, and sustainable industrialisation. Integrated investment in smart, green, and inclusive logistics systems will not only boost competitiveness but also ensure broader socio-economic benefit for its residents.

D2.1.4. RENEWABLE ENERGY:

NMBM is well-positioned to become a national leader in renewable energy deployment due to its natural advantages, high solar radiation, strong and consistent coastal winds, and a supportive policy environment. As energy demand grows alongside the need to transition from fossil fuels, renewable energy offers a resilient, sustainable, and inclusive development pathway.

KEY PROPOSALS

Rooftop Solar PV Rollout

- Install solar PV systems on municipal-owned buildings (offices, clinics, depots, libraries, etc.) to reduce electricity costs and contribute to energy resilience.
- Encourage uptake in private sector and residential sectors through streamlined Small-Scale Embedded Generation (SSEG) applications and net billing mechanisms.
- Introduce incentive schemes or rebates for solar PV adoption in lower-income areas.
- Enforce new building regulations requiring solar-ready designs for new developments.



Embedded Generation and Smart Grid Integration

- Support small-scale and large-scale embedded generation through clear technical and regulatory guidelines.
- Expand the implementation of bi-directional smart meters and Time-of-Use (TOU) tariffs.
- Promote the use of Net Billing models for prosumers to feed surplus energy into the municipal grid.
- Enable wheeling of electricity across the NMBM grid, allowing independent generators to sell energy to third parties under approved tariffs.

Renewable Energy & Green Economy

- Anchor NMBM in the national Hydrogen Valley initiative, with Coega as a hub for green hydrogen production, storage, and export.
- **Drive circular economy projects:**
 - Waste-to-energy plants.
 - Advanced recycling hubs.
 - Green SMME incubators.
- Establish a municipal Renewable Energy & Sustainability Unit to coordinate the just energy transition.

Facilitate Independent Power Producers (IPPs)

- Develop a standardised application process and contractual framework for IPPs seeking to connect to the municipal grid.
- Promote Power Purchase Agreements (PPAs) with local generators to reduce electricity procurement costs and stimulate local investment.
- Set procurement targets for renewable energy: 15% by medium term and 30% by long term, as outlined in the IDP.

Local Manufacturing and Green Industrialisation

- Support local production of renewable energy components, such as solar panels, inverters, and wind turbines, particularly within or near the Coega SEZ.
- Facilitate green SMMEs in installation, maintenance, and recycling of renewable technologies.
- Promote linkages between renewable energy and other local sectors, such as automotive, logistics, and construction.



Community-Based and Off-Grid Energy Solutions

- Implement off-grid and microgrid solutions for informal settlements, peri-urban communities, and rural schools.
- Encourage co-operative ownership models for community solar or wind projects.
- Provide training and capacity building for local technicians, especially youth and women, in renewable energy installation and maintenance.

Research, Innovation and Capacity Development

- Collaborate with Nelson Mandela University (NMU) and the Agricultural Research Council (ARC) to:
 - Advance research in wind, solar, biogas, and energy storage technologies.

- Promote curriculum development and innovation hubs for energy entrepreneurship.
- Test and pilot emerging technologies and integrated energy solutions.

Regulatory Compliance and Institutional Framework

- Align municipal policies with national legislation: Electricity Regulation Act, Municipal Systems Act, and NERSA guidelines.
- Implement a cost-of-supply tariff structure that reflects the realities of distributed generation and grid maintenance.
- Strengthen institutional capacity to process applications, monitor energy flows, and enforce safety standards.
- Establish a dedicated Renewable Energy Unit within the Energy Directorate to coordinate implementation and stakeholder engagement.

Table 46 refers to the Renewable Energy Business Models Supported by NMBM

Model	Description
SSEG (Net Billing)	Customers generate energy for their own use and export surplus to the grid under a TOU credit system.
SSEG (Self-Consumption Only)	Energy is used internally, no export to grid. Still requires registration and compliance.
Off-Grid SSEG	Completely independent systems with no connection to municipal grid; must still be registered.
Wheeling within NMBM	Generators supply energy to third parties via the NMBM grid under a Use-of-System agreement.
Cross-Border Wheeling	Electricity wheeled across NMBM and Eskom grids to consumers inside or outside municipal boundaries.
IPP Sales to NMBM	NMBM procures electricity directly from IPPs through PPA agreements.

Table 46: Renewable Energy Business Models

The Renewable Energy Framework positions NMBM as a forward-thinking, sustainable metro that leverages its natural assets and policy tools to catalyse a just energy transition. By integrating embedded generation, IPPs, off-grid solutions, and local industrial development, the city will not only secure its energy future but also create new economic opportunities aligned with South Africa's green growth agenda.

D2.1.5. AIRPORT DEVELOPMENT

Airports within Nelson Mandela Bay Municipality are strategic infrastructure assets that facilitate domestic and international connectivity, support trade and tourism, and stimulate economic development. The Chief Dawid Stuurman International Airport (CDSIA) is the primary air gateway for

the metro and the Eastern Cape, linking the city to national hubs such as Johannesburg, Cape Town, and Durban, as well as regional African markets.

D2.1.5.1. CHIEF DAWID STUURMAN INTERNATIONAL AIRPORT DEVELOPMENT.

The Chief Dawid Stuurman International Airport and its proximity to the Coega Special Economic Zone (SEZ), Nelson Mandela Bay Logistics Park (NMBLP), and major industrial hubs provides a unique opportunity to integrate air logistics, manufacturing, tourism, and investment promotion into a cohesive growth strategy. Diagram 10 below illustrates the extent of land required for the future expansion of the airport, with the proposed ultimate boundary indicated in blue. This expansion will necessitate additional land, particularly to provide for the development of a new airport terminal and the construction of a second runway.

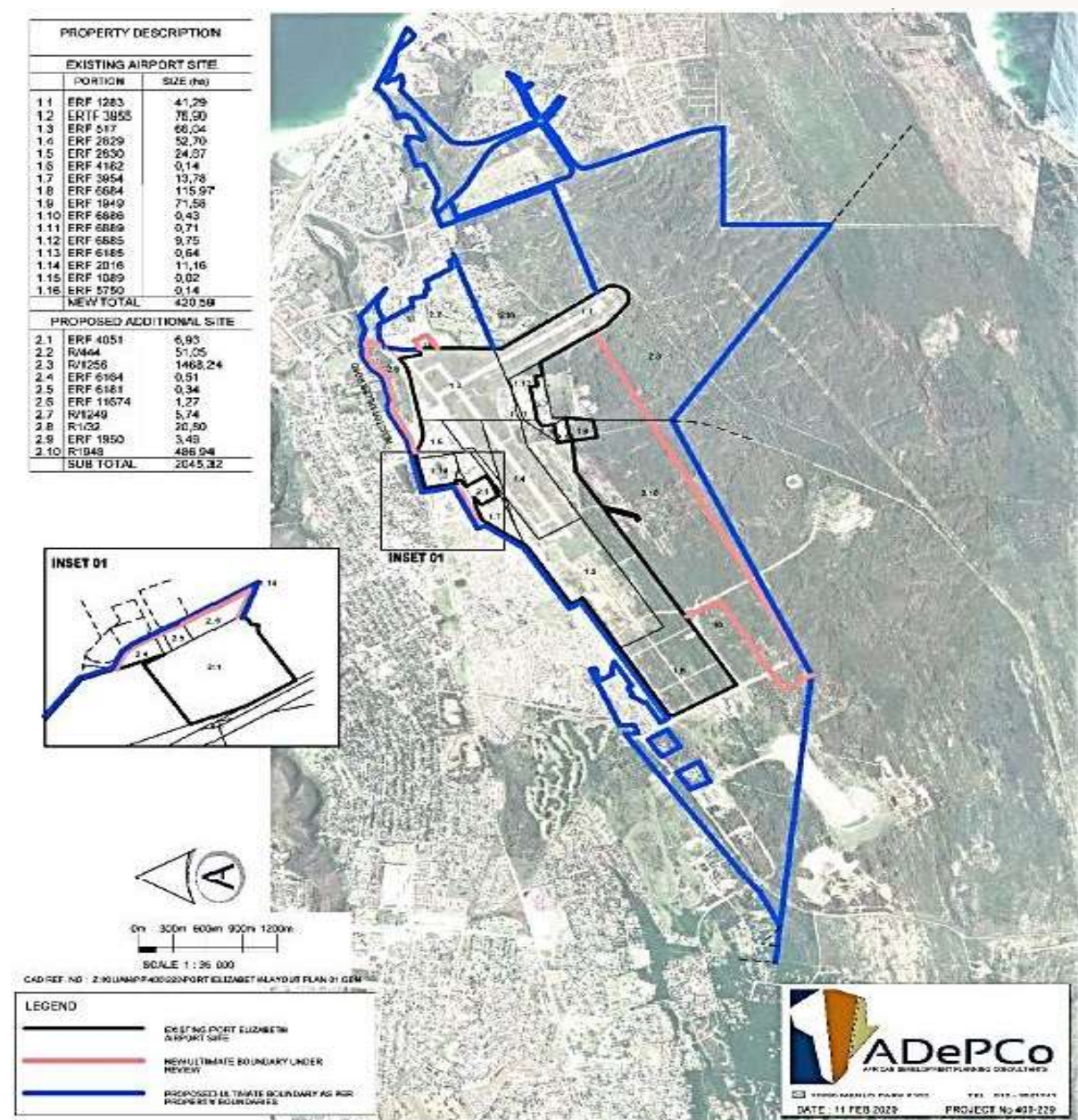


Diagram 10: Chief Dawid Stuurman International Airport Layout Plan

KEY PROPOSALS SPATIAL TARGETING AREA 3

Airside Infrastructure Upgrades (Refer to diagram 11)

- Extend and widen the main runway to accommodate Code E aircraft and increase operational flexibility.
- Upgrade taxiways and aprons to improve aircraft movement efficiency.
- Install advanced airfield lighting systems for enhanced night and poor-weather operations.
- Improve airside drainage and pavement rehabilitation for long-term durability.
- Establish a dedicated General Aviation (GA) precinct with private hangars and maintenance facilities.

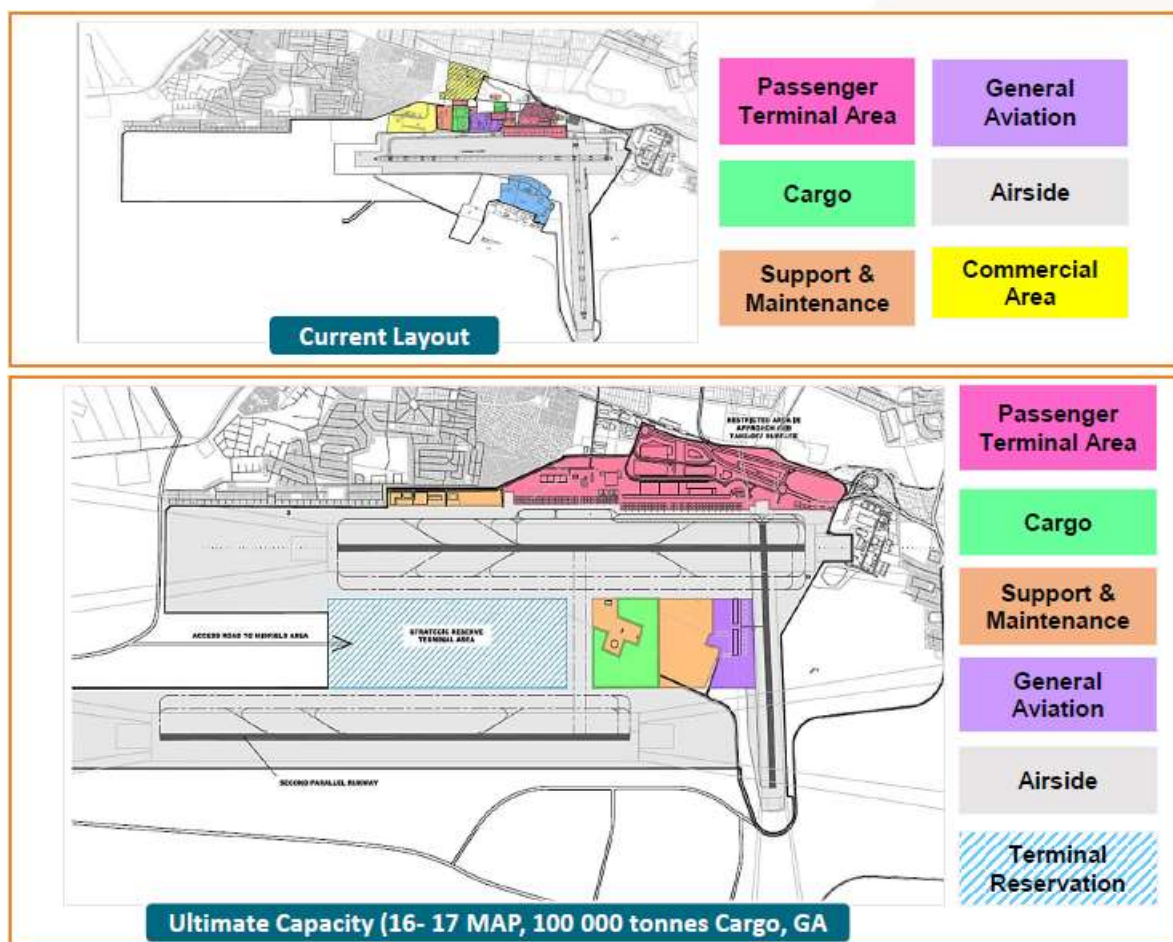


Diagram 11: Airside Infrastructure Upgrades

Passenger Terminal Expansion (Refer to Diagram 12)

- Expand the terminal building eastwards by approximately 15,000 m².
- Introduce segregated domestic and international passenger flows.
- Upgrade check-in counters, security screening, baggage handling, and boarding gates.
- Develop new passenger amenities such as expanded lounges, retail areas, and food courts.

- Implement digital passenger processing systems for faster turnaround.

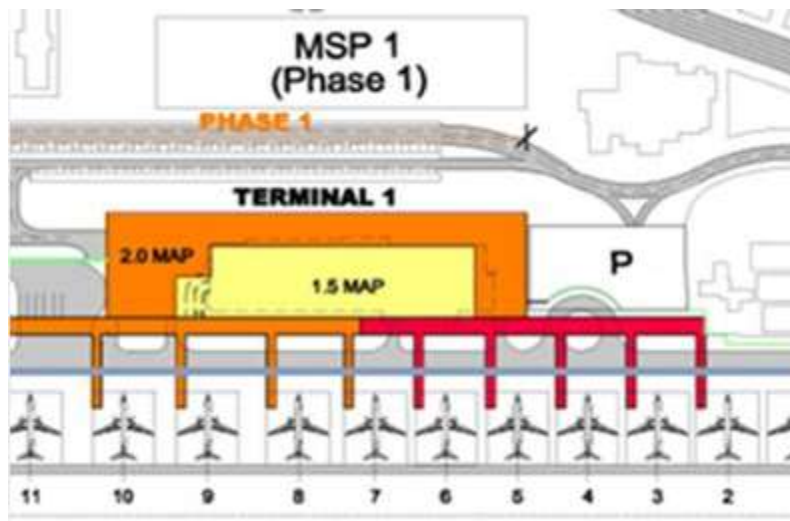


Diagram 12: Passenger Terminal Expansion

Cargo and Logistics Hub

- **Develop a dedicated cargo precinct with:**
 - Cold storage facilities for perishable exports (citrus, dairy, seafood).
 - Bonded warehouses for customs-controlled goods.
 - Direct landside-to-airside transfer corridors to reduce handling times.
- Attract logistics operators and freight forwarders to anchor the precinct.
- Integrate with Coega SEZ logistics operations via a dedicated freight route.
- Evaluate the potential role of a cargo-focused airport in Coega in strengthening the regional logistics network, including its integration with the Coega Special Economic Zone (SEZ), the Port of Ngqura, and major freight corridors

Landside Commercial Development (Refer to diagram 13)

- **Establish a mixed-use commercial precinct including:**
 - Hotels and conferencing facilities.
 - Office space for aviation-related businesses.
 - Retail, car rental, and long-stay parking facilities.
- Promote investment in aviation training centres and R&D hubs within the precinct.
- Encourage public-private partnerships (PPPs) for financing and development.



Diagram 13: Landside Commercial Development

Sustainable and Smart Airport Initiatives

- Install solar photovoltaic systems on terminal and hangar rooftops.
- Introduce rainwater harvesting and on-site water recycling.
- Upgrade waste management systems, including composting of organic waste from food services.
- Implement smart energy and building management systems.

Connectivity and Access Improvements

- Upgrade road access from major arterials and improve signage.
- Integrate the airport into the IPTN and future commuter rail plans.
- Develop secure pedestrian and cycling access routes for airport workers.
- Expand parking facilities, with smart parking management systems.

CDSIA Fire Station Relocation (Refer to Diagram 14)

- Relocate existing Rescue and Fire Fighting Facilities to the proposed site in the airport master plan.
- Develop a new fire station with modern operational capacity.
- Construct an access road and secure entry gate.
- Provide dedicated staff parking facilities.
- Establish a gymnasium and administration office for personnel.
- Support terminal expansion by freeing up space for GSE staging areas.

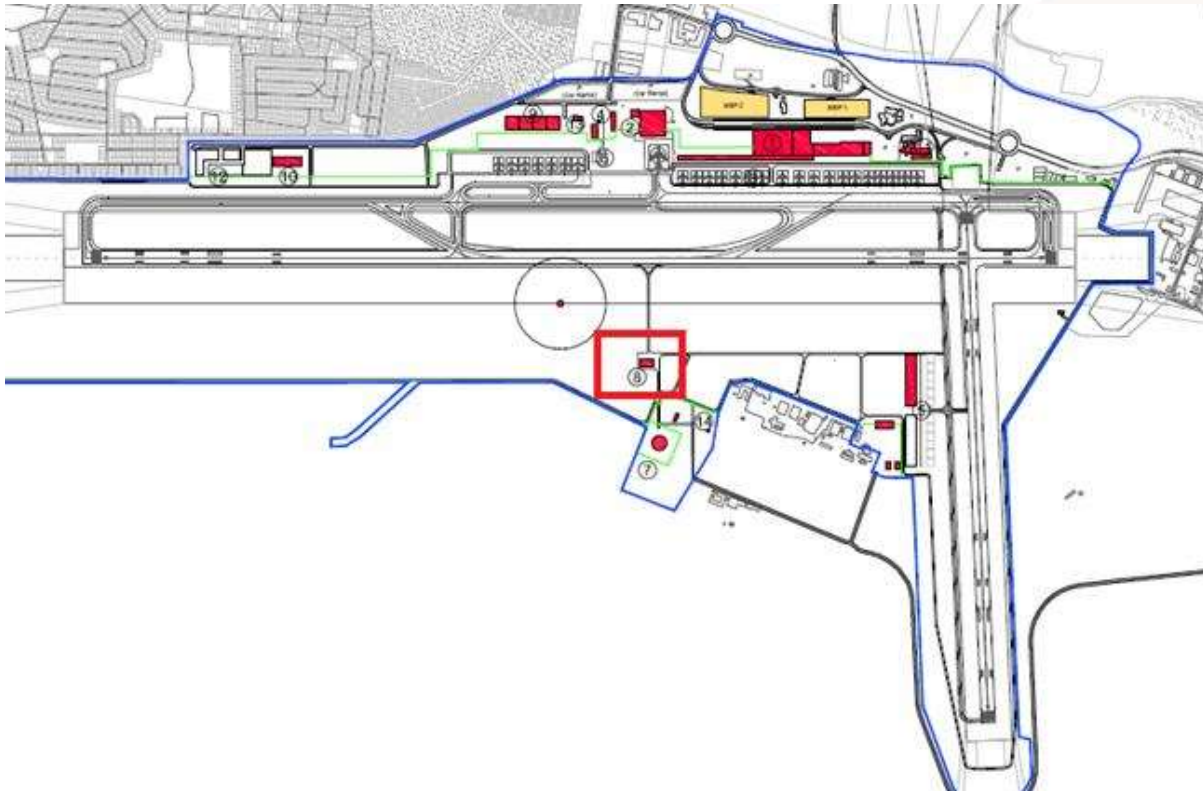


Diagram 14: CDSIA Station Relocation

The development, precinct upgrading, and expansion proposals for Chief Dawid Stuurman International Airport (CDSIA) by ACSA are well-conceived and provide important opportunities for strengthening aviation, tourism, and economic development within Nelson Mandela Bay Municipality.

D2.1.6. AEROTROPOLIS DEVELOPMENT

Nelson Mandela Bay Municipality's economic development is increasingly tied to global trade, with international exports and imports accounting for approximately 78% of the metro's GDP in 2024. Yet, despite being South Africa's third most economically active metro and the third-largest airfreight mover nationally, NMBM lacks direct intercontinental air connectivity. Currently, all international airfreights must first be routed via Johannesburg or Cape Town, constraining competitiveness in time-sensitive sectors like automotive components, agri-exports, pharmaceuticals, and electronics.

To address this strategic gap, NMBM is advancing the Aerotropolis Development Project, a transformative, multi-modal logistics and economic hub centred on the expansion of intercontinental air capabilities at the Chief Dawid Stuurman International Airport. The project aligns with the National Framework for Local Economic Development (2018–2028), which calls for structural transformation through logistics infrastructure, SEZs, and trade-enabling initiatives.

Strategic Rationale

- Diversification of Export Markets: Reduce dependency on automotive exports by opening new markets for perishable goods, textiles, pharmaceuticals, and technology products.

- Increased Competitiveness: Improve speed, reliability, and cost-effectiveness of international trade, making NMBM more attractive to investors and global supply chains.
- Job Creation and Inclusion: Enable large-scale employment across logistics, agribusiness, advanced manufacturing, and tourism.
- Balanced Growth: Strengthen the southern part of the metro around Walmer, Summerstrand, and Schoenmakerskop, while linking with northern industrial nodes through logistics corridors.

KEY PROPOSALS SPATIAL TARGETING AREA 3

Expand Airport Infrastructure to Enable Intercontinental Capability

- Extend and widen the existing runway to accommodate wide-body intercontinental aircrafts.
- Construct a new passenger terminal with customs and immigration services, capable of handling direct international flights and cargo.
- Upgrade and extend existing terminal building to accommodate additional traffic, including international passengers.

Establish an Industrial-Logistics Zone

- Allocate ±450 hectares surrounding the airport as an Aerotropolis Zone, with mixed-use land parcels for logistics, light industry, agri-processing, and air cargo services.
- Enable phased rollout of infrastructure to minimise upfront capital costs while responding to real market demand.
- Integrate the aerotropolis with the Coega SEZ and NMBM Logistics Park, creating a seamless, multi-nodal freight network.

Enable Agricultural and Green Economy Integration

- Develop agrivoltaics (agriculture + solar energy) ventures and cold storage infrastructure to support high-value, time-sensitive exports like citrus, floriculture, and seafood.
- Promote agri-processing facilities and Agri-Hubs linked to rural areas in Sarah Baartman District, creating rural-urban economic linkages.
- Support eco-friendly development standards including hybrid microgrids and sustainable water use.

Strengthen Tourism and Business Connectivity

- Position Gqeberha as a tourism gateway by expanding direct international passenger flights that connect seamlessly to key Eastern Cape destinations. Priority routes with demonstrated demand include Namibia, Zimbabwe, Rwanda, the United Kingdom, and Germany, aligned with the Airlift Strategy.
- Develop new domestic air routes to strengthen both leisure and business tourism links, with potential destinations including Kruger, Bloemfontein, and East London.
- Support the proposed International Convention Centre (ICC) and Bayworld redevelopment through improved air access and visitor logistics.
- Attract airline partnerships through destination marketing and demand forecasting.

Secure Investment and Institutional Readiness

- Finalise Council approval for land use rights and leasing/sale of key erven (e.g. 118/121 Schoenmakerskop and 1256 Summerstrand).
- Assign a dedicated implementing agent and secure municipal and provincial budget allocations for feasibility, infrastructure, and promotion.
- Engage private sector investors via public-private partnerships (PPPs) in airfreight terminals, logistics parks, and innovation clusters.

Conduct Environmental and Feasibility Assessments

- Undertake full scoping and environmental impact assessments (EIAs), including stakeholder consultations and specialist studies.
- Align planning with existing municipal development frameworks (e.g. MSDF, IDP, precinct plans).

Anticipated Benefits and Economic Impact

- Creation of thousands of direct and indirect jobs across logistics, aviation, tourism, and agribusiness sectors.
- Enhanced global connectivity for NMBM's automotive, agricultural, pharmaceutical, and technology exports.
- Stimulated private investment in commercial and industrial precincts, leveraging proximity to ports, highways, and hinterland value chains.
- Strengthened resilience to global market shocks, through economic diversification and increased trade efficiency.

The Aerotropolis Development is a catalytic initiative that will elevate Nelson Mandela Bay Municipality from a trade-dependent region to a globally connected production and logistics hub. It builds on existing comparative advantages, dual seaports, export-led manufacturing, and strategic location and enables future-ready sectors such as agri-tech, aerospace, and e-commerce logistics. Through realistic, phased implementation and cross-sector collaboration, the Aerotropolis can become a cornerstone of NMBM's next wave of industrial and spatial transformation.

D2.1.7. TECHNOLOGY AND INNOVATION:

NMBM is well-positioned to become a regional innovation hub, with strong institutional anchors such as the Nelson Mandela University (NMU) Innovation Hub, the Science and Technology Park, and a growing community of startups, research institutions, and creative industries.

The Technology and Innovation Framework seek to harness digital technologies, research excellence, and local creativity to drive socio-economic development, particularly among youth, women, and township-based entrepreneurs. This includes building robust digital infrastructure, expanding access to training and innovation spaces, and supporting technology-driven small businesses.

KEY PROPOSALS

Develop a Digital Innovation Cluster

- Strengthen collaboration between NMBM, NMU Innovation Hub, and private sector to create a regional Digital Innovation Cluster focused on:
 - Software development and IT services
 - Fintech and e-commerce platforms
 - Green tech, agri-tech, and health-tech
- Support establishment of Tech Innovation Zones around NMU, Coega SEZ, and the Inner-City regeneration zone to house startups, labs, and data centres.

Expand ICT Infrastructure and Digital Access

- Roll out broadband infrastructure and public Wi-Fi hotspots in townships, rural settlements, and educational institutions.
- Develop Digital Township Nodes (e.g., in Motherwell, Zwile, KwaNobuhle, and Uitenhage) equipped with high-speed internet and business support centres.
- Integrate smart infrastructure (e.g., IoT sensors, digital traffic control, online service delivery platforms) as part of NMBM's smart city development.

Establish Makerspaces, Tech Labs, and Coding Academies

- Repurpose underutilised municipal buildings and libraries into Makerspaces and Coding Academies, especially in youth-dense communities.
- Provide tools, mentorship, and access to hardware/software for product design, robotics, app development, and digital fabrication.
- Partner with organisations like Geekulcha, Code4Change, GirlCode, and SEDA to run ICT skilling and innovation bootcamps.

Support Tech-Based SMMEs and Startups

- Create an Innovation Incentive Scheme for SMMEs developing tech-based solutions aligned with metro priorities (e.g., smart mobility, water management, waste tracking).
- Provide seed funding, business incubation, and mentoring through municipal partnerships with NMU, SEDA, ECDC, and the Coega Development Corporation.
- Offer preferential procurement opportunities to youth- and women-owned tech enterprises.
- Facilitate digital marketplaces for township enterprises to access broader markets.

Promote Research and Industrial Innovation

- Facilitate linkages between NMU, FET colleges, and industry to develop industry-responsive R&D programmes in:

- Renewable energy technologies
- Composite materials and 3D printing
- Circular economy and recycling innovation
- Support the Coega Innovation Hub in hosting pilot projects, industrial prototyping, and tech testing zones.
- Promote public data access and Open Data Platforms for use in civic tech and policy research.

Foster a Culture of Digital Literacy and Innovation

- Introduce digital literacy, coding, and design thinking curricula in schools, in partnership with the Department of Basic Education.
- Launch municipal tech awareness campaigns and annual events (e.g., Innovation Week, Hackathons, Digital Youth Fairs).
- Enable inter-generational training by pairing youth tech champions with older residents in digital upskilling programmes.

The Technology and Innovation Framework will enable Nelson Mandela Bay Municipality to harness the full potential of the Fourth Industrial Revolution. Through inclusive digital infrastructure, partnerships with research institutions, and targeted support for tech entrepreneurs, the metro can build a more resilient, competitive, and future-oriented economy that benefits all residents.

D2.1.8. SKILLS DEVELOPMENT:

Human capital development is a cornerstone of inclusive economic growth and competitiveness in Nelson Mandela Bay Municipality. Despite the metro's strong institutional presence, anchored by Nelson Mandela University (NMU), multiple TVET colleges, and sector-focused training providers there remain persistent skills mismatches, particularly in technical trades, digital industries, and key economic sectors such as logistics, manufacturing, tourism, and construction.

The Skills Development Framework not only focuses on closing the existing skills gap, but also directly responds to the metro's transitional population dynamics. A significant proportion of residents are students who relocate to the metro for studies but often leave after graduation due to limited opportunities. At the same time, the city faces high unemployment, which undermines long-term population retention and local economic resilience. Addressing these issues requires strategies that both retain skilled graduates and create sustainable pathways for unemployed and underemployed residents to participate in the economy.

KEY PROPOSALS

Expand NMU and TVET Offerings Aligned with Economic Priorities

- Strengthen and diversify NMU and TVET College programme offerings in key growth sectors such as:

- Automotive engineering and mechatronics
- Logistics and supply chain management
- Renewable energy and electrical engineering
- Hospitality and eco-tourism
- ICT, coding, and digital marketing
- Align curriculum with industry standards, including SAQA, QCTO, and SETA qualifications.
- Promote modular short courses for reskilling and upskilling unemployed youth and workers in transition.

Graduate Retention and Local Employment Creation

- Develop graduate placement, mentorship, and internship programmes in partnership with local industries, ensuring that students are absorbed into the metro's labour market after graduation.
- Incentivise businesses to hire locally trained graduates through tax breaks, wage subsidies, and innovation grants.
- Promote entrepreneurial ecosystems, including incubators and shared workspaces, to support start-ups and small enterprises led by graduates and local youth.

Promote Work-Integrated Learning and Industry Partnerships

- Expand access to internships, learnerships, apprenticeships, and graduate placement programmes in priority sectors:
 - Automotive manufacturing
 - Logistics and warehousing
 - Port and marine services
 - Hospitality and tourism
- Establish sector-based training partnerships between local industry players (VW, Isuzu, CDC, Transnet), NMU, and TVETs.
- Incentivise businesses to host learners through tax rebates, grants, and recognition programmes.

Support Artisan Training and Technical Trades

- Upgrade and expand artisan training centres focused on scarce and critical trades, including:
 - Plumbers, electricians, welders, and diesel mechanics
 - Refrigeration technicians and renewable energy installers
 - CNC machinists and toolmakers
- Promote enrolment in trade qualifications (NATED and NCV programmes) with pathways into the formal economy.
- Collaborate with SETA-accredited training providers and the AIDC to build a pipeline of skilled technicians for the automotive and industrial economy.

Upskill Informal Sector Entrepreneurs and SMMEs

- Use Local Economic Development (LED) Centres to deliver entrepreneurial training in:
 - Financial literacy, bookkeeping, and digital tools
 - Business model development and market access
 - Product packaging, branding, and quality assurance
- Provide targeted training for informal traders, home-based businesses, and township enterprises.
- Partner with agencies like SEDA, ECDC, NYDA, and local incubators to support blended learning and mentorship programmes.

Support Green and Digital Economy Skills

- Introduce specialised training for climate-smart agriculture, solar PV installation, energy auditing, and waste-to-energy entrepreneurship.
- Expand digital literacy and coding training at public libraries, community centres, and youth hubs.
- Promote women's participation in STEM and ICT fields through scholarship programmes and coding academies.

Enable Skills Planning, Tracking, and Monitoring

- Develop a local skills intelligence system to map industry demand, qualification pipelines, and unemployment trends.
- Conduct labour market assessments and regularly update the metro's Skills Demand Map in collaboration with SETAs, the Department of Higher Education and Training (DHET), and industry councils.
- Strengthen coordination through the Local Skills Forum, chaired by NMBM and supported by training institutions and private sector partners.

The Skills Development Framework is central to the long-term socio-economic transformation of Nelson Mandela Bay Municipality. By focusing on demand-driven training, sectoral partnerships, and inclusive access to learning opportunities, the metro can equip its workforce to meet the demands of a changing economy, while unlocking pathways to dignity, productivity, and self-reliance for all residents.

D2.2. LOCAL ECONOMIC DEVELOPMENT FRAMEWORK

The Local Economic Development Framework sets out Nelson Mandela Bay Municipality's approach to building an inclusive, community-driven economy that creates opportunities where people live and work, particularly in historically underserved areas. It recognises that economic transformation must be rooted in local capacity, small business empowerment, informal sector development, and township revitalisation.

This section presents a multi-dimensional roadmap to grow local economies through targeted investments in township enterprise precincts, SMME incubation, informal trading infrastructure, and sustainable tourism. It also supports local production and procurement through initiatives such as the "Buy Local NMBM" campaign, while embedding green infrastructure and public employment opportunities that boost both livelihoods and resilience.

The LED Framework shifts focus from top-down development to bottom-up economic agency, with interventions that enable individuals, cooperatives, informal traders, and entrepreneurs to actively participate in the economy. Whether through a street vendor upgrading their stall, a youth entrepreneur launching a digital start-up, or a community hosting cultural tourists, this strategy provides practical tools, enabling policies, and catalytic projects to unlock potential.

Key thematic areas covered in this section include:

- Informal Economy Integration and Support
- SMME and Enterprise Development
- Tourism and Township Economy Promotion
- Cross-cutting enablers such as skills development, access to finance, infrastructure, and safety

Each area is underpinned by a commitment to equity, spatial justice, and sustainable growth. These efforts aim to not only strengthen local livelihoods, but to build economic resilience, reduce poverty, and advance meaningful transformation across the Metro's urban, township, and peri-urban communities.

The LED framework aims to empower communities, diversify the economy, and build resilience at the local level. Emphasis is placed on township economies, informal businesses, cooperatives, and SMMEs.

Key components:

- Establish township enterprise precincts in Motherwell, Zwide, and KwaZakhele.
- Provide access to microfinance, training, and digital tools.
- Implement the "Buy Local NMBM" campaign.
- Expand public employment programmes linked to green infrastructure and maintenance.

D2.2.1. INFORMAL TRADING

Informal trading is a vital component of the township economy, particularly in areas such as Ibhayi, New Brighton, Zwide, and Motherwell, where it provides critical income-generating opportunities for thousands of residents. It supports food security, self-employment, and local service delivery, but continues to face barriers such as inadequate infrastructure, lack of recognition in formal planning processes, and limited access to institutional support.



In recognition of its importance, Nelson Mandela Bay Municipality is implementing a comprehensive Informal Trading Development Framework aimed at formalising, supporting, and integrating this sector into the broader economic system.

IDENTIFIED INFORMAL TRADING ZONES

A spatial survey of trading activity highlights a number of key trading locations across the Metro, particularly in high pedestrian and commuter movement zones. These include:

- **Ibhayi / Zwide / New Brighton Corridor**
 - Daku Spar, Govan Mbeki Avenue (Ward 21, Dibanisa Road)
 - Njoli Taxi Rank, Govan Mbeki Avenue (Ward 21)
 - Boxer, Njoli Street (Ward 20)
 - Shoprite, Ntshekisa Road (Ward 17)
- **Bethelsdorp / Bloemendal**
 - Erf 2313, Bloemendal
 - Taxi ranks and retail nodes along Lillian Diederick and Norman Middleton Roads
- **Kariega**
 - Taxi Rank, Zola Nqini (Constitution Road & Durban Street)
 - Erf 2180, Uitenhage (strategic taxi hub location)
- **Commercial Complexes**
 - Cleary Park Shopping Centre precinct
 - Shoprite Complex, Stanford Quarter

These designated zones, identified through municipal records and spatial mapping, form the anchor nodes of the informal economy. They are characterised by high trading intensity, commuter flows, and accessibility, but are often located on road reserves, taxi ranks, and around retail hubs without sufficient formal infrastructure. The ownership of informal trading sites varies between municipal land,

provincial/national government properties, and privately owned erven. Municipal land presents the most immediate opportunity for formalisation and upgrading, while provincial and private sites require intergovernmental and partnership-based solutions. Clarifying land ownership and securing tenure is essential to provide traders with stability, reduce conflict, and enable long-term investment in infrastructure.

No	Erf	Township/Suburb	Owner
1	erf62901 Ibhayi	Daku Spar Govan Mbeki Ward 21 Dibanisa Road	NMBM
2	Road reserve abutting erf629029 Ibhayi	Super Spar Govan Mbeki Ward 16 Brighton Square	NMBM
3	Road reserve abutting 50149 Ibhayi	Njoli Taxi rank Govan Mbeki 21 Dibanisa Road	NMBM
4	RR abutting 62919 and 4288	Boxer Govan Mbeki 20 Njoli Street	NMBM
5	Erf 50463 Ibhayi	Shoprite Govan Mbeki 17 Ntshekisa Road	DSD Makanda
6	erf2313 Bloemendal	George Botha Taxi Rank Lillian Diederick 38 Mpuko Street	No Information
7	On Road reserve abutting erf 5570 Bethelsdorp	Cleary Park Lillian Diederick 32 Norman Middleton Street	NMBM
8	On road reserve abutting erf	Shoprite Complex Stanford Quater Lillian Diederick 10 Thorogood Street	NMBM
9	Erf2180 Uitenhage	Taxi Rank Uitenhage Zola Nqini 48 Constitution Road	EC van der Mescht
10		Taxi Rank Uitenhage Zola Nqini Durban street	JH Adlem
11	On road reserve abutting erf 17679 Motherwell	Boxer Alex Matikinca 56 Ngonyama Street	NMBM
12	16547 Motherwell	Zonke Spar Mnulu Street	NMBM
13	Erf 7386 Motherwell	Nu5 Square Alex Matikinca 59 Weza Street	NMBM
14	Erf 9183 Motherwell	NU6 Square Alex Matikinca 59 Weza Street	NMBM
15	On road reserve abutting erf 13644 (ptn of building on erf 13644) Motherwell	NU7 Square Alex Matikinca 59 Weza Street	NMBM
16	On road reserve abutting erf 3082 (building is attached to house) Wells Estate	Wells estate taxi rank Alex Matikinca 60 Jijana street	LJ Mpambani

No	Erf	Township/Suburb	Owner
17	On road reserve abutting erf 8753 Walmer	17th avenue Molly Blackburn 3 17th avenue	NMBM
18	On road reserve abutting erf 4864 Central	Goven Mbeki Avenue Molly Blackburn 3 Govan Mbeki Avenue	NMBM
19	On walkway abutting erf 575 Humewood	Summerstrand Molly Blackburn 1 Beach road	NMBM
20	On road reserve abutting erven 7443 and 14717 Walmer	Walmer Taxi Rank Molly Blackburn 1 Fountain Avenue	NMBM
21	Erf 24296 KwaNobuhle	Uitenhage Mall Zola Nqini 44 Matanzima Road	Total South Africa PTY LTD
22	On road reserve in front of erf 24558 Motherwell	Complex Alex Matikinca 58 Tyhinirha Road	NMBM
23	On road reserve Tyinira Street Motherwell	New police station Alex Matikinca 57	NMBM
24	On road reserve abutting erf 50458 Ibhayi	Near to LIFA & MAFA BUTCHERY	NMBM
25	Erf 24680 KwaNobuhle	Mathanzima Square	No Information

Table 47: Identified Informal Trading zones

The municipality recognises that targeted upgrades at these sites (e.g., trading stalls, sanitation, electricity, safety, and pedestrian circulation improvements) will yield the highest impact in supporting informal traders.

KEY PROPOSALS:

- Formalisation of Informal Trading Zones:** Identify and formalise high-activity trading areas such as Njoli Square, Govan Mbeki Avenue, Daku Square, and Bus Terminals. This includes spatial zoning, urban design upgrades, and security enhancements to improve visibility, accessibility, and customer flow.
- Trading Infrastructure Development:** Construct and maintain weatherproof trading stalls with shelter, electricity, lighting, water points, sanitation facilities, and waste disposal units. This creates a safer and more dignified trading environment.
- Permit and Licensing System:** Introduce a streamlined, affordable trading permit and licensing regime, with clear processes for registration, renewal, and compliance. This ensures legitimacy while enabling better municipal planning and support.
- Training, Capacity Building, and Mentorship:** Provide informal traders with access to business management training, financial literacy, digital tools, recordkeeping, and product development workshops, including mentorship from established entrepreneurs.

- **Dedicated Informal Trader Support Units:** Establish Informal Economy Desks or Trader Support Offices within municipal structures to serve as a one-stop service point for permit issuance, dispute resolution, and access to support programmes.
- **Access to Finance and Equipment:** Facilitate partnerships with microfinance institutions, development finance agencies (e.g. SEDA, SEFA), and private sector partners to offer microloans, equipment grants, or starter packs for qualifying traders.
- **Market Access and Local Procurement:** Link traders to local procurement opportunities, flea markets, and formal retail spaces. Promote “Buy Local” campaigns that recognise township-based businesses and encourage local consumer support.
- **Digital and E-commerce Enablement:** Promote the use of mobile payment systems, digital inventory tools, and basic e-commerce platforms to help traders improve operations and reach broader markets.
- **Health, Safety, and Compliance Support:** Assist traders with compliance to municipal health and safety by-laws, including food safety certifications and occupational health regulations, in partnership with Environmental Health Practitioners.
- **Trader Associations and Representation:** Support the formation and strengthening of informal trader associations or cooperatives to foster collective bargaining, peer support, and improved representation in municipal decision-making.
- **Monitoring, Research, and Data Updating:** Continue the profiling of informal trading activity, disaggregated by sector, gender, and location. Use data to monitor growth, track challenges, and adapt municipal interventions accordingly.
- **Integration into Urban Planning and LED Policy:** Ensure informal trading is reflected in the Integrated Development Plan (IDP), Local Spatial Development Frameworks (tos), and precinct planning initiatives. This alignment allows for long-term, inclusive urban regeneration and economic planning.

Support the Informal Economy

- Recognise and integrate informal traders and home-based businesses into the formal value chain through:
 - Trading permits, business registration drives, and location management plans
 - Support for improved infrastructure at trading sites (shelters, storage, sanitation)
 - Inclusion in training, mentorship, and financing programmes
- Facilitate access to basic infrastructure and services (e.g., water, electricity, waste removal) in informal business zones.

Policy Development

- Draft, consult, and adopt a Municipal Informal Trading Policy, aligned with national policy guidelines and best practices from other South African metros (e.g., BCMM, eThekweni, and Cape Town).

- The policy will define trader rights and responsibilities, clarify municipal obligations, and provide a framework for implementation.
- **What the City Provides (Policy Commitments)**
 - Safe, serviced, and well-located trading spaces.
 - A transparent, affordable, and fair permit/licensing system.
 - Training and mentorship opportunities (business management, digital literacy, compliance).
 - Access to finance, starter packs, and business equipment.
 - Representation through trader associations and engagement platforms.
 - Integration of informal trading into the IDP, Local Spatial Development Frameworks, and LED strategies.
- **What Traders Provide in Return (Responsibilities)**
 - Compliance with municipal by-laws and health/safety regulations.
 - Payment of affordable permit/licence fees.
 - Active participation in trader associations and consultation forums.
 - Contribution to urban safety and vibrancy through positive street activity.
 - Support for local procurement, recycling, and “Buy Local” initiatives.
- **Learning from South African Examples**
 - Buffalo City Metro (BCMM): zoning of informal trading areas and piloted training programmes for food traders in East London.
 - eThekweni Municipality: an Informal Economy Policy (since 2001) with a dedicated Informal Economy Unit, providing permits, infrastructure, and trader representation structures.
 - City of Cape Town: Informal Trading By-law and Policy, combining serviced trading kiosks with a city-wide permit system.
 - Johannesburg: support for trader forums (e.g., Inner-City Informal Trader Forum) that provide structured dialogue with the city.

The Informal Trading Policy will give the sector formal recognition, ensure inclusive participation in the economy, and create a balanced framework where both the municipality and traders contribute to sustainable growth. It will move informal trading from a vulnerable, survivalist activity to a recognised and thriving pillar of Nelson Mandela Bay’s local economy.

These multi-pronged interventions are designed to shift informal trading from a vulnerable, survivalist activity to a thriving and recognised pillar of the local economy. The Metro acknowledges that inclusive economic growth cannot be achieved without investing in the people, systems, and infrastructure that support the informal sector.

Map 50 depicts the designated informal trading zones within the municipal jurisdiction.



D2.2.2. TOWNSHIP RENEWAL & INCLUSIVE URBAN DEVELOPMENT

Townships such as Motherwell, KwaNobuhle, Zwide, and other priority settlements remain central to the social and economic fabric of Nelson Mandela Bay, yet continue to experience high levels of poverty, unemployment, poor infrastructure, and social exclusion. A comprehensive township renewal programme is essential to unlock their potential as vibrant, inclusive, and economically active urban nodes.

KEY PROPOSALS

Modern Housing & Human Settlements

- Roll out new housing developments that provide dignified, affordable, and energy-efficient units.
- Upgrade existing informal settlements with proper services (water, sanitation, electricity, solid waste, and stormwater).
- Integrate housing with schools, clinics, and local economic opportunities.

Township Business & Economic Hubs

- Establish dedicated township business districts and SMME support centres.
- Develop township malls, community markets, and light industrial parks to stimulate entrepreneurship and local job creation.
- Provide affordable rental space, incubation facilities, and access to finance for small businesses.

Public Spaces & Social Infrastructure

- Create safe, accessible, and well-lit parks, plazas, and pedestrian routes.
- Upgrade community halls, sports fields, libraries, and multipurpose centres to serve as social anchors.
- Introduce digital infrastructure such as affordable broadband/Wi-Fi hotspots to bridge the digital divide.

Green, Sustainable Infrastructure

- Deploy affordable solar energy systems to reduce energy poverty and reliance on the grid.
- Greening, community gardens, and recycling cooperatives to improve environmental quality and create green jobs.

Cultural, Food & Creative Industries

- Establish township food courts, cultural centres, art hubs, and music venues to celebrate identity and create tourism attractions.
- Promote local artists, musicians, and designers through markets, festivals, and creative economy programmes.

- Link cultural hubs to heritage tourism routes, leveraging assets such as Route 67 and township cultural heritage sites.

Integrated Mobility & Spatial Corridors

- Create spatially integrated development corridors that connect townships to industrial, commercial, and cultural precincts.
- Strengthen public transport systems (BRT, minibus taxi infrastructure, and pedestrian-friendly design).
- Improve road, rail, and cycling linkages between township economies and the metro's main growth nodes (Coega SEZ, CBD, tourism hubs).

D2.3. SMME DEVELOPMENT

In NMBM, SMMEs operate across a wide spectrum of sectors- retail, transport and logistics, manufacturing, construction, ICT, creative industries, personal services, and tourism. Despite their importance, SMMEs in the metro often face barriers such as limited access to finance, inadequate infrastructure, insufficient market access, and a lack of compliance readiness. This framework outlines the interventions required to enable a thriving, diverse, and inclusive SMME ecosystem in NMBM.

KEY PROPOSALS

Expand Financial Support Mechanisms

- Operationalise and scale up municipal SMME grant and loan schemes, focusing on startup capital, equipment purchase, and business rescue support.
- Collaborate with provincial entities such as ECDC, SEDA, NYDA, and IDC to:
 - Improve access to blended finance (grants and concessional loans)
 - De-risk financing for micro-enterprises through guarantees and mentorship
- Prioritise youth- and women-owned businesses and provide tailored financial literacy and planning support.

Facilitate Market Access and Procurement Inclusion

- Enforce and monitor compliance with preferential procurement regulations, including the 30% sub-contracting threshold for local SMMEs in public contracts.
- Establish a municipal supplier development programme, supporting SMMEs to:
 - Meet procurement requirements
 - Register on government databases (CSD, CIDB, etc.)
 - Improve quality control, pricing, and service delivery
- Promote access to retail and export markets for local goods and services, including township-made products, crafts, and agro-processed foods.

Provide Business Development, Mentorship, and Training

- Deliver business development support through LED Centres, SMME hubs, and partnerships with universities and NGOs.
- Offer training in:
 - Business compliance (SARS, CIPC, UIF)
 - Product costing, marketing, and sales strategies
 - Digital business tools (e-commerce, bookkeeping apps, social media marketing)
- Establish a mentorship platform that pairs emerging entrepreneurs with experienced professionals in relevant sectors.

Promote Digitisation and Innovation in SMMEs

- Provide digital skills training and online tools for SMMEs to:
 - Build online stores and digital catalogues
 - Use mobile payment systems (e.g., Yoco, SnapScan)
 - Manage business remotely through cloud software
- Create a Digital Business Incubator that supports tech start-ups and digitally enabled services in collaboration with the NMU Innovation Hub.

Strengthen Institutional Coordination and Policy Implementation

- Operationalise the SMME Desk within the Economic Development Directorate to serve as a one-stop support centre.
- Develop a metro-wide SMME Strategy and Implementation Plan, aligned with provincial and national policy frameworks (e.g., National Informal Business Upliftment Strategy, Township Economy Strategy).
- Establish a Public-Private SMME Forum to coordinate resources, share insights, and monitor impact.

SPATIAL TARGETING AREA 2 & 3

Establish Business Incubation and Enterprise Support Hubs

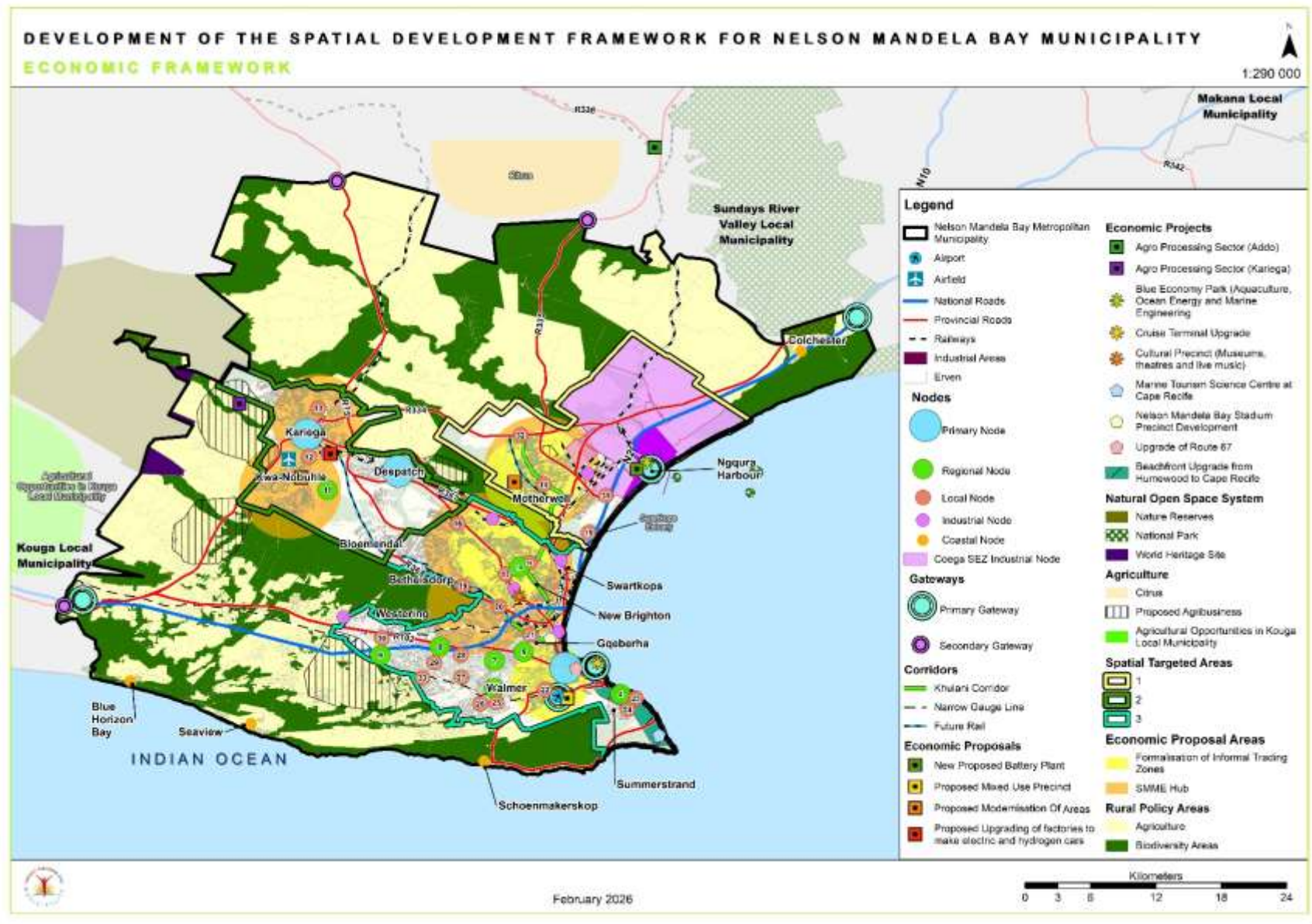
- Develop multi-purpose SMME hubs in key township and urban nodes such as:
 - KwaZakhele
 - Uitenhage (Kariega)
 - Northern Areas (Gelvandale/Zwide/New Brighton)
- Each hub to provide:
 - Affordable shared workspaces
 - High-speed internet and ICT access
 - Legal, marketing, and financial advisory support
 - Product development labs, makerspaces, and co-warehousing for small producers



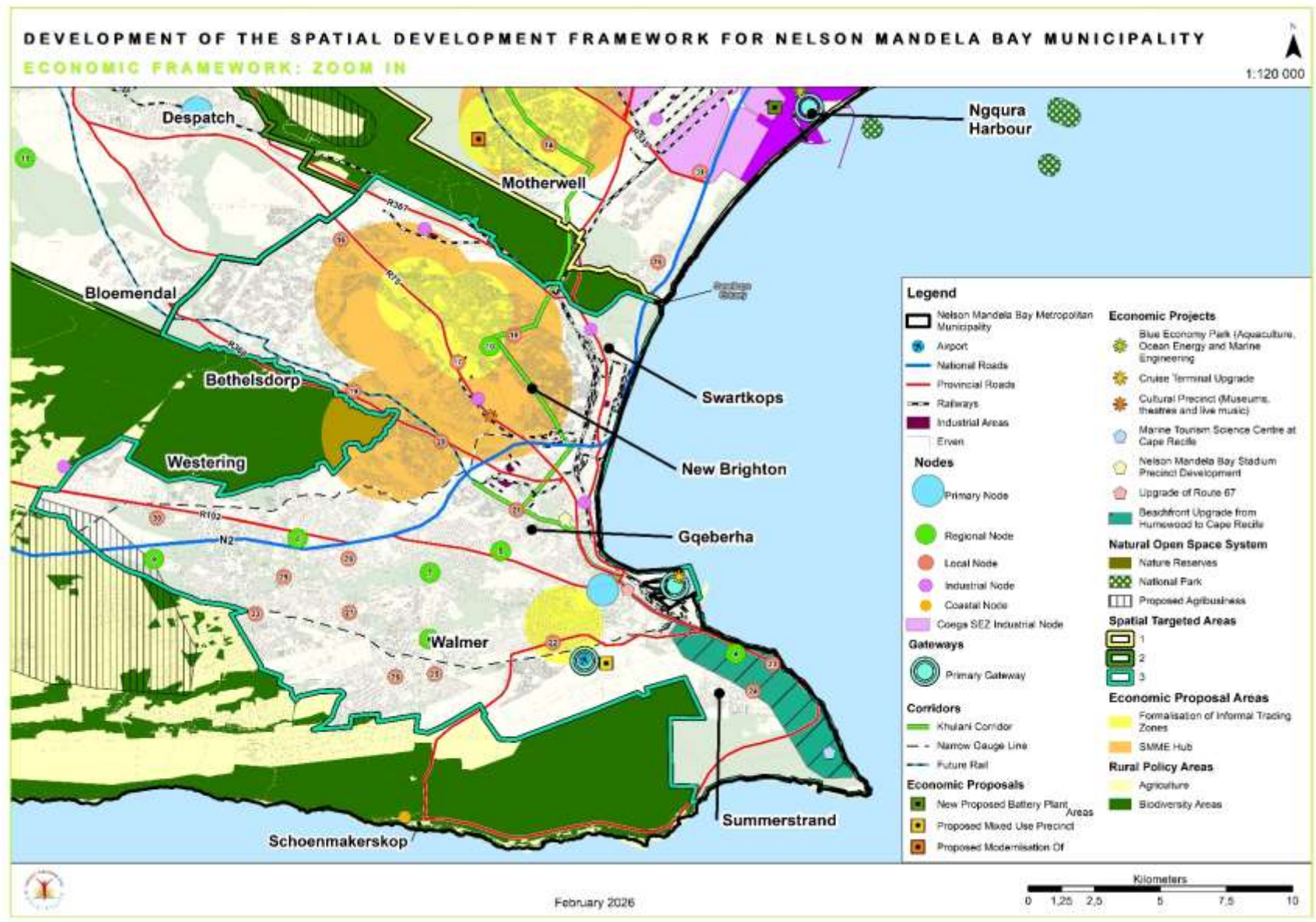
The proposed Business Incubation and Enterprise Support Hubs will serve as critical launchpads for township and community-based SMMEs, providing the infrastructure, services, and networks that small businesses often cannot access on their own. By offering affordable shared workspaces, high-speed internet, and ICT facilities, the hubs will lower entry barriers for entrepreneurs and enable them to operate in a professional and connected environment. Through access to legal, marketing, and financial advisory services, SMMEs will gain the technical support needed to formalise operations, improve competitiveness, and scale their businesses. Product development labs, makerspaces, and shared co-warehousing will allow small producers and innovators to test, manufacture, and distribute goods more efficiently. Collectively, these hubs will nurture local entrepreneurship, stimulate job creation, and integrate township economies more directly into the metro's broader economic development framework.

The SMME Development Framework provides a clear roadmap for building a vibrant, inclusive, and resilient entrepreneurial ecosystem in Nelson Mandela Bay. By investing in incubation infrastructure, access to finance, digital transformation, and compliance support, the municipality can unlock the full potential of its entrepreneurs and drive local economic development from the ground up.

Maps 51 and 52 show the NMBM Economic framework.



Map 51: Economic Framework



Map 52: Economic Framework: Zoom in

D2.4. TOURISM AND HOSPITALITY FRAMEWORK

The Phase 2 analysis revealed that tourism is one of Nelson Mandela Bay Metropolitan Municipality's most underdeveloped yet high-potential economic sectors. While the metro already plays a central role in the automotive, logistics, and manufacturing industries, the analysis showed that tourism offers an equally powerful opportunity to diversify the economy, create sustainable jobs, and showcase the unique identity of the city and its people.

The Nelson Mandela Bay Tourism Master Plan (2024–2034), identifies tourism as a critical growth pillar and provides detailed actions to transform the sector through policy alignment, stakeholder collaboration, capacity development, and targeted investment.

A key finding of the analysis was the strong potential of township tourism, which can unlock new, inclusive forms of development by highlighting the metro's rich cultural heritage, history, and community spirit. Townships such as New Brighton, Zwile, and Motherwell are home to stories of resilience, music, art, cuisine, and political struggle that resonate deeply with both local and international visitors. By formalising and marketing township tourism routes, festivals, homestays, and heritage experiences, NMBM has an opportunity to position itself as a leader in authentic cultural tourism in South Africa. The Master Plan supports this direction by calling for the development of a township and cultural asset database, product packaging for investors, the revitalisation of cultural institutions such as the Red Location Museum, and the establishment of signature township festivals linked to broader destination branding campaigns.

Beyond its cultural assets, the metro is blessed with natural beauty and outdoor experiences that remain underutilised. With more than 40 kilometres of coastline, Blue Flag beaches, and access to Algoa Bay, the only bay in the world with the "Big 7" (Elephant, Lion, Leopard, Buffalo, Rhino, Whale, and Shark), NMBM is uniquely placed to attract eco-tourists, adventure seekers, and marine-based travellers. Expanding eco- and nature-based tourism, including whale watching, diving, hiking, and birding, can cement the metro as an eco-tourism hub within the Cape Floristic Region, a globally recognised biodiversity hotspot. The Master Plan directly aligns with this by prioritising the Addo Gateway initiative, the Baakens Valley Eco-Hub, the expansion of soft adventure trails, and the development of Cape Recife into a flagship eco-cultural precinct.

The city also benefits from event and sports tourism, with global events such as Ironman South Africa already boosting its visibility. Coupled with a world-class stadium and a growing creative and cultural scene, NMBM is well positioned to establish itself as a year-round destination for sports, business, and cultural events. Linking event tourism to township participation, coastal attractions, and hospitality will spread economic benefits across communities and create sustainable value chains. The Master Plan calls for the strengthening of the Nelson Mandela Bay Convention Bureau, the creation of an annual events calendar, and the establishment of an Events and Business Tourism Office with improved funding, all of which align directly with this strategy.

Furthermore, cruise tourism and port-based development are emerging opportunities. Gqeberha already receives international cruise liners, and with the right infrastructure — including a cruise

terminal, port precinct upgrades, and packaged visitor experiences — the metro can leverage this niche sector to channel thousands of visitors directly into local tourism circuits. Because of its close proximity to various Big 5 safari options including Addo Elephant National Park, the city has become the premier Cruise-Safari option for visiting cruise liners. The Master Plan strengthens this direction by calling for the completion of the Cruise Terminal Development Plan, the packaging of shore excursions, and the establishment of a Cruise Tourism Coordination Hub with stakeholder alignment.

Finally, the city's stadium precinct and coastal corridors present opportunities for urban renewal and destination-making. By reimagining the Nelson Mandela Bay Stadium as a vibrant mixed-use hub for sport, entertainment, and lifestyle, and by revitalising the beachfront from Humewood to Cape Recife, NMBM can create iconic tourism spaces that attract both locals and visitors while improving the quality of urban life. The Master Plan integrates these proposals by identifying the precinct as a catalyst project for mixed-use development, SMME participation, and skills training in hospitality and events.

This section therefore outlines a comprehensive Tourism and Hospitality Framework that builds on these findings and proposals while embedding the Master Plan's high-level actions and implementation items. **It is structured into six strategic focus areas:**

- **Township and Cultural Tourism** – unlocking heritage and cultural assets to drive inclusive tourism.
- **Events and Business Tourism** – positioning the metro as a leading host for global and regional events.
- **Nature, Eco, and Adventure Tourism** – leveraging biodiversity and outdoor assets for sustainable tourism.
- **Stadium Precinct Development** – activating a world-class venue as a mixed-use hub for tourism and local economy.
- **Cruise Tourism and Port-Based Experiences** – expanding the metro's role as a maritime gateway.
- **Coastal and Marine Tourism** – revitalising beaches and oceanfront's as premier destinations.



Together, these initiatives will reposition Nelson Mandela Bay Municipality as a destination of choice — one that celebrates its people, landscapes, and culture, while creating inclusive growth opportunities

across communities. Tourism is not only about attracting visitors; it is about telling the story of the metro in a way that generates pride, sustains livelihoods, and places NMBM firmly on the global tourism map.



D2.4.1. TOWNSHIP AND CULTURAL TOURISM

NMBM's townships, including New Brighton, Zwide, and Motherwell, are rich in history, culture, and community spirit. These areas are home to vibrant music scenes, oral histories, art, traditional cuisine, and sites of political significance from the apartheid era. Township tourism offers immersive and socially conscious experiences that honour the past while creating opportunities for local development.

The following plan depicts the proposed Township and Cultural Tourism areas.

KEY PROPOSALS:

- Develop a comprehensive Township and Cultural Asset database, linked to a tourism research and statistics committee, to catalogue cultural products and identify opportunities for development. Package these assets for investors and funding sources to ensure structured growth.
- Design, brand, and signpost themed township tourism routes that highlight struggle heritage, cultural hubs, food courts, local music, and art. Ensure that each route is supported by proper product development of Points of Interest (POI) such as Njoli Square, the Donkin precinct, and heritage houses, making them attractive and visitor ready.
- ***Njoli Area Development – Tourism and Heritage Hub***

- The project will focus on the design, branding, and signposting of themed township tourism routes with Njoli Square as a central anchor point. Njoli will be developed into a vibrant and attractive destination through:
 - Infrastructure development to upgrade roads, public spaces, and transport facilities, ensuring ease of movement and accessibility for visitors.
 - Economic development that stimulates local business growth, supports township-based tourism enterprises, and attracts new opportunities for retail and hospitality.
 - Safety and improved social amenities to create a secure, welcoming, and community-friendly environment for both residents and tourists.
 - Crowding-in of private investment in property development, retail markets, and public transport, complementing public-funded interventions.
 - Heritage, arts, and culture programming that positions Njoli Square as a gateway to the rich history of KwaZakhele and New Brighton, with cultural hubs, local music, food courts, and art displays forming a central attraction.



- Create township-based tourism precincts with upgraded infrastructure, including roads, public lighting, art installations, signage, and safety measures. Prioritise the establishment of cultural hubs such as the Mendi Art Centre in New Brighton, with expanded theatres, museums, and live music venues.
- Upgrade Route 67 with cafés, interpretation centres, lighting, and curated cultural programming to transform it into a vibrant tourist corridor that links township heritage with the city centre.
- Formalise and support homestay networks, township B&Bs, and cultural host programmes, supported by training in hospitality management, booking systems, and digital marketing.
- Partner with local communities and institutions to host annual township festivals and cultural celebrations that align with the city's event calendar.



- Revitalise and improve experiences at heritage sites like the Red Location Museum, Donkin Memorial precinct, Fort Frederick, and Njoli Square with storytelling centres, guided tours, and heritage interpretation signage.
- Train youth and community members as certified guides and entrepreneurs, with incubation support, micro-financing, and innovation hubs focused on cultural tourism.
- **Cultural Village – Heritage, Memory, and Tourism Destination**

The Cultural Village will be established as an interactive cultural centre that preserves, showcases, and celebrates the rich heritage of the region's Xhosa, Khoikhoi, and San communities, from historical times to the present day. The project will serve multiple roles:

Preservation and education: The Village will bring to life the traditional and primitive ways of life of the region's earliest inhabitants, serving as an educational hub for learners, researchers, and visitors.

- Restorative memory: By honouring the lived experiences and histories of indigenous communities, the Village will provide a space for cultural recognition, healing, and identity-building.
- Tourist attraction: As a prime tourism destination, the Cultural Village will showcase music, dance, art, food, crafts, and storytelling in an immersive environment, drawing both domestic and international visitors.
- Regional connections: The Village will form part of a broader cultural and tourism network, creating synergies with the Makhandha National Arts Festival in Makana Local Municipality and the Sarah Baartman Museum in the Southern Cape.
- Economic opportunity: Beyond cultural preservation, the project will stimulate local economic development through job creation, support for creative industries, and expanded opportunities for community-owned tourism enterprises.



By blending heritage conservation, education, and tourism development, the Cultural Village will position Nelson Mandela Bay Municipality as a leader in cultural tourism, offering a destination that is both deeply rooted in memory and forward-looking in its contribution to inclusive regional growth.

D2.4.2. HERITAGE, CULTURAL TOURISM, AND INCLUSIVE URBAN DEVELOPMENT

Nelson Mandela Bay Municipality possesses a rich and diverse cultural heritage that extends far beyond its coastal attractions. Northern areas such as Bethelsdorp, Gelvandale, Korsten, and Zwide hold deep historical significance linked to the city's social, political, and cultural evolution. However, these areas remain underrepresented in the city's mainstream tourism offering, despite their potential to attract visitors interested in heritage experiences, cultural expression, and community-based tourism. Strengthening historical and cultural tourism in these northern settlements supports spatial equity, promotes local economic inclusion, and aligns with the metro's broader transformation and regeneration objectives.

In parallel, the continued in-migration into the metro has resulted in the expansion of informal settlements, particularly in peripheral and northern areas. This dynamic presents both a developmental challenge and an opportunity for integrated planning — where tourism-led regeneration, cultural preservation, and inclusive infrastructure investment can serve as catalysts for community upliftment.

KEY PROPOSALS: SPATIAL TARGETING AREA 1 & 3

Develop a Northern Cultural and Heritage Tourism Route linking key sites in Bethelsdorp, Gelvandale, Zwide, and Korsten, with signage, storytelling installations, and guided tours.

Restore and promote heritage landmarks such as mission stations, liberation heritage sites, and community museums as part of the city's formal tourism network.

Encourage community-based tourism enterprises, including arts, crafts, and culinary experiences, to stimulate local income generation and entrepreneurship.

Integrate cultural tourism development with urban renewal and informal settlement upgrading, ensuring improved infrastructure, public spaces, and transport connectivity.

Collaborate with the Department of Sport, Arts and Culture, SAHRA, and local heritage organisations to ensure authenticity, conservation, and community participation.

Promote inclusive tourism marketing that highlights the cultural richness and diversity of the northern areas, balancing the city's current coastal-focused brand.

Embed tourism infrastructure improvements within broader human settlement planning, linking housing, mobility, and economic opportunity in growing urban areas.

By promoting historical and cultural tourism in the northern areas and linking it with inclusive settlement planning, Nelson Mandela Bay can achieve a more balanced tourism economy, celebrate its unique heritage, and foster social and spatial integration across the metro.

D2.4.3. EVENTS AND BUSINESS TOURISM

Events and business tourism bring consistent footfall to NMBM, stimulate multiple sectors, and improve the city's brand visibility. The city's venues, climate, and strategic location make it ideal for hosting sports, business, cultural, and creative events.

KEY PROPOSALS:

- Develop an International Convention Centre (ICC) to increase capacity for hosting large-scale business events, expos, and concerts.
- Reposition the Nelson Mandela Bay Stadium as a multipurpose events venue and anchor for city-wide hosting, supported by a precinct activation strategy.
- Upgrade the Feather Market Centre into a world-class event and performance venue with modern facilities.
- Create an annual events calendar that includes signature sports events, cultural festivals, business expos, and music concerts, with marketing that positions NMBM as a destination for year-round events.
- Provide grant funding, logistical support, and co-marketing platforms for local event organisers, prioritising inclusivity and township participation.
- Establish an Events and Business Tourism Office, strengthening the existing Nelson Mandela Bay Convention Bureau, and allocate increased budgets to enhance bidding processes and international competitiveness.
- Develop and implement a Nelson Mandela Bay Business Events Strategy, aligning with the Master Plans call for stakeholder partnerships and long-term sustainability.

- Partner with airlines, hotels, and tourism associations to provide bundled travel deals and extend the average visitor stay.

D2.4.4. NATURE, ECO, AND ADVENTURE TOURISM

Nature-based tourism is one of NMBM's strongest assets. The metro is part of the Cape Floristic Region, a global biodiversity hotspot. Its proximity to iconic natural areas presents opportunities for both high-end and accessible nature experiences.

KEY PROPOSALS:

- Enhance linkages to Addo Elephant National Park through signage, shuttle services, and information hubs, while advancing the Addo Gateway project as a world-class entry point for safari tourism.
- Consolidate the Big 7 branding of Addo and Algoa Bay, ensuring marketing campaigns capture the unique combination of terrestrial and marine safari experiences.
- Redevelop Bayworld and the Happy Valley precinct into a flagship leisure attraction showcasing marine biodiversity, history, and education, as recommended in the Master Plan.
- Develop ziplines, cable cars, suspension bridges, and overnight trails at Van Stadens to diversify adventure offerings.
- Establish the Baakens Valley Eco-Hub as a green tourism precinct, with hiking, birdwatching, cycling trails, and capacity to host national and international mountain biking events.
- Transform Cape Recife into the metro's "Cape Point," integrating heritage sites (Khoi fish traps, lighthouse, barracks) with marine assets (SANCCOB, hiking trails, wildlife reintroduction) in partnership with NMU.



- Expand Van Der Kempskloof and Grootkloof Nature Reserves, in collaboration with Nyosi, to create a Big 5 reserve within metro boundaries.
- Continue with the Green Flag Trail project and upgrade municipal reserves to improve visitor infrastructure and market them as eco-adventure destinations.
- Grow marine-based tourism such as whale watching, shark cage diving, and marine safaris in Algoa Bay.
- Design and market soft adventure circuits including trail running, kayaking, climbing, and surfing competitions.



D2.4.5. STADIUM PRECINCT DEVELOPMENT

The Nelson Mandela Bay Stadium is a world-class facility that remains underutilised outside of major sporting events. Unlocking its potential requires repositioning the precinct as a mixed-use sports, entertainment, and lifestyle hub, comparable to successful developments such as Loftus Park in Tshwane and Cape Town's Green Point precinct. By activating the surrounding area, the stadium can serve as a catalyst for urban renewal, tourism, and economic activity.



KEY PROPOSALS: SPATIAL TARGETING AREA 3

- **Mixed-Use Sports & Entertainment Hub**
 - Transform the stadium into a year-round destination that combines sport, entertainment, leisure, and commercial activity.
 - Attract regular sporting tournaments (rugby, soccer, athletics), cultural festivals, and international concerts to drive consistent foot traffic.
 - Incorporate multipurpose spaces for esports, exhibitions, and business events.
- **Hospitality, Retail & Lifestyle Integration**
 - Develop gyms, fitness centres, hotels, shopping centres, restaurants, and nightlife venues in the surrounding precinct to diversify revenue streams and encourage longer visitor stays.
 - Introduce esports arenas and digital gaming hubs to tap into the fast-growing creative economy and youth culture.

- Position the precinct as a 24/7 active urban node, linked to beachfront attractions, CBD renewal projects, and township tourism circuits.
- **Urban Design & Connectivity**
 - Upgrade public realm spaces with landscaping, pedestrian promenades, cycle paths, and safe, well-lit routes connecting to surrounding neighbourhoods.
 - Ensure integration with public transport corridors, bus/taxi routes, and proposed smart mobility systems, making the precinct accessible to residents from across the metro.
 - Create a waterfront link (if feasible) or improved connections to North End Lake as a leisure and eco-tourism feature.
- **Catalyst for Township Inclusion & SMME Development**
 - Establish retail stalls, food courts, and cultural marketplaces that give township-based SMMEs opportunities to operate within the precinct.
 - Partner with local entrepreneurs, artists, and sports academies to embed the stadium in the broader community economy.
 - Develop training programmes in hospitality, events management, and sports sciences, in collaboration with NMU and TVET colleges.

D2.4.6. CRUISE TOURISM AND PORT-BASED EXPERIENCES

Gqeberha has an emerging cruise tourism sector that requires focused development to enhance the visitor experience and maximise local economic benefit. The port is already receiving cruise liners but lacks dedicated infrastructure and coordinated service offerings.

KEY PROPOSALS: SPATIAL TARGETING AREA 3

- Finalise and implement the Cruise Terminal Development Plan, ensuring seamless customs clearance, welcoming infrastructure, and integrated ground transport.
- Package and promote shore excursions, including township tours, Addo safaris, Route 67 cultural trails, and marine safaris.
- Establish a Cruise Tourism Coordination Hub to manage scheduling, security, tourism services, and emergency response.
- Partner with Transnet, local tour operators, and global stakeholders to ensure alignment with cruise trends and sustainability standards.
- Improve public infrastructure and aesthetics in the harbour precinct, including signage, safety measures, and connectivity to the inner city and beachfront.



D2.4.7. COASTAL/WATERFRONT DEVELOPMENT AND MARINE TOURISM

The city's extensive coastline, warm climate, and water-based activities are major attractors. Blue Flag beaches, water sports, coastal hiking, and beach events can enhance year-round tourism appeal.



KEY PROPOSALS: SPATIAL TARGETING AREA 3

- Expand the Blue Flag Beach Programme with infrastructure and education.
- Upgrade the Humewood–Cape Recife beachfront with promenades, cafés, and hotels.
- Develop a Marine Tourism & Science Centre at Cape Recife and modernise the harbour precinct.
- Develop coastal trails, snorkelling routes, and eco-learning tours in protected areas.
- Provide amenities like kiosks, Wi-Fi, shade, and accessible infrastructure.
- Encourage clean-up campaigns and eco-certification for businesses.
- **North End Coastal Development – Waterfront and Eco-Tourism Link**

The project proposes the creation of a waterfront link or, where direct access is not feasible, significantly improved connections to North End Lake, positioning it as a major leisure and eco-tourism feature for Nelson Mandela Bay Municipality. The development will centre on the rehabilitation and reinstatement

of the degraded coastal environment, ensuring that the area is environmentally sustainable, visually attractive, and able to host diverse recreational and tourism activities.



Key elements include:

- Collaboration with Transnet, as the landowner and strategic partner, is essential to unlock development opportunities and align with broader port and logistics activities.
- Positioning the project as a regional economic catalyst, with NMBM actively profiling it to secure the attention and support of National Treasury (NT) and Transnet.
- Leveraging positive spin-offs, including the retention of current investors, the attraction of new tourism and leisure-related investment, and the potential to crowd-in significant private sector participation in hospitality, retail, and property development.
- Eco-tourism and leisure focus, where enhanced public spaces, waterfront amenities, and connections to natural features will stimulate local tourism, improve quality of life, and diversify the city's economic base.

By integrating environmental rehabilitation with economic development and tourism potential, the North End Coastal Development will become a flagship waterfront project, strengthen Nelson Mandela Bay Municipality's regional competitiveness and create a sustainable hub for recreation, culture, and investment.

D2.4.8. NEWTON PARK SWIMMING POOL AND INLAND WATER SPORT TOURISM

The Newton Park Swimming Pool is a key inland aquatic facility that supports Nelson Mandela Bay Municipality's ambition to position itself as the *Water Sport Capital of South Africa*. The facility is an important component of the city's sport tourism infrastructure, hosting regional, national, and international swimming and diving competitions. Upgrades are required to align the facility with world-class standards, enabling it to host global events and serve as a high-performance training venue for local sporting codes.

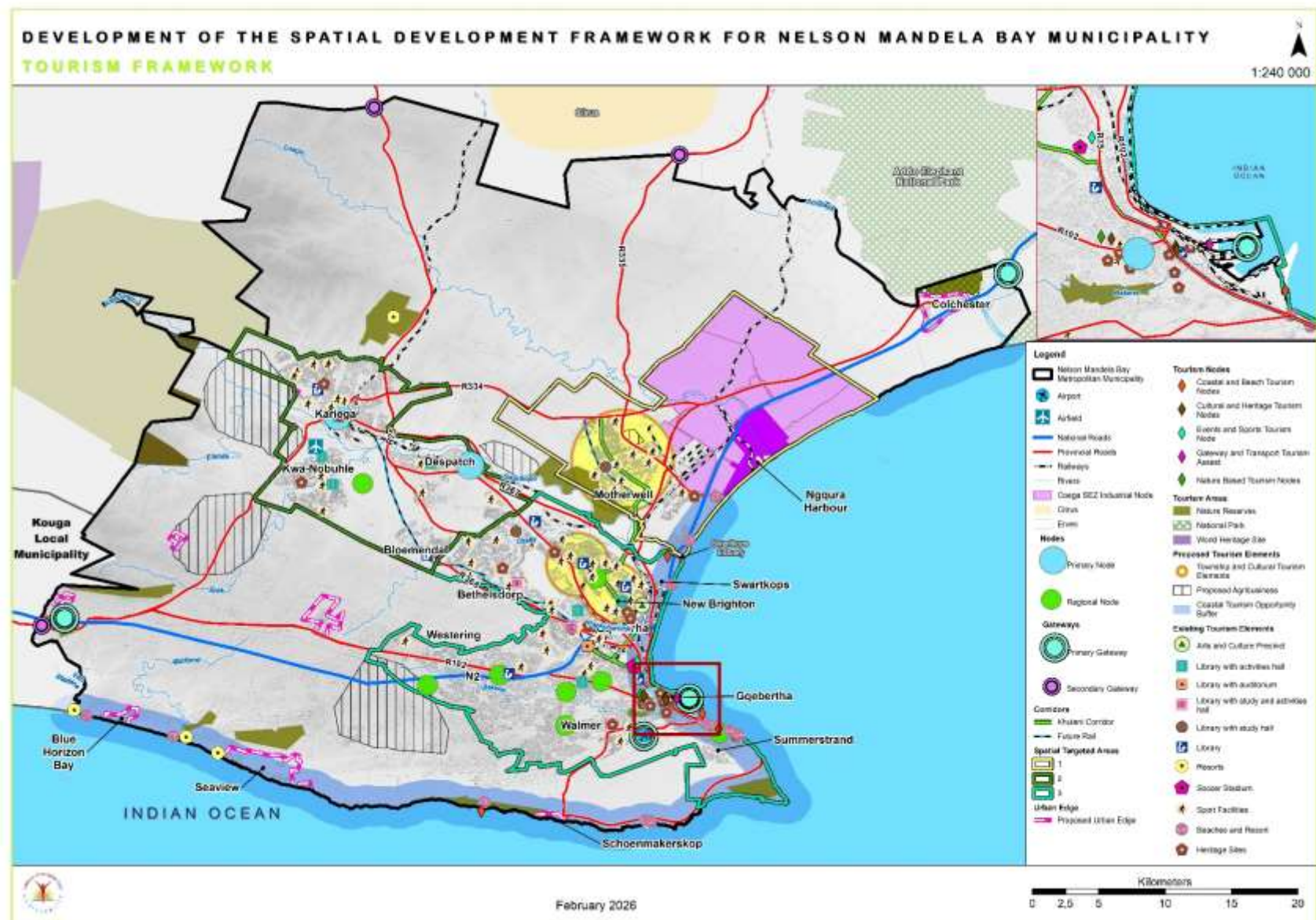
The investment contributes to the city's broader Coastal and Marine Tourism Framework by complementing coastal water sport venues and ensuring year-round aquatic activity, even during off-peak or adverse coastal conditions. Through integration with tourism, recreation, and hospitality networks, the upgraded facility will stimulate economic activity, attract visitors, and strengthen the city's identity as a premier destination for water-based recreation and competition.

KEY PROPOSALS: SPATIAL TARGETING AREA 3

- Upgrade the Newton Park Swimming Pool to international standards suitable for hosting FINA-accredited events and national championships.
- Develop partnerships with sporting federations, schools, universities, and private sponsors to establish the facility as a regional high-performance aquatic centre.
- Integrate the swimming pool with the Coastal and Marine Tourism Programme to support inland training and preparation for open-water and triathlon events.
- Promote the facility as a year-round sport tourism asset linked to coastal and waterfront events within Nelson Mandela Bay Municipality.
- Enhance spectator facilities, accessibility, and supporting amenities to improve visitor experience and maximise local economic benefits.
- Develop a coordinated marketing and event calendar to attract domestic and international competitions, sports camps, and community swimming programmes.

By aligning the Newton Park Swimming Pool upgrade with the city's broader waterfront and marine tourism initiatives, the project will reinforce Nelson Mandela Bay's position as a leading hub for aquatic sport, recreation, and tourism, while delivering sustained socio-economic and investment benefits to the region.

Map 53 shows the NMBM Tourism framework.



Map 53: Tourism Framework

D2.4.9. KEY FOCUS AREAS AND FLAGSHIP PROJECTS

Table 48 presents an overview of the economic and Local Economic Development (LED) proposals, highlighting the key focus areas and flagship projects identified for implementation. These initiatives are designed to unlock the municipality's full tourism and economic potential by leveraging its unique cultural heritage, coastal assets, natural landscapes, and entrepreneurial capacity. Together, they form a coordinated programme of investment and action aimed at stimulating inclusive growth, creating jobs, enhancing visitor experiences, and fostering community participation across the metro.

Focus Area	Priority Projects
Township Tourism	Branded Routes in Zwide, New Brighton, Motherwell; Homestay Programme; Red Location Revitalisation
Coastal/Waterfront & Marine	Blue Flag Beach Expansion; Jeffreys Bay Surf Events; Marine Safari Infrastructure
Heritage & Culture	Route 67 Upgrade; Annual Festival Support; Signage and Interpretation of Heritage Sites
Cruise Tourism	Cruise Terminal Development; Shore Excursion Coordination; Harbour Precinct Enhancement
Nature & Adventure	Baakens Valley Eco-Hub; Addo Gateway Centre; Baviaanskloof Corridor Investment
Events & Business	Events Support Office; Signature Events Programme; Stadium Activation Strategy
Skills Development	Youth Tourism Training; TVET Tourism Pipeline; Innovation Hubs and Incubators
Digital Transformation	NMBM Visitor App; Booking and E-Commerce Platforms; Safety & Transport Alerts

Table 48: Tourism Flagship Projects

By investing in people, places, partnerships, and promotion, NMBM can achieve sustainable growth that uplifts all corners of the metro and proudly carries the legacy of its namesake, Nelson Mandela.

D2.5. HERITAGE FRAMEWORK

Heritage is a defining asset of the Nelson Mandela Bay Municipality, shaping its identity, tourism appeal, and cultural vibrancy. The heritage framework provides a structured approach to protect, manage, and activate both tangible and intangible heritage resources, ensuring that they contribute to social cohesion, nation-building, and inclusive economic growth.

NMBM has 109 recorded heritage sites on the SAHRIS register, most of which are historic buildings, with the remainder comprising monuments, memorials, and culturally significant places. These are concentrated in Gqeberha's historic urban core, Uitenhage's civic precinct, the Bethelsdorp Mission Station, and smaller peri-urban nodes such as Redhouse and Humewood.

As part of the MSDF revision process, the Municipality has specific legislated responsibilities in terms of the National Heritage Resources Act (NHRA). These include the compilation of a comprehensive Heritage Resource (Asset) Register, the investigation and designation of Heritage Areas, and the confirmation of its competency to manage Grade III heritage resources. These requirements must be incorporated into the MSDF as part of the structured heritage management approach. A notable resource supporting this process is the existing set of Heritage Protection Overlay Zones (HPOZs) mapped by SAIAEC and partners, which provides a strong technical base for formalising Heritage Areas and development controls.

KEY PROPOSALS

Heritage Conservation

- **Update SAHRIS Records** – Regularly verify and update the status of all heritage assets, ensuring alignment with current legislative requirements.
- **Protect Vulnerable Sites** – Fast-track reinstatement of protection for expired/withdrawn declarations, especially high-value buildings in Donkin Street, Newington Road, and the Opera House.
- **Enforce Development Controls** – Introduce heritage overlay zones in the MSDF/LSDFs for concentrated precincts.

Cultural Precincts Rehabilitation

- **Red Location Cultural Precinct** – Prioritise phased rehabilitation of the four vandalised buildings, in line with the 2022 structural report, exploring blended funding models (municipal + private + heritage grants).
- **New Cultural Hubs** – Expand arts and culture centres in Kariega/KwaNobuhle and Motherwell, ensuring integration with public transport and urban regeneration programmes.

Activation for Tourism and Creative Industries

- **Heritage Tourism Routes** – Develop thematic walking and cycling routes linking clusters such as Donkin Precinct, Central Gqeberha, Bethelsdorp, and Uitenhage Civic Core.

- **Liberation Heritage Route** – Position NMBM as a flagship destination in the National Liberation Heritage Route, highlighting its links to the life and legacy of Nelson Mandela.
- **Adaptive Reuse** – Incentivise the conversion of heritage buildings into boutique hotels, art galleries, cafés, and creative workspaces.

Museums and Galleries

- **Red Location Museum and Art Gallery** – Restore and reopen with enhanced security, modernised exhibition design, and community outreach programmes.
- **Nelson Mandela Metropolitan Art Museum** – Upgrade facilities to meet International Council of Museums standards, ensuring proper climate control, security, and curatorial space.

Skills Development and Capacity Building

- Establish heritage conservation training programmes in partnership with TVET colleges, NMU, and local artisans.
- Introduce youth heritage volunteer programmes for site documentation, guided tours, and event support.
- Competency Development – Strengthen the municipality's capacity to manage Grade III heritage resources in accordance with the National Heritage Resources Act, including staffing, training, and formal competency confirmation.

The heritage assets of Nelson Mandela Bay Municipality are more than static monuments, they are active anchors of identity, tourism, and community pride. Through a balanced approach of protection, activation, and integration into economic and spatial development strategies, the municipality can position itself as a heritage-led development city, unlocking both cultural and economic value while safeguarding its historical legacy for future generations.

Map 54 shows the proposed SRAC Facilities in NMBM.



D2.6. SOCIAL FACILITIES FRAMEWORK

Social infrastructure is a cornerstone of sustainable and inclusive development. Access to quality education, healthcare, safety, and community facilities not only improves the overall well-being of residents but also strengthens the social fabric and resilience of communities. For Nelson Mandela Bay Municipality (NMBM), the equitable provision and strategic location of these services are essential for fostering liveable, safe, and economically active neighbourhoods across urban, township, and peri-urban areas.

This section of the socio-economic framework outlines the current state, spatial distribution, and projected requirements for key social facilities based on both population growth projections and national benchmarks, specifically the CSIR Human Settlement Guidelines. These thresholds guide planning for adequate coverage of essential services within walkable distances, ensuring accessibility for all residents, particularly in underserved or growing areas.

The approach integrates planning standards with practical implementation strategies, addressing existing backlogs and future demand. It also highlights the importance of co-locating social facilities with transport, housing, and economic opportunities to maximise impact and support compact, connected, and coordinated human settlements.

A detailed quantitative and spatial analysis of current infrastructure is presented, comparing existing facilities with those required for 2025, 2030, and 2034. This evidence-based approach ensures that shortfalls are clearly identified, and that planning aligns with growth patterns, community needs, and spatial equity.

Ultimately, this section underscores the municipality's commitment to proactive, people-centred, and spatially just service delivery, recognising that infrastructure investment in social facilities is foundational to both human dignity and long-term economic development.

Table 49: CSIR Human Settlement Guideline

Planning Thresholds	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

Planning Thresholds	Walking Distance	Minimum Requirements
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

Highlighting the significance of an integrated planning approach for service delivery is crucial to ensure that services are accompanied by sufficient supporting infrastructure. A depiction of the required number of facilities within the Municipality is based on existing facilities.

Table 49 below outlines the existing number of social amenities within the metro and projects population growth over the next five and nine years, with the years 2025, 2030, and 2034 highlighted. Shortfalls are calculated by comparing existing facilities to the additional facilities required.

The projected population figures were provided by the municipality, sourced from:

Copyright 2025 Quantec EasyData

Download Date: 2025-06-24

Data Set: P0302D — P0302: 2024 Mid-Year Population Estimates on District Level

Source: Statistics South Africa – P0302

Frequency: Annual

Year			2025	2030		2034	
Population			1262939	1265003		1269625	
Planning Thresholds	Walking Distance	Minimum Requirements	Existing	Required	Shortfall	Required	Shortfall
Crèche	2 km Radius	2 400 – 3 000 people	16	422	406	423	407
Primary School	5 km Radius	1 000 – 7 000 people	190	181	0	181	0
Secondary/ High School	5 km Radius	2 500 – 12 500 people	95	101	6	101	6
Library	8-10 km Radius	20 000 – 70 000 people	21	18	0	18	0
Clinic	5 km Radius	24 000 – 70 000 people	66	18	0	18	0

Year			2025	2030		2034	
Population			1262939	1265003		1269625	
Planning Thresholds	Walking Distance	Minimum Requirements	Existing	Required	Shortfall	Required	Shortfall
Hospital	30 km Radius	300 000 – 900 000 people	16	1	0	1	0
Police Station	8 km Radius	60 000 – 100 000 people	17	13	0	13	0

Table 50: Social Facilities

Map 55 below illustrates the current provision of social facilities, alongside the projected population growth, the required number of facilities, and the anticipated shortfalls for 2025, 2030, and 2034.

D2.6.1. SOCIAL FACILITIES PROPOSALS

EDUCATION:

- Increase capacity of existing schools in growth areas (Chatty, Walmer, Wells Estate).
- Build additional primary and high schools per CSIR Human Settlement Guidelines.
- Expand NMU's community engagement and satellite campuses.
- Invest in ECD centres and vocational bridging programmes.

HEALTH:

- Expand mobile clinic services to informal settlements.
- Upgrade clinics in New Brighton, Zwide, and Ibhayi.
- Improve referral systems between clinics and district hospitals.

SAFETY AND SECURITY:

- Construct new police stations in high-crime areas (Wells Estate, Helenvale).
- Strengthen community policing and safety forums.
- Integrate urban design for safer public spaces (lighting, surveillance, footpaths).

COMMUNITY FACILITIES:

- Develop multi-purpose centres in each ward.
- Upgrade community halls, sports fields, and libraries.
- Establish youth hubs with access to Wi-Fi, study areas, and training spaces.

METRO-WIDE FACILITIES RENEWAL AND PLANNING STUDY

- Conduct a Metro-Wide Assessment: Undertake a full audit of the condition, utilisation, and accessibility of all educational, health, safety, and community facilities. The study will map

spatial gaps, measure compliance with CSIR planning thresholds, and prioritise upgrades based on growth projections to 2034.

- **Develop a Facilities Investment Framework:** Use the assessment to prepare a prioritised, costed plan for new facilities and the refurbishment of existing ones, aligned to population growth areas (e.g., Chatty, Wells Estate, Walmer) and township renewal programmes.
- **Launch a Facilities Renewal Programme:** Implement phased upgrades of aging infrastructure (schools, clinics, libraries, police stations, community halls, and sports fields) to modern, safe, and energy-efficient standards. This will include universal access design, renewable energy retrofitting, ICT connectivity, and multipurpose use.
- **Community Partnership Model:** Encourage co-management of facilities with community-based organisations, youth forums, and local NGOs to ensure maintenance, safety, and social ownership.
- **Integration with Human Settlements and IDP:** Link facility investment directly to new housing projects, township regeneration nodes, and the spatial development framework to ensure balanced and equitable provision.
- **Develop new sports facilities in KwaMagxaki,** including a swimming pool, tennis courts, and squash courts to address existing service gaps.

D2.6.2. SUSTAINABLE COMMUNITY UNITS (SCUS)

The integration of the Sustainable Community Unit (SCU) methodology into the social facilities framework is essential for structuring service delivery in Nelson Mandela Bay Municipality. SCUs are defined as intermediate-level planning areas, each designed around a central point, with services accessible within a 2 km (30-minute walking distance). This makes them the building blocks of sustainable human settlements, ensuring equitable access to education, healthcare, safety, recreation, and community facilities for all residents.

The SCU concept bridges the gap between broad city-wide planning (Spatial Development Frameworks) and detailed neighbourhood layouts. By doing so, it translates metropolitan-level vision into implementable local planning, while ensuring integration of social, economic, and environmental considerations.

KEY PRINCIPLES AND BENEFITS OF SCUS

- **Integration and Sustainability:** SCUs combine housing, work, services, transport, community, and identity into a balanced unit. This reduces spatial fragmentation, promotes mixed-use development, and helps reverse the apartheid-era pattern of dormitory townships isolated from jobs and facilities.
- **Accessibility:** By focusing on walkability and public transport, SCUs minimise dependence on private cars, reduce travel costs, and create safer, pedestrian-friendly environments.

- **Efficiency and Equity:** Adopting SCUs as the basic unit of analysis enables the Municipality to shift from ad hoc facility delivery to systematic and equitable coverage, addressing historical backlogs and ensuring fair investment across the metro.
- **Social Inclusion:** SCUs incorporate facilities and services that prioritise vulnerable groups, including children, the elderly, people with disabilities, and households affected by HIV/AIDS, thereby promoting equity and well-being.
- **Climate Resilience:** Recent applications of the Climate Resilient Development Framework/Strategy (CRDFS) show how SCUs can be used to assess risks such as flooding or coastal vulnerability at neighbourhood scale, enabling resilient and adaptive infrastructure planning.

PRACTICAL APPLICATIONS

Co-location and Clustering: Facilities such as schools, clinics, community halls, libraries, and sports grounds can be strategically co-located at SCU centres. This fosters multi-purpose hubs, reduces duplication of infrastructure, and improves community safety and vibrancy.

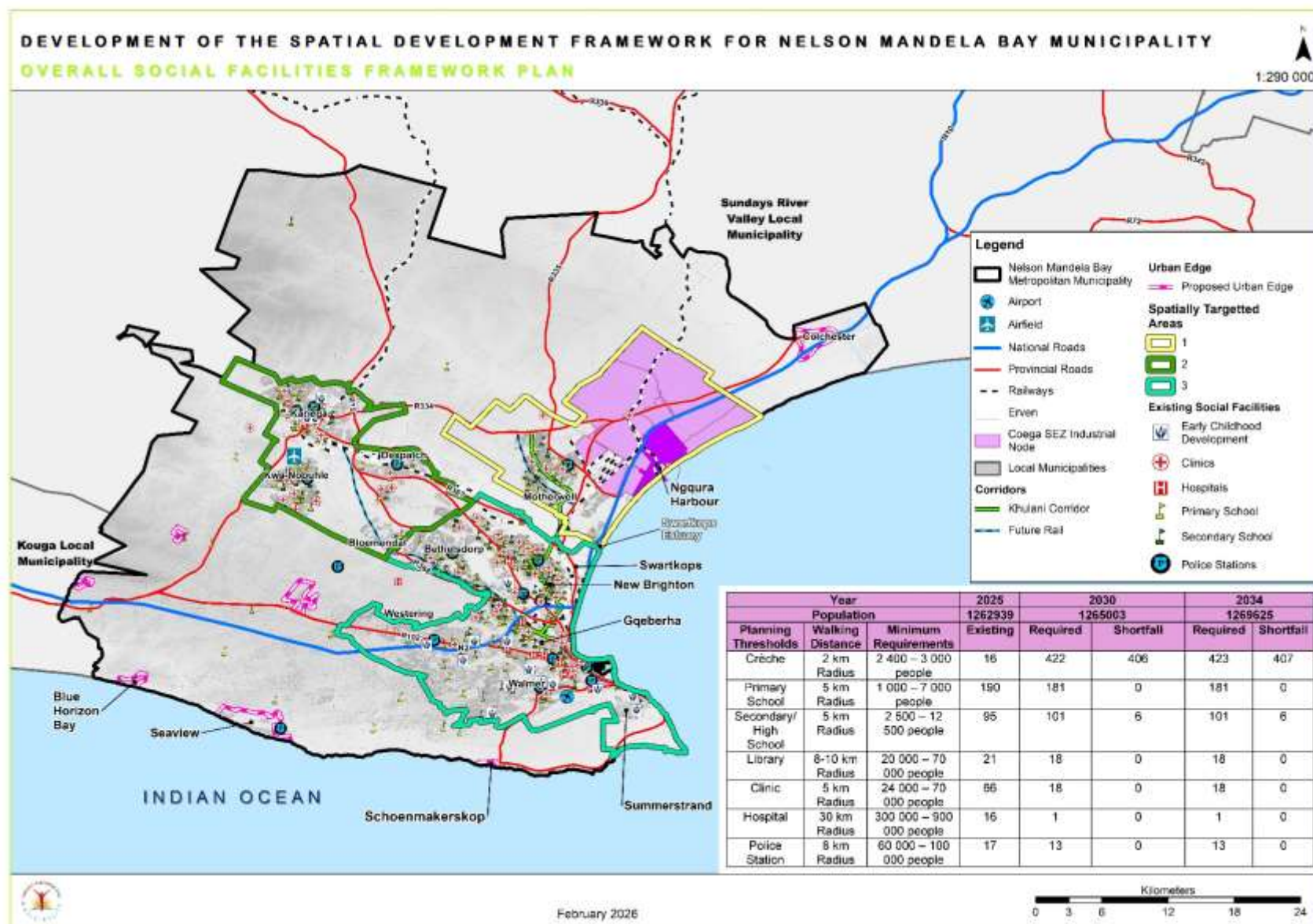
Mixed-use Development and Densification: Encouraging higher densities and mixed housing typologies within SCUs helps reduce urban sprawl, improves land efficiency, and supports local economies through small business opportunities and informal trading.

Corridor Development: SCUs are often aligned with public transport routes and corridors, ensuring mobility, reducing congestion, and enhancing investment potential.

KEY PROPOSALS FOR NMBM

- **Institutionalise SCUs** as the standard unit of analysis for all social facility planning in the Municipal Spatial Development Framework (MSDF) and Local Spatial Development Frameworks (LSDFs).
- **Prioritise investment** in under-served SCUs, particularly marginalised areas such as **Chatty, Joe Slovo, and Zanemvula**, where backlogs in social amenities persist.
- **Develop multipurpose hubs** through co-location of education, health, safety, and recreation facilities at SCU centres.
- **Integrate resilience planning**, ensuring facility investment strengthens adaptive capacity to climate and environmental risks.
- **Strengthen community participation**, ensuring SCUs are planned with active input from residents, ward councillors, and local organisations, aligning with the guide's participatory planning ethos.

Embedding the SCU methodology within Nelson Mandela Bay Municipality's socio-economic framework offers a practical way to translate spatial transformation goals into concrete service delivery outcomes. SCUs provide a replicable, scalable approach that not only ensures equitable access to facilities but also supports climate resilience, economic inclusion, and community identity, laying the foundation for integrated, inclusive, and sustainable human settlements.



Map 55: Overall Social Facilities Framework

D2.7. CEMETRIES

As the population continues to grow and mortality remains a natural occurrence, the demand for adequate and dignified burial space becomes increasingly urgent. Cemeteries are not only functional public facilities but also spaces of cultural and spiritual significance. A sustainable and forward-looking approach to burial management is critical to ensure that all residents, regardless of faith or tradition, are afforded appropriate end-of-life arrangements.

Currently, many existing cemeteries within the municipality are approaching full capacity, placing pressure on available land and creating emotional distress for affected families. The municipality recognises this challenge and is taking proactive steps to address it.

KEY PROPOSALS

Land Acquisition and Development

- Fast-track the acquisition, planning, and servicing of new land parcels designated for cemetery development especially in areas such as Colchester, Kariega and Northern Areas.
- Ensure that the two newly identified sites for future cemeteries are environmentally suitable, accessible, and aligned with spatial development frameworks.
- Integrate cemetery planning into long-term land use and infrastructure plans to avoid periodic crises.
- In the event that additional cemetery space is required, it is recommended that the municipality considers potential expansion sites such as Portions 5/316 and 6/316 in Motherwell as part of its land acquisition assessment.

Alternative Burial Practices

- Promote public awareness campaigns around alternative and environmentally sustainable burial methods, such as cremation, natural (eco) burials, and memorial gardens.
- Provide infrastructure for cremation facilities where culturally and technically feasible, including spaces for ash interment.
- Engage traditional leaders, religious organisations, and community structures to build acceptance and understanding of these alternatives.

Community Education and Stakeholder Engagement

- Educate communities about the space and environmental constraints of conventional burials.
- Conduct community workshops, radio campaigns, and school awareness drives to foster open dialogue on burial options.
- Facilitate inclusive consultations with cultural, religious, and civic bodies to guide burial policy and facility development.

Planning and Design Standards

- Apply efficient cemetery layout and design principles to optimise available land and improve accessibility.

- Ensure cemeteries are designed with dignity, security, basic services (e.g., water, sanitation), and landscaping in mind.
- Incorporate memorial walls and digital record-keeping for better management and user experience.

Operations and Maintenance

- Strengthen the institutional capacity of the municipality to manage cemeteries through updated by-laws, budget allocations, and staffing.
- Explore public-private partnerships for cemetery development, management, and maintenance where appropriate.
- Introduce cemetery digitisation for plot tracking, availability updates, and improved customer service.

Map 56 shows the proposed cemeteries in NMBM.

D2.8. MINING AND EXTRACTIVE ACTIVITIES

Mining within the Nelson Mandela Bay Metropolitan Municipality is recognised as a limited, site-specific extractive activity that primarily supports the construction and infrastructure sectors, rather than a strategic economic driver of the metropolitan economy. Extractive activities within the metro are generally confined to small-scale quarrying, sand and clay extraction, and borrow pits, and are spatially constrained by the municipality's predominantly urban character, environmental sensitivity, and coastal management priorities. The MSDF supports mining only in appropriately located areas, primarily on the urban periphery or within designated industrial or rural-transition zones, and where such activities do not compromise environmental assets, human settlements, or long-term spatial restructuring objectives. All mining activities must comply with applicable national and provincial legislation, environmental management requirements, and rehabilitation obligations, and must be compatible with surrounding land uses and infrastructure capacity.



D2.9. AGRICULTURAL FRAMEWORK

Agriculture remains a critical pillar of the Nelson Mandela Bay Municipality (NMBM) economy, sustaining rural livelihoods, supporting urban food security, and contributing significantly to exports and agro processing. While the metro has relatively low overall agricultural potential, it benefits from its proximity to high-value production zones, strategic export infrastructure (ports and SEZs), and established agricultural value chains.

This framework aims to preserve, enhance, and diversify agricultural production while ensuring resilience to climate change, alignment with land-use planning, and integration with rural development strategies.

D2.9.1. AGRICULTURAL CONTEXT

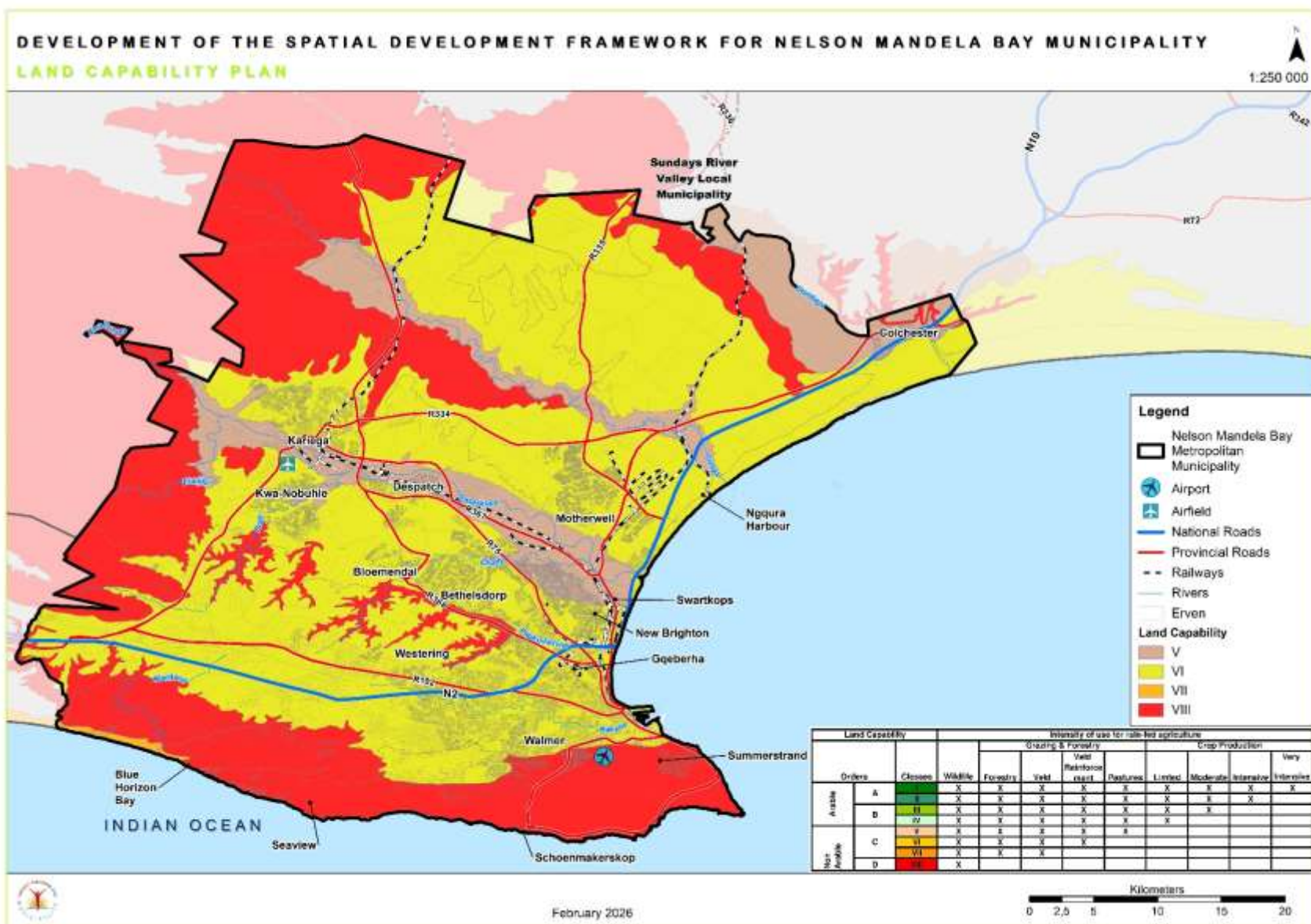
NMBM's agricultural profile includes:

- High-value commercial sectors such as citrus, dairy, and mohair wool production.
- Emerging urban agriculture formalised through the 2023 Urban Agriculture Policy.
- Livestock and wildlife farming in peripheral and low-potential crop zones.
- Aquaculture, particularly within the Coega SEZ's designated Aquaculture Development Zone.
- Ecological functions provided by agricultural land, including acting as a green buffer, reinforcing the urban edge, and maintaining biodiversity corridors.

KEY AGRICULTURAL ZONES

1. Western Agricultural Zone – Fertile soils suitable for market gardening, intensive horticulture, and small-scale irrigation farming.
2. Northern & North-Western Zone – Lower crop potential but suitable for extensive livestock, wildlife agriculture, and eco-tourism ventures adjacent to Addo National Park.
3. Designated Urban Agriculture Sites – Municipal land allocated for food gardens, cooperatives, and community farming projects under the Urban Agriculture Policy.

Map 57 shows the NMBM land capability.



Map 57: Land Capability

D2.9.2. AGRICULTURE DEVELOPMENT ZONE

Agriculture remains an underutilised but strategically significant sector within the Nelson Mandela Bay Municipality, offering both economic diversification and rural development potential. The Agriculture Development Zone, located on the western and northern periphery of Uitenhage, Motherwell, Despatch, and the Coega SEZ boundary, presents a unique opportunity to unlock agricultural land for sustainable agri-economy growth, food security, and eco-tourism.

This area, comprising large cadastral farm units, is characterised by undulating hills, dense vegetation, and a predominance of stock and game farming. It also shares borders with high-value ecological and economic assets, including Addo National Park, the Sundays River Valley, and Cacadu District (Sarah Baartman) making it well-positioned for integrated rural-urban development strategies.

KEY PROPOSALS

Establish Agri-Hubs and Rural Enterprise Zones

- Develop small-scale Agri-Hubs in strategic nodes to support:
 - Livestock Aggregation & Veterinary Services – Centralised points for livestock trade with veterinary support to improve animal health, market access, and compliance with standards.
 - Fresh Produce Markets & Cold Storage – Local markets with modern cold-chain facilities to reduce losses, extend shelf life, and link farmers to urban/export markets.
 - Agro-Processing (Citrus, Mohair, Poultry) – Value-adding facilities to create jobs, diversify the economy, and boost competitiveness in key agricultural value chains.
- Prioritise areas near road corridors linking to Uitenhage, Coega, and Addo for market access.

Promote Land Reform and Inclusive Ownership

- Support land access for emerging farmers through leasing of underutilised private farms or strategic land acquisition.
- Require business plans and training support for new entrants to ensure sustainable land use.
- Collaborate with DRDAR, DLRRD, and the Land Bank to facilitate blended financing for infrastructure, inputs, and compliance.

Expand Agri-Tourism and Game Economy

- Promote eco-lodges, farm stays, wedding venues, and educational tourism activities near Addo and scenic zones.
- Regulate through “resort density” limits and size thresholds (e.g. max 1,000m² hall, 200m² chapel).
- Develop shared tourism infrastructure (signage, access roads, safety measures) with municipal and private funding.

Upgrade Supporting Infrastructure and Access

- Improve basic services in agricultural zones:
 - Rural road upgrades (all-weather gravel)
 - Access to water for irrigation (e.g., boreholes, small dams)
 - Renewable energy microgrids for off-grid operations
- Ensure infrastructure is demand-driven and implemented without obligating regional authorities unless budgeted.

Protect Natural Assets and Biodiversity Corridors

- Enforce environmental restrictions in critical biodiversity areas, particularly along rivers and valleys.
- Encourage eco-compatible land uses such as regenerative agriculture and organic farming.
- Prevent leapfrogging and scattered developments by adhering to the urban edge policy.

The Agriculture Development Zone represents a strategic rural asset that, if planned and managed correctly, can contribute to food security, inclusive job creation, rural enterprise development, and agri-tourism diversification in Nelson Mandela Bay. By enforcing sustainable land-use controls, investing in enabling infrastructure, and supporting land reform, the municipality can transform peripheral areas into productive, resilient, and economically active rural spaces that are well-integrated into the city-region economy.

D2.9.3. AGRIBUSINESS

Agribusiness is a strategic growth sector for NMBM, offering significant potential to stimulate inclusive local economic development, create employment, enhance food security, and integrate peri-urban communities into regional value chains. While intensive agriculture is constrained in the urban core, opportunities exist in peri-urban and rural interface areas such as Uitenhage, KwaNobuhle, Greenbushes, and Motherwell.

KEY PROPOSALS

The success of the Agribusiness Framework relies on the implementation of well-targeted, high-impact interventions that address land access, production support, infrastructure development, capacity building, and market integration. These interventions are designed to unlock the potential of urban and peri-urban agriculture, support smallholder and commercial farmers, and promote inclusive and sustainable economic growth.

LAND ACCESS AND TENURE SECURITY

Securing access to suitable land is a prerequisite for productive agribusiness development:

- Facilitate land access through the release or leasing of municipal and state-owned land for eligible farmers and cooperatives.

- Formalise tenure arrangements by providing lease agreements or permits of at least 3 years for livestock and food gardens, and a minimum of 10 years for commercial-scale crop production and agri-enterprises.
- Map and zone land suitable for various agricultural uses (e.g., livestock, aquaculture, horticulture) and align this with spatial planning instruments such as the MSDF and LSDFs.
- Promote equitable access to land for women, youth, and historically disadvantaged groups.

FARMER SUPPORT AND ENTERPRISE DEVELOPMENT

To transition from subsistence to commercial agriculture, emerging farmers need coordinated support:

- Capacity building and mentorship programmes for smallholder and emerging farmers focusing on production techniques, financial literacy, cooperative management, and compliance with regulatory requirements.
- Business development support, including assistance with the drafting of bankable business plans and access to registration services for cooperatives, trusts, and associations.
- Livestock management training, including branding, health care, breeding, and compliance with veterinary and traceability regulations.
- Specialised support for niche sectors, such as aquaponics, beekeeping, floriculture, and hydroponics.

INFRASTRUCTURE AND AGRI-HUB DEVELOPMENT

Infrastructure plays a critical role in improving productivity, reducing post-harvest losses, and enabling market access:

- Develop agri-hubs in identified strategic locations such as Uitenhage, Greenbushes, and Motherwell, providing:
 - Cold storage and refrigeration units
 - Grading and packaging facilities
 - Collection points and storage for inputs and tools
 - Agricultural training centres
- Invest in basic infrastructure at farm and garden level, including fencing, boreholes, irrigation systems, tunnels, animal housing, and on-site composting units.
- Develop agro-processing facilities to support value addition activities such as milling, juicing, canning, and meat processing, especially for small-scale producers.

FINANCIAL AND RESOURCE SUPPORT

Access to funding and inputs is vital to enabling sustainable production:

- Municipal grant funding tailored by farmer category:
 - Commercial farms: Infrastructure grants
 - Smallholder farms: Infrastructure, inputs, and equipment

- Food gardens: Inputs, irrigation kits, garden tools
- Agro processors: Processing equipment and start-up inputs
- Leverage external funding from provincial and national departments (DRDAR, DEDEAT), development agencies (ECDC, ECRDA), and DFIs (IDC, Land Bank).
- Promote blended finance models, combining grants with concessional loans and private sector investment.

MARKET DEVELOPMENT AND VALUE CHAIN STRENGTHENING

Developing efficient value chains and market linkages is essential for commercial viability:

- Facilitate access to formal and informal markets, including supermarkets, fresh produce markets, restaurants, and export channels.
- Promote cooperative marketing and aggregation to enable small-scale producers to supply larger markets.
- Provide training on quality standards, grading, packaging, and certifications required for retail and export.
- Link producers to institutional markets such as schools, hospitals, and government nutrition programmes.
- Work with APAC and SEDA to strengthen marketing strategies, pricing intelligence, and business competitiveness.

TECHNOLOGY INTEGRATION AND INNOVATION

Adopting modern technology will drive productivity and efficiency:

- Support innovation in urban agriculture, including aquaponics, hydroponics, vertical gardens, and rooftop farming in dense urban areas.
- Introduce digital platforms for farm management, market access, weather forecasting, and production tracking.
- Encourage use of renewable energy technologies, such as solar-powered irrigation and refrigeration.
- Promote climate-smart agriculture practices, including conservation tillage, drought-resistant crops, and integrated pest management.

STAKEHOLDER COORDINATION AND INSTITUTIONAL STRENGTHENING

Effective governance and inter-agency coordination are key enablers:

- Operationalise the Urban Agriculture Stakeholder Forum, with clear roles, communication channels, and action plans.
- Strengthen collaboration between NMBM and key departments (DLRRD, DEDEAT, DWS), development finance institutions, academic institutions (ARC), and NGOs.

- Monitor and evaluate project implementation through a centralised system to ensure transparency, track impact, and inform policy improvements.
- Encourage private sector participation in the agribusiness ecosystem, especially in input supply, off-take agreements, and logistics.

D2.9.4. PRIORITY SUB-SECTORS

CITRUS FARMING

- Eastern Cape produces 25% of South Africa's citrus, with the Sundays River Valley as the country's largest production hub.
- NMBM hosts approximately 3,000 direct citrus jobs, excluding related agro-processing, logistics, and trade roles.
- More efficient movement of seasonal labour force between Kariega and Sunday River Valley during the harvesting season – upgrade of the rail network for increased numbers in passenger rail.
- Opportunities: Expansion of cold storage facilities, improved port logistics, and branding citrus as part of an Eastern Cape export identity.

DAIRY FARMING

- Eastern Cape contributes 30% of national milk production, with NMBM as a provincial agro-processing hub.
- Over 43% of the province's agro-processing enterprises are located in NMBM, including large dairy processing plants.
- Opportunities: Strengthen processing capacity, develop value-added dairy products, and promote local supply chains.

MOHAIR WOOL PRODUCTION

- Eastern Cape produces ~90% of South Africa's mohair, with Kariega and Gqeberha hosting major processing facilities.
- NMBM ports handle 90% of global mohair exports, primarily to China and Italy.
- Opportunities: Expand empowerment initiatives via the Mohair Empowerment Trust (MET) and ECDC, develop branding for high-quality mohair, and promote local value addition before export.

D2.9.5. KEY PROPOSALS

Urban Edge Enforcement:

- Review and update the Urban Edge boundary every five years to ensure protection of high-potential agricultural areas.

- Strengthen municipal by-laws to prevent rezoning of prime agricultural land for residential or industrial development unless under exceptional, well-justified circumstances.

Agricultural Zoning Upgrades:

- Apply stricter controls on land subdivision (minimum 10ha) in designated agricultural zones, as per the Agriculture Development Zone guidelines.
- Integrate biodiversity corridors and riverine buffers into agricultural zoning to protect ecological functions.

Agricultural Land Banking:

- Establish a municipal “Agricultural Land Bank” to acquire and lease out underutilised land to emerging farmers, prioritising land adjacent to markets and infrastructure.

D2.9.6. INFRASTRUCTURE AND RESOURCE SUPPORT

Irrigation Networks & Water Security:

- Expand borehole drilling programmes in dryland farming areas, especially in northern and north-western zones.
- Rehabilitate existing irrigation schemes in the western agricultural zone to boost horticultural output.
- Promote **shared water infrastructure** models where multiple farmers co-invest in pipelines, pumping stations, and water storage facilities.

Farm-to-Market Roads:

- Upgrade rural access roads in Uitenhage and northern grazing areas to reduce transport time and post-harvest losses.
- Prioritise road surfacing projects linked to citrus and dairy transport routes to Ngqura and Gqeberha ports.

Energy Supply for Agriculture:

- Support the rollout of solar PV systems for irrigation pumps and cold storage facilities.
- Encourage agri-energy partnerships where farms feed excess renewable energy into local grids.

D2.9.7. CLIMATE-SMART AGRICULTURE

Drought-Resistant Crop Varieties:

- Promote and subsidise the adoption of drought-tolerant maize, beans, and horticultural crops.

Soil Conservation & Erosion Control:

- Train farmers in contour ploughing, mulching, and cover cropping to preserve soil health.

- Establish municipal soil testing services to guide fertiliser use and reduce nutrient loss.

Water Harvesting & Storage:

- Install rainwater harvesting tanks on municipal agricultural plots and encourage adoption on commercial farms.
- Expand use of lined farm dams to minimise evaporation losses.

Agroforestry:

- Promote integrated tree-planting in crop fields to reduce wind erosion and improve microclimates.

D2.9.8. VALUE CHAIN DEVELOPMENT & AGRO-PROCESSING

Citrus Value Addition:

- Establish juice extraction, essential oil distillation, and citrus waste-to-compost facilities in proximity to packing houses.
- Support branding and marketing of Sundays River citrus as a premium export product linked to NMBM's economic identity.

Dairy Processing Expansion:

- Incentivise investment in cheese, yoghurt, and butter production for local and export markets.
- Support cold chain expansion for small dairy farmers to aggregate and supply to processors.

Mohair Industry Upgrading:

- Promote local spinning, weaving, and fashion design to increase the percentage of value-added mohair products exported.
- Support the Mohair Empowerment Trust in scaling mentorship, financing, and market access for Black emerging farmers.

Agri-Tourism Development:

- Link farms to tourism routes, including Addo National Park's eco-tourism circuits.
- Promote farm stays, tasting tours, and heritage agriculture experiences as part of the municipal tourism strategy.

D2.9.9. URBAN AGRICULTURE & FOOD SECURITY

Municipal Food Gardens Programme:

- Identify underutilised municipal land for community and cooperative food gardens.
- Provide fencing, tools, compost, and training in sustainable production techniques.

School and Clinic Gardens:

- Partner with the Department of Education and the Department of Health to establish gardens for fresh produce supply to feeding schemes and clinics.

Market Access for Urban Farmers:

- Set aside municipal market stalls for urban agriculture produce.
- Pilot “Buy Local” procurement for municipal facilities to source produce from small farmers.

D2.9.10. AQUACULTURE DEVELOPMENT

Coega SEZ Aquaculture Hub:

- Attract investment for high-value species farming such as abalone, oysters, tilapia, and seaweed.
- Integrate aquaculture training into TVET college curricula.

Land-Based Recirculating Systems:

- Promote inland aquaculture near irrigation zones to complement livestock and crop production.

Market Linkages:

- Facilitate contracts with hotels, restaurants, and export buyers to secure steady demand.

D2.9.11. SKILLS DEVELOPMENT & CAPACITY BUILDING

Agricultural Training Centres:

- Partner with NMU, DRDAR, and industry bodies to establish farmer training hubs in Uitenhage and Motherwell.

Youth and Women Farmer Programmes:

- Provide start-up kits, business training, and mentorship to youth and women entering agriculture.

Digital Agriculture Platforms:

- Introduce apps and platforms to give farmers real-time information on weather, markets, and pests.

D2.9.12. FINANCING & INCENTIVES

Municipal Agricultural Grant Scheme:

- Provide co-funding for smallholder irrigation, tunnels, and cold storage.

Private Sector Partnerships:

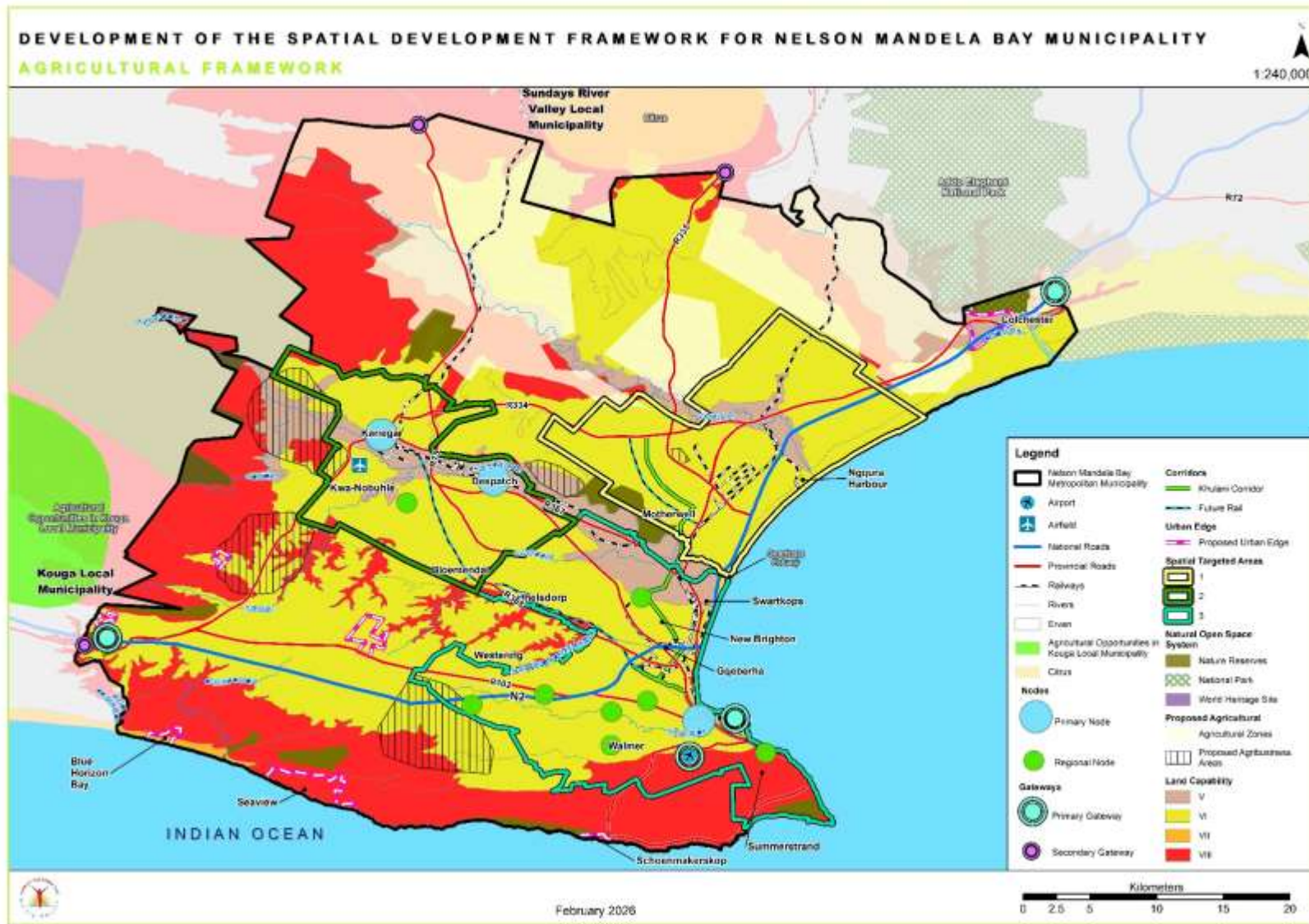
- Encourage agro processors to invest in out grower schemes, offering finance, training, and guaranteed purchase contracts.

Green Finance:

- Leverage climate adaptation funds for renewable energy and water efficiency projects on farms.

Agriculture in NMBM is both a heritage industry and a growth frontier. By protecting high-potential land, promoting diversification, and integrating smallholder farmers into value chains, the municipality can secure its role as a leading agricultural and agro-processing hub in the Eastern Cape. Strategic investments in climate resilience, infrastructure, and market access will ensure that agriculture remains a driver of food security, rural livelihoods, and economic growth.

Map 58 shows the agricultural framework.



Map 58: Agricultural Framework

D2.10. RURAL DEVELOPMENT FRAMEWORK

The Rural Development Framework deals with the area outside of the Urban Edge. This Framework aims to maximise the optimal use of existing resources and infrastructure within these areas. The development of these 'Rural Areas' will contribute significantly to the reconstruction of the Metro by permitting growth in areas located well in terms of the environment services, economic opportunity and infrastructure.

This section has been compiled in accordance with the Rural Management Policy, 2009 which primarily aims to guide development specifically within areas identified within the 'Rural Framework Area.

The extent of the 'Rural Area' of NMBM is the area that falls outside the main urban edge and within the Metropolitan boundary and includes the following categories:

- Peri Urban Development Zones (Hinterland and Coastal)
- Rural Development Zones (Hinterland and Coastal)
- Agriculture Development Zone (outside the main urban edge)
- Biodiversity Zones
- Rural villages within urban edges

Each of the afore mentioned categories are further explained below:

D2.10.1. PERI-URBAN DEVELOPMENT ZONES (HINTERLAND AND COASTAL)

The Peri-urban Zones are defined as areas that are suitable for future short term (10-year horizon from 2009 when the plan was approved) development.

This implies that these areas are close proximity to urban areas of opportunity which include employment and social amenities, are accessible in terms of the transport/movement system and are mostly areas which have potential for lower impact development with minimum ecological sensitivities. This zone is considered to be desirable for limited gradual expansion within the wider metropolitan context. The development of these areas will improve the overall efficiency of the area and allow greater access for residents to the benefits and opportunities of rural living. Although not currently serviced by bulk infrastructure in most cases, these are areas where such services should be provided in the short term (next 2-10 years).

The provision of services and the change in land use should be co-ordinated and guided in accordance with the neighbouring Local Spatial Development Framework, or a separate local area plan or Precinct Plan be developed if it deems necessary. It should be ensured that no haphazard leap-frog development will be considered desirable within the demarcated area. The bulk sub division of land in areas identified for Peri-urban Development is not encouraged immediately, as smaller land parcels impact on the

economic feasibility of urban development and urban compaction. Therefore, sequential development through subdivision is encouraged.

The Peri-urban development Zones are further broken down into the following two sub-categories:

PERI-URBAN ZONE 1 (HINTERLAND)

- This zone is located to the west of the Mount Pleasant, Lorraine, Kabega and Hunters Retreat urban areas and to the south of the Greenbushes peri-urban area. (See map 59 below)
- The zone is bounded by the narrow-gauge railway line in the north and east, the Lorraine suburb boundary on the east, the Madiba Bay concession area boundary and Seaview Road in the south, whilst the western boundaries are demarcated by cadastral boundaries, steep slopes and undulating topography.
- The rural areas of Colleen Glen, Threescombe and Lovemore Park areas fall within the zone
- The N2 National freeway, Kragga Kamma Road, linking Colleen Glen to the City, Seaview Road and other minor roads are in this zone.
- The zone is characterised by cadastral units ranging from 1 hectare in size to larger portions of farm land located primarily on the western boundary of the zone.
- The broad land uses comprise of cultivated agriculture, residential estates, a school in Threescombe, and two substandard golf courses in the Sardinia Bay and Kragga Kamma area.
- Portions of the zone can be provided with bulk water and electricity supply. No water-born sewerage or the treatment thereof is available in this zone. Residential developments provide onsite sanitation plants or make use of French drains.
- The upgrading of the Kragga Kamma Drive to Seaview Drive link road is planned for the area after 2010.
- Virtually all land falling in the zone resorts in private ownership.

PERI-URBAN ZONE 2

- This area is located to the south of the Peri-urban zone 1 and directly abuts the Beachview, Seaview and Kini Bay coastal villages. (See map 59 below).
- The western boundary of this zone abuts the Maitland's River Mouth and the Colleen Glen and Maitland's River arterial.
- The area is characterised primarily by cadastral units of larger than 10 hectares in extent.
- The western portion of the zone is characterised by cadastral units ranging from 10 to 15 hectares.
- The area is characterised by undulating topography. The area is located on the western periphery, steeper than 15 or 20%.

- The agricultural land capability index for the area is non-arable Class 6 agriculture land, primarily used for wild life, limited forestry, veld and grazing. The land has a low land capability index for agriculture development purposes.
- The geology comprises of terrace gravel over clay and unconsolidated Aeolian deposits.
- A large portion of the property is affected by the proposed conservation corridor.
- The proclaimed Island Nature Reserve is located in the proposed corridor.
- The broad land use comprises of primarily cultivated agriculture
- Approximately 50% of the zone can be provided with bulk water supply.
- No water-borne sewerage is available for the area. The status of the non-waterborne sewerage system must be confirmed by the Sewerage Master Plan currently being prepared.
- Besides the Island Nature Reserve, approximately all land is privately owned.
- The NMBM Land Use Scheme 2023 is applicable to the area.

PROPOSALS AND LAND USE GUIDELINES FOR PERI-URBAN ZONES

The NMBM MSDF 2025 does not propose for the expansion of the Urban Edge to any of the Peri- Urban Zones but rather proposes densification within the zone and its respective urban edge and should the zone reach a maximum development capacity, during the future reviews of the MSDF, a reconsideration of the Urban Edge can be relooked at, and a possible expansion could be accommodated.

The general vision for the peri-urban area is summarised below:

- To maintain the lower density as outlined in in the guidelines below (unchanged from the Rural Management Policy, 2009).
- It is also proposed to allow for exploration of agricultural and resort tourism such yoga retreat venues, conference venues, etc.
- Farm stalls and restaurants promoting the use of seasonal and fresh produce.
- Fruit picking is promoted for farms which can provide this offering.

DEVELOPMENT PARAMETERS

PERI URBAN ZONE 1 (HINTERLAND)

Locality :	- Demarcated areas located directly beyond the urban edge – see Map 59 - Areas not identified for infill urban development, often characterised by low density and/or cultivation with environmental sensitivities forming part of the larger ecological biosphere. - Minimum engineering services and infrastructure available. - Urban development not permitted.
Objective :	- Areas with a predominantly rural character and generally, situated outside the Urban Edge. - Provide for activities in keeping with the rural character of the area and distinctly different to agriculture or commercial farming. - Provision for land use not regarded as Bona Fide agriculture land, generally agricultural smallholdings with a distinctively lower density than residential development within the Urban Edge. - Permitting uses in line with rural activity i.e. keeping of animals and small scale-cultivation on a limited basis.
Primary Use :	- Rural Residential - Intensive Feed Farming (non-noxious – poultry broiler not permitted) - Agriculture - Authority Use

Recommended Land Uses	Density	Erf Size	Special Conditions
Dwelling Unit	2du / 1.8ha	Minimum 1.8ha	Small holding
Residential Estate	2du / 1.8ha	Maximum 1500m ²	Cluster & space principles shall apply
Guest House / Guest Farm	12 rooms / 1.8ha	Minimum 1.8ha	Small holding
Riding School		Minimum 1.8ha	Small holding
Kennel		Minimum 1.8ha	Small holding
Home Industry		Minimum 1.8ha	Small holding
Nursery		Minimum 1.8ha	Small holding
Restaurant (no fast foods outlet)		Minimum 1.8ha	Small holding
Social Facility		Minimum 1.8ha	See definitions
Tourist Facility		Minimum 1.8ha	See definitions
Poultry Breeder and Layer Farm		Minimum 1.8ha	See definitions

DEVELOPMENT PARAMETERS

PERI URBAN ZONE 1 (HINTERLAND)

Cemetery		Minimum 1.8ha	See definitions
Retirement Estate	2du / 1.8ha	Maximum 1500m ²	Cluster & space principles shall apply
Bulk Infrastructure			As per NMBM requirements
Resorts			Refer to Resort Policy

GENERAL CONDITIONS

- Second dwelling may be considered on properties larger than 1.8ha – no sectional title alienation permitted.
- Cluster and space principle shall apply for any estate. (see definitions)
- Golf or equestrian Estates shall comply with the development parameters for Golf Estates provided in the document.
- Wedding venues, Chapel, Reception Hall and overnight Accommodation should be limited to Resort densities, 1 hall@1000m², chapel@200m² and adequate parking. No subdivision for total use less than 1.8ha.
- Align with the NMBM Land Use Scheme 2023 allowing 8.5m max height for dwelling units and 15m for Agricultural Buildings under Agriculture Zone 1
- Mining in accordance with existing permits.
- Conditions under which authorisation in terms of the National Environmental Management Act (Act 107 of 1998) shall apply and strictly monitored.
- Division of productive agricultural areas and with agricultural potential shall only be permitted under special circumstances and well-motivated business plans.
- Provision of infrastructure and services shall be to the satisfaction of all Regional Authorities without any obligation of these Authorities to render services in any form whatsoever.
- Leap frogging development should be strongly discouraged.

Table 51: Development Parameters for Peri-urban Zone 1

DEVELOPMENT PARAMETERS

PERI URBAN ZONE 2 (COASTAL)

Locality :	Demarcated areas abutting the Peri Urban Zone 1 and Indian Ocean Coastline
Objective :	• Areas with a predominantly rural character and generally, situated outside the Urban Edge. • Provide for activities in keeping with the rural character of the area and distinctly different to agriculture or commercial farming. • Provision for land use not regarded as Bona Fide agriculture land, generally agricultural smallholdings with a distinctively lower density than residential development within the Urban Edge. • Permitting uses in line with rural activity i.e. keeping of animals and small-scale cultivation on a limited basis.
Primary Use :	• Rural Residential • Agriculture • Intensive Feed Farming limited to poultry breeder and layer farms only

Recommended Land Uses	Density	Erf Size	Special Conditions
Dwelling Unit	2du / 5ha	Minimum 5ha	Small holding
Residential Estate	2du / 5ha	Maximum 1500m ²	Cluster & space principles shall apply
Guest House / Guest Farm	12 rooms / 5ha	Minimum 5ha	Small holding
Riding School		Minimum 5ha	Small holding
Kennel		Minimum 5ha	Small holding
Home Industry		Minimum 5ha	Small holding
Nursery		Minimum 5ha	Small holding
Restaurant (no fast foods outlet)		Minimum 5ha	Small holding
Social Facility		Minimum 5ha	See definitions
Tourist Facility		Minimum 5ha	See definitions
Poultry Breeder and Layer Farm		Minimum 5ha	See definitions
Cemetery		Minimum 5ha	See definitions
Retirement Estate	2du / 5ha	Maximum 1500m ²	Cluster & space principles shall apply
Bulk Infrastructure			As per NMBM requirements
Resorts			Refer to Resort Policy

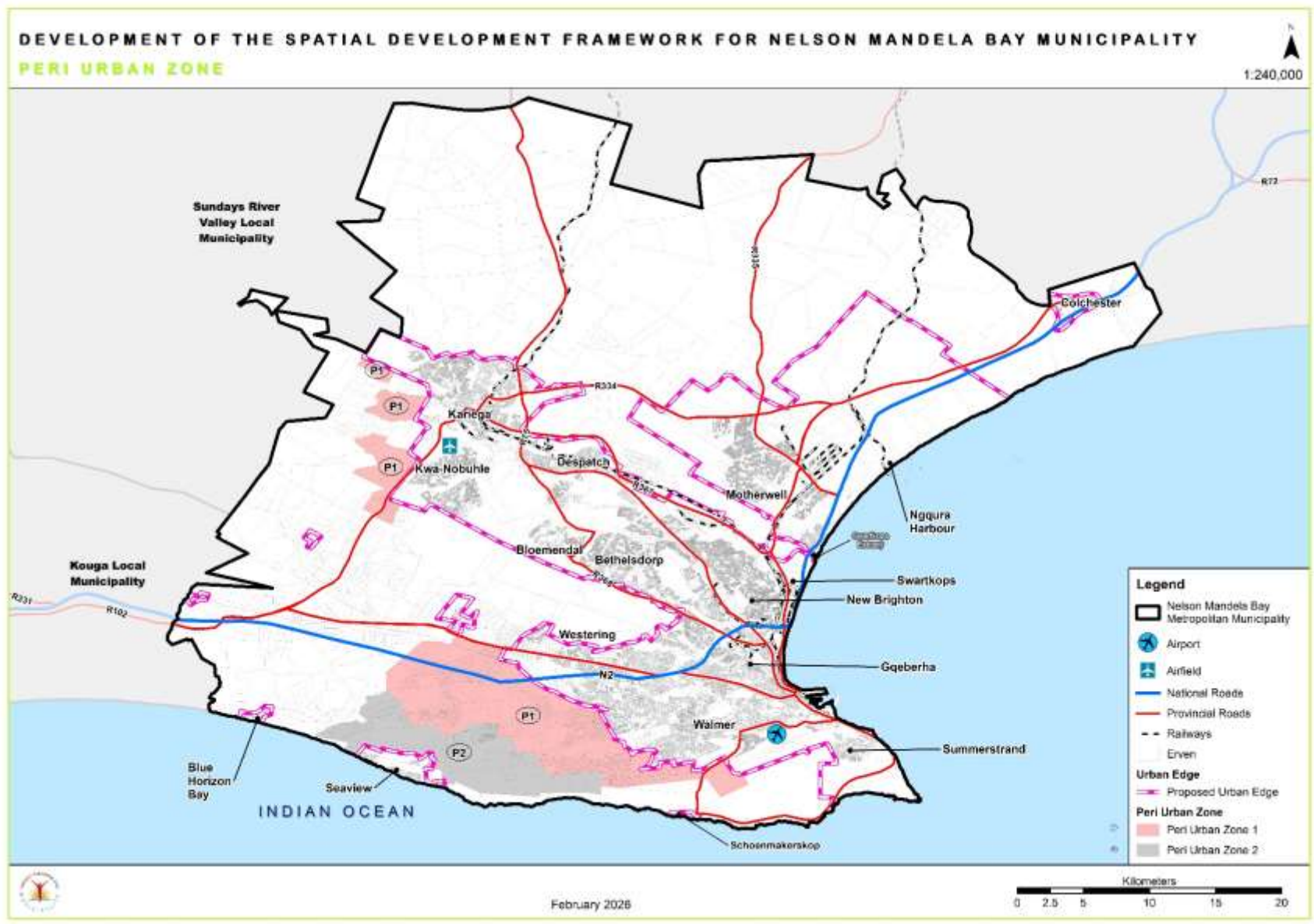
DEVELOPMENT PARAMETERS

PERI URBAN ZONE 2 (COASTAL)

GENERAL CONDITIONS

- Second dwelling may be considered on properties larger than 5ha – no sectional title alienation permitted.
- Cluster and space principle shall apply for any estate. (see definitions)
- Wedding venues, Chapel, Reception hall and overnight Accommodation should be limited to Resort densities, 1 hall@1000m², chapel@200m² and adequate parking. No subdivision for total use less than 5ha.
- Align with the NMBM Land Use Scheme 2023 allowing 8.5m max height for dwelling units and 15m for Agricultural Buildings under Agriculture Zone 1
- Conditions under which authorisation in terms of the National Environmental Management Act (Act 107 of 1998) shall apply and strictly monitored.
- Division of productive agricultural areas and with agricultural potential shall only be permitted under special circumstances and well-motivated business plans.
- Provision of infrastructure and services shall be to the satisfaction of all Regional Authorities without any obligation of these Authorities to render services in any form whatsoever.
- Leap frogging development should be strongly discouraged.
- Sequential development from the existing development is encouraged

Table 52: Development Parameters for Peri-urban Zone 2



Map 59: Peri Urban Zone

D2.10.2. RURAL DEVELOPMENT ZONE

This area is seen as sparsely developed area, with dispersed ecological sensitivities. The area is not suitable for urban development within the medium to long term (next 10-15 years) and is not easily integrated with the larger built-up urban system. No bulk or limited services are currently available or will be made available within the medium term. To allow urban development in these development zones will not contribute to the spatial objectives of restructuring the city or support efficiency in term of urban form and processes as intensive development supports urban sprawl.

RURAL ZONE 1 (HINTERLAND)

- The area forming the Rural Zone 1 (Hinterland Zone), is located on the periphery of the Metropolitan Area. (See Map 60)
- This area is located to the north of the N2 Freeway, west of the Greenbushes Area and the Wedgewood Golf and Residential Estate and south of the Van Der Kemp's Kloof – Groendal nature area. The outer boundary is formed by the N2 freeway to the south and river boundary in the north.
- The site is traversed by the R334 Regional distributor, the R102 Regional distributor and the Secondary Route linking Fitches Corner to the Kouga municipal boundary on the west.
- The narrow-gauge railway line serving the Kouga Municipal area traverses the site in the south.
- The Rocklands rural settlement is located within this zone.
- No Municipal bulk water is available to the area at present. This area will however be serviced once the water network proposed by Water Master Plan is developed. No waterborne sewerage system services the site. Non-waterborne sanitation must be provided by the developer within this area.
- The land is primarily owned by the private sector.
- Land use management is administered in terms of the NMBM Land Use Scheme 2023 which is applicable to the area.

RURAL ZONE 2

- The Rural Zone 2 is located to the south of the N2 freeway and directly north of the Indian Ocean coastline between the Kouga Municipal Boundary and Maitland River Mouth. (see Map 60).
- The Blue Horizon Bay coastal village and Van Stadens river mouth Resort is located in this zone.
- Due to the undulating topography, environmental sensitivity and lack of bulk services, development should be discouraged in this area.

- The area is characterised by steep undulating slopes with gradients exceeding 10% over the largest portion of the zone.
- The Van Stadens Road traversing the area provides access to Blue Horizon Bay.
- The site has limited or non-arable agriculture potential and is classified as class VII in terms of the Land Capability Index. (Department of Agriculture)
- No or limited bulk services are available in this area.
- Geology of the site is made up by Gamtoos Group Deposits and Consolidated Aeolian deposits.
- A large portion of the site is environmentally sensitive and falls within the Biodiversity Conservation Area (Class 1 and 2)

Proposals and Land Use Guidelines for Rural Zones

The general vision for Rural Zones is as follows:

- To maintain the low density
- For the promotion of agricultural activity and agri-business (package facilities for fruit and veg, agri-skills training facilities, Farmer Production Support Units (FPSU's, Agri-parks
- Agri village

DEVELOPMENT PARAMETERS

RURAL ZONE 1 (HINTERLAND)

Locality : The Rural Zone 1 is located north of the N2 freeway and west of the Greenbushes area.

Objective :

- To maintain the character created by small holdings of specific size by limiting subdivision.
- To provide opportunities for intensive farming and agriculture.
- To intensify agricultural opportunities for inhabitants of rural settlements.

Primary Use :

- Agriculture
- Residential Estates
- Intensive Feed Farming – all forms

Recommended Land Uses	Density	Erf Size	Special Conditions
2nd Dwelling Unit	2du / 10ha	Minimum 10ha	Small holding
Residential Estates	2du / 10ha	Maximum 1500m ²	Cluster & space principles shall apply
Guest House / Guest Farm	12 rooms / 10ha	Minimum 10ha	Small holding

DEVELOPMENT PARAMETERS

RURAL ZONE 1 (HINTERLAND)

Riding School		Minimum 10ha	Small holding
Kennel		Minimum 10ha	Small holding
Home Industry		Minimum 10ha	Small holding
Nursery		Minimum 10ha	Small holding
Restaurant (no fast foods outlet)		Minimum 10ha	Small holding
Social Facility		Minimum 10ha	See definitions
Tourist Facility		Minimum 10ha	See definitions
Intensive feed farming			See definitions
Cemetery		Minimum 10ha	See definitions
Retirement Estate	2du / 10ha	Maximum 1500m ²	Cluster & space principles shall apply
Bulk Infrastructure			As per NMBM requirements
Resorts			Refer to Resort Policy
Transport modal interchange and bus/taxi ports abutting N2 only			As per Authority Regulations
• Second dwelling may be considered on properties larger than 10ha – no sectional title alienation permitted. • Cluster and space principle shall apply for any estate. (see definitions) • Wedding venues, Chapel, Reception Hall and overnight Accommodation should be limited to Resort densities, 1 hall@1000m², chapel@200m² and adequate parking. No subdivision for total use less than 10ha. • Align with the NMBM Land Use Scheme 2023 allowing 8.5m max height for dwelling units and 15m for Agricultural Buildings under Agriculture Zone 1 • Conditions under which authorisation in terms of the National Environmental Management Act (Act 107 of 1998) shall apply and strictly monitored. • Division of productive agricultural areas and with agricultural potential shall only be permitted under special circumstances and well-motivated business plans. • Provision of infrastructure and services shall be to the satisfaction of all Regional Authorities without any obligation of these Authorities to render services in any form whatsoever. • Leap frogging development should be strongly discouraged.			

Table 53: Development Parameters for Rural Zone



D2.10.3. COASTAL AND RURAL VILLAGES

Coastal and Rural Villages are referred to the small settlements scattered along the coast and throughout the rural area of the metro. They are treated differently as opposed to the general Rural Zone area. The MSDF provides certain proposals for the coastal villages. These are discussed in the section to follow:

COASTAL VILLAGES

- These are the areas of Blue Horizon Bay, Beachview, Clarendon Marine, Seaview, Kini Bay, Colchester and Canonville.
- Each village has its own unique character with low density residential development of not more than two storeys.
- No formal waterborne sewage system is available.
- Limited non-residential land uses are prevalent.

RURAL VILLAGES

- This area comprises the Van Stadens River Gorge. Urban development and vacant subdivisions.
- Limited non-residential facilities and land uses planned for each village.
- The area is administered in terms of the NMBM Land Use Scheme 2023
- Although the area in proximity to the Witteklip Rural Settlement, infill developments between these areas does not warrant the incorporation of Witteklip with the Van Stadens River Gorge Rural Village.
- Densification of the area between Witteklip and the Van Stadens River Gorge Rural Village should take place in an incremental manner with higher densities (Cadastral subdivisions to be permitted adjacent to the Witteklip Rural Settlement.
- The minimum residential size for this village should not exceed 2000 m2.

PROPOSALS AND LAND USE GUIDELINES FOR COASTAL AND RURAL VILLAGES

Even though these villages have been given an urban edge boundary, they are still to be treated differently to the guidelines of the main urban edge for NMBM. The general vision of the Rural and Coastal Villages are as follows:

- Maintain its low density but to allow for the development of low scale tourism activity to support the holistic tourism sector of the NMBM while adding to the tourism variety by offering a slower passed and relaxing beach tourism experience as opposed to the offering at the main beach.
- Activities promoted includes restaurants, day visitor areas such as picnic areas, lodges / beach resorts / hotels
- Limited Retail / Business use is also promoted to support the village such as a Postal service + convenience store to serve locals + tourists
- Community facilities (recreation / sport), linked to tourism (waterpark)
- Taverns

DEVELOPMENT PARAMETERS

COASTAL AND RURAL VILLAGES

Locality :	The zone is located between the N2 freeway and the Indian Ocean and comprises of pristine and partly disturbed vegetation. The Blue Horizon Coastal Village falls in this zone.
Objective :	• To minimise the subdivision of agricultural land. • To retain and entrench the pristine character of the zone.
Primary Use :	• Agriculture • Low density rural residential (estate development) • Intensive feed farming

Recommended Land Uses	Density	Erf Size	Special Conditions
Dwelling unit	15 - 20ha	Minimum 1 200m ²	Low density small holding
Residential estate	15 - 20ha	Minimum 1200m ²	Cluster & space principles shall apply
House Tavern		Erven 500m ² and less: 50%	House Tavern
Guest farm	8 rooms / 20ha	Minimum 20ha	Small holding
Business Premises		Maximum 1500m ²	Limited to Convenience Shops/ Postnet to serve locals and tourists
Restaurant (no fast foods outlet)		Minimum 5ha	Small holding

DEVELOPMENT PARAMETERS

COASTAL AND RURAL VILLAGES

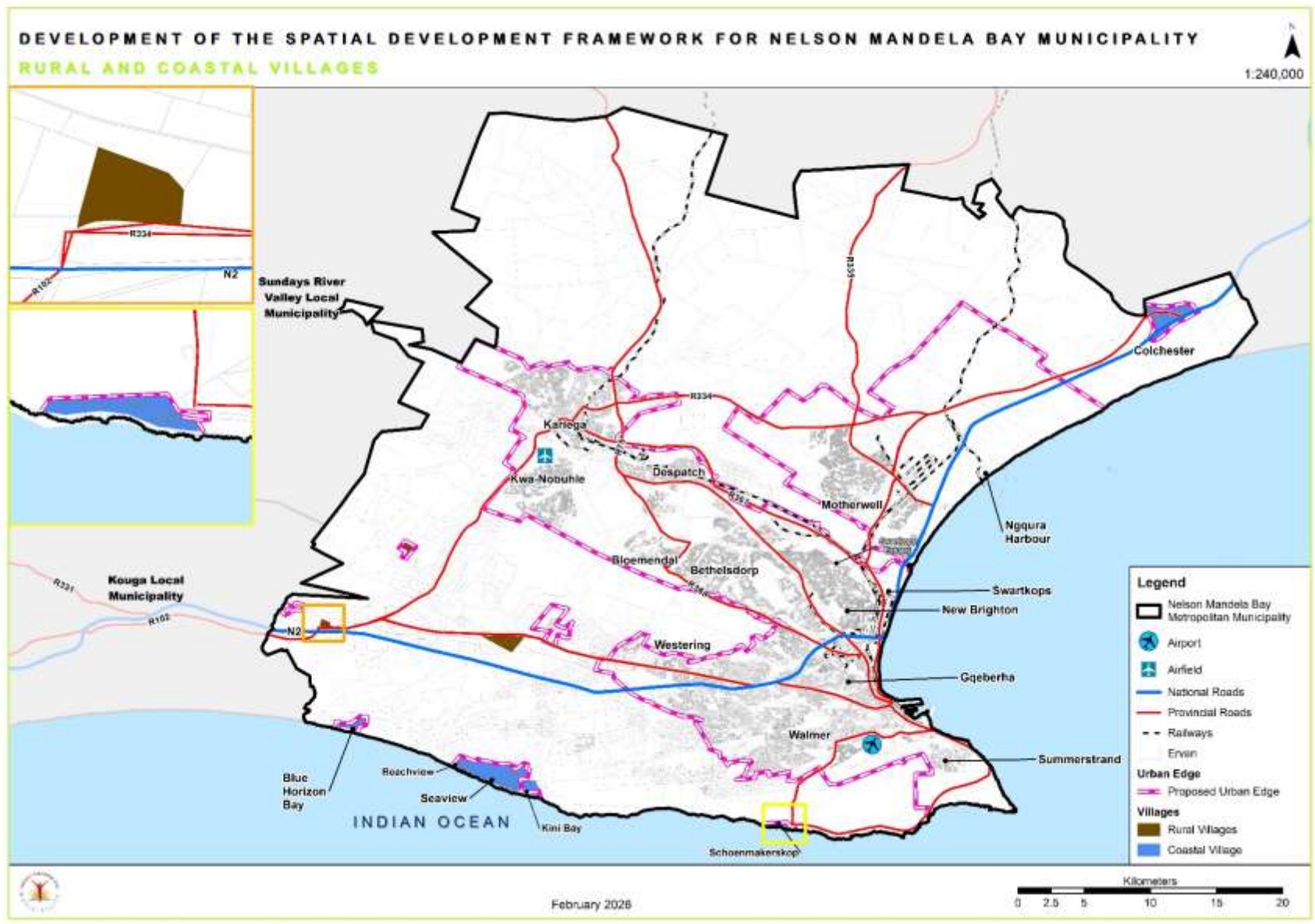
Social facility		Minimum 20ha	See definitions
Tourist facility		Minimum 20ha	See definitions
Resorts			Refer to Resort Policy
Intensive feed farming *		Minimum 20ha	Small holding
Bulk infrastructure			As per NMBM requirements
Airfields			As per Aviation Authorities requirements

GENERAL CONDITIONS

- Align with the NMBM Land Use Scheme 2023 allowing 8.5m max height for dwelling units and 15m for Agricultural Buildings under Agriculture Zone 1
- Cluster and space principle shall apply for any estate.
- Conditions under which authorisation in terms of the National Environmental Management Act (Act 107 of 1998) shall apply and strictly monitored.
- Second dwelling may be considered on properties larger than 20ha – no sectional title alienation permitted.
- Division of productive agricultural areas and with agricultural potential shall only be permitted under special circumstances and well-motivated business plans.
- Wedding venues, Chapel, Reception Hall and overnight Accommodation should be limited to Resort densities, 1 hall@1000m², chapel@200m² and adequate parking. No subdivision for total use less than 20ha.
- Provision of infrastructure and services shall be to the satisfaction of all Regional Authorities without any obligation of these Authorities to render services in any form whatsoever.

*** (See definitions in Rural Management Policy)**

Table 54: Development Parameters for Coastal and Rural Villages

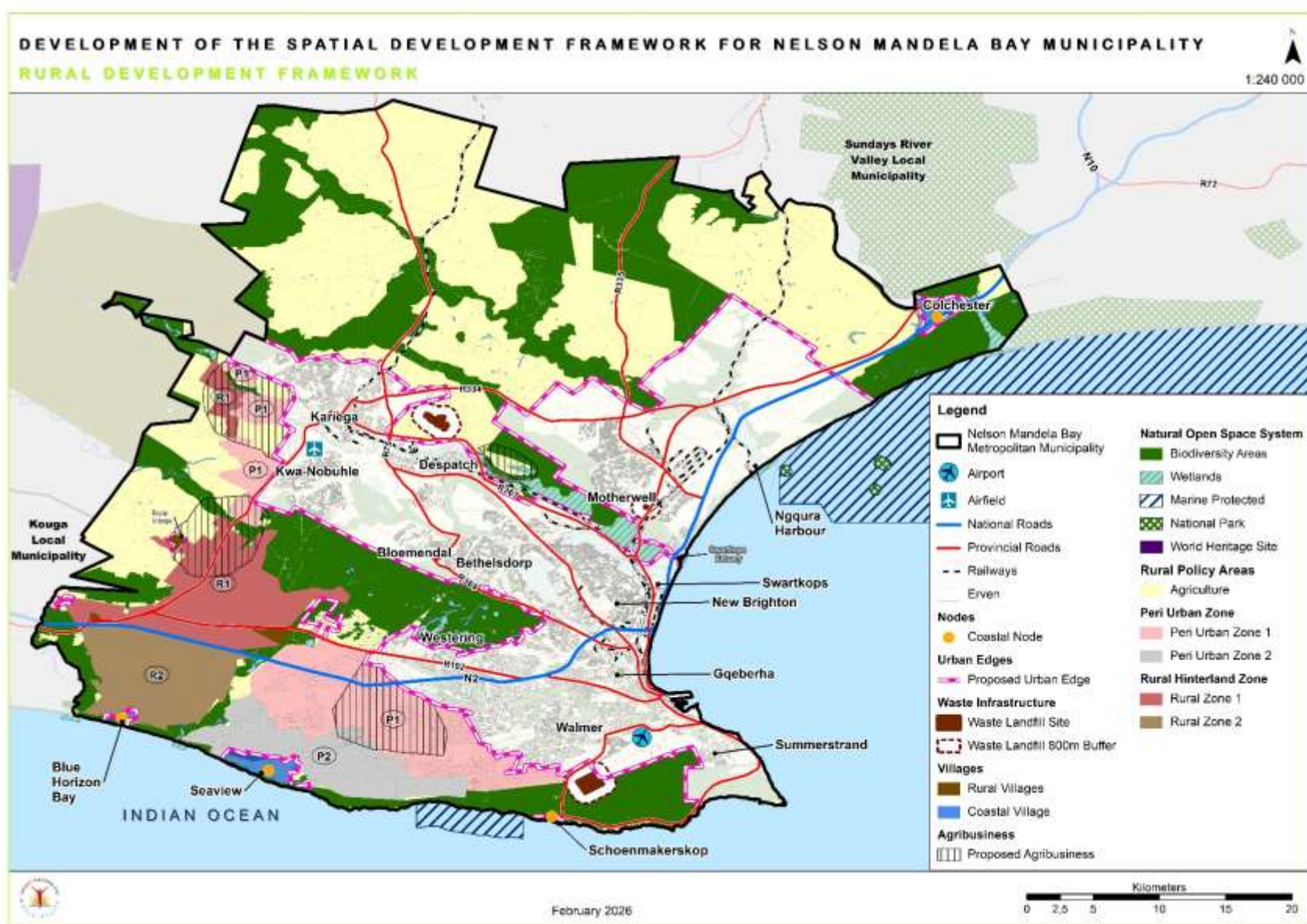


Map 61: Rural and Coastal Villages

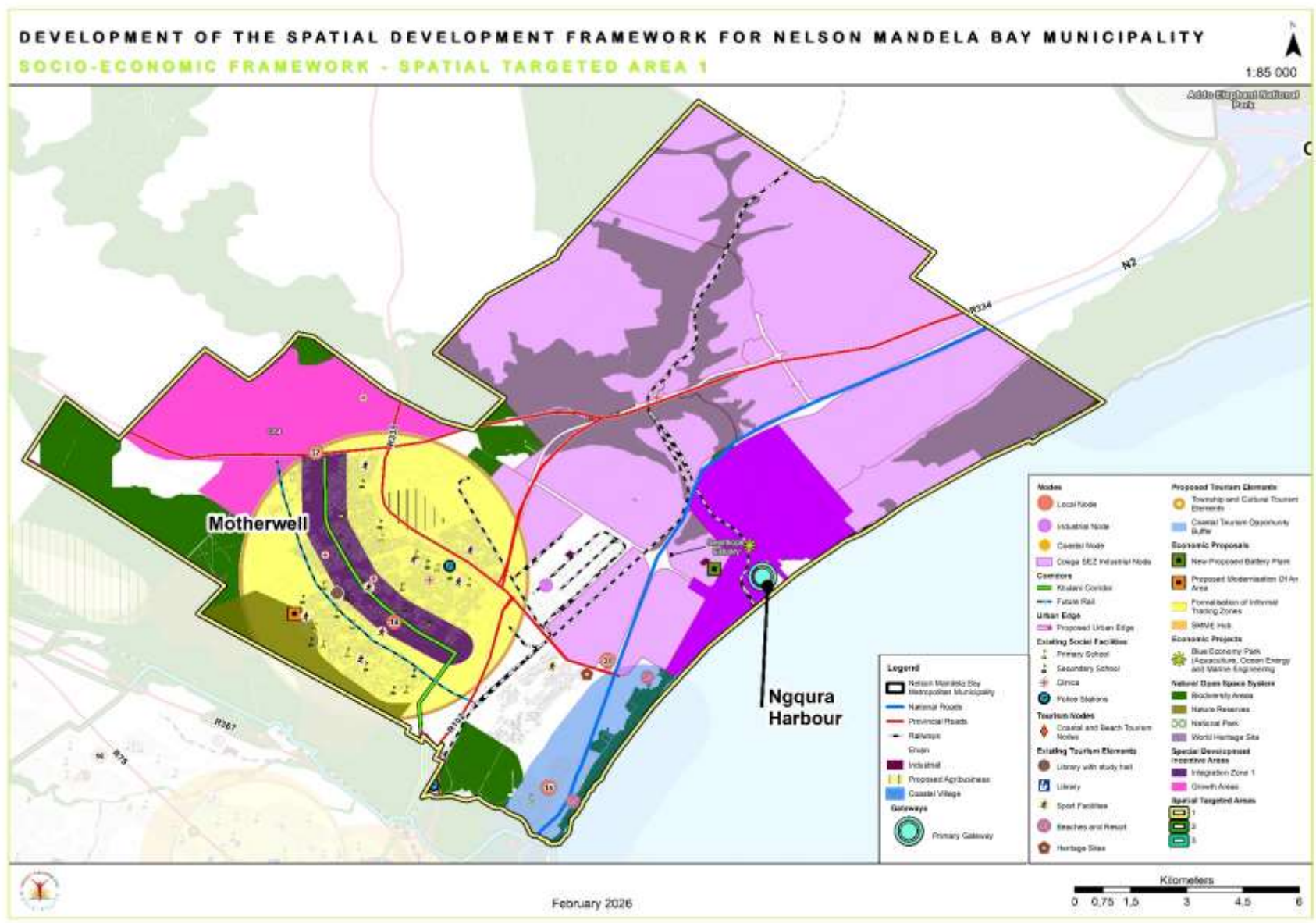
D2.10.4. RURAL AREAS OUTSIDE OF ABOVEMENTIONED ZONES

The areas outside of the above-mentioned zones fall within the Agriculture Development Zone and Biodiversity Zone. These proposals are covered within the Agricultural Framework in the Socio-economic Pillar and the Biophysical Framework in the MSDF report.

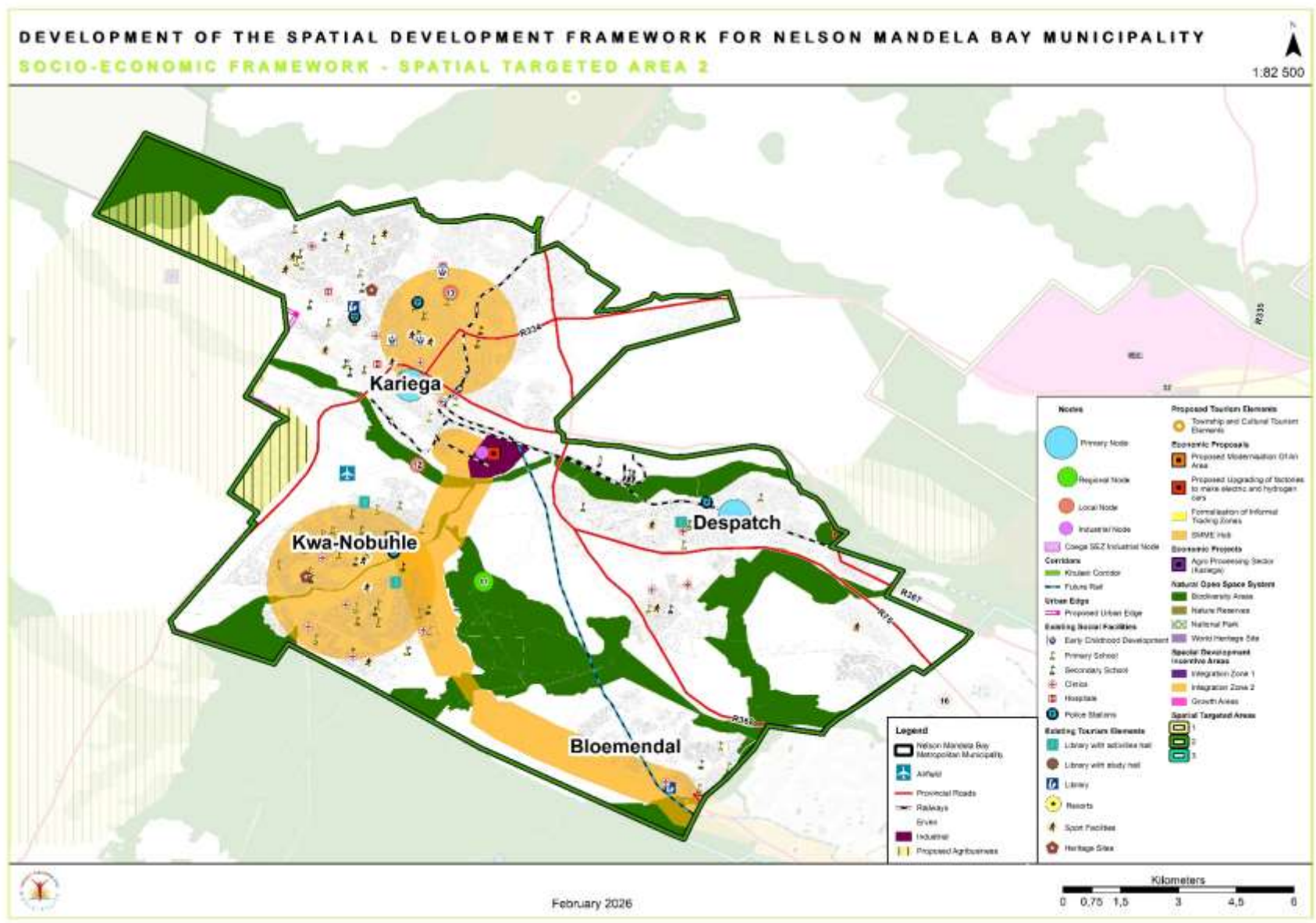
Due to the MSDF being a long-term spatial plan of 10-20 years, it is essential to consider phased within the municipal space, included for areas outside of the urban edge. This is seen in the case of proposed Future Integrated in NMBM. The Housing Framework section proposes Future Integrated development at key locations within the municipality, most of these land parcels are identified with these prerequisite development pressures. There is 1 Future Integrated proposal located outside of the urban edge and thus is within the area of the Rural Management Policy. This proposed development is located to the North West of the Urban Edge at Motherwell. *Refer to the Human Settlements Framework which discusses this proposal in more detail.



Map 62: Rural Development Framework



Map 63: Overall Socio-Economic Framework STA 1

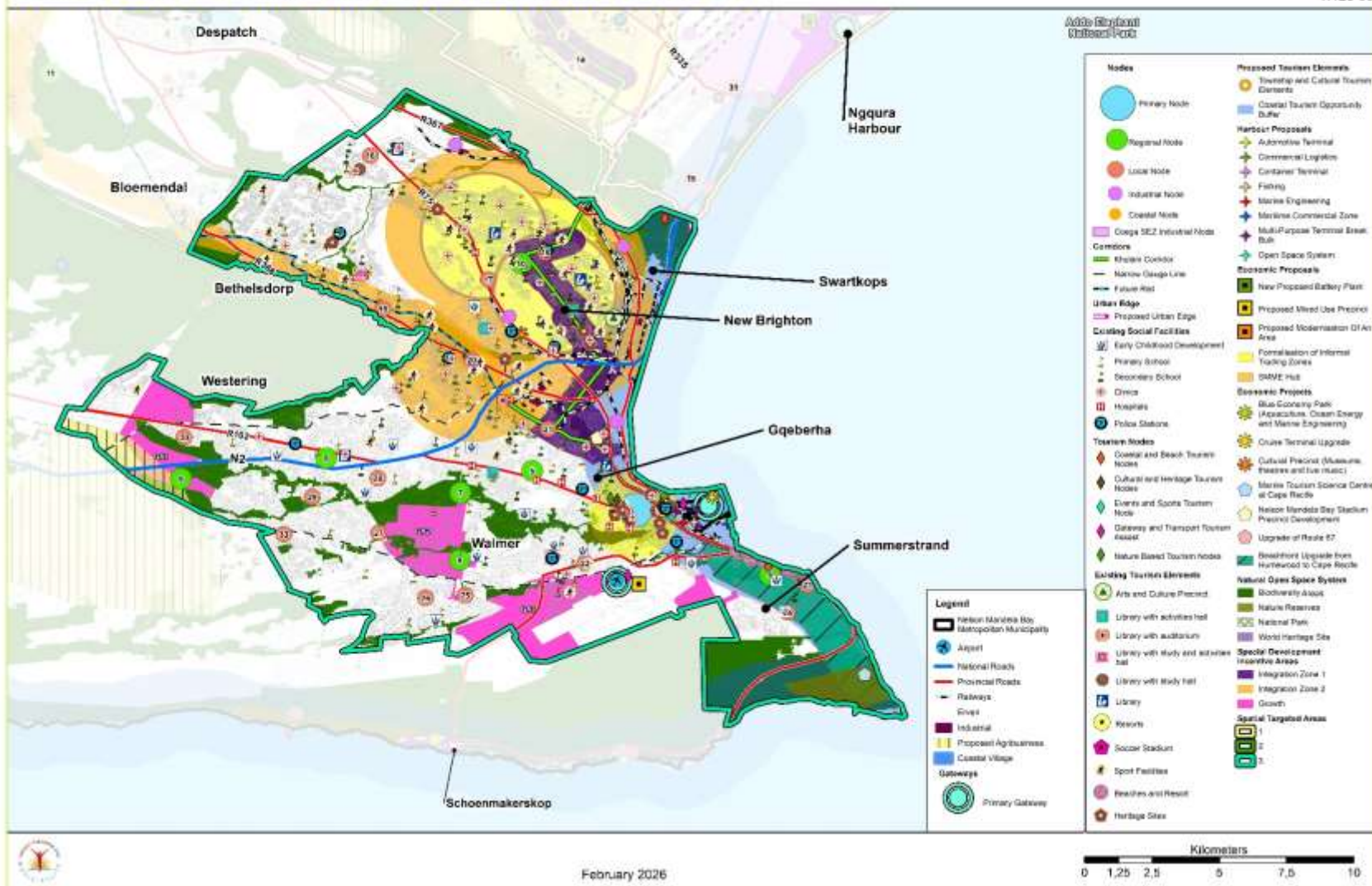


Map 64: Overall Socio-Economic Framework STA 2

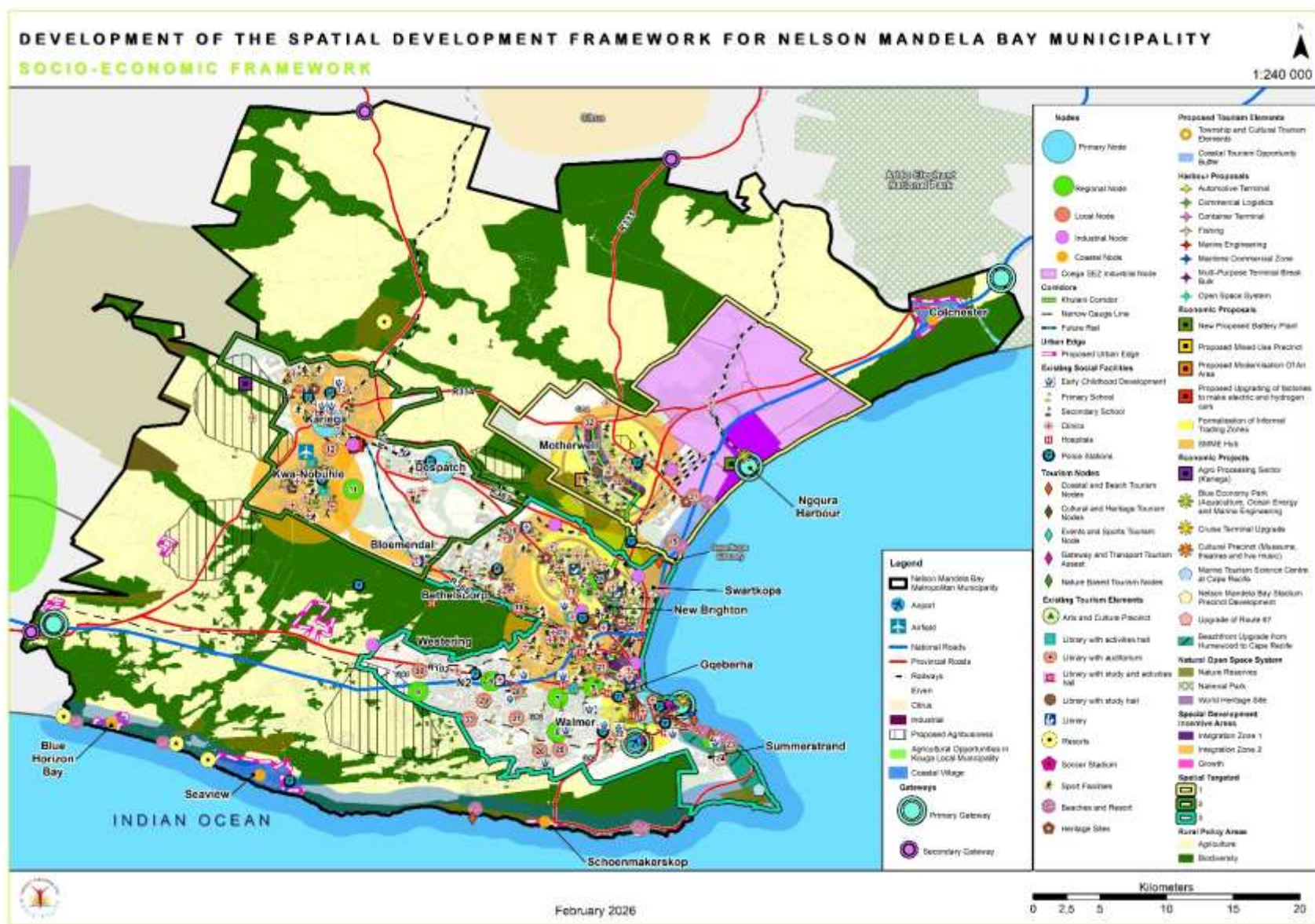
DEVELOPMENT OF THE SPATIAL DEVELOPMENT FRAMEWORK FOR NELSON MANDELA BAY MUNICIPALITY

SOCIO-ECONOMIC FRAMEWORK - SPATIAL TARGETED AREA 3

1:125 000



Map 65: Overall Socio-Economic Framework STA 3



Map 66: Overall Socio-Economic Framework

D3. BIOPHYSICAL FRAMEWORK

The Biophysical Framework refers to the natural systems and ecological assets that shape and constrain spatial development. It sets out proposals is aimed at proposing to guide sustainable development within the natural environment, while also further addressing the impacts of climate change



This section outlines of the report will discuss the environmental considerations and proposals for the Nelson Mandela Bay Municipality, considering key biophysical elements such as. The environmental framework takes cognisance of the hydrological features, climate change, vegetation, agriculture, biodiversity features and geology.

D3.1. ENVIRONMENTAL MANAGEMENT

The natural environment includes, but not limited to landscapes, oceans, freshwater sources, forests and estuaries. These natural environments serve as sources for water, food and provide habitat for various species. The management of these resources is thus of importance as their disruption would lead to imbalances in the ecosystem.

The management of these resources should be sustainable in nature so as to preserve them for future generations. The depletion of these resources is also detrimental to the functioning of the ecosystem, leading to a change in weather patterns, extinction of species and climatic conditions.

Some ecological services also benefit communities, such as riverine areas for recreation and fishing, flood retention & regulation in the case of floodplains and wetlands, and the presence of indigenous vegetation (such as fire-adapted species, which do not burn for prolonged periods of time, unlike some alien vegetation which exacerbates wildfires).

Importantly, the presence of five (5) biomes within Nelson Mandela Bay Municipality, highlights the importance of sustainable conservation methods and the need for legally justifiable tools to protect existing biological integrity and still allow for sustainable development which preserves ecological services.

Any land use or development application occurring within areas that have been identified as sensitive ecosystems will automatically require an authorisation by the competent authority in terms of NEMA Environmental Impact Assessment (EIA) regulations.

D3.1.1. CLIMATE CHANGE

Climate change is defined as a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere, and which is in addition to natural climate variability over comparable time periods (United Nations Framework Convention on Climate Change). The specific mechanism which drives climate change is the increase in the greenhouse gas carbon dioxide in the atmosphere, which leads to increased atmospheric heat, which in turn drives the phenomenon of global warming. Global warming then interrupts natural climatic patterns and is experienced differently in various parts of the world, but it is the most vulnerable communities that are hardest-hit by the effects of human-induced climate change.

South Africa experiences climate change in a unique way, due to the natural dry climate and the legacy of inequal spatial design. It is expected that there will be an increase in temperature levels within the Eastern Cape Province, as well as rise in sea levels in coastline areas. Implications of climate change indicate the province could expect more increased rainfall in its' eastern portion. This will result in flooding and higher flows into the river systems and rising sea levels along with higher-intensity storm surges will be likely to impact on lower altitude portions of NMBM. Combined with the highest-rated risk of floods (2010 Disaster Risk Assessment for the Nelson Mandela Bay Municipality), this climate risk requires drastic attention in terms of ecological service provision & safe human settlements planning.

Climate change will not only impact the environment, but it is also expected to have an impact on the performance of the economy, social behaviour, infrastructure and other aspects of human existence within the municipality.

The NMBM SDF situation assessment report specifically identifies climate change risks that are relevant to spatial planning:

- Heatwaves
- Droughts and water Availability
- Increased rainfall flooding
- Sea level Rise and Storm Surges
- Fire Risk
- Rise in temperatures and impacts on human health
- Food security

Possible spatial planning response options for NMBM include:

- Maintaining and improving the integrity of wetlands, riparian areas and other aquatic environments.
- Maintaining and improving the integrity of water catchments.
- Avoid/ Reduce settlement and urban development in areas vulnerable to flooding.
- Ensure flood lines are plotted using projected, rather than historical, data.

- Map projected sea level rise, flood zones, set back lines, etc.
- Map coastal land exposed to the risk of sea inundation.
- Restrict development in coastal low lying areas including wetlands, estuaries and shores. Inclusion of these restrictions in spatial planning policy.
- Municipal planners should take cognisance of this threat and ensure that any development below the 5m contour at least takes into account the possibility of permanent inundation. Development below the 2m contour could be considered to be under serious threat.
- Promulgate standards and specifications for applications within the coastal risk zone.
- Prioritise informal settlements within coastal risk zone for formal resettlement/allocation of social housing.
- Increase coastal defences where infrastructure is already in place (coastal roads, ports, pipelines).
- Improve catchment and stormwater management to limit compound effects of freshwater flooding.
- Map densely built-up areas with urban heat island potential.
- Follow the densification principle in design of high-density residential developments.
- Together with densification, reinvigorate and renovate inner-city urban buildings in order to prevent sprawl and consolidate municipal services and provide demand for sustainable mobility networks.

Land use management guidelines concerning climate change (as recommended in the draft SDF):

- It is widely recognised that sea levels are expected to rise in the foreseeable future, and it is therefore recommended that no development should be encourage below the 2m contour (i.e. 2m amsl) and the 5 m contour should be considered as a high-risk zone.
- No development should take place on land within the 1 in 100-year flood line. Additionally, the increasing frequency of flood events and the unpredictable nature of climate risks can render this limit irrelevant.
- Although certain types of development may be dependent on a coastal/estuarine location, those that are not, should be set back to minimize risks form sea level rise and coastal erosion.
- The Zoning Scheme review should take into consideration and include the future setback lines of the NMB Metro Coastline.

Climate Change Risks and Responses

Risks	Response
Spatial planning inconsistent with climate change risks:	Adaptation • Establish buffer zones in areas prone to climate change risks such as flooding and sea level rise. • Promote denser settlements.

Climate Change Risks and Responses	
Risks	Response
• Agriculture that is located in areas prone to increased drought periods. • Settlements established in areas vulnerable to prone to increased flooding or heat waves. • Settlements located in areas susceptible to sea-level rise. • Lack of land use planning guidance (e.g. proximity to water courses prone to flooding, etc.). • Failure to incorporate climate responsive spatial development increases the risk of is critical to avoid loss of life and assets due to extreme weather events and through climate impacts. and extreme weather events. The NMB Metro may even be liable in the future for losses resulting from 'irresponsible' planning decisions that failed to take climate change variables into account.	• Retain natural barriers (e.g. coastal dune systems). • Demarcate zones of sensitive, vulnerable, highly dynamic and stressed ecosystems in the NMB Metro area – by ecosystem type (e.g. wetland, dunes etc.) • Identify communities and neighbourhoods that are vulnerable to climate change. • Map the following: • Ecologically sensitive areas: (i.e. habitats of endangered species, tidal wetlands) areas. • Areas vulnerable to Drought vulnerable areas. • Flood risk areas or low-lying coastal areas. • Impacts of deforestation and potential the land use changes that may result from linked to climate change. • Promote higher-density and mixed-use forms of development. NMB Metro can encourage the growth of to support liveable, accessible communities. • Promote “Smart growth” planning, a strategy that highlights emphasizing high density, mixed-use, transit-oriented development. This approach also preserves which also has other goals, such as maintaining open space, farmlands, and other natural areas and while directing city municipal resources toward strengthening existing communities rather than diverting them to new development in outlying areas. Mitigation • Identify and prioritise areas with here renewable energy potential resources are located (wind, solar, biomass, land suitable for bio-fuel crops, etc.). • Encourage denser settlement patterns to reduce transport emissions from transport. • Identify areas suitable for forest or/and thicket rehabilitation. • Ensure that NMB Metro open space and other conservation areas are protected as carbon sinks and there is not ensuring no encroachment into these areas.

Table 55: Climate Change Risks and Responses

D3.1.2. BIODIVERSITY AREAS

South Africa's primary focus of biodiversity planning is to manage land use and guide spatial planning for sustainable development opportunities at the landscape level with an emphasis on retaining or enhancing ecosystem function, especially as a climate change adaptation measure (Hawley, Desmet, & Berliner, 2019). While the Protected Areas Network (PAN) safeguards biodiversity, most of the biodiversity occurs within is found in multiple-use production landscapes, often on privately-owned or communal property.

South Africa is a signatory to the Convention on Biological Diversity (CBD), one of several international conventions pertaining to biodiversity. The Eastern Cape Biodiversity Conservation Plan (ECBCP) recognises and aligns with these commitments is cognisant and is aligned with the commitment of these agreements. The ECBCP indicates identifies areas which have higher levels of biodiversity, these including existing protected areas, biodiversity features and critically endangered areas. In addition, the ECBCP classifies biodiversity areas by terrestrial and aquatic Critical Biodiversity Areas (CBAs).

CBAs are classified into the following categories:



There are a number of CBAs located within the Nelson Mandela Bay Metropolitan Municipality (NMBM). These include terrestrial CBA 1, CBA 2 areas and ESA 1, many of which are located along the coastline and predominantly the whole of NMBM. (Stewart & Reeves, 2014). Terrestrial CBAs areas are considered as Critically Endangered (CR) and Endangered (EN) vegetation types, forest patches, and ecosystems.

CBA 1 areas are of high biodiversity value and require extensive protection and conservation due to their environmental sensitivity.

CBA 2 areas include endangered vegetation types, areas within a 1 km coastal buffer strip and all other forest clusters. They are not critically endangered although they should be conserved.

ESA areas are crucial for the terrestrial landscape because they guarantee connectivity across CBAs, enhance climate change resilience, and ensure that ecosystem infrastructure functions properly for the delivery of ecosystem services. However, they are not crucial to achieving biodiversity targets. From a terrestrial perspective, ESAs may include ridges, coastal corridors, riparian zones, etc (Hawley, Desmet, & Berliner, 2019).

The ECBCP CBA map and its land use guidelines are used to inform several components of the Spatial Development Framework (SDF), such as:

- Assigning in assigning spatial planning categories (SPLUMA)
- Informing the demarcation of urban edge.
- Applying appropriate zoning schemes.
- Designing urban open space systems; and
- Developing policy guidelines for land use management systems.

To facilitate the use of the ECBCP information, a range of land use types and activities associated with the Eastern Cape derived from SPLUMA land use categories, municipal zoning scheme definitions and predominant land uses and practices has been adopted. Each category is linked to the corresponding SPLUMA land use category to enable the integration of CBA land use guidelines into spatial planning products such as SDFs.

These land use types have been assessed in terms of the anticipated impacts against the management objectives for each CBA category. **Each land use type is given a response with respect to the level of acceptance as described below:**

1. Yes (Y): An appropriate land use activity. It is unlikely to compromise biodiversity, aligns with management objective and may contribute positively. This activity is permissible.
2. Restricted (R): the activity may compromise biodiversity integrity, may not align with management objectives, and will require detailed specialist assessment. Restrictive conditions (e.g., reduced footprint, clustering, location on previously cleared land) may apply, and biodiversity offsets or set asides may be required.
3. Not appropriate (N): The activity would cause destruction or degradation of important biodiversity and/or ecological support areas. It is not aligned with management objectives. Such development proposals will require detailed specialist assessments and compelling justification. If authorised, stringent conditions and biodiversity offsets must be applied in line with the most recent National or Provincial Offset Policy.
4. Management required (M): Selected activities should not result in further degradation or disruption of biodiversity or ecological processes, provided they are formally managed throughout their lifespan. This requires the development and implementation of a management plan.

Table 56 below presents the land use types identified for the Eastern Cape.

Land use type	Associated Land use activity	Corresponding SPLUMA land use purpose	CBA 1	CBA 2	ESA 1	ESA 2
Environmental conservation	Conservation management, low-intensity eco-tourism	Conservation	Y	Y	Y	Y

Land use type	Associated Land use activity	Corresponding SPLUMA land use purpose	CBA 1	CBA 2	ESA 1	ESA 2
	and sustainable consumptive activities. These include activities associated with the Biodiversity/Green economy.					
Tourism and accommodation	Low impact tourism/recreation and accommodation.	Special/low density residential (tourism) including lodges, hotels, etc.	R	R	Y	Y
	High impact tourism: Resorts	Low-medium density residential: human habitation, hotels.	N	N	N	R
Municipal commonage	Local agri-economic development	Agriculture	R	R	M	M
Rural residential	Low rural density housing and eco-estates	Low density residential; human habitation: housing, rooms to let, eco-estates.	R	R	R	R
	Traditional/communal areas and Rural Settlement (e.g., golf estates)	Low-medium density residential; Human habitation: housing, hotels, flats, clubs, hostels, rooms to let.	N	N	R	R
Residential	High density urban residential development (urban and business development).	Medium-high density residential; human habitation: housing, hotels, flats, clubs, hostels, rooms to let.	N	N	N	N

Land use type	Associated Land use activity	Corresponding SPLUMA land use purpose	CBA 1	CBA 2	ESA 1	ESA 2
Other urban influences	An amalgamation of land use zones, including institutional, Urban influence, mixed use and business.	Commercial: light industrial.	N	N	N	N
		Educational: Instruction/teaching.	N	N	N	N
		Institutional: charitable institutions (hospitals, nursing homes, clinics, etc.).	N	N	N	N
		Business: retail	N	N	N	N
		High density residential: human habitation: housing, hotels, flats, clubs, hostels, rooms to let.	N	N	N	N
		Recreation: Entertainment, leisure, sports and amusement	N	N	N	N
Agriculture	Extensive livestock and game farming.	Agriculture	Y	Y	Y	Y
	Game breeding.		N	N	N	R
	Intensive animal farming (feedlot, dairy, piggery, poultry and aquaculture).		N	N	N	R
	Cultivation (dryland and irrigated).		N	N	R	Y
	Agri-processing		N	N	N	R



Land use type	Associated Land use activity	Corresponding SPLUMA land use purpose	CBA 1	CBA 2	ESA 1	ESA 2
Open space	Public or private open space, including recreational areas, parks etc.	Public: open space, parks, gardens, recreation sites, sports fields and religious gatherings.	R	R	R	Y
		Community: non-profit community places of import/use.	R	R	R	Y
Low, high and general industry	Low, high and general impact industry.	Industrial: heavy industrial: manufacture.	N	N	N	N
Transport services	Transport service land uses (airports, railway stations, truck/bus/taxi stops, petrol stations).	Transport: taxi ranks, bus bays, railway, roads and streets	N	N	R	R
Roads and railways	Existing and planned linear infrastructure such as hardened road and railways, including activities and buildings associated with construction and maintenance.		R	R	R	R
Other utilities	Linear engineering structures (pipelines, canals, power lines).	Government: use of land by national, provincial or municipal government to give effect to its governance role: water, sewerage pipelines, Eskom power lines. This	R	R	R	R
	Small-scale infrastructure (WWTW and substations).		N	R	R	Y
	Large-scale infrastructure (bulk water transfer		N	N	N	N

Land use type	Associated Land use activity	Corresponding SPLUMA land use purpose	CBA 1	CBA 2	ESA 1	ESA 2
	schemes and water projects and power stations).	includes municipal zoning schemes appropriate for power generation by Independent Power Producers				
	Renewable energy: PV.		N	N	N	R
	Renewable energy: wind.		N	N	N	R
	Alternative renewable energy: biogas, gasification, biodiesel plants		N	N	N	R
Quarrying and mining	Prospecting and underground mining	Mining	N	N	N	R
	Quarrying and open-cast mining (surface mining, dumping and dredging)		N	N	N	R
	Hydraulic fracturing (fracking)		N	N	N	R

Table 56: Matrix of recommended land use management guidelines for Terrestrial based activities in the Eastern Cape

D3.2. NMBM BIOREGIONAL PLAN (NATURAL OPEN SPACE SYSTEM)

The Nelson Mandela Bay Municipality Final Bioregional Plan (2014) is the only bioregional plan applicable to the in-Nelson Mandela Bay Municipality. The Bioregional Plan is a spatial plan that shows identifies terrestrial and aquatic features essential that are crucial for conserving biodiversity and maintaining ecosystem functioning. It supports the principles of integrated development planning and sustainable development promoted by NEMA (Stewart & Reeves, 2014).

The NMBM Bioregional Plan (2014) provides recommendations for land and resource (water resource) use management guidelines in CBAs and other categories on the CBA map.

CBA's: includes all Critically Endangered (CR) vegetation types, Endangered (EN), Vulnerable (VU) and Least Threatened vegetation types, ecological processes and species of special concern that satisfy biodiversity targets

Objective: Keep in natural state

Land use: Biodiversity friendly land use types

GENERAL RECOMMENDATIONS

- No further loss of natural habitat should occur
- These areas of land can act as possible biodiversity offset receiving areas.
- Mimic or maintain natural ecological processes, for example, fire in Fynbos and Dune Thicket vegetation.
- DEDEAT, NMB and DAFF to prioritise regular monitoring and reporting for biodiversity and/change of land use to prevent unauthorised development or degradation.
- Prioritise CBAs for land use care projects, Expanded Public Works Programme (EPWP), and/or NGOs to direct conservation projects, activities and programmes;
- An Environmental Management Plan (EMP) should be compiled by the landowner for CBAs. The EMP should include alien plant control, fire management etc

PROTECTION

CBAs under public ownership should be declared in terms of NEM: Protected Areas Act. Privately owned erven should be incorporated into the PANS through the Biodiversity Stewardship Agreements and be declared in terms of NEM: Protected Areas Act (NEM:PAA) where landowners are willing. CBAs not formally protected, whether private or public should be rezoned to Open Space 3 and title deed restrictions be attached where possible.

FIRE MANAGEMENT

An appropriate fire management plan for fire dependent ecosystems must be implemented, namely Fynbos and Dune Thicket.

REHABILITATION/ RESTORATION

Degraded or disturbed CBAs will require restoration or rehabilitation through programmes such as Working for Water, Working for Wetlands

IN URBAN AREAS

CBA: includes all Critically Endangered (CR) vegetation types, Endangered (EN), Vulnerable (VU) and Least Threatened vegetation types, ecological processes and species of special concern that satisfy biodiversity targets

- Maintain and legally protect the Urban Open Space System that maintains CBAs; and
- Compatible land uses adjacent to and within CBAs could include:
 - Community projects such as passive recreation for eco-tourism
 - Where necessary provide fencing or institutional barriers where highly sensitive canopy vegetation types create a security risk

SAND MOVEMENT (ECOLOGICAL) CORRIDORS

- No development should be allowed in sand movement corridors (littoral zone), frontal dunes or dynamic dune systems.
- Mobile dunes must not be stabilised, unless development requires it.
- Maintain an indigenous vegetation buffer zone between the inland boundary of the youngest fixed dune trough and seaward boundary of existing development; and
- Strict control should be maintained over the use of off-road vehicles on beaches

COASTAL ECOLOGICAL CORRIDORS

Due to expected sea level rise from climate change, no development should occur within the coastal CBAs and the NMBM Coastal Development set-back Lines

DEVELOPMENT GUIDELINES

Where infrastructure is proposed, the following guidelines should be implemented

- Rezoning properties to afford additional land use rights that will result in increased biodiversity loss should not be granted
- Permitted number of units per erf or per hectare to be based on existing land use rights and NMBM Rural Development and Urban Edge Policy
- Developments to be limited to existing developed/degraded footprints
- Units to be clumped or carefully dispersed to achieve least impact
- The following minimum buffers are recommended between CBAs and proposed development nodes:
 - Forest: outside urban edge – minimum of 100 m, urban areas – minimum of 30 m

CBAs: includes all Critically Endangered (CR) vegetation types, Endangered (EN), Vulnerable (VU) and Least Threatened vegetation types, ecological processes and species of special concerned that satisfy biodiversity targets

- Other biomes: minimum of 50 m
- The installation of infrastructure in CBAs is not desirable and should be considered if all alternative alignment and design options have been assessed and found non-feasible.
- Protected Area infrastructure to be limited to developed/degraded sites
- A site-specific Construction and Operational Environmental Management Plan to be implemented

Table 57: Recommended management guidelines for CBAs

However, since the release of the provincial BSP, it is recommended that an update of the NMBM BSP be updated to account for the most recent ecological data that has since become available in terms of threatened ecosystems, protected area network and the provincial critical biodiversity area network.

D3.2.1. BIODIVERSITY OFFSET REQUIREMENTS

Where development will result in biodiversity impacts that range from moderate to severe even after mitigation, biodiversity offsets should be considered to compensate for the residual impacts of the development (Stewart & Reeves, 2014). For a biodiversity offset to contribute effectively to protect area expansion and biodiversity conservation in the Nelson Mandela Bay Municipality, the offset must be located in a biodiversity offset receiving area, which in the context of the NMBM will be CBAs (Stewart & Reeves, 2014).

The National Biodiversity Offset Guideline, issued under section 24J of the NEMA provides a formal framework for implementing biodiversity offsets in South Africa. It responds to the urgent need to counterbalance residual negative impacts on biodiversity that persist even after all feasible efforts to avoid, minimise, and rehabilitate such impacts.

The guideline is firmly embedded within the mitigation hierarchy, which outlines a step-by-step approach to managing biodiversity impacts:

- **Avoidance** – Prevent ecological harm by considering project alternatives and careful site selection.
- **Minimisation** – Reduce the severity or extent of unavoidable impacts.
- **Rehabilitation** – Restore damaged ecosystems after impacts have occurred.
- **Offsetting** – Implement measurable conservation actions elsewhere to counterbalance significant residual impacts.

This guideline aims to:

- clarify when and how biodiversity offsets are required as a condition of Environmental Authorisation (EA).
- establish standardised principles and procedures for biodiversity offsetting; and
- promote consistency, transparency, and scientific credibility in offset implementation across the country.

The guideline applies to terrestrial and freshwater ecosystems and is relevant to both public and private sector developments that trigger listed or specified activities under the EIA Regulations.

Offsets are only acceptable when residual impacts are significant yet and offsettable, and when earlier steps in the hierarchy have been exhausted.

The guideline outlines a comprehensive process for integrating offsets into the EA process:

- 1) Identification of the Offset Requirement: Offset needs are identified based on the significance of residual biodiversity impacts.
- 2) Preparation of a Biodiversity Offset Report: A specialist-led report defines biodiversity outcomes, candidate sites, offset ratios, and ecological equivalence.
- 3) Inclusion of Offset Conditions in the EA: Offsets must be enforceable and explicitly stated in the environmental authorisation.
- 4) Site Selection and Securing of the Site: The offset site must be formally protected (e.g. through protected area status or servitudes) and align with conservation priorities.
- 5) Offset Management Planning: A detailed Biodiversity Offset Management Plan which outlines required actions, performance targets, and monitoring requirements.
- 6) Implementation Agreements: A legally binding Biodiversity Offset Implementation Agreement must be established between the EA holder and an implementing party.
- 7) Monitoring, Auditing, and Reporting: Offsets must be auditable, with transparent reporting mechanisms and corrective provisions.

The guideline is grounded in core principles, including:

- Ecological equivalence (like-for-like).
- No net loss (or net gain) of biodiversity.
- Long-term security and management.
- Risk-aversion and scientific integrity.
- Fairness, transparency, and stakeholder engagement.

The intended outcomes of the guideline include the following:

- Safeguard priority ecosystems, species, and ecological processes.
- Expand South Africa's protected area network.

- Maintain essential ecosystem services.
- Promote sustainable development in line with constitutional environmental rights.

The National Biodiversity Offset Guideline provides a critical legal and policy instrument to ensure that development proceeds responsibly, without compromising South Africa's unique and irreplaceable biodiversity. It enables a systematic, fair, and science-based approach to offsetting, helping to balance ecological integrity with socio-economic advancement.

D3.2.2. PROTECTED AREAS

The National Environmental Management: Protected Areas Act (No. 57 of 2003) (NEM:PAA) was enacted to provide for the declaration and management of protected areas in South Africa. The Protected Areas Act should be read in conjunction with the principles set out in National Environmental Management Act (NEMA) and Section 5 and 6 of NEMA. Protected Areas Act represents a shift in the approach to conservation from the historical "protectionist" approach (i.e., exclusion of local communities) towards controlled access to resources and greater community participation in the management of protected areas.

These protected areas refer to "State owned" reserves, which includes National Protected Areas managed by SANParks, Provincial Protected Areas managed by Eastern Cape Parks and Tourism Agency (ECPTA), municipal reserves, Private Nature Reserves, and Protected Environments. Several municipal and provincial reserves have not yet been formally proclaimed under any legislation but are zoned accordingly in relevant Spatial Development Frameworks and are recognised as de facto Protected Areas. (Hawley, Desmet, & Berliner, 2019).

There are a number Protected Areas within the Nelson Mandela Bay Metropolitan Municipality including the Groendal Wilderness Area, Island Forest Nature Reserve Cape Recife Nature Reserve, Lady Slipper Nature Reserve, Maitland Nature Reserve, Sardinia Bay Nature Reserve, Settlers Park Nature Reserve, Swartkops Valley Nature Reserve, The Springs Nature Reserve, Van Standen's Wild Flower Reserve, Grassridge Private Nature Reserve, NMMU Private Nature Reserve, Witteklip Private Nature Reserve, Van Standen's Natural Heritage Area, Kragga Kamma Game Park, Paardekop Game Farm and Trgathlyln Game Farm, Uitenhage Nature Reserve, Van Der Kempkloof, Aloes Nature Reserve, Royalston Nature Reserve,

The Cape Floral Region Protected Area is a designated World Heritage Site and coincides with the Groendal Wilderness Area. It was inscribed on the World Heritage List in 2004; the property is located at the south-western extremity of South Africa. It is one of the world's great centres of terrestrial biodiversity. The extended property includes national parks, nature reserves, wilderness areas, State forests and mountain catchment areas. These elements add a significant number of endemic species associated with the Fynbos vegetation, a fine-leaved sclerophyllic shrubland adapted to both a Mediterranean climate and periodic fires, and unique to the Cape Floral Region.

Several new Protected Areas are also being proposed, including the Van Vinklop Nature Reserve. Offset Reviving Areas that have been proclaimed in terms of the NEM:PAA will also need to be considered for future development activities in the NMBM.

D3.2.3. COASTAL MANAGEMENT

The National Environmental Management: Integrated Coastal Management Act (No. 24 of 2008) (ICMA) was enacted to coordinate and consolidate all aspects of coastal management, including but not limited to the definition of the components of the coastal zone, procedures for the demarcation of coastal boundaries, and estuary management. **The objectives of ICMA are:**

- to define and determine the boundaries of the coastal zone of the Republic.
- to ensure coordinated and integrated management of the coastal zone by all spheres of government, in line with the principles of cooperative governance.
- to preserve, protect, extend, and enhance the status of coastal public property as an asset held in trust by the State on behalf of all South Africans, including future generations.
- to secure equitable access to the opportunities and benefits provided by coastal public property; and
- to give effect to the Republic's international obligations regarding coastal management and the marine environment.

The ICMA further provides for the establishment of coastal management lines and defines a coastal management line as a line determined by the Member of Executive Council (MEC) in accordance with section 25 in order to demarcate an area within which development will be prohibited or controlled in order to achieve the objectives of this Act or coastal management objectives.

The Nelson Mandela Bay Municipal coastline stretches for 102 km, extending between Van Stadens River mouth in the west and the Sundays Estuary mouth in the east. The coastline is dominated by the headland of the Cape Recife and the large, sheltered areas of Algoa Bay. The Gqeberha city is situated on the eastern side of Cape Recife. The coastal area between Port Elizabeth Harbour and the Swartkops Estuary mouth (approximately 8 km) is severely sand-depleted and experiences active erosion. North of the Swartkops River up to the Port of Ngqura, the coastline consists primarily of wide sandy beaches backed by coastal vegetation and sand dunes. Immediately north of the Port of Ngqura, wave-cut platforms and pebble beach environments dominate. Further north, over the 10 km stretch towards the Sundays Estuary mouth, wide sandy beaches and extensive coastal dunes are present.

Given that the approach in the ICMA is based around human use and activities along the coast, a balance must be maintained between the opposing risk asset loss and the economic and social benefits of coastal use. For the Nelson Mandela Bay Metropolitan Municipality, the Coastal Setback Line (CSL) was determined using a maximum sea-level rise scenario of 1,000 mm over 100 years as a principal determinant for both the CSL and the Coastal Protection Zone Limit (CPZL). In practice, the CPZL in the NMBM is situated at the landward limit of the Nelson Mandela Metropolitan Open Space System

(NMBMOSS) layer where it occurs along the coastline, and concurrent with the CSL where NMBMOSS is absent.

While both the amended NEMA EIA Regulations and the ICMA allow for the proactive determination of coastal setback lines, they must also, at times, be determined reactively when considering development applications in terms of the NEMA EIA Regulations.

Given the uncertainties surrounding the precise impacts of global warming — particularly with respect to sea-level rise and the increasing frequency and intensity of storm events — it is recommended that the determination of setback lines be repeated every 10 years using updated input data. Furthermore, as and when funding becomes available, setback lines for estuaries within the NMBM should be determined and integrated with the existing coastal setback lines.

D3.2.4. ESTUARIES

Five estuaries are located within the NMBM area: Van Stadens estuary, Maitland estuary, Swartkops estuary, Coega estuary and Sundays' estuary.

The National Environmental Management: Integrated Coastal Management Act (No. 24 of 2008) (ICMA) provides the legal framework for the management of estuarine ecosystems. Developing an Estuary Management Plan (EMP) requires fine-scale mapping, ecological assessment, and engagement with relevant stakeholders. EMPs integrate the biodiversity value, ecosystem functions, and ecosystem services that support socio-economic needs, together with the specific land-use and management requirements for each estuary. These plans must, therefore, be upheld and effectively implemented. (Hawley, Desmet, & Berliner, 2019).

The Swartkops Estuary, situated 15 km north of the Port Elizabeth harbour and extends 16.4 km inland, is the only estuary within the NMBM that currently has an adopted EMP. It is recommended that development EMPs also be developed for the remaining estuaries to ensure sustainable management of development activities within their functional zones.

Three major residential nodes are located adjacent to the estuary, namely Swartkops Village, Redhouse and Amsterdamhoek/Bluewater Bay. The townships of Motherwell and Kwazakhele, although located further away, exert indirect pressure on the estuary through pollution. Industrial activities also represent major land use pressures in the immediate area, including salt works, sewage treatment works, sand/clay mining, brickworks, the motor industry, wool industry, tanneries, extractive/beneficiation processes, aquaculture and railway yards with only limited agricultural activity present.

The Swartkops Estuary (and River) together with the adjacent Swartkops Valley Nature Reserve and the Aloe Open Space have been designated as Critical Biodiversity Areas (CBA) that need to be protected. The Swartkops Valley Nature Reserve adjoins the estuary on its northern bank. The Aloes Open Space area is in close proximity to the estuary but does not share a common boundary with the estuary.

The EMP identified a range of management actions to facilitate the achievement of the objectives within the eight key result areas (water quantity & quality, biodiversity conservation, land-use & infrastructure,

sustainable use and promotion of socio-economic activities, education and awareness, sustainable livelihoods, compliance enforcement and climate change). Management objectives must be given effect through zoning the estuary for different purposes. Estuary spatial planning is critical in identifying sensitive areas and protecting them from activities that may have a significant impact on such areas. This ensures that there is no conflict between activities that take place within the study area and synergy amongst adjoining activities.

Two Estuary Zonation Plan categories are identified in the Swartkops Estuary, the Protected Zones and Conservation Zone. The Protected Zones are established in order to protect the sensitive ecosystems within the Swartkops Estuary. No human activities may take place within the designated Protected Zones. This includes walking (also includes dogs), fishing, development, bait collecting and mooring of boats. Exemption may be obtained for bona fide scientific research.



Diagram 15: Designated Protected Zones (Source: Swartkops Estuary Management Plan)

The remaining zones or sections of the estuary water body, its associated habitats and the Estuary Functional Zone (EFZ) have been proposed as conservation areas. Activities within these conservation zones will need to be regulated according to legislation, e.g., the Seashore Act (SA; Act 21 of 1935; and the associated EIA Regulations, NEMPAA, NEMA, ICM Act, MLRA, CARA, and Municipal by-laws, to ensure sound environmental practices that benefit the users and estuary. The 1:100-year flood line, which can also be used as a guideline to limit activities will also need to be considered. Activities that

would need to be controlled or restricted to specific areas include no fishing zones, freshwater fishing zones, no-wake zones.

The No Fishing zone is established to protect fish stocks by providing sanctuary areas to allow for the protection of the reproductive phase of fish and bait species. Fishing and bait collection are prohibited within this zone.



Diagram 16: Areas zoned as no fishing zones (Source: Swartkops Estuary Management Plan)

No-wake zones are established to protect the banks and the benthic habitat of the estuary. A vessel traversing a no wake zone must have engines at idle speed and not create a wake or waves behind. Notwithstanding the above, the skipper of the vessel is required to comply with the Nelson Mandela Bay Municipality's Public Amenities By-Law.

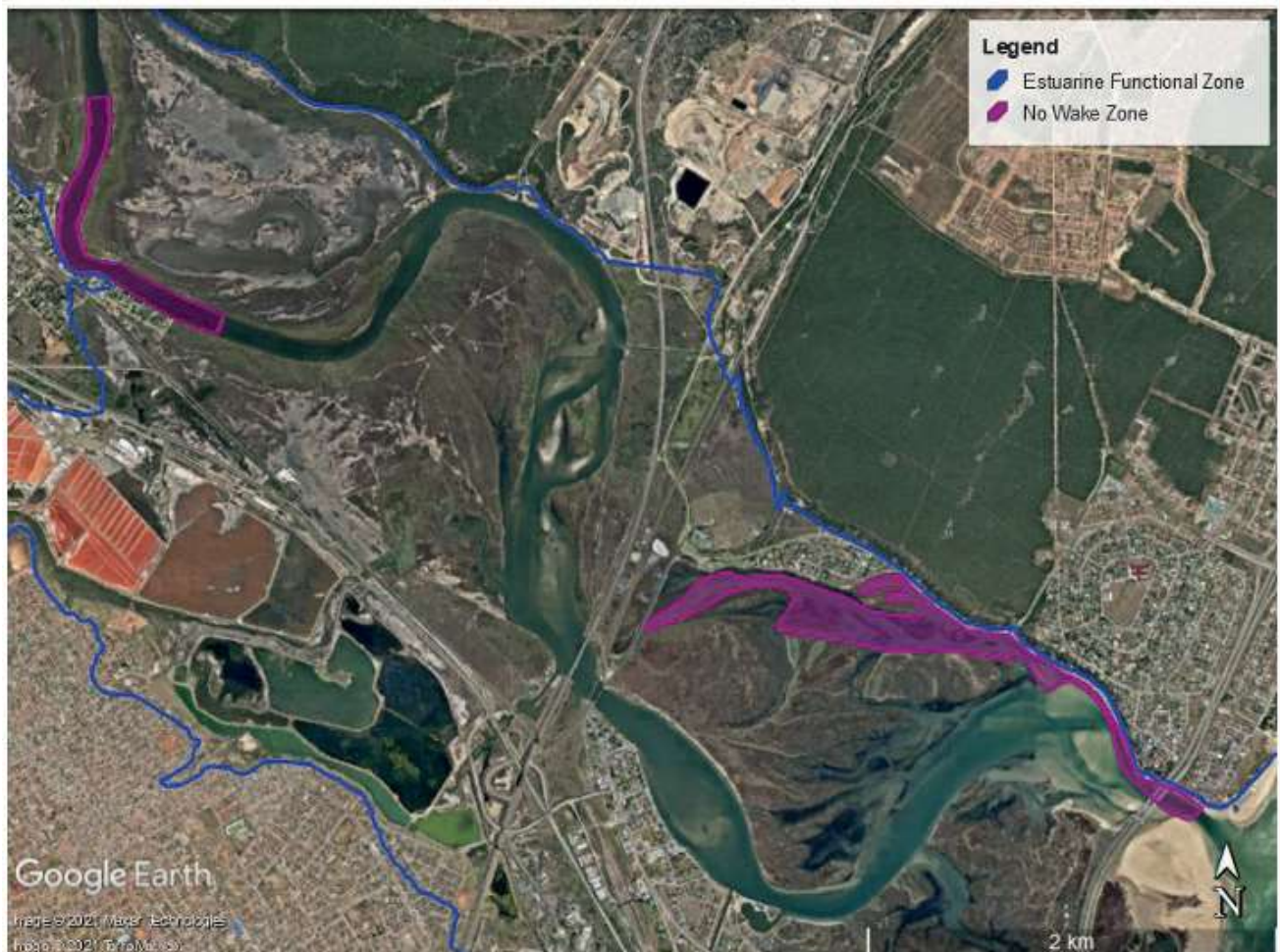


Diagram 17: Areas zoned as no wake zones (Source: Swartkops Estuary Management Plan)

Land use and infrastructure, the below management actions are recommended:

- Ensure that existing and future development (including slipways, jetties, bridges) and land uses in and around the catchment area, EFZ complies with applicable environmental legislation and municipal land-use plans and by laws.
- Restrict additional development in the EFZ.
- Ensure incorporation of the Swartkops EMP into all development planning and land use management framework.
- Provision of incentives for stewardship programs.
- Undertake an audit of existing structures within the EFZ.
- Ensure appropriate management of the Aloes waste transfer station.
- Develop and adopt flood lines for the estuary to assist with infrastructure planning and climate change adaptation.
- Identify and manage heritage resources in the management area; and

- Manage access by developing single footpaths allowing access to the water's edge in the fishing area below the Wylde Bridge.

The Sundays River estuary is managed SANParks through their Addo Elephant National Park Management Plan. Engagements with the authorities have alluded to a 50m exclusions buffer being placed around the Sundays River estuary. However, there is no indication of this buffer zone being mentioned in the Management Plan. It is recommended that further follow up be made with SANParks with regards this buffer zone and the permissible activities within this buffer zone are taken into consideration in relevant planning processes.

D3.2.5. WATER RESOURCES

The **Freshwater Ecosystem Priority Area (FEPA) Project (2012)** identified river systems critical to achieving national biodiversity goals for freshwater ecosystems. Outcomes included:

- Mapping of free-flowing rivers and fish sanctuaries.
- Identification of sub-quaternary catchments as priority intervention areas.

In the Eastern Cape, six flagship free-flowing rivers were identified: the Kraai River (draining into the Orange River) and five coastal systems—Kobonqaba, Nqabara, Mtakatye, Mtentu, and Mtamvuna.

The FEPA project also highlighted critical fish sanctuaries (good condition systems) and fish support areas (degraded systems requiring rehabilitation).

Of particular importance is the Swartkops River system. The Swartkops River catchment contains two main rivers systems, the Elands and the Kwazunga, and two subsidiary tributaries, the Brak and Chatty. The Groendal Wilderness Area constitutes almost a third of the catchment of this river system, and the Groendal Dam supplies almost two-thirds of Uitenhage's domestic water. A number of threatened and rare species occur in Groendal, including the Cape redbin minnow *Pseudobarbus* after, which is restricted to the area, and the possible presence of Hewitt's ghost frog *Heleophryne hewitti* (Critically Endangered) (Cunningham et al., 2003; Conradie et al., 2013). Cultivation and invasive alien plants along this river system have impacted on its functioning by respectively increasing sedimentation and reducing the volume of water within the river. Alien species, such as the largemouth bass *Micropterus salmoides*, are a threat to the survival of indigenous fish species. A number of small vleis and pans occur within the Municipal area, particularly in grassy Fynbos, Subtropical Thicket, and coastal areas. These provide distinct habitats for species, including both threatened and common amphibian species such as the African bullfrog *Pyxicephalus adspersus* and the yellow-striped reed frog *Hyperolius semidiscus*. In addition to providing habitat, these wetlands are also important for the functions that they provide, such as flood attenuation, water filtration and erosion reduction. The main pressures on wetlands are through infilling or draining (e.g. for urban development and grazing), erosion, water abstraction and diversion (e.g. through dams and weirs).

D3.2.6. SURFACE STRATEGIC WATER SOURCE AREA (SWSA)

South Africa's Strategic Water Source Areas (SWSAs) are upper catchments receiving disproportionately high rainfall and functioning as national "water factories." Despite covering <8% of the land area, they generate ~50% of the country's water supply. **The upper catchments of the following systems were identified as Eastern Cape SWSAs:**

- Orange River
- Mngazi River
- Mthatha River
- Great Fish River
- Kei River
- Swartkops River
- Krom River
- Kariega-Kowie-Kap Rivers

The NWA provides for fundamental reform of the law relating to water resources in South Africa.

The purpose of the NWA amongst other things is to:

- ensure that the national water resources are protected, used, developed, conserved, managed and controlled in ways which consider amongst other factors.
- promote equitable access to water.
- promote the efficient, sustainable and beneficial use of water in the public interest.
- facilitate social and economic development.
- protect aquatic and associated ecosystems and their biological diversity; and
- reduce and prevent pollution and degradation of water resources.

The NWA is concerned with the overall management, equitable allocation and conservation of water resources in South Africa. To this end, it requires registration of water users and licenses to be obtained for water use except for certain limited instances set out in the Act. These instances include domestic use, certain recreational use, where the use occurs in terms of an existing lawful use or where the department responsible for water and sanitation has issued a general authorisation that obviates the need for a permit.

WATER USE FOR WHICH A PERMIT IS REQUIRED

For the purposes of the NWA, water uses for which a permit is required are defined in Section 21 and include amongst others the following:

- taking water from a water resource.
- storing water.
- impeding or diverting the flow of water in a watercourse.
- discharging waste or water containing waste into a water resource through a pipe, canal, sewer, sea outfall or other conduit.
- disposing of waste in a manner which may detrimentally impact on a water resource; and
- altering the bed, banks, course or characteristics of a watercourse.

A permit is also required for the development of infrastructure within regulated area, as defined in the National Water Act as:

“(a) The outer edge of the 1 in 100-year flood line or delineated riparian habitat, whichever is the greatest distance, measures from the middle of the watercourse of a river, spring, natural channel, lake or dam.

(b) In the absence of a determined 1 in 100-year flooding or riparian area as contemplated in (a) above the area within 100m distance from the ends of a water course where the edge of the watercourse (excluding the flood plains) in the first identifiable annual bank fill flood bench (subject to compliance to section 144 of the NWA).

(c) for a wetland: a 500m radius around the delineated boundary (extent) of any wetland or pan.”

D3.3. AGRICULTURE

Agriculture in Nelson Mandela Bay Municipality (NMBM) plays a vital role in sustaining both rural livelihoods and urban food security. The agricultural landscape consists of diverse activities ranging from large-scale commercial citrus farming to small-scale urban agriculture. Key sectors include citrus production, dairy farming, and mohair wool production. These activities not only support the local economy but also contribute to exports, particularly citrus, which has maintained strong global demand.

In response to ongoing socio-economic challenges and the climate crisis, NMBM adopted an Urban Agriculture Policy in 2023 to formalise and scale up sustainable food production within city boundaries. The policy aims to alleviate poverty, strengthen household food security, and promote entrepreneurship by designating and preparing municipal land for farming. Support measures include the provision of tools, seeds, fencing, boreholes, and rainwater harvesting tanks. In collaboration with the Department of Rural Development and Agrarian Reform (DRDAR) and other institutions, the municipality is promoting integrated urban agriculture programs that prioritize community development and environmental sustainability. The municipality has low agricultural potential.

Urban populations and their activities generate substantial amounts of organic waste. As part of the Integrated Waste Management Plan, the potential for converting this waste into compost has been explored, resulting in the identification of several pilot composting initiatives. There is a need to assess market gardening zones as potential beneficiaries of this compost, thereby promoting further recycling and advancing sustainability efforts.

Aquaculture is also recognized as an integral agricultural practice within the spatial planning strategy of the NMBM. Multiple studies have been conducted to evaluate the feasibility of both marine-based (mariculture) and land-based aquaculture ventures. An Aquaculture Development Zone has already been designated within the Coega SEZ. The precise siting of aquaculture projects and selection of species for cultivation are guided by expert assessments to ensure alignment with surrounding land uses.

However, agriculture in NMBM faces several challenges, primarily linked to climate variability and urban expansion. Climate change has resulted in erratic weather patterns, extended droughts, and decreasing water availability, all of which threaten agricultural productivity. The municipality, in collaboration with stakeholders, has emphasized climate-resilient agricultural practices to counter these challenges. Initiatives such as rainwater harvesting, soil conservation, and the introduction of drought-resistant crops are some of the methods being promoted to ensure the sustainability of agriculture in the region.

The further development of agricultural activities within the NMBM must ensure compliance with the relevant regulatory requirements in terms of NEMA, Conservation of Agricultural Resources Act 43 of 1983 (CARA), SPLUMA, Subdivision of Agricultural Land Act 70 of 1970, etc.

D3.3.1. FORESTY

Forest in NMBM occurs in a solid form and in a mosaic with thicket. The solid forest within the NMBM is mostly confined to steep riverine gorges, which are sheltered from fire, and confined to a band along the wetter southern portion of the Municipal area. Threatened forest types within the municipal area include Critically Endangered Chelsea Forest Thicket Mosaic, Bushy Park Indian Ocean Forest, Van Stadens Afrikanian Indian Ocean Forest, Van Stadens Forest Thicket, Kragga Kamma Indian Ocean Forest and Thornhill Forest and Thornveld.

Protected species include milkwood (*Sideroxylon inerme*), dwarf Cape Beach (*Rapanea gilliana*), and yellowwood (*Afrocarpus falcatus*). The southern population of blue duiker (*Philantomba monticola*), confined to the Maputaland-Pondoland-Albany hotspot, occurs in the southern forests of NMBM.

Forests are threatened by increased fire prevalence, harvesting of forest products, and development of informal and formal housing. Forests within NMBM must be managed in accordance with the National Forests Act 84 of 1998 (NFA), NEMA, and the National Veld and Forest Fire Act 101 of 1998 (NVFA)

D3.4. GEOLOGY

According to the PSDF, the geology, geography, and soils of the Eastern Cape have remained relatively constant throughout millions of years, and the climate is also significantly less variable than the daily weather. The area's geology is dominated by Cape Supergroup sedimentary formations, such as the Bokkeveld Group Shales and Witterberg Group Shales and quartzites. Nearly the entire municipality is underlain by these sediments. The Fish River plain also has Karoo Supergroup deposits. The Algoa Group and Quarternary are thin layers of rocks that run along the coast. The Bathurst, Alexandria, and Nanaga formations are part of the Algoa group, which consists of near-shore, marine, fluvial, and aeolian deposits (DWAF 2004).

Proposed mining activities within the NMBM must comply with the relevant regulatory requirements are met in terms of the NEMA EIA Regulations and the Mineral and Petroleum Resources Development Act 28 of 2002 (MPRDA).

D3.5. AIR QUALITY

Air Quality in the NMBM is managed through the Air Quality Management By-law (GN. R 2322 of 2010). The purpose of the by-law is to control air pollution within the NMBM and ensure that air pollution is avoided, and where avoidance is not possible, the minimise and remedy the impact. The By-law must be considered in conjunction with the National Environmental Management: Air Quality Act 39 of 2004 (NEM:AQA).

Development proposals within NMBM must ensure that all associated emissions comply with the permitting and monitoring requirements of NEM:AQA and the Air Quality Management By-law.

D3.6. LIMITED DEVELOPMENT ZONES

To ensure balanced ecological functioning and respond to future demands, certain areas within NMBM are designated as limited development zones, where development must proceed with considerable care for existing environmental resources

For the purposes of this, limited development areas include:

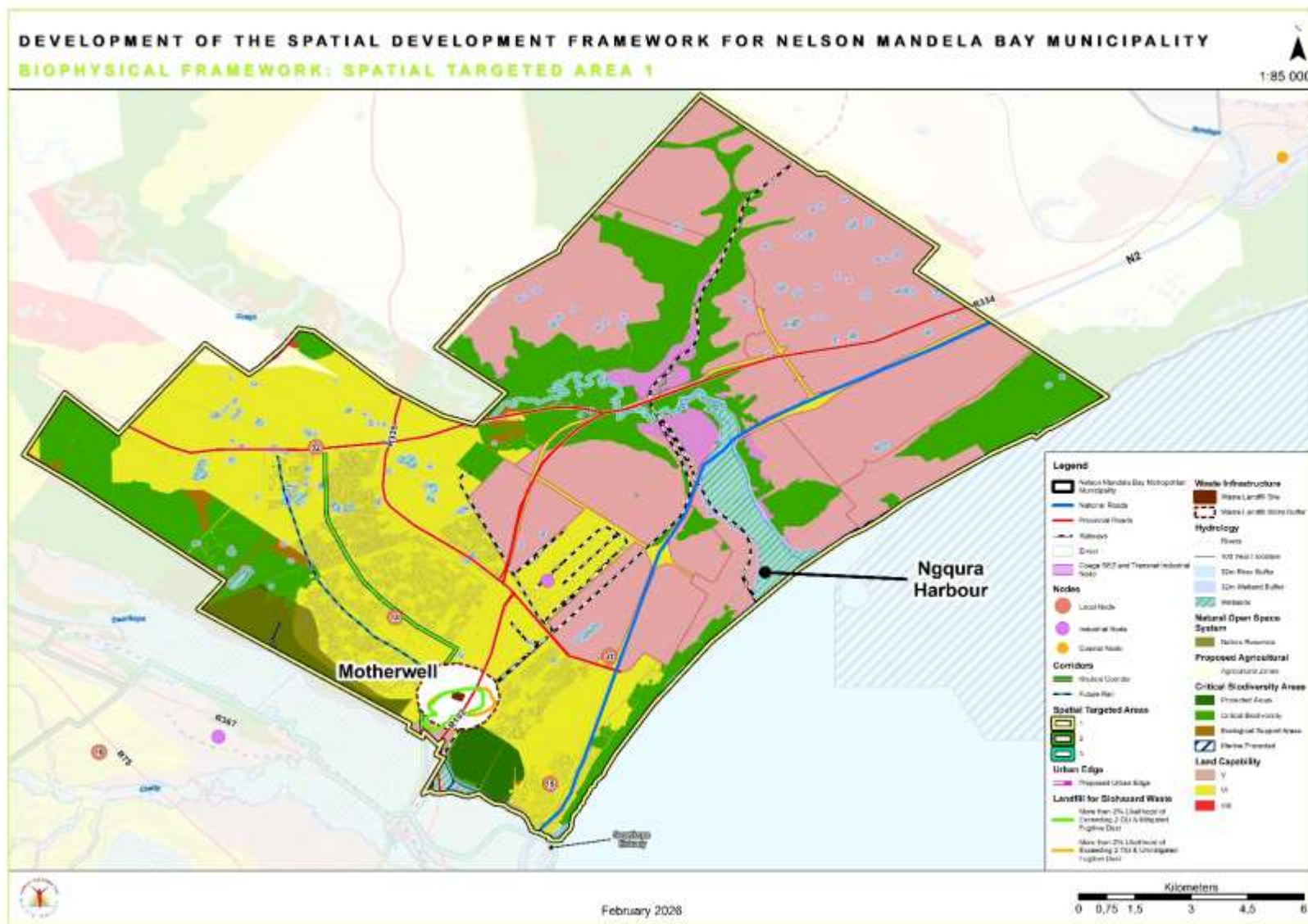
- Protected areas, by legislative declaration (this includes vegetation areas and wetlands).
- Sites of ecological irreparability values 0.6 and higher (include all areas designed as negotiated and mandatory reserves).
- Steep slopes greater than 1:3.
- Areas where mitigation measures need to be implemented.
- Areas with aesthetic controls.

Environmentally Sensitive Areas, with reference to the SDF, the following general environmental guidelines are proposed for spatial planning:

NO-GO AREAS	GO-BUT	
NO DEVELOPMENT AREAS	INSIDE URBAN EDGES	LIMITED DEVELOPMENT AREAS Outside the Urban Edge (Rural Areas)
• Areas of high environmental and conservation value. • Critical Biodiversity Areas. • Protected Areas. • Preferably within 100m of a water course (rivers, stream) and any undisturbed riparian zones. • Preferably within 500m of a wetland and any undisturbed riparian zones. • Diverse grasslands and thicket vegetation types. • Seaward side of the Coastal Protection Zone. • Within the estuarine functional zone. • Within the 1:50 year flood line. • With 500m of a sewerage treatment facility'.	• Urban Settlements. • Residential. • Public-Funded Housing. • Resort Development. • Business and Trade.	Limited by: • Low densities. • Aesthetic controls. • Provision of services. • Not in areas of environmental and ecological sensitivity. • Must draw tangible economic benefits to the affected communities.

Table 58: Limited Development Zones

Map 67 to 70 Depicts the Biophysical Framework and the relevant STA Zoom ins.

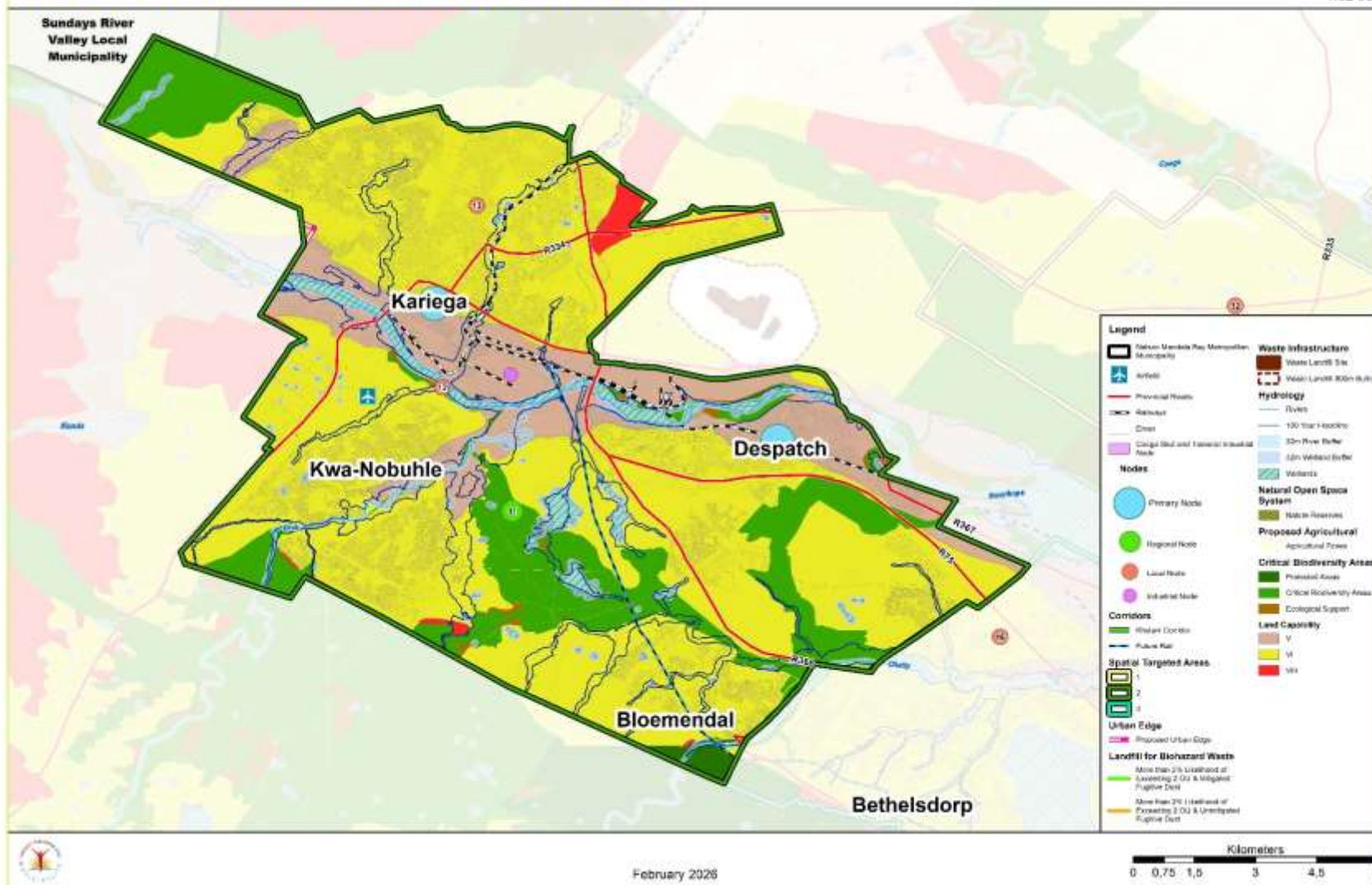


Map 67: Overall Biophysical Framework STA 1

DEVELOPMENT OF THE SPATIAL DEVELOPMENT FRAMEWORK FOR NELSON MANDELA BAY MUNICIPALITY

BIOPHYSICAL FRAMEWORK: SPATIAL TARGETED AREA 2

1:82 500



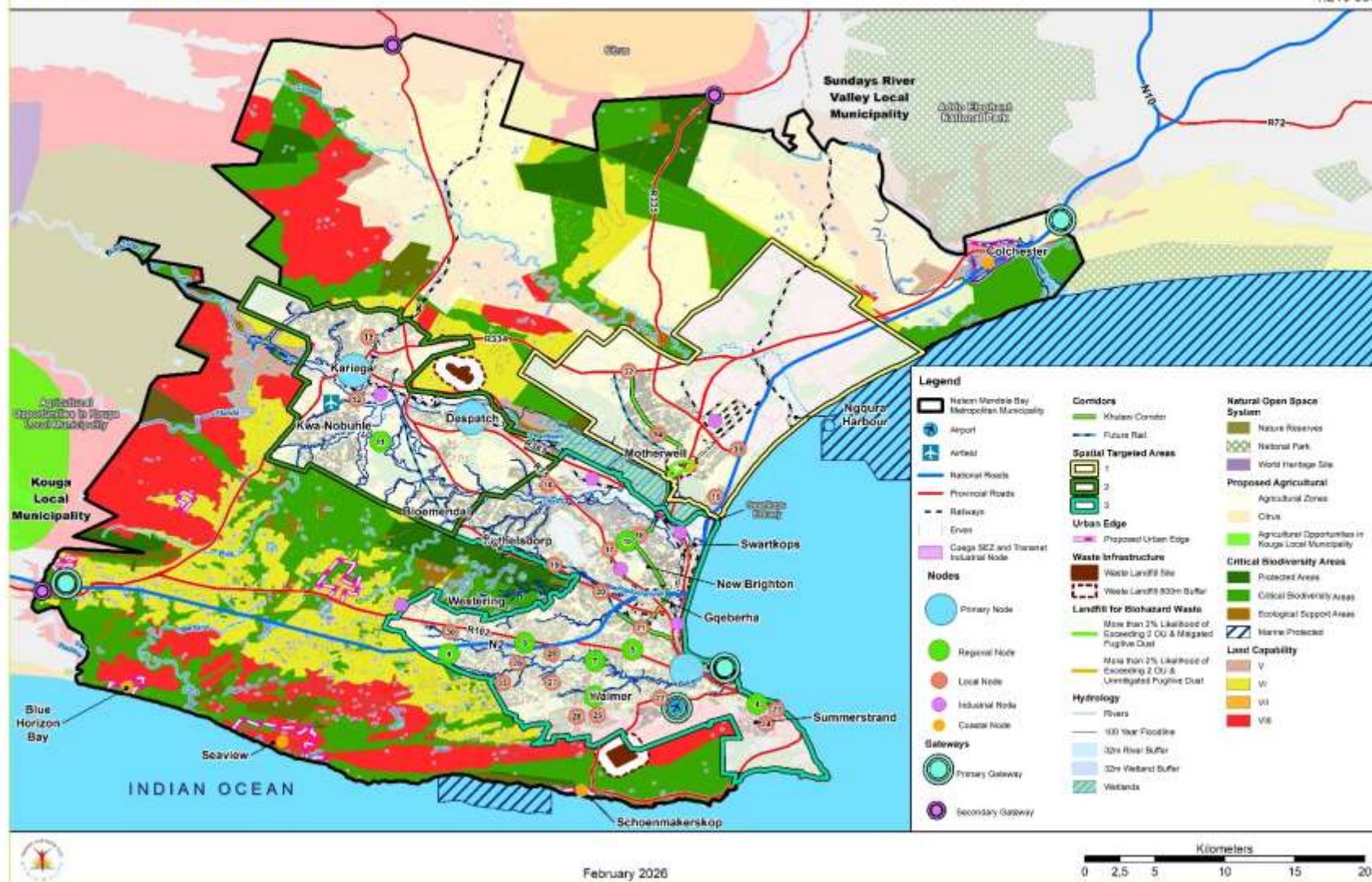
Map 68: Overall Biophysical Framework STA 2



DEVELOPMENT OF THE SPATIAL DEVELOPMENT FRAMEWORK FOR NELSON MANDELA BAY MUNICIPALITY

BIOPHYSICAL FRAMEWORK

N
1:240 000



Map 70: Overall Biophysical Framework

SECTION E: LAND-USE GUIDELINES

The following section provides more tangible guidelines to the development proposals discussed in the MSDF through linking the MSDF proposals to the Nelson Mandela Bay Municipality (NMBM) Land Use Scheme, 2023 to guide sustainable spatial planning, development control, and decision-making. The structure of this section is aligned to the Spatial Development Framework Section E of the document and first discusses the guidelines for the Built Environment Proposals, the Socio-economic and thereafter the Biophysical Framework.

These guidelines are intended for use by municipal planners, developers, consultants, and stakeholders as a **practical reference** to:

- **Summarise** the key provisions of the Land Use Scheme.
- **Explain** how they apply in everyday planning contexts.
- **Highlight** the main compliance requirements for different land use types.
- **Promote** coordinated and sustainable land development aligned with the Spatial Development Framework (SDF).

This document is **not a replacement** for the Land Use Scheme but an **abridged policy guide** which recommends proposals for guidelines to the Nelson Mandela Bay Metropolitan Municipality and public. Where relevant, the affected policies may be updated to align with the guidelines recommended herein. Where clarity is required, the original Scheme clauses, chapters, and schedules must be consulted.

Legal Status:

All development in NMBM is subject to:

- The Spatial Planning and Land Use Management Act (SPLUMA) principles.
- The NMBM Land Use Scheme, 2023.
- The NMBM Municipal Planning By-law.
- National environmental, heritage, water, and building regulations.
- Bioregional Plan, 2014.

Application:

These guidelines apply to all areas within the municipal boundary and must be read alongside the SDF to ensure **spatial alignment** between land use rights and strategic growth priorities.

E1. BUILT ENVIRONMENT LAND USE GUIDELINES

The built environment reflects the built patterns in any given area. The term "built environment" encompasses elements of our surroundings that are constructed by humans, distinct from the natural environment. It encompasses not only structures but also the human-created spaces between them, as well as the infrastructure that facilitates human activities, including transportation networks, essential services, and the interconnection of infrastructure with land use.

The following are proposed guidelines for the Built Environment:

E1.1. URBAN FORM & GROWTH MANAGEMENT

The **Urban Edge** is a strategic planning tool that defines the limit of urban expansion in Nelson Mandela Bay. It is used to:

- **Concentrate growth** where infrastructure exists or can be provided efficiently.
- **Protect rural, agricultural, and ecological areas** from urban encroachment.
- **Promote compact, sustainable urban form** in line with the Spatial Development Framework (SDF).

The Urban Edge is reviewed periodically to respond to changes in infrastructure capacity, environmental risks, and housing demand, but expansions are tightly controlled.

E1.1.1. URBAN EDGE MONITORING & ADJUSTMENT

Urban edge monitoring and adjustments ensures that the Urban Edge remains aligned with growth trends, infrastructure capacity, and environmental limits.

Process:

- Monitor development patterns annually using GIS data.
- Identify any pressures for expansion or contraction.
- Consider adjustments only if supported by infrastructure capacity, environmental clearance, and SDF alignment
- All adjustments require Council approval following public consultation.

E1.1.2. URBAN EDGE REVIEW & ADJUSTMENT

A review and Adjustment of the Urban Edge Provides a structured process for evaluating and approving changes to the Urban Edge.

Key Guidelines:

- Conduct a formal review every **five years**, aligned with the SDF review cycle.
- Interim adjustments may be considered only where there is:
 - Confirmed funding and capacity for bulk services.

- Demonstrated lack of suitable infill or brownfield sites.
- No adverse impact on environmental resources.
- All proposed changes must be supported by **GIS mapping, infrastructure reports, and public consultation**

E1.1.3. INSIDE THE URBAN EDGE

Within the Urban Edge efficient use of land and services within existing urban areas must be encouraged, the following guidelines should be encouraged to ensure proper planning.

Key Guidelines:

- Prioritise **infill development, brownfield redevelopment, and densification** to reduce pressure on undeveloped land
- Support **public transport-oriented development (TOD)** and mixed-use precincts to reduce car dependency and improve accessibility.
- Allow higher densities where supported by infrastructure and aligned with the zoning parameters
- Focus municipal capital investment on upgrading and expanding infrastructure in priority growth areas identified in the SDF.

E1.2. GUIDELINES FOR LOCAL SPATIAL DEVELOPMENT FRAMEWORKS (LSDFS)

The entire area of the NMBM within the urban edge is governed by various LSDFS. They aim to unpack detailed planning within their boundaries while aiming to strive for the overall vision of the municipality. Due to the MSDF being a tool which looks at the holistic picture of the municipality and aims to provide proposals for the entire space, it acts as a tool which can seek synergies and differences between the LSDFS and can outline areas which the LSDFS can address in more detail to serve its needs of future planning for the said area.

As outlined in the LSDFS section of the MSDF, a majority of the LSDFS require a review and update.

When these are updated, the following is to be considered for inclusion in the LSDFS:

- LSDFS to define and unpack what does the concept of “Mixed use Development” within their space in terms of which mix of land uses are appropriate for development (municipal guidelines for Mixed use development is outlined below).
- Map areas for Mixed use activity
- Map areas for increased densification and define the density applicable to these areas
- Provide focused proposals for the following areas (if they fall within the LSDF assessed)
 - Integration Zones
 - Growth Areas
 - Restructuring Zones

- PSHSDAs
- Assess and consider development proposals in neighbouring LSDFs – this is key to ensure alignment and synergy between spaces
- Identify vacant land parcels for detailed feasibility studies to be completed
- Identify vacant land parcels within the LSDF for Social Housing developments (ideally within the defined RZ areas)
- It is recommended that LSDFs do not propose Industrial / warehousing within close proximity to office and retail activity.

E1.2.1. SHORTENED APPLICATION PROCEDURES & INCENTIVES

Encourage priority developments that align with the proposals of the LSDF

Key Guidelines:

- Where applications are submitted for proposals that align with the LSDF, the applicant will only be required to obtain consent from neighbouring property owners to proceed with the development
- Such developments will be considered a consent or approval in terms of another legislation in line with the SDF, LSDF or precinct plans and can be considered for approval by the Authorized Official as a Category 2 Application

E1.3. AIRPORT OVERLAY ZONE

The purpose of this guideline is to Manage development in areas affected by airport operations and noise exposure.

Key Guidelines:

- Restrict sensitive uses (schools, hospitals, residential) within specified noise contours
- Require Civil Aviation Authority approval for structures affecting obstacle limitation surfaces.
- Integrate acoustic design measures into all permitted developments in the overlay area.
- Allow compatible uses such as logistics, warehousing, and transport-related activities, provided acoustic mitigation is included

E1.4. MIXED-USE DEVELOPMENT GUIDELINE

Purpose

- Promote compact, vibrant and inclusive urban environments that integrate residential, commercial, employment, social and recreational uses.
- Support transit-oriented development (TOD), walkability and reduced car dependence.
- Encourage infill and brownfield redevelopment to curb sprawl and optimise infrastructure.

Applicable Area

- Activity nodes, corridors and primary development areas identified in the NMBM SDF.
- Brownfield and infill sites within the **Urban Edge**.
- Strategic growth areas and precincts earmarked for higher intensity development.

Applicable Zones (per NMBM Land Use Scheme 2023)

- **Business Zone 1: Central** – accommodates the highest order mixed-use.
- **Business Zone 2: General** – allows medium- to high-intensity mixed-use along corridors and nodes.
- **Business Zone 3 (with consent)** – where small-scale mixed-use is appropriate.
- **Special Zones / Overlays** – Inclusionary Housing Overlay (IHOZ), Economic Development Overlays, Airport Overlay, Environmental/Heritage Overlays where applicable.

Key Guidelines

- Ensure **minimum mix**: residential + at least two non-residential uses (e.g. office, retail, entertainment, community facilities).
- **Active ground floors** required on activity streets: retail, service or community use must front public streets.
- **Height, coverage and FAR** to align with underlying zone provisions; higher intensities permitted in nodes and corridors.
- **Parking management**: shared/unbundled parking encouraged; reduced minimums near transit; bicycle parking required.
- **Walkability**: short blocks, pedestrian links, safe crossings, and cycle networks integrated into layouts.
- **Public realm**: include civic spaces (plazas, parks, landscaped setbacks) proportionate to project size.
- **Inclusionary housing**: where IHOZ applies, provide minimum 20% affordable units in developments of 20+ units.
- **Environmental safeguards**: observe riparian/wetland buffers; integrate sustainable drainage systems (SUDS).
- **Airport overlay compliance**: avoid noise-sensitive uses; apply acoustic mitigation.
- **Heritage protection**: contextual design and adaptive reuse where applicable.
- **Site Development Plan (SDP)** required for all significant mixed-use projects, demonstrating phasing, integration, mobility, and infrastructure capacity.

E1.5. HUMAN SETTLEMENTS LAND USE GUIDELINES

E1.5.1. GUIDELINES FOR PSHDAS:

To ensure consistency and quality in PSHDA implementation, municipalities are required to prepare PSHDA Development Plans that adhere to the following standards:

Guidelines	Interpretation
Vision Statement	Articulate a clear spatial and developmental vision for the PSHDA
Infrastructure Planning	Outline proposed infrastructure upgrades and service delivery mechanisms
Spatial Proposals	Define land use patterns, zoning intentions, and development typologies
Movement Systems	Plan for integrated transport networks, pedestrian pathways, and mobility corridors
Open Space and Amenities	Design public spaces, recreational areas, and community facilities
Land Use Guidelines	Refer to municipal spatial policy documents for land use guideline
Programmes and Projects	Identify catalytic projects, restructuring elements, and priority interventions
Implementation Plan	Detail timelines, cost estimates, and funding source
Roles and Responsibilities	Clarify institutional arrangements across public, private, and intergovernmental actors
Investment Prioritization	Highlight areas for public investment and opportunities for private sector participation
Infrastructure Needs	Assess bulk and connector infrastructure requirements to support development

Table 59: Guidelines for PSHDAs

E1.5.2. GUIDELINES FOR RESTRUCTURING ZONES (RZS)

The following lists the guidelines for implementing Social housing projects within Restructuring Zones:

- Identify land parcels within RZs for Social housing through the LSDFs
- Partnerships to be created between the municipality and implementing entities such as the Social Housing Institutions (SHIs), New Co-operatives, Existing accredited SHIs and accredited, Co-operatives, Private Sector Companies and Public-Private Partnerships (PPP)
- Feasibility studies for land parcels

- Apply for funding for various social housing grants such as Restructuring capital grant, Top-up from provinces, Staff gear-up grant, Project acquisition and feasibility grant, Pre-accreditation grant and the General capacity building grant

E1.5.3. GUIDELINES FOR FUTURE INTEGRATED DEVELOPMENTS

Future Integrated areas have been identified in the MSDF as areas outside of the urban edge and proposed for expansion should advances in the economic sector be seen. The development of these areas for Future Integrated has prerequisites be met which are discussed in the Housing Framework Section in the Built Environment Framework.

There is seen a need for any of these developments, the following due diligence procedures are required (non-necessarily in this order):

- Feasibility study to assess the demand and the need for housing development and the amount of land required
- Extension of the urban edge to include the required land
- Township establishment
- EIAs, traffic studies, Infrastructure needs and other required studies
- The initiative requires updates to land use guidelines to ensure alignment with municipal, provincial and national policies.

E1.5.4. INCLUSIONARY HOUSING OVERLAY ZONE (IHOZ)

Purpose: Increase the supply of affordable housing in larger residential developments.

Key Guidelines:

- At least **20% of units** in developments of **20 units or more** must be affordable housing (*Schedule 8 – Inclusionary Housing Overlay Zone, p.65*).
- Affordable units must be **integrated into the development**, not located separately.
- Tenure options may include ownership, rental, or social housing.

E1.6. INFRASTRUCTURE GUIDELINES

The purposed of Infrastructure guidelines is to Provide efficient, integrated, and climate-resilient infrastructure for transport, energy, water, and ICT networks.

Applicable Zones: Transport Zones 1–3, Authority Zone, Renewable Energy Facility Zone.

Key Guidelines:

- All infrastructure development must comply with **environmental and safety legislation**, Scheme parameters, and overlay requirements
- Align infrastructure planning with SDF priorities, **transport-oriented development (TOD)** principles, and climate adaptation goals

- Promote modal integration, energy efficiency, and low-carbon solutions

E1.7. GUIDELINES FOR GROWTH AREAS

There are 4 Growth Areas (GA) identified within the NMB each having unique potential and characteristics. The following section outlines detailed guidelines for each GA.

GA 1: N2 / Baywest region

- Integrated Mixed Residential Development north of the N2
 - include GAP Housing,
 - 2-3 storey walk up flats,
 - single dwelling units,
 - rental units
- Baywest Integrated Mixed Use Development
 - Developments which accommodate office and / retail on the ground and 1st floor
 - and residential further above.
 - provide communal parking areas to maximize space
- Utopia Estate Mixed Use Development
 - Private Development including residential and a mix of uses

E1.8. GREEN BUILDING DESIGN GUIDELINES

Green building is the practice of creating structures and applying processes that are environmentally responsible and resource-efficient throughout a building's life cycle. Key aspects include:

- **Safeguarding water resources:** Measures such as rainwater harvesting, low-flow fixtures, and water-efficient landscaping reduce consumption and improve resilience.
- **Minimising waste and maximising reuse:** Prioritising durable materials, recycling demolition waste, and designing for disassembly to reduce landfill disposal.
- **Promoting health and well-being:** Incorporating natural light, ventilation, and views improves occupant comfort, productivity, and health. Passive design for thermal regulation reduces reliance on mechanical systems.
- **Energy efficiency:** Integrating renewable energy sources and low-carbon technologies for heating, cooling, and power supply. Buildings should meet or exceed national energy performance standards.
- **Resilience and flexibility:** Designing structures to adapt to climate change impacts such as floods or droughts and ensuring spaces can be repurposed over time to avoid premature demolition.
- **Integration with the surrounding environment:** Prioritising proximity to amenities, encouraging non-motorised transport (NMT), and leveraging information and communication technologies (ICT) for smarter, connected buildings.

E1.8.1. GREEN INFRASTRUCTURE TECHNOLOGY

Green infrastructure technology refers to innovative systems and processes that integrate environmental sustainability into service delivery. Beyond traditional infrastructure, these approaches offer nature-based, decentralised, and resource-efficient solutions to address urban and rural challenges.

KEY INTERVENTIONS INCLUDE:

RAINWATER HARVESTING

Collecting, storing, and reusing rainwater from rooftops or catchment areas provides supplementary water for households, schools, clinics, and small-scale farming. Benefits include reducing dependence on municipal water systems, lowering household utility costs, and supporting drought resilience.

STORMWATER HARVESTING

Collecting runoff from streets, drains, and open spaces allows for treatment and reuse in irrigation, industrial processes, or groundwater recharge. Stormwater harvesting reduces urban flooding, lowers pollutant loads entering rivers, and supports urban agriculture.

VEGETATION BUFFERS

Tree planting, bioswales, and wetlands enhance infiltration, reduce erosion, and provide biodiversity habitats. They also improve microclimates in urban areas.

SOLID WASTE RECYCLING

Transforming waste into reusable materials diverts pressure from landfill sites, reduces environmental impacts, and supports local economic opportunities through community-based recycling initiatives.

GREYWATER REUSE

Water from sinks, showers, and washing machines can be collected, lightly treated, and reused for non-potable purposes such as garden irrigation and toilet flushing. Greywater reuse reduces freshwater demand and alleviates pressure on wastewater treatment systems.

SOLAR ENERGY

Photovoltaic (PV) panels on rooftops or localised microgrids provide clean, decentralised power. Benefits include reducing dependency on the national grid, mitigating load-shedding impacts, lowering greenhouse gas emissions, and enhancing energy security. Emerging models such as **agrivoltaics** combine farming and solar production for dual land use.

E1.8.2. CLIMATE RESILIENCE AND ADAPTION

Green infrastructure technology not only advances sustainability but also strengthens Nelson Mandela Bay Municipality's resilience to climate variability, extreme weather, and resource scarcity. By integrating climate adaptation into infrastructure planning, the municipality can:

- **Enhance drought resilience** through rainwater harvesting, greywater reuse, and water-efficient practices.
- **Mitigate urban flooding and erosion** via stormwater management and vegetation buffers.
- **Increase energy security** with decentralised solar PV and agrivoltaics, reducing reliance on the national grid.
- **Improve urban microclimates and biodiversity** through green spaces, wetlands, and tree planting.

E1.8.3. ECONOMIC OPPORTUNITIES FOR GREEN INFRASTRUCTURE TECHNOLOGY

Green infrastructure not only addresses environmental concerns but also drives economic diversification, local job creation, and skills development. Key opportunities include:

- **Installation and Maintenance:** Projects such as green roofs, rain gardens, solar PV systems, permeable pavements, and smart infrastructure systems (e.g., SCADA water monitoring, smart grids) require a skilled workforce for installation, monitoring, and long-term maintenance. Upskilling local communities can create sustainable employment and enhance technical expertise.
- **Manufacturing and Supply Chains:** Establishing local production of green technologies—including solar panels, water tanks, recycled building materials, and components for smart infrastructure—reduces import reliance and stimulates industrial growth. Local manufacturing supports assembly, distribution, and logistics employment.
- **Entrepreneurship and SMME Development:** Business opportunities exist in recycling cooperatives, solar installation and maintenance services, water harvesting system installers, and ICT-enabled smart solutions for energy and water management. Supporting incubation hubs, mentorship, and access to finance can grow these small and medium-sized enterprises.
- **Innovation and Research:** Partnerships with local universities, research centres, and technology incubators (e.g., Nelson Mandela University's Centre for Energy Research) can drive innovation in renewable energy storage, smart water management, water reuse systems, waste valorisation technologies, and green construction materials.
- **Circular Economy and Waste Valorisation:** Waste management initiatives—including material recovery facilities, waste-to-energy plants, and composting operations—create jobs while providing economic value from discarded materials. Community-based recycling programs and buy-back centres offer income-generating opportunities and strengthen local entrepreneurship.
- **Community Empowerment:** Community-based projects, such as cooperative solar farms, waste buy-back centres, and water reuse initiatives, strengthen social cohesion while providing direct income-generating opportunities. Engaging local residents in planning, installation, and operation fosters ownership and long-term sustainability.

E1.9. URBAN DESIGN /LANDSCAPE DESIGN/GREENING PLAN:

This Section highlights Urban Design Principles essential in the Nelson Mandela Bay Municipal area. In the Nelson Mandela Bay Municipal area, urban design serves as the cornerstone of creating vibrant spaces for community interaction. It revolves around understanding how people utilize and perceive their environment, prioritizing safety, comfort, and accessibility.

Urban design in this context is crucial for fostering sustainable environments, increasing economic viability of developments and delivering social and environmental benefits. **A good urban design in Nelson Mandela Bay Municipality will:**

PROMOTE ECONOMIC VITALITY

- Well-designed urban spaces (e.g., mixed-use precincts, pedestrian-friendly CBDs) can attract investment, tourism, and small business growth, strengthening local economic resilience.
- Well-planned, aesthetically appealing areas often see sustained property value growth, benefiting both municipal revenue (through rates) and residents' equity.

ENHANCE SOCIAL COHESION AND SAFETY

- Public spaces designed for inclusivity (parks, plazas, squares foster community interaction and reduce social divisions.
- “Eyes on the street” design principles improve natural surveillance, helping reduce crime.

IMPROVE ENVIRONMENTAL RESILIENCE

- Integrating green infrastructure (rain gardens, tree planting, permeable surfaces) helps manage stormwater, counter flooding, and combat heat islands—key for coastal cities.
- Protects and rehabilitates ecologically sensitive areas such as the Swartkops River Estuary.

ENCOURAGE EFFICIENT LAND USE & SUSTAINABLE MOBILITY

- Densification and mixed-use design make better use of existing infrastructure, reducing sprawl and protecting agricultural and environmentally sensitive land.
- Designing compact, well-connected neighbourhoods reduces reliance on private cars and promotes walking, cycling, and public transport—aligning with NMBM's transport and climate goals.

By embracing principles of Urban design, we can cultivate dynamic spaces that encourage public engagement and interaction, thereby enhancing the overall quality of life within the community.

The Urban Design Principles set out in the development perspective of the Nelson Mandela Bay Municipality area are as follows:



E1.9.1. GREENING AND BEAUTIFYING

Greening and beautifying initiatives aim to enhance ecological resilience and urban aesthetics through integrated green systems and sustainable design. It is essential for maintaining and enhancing urban and rural environments. These efforts offer benefits such as climate regulation, improved air quality, and biodiversity support. Additionally, they provide significant social and health advantages, including reduced stress, increased physical activity, and stronger community bonds. Economically, such initiatives can boost property values and attract tourism, making them crucial for sustainable and vibrant community development.

GREEN NATURAL SYSTEMS

Green natural systems refer to ecosystems and vegetated areas—such as wetlands, forests, and grasslands—that occur naturally and support biodiversity, regulate climate, and provide recreational and aesthetic value. In the NMBM ecologically sensitive areas like the Swartkops Estuary, Van Stadens River corridor, and coastal dune systems are under pressure from urban expansion, pollution, and invasive species. Despite their potential these natural systems face several challenges highlighting the need to protect and integrate of them into urban planning to enhance resilience and liveability.

Application:

- Eco-trails and Boardwalks:** Develop walking trails and boardwalks through natural green belts such as river corridors or coastal dunes. These trails can include signage that educates users about local biodiversity and conservation efforts.
- Biodiversity Parks:** Establish managed green spaces that preserve indigenous vegetation while offering recreational amenities like picnic areas and bird hides. These parks can be located near residential areas to encourage community use.
- Maintenance Strategy:** Partner with local NGOs and schools for clean-up and alien plant removal. This improves ecological health and restores the visual appeal of natural systems.



Preserving and restoring natural ecosystems within the urban fabric supports biodiversity, stormwater management, and climate adaptation. This reduces infrastructure strain for the municipality and provides healthier, more liveable environments for citizens.

GREENING THE PUBLIC REALM

This involves planting trees, landscaping, and integrating greenery into streets, parks, and plazas to improve aesthetics, comfort, and ecological function. Many inner-city areas and townships lack adequate greenery. Trees not only mitigate pollution and provide shade but also contribute to the overall ambiance of the area, reducing noise pollution and enhancing the quality of life for residents and visitors alike. The NMBM IDP identifies beautification and environmental upgrades as key to revitalizing public spaces and improving community pride.

Application:

- **Greening:** Introduce rows of indigenous trees and flowering shrubs along pedestrian routes like Njoli Square and high-density areas such as Motherwell and KwaZakhele. This softens the urban landscape, provides shade, and improves walkability.
- **Community Park Upgrades:** Revamp existing parks with landscaped lawns, native plant beds, and shaded seating areas. These upgrades encourage outdoor activity and social interaction, especially among youth and elderly residents.
- **Green Corridors:** Link fragmented green spaces with landscaped pedestrian paths and cycleways to create continuous green networks. These corridors improve mobility, biodiversity, and visual connectivity across neighbourhoods.
- **Community Gardens:** Encourage urban agriculture in underutilized spaces.



Plant trees along the pedestrian walkways and roads to provide shade and minimise the impact of accidents.

Introducing trees, landscaping, and green infrastructure into streets and public spaces improves air quality, comfort, and visual appeal. This helps the municipalities to gain cooler, more attractive urban areas while citizens enjoy shaded, inviting public spaces.

GREEN BUILDING DESIGN

Green buildings Green building, also known as sustainable construction, focuses on using energy-efficient materials, passive design, and sustainable technologies to reduce environmental impact. Green building design aims to create healthier indoor environments while minimizing their impact on the natural surroundings and also promote energy efficiency.

Application:

- **Use Of Sustainable material:** Incorporate materials that are reused, recycled, recyclable, or sourced from renewable resources. Retrofit municipal facilities such as clinics and libraries with solar panels and energy-efficient lighting. This reduces resource consumption and supports the transition to renewable energy.
- **Green Building Incentives:** Offer development incentives such as reduced approval times or fee waivers for projects that meet green building standards, especially in mixed-use precincts.



Using renewable resources to enhance public spaces and infrastructure.

Designing buildings with passive climate control, energy efficiency, and sustainable materials reduces environmental impact and operational costs. This approach to building ensures energy demand is lowered, and citizens benefit from reduced utility costs and improved indoor comfort and also contribute positively to the future sustainability of our built environment.

GREEN CONSTRUCTION TECHNIQUES

Green construction techniques involve using low-impact methods, recycled materials, and minimizing site disturbance to reduce the environmental footprint of building activities. By sourcing materials

locally, using reclaimed resources, and implementing rainwater harvesting systems, green buildings aim to conserve natural resources and promote a healthier built environment.

Application:

- **Use of Sustainable Building Materials:** Promote the use of locally sourced materials such as stone, thatch, and clay, as well as reclaimed timber, recycled glass, tiles, and aluminium. These materials reduce transportation emissions and support local economies.
- **Utilization of Renewable Materials:** Encourage the use of renewable materials like bamboo, cork, and linoleum, which are derived from sustainable sources and contribute to a lower environmental impact over their lifecycle.
- **Rainwater Harvesting Systems:** Implement rainwater harvesting systems, such as JoJo tanks, to capture and store rainwater for reuse in building ablution facilities and irrigation of green spaces. This practice reduces reliance on municipal water supply and lowers water consumption.

The integration of green construction techniques presents a valuable opportunity to save on landfill and resource costs, while citizens benefit from cleaner air and reduced disruption. Using low-impact construction methods and recycled materials minimizes waste and promotes long-term sustainability.

ROOF TOP GARDENS

Rooftop gardens transform unused roof space into productive or recreational green areas, improving insulation, biodiversity, and urban aesthetics. With limited open space in dense urban areas, rooftop gardens offer a vertical greening solution. This aligns with the municipality's goals for climate adaptation, food security, and beautification.

Application:

- **Rooftop Gardens on Public Buildings:** Convert roofs of municipal buildings like libraries or community centers into gardens with herbs and indigenous plants. These spaces can be used for education and relaxation.
- **Green Roofs for Commercial Developments:** Encourage businesses in the CBD to install rooftop gardens with native succulents and solar panels. This enhances building performance and contributes to urban greening.
- **School Garden Initiatives:** Create rooftop vegetable gardens on school buildings to support feeding schemes and teach students about sustainability and nutrition.

The integration of rooftop gardens offers thermal insulation, stormwater absorption, and recreational space, contributing to urban greening and food security. This reduced pressure on Municipal stormwater systems and citizens gain access to green spaces and potential food sources.



The Port Elizabeth Library: A National Monument

E1.9.2. SUSTAINABLE BUILT ENVIRONMENT

Sustainable built environment creating vibrant, safe, and inclusive urban spaces through thoughtful design and placemaking.

LANDMARKS

Landmarks are prominent physical features such as buildings, monuments, or public art that help people orient themselves and navigate. It is important to design and create memorable and legible environments in an area such as the Nelson Mandela Bay Municipality . Landmarks are seen as tools for placemaking and wayfinding.

Application:

- **Public Art as Landmarks:** Public art has the unique ability to not only serve as landmarks but also enrich the urban landscape with cultural and aesthetic value. Integrating public art with urban furniture further enhances functionality while contributing to the area's visual appeal.
- **Civic Buildings as Anchors:** Strategically located public buildings such as libraries, community centres, or transport hubs can act as visual and functional anchors within neighbourhoods. Their design should be bold and welcoming to reinforce their role as community landmarks.

By strategically placing landmarks we ensure enhanced orientation, identity, and cultural pride within the urban landscape. This also helps the municipality to strengthen its brand and heritage, while citizens enjoy a deeper connection to place.

PLACEMAKING

Placemaking is strategic process of designing public spaces that are vibrant, inclusive, and reflective of the community's identity. It focuses on creating places where people want to live, work, and gather. The NMBM IDP promotes inclusive urban development and community empowerment. Placemaking supports these goals by fostering connection between people and their environment.

Application:

- **Interactive Public Spaces:** Design plazas, squares, and parks with features like seating, shade, play areas, and performance stages to encourage diverse uses and social interaction.
- **Community-Informed Design:** Engage residents in the design process to ensure that public spaces reflect local culture, needs, and aspirations. This builds ownership and long-term stewardship.
- **Temporary Activations:** Use pop-up markets, art exhibitions, and street performances to activate underutilized spaces and test ideas before permanent investment.
- **Environmental Integration:** Incorporate greening and beautification initiatives, such as planting trees and flowers, to create visually pleasing and environmentally friendly spaces. This also includes ensuring the ease of access and movement between different activities and spaces.

Community driven design of public spaces fosters social interaction, local ownership, and a sense of belonging. Place Making transform spaces into more loved and maintained living environments where citizens feel empowered and engaged.

URBAN FURNITURE

Urban furniture includes elements like benches, bins, lighting, bike racks, and signage that support comfort, usability, and identity in public spaces. Urban furniture is essential for creating safe, accessible, functional and attractive spaces.

Application:

- **Comfortable Seating:** Install benches and seating areas in shaded locations along pedestrian routes and public squares to encourage rest and social interaction.
- **Waste Management Infrastructure:** Provide well-placed bins and recycling stations to promote cleanliness and environmental responsibility.
- **Wayfinding and Signage:** Use clear, multilingual signage to guide residents and visitors through neighbourhoods, highlighting key destinations and cultural landmarks.



The strategic implementation of urban furniture is crucial for the enhancement of the study area's functionality, aesthetics, and overall user experience. Functional and aesthetic street furniture improves comfort, usability, and the character of public spaces enabling users to enjoy these spaces.

SAFETY AND SECURITY

Safety and security in urban design refers to creating environments that reduce crime, promote visibility, and make people feel safe and welcome. Safety is a major concern in many parts of the municipality indicating the need for integrated approaches to urban safety, combining design, lighting, and community involvement.

Application:

- **Natural Surveillance:** Design buildings and public spaces to maximize visibility, with active frontages and transparent boundaries that allow people to observe their surroundings.
- **Lighting Strategy:** Install well-designed lighting along streets, parks, and transport nodes to improve nighttime safety and reduce fear of crime.
- **Community Safety Partnerships:** Collaborate with local stakeholders, including neighborhood watches and youth groups, to co-manage public spaces and promote a culture of safety.



Pedestrians and security elements, "eyes on the street"

E1.9.3. MOVEMENT AND ACCESSIBILITY

Movement and Accessibility refer to the different means of movement and accessibility to the different amenities within the study area promoting inclusive, connected, and intuitive mobility systems for all users.

ACCESSIBILITY

Accessibility refers to the ease with which people of all ages, abilities, and income levels can reach destinations, services, and opportunities. It includes physical access, affordability, and inclusive design. Improving accessibility supports social inclusion, economic participation, and human dignity.

Application:

- **Universal Design Principles:** Ensure that sidewalks, public buildings, and transport nodes are designed to accommodate people with disabilities, the elderly, and children. This includes ramps, tactile paving, and audible signals.
- **Affordable Public Transport:** Promote integrated and affordable transport systems that connect residential areas to employment hubs, schools, and health facilities. This reduces travel time and supports economic mobility.
- **Proximity-Based Planning:** Encourage mixed-use development and compact urban form so that essential services are within walking or cycling distance, reducing dependence on private vehicles.



Open pedestrian walkway allowing for pedestrian accessibility

Inclusive design and proximity-based planning are essential to ensure that all residents regardless of ability or income can access services, participate in the economy, and move freely through the city.

PERMEABILITY

Permeability refers to the degree to which an urban area allows movement through it. A permeable layout offers multiple routes and connections, making it easier for pedestrians and cyclists to navigate. Many neighborhoods in the area of Nelson Mandela Bay Municipality suffer from poor connectivity due to cul-de-sacs, gated developments, or fragmented infrastructure. The design principle of permeability allows spatial integration and walkable environments to overcome these barriers.

Application:

- **Pedestrian Path Networks:** Create interconnected pedestrian routes that link residential areas to parks, schools, and transport stops. This encourages walking and reduces congestion.
- **Breaking Superblocks:** Introduce mid-block crossings, alleyways, and green passages in large urban blocks to improve internal circulation and access to amenities.

- **Integrated Transport Nodes:** Design transport hubs that seamlessly connect different modes—such as taxis, buses, and bicycles—making movement fluid and efficient.



Pedestrian crossing, decreasing the movement of vehicles, creating permeability

Improving connectivity through pedestrian networks and integrated transport nodes fosters walkability, reduces congestion, and enhances access to amenities, especially in underserved areas.

LEGIBILITY

Legibility refers to how easily people can understand and navigate an urban environment. It's influenced by clear signage, distinct landmarks, and coherent spatial organization. Legibility encourages environments that are intuitive, safe, welcoming and user-friendly.

Application:

- **Consistent Wayfinding Systems:** Use clear, multilingual signage and maps at key intersections, public buildings, and transport stops to guide residents and visitors.
- **Visual Hierarchy of Streets:** Design streets with distinct widths, landscaping, and lighting to indicate their function—whether pedestrian-friendly, commercial, or transit-oriented.
- **Landmark-Based Navigation:** Incorporate visible landmarks such as towers, sculptures, or civic buildings to help people orient themselves and create memorable urban experiences.

A legible urban environment marked by clear signage, visual hierarchy, and memorable landmarks promotes safety, orientation, and a sense of place for both residents and visitors and reduces confusion and improves tourism, while citizens navigate their city with confidence.

E1.9.4. URBAN DESIGN PROPOSALS FOR NMBM

Mixed-use beachfront revitalization corridor (Humewood–Summerstrand)

Humewood and Summerstrand beach fronts are a high-visibility tourism zone with existing infrastructure, it connects key destinations like the Boardwalk, King's Beach, and Shark Rock Pier and it's underutilized in terms of mixed-use development and public space activation. This proposal integrates multiple urban design principles such as placemaking, greening, accessibility, safety, and economic vitality—while leveraging the area's tourism potential.

KEY URBAN DESIGN COMPONENTS

1. Public Space Activation & Placemaking

- Create interactive beachfront plazas with shaded seating, play areas, and performance stages.
- Install public art and promote art galleries
- Host seasonal pop-up markets and festivals to activate the space year-round.

2. Mixed-Use Development

- Encourage ground-floor retail with upper-level residential or hospitality units.
- Incentivize green building design with solar panels, passive cooling, and rooftop gardens.
- Integrate co-working spaces and cafés to attract remote workers and entrepreneurs.

3. Greening & Beautification

- Introduce indigenous tree-lined promenades along Marine Drive.
- Create biodiversity parks and eco-trails connecting the beachfront to Happy Valley and Humewood Park.
- Use incentives to promote installation of rooftop gardens on beachfront buildings

4. Movement & Accessibility

- Develop a continuous pedestrian and cycle route from King's Beach to Pollock Beach.
- Improve public transport nodes with clear signage and shaded waiting areas.
- Ensure universal access with ramps, tactile paving, and audible signals.

5. Safety & Urban Furniture

- Install smart lighting and CCTV for nighttime safety.
- Add urban furniture like benches, bins, and bike racks with marine-themed design.
- Design active frontages with transparent boundaries to enhance natural surveillance.

Criteria	Beachfront Revitalization Corridor
Economic Impact	High (tourism, retail, jobs)
Social Inclusion	Strong (public spaces, access)
Environmental Sustainability	Integrated (green buildings, biodiversity)
Feasibility	High (existing infrastructure, visibility)

Alignment with MSDF Goals

Excellent (placemaking, greening, mobility)

Table 60: Urban Design and Safety

Algoa Bay Aquaculture Development Zone Expansion

Expansion of the existing aquaculture zone will support sustainable fish farming, seaweed cultivation, and marine biotechnology.

KEY URBAN DESIGN COMPONENTS

- **Green Natural Systems:** Protect coastal ecosystems while integrating aquaculture with eco-tourism.
- **Greening the Public Realm:** Create interpretive trails and viewing decks for educational tours.
- **Sustainable Built Environment:** Use solar-powered hatcheries and water-efficient systems.
- **Landmarks & Placemaking:** Develop a signature aquaculture pavilion and a weekend market space showcasing local marine produce.

STRATEGIC BENEFITS

- Promotes food security and marine biodiversity.
- Attracts investment in sustainable seafood and biotech.
- Enhances tourism through educational and culinary experiences.

Priority Bus Lanes for Govan Mbeki Avenue & Kempston Road

The Priority Bus Lanes proposal along Govan Mbeki Avenue and Kempston Road aims to transform these key transport corridors into efficient, safe, and inclusive public mobility routes. By introducing dedicated bus lanes, the initiative seeks to reduce travel times, improve reliability, and encourage a shift from private vehicles to public transport. The project also focuses on enhancing the commuter experience through well-designed shelters, accessible platforms, and real-time information systems.

KEY URBAN DESIGN COMPONENTS

1. Dedicated Bus Infrastructure

- Centre or curb-side bus lanes with red asphalt surfacing for visibility.
- Bus-only signal phases at intersections to prioritize movement.
- Physical separation using bollards or low curbs to prevent encroachment.

2. Bus Stops & Shelters

- Standardized modular shelters with seating, lighting, and route info.
- Raised platforms for level boarding, improving accessibility.
- Real-time arrival displays and CCTV for safety and convenience.

3. Pedestrian & Cyclist Integration

- Widened sidewalks with tactile paving and shade trees.
- Safe crossings at all intersections with pedestrian priority signals.

- Parallel cycle lanes where feasible, separated from bus lanes.

4. Streetscape Enhancements

Element	Description
Landscaping	Indigenous trees, low-maintenance shrubs, bioswales
Lighting	LED streetlights with smart sensors
Public Furniture	Benches, bins, and wayfinding signage
Art & Identity	Murals, sculpture, and branding reflecting local culture

5. Key Nodes & Intersections

Location	Intervention
Govan Mbeki @ City Hall	Transit plaza with seating, retail kiosks, and heritage integration
Kempston @ Harrower Road	Enhanced interchange with taxi rank and pedestrian bridge
Govan Mbeki @ Russell Road	High frequency stop with digital info and retail activation

6. Monitoring & Evaluation

Metric	Target
Bus travel time reduction	≥ 30%
Ridership increase	≥ 20% in first year
Accident reduction	≥ 50% at key intersections
Public satisfaction	≥ 80% approval in surveys

Beyond mobility, the proposal supports broader urban revitalization by integrating pedestrian-friendly streetscapes, landscaping, and public amenities that activate the corridor and stimulate economic activity. Ultimately, the project aligns with Nelson Mandela Bay's goals for sustainable urban development, equitable access, and improved quality of life for all residents.

Nelson Mandela Bay Waterfront & Cruise Gateway

This proposal reimagines the waterfront as a vibrant, mixed-use precinct that welcomes international cruise visitors, connects seamlessly to the city centre and beachfront, and becomes a landmark destination for locals and tourists alike.

KEY URBAN DESIGN COMPONENTS

1. Cruise Terminal Upgrade

- Modern passenger terminal with customs, lounges, and tourism info.
- Welcome plaza featuring local crafts, food stalls, and cultural performances.
- Digital wayfinding kiosks and multilingual signage for easy navigation.

2. Waterfront Redevelopment

- Mixed-use buildings with retail, restaurants, hotels, and residential units.
- Public promenades and plazas with shaded seating, fountains, and event spaces.
- Local stores selling local crafts

3. Smart City Features

- Smart mobility hub with electric shuttles, bike-share stations, and real-time transit info.
- Public Wi-Fi and interactive kiosks for tourism, safety alerts, and local engagement.

4. Urban Infrastructure Enhancements

- Green stormwater systems: Rain gardens, permeable paving, and bioswales.
- Smart waste management: Underground bins with sensor-based collection.
- Resilient coastal edge: Reinforced seawalls with seating, lighting, and habitat zones.

5. Cruise Visitor Experience Flow

- Arrival at Terminal → greeted with local music, crafts, and digital guides
- Shuttle or walking route → through upgraded pedestrian corridor to CBD and beachfront
- Tourism loops → linking Route 67, Donkin Reserve, Boardwalk, and Cape Recife
- Optional excursions → to Addo Elephant Park, and Garden Route

STRATEGIC IMPACT

Dimension	Contribution
Economic Growth	Boosts tourism, retail, hospitality, and local entrepreneurship
Social Inclusion	Creates accessible public spaces and cultural experiences
Environmental Resilience	Integrates green infrastructure and coastal protection
Global Connectivity	Positions NMBM as a cruise and marine tourism hubs
Urban Identity	Reinforces the city's legacy, culture, and coastal character

Table 61: Impact of Cruise tourism

This proposal will transform Nelson Mandela Bay's waterfront into a globally connected, culturally rich, and environmentally resilient gateway where cruise ships dock into a city of innovation, heritage, and inclusive urban life

E2. SOCIO ECONOMIC LAND USE GUIDELINES

The Socio-Economic guidelines reflect the relationship between population requirements and the natural resource base. In other words, the distribution of the population is directly influenced by the services rendered by the bio-physical environment,

E2.1. INDUSTRIAL & ECONOMIC ZONES

Purpose: Facilitate manufacturing, logistics, warehousing, and economic activities that contribute to regional growth.

Applicable Zones: Industrial Zones 1–4, Business Zones 1–3, Special Purpose Zone.

Key Guidelines:

- Concentrate industrial and logistics activities near **bulk service nodes** and **transport corridors**
- Apply zone-specific **height, coverage, and building line** standards as per the LSDF
- Allow renewable energy facilities as additional or consent uses where permitted.
- Ensure high-capacity transport links, bulk utilities, and energy infrastructure are provided

E2.2. HERITAGE AND CULTURAL SITES

Purpose: Protect and manage buildings, landscapes, and places of cultural, historical, and architectural significance to preserve the municipality's heritage and identity.

Key Guidelines:

- **Heritage Resource Identification:** Development proposals in heritage-sensitive areas must include a heritage impact assessment in accordance with the *National Heritage Resources Act (NHRA)*.
- **Conservation Requirements:** Retain and adaptively reuse heritage structures where feasible; demolition requires heritage authority approval (*Chapter 3, Clause 74, p.58*).
- **Design Compatibility:** New developments adjacent to heritage sites must respect the scale, form, and materials of surrounding heritage assets.
- **Archaeological Protection:** Halt construction and notify heritage authorities if archaeological or paleontological resources are discovered during works.
- **Cultural Landscape Management:** Protect views, open spaces, and patterns that contribute to cultural and historic character.

E2.3. OUTSIDE THE URBAN EDGE

Purpose: Preserve the rural character, agricultural productivity, and ecological integrity of land beyond the Urban Edge.

Key Guidelines:

- Restrict development to agriculture, conservation, and low-impact rural uses
- Prohibit urban-scale residential, commercial, or industrial development unless specifically approved by Council, supported by environmental and infrastructure feasibility studies
- Protect prime agricultural land and ecological corridors through application of overlay zones

E2.4. RURAL DEVELOPMENT FRAMEWORK GUIDELINES

Proposals and Land Use Guidelines for Peri-Urban Zones

The NMBM MSDF 2025 does not propose for the expansion of the Urban Edge to any of the Peri- Urban Zones but rather proposes densification within the zone and its respective urban edge and should the zone reach a maximum development capacity, during the future reviews of the MSDF, a reconsideration of the Urban Edge can be relouked at, and a possible expansion could be accommodated.

The general vision for the peri-urban area is summarised below:

- To maintain the lower density as outlined in in the guidelines below (unchanged from the Rural Management Policy, 2009).
- It is also proposed to allow for exploration of agricultural and resort tourism such yoga retreat venues, conference venues, etc.
- Farm stalls and restaurants promoting the use of seasonal and fresh produce.
- Fruit picking is promoted for farms which can provide this offering.

DEVELOPMENT PARAMETERS

PERI URBAN ZONE 1 (HINTERLAND)

Locality :	• Demarcated areas located directly beyond the urban edge • Areas not identified for infill urban development, often characterised by low density and/or cultivation with environmental sensitivities forming part of the larger ecological biosphere. • Minimum engineering services and infrastructure available. • Urban development not permitted.

DEVELOPMENT PARAMETERS

PERI URBAN ZONE 1 (HINTERLAND)

Objective :	- Areas with a predominantly rural character and generally, situated outside the Urban Edge. - Provide for activities in keeping with the rural character of the area and distinctly different to agriculture or commercial farming. - Provision for land use not regarded as Bona Fide agriculture land, generally agricultural smallholdings with a distinctively lower density than residential development within the Urban Edge. - Permitting uses in line with rural activity i.e. keeping of animals and small-scale cultivation on a limited basis.
Primary Use :	- Rural Residential - Intensive Feed Farming (non-noxious – poultry broiler not permitted) - Agriculture - Authority Use

Recommended Land Uses	Density	Erf Size	Special Conditions
Dwelling Unit	2du / 1.8ha	Minimum 1.8ha	Small holding
Residential Estate	2du / 1.8ha	Maximum 1500m ²	Cluster & space principles shall apply
Guest House / Guest Farm	12 rooms / 1.8ha	Minimum 1.8ha	Small holding
Riding School		Minimum 1.8ha	Small holding
Kennel		Minimum 1.8ha	Small holding
Home Industry		Minimum 1.8ha	Small holding
Nursery		Minimum 1.8ha	Small holding
Restaurant (no fast foods outlet)		Minimum 1.8ha	Small holding
Social Facility		Minimum 1.8ha	See definitions
Tourist Facility		Minimum 1.8ha	See definitions
Poultry Breeder and Layer Farm		Minimum 1.8ha	See definitions
Cemetery		Minimum 1.8ha	See definitions
Retirement Estate	2du / 1.8ha	Maximum 1500m ²	Cluster & space principles shall apply
Bulk Infrastructure			As per NMBM requirements
Resorts			Refer to Resort Policy

GENERAL CONDITIONS

- Second dwelling may be considered on properties larger than 1.8ha – no sectional title alienation permitted.

DEVELOPMENT PARAMETERS

PERI URBAN ZONE 1 (HINTERLAND)

- Cluster and space principle shall apply for any estate. (see definitions)
- Golf or equestrian Estates shall comply with the development parameters for Golf Estates provided in the document.
- Wedding venues, Chapel, Reception hall and overnight Accommodation should be limited to Resort densities, 1 hall@1000m², chapel@200m² and adequate parking. No subdivision for total use less than 1.8ha.
- Align with the NMBM Land Use Scheme 2023 allowing 8.5m max height for dwelling units and 15m for Agricultural Buildings under Agriculture Zone 1
- Mining in accordance with existing permits.
- Conditions under which authorisation in terms of the National Environmental Management Act (Act 107 of 1998) shall apply and strictly monitored.
- Division of productive agricultural areas and with agricultural potential shall only be permitted under special circumstances and well-motivated business plans.
- Provision of infrastructure and services shall be to the satisfaction of all Regional Authorities without any obligation of these Authorities to render services in any form whatsoever.
- Leap frogging development should be strongly discouraged.

Table 62: Development Parameters for Peri-urban Zone 1

DEVELOPMENT PARAMETERS

PERI URBAN ZONE 2 (COASTAL)

Locality :	Demarcated areas abutting the Peri Urban Zone 1 and Indian Ocean Coastline
Objective :	• Areas with a predominantly rural character and generally, situated outside the Urban Edge. • Provide for activities in keeping with the rural character of the area and distinctly different to agriculture or commercial farming. • Provision for land use not regarded as Bona Fide agriculture land, generally agricultural smallholdings with a distinctively lower density than residential development within the Urban Edge. • Permitting uses in line with rural activity i.e. keeping of animals and small-scale cultivation on a limited basis.
Primary Use :	• Rural Residential • Agriculture • Intensive Feed Farming limited to poultry breeder and layer farms only

DEVELOPMENT PARAMETERS

PERI URBAN ZONE 2 (COASTAL)

Recommended Land Uses	Density	Erf Size	Special Conditions
Dwelling Unit	2du / 5ha	Minimum 5ha	Small holding
Residential Estate	2du / 5ha	Maximum 1500m ²	Cluster & space principles shall apply
Guest House / Guest Farm	12 rooms / 5ha	Minimum 5ha	Small holding
Riding School		Minimum 5ha	Small holding
Kennel		Minimum 5ha	Small holding
Home Industry		Minimum 5ha	Small holding
Nursery		Minimum 5ha	Small holding
Restaurant (no fast foods outlet)		Minimum 5ha	Small holding
Social Facility		Minimum 5ha	See definitions
Tourist Facility		Minimum 5ha	See definitions
Poultry Breeder and Layer Farm		Minimum 5ha	See definitions
Cemetery		Minimum 5ha	See definitions
Retirement Estate	2du / 5ha	Maximum 1500m ²	Cluster & space principles shall apply
Bulk Infrastructure			As per NMBM requirements
Resorts			Refer to Resort Policy

GENERAL CONDITIONS

- Second dwelling may be considered on properties larger than 5ha – no sectional title alienation permitted.
- Cluster and space principle shall apply for any estate. (see definitions)
- Wedding venues, Chapel, Reception hall and overnight Accommodation should be limited to Resort densities, 1 hall@1000m², chapel@200m² and adequate parking. No subdivision for total use less than 5ha.
- Align with the NMBM Land Use Scheme 2023 allowing 8.5m max height for dwelling units and 15m for Agricultural Buildings under Agriculture Zone 1
- Conditions under which authorisation in terms of the National Environmental Management Act (Act 107 of 1998) shall apply and strictly monitored.
- Division of productive agricultural areas and with agricultural potential shall only be permitted under special circumstances and well-motivated business plans.
- Provision of infrastructure and services shall be to the satisfaction of all Regional Authorities without any obligation of these Authorities to render services in any form whatsoever.

DEVELOPMENT PARAMETERS

PERI URBAN ZONE 2 (COASTAL)

- Leap frogging development should be strongly discouraged.
- Sequential development from the existing development is encouraged

Table 63: Development Parameters for Peri-urban Zone 2

Proposals and Land Use Guidelines for Rural Zones

The general vision for Rural Zones is as follows:

- To maintain the low density
- For the promotion of agricultural activity and agri-business (package facilities for fruit and veg, agri-skills training facilities, Farmer Production Support Units (FPSU's, Agri-parks
- Agri village

DEVELOPMENT PARAMETERS

RURAL ZONE 1 (HINTERLAND)

Locality :	The Rural Zone 1 is located north of the N2 freeway and west of the Greenbushes area.
Objective :	• To maintain the character created by small holdings of specific size by limiting subdivision. • To provide opportunities for intensive farming and agriculture. • To intensify agricultural opportunities for inhabitants of rural settlements.
Primary Use :	• Agriculture • Residential Estates • Intensive Feed Farming – all forms

Recommended Land Uses	Density	Erf Size	Special Conditions
2nd Dwelling Unit	2du / 10ha	Minimum 10ha	Small holding
Residential Estates	2du / 10ha	Maximum 1500m ²	Cluster & space principles shall apply
Guest House / Guest Farm	12 rooms / 10ha	Minimum 10ha	Small holding
Riding School		Minimum 10ha	Small holding
Kennel		Minimum 10ha	Small holding
Home Industry		Minimum 10ha	Small holding

DEVELOPMENT PARAMETERS			
RURAL ZONE 1 (HINTERLAND)			
Nursery		Minimum 10ha	Small holding
Restaurant (no fast foods outlet)		Minimum 10ha	Small holding
Social Facility		Minimum 10ha	See definitions
Tourist Facility		Minimum 10ha	See definitions
Intensive feed farming			See definitions
Cemetery		Minimum 10ha	See definitions
Retirement Estate	2du / 10ha	Maximum 1500m ²	Cluster & space principles shall apply
Bulk Infrastructure			As per NMBM requirements
Resorts			Refer to Resort Policy
Transport modal interchange and bus/taxi ports abutting N2 only			As per Authority Regulations
GENERAL CONDITIONS			
- Second dwelling may be considered on properties larger than 10ha – no sectional title alienation permitted. - Cluster and space principle shall apply for any estate. (see definitions) - Wedding venues, Chapel, Reception hall and overnight Accommodation should be limited to Resort densities, 1 hall@1000m², chapel@200m² and adequate parking. No subdivision for total use less than 10ha. - Align with the NMBM Land Use Scheme 2023 allowing 8.5m max height for dwelling units and 15m for Agricultural Buildings under Agriculture Zone 1 - Conditions under which authorisation in terms of the National Environmental Management Act (Act 107 of 1998) shall apply and strictly monitored. - Division of productive agricultural areas and with agricultural potential shall only be permitted under special circumstances and well-motivated business plans. - Provision of infrastructure and services shall be to the satisfaction of all Regional Authorities without any obligation of these Authorities to render services in any form whatsoever. - Leap frogging development should be strongly discouraged.			

Table 64: Development Parameters for Rural Zone 1

Proposals and Land Use Guidelines for Coastal and Rural Villages

Even though these villages have been given an urban edge boundary, they are still to be treated differently to the guidelines of the main urban edge for NMBM. The general vision of the Rural and Coastal Villages are as follows:

- Maintain its low density but to allow for the development of low scale tourism activity to support the holistic tourism sector of the NMBM while adding to the tourism variety by offering a slower passed and relaxing beach tourism experience as opposed to the offering at the main beach.
- Activities promoted includes restaurants, day visitor areas such as picnic areas, lodges / beach resorts / hotels
- Limited Retail / Business use is also promoted to support the village such as a Postal service + convenience store to serve locals + tourists
- Community facilities (recreation / sport), linked to tourism (waterpark)
- Taverns

DEVELOPMENT PARAMETERS

RURAL ZONE 2 (COASTAL)

Locality :	The zone is located between the N2 freeway and the Indian Ocean and comprises of pristine and partly disturbed vegetation. The Blue Horizon Coastal Village falls in this zone.
Objective :	• To minimise the subdivision of agricultural land. • To retain and entrench the pristine character of the zone.
Primary Use :	• Agriculture • Low density rural residential (estate development) • Intensive feed farming

Recommended Land Uses	Density	Erf Size	Special Conditions
Dwelling unit	2du / 20ha	Minimum 20ha	Low density small holding
Residential estate	2du / 20ha	Maximum 1500m ²	Cluster & space principles shall apply
House Tavern		Erven 500m ² and less: 50%	House Tavern
Guest farm	8 rooms / 20ha	Minimum 20ha	Small holding
Business Premises		Maximum 1500m ²	Limited to Convenience Shops/ Postnet to serve locals and tourists

DEVELOPMENT PARAMETERS			
RURAL ZONE 2 (COASTAL)			
Restaurant (no fast foods outlet)		Minimum 5ha	Small holding
Social facility		Minimum 20ha	See definitions
Tourist facility		Minimum 20ha	See definitions
Resorts			Refer to Resort Policy
Intensive feed farming *		Minimum 20ha	Small holding
Bulk infrastructure			As per NMBM requirements
Airfields			As per Aviation Authorities requirements
GENERAL CONDITIONS			
- Align with the NMBM Land Use Scheme 2023 allowing 8.5m max height for dwelling units and 15m for Agricultural Buildings under Agriculture Zone 1 - Cluster and space principle shall apply for any estate. (see definitions) - Conditions under which authorisation in terms of the National Environmental Management Act (Act 107 of 1998) shall apply and strictly monitored. - Second dwelling may be considered on properties larger than 20ha – no sectional title alienation permitted. - Division of productive agricultural areas and with agricultural potential shall only be permitted under special circumstances and well-motivated business plans. - Wedding venues, Chapel, Reception hall and overnight Accommodation should be limited to Resort densities, 1 hall@1000m², chapel@200m² and adequate parking. No subdivision for total use less than 20ha. - Provision of infrastructure and services shall be to the satisfaction of all Regional Authorities without any obligation of these Authorities to render services in any form whatsoever. * (See definitions in Rural Management Policy)			

Table 65: Development Parameters for Rural Zone (Coastal)

E2.5. ECONOMIC DEVELOPMENT OVERLAY

Purpose: Encourage investment and job creation in designated economic growth areas designated within the MSDF and LSDF.

Key Guidelines:

- Offer **reduced parking requirements**, and **fast-tracked application processes**

Prioritise strategic industries such as manufacturing, logistics, and green economy enterprises

E3. BIO PHYSICAL LAND USE GUIDELINES

The biophysical guidelines encompass the natural resources situated within the NMBM boundaries. The guidelines determine resource utilization and enable the identification of potential opportunities and interventions.

E3.1. ENVIRONMENTAL MANAGEMENT & PROTECTION

Nelson Mandela Bay contains a rich variety of natural habitats — from wetlands and rivers to coastal dunes and biodiversity corridors. These areas provide vital ecosystem services, support tourism and recreation, and form the ecological foundation for long-term urban resilience.

Protecting these assets is a **legal and strategic priority**, and all development proposals must demonstrate how they avoid, minimise, or mitigate environmental impacts.

E3.1.1. ENVIRONMENTAL AREAS

Purpose: Safeguard key biodiversity hotspots, wetlands, rivers, estuaries, coastal zones, and urban green spaces.

Applicable Zones: Open Space Zones 1–3 (OSZ1–OSZ3), nature reserves, marine protected areas, heritage sites.

Key Guidelines:

- Limit activities to environmental conservation, eco-tourism, scientific research, and low-impact recreation aligned with the primary purpose of the zone
- Infrastructure must be ecologically sensitive, comply with wetland buffer requirements (minimum 100 m), and maintain biodiversity corridors
- Restoration and ongoing maintenance of natural habitats is required; incompatible uses are prohibited unless specifically approved via Consent Use

E3.1.2. ENVIRONMENTAL GUIDELINES

Purpose: Ensure consistent environmental management across all land use types, beyond areas formally zoned for conservation.

Applicable Area: All zones within NMBM, with heightened application in sensitive environmental areas.

Key Guidelines:

- Apply environmental setback lines for wetlands, rivers, estuaries, and the coastline
- Require Environmental Impact Assessments (EIA) or Basic Assessments for developments with potential ecological impacts, in line with NEMA regulations
- Where impacts are unavoidable, biodiversity offsets must be implemented to achieve no net loss of ecosystem value

- All disturbed sites must be rehabilitated post-construction, including indigenous re-vegetation and alien plant removal

E3.1.3. WATER RESOURCE MANAGEMENT

Purpose: Safeguard the municipality's rivers, wetlands, estuaries, dams, and groundwater resources to ensure long-term water security, ecological health, and climate resilience.

Key Guidelines:

- **Protect Water Quality:** Prevent contamination from industrial, agricultural, and residential activities through compliance with environmental and water legislation
- **Wetland & Riparian Buffers:** Maintain minimum 100 m buffer zones around wetlands and 32 m setbacks from rivers, in line with environmental setback provisions
- **Stormwater Management:** Incorporate sustainable urban drainage systems (SUDS) such as permeable paving, detention ponds, and vegetated swales in new developments
- **Groundwater Protection:** Regulate borehole use, monitor extraction rates, and prevent over-abstraction in sensitive aquifers
- **Flood Risk Reduction:** Prohibit construction within the 1:100-year flood line unless mitigation measures are approved by the municipality

E3.1.4. CLIMATE RESILIENCE OVERLAY ZONE (CROZ)

Purpose: Reduce vulnerability of developments to climate-related hazards.

Key Guidelines:

- Apply **increased building setbacks, elevated floor levels, and storm-resistant materials** in hazard-prone areas (*Schedule 8 – Climate Resilience Overlay Zone, p.65*).
- Maintain natural floodplains and avoid construction in high-risk areas.
- Incorporate **green infrastructure** for stormwater management and cooling.

E3.1.5. ECOLOGICAL/AGRICULTURAL PROTECTION OVERLAY ZONE (EAPOZ)

Purpose: Safeguard prime agricultural land and ecological corridors.

Key Guidelines:

- Prohibit subdivision of prime agricultural land below **8 hectares** (*Schedule 8 – EAPOZ, p.65*).
- Maintain biodiversity corridors and implement ecological buffers.
- Support land uses that are compatible with long-term agricultural productivity.

E3.2. LAND USE CATEGORIES & PARAMETERS

The NMBM Land Use Scheme defines specific zones that regulate the type, intensity, and form of development allowed. This section summarises the key intentions and requirements for major land use categories, with references to the applicable Scheme clauses.

E3.2.1. RESOURCE AREAS

Purpose: Support sustainable agriculture, aquaculture, forestry, and extractive use while protecting natural resources.

Applicable Zones: Agricultural Zones 1–2.

Key Guidelines:

- Allow **commercial and subsistence farming**, agro-processing, and rural development in line with permitted and consent uses (*Chapter 2 – Agricultural Zone 1–2, p.19–20*).
- Maintain **building lines** (10 m minimum) and **coverage limits** ($\leq 20\%$ for agricultural buildings) (*Chapter 2 – Agricultural Zone parameters, p.19–20*).
- Protect prime soils through the Ecological/Agricultural Protection Overlay (*Schedule 8 – EAPOZ, p.65*).
- Provide basic rural services and facilitate access to markets for rural producers.

E4. DEVELOPMENT MANAGEMENT TOOLS

Development management tools are processes and mechanisms that ensure land use applications comply with the *NMBM Land Use Scheme* while supporting efficient decision-making and high-quality urban form. They provide the framework for assessing proposals, managing growth, and aligning development with strategic objectives.

E4.1. SITE DEVELOPMENT PLANS (SDPS)

Purpose: Provide detailed design and layout information to guide the approval and implementation of developments.

When Required:

- For all new developments in sensitive environmental areas.
- For large-scale residential, commercial, or industrial projects.
- When specifically required as a condition of zoning approval (*Chapter 3, Clause 70, p.55*).

Key Content:

- Layout of buildings, access, parking, and landscaping.
- Infrastructure connections and service provision plans.
- Environmental mitigation measures where applicable.
- Compliance with zone-specific parameters and overlay requirements.

E4.2. COOPERATIVE GOVERNANCE & STAKEHOLDER COORDINATION

Purpose: Promote integrated planning and implementation across government spheres and sectors.

Approach:

- Regular interdepartmental review meetings on land use applications.
- Alignment with provincial and national infrastructure investment programmes.
- Engagement with community and business stakeholders during major project planning.

E4.3. COMMUNITY AND SOCIAL IMPACT ASSESSMENT (SIA)

Purpose: Ensure that large-scale developments contribute positively to community wellbeing and social equity.

When Required:

- Developments with more than 100 residential units.
- Major commercial or industrial projects with significant employment or land use impacts.
- Projects in or near vulnerable communities or sensitive land uses.

Key Guidelines:

- Assess potential impacts on housing demand, transport, public facilities, and community safety.
- Identify measures to enhance benefits such as job creation, skills training, and improved public space.
- Address potential negative impacts including displacement, increased congestion, or service strain.
- Consult affected communities early in the planning process (Chapter 3, Clause 70, p.55).

E4.4. SUSTAINABILITY STANDARDS

Purpose: Promote energy efficiency, resource conservation, and low-carbon development across all land uses.

Key Guidelines:

- **Green Building Practices:** Incorporate passive design, energy-efficient lighting, and water-saving fixtures in all new developments (*Schedule 8 – Climate Resilience Overlay Zone, p.65*).
- **Renewable Energy Integration:** Facilitate installation of rooftop solar, wind energy, and other renewable systems, subject to zone-specific regulations (*Chapter 2 – Zone parameters, p.11–37*).
- **Waste Minimisation:** Include on-site recycling and composting facilities in major developments.

- **Sustainable Transport:** Provide pedestrian-friendly design, cycling infrastructure, and integration with public transport networks.
- **Resilience to Climate Change:** Incorporate heat mitigation measures (green roofs, shade trees) and water-sensitive landscaping.

E5. SUMMARY TABLE – KEY LAND USE GUIDELINES

The following table provides a **condensed reference** to the key land use categories, their intended purposes, core guidelines, and relevant clauses from the *Nelson Mandela Bay Municipality Land Use Scheme (2023)*.

It is designed as a **quick look planning tool** for municipal officials, developers, consultants, and stakeholders who need to verify land use requirements without consulting the full Scheme in every instance.

While the table summarises the most important provisions, it does not replace the **detailed, legally binding requirements** contained in the Scheme.

For full compliance, users must refer to the specific **chapters, clauses, and schedules** indicated in the reference column.

CATEGORY / THEME	PURPOSE	KEY GUIDELINES	RELEVANT NMBM LAND USE SCHEME REFERENCES
Environmental Areas	Protect biodiversity hotspots, wetlands, rivers, estuaries, coastal zones.	Limit to conservation, eco-tourism, research; sensitive infrastructure only; maintain buffers & corridors; restore habitats.	Ch.2, OSZ1–OSZ3, p.36–37; Ch.3, Cl.56, p.46; Sch.8 – EAPOZ, p.65
Environmental Guidelines	Apply environmental safeguards across all zones.	Apply setback lines; require EIA/Basic Assessments; implement biodiversity offsets; rehabilitate sites post-construction.	Ch.3, Cl.56, p.46; Sch.3 – Environmental Setbacks, p.92; Ch.3, Cl.59, p.46
Water Resource Management	Protect surface & groundwater resources, wetlands, and floodplains.	Maintain buffers; manage stormwater with SUDS; regulate groundwater use; prevent construction in flood lines.	Ch.3, Cl.56, p.46; Sch.3 – Environmental Setbacks, p.92; Ch.3, Cl.59, p.46; Ch.3, Cl.67, p.54
Airport Noise Contours	Protect sensitive uses from airport noise; ensure aviation safety.	Prohibit sensitive uses; require acoustic mitigation; comply with CAA safety rules.	Sch.8 – Airport Overlay Zone, p.65

CATEGORY / THEME	PURPOSE	KEY GUIDELINES	RELEVANT NMBM LAND USE SCHEME REFERENCES
Inside Urban Edge	Promote efficient land use within urban boundary.	Encourage infill, brownfield redevelopment, densification; support TOD; focus infrastructure investment.	Ch.1, Cl.9, p.8; Ch.2 – Zone provisions, p.11–37
Outside Urban Edge	Protect rural/agricultural land & ecological areas.	Limit to agriculture/conservation; prohibit urban scale uses; protect prime soils & corridors.	Ch.2, Agricultural & Open Space Zones, p.19 & p.36; Sch.8 – EAPOZ, p.65
Urban Edge Review	Ensure boundary remains aligned with growth needs.	Review every 5 years; consider interim changes only with service capacity & environmental clearance; require public consultation.	Ch.1, Cl.9, p.8; Ch.3, Cl.73, p.58
Human Settlements	Support integrated, sustainable settlements.	Mixed-use development; provide full services in formal areas; upgrade informal areas; allow densification.	Ch.2, Cl.16, p.11 onwards; Ch.3, Cl.70, p.55; Sch.4 – Development Parameters, p.59+
Heritage and Cultural Sites	Protect historic buildings, cultural landscapes, and archaeological resources.	Require heritage impact assessments; conserve and adaptively reuse heritage structures; protect cultural landscapes.	Ch.3, Cl.74, p.58; NHRA
Resource Areas	Support agriculture & rural economy.	Allow farming & agro processing; maintain building lines & coverage limits; protect prime soils.	Ch.2 – Agricultural Zone 1–2, p.19–20; Sch.8 – EAPOZ, p.65
Industrial & Economic Zones	Drive economic growth through industry & logistics.	Cluster near bulk services; apply zone-specific parameters; integrate renewable energy; provide infrastructure.	Ch.2 – Industrial Zones 1–4, p.30–33; Ch.3, Cl.67, p.54
Infrastructure	Deliver efficient & resilient infrastructure networks.	Comply with legislation & overlays; align with SDF; promote energy efficiency & TOD.	Ch.3, Cl.67, p.54; Ch.1, Cl.5(2), p.7
Inclusionary Housing Overlay	Increase affordable housing supply.	≥20% affordable units in 20+ unit projects; integrate units on-site.	Sch.8 – Inclusionary Housing Overlay, p.65

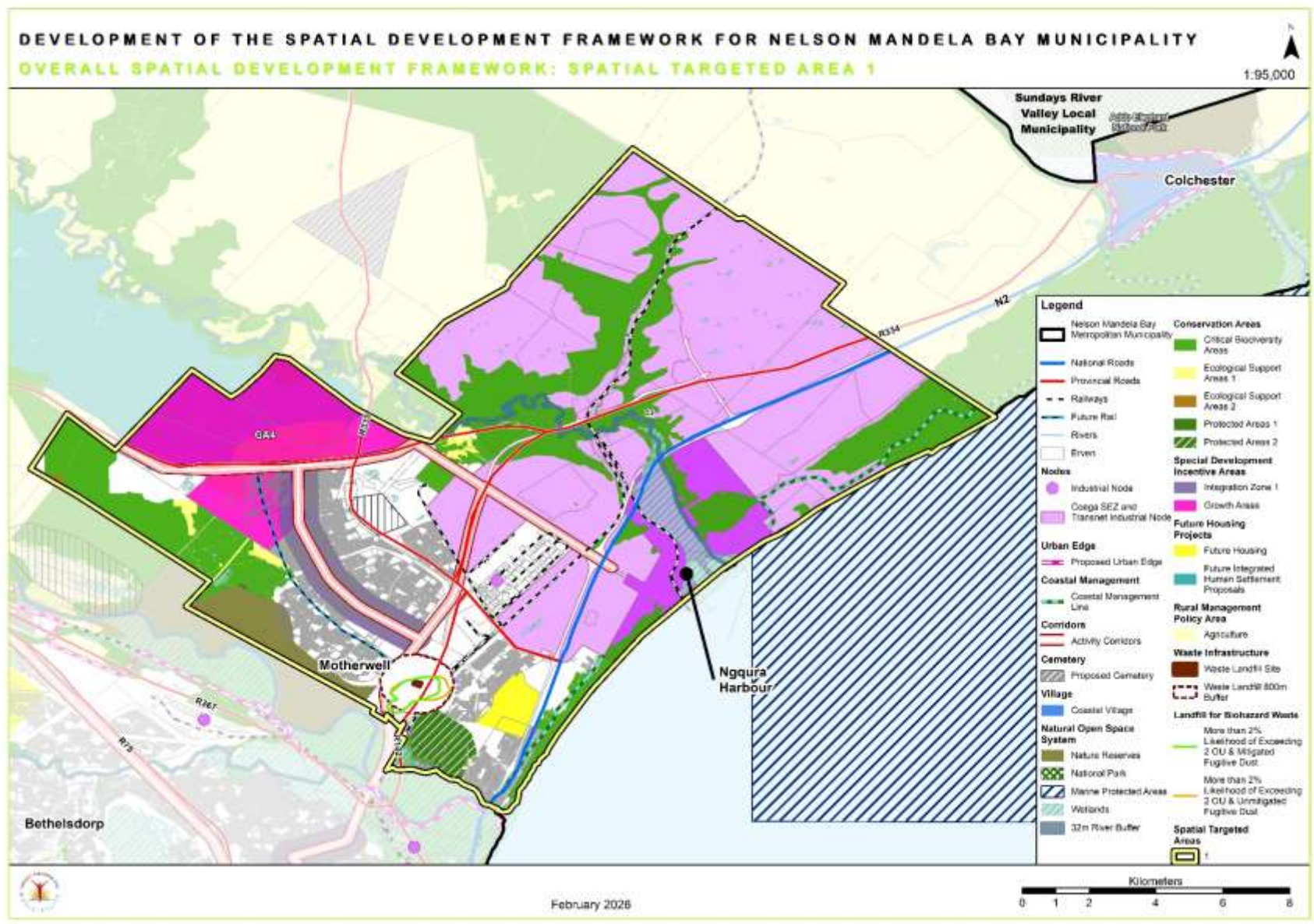
CATEGORY / THEME	PURPOSE	KEY GUIDELINES	RELEVANT NMBM LAND USE SCHEME REFERENCES
Climate Resilience Overlay	Reduce climate hazard risks.	Increase setbacks; elevate floor levels; use storm-resistant materials; maintain floodplains.	Sch.8 – Climate Resilience Overlay, p.65
Ecological/Agricultural Protection Overlay	Safeguard prime agricultural & ecological corridors.	Prevent subdivision <8 ha; maintain buffers; support compatible uses.	Sch.8 – EAPOZ, p.65
Economic Development Overlay	Attract strategic investment.	FAR bonuses; parking reductions; fast-tracked approvals for targeted industries.	Sch.8 – Economic Development Overlay, p.65
Site Development Plans	Guide detailed project implementation.	Include building layout, services, environmental mitigation; required for sensitive & large projects.	Ch.3, Cl.70, p.55
Shortened Application Procedures	Encourage priority projects.	Apply to affordable housing, strategic economic projects, renewable energy facilities.	Sch.8 – relevant overlays, p.65
Community & Social Impact Assessment	Evaluate social outcomes of major projects.	Assess facilities, transport, safety; enhance benefits; mitigate negative impacts; consult communities.	Ch.3, Cl.70, p.55
Sustainability Standards	Promote resource efficiency & low-carbon design.	Apply green building practices; integrate renewable energy; encourage sustainable transport & waste reduction.	Sch.8 – Climate Resilience Overlay, p.65; Ch.2 – Zone parameters, p.11–37
Urban Edge Monitoring	Track spatial growth & service capacity.	Annual GIS review; adjust only if justified; require Council approval.	Ch.1, Cl.9, p.8; Ch.3, Cl.73, p.58
Cooperative Governance	Align planning across sectors.	Regular interdepartmental reviews; coordinate with higher spheres of government; engage stakeholders.	Municipal Planning By-law & SPLUMA principles

Table 66: Key Land use Guidelines

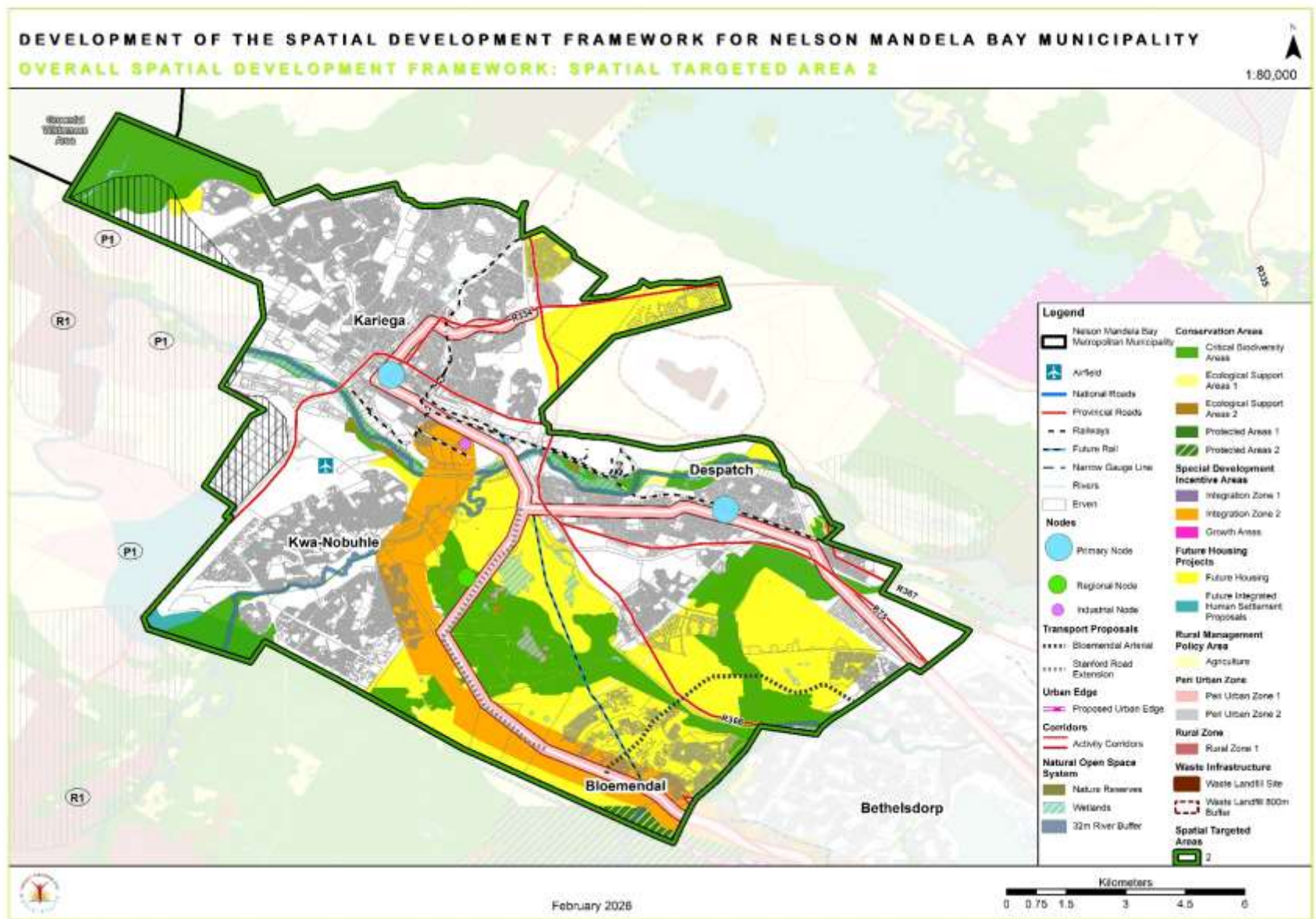
SECTION F:OVERALL, SDF

Map 71 the overall Spatial development Framework encompasses all the proposals throughout the above Frameworks. It overlays all the Spatial frameworks to develop an overall image of all the proposals within the municipal space.

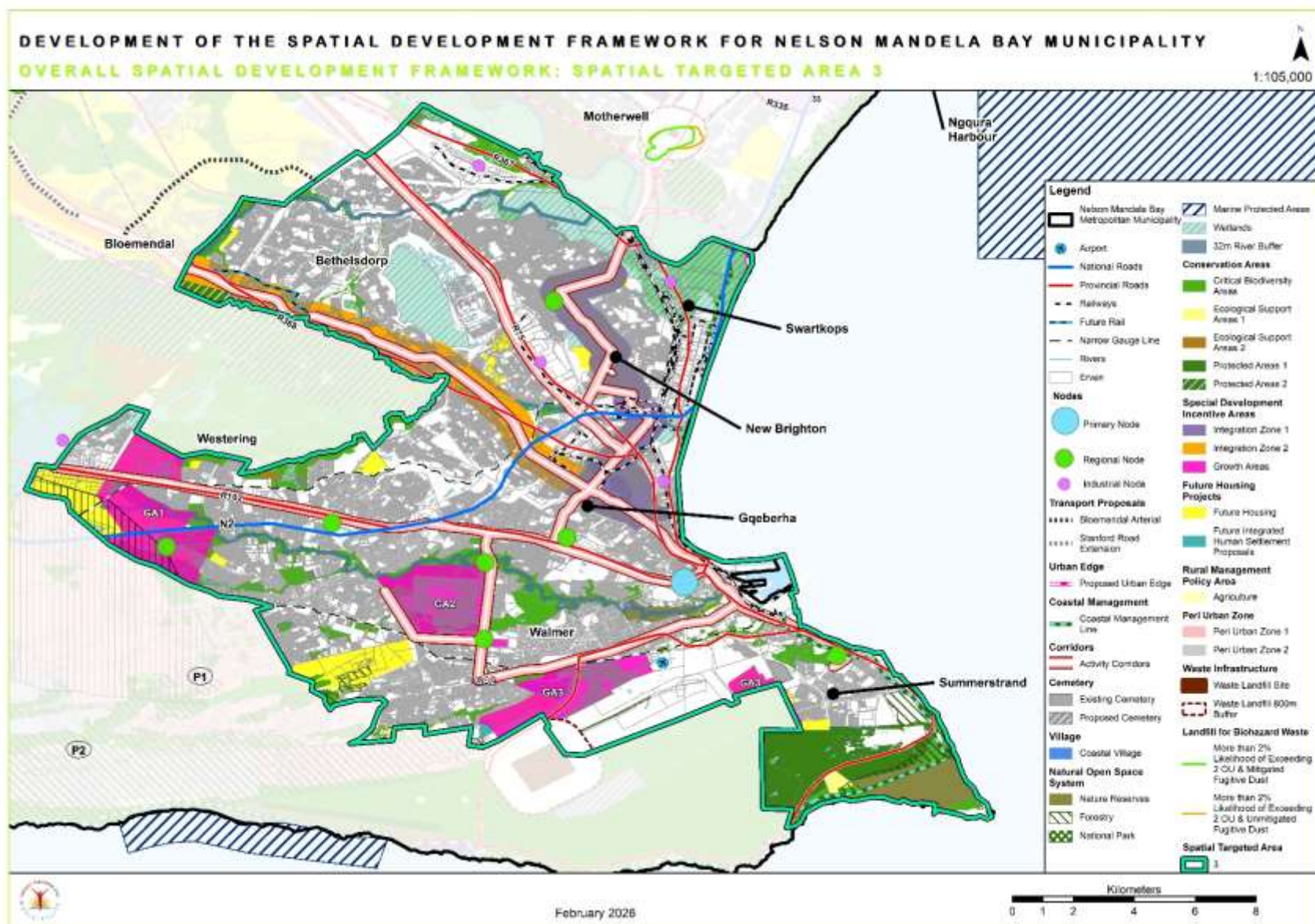
Maps 72 – 74 depict the various STA plans which follow, provides a closer view at the 3 STAs and highlights the overall proposals closer.



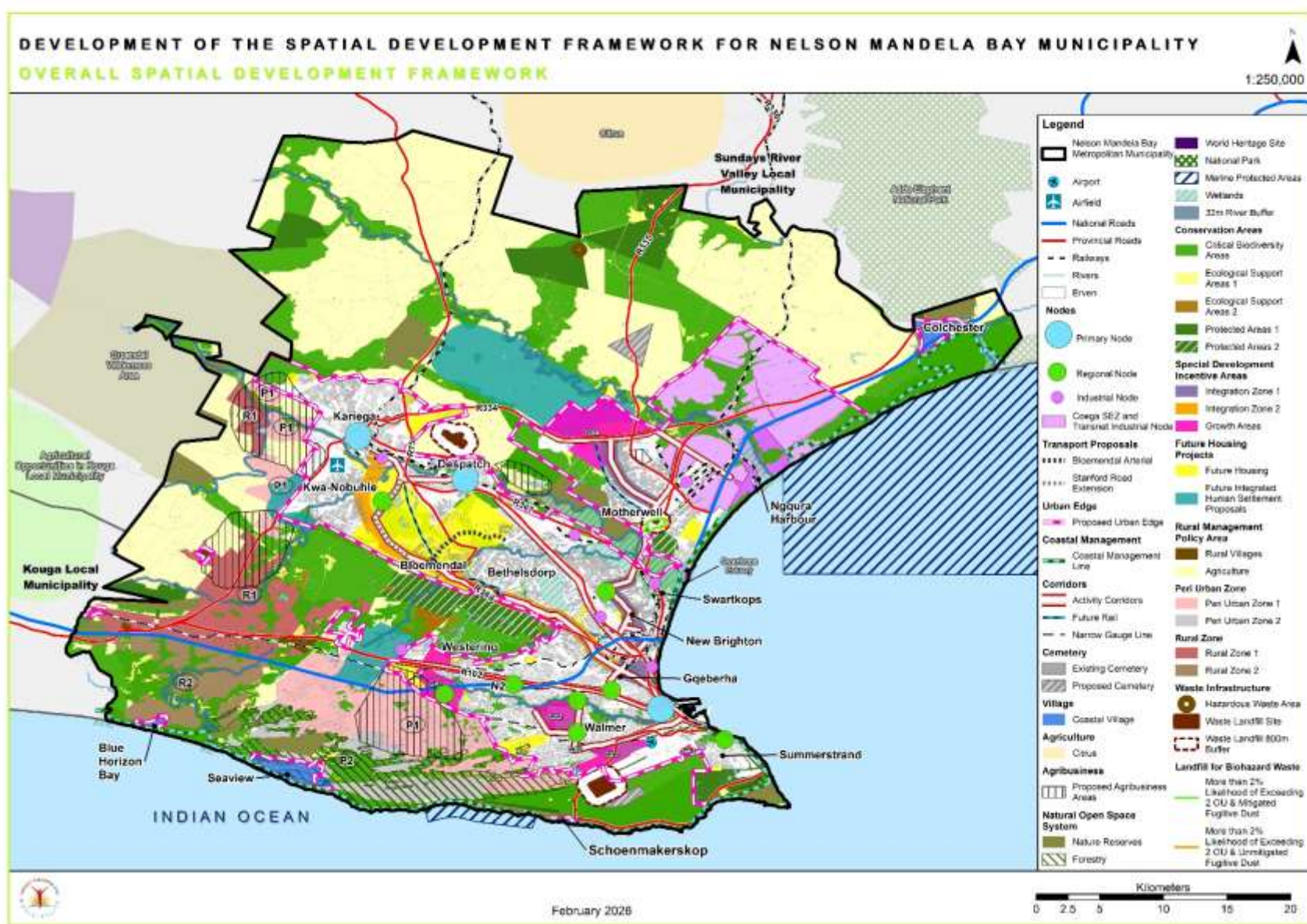
Map 71: Overall Spatial Development Framework – Spatial Targeted Area 1



Map 72: Overall Spatial Development Framework – Spatial Targeted Area 2



Map 73: Overall Spatial Development Framework – Spatial Targeted Area 3



Map 74: Spatial Development Framework Plan

SECTION G: IMPLEMENTATION FRAMEWORK

G1. CAPITAL EXPENDITURE FRAMEWORK

Section 21(n) of SPLUMA requires that municipal spatial development frameworks “determine a capital expenditure framework for the municipality’s development programmes, depicted spatially.” This provision ensures a clear and functional link between Nelson Mandela Bay Municipality’s long-term spatial development strategies and the municipal budgeting process, which remains one of the most important tools for implementation.

By providing spatial guidance on what capital investments should take place, where, and in what order of priority, the Capital Expenditure Framework (CEF) enables the Metro to align its plans, policies, and budget decisions. This alignment reduces the risk of fragmented or contradictory investments and strengthens the ability of the Municipal Spatial Development Framework (MSDF) to drive inclusive growth and transformation.

Although the current MSDF process does not yet deliver a fully comprehensive Capital Expenditure Framework, it establishes the foundation for doing so. Nelson Mandela Bay Municipality intends to develop a consolidated, spatially aligned, and prioritised 10-year portfolio of capital investments during subsequent phases of planning and implementation.

Importantly, the CEF will be embedded within the broader strategic framework of the Metro, ensuring alignment with the Integrated Development Plan (IDP) and the Long-Term Growth and Development Plan (LTGDP). This integration strengthens coordination between spatial planning, infrastructure delivery, and financial management, while enabling the Metro to focus resources on catalytic projects and priority areas that unlock economic growth, improve service delivery, and advance spatial transformation.

G1.1. WHAT IS A CAPITAL EXPENDITURE FRAMEWORK?

Ideally, the infrastructure and built environment programmes captured in Nelson Mandela Bay Municipality’s 5-year IDP should be firmly rooted in the Municipal Spatial Development Framework (MSDF), which presents a long-term (20-year) spatial vision for inclusive growth and development across the Metro. However, both national and provincial assessments of municipal IDPs have consistently highlighted challenges in aligning infrastructure investments with spatial priorities identified in MSDFs. In many cases, this misalignment stems from weak integration between strategic spatial planning, infrastructure budgeting, and implementation capacity.

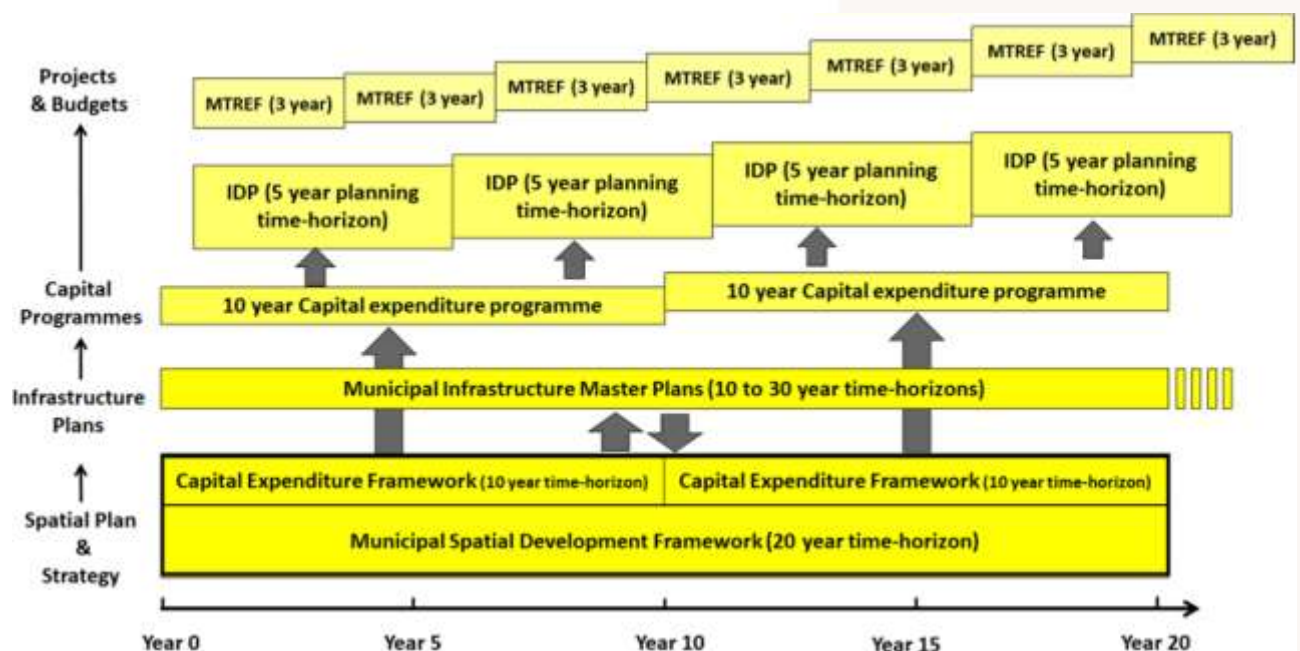
The Capital Expenditure Framework (CEF) is designed to bridge this gap by providing a structured tool to align infrastructure investment with the Metro's long-term development vision. It links the financial planning, spatial strategies, and infrastructure delivery arms of the municipality. Through this "golden thread," the CEF ensures that capital investment decisions are strategically guided, fiscally sustainable, and technically feasible.

In this way, infrastructure spending becomes an intentional and progressive means of implementing Nelson Mandela Bay's development vision, rather than a fragmented or reactive exercise.

The NMBM CEF sets out a prioritised, spatially referenced, and financially sustainable portfolio of catalytic and service-related capital projects over a 10-year planning horizon. It serves as a critical input to the annual budgeting process, ensuring that proposed budgets are tested against, and aligned with, the Metro's strategic direction as outlined in the MSDF, IDP, and LTGDP.

To ensure responsiveness and relevance, the CEF will be reviewed annually to monitor implementation progress, assess fiscal realities, and accommodate necessary project adjustments. A capital budget aligned with the CEF will demonstrate coherence between Nelson Mandela Bay Municipality's development priorities, long-term spatial vision, and investment planning.

Diagram 18: The Link between Municipal Strategy, the MSDF, IDP & Budget



G1.2. THE PROCESS AND METHOD TO DEVELOP THE CEF

The Capital Expenditure Framework (CEF) Technical Report provides the supporting data, calculations, and methodological detail underpinning the Nelson Mandela Bay CEF. This includes a consolidated technical document and project database. Developing a CEF is a multidisciplinary process that requires coordinated input from all municipal departments, as well as alignment with external stakeholders such as provincial and national government, state-owned entities, and the private sector. To be effective, this process must be driven at the highest level of management, through the COO's office, with Executive Directors tasked to ensure sectoral budget alignment. This ensures that infrastructure investment planning reflects a shared strategic vision across the Metro.

The process followed in the development of the Nelson Mandela Bay CEF unfolded over five key phases, illustrated in diagram 19. These phases were designed to ensure that the CEF is spatially grounded, aligned with long-term financial projections, and responsive to both growth demands and service delivery backlogs. The phases are outlined below:

- **Phase 1:** Consolidation of all relevant information, including existing and planned capital investments from across Metro departments and external agencies, into a single, **spatially referenced database**.
- **Phase 2a:** Profiling of Nelson Mandela Bay's functional areas and growth nodes and generating **land demand forecasts** that account for projected population growth, service backlogs, and economic development opportunities.
- **Phase 2b:** Translating this growth and backlog information into **capital investment requirements** across the Metro's key sectors (e.g., bulk infrastructure, transport, energy, housing, and social facilities).
- **Phase 3:** Defining the Metro's **financial affordability envelope**, based on the Long-Term Financial Plan (LTFP), revenue projections, and intergovernmental grant frameworks, to ensure proposed investments remain fiscally sustainable.
- **Phase 4:** Developing **prioritisation criteria** grounded in the Metro's strategic objectives, spatial development priorities, and catalytic project pipeline as outlined in the MSDF, IDP, and LTGDP.
- **Phase 5:** Prioritising capital projects, **sequencing investments**, and testing feasibility against affordability and implementation capacity parameters.





Diagram 19: CEF Method Diagram

G2. PHASE 1: INFORMATION GATHERING

This section presents the consolidated portfolio of capital investment needs identified through the Nelson Mandela Bay Municipal Spatial Development Framework (MSDF) process. The portfolio represents a spatially informed and prioritised list of infrastructure and development projects that directly respond to the Metro's long-term vision, strategic spatial proposals, and service delivery objectives.

It integrates projects across multiple sectors — including housing, transport, bulk and basic services, energy, social infrastructure, and economic development — while addressing both historic infrastructure backlogs and anticipated growth demands.

The portfolio forms the foundation for aligning spatial development priorities with financial planning, providing the baseline for the Capital Expenditure Framework (CEF). By consolidating inputs from across municipal departments and external stakeholders, the portfolio enables a coherent and integrated approach to directing investment.

G2.1. STATUS OF SECTOR PLANS

The following section reviews the status of key sector plans. The Table 67 outlines the main sectors and indicates whether each plan or policy is adequate, under review, or requires updating to reflect the Metro's service delivery backlogs, current growth pressures, catalytic investment opportunities, and evolving development dynamics.

Sector Plan	Date of Publication	Adequate	Requires Review
Integrated Development Plan	2022/23 – 2026/27	x	
Comprehensive Integrated Transport Plan	2023 - 2028	x	

Sector Plan	Date of Publication	Adequate	Requires Review
Human Settlements Plan	2022	x	
Disaster Risk Management Framework	2010		x
Climate Change and Green Economy Action Plan	2015		x
Air Quality Management Plan	2010		x
Integrated Waste Management Plan	2021 - 2027	x	
Drop Off Waste Facility Master Plan	2016		x
Electricity Master Plan	2024	x	
Water Services Master Plan	2011 - 2035	x	
Roads Master Plan	-		x
Bridges Master Plan	-		x
Storm Water Master Plan	-		x
Sanitation Master Plan	2023	x	
Security Master Plan	-		x
Bio Regional Plan	2014		x

Table 67: Status of Sector Plans

The Metro shows a substantial need to review and update several of its sector plans, as indicated above. While certain core strategies — such as the Integrated Development Plan, Comprehensive Integrated Transport Plan, Sanitation Master Plan, and recently completed Electricity Master Plan — are considered adequate and aligned with current requirements, a number of critical infrastructure and Bioregional Plans require urgent review. In addition, the Metro does not currently have a dedicated Economic Investment Plan, which should be proposed to guide catalytic investments, promote private sector participation, and strengthen alignment between infrastructure planning and long-term economic growth.

These include the Human Settlements Plan, Disaster Risk Management Framework, Climate Change and Green Economy Action Plan, Air Quality Management Plan, Water Services Master Plan, and key mobility-related plans such as the Roads, Bridges, and Stormwater Master Plans. Outdated provisions in these documents risk constraining service delivery, undermining climate resilience, and limiting the NMBM's ability to respond effectively to rapid growth pressures and catalytic development opportunities.

This analysis underscores the importance of ensuring that sector plans are annually updated to remain relevant, responsive, and supportive of Nelson Mandela Bay Municipality's spatial development vision. An integrated and up-to-date suite of sector plans is critical to guiding infrastructure investment,

improving service delivery, and enabling the Metro to achieve inclusive, sustainable, and spatially just development.

G2.2. IDENTIFIED INFRASTRUCTURE PROJECTS

This section outlines the **portfolio of infrastructure projects** identified as critical to supporting Nelson Mandela Bay Municipality's (NMBM) spatial development priorities, economic competitiveness, and social transformation. Projects were drawn from the Municipal Spatial Development Framework (MSDF), Integrated Development Plan (IDP), sector master plans, and targeted stakeholder engagements with provincial, national, and private-sector partners.

The infrastructure programme has a dual focus:

1. **Addressing historical service delivery backlogs** — particularly in underserved townships and informal settlements.
2. **Unlocking future growth and development opportunities** — especially in catalytic investment zones, industrial hubs, and new human settlements.

These projects collectively form the foundation of the **Capital Expenditure Framework (CEF)**, ensuring that budget allocations are **spatially targeted, transformative, and aligned** with national and provincial policy directives.

G2.2.1. BULK INFRASTRUCTURE AND SERVICE DELIVERY

NMBM faces long-standing service delivery challenges linked to infrastructure backlogs and aging systems. Priority interventions include:

WATER SERVICES

- Expansion of bulk water supply schemes, including the Nooitgedagt/Coega Low-Level Scheme (Phases 3 & 4).
- Rehabilitation of aging water distribution pipelines across Motherwell, KwaZakhele, and Uitenhage.
- Development of alternative sources, such as groundwater, desalination at Coega, and treated effluent reuse schemes.

SANITATION AND SEWERAGE

- Upgrading Fishwater Flats Wastewater Treatment Works to expand capacity and meet environmental standards.
- Rehabilitation of major pump stations and outfall sewers, particularly in high-growth nodes.

ELECTRICITY

- Grid reinforcement projects under the Electricity Master Plan (2024), including MV substation upgrades in Motherwell and expansion of supply to the Coega SEZ.

- Integration of renewable energy sources, supported by advanced metering systems and load-management technology.

SOLID WASTE

- Development of new regional landfill capacity at Arlington and upgrading existing transfer stations.
- Scaling recycling and material recovery facilities in line with the Integrated Waste Management Plan (2021–2027).

G2.2.2. TRANSPORT AND MOBILITY INFRASTRUCTURE

NMBM is the logistical gateway to the Eastern Cape, yet mobility systems remain fragmented. Priority projects must therefore be supported through clear alignment of roles and responsibilities across government spheres.

- **Municipal mandate (NMBM):** Local-level planning, operations, and maintenance of road networks, public transport services, and related infrastructure.
- **Provincial mandate:** Oversight of provincial roads, regulation of transport services, and coordination of mobility planning across municipalities.
- **National mandate:** Strategic investment in national roads, rail, ports, and airports, as well as policy and funding frameworks for integrated transport systems.

Delivering mobility improvements will require coordination and alignment of budgets across municipal, provincial, and national levels to ensure integrated investment in both the Metro and the wider region. Priority projects include:

ROAD INFRASTRUCTURE

- Completion of the Baywest–Chatty Link Road, strengthening east–west connectivity.
- N2 and N2 Bypass projects to improve freight efficiency between the ports, Coega SEZ, and hinterland.
- Upgrading township road networks (Motherwell, KwaZakhele, Bethelsdorp) to improve accessibility.

PUBLIC TRANSPORT

- Expansion of the Integrated Public Transport System (IPTs), with dedicated lanes and interchanges linking Uitenhage, KwaNobuhle, Motherwell, and the CBD.
- Formalisation of taxi and bus ranks in high-growth nodes such as Cleary Park, Korsten, and Njoli.

PORTS AND FREIGHT CORRIDORS

- Expansion of capacity at the Port of Ngqura and upgrading of the Port of Port Elizabeth.
- Rail corridor upgrades between Uitenhage–Coega–Ngqura to support automotive exports and freight efficiency.

G2.2.3. HUMAN SETTLEMENTS AND SOCIAL INFRASTRUCTURE

Addressing housing backlogs and integrating communities remains a core priority:

INTEGRATED HUMAN SETTLEMENTS PROGRAMME

- Mixed-income housing developments in Chatty, Motherwell Extensions, Uitenhage, and western growth areas.
- Formalisation and upgrading of informal settlements (In cases where it does not trigger risk factors like flooding, environmental slopes, etc.), with provision for water, sanitation, and electricity.

SOCIAL FACILITIES

- Construction of Schools and healthcare under the provincial mandate, and multipurpose community centres under municipal mandate.
- Expansion of health infrastructure to align with provincial service delivery plans

URBAN PUBLIC REALM

- Township regeneration programmes include open space networks, recreational facilities, streetscape upgrades, maintenance of existing curb spaces, and pedestrian walkways along existing routes.

G2.2.4. ECONOMIC INFRASTRUCTURE AND CATALYTIC INVESTMENT SUPPORT

Coega SEZ EXPANSION

- Utility infrastructure (electricity, water, ICT) to accommodate LNG, automotive, and renewable energy investments.

PORT INFRASTRUCTURE

- Expansion of container handling capacity, roll-on/roll-off facilities, and improved logistics interfaces.

TOURISM AND URBAN REGENERATION

- Secure and maintain existing assets through regular upkeep, preservation of heritage and cultural sites, and strategic investment in infrastructure, while enabling regeneration and redevelopment.
- PE Waterfront redevelopment into a mixed-use, tourism, and cultural precinct.
- Bayworld redevelopment into a flagship marine and cultural attraction.
- CBD revitalisation projects, focusing on historic precincts, mixed-use redevelopment, and public realm upgrades.

G2.2.5. CLIMATE RESILIENCE AND ENVIRONMENTAL INFRASTRUCTURE

STORMWATER AND FLOOD CONTROL

- Major stormwater upgrades in Walmer, Motherwell, and Korsten.
- Coastal protection works at Summerstrand, Humewood, and Bluewater Bay.

WATER SECURITY

- Desalination, aquifer development, and expanded groundwater recharge programmes.
- Water conservation and demand management, including leak detection and pressure management systems.

CIRCULAR ECONOMY

- Waste-to-energy pilot projects at Arlington landfill.
- Expansion of recycling and composting facilities to divert waste from landfill.

G2.2.6. DIGITAL AND SMART INFRASTRUCTURE

- Expansion of municipal fibre optic networks to support government services and industrial parks.
- Smart metering and monitoring of electricity, water, and waste services.
- Real-time disaster risk monitoring systems integrated with provincial and national platforms.

G2.3. CATALYTIC PROJECTS

Catalytic projects are **large-scale, high-impact investments** that can unlock significant economic growth, drive urban restructuring, and improve service delivery. They act as anchors for spatial transformation by directing infrastructure investment, stimulating private-sector confidence, and creating inclusive opportunities for communities.

Key Categories:

1. ENERGY AND GREEN TRANSITION

- LNG Terminal (Coega/Port of Ngqura) – R13.6 billion investment.
- Renewable Energy IPPs – Solar, wind, and storage projects (e.g., Parsons Power Park, R2.7 billion).
- Electricity Master Plan upgrades to integrate renewables for Coega SEZ & industrial zones.

2. INDUSTRIAL AND LOGISTICS DEVELOPMENT

- Coega SEZ expansion (automotive, logistics, manufacturing, green hydrogen).
- Port of Ngqura & Port Elizabeth upgrades.
- N2/N2 Bypass & freight corridor improvements.

3. URBAN REGENERATION & TOURISM DEVELOPMENT

- Lower Baakens Renewal
- PE Waterfront redevelopment.
- Bayworld redevelopment.
- CBD revitalisation programme.

4. HUMAN SETTLEMENTS & SPATIAL TRANSFORMATION

- Integrated Human Settlements Programme – mixed-income housing, informal settlement upgrading, township regeneration.
- Social infrastructure – schools, clinics, and community facilities integrated with transport & housing.

5. CLIMATE RESILIENCE & ENVIRONMENTAL PROJECTS

- Coastal protection & stormwater infrastructure.
- Water security interventions (Nooitgedagt Phase 3, Coega Kop, desalination, groundwater schemes).
- Waste-to-energy & recycling projects.

Strategic Importance:

- Positions NMBM as a logistics, and renewable and alternative energy hub.
- Unlocks private sector investment through targeted public infrastructure.
- Drives job creation & youth skills development.
- Enables spatial transformation across the Metro.
- Supports climate resilience with green, sustainable infrastructure.

G2.3.1. SECTOR PLANS SUPPORTING THE CEF

Sector plans provide the **technical basis for investment prioritisation**, ensuring alignment with spatial strategies, the District Development Model, and national and provincial frameworks.

1. **Integrated Development Plan (IDP)** – principal strategic planning instrument; anchors MSDF and CEF.
2. **Electricity Master Plan (2024)** – grid reinforcement, renewable integration, advanced metering.
3. **Water Master Plan (Updated 2018–2022)** – bulk supply expansion, alternative sources, pipeline upgrades.
4. **Integrated Waste Management Plan (IWMP 2021–2027)** – landfill expansion, recycling, waste-to-energy pilots.
5. **Human Settlements Plan (2020–2030)** – informal settlement upgrading, mixed-income developments.
6. **Transport and Mobility Plan** – IPTS expansion, township road upgrades, freight corridors.
7. **Economic Development Strategy (Updated 2022)** – catalytic investment support, SMME

promotion, skills development.

8. **Climate Change and Environmental Management Framework** – stormwater, coastal protection, green infrastructure, low-carbon transition.
9. **Digital and Smart City Strategy** – fibre expansion, smart metering, GIS-based planning, ICT support for Coega SEZ.

G3. PHASE 2A: PROFILING OF SPATIALLY TARGETED AREAS AND SPATIAL CATEGORIES

The Nelson Mandela Bay Metropolitan Municipality (NMBM) covers approximately **1,959 km²** and is the largest urban centre in the Eastern Cape. As a metropolitan municipality, NMBM consolidates all responsibilities for **spatial planning, service delivery, and investment prioritisation** within a single authority, operating without a district layer.

In response to South Africa's challenging economic climate and constrained public-sector funding, the municipality must pursue a **targeted investment approach**. Spatial Targeted Areas (STAs) provide the foundation for this approach, emphasising the need to **channel public and private capital** into geographic areas with the greatest catalytic and developmental impact.

Spatial targeting in NMBM is designed to:

- Address historical spatial inequalities.
- Promote spatial transformation and integration.
- Align catalytic projects with the **National Development Plan (NDP), SPLUMA, IUDF, Metro Growth and Development Strategy (LTGDP), and MSDF**.
- Strengthen the Metro's role as a **key economic hub** within the Eastern Cape

G3.1. SPATIAL TARGETING AREAS

In line with the Metro's Integrated Development Framework and the National Spatial Development Framework (NSDF), planning interventions are now anchored in Spatially Targeted Areas (STAs) rather than broad functional categories. The STA approach ensures that strategic interventions are linked to clearly defined zones that combine integration, restructuring, and growth imperatives. These areas serve as the spatial foundation for guiding investment, infrastructure rollout, human settlement planning, and catalytic economic development.

G3.1.1. STA 1 – COEGA, BLUEWATER BAY, MOTHERWELL AND SURROUNDS

- **Integration Zone (IZ):** IZ 1
- **Restructuring Zones (RZ):** RZ 9, RZ 12
- **Growth Area (GA):** GA 4
- **PHSHDAs:** –

- **LSDFs:** LSDF 10, LSDF 11

Profile: STA 1 incorporates **Coega, Bluewater Bay, Motherwell and surrounding areas**. Anchored by the Coega Special Economic Zone, it combines major industrial and logistics infrastructure with rapidly expanding residential settlements. Motherwell, as one of the largest township areas, is a critical focal point for housing delivery and service integration.

Strategic Role: Industrial and logistics hub with major human settlement growth.

Key Focus: SEZ expansion, port–city integration, housing and infrastructure delivery, rail-supported development, coastal protection and mixed-use growth.

G3.1.2. STA 2 – KARIEGA, UITENHAGE, DESPATCH, KWANOBUHLE AND SURROUNDS

- **Integration Zone (IZ):** IZ 2
- **Restructuring Zones (RZ):** RZ 5, RZ 6, RZ 10
- **Growth Area (GA):** –
- **PHSHDAs:** PSHDA 3
- **LSDFs:** LSDF 8, LSDF 12, LSDF 13

Profile: STA 2 covers **Kariega, Uitenhage, Despatch, Rosedale, Cannon Hill, KwaNobuhle, Khayamandi, Joe Slovo, and Booyesen Park**, with **KwaDwesi** located along the border with STA 3. This area represents the historic automotive and manufacturing base of the Metro but faces challenges of industrial decline and socio-economic exclusion.

Strategic Role: Industrial transition and township integration corridor.

Key Focus: Automotive retooling (EV/hydrogen), township upgrading, logistics development, workforce reskilling, and housing-led integration supported by rail.

G3.1.3. STA 3 – GQEBERHA, SURROUNDING SUBURBS AND TOWNSHIPS

- **Integration Zones (IZ):** IZ 1, IZ 2
- **Restructuring Zones (RZ):** RZ 2, RZ 4, RZ 7, RZ 8, RZ 11, RZ 13, RZ 14, RZ 15, RZ 16
- **Growth Areas (GA):** GA 1, GA 2, GA 3
- **PHSHDAs:** PSHDA 1, PSHDA 2, small portion of PSHDA 3
- **LSDFs:** LSDF 1, LSDF 2, LSDF 3, LSDF 4, LSDF 5, LSDF 6, LSDF 7, LSDF 9

Profile: STA 3 includes the urban core of **Gqeberha and surrounding settlements**, encompassing **Arcadia, Soweto-on-Sea, Zwide, Bethelsdorp, West End, Ibhayi, KwaZakhele, Swartkops, Deal Party, New Brighton, Newton Park, Walmer, Greenbushes, Rowallan Park, Lorraine, Threescombe, Summerstrand, Cape Recife and surrounds**. It contains both high-density township areas and established suburbs, alongside critical industrial and port functions.

Strategic Role: Metro-wide growth engine and urban restructuring zone.

Key Focus: Human settlement upgrading, port and airport gateway development, urban regeneration, densification, agro-industrial value chains, and public transport integration.

G3.1.4. SUMMARY ALIGNMENT TABLE

Spatial Targeted Area	Includes	Components	Strategic Role	Key Focus
STA 1	Coega, Bluewater Bay, Motherwell & surrounds	IZ 1; RZ 9, 12; GA 4; LSDF 10, 11; Future rail	Industrial–settlement integration hub	SEZ expansion, housing delivery, port–city integration
STA 2	Kariega, Uitenhage, Despatch, KwaNobuhle, Rosedale, Cannon Hill, Khayamandi, Joe Slovo, Booysen Park (KwaDwesi on STA 2/3 border)	IZ 2; RZ 5, 6, 10; PSHDA 3; LSDF 8, 12, 13; Future rail	Industrial transition & township corridor	Automotive retooling, housing-led integration, logistics, reskilling
STA 3	Gqeberha, Arcadia, Soweto-on-Sea, Zwile, Bethelsdorp, West End, Ibhayi, KwaZakhele, Swartkops, Deal Party, New Brighton, Newton Park, Walmer, Greenbushes, Rowallan Park, Lorraine, Threescombe, Summerstrand, Cape Recife & surrounds	IZ 1, 2; RZ 2, 4, 7, 8, 11, 13, 14, 15, 16; GA 1–3; PSHDA 1–3; LSDF 1–7, 9; Gateways; Khulani Corridor; Future rail	Metro-wide growth engine	Settlement upgrading, gateway development, densification, agro-industrial growth

Table 68: Summary Alignment Table

G3.2. SPATIAL CATEGORIES FOR INVESTMENT PLANNING AND PRIORITISATION

To direct limited fiscal resources effectively and leverage private-sector partnerships, Nelson Mandela Bay Municipality (NMBM) has adopted a spatial categorisation system that underpins investment prioritisation across the Metro. These categories ensure alignment with the MSDF, IDP, Integrated Infrastructure Investment Framework (IIIF), and the catalytic project pipeline.

The categories provide a structured methodology for guiding decisions in infrastructure investment, housing delivery, transport and mobility, and service upgrades. They also balance short-term service imperatives with medium- to long-term growth management.

G3.2.1. CONSOLIDATION AREAS

Established suburbs, peri-urban settlements, and stable rural nodes where the focus is on maintaining efficiency and service reliability.

Application:

- Suburban areas in Gqeberha and Kariega with relatively stable infrastructure.
- Peri-urban communities and rural hinterland nodes.

Strategic Focus:

- Maintenance and optimisation of existing infrastructure networks.
- Preventing service delivery decline and protecting municipal revenue bases.
- Incremental upgrades where necessary, without large-scale redevelopment.

Development Rationale: Ensures stability, efficiency, and sustainability of service delivery while reinforcing the Metro's fiscal health.

G3.2.2. PRIORITY INVESTMENT AREAS

Focal points for immediate, large-scale, and catalytic investment.

Application:

- **Coega SEZ and Port of Ngqura precincts** – national logistics and energy hubs.
- **Gqeberha CBD and Inner City** – regeneration of commercial, residential, and mixed-use spaces.
- **Motherwell Urban Hub** – transit-oriented development and township economy gateway.
- **Uitenhage/Kariega industrial corridors** – automotive and manufacturing retooling, linked to hydrogen and EV value chains.

Strategic Focus:

- Catalytic infrastructure upgrades.
- Expedited development approvals and special incentives.
- Public realm and urban environment improvements.
- Anchoring metro-wide growth, employment creation, and competitiveness.

Catalytic Links: LNG Terminal, Hydrogen Valley, Automotive Special Economic Zone (ASEZ), Port Waterfront Redevelopment.

G3.2.3. UPGRADING AREAS

Township and informal settlement concentrations with urgent needs for infrastructure, services, and economic inclusion.

Application:

- **Zwide, KwaNobuhle, New Brighton, Motherwell extensions** – high-density settlements with housing and service backlogs.
- Large areas under Priority Human Settlements Development Areas (PHSDAs).

Strategic Focus:

- Upgraded basic services (water, sanitation, electricity, roads).
- Integrated housing delivery and informal settlement upgrading.
- Township economy development (SMMEs, local hubs, skills centres).
- Improved public transport and NMT (non-motorised transport) access.

Development Rationale: Supports equity, inclusive growth, and the reduction of historical backlogs.

G3.2.4. MEDIUM–LONG TERM URBAN GROWTH AREAS (10–20 YEARS)

Definition: Strategic reserves of land earmarked for structured future growth, identified in the MSDF to respond to urbanisation pressures.

Application:

- North-eastern periphery near Motherwell.
- Expansion of Kariega/Uitenhage towards N2 corridor.
- Inland areas aligned with freight and logistics networks.

Strategic Focus:

- Proactive planning to avoid uncontrolled sprawl.
- Integration of compact, sustainable, and transit-oriented development (TOD).
- Protection of environmental assets, agricultural land, and biodiversity corridors.
- Unlocking future phases through Local Area Plans, feasibility studies, and fiscal impact assessments.

Development Rationale: Provides long-term certainty for investors and communities, while enabling orderly, sustainable metropolitan expansion.

G3.2.5. STRATEGIC RATIONALE

The four categories represent a **hierarchical investment framework** that balances immediate catalytic interventions with long-term sustainability:

- **Consolidation Areas** ensure stable service delivery and protect existing infrastructure assets.
- **Priority Investment Areas** anchor global competitiveness, attract catalytic investment, and strengthen the industrial and service economy.
- **Upgrading Areas** drive inclusive growth, addressing backlogs and integrating marginalised communities into the metropolitan economy.
- **Medium–Long Term Urban Growth Areas** provide structured, phased urban expansion

aligned with sustainability and TOD principles.

This classification ensures that **NMBM's investment decisions are phased, evidence-based, fiscally responsible, and transformative.**

G3.2.6. HIERARCHY OF SPATIAL CATEGORIES

- **Consolidation Areas** – Maintenance and incremental improvement of stable areas.
- **Priority Investment Areas** – Immediate focus for catalytic projects and metro-wide growth.
- **Upgrading Areas** – Targeted interventions in townships and informal settlements for equity.
- **Medium–Long Term Growth Areas** – Managed future expansion to support compact and sustainable urban form.

G3.2.7. SUMMARY OF TYPOLOGIES

Spatial Category	Typology	Focus
Consolidation Areas	Stable Suburbs & Rural Nodes	Maintenance, optimisation, service efficiency
Priority Investment Areas	Industrial, Port, CBD Regeneration & Economic Hubs	Catalytic investment, job creation, global competitiveness
Upgrading Areas	Townships & Informal Settlements	Basic service delivery, housing, inclusive local economic development
Medium–Long Term Growth Areas	Expansion Corridors	Managed growth, TOD, environmental sustainability

Table 69: Summary of Typologies

G3.3. CURRENT AND PROJECTED POPULATIONS

Understanding population size, growth trends, and future projections is critical for effective infrastructure planning, service delivery, and sustainable spatial development. Nelson Mandela Bay Municipality (NMBM), as one of South Africa's eight metropolitan municipalities, continues to experience steady population growth, driven by natural increase and migration linked to economic opportunities, education, and access to urban services.

G3.3.1. CURRENT POPULATION AND GROWTH TRENDS

As of 2023, NMBM's population was estimated at **1,282,424**, reflecting an increase of approximately 130,181 since 2011, when the population stood at 1,152,243. This represents a **cumulative growth rate of 11.3% over 12 years**, or according to the IDP an **average annual growth rate of 0.9%**.

Key demographic observations include:

- Female-dominated population: 53% female vs. 47% male (sex ratio: 91.2 males per 100 females), affecting household formation, social infrastructure, and service delivery requirements.
- Long-term growth trajectory: Between 2008 and 2023, population increased from ~1,090,500 to 1,282,424 (17.6% growth over 15 years).
- Growth is primarily driven by migration from surrounding Eastern Cape towns and rural areas toward the metro for work, housing, education, and services.

G3.3.2. POPULATION PROJECTIONS

Population projections use the **compound growth formula**:

$$\text{Pop}_{\text{future}} = \text{Pop}_{\text{present}} \times (1 + i)^n$$

Where:

- $\text{Pop}_{\text{present}} = 1,282,424$ (2023 baseline)
- $i = 0.009$ (0.9% annual growth rate)
- n = number of years

LONG-TERM POPULATION PROJECTIONS

	2026	2028	2030	2032	2034
Projected Population	1 263 264	1 264 401	1 265 003	1 266 970	1 269 625

Table 70: Long Term Population Projections

G3.3.3. STRATEGIC IMPLICATIONS

Projected growth of approximately **394,000 people over the next 30 years** presents strategic challenges and opportunities:

1. **Housing Demand** – Household formation will increase faster than population growth, driving demand for affordable housing and serviced land.
2. **Infrastructure and Utilities** – Water, sanitation, energy, and waste systems will require proactive expansion and upgrades.
3. **Social Services** – Increased demand for schools, clinics, hospitals, and recreational facilities, particularly in townships and peri-urban areas.
4. **Economic Development** – Labour force expansion necessitates job creation, skills development, and support for inclusive economic growth.
5. **Transport and Mobility** – Greater population density will require improved public transport, non-motorised transport (NMT) infrastructure, and better integration between residential and employment nodes.

G3.3.4. SUMMARY

Population growth underscores the **need for early, coordinated, and spatially aligned planning**, enabling the municipality to:

- Proactively plan bulk infrastructure,
- Guide sustainable land development,
- Address housing and service backlogs,
- Build economic resilience for a growing urban population.

G3.4. HOUSEHOLD GROWTH PROJECTIONS

Household growth projections provide the basis for **future demand for housing, services, and infrastructure**. While population growth sets the overall trajectory, household formation drives the need for land, housing, and municipal services

PROJECTED HOUSEHOLD GROWTH

	2026	2028	2030	2032	2034
Projected No. of Households	385 486	398 391	411 727	425 510	439 754

	2026	2028	2030	2032	2034
Projected Demand	134 001	136 803	139 663	142 583	145 565

Table 71: Projected Household Growth 72

G3.4.1. KEY INSIGHTS

- Households projected to **increase by ~68,373** between 2030 and 2050.
- Housing demand rises from **138,698 units in 2030** to **165,918 units in 2050** (~20% increase).
- Growth driven by both **natural population increase and urbanisation**, with household formation exceeding population growth rates.
- Incremental rise in demand underscores need for **consistent delivery of serviced land and housing**, especially affordable and subsidised units.
- By 2050, new housing demand will place significant pressure on infrastructure, social facilities, and municipal resources.

IMPLICATIONS FOR PLANNING

- **Housing Delivery:** Implement scalable, phased housing programmes aligned with projected growth.
- **Infrastructure Provision:** Expand bulk services (water, sanitation, electricity, roads) **ahead of growth areas** to avoid service bottlenecks.
- **Spatial Planning:** Direct new households to well-located land near economic opportunities, public transport, and social amenities, in line with **SDF principles**.
- **Affordability Considerations:** Partner with private sector and state housing agencies to meet high demand in subsidised and affordable housing markets.
- **Sustainability:** Balance densification in urban nodes with controlled expansion to prevent sprawl.
- **Long-Term Budgeting:** Integrate projections into capital investment frameworks to ensure fiscal planning keeps pace with household and service demand.

G4. PHASE 2B: INFRASTRUCTURE DEMAND QUANTIFICATION

Phase 2B focuses on quantifying infrastructure demand within Nelson Mandela Bay Municipality (NMBM) to address existing backlogs and accommodate projected population and household growth. This analysis forms a technical foundation for spatial planning, strategic investment, and prioritisation across all municipal functional areas, with particular attention to metropolitan-scale catalytic projects, port operations, industrial zones, and urban renewal initiatives.

G4.1. LAND/ YIELD DEMAND PER STRATEGICALLY TARGETED AREA

Based on projected population growth—from 1,282,424 in 2023 to approximately 1,534,000 by 2053—and household growth (from 376,524 households in 2023 to nearly 488,000 by 2053), NMBM will require substantial expansion of serviced residential land across the Metro.

Assuming urban residential densities of 30 units/ha in higher-density nodes and peri-urban densities of 15 units/ha, approximate land requirements are:

Land Needs	2026	2028	2030	2032	2034
Low density 30 du/ha units	4 467 ha	4 560 ha	4 655 ha	4 753 ha	4 852 ha
Medium Density 60 du/ha	2 233 ha	2 280 ha	2 328 ha	2 376 ha	2 426 ha
High Density 100 du/ha	1 340 ha	1 368 ha	1 396 ha	1 426 ha	1 456 ha

Table 73: Land Yield Demand

Note: Density assumptions prioritise higher-density urban nodes along public transport corridors and Integration Zones, while peri-urban areas retain lower densities.

These estimates provide a baseline for land use budgeting, zoning, and utility planning, ensuring the Metro can meet housing and service demands over the MSDF horizon.

G4.2. LAND IDENTIFICATION TABLE

Strategic land identification must align with projected residential demand (111,000 additional households by 2053) and the three **Strategically Targeted Areas (STAs)** identified in the MSDF. Each STA carries distinct development roles, infrastructure opportunities, and land pressures.

Table 74: Indicative Land Identification Requirements per STA

STA	Strategic Role	Density Mix	Approx. Land Need (ha by 2050)	Identification Priorities
STA 1 – Coega, Bluewater Bay, Motherwell & surrounds	Industrial–settlement integration hub: SEZ expansion,	Medium–High (60–100 du/ha)	± 500 ha	Land adjacent to Coega SEZ and Motherwell growth areas; prioritise

STA	Strategic Role	Density Mix	Approx. Land Need (ha by 2050)	Identification Priorities
	port–city integration, large-scale housing delivery			catalytic mixed-income housing along public transport corridors; protect buffers between heavy industry and housing.
STA 2 – Kariega, Uitenhage, Despatch, KwaNobuhle & surrounds	Industrial transition & township corridor: automotive retooling, logistics, housing-led integration	Low–Medium (30–60 du/ha)	± 600 ha	Land for township expansion (KwaNobuhle, Joe Slovo, Booysen Park) and infill in Despatch; target underutilised industrial/rail-adjacent parcels for mixed-use redevelopment.
STA 3 – Gqeberha, Arcadia, Soweto-on-Sea, Zwile, Bethelsdorp, Walmer & broader metro	Metro-wide growth engine: densification, settlement upgrading, gateways, agro-industrial growth	Mixed range: High (100 du/ha) in CBD/gateways; Medium (60 du/ha) in corridors; Low (30 du/ha) in peri-urban edge	± 700 ha	Identify well-located underutilised parcels in Gqeberha CBD, Walmer, and gateways; consolidate land for social housing, mixed-use precincts, and settlement upgrading in Northern Areas/Zwile.

Note: Land requirements are indicative, based on projected household growth and distributed across STAs in proportion to their strategic growth role, density assumptions, and infrastructure capacity.

G4.2.1. STRATEGIC PLANNING CONTEXT

- **Phased Land Identification:** Prioritise high-demand **urban nodes and Integration Zones within STA 1 and STA 3** to optimise existing infrastructure; **STA 2** follows with phased township expansion and industrial land transition.
- **Alignment with IDP & GDS:** Land acquisition and release directly support Metro priorities, including **SEZ growth in STA 1, automotive retooling and logistics in STA 2, and CBD/gateway renewal in STA 3.**
- **Infrastructure-Linked Growth:** Land release must be synchronised with planned **bulk service upgrades (water, sanitation, energy, roads, rail, and public transport)** to ensure development feasibility across all STAs.
- **Dynamic, Adaptive Approach:** Land acquisition priorities will be **reviewed regularly per STA** to respond to shifting demographics, market dynamics, catalytic project rollouts, and

evolving socio-economic trends.

G4.3. OPERATIONAL AND MAINTENANCE EXPENDITURE PER ASSET CLASS

Long-term operational and maintenance (O&M) planning ensures sustainability of NMBM infrastructure.

Indicative annual O&M considerations include:

Table 75: Operational and Maintenance Estimate Costs

Asset Class	Estimated Annual O&M Cost	Assumptions
Water Reticulation	–	Network upgrades, bulk water pipelines, pump stations, and treatment plants to meet growing demand.
Sanitation Infrastructure	–	Wastewater treatment works, sewer network expansion, and pump station maintenance.
Roads & Stormwater	–	Road resurfacing, stormwater upgrades, and new arterial links in growing urban nodes.
Electricity (MV)	–	Medium-voltage network expansion, substations, lighting, and integration of renewable energy initiatives.
Waste Management	–	Fleet maintenance, landfill expansion, and recycling program scaling.
Community Facilities	–	Upgrades to sports fields, community halls, playgrounds, libraries, and public open spaces.

Note: O&M assumptions reflect Metro-scale usage, higher-density urban growth, and expansion of community, industrial, and transport infrastructure.

G4.4. MSDF PROVISION

The **MSDF integrates population and household growth, land demand, and infrastructure requirements** into a spatial framework prioritising:

- **Priority Investment Areas (PIAs):** High potential locations to drive job creation, improve accessibility, and stimulate economic growth (e.g., PE CBD, Baywest/N2 Node, Coega SEZ).
- **Consolidation Areas:** Urban infill and densification nodes to optimise existing infrastructure and curb sprawl.
- **Upgrading Zones:** Targeted interventions in historically underserved areas, including informal settlement upgrading, social housing delivery, and public amenities.

The MSDF ensures development aligns with:

- **SPLUMA** (Spatial Planning and Land Use Management Act)
- **National Treasury Spatial Targeting Principles**
- **NMBM Integrated Development Plan (IDP)** and **Growth & Development Strategy (GDS)**

Through **phased infrastructure planning, strategic land acquisition, and prioritisation of catalytic projects**, the MSDF supports **sustainable, inclusive, and resilient metropolitan growth** across Nelson Mandela Bay Municipality.

G5. PHASE 3: DEFINE AFFORDABLE FUNDING ENVELOPE (LONG TERM FINANCIAL PLAN)

The Nelson Mandela Bay MSDF is underpinned by a **realistic, sustainable, and fiscally responsible approach** to municipal investment. Phase 3 defines a **long-term funding envelope** that aligns development ambitions with NMBM's **financial capacity** over the MSDF planning horizon.

A preliminary financial analysis considered:

- Current municipal revenue streams, including property rates, service charges, grants, and user fees.
- Existing debt obligations, contingent liabilities, and financial commitments.
- Projected revenue growth driven by demographic and economic trends.
- Costs of infrastructure upgrades, new development servicing, and asset maintenance.

The **Long-Term Financial Plan (LTFP)** provides a framework to **balance Priority Investment Areas, consolidation, infill, and upgrading initiatives** with prudent fiscal management. It emphasises:

- Prioritisation of capital projects with the **greatest socio-economic and spatial return**.
- Phased implementation aligned with **realistic cash flows**.
- Leveraging **external funding**, including national/provincial grants, PPPs, and donor support.
- Alignment with NMBM **IDP, MTREF**, and long-term financial sustainability objectives.

The envelope ensures **strategic capital investment** to unlock development opportunities, maintain and upgrade existing assets, and mitigate financial risks while safeguarding **NMBM's fiscal viability**.

G5.1. STRATEGIC PURPOSE OF THE AFFORDABILITY ENVELOPE

The **10-year affordability envelope** functions as a **financial filter** to prioritise, sequence, and spatially target NMBM capital projects. **It ensures that:**

- The **Capital Expenditure Framework (CEF)** aligns with realistic municipal revenue and expenditure capabilities.
- **Over-commitment and unfunded mandates** are avoided.
- Available funding is leveraged for **maximum socio-economic and spatial impact**.
- Investments address both **existing backlogs** and **future growth requirements**.

This envelope directly supports **MSDF implementation** by defining what can be funded, when, and where, ensuring feasible spatial strategies and infrastructure roll-out.

G5.2. PROJECTED 10-YEAR CAPITAL DEMAND VS. AFFORDABILITY

Based on sector plans and MSDF priorities, NMBM's **total capital demand (2025–2034)** is estimated at **R20.5 billion**, covering:

- Bulk infrastructure (water, sanitation, electricity, roads).
- Housing delivery, urban renewal, and social amenities.
- Catalytic economic projects supporting industrial expansion, port infrastructure, and tourism.
- Climate resilience and environmental management interventions.

The **10-year affordable funding envelope** is approximately **R12.8 billion**, indicating that around **62% of total demand** can realistically be financed.

Category	Estimated Amount (R)
Projected Total CAPEX Demand	R20,500,000,000
Estimated CAPEX Affordability	R12,800,000,000
% Affordable	±62%
Key Funding Sources	MIG, INEP, WSIG, CRR, own revenue, PPPs

Table 76: 10-Year Affordability envelope

*Note: Between 2025 and 2027, more than **R4 billion** in capital allocations are anticipated, mainly through grants and sectoral programmes aligned with IDP and MSDF priorities.*

ANNUAL CAPEX CAPACITY FORECAST

Year	Estimated CAPEX Capacity (R)
2025	R1,200 million
2026	R1,250 million
2027	R1,300 million
2028	R1,350 million
2029	R1,400 million
2030	R1,450 million
2031	R1,500 million
2032	R1,550 million
2033	R1,600 million

Year	Estimated CAPEX Capacity (R)
2034	R1,600 million

Table 77: Annual CAPEX

Assumptions: continued external grant allocations, moderate revenue growth, and prudent financial management.

G5.3. RISKS TO FISCAL SUSTAINABILITY

Risk	Response Strategy
Declining national grants (real terms)	Explore blended finance, PPPs, and grant advocacy
Rising O&M costs	Implement phased roll-out and full lifecycle costing
Low-cost recovery in settlements	Strengthen billing, metering, and indigent management
Environmental shocks (floods, fires, storms)	Incorporate climate-resilient design and disaster reserves
Economic downturns impacting cash flow	Prioritise ready-to-implement projects; maintain contingency buffers

Table 78: Risks to Fiscal Sustainability

The Financial Viability Strategy and Revenue Enhancement Programme focus on improving collection rates, tariff structuring, grant maximisation, and cost containment across all municipal functions.

G5.4. IMPLICATIONS FOR MSDF AND CAPITAL INVESTMENT STRATEGY

The affordability envelope establishes a **financial ceiling** guiding spatial and infrastructure decisions:

- 1. Prioritisation:** Phased funding of projects in **Priority Investment Areas, upgrading zones, and consolidation nodes**.
- 2. Spatial Efficiency:** Promote infill, densification, and infrastructure optimisation to reduce long-term service costs.
- 3. Funding Leverage:** Prioritise projects unlocking **co-funding, economic growth, and climate resilience** (e.g., Coega IDZ, port upgrades, coastal protection).

Focus Areas:

- Renewal, and maintenance across growth corridors.
- Critical bulk infrastructure to support industrial nodes, tourism, and urban expansion.
- Urban renewal in Port Elizabeth CBD, Motherwell, and Walmer.

G5.5. RECOMMENDATIONS FOR STRENGTHENING FINANCIAL STRATEGY

To support long-term spatial and economic sustainability, it is recommended that NMBM:

- Finalise and update the **Asset Management Plan (AMP)** to include lifecycle costing.
- Institutionalise **multi-year capital planning** aligned with MSDF, IDP, and MTREF cycles.
- Strengthen **inter-departmental alignment** through annual CEF and MSDF updates.
- Explore **PPPs and strategic borrowing post-2030** for catalytic infrastructure.
- Maintain a rolling **Long-Term Financial Plan (LTFP)** to respond to demographic, economic, and climate shifts.

G6. PHASE 4: DEFINE PRIORITISATION TOOL BASED ON SPATIAL ENGINEERING AND FINANCIAL PRIORITIES

Capital project prioritisation within Nelson Mandela Bay Municipality (NMBM) must respond to a **metropolitan context of constrained resources, significant infrastructure backlogs, and extensive growth demands**, while advancing the transformative objectives of the **MSDF, IDP, and Metro Growth & Development Strategy (GDS)**.

Phase 4 of the **Capital Expenditure Framework (CEF)** introduces a **structured, evidence-based prioritisation tool** that integrates spatial rationale, engineering feasibility, and financial sustainability. This ensures projects are **selected and sequenced** to support the Metro's strategic objectives while remaining technically and fiscally sound.

This approach enables **transparent, coordinated, and defensible decision-making**, where projects are phased based on **objective criteria**, rather than ad hoc, politically influenced, or purely sector-driven decisions. A **layered assessment methodology** is applied, with projects numerically scored, strategically categorised, and aligned with short-, medium-, and long-term implementation horizons.

G6.1. PRIORITISATION TOOL

The NMBM Prioritisation Tool evaluates capital projects in three layers:

G6.1.1. LAYER 1: DOMAINS OF ASSESSMENT

Domain	Purpose
Strategic Alignment	Assesses alignment with MSDF, IDP, GDS, and regional economic priorities.
Engineering Readiness	Evaluates technical feasibility, network sequencing, and project readiness for implementation.

Domain	Purpose
Environmental Readiness	Assesses environmental impacts, compliance requirements, and sustainability considerations.
Financial Sustainability	Assesses lifecycle costs, O&M implications, and long-term return on investment.

Table 79: Domains of Assessment

This framework allows NMBM to **prioritise projects that are spatially rational, technically feasible, financially sustainable, and aligned with metropolitan growth objectives.**

G6.1.2. LAYER 2: PRIORITISATION CRITERIA AND SCORING

Each capital project is assessed against seven key criteria, each scored from 0–5, for a maximum total of 40 points:

Criteria	Score Range (0–5)
Policy Alignment	Alignment with IDP, MSDF, Vision, and relevant sector plans.
Spatial Transformation	Supports compact, connected, and integrated urban growth, including infill, densification, and consolidation.
Community Benefit	Direct impact on residents (housing, access, amenities, safety).
Municipal Mandate Fit	Within NMBM competency or feasible through municipal roles.
Affordability / Value for Money	Cost-effective relative to benefits and feasibility.
Catalytic Impact	Unlocks further investments, economic development, or growth in strategic nodes.
Alignment With relevant sector Priorities	Supports objectives of sector plans (e.g., water, sanitation, transport, energy, social services, economic development) and cross-sector coordination.
Readiness	Shovel-ready, planned, funded, or conceptual stage.

Table 80: Prioritising Criteria

PRIORITY BANDING

Each project's total score guides its classification into one of the following **priority categories**:

Total Score (out of 35)	Priority Band	Meaning
35 - 40	Top Priority	High-impact and ready for implementation; strong strategic alignment.
28 – 34	Strong Strategic Fit	Aligned and feasible; should be actively supported and resourced.

Total Score (out of 35)	Priority Band	Meaning
18 – 27	Moderate Priority	Potentially beneficial; monitor or coordinate with other stakeholders.
< 18	Low Priority	Limited municipal role or indirect impact; leverage only where appropriate.

Table 81: Priority Banding

G6.1.3. INTERPRETATION VIA EISENHOWER MATRIX

The Eisenhower Matrix classifies projects by **Impact** and **Urgency**, now adjusted for the 40-point scoring system:

Quadrant	Description	Strategic Guidance
High Impact / High Urgency	Critical, strategic, ready-to-implement projects	Do Now – Fast-track in short-term budgeting
High Impact / Low Urgency	Transformative projects requiring planning or funding	Plan – Include in medium-term (3–5 year) pipeline
Low Impact / High Urgency	Projects driven by external pressure but limited long-term benefit	Delegate or Review – Consider low-cost or temporary solutions
Low Impact / Low Urgency	Minimal urgency or strategic value	Defer or Drop – Archive for future consideration

Table 82: Eisenhower Interpretation

- **Impact:** The potential of the project to deliver significant strategic, economic, safety, and spatial benefits.
- **Urgency:** The immediacy with which the project must or can be implemented based on readiness, risk, or time-sensitive factors.

G6.1.4. SCORING THRESHOLDS

Impact Bands (total score **excluding** Readiness / Criterion 2, i.e., max 35 points):

Band	Score Range	Description
High Impact	28–35	Projects delivering substantial strategic, socio-economic, and spatial benefits
Medium Impact	20–27	Moderate benefits; coordinate with other investments
Low Impact	<20	Limited impact; consider only if strategically necessary

Urgency Bands (Readiness only, max 5 points):

Table 83: Eisenhower Impact Scoring Bands

Band	Score Range	Description
High Urgency	4–5	Shovel-ready or immediate implementation required
Low Urgency	1–3	Conceptual or long-term; requires further planning or funding

Table 84: Eisenhower Urgency Scoring Bands

This matrix serves as a secondary layer of analysis — after numeric scoring — to communicate and justify sequencing decisions during stakeholder engagements or council processes.

G6.1.5. PROJECT TIMEFRAMES

Projects are categorised to guide **implementation sequencing**:

- **Short Term (0–5 Years):** Immediate interventions, quick wins, essential infrastructure, planning studies, regulatory and legal compliance improvements.
- **Medium Term (5–10 Years):** Strategic projects requiring phased implementation, sector coordination, and moderate investment, e.g., housing developments, bulk infrastructure, institutional capacity building.
- **Long Term (10–20 Years):** Transformational projects supporting metropolitan growth and resilience, including major transport corridors, industrial expansion, port upgrades, and large-scale environmental interventions.

G7. PROJECTS

The prioritisation tool outlined in the previous section provides the framework for assessing and ranking projects across Nelson Mandela Bay Municipality (NMBM). Building on that, the following project tables consolidate the interventions that have been identified as catalytic, sector-specific, and social facility projects.

These tables are not only an inventory of initiatives, but also a mechanism to:

- Translate strategic priorities into implementable actions.
- Spatially align capital investments with the MSDF and IDP.
- Sequence interventions according to urgency, impact, and available resources.
- Strengthen accountability by linking projects to responsible stakeholders.

As a metropolitan municipality without a district-level coordinating authority, NMBM faces unique challenges of scale, complexity, and diversity. The project tables respond to this by providing an integrated overview across multiple sectors, urban and peri-urban areas, and regional economic hubs. This supports coherence between long-term spatial strategies and short- to medium-term service delivery imperatives.

Note: For all project categories, each project has a corresponding plan where the project number aligns with the relevant Excel spreadsheet, and all projects are layered within the overall strategic plan to ensure a structured, integrated pipeline.

Please see Annexure A for all relevant project tables broken down below.

G7.1. HIGH IMPACT MEGA PROJECTS

High Impact Mega Projects are transformative interventions of national or regional significance that drive large-scale economic, social, and spatial change. **Their selection is guided by:**

- Alignment with the Metro Growth & Development Strategy (GDS) and the Municipal Spatial Development Framework (MSDF).
- Strategic importance to industrial, port, tourism, and transport nodes.
- Potential to attract national and international investment.
- Opportunities for public–private collaboration at scale.

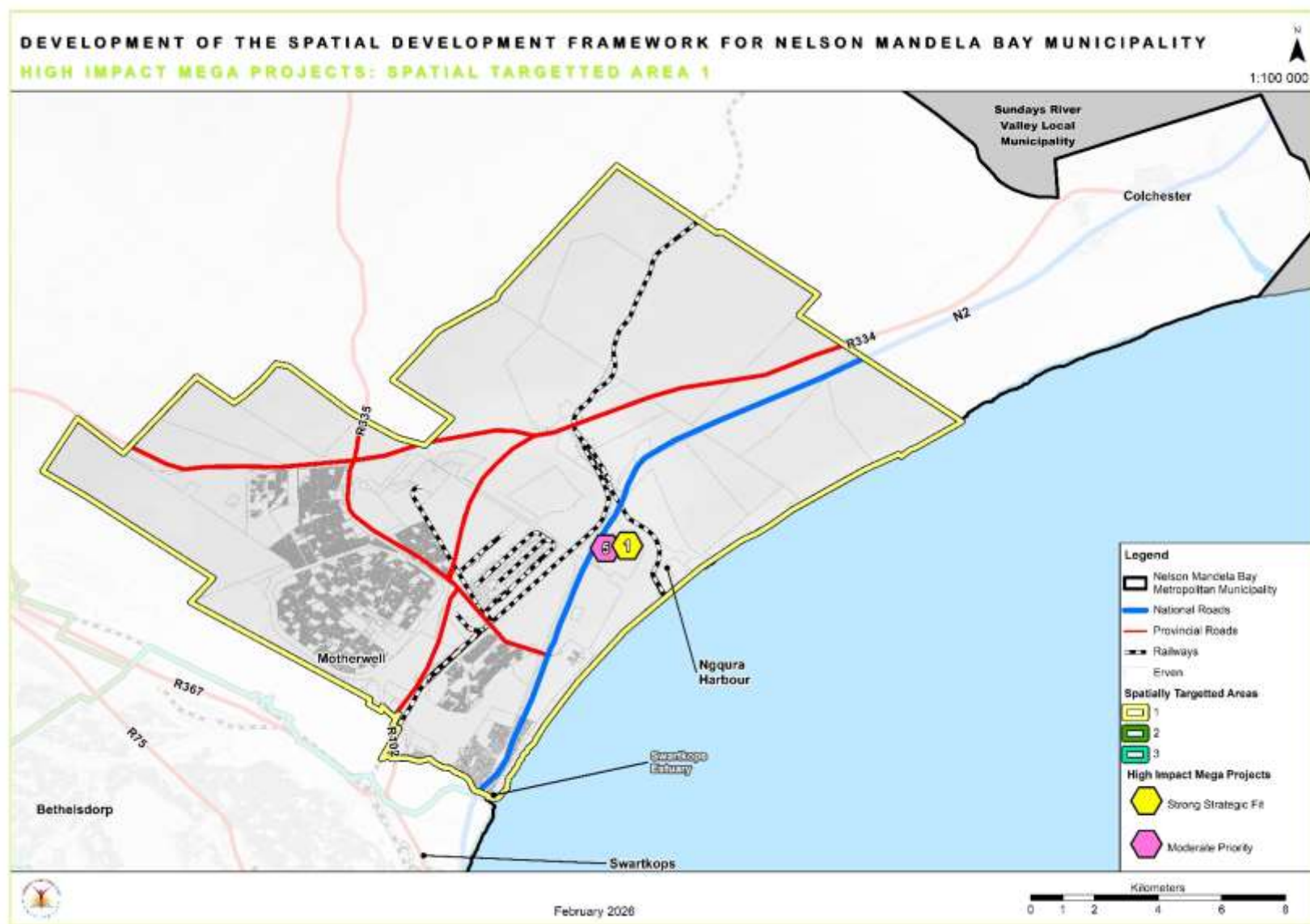
These projects typically:

- Catalyse major economic growth and investment.
- Generate substantial employment opportunities.
- Enhance regional and international connectivity.
- Promote resilience to climate, environmental, and infrastructural risks.

Implementation requires close coordination across municipal, provincial, and national government, as well as private sector stakeholders.

The potential establishment of a Nuclear Energy Facility, as a strategic mega-project within the Metro, may be considered subject to national policy alignment. The viability of such a development shall be confirmed through comprehensive feasibility investigations, including but not limited to environmental, technical, financial and socio-economic assessments. Any proposal will be subject to all applicable statutory planning processes, authorisations and approvals in terms of relevant national and provincial legislation, as well as municipal land use management requirements

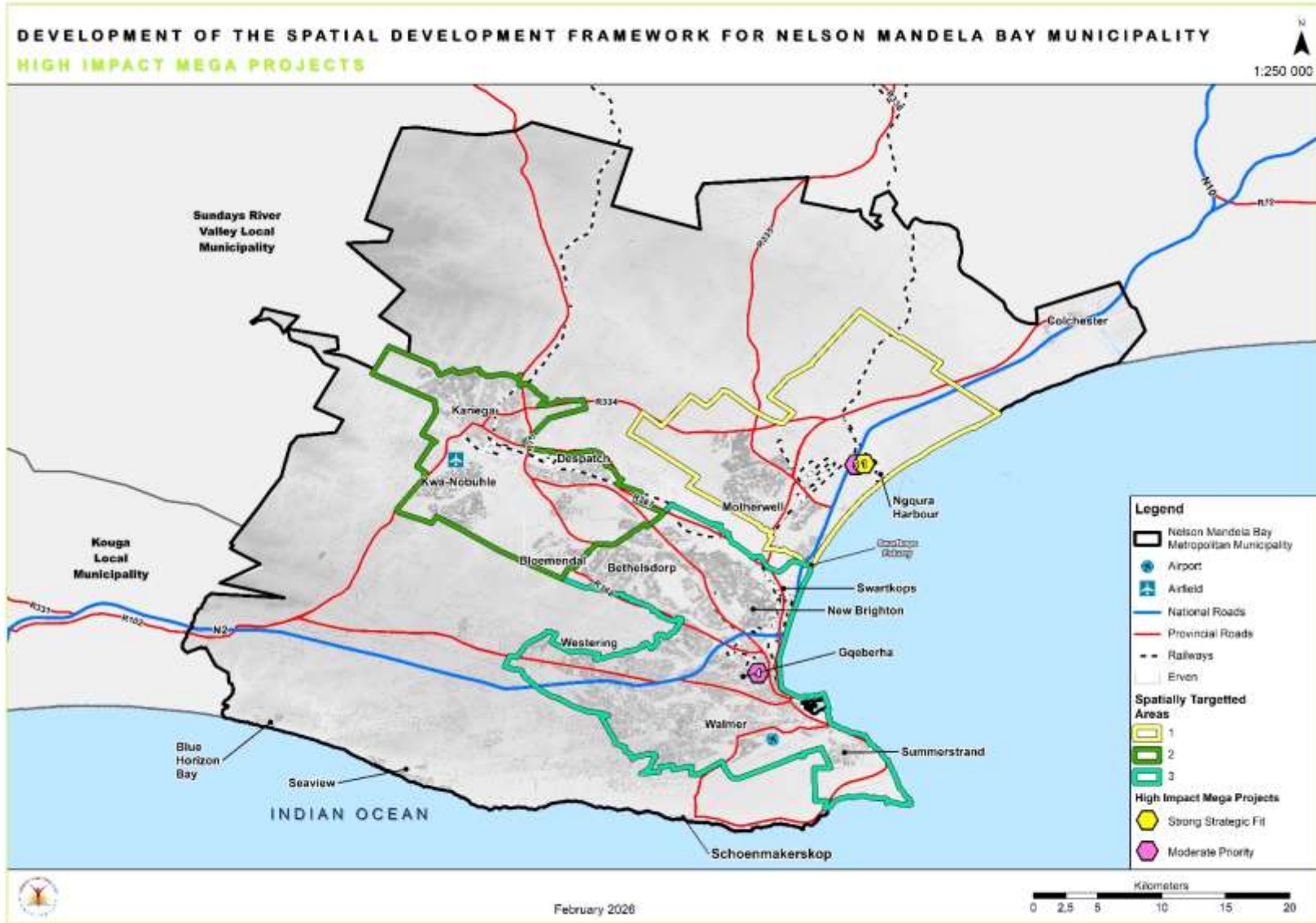
The overall High Impact Mega Projects are depicted in Map 75 and Maps 76 & 77 depicts the relevant STA Zoom ins.



Map 75: High Impact Mega Projects - Spatial Targeted Area 1



Map 76: High Impact Mega Projects - Spatial Targeted Area 3



Map 77: High Impact Mega Projects

G7.2. HIGH IMPACT CATALYTIC PROJECTS

High Impact Catalytic Projects are large-scale interventions that unlock broader economic, social, and spatial benefits within the Metro. Selection is based on:

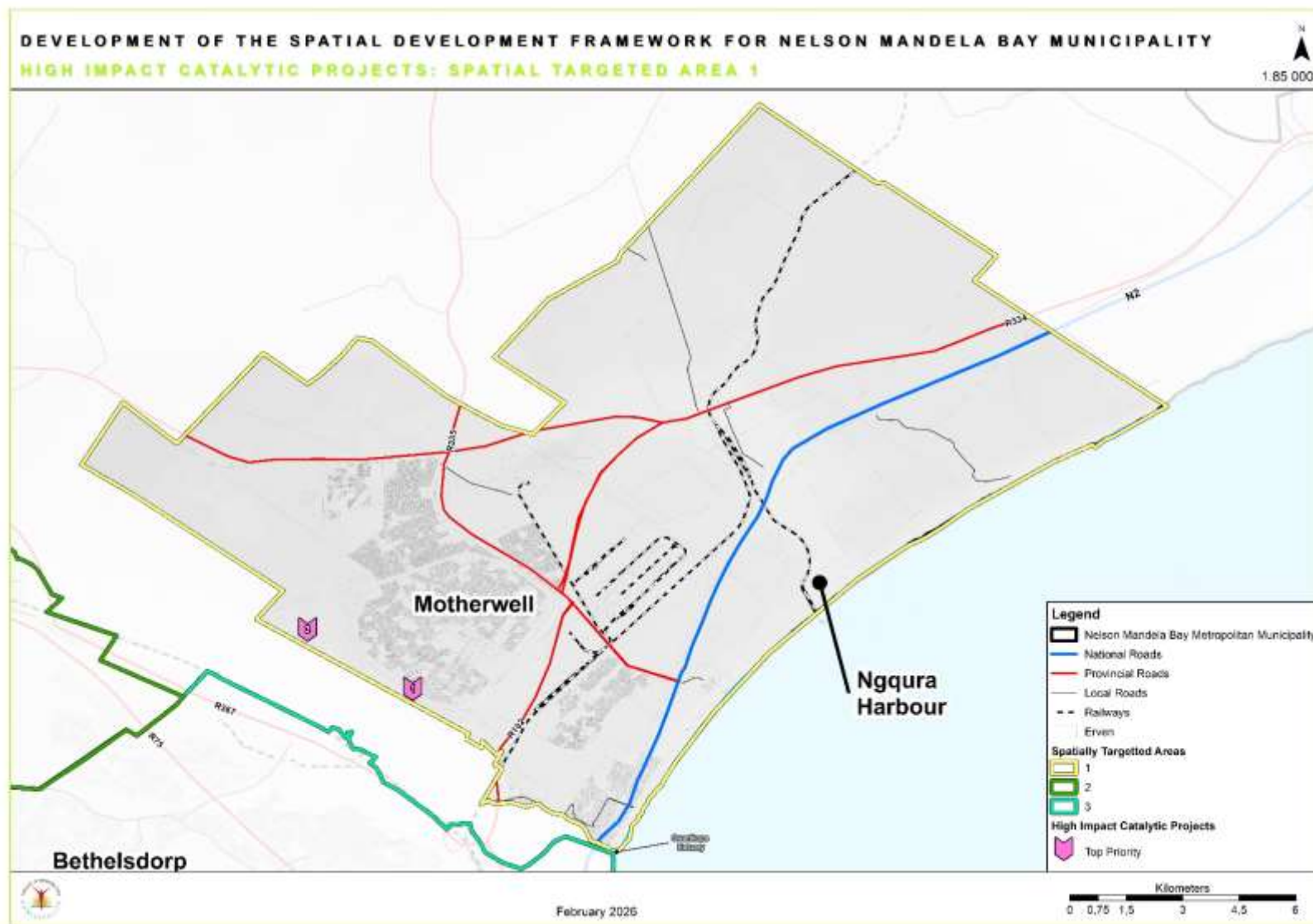
- Alignment with GDS, MSDF, and spatial priority areas.
- Targeting strategic industrial, tourism, or urban regeneration nodes.
- High potential for leveraging private sector investment.

These projects typically:

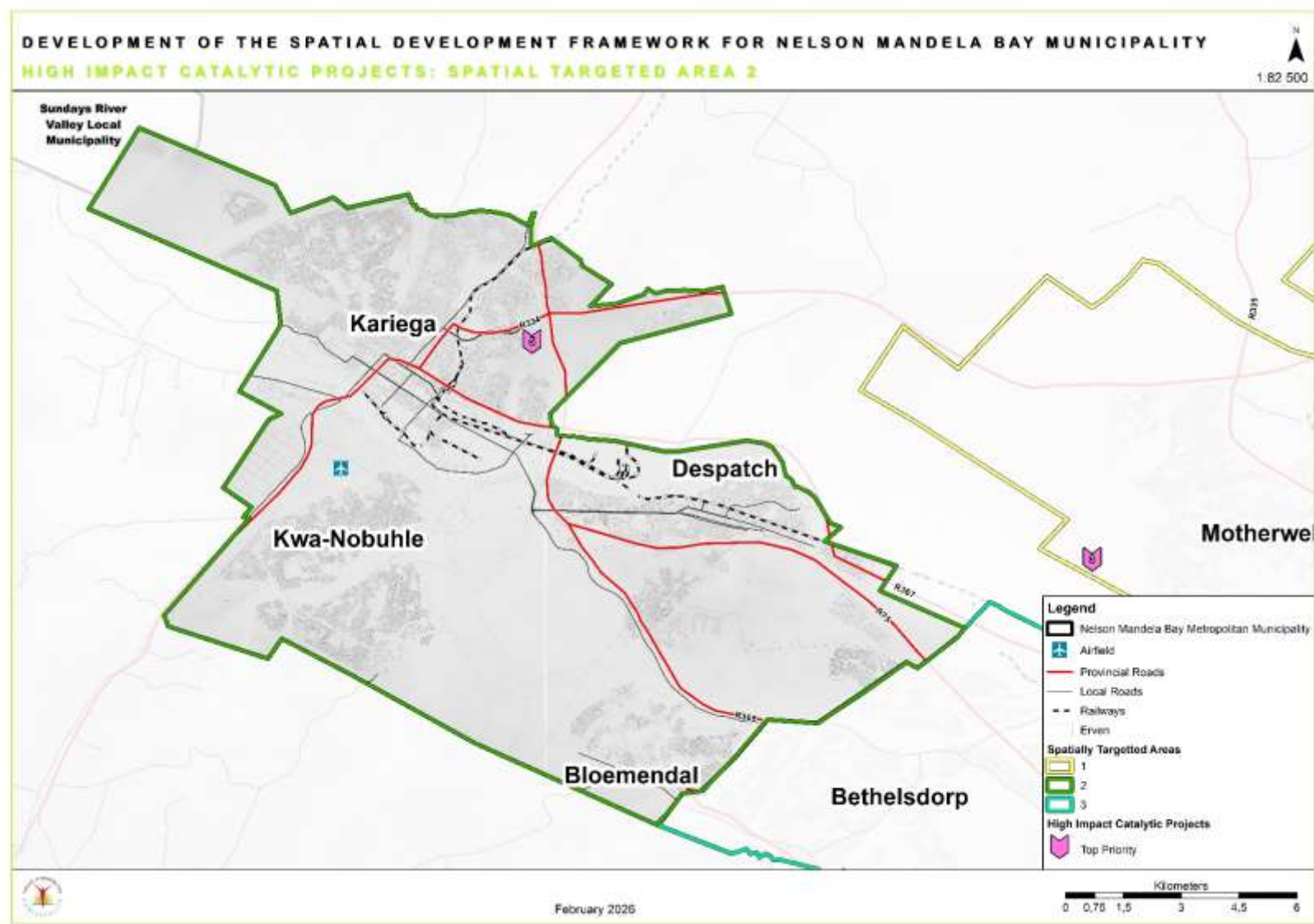
- Stimulate business confidence and job creation.
- Improve connectivity across transport, logistics, and industrial corridors.
- Address service delivery and spatial inequalities.
- Enhance resilience to climate and environmental risks.

Implementation requires coordinated planning and investment by NMBM, provincial and national government, and private sector partners

The overall High Impact Catalytic Projects are depicted in Map 78 and Maps 79 - 81 depicts the relevant STA Zoom ins



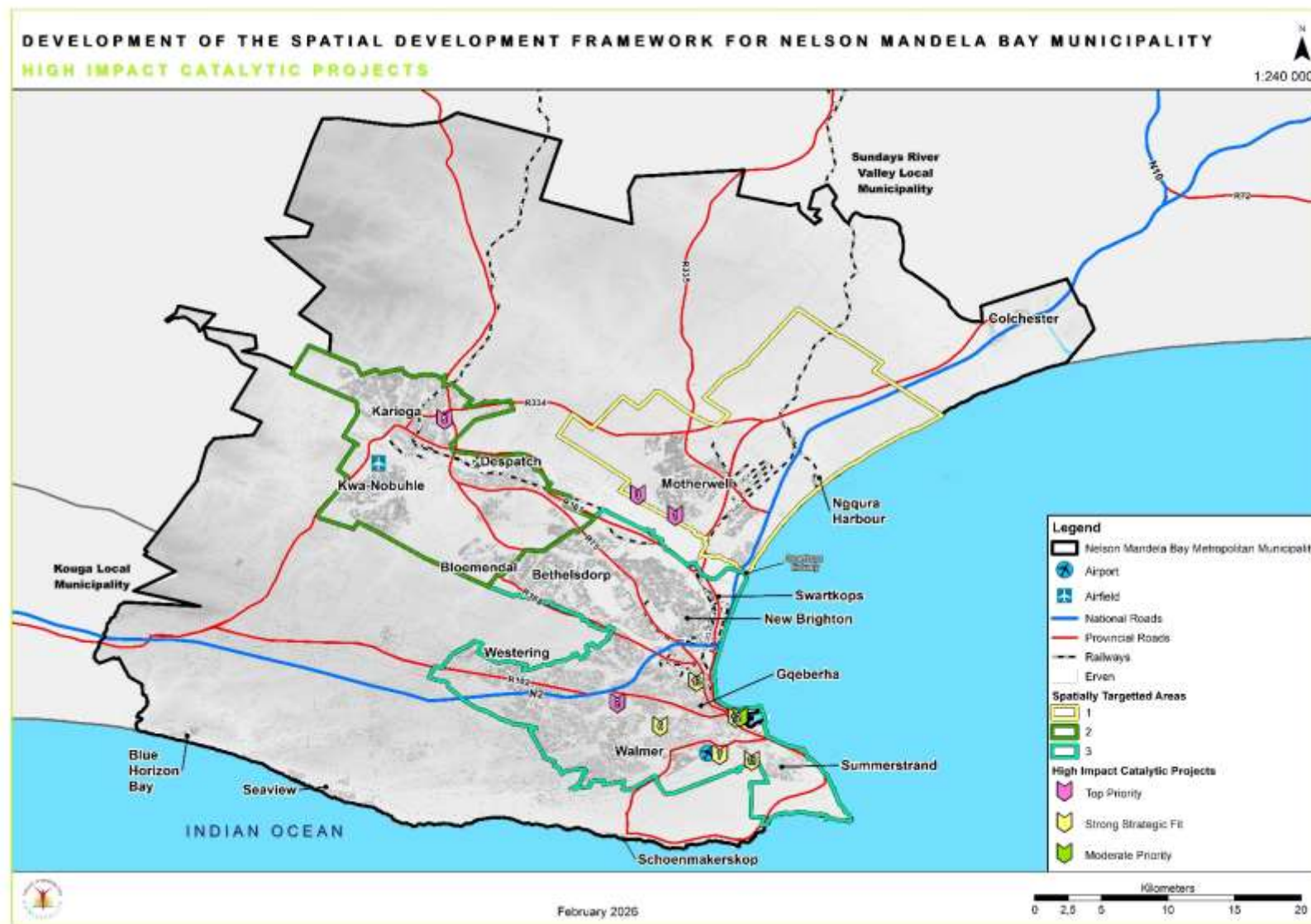
Map 78: High Impact Catalytic Projects - Spatial Targeted Area 1



Map 79: High Impact Catalytic Projects - Spatial Targeted Area 2



Map 80: High Impact Catalytic Projects - Spatial Targeted Area 3



Map 81: High Impact Catalytic Projects

G7.3. MUNICIPAL SECTOR CATALYTIC PROJECTS

Municipal Sector Catalytic Projects are medium- to large-scale initiatives within the municipal domain that drive economic and social transformation in targeted sectors or precincts. Their selection is guided by:

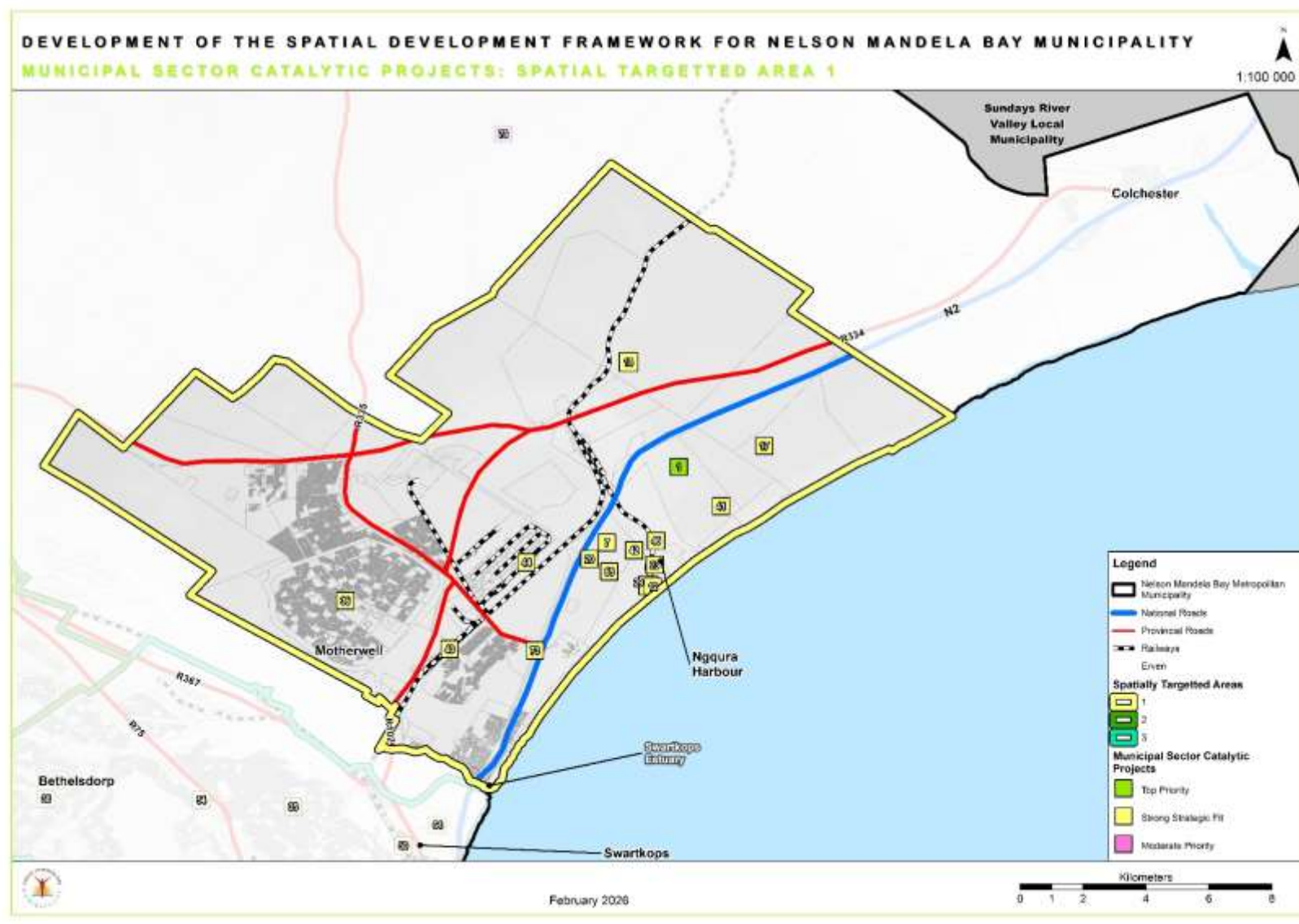
- Alignment with sectoral strategies and MSDF priority areas.
- Opportunities to unlock investment, employment, and service improvements.
- Potential to catalyse further municipal projects.

These projects typically:

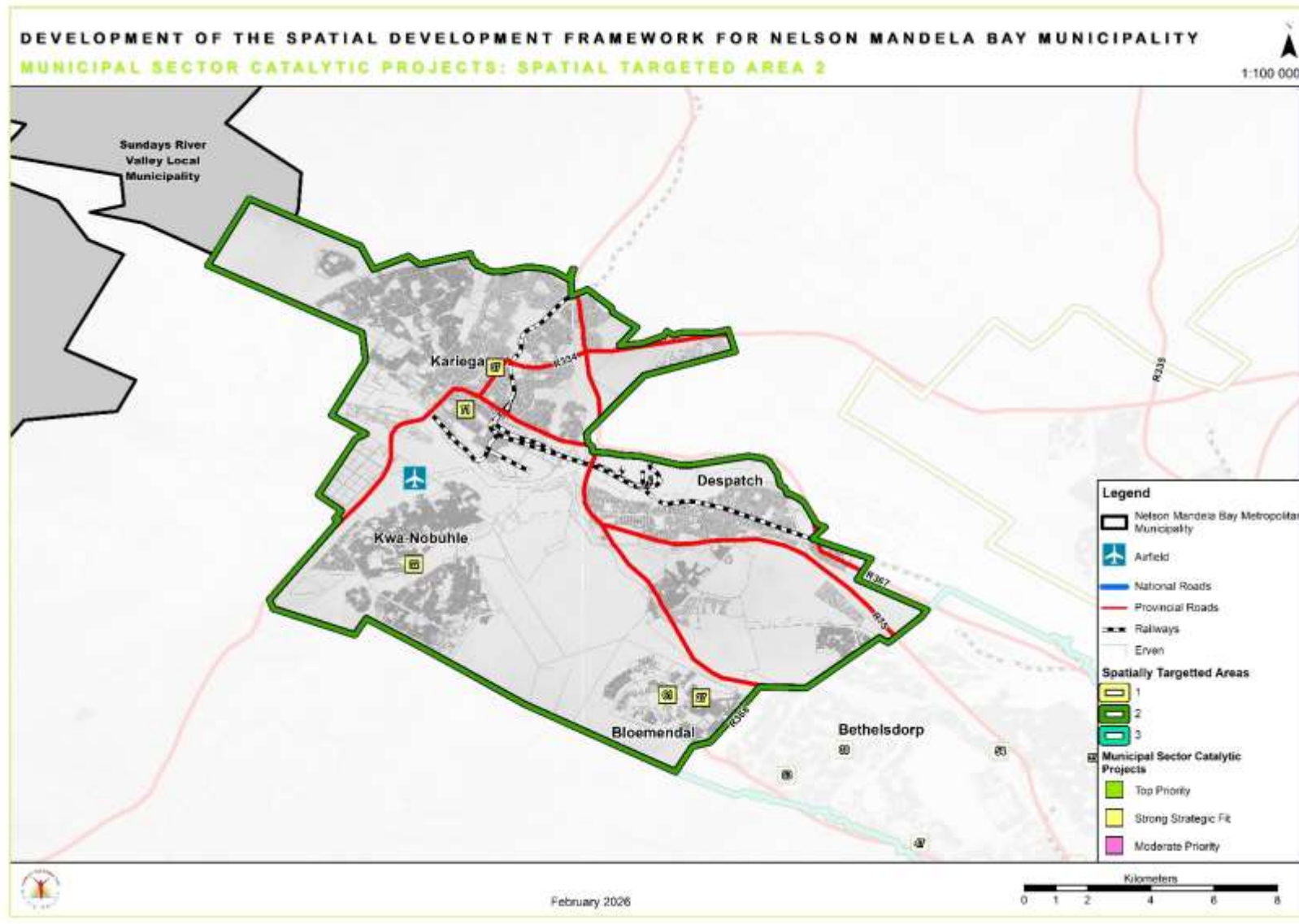
- Strengthen sector-specific infrastructure and services.
- Stimulate local economic activity and enterprise development.
- Address service gaps and spatial inequalities.
- Promote sustainable and resilient urban development.

Implementation requires coordination across municipal departments and engagement with local stakeholders and private partners.

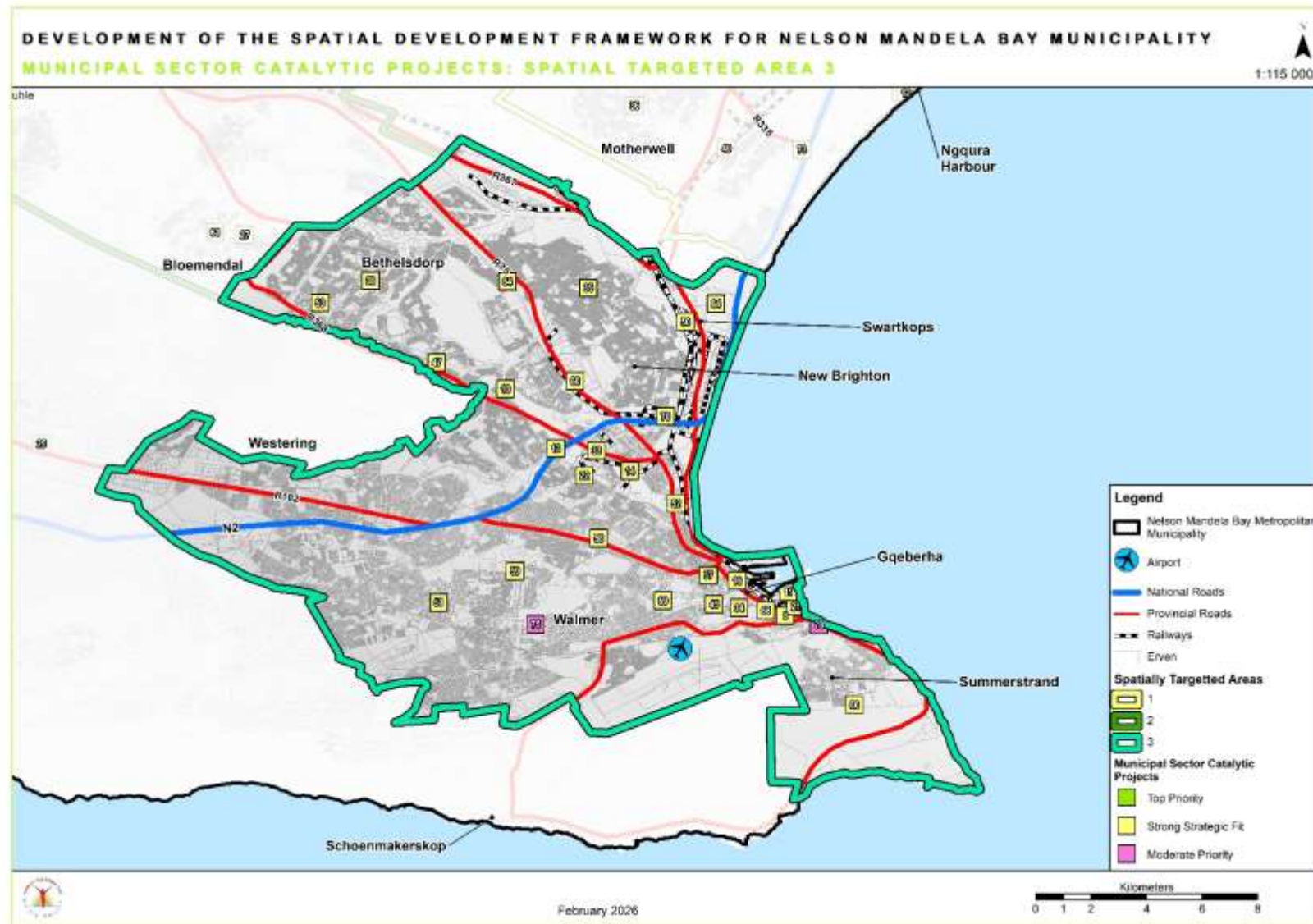
The overall Municipal Sector Catalytic Projects are depicted in Map 82 and Maps 83 - 85 depicts the relevant STA Zoom ins



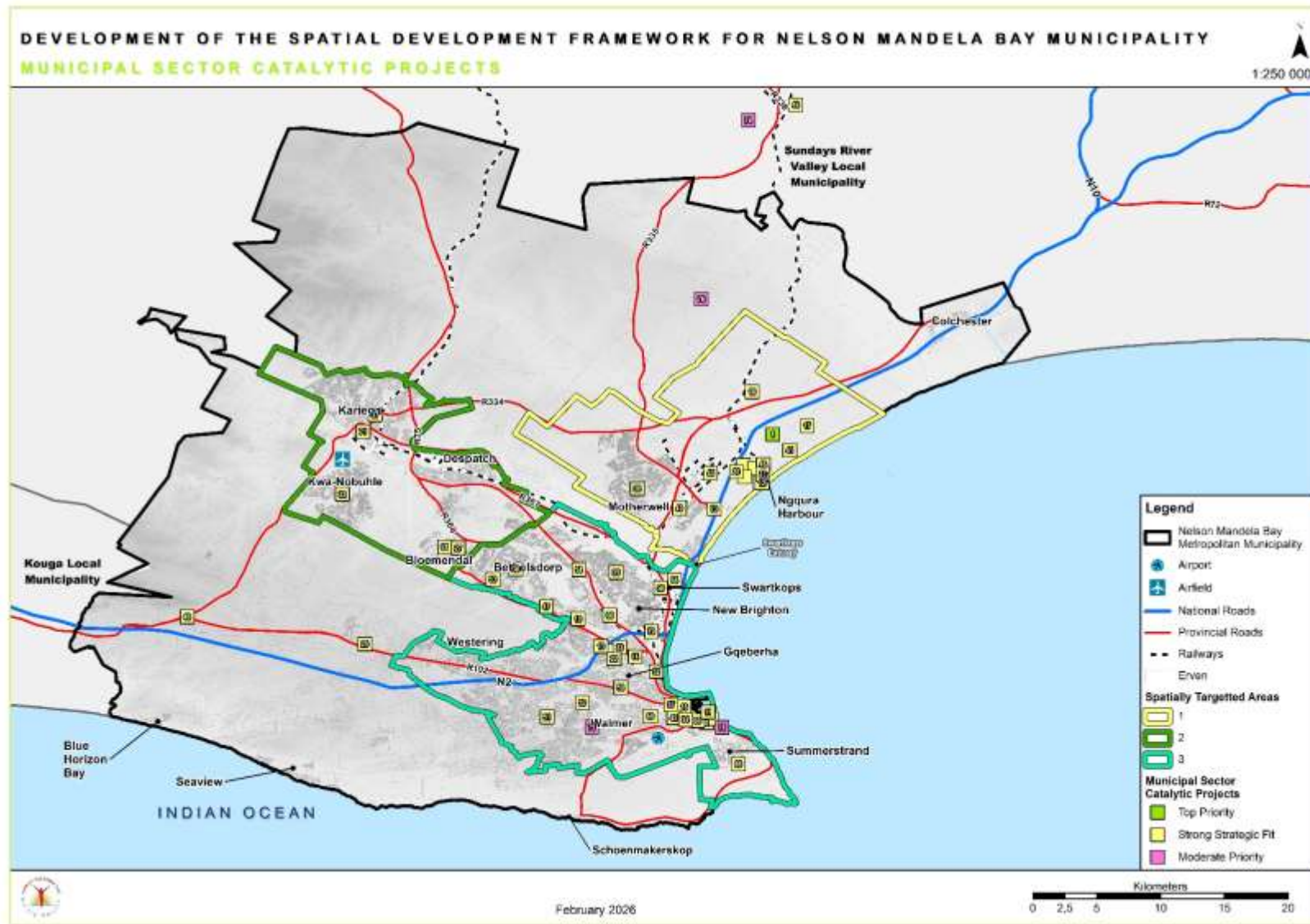
Map 82: Municipal Sector Catalytic Projects - Spatial Targeted Area 1



Map 83: Municipal Sector Catalytic Projects - Spatial Targeted Area 2



Map 84: Municipal Sector Catalytic Projects - Spatial Targeted Area 3



Map 85: Municipal Sector Catalytic Projects

G7.4. MUNICIPAL SECTOR PROJECTS

Municipal Sector Projects are standard municipal initiatives that maintain or improve core services and infrastructure. Their selection is based on:

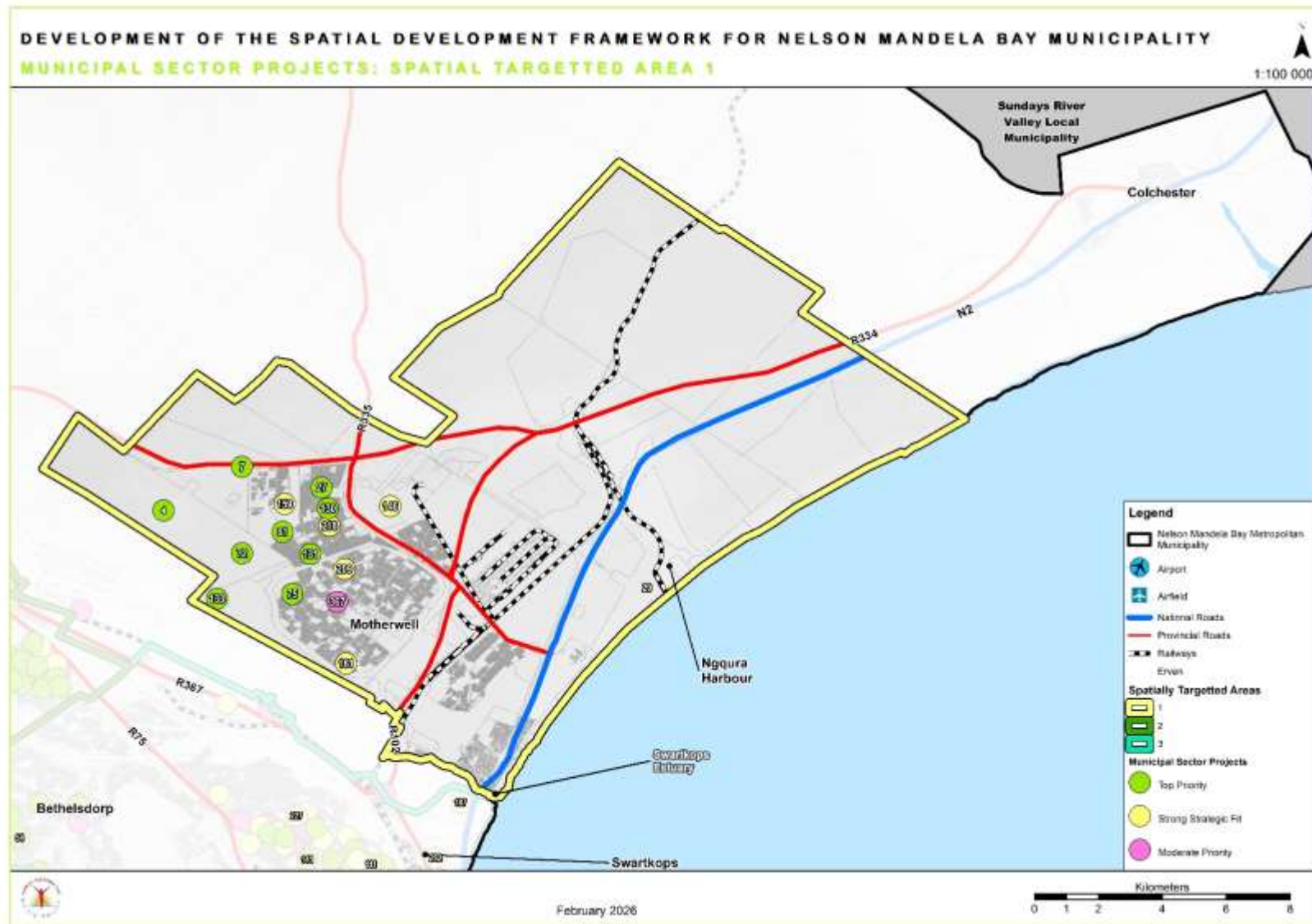
- Alignment with the MSDF, sector plans, and municipal service delivery priorities.
- Responsiveness to community needs and identified gaps.
- Feasibility within municipal budgets and capacity.

These projects typically:

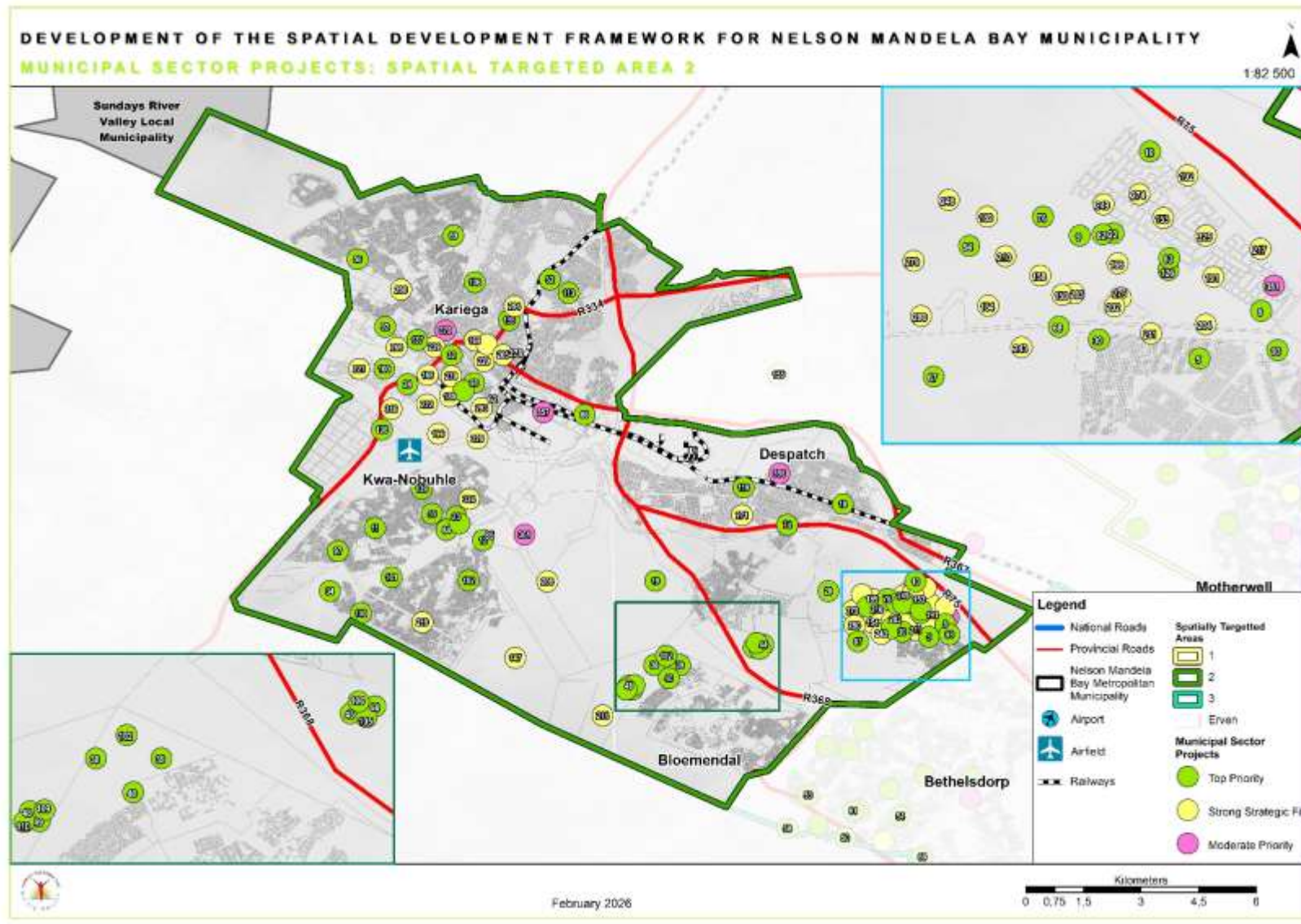
- Ensure reliable delivery of essential municipal services.
- Improve local infrastructure, public facilities, and amenities.
- Support incremental economic and social development.
- Maintain and enhance urban functionality and quality of life.

Implementation is primarily led by NMBM departments, with support from provincial programs and community stakeholders.

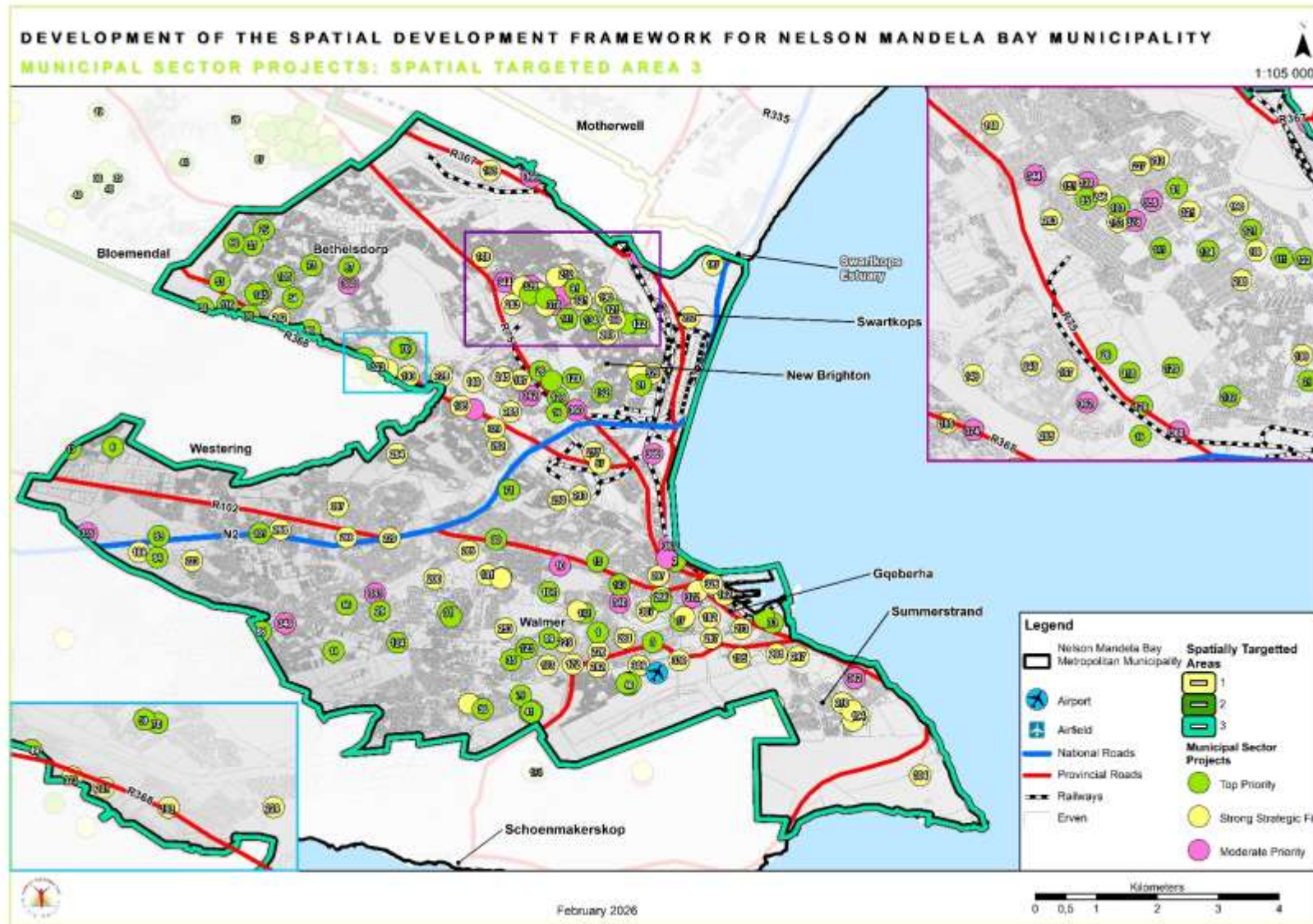
The overall Municipal Sector Projects are depicted in Map 86 and Maps 87-89 depicts the relevant STA Zoom ins.



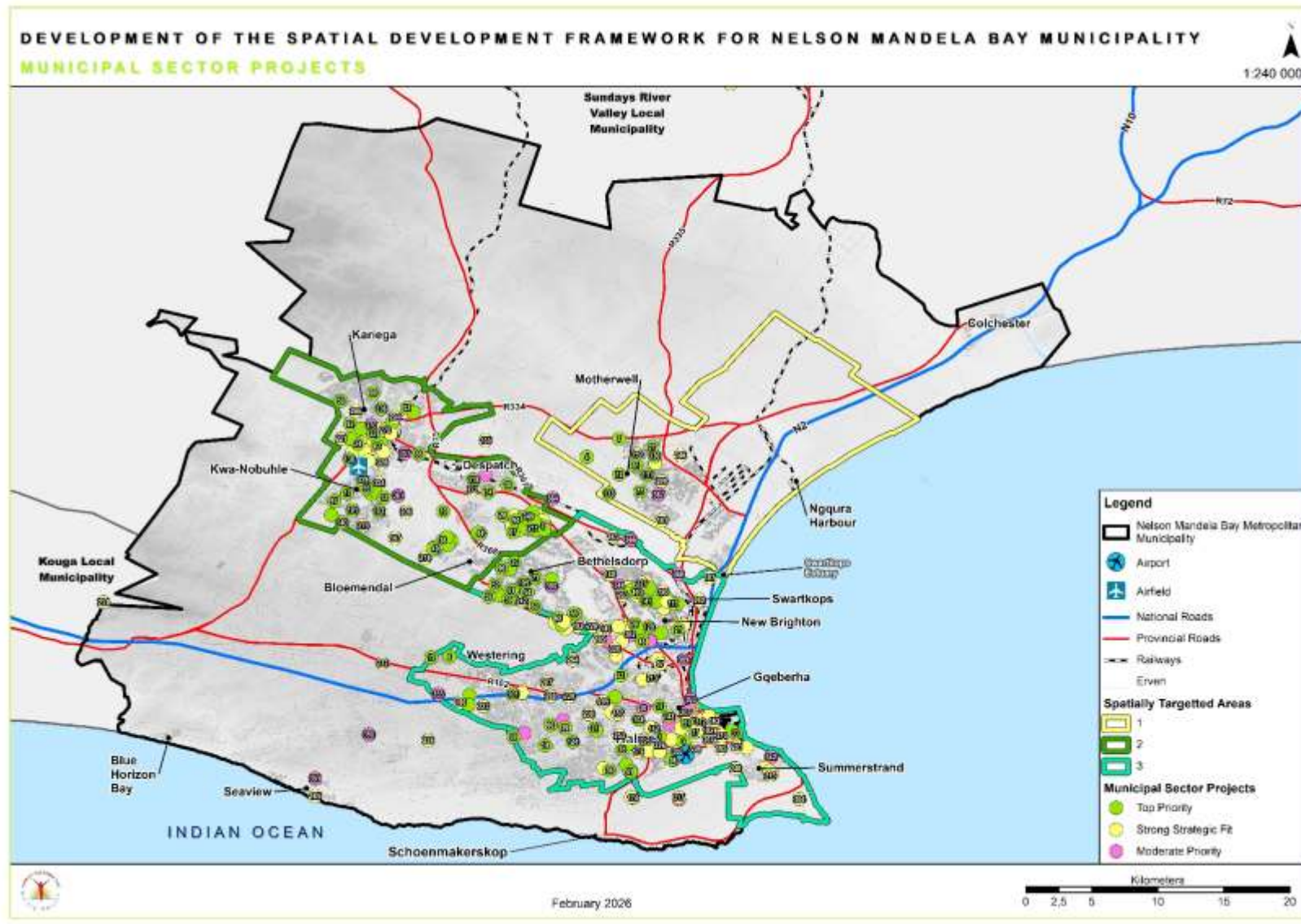
Map 86: Municipal Sector Projects - Spatial Targeted Area 1



Map 87: Municipal Sector Projects - Spatial Targeted Area 2



Map 88: Municipal Sector Projects - Spatial Targeted Area 3



Map 89: Municipal Sector Projects

G7.5. PROPOSED PROJECTS

Proposed Projects are initiatives under consideration for future implementation. Their selection is guided by:

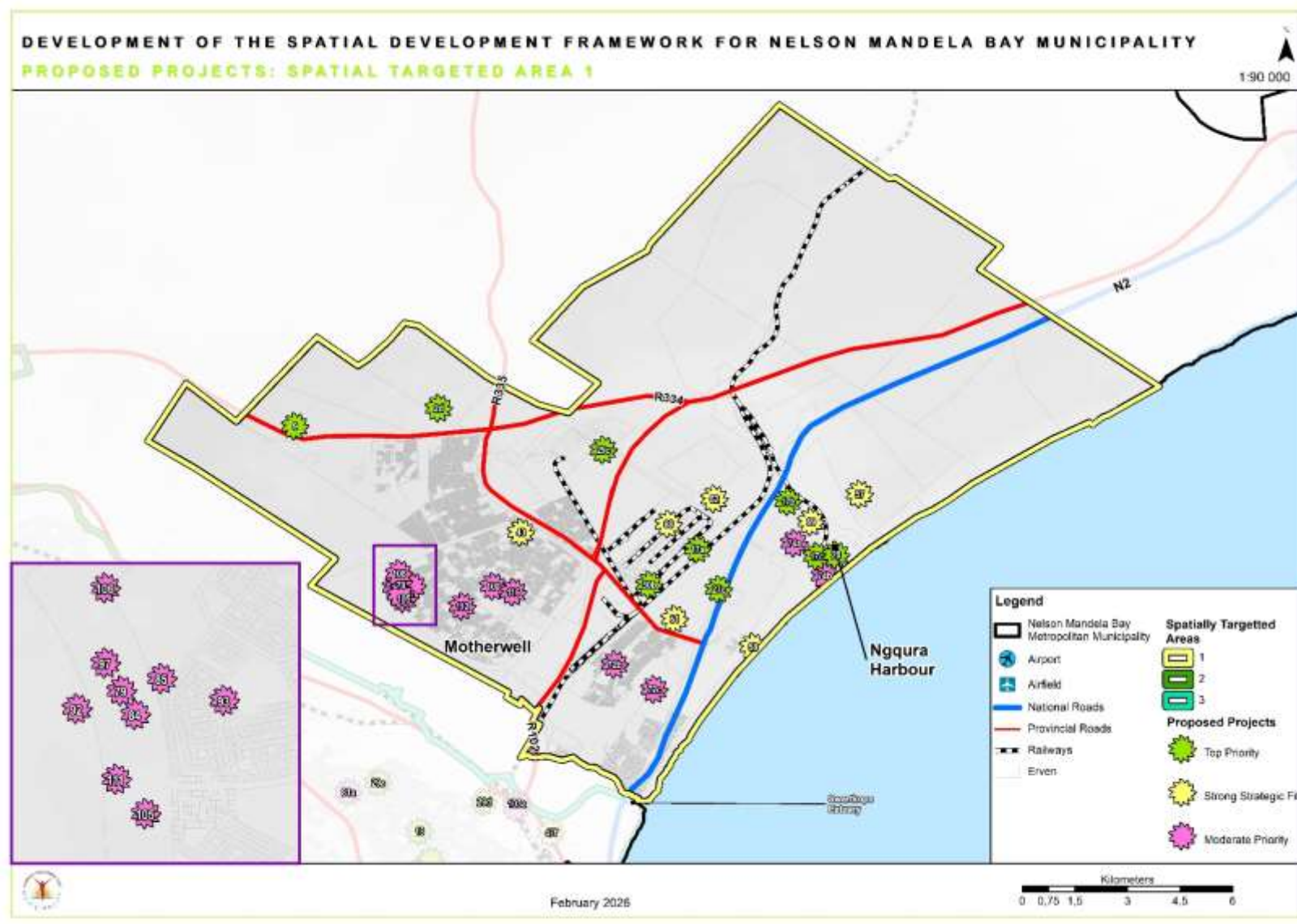
- Potential alignment with municipal and regional priorities.
- Preliminary assessment of economic, social, and environmental impact.
- Opportunities for funding, partnerships, and phased implementation.

These projects typically:

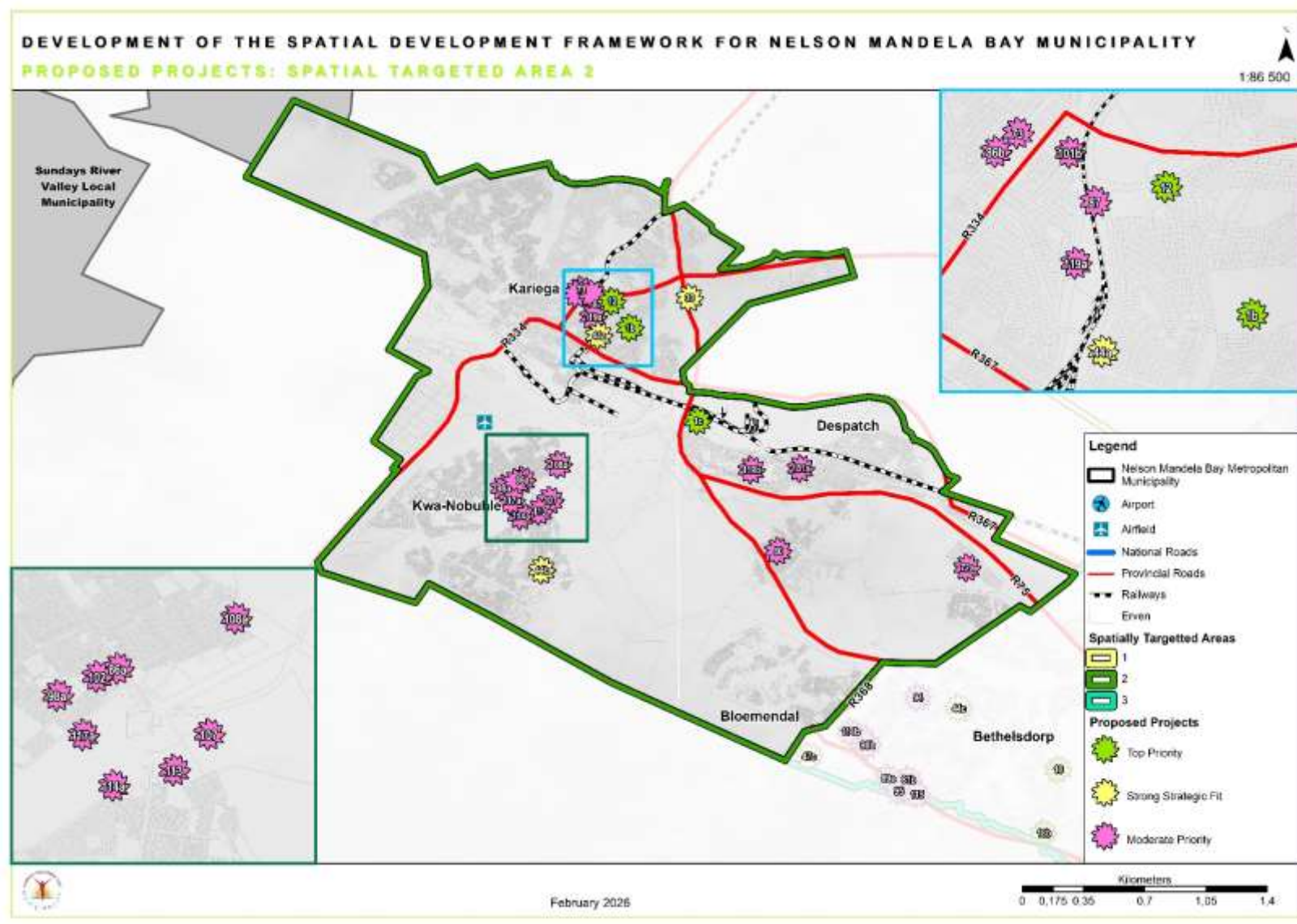
- Address emerging needs or gaps in municipal infrastructure and services.
- Explore innovation, new technologies, or pilot programs.
- Provide a pipeline for future catalytic or sector projects.

Implementation requires further planning, feasibility studies, and coordination with relevant stakeholders before formal adoption.

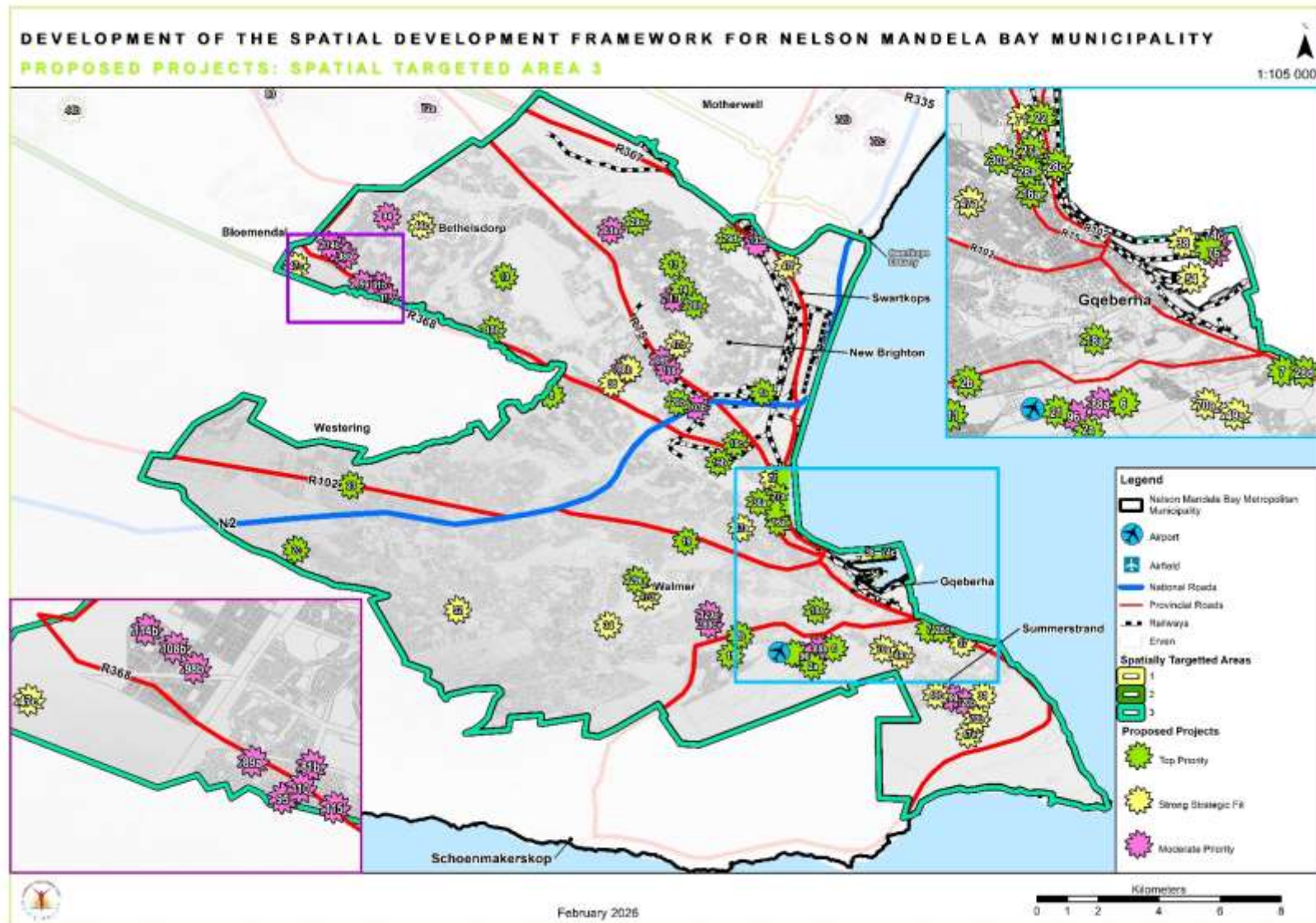
The overall Proposed Projects are depicted in Map 90 and Maps 91-93 depicts the relevant STA Zoom ins.



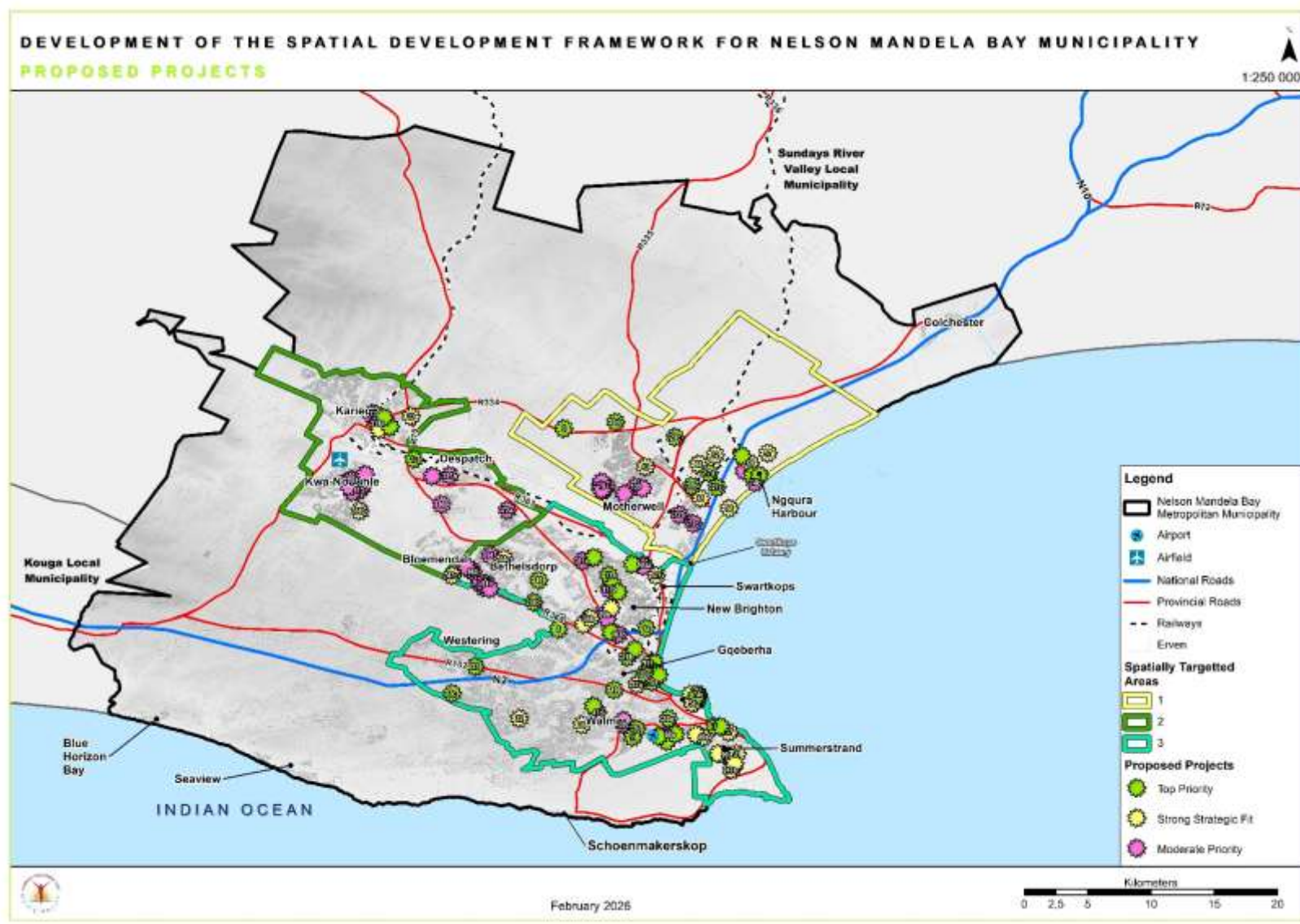
Map 90: Proposed Projects - Spatial Targeted Area 1



Map 91: Proposed Projects - Spatial Targeted Area 2



Map 92: Proposed Projects - Spatial Targeted Area 3



Map 93: Proposed Projects

G7.6. OVERALL PROJECT PLANS

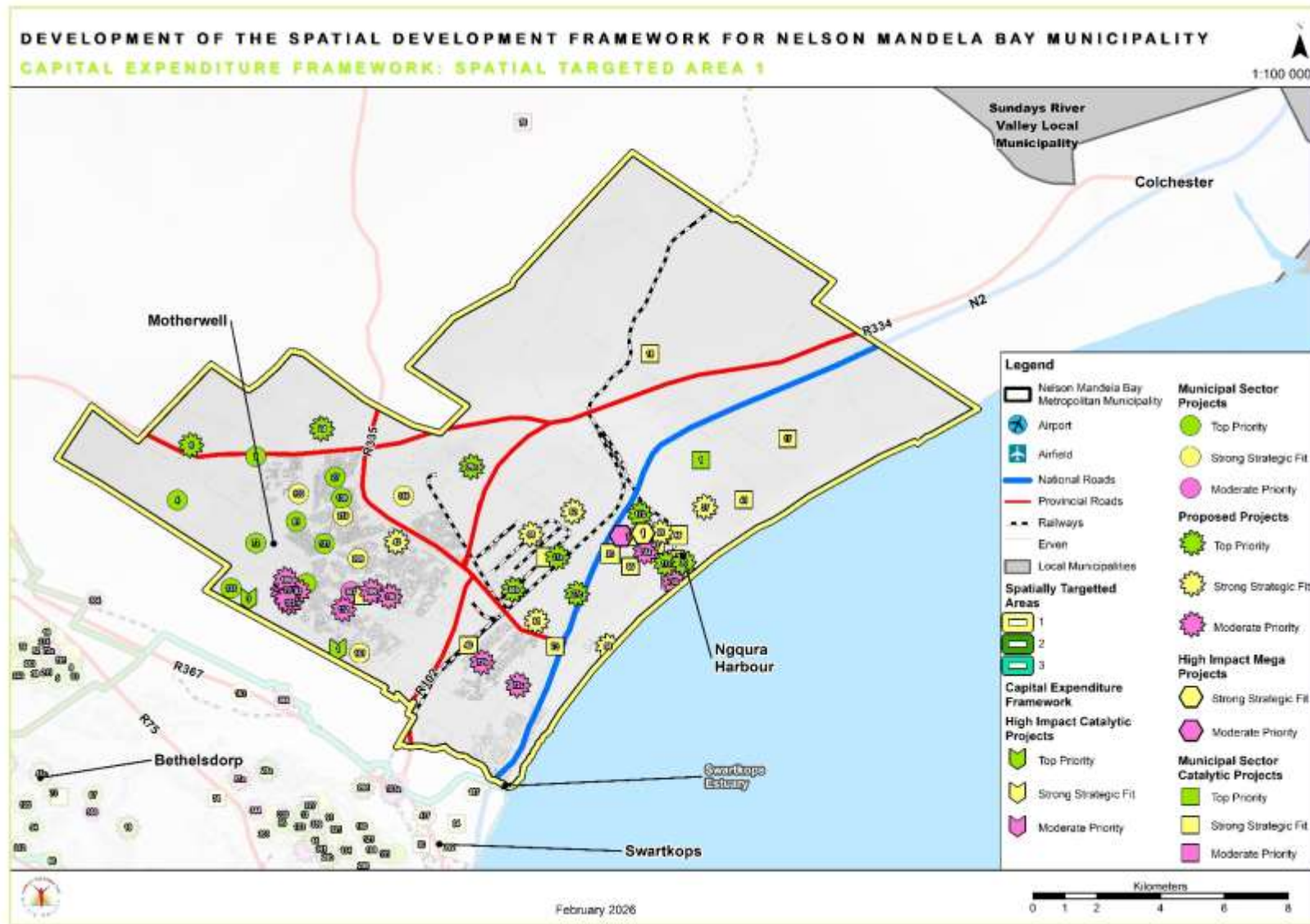
The projects outlined in Sections G7.1 to G7.5 are part of a comprehensive, integrated framework designed to translate strategic priorities into actionable interventions across Nelson Mandela Bay Municipality (NMBM). To ensure coherence, effectiveness, and efficient sequencing, all projects are layered within overarching plans that provide a clear roadmap for implementation.

These overall plans serve to:

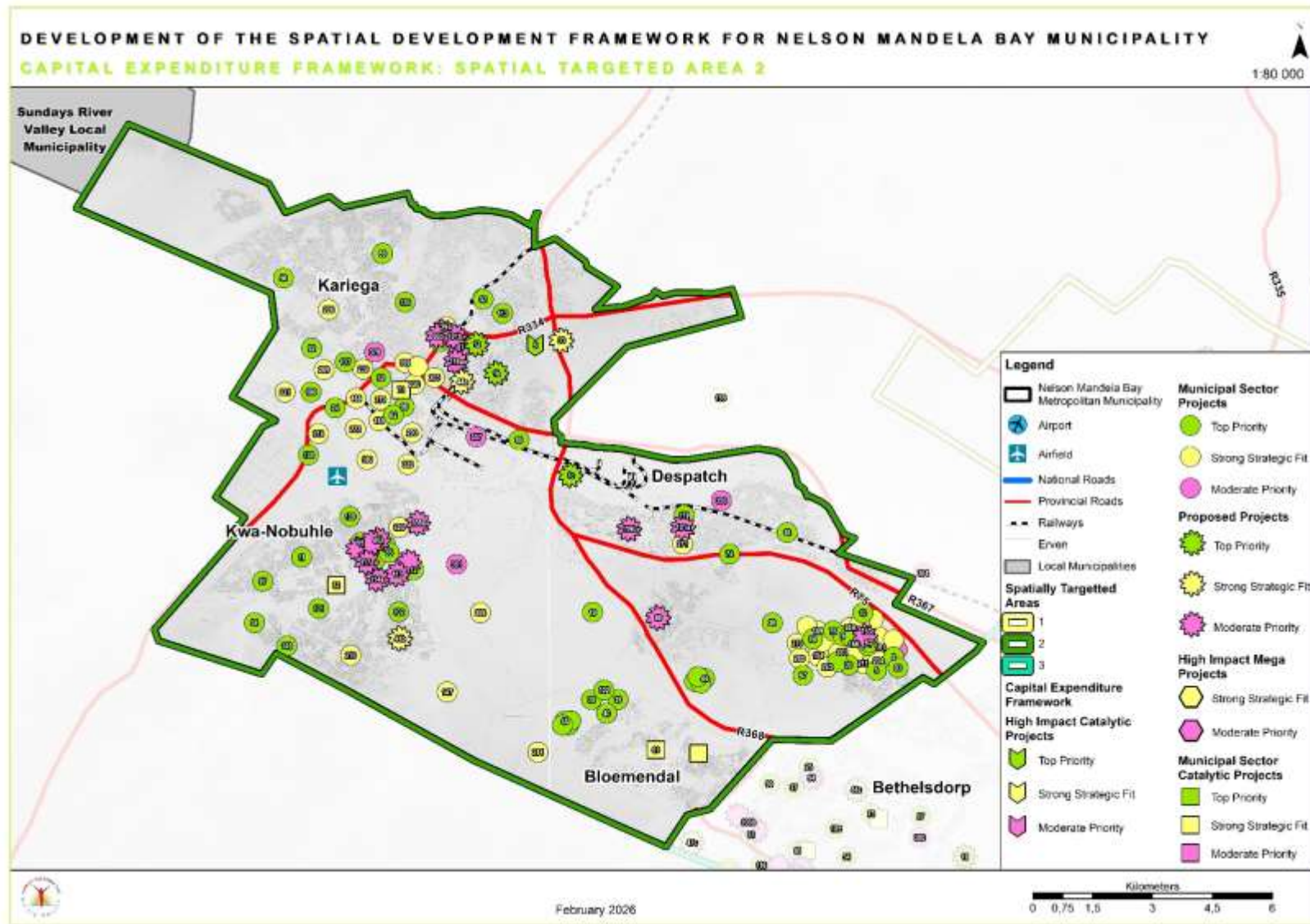
- Organise projects by scale, impact, and sectoral focus.
- Align capital investments spatially with the MSDF, IDP, and Metro Growth & Development Strategy (GDS).
- Coordinate interventions across municipal, provincial, and national levels, as well as private sector partnerships.
- Facilitate prioritisation, sequencing, and phasing of projects according to urgency, resources, and anticipated benefits.
- Strengthen accountability by linking projects to responsible stakeholders and performance indicators.

Each individual project has a corresponding plan, with the project number directly aligning to entries in the relevant Excel spreadsheet. Layering projects within these overall plans ensures that high-impact interventions, catalytic initiatives, municipal sector projects, and proposed projects work together in a structured, integrated, and strategically aligned pipeline.

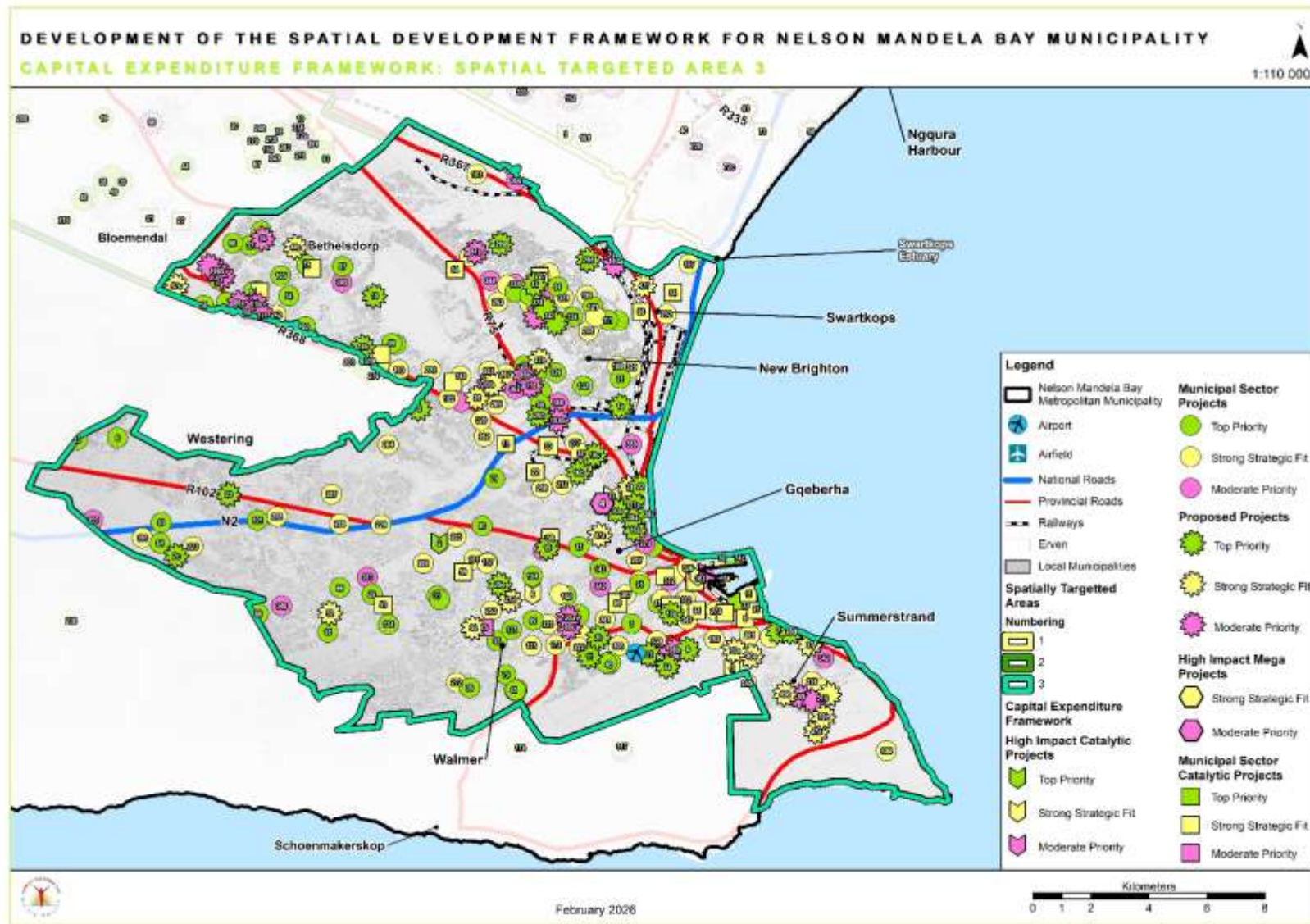
The overall Projects are depicted in Map 94 and Maps 95-97 depicts the relevant STA Zoom ins.



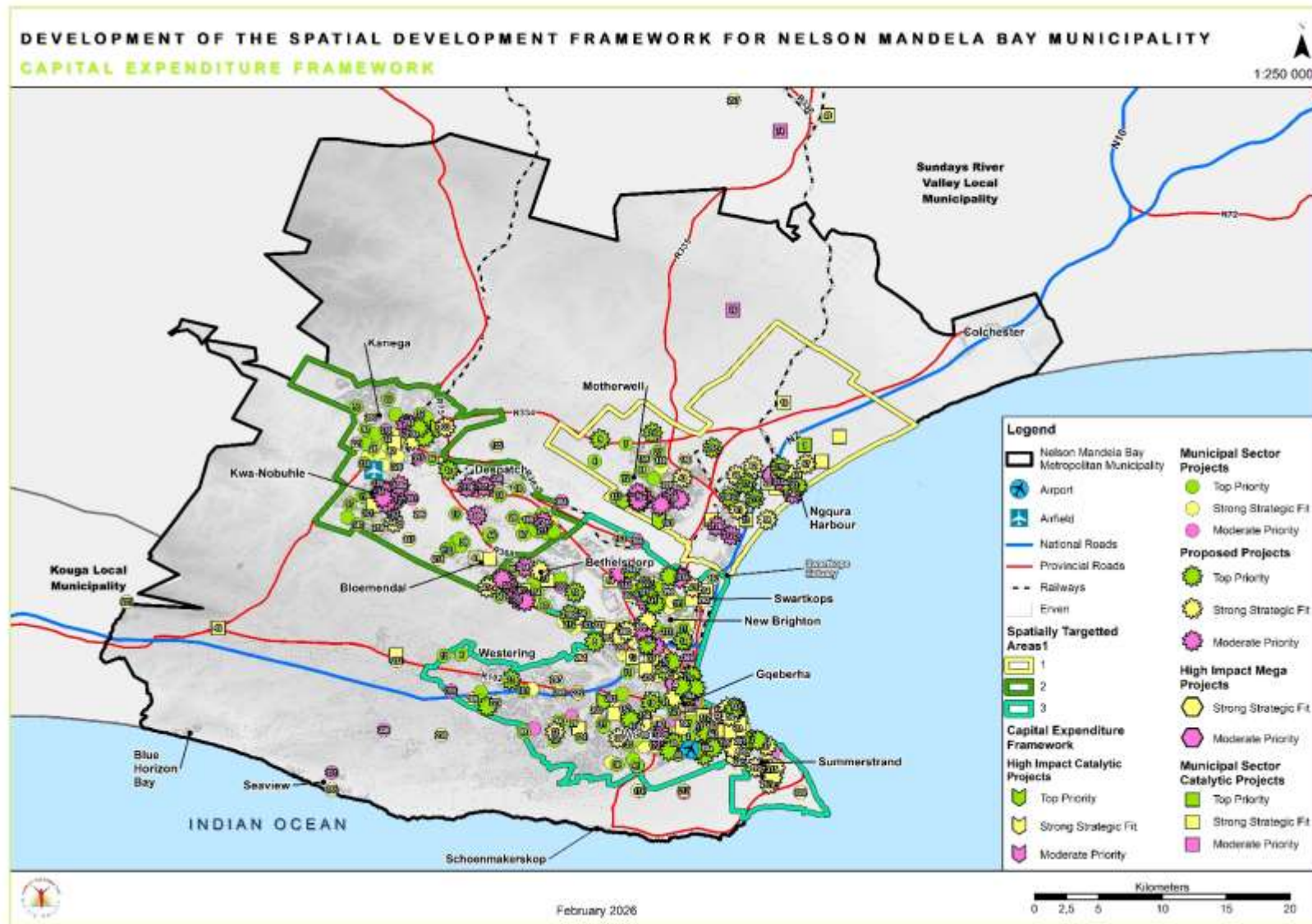
Map 94: Capital Expenditure Framework - Spatial Targeted Area 1



Map 95: Capital Expenditure Framework - Spatial Targeted Area 2



Map 96: Capital Expenditure Framework - Spatial Targeted Area 3



Map 97: Capital Expenditure Framework

SECTION H: GOVERNANCE

FRAMEWORK

The administrative framework for the management of land development in the Nelson Mandela Bay Municipality is characterised by the following features: -

- Following the promulgation of SPLUMA, a new planning system now prevails in South Africa, which obliges NMBM to comply with the SPLUMA development principles and to address the institutional requirements set out in law.
- In the rural settlement areas as shown in the Rural Management Policy of 2009, Land Administration systems have largely broken down, which is leading, in places, to ad hoc development, unsustainable and unserviceable settlement patterns, and pressure on local natural resources.
- Such system breakdown also leads to levels of insecurity on the land for people whose land rights are ill-defined. This, in turn, has resulted in the movement of people into different areas (often resulting in informal settlement formation).
- Finally, it is important to note that different “push and pull” factors influence settlement formation in urban and fringe-urban informal settlements. These different factors often correlate to unique socio-economic and skills profiles of residents in different types of settlement.
- This implies that a range of different needs exists for different types of land use/land form in certain areas of Nelson Mandela Bay Municipality. Accordingly, land development projects should be preceded by a rigorous pre-feasibility and feasibility process that defines the nature of a project in relation to the community it is intended to serve.

This section highlights the importance of ensuring efficiency, transparency and inclusiveness in NMBM’s approach to fulfilling its Municipal Planning mandate, specifically with regard to spatial planning and land use management. This means that emphasis is to be placed on communication with interested and affected parties in any planning initiative. Priority is to be given to ensuring that sound and technically proficient administration is developed and nurtured, so as to win the trust and support of all stakeholders who share a common interest in seeing sustainable development become a reality for NMBM.

Key Informants

The NMBM MSDF seeks to respond to:

- Pressures being brought to bear on land administration and land use management systems in rural areas of the municipality, which have led to unplanned development but also insecurity of tenure for certain communities.

	• The need to implement fully the institutional capacity to administer the new planning system brought into effect through SPLUMA; and • The complexities of dealing with a wide range of stakeholders representing various interests amongst the diverse communities in the municipality.
Global Agreements	UN 2030 Agenda for Sustainable Development: Sustainable Development Goals (SDGs) • SDG 16: Peace & Justice • SDG 17: Partnerships for the Goals
National Policy	National Development Plan Vision 2030 (NDP) • Chapter 13: Building a capable and developmental state • Chapter 14: Fighting corruption
SPLUMA Section 7 (e)(i)	Relevant guidance drawn from Section 21: • provide the spatial expression of the coordination, alignment and integration of sectoral policies of all municipal departments; • determine a capital expenditure framework for the municipality's development programs, depicted spatially; • determine the purpose, desired impact and structure of the land use management scheme to apply in that municipal area; and ○ include an implementation plan comprising of— ○ sectoral requirements, including budgets and resources for implementation; ○ necessary amendments to a land use scheme; ○ specification of institutional arrangements necessary for implementation; ○ specification of implementation targets, including dates and monitoring indicators; and ○ specification, where necessary, of any arrangements for partnerships in the implementation process.
Directive Principles	NMBM WILL: • Ensure compliance with all applicable laws and regulations in fulfilling its mandate to undertake Municipal Planning • Ensure that it establishes and capacitates the necessary decision-making bodies to comply with the requirements of land use management set out in SPLUMA

	Seek out and conclude strategic partnerships and development protocols with public or private sector organisations, where these may be necessary to meet the strategic development objectives set out in the Municipal IDP or the Municipal SDF.
Key Programs and Projects	Ensure establishment and provisioning support for SPLUMA decision-making bodies: the Municipal Planning Tribunal and the Municipal Appeals Authority

H1. INSTITUTIONAL FRAMEWORK

The governance structure of the Nelson Mandela Bay Municipality has two main arms namely, political, and administrative structures. The political structure is headed by the Executive Mayor, whilst the administrative structure is led by the City Manager. In addition, the Municipality has a number of oversight structures including different portfolio committees and the Municipal Public Accounts Committee (MPAC). The Municipality manages its intergovernmental relations (IGR) through its Council adopted IGR Strategy. Furthermore, the Municipality enhances corporate governance through effective risk management and internal controls as well as public participation and stakeholder engagements in planning and budgeting processes.

The municipal structure is made up of both political and administrative structures.

H1.1. POLITICAL STRUCTURE

The local government affairs of the Nelson Mandela Bay Municipality are governed by its Council. The Council performs this core function through exercising both legislative and executive authority over the Municipality's administrative processes. The Nelson Mandela Bay Municipal Council has established the following Section 79 (Municipal Structures Act) Committees:

- Municipal Public Accounts Committee (MPAC)
- The Rules and Ethics Committee.
- Audit Committee

H1.2. ADMINISTRATIVE STRUCTURE

The administration of the Nelson Mandela Bay Municipality is headed by the City Manager who is appointed by Council. The City Manager is assisted by an Executive Management Team to run the administration. The Executive Management Team comprises 10 senior managers as per the following:

- Chief Operating Officer

- Chief Financial Officer
- Executive Director: Corporate Services
- Executive Director: Economic Development, Tourism and Agriculture
- Executive Director: Electricity and Energy
- Executive Director: Human Settlements
- Executive Director: Infrastructure and Engineering
- Executive Director: Public Health
- Executive Director: Sport, Recreation, Arts and Culture
- Executive Director: Safety and Security

Below is diagram 20 showing the Nelson Mandela Bay Organisational Structure.

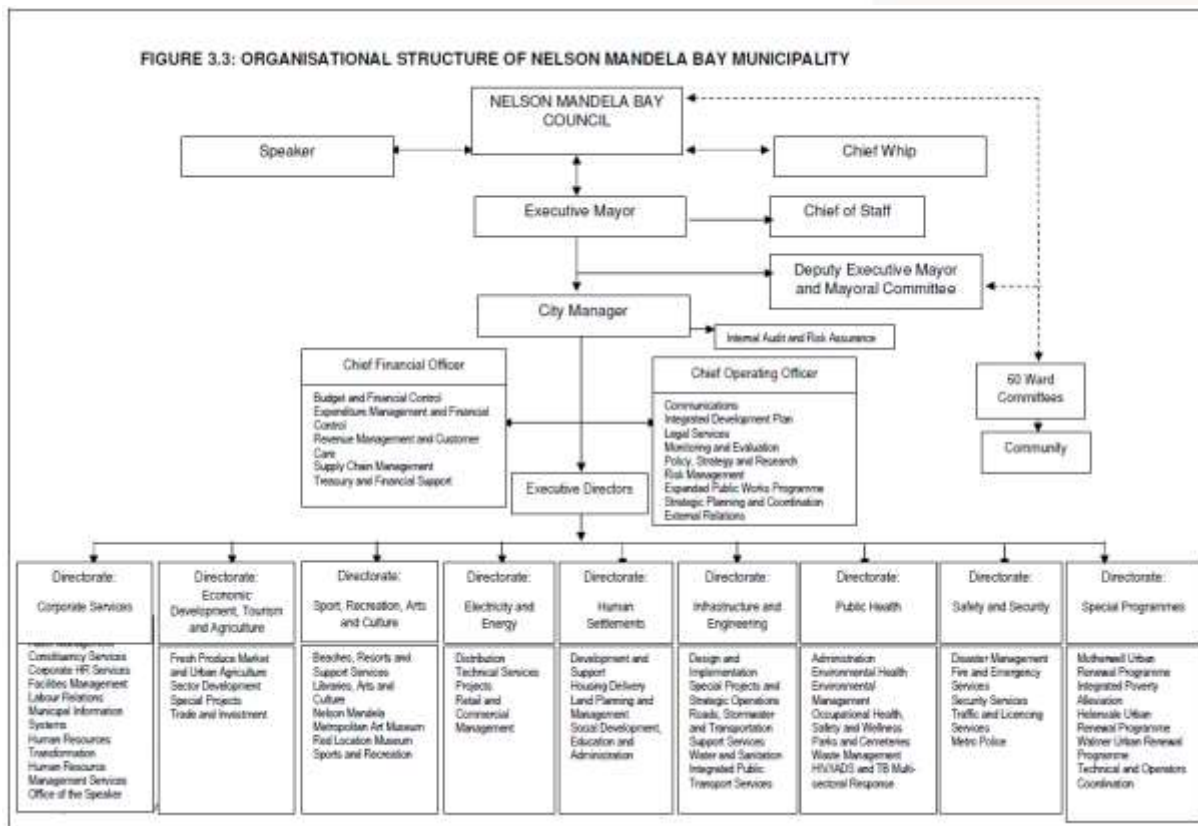


Diagram 20: Nelson Mandela Bay Organisational Structure

Operationalizing the Municipal Spatial Development Framework presents challenges as many proposals guide investment, but specific actions remain the responsibility of the Nelson Mandela Bay Municipality and the funding agent. The Municipality's key role is aligning local actions with Sector Plans, IDP, and Spatial Development Frameworks. With SPLUMA's imminent implementation, the Municipality needs capacity for effective spatial planning and land use management. Proposed KEY PROJECTS/ACTIVITIES for implementing the Framework include devising institutional arrangements, with a bottom-up approach led by the Municipality for vested interest.

H1.3. A PROJECT COMMITTEE BE ESTABLISHED:

The Technical Team members, comprising members from the Municipality such as the Municipal Manager, IDP Manager, and Municipal Engineer to mention but a few, will meet monthly to assess SDF implementation progress, including application status updates. This includes reviewing development applications for alignment with the Spatial Vision of nodal areas and the Municipality. This action prioritizes access to technical skills for forward planning and land use management, ensuring sound decision-making regarding future land developments and planning permissions.

H1.4. A PROGRAMME STEERING COMMITTEE BE ESTABLISHED.

The Program Steering Committee, stemming from the existing Project Steering Committee (PSC) for MSDF development, would be led by the Municipality. **It would comprise technical representatives from the municipality, internal and external sector departments, meeting quarterly to track project progress.** Sector departments provide updates on projects due in the financial year; delays escalate to the Municipal Manager, Mayor, and Provincial Forum. Cooperation among District Municipality, neighboring Local Municipalities, COGTA, and other stakeholders is crucial for ensuring capacity and effective processes for sustainable land use.

H1.5. PROVINCIAL FORUM

Under Provincial guidance, it's recommended to establish a Provincial Forum with representatives from the Office of the Premier, Provincial Treasury, and Technical Team. This forum, meeting three times a year, is mandated to achieve the province's development vision and ensure that the Local Municipality fulfils its role. It provides a platform for the municipality to seek provincial assistance for project delays or guidance. The province can address common challenges within districts and coordinate support with relevant departments. Additionally, the forum coordinates with National departments for Mega projects and can liaise with DIRCO for international funding needs.

H1.6. MANDATE/FUNCTION OF THE NELSON MANDELA BAY MUNICIPALITY

NMBM's role in implementing projects with spatial implications and realizing MSDF proposals falls within its mandate as defined by the Municipal Systems Act (Act 32 of 2000). The functions are summarized in the Table 85.

Function/Mandate		NMBM
1	Integrated development planning. Coordination of functions between municipalities.	✓
2	Fire services - veld and mountain fires, and fire services rendered to the municipality where required	✓

Function/Mandate		NMBM
3	Municipal Health (Section 1 of the National Health Act, 61 of 2003). - Water Quality Monitoring - Solid Waste Management - Environmental Pollution Control - Air Quality Control	✓
4	Environmental Management - Refuse removal, refuse dumps and solid waste disposal management. - Control of public nuisances - Air pollution control - Invasive species control - Protection of listed ecosystems - The implementation of the national biodiversity framework and bioregional plans (if applicable)	✓
5	Tourism (Regional Tourism Organisation – promotion through marketing and development)	✓
6	Disaster Management	✓
7	Bulk Water Supply.	✓
8	Roads Agency (provincial roads - upgrade and maintenance on behalf of Dot).	✓

Table 85: Function/ Mandate of NMBM

H2. MONITORING AND EVALUATION

Monitoring and Evaluation (M&E) of the Nelson Mandela Bay Municipality is crucial to oversee the MSDF proposal implementation. M&E involves collecting and analysing data to gauge progress towards specific goals and project impact.

Monitoring involves tracking project implementation status, while Evaluation assesses project impact, including changes and effectiveness post-project completion.

Monitoring Objectives:

- Track project progress outlined in the MSDF, including infrastructure, land use changes, and community engagement.
- Establish Key Performance Indicators (KPIs) like completion rates and public participation levels.

M&E ensures effective feedback on spatial projects, identifying trends, measuring changes, and enhancing transparency. It assesses effects and progress toward public satisfaction and livelihood improvements, focusing on outcomes.

The MSDF must remain adaptable to changing circumstances, **including policy shifts, sector alignment, and development pressures**. A coordinated monitoring system, aligned with municipal structures, ensures continuous assessment and incorporation of necessary changes.

A dedicated entity focusing on the municipality's spatial trajectory executes M&E, reviewing and updating the plan as needed to reflect evolving needs and priorities.

H2.1. MONITORING & REVIEW PROCESS FOR THE SDF

Data collection methods will include progress reports from Project Representatives, field assessments by monitoring teams, and data extraction from municipal databases. Monitoring activities will occur at specified intervals, such as quarterly reviews for major projects and monthly updates for ongoing initiatives.

H2.1.1. MONITORING

The proposed monitoring system for NMBM SDF focuses on:

- Ensuring MSDF adoption by the EXCO and Municipal Council.
- Implementation of MSDF strategies, policies, and projects by SOEs, sector departments, and the private sector.
- Assessing the plan's impact on achieving desired growth, investment, and other effects outlined in the SDF.

H2.1.2. REVIEW

The plan should be reviewed every five years alongside ongoing monitoring based on adopted KPAs. Strengthened Evaluation Components include expanding criteria to cover social, economic, and environmental impacts, incorporating job creation, income generation, and ecosystem preservation. Additionally, cost-benefit analysis frameworks assess project efficiency and effectiveness within budget constraints.

H2.1.3. TOOLS

Monitoring and review tools include:

- **NMBM Trends Document:** A mid-term publication providing statistical information on social, economic, and environmental indicators, aiding in comparing present MSDF situation analysis with developmental trends.

- **Medium Term Expenditure Framework Budget:** Aligning budget priorities with MSDF and protocols supports coordinated funding opportunities.
- **Programme Steering Committee:** Enhances integration between municipal departments, government spheres, and private stakeholders through structured interactions.
- **Project Prioritisation:** Identifies critical projects for successful MSDF implementation, considering resource limitations.
- **Comprehensive Data Collection and Analysis:** Uses qualitative and quantitative methods, including GIS analytics, for insights and spatial analysis.
- **Utilization of Technology:** Adopts digital tools like project management software and remote sensing for streamlined monitoring and real-time tracking.

H2.1.4. MONITORING & REVIEW PROCESS FOR THE SDF PROJECTS

The proposed monitoring system for ELM SDF projects includes:

- Implementing the Institutional Framework.
- Adopting a project checklist/pipeline approach to monitor project progress from planning to implementation.
- Introducing Project Steering Committees in approved MSDFs to ensure implementation oversight and empower reporting to Council on implementation issues.
- Establishing steering committees for specific projects identified in planning to monitor their implementation.
- Evaluating past planning efforts to learn from successes and challenges.
- Regularly evaluating planning methodologies with a review of the SDF process every five years.
- Shifting from a linear planning approach (plan-action) to a cyclical approach (plan-action-review-replan) for continuous improvement towards long-term goals.
- Establishing structured feedback mechanisms such as stakeholder surveys, public forums, and online portals for input on implementation progress and stakeholder satisfaction.
- Creating a planning innovation fund or programme through the Department of Land Reform and Rural Development to support experimentation and learning from planning experiences.
- Enhancing reporting and communication through standardized formats like dashboards, executive summaries, and detailed reports, disseminated through stakeholder meetings and online platforms.

H2.1.5. MONITORING AND EVALUATION VS. IDP

The Municipal Systems Act (2000) designates the Municipal Spatial Development Framework (MSDF) as a crucial element of the Integrated Development Plan (IDP), aligning with processes like Inter-Governmental Relations (IGR), Community Consultation, and Budgeting. To enhance alignment with strategic planning:

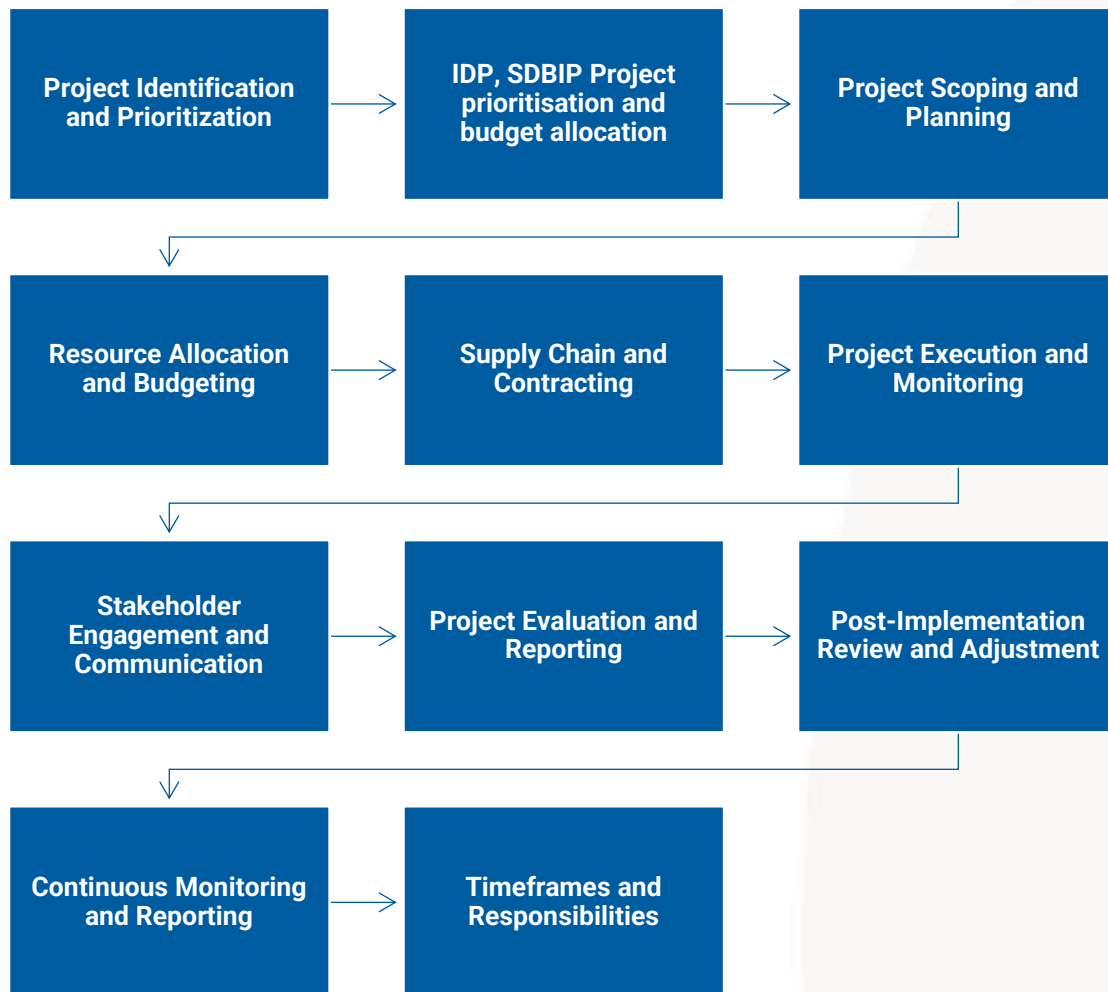
- Merge Monitoring and Evaluation (M&E) with strategic planning cycles, coordinating with IDP reviews and budget allocations.
- Collaborate with intergovernmental agencies and partners for synergistic monitoring goals and data sharing, aiming for sustainable development outcomes.

The integration plan merges the NMBM SDF with the IDP during the 2025/26 review, ensuring alignment with SDF principles before inclusion in the following year's IDP. Existing IDP structures like the IDP Technical Committee and IDP Representative Forum will be used for effective implementation.

The annual IDP Review includes an audit to evaluate MSDF goal achievement, adjusting the Revised IDP and Budget accordingly. Continuous learning through reviews, workshops, and capacity-building enhances spatial planning practices. Development partners' involvement in the IDP Review process facilitates progress reporting and showcases contributions to the NMBM SDF's spatial vision.

H3. STANDARD OPERATING PROCEDURE

The SOP provides a structured framework for implementing projects in line with the Nelson Mandela Bay Municipal Spatial Development Framework (MSDF). It covers project identification, prioritization, planning, execution, monitoring, and evaluation, ensuring efficient project delivery aligned with municipal goals.



H3.1. PROJECT IDENTIFICATION AND PRIORITIZATION

After the MSDF is adopted, municipal departments will meet to prioritize projects based on strategic importance, feasibility, and alignment with municipal goals. This process will be overseen by a Project Prioritization Committee consisting of representatives from key departments like Planning, Infrastructure, Finance, and Community Development.

H3.2. IDP, SDBIP PROJECT PRIORITISATION AND BUDGET ALLOCATION

Before evaluating the benefits of a project, it is essential to clearly define the objectives and expected outcomes. This will provide a framework for assessing the potential benefits and aligning them with the municipal's strategic goals.

H3.3. PROJECT SCOPING AND PLANNING

Each relevant department will designate a Project representative responsible for leading the scoping and planning phase to align with MSDF goals and strategic objectives. They will then develop a detailed project scope, objectives, deliverables, timelines, and resource requirements for each identified project.

H3.4. RESOURCE ALLOCATION AND BUDGETING

The Finance Department will allocate resources and budgetary provisions for MSDF projects based on prioritization and scoping outcomes within the municipal mandate. A Medium-Term Expenditure Framework (MTEF) Budget will coordinate funding for these projects over a specified timeframe.

For projects needing external funding:

Business Plans Preparation:

- Representatives, with the Relevant municipal Department, will craft detailed business plans for such projects. Plans will cover objectives, scope, budget estimates, timelines, expected outcomes, and sustainability strategies.
- Plans will align with sector department funding requirements and adhere to eligibility criteria and strategic priorities of external funding sources.

Seeking Funding:

- Upon approval of business plans, the Relevant municipal Department will seek funding from relevant sector departments, government bodies, and funding entities.
- Representatives will collaborate with sector departments to prepare and submit funding applications, proposals, and supporting documents as needed.

Non-Government and Private Sector Funding:

- Representatives will also explore funding options from NGOs, development agencies, and private investors.
- Business plans will be customized to meet their funding criteria, emphasizing social, economic, and environmental project benefits.

Responsibilities and Timelines:

- The Relevant municipal Department, with Representatives, will monitor funding applications, approvals, and disbursements for financial transparency and accountability.
- Clear responsibilities will be outlined in project charters, with Representatives accountable for meeting funding targets and timelines.
- Quarterly progress reviews and financial audits will ensure funding alignment with MSDF budget estimates and project expenditures.

H3.5. SUPPLY CHAIN AND CONTRACTING

- The Supply Chain Department will handle procurement for goods, services, and contractors, adhering to municipal policies.
- Contracts will be awarded transparently through competitive bidding.

H3.6. PROJECT EXECUTION AND MONITORING

- The Project representative and team will execute projects according to approved plans and timelines.
- Regular progress meetings will ensure milestone tracking, quality standards, and budget compliance.

H3.7. STAKEHOLDER ENGAGEMENT AND COMMUNICATION

- The Communication Department, with the project team, will develop a stakeholder engagement plan.
- Progress updates and consultations will be conducted for transparent communication.

H3.8. PROJECT EVALUATION AND REPORTING

- A comprehensive assessment will evaluate project outcomes, challenges, and lessons learned.
- The Project representative will prepare a final report with recommendations.

H3.9. POST-IMPLEMENTATION REVIEW AND ADJUSTMENT

- A Review Committee will assess project outcomes and recommend adjustments for optimization.
- Follow-up actions will align with long-term strategic goals.

H3.10. CONTINUOUS MONITORING AND REPORTING

- The M&E Department will monitor outcomes and provide regular progress reports.
- Feedback loops will incorporate stakeholder input into future planning.

H3.11. TIMEFRAMES AND RESPONSIBILITIES

- Project timelines and responsibilities will be defined in project charters.

- Progress reviews and assessments will track progress against MSDF objectives.

By following this SOP for project implementation, Nelson Mandela Bay Municipality ensures effective coordination, accountability, and successful execution of MSDF projects, promoting sustainable development and community well-being.

SECTION I: CONCLUSION

The Nelson Mandela Bay Municipality (NMBM) possesses significant development potential; however, challenges such as limited political will and institutional capacity remain key constraints. Demographically, the majority of the population falls within the working-age group, creating opportunities for economic growth and development. Furthermore, the municipality's available land and Local Economic Development (LED) initiatives can be leveraged to unlock this potential.

The Situational Analysis Report assessed three critical pillars—biophysical, built environment, and socio-economic—to provide a holistic understanding of the municipality in terms of service delivery, economic growth, and social development. This analysis highlighted strengths, weaknesses, opportunities, and threats that form the foundation for the municipal vision and development objectives within the Spatial Development Framework (SDF).

Building on this, the NMBM Spatial Development Framework (MSDF) outlines a clear pathway for sustainable and inclusive growth through its spatial frameworks, structuring elements, and governance mechanisms. These include the Environmental Framework, Climate Change Strategy, Agricultural and Biophysical Frameworks, Economic and Tourism Framework Plans, Social Facility Framework, Infrastructure Framework, and the Built Environment Framework Plan. Collectively, these provide a strategic and integrated approach to balancing urban growth with environmental protection, infrastructure provision, and social equity, while promoting economic resilience.

The MSDF provides a strong foundation for addressing the municipality's institutional and developmental challenges while capitalising on its demographic and economic opportunities. This ensures that future growth is sustainable, inclusive, and effectively coordinated across sectors.

It is envisaged that over the next 20 – 30-years, NMBM will be a prominent Metro that is built upon the vision set forth in this MSDF, supported by the IDP.