

BEAUFORT WEST MUNICIPAL SPATIAL DEVELOPMENT FRAMEWORK (MSDF)

May 2024

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LIST OF ACRONYMS

CBA	–	Critical Biodiversity Area	NEMA	–	National Environmental Management Act
CBD	–	Central Business District	NHRA	–	National Heritage Resources Act
CEF	–	Capital Expenditure Framework	NMT	–	Non– Motorised Transport
DEA&DP	–	Department of Environmental Affairs and Development Planning (WCG)	NPC	–	National Planning Commission
DALRRD	–	Department of Agriculture, Land Reform and Rural Development	NSDF	–	National Spatial Development Framework
DM	–	District Municipality	PC	–	Project Committee
ECD	–	Early Childhood Development	PSDF	–	Provincial Spatial Development Framework, 2014
FET	–	Further Education and Training	PAM	–	Prince Albert Municipality
FLISP	–	Financed Linked Individual Subsidy Programme	SDF	–	Spatial Development Framework
GDP	–	Gross Domestic Product	SGD	–	Shale Gas Development
GPS	–	Growth Potential of Town's Study	SPLUMA	–	Spatial Planning and Land Use Management Act, 2013 (Act 16 of 2013)
HDI	–	Human Development Index	SQ	–	Status Quo
HSP	–	Human Settlement Plan	WC	–	Western Cape
IDP	–	Integrated Development Plan	WCG	–	Western Cape Government
ISC	–	Intergovernmental Steering Committee	WWTW	–	Wastewater Treatment Works
IUDF	–	Integrated Urban Development Framework			
KRSDF	–	Karoo Regional Spatial Development Framework			
LUPA	–	Land Use Planning Act, 2014 (Act 3 of 2014)			
MSA	–	Municipal Systems Act, 2000 (Act 32 of 2000)			
MSDF	–	Municipal Spatial Development Framework			
MTREF	–	Medium Term Revenue and Expenditure Framework			
NDP	–	National Development Plan			
NPDG	–	Neighbourhood Partnership Development Grant			

CHAPTER 1: INTRODUCTION & BACKGROUND

1.1 PURPOSE OF THE REPORT

The purpose of this report is to present a newly compiled Municipal Spatial Development Framework (MSDF) for Beaufort West Municipality, which has built upon the 2014 Beaufort West MSDF spatial proposals. The compilation of a new MSDF seeks to:

- Establish the existing level of development of the Beaufort West Municipality;
- Review and update the key issues and opportunities in the Municipality as they relate to its future spatial development;
- Review and update the spatial vision of the Municipality, to bring it in line with the National Development Plan; the National Spatial Development Framework (NSDF); the Integrated Urban Development Framework (IUDF); the Western Cape Provincial Spatial Development Framework (PSDF); the Karoo Regional Spatial Development Framework (KRSDF); the Central Karoo District Municipal Spatial Development Framework (2020); and the Beaufort West Municipality Integrated Development Plan (IDP);
- Bring the MSDF into alignment with the Spatial Planning and Land Use Management Act, 2013 (Act 16 of 2013) (SPLUMA), the Western Cape Land Use Planning Act, 2014 (Act 3 of 2015) (LUPA) and the Municipal Planning By-laws for Beaufort West;
- Review and update the Spatial Development Framework proposals and Implementation Framework from the 2014 MSDF; and
- Undertake preliminary work towards the development of a Capital Expenditure Framework (CEF) and Implementation Framework as required in terms of SPLUMA.

The Beaufort West MSDF will focus on:

- Clearly defining the relationship, hierarchy, linkages, and corridors between and within the settlements;
- Identifying growth nodes, priority investment areas, consolidation areas, and upgrade areas within the Municipality;

- Identifying protected areas, threatened ecosystems, critical biodiversity areas, valuable agricultural land, water catchment areas and natural resources of the Municipality, based on the latest available information, and articulate how these assets will be managed from a land use management perspective;
- Setting out general urban planning and design principles to be applied in developing and managing the settlements located within the municipality; and
- Identifying spatial transformation opportunities and, where appropriate, urban expansion opportunities for growth.

The MSDF is guided by various National, Provincial, and Local planning legislation and policies, as well as municipal sector plans. The MSDF will guide local-level land development and planning decisions by outlining future development opportunities and constraints. It should be noted that whilst the MSDF does guide land development and land use management decision making, it does not in and of itself give or take away land use rights.

1.2 PROBLEM STATEMENT

The Beaufort West Municipality seeks to compile a new MSDF that will give effect to its 5-year Integrated Development Plan (IDP). Some of the key areas of focus or change that this MSDF is responding to are:

- Updated Critical Biodiversity Area information and associated Western Cape Biodiversity Spatial Plans;
- New population growth figures, economic data, and service level data for the municipal area;
- An evolved policy position on shale gas extraction in the Karoo;
- The content requirements of SPLUMA and LUPA, which came into effect after the compilation of the 2014 MSDF;
- Amalgamating spatial data sets and policy positions from the 2020 Central Karoo District MSDF;
- Ensuring alignment with the National Spatial Development Framework (NSDF), the 2014 Western Cape Provincial Spatial Development Framework (PSDF), and the 2023 Karoo Regional Spatial Development Framework (KRSDF), and;

- Undertaking preliminary work towards the development of a Capital Expenditure Framework (CEF) and Implementation Framework as required in terms of SPLUMA.

In addition, the Beaufort West Municipality is facing a number of pressing challenges relating to water scarcity, flood risk, ageing infrastructure, population growth, economic stagnation, and increasing urban management issues particularly around waste management which is both an environmental health risk and economic risk. The trajectory of the municipality is also highly uncertain, with the potential for shale gas development in the area holding significant implications for medium-term economic and population projections. Conversely, increasingly regular drought conditions have the potential to have significant and long term economic, social, and environmental consequences. This set of challenges and potential changes to the municipality necessitates the development of an MSDF that both supports the growth, development, and resilience of Beaufort West in the current state of ecological and economic distress, and plans for the possibility of population and economic growth in the future.

1.3 PROCESS AND DOCUMENT STRUCTURE

1.3.1 MSDF Process

The process to compile a Municipal Spatial Development Framework is set out in the Municipal Systems Act, 2000 (Act 32 of 2000) (MSA), the Spatial Planning and Land Use Management Act, 2013 (Act 16 of 2016) (SPLUMA) and the Western Cape Land Use, 2014 (Act 3 of 2014) (LUPA) . This process is shown in **Figure 20**. In short, the process entails the following:

- 1) The municipality decides whether to establish an Intergovernmental Steering Committee (ISC);
- 2) Municipal Council to give notice of the intention to compile the MSDF;
- 3) The proposal to compile the MSDF must be published in the media in at least 2 official languages;
- 4) The municipality must inform the provincial minister in writing of its intent to compile the MSDF;
- 5) Register relevant stakeholders who may be invited to comment on the draft MSDF;
- 6) The Municipality must establish a project committee;

- 7) If an ISC is established, then Provincial and other departments must be invited to sit on it and provide input on the MSDF;
- 8) The project committee should compile a draft status quo report setting out an assessment of the existing levels of development and development challenges and submit it to the ISC for comment (if an ISC was established);
- 9) The project committee must consider the comments of the ISC (if established), finalise the status quo report and submit it the Council for adoption;
- 10) The project committee must compile a first draft of the municipal spatial development framework and submit it to the ISC (if established) for comment;
- 11) After considering the comments of the ISC (if established), the project committee must finalise the first draft of the municipal SDF and submit it to Council to approve the publication thereof;
- 12) Once available, the draft MSDF must be made available for public comment for a period of 60 days;
- 13) The Project Committee must consider all comments received and compile a final MSDF for council adoption;
- 14) MSDF is presented to Council for approval;
- 15) Once adopted, a notice of adoption must be placed in Provincial Gazette within 14 days;
- 16) The MSDF must be submitted to the Provincial Minister within 10 days of Council approval.

Due to human resource capacity and budget constraints within the Beaufort West Municipality, the municipality sought assistance from the Western Cape Department of Environmental Affairs and Development Planning (DEA&DP) to compile the new MSDF. DEA&DP agreed to provide this assistance in fulfilment of sub-programme 1 of the Western Cape Government's MSDF Support Programme. Beaufort West Municipality and DEA&DP held an inception meeting on 1 June 2021, and the Municipal Council decided to establish an ISC and PC to oversee the drafting of the MSDF. The drafting of the MSDF followed the relevant legislative provisions under the guidance of the ISC, culminating in a 60-day public participation process that took place between 14 April and 14 June 2023, as communicated in the relevant municipal notice placed in the Provincial Gazette 8746 as Notice 52/2023. This broad process to compile the MSDF is summarised in **Figure 20**.

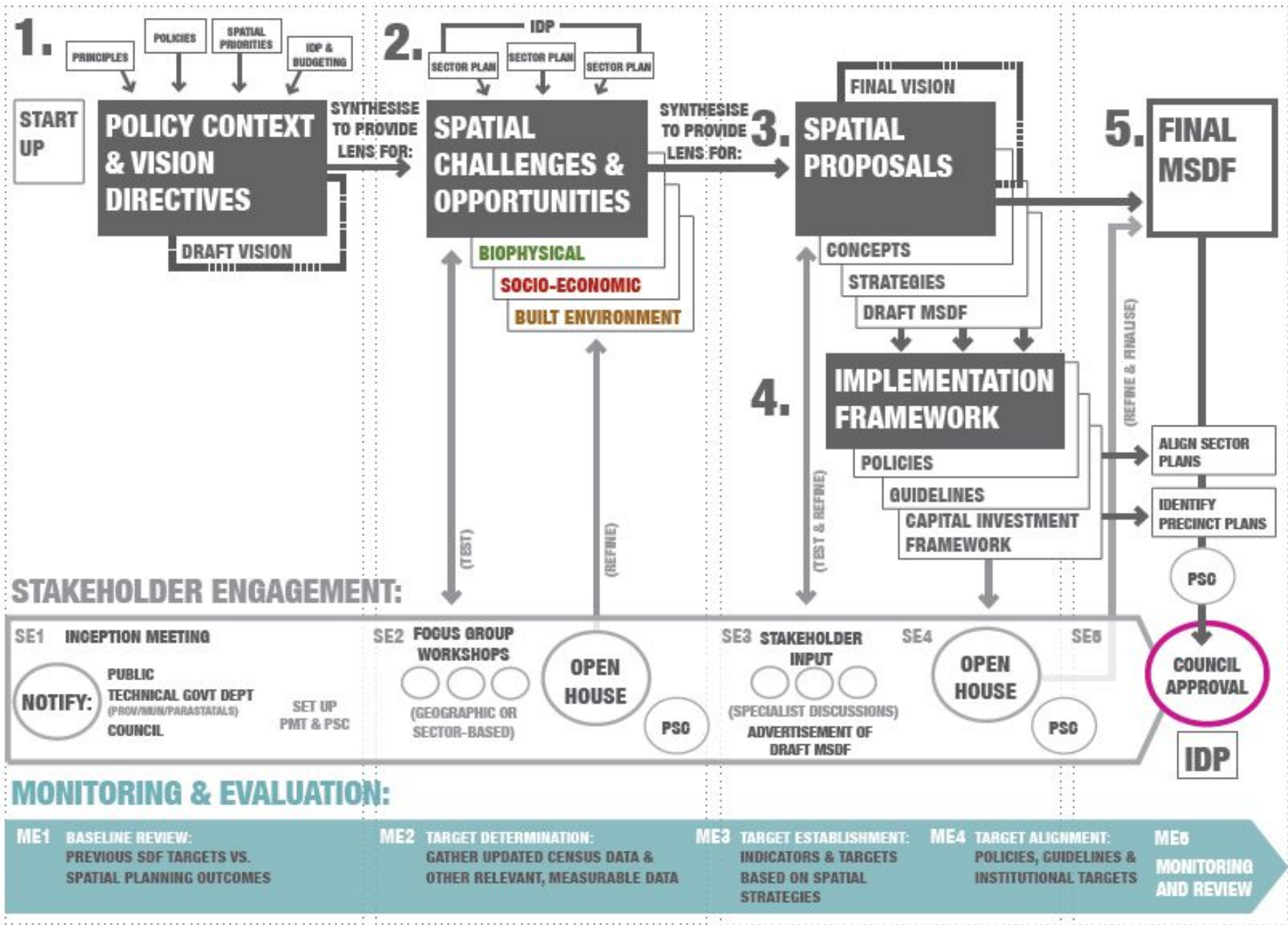


Figure 20: MSDF Process Diagram (Former Department of Rural Development and Land Reform, 2017)

1.3.2 Document Structure

The structure of this MSDF is broadly in alignment with the 2017 Guidelines for SDFs (Former Department of Rural Development and Land Reform, 2017) and follows the document structure shown in **Figure 20** above. This report contains the following Chapters:

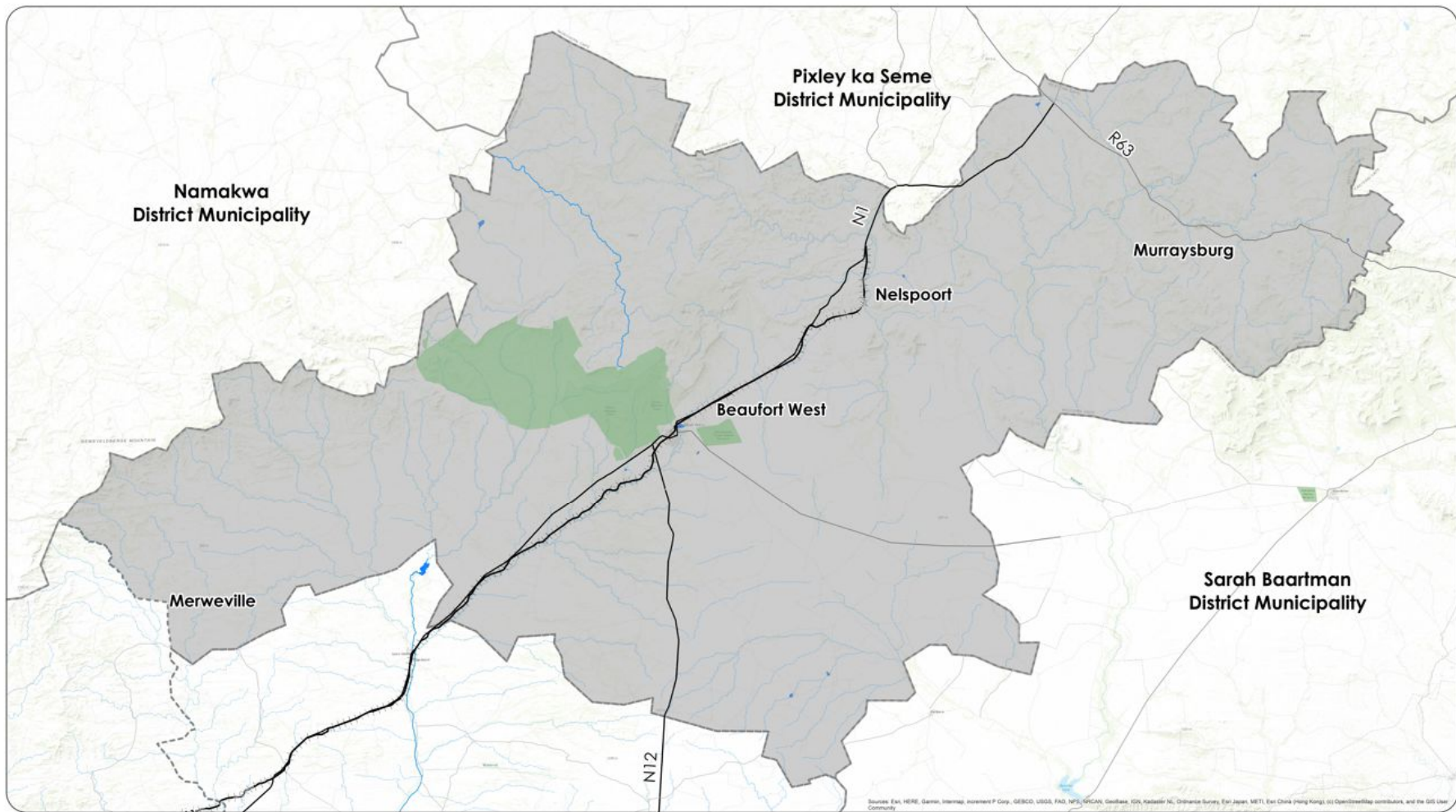
1. **Chapter 1** provides an introduction and some background information on the purpose of this report and what it seeks to achieve. It further articulates the process to be followed in compiling the MSDF and sets out the structure of the document.
2. **Chapter 2** provides an **overview** of the key legislative, policy, strategy and planning context, and the implications for spatial planning and land use management in the municipality.
3. **Chapter 3** is a Status Quo Analysis that sets out an assessment of key environmental, social, economic, infrastructure and built environment assets in the municipality, concluding with a synthesis, identifying key development issues, challenges and opportunities and their spatial implication from a biophysical environment, socio-economic and built environment perspectives.
4. **Chapter 4** sets out a spatial vision and spatial concept for Beaufort West Municipality, which is the overarching framework that guides all subsequent spatial planning policy proposals. It then goes on to set out the spatial development strategies, and spatial policies to guide land use planning, management, regulation, and investment decisions throughout the municipal area, organised around four spatial strategies that support the spatial development vision. Within each of the strategies there is a stated objective, and an indication of how the municipality intends to measure the successful implementation of it, including identifying the impacts of the MSDF on sector planning.

5. **Chapter 5** sets out preliminary work towards the development of a Capital Expenditure Framework (CEF), which aligns the spatial proposals of the MSDF with the infrastructure plans and municipal budget and in so doing provides as an implementation framework for the municipality between 2024 and 2035.
6. **Chapter 6** provides an Implementation Framework, which sets out the various implementation requirements of the Beaufort West MSDF

1.4 LOCATION AND CONTEXT

The Beaufort West Municipality (WC053) is one of three Category B municipalities in the Central Karoo District Municipality of the Western Cape Province. It lies on the southern edge of the Great Karoo, a semi-desert region. The municipalities within the Central Karoo District are Beaufort West Municipality, Laingsburg Municipality and Prince Albert Municipality (**See Figure 2**).

The size of the Beaufort West municipal area is approximately 21 916 square kilometres, which comprises 56.4 per cent of the total Central Karoo District geographic area. The Beaufort West municipal area is the largest in the district. The N1 national road cuts through the Municipality from south-west to the north-east, the main road link between Cape Town and Gauteng (and beyond). The town of Beaufort West is the economic hub of the CKD and thus often serves as a popular rest and service area for travellers on the N1. Other small towns in the municipal area include Merweville, Murraysburg and Nelspoort. The N12 runs on a north-south axis through Klaarstroom (Prince Albert Municipality) and connects Oudtshoorn and George in the south to Beaufort West in the north, essentially linking the N1 and the N2. The R61 is also a critical road link, that functionally connects the Western Cape with the Eastern Cape (from Beaufort West to Aberdeen and beyond), and is a key road used by public transport services between the two provinces. **Figure 21** illustrates the location of the Beaufort West Municipal Area within a Western Cape, illustrating key road network assets, protected areas, and river systems.



Context Map: Beaufort West Local Municipality

Road Type

- National Road
- Arterial Road
- Secondary Road
- Railways
- Perennial Rivers
- Ephemeral Rivers
- LM Boundary
- Protected Areas
- Dams

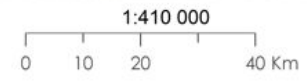


Figure 21: Location of the Beaufort West Municipal Area

CHAPTER 2: LEGISLATIVE AND POLICY CONTEXT

The purpose of this chapter is to briefly provide a summary of the policy and legislative landscape informing the Beaufort West MSDF. The MSDF should progressively seek to comply with the prescribed process and content requirements of the legislation and policy described below.

2.1 RELEVANT NATIONAL POLICY AND LEGISLATION

This section summarises national policy and legislation informing the Beaufort West MSDF.

2.1.1 National Development Plan 2030 (NDP)

The National Development Plan 2030 (NDP), which was developed by the National Planning Commission and adopted in 2012, serves as the strategic framework guiding and structuring the country's development imperatives and is supported by the New Growth Path (NGP) and other national strategies. In principle, the NDP is underpinned by, and seeks to advance, a paradigm of space economy, including the upgrading of all informal settlements on suitable, well-located land; increasing urban densities to support public transport and reduce sprawl; promoting mixed housing strategies and compact urban development in close proximity to services and livelihood opportunities; and investing in public transport infrastructure and systems (with a special focus on commuter rail) to ensure more affordable, safe, reliable and coordinated public transport.

2.1.2 Integrated Urban Development Framework (IUDF)

The Integrated Urban Development Framework (IUDF), approved by National Cabinet in 2016, aims to steer urban growth nationally towards a sustainable model of compact, connected and coordinated towns and cities. The IUDF provides a roadmap to implement the NDP's vision for spatial transformation, creating liveable, inclusive, and resilient towns and cities while reversing apartheid spatial legacy. To achieve this transformative vision, four overall strategic goals are introduced:

- Spatial integration; to forge new spatial forms in settlement, transport, social and economic areas;
- Inclusion and access; to ensure people have access to social and economic services, opportunities, and choices;
- Growth; to harness urban dynamism for inclusive, sustainable economic growth and development; and
- Governance; to enhance the capacity of the state and its citizens to work together to achieve spatial and social integration.

These strategic goals inform the priority objectives of nine policy levers, premised on the understanding that integrated urban planning forms the basis for achieving integrated urban development, which follows a special sequence of urban policy actions. Integrated transport needs to inform targeted investments into integrated human settlements, underpinned by integrated infrastructure network systems and efficient land governance. The IUDF states that, taken all together, these levers can trigger economic diversification, inclusion, and empowered communities, if supported by effective governance and financial reform.

2.1.3 The National Spatial Development Framework 2050 (NSDF)

The National Spatial Development Framework (NSDF), which is the first of its kind in South Africa was approved by National Cabinet in 2022 and seeks to make a bold and decisive contribution to bringing about the peaceful, prosperous, and truly transformed South Africa, as articulated in the NDP.

In summary, and as illustrated in **Figure 3** below, the NSDF must, within the broader 'family' of strategic and sector plans of government:

- Target and direct all infrastructure investment and development spending decisions by all national sector departments and SOEs;
- Guide and align plan-preparation, budgeting, and implementation in and across the three spheres, and between the sectors of government; and

- Frame, guide, and coordinate provincial, regional, and municipal spatial development frameworks.

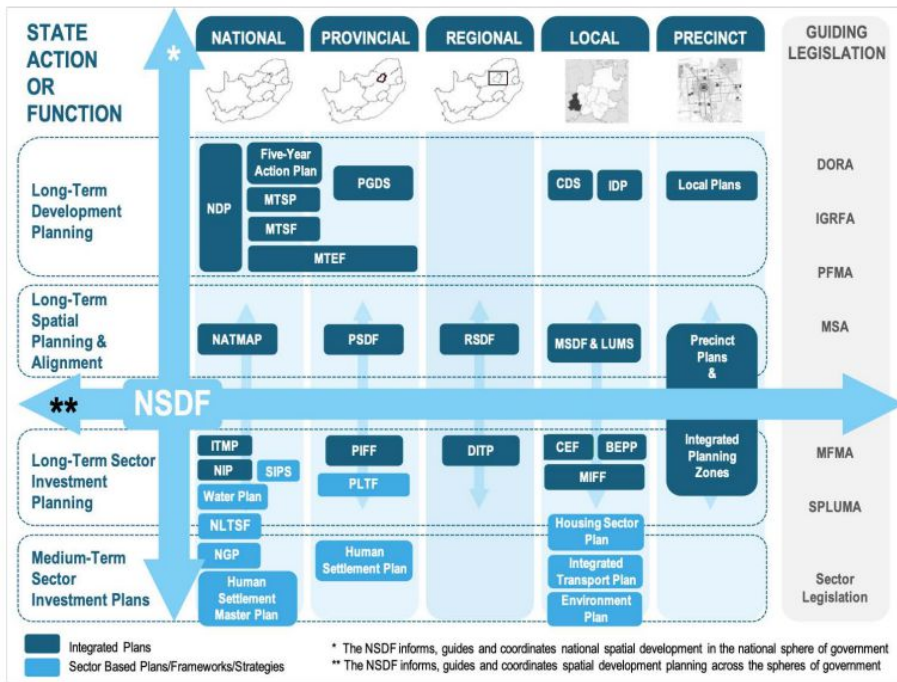


Figure 3: The role of the NSDF within the 'Family' of Strategic and Sector Plans of Government (source: NSDF, 2050)

The foundation for the NSDF is premised on the main frame for the Ideal Post-Apartheid National Spatial Development Plan as spatially illustrated in Figure 4 and five sub-frames. These emanate from the National Development Plan 2030 priorities, the National Spatial Development vision and logic, as well as development issues identified through the analysis process.

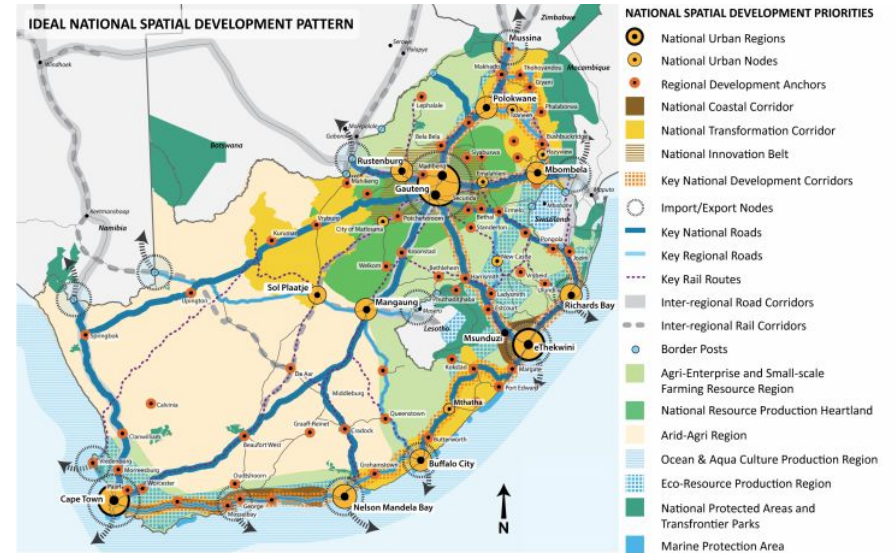


Figure 4: The NSDF Main-Frame: The Ideal Post-Apartheid National Spatial Development Plan (source: NSDF, 2050)

The five Sub-Frames forming the foundation for the NSDF are listed below, along with an analysis of the key spatial implications for Beaufort West Municipality:

- **NSDF Sub-Frame One:** Inter-Regional Connectivity. This sub-frame is focused on connections to other SADC countries, but the national rail link between Cape Town and Johannesburg is highlighted as an inter-regional Rail Corridor. This corridor passes through Beaufort West Municipality and is an important spatial informant to the municipality. The town of Beaufort West, and other settlements along this rail route, have inherent latent future potential to benefit passing passenger and freight rail. These opportunities should be identified, and space made provision for them to materialise;
- **NSDF Sub-Frame Two:** The National System of Nodes and Corridors. The key spatial implication of this sub-frame is that Beaufort West Town is listed as a Regional Development Anchor. It is identified as an example of one of the anchors under stress and in need of support through targeted settlement planning and development, higher-order social infrastructure provision, and focused support for small and medium-sized enterprise development, industrialisation, and economic

diversification. Regional connections to neighbouring anchors De Aar (in the Northern Cape) and Oudtshoorn are also important at the national scale. As a Regional Development Anchor, the town of Beaufort West is the primary investment node for certain government and private sector services and facilities. Future potential facility and service opportunities should be identified and enabled by the municipality, to promote employment creation and maintain the multiplier effect of ensuring funds generated within the municipal area are reinvested within the businesses of the towns of the municipality;

- NSDF Sub-Frame Three:** The National Resource Economy Regions. Beaufort West falls into the National Arid-Agri Innovation Region as illustrated in **Figure 5**. The NSDF notes that, for the region that Beaufort West falls into, changing climatic conditions will significantly impact on national food production and require regional agricultural adaptation and effective land use management. Additionally, it states that within remote and arid regions in the western and north-western parts of the country, the cumulative impact of a growing number of wind farms, solar plants and mining and energy-related projects should be carefully evaluated in regional context. The growth of existing towns close to these areas is supported, but new and on-site settlement far away from existing towns is not. In the context of Beaufort West, shale gas extraction and renewable energy development zones have been identified as future potential industries. The spatial planning categories of the MSDF must make provision for the location and management of these activities, being clear where it is appropriate to accommodate them, and where such activities should not be accommodated (and provide reasons for this – whether it is due to landscape character considerations, important scenic viewsheds routes, or from a biodiversity or riverine constraints perspective).

- NSDF Sub-Frame Four:** The National Movement and Connectivity Infrastructure System. Beaufort West sits on an Inter-regional National Road and under-utilised Rail Corridor, with both the N1 and railway highlighted as being of national importance. Similarly, the access roads to rural hinterlands are important for the NSDF's regional-rural development mode as illustrated in **Figure 6**. Future rail opportunities exist in significantly increasing passenger and freight rail. The potential also exists for high-speed rail opportunities between Cape Town and Gauteng (and potential connections through Beaufort West) which brings economic opportunities;

- NSDF Sub-Frame Five:** The National Ecological Infrastructure and Natural Resource System. The Karoo National Park is identified as a key ecological resource at the national scale. Various critical biodiversity areas, environmental support areas, and other natural areas have been identified in the Western Cape's biodiversity spatial plan, which builds on SANBI's extensive biodiversity information and knowledge management systems.

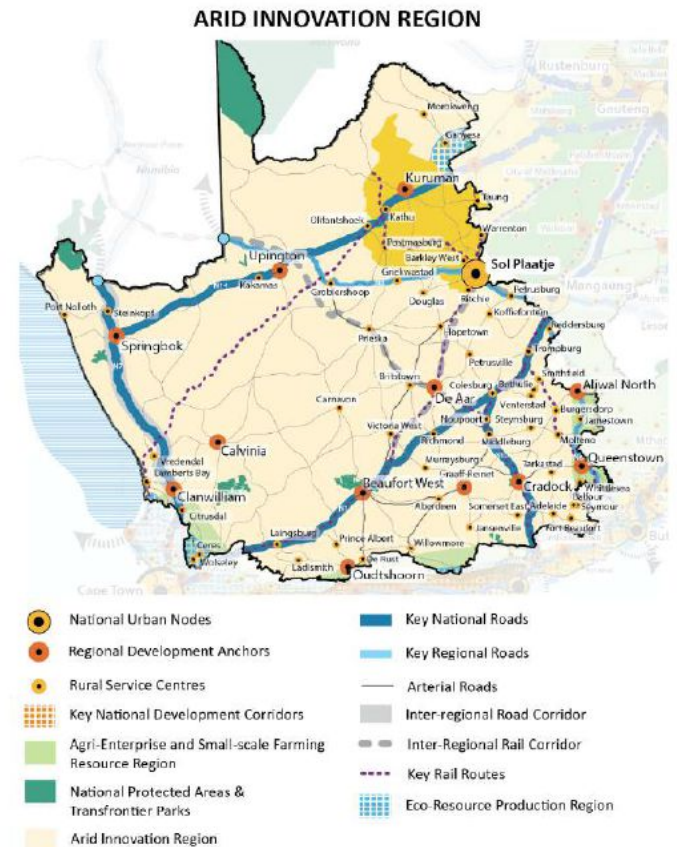


Figure 5: Arid Innovation Region (Republic of South Africa, 2019)

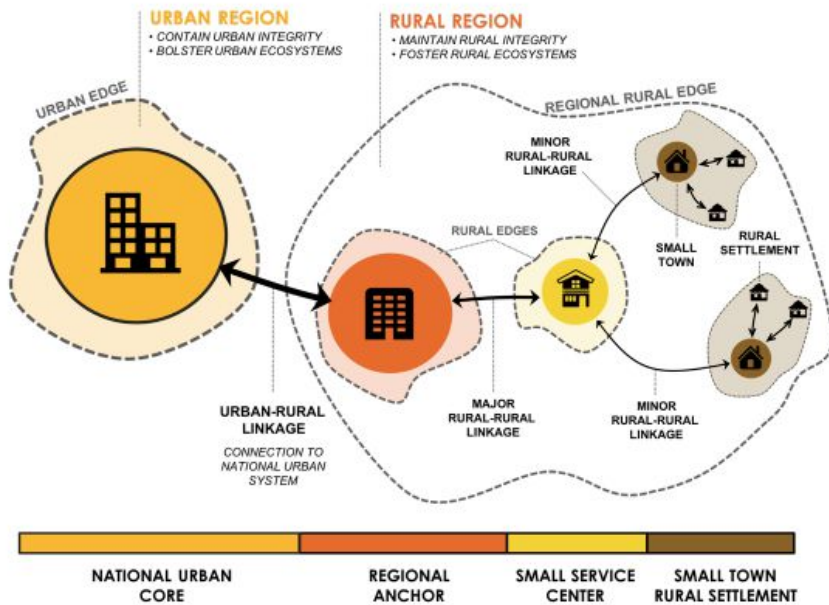


Figure 6: NSDF Regional-Rural Development Model (Republic of South Africa, 2019)

2.1.4 The 2023 Karoo Regional Spatial Development Framework (KRSDf)

The Karoo RSDf is the first RSDf to be developed in terms SPLUMA, which straddles the provincial boundaries of the Northern-, Eastern-, and Western Cape, as well as the Free State. It was adopted and published in Government Gazette on 27 September 2023. It covers a region that encompasses 40% of South Africa's surface area, including the Central Karoo District Municipality and Beaufort West Municipality as illustrated in **Figure 7**, and it also gives expression to the Arid-Agri Innovation region identified in the NSDF.

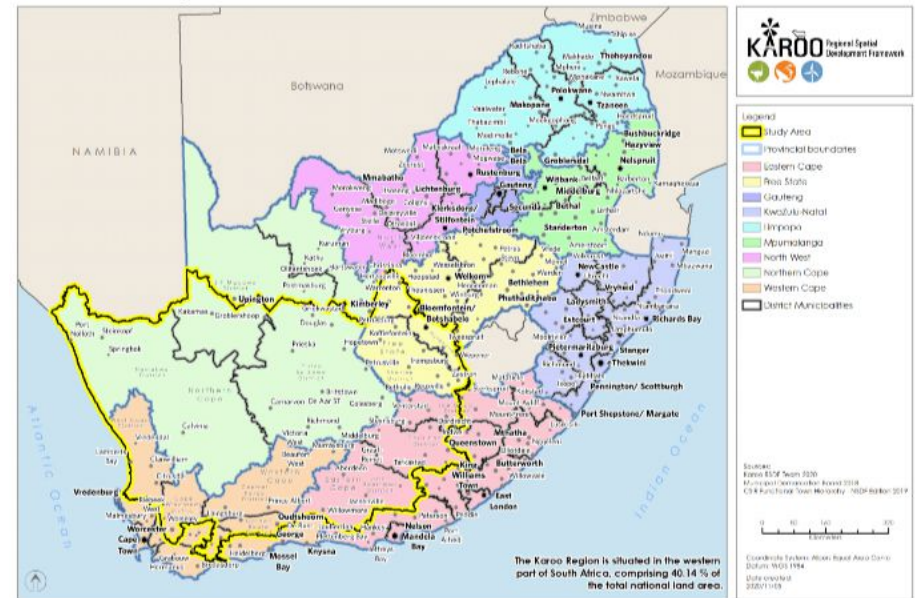


Figure 7: 2023 Karoo Regional Spatial Development Framework (KRSDf study area)

The KRSDf, which aligns with the NSDF, identifies Beaufort West Town as a Regional Development Anchor and highlights the importance of the N1 and rail route as being connectors of high national importance. A major additional layer to the KRSDf is the demarcation of a Renewable Energy Development Zone (REDZ) that covers much of Beaufort West Municipality. This REDZ forms part of an Economic Functional Region centred around Beaufort West as illustrated in **Figure 8**.

As a result of these factors, the KRSDf proposes the following roles for the Beaufort West settlement:

- **Economic Focus and Opportunity:** Extensive agriculture, regional transit node: connecting point for regional and national routes, tourism gateway and eco-tourism.
- **Economic Infrastructure and Expansion in Functional Region:** REDZ, power corridors, on the national road network, on the national rail network, Agri-Hub, and Farmer Production Support Units.

It notes the following supportive actions for the anchor and region:

- Investigate the feasibility of commercial airport to strengthen the gateway function.
- Improve ICT connectivity.
- Support services for sustainable energy generation.
- Risk management:
 - Potential shale gas extraction;
 - Climate change impact: decreased rainfall;
 - Stressed water catchment area; and
 - The strategic gas pipeline network.

- Extraction of mineral resources is a concern given water constraints and the potential impact mineral resource extraction could have on the water resource – this is particularly an issue in the Shale Gas exploration areas in the Karoo Basin;
- Landscape and scenic are mostly road-based attractors that also benefit the more isolated municipalities and towns, bringing in visitors. This places a requirement to align road infrastructure maintenance at the scale of the RSDF;

Karoo RSDF: Regional Development Anchors

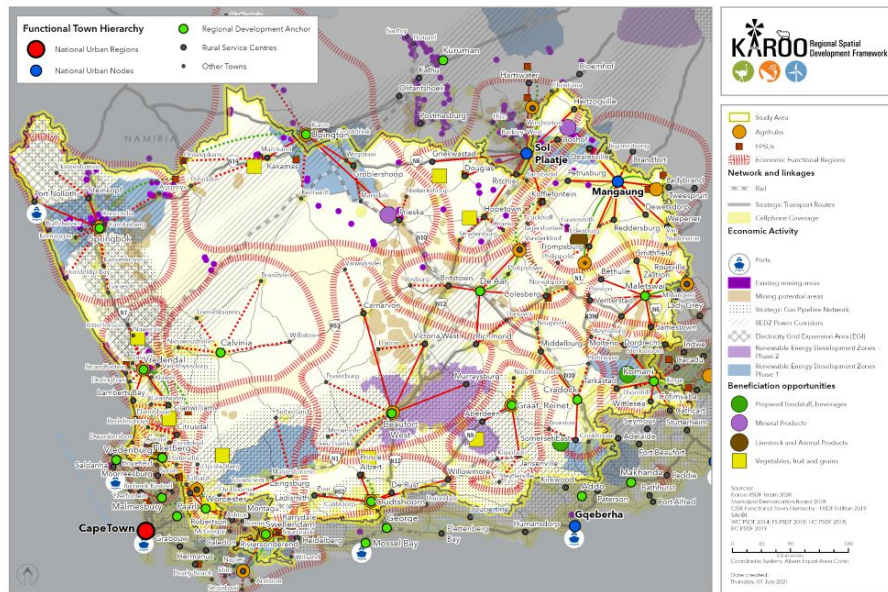


Figure 8: Economic Functional Regions in the KRSDF

In addition, the KRSDF highlights the following issues that are relevant to Beaufort West Municipality:

- Critical biodiversity areas and protected areas adjacent to the Northern Cape have special significance for smaller towns in this region to serve as assets considering conservation tourism (attracting tourists);
- Water is a shared and scarce resource and a determining factor for growth and expansion of towns located in the more arid parts of the Karoo;

- Rural development nodes near Beaufort West and Laingsburg are remote and need to be connected with ICT and have appropriate road connections/conditions;
- Accessibility challenges are significant in the central and southern Karoo regions, which creates a need for coordinated social service delivery;
- Housing: Isolated housing projects (sites) carry a risk of creating pockets of poverty, far from employment opportunities, and requisite facilities and services to support vulnerable and indigent populations. This creates additional burdens on the education, health, social services, and other government functions in serving these areas. All new subsidy housing should be delivered as integrated settlement housing opportunities, within existing settlements (consider growth/decline trends); and
- Growth potential of towns: Most towns in the southern part of the Karoo RSDF (in the Western Cape Province) do not have significant growth prospects; some might even decline further in future, both in economic and population terms.

2.1.5 The Spatial Planning and Land Use Management Act, 2013 (Act 16 of 2013)

SPLUMA sets out the process to develop an MSDF, as well as the minimum content requirements of an MSDF. Some of the notable outcomes that an MSDF must achieve are:

- Set out and be informed of a longer-term spatial vision;
- Guide all planning of all spheres of government;

- Identify risks associated with developments;
- Identify and quantify engineering infrastructure needed for future growth;
- Provide the spatial expression of the coordination, alignment, and integration of all sector plans.

SPLUMA also includes a set of 5 development principles which must guide the preparation, adoption and implementation of any SDF, policy and/or by-law concerning spatial planning and the development or use of land. These principles are set out below:

Spatial Justice refers to the need to redress the past apartheid spatial development imbalances and aim for equity in the provision of access to opportunities, facilities, services, and land. In the broadest sense, it seeks to promote the integration of communities and the creation of settlements that allow the poorest of the poor to access opportunities.

Spatial Sustainability refers to a sustainable form of development. A part of this means promoting less resource consumptive development typologies that promote compaction, pedestrianisation and mixed-use urban environments which allow for the development of a functional public transport system and space economy. A spatially sustainable settlement will be one which has an equitable land market, while ensuring the protection of valuable agricultural land, environmentally sensitive and biodiversity rich areas, as well as scenic and cultural landscapes and ultimately limited urban sprawl.

Efficiency the principle of spatial resilience refers to 'flexibility in spatial plans, policies and land use management systems are accommodated to ensure sustainable livelihoods in communities most likely to suffer the impacts of economic and environmental shocks.

Spatial Resilience in the context of land use planning refers to the need to promote the development of sustainable livelihoods for the poor (i.e., communities that are most likely to suffer the impacts of economic and environmental shocks). The spatial plans, policies and land use management systems should enable the communities to be able to resist, absorb and accommodate shocks and to recover from these shocks in a timely and efficient manner. This includes the preservation and restoration of essential basic infrastructure and functions, and also long-term adaptation in order to

ensure increased resilience in terms of future shocks (United Nations Office for Disaster Risk Reduction, 2009).

Good administration in the context of land use planning refers to the promotion of integrated, consultative planning practices in which all spheres of government and other role-players ensure a joint planning approach is pursued. Furthermore, it is critical that decisions made in terms of land use planning seek to minimise the negative financial, social, economic, and environmental impacts of a development. Additionally, 'good administration' in the context of land use planning refers to a system which is efficient, well run and where the timeframe requirements are adhered to.

Key message: spatial planning is a normative (value driven) process that must be underpinned by five principles that seek to jointly guide all actors in land use management, development, delivery of infrastructure and services in space.

2.1.6 Municipal Systems Act, 2000 (ACT 32 OF 2000)

Section 24 of the MSA notes that planning undertaken by a municipality must be aligned with, and complement, the development plans and strategies of other affected municipalities and organs of state. This is to give effect to the principles of co-operative governance contained in Section 41 of the Constitution. It further notes that municipalities must participate in national and provincial development programmes as required in section 153(b) of the Constitution, and it requires municipal planning to reflect this as well.

Key message: Planning must be joint, integrated and aligned and give expression to the development plans and programmes of all spheres of government within the municipal space.

2.1.7 The Local Government: Municipal Planning and Performance Management Regulations, 2001 (LG: MP&PM REGULATIONS)

Chapter 2 of the LG:MP&PM regulations, published in terms of the Municipal Systems Act, 2000 (Act 32 of 2000), provides some detail as to what MSDFs should seek to achieve. In brief, it is articulated that an MSDF must set out the desired spatial form of the municipality, contain strategies and policies of how these will be met, and set out basic guidelines for the land use management system, amongst other things. It should be noted that SPLUMA provides greater detail to these requirements.

2.1.8 The National Biodiversity Strategy and Action Plan 2015-2025

The National Biodiversity Strategy and Action Plan (NBSAP) has endeavoured to integrate the country's obligations under the Convention of Biological Diversity and Global Development Agenda into South Africa's national development and sectoral planning frameworks. It provides a framework to integrate biodiversity needs into sectoral plans and strategies. The National Biodiversity Strategy and Action Plan outlines a path to ensure the management of biodiversity assets and ecological infrastructure continue to support South Africa's development path and play an important role in underpinning the economy. The vision of the National Biodiversity Strategy and Action Plan articulates the long-term goal for the state of biodiversity in the country. Six strategic objectives¹ reflect the most pressing issues that the National Biodiversity Strategy and Action Plan seeks to address in support of the vision.

2.1.9 The National Environmental Management Act, 1998 (Act 107 of 1998), as amended

Similar to SPLUMA, the National Environmental Management Act (NEMA), is identified as "framework legislation", intended to define overarching and generally applicable principles to guide related legislation as well as all activities integral to environmental management. Its broad purpose is to provide for co-operative environmental governance by establishing principles for decision-making on matters effecting the environment, institutions that will promote co-operative governance and procedures for coordinating environmental functions exercised by organs of the state, provide for certain aspects of the administration and enforcement of other environmental management laws, and related matters.

NEMA is critical in so far as the issues of environmental sustainability, resilience to climate change, and wise use of the natural resource base, are key to the current and future socio-economic wellbeing of residents in the municipal area. This is especially as a result of the fact that sectors such as agriculture and tourism, which all rely to a great extent on the natural assets of the area, remain of great importance to the local economy and are likely to do so in future. In this regard, the National Environmental Management Principles are important and are to be applied in tandem with the development principles set out in SPLUMA. It is also notable that both SPLUMA and NEMA provide for an integrated and coordinated approach towards managing land use and land development processes. This approach is based on co-operative governance and envisages the utilization of spatial planning and environmental

management "instruments" such as SDFs and environmental management frameworks to align the imperatives of enabling development whilst ensuring that biodiversity and other critical elements of the natural environment are adequately protected to ensure sustainability.

2.1.10 The National Environmental Management Act: Protected Areas Act

The Protected Areas Act provides for the formal protection of a network of ecologically viable areas that are representative of South Africa's biodiversity and natural landscapes. It deals with stewardship programmes, such as conservancies. The Act intends to:

- provide for the protection and conservation of ecologically viable areas representative of South Africa's biological diversity and its natural landscapes and seascapes;
- establish a national register of all national, provincial, and local protected areas;
- ensure the management of those areas in accordance with national norms and standards;
- enable intergovernmental co-operation and public consultation in matters concerning protected areas; and
- deal with other matters in connection therewith.

2.1.11 The National Environmental Management: Waste Management Act

The NEMWA is indirectly linked to development, but in this municipality, it is of extreme importance considering that the landfill is not up to standard and considering that opportunities exist in the waste minimisation field that can go beyond infrastructure, but into job creation.

2.1.12 National Climate Change Adaptation Strategy, 2019

The South Africa National Climate Change Adaptation Strategy (NCCAS) supports the country's ability to meet its obligations to the Paris Agreement on Climate Change. This Strategy defines the country's vulnerabilities, plans to reduce those vulnerabilities and leverage opportunities, outlines the required resources for such action, whilst demonstrating progress on climate change adaptation.

The NCCAS outlines a set of objectives, interventions, and outcomes to enable the country to give expression to its commitment to the Paris Agreement. Developed in consultation with all relevant stakeholders and approved by Cabinet, it aims to reduce the vulnerability of society, the economy, and the environment to the effects of climate change. It gives effect to the National Development Plan's vision of creating a low-carbon, climate resilient economy and a just society.

2.1.13 The National Transport Master Plan 2005-2050

The main purpose of the National Transport Master Plan 2005-2050 is to motivate a prioritised programme for interventions to upgrade the transportation system in South Africa. Its goal is to develop a dynamic, long-term, and sustainable land use/ multi-modal transportation system for the development of transport networks, infrastructure facilities, interchange and termini facilities, and service delivery strategies for South Africa.

2.1.14 Implications for Beaufort West Municipality

National legislation and policy make it very clear that MSDFs should seek to redress past imbalances and be transformational, whilst facilitating private sector development and confidence. It is indeed a balancing act, however at the heart of the matter is the imperative to create more resilient, integrated, vibrant, and dense urban settlements that provide higher quality urban environments than are currently present and to provide healthy, happy, and inspiring environments in which people, the economy and the natural environment can flourish.

2.2 PROVINCIAL AND DISTRICT POLICY AND LEGISLATION

2.2.1 The Western Cape Provincial Spatial Development Framework (PSDF) (2014)

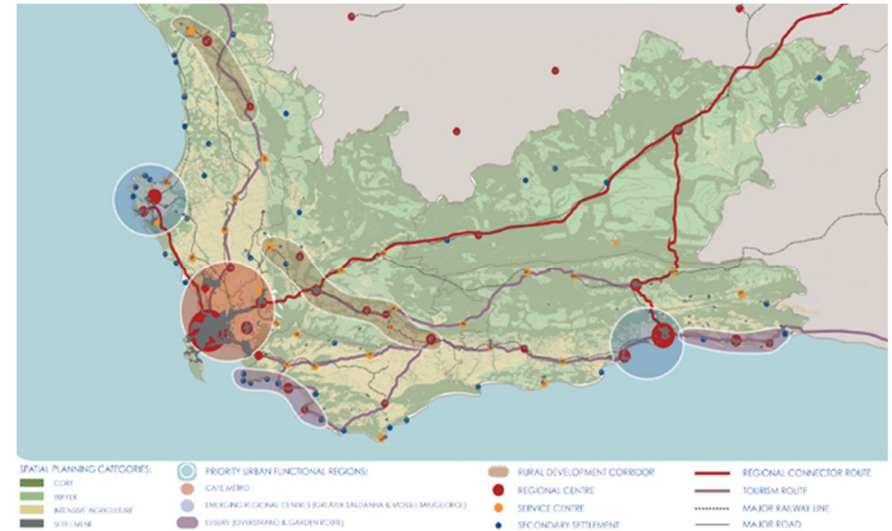


Figure 9: The PSDF (Western Cape Government, 2014)

The 2014 Western Cape PSDF identifies Beaufort West Town as a Regional Centre, while the N1 and N12 highways are prioritised as Regional Connector Routes as illustrated in **Figure 9** above. This is broadly aligned with both the NSDF and the KRSDF. The PSDF includes four spatial themes, namely: Resources, Space Economy, Settlement and Spatial Governance. The PSDF composite map graphically portrays the Western Cape's spatial agenda. In line with the provincial spatial policies, the map shows what land use activities are suitable in different landscapes and highlights where efforts should be focused to grow the provincial economy.

The logic underpinning the PSDF's spatial strategy is to:

- Capitalise and build on the Western Cape's comparative strengths (e.g., gateway status, knowledge economy, lifestyle offering) and leverage the sustainable use of its unique spatial assets;
- Consolidate existing and emerging regional economic nodes as they offer the best prospects to generate jobs and stimulate innovation;
- Connect urban and rural markets and consumers, fragmented settlements, and critical biodiversity areas (for example, freight logistics,

public transport, broadband and priority climate change ecological corridors); and

- Cluster economic infrastructure and facilities along public transport routes (to maximise the coverage of these public investments and respond to unique regional identities within the Western Cape.

It is noted that a new PSDF will be compiled between 2024/5 and 2026/7.

2.2.2 The Western Cape Inclusionary Housing Policy Framework

The WCG Inclusionary Housing Policy Framework was approved by the Western Cape Government's Cabinet in 2022 and seeks to promote spatial transformation, facilitating the provision of affordable housing opportunities in high value, well-resourced urban locations, through private development that is incentivized with additional development rights and other provisions to offset the costs of providing additional, affordable units in their developments. It further seeks to offer an alternative to the poor spatial choices facing our middle to lower income households.

The intention of the Framework is to further the Spatial Planning and Land Use Management Act, 2013 (Act No. 16 of 2013) (SPLUMA) principles of spatial justice, sustainability, efficiency, and good governance, as well as create a path that can be used by municipalities to develop their own inclusionary housing policies.

2.2.3 Living Cape: A Human Settlements Framework

The Living Cape Framework outlines how human settlement planning, delivery and administration can be improved in the province and can add value to this MSDf. The Framework proposes three important shifts namely moving from Housing to Sustainable Human Settlements; Low value production to reaping the urban dividend and most importantly for the State to change its role from provider to enabler.

2.2.4 The Western Cape Land Use Planning ACT, 2014 (Act No. 3 of 2014) (LUPA)

LUPA echoes much of what SPLUMA seeks to achieve from a spatial planning perspective, adding some detail in terms of the process that may be used to develop an MSDf, the content requirements of MSDfs, and setting out the

functions of municipalities and provincial government. In brief, LUPA allows municipalities to follow two different processes in developing MSDfs – one with an Intergovernmental Steering Committee and one without. The Beaufort West Municipality has decided to establish an intergovernmental Steering Committee to oversee the drafting process.

Additional provincial policies that inform spatial planning and land use decisions include:

- Provincial Biodiversity Strategy and Action Plan, 2015 - 2025;
- Western Cape Protected Area Expansion Strategy, 2021 - 2025;
- Western Cape Biodiversity Spatial Plan; Western Cape Land Use Planning Guidelines (Rural Areas, 2017);
- Karoo Readiness Action Plan, 2021.

2.3 MUNICIPAL POLICY AND LEGISLATION

2.3.1 Central Karoo District Spatial Development Framework (CKDMSDF) 2020

The CKDMSDF identifies the Karoo National Park as a Core Area (SPC Category 1). Consequently, the area is delineated as a statutory conservation area. Alignment requirements include:

- Ensure the conservation of the biodiversity of the area;
- Provide for eco-tourism opportunities;
- Provide planned and controlled outdoor recreation opportunities.

Additionally, Beaufort West town is identified as the Regional Service Centre for the CKDM, with the N1 and N12 defined as routes of National Importance and Priority. Murraysburg is a Major Rural Settlement as illustrated in **Figure 10**.

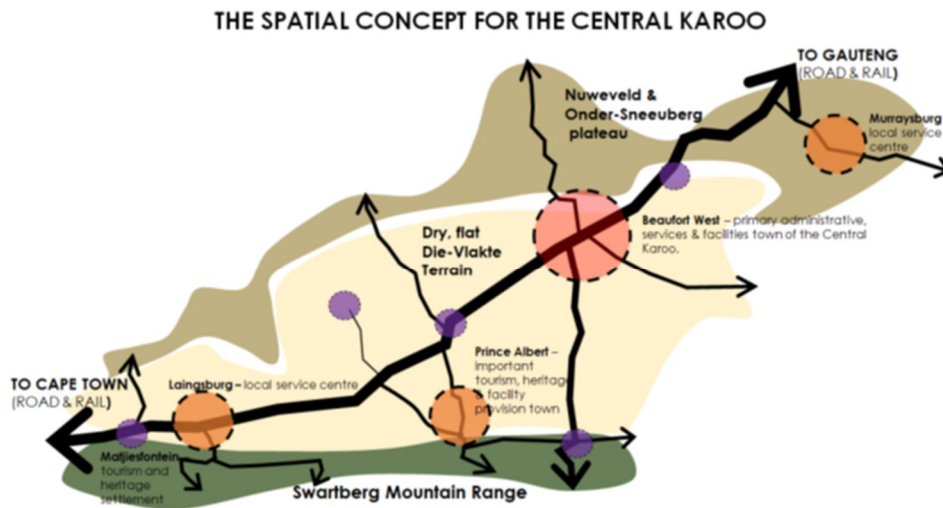


Figure 10: Spatial Concept for the CKDMSDF

Several policies and guidelines were adopted as part of the CKDM, which the Beaufort West MSDF will align itself to. These include the exploration of Shale Gas Extraction as per the 2017 CSIR Strategic Environmental Assessment, and the exclusion areas outlined by the CKDMSDF. Until shale-gas exploration has taken place, there is inadequate information to support or oppose full or

large-scale production of shale gas. DEA&DP does, however, acknowledge that the need for information necessitates the commencement of exploration.

2.3.2 2014 Beaufort West MSDF

The Beaufort West MSDF was last revised during 2014 and adopted as a core component of the then IDP. It was adopted again in 2017 as part of the 2017-2022 IDP. As previously indicated, this MSDF is a new compilation. The new MSDF will be adopted as part of the five-year IDP cycle commencing in 2023, therefore presenting an opportune time for the MSDF's spatial strategy to align with the current IDP.

The 2014 MSDF Vision Statement

The **2014 MSDF** outlined the following vision for the Municipality. It is worth reflecting on this, and seeking to maintain elements of this vision that remain useful for furthering the growth and development of the municipality:

“Wilderness tourism and transport gateway to the people, mountains and plains of the Central Karoo”

The implications of this vision are as follows:

- The town of Beaufort West has a responsibility to present itself as a welcoming and convenient center for catering for the needs of through travelers as well as to attract visitors to spend time in the sub-region.
- Promoting urban tourism opportunities in the municipality's settlements will require upgrading their main streets, the creation and management of heritage precincts where appropriate and considerable effort into creating a town and township tourism culture based on B&Bs, restaurants and cultural activities such as the music for which the region has become well known (Karoo Kitaar Blues).
- Beaufort West should position itself as a tourist destination due to its expansiveness and desolation, particularly the areas north of the town in the Karoo National Park and the surrounding mountain regions.
- The main rural economic resource outside of eco-tourism is extensive agriculture. The growth of this resource depends on improving the

adaptive carrying capacity of the land through good veld management practices, as well as taking climatic variables into consideration for the types of animals farmed and their carrying capacity.

- Wildlife preservation continues to be an issue in the Karoo. The protection of biodiversity will require 'Fair Game' practices to be employed in sheep farming. 'Karoo Lamb' must become a trademark geographic indicator to increase its value and contribution to the economy.
- Accessibility and mobility issues, which are dire, can only be addressed if a Rural Integrated Public Transport Network is implemented, which provides periodic, affordable, reliable, and safe services. Current costs of transport are affecting the poor.
- Intensive engagement should continue with the shale gas exploration open cast uranium mining proponents to successfully resolve the following issues to protect the long-term interests of the municipality and its residents:
 - Maximizing job opportunities for locals and identify what skills training will be required so that they, and not outsiders, receive job benefits.
 - Ensuring that the nature and location of any infrastructure maximizes long term benefits – e.g., staff housing should be located in existing settlements.
 - Rehabilitation plans, including proper topsoil stock piling, mine water management, and groundwater contamination, are prepared and implemented on a phased basis as extraction proceeds and not left until all extraction is completed. Mines should be prevented from starting further production phases until rehabilitation milestones of open cast pits or well-pads have been achieved.
 - Key areas such as CBAs, conservancies and stewardship areas and visually sensitive landscapes contributing to long term heritage and tourism opportunities should be off limits to mining and shale gas extraction.
 - The visual impact on the Karoo landscapes could be severe considerably diminishing their long-term tourism appeal unless they are properly rehabilitated.
 - One of the potential impacts of shale gas exploration is the contamination of underground water resources and aquifers in particular.
 - It should be noted that both Beaufort West and Nelspoort are in a state of potential and, from time to time, actual crisis regarding their water supplies. These are increasingly dependent on groundwater as surface

water sources have been inadequate for a number of years in spite of wide-ranging water demand management efforts although there is not much evidence of rainwater harvesting, especially in new low-income housing areas.

- Nelspoort is reliant on the Sout River aquifer whose recharge is considerably weakened by the highly degraded soil and vegetation conditions in the basin above. This is an important motivating factor for the biodiversity restoration of this bioregion.
- Beaufort West is exploring aquifers such as Rytkuil to the south of the town. However, this also underlies a potential open cast uranium mine.
- Clearly if the water supplies of these settlements are undermined or compromised their future will be in question; and,
- Short term impacts of shale gas extraction will include transport and traffic and issues around accommodating mining crews (roughnecks), physically (housing) and socially (employment, recreation, entertainment, schooling, health– HIV, alcohol, drugs; crime and prostitution).

2.3.3 Beaufort West Municipality IDP

The Beaufort West Integrated Development Plan 2022 – 2027 (IDP) is aimed at coordinating the efforts of various municipal departments in achieving the vision for the municipality as an “economic gateway in the Central Karoo, where people are developed and live in harmony together”. Efforts to achieve this vision are channelled into the following five Strategic Focus Areas:

- Service to the people
- Sustainable Economic Growth
- Transparent Organisation
- Well-run administration
- Financial Sustainability

The intention is for this MSDF to be adopted as a core component of the 5th Generation IDP once it has been approved by Council as required in terms of the Municipal Systems Act, 2000 (Act 32 of 2000).

2.3.4 By-law on Municipal Land Use Planning for Beaufort West, 2019

The By-law on Municipal Land Use Planning for Beaufort West sets out the process for the compilation, adoption, amendment, or review of the MSDF, amongst other things. The process the municipality has followed in compiling this MSDF (Section 1.3.1) is compliant with the process requirements of the municipal by-law.

2.3.5 Implications of Municipal Policy and Legislation for the Beaufort West Municipality

The revised MSDF for Beaufort West should be aligned with the policies and spatial proposals for the region as well as the municipal area advanced in the existing National, Provincial, Regional and Local Spatial Plans. In addition, it should adhere to the legislative process and content requirements in terms of all the relevant planning legislation stated above.

As required in terms of the Municipal Systems Act, 2000 (Act 32 of 2000), the MSDF will be adopted as a core component of the Municipal 5th generation IDP. This document will seek to progressively comply, as far as possible, with the prescribed content requirements as contained in the applicable planning legislation.

2.4 ADJACENT MUNICIPAL INFORMANTS

2.4.1 Adjacent MSDF informants

Figure 11 shows a composite of the adjacent MSDF maps. There are no significant spatial conflicts or misalignments, and the surrounding MSDFs confirm the importance of the N1 (in particular) and N12 as regional connectors. The 2023 KRSDF is also important in guiding development throughout the Karoo region. CBAs and ecological corridors appear to be interlinked and thereby supporting biodiversity conservation efforts and wildlife migrations patterns between the municipalities. Mountain passes and scenic routes also contribute to the competitive advantage of the region.

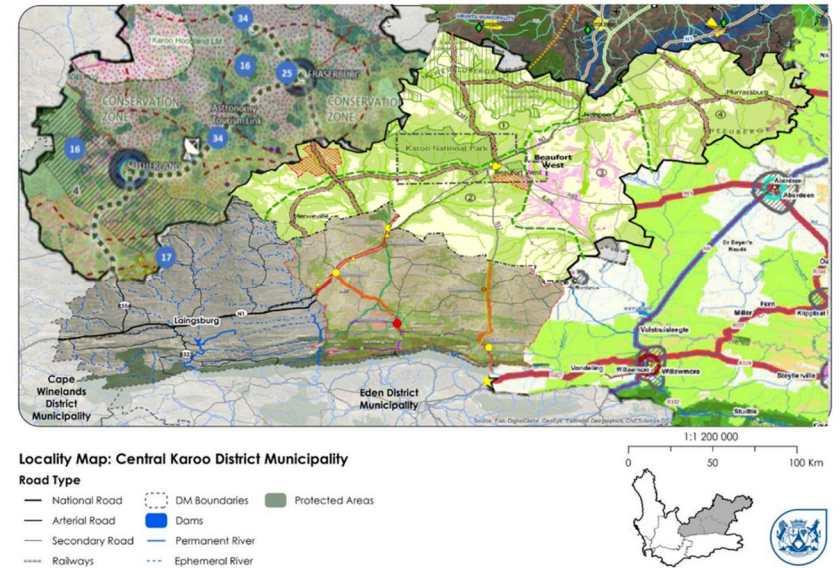


Figure 11: Adjacent Municipal Spatial Development Frameworks to Beaufort West

CHAPTER 3: STATUS QUO REPORT

3.1 INTRODUCTION

The purpose of this chapter is to provide an overview of the current state of development of the Beaufort West municipality, using the latest data and intelligence available, in order to derive the most pressing key spatial issues and opportunities that exist within the municipality.

There are clear issues of scale in considering the context of the Beaufort West Municipality. The municipality's surface area of **21 916.6** square kilometres is the largest in the Western Cape province, accounting for **14%** of the provincial surface area and **54.4%** of the Central Karoo District surface area. The population of the Beaufort West municipality was estimated to be **72 972** people in 2022 (StatsSA, 2023) – which has substantially increased from the 2011 Census count of **49 586**. This translates into an average annual growth rate of **3.8%** over this period. The population of Beaufort West Municipality constituted approximately **1%** of the Western Cape Provincial population in 2022 and **71.4%** of the Central Karoo District Population.

According to the 2014 – 2021 Western Cape Town and Regional Economic Trends Dashboard which sources its data from the SARS Spatial Economic Activity Data, PERO, and MERO, in 2022 Beaufort West municipality had a total of **3952 formal jobs** and at **95%**, the Beaufort West Town accounted to the majority of those jobs. Across all 4 towns within the municipal area, the total formal jobs range from 11 and 3738.

In 2022, the economy of Beaufort West was valued at R2 413.5 billion and its Regional GDP (GDPR) of **R2.2 Billion** accounts for just **0.4%** of provincial GDPR (Western Cape Government, 2023).

Status Quo Analysis covers assessments of Beaufort West's bio-physical and natural environment, its socio-economic context, and its built environment. It begins with the natural landscape features of the municipality.

3.2 BIO-PHYSICAL AND NATURAL ENVIRONMENT ASSESSMENT

Natural systems are the foundational layer on which all of the social, economic, and built environment systems rest. Accordingly, natural systems provide the natural capital, systems, and services from which the socio-economic and built systems derive their value. Whilst currently and historically this relationship is often extractive, it is imperative that these systems are developed, managed, and maintained in a sustainable, resilient way into the future. Thus, geology, soils and climate form the basic geomorphological relationship which gives rise to hydrological, topographical and biodiversity patterns that inform where people live, the activities underpinning the economy, and the built environment and infrastructure response to these.

3.2.1 Natural Landscape

The topography in the South of the municipal area mainly consists of gently undulating plains (Figure 13). In contrast, the northern extent is characterised by the Nuweveld Mountain range, with peaks ranging between 825 to 1,911 m. Toorberg to the south of Murraysburg forms part of the Sneeuberg range which is the divide between the Central Karoo District and the Eastern Cape. The peak is 2,400 metres above sea level and is known for its many watercourses.

*The municipal area's topography is a consequence of the geological formations in the region. There are two significant geological formations in the region, with the southern reaches of the municipality dominated by the mudstone Adelaide Group and a northern portion where Karoo Dolomite outcrops create the Sneeuberg and Nuweveld mountain ranges, leading to the escarpment that defines central South Africa. These features are shown in **Figure 12** **Figure 222: Geology Map for Beaufort West Municipality***

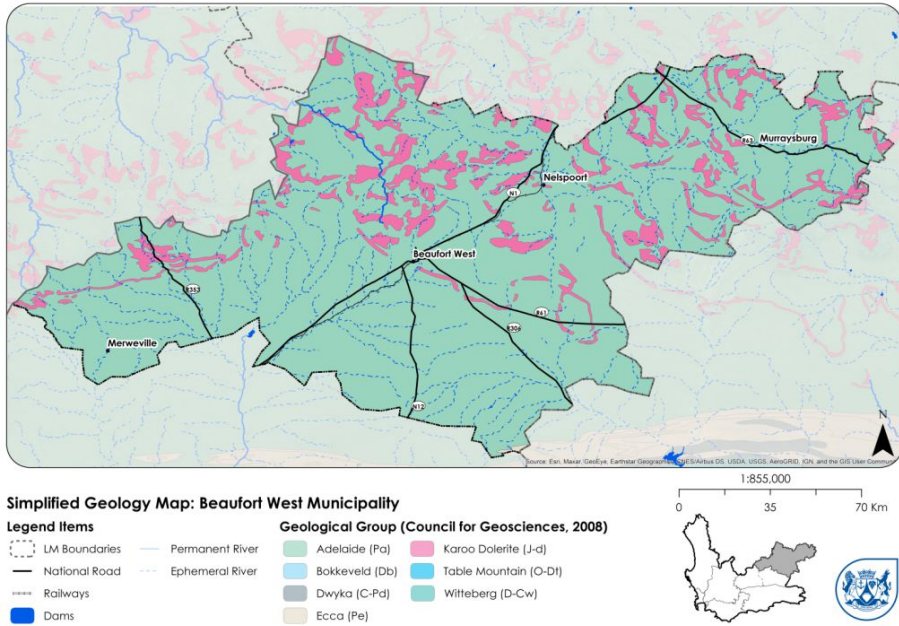


Figure 222: Geology Map for Beaufort West Municipality

Using the landscape regions defined by the Heritage and Scenic Resources Inventory and Policy Framework for the Western Cape (2013), the Central Karoo has four broad landscape character types as illustrated in **Figure 13**, three of which occur in Beaufort West municipality. They are:

- the higher altitude 'Nuweveld Plateau';
- the Nuweveld Mountain escarpment; and
- the lower altitude 'Die Vlakte' made up predominantly of Beaufort shales / Adelaide Group rock type.

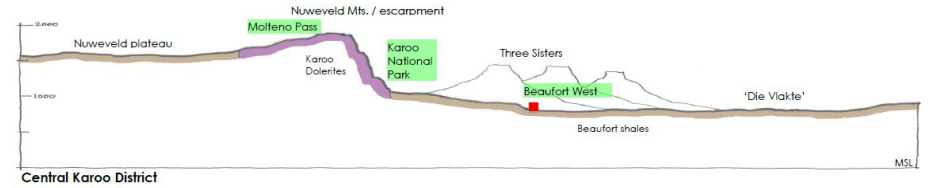
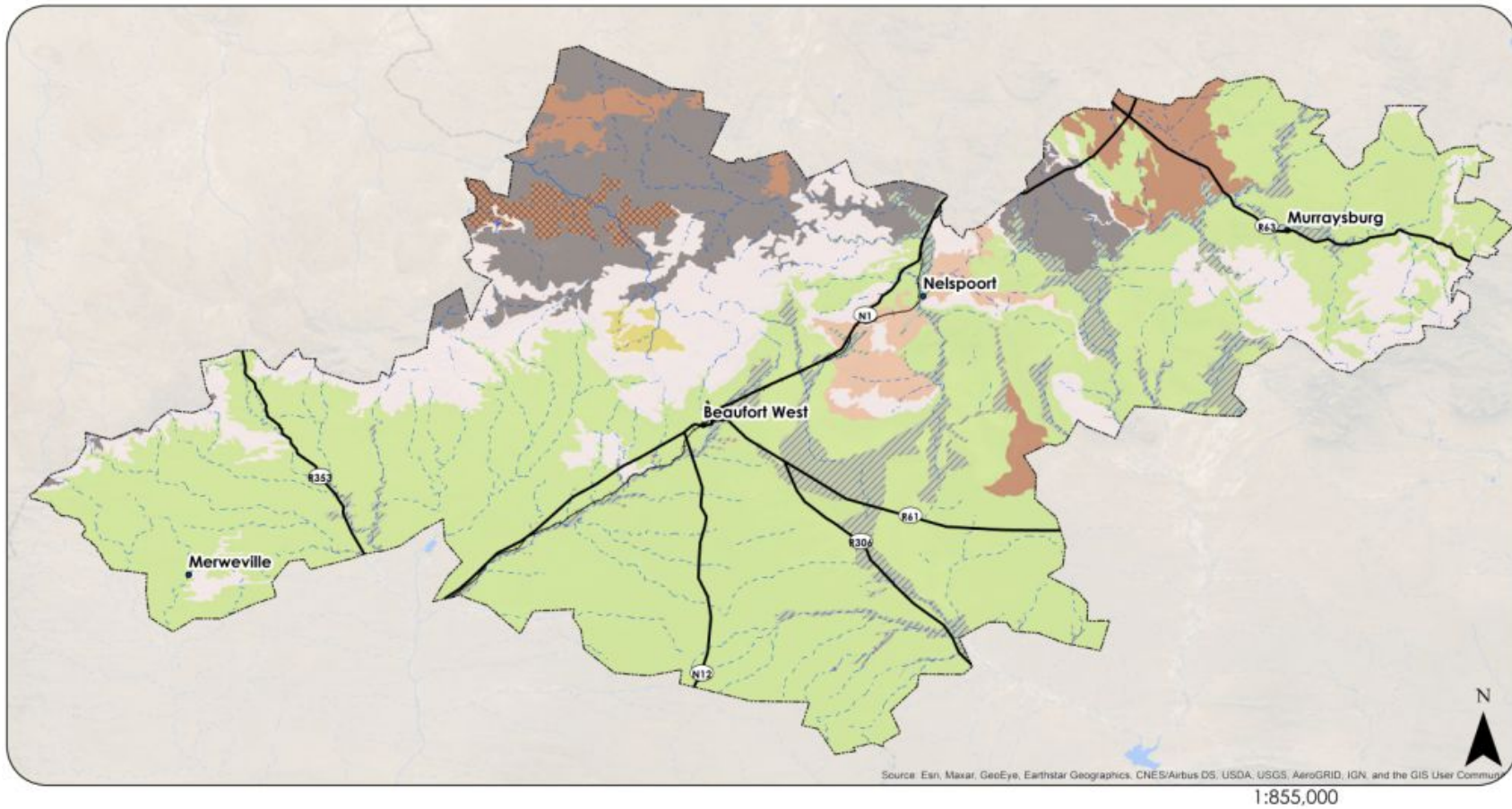


Figure 233: Typical Cross-Section through the Central Karoo District (source: Heritage and Scenic Resources: Inventory and Policy Framework for the Western Cape)

Figure 14 shows that most of the **soil clay content and depths** within Beaufort West are less than 450mm in depth and the rest of the municipal area has soil depths ranging from 450mm to 750mm. Soil depths greater than 750mm generally occur along river tributaries, which is where the most fertile soils are found within the municipal area. There are no areas with a clay content higher than 35% and thus geotechnical studies in this regard will likely not be required for new developments.

The **spatial implications** are that the areas with greater soil depths are more arable. These areas should be used for agriculture and protected from inappropriate development (non-agricultural use). The identified dolerite areas (mainly north of Beaufort West) should be treated with special care. Detailed geotechnical investigation of urban development will be required in these areas as these formations hamper development. As a result of the arid, sparse and peaceful nature of the Karoo landscape, there are specific view-sheds worthy of protection and management from inappropriate development – such as the landscape surrounding the Karoo National Park, as well as the interface between the Nuweveld mountain escarpment and the flatter “Die Valkte”.



Soil Characteristics Map: Beaufort West Municipality

Legend Items

- LM Boundaries
- Permanent River
- Ephemeral River
- National Road
- Railways
- Dams

Soil Symbol

- AC
- CA
- CB
- EB
- EC
- EE
- GA
- NIA

Soil Depth Description

- < 450 mm
- ≥ 450 mm and < 750 mm
- ≥ 750 mm

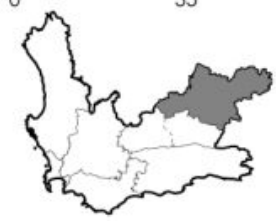
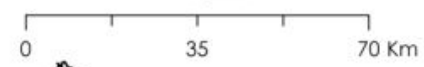
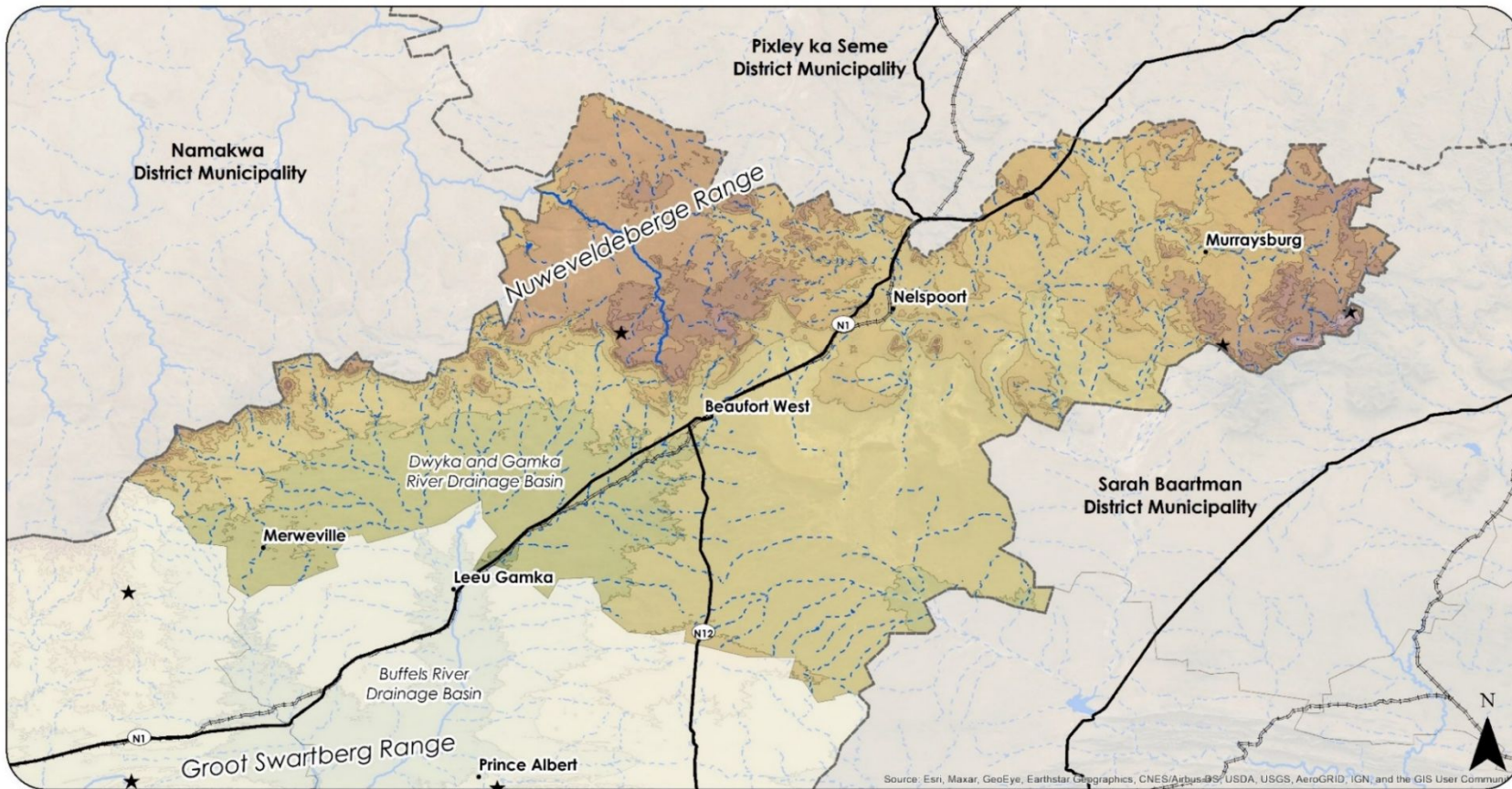


Figure 14: Soil Characteristics Map for Beaufort West Municipality



Elevation and Landscape Features Map: Beaufort West Municipality

Legend Items

- | | | | | |
|---------------------|-----------------|-------|--------|----------------|
| DM Boundaries | Dams | 200 m | 1000 m | 1800 m |
| National Road | Permanent River | 400 m | 1200 m | 2000 m |
| Railways | Ephemeral River | 600 m | 1400 m | 2200 m |
| 200 m Contour Lines | | 800 m | 1600 m | Mountain Peaks |

1:1,000,000
0 40 80 Km



Figure 15: Elevation and Landscape Features Map for Beaufort West Municipality

3.2.2 Climate and Climate Change

Local, district and provincial governments are tasked with implementation of mitigation and adaptation responses to the impacts of climate change on a social, economic, and environment level. Global climate change is impacting us personally, with increasing natural disasters undermining our social and economic systems – the very fabric of our communities. Action at a local level requires pro-active planning and directing, if responses are to match the scale of impact to what is now termed a 'climate emergency'.

The risks emanating from changing natural conditions such as rainfall and temperature threaten the well-being of the people of the region, many of whom are dependent on incomes derived from industries that are directly or indirectly dependent on the natural/ecological infrastructure of the area. Most of the Western Cape is considered a sensitive natural environment, with climatic extremes being common. And much of it has been lost or compromised. On the positive side, however, many of the ecosystem services supplying the region with water, or ameliorating the temperatures, can be restored, or enhanced through rehabilitation and restoration activities. Investments in the ecological infrastructure that provides these services through ecosystem-based adaptation offer better return on investment, if they are viewed as long-term strategies rather than occasional once-off projects (such as the eradication of water hungry alien invasive plants as opposed to the construction of costly dams).

Decision-making that considers full cost accounting/life cycle costs associated with sustainability under changing conditions, such as increasing ambient temperatures or drought, should become the default approach. For example, upgrading/ replacement of sewage and road infrastructure, upgrading of parks, and funding sustained invasive alien plant clearing can improve water security, water quality and agricultural productivity, as compared to funding that focusses on one-dimensional solutions such as additional boreholes.

Municipal planning cannot be fully informed on climate change unless it has ascertained the following:

- Water availability
- Climate envelope constraints to human and economic activities (temperature extremes, rainfall, frost)
- Climate hazards such as flooding, coastal erosion, and heat islands
- Economic susceptibility to:

- Carbon taxes (border taxes, transport costs, energy costs)
- Climatic drivers compromising agricultural productivity.
- Energy availability
- How spatial patterns disadvantage women and other vulnerable groups.
- Availability of capital and investment finance
- Where development is planned, and who will own the development? (i.e., who will benefit?)

Prioritisation of development must include climate change response requirements as important weighting factors. The provincial climate change response strategy will provide guidance in terms of a response trajectory, with strategic targets that need to be achieved along the way to a climate resilient end state by 2050. Informed by this trajectory, climate change related focus areas for developmental planning include:

- Embedded and local electricity generation
- Transport system transformation
- Low-carbon compatible economic land uses
- Active retreat from at-risk locations
- Restoration of natural resources
- Natural capital accounting integrated into financial capital accounting.
- Rethink open space planning.
- Allocate development first to priority / optimal development zones.
- Social services accessible to women and disadvantaged groups
- Provision for waste recovery and recirculation
- Matching ambition with the financial balance sheet
- Increasing awareness on climate risk profile and empowering citizens on what needs to be done to improve resilience.

Beaufort West, along with the rest of the Central Karoo region, is a low-rainfall area. According to the Köppen-Geiger climate types, the majority of the southern stretch of the municipal area – the gentle undulating plains featuring Adelaide Group geological formations – is classified as belonging to the BWk, or cold desert, climate type. The area to the East of Merweville is classified as BWh, or hot desert. The Nuweberg and Sneeuweberg mountain ranges are classified as BSh, or hot semi-arid. These areas receive the highest rainfall in the municipal area (discussed in more detail in Section 0). The highest annual temperatures occur in the municipality between December and February. In

these months, maximum temperatures exceed 30° Celsius on average. The lowest temperatures are experienced between June and August, when minimum temperatures average around 10° Celsius as illustrated in the figures below, and morning frosts are common.

While the prevailing climate type means that Beaufort West is ordinarily a water scarce area, this has been dramatically exacerbated by a deep and severe almost decade-long drought that continues to afflict the municipality and the region. The CSIR Green Book (CSIR, 2019) highlights that much of the Northern section of Beaufort West – the hot semi-arid area according to the Köppen-Geiger climate types – is currently at a medium risk of drought events. In the Green Book 2050 projections, this risk is forecast to increase to high and extreme, and to spread throughout the municipal area as illustrate in **Figure 16**.

Although forecasts and projections are inherently uncertain – and are particularly difficult in the Western Cape's inland region – it is reasonable to expect that climate change will mean that current trends are amplified in future. In the case of Beaufort West Municipality, this is likely to mean a continued reduction in rainfall, an increase in warm-weather days and associated surface-water evaporation rate increases, and an increase in extreme weather events leading to flash flooding. As such, any relief from the current drought conditions due to increased rainfall in the future must be treated as temporary, and serious adaptation measures for drought must be implemented at the municipal-wide, town-level, neighbourhood, and individual household scales in order to mitigate against current and future drought vulnerabilities.

The **spatial implications** of drought and climate change risk are discussed in the Karoo RSDf, which notes the following regarding access to water for the broader Karoo region:

- The region is possibly the area that has the highest dependency on ground water in South Africa, and the extent, availability and quality of this resource is poorly understood;
- The low rainfall, and days without precipitation, as well as the possibility of occasional flash flooding in the area, may necessitate a large effort to divert/channel floodwaters towards groundwater recharge and storage areas (e.g., areas with porous soils);
- Increased temperature extremes and more frequent or longer heatwave episodes will impact human and animal activities;
- Alternative service provision modalities, e.g., dry sewerage solutions may have to be considered; and

- With the exception of irrigation areas, livestock and game farming require large spaces for low density farming, bringing with it a set of financial and practical challenges (Karoo Regional Spatial Development Framework, 2023). The viability of stock farming in the future is uncertain, given the current drought and future climate change predictions.

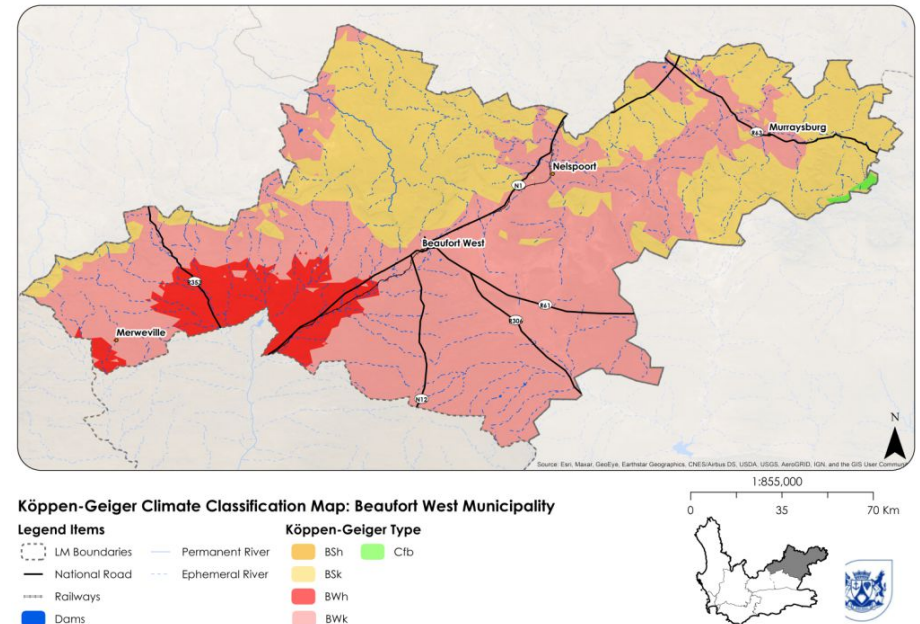


Figure 246: Climate Classification Map

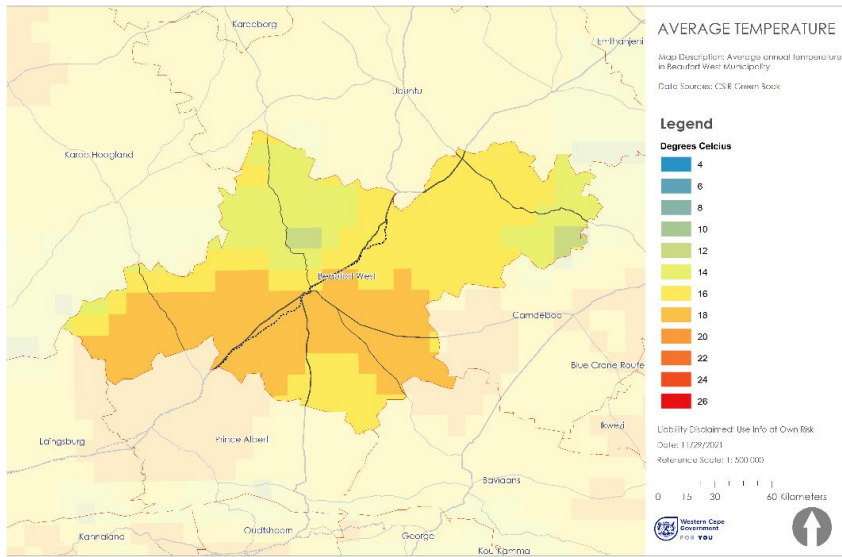


Figure 17: Average Temperature in Beaufort West Municipality (CSIR Greenbook, 2021)

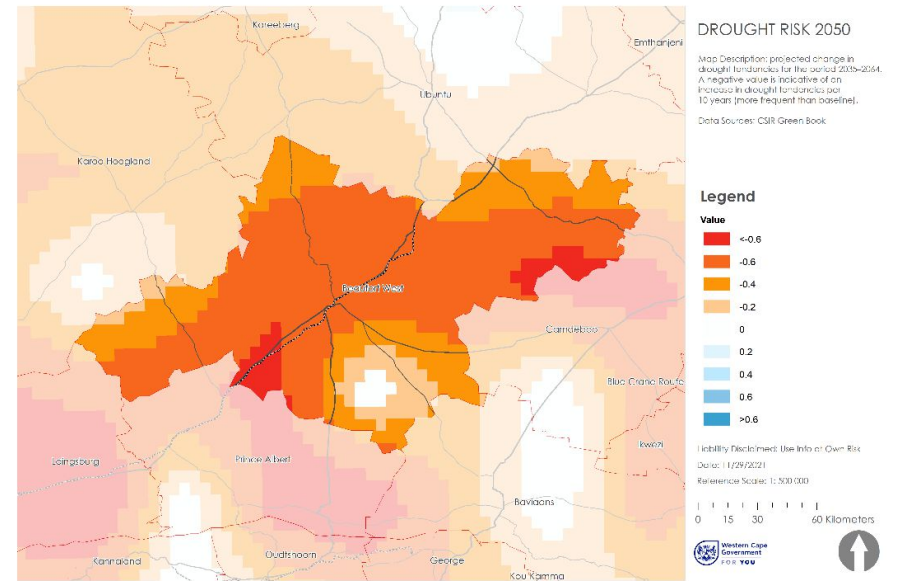


Figure 19: Future (2050) drought risk in Beaufort West Municipality

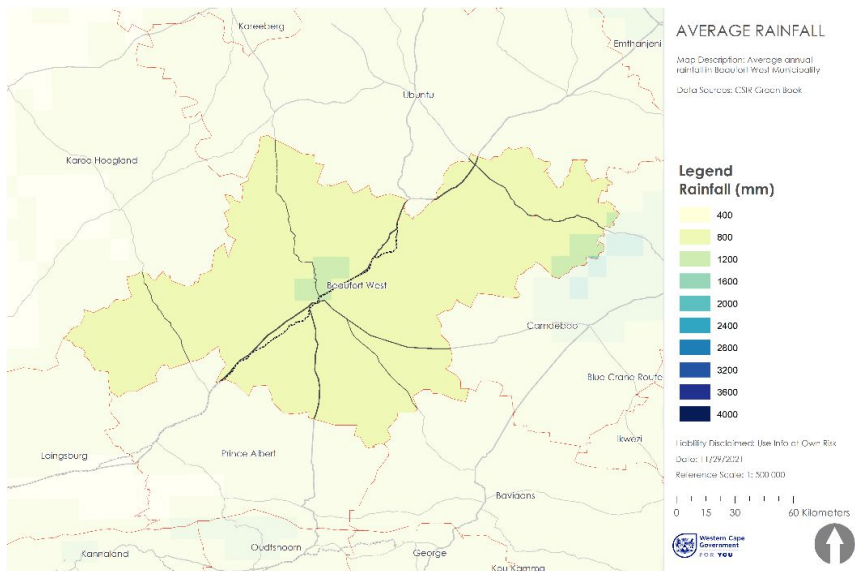


Figure 18: Average Annual Rainfall in Beaufort West Municipality (CSIR Greenbook, 2021)

3.2.3 Water Resources (Hydrology)

As shown in **Figure 20**, the Beaufort West municipality falls mostly within the upper, drier reaches of the Gouritz Water Catchment Area (into which the Gamka River drains), although the eastern portion of the municipality (Nelspoort, Murraysburg and surrounds) falls into the Mzimvubu-Tsitsikamma Water Catchment Area (into which the Buffels and Sout Rivers drain), and a small northern portion falls into the Orange Water Catchment Area (into which the Slangfontein and Rietfontein Rivers drain). The Breede-Gouritz Water Management Area (WMA) is the largest WMA in the Western Cape with a total surface area of 53 139 km². The Gouritz River is the main river of the WMA, which flows from the confluence of the Gamka and Olifants River, but is also joined by the Groot River, and contributes 41% of the surface flow in the WMA. The other main rivers, which drain the inland area, are the Buffels, Touws, and Kammanassie Rivers.

The Gouritz Water Catchment Area is managed by the Breede-Gouritz Catchment Management Agency.



Figure 20: South African Water Management Areas (Breede Gouritz Catchment Management Area, 2021)

As discussed in Section 3.2.2, Beaufort West – and the rest of the Central Karoo – is a water-scarce region. The Sout River is the major river in the municipality, flowing from north to south through the northern boundary of the municipality. The Gamka river is the primary river in the central and southern portions of the municipality, along which the Gamka Dam (also called Beaufort West Dam) is located. Whilst the Gamka Dam is the primary source of potable surface water in the municipal area, it has remained largely empty for most of the last decade. **Figure 22** shows surface water resources for the municipality. Notable rivers such as the Gamka, Sout, and Dwyka rivers are shown.

Figure 21: shows the historical rainfall and temperature patterns for Beaufort West. As discussed in Section 3.2.2, the hottest months are December to February, with the coldest temperatures occurring from June to August. The highest rainfall occurs in October and November, with monthly rainfall of around 30mm, mostly from seasonal thunderstorms. There is also relatively high rainfall (around 20mm per month) from December to April, during which late-season thunderstorms occur. The driest months are May to September, with rainfall at or below 10mm per month on average as shown in **Figure 21**.

Figure 23 shows the distribution of mean annual rainfall across the municipality. The highest rainfall is occurring north of the town of Beaufort West and in the east of the municipality in vicinity of Murraysburg. In these areas, annual average rainfall of between 300mm and 600mm per annum has been recorded. The lower rainfall areas are situated in the south of the municipality, where the annual average precipitation sits at between 0mm and 200mm.

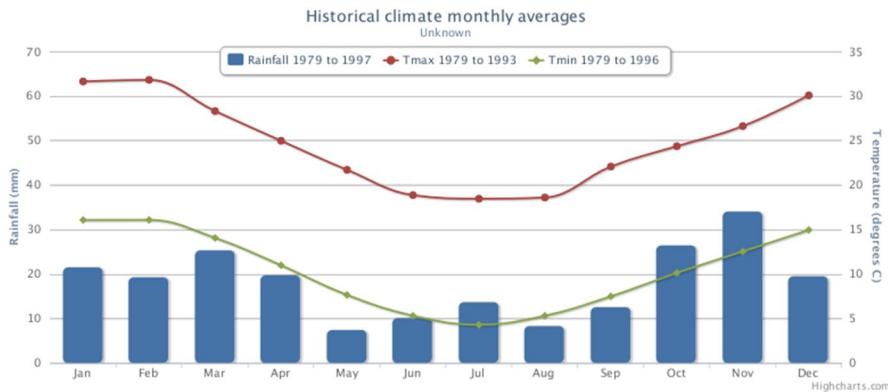
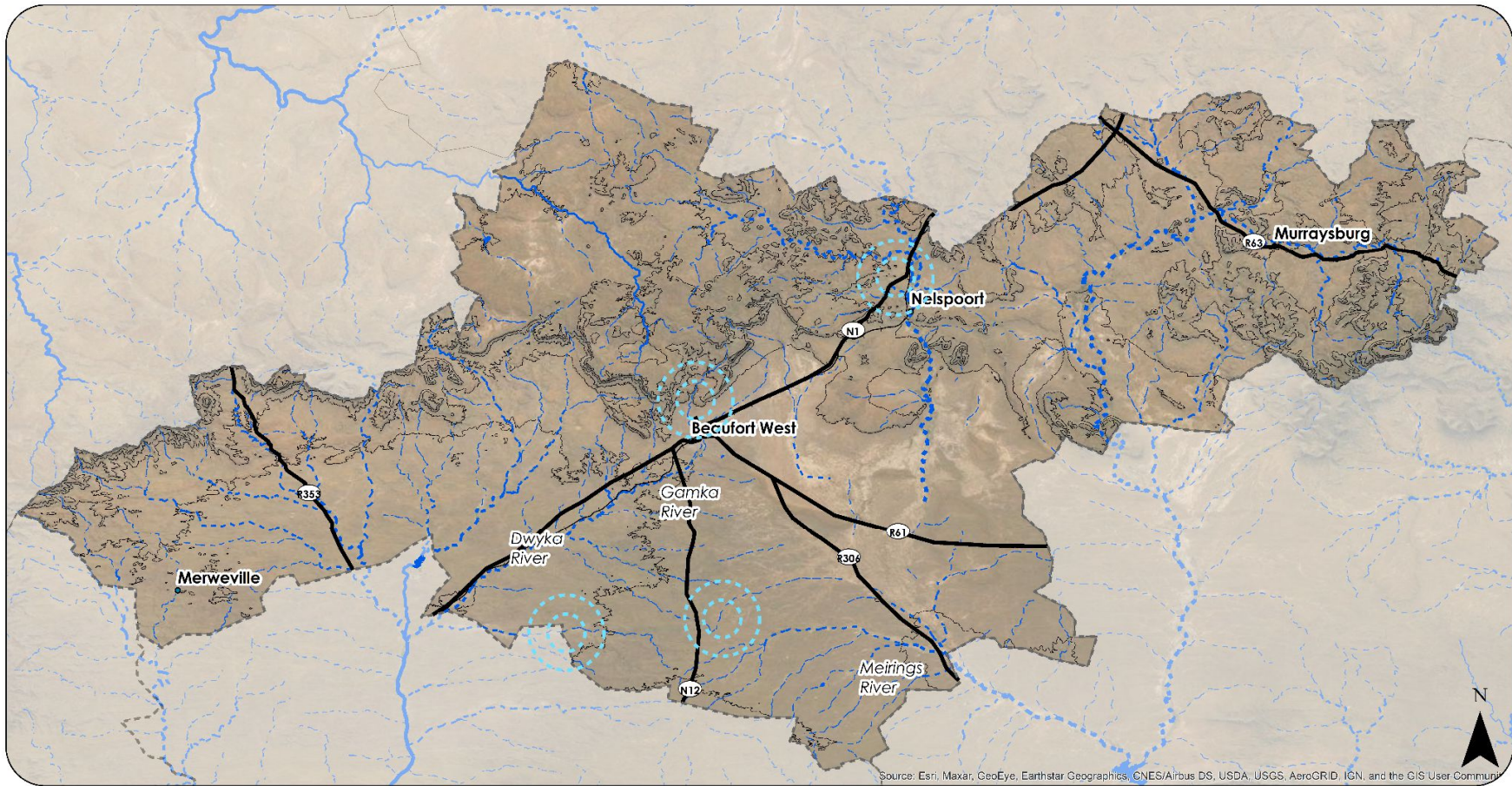


Figure 21: Historical Rainfall and Temperature in Beaufort West (Climate System Analysis Group, University of Cape Town, <https://cip.csag.uct.ac.za/webclient2/datasets/africa-merged/>)

The dry climate and often erratic rainfall leads to surface run-off in the form of flash floods which fill up the usually empty dams. Due to the scarcity of precipitation and subsequent low levels of surface run-off aside from these extreme events, ground water sources are the primary source for the supply of potable water. **Figure 24** shows the distribution of groundwater resources in the municipality. The highest potential areas for groundwater track the areas with

high rainfall, with the areas in the North and East of the municipality presenting the most favourable conditions for groundwater. This reliance on groundwater has implications for potential action around shale gas development. The status of rivers in the municipality will also need to be confirmed as it was updated in 2014 and by then the majority of the rivers were in an acceptable condition, although there is intensive agricultural production along the banks of the Sout River, resulting in the river being in a seriously modified state.

The **spatial implications** for Beaufort West Municipality are that groundwater resources should be protected given the unpredictability of surface water supply. Furthermore, the extent and quality of the groundwater resource requires further investigation, to ensure that groundwater is not extracted unsustainably (both by the municipality and through private boreholes), and to ensure that groundwater recharge is prioritised. This is especially important given the potential for shale gas development in the municipality. Current river status should be maintained where the river condition is acceptable, and the condition of the Sout River should be improved given its importance to the municipality. The MSDF must seek out strategic ways to protect water resources and reduce water loss through evaporation reduction as a primary objective, such as covering of any dams and reservoirs. The Municipality should also promote the upgrading of canals to pipeline systems to preserve their scarce water resources.



Area Surface Water Map: Beaufort West Municipality

Legend Items

- | | | | |
|---------------|-----------------|----------------------|----------------------|
| LM Boundaries | Permanent River | Order: 4 (Permanent) | Order: 2 (Permanent) |
| National Road | Ephemeral River | Order: 4 (Ephemeral) | Order: 2 (Ephemeral) |
| Railways | | Order: 3 (Permanent) | Order: 1 (Permanent) |
| Dams | | Order: 3 (Ephemeral) | Order: 1 (Ephemeral) |

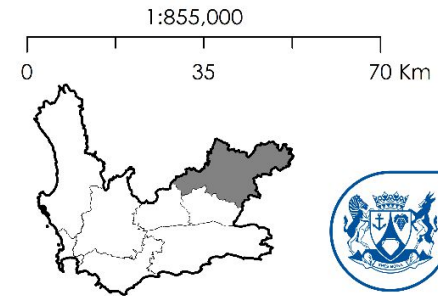


Figure 252: Surface Water Resources for Beaufort West Municipality

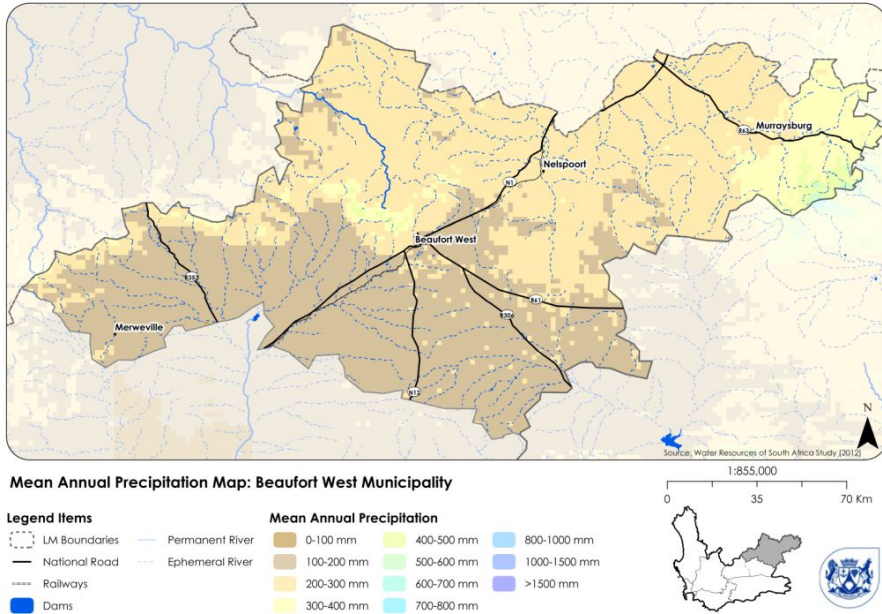


Figure 263: Mean Annual Precipitation for Beaufort West Municipality

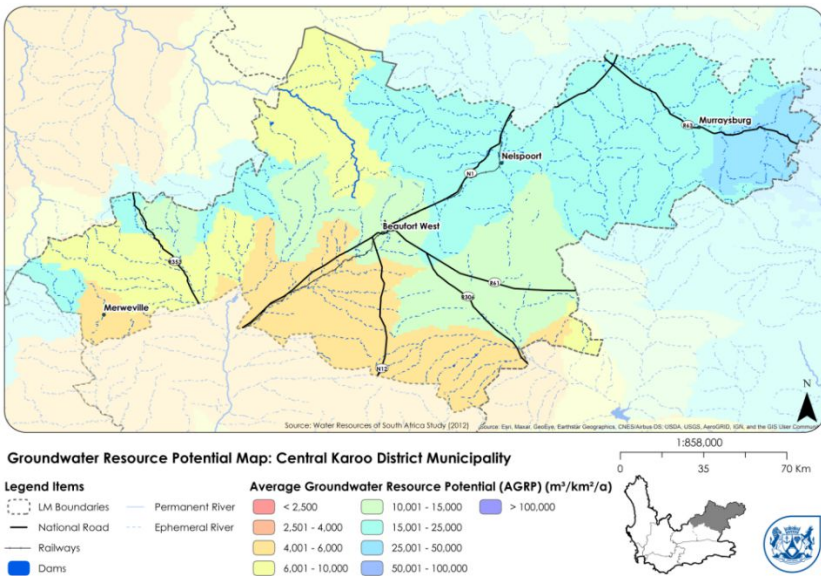


Figure 274: Groundwater Resource Potential Map for Beaufort West Municipality

3.2.4 Biodiversity and Biodiversity Conservation

The key biodiversity management policies and instruments in the Western Cape are:

The Western Cape Biodiversity Spatial Plan

The Western Cape Biodiversity Spatial Plan (WCBS) was released in 2019 and provides updated biodiversity spatial data for Beaufort West Municipality. This is a critical informant for the future development of the region, as it illustrates Critical Biodiversity Areas (CBA) which are terrestrial features (e.g., threatened vegetation type remnants) and aquatic features (e.g., vleis, rivers and estuaries), and the buffer areas along aquatic CBA features, whose safeguarding is required in order to meet biodiversity pattern and process thresholds. They are identified through a systematic biodiversity planning approach and represent the most land-efficient option to meeting all thresholds. The spatial tool consists of the Biodiversity Spatial Plan Map and contextual information and land use guidelines. The WCBS recognises that the Central Karoo region (and Beaufort West Municipality) could potentially contain important minerals (e.g., uranium) and fossil fuel (e.g. shale gas) resources which are currently under investigation and could result in high levels of transformation in an area that have to date had relatively low levels of transformation.

The vast majority of the municipal area consists of the Nama Karoo biome. There are small pockets of the Succulent Karoo biome to the North of Beaufort West town. Areas with deep soils and agricultural potential have been heavily utilised for agriculture, leading to them being classified as Azonal Vegetation. As stated in the Western Cape Biodiversity Spatial Planning handbook, the Nama Karoo is important for several threatened faunal species, such as the riverine rabbit (*Bunolagus monticularis*) which is restricted to riparian habitats in the Karoo. The Nama Karoo is too arid for cultivation but has been impacted through overgrazing practices (Western Cape Government, CapeNature, 2017). Under the worst-case scenario, climate change will alter the vegetation patterns of some biomes. This includes the Fynbos, the Subtropical Thicket, and the Nama Karoo biomes. Important actions include prioritising the protection of ecosystems, habitats, populations, and species with high levels of genetic diversity. Protected areas should include a range of environments and biodiversity. Within these areas, it is important to ensure ecosystem processes are protected (Western Cape Government Department of Environmental Affairs and Development Planning, 2016). The Biodiversity Spatial Planning Categories for Beaufort West Municipality are shown in Error! Reference source n

of found.5. In the Western Cape Provincial Spatial Development Framework, the entire landscape is divided into spatial planning categories (SPCs) "to reflect how the area should be developed spatially in order to ensure sustainability". MSDFs must convert the Biodiversity Spatial Planning Category into Spatial Planning Categories. The relationship between Spatial Planning Categories and Biodiversity Spatial Planning Categories is shown in the figure below. This will be applied in the composite map under the MSDF proposals.

BSP Category	Protected Areas	CBA 1	CBA 2	ESA 1	ESA 2	ONA	NNR
Core 1							
Core 2							
Buffer 1							
Buffer 2							
Intensive Agriculture							
Settlement							
Industry & Existing Mining							

Figure 285: Conversion from Biodiversity Spatial Planning Categories to Spatial Planning Categories (Western Cape Government, CapeNature, 2017)

The Ecological Infrastructure Investment Framework (EIF)

The Western Cape Government's Ecological Infrastructure Investment Framework (EIF) (Western Cape Government, 2020) also provides guidance to prioritise investment in green infrastructure in the province. Ecological infrastructure consists of the ecological and social components of systems that are responsible for the realising of ecosystem goods or services. Understanding these components and their linkages allows investment in them to improve particular ecosystem goods and services. It also facilitates the "engineering" of natural spaces for desired ecosystem goods and services. The EIF identifies catchment clusters within the Western Cape and defines investment objectives

based on prioritised threats specific to these catchment clusters. Beaufort West Municipality falls within the **Gouritz, Gamtoos, Sundays and Orange** catchment areas. The four Investment Objectives (IO) identified in the EIF are:

- IO1: Improved water quality and quantity
- IO2: Reduced threat of wildfires
- IO3: Improved rangeland management
- IO4: Reduced exposure to increased flooding

The Beaufort West Municipality is also home to the Karoo National Park, an important environmental conservation asset and tourist attraction for the area. It is critical that the site of the park and its buffer zones as shown in **Figure 30**, are protected from the effects of harmful development to protect the ecological integrity, scenic landscape, and tourism value of the park. The municipality should seek to assign a budget to improve conservation activities.

Alien invasion is a major threat to biodiversity and an Invasive Alien Clearing and Monitoring Plan must be prioritized. Public landowners should also prevent the spread of alien vegetation. The municipality must continue to promote the eradication of alien vegetation.

The **spatial implications** are that the areas designated as Critical Biodiversity Areas and Ecological Support Areas in the Western Cape Biodiversity Spatial Plan must be appropriately managed, and safeguarded against future inappropriate development, in line with the WCBSP. The WCBSP will thus be a key informant of the Spatial Planning Categories that will underpin the proposals of this MSDF, specifically to manage land use in the rural areas of the municipality (outside of the urban edges of the settlements). Ecological Infrastructure focus areas are mountain catchments, rivers, wetlands, and rangelands. These areas should be prioritised accordingly, and the Karoo National Park must be protected. Development within the buffer zones must be prevented or mitigated to prevent activity-related disturbances to the park.

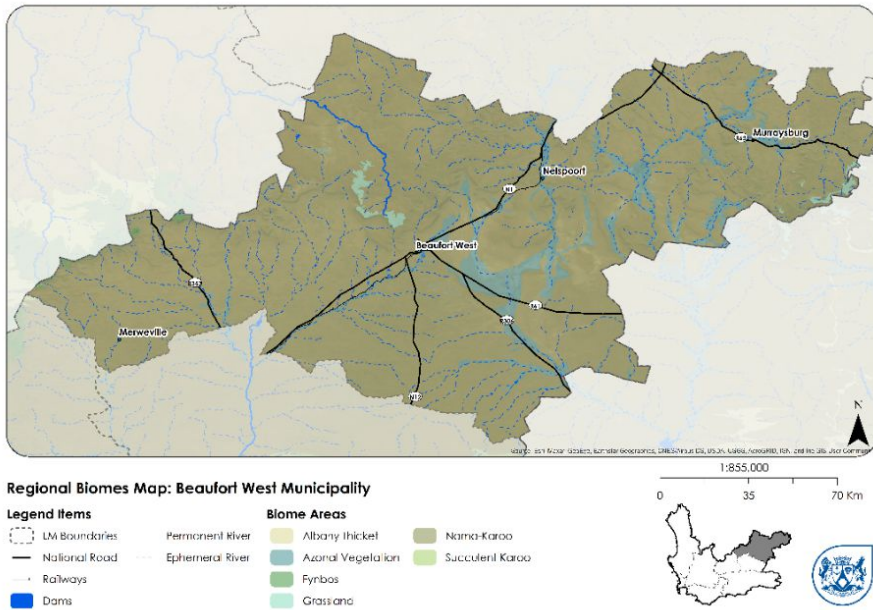


Figure 296: Regional Biomes in Beaufort West Municipality

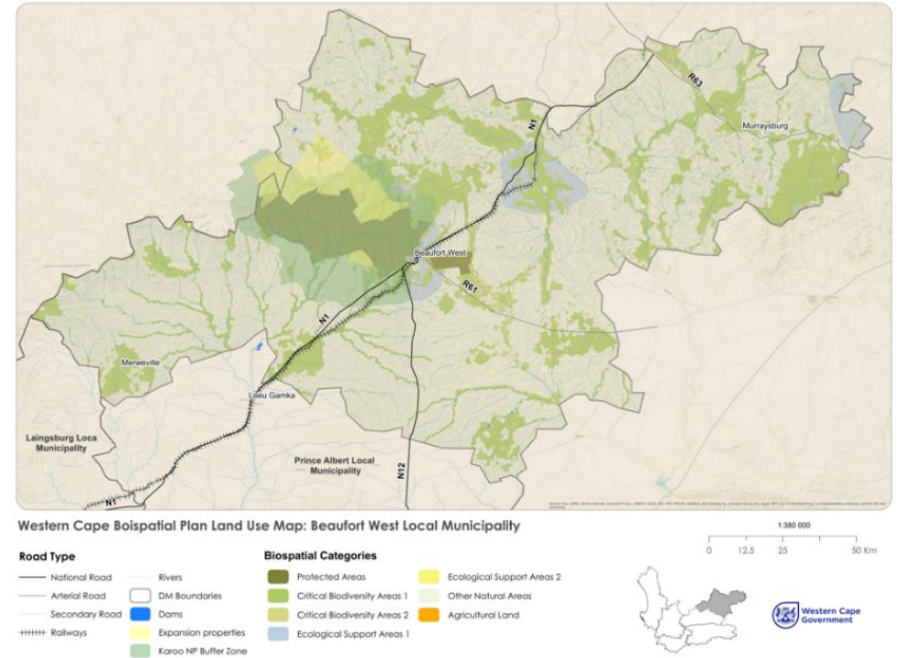


Figure 27: Biodiversity Spatial Planning Categories for Beaufort West Municipality]

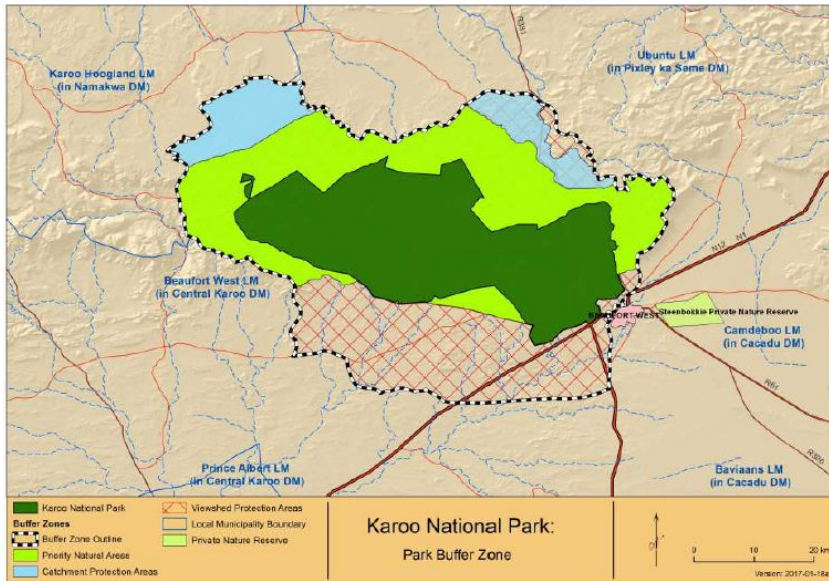


Figure 28: The Karoo National Park and Buffer Zones (SANParks, 2021)

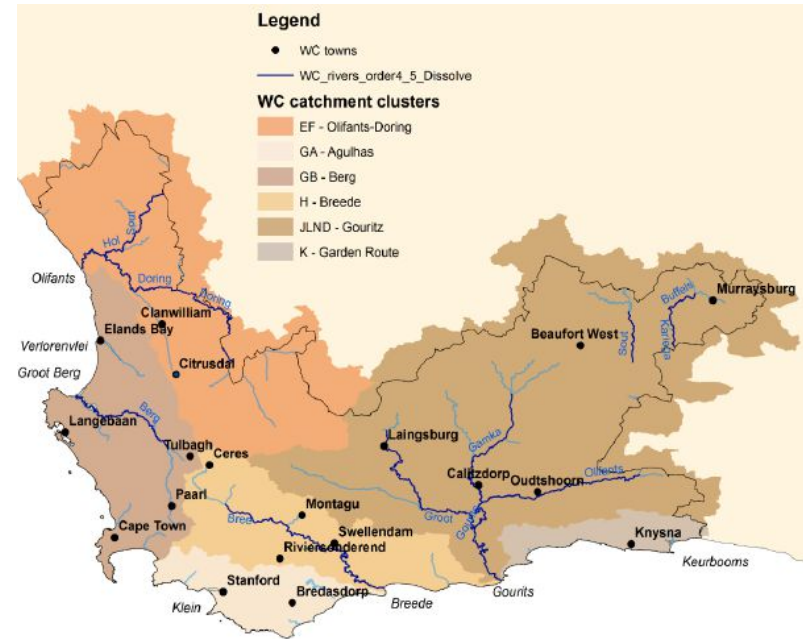


Figure 29: EIFF Catchment Clusters in the Western Cape (Western Cape Government, 2020)

3.2.5 Agricultural Resources

While agriculture is an important sector for the Karoo region and other municipalities in the Central Karoo District Municipality, Beaufort West Municipality has limited agricultural resources largely because of the region being water scarce – a situation that has been compounded by the near decade-long drought. Agriculture is a relatively minor contributor to the regional economy, with agriculture, forestry, and fishing accounting for 11.7% of regional GDP for 2018. In addition, the agricultural sector is expected to have contracted by 8.7% in 2019 (Western Cape Government, 2023). There are very few areas of cultivated land in the municipal area, with the majority of this land located close to Murraysburg. The nature of the agricultural activities in the Beaufort West municipal district is directly derived from the type of soils in the area, precipitation, and associated water availability. Two main types of agricultural activities take place, namely lucerne and feed-grain production and livestock production (mainly sheep), with livestock farming being the biggest (Beaufort West Municipality; Western Cape Government; CNDV Africa, 2014). Beaufort West Town has been identified as an Agri Hub by the National Department of Agriculture, Land Reform and Rural Development due to its position on key transport routes in the N1 and N12 highways, along with the railway line as shown in **Figure 30**. This means that the town and the municipality have a significant role to play for agriculture in the region and district beyond agricultural production within the municipality.

The relatively low levels of agricultural production in the municipality have been compounded by the current drought conditions and other factors impacting land availability. These include large land acquisitions in the last several years within the Karoo region by the state for the Square Kilometre Array, national parks, and defence force testing sites. These have removed land from production and have contributed to a decline in agricultural activity (Karoo Regional Spatial Development Framework, 2023).

The key issues for agriculture in Beaufort West Municipality are:

- Water availability (or lack thereof)
- Climate change, with predicted increased average temperatures and drought occurrences
- Rangeland degradation (as a result of alien invasive plants and poor agricultural management)

The key opportunities for agriculture in Beaufort West Municipality are:

- Agri-Tourism
- Investing in the Green Economy (wind/solar energy)
- Agricultural sector embracing new 4IR applications (use of drones)

- Investing in ecological infrastructure for improved resilience and job creation

The **spatial implications** are that existing agricultural activities should be maintained where possible, and interventions targeted at improving water availability and re-use should be prioritised.

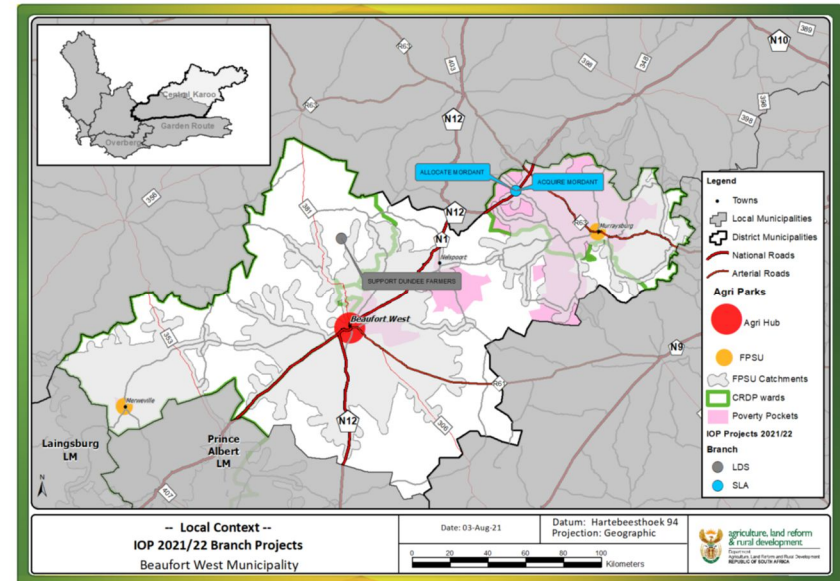


Figure 300: FPSU Catchments and settlement status in Beaufort West Municipality

3.2.6 Mineral Resources

The municipality is on the verge of major change in the mineral resources sector. Firstly, the Central Karoo District in general has **extensive uranium deposits**, which begin north of Prince Albert and Laingsburg and reach their highest density north of the N1 in the vicinity of Merweville within the Beaufort West Municipal Area. These deposits have attracted the attention of energy and mining conglomerates but remain untouched. Currently, the area-southeast of Beaufort West town is undergoing a process for receiving prospecting rights for uranium mining.

Based on the status of the regulatory (mining right) applications which were submitted by Tasman Pacific Minerals Limited and Lukisa JV Company (Pty) Ltd (Tasman), their mining operation is likely to commence within the next 10-year

period and will initially be located within the Beaufort West Local Municipality within a 50 km radius of the proposed Central Processing Plant (CPP), the location of which is not known at present, but anticipated to be near to the town of Beaufort West (Western Cape Government, 2021).

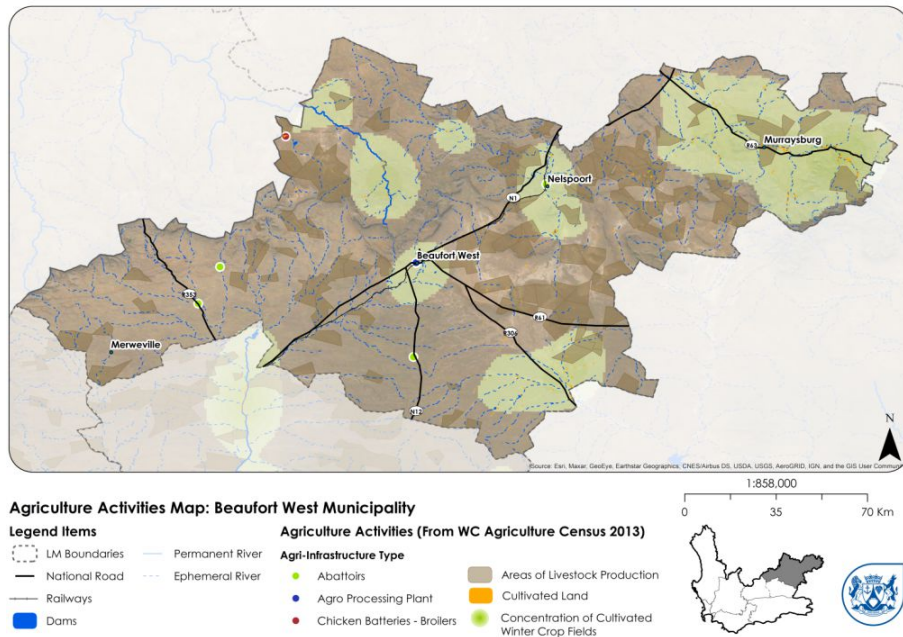


Figure 311: Agricultural Activities Maps for Beaufort West Municipality

Secondly, **shale gas exploration** within the Central Karoo basin has become an increasingly important consideration for Government. Several companies intend to explore shale gas within the Karoo region, and this has become a contentious issue among environmentalists, farmers, local residents and various government and non-government institutions.

The entire Beaufort West Municipality is located in the area designated for shale gas exploration as shown in **Figure 32**. Should the proposed shale gas extraction through shale gas exploration acquire approval from the relevant competent authorities, an important consideration for the municipality will be to protect the ground water resource and ensure that areas of critical biodiversity value are

protected from such activity. The MSDF proposals map will therefore guide such decisions for the allocation of land use rights.

The issues around shale gas exploration and development are complex. Much of the impact of development will depend on the outcome of the exploration that is currently taking place. The Strategic Environmental Assessment (SEA) conducted by the Council for Scientific and Industrial Research (CSIR) (Scholes, Lochner, Schreiner, Snyman-Van der Walt, & de Jager, 2016) outlines the impacts according to three potential scenarios: Small, Medium and Big Gas. The production stage of Shale Gas Development operations might last 10-30 years, probably with the highest level of activity in the first 3-5 years. It involves the development of production wells (and access roads to the well pads), the establishment of a gas pipeline network to convey produced gas to a central treatment processing plant, and the export of the treated gas by pipeline for the downstream uses. During production, a typical shale gas wellfield occupies an area of about 900 km², which contains 50-60 well pads, each supporting around 10 wellbores. Importantly, the SEA highlights that **including more natural gas in South Africa's energy mix would make the energy system more resilient, efficient, cheaper, and reliable** and it is understood that gas forms a critical component of the transition away from oil and coal as a bridge to renewable energy sources. The Department of Mineral Resources and Energy's Integrated Resource Plan (Department: Energy, 2019) seeks to accelerate the identification of local gas resources, to shift away from gas imports.

However, there are significant potential risks relating to the receiving environment, particularly for groundwater and scenic resources. Additionally, shale gas development will have significant spatial impacts – and associated demands for transport infrastructure and housing demand in particular, but also urban and non-urban infrastructure, facilities, and services. According to the CSIR's SEA, **towns in close proximity to Shale Gas Development (SGD) activities will experience growth exceeding projections based on past trends**. For the Big Gas scenario, the risk is assessed as high, but can be mitigated to moderate. Enhanced resource and institutional capacity to plan for and address increased service delivery demand for housing, water provision, social services, electricity, and roads will be required.

Additionally, **regulatory uncertainties and limited municipal capacity** to facilitate ongoing processes of land use and land development applications associated with SGD poses a **high risk without mitigation**. The SEA also finds that **the primary option for mitigation of this type of risk is to enhance integrated spatial planning**, but also the need has been identified to establish a planning shared service center for the Karoo to ensure sufficient skills exist to manage the

expected regulatory approval process. This will be essential to deal with the multi-scaled and inter-sectoral issues that result from activities of magnitude and duration of SGD.

Shale gas exploration and development adds considerable uncertainty to Beaufort West's development trajectory. There are significant **spatial implications** associated with any potential development. The areas identified for protection in the WCBSF must be adhered to, and groundwater resources must be carefully monitored, protected, and avoided. Any new residential or commercial development that takes place as a consequence of shale gas development must take place within the municipality's existing towns and must adhere to development guidelines therein.

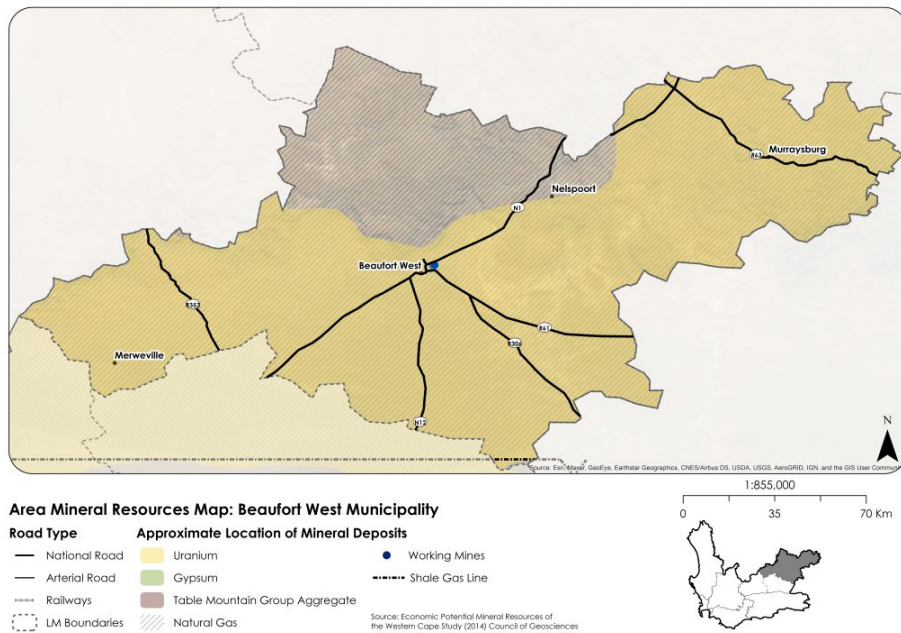


Figure 322: Mineral Resources in Beaufort West Municipality

3.3 REGIONAL AND LOCAL SOCIO-ECONOMIC CONTEXT

3.3.1 Population

The population of the Beaufort West municipality was estimated to be **72 972** people in 2022 (StatsSA, 2023) – which has substantially increased from the 2011 Census count of **49 586**. This translates into an average annual growth rate of **3.8%** over this period. The medium-growth population projection for 2035 is 94 397, assuming an annual average growth rate of 2% per annum between 2022 and 2035 - see **Chart 2** which shows the low- (1% annual average growth rate), medium- (2%) and high- (3%) population growth projection for 2025, 2030 and 2035.

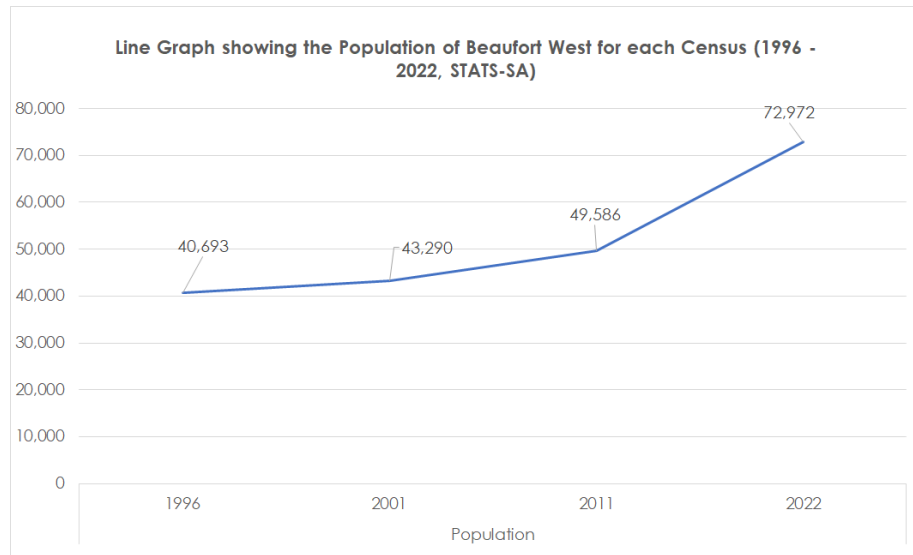


Chart 1: Beaufort West Population counts in the 1996, 2011 and 2022 Census (Stats-SA)



Chart 2: Past Population Growth and Future Projections for Beaufort West Municipality

3.3.2 Household trends

From 2022 to 2030, the total number of households is projected to increase at a faster rate than the population growth rate, from 19 216 in 2022 to 23 106 in 2030 (a significant increase of 3890 households). This is because household sizes are steadily decreasing: from 3.8 people per household in 2022 to a projected 3.6 in 2035. This is a trend that can be observed throughout South Africa: that household formation growth is greater than population growth. This is shown in **Table 1** and **Cart 1** below.



Table 1: Household Projection figures for Beaufort West Municipality (Western Cape Government Department of Human Settlements, 2021)

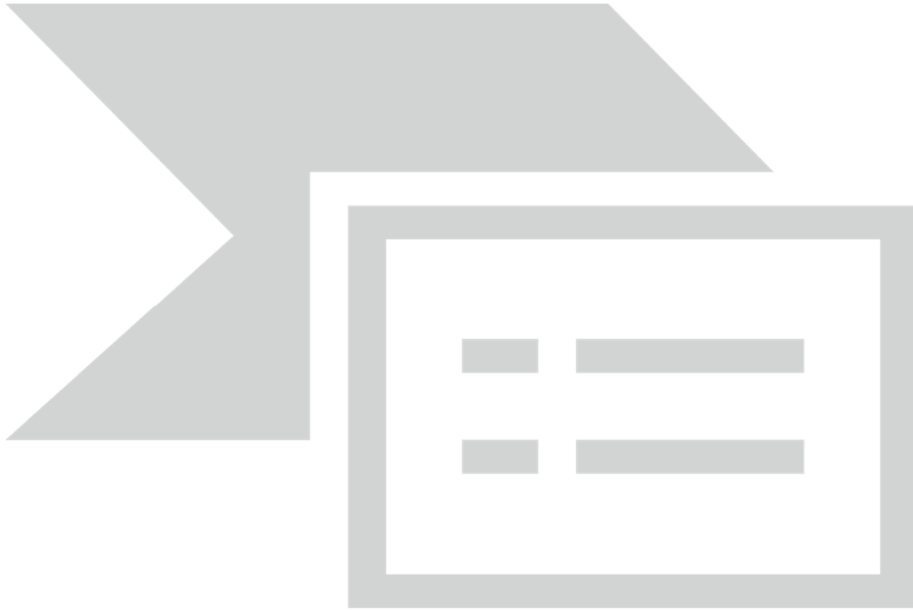


Chart 3: Beaufort West projected household numbers for 2025, 2030 and 2035

It is noted that the potential of shale gas development will also have a significant impact on population numbers in the municipality should it proceed. Projections will also need to be revised based on the findings of shale gas exploration in the area. In the SEA's Medium and Big Gas scenarios, Beaufort West's population will increase significantly as a result of jobs created by shale gas development.

The **spatial implications** of this are complex. Should only limited shale gas development take place, the focus in ensuing years needs to be on consolidating and maintenance of existing infrastructure networks and meeting current demand and planning for possible decline in the case of Beaufort West's smaller settlements. However, should significant shale gas development occur, the focus needs to be on planning for the predicted population growth, accommodating increased housing demand and pressure on services and infrastructure that may occur, also considering that this growth may be temporary.

3.3.3 Economy and Employment Trends and Forecasts

The town of Beaufort West houses the Central Karoo District Municipal Offices, as well as Provincial and National facilities and services for the region, which partially accounts for Beaufort West being the economic hub of the Central Karoo District. Beaufort West contributed **69.7%** to the district's Regional Gross Domestic Product (GDPR) in 2022, as shown in **Figure 33**.

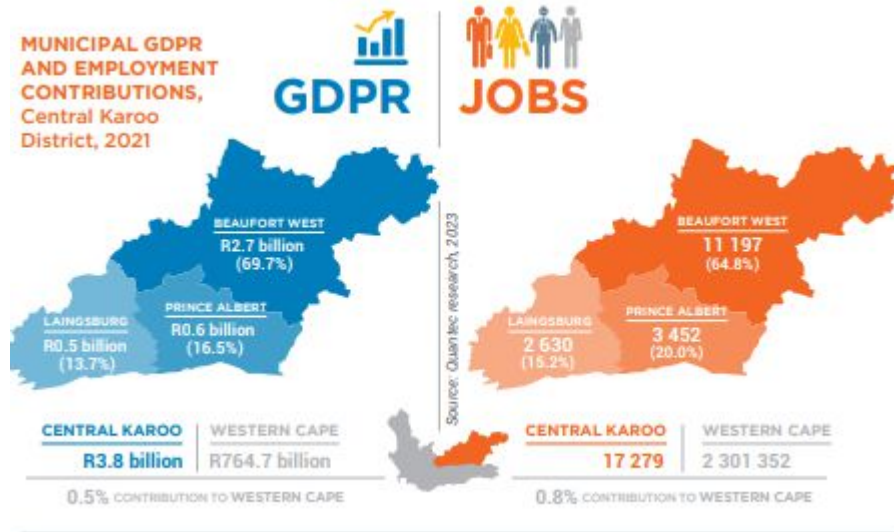


Figure 33: Municipal GDP and Employment contributions, CKD (Western Cape Government, 2023)

While Beaufort West may be the largest contributor to GDPR in the Central Karoo District, its contribution to GDPR is also growing at the similar rate of the three local municipalities in the district. Where GDPR in Prince Albert and Laingsburg grew at rates of 1.9% and 2.1% from 2014 to 2022, Beaufort West grew at only 2.3% over the same time period. While the neighbouring municipalities are starting from a smaller base and so can be expected to experience higher growth, it is important to note that Beaufort West's economic growth rate over this period was lower than that of both the Central Karoo District (2.2%).

The Beaufort West municipal area had the largest economy in the CKD in 2021 (R2.7 billion). With 11 197 people formally and informally employed in that year, the municipal area had a low labour absorption rate (34.3 per cent). The not economically active population was put at 51.8 per cent. Given that the

proportion of the not economically active population in the Province stood at 35.1 per cent in 2021, it is evident that the Beaufort West municipal area needs economic revitalisation. Ideally, this will increase labour force participation and promote job creation. Skills facilitation is becoming essential in ensuring that local labourers can find employment. Over the past decade, skilled workers were more likely to be employed in the CKD than semi-skilled or low-skilled workers. The informal sector is an essential source of jobs, accounting for 17.8 per cent of employment in 2021. As formal employment faltered in 2022, the informal sector recorded a surge in jobs, mainly in trade. (Western Cape Government, 2023).

Chart 4 shows the top 10 sectors by number of FTE jobs in Beaufort West, 2022. The tertiary sector is the largest contributor to both GDPR and employment. The sectors that contributed the most to economic growth between 2014 and 2022 in the municipal area include the finance, insurance, real estate, and business services sector, as well as the general government sector. The long-running drought caused agriculture to contract by 8.7% in 2019, with knock-on effects on the transport, storage and communication sector which also contracted by 1.7%.

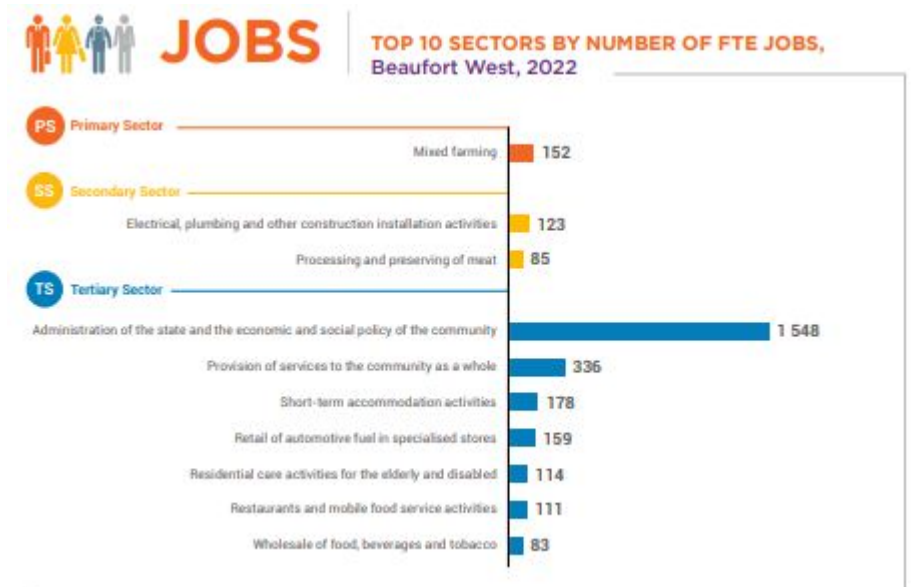


Chart 4: The top 10 sectors by number of FTE jobs in Beaufort West, 2022. (Western Cape Government, 2023)

Analyses performed for the Karoo RSDf identified educational services and health care and social assistance as the two most resilient sectors to economic shocks in the region. In contrast, the least resilient sectors were utilities, construction, wholesale trade, retail trade, and transportation and warehousing (Karoo Regional Spatial Development Framework, 2023).

The **spatial implications** of this suggest that there is scope to invest further in health care and educational facilities. While the general improvement in health indicators in recent years (discussed further in Section 3.3.4) suggests that there is improvement in access to health care and social assistance, the shortage of educational facilities – and a dearth of tertiary institutions – suggests that investment in this area should be prioritised moving forward. The analysis in the Karoo RSDf suggests that beyond the obvious social benefit of such investment (in the form of improved education outcomes), there is also significant direct economic benefit from investment in educational services. The decline in agricultural activity is concerning and needs to be monitored. From a spatial perspective, intervention that targets improved water retention and re-use should be prioritised, and resources that drive tourist activity (such as the Karoo National Park) must be protected and preserved. Drought-resilient farming techniques should be proactively pursued, supported, and promoted to make the agricultural sector more resilient to an even more water-constrained future. Drought-resilient farming techniques should be proactively pursued, supported, and promoted to make the agricultural sector more resilient to an even more water-constrained future.

The Municipality's Economic Recovery Plan, following the impact of Covid-19 should seek alignment with its Economic Development Strategy, and those of neighbouring municipalities in the Central Karoo and the KRSDf.

Potential economic growth and development areas (drawn in part from the PACA study 2013) include the following:

- Stock farming (drought permitting)
- Tourism and stayovers in Beaufort West town
- Mineral and gas reserves
- Passing traffic retail and refreshments
- CBD (Donkin Street) urban design improvements
- Renewable energy

- Aviation potential and aviation school
- Creating tertiary education opportunities

Collaboration between local economic stakeholders is a key aspect in maximising the economic potential in the municipal area. The role of the Beaufort West Municipality is to ensure the optimisation of local resources and available capacity through facilitating the participation of stakeholders and establishing partnerships with key public and private sector institutions.

3.3.4 Socio-Economic Conditions

Income and employment

Real GDP per capita for Beaufort West was R2.7 Billion in 2022¹ – lower than the CKD's of 3.8 Billion and constitutes approximately 0.4% of the Provincial GDP per capital (Western Cape Government, 2022). Income inequality, as measured by the Gini Coefficient (where a number closer to 0 reflects lower levels of income inequality), compares favourably to both South Africa and the Western Cape. In 2020, Beaufort West's Gini coefficient was 0.6, while the Western Cape's was 0.618 (Western Cape Government, 2023). The most recent figure for South Africa as provided by Stats SA has the national Gini coefficient at 0.63 as of 2023 (Statistics South Africa, 2023). However, Beaufort West's Gini coefficient in all likelihood is a result of the generally lower income levels discussed above – when the majority of residents earn very little, income levels will be clustered together, and income inequality will be lower. The local municipality employs 741 staff per 100 000 residents – higher than Laingsburg or Prince Albert Municipality. This reflects the importance of the general government sector to the municipal economy. However, Beaufort West has severe capacity constraints in the capacity of its municipal staff; the municipality employs 0 qualified planners, accountants, or environmental officers, as shown in **Table 2**. These shortages reflect capacity issues within the municipality.

¹ This figure comes from the Western Cape's Socio-Economic Profile. The Regional Profile created for the Karoo RSDf uses Regional Gross Value Added (GVA-R) and puts Beaufort West's figure at R33 809 per capita (for 2019 adjusted for 2020 value). This is lower than

GVA-R per capita for both the Central Karoo Region (R39 591), for the Western Cape (R58 572), and for the country (R48 582).

District / Metro Municipality	Local Municipality	Municipal staff / 100 000 population	Percentage of staff with tertiary qualifications	Qualified engineers / technicians	Qualified planners / technicians	Qualified accountants ^a	Environmental officers
	Khethi Local Municipality	548	0	0	0	0	0
Central Karoo District Municipality		644	14	2	0	1	0
	Beaufort West Local Municipality	741	0	6	0	0	0
	Laingsburg Local Municipality	690	20	0	0	0	3
	Prince Albert Local Municipality	502	9	2	1	1	1

Table 2: Municipal staff, Central Karoo District Municipality (Karoo Regional Spatial Development Framework, 2023)

Basic Services

While access to basic services has improved in recent years in Beaufort West (Figure 334), the rest of the province has improved substantially more on most measures, with the result that Beaufort West is now the lowest-ranked municipality in the province according to the Western Cape Government's Growth Potential Study. This decline is more reflective of its relative performance compared to other municipalities than it is of a decrease in Beaufort West's levels of infrastructure provision, which have actually improved:

A **decrease** from 31 to 0 in the infrastructure theme Score100 is observed for Beaufort West, from GPS13 to GPS18. The infrastructure theme Z-Score **decreased** from (-)0.95 to (-)1.51 standard deviations below the mean. Beaufort West is now the **lowest ranked** in this theme, a change from 19th of 24 Municipalities in GPS13 (Western Cape Government, 2020).

The spatial distribution of social facilities in the Central Karoo District Municipality is shown in **Figures 35** and **41**. An important issue that needs to be addressed in the municipality is the lack of gender-based violence support facilities and rehab facilities. There are no such facilities in the municipal area. Given the fact that most of the population sits in the town of Beaufort West, it would make sense to locate at least one facility there.

There are 14 public libraries in the municipal area. Many of the sports fields in the towns are walled off from the streets surrounding them. Sports fields have significant potential to add to the recreational and public space experience of residents. As such, attention should be given to sports fields that have solid walls surrounding them, as these detract from the quality of public space and remove an asset from the public domain.



Figure 334: Access to Basic Services in Beaufort West Municipality (Western Cape Government, 2022)

Education

Learner enrolment numbers in the Beaufort West Municipality have been stable over the past five years from 15 166 learners in 2019 to 15 744 learners in 2023. There are 18 schools, down from 20 in 2017 as schools have been rationalised, consolidated, and closed. The learner-teacher ratio has increased as the number of schools has decreased, sitting at 33.2 in 2019 – higher than the national average of 29.3. There are very limited opportunities for tertiary education through FET colleges in the municipality. There are no major capital investments in education infrastructure planned in the municipality.

Health

Beaufort West had 6 Primary Healthcare Clinics (CHCs) in 2019, consisting of 5 fixed and 1 Community Day Centre (CDC). There is 1 ambulance per 10 000 residents. Currently, and for the foreseeable future, there is no need for additional Health Care Services in the Beaufort West Area.

Any future Health services needs will be guided by the growth of the dependent population and the burden of disease. Infrastructure owned by the Department of Health is shown in **Table 3**, while active and proposed projects are shown in **Table 4**.

FACILITY NAME	TOWN / SUBURB	STREET ADDRESS	FACILITY TYPE	ERF NO	UTILISATION LEVEL	EXCESS / SHORTAGE SPACE	IMPROVEMENT ACTION
Beaufort West Admin Offices	Beaufort West	99 Voortrekker Road.	Sub-district Office	3	Medium	Shortage	Maintain
Beaufort West Ambulance Station	Beaufort West	Traffic Centre Building, New Street.	EMS	8327	Medium	Neutral	Maintain
Beaufort West CDC	Beaufort West	1 Van Schalkwyk Street, Newlands.	CDC	1946	Low	Neutral	Maintain
Beaufort West FPL	Beaufort West	On hospital ground, 99 Voortrekker Road.	FPL	3	Low	Neutral	Maintain
Beaufort West Hospital	Beaufort West	99 Voortrekker Road.	District Hospital	3	High	Neutral	Upgrade & additions
Hillside Clinic	Beaufort West	C/o Eric Louw Street & 4th Avenue, Hillside.	Clinic	6068	Low	Neutral	Maintain
Kwamandienkosi Clinic	Beaufort West	Plaza Road, Kwamandienkosi.	Clinic	3075	Medium	Neutral	Maintain
Merweville Sat. Clinic	Merweville	Hugenot Street.	Satellite Clinic	519	Low	Neutral	Maintain
Murraysburg Clinic	Murraysburg	C/o Pienaar & Graaf Streets.	Clinic	297	Medium	Neutral	R, R & R
Murraysburg Hospital	Murraysburg	C/o Pienaar & Graaff Reinett Streets.	District Hospital	297	Low	Neutral	R, R & R
Nelspoort Clinic	Nelspoort	Nelspoort Hospital.	Clinic	5	Low	Neutral	Maintain
Nelspoort Hospital	Nelspoort	Hospital Road	Intermediate Care Facility	5	Medium	Excess	Maintain
Nieuveveldpark Clinic	Beaufort West	Zero Street, Nieuveveldpark.	Clinic	3613	Medium	Neutral	Feasibility study – possible relinquishment

Table 3: Accommodation owned by the Department of Health in the Beaufort West municipal area (Western Cape Government Department of Health, 2021)

MUNICIPALITY	PROJECT NAME	COMMIT STATUS	FIPDM - 01/04/21	STRAT BRIEF DATE	PRAC COMP DATE	TOTAL PROJECT COST
Beaufort West	Beaufort West - Beaufort West CDC - Upgrade and Additions	Proposed	Still to be initiated	2026 04 01	2030 06 30	10 000
Beaufort West	Murraysburg - Murraysburg Ambulance Station - Upgrade and Additions incl wash bay	Active not Contracted	Stage 4: Design Documentation	2019 09 01	2022 08 31	3 600
Beaufort West	Beaufort West - Beaufort West Hospital – Rationalisation (Active Not Contracted	Stage 2: Concept	2018 10 09	2026 07 31	46 000
Beaufort West	Murraysburg - Murraysburg Hospital - Rehabilitation	Proposed	Still to be initiated	2024 01 01	2028 12 31	30 000
Beaufort West	Beaufort West - Beaufort West Hospital - Asbestos roof replacement and general refurb	Proposed	Still to be initiated	2024 12 01	2029 08 31	66 500

Table 4: Active and proposed projects in the Beaufort West municipal area (Western Cape Government Department of Health, 2021)

Several key metrics relating to access to healthcare have been improving in Beaufort West Municipality. For example, child health outcomes have improved over the last several years, with immunisation rates reaching 76.7 percent in 2019/20. The number of malnourished children under five years (per 100 000) has also improved from 3.9 in 2018/19 to 3.7 in 2019/20. In turn, the neonatal mortality rate (NMR) (per 1 000 live births) improved from 13.4 in 2018/19 to 8.4 in 2019 – compared to 17 infants per 1000 live births for the province in 2017 (Western Cape Government, 2020) The low-birth-weight indicator was recorded at 19.3 in 2019/20, an improvement on the 22.4 in 2018/19.

Similarly, there were no in-facility maternal deaths in the Beaufort West municipal area in 2019/20 and the delivery rate to women between the ages of 10 and 19 improved from 18,6 percent in 2018/19 to 15.7 in 2019/20. The termination of pregnancy rate in the Beaufort West municipal area and the broader CKD was zero. A low termination rate is strongly associated with a

decrease in unwanted pregnancies which in turn attests to improved family planning and access to health care services.

However, rates of certain natural causes of death, including chronic lower respiratory disease, hypertension, and tuberculosis, were elevated relative to the province. Prevalence of these conditions is associated with the Social Determinants of Health – the conditions in which people live and work (WHO Commission on the Social Determinants of Health, 2008). The issues listed in particular are associated with inadequate ventilation, poor nutrition, and lack of physical activity – all of which can be partially addressed through spatial interventions. There are no land requirements for health infrastructure in Beaufort West Municipality, although doctor's residences are required in Murraysburg.

TOP 10 NATURAL CAUSES OF DEATH, Central Karoo District, 2017



Central Karoo District			Western Cape	
Rank	Cause of death	%	Cause of death	%
1	Chronic lower respiratory diseases	10.7%	Diabetes mellitus	7.5%
2	Hypertensive diseases	7.5%	Ischaemic heart disease	6.2%
3	Tuberculosis	5.9%	HIV	5.7%
4	Diabetes mellitus	5.1%	Cerebrovascular disease	5.5%
5	Ischaemic heart disease	4.6%	Chronic lower respiratory diseases	5.5%
6	Cerebrovascular disease	4.3%	Tuberculosis	4.8%
7	HIV	3.7%	Malignant neoplasms of digestive organs	4.7%
8	Malignant neoplasms of respiratory and intrathoracic organs	3.6%	Malignant neoplasms of respiratory and intrathoracic organs	4.5%
9	Other forms of heart disease	3.1%	Hypertensive diseases	4.0%
10	Malignant neoplasms of digestive organs	2.7%	Other forms of heart disease	3.1%
Other natural		33.7%	35.7%	
Non-natural		15.3%	12.9%	

Table 5: Leading Natural Causes of Death, Central Karoo District (Western Cape Government, 2023)

Crime

Table 6 below shows the rates and total number of contact crimes for each category in 2019/22. Beaufort West was not in the top 10 for any crime category in this period (Western Cape Government, 2022). Apart from the number of murders committed during the stated period, other forms of contact crimes have shown an increase from 2019 to 2022 within the Beaufort West municipal area.

Table shows the projected number and cost of new facilities based on Department of Social Development population projections for 2035. The **spatial implications** of the above facility-related analysis are that access to basic services needs to be prioritised in order to improve rates of access for Beaufort West residents relative to other municipalities in the province. Interventions aimed at addressing the Social Determinants of Health should be prioritised while maintaining the current trend of improved outcomes in indicators for maternal and child health. School closures are a concern and the lack of an FET college in the municipality is a gap that should be addressed.

MURDER		2019/20	2020/21	2021/22
Actual Number	Beaufort West	21	14	9

SEXUAL OFFENCES		2019/20	2020/21	2021/22
Actual Number	Beaufort West	56	47	43

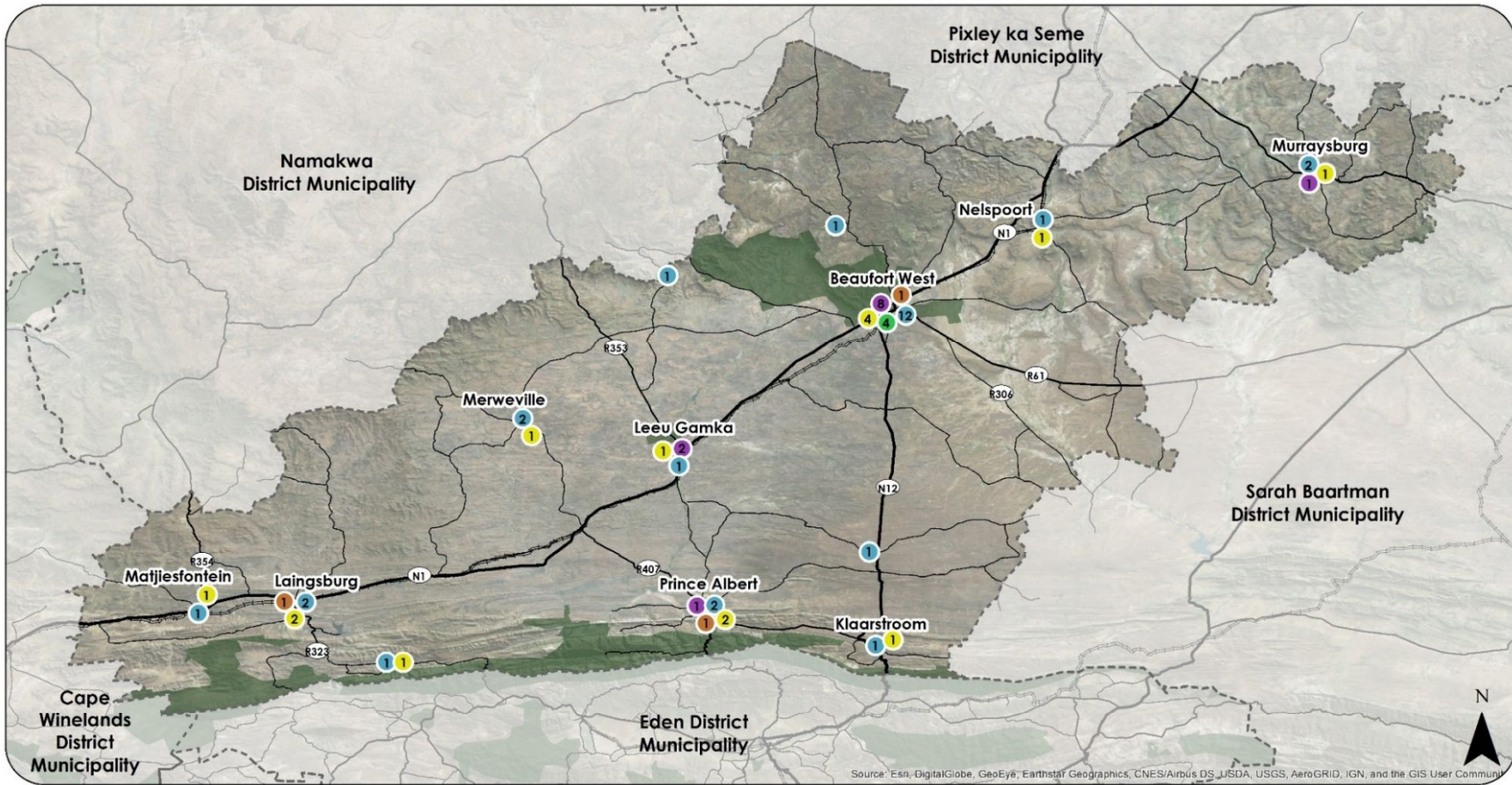
DRUG – RELATED OFFENCES		2019/20	2020/21	2021/22
Actual Number	Beaufort West	305	453	428

RESIDENTIAL BURGLARIES		2019/20	2020/21	2021/22
Actual Number	Beaufort West	473	384	290

Table 6: Contact Crime Rates for Beaufort West Municipality (Western Cape Government, 2022)



Table 7: *Projected Cost of new facilities by 2035 in Beaufort West Municipality*



Education Social Facilities Map: Central Karoo District Municipality

Road Type

- National Road
- Arterial Road
- Secondary Road
- == Railways

- - - DM Boundaries
- Protected Areas

Educational Facility Type (# of Facilities Provided on Symbol)

- Independent Ordinary Schools
- Public Ordinary Schools
- Independent ECD Centres
- Libraries
- Public Adult Education & Training Centres

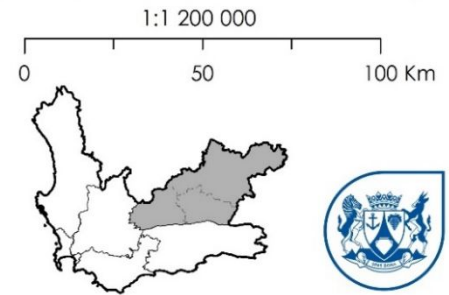
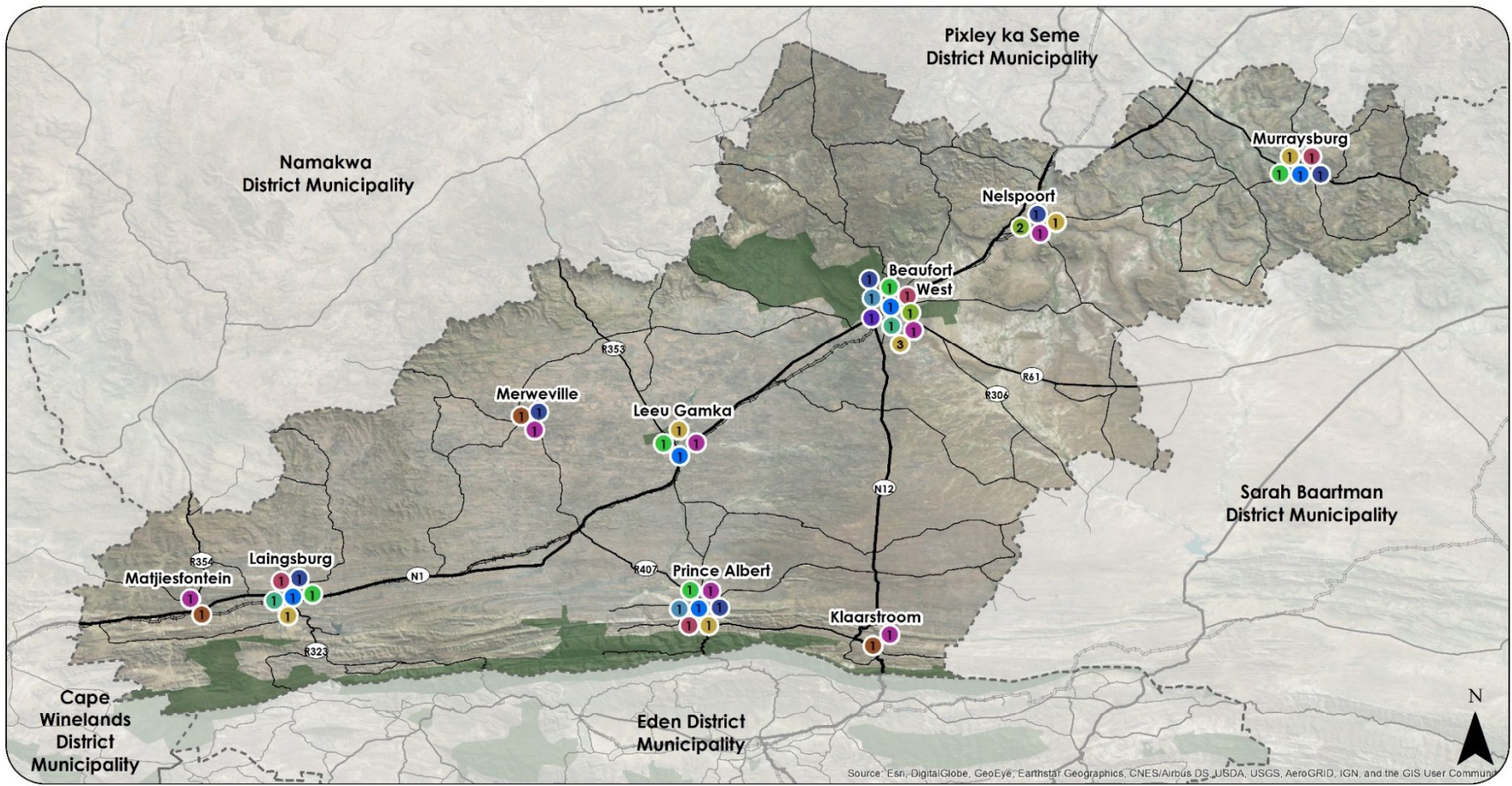


Figure 35: Education facilities in the Central Karoo District Municipality



Health and Safety Social Facilities Map: Central Karoo District Municipality

Road Type

- National Road
- Arterial Road
- Secondary Road
- Railways

- - - DM Boundaries
- Protected Areas

Facility Type (# of Facilities Provided on Symbol)

- | | | |
|------------------------------|----------------------|--------------------|
| ● Correctional Centre Clinic | ● Home Based Care | ● Satellite Clinic |
| ● Forensic Pathology Service | ● Step Down Facility | ● Clinic |
| ● Community Day Centre | ● Mobile Service | ● EMS Station |
| ● District Hospital | ● Police Stations | |

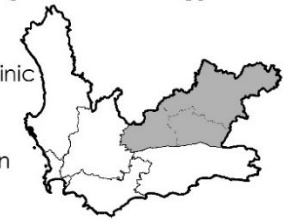
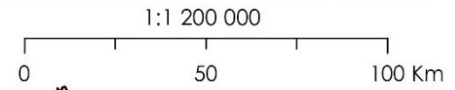


Figure 3634: Health and safety facilities in the Central Karoo District Municipality

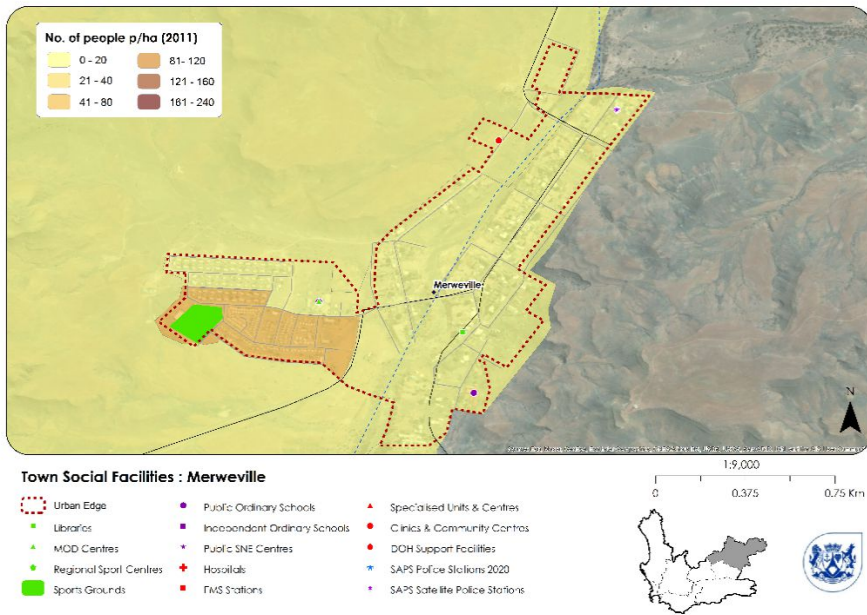


Figure 37: Social Facilities for Merweville

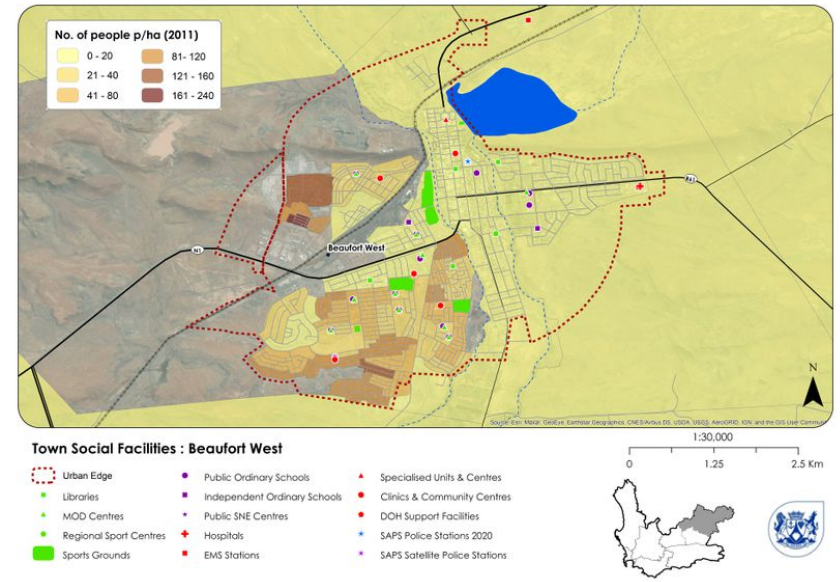


Figure 38: Social Facilities for Beaufort West Town

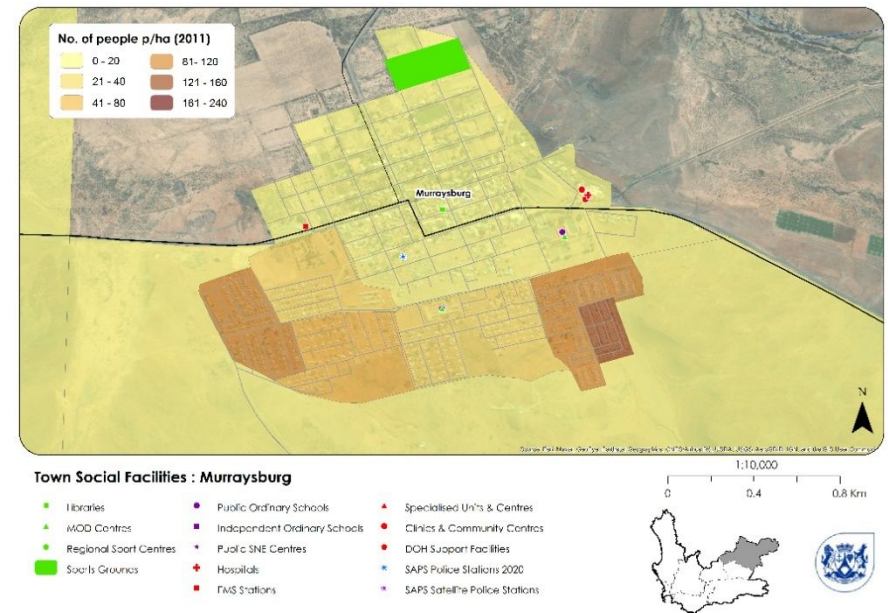


Figure 39: Social Facilities for Murraysburg

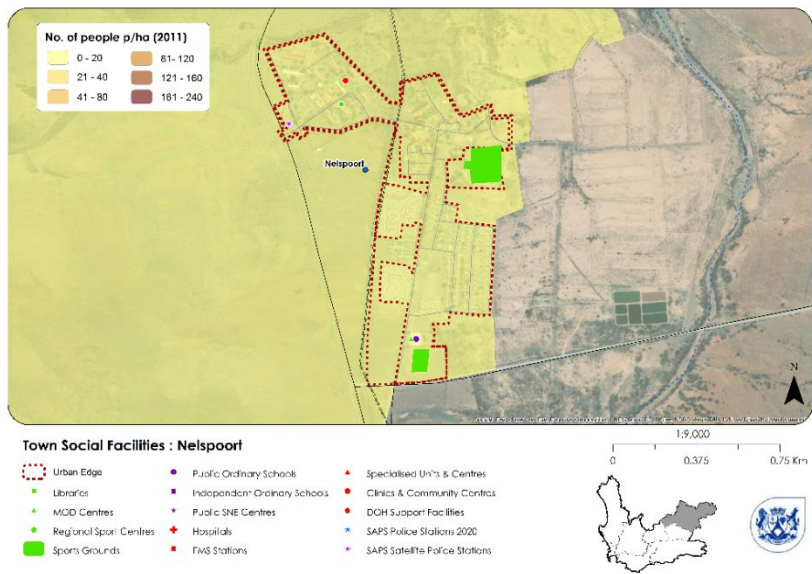


Figure 350: Social Facilities for Nelspoort

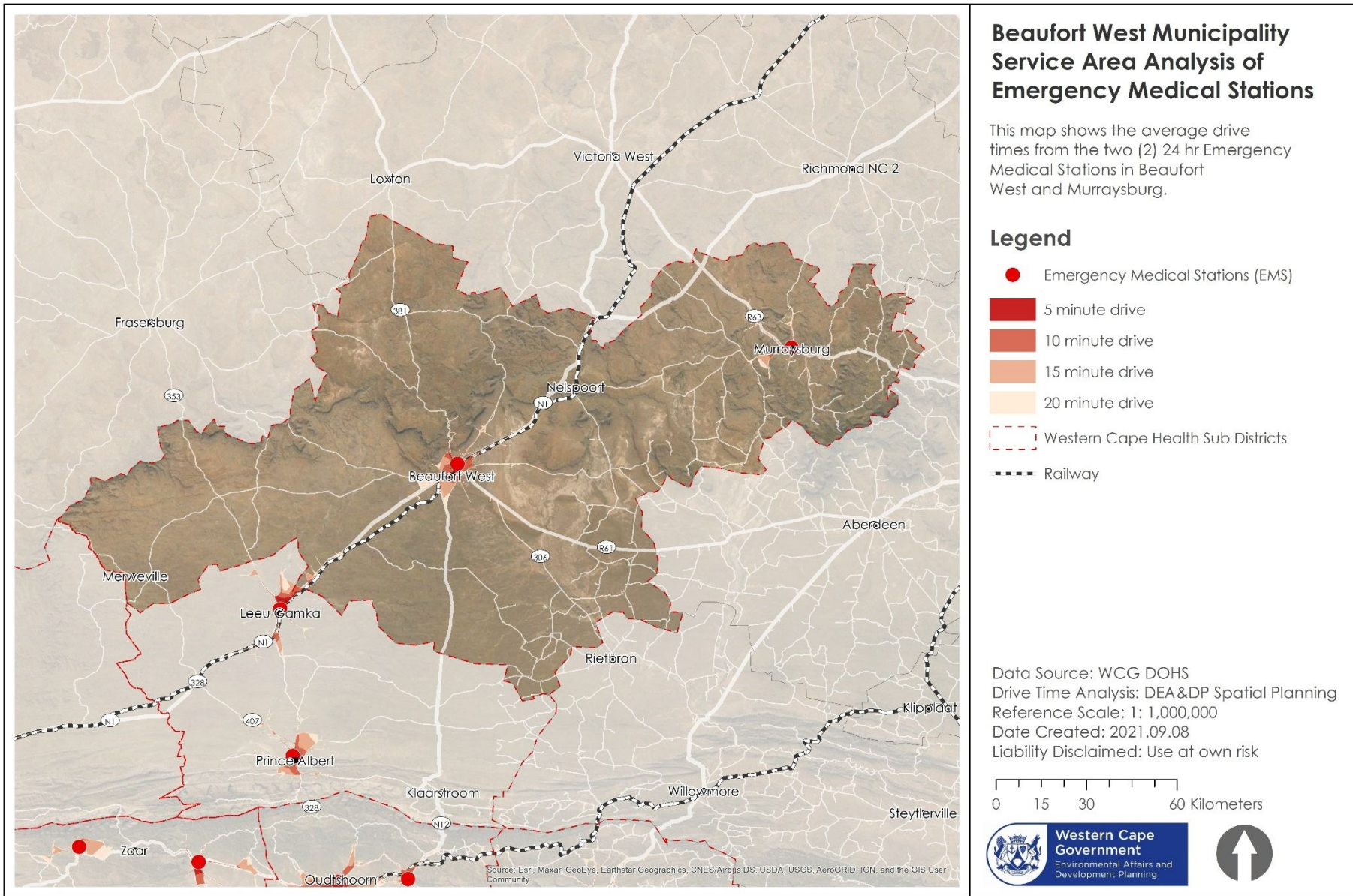


Figure 41: Service Area analysis of EMS stations

3.3.5 Property Market

Charts 5 and 6 below show the number of sales and average sale price for farms and residential properties in Beaufort West town and Beaufort West rural areas, according to Property24 (source: Property 24, 2023). It appears that COVID-19 had an impact on the number of properties listed on the market, which declined markedly from 2019 to 2020. The average asking price increased during 2021, although the average sale price remained flat.

The **spatial implications** of this still need to play out. The high number of properties currently on the market coupled with declines in average asking and sale prices is reflective of a struggling local and national economy and should be monitored. However, COVID-19 has completely disrupted the property market and it may take several years for it to stabilise. Spatially differentiated data on property market activity is currently difficult and costly to obtain. Having access to such information would allow for more sophisticated analysis and facilitate a deeper understanding of how and where people want to locate in the municipality, as well as providing more insight into the local economy and demand for land. Anecdotally, however, the town of Beaufort West by far remains the most dynamic in terms of property transaction volume and range of property types and price ranges available, followed by Merweville which appears to be experiencing a tourism-related uptick in property transactions, also potentially as a result of the tarring of the road connecting Merweville to the N1 highway in the last decade. Murraysburg transaction volumes are low, reflective of a very distressed and stagnant property market and associated lack of appetite. There are also currently no properties listed for sale for Nelspoort on Property24.



Chart 5: Annual Sale and Listing Trends for Beaufort West (Property 24, 2023)

Monthly Properties For Sale

This graph shows the monthly number of properties and properties new to the market in Beaufort West, as listed for sale on Property24.

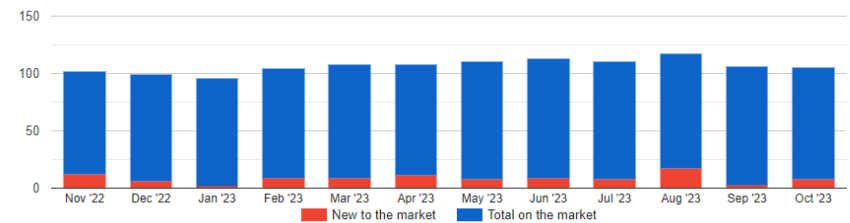


Chart 6: Monthly Properties for Sale in Beaufort West (Property 24, 2023)

3.3.6 Municipal Finances

Beaufort West Municipality is in a much better financial state compared with the previous financial years (2018 – 19 and 2019-20). At the end of the 2021-22 financial year, its cash balance was **R401 227 651**. According to National Treasury's Municipal Money, a municipality's cash balance refers to the money it has in the bank that it can access easily. If a municipality's bank account is in overdraft it has a negative cash balance. **Negative cash balances are a sign of serious financial management problems. A municipality should have enough cash on hand from month to month so that it can pay salaries, suppliers and so on.** With the importance of the general government sector to the municipal economy and employment, it is encouraging that the municipality has a positive cash balance (Municipal Money, 2023).

In contrast, the 2021/22 Audit Outcomes report is not available, and the 2020/21 Audit Outcomes report is Outstanding, which means that the Auditor General raised queries with the municipality and therefore has not submitted another opinion. For the 2019/20, the municipality received a **Disclaimer of Audit Opinion** from the Auditor General. This means that the municipality **was not able to account for how it spent public money** – that it provided insufficient evidence in the form of documentation on which to base an audit opinion. The lack of sufficient evidence is not confined to specific amounts or represents a substantial portion of the information contained in the financial statements (Municipalities of South Africa, 2021). Further to this, the Western Cape Provincial Treasury found that the budget Beaufort West tabled for the 2021/22 financial year was not credible and was unfunded. As a result, the municipality will not

receive equitable share grants until it is able to demonstrate that it has adopted a credible budget funding plan.

For the previous audit year (2018/19, when Beaufort West received a qualified audit), the municipality underspent 22% of its operating budget, and 14.9% of its capital budget. This is extremely concerning given that 23.2% of the operating budget that was spent was classified as fruitless and wasteful expenditure. The municipality generated 64.5% of its revenue locally. The balance (35.5%) was sourced through grants and transfers from national government (Municipal Money, 2023).

The **spatial implications** of this are self-evident. If the municipality is not able to account for how and where it spends its money, the provision of services, related maintenance, and capital investments is at best opaquely reported and at worst not undertaken timeously, and ultimately the residents of the municipality will suffer. It is imperative that the municipality's finances are properly managed so that investment in new infrastructure and maintenance of existing assets can take place to serve the people of Beaufort West and put the municipality on a better footing to realise economic growth and private sector investment.

3.3.7 Tourism

The Karoo Regional Spatial Development Framework places a significant focus on tourism within the Karoo region, arguing for the development of a single Karoo brand to market the region to visitors. While it is important to develop tourism at the regional scale, the unique assets of individual places and streetscapes within towns are key to doing this. Tourist attractions in Beaufort West include the Karoo National Park and the Chris Barnard Museum, along with attractions like Karoo architecture, charm, cuisine, and culture.

Most tourists visiting the Central Karoo District (92.5%) are domestic tourists. The Western Cape accounts for the highest share of visitors to the district (with 41% of visitors originating in the province), followed by Gauteng with 23% as illustrated in **Figure 42**. The majority (77%) of visitors coming to the district do so for the purposes of leisure, with culture and heritage being the dominant (68%) activity undertaken (see **Cart 7** and **8**).

The **spatial implications** of this suggest that preserving and enhancing Beaufort West's existing heritage, streetscapes, karoo charm and architecture and natural resources is an important driver of economic activity and job creation going forward. Specifically, Donkin Street of Beaufort West (in many ways, the "face" of Beaufort West) can be significantly enhanced with necessary

municipal investment, landscaping, and urban design improvements, as well as the heritage areas of Merweville, Nelspoort and Murraysburg, which can attract private sector initiative, entrepreneurship, and investment, and hence attract tourism opportunities.

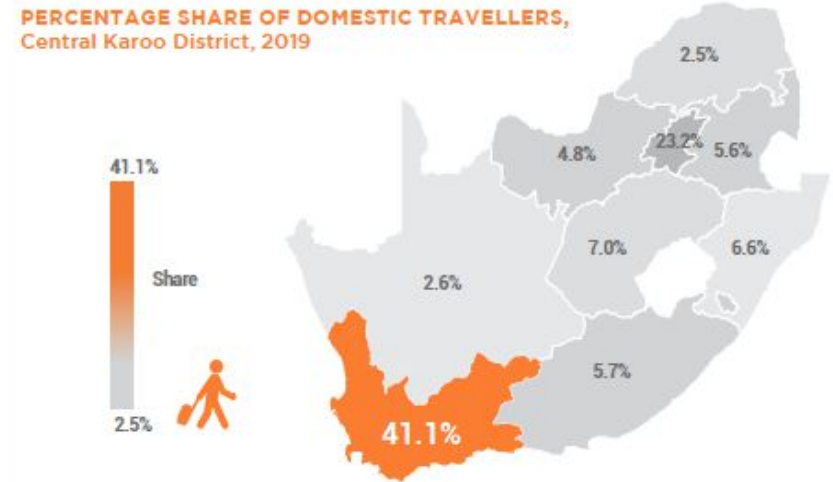
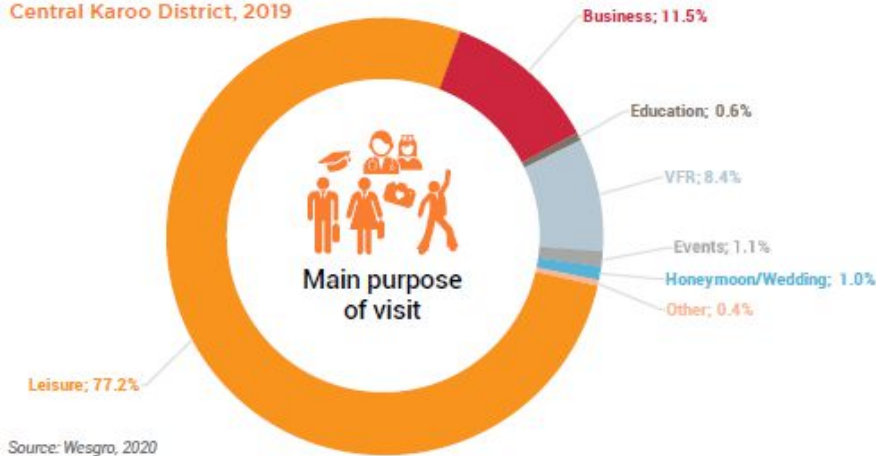


Figure 42: Percentage share of domestic travellers originating from across the Country (Western Cape Government, 2023)

**MAIN PURPOSE OF VISIT,
Central Karoo District, 2019**



Source: Wesgro, 2020

Chart 7: Main purpose of visit to the CKDM, 2019 (Western Cape Government, 2023)

TOP TOURIST ACTIVITIES UNDERTAKEN, Central Karoo District, 2019

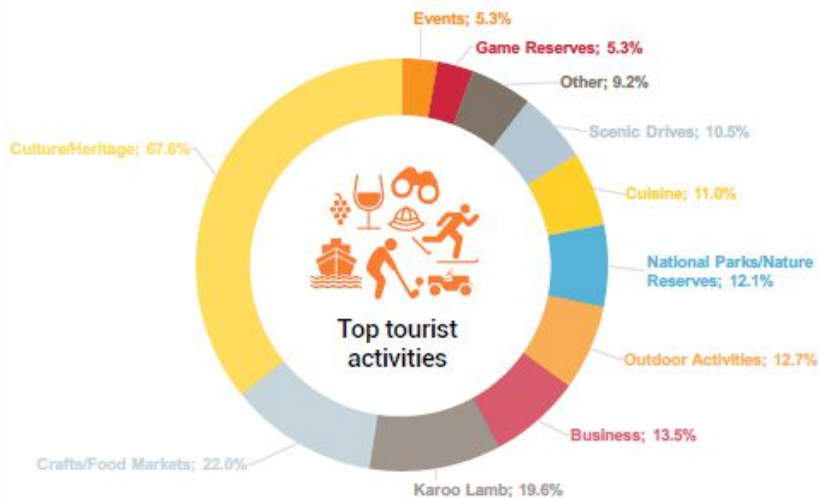


Chart 8: Top tourist activities undertaken in the CKDM, 2019 (Western Cape Government, 2023)

3.3.8 Trade

While the Central Karoo District as a whole has a positive trade balance as illustrated in **Chart 9**, Beaufort West has minimal import or export activity and contributes very little to this. Indeed, while the district exported goods to the value of R67.4 million in 2019, Beaufort West contributed only R35 703 to this figure. This is in spite of Beaufort West having the largest economy in the area. The district's positive trade balance is driven by Prince Albert, with dairy and wine products being the major exports. The manufacturing sector has also been a significant contributor to trade in the district, with food and beverages, metals, metal products and equipment, and electrical machinery and apparatus being the key products that are manufactured in the district. These products are linked to agricultural production, and as such there is a clear relationship between the agriculture and manufacturing sectors within the district.

The **spatial implications** of this depend on the municipality's trajectory in terms of agriculture and shale gas development. As discussed in Section 0, agricultural activity has been declining in Beaufort West, which may explain its negligible contribution to trade in the district. Given that drought conditions are only expected to worsen, and the relationship between agriculture and manufacturing, the only sector that can be expected to make a sustained contribution to trade activity in the municipality in the future is the mining and quarrying sector. This is due to the potential for shale gas development and uranium mining discussed in Section 3.2.6. However, any increase in activity in these areas must take place with careful consideration for harmful environmental effects. There may, however, be unrealised manufacturing activities that Beaufort West could benefit from due to its location between Cape Town and Gauteng on the N1. Potential manufacturing activities should be identified by the municipality, and actively encouraged to locate within the municipality. Private sector investment generally, however, only follows where a municipality is seen to be well run, and hence the municipality must proactively improve its governance, urban management, infrastructure maintenance and renewal, and attractiveness of the municipality to encourage such investment.

TRADE BALANCE AND TRADE DISTRIBUTION, Central Karoo District, 2009 - 2019



Chart 9: Trade balance for the CKDM (Western Cape Government, 2023)

3.3.9 Agriculture, Land Reform and Rural Development

The NDP targets, amongst other things, the development of a more inclusive and integrated rural economy. Its rural strategy is based on land reform, agrarian transformation, livelihood and employment creation, and strong environmental safeguards. Land reform and rural development, the responsibilities of National Government, are also on the PSDF's spatial agenda as they have an important contribution to make to rural transformation. Overall, the evidence suggests that the pace of land reform in the province has been slow, and that there has been limited employment of underutilised state, provincial and municipal land as well as commonage to date. Strategies to develop small scale farmers are yet to produce results at scale.

The Central Karoo District Rural Development Plan/DALRRD Sector Plan have been prepared to ease integration of the Agri-park Initiative and accompanying DALRRD Projects in the various Local Municipal and District Integrated Development Plans and Spatial Development Frameworks. It is also intended to assist the Local Municipalities and District Municipalities and other Sector Departments to invest in a coordinated manner to best enable the development and functioning of the Agri-Park.

An Agri-Park is defined as being a networked innovation system (not only physical buildings located in single locations) of agri-production, processing, logistics, marketing, training, and extension services, located in District

Municipalities. As a network, it enables the growth of market-driven commodity value chains and contributes to the achievement of the DALRRDs rural economic transformation model.

An Agri-Park comprises of three basic units:

1. A district-scale **Agri-Hub** Unit:
A production, equipment hire, processing, packaging, logistics and training (demonstration) unit, typically located in a larger agricultural service centre.
2. A local-scale **Farmer Production Support Unit (FPSU)**:
A rural outreach unit connected with an Agri-Hub that does primary produce collection, some storage, some processing for the local market, and provides extension services including mechanisation. The identified catchment areas consist of all land parcels that are made up of a 60 km travel distance on the existing road network surrounding the FPSU and then buffered by 2 km to ensure ease of access to an existing road. These catchments then form the focus of spatial targeting for land reform, infrastructure, and production investment.
3. The **Rural Urban Market Centre Unit (RUMC)**:
Typically located in a higher order urban centre with three main purposes; linking and binding together role players in rural, urban, and international markets through contracts; acts as a holding-facility, releasing produce to urban markets based on seasonal trends; and provides market intelligence and information feedback to the network of FPSUs and the Agri-Hub.

Figure 43 sets out the map for the Central Karoo District Rural Development Plan/DALRRD Sector Plan with Agri-Park components and FPSU catchment areas (60km) applicable in the Central Karoo and reference to the Rural Nodes (CRDP Wards) and additional Youth Profile (Pocket2) – aged between 18 – 35 years. Table 8 indicates the proposed interventions and economic opportunities (including the youth).

Draft Implementation Plan for DALRRD Projects in the Central Karoo for 2021/22 financial year:

DISTRICT	AREAS OF INTERVENTION	PROJECT DESCRIPTION	BUDGET ALLOCATION	LOCATION GPS COORDINATES	LOCATION GPS COORDINATES	PROJECT LEADER	Branch*
CENTRAL KAROO	STRATEGIC LAND ACQUISITION	ACQUIRE MORDANT	R7,686,000.00	-31.797534	23.367991	STRATEGIC LAND ACQUISITION	SLA
CENTRAL KAROO	STRATEGIC LAND ALLOCATION	ALLOCATE MORDANT	R0.00	-31.797534	23.367991	STRATEGIC LAND ACQUISITION	SLA
CENTRAL KAROO	LAND RIGHTS AWARENESS CAMPAIGN	CAMPAIGN ABOUT LAND RIGHTS	R0.00			TENURE REFORM IMPLEMENTATION	TRI
CENTRAL KAROO	JOB OPPORTUNITIES & SKILLS DEVELOPMENT	LINK 5 YOUTH TO ECONOMIC ACTIVITIES	R300,000.00	0	0	NARYSEC	NARYSEC
CENTRAL KAROO	FARMER SUPPORT	SUPPORT DUNDEE FARMERS	R4,889,275.00	-31.991259	22.540803	LAND DEVELOPMENT SUPPORT	LDS
CENTRAL KAROO	JOB OPPORTUNITIES & SKILLS DEVELOPMENT	TRAINING OPPORTUNITIES FOR 16 YOUTH	R0.00	0	0	NARYSEC	NARYSEC
Central Karoo			R12,875,275.00				All Branches

*Branch	Name	Purpose
SLA	Strategic Land Acquisition	To coordinate the provision of land acquisition services.
LDS	Land Development Support	To coordinate land development support.
TRI	Tenure Reform Implementation	To coordinate implementation of land tenure and land rights programmes.
CED / EDIM	Cooperatives and Enterprise Development	To deliver and coordinate provincial cooperatives and enterprise development programmes.

FUNCTIONAL REGION DESCRIPTION	PRIORITISED VILLAGES BASED ON CONCENTRATION OF YOUTH
<p>Functional Region 1 stretches from Laingsburg to the southwest until Murraysburg to the northeast.</p> <p>Primary commodities: (WCCCRF&IP, 2016)</p> <ul style="list-style-type: none"> • small stock, cattle, vegetable seed, deciduous fruit <p>Secondary commodities: (Master Plan, p. 9)</p> <ul style="list-style-type: none"> • Lucerne, stone fruits, olives, vegetables 	<p>Priority areas (within 15km from projects):</p> <ul style="list-style-type: none"> • Beaufort West (9198) - inside FPSU • Prince Albert (1780) – inside FPSU • Laingsburg (1225) – inside FPSU • Murraysburg (1124) – inside FPSU <p>Priority areas (within 30km from projects):</p> <ul style="list-style-type: none"> • None
REQUIRED INTERVENTIONS	REQUIRED SKILLS/TRAINING/ECONOMIC OPPORTUNITIES
<p>Short term intervention</p> <ul style="list-style-type: none"> • Identification of beneficiaries and youth (CD (EDTM), LRD, LTA & NARYSEC) District wide social mobilization and establishment of cooperatives. • Business Case/Precinct Plan for Beaufort West FPSU to enable small stock value chain interventions (Refer to Animal Improvement Business Plan and FPSU Process Plan in Annexure A). • South of Beaufort West Small Stock Corridor synergies & interventions: Jonkersleegte Mingenog, Jonkersleegte Zucor, Tulpleegte, Toornitzkuil and Hoekskuil. • West of Nelspoort: Small Stock Corridor synergies & interventions: Dassiesfontein, Rondawel, Matjieskloof and Melrose Need. • Use of the existing Youth Hub for youth training/economic opportunities. • Establishment of legal entity and appointment of Board of Directors (CD (EDTM), 2018) • Drought interventions (climate change). <p>Medium term intervention</p> <ul style="list-style-type: none"> • Implement Prince Albert Business Case & FPSU process plan. • Fracking related opportunities. • Linkages with Northern Cape and Free State through Regional SDF & Rural Town Revitalization Programme (SALGA). 	<ul style="list-style-type: none"> • Skills training in sheep shearing, meat processing and veld management. • Horticultural skills. • Game and veld management. • Olive's processing. • Fruit processing. • Training/skills: security services, gym instructor & swimming lessons. • Fracking related skills/training/opportunities.

Table 8: Central Karoo District: Interventions & economic opportunities

Land Reform:

Land Reform in South Africa has evolved over the years. The Land Redistribution for Agricultural Development (LRAD) grant was developed to help establish and promote Black emergent farmers. The Proactive Land Acquisition Strategy (PLAS) was introduced in order to accelerate the pace of land reform. The LRAD and SLAG grants were eventually discontinued in order to shift the focus towards acquisition of strategically located agricultural land through PLAS, with land being made available through lease agreements. A majority of the former DRDLR land reform projects are located in the Beaufort West municipal area. According to the District Land Reform Registry, there are currently 13 PLAS projects, 22 LRAD projects and 4 SLAG projects. This makes up roughly 100 700 hectares of land being transferred to previously disadvantaged South Africans.

Restitution & Post settlement support:

The purpose of the restitution programme is to provide equitable redress to victims of racially motivated land dispossession, in line with the provisions of the Restitution of Land Rights Act, 1994 (Act No. 22 of 1994). A Commission of excellence that ensures that effective, efficient, and speedy redress is provided to all those who were dispossessed of their land rights through racially motivated laws or practices after 19 June 1913.

The objective the restitution programme is to resolve restitution claims within the target period, through negotiated settlements that restore land rights, or award alternative forms of equitable redress to claimants. The intended impact is to facilitate access to land by victims of racially motivated land dispossessions that took place under the previous government. Poverty alleviation through sustainable development on restored land, as well as improved livelihoods. Foster the rights of vulnerable groups, in terms of ownership and participation in economic activities and foster national reconciliation and stability (2020, <https://www.drddl.gov.za/sites/Internet/AboutUs/commission-restitution/Pages/default.aspx>).

Land tenure reform:

The Transformation of Certain Rural Areas Act, Act 94 of 1998 (TRANCRAA), that came into effect on 02 November 1999, is the first comprehensive legislation to reform communal land tenure in South Africa. It prescribes the processes to be followed for the creation of entities to hold the land in the commonages in trust for the inhabitants of the Rural Areas [Rural Areas Act (Act 9 of 1987)]. This process is managed by the Department of Agriculture, Land Reform and Rural

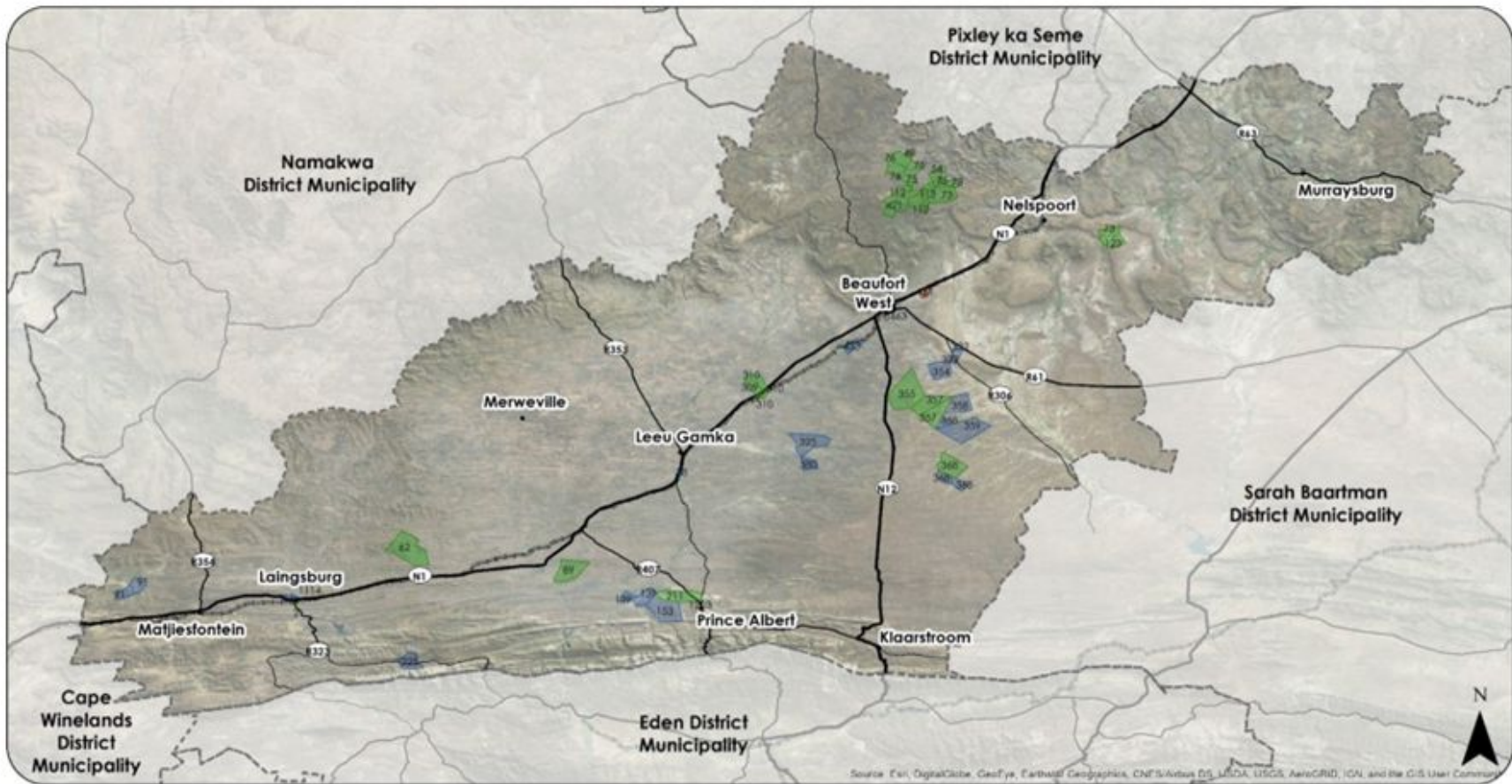
Development (DALRRD) in consultation with the Municipality responsible for the relevant Rural Area.

TRANCRAA aims at providing the restoration of land that has been held in trust for the community in certain rural areas, to its rightful owner. Due to development or administrative processes on the land, the land is categorized according to TRANCRAA into:

- Land in a township, section 2 land (being every piece of land within the border of approved General Plans – mostly existing as Residential area). Township is also defined as any township situated in a board area established, approved, proclaimed, or otherwise recognised as such under any law.
- And land in the remainder, section 3 land (being the remainder of the parent farm – the original trust land after Township Establishment has taken place - also known as commonage land or meentgrond). Remainder Trust Land is also defined under TRANCRAA as land situated in a board area other than township land, including land which has been planned, classified, and subdivided as an agricultural area or outer commonage in terms of section 20 (2) of the Rural Areas Act, 1987.

The DRDLR Agri-Park components including the enlarged FPSU catchment areas (60km) applicable in the Central Karoo and reference to the Rural Nodes (CRDP Wards), the location of the proposed Agri Hub in Beaufort West, and Farmer Production Support Units in Laingsburg, Merweville, Prince Albert and Murraysburg.

Notwithstanding the above land reform imperatives, serious reflection is required to determine viability of the Karoo for land reform with the intent to realise agricultural activity and economic benefit. Already the well-resourced and established agricultural sector is in severe distress in the municipal area, and promoting agricultural land reform, with the intent to enable previously disadvantaged persons and emerging farmers from benefiting from agricultural opportunity, may be setting them up for failure, if the farm is located in a low agricultural potential, water scarce region. Hence, proper due diligence and feasibility analyses should be undertaken before acquiring more land with the intent of implementing land reform for agricultural production in the Karoo.



Land Reform Map: Central Karoo District Municipality

- | Legend Items | DRDLR Projects |
|---------------------|----------------------------------------------------------|
| — National Road | Land Redistribution and Development (LRAD) |
| — Arterial Road | Proactive Land Acquisition Strategy (PLAS) |
| --- Railways | Settlement Land Acquisition Grant (SLAG) |
| - - - DM Boundaries | *NB - Project labels indicate farm parcel number. |

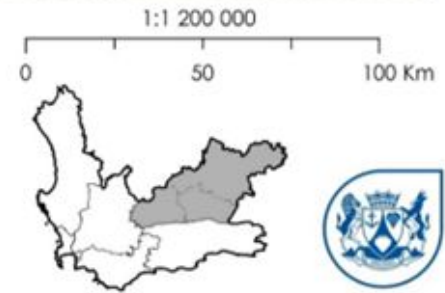


Figure 44: Central Karoo District Land Reform projects

3.4 BUILT ENVIRONMENT ASSESSMENT

This section outlines an assessment of the built environment in Beaufort West Municipality.

3.4.1 Urban Settlements and Settlement Hierarchy

There are four settlements in Beaufort West Municipality:

- Beaufort West Town
- Nelspoort
- Murraysburg
- Merweville

According to the CSIR, "a settlement refers to a distinct human community in its physical, socioeconomic, and environmental whole which requires the provisioning of services such as engineering and social services. Settlements can be ordered by size and other factors to define a settlement hierarchy, ranging from city regions to hamlets or dispersed rural settlements". Often, population is a crucial factor in determining the hierarchy of settlements in a region and deciding where to target essential basic services.

Beaufort West is a predominantly rural municipality, with Beaufort West Town functioning as a regional service centre for the Central Karoo District and the broader region. It is home to most of the medical, educational, commercial, and regional administration activities in the local and district municipalities. The NSDF defines Beaufort West Town as a Regional Development Anchor – although it should be noted that the town's economic potential is in decline and this hierarchy may change. Murraysburg is a major rural settlement which

offers some services mentioned above to the surrounding farming communities. Minor rural settlements like Merweville and Nelspoort offer limited services that are structured around farming, railway, and transport activities. The settlement hierarchy for Beaufort West Municipality is shown in **Figure 45**. Landcover change from 2014 to 2020 is shown in **Figure 46**.

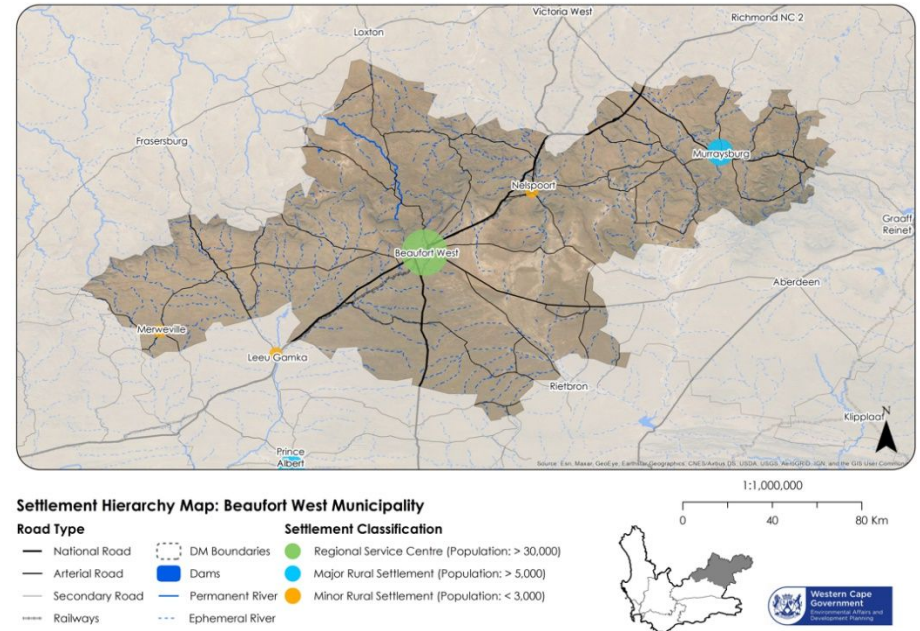


Figure 45: Settlement Hierarchy for Beaufort West Municipality

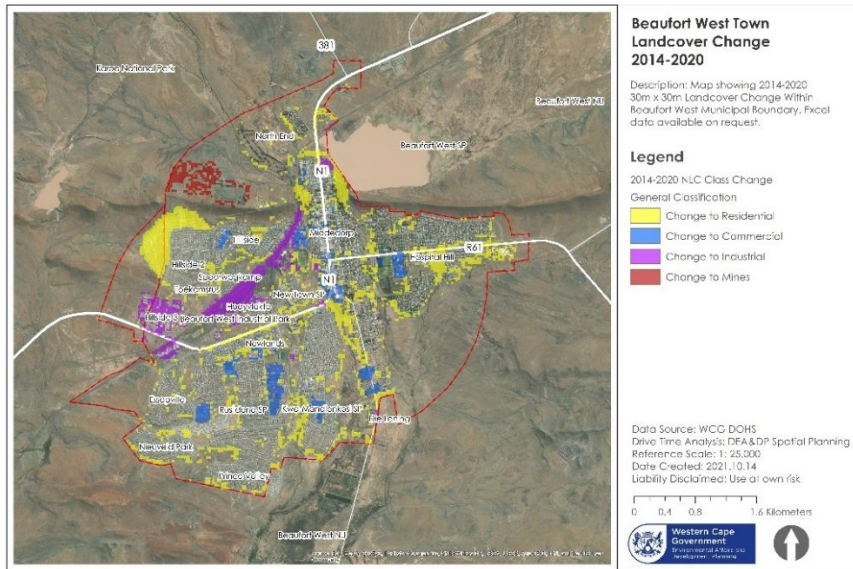


Figure 46: Landcover change, 2014-2020 in Beaufort West Town

Though small, the Municipality has 3 informal settlements that are spread between Beaufort West (± 30 households), Merweville (± 10 households) and Murraysburg (± 6 households). These are shown in **Table 9** below.

3.4.2 Housing

Table 2 shows the current housing demand for Beaufort West Municipality. The total recorded housing demand in Beaufort West municipality is 6 242 people or 75% of the total demand in the Central Karoo. 389 people fall within the gap market and may be eligible for the FLISP housing program. The largest percentage (89.5% or 4 880 persons) of these people reside in Beaufort West Town. Murraysburg has the second largest housing demand at 848 or 13.6% of the municipal demand. Importantly, the 2014 Beaufort West MSDf includes a proposal to introduce a freight bypass to the N1 highway (this is discussed further in the proposals chapter of this MSDf). The proposed bypass had two possible routes, of which one is now no longer possible due to the completion of the large housing development in the North-west of Beaufort West Town.

The Human Settlements Pipeline programme types and locations for Beaufort West's settlements are shown in **Figure 47** to **Figure 51**.

Area	Number of informal settlements	Structure count
Plakkerkamp Beaufort West	1	23
Merweville	1	6
Murraysburg	1	9
Total	3	38

Table 8: Informal Settlements

The **spatial implications** are as follows:

- Most of the sites are peripheral to the settlement, making them poorly located in addition to creating challenges to accessing opportunities.
- The housing typology is not conducive to enabling economic opportunities and lacks variety of land use and lacks visual attraction.
- Insufficient attention is paid to the public spaces between housing projects, and to the interface between housing and the public domain.
- Quality public open space is limited, if not completely unavailable
- Higher density typologies must be provided on better-located sites in future.

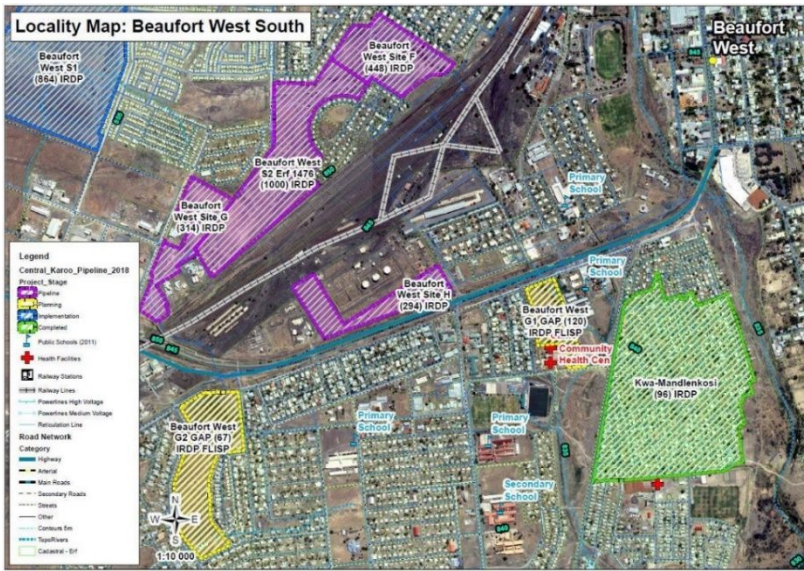


Figure 47a: Human Settlements Pipeline for Beaufort West South

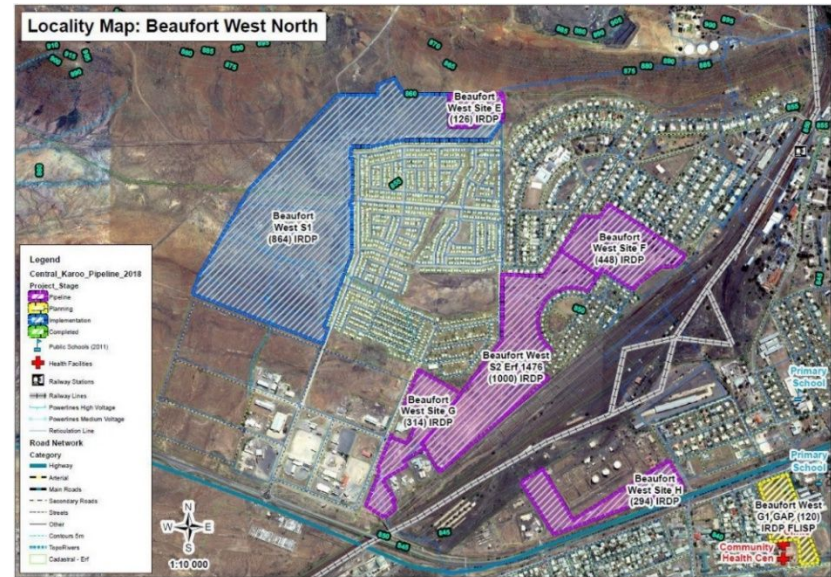


Figure 47b: Human Settlements Pipeline for Beaufort West North

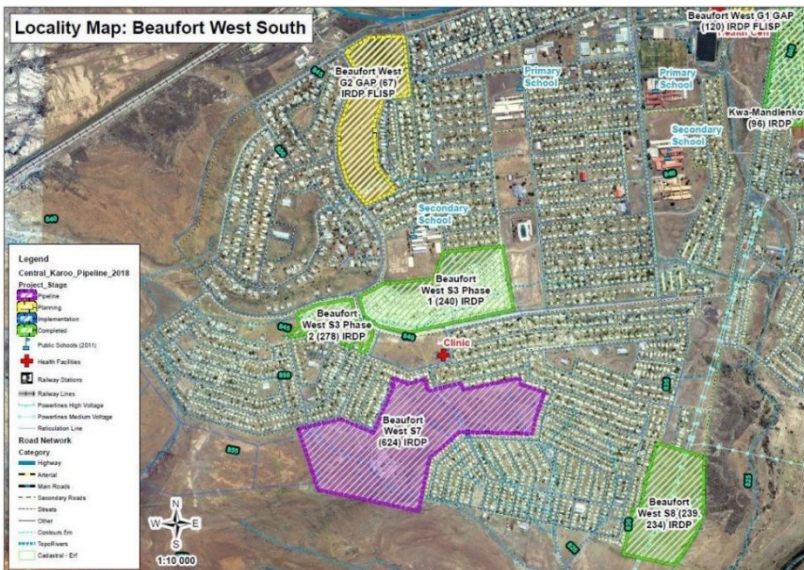


Figure 48: Human Settlements Pipeline for Beaufort West South 2



Figure 49: Human Settlements Pipeline for Murraysburg

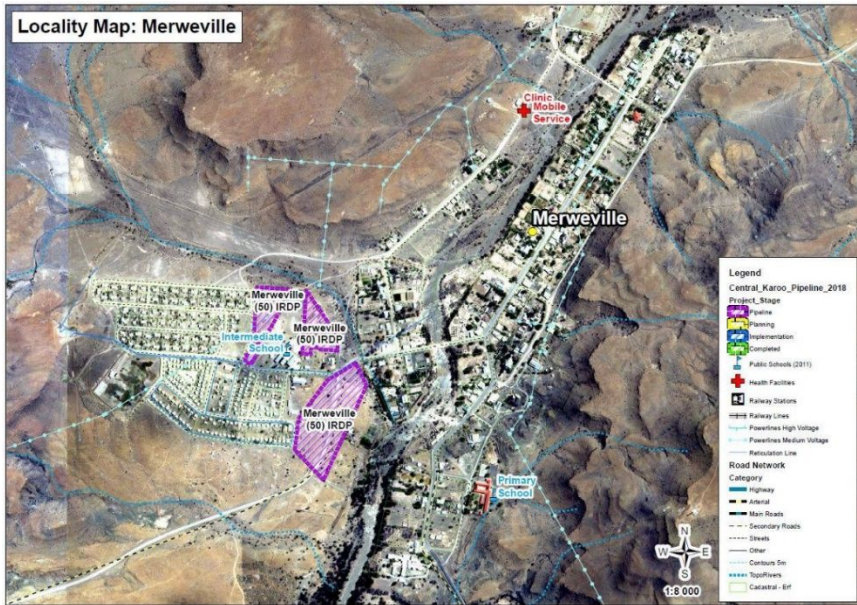


Figure 50: Human Settlements Pipeline for Merweville

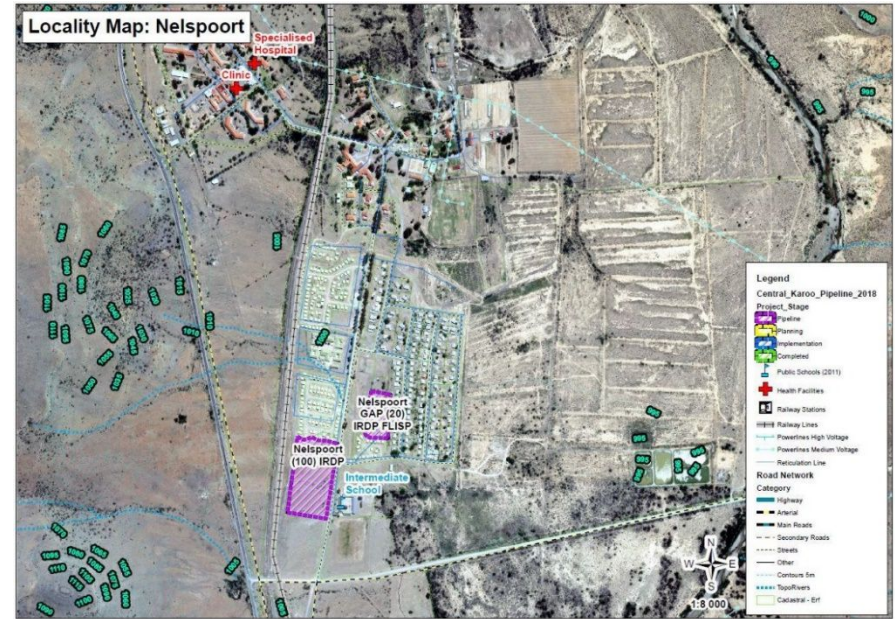


Figure 51: Human Settlements Pipeline for Nelspoort

WCHDDB DATA DATED 01 FEBRUARY 2021	HOUSING DEMAND	HOUSING DEMAND %	YEARS ON THE DATABASE			AGE CATEGORIES			INCOME CATEGORIES			
			3 - 9 YEARS	MORE THAN 10 YEARS	LESS THAN 3 YEARS	30 - 59 YEARS	60 YEARS AND OLDER	UNDER 30 YEARS	ABOVE R22000	R0 - R3500	R3501 - R7000	R7001 - R22000
BEAUFORT WEST	4880	78.18	1921	2010	949	3776	394	710	4	4532	226	118
MERWEVILLE	204	3.27	135	44	25	134	21	49		194	4	6
MURRAYSBURG	848	13.59	715	61	72	678	81	89		836	10	2
NELSPOORT	303	4.85	204	62	37	213	20	70		284	11	8
OTHER/RURAL	7	0.11	3	3	1	7	0	0	0	7	0	0
TOTAL	6242	100.00	2978	2180	1084	4808	516	918	4	5853	251	134
BEAUFORT WEST MUNICIPALITY	6242	75.12	2978	2180	1084	4808	516	918	4	5853	251	134
PRINCE ALBERT MUNICIPALITY	1276	15.36	552	461	263	939	87	250	3	1104	104	65
LAINGSBURG MUNICIPALITY	791	9.52	181	323	287	632	63	96	0	716	64	11
DISTRICT TOTAL	8309	100.00	3711	2964	1634	6379	666	1264	7	7673	419	210

Table 2: Housing Demand figures for Beaufort West Municipality (Western Cape Government Department of Human Settlements, 2021)

2024/25 (15 Feb 2024) Draft HSDG BP		2024/2025			2025/2026			2026/2027		
2024/25 to 2026/27 Business Plan HSD Grant		15 Feb 2024			15 Feb 2024			15 Feb 2024		
	PROGRAMME	SITES	HOUSES	FUNDING	SITES	HOUSES	FUNDING	SITES	HOUSES	FUNDING
		SERVICED	BUILT	R '000	SERVICED	BUILT	R '000	SERVICED	BUILT	R '000
CENTRAL KAROO DISTRICT										
Beaufort West		0	0	1,437	0	0	7,637	187	0	17,732
Beaufort West G2 (67) IRDP	IRDP			121		0	297	67		5,360
Beaufort West S7 (624) IRDP	IRDP			0		0	1,125			2,772
Beaufort West G1 (120) IRDP	IRDP			216		0	533	120		9,600
Beaufort West (65) (fire damaged houses)	EHP			1,100			4,350			
Murraysburg (300)	IRDP			0			1,332			

Table 10: Human Settlement Development Grant Allocation for Beaufort West Municipality

3.4.3 Road, Rail and Public Transport

The Beaufort West Municipality Local Integrated Transport Plan (Western Cape Government, 2021) (LITP) identifies the following key issues for transport systems in Beaufort West town and the municipality more broadly:

- Non-Motorised Transport (NMT) is a very important mode in the town and should be a focus of infrastructure provision;
- No formal NMT infrastructure, or public transport services, are available to assist patients discharged from the hospital. This service should be provided;
- Scholar transport is a major problem. A lack of formal scholar transport in the vicinity leads to scholars hitchhiking to and from schools during the week. This exposes schoolchildren to major safety risks;
- The train stops in Beaufort West only two to three times per week, and can thus not be used as reliable regional public transport; and
- Public transport in the area is provided by private taxi services. One private non-subsidised bus is operational, but it is not considered as reliable.

These issues are discussed in more detail below.

3.4.4 Road Network

The N1 is a key national connector linking Cape Town to Johannesburg, while the N12 connects Beaufort West to Oudtshoorn, and onwards to George. Beaufort West's location on the junction of these two roads is an important locational advantage for the municipality. An important proposal in the current MSDF is the introduction of a freight bypass taking the N1 around the outskirts of Beaufort West Town. The R61 is also an important regional connector route between the Western and Eastern Cape (linking the town of Beaufort West to Aberdeen and beyond to Graaf Reinet). It experiences very high vehicle volumes over holiday periods when people travel between the Eastern and Western Cape.

The road network and condition of roads is shown in **Figure 52**. The inventory of roads and managing authorities is shown in **Table 11** and **12**.

The national and arterial movement routes through the municipality (roads of key economic importance) are:

- N1 national road – running diagonally through the municipality and the town of Beaufort West. This route is the main movement route between Cape Town and Johannesburg.

- N12 arterial – running in a southerly direction from Beaufort West to Oudtshoorn.

A number of main roads link with the N1 national road and facilitate movement to rural areas in the Beaufort West Municipality and nearby towns in adjacent municipalities. These main roads are as follows:

- R353 – cuts across the western corner of the municipality and the link between Leeu-Gamka and Fraserburg.
- R381 – between Beaufort West and Loxton in the north.
- R61 – between Beaufort West and Aberdeen in the east.
- R306 – between Beaufort West and Rietbron in the southeast.
- R63 – link between the N1 and Murraysburg which further extends to Graaff-Reinet in the east.

The Provincial Freight Strategy and Implementation Programme should also be consulted as a tool to give guidance to the movement of freight in the Beaufort West Local Municipality. The majority of road investment projects relate to the provision of retention dams, maintaining gravel road networks, rehabilitating paved road networks, and associated stormwater systems. These are shown in **Error! Reference source not found.8**.

Roads & Stormwater					
No	Town	Project	Cost	Funding Source	Comments
		Retention dam	9 160 000	MIG	Partly done R4 mil available
		Retention dam	5 000 000	MIG	
12	Municipal	Gravel Roads	9 000 000	MIG	Partly done
		Gravel Roads	9 000 000	MIG	
		Stormwater NI	5 000 000		outstanding
		Gravel Roads Unfunded All outstanding	150 000 000		
		Rehabilitate gravel roads Phase II	1 258 509	MIG	outstanding
	Sub Total		188 418 509		
		Roads Kwa Mandlenkosi	843 396	MIG	
		Rehabilitate gravel roads Kwa Mandlenkosi	2 494 916	MIG	Dliso & Matshaka done
13	Beaufort West	Stormwater Retention dam Hillside II	4 426 294	MIG	outstanding
		New stormwater channel - Hillside II	77 265	MIG	
		Rehabilitate gravel roads - Rustdene	3 60 000	MIG	
		Rehabilitate gravel roads - Hillside II	6 176 482	MIG	Partly done R1 mil available
		Upgrade gravel roads - Beaufort West	2 463 406	MIG	
		Rehabilitate gravel roads - Beaufort West	9 000 000	MIG	Partly done R1 mil available
	Sub Total		25 481 759		
		Rehabilitate roads and stormwater - Murraysburg	3 400 000	MIG	
14	Murraysburg	Rehabilitate gravel roads - Murraysburg	6 170 195	MIG	Setlaar & Perl done
		Stormwater - Murraysburg	1 620 000	MIG	outstanding
		Upgrade Gravel roads Murraysburg	3 972 545		Mark Street partly done
	Sub Total		15 162 740		

Table 11: Road investment projects for Beaufort West Municipality

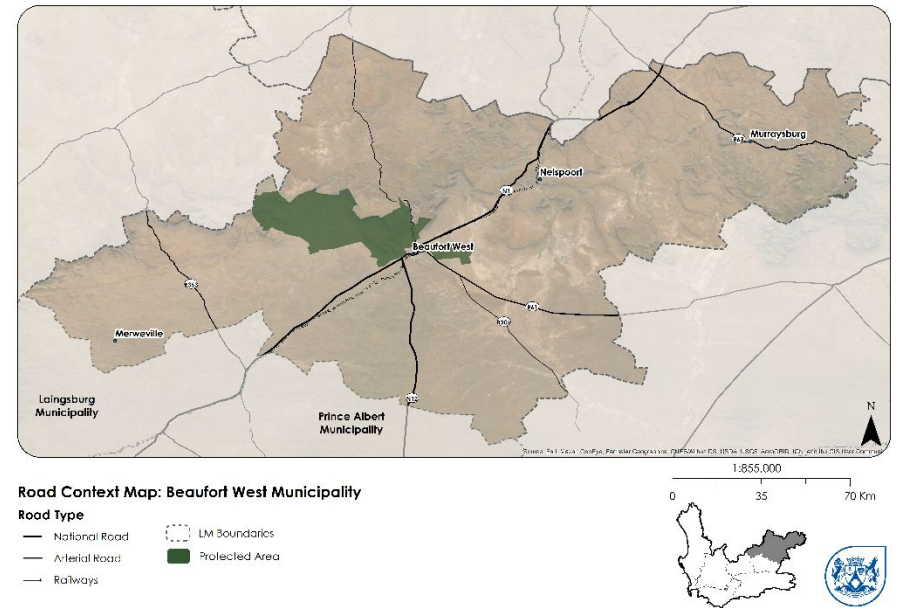


Figure 52: Road Hierarchy for Beaufort West Municipality

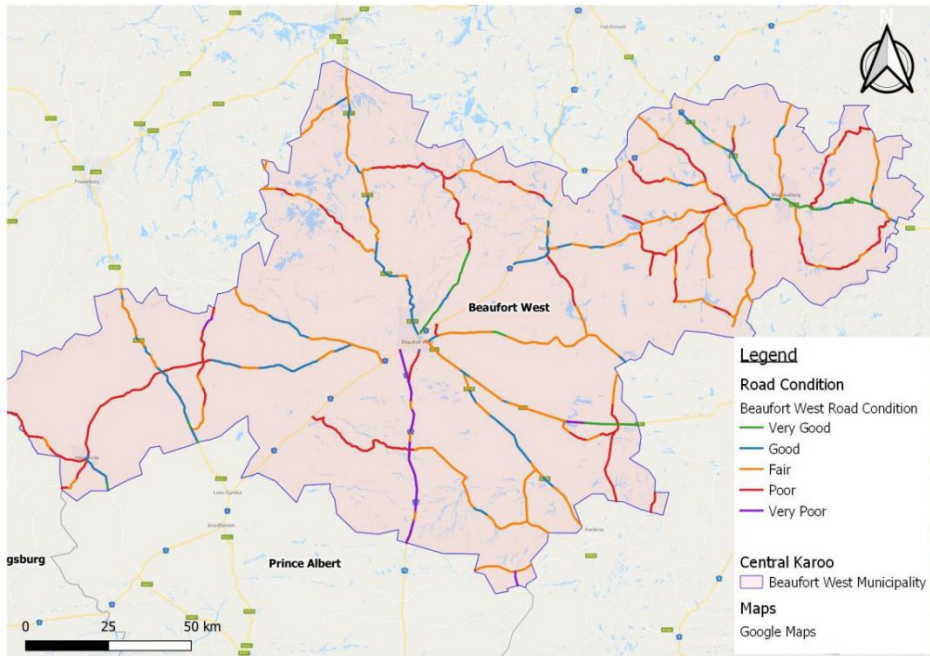


Figure 52: Road Inventory and Condition in Beaufort West Municipality

ROAD CATEGORY	SURFACED (KM)	GRAVEL (KM)	TOTAL LENGTH (KM)	DESIGNATION	AUTHORITY
National Roads	172	-	173	N1	SANRAL
Trunk Roads	303	68	371	N12	Western Cape Provincial Government
Main Roads	32	320	352	R381, R61, R353	Western Cape Provincial Government
Divisional Roads	12	931	943	-	Central Karoo District Municipality
Minor Roads	0.03	2 299.07	2 100	-	-
Total	519	3419	3939	-	-

Table 12: Road Inventory for Beaufort West Municipality

3.4.5 Rail Network

There are two rail services that pass-through Beaufort West. These are the passenger rail service and the Shosholozza Meyl. The Shosholozza service is between Cape Town and Johannesburg and from Cape Town to Queenstown through Beaufort West. The route through Beaufort West passes through Laingsburg for both the blue train and Shosholozza Meyl rail services. The Tourist class Shosholozza passes through the Prince Albert Road station 45km from the town of Prince Albert on a Tuesday, Wednesday, Friday, and Sunday on the route between Cape Town and Johannesburg.

Both passenger and freight rail services are in distress nationally, suffering from diminished levels of service, decreased reliability, neglect and degradation of state-owned infrastructure networks and assets and hence decreased importance, despite national policy seeking to revive and reframe rail in the country. The revival of the regional economy of the karoo largely depends on the ability of government to revive both passenger and freight rail systems. There is a need for national government to reconsider the entire model of delivering the rail function, to allow for improved levels of service to be realised and for the ultimate goal of seeing the shift from road to rail. Not only does this have positive climate change mitigation effects, but it results in fewer road accidents and deaths, and potentially improves logistic service volumes that can be transported at any one time.

3.4.6 Road based Public Transport

The 2013 Central Karoo Mobility Strategy and 2021 Beaufort West Local Integrated Transport Plan identify the following transport routes as part of a proposed Integrated Public Transport Network (IPTN). These are also shown in Figure 53:

- From Beaufort West to Laingsburg (along the N1), possibly as far as Worcester
- Beaufort West to Oudtshoorn along the N12, possibly as far as George
- Merweville to Prince Albert
- Klaarstroom to Prince Albert
- Merweville to Beaufort-West
- Prince Albert to Beaufort-West
- Leeu-Gamka to Beaufort West
- Leeu-Gamka to Prince Albert
- Nelspoort to Beaufort West
- Murraysburg to Beaufort West
- Hutchinson to Murraysburg

- Vleiland to Laingsburg
- Public transport from Beaufort West, Laingsburg, and Hutchinson rail stations to surrounding areas.
- From the rural settlements located along the R61 to Beaufort West, including learners in the settlement of Rietbron.

Additionally, the LITP notes that, in Beaufort West Town, there is one formal taxi rank in Beaufort West at Voortrekker & Donkin Street and there is one on street bus embayment along Donkin Rd. This facility is used predominantly by the mini-bus taxis and the one observed private bus.

In Beaufort West, there are two dominant modes for local public transport. These are sedan vehicles and mini-bus taxis. The LITP noted the following around public transport in the town:

- The Shoprite Park rank is utilized by the sedan vehicles only.
- Mini-bus taxis offer private scholar routes (private contracts with the scholar's parents).
- The mini-bus taxis operate from outside the Shoprite rank and have 8 formal routes assigned to the association.
- The mini-bus taxis operate multiple chartered services and scholar services.
- In the morning peak, vehicles do not operate from the taxi rank, but from the residential areas and transports directly to the places of work.
- In the afternoon peak, sedan vehicles operate from the rank.
- There is one bus operating from the on-street bus embayment.

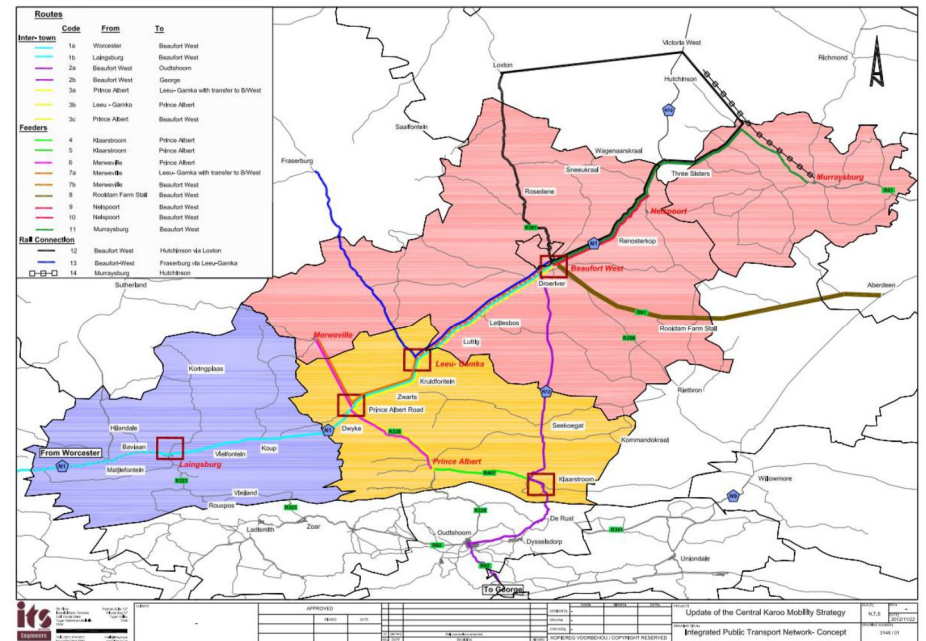


Figure 53: Routes and depots identified in the 2013 CKDM Strategy

3.4.7 Learner Transportation

Private learner transport in Beaufort West is undertaken by mini-bus taxis on a private contract between the parents and the taxi association. The scholars are collected at home and transported to their schools.

Public learner transportation is performed by the Western Cape Education Department. There are three routes running in the municipality. Two routes come from outside Beaufort West town bringing learners from two opposite sides to the schools in town.

One route starts in town and transports learners to schools on the opposite side of the town due to learners having to cross the busy N1 as there is no bridge or sub-way for them to cross. While these routes are operational, the LITP indicates that they are insufficient, as many learners still walk to school.

The school learner routes are shown in **Figure 54 to 56**.

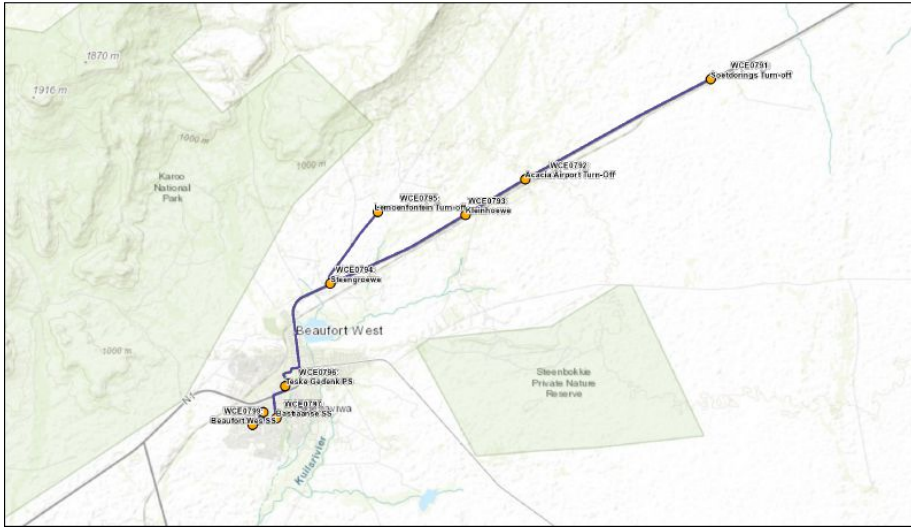


Figure 54: School Learner Route 1

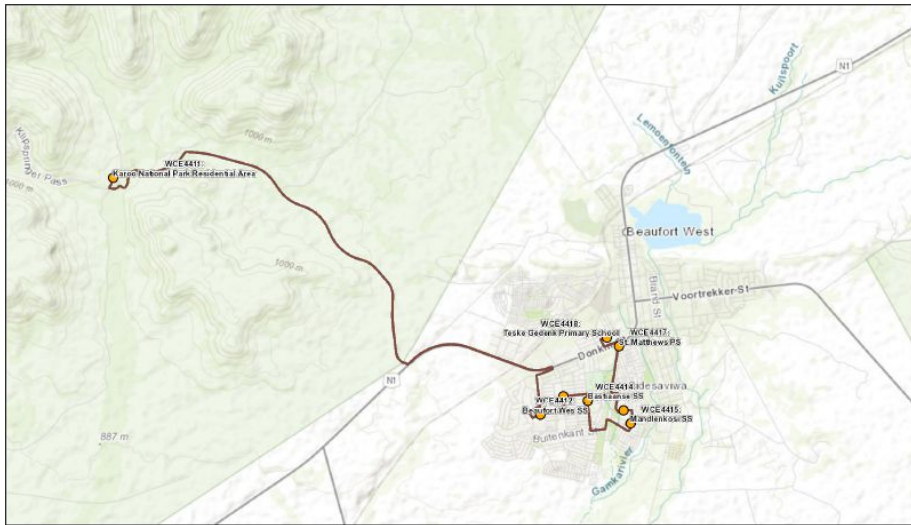


Figure 55: School Learner Route 2

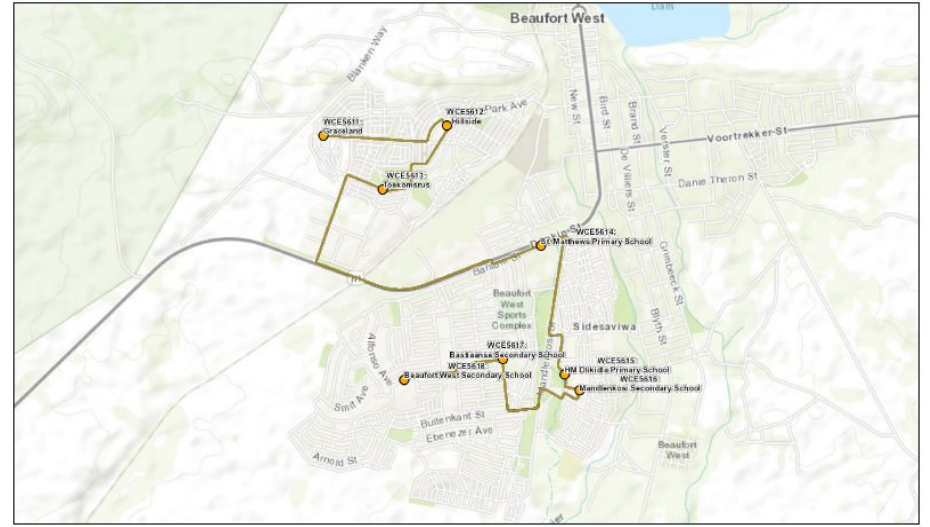


Figure 56: School Learner Route 3

3.4.8 Air transport

There is one privately-owned airport in Beaufort West Municipality, located on the N1 North approximately 10km from the town of Beaufort West. The airport is currently used for chartered flights only. Additionally, the Beaufort West Airport is also used by the AVIC International Flight Training Academy. The potential exists for this airport to be equipped to accommodate scheduled flights in the future should there be demand for these. This will obviously be subject to economic activity and potential industry driving the demand for such flights.

3.4.9 Non-Motorised Transport

The LITP included a study of NMT use in the municipality. The study showed that, in Beaufort West Town, pedestrians were observed walking between Shoprite and the residential areas in excess of 2km, even with the options of sedan, mini-bus taxi and a bus service, which is probably a factor of affordability. In addition, during consultation with schools, it was noted that there are learners walking in excess of 3km to schools. Clearly, NMT is an important mode of transport for Beaufort West residents, and streets and pavements should be optimized for use by pedestrians and cyclists – with particular attention needing to be paid to school learners.

The status quo study found that the existing pedestrian walkways provide reasonable connectivity across the settlements in the Municipality of Beaufort

West. However, the continued priority would be improvements in the network, pavement condition, walkway widths, and lighting, particularly in Murraysburg and to an extent in Beaufort West.

Beaufort West Town NMT routes:

The non-motorized transport routes provided in Beaufort West are in a good condition. The two primary non-motorized transport routes are from town along both sides of Mandlenkosi Street in Kwa-Mandlenkosi towards Prince Valley (1.517km); and from De Vries Street in Rustdene to the bridge and intersection at Danie Theron Street (1.215km). The lack of formal NMT infrastructure around the hospital is a concern. The extent to which the 2013 Beaufort West MSDF proposed NMT routes for the town, as illustrated in **Figure 57** have been implemented is not clear.



Figure 57: Proposed NMT Routes in the 2013 Beaufort West MSDF

The Beaufort West Municipality Local Integrated Transport Plan (2019 – 2024) sets out the revised NMT requirements for the Beaufort West Town terms of the proposed NMT routes as well as the proposed cycle path which still need to be implemented during 2020 – 2025 as illustrated in **Figure 58**.



Figure 58: Revised NMT routes for Beaufort West Town (2020 – 2025)

Merweville NMT routes:

The existing walkways in Merweville are recently constructed. The coverage is good, and the walkways are majority all-weather walkways. The proposed NMT route for Merweville for 2020 – 2025 is illustrated in **Figure 59** below.



Figure 59: Proposed NMT route for Merweville (2020 – 2025)

Nelspoort NMT routes:

The walkways at Nelspoort provide adequate coverage for the community.

Murraysburg NMT routes:

The walkways in Murraysburg mostly consist of old and damaged infrastructure that requires maintenance. The NMT coverage is low in the township areas of Murraysburg. The walkways start and stop along Angelier St in front of the schools, but do not connect to anything. Currently the stormwater channel is being used as a walkway. It is effective in dry conditions, but cannot be used in wet weather, forcing pedestrians into the road in poor visibility conditions.

The proposed walkways for Murraysburg for 2020 – 2025 are illustrated in **Figure 60** below.

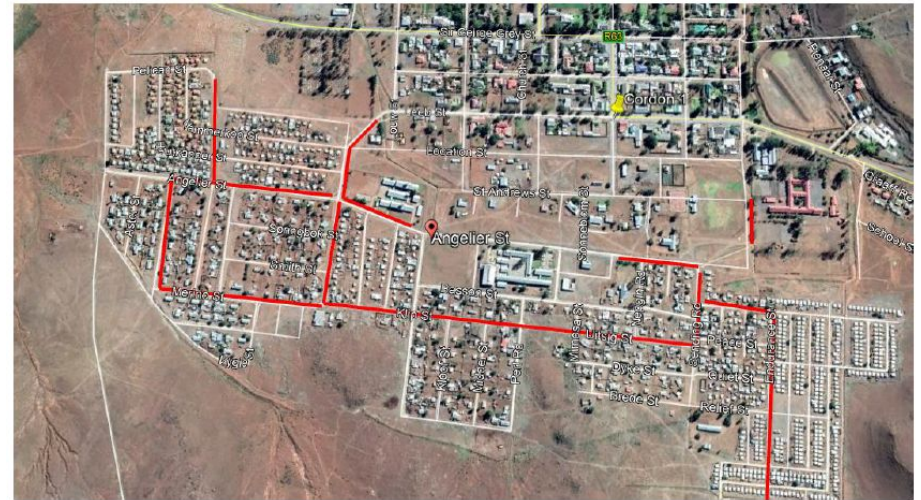


Figure 60: Proposed Walkways for Murraysburg (2020 – 2025)

Specific NMT interventions are proposed in the LITP to address the needs discussed above. These are discussed in the proposals chapter of this MSDF.

3.4.10 Water Infrastructure

Beaufort West Municipality is the designated Water Services Authority (WSA) within the municipal area. It is also the Water Services Provider (WSP).

Water is supplied via separate water distribution systems to Beaufort West, Merweville, Nelspoort and Murraysburg. Beaufort West and Nelspoort are reliant on surface and groundwater sources, while Merweville and Murraysburg only utilize groundwater sources. Beaufort West Municipality also operates its own Water Treatment Works and Wastewater Treatment Works, where wastewater recycling is done to maximize water use. The water utilities map for the Beaufort West Town is illustrated in **Figure 61**.

The most significant challenges, from a Water Services perspective are the following:

- Stormwater master plans are outdated, and there are no funds to update them.
- Infrastructure is ageing, resulting in frequent service cuts to water services.

- Augmentation of the existing groundwater resources for Beaufort West
- Upgrading of the Nelspoort and Murraysburg oxidation ponds
- The refurbishment and upgrading of the existing water and sewer networks and pump stations and to ensure the provision of basic services to rural communities located on private farms.

Beaufort West Municipality will continue to develop strategies and action plans, in collaboration with farm owners, for the Municipality to fulfil its legal obligations and responsibilities as WSA for the provision of basic services. Key investments and actions the municipality is undertaking in the water infrastructure space are as follows:

A. Beaufort West

- Upgrading of the wastewater treatment works in Beaufort West
- New 3 000 kilolitre reservoir in Beaufort West
- Leak detection and repair in Hillside and Rustdene
- Refurbishing of the existing water treatment works in Beaufort West
- Upgrading of the existing wastewater treatment works in Beaufort West

B. Murraysburg

- Construction of Two New Reservoirs in Murraysburg
- Borehole siting, exploration, and development in Murraysburg
- Provide 0.5 Ml additional water storage.

C. Nelspoort

- Rehabilitation of the oxidation ponds in Nelspoort
- New bulk water supply in Nelspoort
- Replace existing 0.911 Ml reservoir with a new 1 Ml reservoir.
- Additional 0.5Ml reservoir
- New 0.5 Ml/day water treatment works.
- Upgrading of wastewater main pump station to 15lps
- Rehabilitate oxidation pond phase 2.

D. Merweville

- New water supply pipelines and upgrade boreholes and pump station along the Klein Hans River
- Augmentation and upgrading of the water supply network in Merweville.
- Refurbish or replace disinfection facility in Merweville.
- New 0.5 Ml reservoir in Merweville
- Upgrading internal sewer drainage network

- For all towns, extensive upgrading of the deteriorating water network

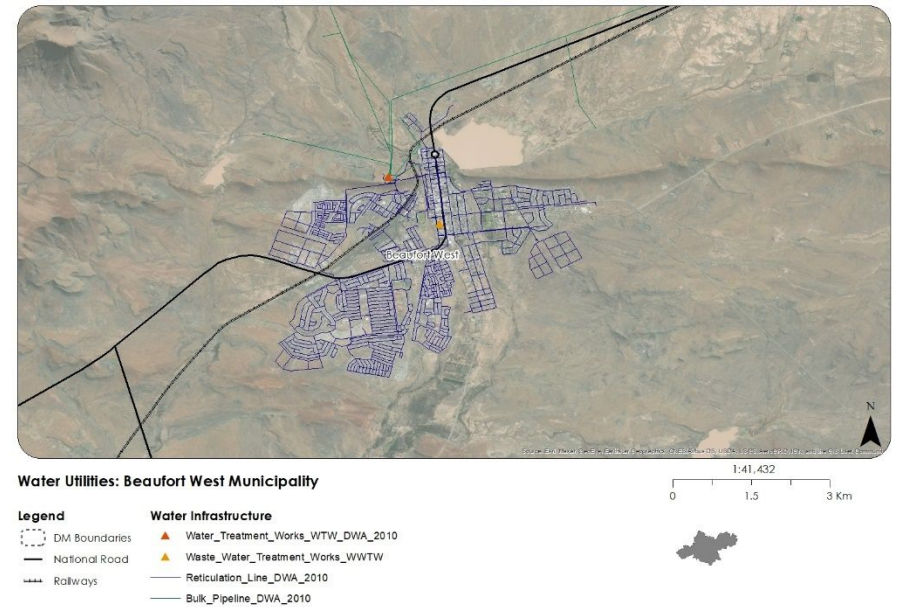


Figure 61: Water Utilities in Beaufort West Town

3.4.11 Energy and Electricity

Much of Beaufort West Municipality falls into a Renewable Energy Development Zone (REDZ) (see **Figure 62**) under phase 2 of national government's project to identify areas of strategic importance for large-scale wind and solar photovoltaic development.. The REDZ was gazetted on 26 February 2021 when Minister Barbara Creecy published Government Notice No. 142, 144 and 145 in Government Gazette No. 44191. The gazetting of REDZs as areas of strategic importance for large scale wind and Solar PV development gives effect to provisions in terms of section 24(5)(a) and (b) of the National Environmental Management Act, 1998. This process outlines procedures to be followed when developments occur in geographical areas of strategic importance. Also of note is Regulation 15 of the Environmental Impact Assessment Regulations, 2014, which states that any applications falling within these gazetted areas will have the benefit of reduced time frames i.e., conducting a Basic Assessment instead of a full Scoping and Environmental Impact Assessment. The reduction in these timeframes is due to the reduction of the decision-making timeframes to 57 days. Through these provisions the authorities and other decisionmakers

will be able to ensure that wind and solar PV development in REDZs is given priority in planning, approval, and implementation.

There are two guidelines to consider for the spatial planning within the REDZ Zone: The EIA guideline for renewable energy projects; and Phase two of the Strategic Environmental Assessment 2019 for wind and solar photovoltaic energy in South Africa. The latter document makes special spatial prioritisation for renewable energy development based on important areas for agriculture, bats, and birds.

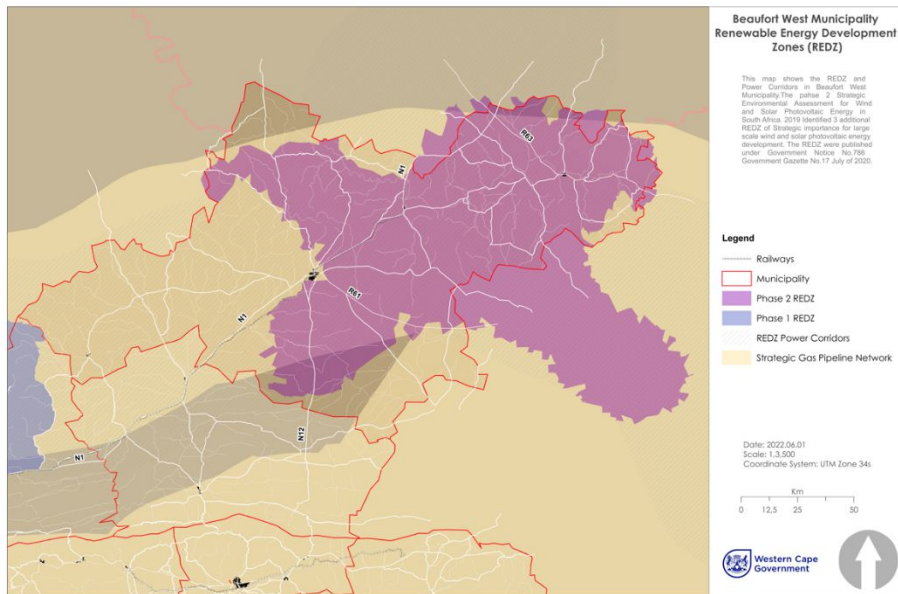


Figure 62: Renewable Energy Development Zone

Existing electrical infrastructure in Beaufort West Municipality consists of a single 132kV (kilo Volts) point of supply at Beaufort West Substation with a notified maximum demand (NMD) of 20MVA (mega Volt Amps). In 2020 the maximum utilised demand was 10.6MVA on the 30 August. There are two 132kV lines supplying this substation. One from Droerivier Main Transmission Substation (MTS) in the south and one from Hydra Main Transmission Substation (MTS) in the north. These 132kV lines both have thermal capacities of 80MVA. This is shown in **Figure 63**.

This infrastructure is considered to be adequate for now and in the future, although a new 500MVA 400/132kV Transformer and 132kV busbar is planned at Droerivier MTS to enable the connection of Independent Power Producers

(IPPs). The Municipality has also requested a second 132kV point of supply at their current point of supply so that they can install a second transformer in their substation. This will ensure that if one of their transformers were to trip out then the second transformer could still supply the load, drastically reducing the risk of electrical failure in the municipality.

All the IPPs that have applied to Eskom to be connected to the Eskom grid have been quoted. If they are awarded preferred bidder status then the networks they were quoted for will be constructed to connect them to the grid. Applications range from 20MVA to 140MVA. Current IPP applications are shown in **Figure 63**.

For service delivery, the following figures are notable:

- Electricity Complaints : ± 500 PER MONTH
- Electricity Distribution Network: LV AND MV
- Service Connections : ± 14 000
- High Mast Lighting: 130
- Streetlights: 1 200

Budget has been allocated for upgrading and maintenance of substations, high mast lighting in Beaufort West and Nelspoort, and various upgrading projects have been identified as per Error! Reference source not found. **12**. However, funding has not been secured for the majority of these projects.

There are two policies needed in the municipality: small-scale electricity generation, and fibre optic and network telecom. The existing policies are outdated and must be reviewed.

BEAUFORT WEST – ELECTRO TECHNICAL SERVICES – SDF PROJECTS (14/09/2021)					
EXISTING					
No.	Policy/Projects Name/Ref	Project/Policy Description	Project Location	Cost Estimate	Current status
IDP 70	Upgrading Main Substation 22/11 kV	Improvements to electrical network supply	Municipal	R 5 000 000	In progress/DOE FUNDING
IDP 71	Load Control 132/22 kV Substation	Improvements to electrical network supply	Municipal	R 5 000 000	Partially completed/DOE FUNDING
IDP 72	11 kV Network new Industrial Area	Improvements to electrical network supply	Municipal	R 2 000 000	No funding/DOE FUNDING
IDP 73	Auto Recloser 11kV Plotte	Improvements to electrical network supply	Municipal	R 250 000	No funding/CRR
IDP 74	Isolator and Switchgear 22kV lines	Improvements to electrical network supply	Municipal	R 250 000	No funding/CRR
IDP 77	Upgrading 11 kV Switchgear Bftw	Improvements to electrical network supply	Beaufort West	R 15 000 000	No funding/CRR
IDP 78	Upgrading 11 kV Switchgear Rustdene	Improvements to electrical network supply	Beaufort West	R 30 000 000	No funding/CRR
IDP 79	Upgrading 11 kV Switchgear Kwa Mandlenkosi	Improvements to electrical network supply	Beaufort West	R 5 000 000	No funding/CRR
IDP 80	Upgrading Overhead Lines Rustdene	Improvements to electrical network supply	Beaufort West	R 1 000 000	No funding/CRR
IDP 81	Upgrading Overhead Lines Hillside	Improvements to electrical network supply	Beaufort West	R 3 000 000	No funding/CRR
IDP 82	Upgrading Overhead Lines Beaufort West	Improvements to electrical network supply	Beaufort West	R 1 000 000	No funding/CRR
IDP 83	Upgrading Mini Substation Bastiaanse School	Improvements to electrical network supply	Beaufort West	R 650 000	No funding/CRR
IDP 84	Upgrading Mini Substation Botha Street	Improvements to electrical network supply	Beaufort West	R 650 000	No funding/CRR
IDP 85	Upgrading Transformer Truter Substation	Improvements to electrical network supply	Beaufort West	R 350 000	No funding/CRR

Table 12: Electro Technical Services projects in Beaufort West Municipality

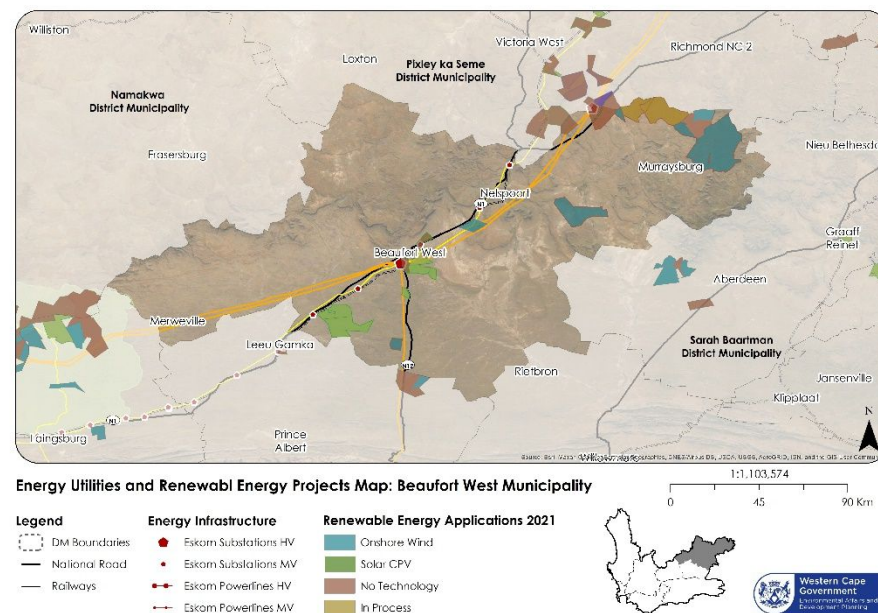


Figure 63: Energy Utilities and Renewable Energy Projects in Beaufort West Municipality

3.4.12 Waste Infrastructure

The Review of the Integrated Waste Management Plan (IWMP) was drafted in 2021. The IWMP notes that Beaufort West Municipality provides a weekly door-to-door waste removal service to the households and a bi-weekly service to businesses. Medical waste generated by hospitals, general practitioners and clinics is collected by a private company in George. A private contractor is responsible for the spillage removal along the N1 National Road traversing the Beaufort West municipal area.

The Municipality removes garden refuse together with domestic waste on normal removal days if it is placed in refuse bags. Building rubble is removed by residents themselves and the municipality removes only building rubble when it is dumped illegally.

There are four waste management facilities within Beaufort West municipal area and the waste management licensing unit was in the process of licensing the facilities. They are Merweville, Nelspoort and Murraysburg and Vaalkoppies (Beaufort West Town) waste disposal facilities (WDF). Nelspoort (Landfill Site)

Waste Disposal Facility has an operational NEMA section 24G environmental authorisation. Merweville (Landfill Site) Waste Disposal Facility has an operational Waste Management Licence. Vaalkoppies (Landfill Site) Waste Disposal Facility has an operational Permit. The operations at all landfill sites is poor, with no regular compaction and covering of waste. The infrastructure has deteriorated due to vandalism, with fencing having been stolen and informal reclamation activities taking place regularly. Funding has been applied for and approved for upgrading the Vaalkoppies landfill site and to establish a waste transfer station at Murraysburg. The budget for this project is R 17 000 000. This needs to be implemented urgently. **The state of waste management in Beaufort West town in particular is a serious environmental health risk to the residents living there.** It is also a significant detractor from economic and tourism potential in the town and the municipality. The landfill and waste management sites in Beaufort West Town, Merweville, Murraysburg and Nelspoort are illustrated in **Figure 64** below.

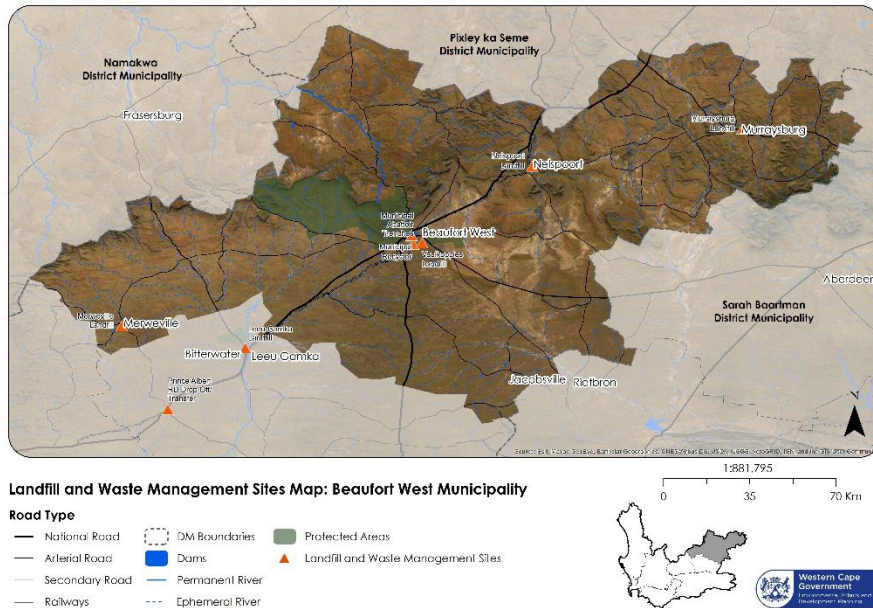


Figure 64: Landfill and Waste Management Sites in Beaufort West Municipality

3.4.13 Built Heritage

A desktop heritage survey was undertaken for the preparation of the 2014 Beaufort West MSDF. The survey found that Beaufort West town had a high density of Victorian domestic buildings and much of its civic and religious architecture is of high architectural and historic significance. Important sites (and their proposed heritage grading) are outlined below:

A. Beaufort West Town

- Grade I
 - Anglo Boer War Graves
- Grade II
 - Matoppo House
 - Clyde House
 - Christ Church
 - Old Town Hall
 - DR Mission Church
 - Girls' Public School
 - DR Church
 - Old Public Library
 - Cyprus and Pear trees
- Grade III
 - Beaufort West Club
 - Christ Church Lodge
 - Vine Lodge
 - Gaol
 - Methodist Church
 - Railway Station
 - Anglo Boer War block house
 - Coronation villa
 - Karoo lodge
 - Pritchard House
 - Coronation Hall

B. Merweville

- Dutch Reformed Church (c1905) – Proclaimed National
- Monument/Provincial Heritage Site (PHS)
- Lieutenant Walter Oliphant Annot War Grave – Grade I

C. Nelspoort

- Nelspoort Sanatorium and Homestead – Grade III (A)
- Nelspoort Rock Art Sites – Archaeological Site, possibly Grade II/PHS

D. Murraysburg

- Powder Magazine (c1878) – Proclaimed National Monument/PHS
- 33 Darling Street – Proclaimed National Monument/PHS
- Dutch Reformed Church (c1907) – Grade III (A/B)
- Magistrate's Office (c1905) – Grade III (A/B)
- 15 Voortrekker Street (c1860) – Grade III (A/B)
- 21 Voortrekker Street (c1890) – Grade III (C)
- 23 Voortrekker Street (c1870) – Grade III (C)
- Pastorie Street (c1890) – Grade III (C)
- Former church building, corner of Leeb and Church Street (c1880) – Grade III (C)

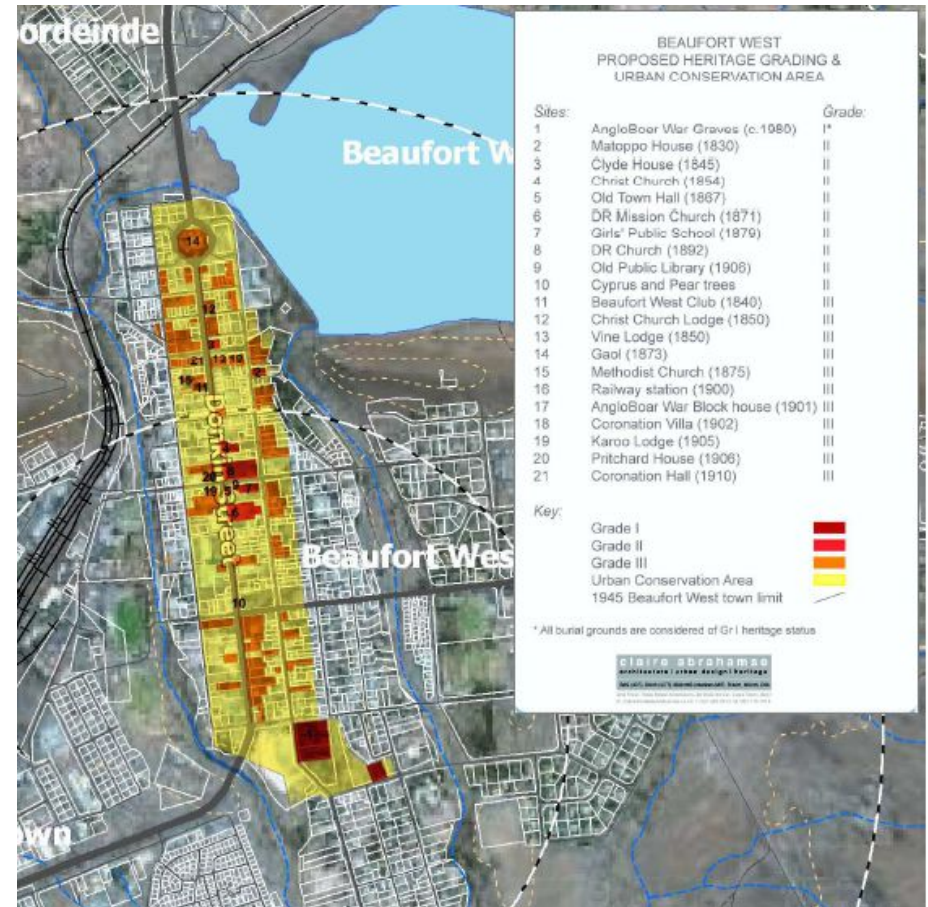


Figure 65: Heritage Resources in Beaufort West Town

3.5 SYNTHESIS

The purpose of this section is to undertake a synthesis and performance assessment of the key spatial issues and opportunities are within the Beaufort West municipal area. This will both identify any cross-sectoral issues or opportunities that require attention, as well as inform the proposals and plans that the MSDF will put forward.

3.5.1 Municipal Scale Synthesis

The following sections describe the spatial opportunities for the natural environment, built environment, and socioeconomic systems at the municipal scale, as well as at the local scale in the town of Beaufort West.

3.5.1.1 Natural Environment Synthesis

The key issues affecting Beaufort West municipality's natural systems at the municipal scale are shown in **Figure 66**.

- The topography in the South of the municipal area mainly consists of gently undulating plains. In contrast, the northern extent is characterised by the Nuweveld Mountain range, with peaks ranging between 825 to 1,911 m. Toorberg to the south of Murraysburg forms part of the Sneeuberg range which is the divide between the Central Karoo District and the Eastern Cape.
- There are very few perennial river systems in the municipal area. There is a serious need for veld rehabilitation in the highly degraded Sout River basin which could become a dustbowl.
- Drought is a serious and persistent issue in the municipality, with climate change predicted to compound this issue. The north-eastern area around Murraysburg has historically seen higher rainfall than the rest of the municipality and has been the agricultural hub of the municipality as a result. However, the recent drought appears to have put an end to much of this activity.
- The Karoo National Park is the major Protected Area in the municipality. It is a key strategic asset at the regional scale and contributes to tourism in Beaufort West as well as being ecologically important to the natural environment.
- Critical Biodiversity Areas and Environmental Support areas have been mapped for the entire municipality and must be protected from inappropriate development such as urban development, intensive agricultural activity, or shale gas / mining activity.

- Shale gas extraction presents both environmental risks and economic opportunities.
- Aquifers are significant ground water resources for the municipality and need to be better studied to understand their capacity and extent.
- Scenic routes worthy of protection are the Karoo National Park and CBA areas in the municipality. Development within the buffer zones must be prevented or mitigated to prevent activity-related disturbances to the park.
- Environmental pressure points in the municipality are the threat of degradation to sensitive natural areas, and the potential effects of shale gas extraction.
- Environmental Opportunities in the municipality are mountain catchments, rivers, wetlands, and rangelands. These areas should be prioritised for protection or rehabilitation.
- Environmental or Disaster risk areas in the municipality are the seriously degraded Vaalkoppies landfill site, and the ongoing drought.

3.5.1.2 Built Environment Synthesis

The key issues affecting Beaufort West municipality's built environment at the municipal scale are shown in **Figure 67**.

- The N1, the N12, and the rail network are significant national and regional assets. Beaufort West is situated between South Africa's two largest economic centres. Freight transport over road and rail brings a high volume of traffic and economic activity into the town and the municipality. The rail system is currently functioning sub-optimally. This needs to be urgently addressed.
- The lack of rainfall mentioned in Section 3.5.1.1 appears to have had a particularly detrimental effect on Murraysburg, with the local economy struggling as a result and the urban environment of the town declining, and in distress – needing maintenance and improvement.
- The towns in Beaufort West Municipality are separated by large distances. Maintenance of their connecting infrastructure is highly important to their functioning. The road connecting Merweville to the N1 was recently tarred, which appears to have had a positive effect on Merweville's development, with the town experiencing a degree of economic regeneration as a result of the improved connecting infrastructure.
- The area surrounding Beaufort West Town, along with the land around the major roads in the municipality, is classified as having a high vulnerability to landcover change by 2050. This vulnerability will be

exacerbated if measures are not taken to curb the effects of pollution as a result of the degradation of the landfill site outside Beaufort West Town.

- Water infrastructure systems are ageing, resulting in frequent service cuts to water services. Augmentation of the existing groundwater resources for Beaufort West is a priority, as is upgrading of the Nelspoort and Murraysburg oxidation ponds. The refurbishment and upgrading of the existing water and sewer networks and pump stations must be prioritized. The provision of basic services to rural communities located on private farms must also be prioritized.
- Waste infrastructure systems are in serious decline. Urgent intervention is required at the Vaalkoppies landfill site in particular. The development of additional housing in the municipality must be managed carefully as the municipality cannot address its current waste management crisis.
- Electricity infrastructure systems are relatively stable. Budget has been given for upgrading and maintenance of substations, high mast lighting in Beaufort West and Nelspoort. However, funding has not been secured for the majority of these projects.
- There are two electrical services policies needed in the municipality: small-scale electricity generation, and fibre optic and network telecom. The existing policies are outdated and must be reviewed.

3.5.1.3 Socio-economic Synthesis

The key issues affecting Beaufort West municipality's socioeconomic systems at the municipal scale are shown in **Figure 68**.

- Higher-order social services and facilities are clustered in Beaufort West Town. This is where the major population pressure exists and where new facilities are most likely to be needed. The smaller towns are adequately serviced for their populations. Focus needs to be on maintaining existing social facilities and upkeep of the existing facilities, particularly in Murraysburg. Sites for new facilities need to be identified in Beaufort West Town, as there are areas with high residential densities and very limited access to services, in spite of the high number of facilities overall. This is discussed in more detail in the town-level synthesis.
- The REDZ and Strategic Gas Pipeline hold economic opportunity for the Municipality, as evidenced by the number of renewable energy applications. Much of the economic future in the municipality will depend on the outcome of shale gas exploration.
- The results of the facility calculator outputs show that, should Beaufort West grow by 1 256 households by 2035, the cost of additional facilities will be R216 973 972. The most urgent requirement will be for additional primary schools and secondary schools.
- The biggest economic opportunity lies in the potential for shale gas extraction, which could bring an influx of workers and visitors to the municipality. While the economic benefits of shale gas extraction would be significant, this has to be balanced against the environmental and social pressures. Shale gas extraction and its associated activities will place notable burdens on existing transport infrastructure and basic services, as well as posing a significant threat to the already severely constrained groundwater supply.

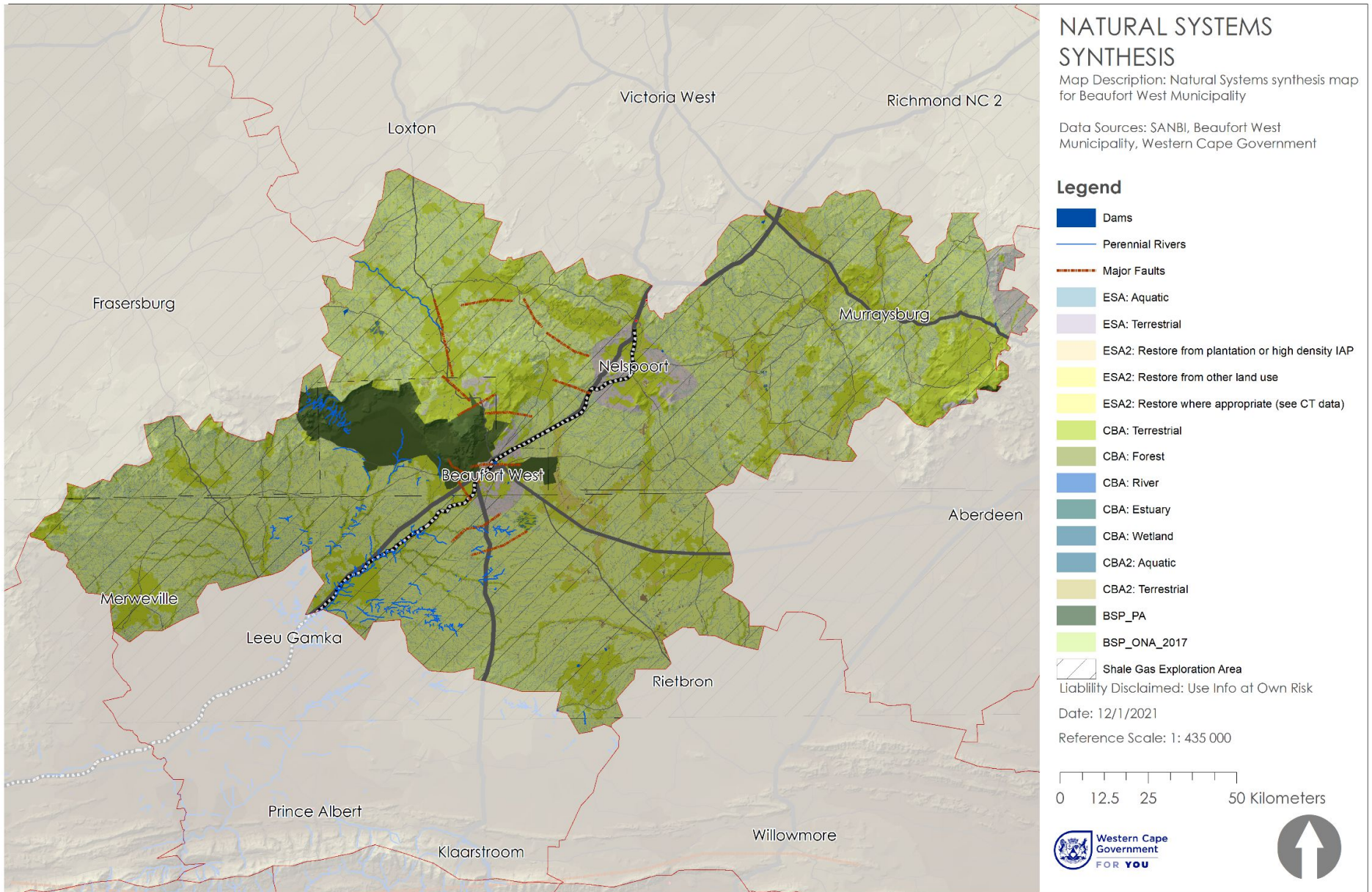


Figure 66: Natural Environment Synthesis Map for Beaufort West Municipality

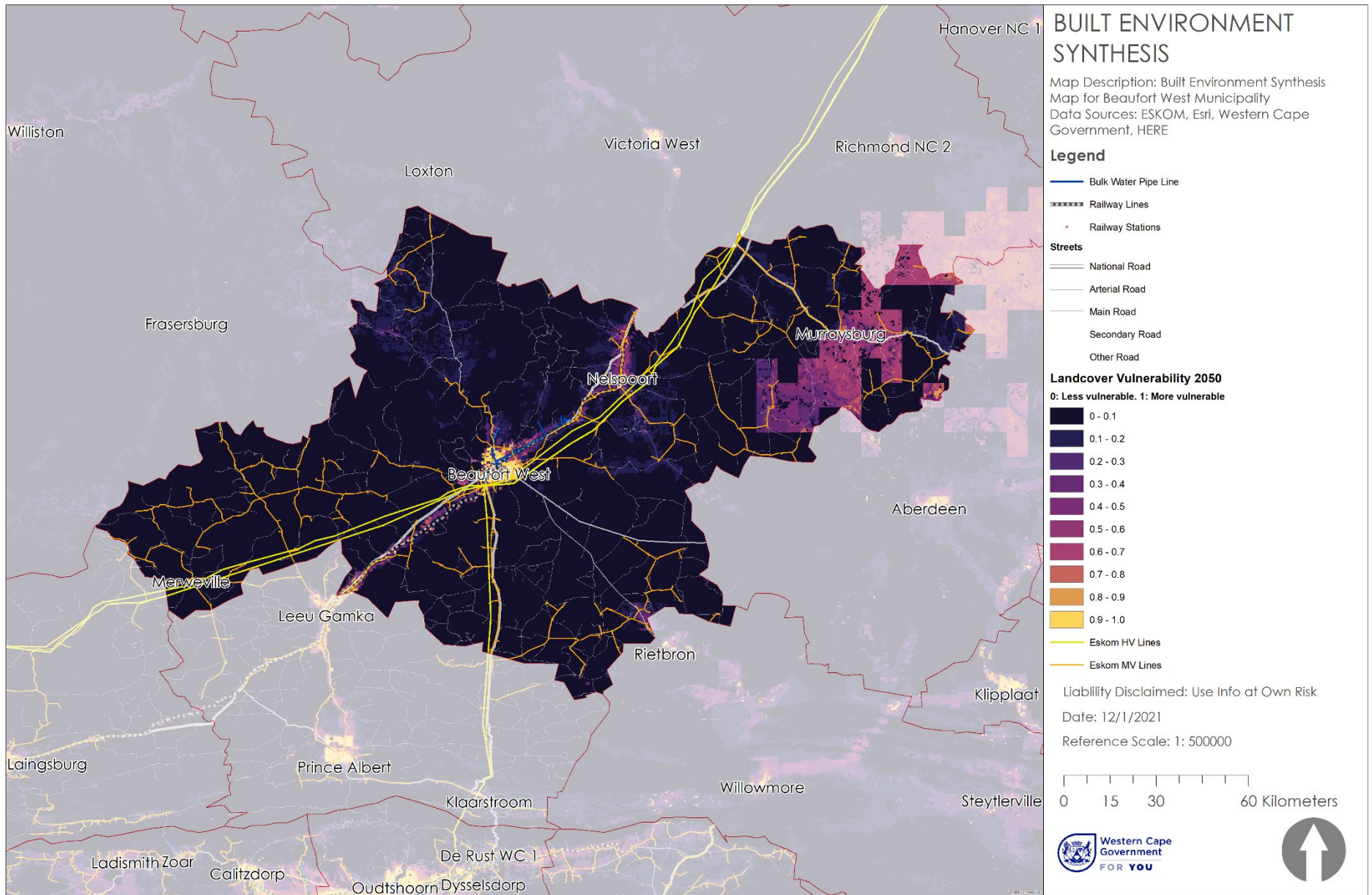


Figure 67: Built Environment Synthesis Map for Beaufort West Municipality

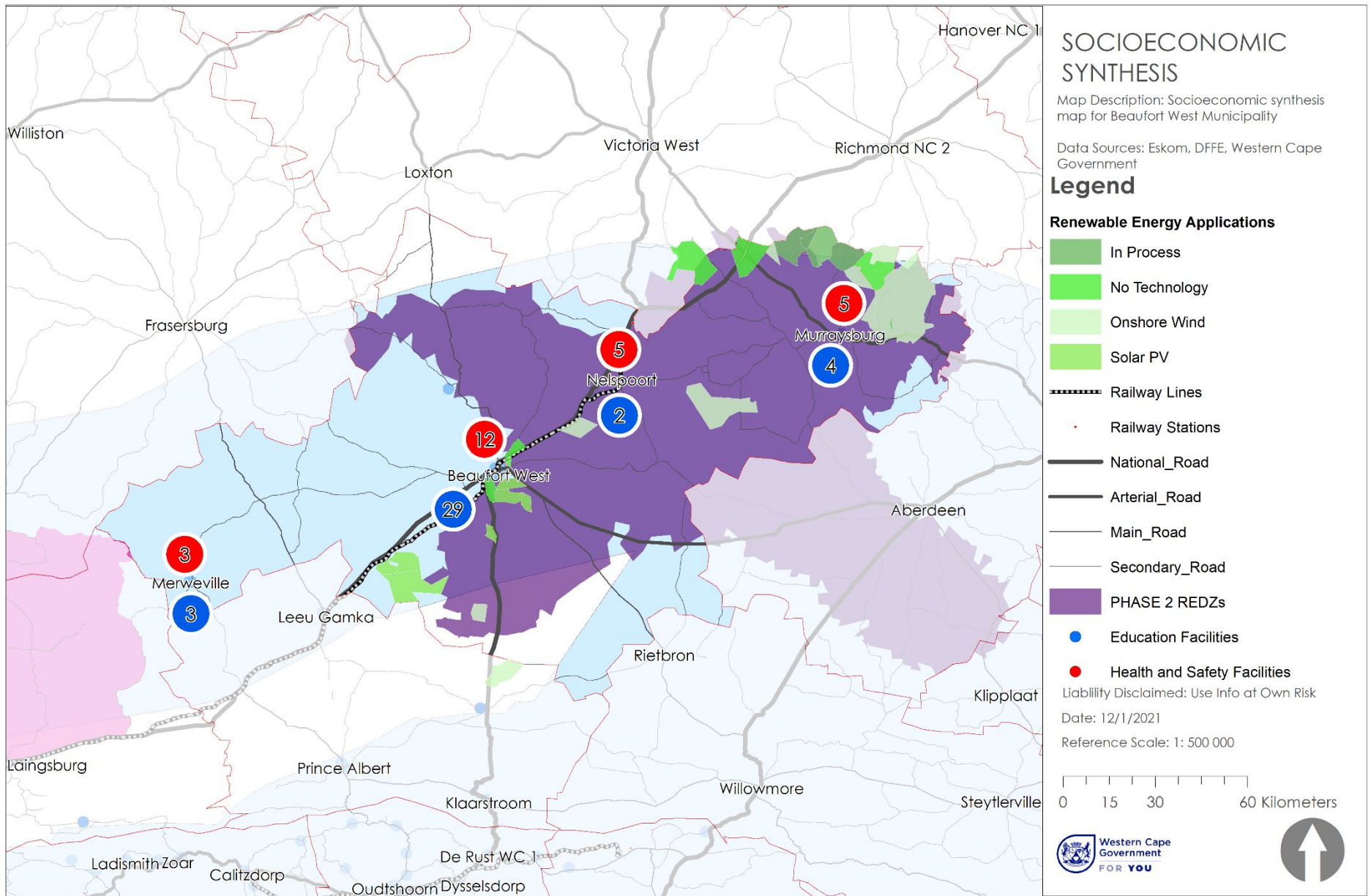


Figure 68: Socioeconomic Synthesis Map for Beaufort West Municipality

3.5.2 Town Scale Synthesis

This section outlines the issues and opportunities emanating from the synthesis analysis of Beaufort West town. Town level synthesis maps are shown from **Figures 66 to 68** above.

3.5.2.1 *Beaufort West Town: Biophysical Synthesis*

- The Karoo National Park is a significant asset and tourism attraction located in close proximity to Beaufort West Town.
- There is an inconsistency between the buffer zone for the Karoo National Park and the built environment of the town. The buffer zone extends into the urban edge of the town and over areas that have already been developed for housing.
- As discussed in Section 3.5.2.2, the state of the Vaalkoppies landfill site is a severe environmental risk. The overflow of waste poses a significant threat to all of the natural systems in the town.
- The majority of the land around the town constitute Critical Biodiversity Areas or Ecological Support areas. This is cause for additional concern around the state of the landfill site.
- The riverbeds running through the centre of the town represent a flood risk when the area receives rain and are often filled with dumped rubbish particularly the poorer areas of the town.
- The hilly topography to the North of the town is a constraint on development.
- There is a fault line running through the town in the North that should be noted.

3.5.2.2 *Beaufort West Town: Built Environment Synthesis*

- The Vaalkoppies waste site, located to the South-East of the town, is overflowing and in need of urgent intervention. The degradation of the waste site is leading to litter getting blown into the town and the surrounding areas. This is an environmental health hazard to residents and a threat to the Critical Biodiversity Areas surrounding the town. The state of the surrounding areas is shown in **Figure 66**.
- The rail network and the N1 highway are a spatial buffer between the suburb of Hillside and most of the town's commercial land uses. These transport systems are important assets at this area – and where open space does exist, it is usually in the form of a walled off sports field that is separated from the public realm.
- Future housing pipeline projects fall between Hillside and the railway area. These housing projects are separated from the commercial centre of the town by the railway.

- The primary commercial land uses in the town occur along the N1 at the entrance to the West, and along Donkin Street in the town's CBD.
- The main industrial uses in the town are located close to the railway line and highway at the Western entrance to the town. The rail network is currently underutilised. Its upgrading and maintenance should be prioritised as it offers a significant strategic advantage for Beaufort West Town and the municipality.
- There is a proposed heritage overlay zone around the CBD to protect the character of the historical buildings in this area.
- The low-density residential areas to the East and South of the CBD are well located and enjoy easy access to the commercial opportunity along Donkin Street.
- There is limited state-owned land available for infill housing. However, the water reticulation network extends South of the well-located areas to the East of the CBD. Given the existence of this infrastructure, and the problems with accessibility in the areas North of the railway line, this area should be considered for infill housing.
- the municipal scale, but function as a barrier to integration at the town scale. Interventions that improve accessibility across the rail system in particular should be prioritised.
- The densest areas of the town are located in the suburb of Hillside, in the Northwest of Beaufort West. There is very little public open space within the settlements.

3.5.2.3 *Beaufort West Town: Socio-economic Synthesis*

- Hillside is drastically under-serviced. A single school and a single clinic service the entire area to the North of the railway line. Many of the newer houses in the area are a minimum of fifteen minutes' walk from a school or healthcare facility, and parts of the newer housing developments are outside the fifteen-minute walking distance band. This is a significant problem, considering that non-motorised transport is the primary mode of transport for most residents in Beaufort West Town.
- Rustdene and Kwamandlenkosi are relatively well serviced in terms of social facilities and community centres. This uneven distribution of facilities has created a situation where children are either bussed to school from Hillside or are forced to cross the N1 and rail system on foot.
- Property values are lowest in Hillside and the Southern areas of Rustdene and Kwamandlenkosi. There is some economic activity in the

North of Rustdene, close to the N1. This is reflected in relatively higher property values in this area.

- The highest residential property values in Beaufort West Town are in the area to the East of the CBD. This area around De Villiers Street is close to the economic centre of the town and is well serviced by social facilities and public open space.
- Economic activity primarily occurs in the CBD, along Donkin Street. This is reflected in the clustering of businesses, community service centres, financial institutions, restaurants, and shops in this area.
- As mentioned above, there is some economic activity towards the North of Rustdene and at the entrance to the town from the East (these are primarily businesses serving trucks passing through Beaufort West along the N1). There is no discernible formal economic activity occurring in Hillside.

3.5.2.4 Murraysburg Synthesis

- The town of Murraysburg was established on the Farm Eenzaamheid in 1855 as a “church town”. The town was named after Rev. Andrew Murray, minister of the Dutch Reformed Church in Graaff-Reinet.
- The main source of income in the town is in the agricultural sector.
- The town has limited economic activity and there is only a limited range of facilities. These include schools, a clinic, a sports field, and a few shops.
- The historical town has some beautifully restored old houses and a church dating back to 1856,
- Tourism activities offered in and around the town include hunting, bird watching, stargazing, fly-fishing, hiking, fossil viewing, photography tours and donkey cart rides.
- The lower income, higher density neighbourhoods of the town are situated to the south of the main town. Large pieces of vacant land separate the two areas.
- Murraysburg has been identified as a settlement with exceptionally low development potential (struggling settlement) and remarkably high social needs.

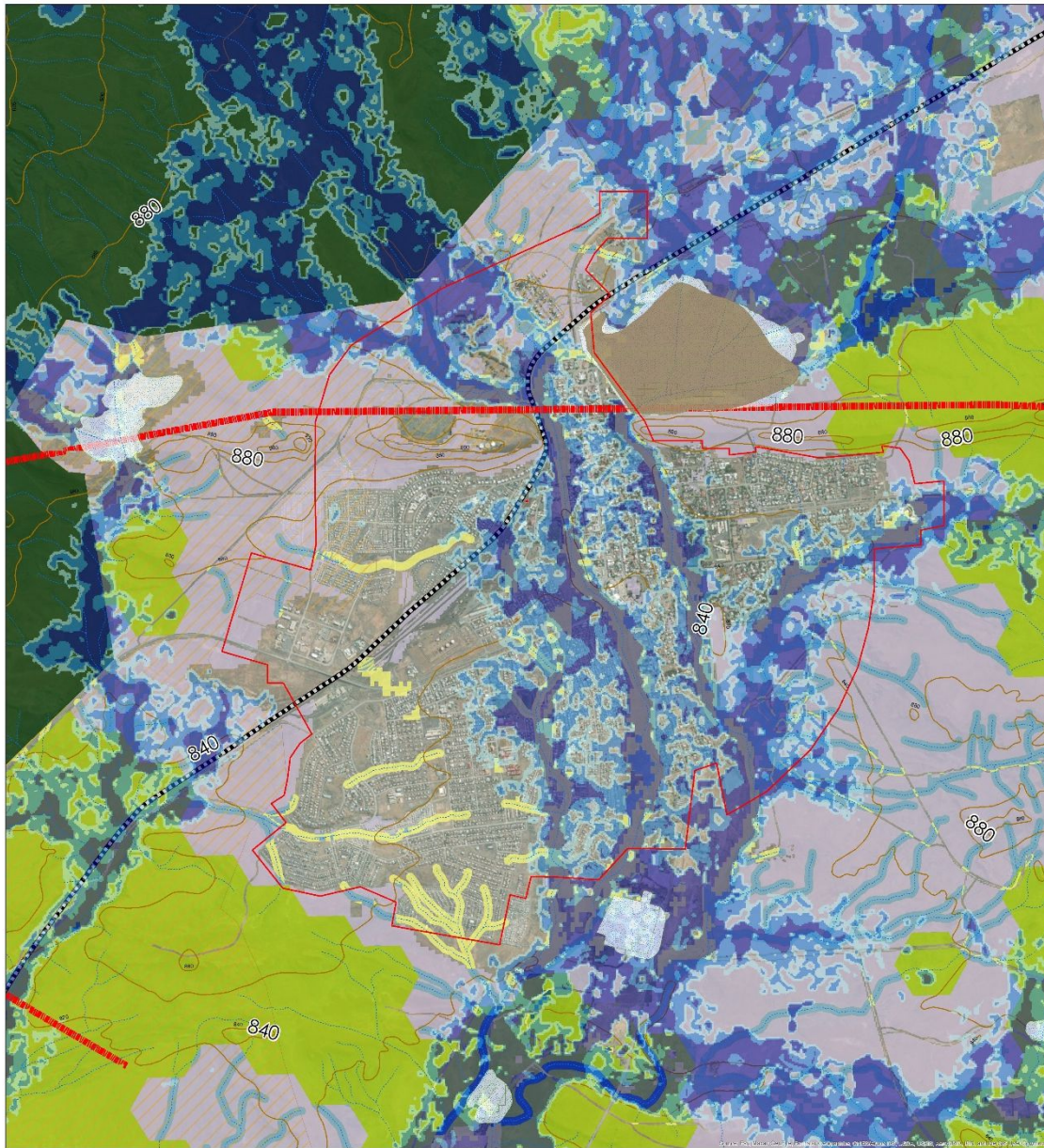
3.5.2.5 Merweville Synthesis

- The small town of Merweville was established in 1904 on the farm Vanderbylskraal and was named after Reverend van Der Merwe, the then minister of the Dutch Reformed Church in Beaufort West.

- The town served as service centre for the surrounding agricultural areas. This role has significantly dwindled and the town is left with limited economic opportunities.
- Facilities offered in the town include Primary schools, a clinic, and a general dealer.
- The original town is characterised by some beautifully restored buildings, some of which have been turned into guest accommodation.
- The town is segregated by the Vanderbylskraalleegte River. The low-income area lies to the west of the river and the main town to the east.
- The town has a low development potential (coping settlement) with very high social needs.

3.5.2.6 Nelspoort Synthesis

- The town of Nelspoort was established when number of farmers established their homes here.
- The town also became a haven for those with chest ailments and in 1924 the first “chest hospital” was established here mainly for the treatment of TB sufferers. In 1969 the first psychiatric patients were admitted to the hospital, mainly due to the decline of TB patients due to sufferers being able to conduct home based treatment. Today the hospital is still in operation but with low occupancy.
- The town offers extremely limited economic opportunities with no business or commercial areas.
- The town has a few facilities including: a police station, primary school, and a hospital.
- The centre of the town is characterised by deserted buildings, some of which have become dilapidated.
- The railway line separates the hospital from the rest of the town. Access across the railway line is provided by means of an underpass.
- Between the town and the Sout River to the east there are some agricultural activities.
- Bushman and Khoi rock paintings and engravings are found throughout the “koppies” around Nelspoort.
- Although the area appears somewhat clean, many residents burn their waste, and the landfill is poorly managed.



NATURAL SYSTEMS SYNTHESIS: BEAUFORT WEST TOWN

Map Description: Natural Systems Synthesis for Beaufort West Town

Data Sources: SANBI, Western Cape Government Department of Environmental Affairs and Development Planning, Western Cape Government Department of Local Government, Beaufort West Municipality

Legend

Urban Edge	Protected Areas
Dams	Karoo National Park Buffer Zone
River Class	
Non-perennial	CBA 1
Wetlands	CBA: Terrestrial
Major Faults	CBA: River
Flood Hazard Index	
1	CBA: Wetland
2	CBA 2
3	CBA2: Terrestrial
20m Contour	ESA 1
Railway Lines	ESA: Aquatic
	ESA: Terrestrial
	ESA 2
	ESA2: Restore from other land use

Liability Disclaimed: Use Info at Own Risk

Date: 11/15/2021

Reference Scale: 1: 15000



Figure 69: Natural Environment Synthesis Map for Beaufort West Town



NATURAL SYSTEMS SYNTHESIS: MURRAYSBURG

Map Description: Natural Systems Synthesis for Murraysburg

Data Sources: SANBI, Western Cape Government Department of Environmental Affairs and Development Planning, Western Cape Government Department of Local Government, Beaufort West Municipality

Legend

River Class

Non-perennial

Wetlands

Flood Hazard Index

1

2

3

20m Contour

Other Natural Areas

CBA 1

CBA: Terrestrial

CBA: River

CBA: Wetland

CBA 2

CBA2: Terrestrial

ESA 1

ESA: Aquatic

ESA 2

ESA2: Restore from other land use

Urban Edge

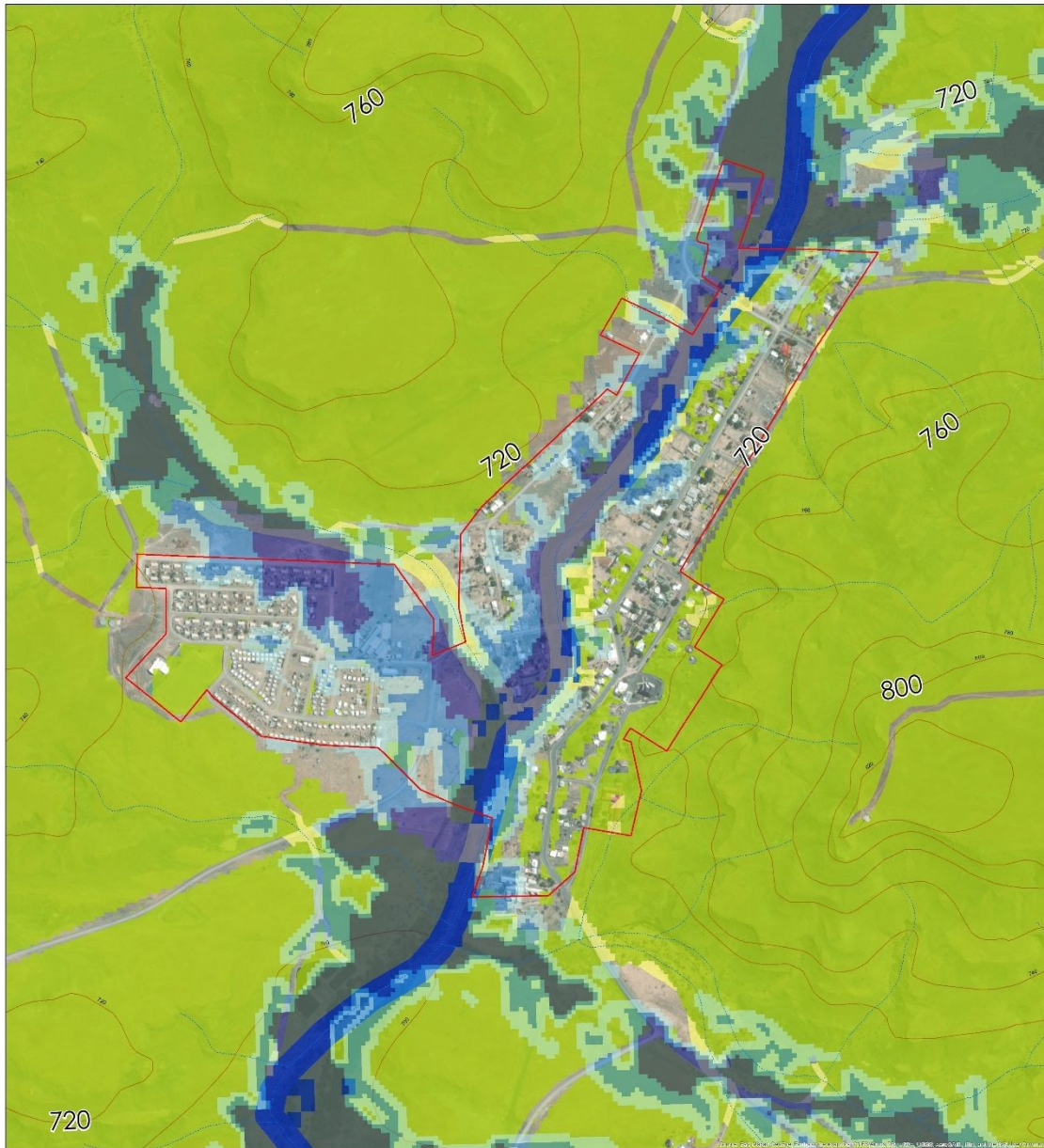
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Date: 11/12/2021

Reference Scale: 1: 5000



Figure 70: Natural Environment Synthesis Map for Murraysburg



NATURAL SYSTEMS SYNTHESIS: MERWEVILLE

Map Description: Natural Systems Synthesis for Merweville

Data Sources: SANBI, Western Cape Government Department of Environmental Affairs and Development Planning, Western Cape Government Department of Local Government, Beaufort West Municipality

Legend

- Contours 20m
- River Class**
 - Non-perennial
- Flood Hazard Index**
 - 1
 - 2
 - 3
- 20m Contour
- CBA 1**
 - CBA: Terrestrial
 - CBA: River
 - CBA: Wetland
- ESA 2**
 - ESA2: Restore from other land use

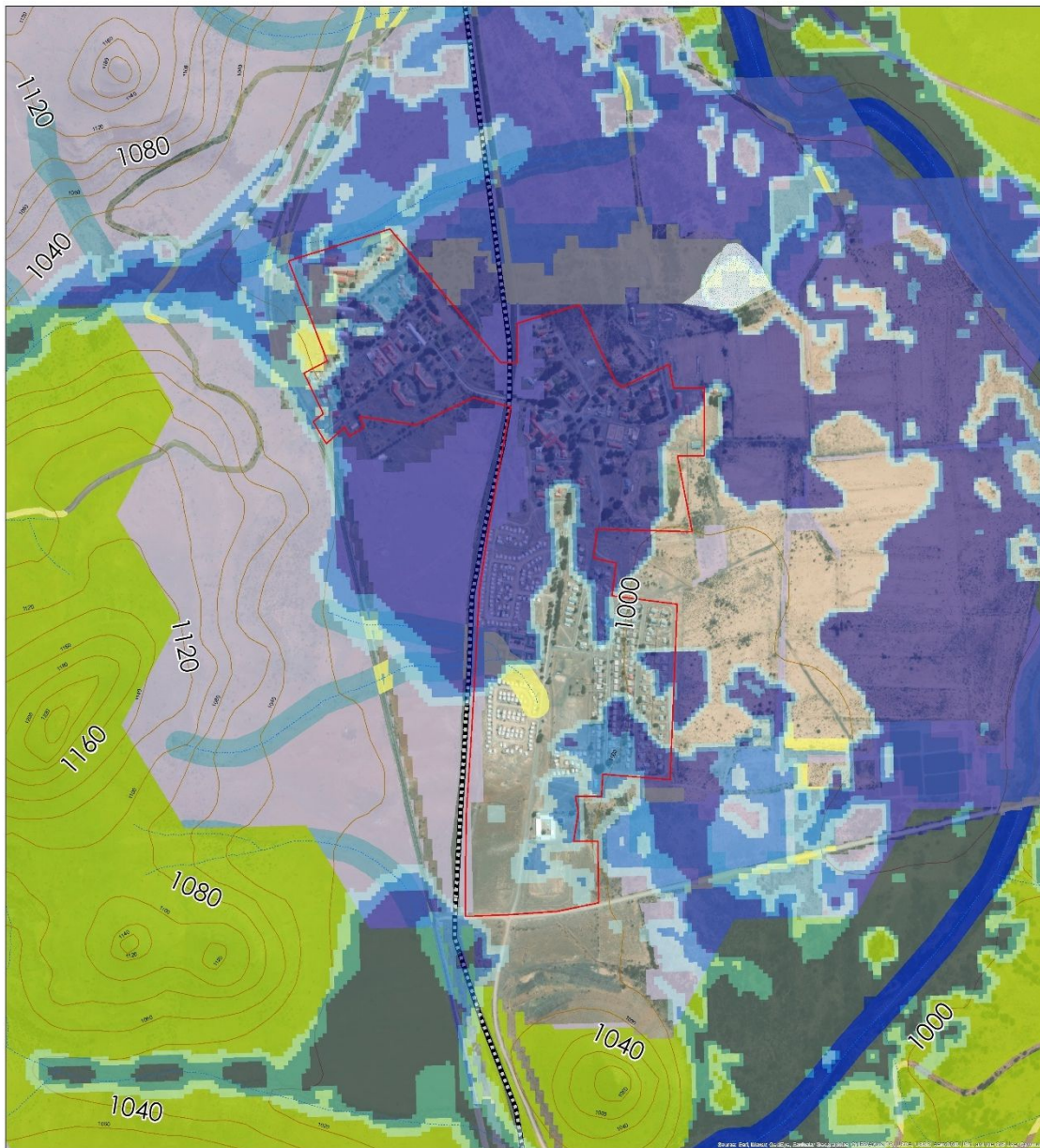
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Date: 11/11/2021

Reference Scale: 1: 5000



Figure 71: Natural Environment Synthesis Map for Merweville



NATURAL SYSTEMS SYNTHESIS: NELSPOORT

Map Description: Natural Systems Synthesis for Nelspoort

Data Sources: SANBI, Western Cape Government Department of Environmental Affairs and Development Planning, Western Cape Government Department of Local Government, Beaufort West Municipality

Legend

River Class

— Non-perennial

Wetlands

Flood Hazard Index

1

2

3

— 20m Contour

— Railway Lines

CBA 1

CBA: Terrestrial

CBA: River

CBA: Wetland

ESA 1

ESA: Aquatic

ESA: Terrestrial

ESA 2

ESA2: Restore from other land use

Liability Disclaimed: Use Info at Own Risk

Date: 11/12/2021

Reference Scale: 1: 5000



Figure 72: Natural Environment Synthesis Map for Nelspoort

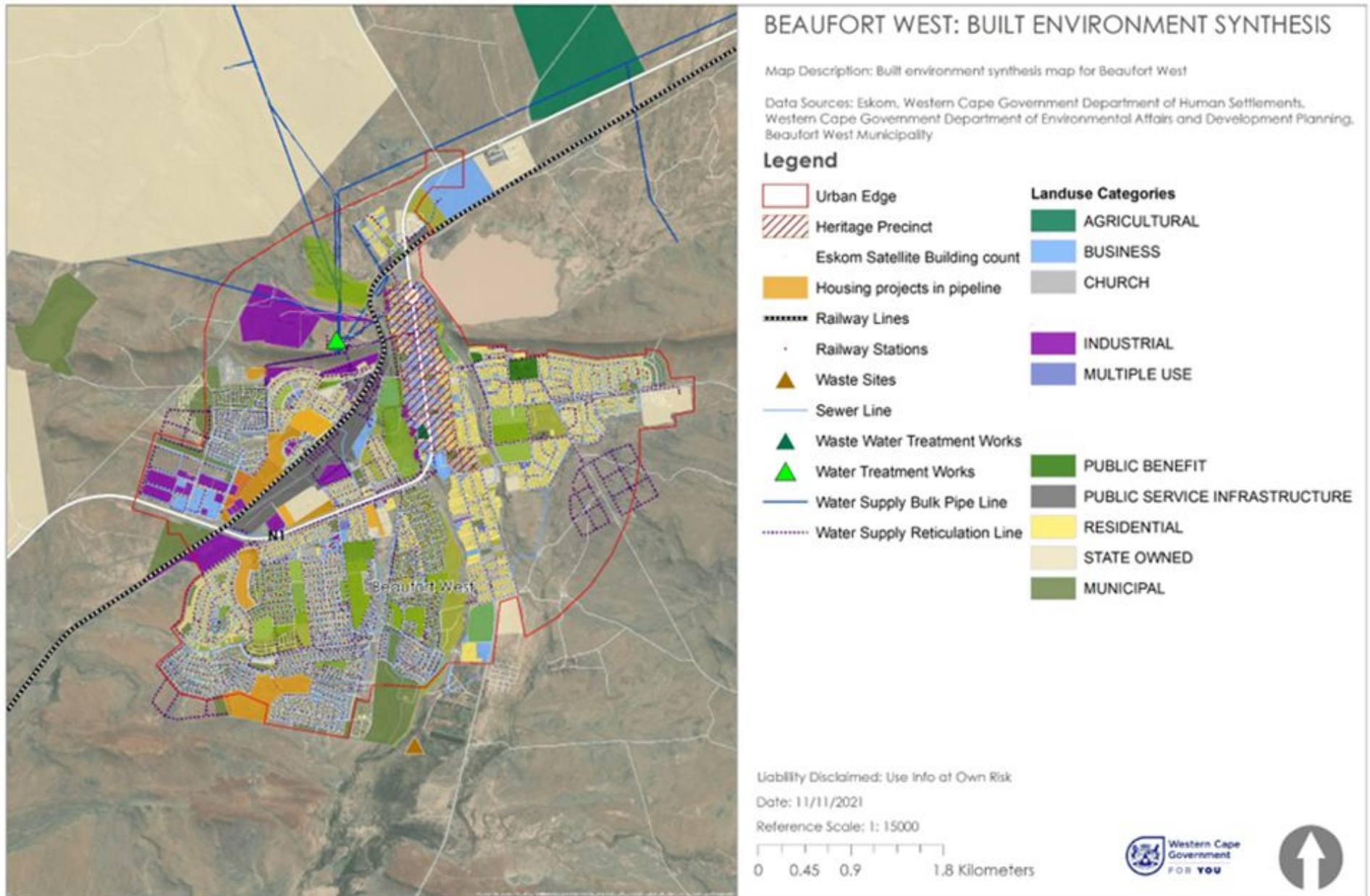


Figure 73: Built Environment Synthesis Map for Beaufort West Town

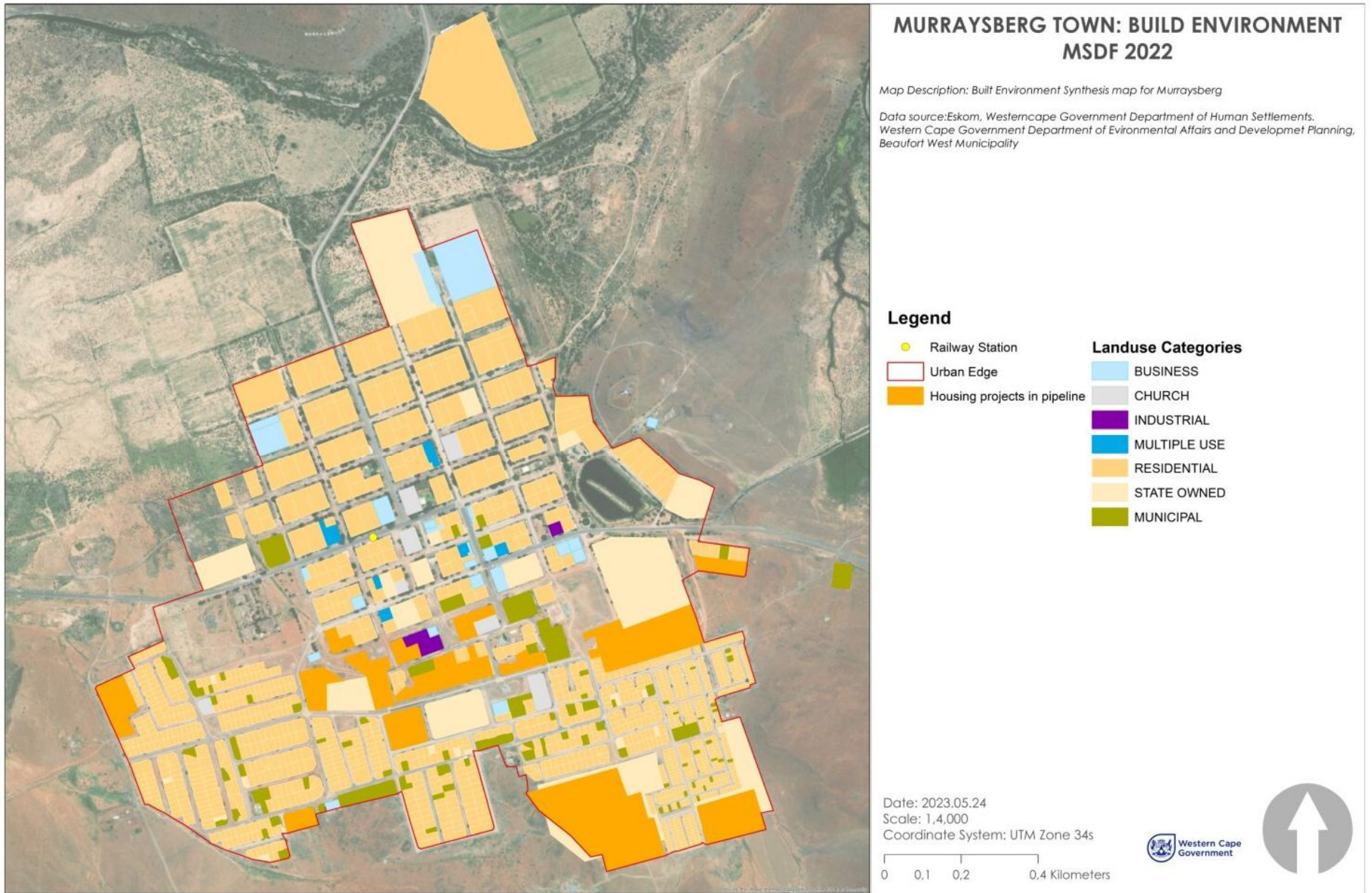


Figure 74: Built Environment Synthesis Map for Murraysburg

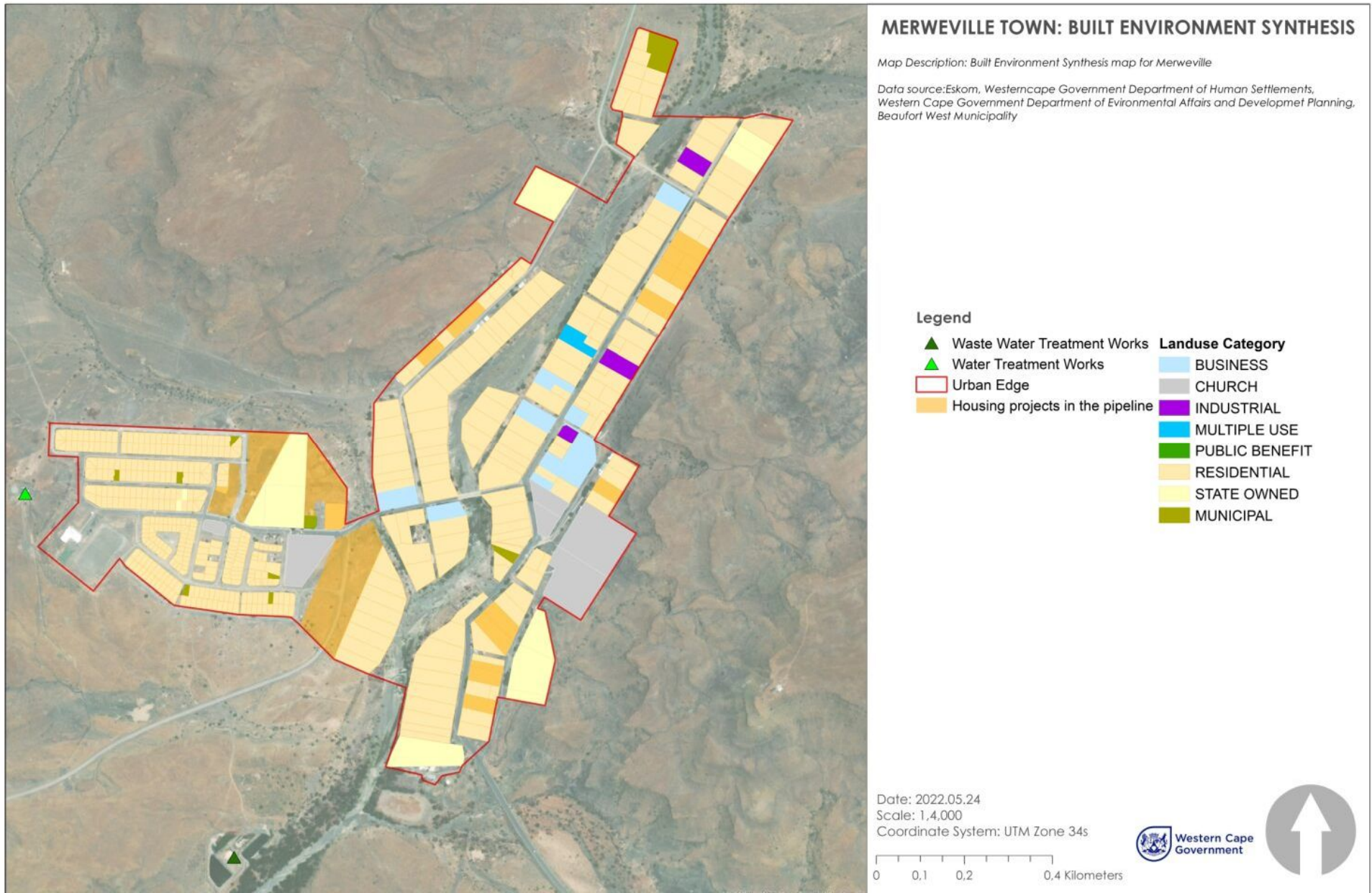


Figure 75: Built Environment Synthesis Map for Merweville

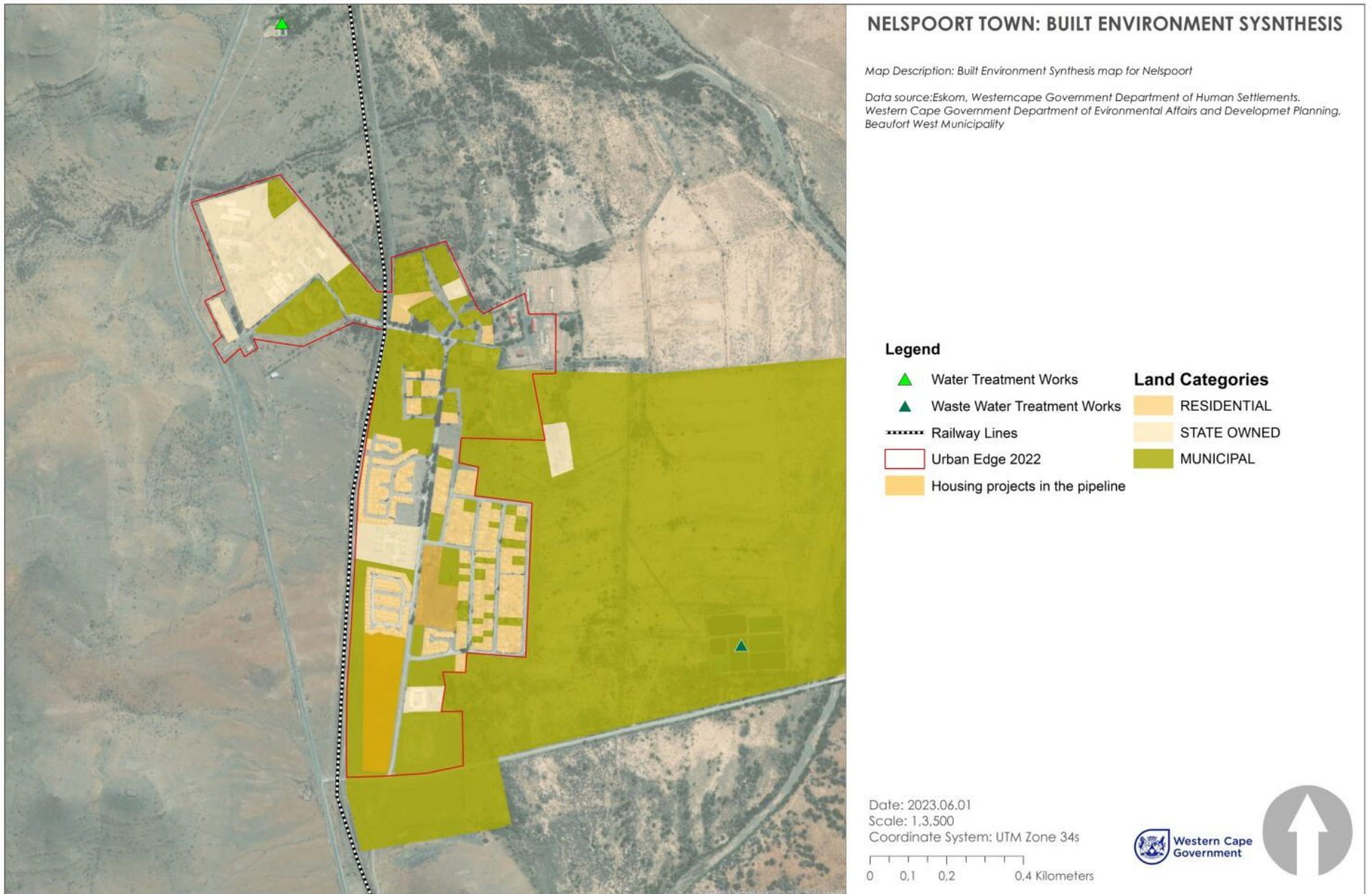


Figure 76: Built Environment Synthesis Map for Nelspoort

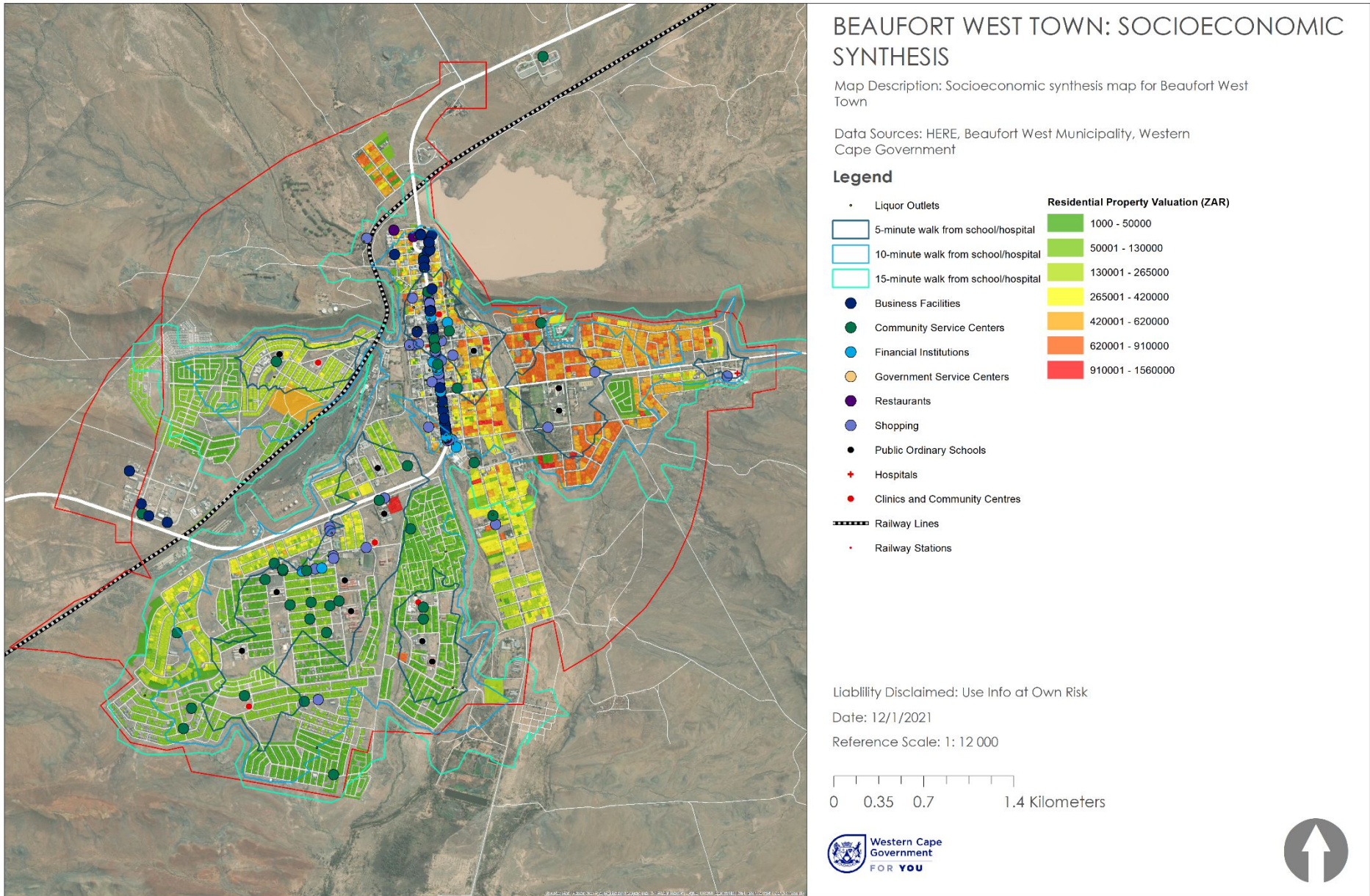


Figure 77: Socioeconomic Synthesis Map for Beaufort West Town

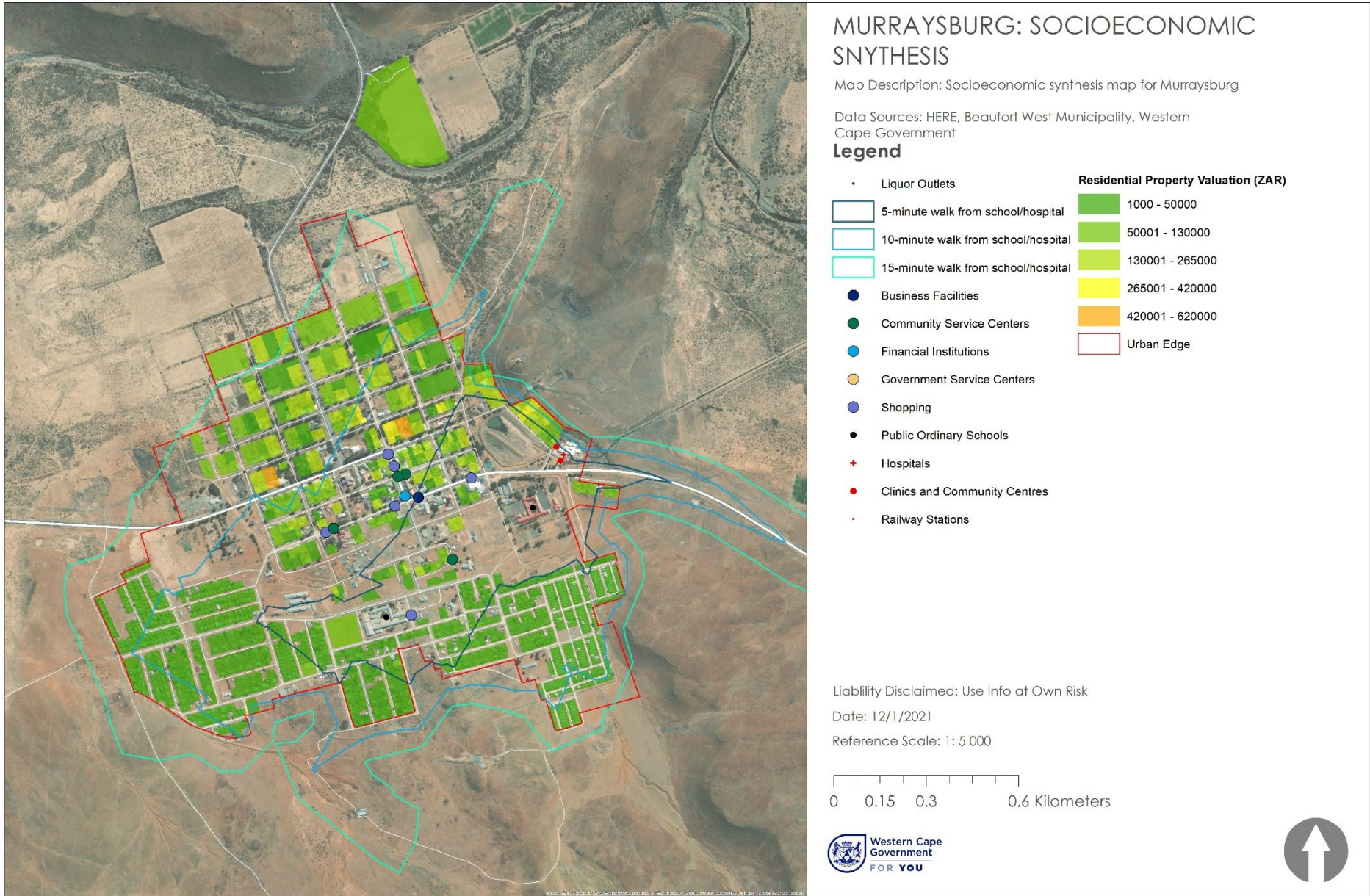
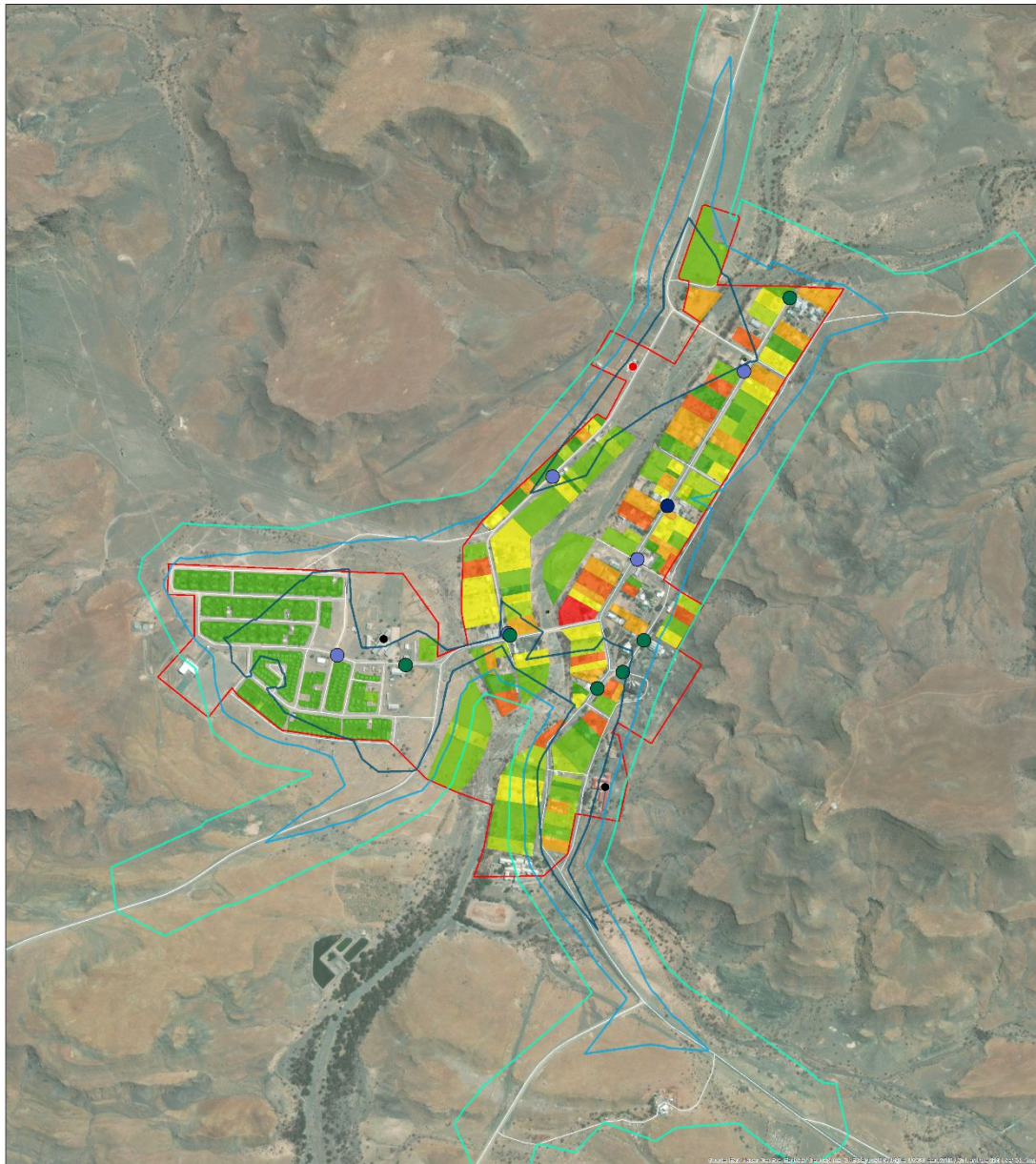


Figure 78: Socioeconomic Synthesis Map for Murraysburg



MERWEVILLE: SOCIOECONOMIC SYNTHESIS

Map Description: Socioeconomic synthesis map for Merweville

Data Sources: HERE, Beaufort West Municipality, Western Cape Government

Legend

- | | |
|---------------------------------------|---------------------------------------------|
| • Liquor Outlets | Residential Property Valuation (ZAR) |
| □ 5-minute walk from school/hospital | ■ 1000 - 50000 |
| □ 10-minute walk from school/hospital | ■ 50001 - 130000 |
| □ 15-minute walk from school/hospital | ■ 130001 - 265000 |
| ● Business Facilities | ■ 265001 - 420000 |
| ● Community Service Centers | ■ 420001 - 620000 |
| ● Government Service Centers | ■ 620001 - 910000 |
| ● Shopping | ■ 910001 - 1560000 |
| ● Public Ordinary Schools | □ Urban Edge |
| ● Clinics and Community Centres | |

Liability Disclaimed: Use Info at Own Risk

Date: 12/1/2021

Reference Scale: 1: 5 000

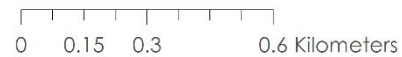


Figure 79: Socioeconomic Synthesis Map for Merweville



NELSPOORT: SOCIOECONOMIC SYNTHESIS

Map Description: Socioeconomic synthesis map for Nelspoort

Data Sources: HERE, Beaufort West Municipality, Western Cape Government

Legend

- Liquor Outlets
 - 5-minute walk from school/hospital
 - 10-minute walk from school/hospital
 - 15-minute walk from school/hospital
 - Public Ordinary Schools
 - Clinics and Community Centres
 - ▬▬▬▬ Railway Lines
- | Residential Property Valuation (ZAR) | |
|--------------------------------------|-----------------|
| ■ | 1000 - 50000 |
| ■ | 50001 - 130000 |
| ■ | 130001 - 265000 |

Liability Disclaimed: Use Info at Own Risk

Date: 12/1/2021

Reference Scale: 1: 4 500



Figure 80: Socioeconomic Synthesis Map for Nelspoort

3.6 PERFORMANCE ASSESSMENT: OPPORTUNITIES AND KEY ISSUES OR CHALLENGES

The inputs to this performance assessment are the outcome of a qualitative exercise undertaken by the MSDF drafting team following a site visit to the Beaufort West towns.

3.6.1 Beaufort West Town

This is the largest town in the arid Great Karoo region of South Africa and is known as the "Capital of the Karoo". It is the hub of a farming district based primarily on sheep farming and is located along a major road junction of the N1, N12 and R61. The Karoo National Park is adjacent to the town of Beaufort West, where important fossils have been found, initially by David Baird, son of the local magistrate, in 1827. Both the old Town Hall and the Dutch Reformed Church are designated national monuments.

A. First impression of the town.

Arriving at the town from the south entrance via the N1 highway, one passes the truck stops on the left-hand side, and it becomes apparent that the rail / industrial and low-income residential portion of the town on the left of the N1-highway seem derelict, uncared for, and harsh where litter and a lack of basic urban management and lack of cleaning is apparent. This is evident throughout most of the low-income portions of the town. The national road infrastructure is well maintained, but the local roads seem beyond their design life, needing maintenance and upgrade.

Beaufort West is by no means a small or sleepy village. It is a sizable town and is the largest in the Karoo. It appears to have seen better days, where the economy was probably more vibrant as a result of a more vibrant agricultural and rail sector, which has declined over recent decades. Driving through the main town (Donkin Street), there are elements of attractive architecture, landscaping, and attractive urban design, interspersed with modernist architecture and blank facades. Long queues outside the Post Office, which distributes social grants, reflect the full extent of poverty and economic desperation.

There are pockets of the town that are very attractive and should be enhanced, such as the full length of Donkin Street, as well as Bird Street.

B. Key Opportunities for the town

- The Beaufort West Town is strategically located at the confluence of the N1, N12 and R61 routes which connects Beaufort West to Gauteng, Cape Town, Oudtshoorn, George and the eastern Cape.
- The town is perfectly placed to be a refreshment and rest stop for travelers between Gauteng and Cape Town and has high quality tourism accommodation & experiences.
- Similarly, it is well placed to serve truckers and future rail opportunities / logistics.
- The town has mechanic & motor related services to service passing traffic.
- The town could enhance and capitalize on its karoo charm, architecture, and streetscape to attract more coffee shops and tourism related stops.
- Bird Street is a significant tourism asset, which has high quality tourism accommodation and interface with the adjacent stream running from the Gamka Dam.
- Portions of Donkin Street offer a quality urban Karoo Charm experience, but this is fragmented and requires more attention. Along this road, there are museums, a public square, and historic architecture.
- The middle-income housing stock on the north-eastern portion of the town (to the south of the ridgeline running between the Gamka Dam and the town) is an attractive area to live, where people take pride in their frontages through planting, and landscaping, providing a quiet, small town and peaceful atmosphere. The interface between this suburb and the wilderness of the Karoo is peaceful and attractive.
- This town acts as an oasis in a very dry area – offering refuge, services, shops, and facilities to this part of the Karoo area.
- The town still has the potential to attract tourists with BnB's along the main street and the enhancement town's sense of place and public streetscapes through paving, tree planting along the main road's is could significantly improve its attractiveness.

- The implementation of basic urban management practices and waste management programmes could significantly improve the Town's attractiveness to visitors or tourists.
- The town-center mall seems vibrant and well-integrated into urban fabric.

C. Key issues and challenges

- Recent drought conditions undermined the carrying capacity of the town, since water scarcity limits business and industrial opportunity.
- The existing lack of urban management and cleaning in the town undermines its attractiveness to private sector investors (and even for regional public sector investments).
- The high level of unemployment and poverty is evident – which shows generally low levels of economic opportunity.
- The waste site is poorly managed, resulting in extensive wind-blown litter in the natural veld.
- Parks need to be upgraded. Libraries are not prominent elements of the public environment, which could be used to uplift / enhance areas.
- Low-income areas (such as hillside) seem devoid of quality public spaces.
- Low-income areas lack economic opportunities and structure in the urban environment for economic opportunity to accrete along.
- Parks and recreation facilities are old, not maintained, and swings broken.
- Much of the infrastructure seems old and worn, with municipal roads nearing or at the end of their design life. There is a clear need to implement (or upscale) an infrastructure maintenance programme.
- From a socio-economic perspective, the town and its people are visibly struggling.
- Levels of service are under pressure, affordability of service provision is under pressure, and the finances of the municipality are under pressure.

- Donkin street is generally pedestrian friendly and traversable. The buildings front onto it the street and provide a human scale and generally historic sense of place on portions of the street (interspersed with modernist architecture).
- Donkin Street could use more trees and shade to escape from the intense summer heat.
- The low-income areas of the towns lack economic opportunity and pedestrians generally share the road with cars, but this is not necessarily a significant issue as traffic is not heavy.
- Dried river corridors are often littered with the rubbish that people dump.

D. Non-motorized Transport routes in Beaufort West Town

3.6.2 Murraysburg

A. First impression of the town

Entering Murraysburg Town on the R63 east, there is a picturesque view of the Sneeuberg Mountains. Driving down the main street, the Dutch Reformed Church pokes out above a tall line of mature trees. The town appears to have had its economic heyday and the main street seems to be in decline. This is certainly affirmed when comparing 2010 Google Earth Street View to the actual visit. The ongoing drought and COVID 19 lockdown regulations have had a clear impact on the economy. The previous SDF 2014 mentioned that Murraysburg is a refuge for ex farmworkers and this trend may have been exacerbated under current circumstances.

B. Key Opportunities for the town

- The town enjoys good tar road access on the R 63 between Victoria West (90kms) and Graaff Reinet (92kms). It is the wettest and most fertile part of the municipality. The town abuts the Buffelsrivier to the north, which replenishes ground water for farmers to extract for sheep, goats, and cattle. Murraysburg is also well known for its quince hedges which are reported to be some of the largest in the world. Quince is a small and rounded pome fruit grown on trees.
- The main street still has potential, especially if the local economy fared better.
- All gateways into town should be enhanced to improve its sense of arrival.
- The town still has the potential to attract tourists with BnBs along the main street.
- It's closely located to a river.
- There is decent access to main roads although not a national route.

C. Key issues and challenges

- The agricultural economy is reliant on groundwater in an environment that is only going to get hotter and drier.
- The economy is highly vulnerable to shock – drought and lockdown.

- Murraysburg is somewhat isolated in relation to the towns in the rest of the municipality. It is confusing when leaving Beaufort West to get to Murraysburg, that you exit the Western Cape only to come back into the Western Cape again to get to Murraysburg.
- Many children appear not to be in school.
- The main street has gone into decline.
- Those with money don't seem to be there anymore.
- Many of the low-density middle to higher income lots behind the Main Street are vacant. These are considered farm to market lots in the 2014 SDF and losing these can possibly threaten local food security.
- There are large amounts of vacant land between low-income area and the main street.
- The storm water systems in the easter part of the town are filled with litter.

D. Non-Motorised Transport for Murraysburg

The main street is pedestrian friendly and traversable but still in decline. The sand runoff into the drains has not been cleared, many buildings haven't been maintained by private owners in years and a feeling of despair is prevalent. The main street is illustrated in **Figure 81**.



Figure 81: Murraysburg St George Street and Parsonage Street

Clean, green and maintain the main street (St George Street as well as the secondary main street Parsonage Street and upgrade the main entrances.

Give more design (urban acupuncture) attention to this township node (See **Figure 82**), specifically in terms of social facility clustering and providing a safe a min urban oasis. It seems to be where much of the energy of the people is. A focus on paving, lighting, landscaping, and incentivized infill should be followed. Including the school, clinic, local business owners and women and children in the design process will be important especially since the space could include a parklet, retail, ECD and residential.



Figure 82: Illustrates the identified township node where mixed-used development is encouraged.

The street 'is' the primary public space for people living in what is considered the lesser managed part of the town. Many people are walking in the day, in the residential parts, when one would expect them to be in class or at their places of work. Sadly, the streets are littered, it's very hot and there aren't many trees to provide shade. The proposed Walkways for Murraysburg are illustrated in **Figure 83**.

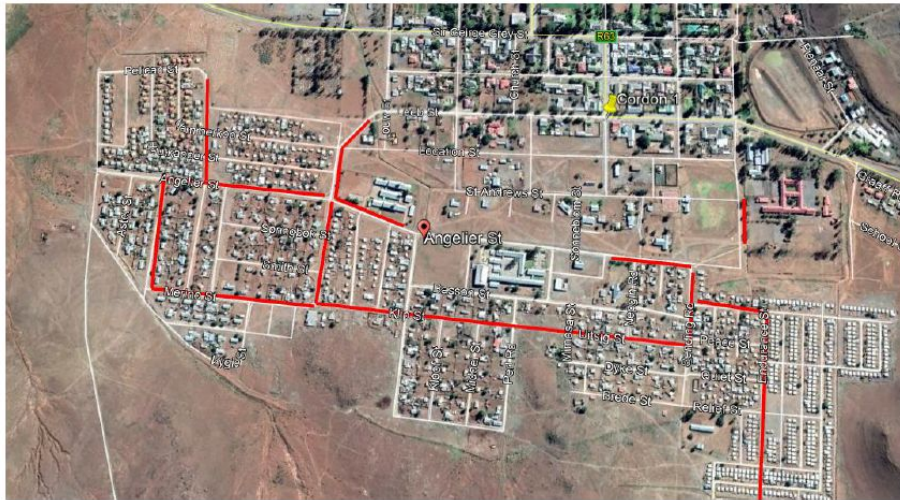


Figure 83: Proposed Walkways for Murraysburg (2020 – 2025)

3.6.3 Merweville

A. First impression of the town

The 40km route from the N1 at Prince Albert Road to Merweville was tarred in 2015. The route enjoys spectacular views of undulating hills of golden veld grasses interspersed by dark grey-brown sands and what looks to be a bucket list favorite for the avid motorcyclist. Entering the town, white rocks spell out 'Merweville' atop the first landmark hill. The landscape gives off the impression of an isolated community that maintains an old-world charm, like that of Nevada or Arizona. Upon entry the food garden lots, windmills and main street draw the visitor's curiosity to a place back in time.

B. Key opportunities for the town

- The new 40km stretch from the N1 gives the town good access.
- The well-maintained Karoo Architecture buildings along the main street and Dutch Reformed Church (**see figure 84**) and Windmills provides tourism opportunities - Heritage buildings are well kept.
- The main street is pedestrian friendly and traversable. The houses front onto it the street and provide a human scale and historic sense of place.
- The towns' tourism economy (hiking, stargazing, game driving, BnB's, quad and motorbiking) can leverage the access provided by the newly tarred access road from the N1.
- Tourism based advertising is required and efforts should be made to explore opportunities of placing tourism related signage about Merweville at the Prince Albert Road stop.
- Although there aren't any streetlights, the Dutch Reformed Churches illuminates the town and main street at night, further adding to the historic sense of place.
- The slow paced, laid back and peaceful lifestyle.
- The relative location to Prince Albert Road, Sutherland, Fraserburg, Laingsburg and Beaufort West.
- There is land for grazing and food gardening along the river corridor,

- The isolation, wilderness environments and historic very small-village atmosphere.
- The main street is tarred, clean, walkable, well-kept and litter free.
- Homeowners take pride in their places by planting trees and maintaining frontages.
- All parts of the town are well serviced in terms of basic infrastructure and social facilities.
- The distances between the lower income part of the town and the main street are less than a kilometer and the gravel roads are clean and easily traversable.
- Additional streetlights in the main street, street maintenance and a continued green network of shade through continued tree planting along pedestrian walkways.
- The main street is recently tarred.
- Social facilities are used and appear to be in a good condition.
- From a socio-economic perspective it appears to be better performing than Murraysburg, with very low levels of informality.
- Plant trees along Pienaar and DS de Villiers Streets to create an integrating main street network between all parts of the town, including paving the eastern extremity of these networks.
- Proclaim river corridors, where possible at least 32 m from banks in which no intensive agriculture nor urban development is permitted.
- Support and encourage continued use of current market gardening plots.
- Investigate use of open land or undeveloped areas closest to river corridors for market gardening and livestock farming, (e.g., pigs); and,
- The eastern side of the settlement should be declared a heritage precinct with guidelines to which renovations to existing and extensions and new buildings should comply to strengthen and not erode this important asset; and,
- All gateways into town should be enhanced.

- Symbolically integrate the settlement by ensuring a uniform tree planting and road pavement treatment on the main route network linking all the urban areas comprising Pienaar, DS de Villiers west and DS de Villiers east streets; and,
- Land for any new urban development, for instance, BNG housing should be located on the land parcels identified that will consolidate rather than disperse the settlement.
- Advertise the area as film shoot location.
- Attract motorcyclists.
- Advertise the town at the Prince Albert Road stop.
- Maintain a green network along pedestrian desire lines.
- Incentivize signage and art murals.
- Maintain heritage.
- Encourage market gardening along river corridors which must have 32m development buffer but still allow grazing.



Figure 84:
The Dutch

Reformed Church along the main street of Merweville (Source: <https://www.karoo-southafrica.com/koup/merweville/>)

C. Key issues and challenges

- Declining natural resource base. The town is completely reliant on groundwater in an environment that is only going to get hotter and drier.
- It's an isolated settlement. Prince Albert Road is the only convenience route, 46km's from the town. However, it's still another 116kms to the next largest town, Beaufort West
- The economy is highly vulnerable to shock – drought and lockdown.
- There is a dried river corridor between the lower income end of the town and the main street, which may be problematic in times of flooding and access.
- Having a wall around the sports field in the lower income part of the town is a poor design choice because it creates a negative atmosphere around the edges.



Figure 85: Proposed Walkway for Merweville (2020 – 2025)

D. Non-Motorised Transport Infrastructure

The infrastructure is very basic but well kept. There are only two roads while the access roads are all gravel but still well maintained and have sidewalks. Each of the main lots has a windmill and round concrete storage tank. It is clear the town relies only on groundwater. The public spaces are there but keeping them green in such a climate is a luxury unafforded. The proposed Walkway for the town for the 2020 – 2025 period is illustrated in **Figure 85**.

3.6.4 Nelspoort

A. First impression of the town

The first impression of Nelspoort is pleasant. The entrance is well signposted, and the sidewalks are decorated and well-maintained. The road entering the town runs past the Nelspoort clinic, which appears to be in good condition and functioning well. The streets were clean, and infrastructure appeared to be well-maintained. There was no informality that was obviously visible, and the settlement appeared to cater to the needs of its people.

B. Key Opportunities for the Town

- The clinic dominates the town. It seems to be the main source of employment and activity. The location is beautiful and there is a certain charm to the area. It is also located on the railway system, which is a potential competitive advantage. However, there does not appear to be a significant reason to visit Nelspoort beyond any specialist healthcare services the clinic may offer.
- The town is attractive and well-maintained. There is not a lot of litter and the people living there seem to be catered for in terms of schooling and access to healthcare.
- The town is located on the railway system and in relatively close proximity to the N1.
- The streets are wide and pedestrian friendly, which is important for its population.
- Nelspoort functions well for pedestrians as there is very little traffic and the streets are wide and in good condition. The main street is tree-lined, which offers shade for pedestrians and there could be more active public space (e.g., outdoor gyms, gardens, picnic areas etc.).
- Transforming the abandoned school into a site with a constructive use. This could be state-led or in partnership with the private sector, but the space should be active instead of decaying, particularly as it is the first thing a visitor sees once they have passed the clinic.

C. Key issues or challenges

- The old school opposite the clinic is crumbling and abandoned. There is also very limited existing economic opportunity or tourism infrastructure. In contrast to Merweville, where many of the buildings have historical charm, most of the buildings are modern and functional. This limits the appeal of the town to tourists and visitors.
- The clinic, which is the economic center of the town, is separated from the main residential area of the town. The town is so small that it is still in fairly close proximity, but this does pose a safety risk to people walking back late at night, particularly as they have to walk past the abandoned school building.
- Apart from the clinic, there are no centers of economic opportunity or employment. This suggests that the majority of the population of Nelspoort are either employed by the state at the clinic or grant dependent.

CHAPTER 4: SPATIAL PROPOSALS FOR BEAUFORT WEST MUNICIPALITY

4 SPATIAL PROPOSALS FOR BEAUFORT WEST MUNICIPALITY

4.1 INTRODUCTION

The purpose of this section is to provide the overarching spatial vision, direction, spatial development policy and associated strategies for the development and protection of the Beaufort West Municipality.

This chapter will set out:

- 1) the spatial vision for Beaufort West Municipality,
- 2) the future growth needs of the municipality,
- 3) the spatial concept for the future growth and development of the municipality,
- 4) the spatial strategies required to attain this concept; and
- 5) how this concept manifests within the entire municipality.

4.2 THE SPATIAL VISION STATEMENT

The following policy documents have vision statements that are informants to the Beaufort West MSDP's vision:

The Central Karoo District Municipal Spatial Development Framework (2020): ***“Working together in Sustainable Spatial Development and Growth towards a Resilient Central Karoo.”***

The 2014 Beaufort West MSDP states that it seeks to be the ***“Wilderness tourism and transport gateway to the people, mountains and plains of the Central Karoo.”***

The Beaufort West Municipality's IDP: ***Beaufort West in the Central Karoo, the economic gateway to the Western Cape where people are developed and living together in harmony.***

Additionally, the core values of the Municipality, as set out in the IDP, are:

- Integrity which includes honesty, fairness, and respect
- Trust

- Responsibility and accountability
- Harnessing diversity
- Participative decision-making
- Transparency
- Professionalism including friendliness, and
- Efficient service delivery.

All of these inform the spatial vision of Beaufort West Municipality, which is now:

To work together to develop Beaufort West into a thriving Regional Development Anchor that is the economic, tourism and transport gateway to the people, mountains, and plains of a resilient Central Karoo.

From a spatial planning, development planning and land use management perspective, and as represented in the spatial concept in **Figure 86**, the implications of this vision are as follows:

- **Beaufort West town** has a responsibility to present itself as a **welcoming and convenient centre** for catering to the needs of through travellers as well as to attract visitors to spend time in the sub-region;
- An important aspect of improving the presentation of the town is constructing the **proposed bypass to remove heavy truck traffic** from the main street. It is important to note the following:
 - The proposal should be implemented in a manner so that it does **not detract from the economic activity** that supports the town –

namely fuel and refreshment purchases which are a result of private cars, buses, taxis, and freight trucks stopping to refuel;

- Only truck traffic should be able to use the bypass. It is not desirable for cars, taxis, and buses to bypass the town; and,
 - It is envisaged that facilities for taxis and buses are not allowed along the proposed bypass.
- Promoting **urban tourism opportunities** in the municipality's settlements will require **upgrading their main streets**, the creation and management of **heritage precincts** where appropriate and considerable effort into creating a town and township tourism culture based on B&Bs, restaurants and cultural activities such as the music for which the region has become well known (Karoo Kitaar Blues);
 - Beaufort West should position itself as a **tourist destination** due to its expansiveness and desolation, particularly the areas north of the town in the Karoo National Park and the surrounding mountain regions;
 - The main rural economic resource outside of **eco-tourism is extensive agriculture**. The growth of this resource depends on improving the carrying capacity of the land through good veld management practices. It would appear that the National Department responsible for agriculture intends to declare significant portions of the Karoo as Protected Agricultural Areas for grazing;
 - Wildlife preservation continues to be an issue in the Karoo. The preservation of biodiversity will require 'Fair Game' practices to be employed in sheep farming. 'Karoo Lamb' must become a trademark geographic indicator to increase its value and contribution to the economy;
 - **Accessibility and mobility issues**, which are dire, can only be addressed if a Rural Integrated Public Transport Network is implemented, which supplies periodic, affordable, reliable, and safe services. Current costs of transport are affecting the poor;
 - Intensive engagement should continue with the **shale gas exploration open cast uranium mining proponents** to successfully resolve the following issues to protect the long-term interests of the municipality and its residents, which could be:

- Maximizing **job opportunities** for locals and identify what skills training will be required to enable this;
 - Ensuring that the nature and location of any **infrastructure maximizes long term benefits** – e.g., staff housing should be located in existing settlements;
 - Rehabilitation plans, including **proper topsoil stock piling**, are prepared, and implemented on a phased basis as extraction proceeds and not left until all extraction is completed. Mines should be prevented from starting further production phases until rehabilitation milestones of open cast pits or well head pads have been achieved;
 - Key areas such as **Critical Biodiversity Areas**, conservancies and stewardship areas and **visually sensitive landscapes** contributing to long term heritage and tourism opportunities should be off limits to mining and shale gas exploration; The visual impact of Shale Gas Extraction on the Karoo landscapes could be severe, considerably diminishing its long-term tourism appeal unless properly rehabilitated; and,
 - One of the **potential impacts** of shale gas exploration is the anthropogenic contamination of **underground water aquifers**.
- It should be noted that both Beaufort West and Nelspoort are in a state of potential and, from time to time, actual crisis regarding their water supplies. These are increasingly dependent on groundwater as surface water sources have been inadequate for a number of years in spite of wide-ranging water demand management efforts although there is not much evidence of rainwater harvesting, especially in new low-income housing areas;
 - However, in recent years **water demand has increased** while recharge has decreased due in part to below average rainfall (<250mm p.a.) Beaufort West's boreholes have experienced a one metre per annum drop in the water table;
 - Nelspoort is reliant on the Sout River aquifer whose recharge is considerably weakened by the highly degraded soil and vegetation conditions in the basin above. This is an important motivating factor for the biodiversity restoration of this bioregion;
 - Beaufort West is exploring aquifers such as Rytkuil to the south of the town. However, this also underlies a potential open cast uranium mine;

- Clearly **if the water supplies** of these settlements is undermined or **compromised their future will be in question**; and,
- Short term impacts of shale gas extraction will include transport, traffic, and issues around accommodating mining crews, physically (housing) and socially (employment, recreation, entertainment, schooling, health– HIV, alcohol, drugs; crime and prostitution).

4.3 THE SPATIAL CONCEPT

Beaufort West Municipality comprises of five main structuring elements:

1. The N1 road and adjacent rail route are the main transport and socioeconomic artery through the municipality, significantly increasing its opportunities compared to other similar sized municipalities not enjoying such access.
2. The Nuweveld Mountains to the north form an impressive scenic backdrop to the municipality. They contain large areas of significant CBAs and most of the formal and informal conservation areas – these constitute 14% of the total area.
3. The Gamka river basin contains the settlements of Beaufort West town and Merweville and is mostly used for extensive farming – small stock grazing.
4. South of Beaufort West is a large area of significantly degraded land in the Sout River basin with extremely low stock carrying capacity and low concentrations of people. This area requires extensive rehabilitation if it is not to become a dustbowl.
5. To the west Murraysburg forms an almost separate eco and social system. It is not linked to Beaufort West but is accessed off the R63 between Graaff Reinet and Victoria West. It is the highest, wettest, and most fertile part of the municipality where most of the small areas of intensive farming are found, particularly in the west. In the south the landscape rises up to the Sneeuberg. It is 91kms from Graaff Reinet in the Eastern Cape and 158kms from Beaufort West. This remote location creates a significant challenge as it depends on services delivered from Beaufort West.

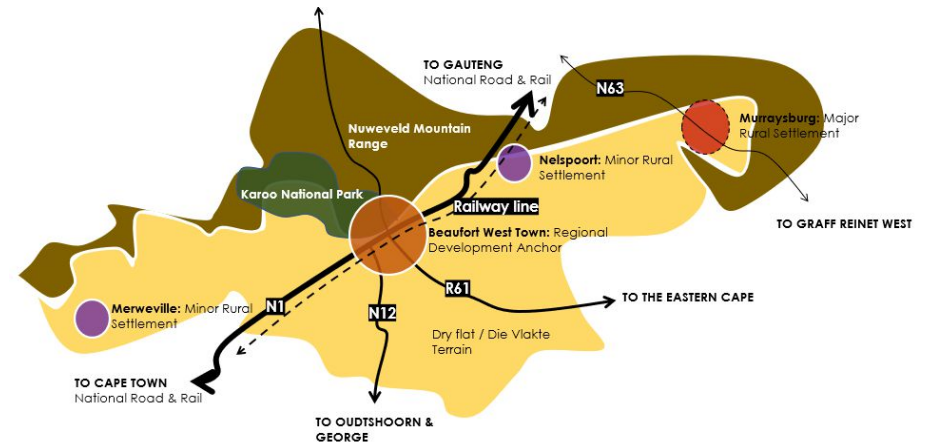


Figure 86: Spatial Concept for the Beaufort West MSDF (2024)

As articulated in the spatial vision, the spatial concept for the municipality focusses on **sustainable development, resilience, and partnerships**. As will be illustrated, the four strategies of the municipal wide spatial concept are:

- 1) A region that **protects the environment, enhances resilience, and capitalises** on and honours the Karoo charm in support of a vibrant people and economy.
- 2) Improve **regional and rural accessibility** and mobility for people and goods in support of a resilient economy.
- 3) **Allocate government resources, infrastructure and facilities** in a manner that uplifts and skills people and focusses on **maximising impact** on the most possible people, while providing a basic level of service for all; and
- 4) **Partnership-driven governance** and administration towards improved financial and non-financial sustainability and resilience.

How the above translates spatially in the region is described as follows:

- 1) **Protect and enhance the natural systems** of the municipality, ensuring **continuity** in the natural systems Karoo (such as the Karoo National Park, the Onder-Sneeuberg and Nuweberg mountain ranges) and ensure the river corridors in the region (Gamka river – and its tributaries) are provided with the necessary buffers and setbacks (of at least 32m from the side of each riverbank) to preserve **continuity and integrity** of biodiversity systems. Prioritise the protection of Critical Biodiversity Areas and Environmental Support Areas from inappropriate development.
- 2) **Protect and enhance water catchment areas and water resources** by demarcating Critical Biodiversity Areas and Environmental Support Areas and preventing inappropriate development within these areas.
- 3) **Capitalise on the tourism appeal** of the various assets that exist in the Karoo, such as the heritage appeal of existing town centres, as well as the Karoo National Park. Ensure that all development in the Karoo is compatible with the **sense of place, Karoo character and charm**. This intrinsic value create lifestyle, tourism, and hospitality opportunities, as is seen in Merweville, and hence creates employment opportunities and assists in poverty alleviation.
- 4) Ensure the **development and maintenance** of a **road network** that provides good access and mobility for the region, as well as ensure the **regional rail network** is equipped to provide for the movement needs. The N1, N12 and R62 corridors are key economic and social assets in the Municipality area as well as the District which requires regular maintenance and upgrading. Attention should be placed on appropriate measures to ensure road safety in the municipality.
- 5) Specific focus is also needed on **non-motorised transport** within the region. Non-motorised transport, particularly pedestrian movement, is the primary transport mode among residents. Key interventions for implementation in this area are pedestrian walkways, bridges and underpasses, and cycle paths. An important consideration in the planning of such interventions is safety, security particularly for the most vulnerable members of society, which provides good lighting, visual surveillance as well as shelter from the heat.
- 6) Ensure that the town of **Beaufort West**, as the **Regional Development Anchor**, provides the **primary regional services and facilities** in the region. Business opportunities within the town are to be maximised to encourage the multiplier effect of investment and expenditure. From a governance, capital investment and maintenance perspective, Beaufort West town is a crucial driver of growth and development opportunities.
- 7) Strongly encourage **value-add, industrial and agri-processing industries** locating in the Regional Development Anchor of Beaufort West town to create jobs and add value to the region's agricultural goods and services. Specifically, Beaufort West and Murraysburg present opportunities for value-add and agri-processing activities.
- 8) Focus **government investment, facilities, services, and housing opportunities** in Beaufort West and to a much lesser extent Murraysburg. Prevent the creation of new low-income settlements in low growth, job deficient towns that have little prospect of creating employment opportunities.
- 9) Seek **partnerships to enhance various interventions**, with a focus on the top 3 most impactful and critical interventions for the municipality. These will have to be determined based on the priorities of the municipality and the transversal nature of the issues. Currently water, gas and energy, and rural mobility are three areas of potential partnership between all spheres of government and civil society.

4.4 SPATIAL STRATEGIES

The spatial development strategies for Beaufort West Municipality are informed by the Central Karoo District MSDF (2020). These are summarized in **Figure 87**. These strategies inform a series of municipal-wide spatial policies, that subsequently direct the settlement specific spatial development frameworks proposals for each town and settlement.



Figure 87: Spatial Development Strategies for the Beaufort West MSDF

STRATEGY A: A REGION THAT PROTECTS THE ENVIRONMENT, ENHANCES RESILIENCE AND CAPITALISES ON AND HONOURS THE KAROO CHARM IN SUPPORT OF A VIBRANT PEOPLE AND GROWING THE ECONOMY

Beaufort West municipality is a dry, arid landscape, which is sparsely populated. The Growth Potential of Town's Study (2018) views its overall growth potential as low to very low, however, the municipality does possess a few **inherent competitive advantages** which must be capitalised upon to grow the economy, provide more people with access to work opportunities and perhaps even more importantly, the ability to see and create latent entrepreneurial opportunities in the economy.

This competitive advantage centres on its scenic appeal, sense of place and related tourism potential; its limited yet important agricultural activities and related agri-processing potential; green energy (solar and wind) potential; as well as on the potential shale gas reserves that exist in the region. Furthermore, the region has a significant rail system and national highway infrastructure assets running through it, providing the potential for improved connectivity to the broader South African economy.

The competitive advantage of the economy of Beaufort West Municipality is, however, dependent on its natural resource base. This underpins the history, character, scenic and heritage appeal of the region, as well as the vitality of the tourism industry and limited yet important agricultural, agri-processing, manufacturing and downstream trade and construction economy. The functioning of this economy is linked to the availability of water and the health of the ecological systems. Hence the protection and enhancement of the environment is one of the main strategies of this MSDF. Through municipal policy and programmes, the municipality must therefore protect its natural assets, build its resilience, and honour and enhance its tourism economy.

- **Natural and agricultural resource base:** Karoo National Park, the Gamka Dam, Critical Biodiversity Areas, and Environmental Support Areas, and the Sout River, the Dorps River and their tributaries, as well as irrigated agricultural production areas associated with these rivers, such as the areas around the town of Murraysburg;
- **Settlements with different economic roles and heritage potential:** The towns of Beaufort West, Murraysburg, Merweville and Nelspoort. All of these

settlements hold significant built heritage assets such as churches, and other significant buildings and facades;

- o **Unique landscapes, lifestyle, and tourism offerings:** Beaufort West Town, Donkin Street, monuments and heritage zones, and scenic routes – namely the Gamkaskloof Pass, as well as Molteno Pass in the Nuweveld range.

STRATEGY B: IMPROVE REGIONAL AND RURAL ACCESSIBILITY AND MOBILITY FOR PEOPLE AND GOODS IN SUPPORT OF A RESILIENT ECONOMY

How easily citizens of and visitors to Beaufort West can access the opportunities, services, and amenities it offers is a **critical precondition for growth** of the economy and development of its communities. However, small towns and remote settlements are difficult and expensive to service with public transport, and the absence of public transport systems serving rural communities and outlying settlements fundamentally constrains socio-economic development. Similarly, the state of the road network is generally deteriorating, specifically municipal roads – undermining the ability of the people and businesses of the region to thrive.

The MSDP promotes an effective and efficient accessibility network that supports a productive interaction between settlements as well as within them.

What this means for Beaufort West is that, at the municipal scale, the regional road and rail network must support the effective and efficient movement of freight and people into and through the Beaufort West Municipality. This requires ensuring that a clear primary and secondary regional route hierarchy is set out, which means defining the role of the route and how the land uses alongside it are managed to ensure efficient mobility. This network must support the ability of rural dwellers and workers, and those living in smaller rural settlements to be able to access services and amenities both within and outside Beaufort West Municipality within a reasonable time.

As part of both encouraging business, as well as encouraging tourism activities and money spent within towns of the region, Beaufort West Municipality needs to continue to ensure that its towns are conducive to use by both local and tourist passengers (on foot and in car) as well as attractive for businesses to invest in the area. This means paying attention to urban management, infrastructure repair and upgrade, ensuring towns are ordered, clean and

attractive. Given the sparsely populated nature of the municipality, school learner transport and mobile services need to be provided.

STRATEGY C: ALLOCATE GOVERNMENT RESOURCES, INFRASTRUCTURE AND FACILITIES IN A MANNER THAT UPLIFTS AND SKILLS PEOPLE AND FOCUSES ON MAXIMISING IMPACT ON THE MOST POSSIBLE PEOPLE, WHILE PROVIDING A BASIC LEVEL OF SERVICE FOR ALL

Given the limited nature of government resources, there needs to be a strong focus on ensuring that a full suite of facilities and services are provided in the higher order urban settlement (being Beaufort West) with more rudimentary services and lower order services in the smaller settlements – and even mobile service solutions in the sparsest, smallest settlements or hamlets where there is insufficient demand and insufficient funds for a permanent service.

For these reasons, the National Spatial Development Framework (NSDF) (2022), as well as the CSIR, provide the national spatial social service provisioning model. This assists in the effective, affordable, and equitable development of social service delivery. The NSDF defines Beaufort West Town as a **Regional Development Anchor** which is situated along a strategic national route (N1) and a National Freight Corridor. Murraysburg is a major rural settlement which offers some services mentioned above to the surrounding farming communities. The rural settlements like Merweville and Nelspoort offer limited services that are structured around farming, railway, and transport activities. This is shown in the Spatial Concept in **Error! Reference source not found.01**.

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

Through establishing a **clear settlement hierarchy** (see **Figure 105**), strategy C aims to ensure that:

1. Opportunities are created for residents to prosper in inclusive and just settlements by preventing outward sprawl, disconnected and low-density development;
2. Municipal financial sustainability becomes a central concern in municipal and government infrastructure investment, growth management and expansion; and

3. Limited resources are used efficiently to protect long term financial sustainability of households, businesses, and government.

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

- Focus government investment, facilities, services, and housing opportunities in Beaufort West Town and to significantly lesser extent Murraysburg and Merweville, therefore preventing the creation of new low-income housing developments in low growth, job deficient settlements that have little prospect of creating employment.
- Recognise population dynamics in infrastructure investment (more diverse housing products and opportunities in the centralised locations like Beaufort West Town).

- Water.
- Energy (both renewable energy and shale gas).
- Rural mobility; and
- Tourism.

STRATEGY D: PARTNERSHIP-DRIVEN GOVERNANCE AND ADMINISTRATION TOWARDS IMPROVED FINANCIAL AND NON-FINANCIAL SUSTAINABILITY AND RESILIENCE

Strategy D underpins all of the other strategies, because an integrated partnership and governance-based approach is required for better coordination, alignment, and impactful planning, budgeting, and delivery. The application of an integrated governance approach directly ties in with this SPLUMA principle, which also requires municipalities to pursue good administration practices to enhance and strengthen the spatial planning and land use management systems of the municipality.

Beaufort West, as part of the Central Karoo, must seek partnership-driven solutions, realizing that the challenges are multi-faceted and cannot be addressed only by the local sphere of government. It is therefore required that a range of partnerships be explored to find a shared service solution within the Central Karoo that ensures shared financial viability along with the administrative and logistical burdens associated with servicing a sparse region.

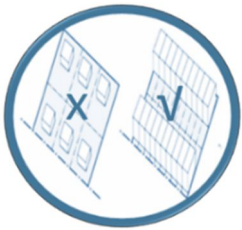
Focus areas of potential partnership between all spheres of government and civil society pertaining to Beaufort West Municipality include:

- Shared service centres between local and district municipalities.

4.5 SETTLEMENT SPECIFIC URBAN DESIGN PRINCIPLES

The following sets out the urban planning and urban design principles that are adopted in support of the implementation of the MSDF, that should guide the implementation of the MSDF, as well as land use management in the municipality.

Spatial efficiency and resilience



Land must be used efficiently to ensure municipal financial sustainability. Low density development typologies are costly for the municipality to service and create inequitable settlements that are costly to live in and negatively impact the poor most. Water resilience is an important consideration in all urban and rural development within the municipality.

Inclusivity & Connectivity



An inclusive town values the needs of all people equally. It is a town where people feel comfortable being citizens and have equal access to economic opportunities, quality public amenities and spaces, housing, and basic services. Connectivity is a key ingredient in the pursuit of an inclusive town, which seeks to ensure that all people have access to all the benefits of living in an urban environment, but also ensuring that the urban environment is well managed, clean, dignified, and attractive to live and do business in.

Walkability & Compact Settlement



uses land efficiently and reduces dependence on cars.

Walkable towns promote a public environment with a people focus rather than a car focus and can lead to addressing many social and economic problems through improved social interaction, enhanced physical fitness, creating an urban environment conducive to walking or cycling and more eyes on the street – reducing opportunities for criminality. This requires investing in non-motorised transport, as well as promoting urban development that is compact, that

Flexible and Mixed-Use development



Positive urban environments allow for a mix of land uses and reflect flexibility in their spatial structures. Flexibility refers to the creation of a spatial structure that can accommodate unexpected demands made upon it over time. To this end, grid-style layouts must continue to connect with the original layout of the town, and the necessary connections and

Economically Vibrant



social outcomes.

Towns with vibrant economies are ones that promote inclusive economic activity (from small to large; formal and informal) by providing basic services and basic urban management reliably and consistently, thereby creating an urban environment that is desirable to invest in. By creating the conditions for a vibrant economy – which provides for increased economic security and financial sustainability – it is possible to contribute to positive individual and

Identity and Sense of Place



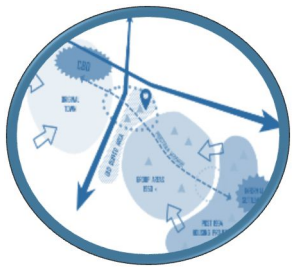
When citizens form a strong relationship with a place, that place becomes a part of who they are – their identity. High quality public spaces, as well as preservation of built heritage can greatly enhance the dignity and pride of citizens, which in turn strengthens their identity and attachment to a place, and care for the place.

Safety and security



Combatting crime and reducing insecurity is essential if positive development and growth is to occur. Where there is fear, there is no hope. Safety and security are vital for development, investment and access to services and amenities. Urban design principles should ensure that the urban environment is one that is supportive of passive surveillance and enables "eyes on the street".

Spatial Transformation



Spatial transformation refers to addressing the apartheid legacy through settlement restructuring. The reconstruction framework developed by the WCG Regional Socio-Economic Programme (RSEP) is a practical toolkit for addressing apartheid spatial inefficiencies and spatial divides (where lower income residents live and where jobs and services are usually located). The toolkit provides guidelines to connect fragmented towns by finding and upgrading integration zones, primary pedestrian movement routes and township satellite nodes.

4.6 FUTURE DEMAND APPROACH STATEMENT: POPULATION, HOUSING AND LAND DEMAND

4.6.1 Population

The population of the Beaufort West municipality was estimated to be **72 972** people in 2022 (StatsSA, 2023) – which has substantially increased from the 2011 Census count of **49 586** (see **Chart 10**). This translates into an average annual growth rate of **3.8%** over this period, significantly above the population growth rates experienced between 1996 and 2011, which averaged 1.28% over this period. The medium-growth population projection for 2035 is 94 397, assuming an annual average growth rate of 2% per annum between 2022 and 2035 - see **Chart 11** which shows the low- (1% annual average growth rate), medium- (2%) and high- (3%) population growth projection for 2025, 2030 and 2035.

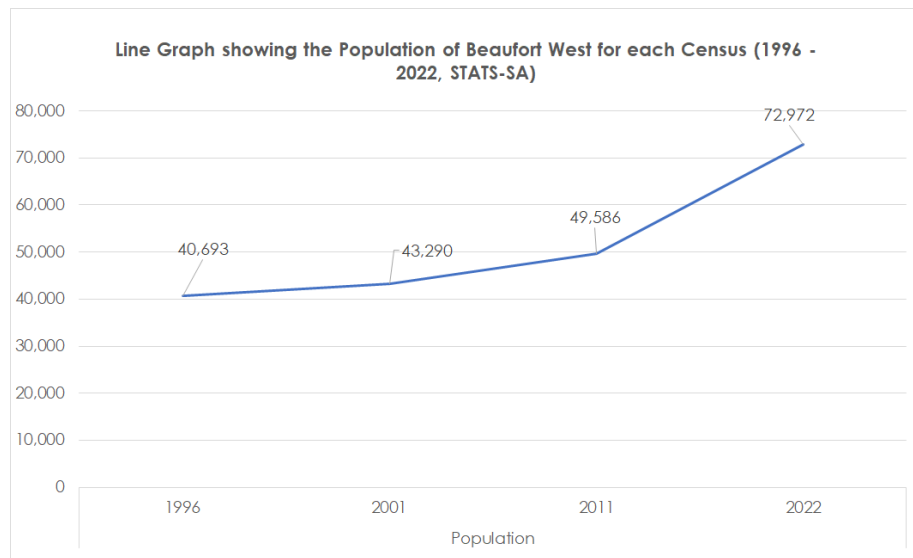


Chart 10: Beaufort West Population counts in the 1996, 2011 and 2022 Census (Stats-SA)

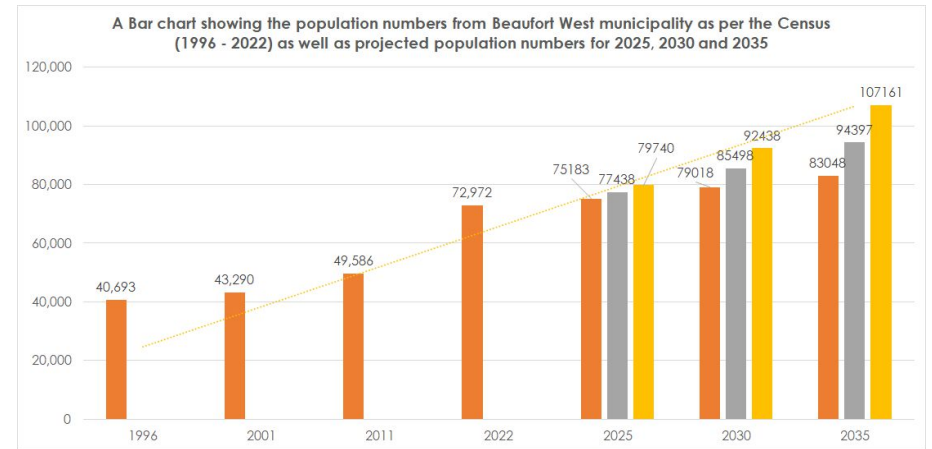


Chart 11: Past Population Growth and Future Projections for Beaufort West Municipality

4.6.2 Households

From 2022 to 2030, the total number of households is projected to increase at a faster rate than the population growth rate, from 19 216 in 2022 to 23 106 in 2030 (a significant increase of 3890 households). This is because household sizes are steadily decreasing: from 3.8 people per household in 2022 to a projected 3.6 in 2035. This is a trend that can be observed throughout South Africa: that household formation growth is greater than population growth. This is shown in Table 14 and **Table 13** below.

	Households				Projected Households					
	2011		2022		2025		2030		2035	
	Total households	Average household size	Total households	Average household size	Total households	Average household size	Total households	Average household size	Total households	Average household size
Beaufort West	13,088	3.8	19,216	3.8	20,946	3.7	23,108	3.7	26,222	3.6

Table 13: Household Projection figures for Beaufort West Municipality (Western Cape Government Department of Human Settlements, 2021)

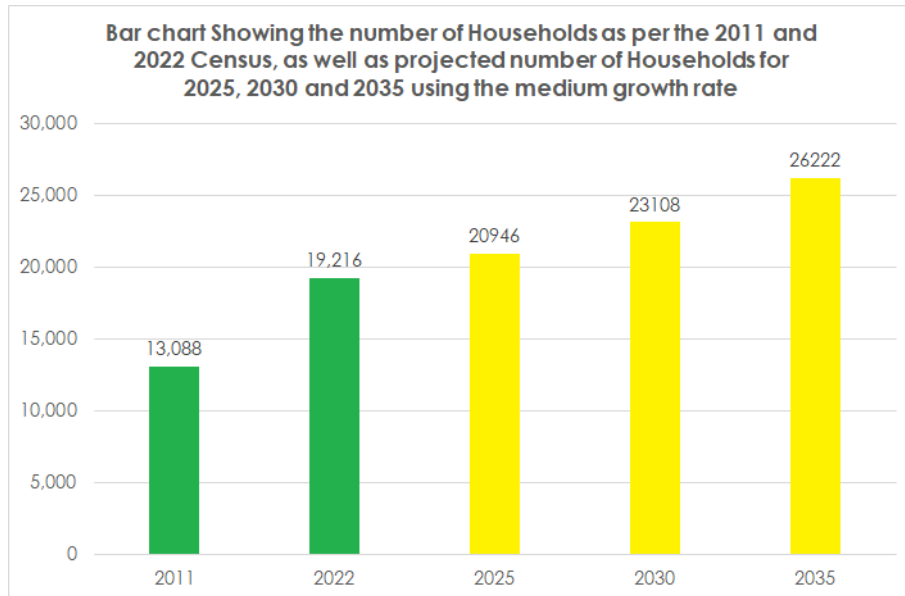


Chart 12: Beaufort West projected household numbers for 2025, 2030 and 2035

Implications on Facility Demand

The future facility demand as a result of projected household growth is shown in **Table 14**. In summary, by 2030, because of the additional 3890 households that are expected to be formed, the following facilities may be required in Beaufort West:

- Between 4 and 6 new ECD facilities;
- 3 new Primary Schools (assuming there is no existing capacity in existing Primary Schools);
- 1 new Secondary School (assuming there is no existing capacity in existing Secondary Schools);
- 1 Community Hall;
- New public Spaces;
- New Cemetery space;
- A new police station.

It should be noted, however, that population and household growth projections are inherently uncertain. Future population estimates are shown in Figure 106

Building	3890	houses will require between	4	Early Childhood Development Centres	and	6	Early Childhood Development Centres	R 11,540,333.33	which will cost up to	to build or contribute to.
			3	Primary Schools		5	Primary Schools	R 276,968,000.00		
			1	Secondary Schools		2	Secondary Schools	R 138,484,000.00		
			0	Community Sports Field		3	Community Sports Field	R 22,157,440.00		
			0	Local Library		1	Local Library	R 11,078,720.00		
			0	Community Health Care Centre		1	Community Health Care Centre	R 48,469,400.00		
			0	District Hospital		0	District Hospital	R 13,848,400.00		
			0	Children's Homes		0	Children's Homes	R 3,297,238.10		
			0	Homes for the Aged		0	Homes for the Aged	R 2,130,523.08		
			1	Community Halls / Centres		1	Community Halls / Centres	R 8,309,040.00		
			0	Municipal Offices		0	Municipal Offices	R 4,154,520.00		
			0	Firestations		0	Firestations	R 13,848,400.00		
			1	Public Open Space (Community Parks)		7	Public Open Space (Community Parks)	R 34,621,000.00		
			0	Cemetries		3	Cemetries	R 55,393,600.00		
			0	Police Stations		1	Police Stations	R 27,696,800.00		
Therefore the indirect cost of			3890	houses	will be	R 671,997,414.51	to provide all the necessary facilities.			

Table 14: Future facility demand in Beaufort West Municipality

4.7 THE MUNICIPAL WIDE SPATIAL POLICIES

The purpose of this section is to give expression to the spatial strategies by framing a set of spatial policies that must be used to inform land use planning, infrastructure development and rural and urban development decision making within Beaufort West Municipality. The policies listed below link to Beaufort West Municipality's IDP Strategic Objectives. The following sections will then provide further detail on each of the policies.

STRATEGY A: A REGION THAT PROTECTS THE ENVIRONMENT, ENHANCES RESILIENCE AND CAPITALISES ON AND HONOURS THE KAROO CHARM IN SUPPORT OF A VIBRANT PEOPLE AND GROWING THE ECONOMY

POLICY A1: PROTECT CRITICAL BIODIVERSITY AREAS, ENVIRONMENTAL SUPPORT AREAS & NATURAL ENVIRONMENT TOWARDS A RESILIENT

POLICY A2: ENVIRONMENTAL OFFSETTING & BIODIVERSITY STEWARDSHIP

POLICY A3: PROMOTE AND DEVELOP A WATER RESILIENT MUNICIPALITY

POLICY A4: CLIMATE CHANGE ADAPTATION AND DISASTER MITIGATION

POLICY A5: TOURISM ENHANCEMENT & PROTECTION OF SCENIC ASSETS

POLICY A6: RESILIENT, SUSTAINABLE AGRICULTURE & AGRI-PROCESSING

POLICY A7: SHALE GAS DEVELOPMENT (SGD)

POLICY A8: LAND REFORM SUPPORT

STRATEGY B: IMPROVE REGIONAL AND RURAL ACCESSIBILITY AND MOBILITY FOR PEOPLE AND GOODS IN SUPPORT OF A RESILIENT

POLICY B1: IMPROVE INTER SETTLEMENT CONNECTIVITY

POLICY B2: RURAL MOBILITY & SCHOOL LEARNER TRANSPORT

POLICY B3: TOWN IMPROVEMENT PLANS FOCUSED ON NON-MOTORISED TRANSPORT, SAFETY AND GREEN NETWORKS

STRATEGY C: ALLOCATE GOVERNMENT RESOURCES, INFRASTRUCTURE AND FACILITIES IN A MANNER THAT UPLIFTS AND SKILLS PEOPLE AND FOCUSES ON MAXIMISING IMPACT ON THE MOST POSSIBLE PEOPLE, WHILE PROVIDING A BASIC LEVEL OF SERVICE FOR ALL

POLICY C1: ESTABLISHING A CLEAR SETTLEMENT HIERARCHY

POLICY C2: URBAN EDGE POLICY

POLICY C3: FACILITY CLUSTERING & DESIGN PROTOCOL LINKED TO A CLEAR NODAL HIERARCHY

STRATEGY D: PARTNERSHIP-DRIVEN GOVERNANCE AND ADMINISTRATION TOWARDS IMPROVED FINANCIAL AND NON-FINANCIAL SUSTAINABILITY AND RESILIENCE

POLICY D1: SHARED SERVICE CENTRE FOR THE CENTRAL KAROO

POLICY D2: INTEGRATED PLANNING, BUDGETING, AND IMPLEMENTATION

STRATEGY A: A REGION THAT PROTECTS THE ENVIRONMENT, ENHANCES RESILIENCE AND CAPITALISES ON AND HONOURS THE KAROO CHARM IN SUPPORT OF A VIBRANT PEOPLE AND GROWING THE ECONOMY

The Beaufort West municipality seeks to become a resilient municipality that can adapt to and mitigate against the negative effects of climate change, increasing temperatures, reduced rainfall, and the host of downstream impacts on the economy and society at large. The future vibrancy of the economy and social advances will invariably be rooted in the resilience of the natural environment, society, and the economy to a host of negative impacts. This section seeks to set out policies in support of this strategy.

POLICY A1: PROTECT CRITICAL BIODIVERSITY AREAS, ENVIRONMENTAL SUPPORT AREAS & NATURAL ENVIRONMENT TOWARDS A RESILIENT MUNICIPALITY

Designated Spatial Planning categories (SPCs) must be considered in terms of land use management. This, in part, should ensure that Critical Biodiversity Areas (CBAs) and protected areas are conserved and, where applicable, restored. Land use change should always favour rehabilitation of indigenous species in degraded areas that have the potential to connect protected areas, CBAs, and Ecological Support Areas (ESAs).

Policy A1 Guidelines:

- I. Manage land use management in the rural areas of Beaufort West Municipality through the application of Spatial Planning Categories (SPCs) as set out in the Western Cape Rural Land Use Planning Guidelines and the Western Cape Biodiversity Spatial Plan (2017) and ensure that all investment in Beaufort West Municipality seeks to underpin the principles of spatial sustainability and spatial resilience. Greater detail on each SPC layer can be found in the Western Cape Rural Land Use Guidelines.
- II. Protect and conserve important terrestrial, and aquatic habitats (rivers and wetlands) as identified in Figure 5 as well as the Biodiversity Spatial Plan maps in the Status Quo section of this MSDF.
- III. Regarding interpreting the Guideline, the table in the maps shows how to convert the Protected Areas, Critical Biodiversity Areas, Ecological Support

Areas, and Other Natural Areas to the various Spatial Planning Categories set out in the Western Cape Biodiversity Spatial Planning Map.

- IV. The following mechanisms may be implemented when considering ways of formally protecting endangered and irreplaceable biodiversity. These mechanisms include:
 - a. **Private Land:** involving Stewardship Contract Nature Reserves, Biodiversity Agreements, or Protected Environments;
 - b. **Municipal Land:** Nature Reserve or Municipal Biodiversity Agreement (e.g., City of Cape Town);
 - c. **Forest Nature Reserves** through the Natural Forest Act and Wilderness Areas into Wilderness Act;
 - d. **Title deed restrictions** where land has been designated under the Stewardship Programme or declared a Nature Reserve or Protected Environment;
 - e. **Contractual National Parks:** the zoning of private properties to Open Space III could be used as a mechanism for conservation in terms of the Beaufort West Zoning Scheme By-Law. Financial and non-financial incentives have the potential to be linked to the conservation on private land with title deed restrictions.
- V. In line with the Western Cape DEA&DP guidelines for rural land use development, new investment in rural areas should not:
 - Have significant impact on biodiversity;
 - alienate unique or high value agricultural land;
 - compromise existing farming activities;
 - compromise the current and future use of mineral resources;
 - be inconsistent with cultural and scenic landscapes within which it is situated;
 - involve extensions to the municipality's reticulation networks;
 - impose real costs or risks to the municipality delivering on their mandate; and
 - infringe on the authenticity of the rural landscape and heritage assets.

The following sets out the various Spatial Planning Categories, and the generally acceptable activities and land uses that are suitable for each:

- **Core 1 Areas: Critical Biodiversity Areas (CBA) and Protected Areas.** These include habitats classified as highly irreplaceable, critically endangered, or endangered terrestrial (land), aquatic (rivers, wetlands, and estuaries) and

marine habitats. In Beaufort West, the Karoo National Park is the key Protected Area for the municipality, but CBAs also run along river corridors and other sensitive areas. This category also includes essential biological corridors, as it is vital to sustain their process and pattern functionality. These areas must be regarded as “no-go” for development and must be kept in a natural state, with a management plan focused on maintaining or improving the state of biodiversity. There should be no further loss of natural habitat and degraded areas should be rehabilitated. In Beaufort West Municipality, CBAs are also often found in conjunction with where the towns and settlements are located.

- **Core 2 Areas: These consist of two areas, namely Critical Biodiversity Area 2 (Degraded) and Ecological Support Area 1.** CBA 2 represents areas that are in a degraded or secondary condition and are required to meet biodiversity targets for species, ecosystems, or ecological processes and infrastructure. ESA1 are areas that are not necessarily required to meet conservation targets, but that play an important role in supporting the functioning of PAs or CBAs and are vital for delivering ecosystem services. These areas should be maintained or rehabilitated into a natural or near-natural state with no further loss of natural habitat.
- **Buffer 1 Areas:** These areas may be degraded but still play an important role in supporting the functioning of Core Areas (either Protected Areas or CBAs) and are essential for delivering ecosystem services. These areas should be restored and/or managed to minimise impact on ecological infrastructure functioning, especially soil and water-related services. Two components of the rural landscape make up Buffer 1 areas:
 - **Ecological Support Area 2:** Here the goal is to restore and/or manage to minimize impact on ecological infrastructure functioning, especially soil and water-related services.
 - **Other Natural Areas:** in these areas the goal is to minimise habitat and species loss and to ensure ecosystem functionality through strategic landscape planning. This designation offers flexibility in permissible land-uses, but some authorisation may still be required for high impact land-uses.
- **Buffer 2 Areas:** This category includes areas designated as **Other Natural Areas**, located in an extensive and/or intensive agriculture matrix (i.e., grazing and livestock production) as the dominant land use. The Buffer 2 SPC requires that habitat and species loss is minimized, and that ecosystem

functionality is preserved through strategic landscape planning. Buffer 2 areas offer flexibility in permissible land-uses, but some authorisation may still be required for high-impact land-uses.

- **Agriculture Areas:** These consist of areas with an existing or potential intensive agriculture footprint (namely homogeneous farming areas made up of cultivated land and production support areas). This designation includes areas in which significant or complete loss of natural habitat and ecological functioning has taken place due to farming activities. Existing and potential agricultural landscapes should be consolidated and protected; sustainable agricultural development, land and agrarian reform, and food security should be facilitated, and ecosystems must be stabilised and managed to restore their ecological functionality.
- **Settlement Areas:** This category includes all existing settlements, large and smaller towns, villages, and hamlets: generally, all urban areas with land uses compatible with urban development. Settlements are delineated by municipalities in terms of an urban edge or by DEA&DP in terms of the 2014 NEMA Listing Notices as urban areas. The purpose is to develop and manage settlements in a sustainable manner. Wherever possible, existing settlements should be used to accommodate non-agricultural activities and facilities.

The Western Cape Biodiversity Spatial Plan maps is shown in **Figure 88** and the Spatial Planning Categories for Beaufort West Municipality are mapped in **Figure 110**.

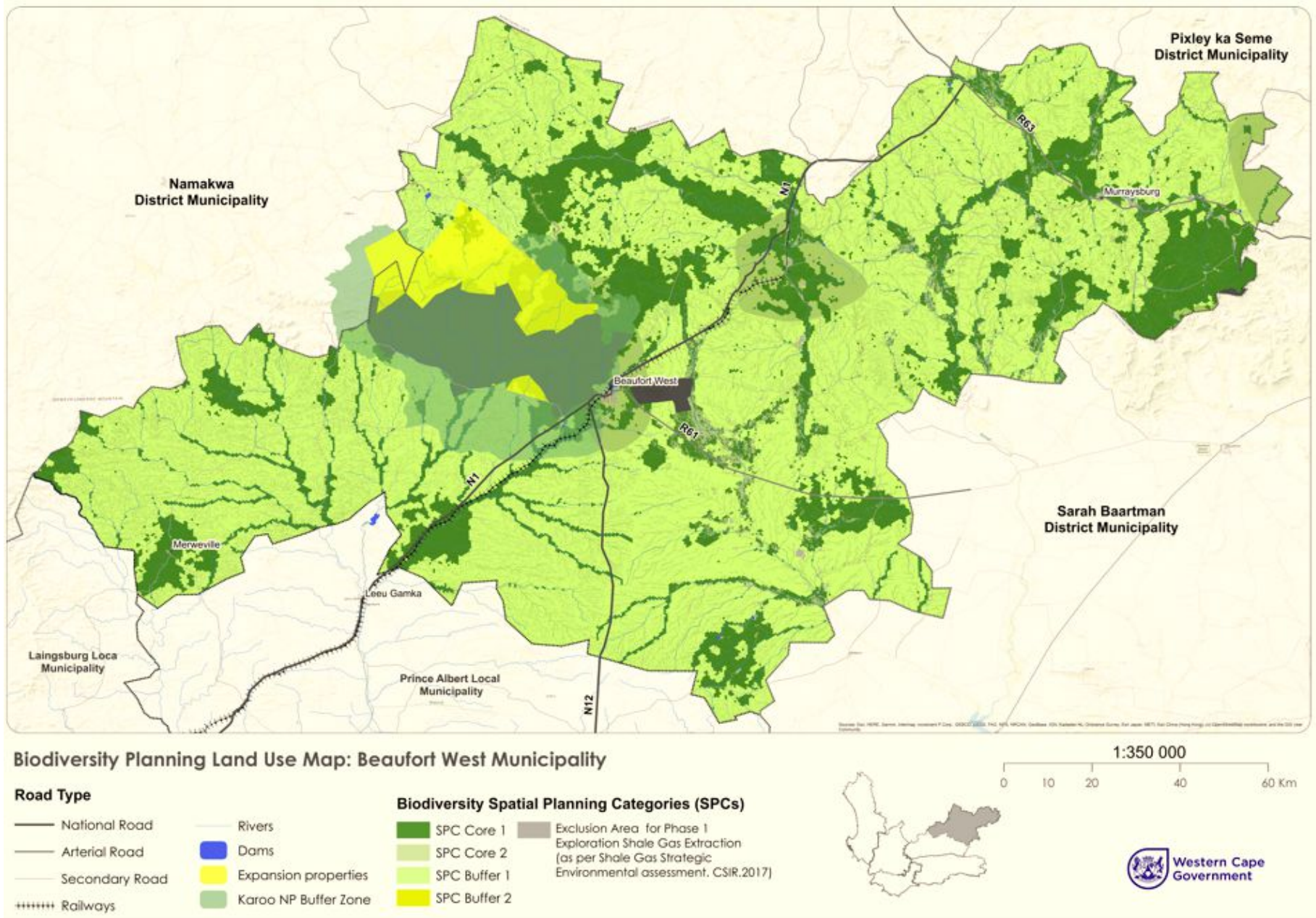


Figure 88: Biodiversity Spatial Plan for the Beaufort West Municipality

POLICY A2: ENVIRONMENTAL OFFSETTING & BIODIVERSITY STEWARDSHIP

Environmental offsetting aims to slow and progressively reverse ecological deficit by counterbalancing human-induced negative effects on the environment that remain after every effort has been made to avoid, minimise, and then rehabilitate these impacts by making positive intervention elsewhere. This approach recognises the interdependence between biodiversity, ecosystems, and the benefits they provide for people through use and cultural values. It takes a landscape scale, rather than a site-specific view, to enable consideration of cumulative impacts.

Policy A2 Guidelines:

- I. The draft National Biodiversity Offset Guideline 2022 aims, amongst other things, to ensure that significant residual impacts of developments are remedied. The Western Cape Conservation Stewardship sites can be downloaded from <http://bgis.sanbi.org/>. The Offset Policy should be taken into consideration with every development application that still has significant residual impact after the Mitigation Sequence has been followed in the Environmental Impact Assessment process. Table provides a set of basic offset ratios to be considered when designing an offset intervention.
- II. The chosen offset intervention must go through public participation during the EIA process.
- III. It is worth noting that the offsets could be ringfenced and linked to town-scale tree planting and water and waste management initiatives that demonstrate equal offset reduction measures.
- IV. Draft an Offset Register to monitor compliance with the environmental offset and to monitor the progress and impact of the offset interventions.

MSDFs often identify land in terms of the Biodiversity Spatial Plan data set that needs to be protected but is also privately owned land, making landowners uncertain over its future use. Therefore, information on **incentives or concessions around property rates or tax benefits** is useful.

Section 37D of the Tax Income Act allows for a 4% straight line deduction on the value of the land declared. This means that a landowner who declares their **land under Stewardship** as a Nature Reserve or National Park may deduct 4% of the value of that declared land value from their taxable income each year for 25 years.

The tax incentive governed by section 37D can only accrue to the title deed holder of the land. The land must be declared as a Nature Reserve or National Park in terms of section 20 or 23 of NEMPAA with the endorsement reflected on the title deed of the land for a minimum period of 99 years.

If the landowner maintains a right of use of the land, then the deduction is apportioned accordingly. The deduction becomes effective in the year the land is declared and in each subsequent year of assessment. It is important to remember that these straight-line deductions only apply to land declared on or after 1 March 2015.

Should the Stewardship agreement be terminated, the landowner will be liable for certain tax penalties. The landowners' responsibilities in terms of the Stewardship agreement are defined by NEMPAA. The section applies to taxpayers in profit making or loss positions and has benefits for both scenarios.

Area impacted by remaining impact	Basic offset ratio (offset area : remaining impact area)
Critical Biodiversity Area: Irreplaceable (CBA1)	30 : 1
Critical Biodiversity Area: Important or Optimal (CBA2)	10 : 1
Ecological Support Area (ESA)	5 : 1
Other Natural Area	2 : 1

Table 15: 2017: Draft National Biodiversity Offset Policy Offset Ratios

POLICY A3: PROMOTE AND DEVELOP A WATER RESILIENT MUNICIPALITY

The drought in Beaufort West has damaged the municipality's people and its economy. If the status quo remains, the region will continue to experience economic shocks related to water unavailability. Water sensitive design, water availability or water constraints must be considered as part of all land use management changes, infrastructure expansion or any other process that impacts on water use or availability in the municipality. The aim should be to make the towns progressively less dependent on rainfall, so that reserves can last through dry periods.

Policy A3 Guidelines:

At the municipal scale, the following adaptation policy measures apply:

- i. Monitor ground water resources and implement effective water reduction techniques when sources are low. See the Groundwater Monitoring Network Strategy for the Karoo: <https://cbosss.com/igscbss-to-design-gw-monitoring-network-for-karoo/>.
- ii. **Protect and rehabilitate the Sout River** system, which is of particular importance to the municipality, by evaluating the carrying capacity of the Sout river and reconciling this with future growth needs.
- iii. **Protect and rehabilitate high-yield groundwater recharge** areas around Murraysburg and the Sneeuberg mountain range.
- iv. Adhering to the National Department of Water and Sanitation's water **resource quality objectives**. In September 2020, in terms of section 13(1) of the National Water Act, 1998 (Act No. 36 of 1998), the National DWS determined water resource classes, prioritisation units, river nodes and corresponding resource quality objectives for the catchment. The sub catchment of Breede-Gouritz Water Management Area in which Beaufort West municipality is located is classified as a **Class II**: moderate protection. The ecological category and the Resource Quality Objectives (RQOs) (water quantity and quality, habitat, and biota) for each groundwater resource unit and river node can be found in the relevant gazette.

- v. Reduce the loss of water through evaporation reduction as a primary objective. This includes covering reservoirs and dams, conversion of canals to water pipelines, recycling of grey water for reuse, etc
- vi. Ensure that the integrity of valuable rainwater catchment areas, groundwater recharge areas and riverine systems are kept **clear of invasive plant species** or any use that will degrade either the quality or quantity of water available for use.
- vii. Develop **agricultural water demand management programmes**, focusing on ground water appropriate agricultural areas, particularly in Murraysburg and its surrounds and the areas around the Sout River.

At the settlement scale, the following following climate change adaptation policy measures apply:

- i. Regulate borehole use to ensure sustainable use of groundwater systems.
- ii. Develop water and sanitation infrastructure that utilises water re-cycling and reuse.
- iii. Promote household and farm-scale rainwater capturing for non-potable uses.
- iv. Ensure rainwater tanks are included in new developments of households on even larger than 120m².
- v. Promote compact urban development to minimise infrastructure expansion that increases the risks of water loss from expansive water reticulation systems.
- vi. Invest in a maintenance programme that seeks to minimise leaks from municipal water infrastructure.
- vii. Implement water demand management programmes in Government facilities (such as municipal offices, education, health, and public works).

POLICY A4: CLIMATE CHANGE ADAPTATION AND DISASTER MITIGATION

This section, in addition to policies A1, A2 and A3, provides adaptation and mitigation guidance on combatting the effects of climate change. According to the Central Karoo District Municipality Disaster Risk Assessment Report, the following climate hazards are key risks for the Central Karoo (and Beaufort West by extension):

- Fire;
- Drought;
- Floods;
- Snow;
- Shift in seasons;
- Storm events (including lightning and wind);
- Increased number and extent of heat days;

The municipality's flood hazard, heat stress, dam level status and ground water depletion risks are indicated in the CSIR green book tool.

Policy A4 Guidelines for Adaptation and Mitigation:

- i. In terms of **disaster risk**, where feasible and through broader partnership, respond to the infrastructure and risk guidelines put forth by the **2021 Central Karoo District Municipality Disaster Risk Assessment Report**.
- ii. Link to the **WCG Ecological Infrastructure Investment Framework** and CSIR investment framework to assist with informing decisions on where and how to invest in the Western Cape's ecological infrastructure (See video link: <https://youtu.be/ivR7zKs1Jqk>). The study analyses risks & vulnerabilities per catchment such as water supply (surface & ground water), fire, flooding, and erosion and rangeland degradation. It then links these to opportunities for restoration through investment strategies that focus on collaboratively funded interventions such as alien invasive species strategy, fuel load reduction via Management Unit Control Plans (MUCPs), general ecosystem rehabilitation, conservation agriculture, integrated fire management and improved awareness, monitoring, and evaluation.
- iii. Alien vegetation clearing has the highest and most immediate positive spin off for reducing fire and groundwater depletion risk. It can also be linked to a biomass economy. There are also opportunities for carbon sequestration using spekboom see the link provided below:

<https://www.greencape.co.za/assets/Uploads/BioValSA-Lignocellulosic-Biomass-Opp.pdf>

- iv. Guidelines for the monitoring, control, and eradication of alien invasive species can also be found in Section 76 of the National Environmental Management: Biodiversity Act, 2004 (Act 10 of 2004) ('NEMBA') and Ecosystem Guidelines for Environments in the Western Cape (2016) see the link below:

http://biodiversityadvisor.sanbi.org/wpcontent/uploads/2012/04/Ecosystem_Guidelines_Ed2.pdf.
- v. Eradication programmes should focus on the urban periphery, in river catchment areas and Fire Management Areas. These programmes should also prioritise high veld fire risk areas and asset protection zones (interfaces between settlements and agricultural/natural environment – must ensure adequate fire breaks are considered and implemented).
- vi. Public landowners must allocate enough resources to ensure the management of their land to remove and prevent alien vegetation infestation.
- vii. The CKDM's Disaster Risk Management Department must be given an opportunity to provide input into land use applications in interface areas where there is fire and flooding risk. A protocol between the CKDM and Beaufort West Municipality must be developed to facilitate this.
- viii. Prevent future flood risks by ensuring development is set back from the 1:100-year flood zones adjacent to all river systems. Stormwater systems need to be maintained and where necessary upgraded to accommodate intense flood events.
- ix. Preserve river riparian zones and wetlands with at least a 32m buffer from agriculture and any other development.
- x. Ensure that storm water systems in urban areas can accommodate flooding conditions effectively, particularly in Beaufort West Town, both through design and regular maintenance. Where development is permitted, it must be associated with sustainable urban drainage design.

- xi. Promote renewable energy generation and use. All new buildings must be designed such that they can be migrated off fossil fuels without cost to the owner/occupier - e.g., electrical connection (can be switched to renewables), solar geyser, no reliance on coal/paraffin or other pollutants. An often-overlooked aspect is the possible future penalties that will apply to fossil fuels (e.g., carbon tax). This will reduce the appeal of shale gas in favour of renewables such as solar and wind.

POLICY A5: TOURISM ENHANCEMENT & PROTECTION OF SCENIC ASSETS

Beaufort West Municipality's tourism industry has been significantly constrained by several factors over recent years. Key issues have been:

- Drought.
- The COVID-19 lockdown.
- Deteriorating municipal infrastructure, particularly waste management.

COVID-19 in particular had a damaging effect on tourism. It was estimated that the wholesale and retail trade, catering and accommodation sector contracted by -11.3% per cent in 2020 (MERO, 2021). In 2019, this sector was the largest contributor to employment in the municipality, accounting for 25% of employment opportunities.

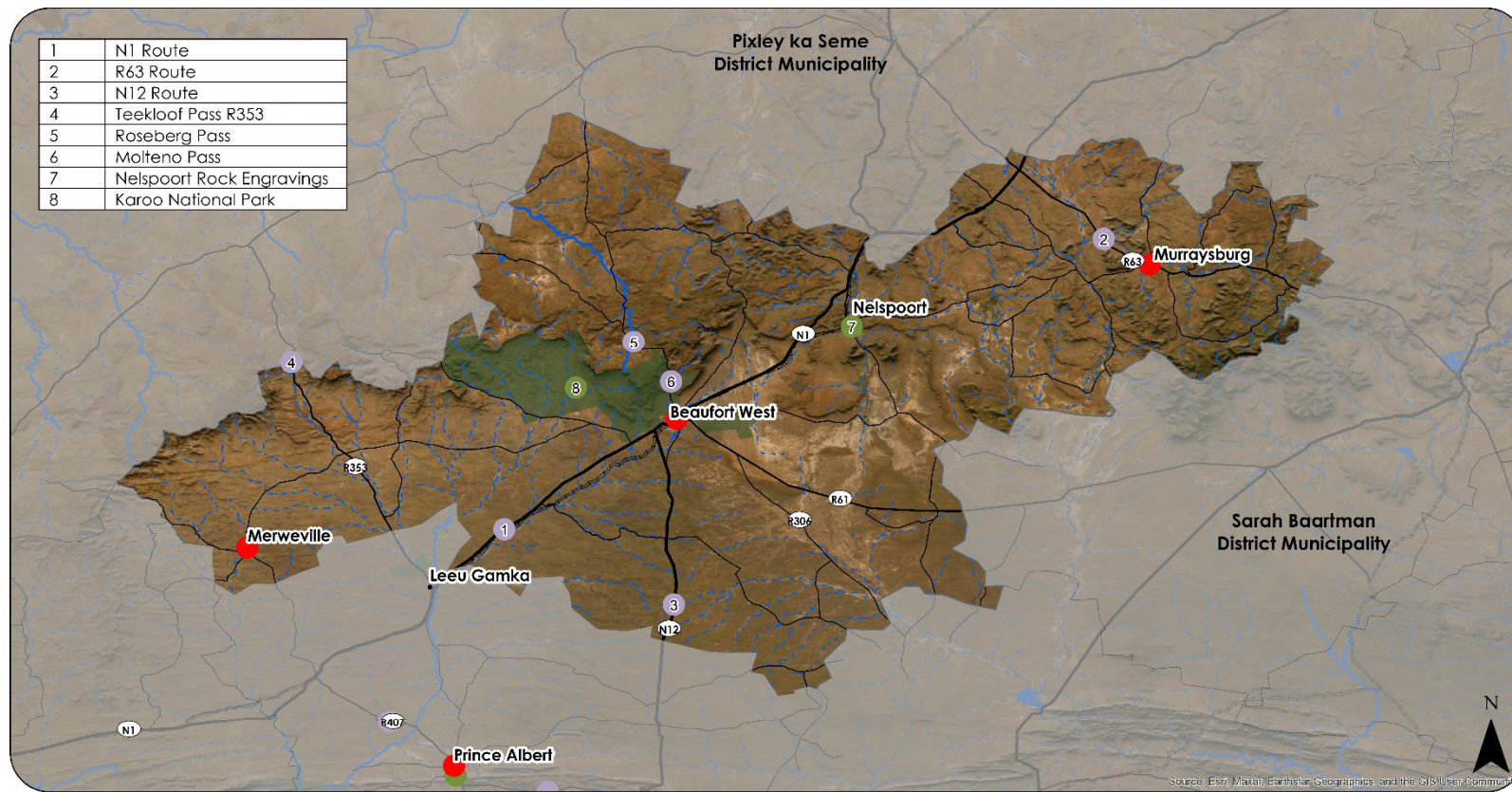
In spite of these challenges, Beaufort West has significant scenic and heritage resources that should be restored and preserved as appropriate. The main cultural heritage and scenic resources, as identified in the PSDF and endorsed in this MSDF, include:

- The Karoo National Park and scenic routes.
- Historic settlements, main streets and heritage assets which include the CBD in Beaufort West Town, the Eastern section of Merweville, parts of Nelspoort and Murraysburg, proclaimed monuments and heritage zones.

The landscape character of the passes and settlements must be safeguarded and compromising development on ridge lines or in important view corridors must not be allowed. These are shown in **Figure 89**, below.

Policy A5 Guidelines:

- i. The PSDF Heritage and Scenic Resources Specialist Study (2013) provides guidance in terms of the spatial form and character of settlements. These guidelines are adopted in this MSDF and should be referred to in land use management decision making.
- ii. Rejuvenate and invest in the historic settlement cores of Beaufort West, Merweville and Murraysburg towns to make these appealing to tourists, businesses and attract investment into the town centres. Leverage these assets to create employment opportunities by attracting tourists.
- iii. Develop a heritage overlay zone to guide land use decision making. The Beaufort West desktop heritage survey conducted for the 2014 MSDF denotes the key heritage resources that must continue to be protected. This included Grade I, II and III sites in Beaufort West town, and a number of sites in its smaller towns – including national monuments in Merweville and Murraysburg.
- iv. The development of a settlement (consolidation or growth) should take the existing (and sometimes historic) structure and spatial form into consideration and strengthen its character. This spatial form must be compact and respond to the topography of the landscape.
- v. Promote vernacular Karoo-style building typologies in all development – low-income housing development could be adapted to have Karoo-style features. Beaufort West, together with the Karoo region, has unique vernacular building and housing typologies that must be honoured and enhanced in future growth and development in order to make these places more appealing and desirable for tourism and to enhance their sense of place. These typologies should be replicated in government subsidy housing initiatives, as well as in gap and normal market housing development.
- vi. When delivering any agri-processing, renewable energy, or any infrastructure in rural areas, ensure that key view sheds and vistas are not undermined and that, where appropriate, set-backs and screenings (in the form of tree planting) are provided from roads.
- vii. Continue to develop and implement a destination and tourism branding and marketing strategy to promote the tourism sector.



1	N1 Route
2	R63 Route
3	N12 Route
4	Teekloof Pass R353
5	Roseberg Pass
6	Molteno Pass
7	Nelspoort Rock Engravings
8	Karoo National Park

Heritage and Scenic Resources Map: Beaufort West Municipality

- National Road
- Arterial Road
- Secondary Road
- +++ Railways
- - - DM Boundaries
- Dams
- Permanent River
- - - Ephemeral River
- Protected Areas
- Cultural Landscapes
- Scenic Routes and Passes
- Historic Settlements

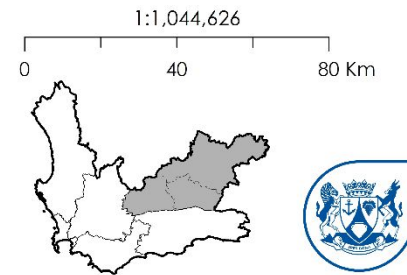


Figure 89: Mapping the Cultural, Scenic landscapes and historic settlements (Central Karoo MSDF (2020))

POLICY A6: RESILIENT, SUSTAINABLE AGRICULTURE & AGRI-PROCESSING

Agriculture contributes 10% to Beaufort West's GDP, and 19% to employment opportunities (Western Cape Government, 2020)). Although agricultural activity has been declining due to the protracted drought conditions, it still provides opportunities to maintain and enhance both job and food security.

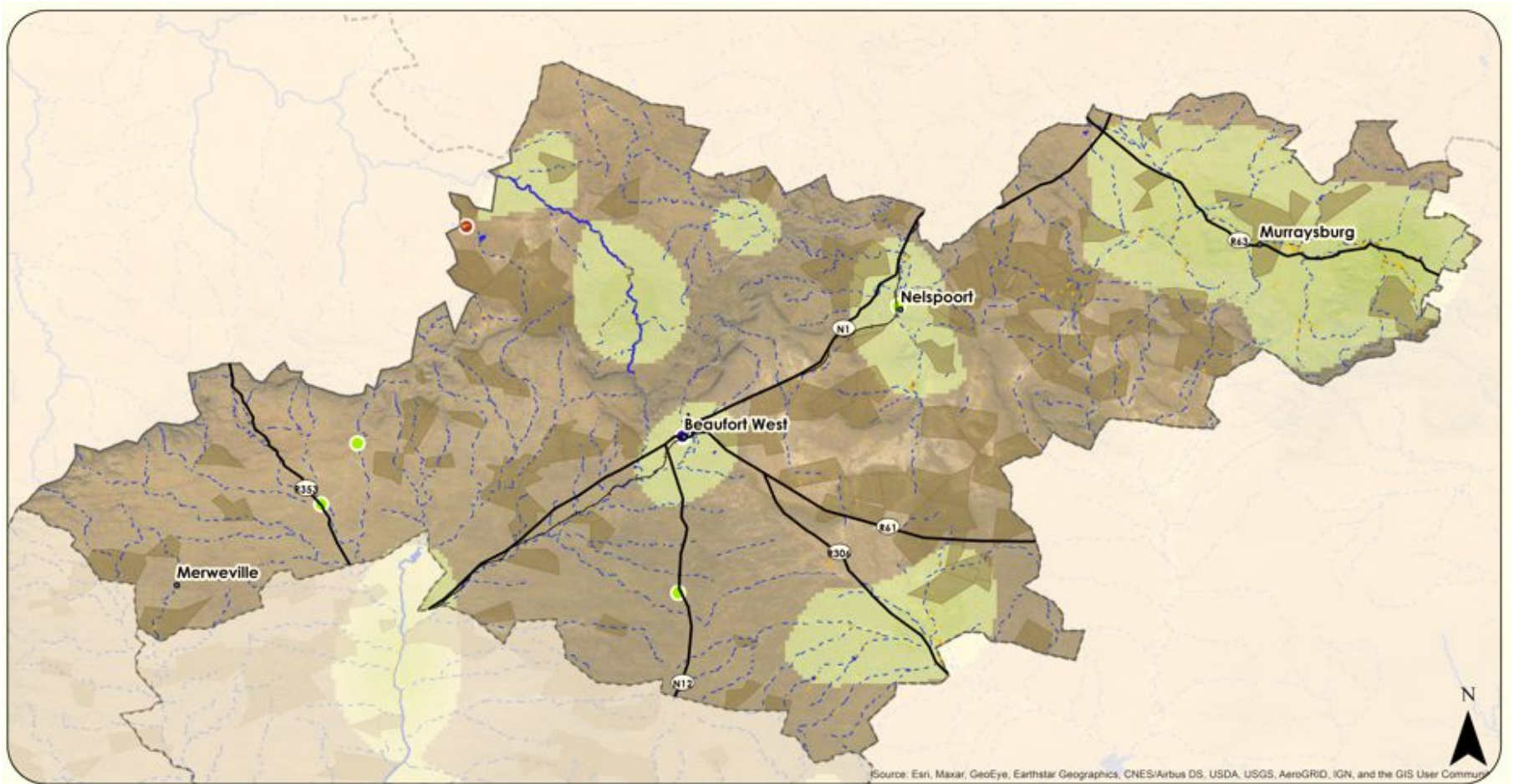
The use of agricultural land and the integrity of agricultural operations must be protected and enhanced, as mapped in **Figure 90**. The conversion of irrigated, arable land is not supported in terms of this MSDF and the Subdivision of Agricultural Land, Act (Act 70 of 1970), section 3 (f), which states that "no area of jurisdiction, local area, development area, peri-urban area, or other area ... of the definition of 'agricultural land' in section 1, shall be established on or enlarged so as to include, any land which is agricultural". This underscores the need to protect agricultural land as stipulated in the Draft Preservation and Development of Agricultural Land Bill (2016).

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

Policy A6 Guidelines:

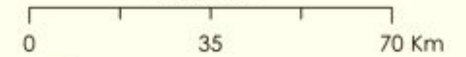
- I. Encourage water-resilient farming practices that enable more efficient and productive use of water.
- II. Encourage the use of drought-resistant crops and crop hybrids that tolerate drought conditions and use less water.
- III. Actively and aggressively promote value-add to all locally produced agricultural products in the region.

- IV. Ensure that farmers in the region are granted the necessary rights and building plans on their farms to promote agri-processing and job creation, but in a way that doesn't undermine Karoo charm and character (i.e., new developments must be designed well and must fit in with the landscape).
- V. Provide the necessary farmer support for drought relief, water use efficiencies and agricultural expansion in the region, with a specific focus on emerging farmers.
- VI. Implement catalytic economic development projects such as SMART gardening, Agri Parks and Dry Fruit Facilities and plantation.
- VII. Producers of long-term crops, such as orchards and vineyards, as well as game and ostrich producers, are excluded from government drought assistance, while they are in dire need of it. Thanks to financial contributions and feed donations to the Agri Western Cape Drought Relief Fund, Agri Western Cape can offer support to livestock farmers, but there is no assistance for producers who have had to de-root hundreds of hectares of vineyards and orchards.



Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

1:858,000



Agriculture Activities Map: Beaufort West Municipality

Legend Items

- LM Boundaries
- National Road
- Railways
- Dams
- Permanent River
- Ephemeral River

Agriculture Activities (From WC Agriculture Census 2013)

Agri-Infrastructure Type

- Abattoirs
- Agro Processing Plant
- Chicken Batteries - Broilers

- Areas of Livestock Production
- Cultivated Land
- Concentration of Cultivated Winter Crop Fields

Figure 90: Agricultural Assets in Beaufort West

POLICY A7: SHALE GAS DEVELOPMENT (SGD)

Figure 110 shows the Biodiversity Spatial planning Categories for the Central Karoo. This includes Exclusion Areas for Phase 1: Exploration of SGD. **Figure 91** shows the area designated for shale gas exploration. To date, SGD is still only a theoretical proposal within the Karoo Basin that is subject to exploration, feasibility and confirming recoverable reserves. The extent and viability of the gas reserves in the Karoo Basin, as well as the characteristics of the subsurface environment, is largely unknown. Satisfactory levels of certainty can only be ascertained by means of exploration or drilling into the target shale deposits. If hydrocarbons are encountered, a limited amount of hydraulic fracturing can then be undertaken.

Policy A7 Guidelines:

- i. Natural gas represents an opportunity for economic development in the Western Cape (and South Africa as a whole).
- ii. With South Africa focusing on its climate change commitments, natural gas should only be regarded as a transition fuel on the way to reliance on renewable energy. The use of natural gas must occur in support of renewable energy, not at the cost thereof, or as an alternative thereto.
- iii. All impacts of this activity, on ground water resources specifically, **must** be adequately mitigated if it is to proceed in the Karoo basin.
- iv. Critical Biodiversity Areas, Environmental Support Areas, Protected Areas, and areas with valuable aquifers **must** be protected from shale gas extraction or any other kind of environmentally compromising activity.
- v. Local communities potentially exposed to negative air quality because of shale gas extraction and related activities must be protected by an adequate buffer.
- vi. Agricultural, tourism, visual and heritage areas that are deemed sensitive to shale gas extraction must be avoided as per the CSIR's Shale Gas Strategic Environmental Assessment (2017).
- vii. Information gathering and evidence-based policy development remain key priorities for providing relevant information upon which decisions can be taken.
- viii. When considering Karoo shale gas as a possible source of natural gas, the following factors must be considered: the anticipated shale gas drilling costs in South Africa may be significantly higher than those of the United States due to the lack of infrastructure; the gas reserves are remote (i.e. far away from the markets); there is a lack of drilling technology and expertise; the institutional context (i.e. regulatory framework, human resources and knowledge capacity) is inadequate; markets are undeveloped; and there are significant socio-ecological implications, inclusive of latent environmental impacts.
- ix. There is inadequate information to support or oppose full or large-scale production of shale gas. The WCG does, however, acknowledge that the need for information necessitates the commencement of exploration.
- x. The WCG supports shale gas exploration conducted in a phased manner to support evidence-based decision making. A prerequisite, however, is an improved state of readiness of both government and non-governmental stakeholders prior to the commencement of exploration activities. This includes the improvement of the regulatory and broader institutional framework based on the findings of the SEA process. Significant progress has been made in this regard through, for example, establishing a regulatory framework for hydraulic fracturing, although it is acknowledged that a lot must still be done to review and enhance this institutional framework.
- xi. **Support for the commencement of exploration activities does not constitute support for the production phase of shale gas development.** The need for information is still a primary aim of the exploration phase in understanding the extent of the shale gas resource as well as the receiving environment. Once this information has been considered, an informed (and evidence-based) decision to move into the production phase for SGD can be taken. This is inclusive of the open and transparent consideration of information generated through the exploration phase.
- xii. Should shale gas prove to be a viable environmentally sustainable source of natural gas, the WCG will consider both the potential risks and

opportunities related to shale gas development, including how these may affect the Karoo environment. The WCG is in the process of evaluating its readiness to respond to SGD demands if exploration goes ahead within the Karoo Basin of South Africa.

- xiii. From an air quality perspective, an emission inventory of all point and mobile sources (including vehicles) should be compiled. This emission inventory would establish a baseline to inform future developments in the Beaufort West Region, especially when dealing with airshed planning. A spatial expression of the airshed within the Beaufort West area will determine the impact of existing and planned emissions. With the establishment of more industries/ developments, the cumulative impact of those may significantly affect air quality as well as other environmental and health impacts.

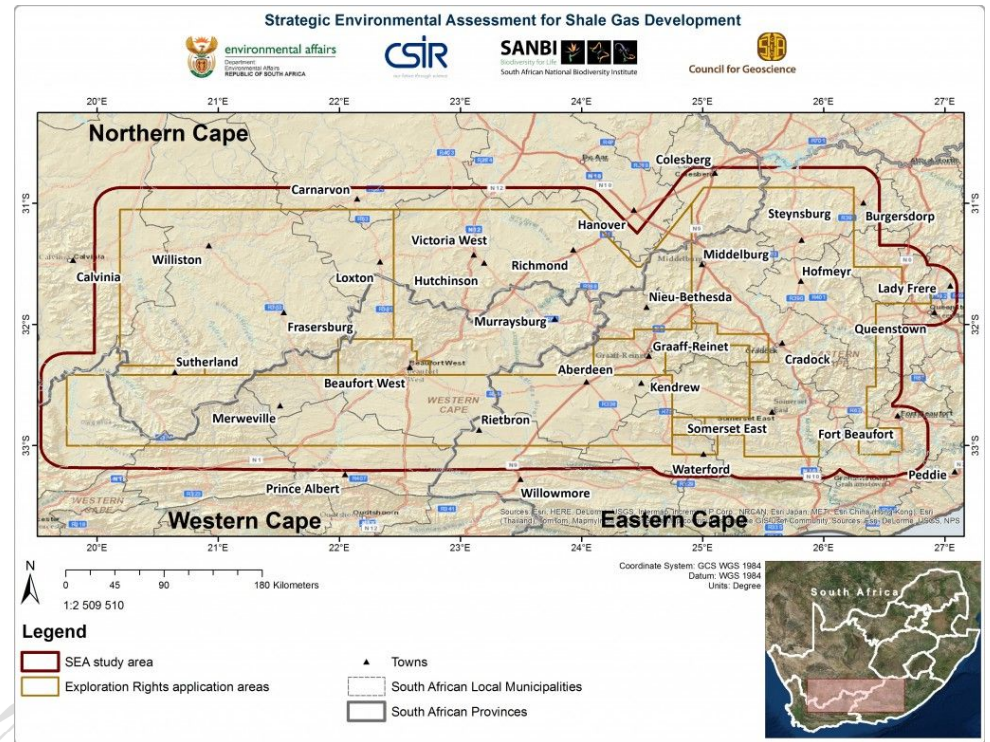
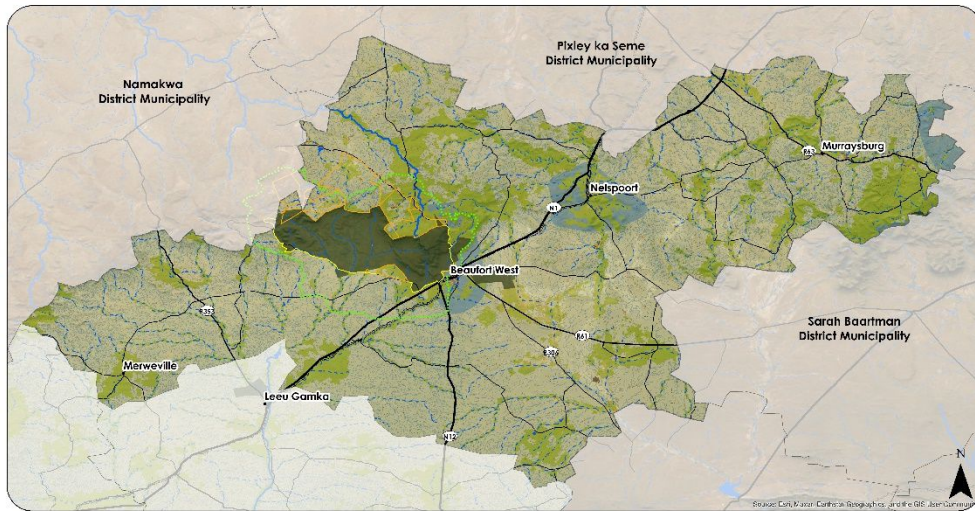


Figure 91: Strategic Environmental Assessment for Shale Gas Development



Western Cape Biospatial Plan (2017) Land Use Map: Beaufort West Municipality

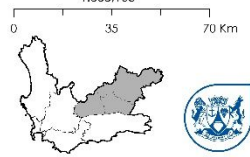
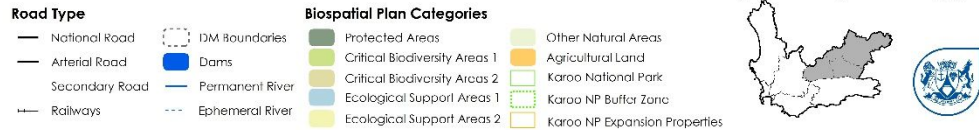
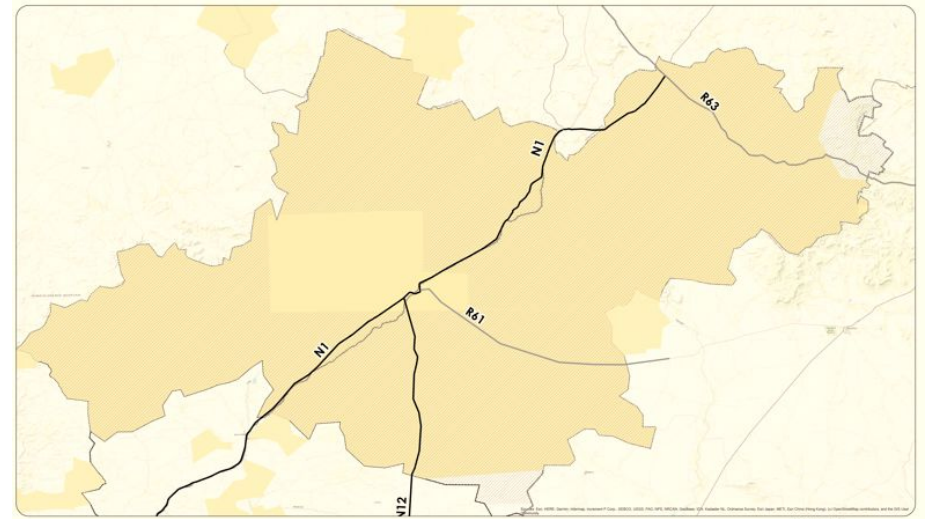


Figure 92: Indicating the Spatial Planning categories and Exclusion Areas from Phase 1 Shale Gas Exploration



Mineral Resources Map: Beaufort West Municipality



Figure 93: Indicating other mineral resources within the Beaufort West Municipal area.

POLICY A8: LAND REFORM SUPPORT

The following list sets out five criteria that must be used to identify Strategically Located Land (SLL) for land reform in Beaufort West Municipality. These criteria should be used to inform the acquisition of farms in rural areas for land reform purposes.

Policy A8: Guidelines

- i. The farm should fall within the Farmer Production Support Unit (FPSU) catchment area, which indicates its proximity to the nearest town, potential markets, and accessibility to the district road network. The FPSU catchment area is defined as being within 60 km of an FPSU.
- ii. The priority FPSU catchment area covers the majority of Beaufort West Municipality.
- iii. The farm must not fall within a Spatial Planning Category (SPC) or Biodiversity Spatial Plan area that indicates it as sensitive or having significant constraints (i.e., in a core or buffer SPC). Ideally, an Agricultural SPC is the most suitable land for acquisition purposes. This may not be a consideration if the farm is intended to be used for tourism (non-farming) purposes due to its natural beauty or if the intent is to sustainably harvest biodiversity (such as fynbos).
- iv. The farm should not contain significant land with steep slopes (i.e., slopes above 12%).
- v. Land ownership: state owned land should be first considered for land reform purposes before privately-owned land is acquired for land reform purposes.
- vi. The farm must have access or have the potential to access enough water to sustain its operations.
- vii. A toolkit for integrating land reform and rural development into Spatial and Land Use Planning can be found at https://www.westerncape.gov.za/eadp/files/atoms/files/Toolkit_Integrating%20LRRD%20into%20Spatial%20%26%20LUP_0.pdf.

STRATEGY B: IMPROVE REGIONAL AND RURAL ACCESSIBILITY AND MOBILITY FOR PEOPLE AND GOODS IN SUPPORT OF A RESILIENT ECONOMY

POLICY B1: IMPROVE INTER SETTLEMENT CONNECTIVITY

The municipality's transport system must be appropriate and affordable for both the inhabitants of the region and the people passing through. The tarring of the road leading to Merweville – and the consequent benefits to the town – is instructive about the importance of connecting infrastructure to the health of the towns in the municipality.

Given limited budget, it is important to prioritise maintenance and upgrading of roads where necessary. **Figure 94** shows the routes of National and Regional importance from the Central Karoo MSDF.

The national and arterial movement routes through the municipality (roads of key economic importance) are:

- **N1 national road** – running diagonally through the municipality and the town of Beaufort West. This route is the main movement route between Cape Town and Johannesburg and is the economic lifeline of the municipality.
- **N12 arterial** – running in a southerly direction from Beaufort West to Oudtshoorn, and George.

A number of main roads link with the N1 national road and facilitate movement to rural areas in the Beaufort West Municipality and nearby towns in adjacent municipalities. These main roads are as follows:

- R353 – cuts across the western corner of the municipality and the link between Leeu-Gamka and Fraserburg.
- R381 – between Beaufort West and Loxton in the north.
- R61 – between Beaufort West and Aberdeen in the east.
- R306 – between Beaufort West and Rietbron in the southeast.
- R63 – link between the N1 and Murraysburg which further extends to Graaff-Reinet in the east.

Policy B1: Guidelines

- i. Prioritise road maintenance over the building of new roads.

- ii. Focus on ensuring the paved roads within urban settlements are maintained, potholes addressed, and pedestrian mobility optimised.

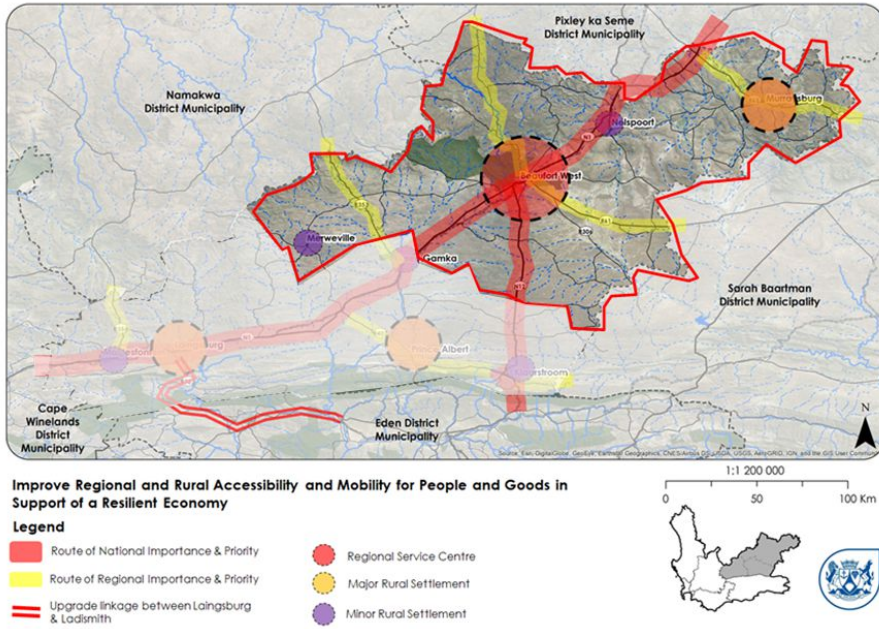


Figure 94: Indicating the routes of national, and regional importance (Central Karoo MSDF)

POLICY B2: RURAL MOBILITY & SCHOOL LEARNER TRANSPORT

Public learner transportation is performed by the Western Cape Education Department. There are three routes running in the municipality. Two routes come from outside Beaufort West town bringing learners from two opposite sides to the schools in town. One route starts in town and transports learners to schools on the opposite side of the town due to learners having to cross the busy N1 as there is no bridge or sub-way for them to cross. While these routes are operational, the LITP indicates that they are insufficient, as many learners still walk or hitch hike to school or hostels.

Policy B2 Guidelines:

- I. Invest in rural pedestrian safety and scholar transport safety through partnership with the Western Cape Department of Education and the CKDM. This may include implementing safe crossings over or under the N1 highway and other busy regional roads.
- II. Implement the strategy aimed at offering cost-effective transportation services for rural communities – the Central Karoo Mobility Strategy
- III. Lobby the Western Cape Department of Education to add additional school learner routes for school children from Merweville and other areas of need or join investigate co-funding the Central Karoo Mobility Strategy.
- IV. The roll-out of the rural mobility and accessibility strategies must be mindful that vulnerable groups (women, children and disabled) are disproportionately more dependent on the availability of public transport.
- V. Prioritise interventions that allow learners to safely cross the N1 within Beaufort West Town.

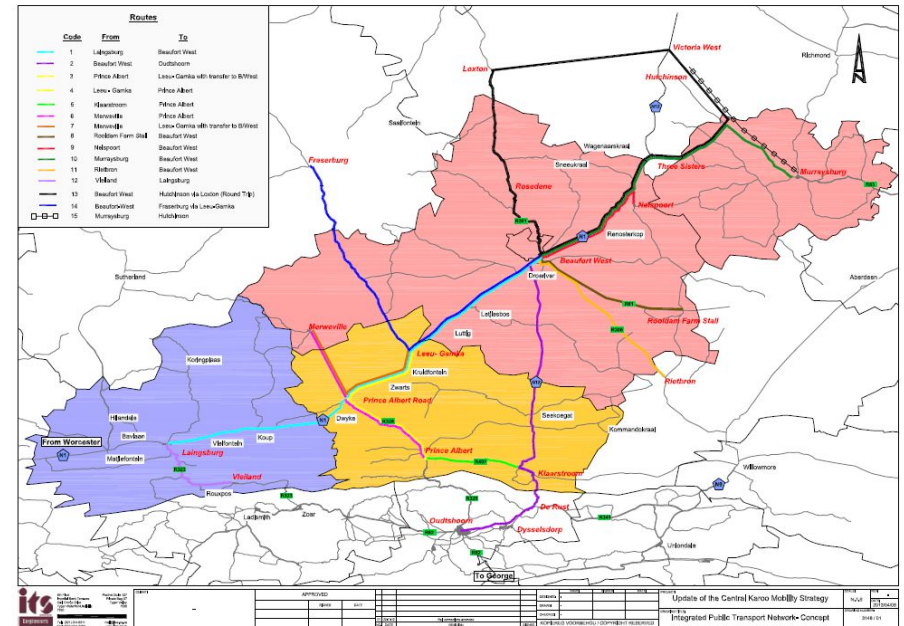


Figure 95: The Central Karoo Mobility Strategy Route Proposals (2013)

POLICY B3: TOWN IMPROVEMENT PLANS FOCUSED ON NON-MOTORISED TRANSPORT, SAFETY AND GREEN NETWORKS

Beaufort West Municipality needs to ensure that its towns are conducive to both local and tourist passengers (on foot and in car) as well as attractive for businesses to invest in. This should be specifically pursued in Beaufort West Town and Merweville because of their heritage appeal and accommodation offerings. Walkable towns promote a public environment with a human focus rather than a car focus. They can lead to many social and economic problems being addressed through improved social interaction, increased spending, and diminished crime. With climate appropriate tree-planting, walkable towns can also provide shade and keep temperatures lower. This strategy can be achieved, in part through the beautification measures described below:

Policy B3 Guidelines:

- i. All towns should continue to carry out basic beautification measures at their entrances and main streets, including cleaning and sanitation services and tree-planting (of drought-tolerant species). These measures aim to create proud, distinct, clean and attractive spaces through litter, grime, graffiti and weed removal; landscaping and planting; colour differentiated bicycle lanes; paving and sidewalk regeneration; street furniture installations; lighting improvements; improved safety, security and law enforcement; budgeting for and undertaking infrastructure maintenance; as well as putting systems and teams in place for people to report damaged infrastructure and the municipality to respond to this. This is the basic minimum that the municipality can set in place to create a conducive investment environment.
- ii. Adjacent landowners in Donkin, Bird and Nuwe Streets, Beaufort West Town should continue to be encouraged to beautify their frontage zones, supplemented by investment in the public realm by the municipality as described above. This should be accompanied by a pedestrian zone, furnishing zone, bicycle lanes and a tree greening network.
- iii. Beaufort West Town should continue to focus on and lobby for funding for implementation of priorities 11 to 14 of the 2021 Beaufort West Integrated Transport Plan, which deals with Non-Motorised Transport upgrades. The priority would be improvements in the network, pavement condition,

walkway widths, and lighting, particularly in Murraysburg and to an extent in Beaufort West. The proposed NMT routes for the Beaufort West Town are illustrated in **Figure 96**.



Figure 96: Proposed NMT routes for the Beaufort West Town



Figure 97: Proposed Walkway for Merweville



Figure 98: Proposed Walkways for Murraysburg

STRATEGY C: ALLOCATE GOVERNMENT RESOURCES, INFRASTRUCTURE AND FACILITIES IN A MANNER THAT UPLIFTS AND SKILLS PEOPLE AND FOCUSSES ON MAXIMISING IMPACT ON THE MOST POSSIBLE PEOPLE, WHILE PROVIDING A BASIC LEVEL OF SERVICE FOR ALL

POLICY C1: ESTABLISHING A CLEAR SETTLEMENT HIERARCHY

Beaufort West Municipality consists of 4 distinctive settlements, each fulfilling their own role in the district and municipal economy.

The primary administrative centre, which is a regional development anchor and regional service centre – for the municipality as well as for the Central Karoo District Municipality – remains the town of Beaufort West. Given the limited nature of government resources, there needs to be a strong focus on locating a range of services in Beaufort West Town, with more rudimentary and lower order services in Merweville and Murraysburg. Mobile service solutions can be considered for Nelspoort if demand and funds are insufficient for a permanent service.

While Merweville is comparatively small in terms of population, it has been revitalised in recent years following the tarring of the road connecting it to the N1. As a result, this MSDF proposes raising it in the hierarchy to be on equal footing with Murraysburg. It certainly is playing a more prominent role from a tourism economy perspective, and this should be supported and strengthened through municipal investment.

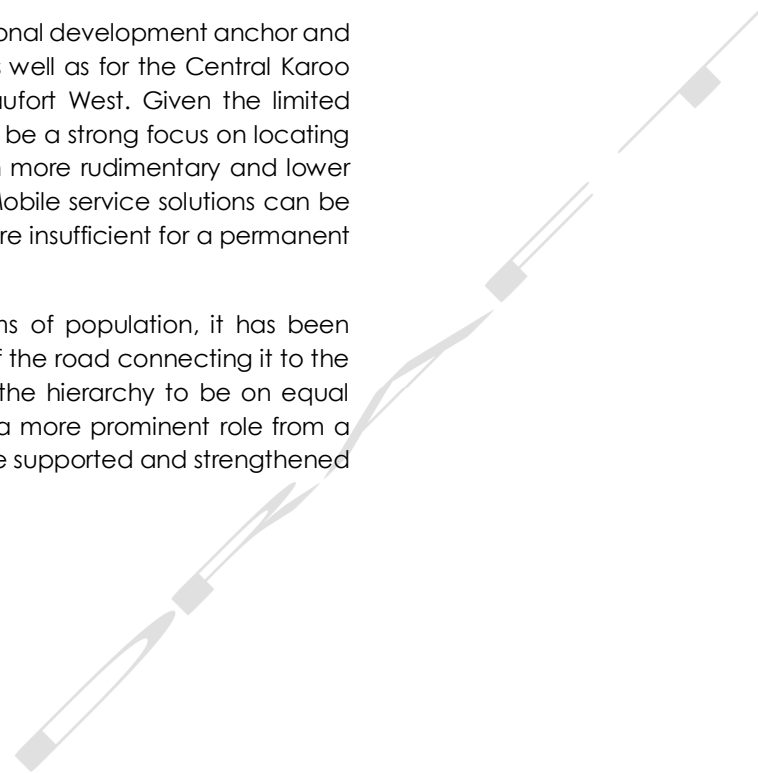


Table 16: Beaufort West Settlement Hierarchy

SETTLEMENT CLASSIFICATION	SETTLEMENT	FUNCTION/ROLE
Regional Development Anchor OR Regional Service Centre	Beaufort West Town	This is a priority investment area for the municipality . Beaufort West Town functions as a specialised inland service centre with tourism, medical, educational, commercial, and administrative services as well as servicing surrounding rural areas and smaller settlements. The spatial strategy is that, out of all the settlements in the municipality, most of the infrastructure investments should be focused in support of this town and will have the greatest multiplier effect and impact the greatest number of people.
Major rural service centre	Murraysburg & Merweville	This is an upgrading settlement for the municipality . This is currently a largely non-rates generating settlement where basic infrastructure renewal and maintenance are the priorities, along with appropriate infill, and densification as well as investing in developments that promote economic development and job creation. The spatial strategy is to meet the local convenience needs with basic social facilities and basic levels of service for surrounding rural communities.
Minor rural service centre	Nelspoort	These are consolidation settlements for the municipality . In these areas the focus is to ensure the provision and maintenance of services so that the area may perform well within their current functions with no further expansion or growth of these areas, as far as possible.

POLICY C2: URBAN EDGE POLICY

The purpose of setting an urban edge is to ensure that development is contained, and that urban areas do not encroach into agricultural and biodiversity land, and that a more functional urban development form is achieved within a settlement. Urban edges also ensure that low density development does not occur, which is costly for the municipality to service and maintain. Low density (sprawl-like) development creates inequitable settlements that are costly to live in and travel around in. Land for housing must therefore be used efficiently and by doing this, municipal financial sustainability can be secured.

Policy C3 Guidelines:

- I. Urban edge boundaries for Beaufort West town, Murraysburg, Merweville and Nelspoort have been delineated in this MSDF. It should be ensured that these boundaries adhere to national and provincial government targets of increasing the density of urban areas to an average gross dwelling unit density of 25 dwelling units / hectare.
- II. To counter apartheid spatial patterns, the aim is to follow a vacant infill strategy within the urban edges and to enhance densification within existing developed areas. This should take place specifically along the N1 at the entrance to Beaufort West Town. Specifically, strategically located vacant sites of land need to be prioritised.

POLICY C3: FACILITY CLUSTERING & DESIGN PROTOCOL LINKED TO A CLEAR NODAL HIERARCHY

Table 16 also summarises the **'nodal hierarchy' at the town scale**. The focus within these nodes is to cluster social facilities, diversify the mix of land uses and increase densities. Figure 94 shows the proposed 'nodal hierarchy' for Beaufort West.

Policy C2 Guidelines:

- I. The municipality must promote and encourage mixed land uses and higher densities within each of the proposed nodes.

- II. Co-locating facilities and services in accessible nodal locations has the added benefit of reduced commuting distance and exposure to accidents and crime.
- III. The primary nodal location in which investment should follow is the series of nodes along the N1 running through Beaufort West Town's CBD. This is where the bulk of economic activity in the municipality is concentrated.

POLICY C4: HUMAN SETTLEMENT FOCUS AREAS

Over the last 25 years, the settlement growth of Beaufort West Municipality has been driven by the housing pipeline in Beaufort West Town, with Hillside in particular having grown significantly in the last 10 years. Based on the population projections and housing numbers presented, Beaufort West Town must be the priority investment area for human settlements, infrastructure, and services.

The Western Cape Inclusionary Housing Policy Framework has been developed by the Western Cape Government and can be used to facilitate the inclusion of more affordable housing units in areas that experience a strong and vibrant property market.

Section 21(i) of SPLUMA indicates that MSDFs must identify areas where a national or provincial inclusionary housing policy may be applicable. While property markets in Beaufort West are not currently strong enough to support inclusionary housing, this may change in the future, particularly if shale gas extraction becomes a realistic possibility. Should this be the case, inclusionary housing opportunities should be focused on Beaufort West Town, specifically in the areas designated for "Incentivising Business and Commercial" in the MSDF proposals maps.

It is noted that there were a substantial number of BNG units delivered in Murraysburg, outside of the 2014 MSDF urban edge. In future, it is crucial that Beaufort West Municipality actively desist from providing any more government subsidy housing in settlements other than the town of Beaufort West, unless economic opportunities warrant otherwise, because this entrenches a cycle of poverty and creates poverty pockets and poverty

traps in the municipality. Murraysburg in particular is distressed, with extremely limited opportunities for the people already living there.

STRATEGY D: PARTNERSHIP-DRIVEN GOVERNANCE AND ADMINISTRATION TOWARDS IMPROVED FINANCIAL AND NON-FINANCIAL SUSTAINABILITY AND RESILIENCE

Beaufort West Municipality cannot, by itself, address many of the social, economic, and environmental issues and opportunities it faces. It requires cooperation and partnership not only with other spheres of government, but also with civic organisations, private sector businesses and the public at large to comprehensively address many of its challenges.

POLICY D1: SHARED SERVICE CENTRE FOR THE CENTRAL KAROO

Beaufort West Municipality, together with the rest of the Central Karoo, is a sparsely populated region that can greatly benefit from 'bringing together' the experience, capabilities, and finances of the three local municipalities (Beaufort West, Laingsburg, and Prince Albert) under a single umbrella that provides a shared service centre. This can perform a range of functions, not least of which is the planning function as defined in SPLUMA, LUPA and the local municipal planning bylaws. Such shared service centres could also include provincial regional offices and expertise as well if this is required.

A Shared Service Centre Model for the Central Karoo was developed in 2012, revised again in 2019, but not implemented due to a range of factors such as of lack of capacity and adequate resources to implement the shared service centre. **This must be implemented as a matter of priority, particularly for the town planning function and planning tribunals as well as finance, engineering, and technical services.** A shared service centre is required to split time between the municipalities, as per the proposed model.

POLICY D2: INTEGRATED PLANNING, BUDGETING, AND IMPLEMENTATION

The WCG, together with the municipalities of the Western Cape, has implemented an Integrated Work Plan with the intention that all of government seeks to plan, budget, and implement in a more coordinated, integrated, and sequenced manner. This is in line with the "One Plan" or Joint District Approach being used nationally.

Various platforms and engagements take place throughout the year in which integrated planning, integrated budgeting and integrated implementation are reported on and should take place. The Central Karoo DM should use these forums to ensure the implementation of its Integrated Development Plan and Spatial Development Framework.

Various annual engagements are set out in the Integrated Work Plan (2018). In short these are:

- Provincial Strategic Planning in July – ensuring provincial alignment at the strategic level;
- Provincial Top Management & Municipal Managers engagement in September – ensuring provincial and municipal planning engagement over strategic planning alignment;
- Integrated Municipal Engagements (IDP Indaba 1) in October / November – ensuring strategic and technical alignment between provincial government and municipal government;
- Provincial Government Medium Term Expenditure Committee (PGMTEC) 1 & 2 in November and January for provincial budget alignment; and
- Local Government Medium Term Expenditure Committee (LGMTEC) engagements in April / May to ensure municipal budget alignment.

The new district-based model will attempt to address the need for a capable and developmental state. The aim of a district-based approach is to focus on regional collaboration in the 44 districts and eight metros nationwide, which will attempt to ensure that municipalities are properly supported and adequately resourced. The delivery model will aim to break down the silos between the different spheres of government in a bid to improve service delivery in the 257 municipalities across the country.

4.7 BEAUFORT WEST TOWN: SPATIAL DEVELOPMENT FRAMEWORK

In the normal run of events, Beaufort West town is unlikely to see significant population growth. **The most pressing need in the town is for improved urban management and waste management in particular, and to generally create conditions for tourism, private sector investment and confidence.** Formal urban development could occur from housing the 6 200 households currently on the housing waiting list, but it is unlikely to occur at any significant scale given the diminishing housing subsidy being allocated outside of PSHDA areas. However, should uranium mining and shale gas extraction occur, there may be many urban growth pressures and opportunities that the town will experience, the population could increase considerably as miners and drill riggers will require accommodation in the nearest large centre that offers a wide range of social and economic facilities.

The following sets out a description of the main proposals for the town of Beaufort West.

4.7.1 Core landscape and agricultural areas

- A continuous boulevard network of activity streets planted with water wise shade trees should integrate the town, see Figure 102 and 103 below.
- Trees are the cheapest way to make the biggest visual improvements on an urban settlement and lend themselves to EPWP programs. These can include in-situ brick paving where necessary a material also suitable for labour-based construction.
- River corridors should be protected by setback lines at a standard 32 m from the banks or as determined by a freshwater ecologist must be defined in which there should be no ploughing or urban development and the riparian vegetation restored.
- There is little intensive agriculture around the town and production on existing lands to the south must be encouraged and where possible fallow land brought back into production.
- The existing golf course should be retained as an important amenity to existing and future residents, but water wise fairway and green management techniques should be employed.

- In view of the prevailing water supply issues, no further green areas are proposed and existing ones should be managed according to water wise management principles.
- High flood hazard areas, as mapped in Figure 101, are to be avoided from an urban development perspective, and are better suited to open space uses in future.
- Protect the Gamka Dam / Springfontein Dam from urban development or any other rural development that has the potential to pollute the dam or tributaries following into the dam.

4.7.2 Urban Development

- Table 17 below provides the proposed new development areas for Beaufort West, also shown in Figure 102 and 103.
- A 100 m noise buffer is strongly recommended along the eastern boundary of the proposed bypass in which only industrial activity, warehousing or tree planting and open space activities should occur. There should be no residential activities within this zone. Design of the bypass should ensure minimal noise generation, and sufficient noise reduction measures are implemented.
- As far as possible new development areas should not extend beyond the current urban development periphery and or beyond a 2km radius from the centre of town. Specifically, the western urban edge should not extend past the bypass, and the bypass remains as the hard-permanent urban edge for the town for the foreseeable future.
- North facing land around the golf course could be suitable for upmarket development, although there are already a number of undeveloped plots here which should be incentivised.
- Large areas of infill are proposed in Hillside and Rustdene.
- Rather than extending westwards of the proposed N1 bypass, a new development area in the eastern quadrant should be investigated

bounded approximately by a 2km radius from the town centre. This includes sites U, W, X and Z as shown in Figure 102 and 103.

- New development areas should continue the 'grid style' of the historical lay-out. Retrofitting the settlement in the long term to continue this style is recommended.
- It is recommended that the municipality puts its efforts on registering and incorporating waste pickers within the municipal area who will assist in waste collection and separation.
- Additionally, it is also recommended that the municipality focuses on separation at source programmes at household level and with assistance from local waste pickers or/and 'wastepreneurs', especially since informal picking takes place at the landfill, which is non-compliant.

4.7.3 Heritage Areas

- The historic CBD should be declared a heritage area and land uses and building appearance on old and new buildings managed accordingly. An overlay zone in the zoning scheme in the municipality should be developed, as shown in Figure 102 and 103, covering Donkin Street, Nuwe Street, Bird Street, and surrounds.
- As far as possible, the Karoo architectural styles should be encouraged in all developments, to cement the character, heritage, and appeal of the Karoo, and solidify Beaufort West as the heart of the Karoo.

4.7.4 Urban Restructuring

- Rerouting the N1 around the town for road freight traffic **only** is seen as the most important action to enable development of other sustainable sectors in the town including retail, tourism, and accommodation.
- The rerouted freight route is intended to act as the Urban Edge for the town limiting development to the west of it.
- It is important that only freight traffic use this realigned route. Careful signposting of the two intersections as well as significantly upgrading the landscape and urban quality of Donkin Street between the two proposed

access points in contrast to the freight bypass route, which should remain "unlandscaped", will help facilitate this priority. Similarly, no future development opportunities should be allowed adjacent to the bypass that would allow traffic to stop or engage in any economic activity. Economic activity should be kept to within the existing town centre. The only exception would be service or facilities that are offered to the freight traffic, although these are already catered for to a large extent.

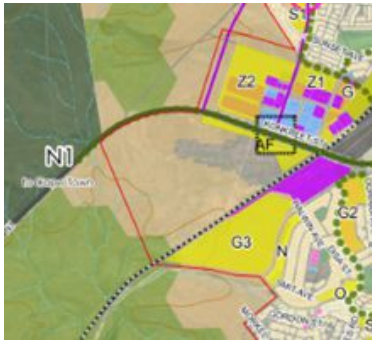
- If the freight route goes ahead, the current N1 route in the town itself should be significantly redesigned to accommodate similar retail development that is occurring within the historical core of Beautiful West, abutting it on each side, between each end of the N1 which crosses the railway line. A slightly higher density, mixed use (including residential) component could be accommodated ensuring that heritage streetscapes are preserved and enhanced.
- All gateways into town should be enhanced to improve its sense of arrival.
- The currently separate sectors of the town should be integrated through a continuous network of activity streets that reinforce the NMT network and link suburbs across buffer strips and vacant ground as well as the large new development area proposed in the south-eastern quadrant of the town.
- This network should comprise the following routes:
 - **Hillside:** service road next to proposed N1 bypass along Faktor Street; Ondermeyer Ext across rail yard to intersect with Oppeld Street (Rustdene) on Donkin Street (former N1 now bypassed), design continuity of Stolzhoek/7th Ave/Plein/Kerk/ link to Donkin Street;
 - **Rustdene:** Alfonso; Bantom; Skool; linking to N1 opposite proposed Ondermeyer Ext N1 intersection; Buitenkant linking to Mandlenkosi Street;
 - **Mandlenkosi:** Plaza Street to link across Gamka river to van Wyk Street (currently informal link to Du Toit Street); Falatsa Street to link across river to Blyth Street (existing);
 - **Southwest quadrant:** van Wyk Street Ext to intersect with Brummer Street; and,
 - **Town north:** extend golf course access road to Kerk Street.

4.7.5 Urban Edge Amendments (changes from the 2014 MSDF)

Economic development opportunities in Beaufort West are rare and the municipality is of the view that it could grow its rates base and improve its municipal financial sustainability through the inclusion of various properties within the Urban Edge.

The intention is to:

- expand industrial sites in the south-western portion of the town, as shown in **Figure 102 and 103** (see extract below) to allow for industrial land suitable for noxious activities;



- allow for sensitive medium to high income development and a possible golf course on a site to the South side of the Springfontein Dam / Gamka Dam as shown in **Figure 102 and 103** (see extract below).



- Enable the development of a 20MW (or greater) electricity generation facility on the Farm Bulskop (RE/1/163) or surrounds (see excerpt below), which is the municipal land that is proximal to the electricity transmission and distribution infrastructure, as shown by the red circle on the excerpt below. This land is not included in the urban edge, as the envisaged land use is compatible with agricultural land uses.



Regarding the proposed medium to high income golf estate development that has been proposed to the south of the Springfontein Dam / Gamka Dam, the municipality needs to consider the following before going ahead with allowing the private sector to develop the site:

- 1) Confirmation of housing market demand for such a development.
- 2) A Geotechnical assessment for the site, determining that the site is appropriate for urban development and will in no way undermine the future expansion of the dam, or the existing dam and its services.
- 3) An environmental, water availability and biodiversity assessment, with specific focus on ensuring that future expansions of the dam are not undermined / existing dam use and service is not undermined or polluted, and that sufficient water is available to accommodate the golf course component.
- 4) A slope and engineering services assessment, with specific focus on ensuring that any engineering services leaks, such as sewerage spills, does not place the dam at future risk.
- 5) Financial Feasibility Assessment of the development (specifically viability assessment and evidence required).

Settlement	Site_ID	Size_HA	Size_SQM	Comments	Vacant
Beaufort West	S5	3	28985	GAP/BNG	Yes
Beaufort West	G2	9	88550	GAP	Yes
Beaufort West	S1	3	29752	Mixed Use with Possible School	Yes
Beaufort West	G3	30	304045	GAP	Yes
Beaufort West	S	5	46040	GAP	Yes
Beaufort West	T	2	21505	GAP	No
Beaufort West	G	4	41665	Mixed Use/GAP/BNG	Yes
Beaufort West	S2	14	136117	Mixed Use/GAP/BNG	Yes
Beaufort West	V	6	57862	GAP	Yes
Beaufort West	U	2	18750	GAP	Yes
Beaufort West	G1	2	23717	Mixed Use/GAP/BNG	Yes
Beaufort West	S7	22	217789	GAP	Yes
Beaufort West	R	4	41452	GAP/BNG	Yes
Beaufort West	X	17	167156	GAP/BNG. Not included in Central Karoo LITP 2020/21. These sites speak to spatial transformation through supply of affordable housing.	Yes
Beaufort West	B	2	19709		Yes
Beaufort West	A	2	19430		Yes
Beaufort West	AP	6	56982	Approved Plot	Yes
Beaufort West	AP	5	47052	Approved Plot	Yes
Beaufort West	AP	19	192445	Not included in Central Karoo LITP 2020/21. These sites speak to spatial transformation through supply of affordable housing.	Yes
Beaufort West	AP	2	18381	Approved Plot	Partially
Beaufort West	AP	0	3982	Approved Plot	Yes
Beaufort West	AP	6	59744	Approved Plot	Yes
Beaufort West	N	5	45049	GAP	Yes
Beaufort West	O	2	23860	GAP	No
Beaufort West	H	5	51296	Mixed Use/GAP/BNG	Yes
Beaufort West	I	1	11433	GAP	Yes
Beaufort West	Q	2	20345	GAP	Yes
Beaufort West	L	1	9882	Mixed Use/GAP/BNG	Yes
Beaufort West	J	3	28426	Mixed Use/GAP/BNG	Yes
Beaufort West	D	4	44396	Upmarket	Yes
Beaufort West	C	9	88429	Upmarket	Yes
Beaufort West	F	7	69108	Mixed Use/GAP/BNG	Yes
Beaufort West	K	2	23060	Mixed Use/GAP/BNG	Yes
Beaufort West	P	3	28193	GAP	Yes
Beaufort West	M	3	25149	GAP	Yes

Table 17: New Development Areas for Beaufort West Town

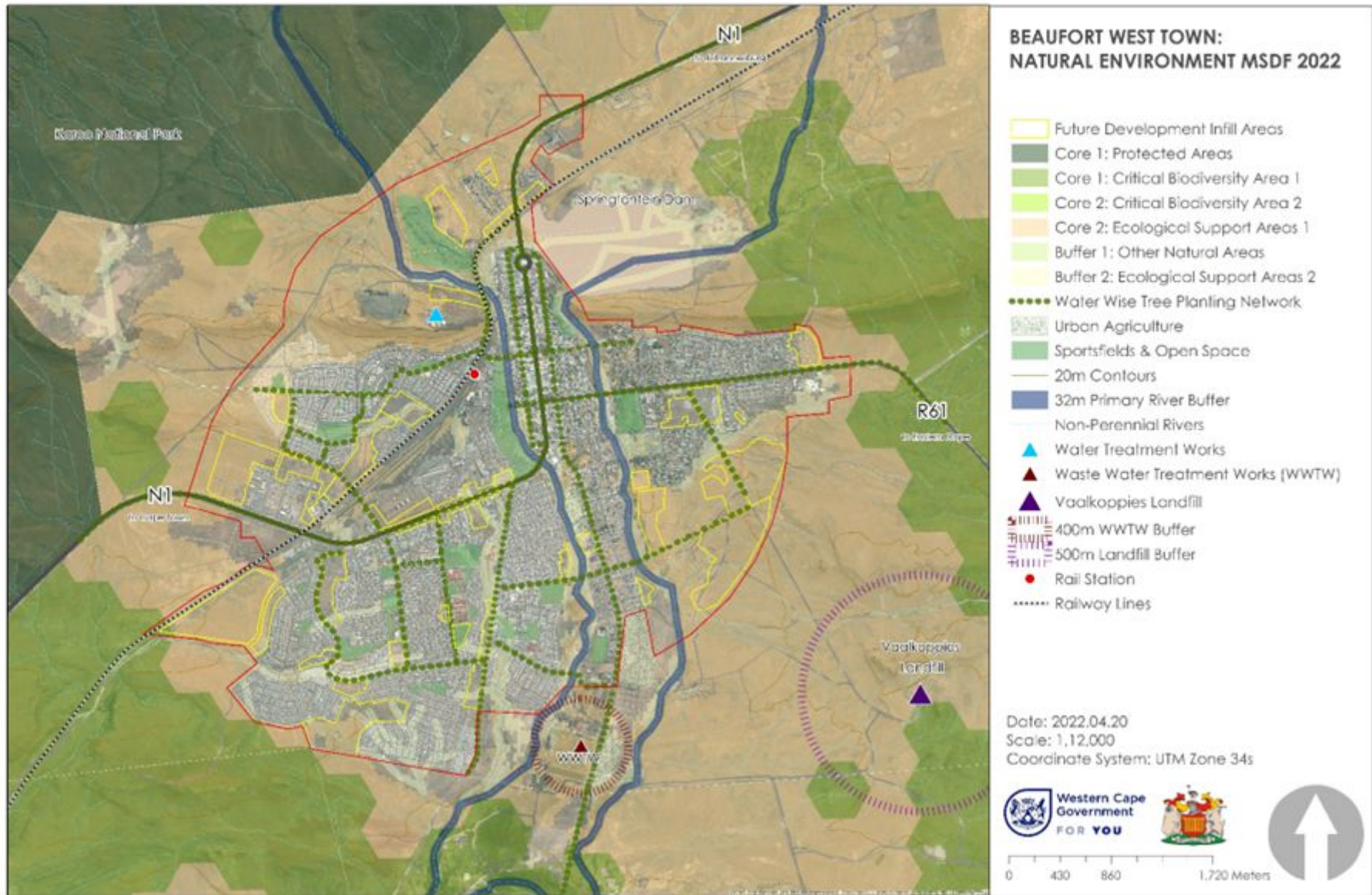


Figure 100: Beaufort West Town MSDF: Natural Environment Informants (Spatial Planning Categories)

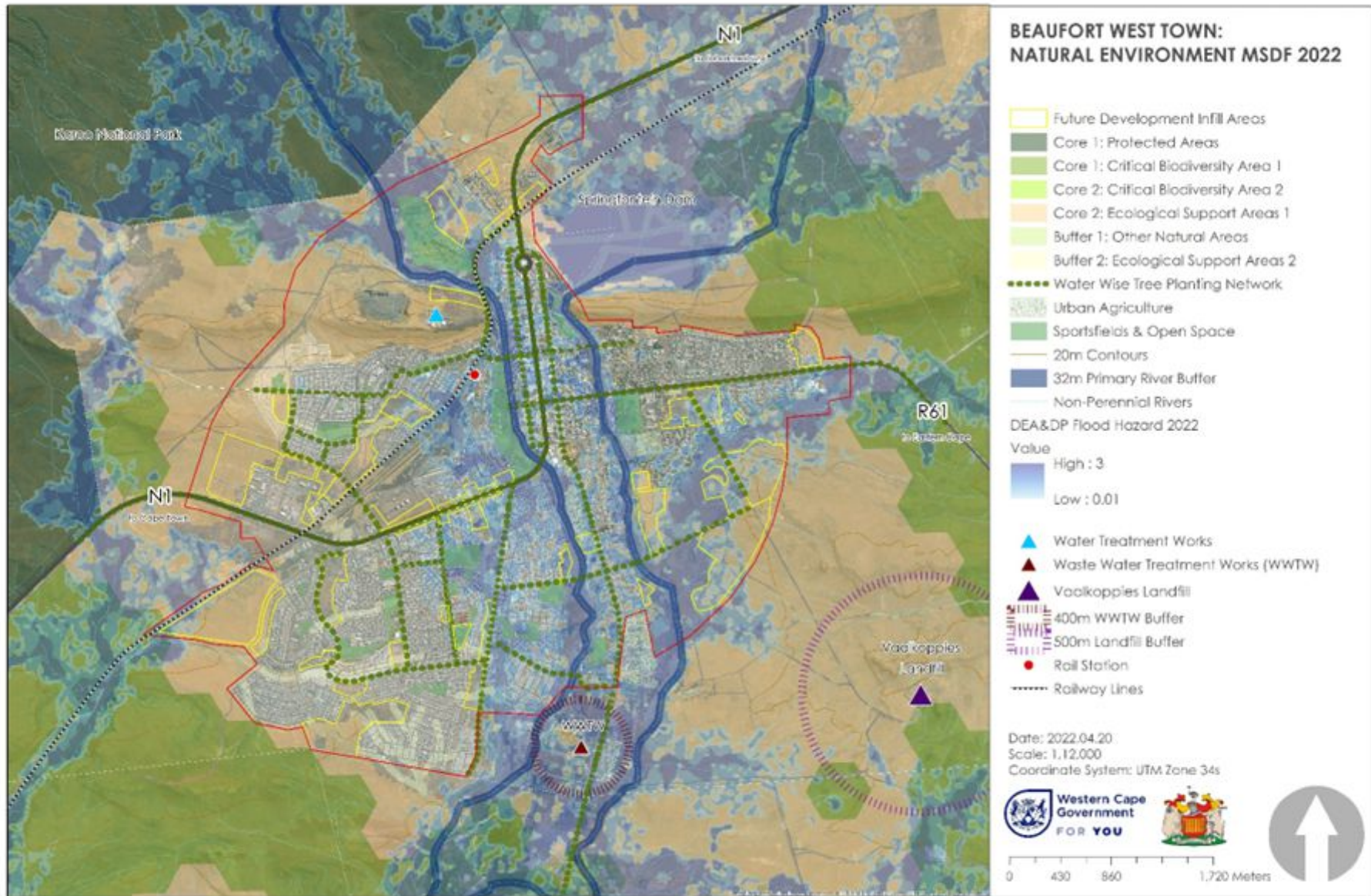


Figure 101 Beaufort West Town MSDF: Natural Environment Informants (flood hazard)

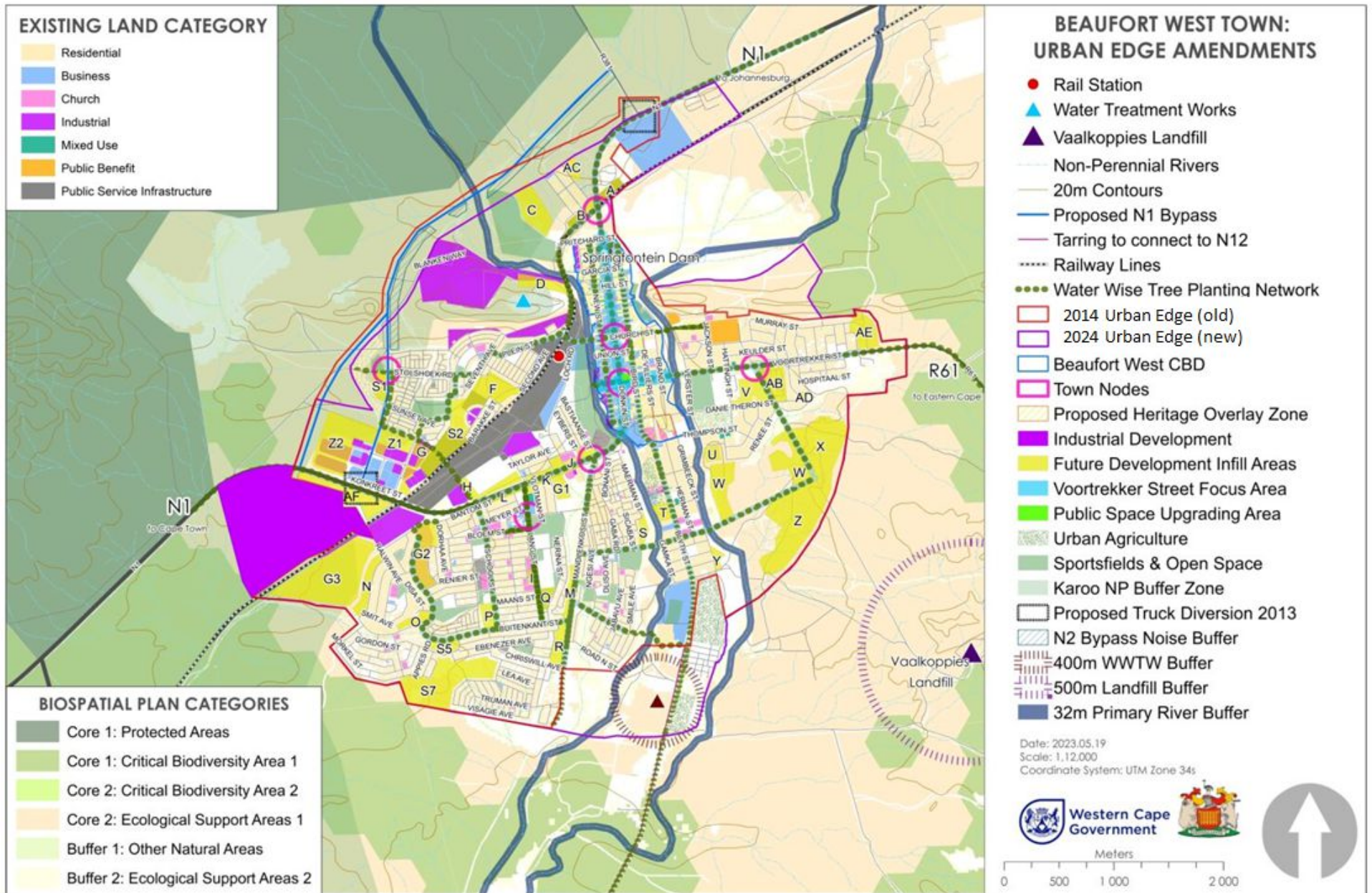


Figure 102: Beaufort West Town Urban Edge Amendments

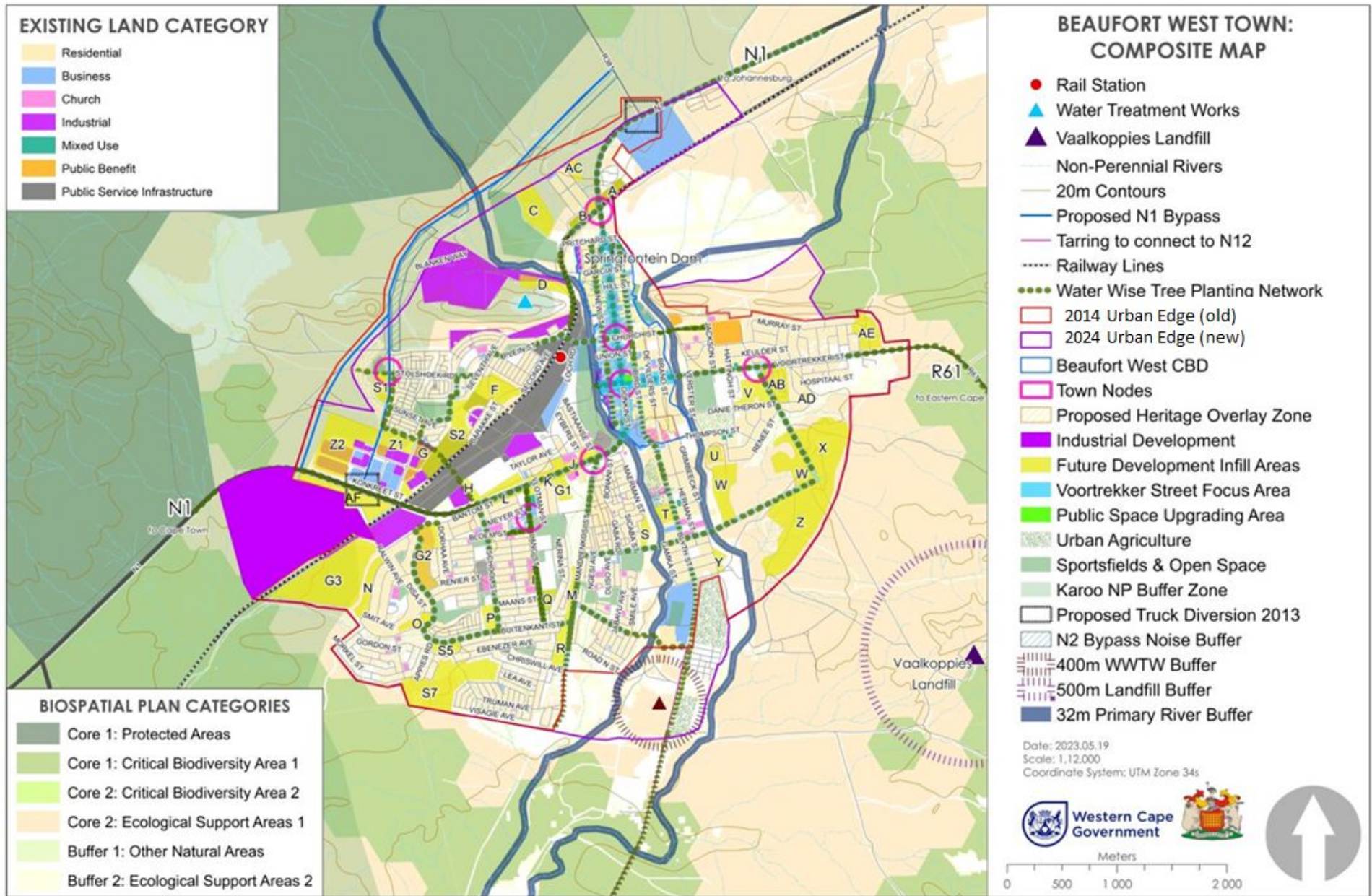


Figure 3603: Beaufort West Town: Composite map

4.8 MERWEVILLE: SPATIAL DEVELOPMENT FRAMEWORK

Merweville epitomizes the challenge faced by an isolated small settlement with a declining natural resource base as to what its development future should be. Its low economic growth potential and social needs relative to places like Beaufort West means that it is likely to have far more chance of success if it can develop on its local attributes; e.g., it is likely to be difficult motivating completing tarring the road to Prince Albert Road given other higher priority road tarring project elsewhere in the province. Therefore, attributes to be built on include some land for grazing and food gardening, isolation and wilderness environments and historic very small-town atmosphere.

4.8.1 Core landscape areas

The following set out the spatial planning directives as encapsulated in the proposal maps:

- Proclaim river corridors, where possible at least 32 m from banks in which no intensive agriculture nor urban development is permitted;
- Support and encourage continued use of current market gardening plots;
- Investigate use of open land or undeveloped areas closest to river corridors for market gardening and livestock farming, (e.g., pigs); and,
- Plant trees along Pienaar and DS de Villiers Streets to create an integrating main street network between all parts of the town, including paving the eastern extremity of these networks.

4.8.2 Urban Development

- Incentivise development of existing undeveloped plots furthest from the rivers. Those close to the rivers should be considered for market gardening or stock farming. Development typology to reflect the

unique Karoo style architecture that is articulated in the Central Karoo MSDF; and,

- Land for further BNG housing should consolidate existing settlement (portions (A), (B) and (C)), however the provision of such should accompany extensive efforts to generate sustainable job opportunities.

4.8.3 Heritage Conservation and Frontage Urban Design Control Areas

- One of Merweville's strongest and few selling points is the historic and original state of many of the buildings;
- The eastern side of the settlement should be declared a heritage precinct with guidelines for how renovations to existing and extensions and new buildings should comply so as to strengthen and not erode this important heritage and tourism asset; and,
- Note: there is a comprehensive history of Merweville produced by the Cape Town Heritage Trust which provides a useful resource for the development of such guidelines.

4.8.4 Urban Restructuring

- All gateways into town should be enhanced;
- Symbolically integrate the settlement by ensuring a uniform tree planting and road pavement treatment on the main route network linking all the urban areas comprising Pienaar, DS de Villiers west and DS de Villiers east streets; and,
- Land for any new urban development, for instance, BNG housing should be located on the land parcels identified that will consolidate rather than disperse the settlement.

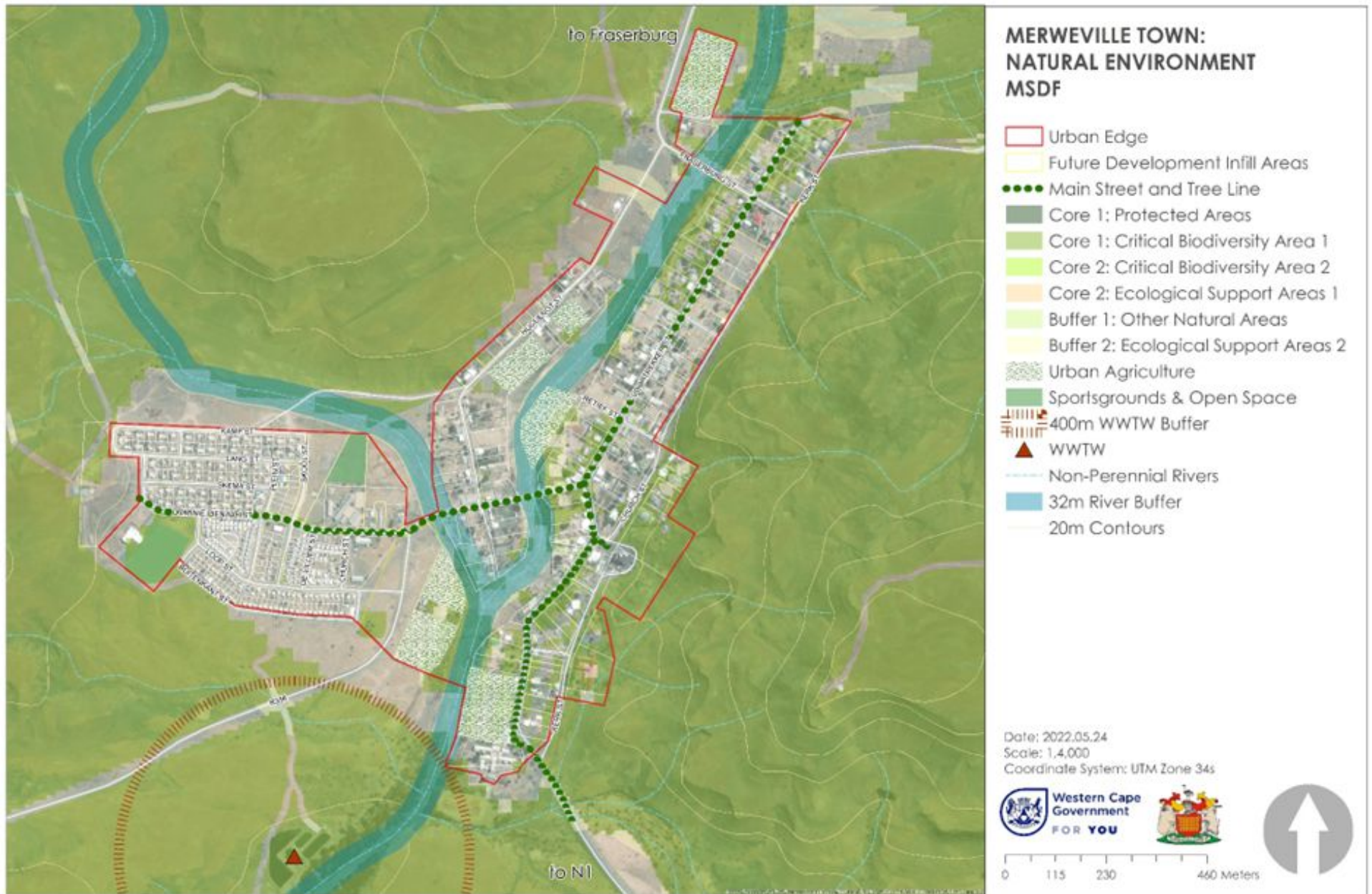


Figure 3704: Merweville: Natural Environment MSDF

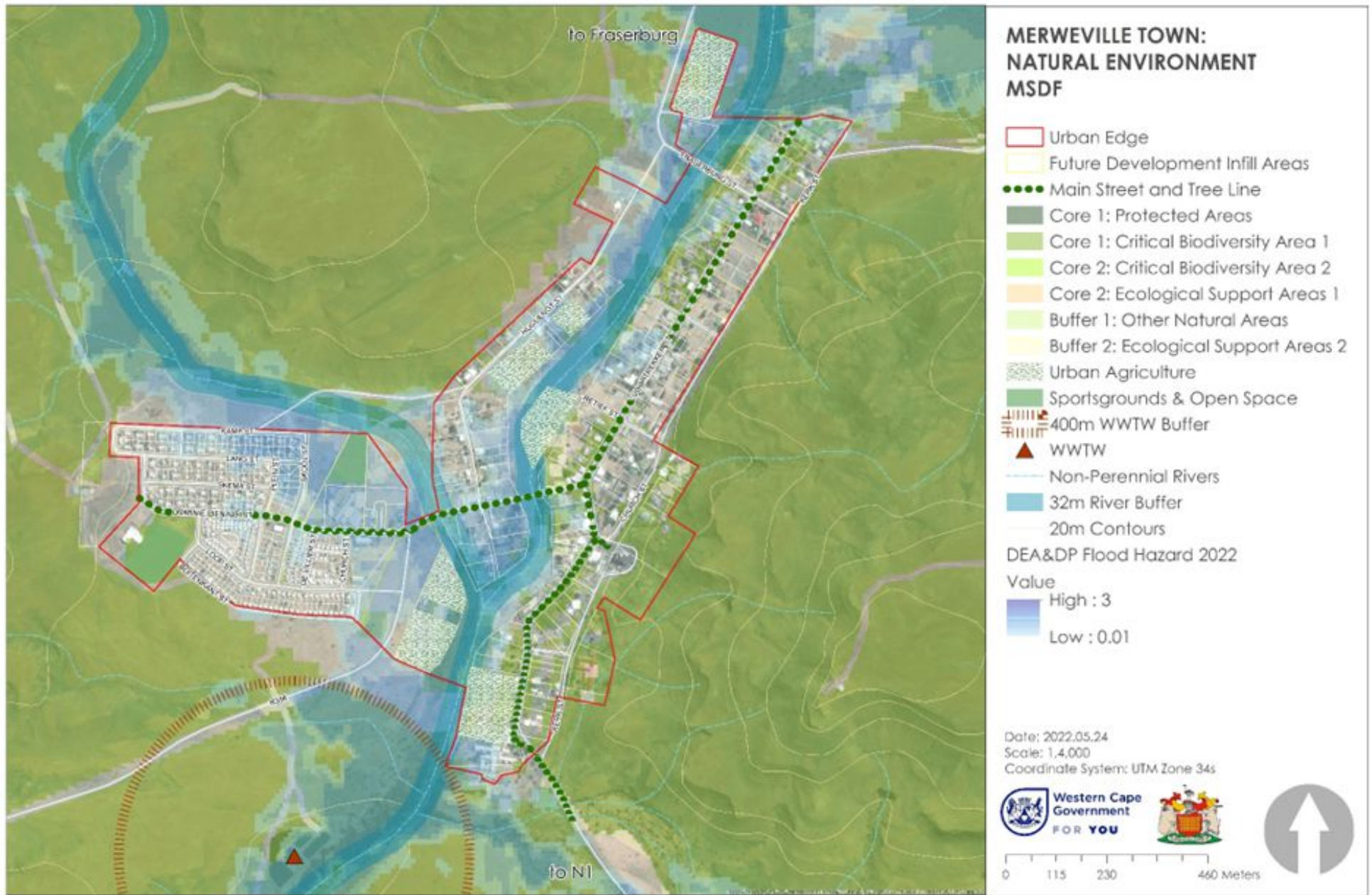


Figure 105: Merweville: Natural Environment MSDF (with flood hazard index)

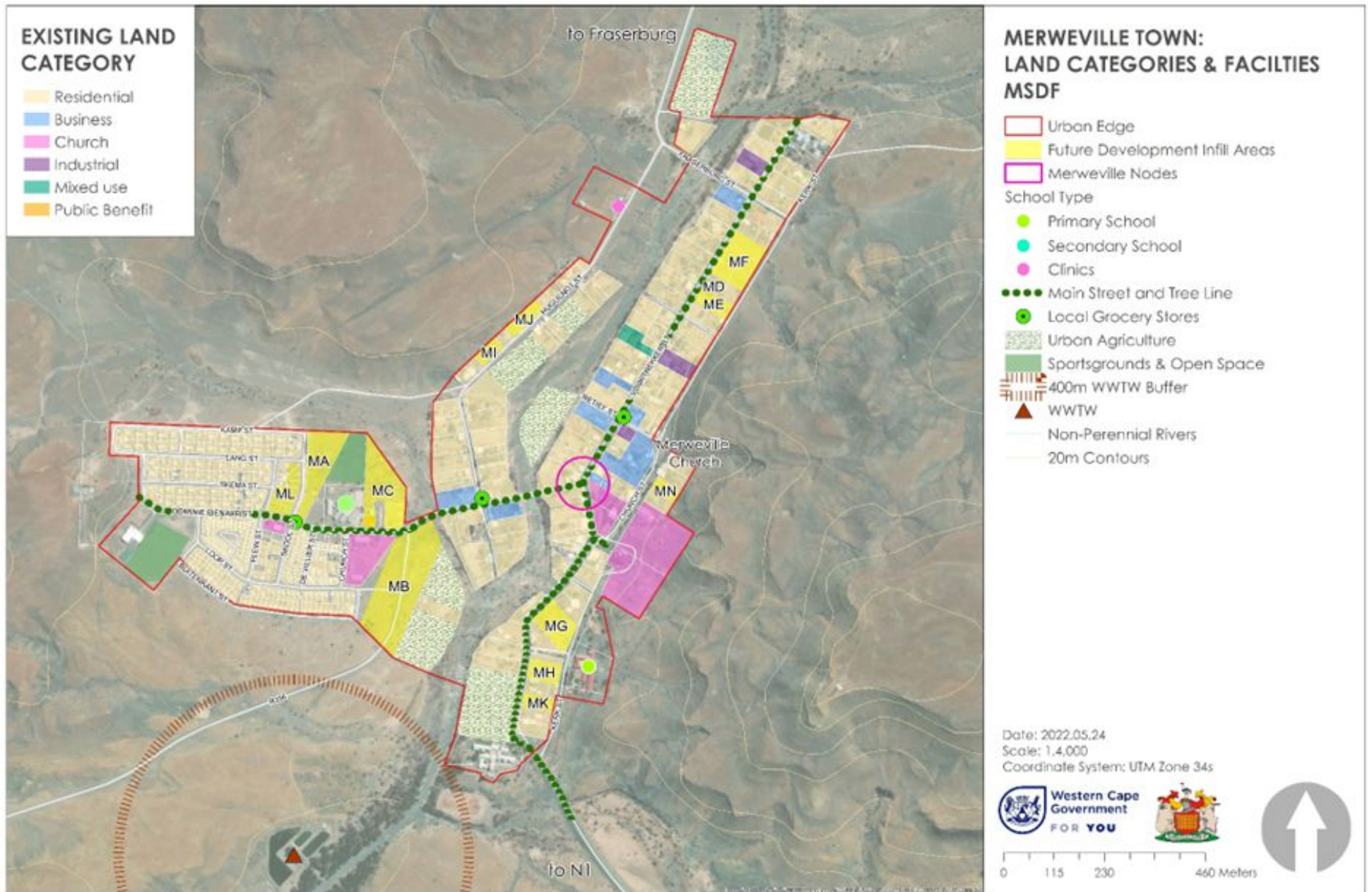


Figure 106: Merweville: Land Categories and Facilities MSDF

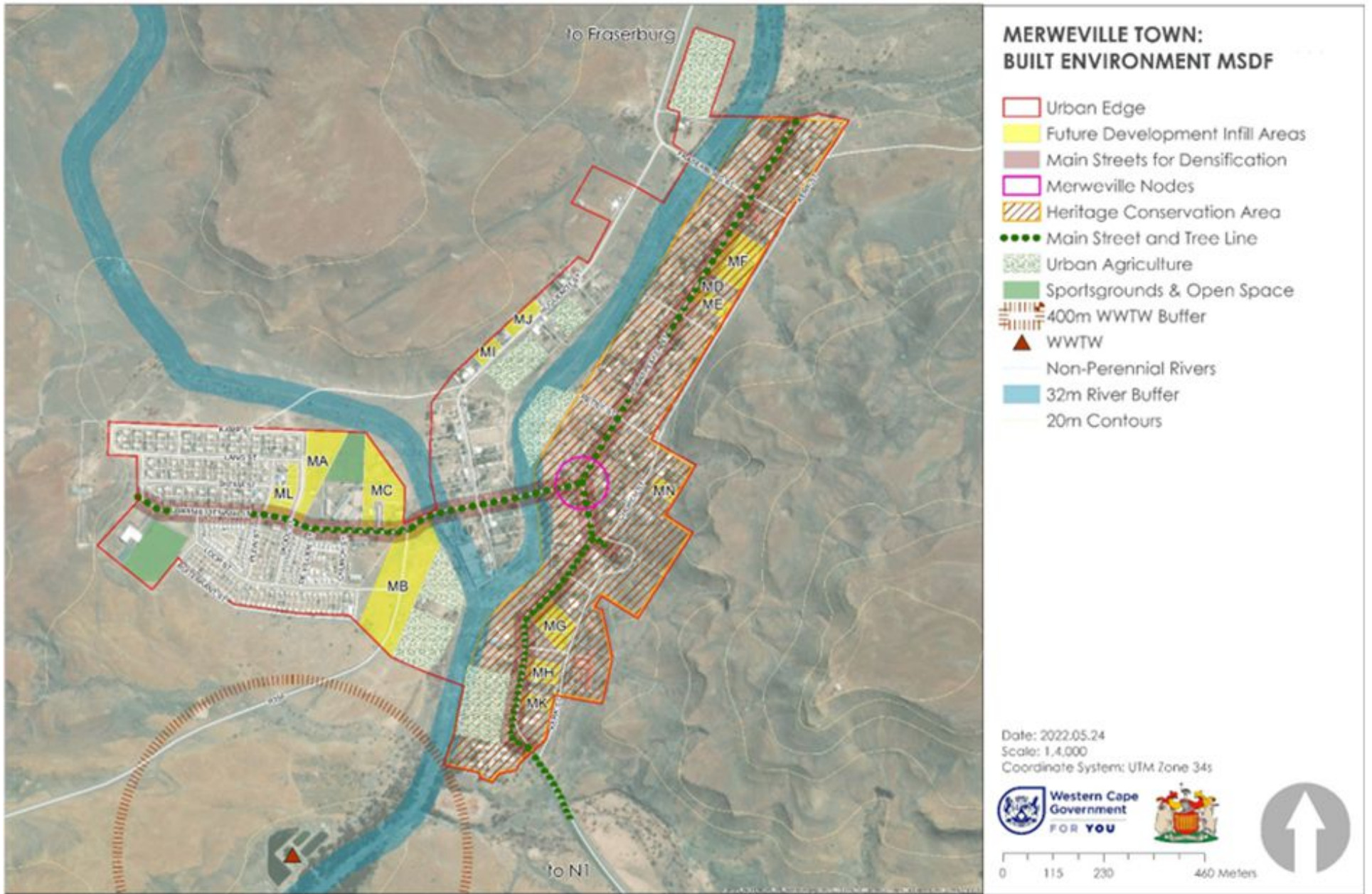


Figure 107: Merweville: Built Environment MSDF

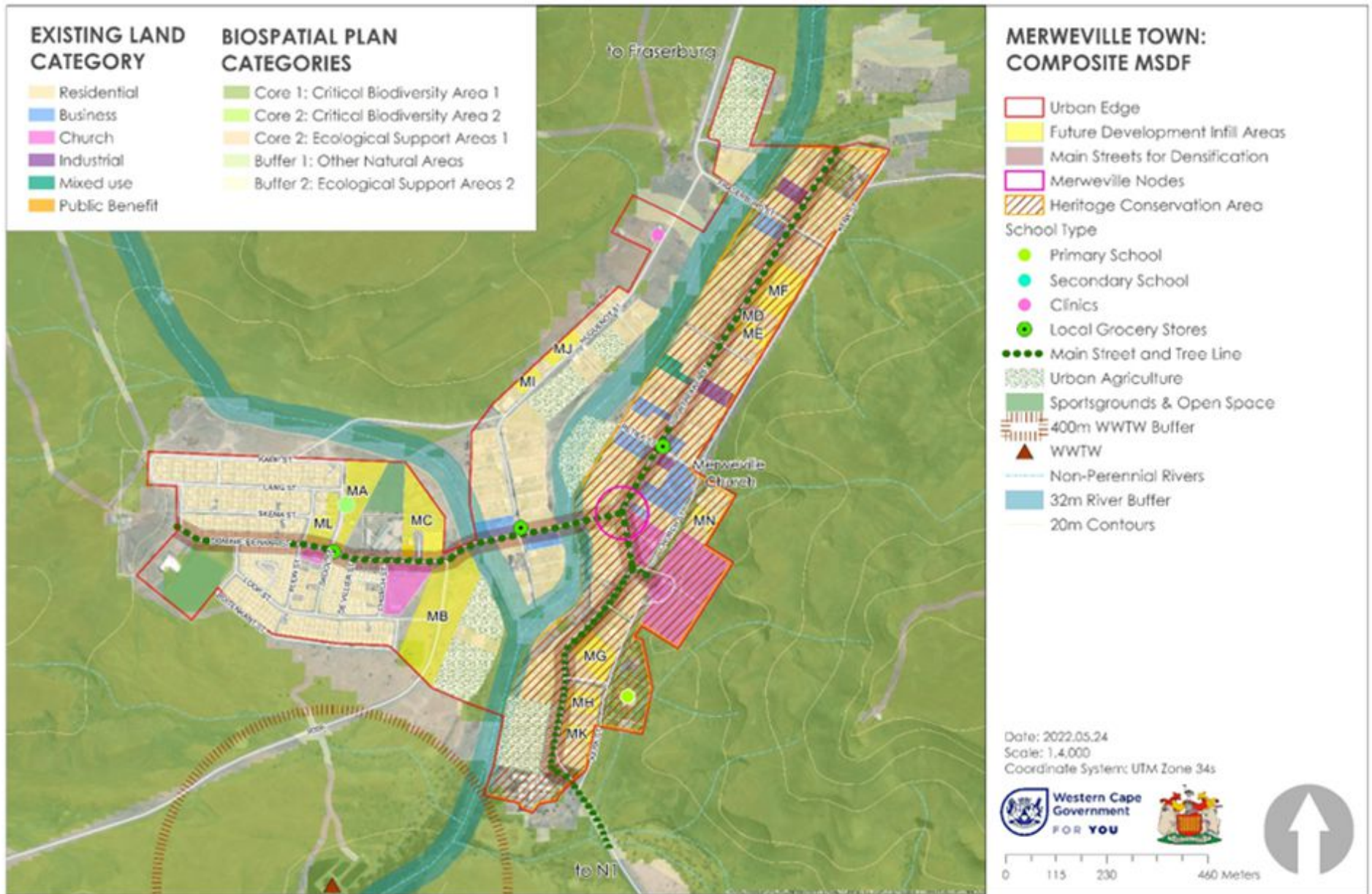


Figure 108: Merweville: Composite map

4.9 MURRAYSBURG: SPATIAL DEVELOPMENT FRAMEWORK

Murraysburg enjoys good tar road access on the R63 between Victoria West (90kms) and Graaff Reinet (92kms), Cape Town (650kms) and Johannesburg (860kms), are the nearest large towns and the N1 is 43kms away. Similar to Merweville, although much older, (\pm 1850), Murraysburg, was established because it was too far to either Richmond (\pm 90kms) or Graaff Reinet to attend church services and register births and deaths. It is located in the wettest and most fertile part of the municipality and has performed relatively well compared especially to Laingsburg and Prince Albert municipalities with regards to agricultural GVA and employment.

In general, the town is fairly compact with most people living within a 1km radius from the town centre. From its layout, Murraysburg appears much larger than it actually is because the northern part of the town, comprising agricultural allotments on the same grid as the three rows of urban blocks between Sir George Grey and Location Street, remain hardly developed to this day. Thus, in actual fact, its original built-up area is not much larger than Merweville. However, the low-income section of the town is substantially bigger than that of Merweville. There are large amounts of vacant land between Angelier and Location Streets. The new township extension comprises ever decreasing smaller blocks with the smallest in the extreme west. Units in this extension have all been built on the back boundaries leaving very little private space. As happens with many Karoo towns, the various sports codes' facilities, instead of being concentrated in a single complex where some level of viable threshold facility can be achieved, especially for social activities, are scattered across the northern part of the town.

4.9.1 Core landscape areas

- Encourage market and food gardening on the large blocks to the north of the town generally north of Hoffmeyer Street. Depending on their ownership they should be made available to those who wish to use them productively for food or market gardening.
- Determine river corridor set back lines from which intensive agriculture (plowing) and urban development are prohibited. In the interim they should be set back 32 m from the banks; and,
- Plant or infill a tree lined street network linking Sir George Grey and Leeb Street including Parsonage and Church streets to create a pinwheel

around the Church that also integrates the southern part of the town along a new road, Church Street extension linking to the school on Angelier Street.

4.9.2 Urban Development

- Incentivize development of approved vacant plots for GAP housing, particularly those closest to Church Street Extension.
- Encourage all new BNG (to be appropriately designed) and GAP housing to be located on vacant land with the center of the town first so as to promote integration before using peripherally located land.

4.9.3 Heritage Areas

- Investigate declaring the center of the town from midblock between Location and Leeb Streets to the south to midblock above Hoffmeyer Street in the north as a heritage conservation area with guidelines to assist the renovation and restoration of existing buildings and the design of new buildings within this precinct.

4.9.4 Urban Restructuring

- All gateways into town should be enhanced to improve its sense of arrival.
- Upgrade the road pavement and plant trees along the street network focusing on the Church as a focal point to integrate and link the northern and southern parts of the town.
- Extending Church Street southwards to the school on Angelier Street is critical to successfully achieving this link. This will entail paving the unmade section of Church Street south between Leeb and St Andrew's Streets and then creating a new road, Church Street Extension, through the undeveloped plots between St Andrews and Angelier Streets; and,
- Concentrating all new housing developments on the vacant or undeveloped land in this vicinity rather than constructing large new townships on the periphery will also assist urban restructuring. However, this implies projects of a much smaller number of units in each phase. Although this may not be as financially viable for housing developers in the short term, it will contribute to a more sustainable and better integrated urban fabric in the long term.

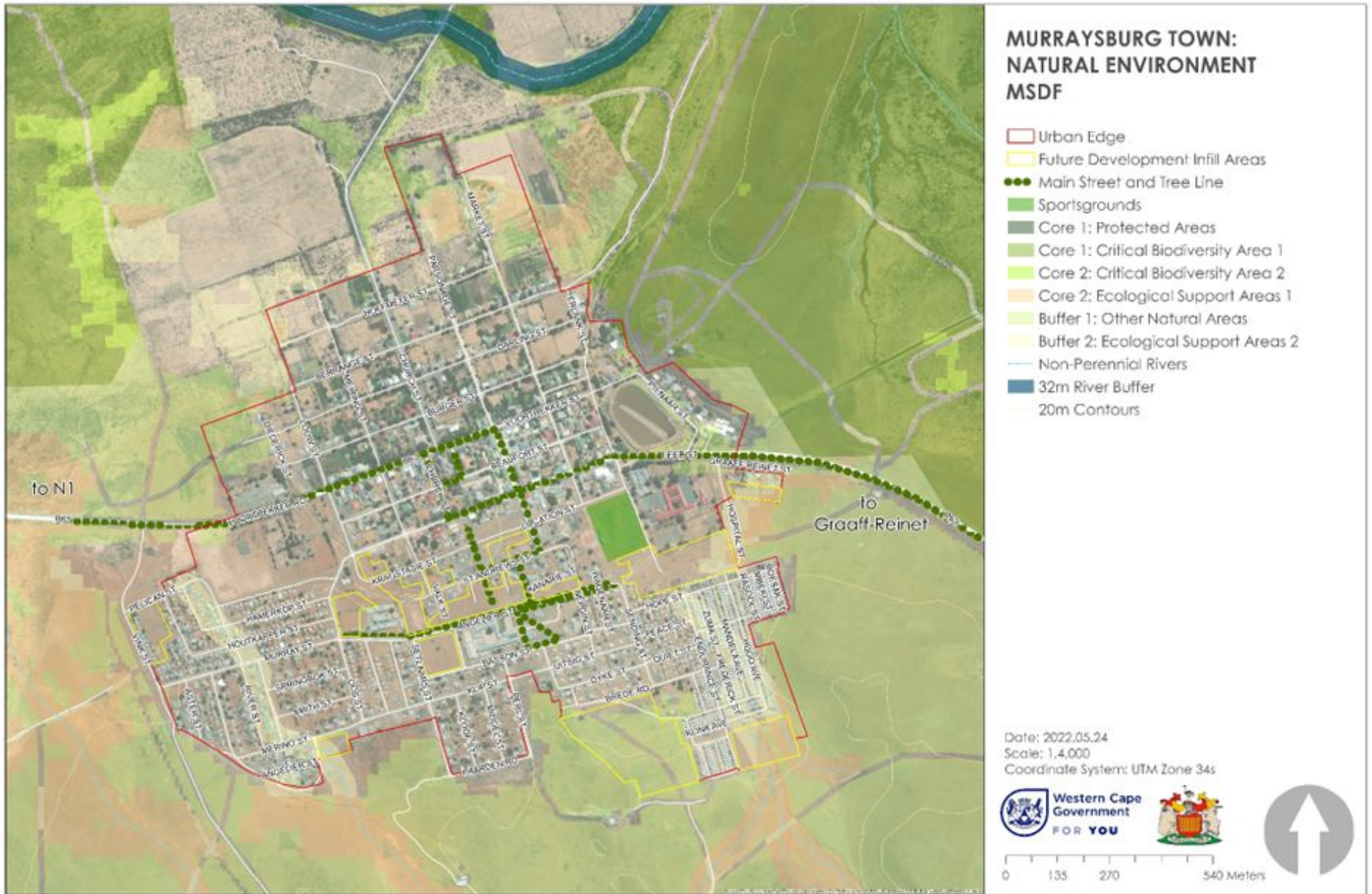


Figure 109: Murraysburg: Natural Environment MSDF

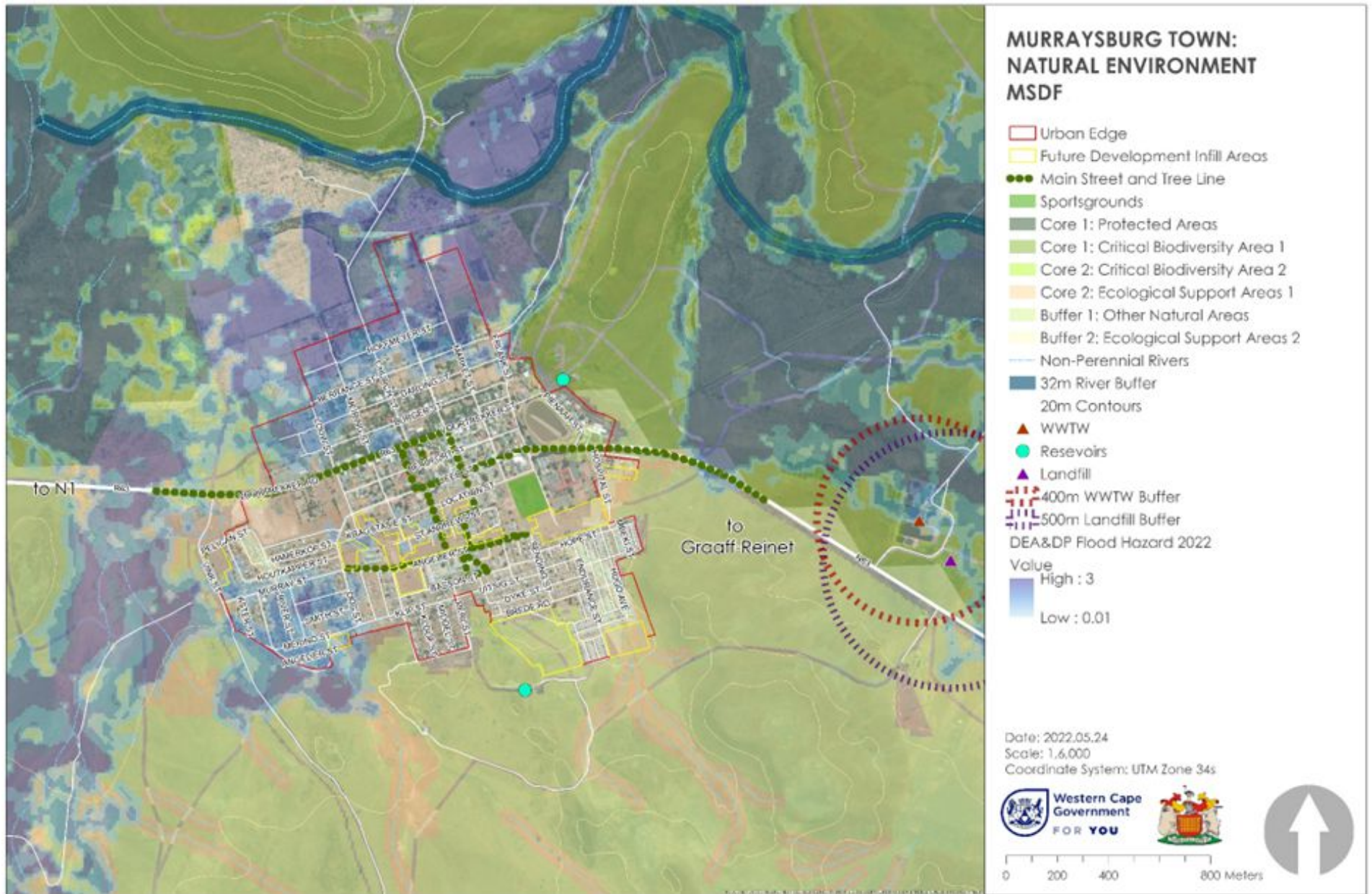


Figure 110: Murraysburg: Natural Environment MSDF (with flood hazard index)

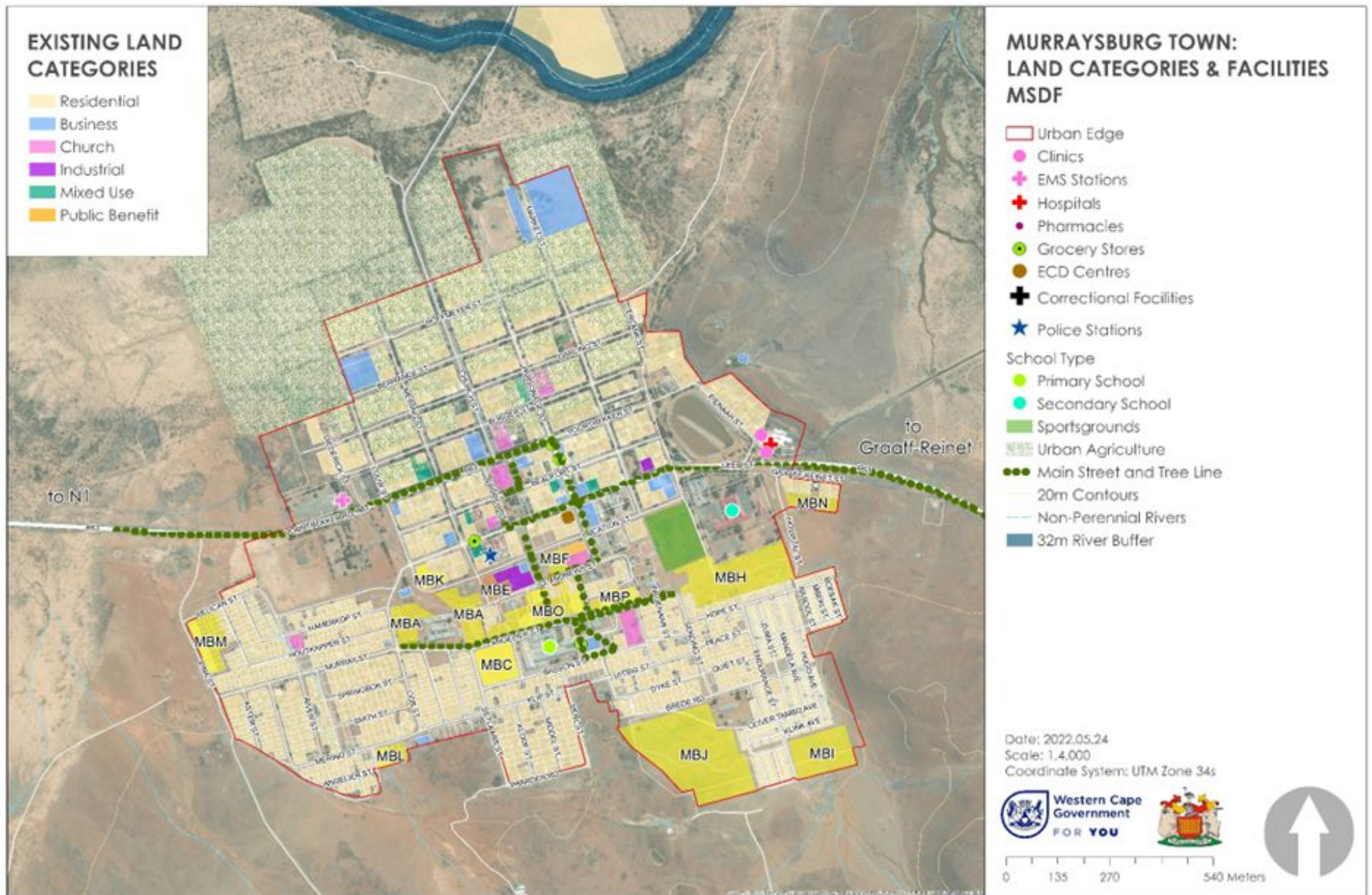


Figure 111: Murraysburg: Land Categories and Facilities MSDF

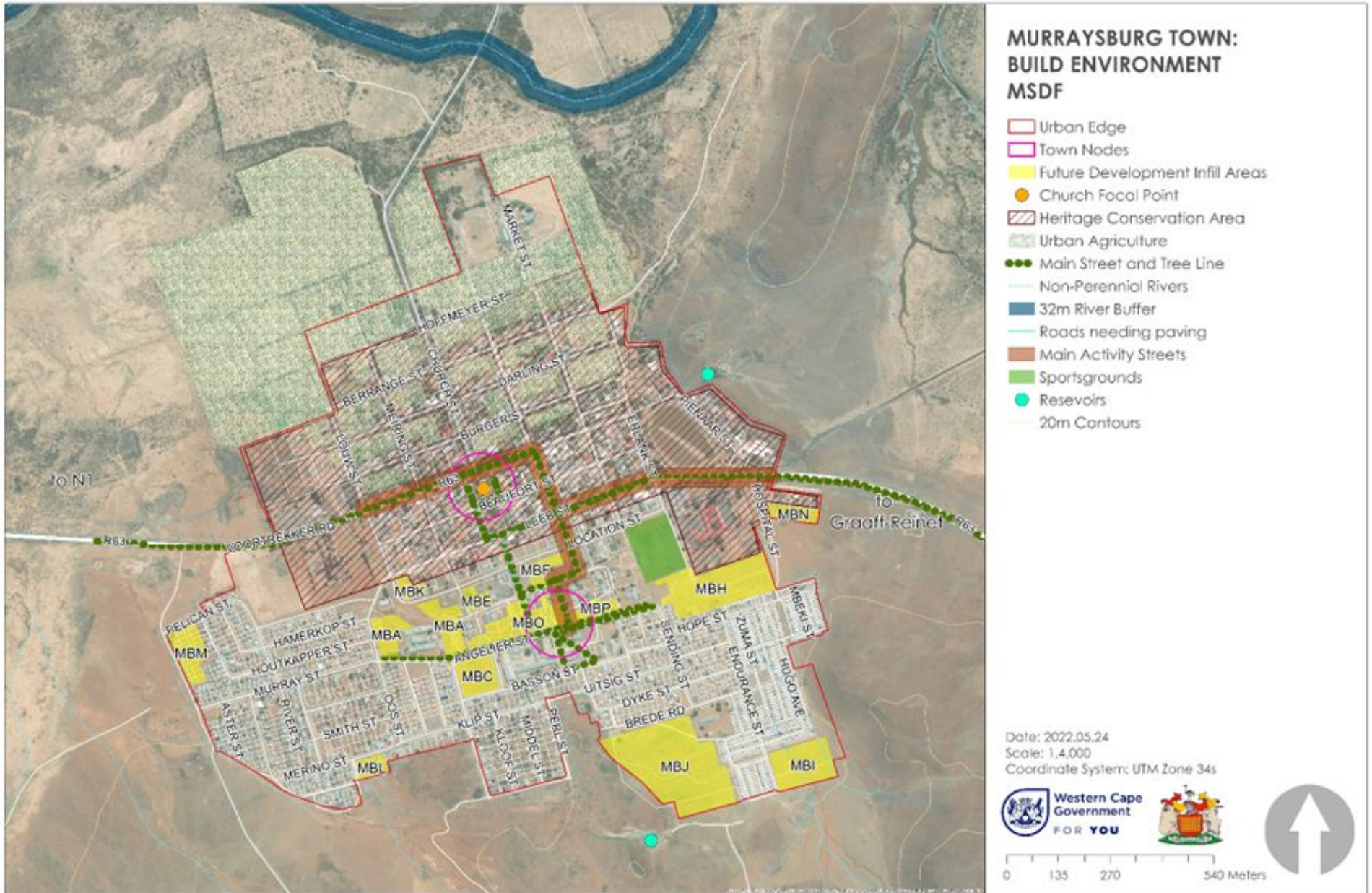


Figure 112: Murraysburg: Built Environment MSDF

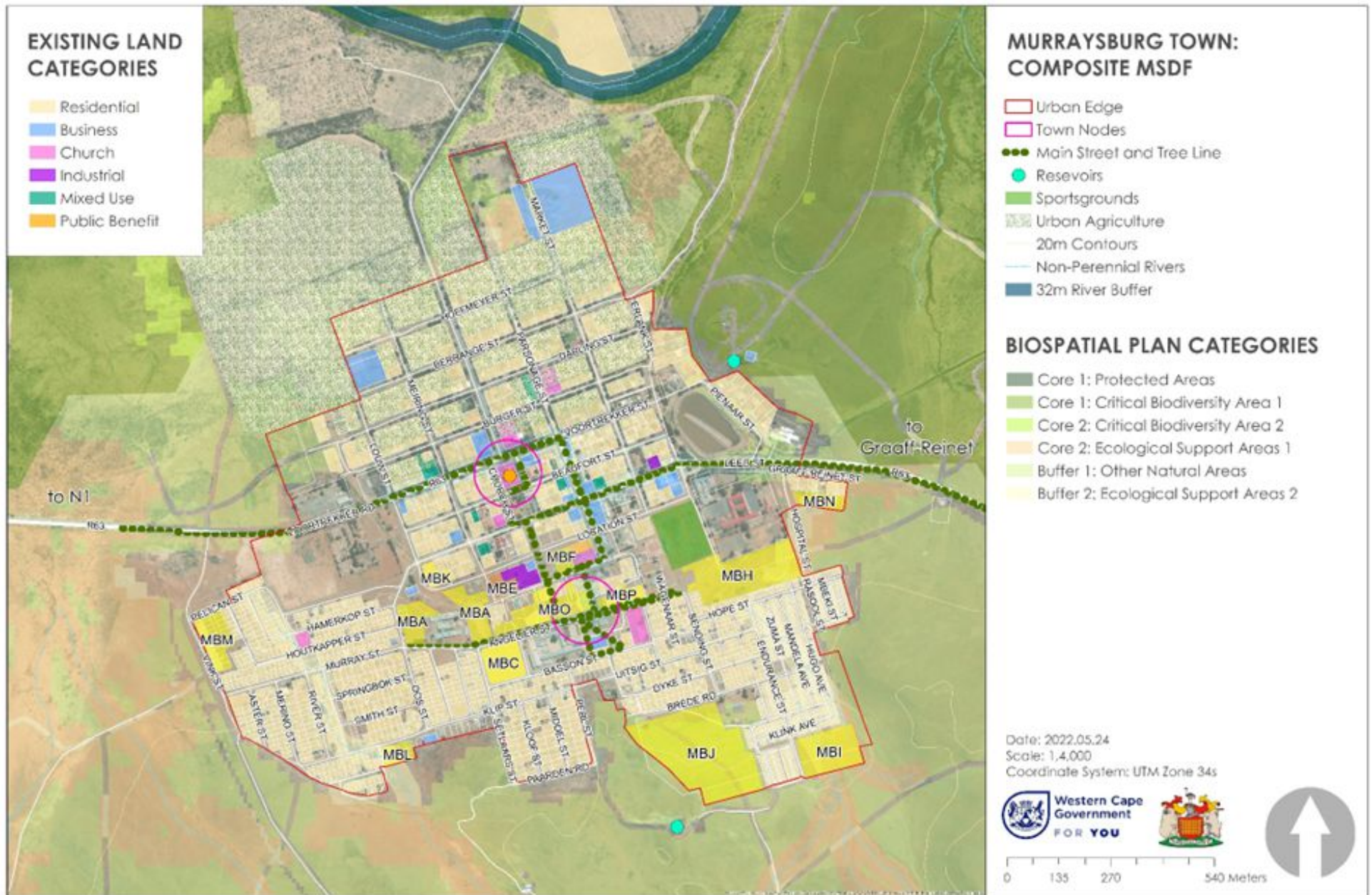


Figure 113: Murraysburg: Composite map

4.10 NELSPOORT: SPATIAL DEVELOPMENT FRAMEWORK

Although the hospital was once a national facility currently it only serves the Central Karoo District for TB patients and psychiatry patients and is a 92-bed facility that is managed by a Matron. It nevertheless is a significant anchor to the settlement.

Nelspoort has four assets to build on:

- The health facilities and institutional buildings, although many are in a poor state of repair and under used, have potential as a large heritage precinct.
- Excellent climate.
- Relatively good agricultural land which is also currently underutilized; and,
- Remote location which nevertheless is served by good road and rail infrastructure not too far from the N1.

This suggests that it would be a good location for a large leadership academy / rehabilitation center that could address the various social problems increasingly affecting communities in the large cities as well as the platteland. The sub-regional location makes the settlement suitable for offering tourist opportunities that could include the Khoi history of the area (rock bells, paintings, and engravings), the Anglo Boer War as well as the sanatorium's history. The farming operations should be restored, and this could also form the basis of a local value chain via an on-site farmers market and supplying Beaufort West.

4.10.1 Core landscape areas

- Nelspoort should retain its heavily treed character which forms a strong part of its sense of place but begin to replace the current Blue Gum trees with suitable indigenous water wise species; and,
- Restore farming to the large area of prepared lands currently lying fallow.

4.10.2 Urban Development

- The settlement is exceptionally well endowed with various education and community facilities and all that is generally required is their restoration rather than the construction of new facilities; and,
- In general, no new housing should be provided for as a large number of units have been recently built, there is suitable land if needed along the main entrance road and the short to medium term focus should be on promoting economic activity and job creation rather than more residential opportunities.

4.10.3 Heritage Areas

- The northern part of the settlement should be restored as a heritage precinct. This could be coupled with history tours through the hospital grounds and farming area and a coffee shop and B&B facilities operating somewhere out of the large stock of currently underused buildings.

4.10.4 Urban Restructuring

- Create continuous link avenue between the two main entrances to the settlement including the hospital, facilities, and residential areas; and,
- All gateways into town should be enhanced to improve its sense of arrival.

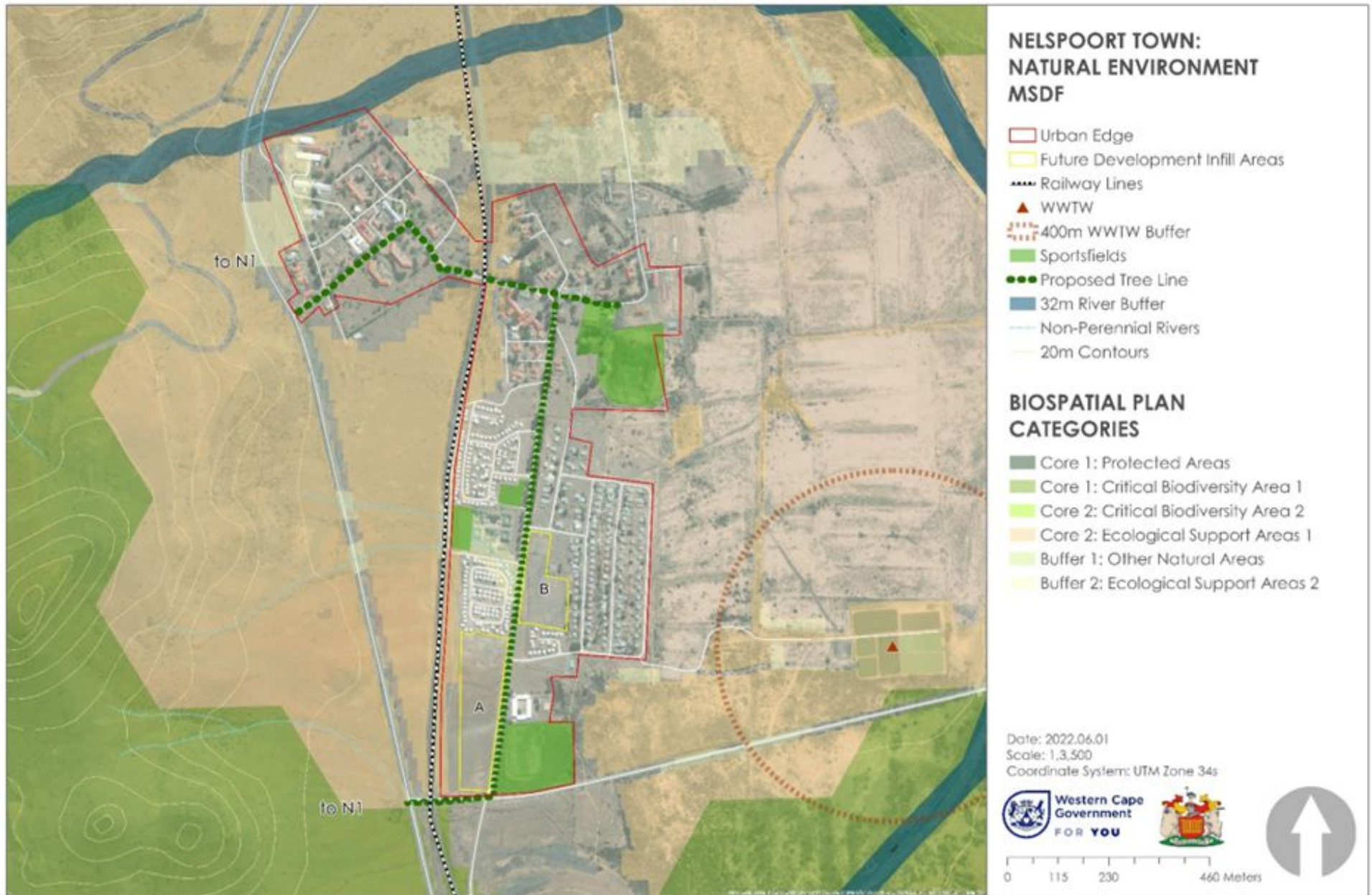


Figure 114: Nelspoort: Natural Environment MSDF

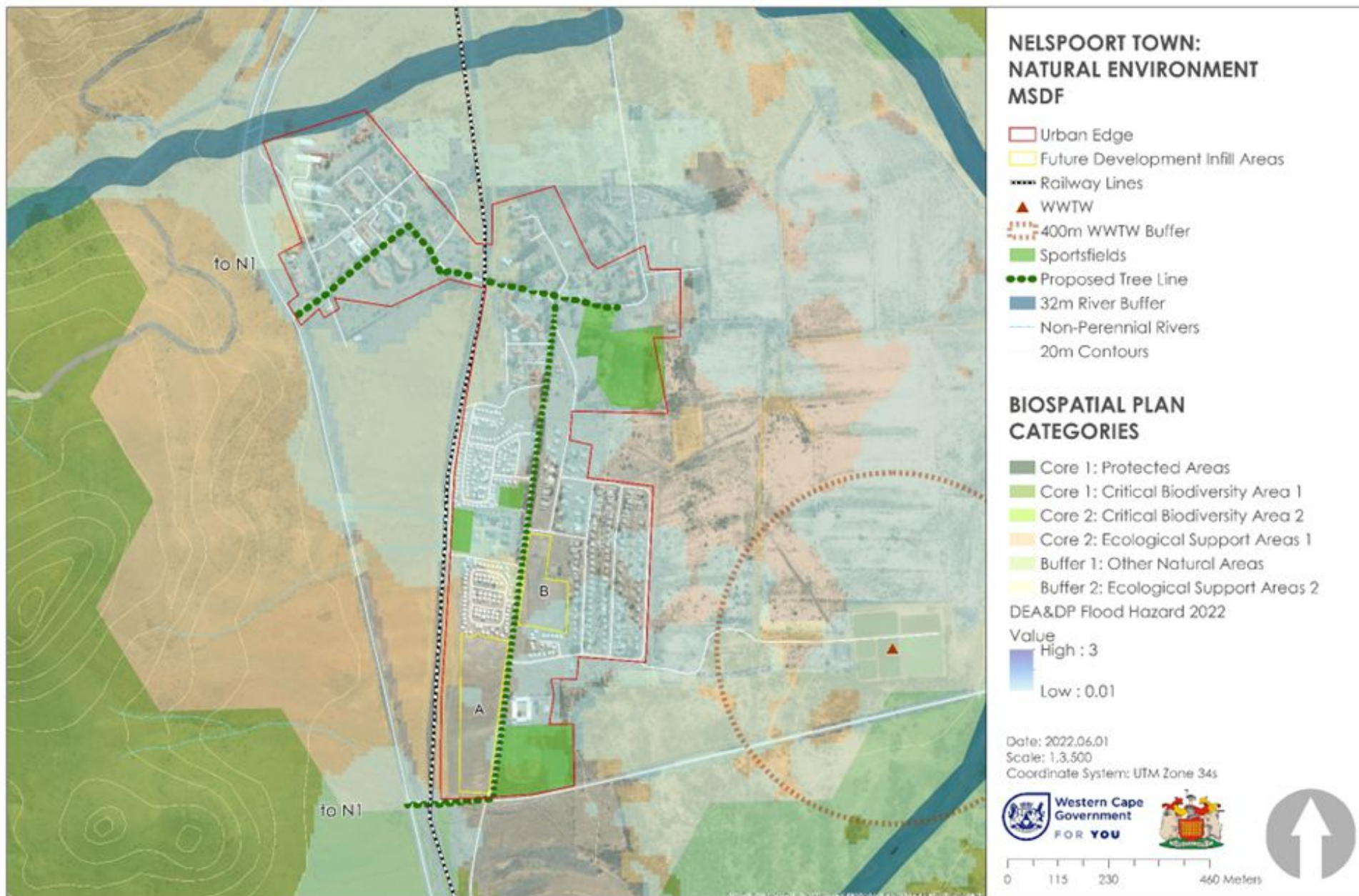


Figure 115: Nelspoort: Natural Environment MSDF (Including Flood Hazard Index)

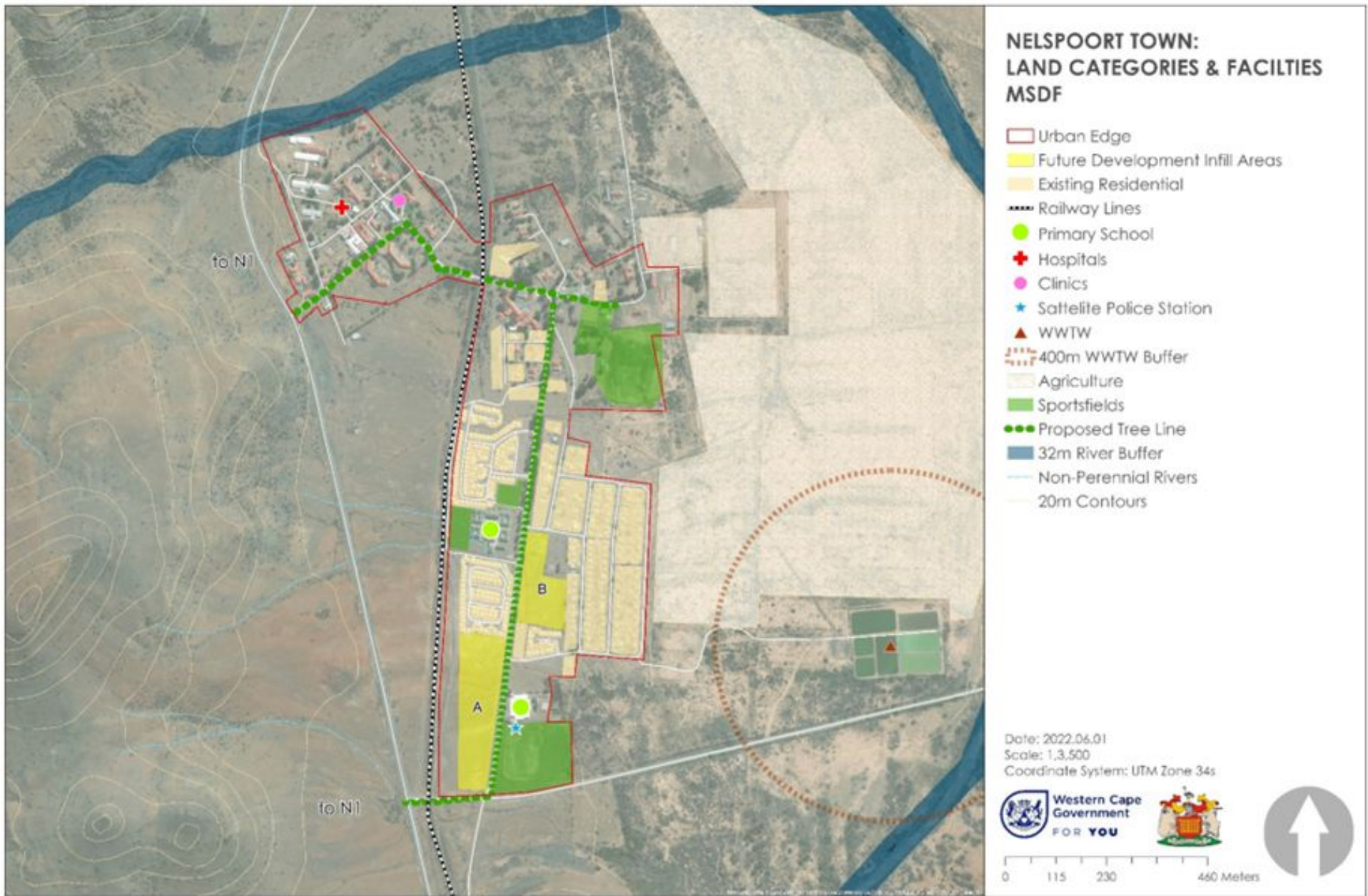


Figure 11638: Nelspoort: Land Categories and Facilities MSDF

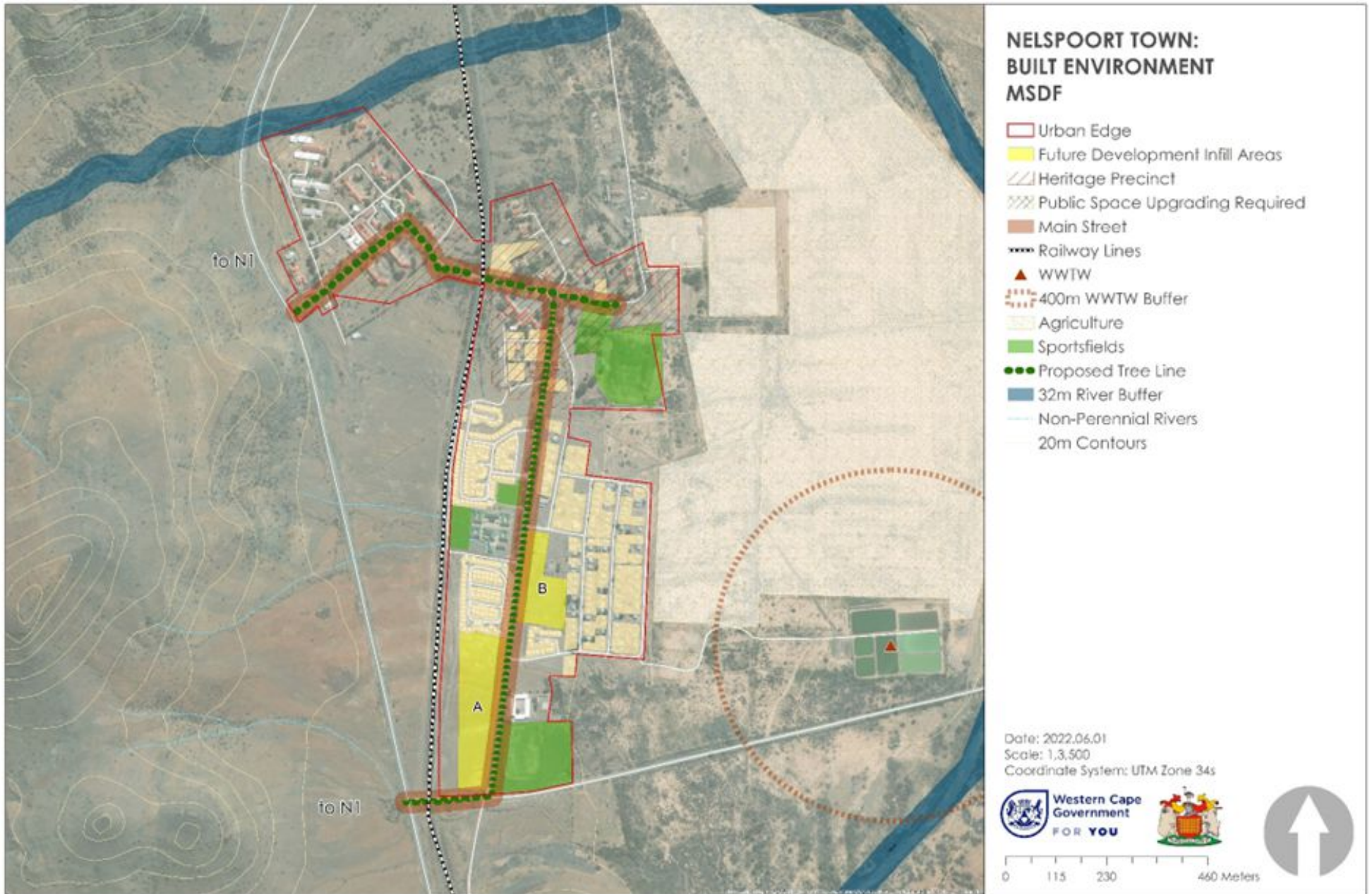


Figure 117: Nelspoort: Built Environment MSDF

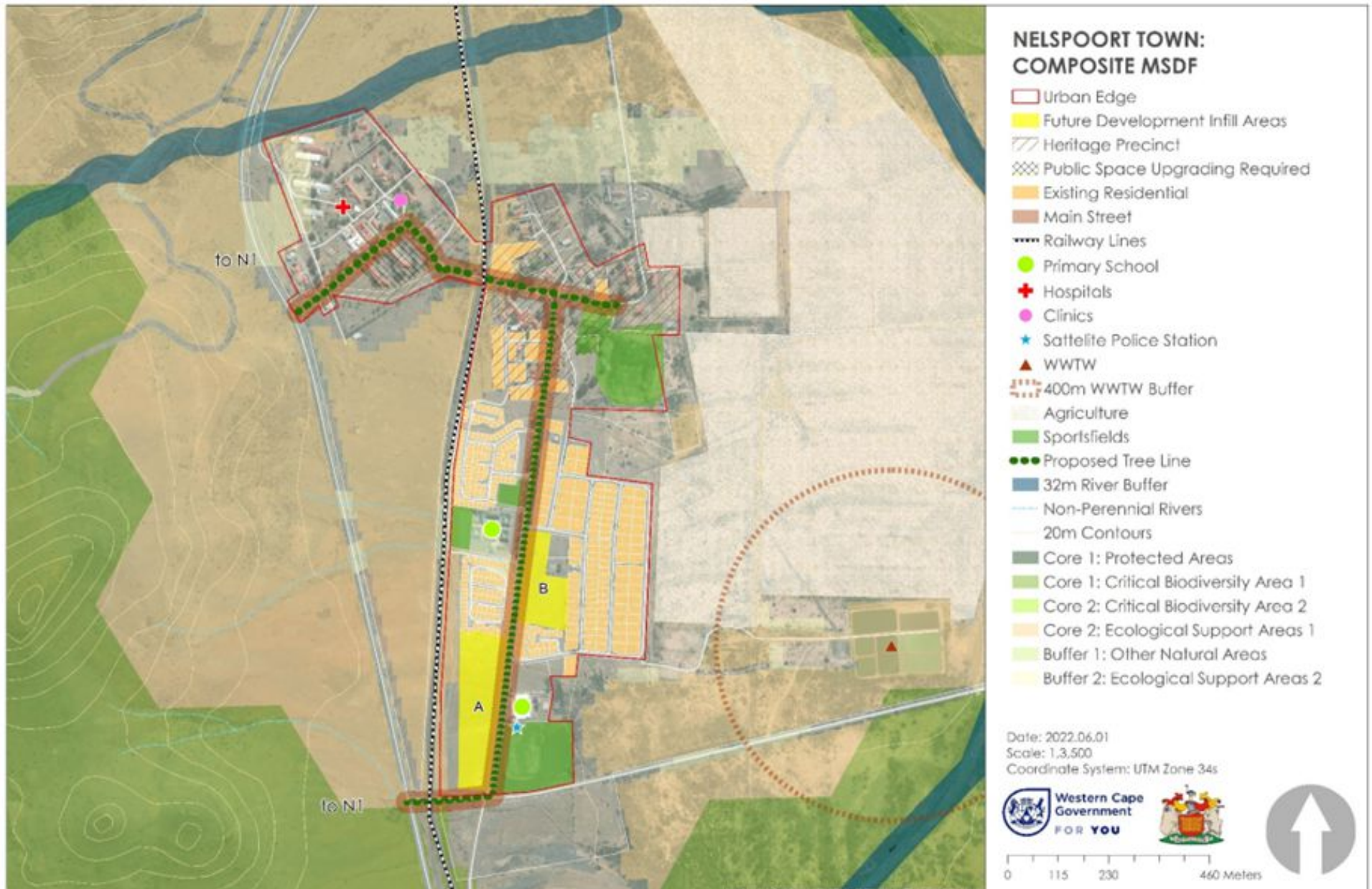


Figure 118: Nelspoort: Composite map

CHAPTER 5: TOWARDS A CAPITAL EXPENDITURE FRAMEWORK FOR BEAUFORT WEST

5. TOWARDS A CAPITAL EXPENDITURE FRAMEWORK FOR BEAUFORT WEST

Section 21(n) of SPLUMA requires that municipal spatial development frameworks “determine a capital expenditure framework for the municipality’s development programmes, depicted spatially”. The intention is to more effectively link the municipality’s spatial development strategies to one of the primary means with which to implement these strategies, namely the municipality’s budget. By providing more specific guidance on what investments should be made where, in what order of priority, alignment between the Municipality’s strategies, plans and policies and development on the ground is better maintained and the risk that budget allocations undermine or contradict the MSDF are mitigated.

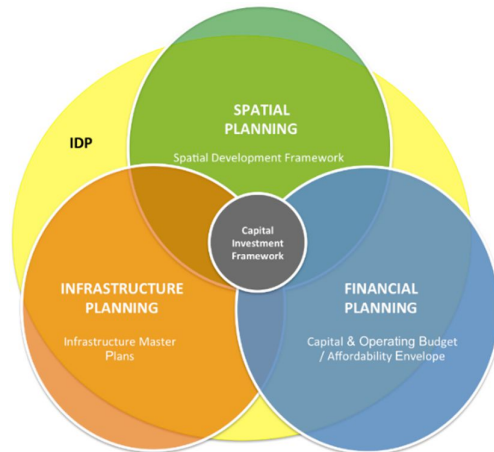


Figure 119: The Capital Expenditure Framework as the meeting point between Spatial Planning,

Infrastructure Planning and Financial Planning (Knysna, 2019)

Based on this, spatial categories for investment planning are presented to guide the investment approach and strategy of the municipality, as well as an agreed approach to future development in the municipality towards municipal financial sustainability.

5.1. WHAT IS A CEF?

Ideally, the infrastructure and built environment programmes articulated in the 5-year Integrated Development Plan should find their origins in the MSDF (Municipal Spatial Development Frameworks), which is a 20-year plan for the management of the physical growth and development of the municipality. Annual assessments of municipal IDP’s undertaken by Province have shown a poor linkage between the spatial strategies and proposals articulated in MSDF’s, and the location of budgeted infrastructure and built environment programmes within municipalities. This misalignment between budget allocation and municipal plans is fundamentally problematic and must urgently be addressed.

The CEF offers a mechanism through which the municipality’s long-term strategic development vision truly directs infrastructure implementation whilst remaining conscious of the municipality’s financial position and infrastructure planning needs. In creating the link between finance, spatial planning, and the infrastructure/technical department of a municipality, the CEF creates a golden thread, that runs from the

municipality’s long-term strategic development vision, sector planning, through the budget allocation process to implementation. In this way infrastructure spending should progressively realise the strategic vision of the municipality.

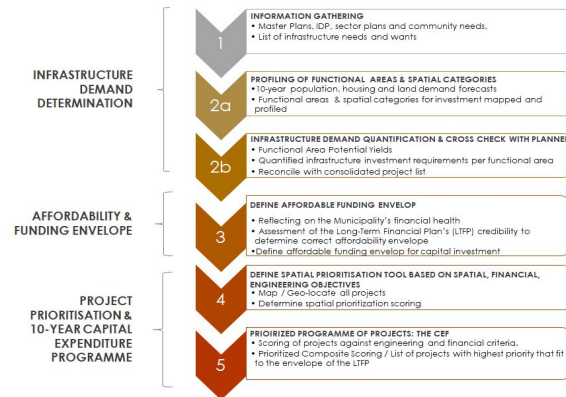
This CEF therefore provides an integrated, strategy-aligned, plan-aligned, prioritized and financially affordable portfolio of capital investments for the municipality, over a 10-year period, that must be used as a key informant to the annual budgeting process of the municipality. Alignment of municipal capital budgets to the CEF will demonstrate, therefore, alignment of the budget to the municipality’s plans and strategies.

5.2. THE PROCESS AND METHOD TO DEVELOP THE CEF

The development of a CEF is an inherently interdisciplinary process that requires the participation and input of all municipal departments. The development of a CEF followed 5 distinct phases, as set out in the Figure below. These phases are:

- Phase 1: Information Gathering and consolidating of capital investments into a consolidated database.
- Phase 2a: Profiling the functional areas and determining the land demand forecasts based on new growth and backlog.
- Phase 2b: Translating growth into capital investment needs.
- Phase 3: Defining the affordability envelop as per the LTFP.

- Phase 4: Developing prioritisation criteria that articulate municipal strategy.
- Phase 5: Prioritization of capital investments needed, sequence and fit within affordability envelop.



5.3. PHASE 1: THE CONSOLIDATED PORTFOLIO OF CAPITAL INVESTMENT NEEDS

This consolidated database of capital investment needs is the basis upon which the prioritised portfolio of capital investments will be developed. The output of phase 1 is a consolidated table of infrastructure investments (new, upgrade or maintenance) per infrastructure type, per functional area, for the entire municipality, which is shown in the technical report and associated databases, a screen shot of which is shown below.

5.4. PHASE 2: FUNCTIONAL AREAS AND SPATIAL CATEGORY FOR INVESTMENT PLANNING PROFILING

5.4.1. SPATIAL CATEGORIES FOR INVESTMENT PLANNING

There are three spatial categories identified for guiding investment planning both at the municipal-wide scale and the settlement scale in order to align investment to the SDF's strategies.

PRIORITY INVESTMENT AREAS

Priority Investment Areas at the municipal-wide scale:

This is referring to the town of Beaufort West that is within an Arid Innovation Region and regarded as a Regional Development Anchor at a regional context. The town generally occupies a high order in terms of the services, facilities and employment opportunities that are on offer, and also generally with the largest population size, and greatest social need and economic growth potential within the region. Generally, investments made in this settlement will have the greatest multiplier effect and impact on the greatest number of people.

Priority Investment Areas at the settlement scale:

These are the principal transport activity corridors (NI, N12) and the Beaufort West CBD, the secondary nodes and priority public transport-oriented development nodes connected by the corridors. This area is also defined by a restructuring zone which seeks to reinforce the centre. These areas must be the focus for getting the basics right as well as adding value through new investment to facilitate social inclusion, attract economic activity and private sector and household investment. There is scope for the absorption of residential, commercial, and industrial growth within this zone. These areas and the priority nodes specifically should be the focus of any municipal investment incentives including expedited land use development procedures and/or relaxation

of development controls; e.g. parking requirements. This should be done in a way that creates a public realm and streetscape that must keep intact and enhance the integrity of the Klein Karoo identity and attractiveness.

UPGRADING AREAS

Upgrading areas at the municipal-wide scale:

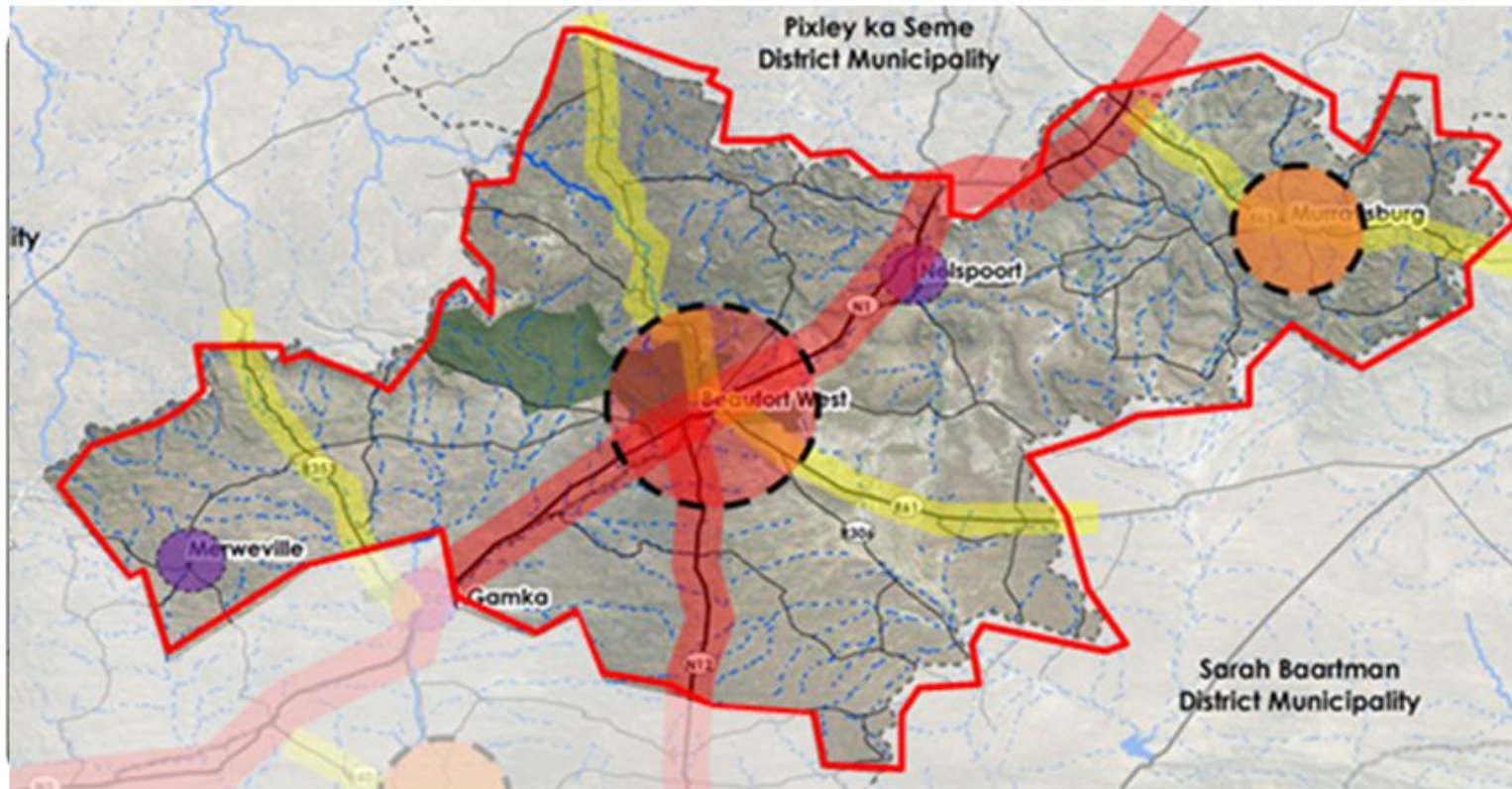
These are the settlements that still have considerable populations, services, and some job opportunities, but that are not seen as primary service centres at the regional scale. They are generally major rural settlements that play a role in the economy of the region, but also with pressing social needs. Further significant expansion of these areas not advised. The upgrading area within the Beaufort West municipal area is Murraysburg.

Upgrading areas at the settlement scale:

These are areas primarily focussed on informal settlement and marginalised rural settlements and areas that require upgrading and improvement to bring them to an acceptable standard of performance as residential settlements.

CONSOLIDATION AREAS

Consolidation areas at the settlement and municipal-wide scale forms the balance of the settlement footprint. In these areas the focus is to ensure the provision and maintenance of services so that the area may perform well within their current functions with no further expansion or growth of these areas, as far as possible. These include settlements such as Merweville and Nelspoort.



Beaufort West Municipal Area Capital Expenditure Framework

- Route of National Importance & Priority
- Route of Regional Importance & Priority
- Priority Investment Settlement
- Upgrading Settlement
- Consolidation Settlement

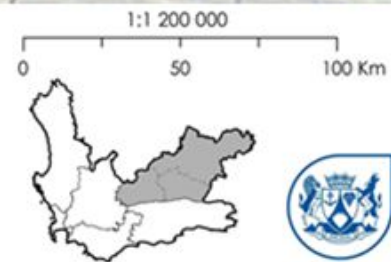


Figure 120: Beaufort West Municipal Area Capital Expenditure Framework map

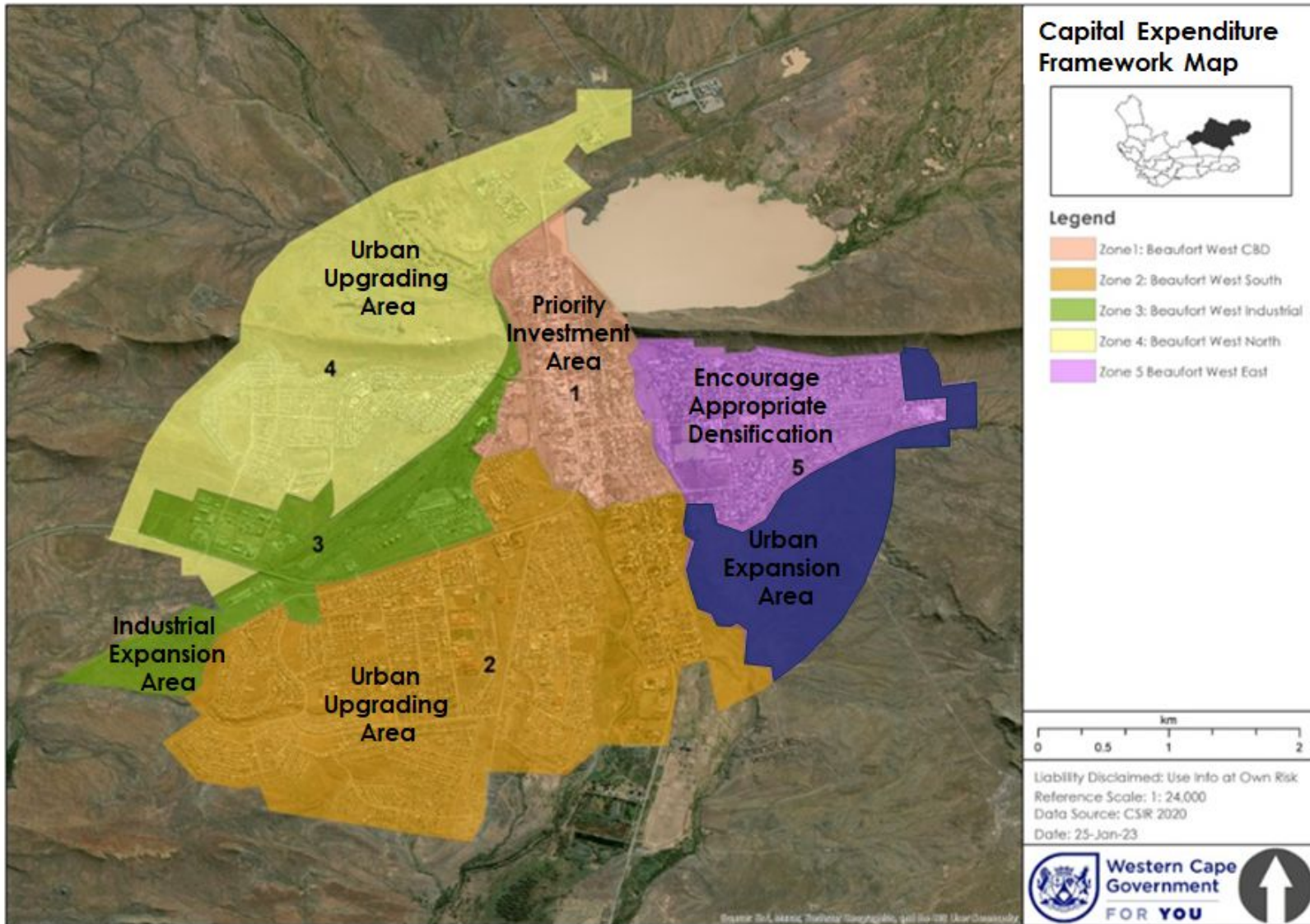


Figure 121: Beaufort West Town Capital Expenditure Framework map

5.3.1 FUNCTIONAL AREAS

Functional Areas are areas of similar characteristics, service levels and have similar service requirements, such as low density established suburbs, industrial areas, high density informal areas or central business districts. These areas usually correspond to an area sharing the same engineering and utility service requirements and levels of service (or have similar upgrading needs).

The following functional areas were identified:

- Functional Area 1: Middelcorp / Beaufort West Central Business District;
- Functional Area 2: Kwa-Mandlenkosi & Rustdene;
- Functional Area 3: Beaufort West Industrial Park and future industrial area;
- Functional Area 4: Hillside
- Functional Area 5: Beaufort West East / Hospital Hill
- Functional Area 6: Merweville
- Functional Area 7 Murraysburg
- Functional Area 8 Nelspoort
- Functional Area 9 Beaufort West rural

Once each functional area was defined, a household analysis was undertaken both for the year 2023, as well as a projected household analysis for the year 2033 per functional area, as shown below, using high average growth rate projections. Note that the tables provided below will need to be updated with Census 2022 data per enumerator area. Unfortunately, at the time of drafting of this report, enumerator area 2022 Census data was not yet available.

Functional Area	Population (2023)	Population Projected (2033)
FA1 Middelcorp	1188	1198
FA2 Kwa-Mandlenkosi	23269	23479
FA3 Industrial Park	7	7
FA4 Hillside	8116	8190
FA5 Hospital Hill	1624	1639
FA6 Merweville	1454	1467
FA7 Murraysberg	5389	5437
FA8 Nelspoort	1316	1328
FA9 Beaufort West Rural	10070	10161
Grand Total	52433	52907

Functional Areas	Households (2023)	Households (2033)
FA1 Middelcorp	642	651
FA2 Kwa-Mandlenkosi	6681	6775
FA3 Industrial Park	2	2
FA4 Hillside	2344	2377
FA5 Hospital Hill	733	743
FA6 Merweville	514	521
FA7 Murraysberg	1572	1594
FA8 Nelspoort	390	396
FA9 Beaufort West Rural	3616	3667
(blank)		
Grand Total	16494	16726

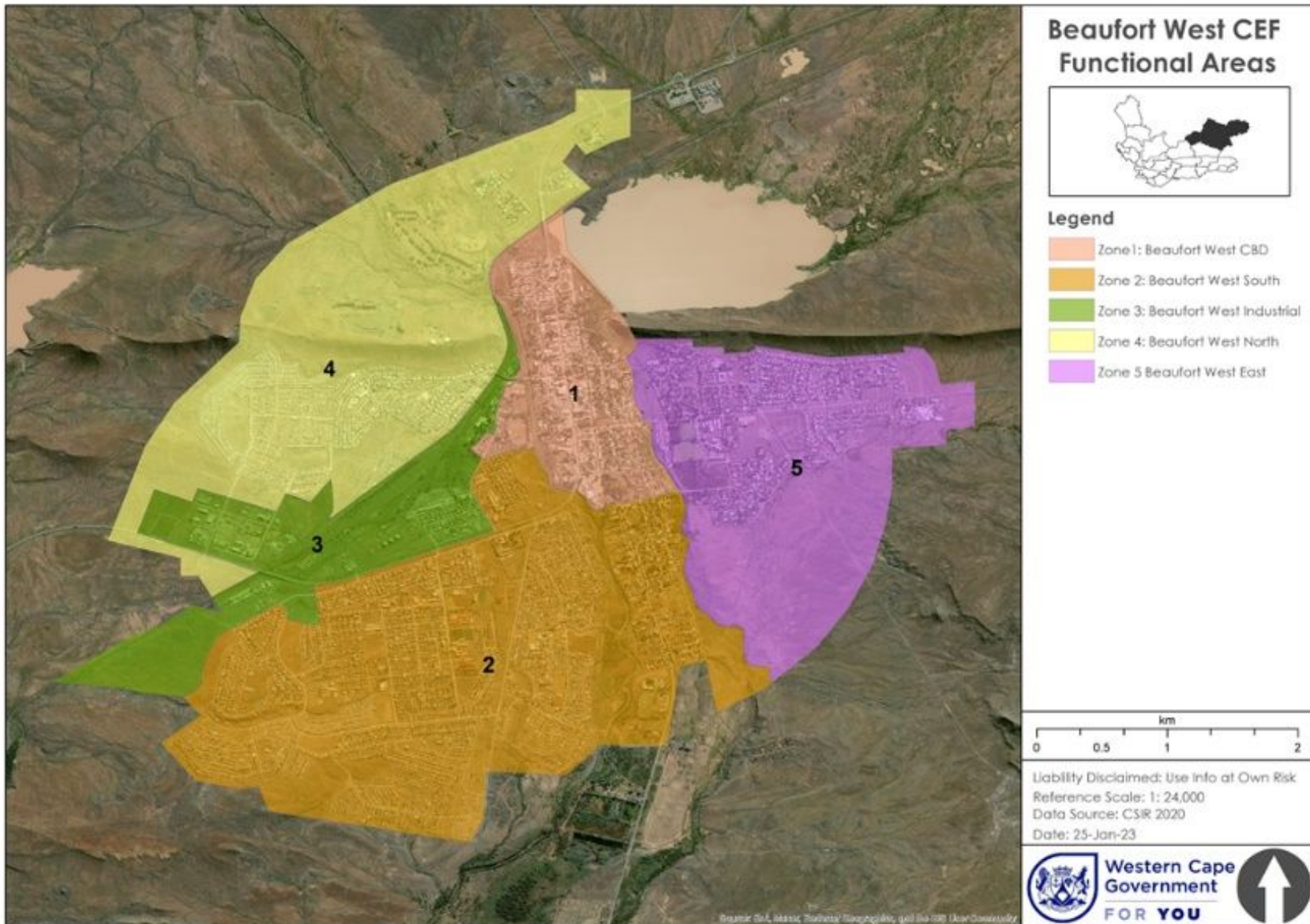


Figure 122: Beaufort West Town Functional Areas map

FINANCIAL PLANNING INFORMANTS

Figure 123, below, illustrates the point that generally speaking – and indeed in the case of Beaufort West municipality – infrastructure investment need generally exceeds available capital finance. It is therefore imperative for the municipality to undertake a prioritisation process to determine that which is affordable.

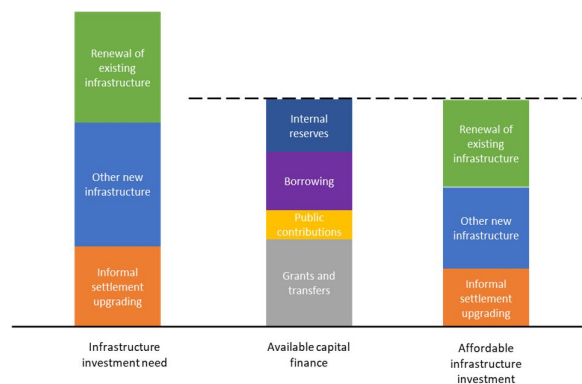


Figure 123: The Capital Expenditure Framework assists in determining what is affordable, within the 'affordability envelope' that is set out in the Long-Term Financial Plan (Knysna, 2019)

The municipality does not currently have a Long-Term Financial Plan which provides an overview on various measures that describe the municipality's financial health, spending and revenue, which go beyond its multi budget annual cycles (i.e. MTREF) and multi-year capital plan.

The Financial Recovery Plan (2022) for Beaufort West indicates that the municipality has the following historical expenditure and forecast expenditure for the capital budget going forward:

- R78 600 000 in 2017/18
- R8 891 000 in 2018/19
- R22 792 000 in 2019/20
- R56 206 000 in 2020/21
- R11 108 000 in 2021/22
- R11 044 000 in 2022/23
- R8 527 000 in 2023/24

This highlights the critical importance of spending capex extremely wisely and strategically in addressing Beaufort West's development challenges.

5.5. ENGINEERING & INFRASTRUCTURE PLANNING INFORMANTS

As has been illustrated in Chapter 4 and the financial health indicators of the municipality from the MTREF, PERO, IDP and the Financial Recovery Plan for Beaufort West, the municipality is currently not on a sustainable financial footing from an infrastructure maintenance and upgrade perspective, and that it is battling to maintain some of its existing infrastructure network, without even considering expansion of this network. It is from this perspective that the municipality should develop policies that seek to focus on utilising its current infrastructure asset network more cost-effectively and prevent costly outward urban expansion of this network.

The following factors are worth noting from an infrastructure backlogs and planning perspective:

- The existing **Landfill Sites** which require regular maintenance and/or upkeep.
- The existing conditions of all the roads within the municipality need maintenance.

- The development and maintenance of existing **NMT routes** within all the settlements in Beaufort West.
- **Water and sanitation** infrastructure maintenance.

The following are key questions that will need to be answered fully, following the updates of the relevant engineering masterplans, which are largely outdated, as well as Financial Strategy which should detail:

- Where is sewer / water / roads and storm water infrastructure failing / under pressure?
- How much will it cost to address failing infrastructure and infrastructure need maintenance?
- How much money is available to address failing infrastructure and infrastructure needing maintenance?
- What is the planned new infrastructure on the books?
- Is the municipality meeting the minimum requirement of % of spending on repairs and maintenance (8%)?
- What new connection needs does the municipality need to action?
- What are affordable development options vs. unaffordable development options?
- What is deemed to be revenue generating infrastructure vs. non-revenue generating infrastructure?

- (ix) What is the strategy to transition areas / neighbourhoods from 'indigent' neighbourhoods to 'service paying' neighbourhoods over time? Inherent to this question is what is the municipality's strategy to achieve municipal financial sustainability over time?

The above questions will inform a more nuanced and spatially specific Capital Expenditure Framework for Beaufort West.

5.4 INFORMING PRIORITIES AND INFRASTRUCTURE DEVELOPMENT APPROACH

The infrastructure systems of Beaufort West municipality in general present growth inhibiting challenges due to the fact that infrastructure is aging, generally under-maintained with backlogs and supply ceilings being reached. The municipality needs to **focus its energies on infrastructure maintenance and infrastructure upgrading (of existing infrastructure systems and networks)**. Only in rare instances should the municipality pursue infrastructure expansion, and only in terms of the parameters outlined in the **Urban Growth Proposals Assessment Framework** in Annexure A of this document.

Priority spending and efforts should be placed on infrastructure maintenance and upgrading rather than on infrastructure network expansion. Maintenance of existing infrastructure and existing assets is first and foremost the priority of the municipality, and specifically within the town of Beaufort West as the priority followed by Murraysburg, Merweville and Nelspoort;

Optimising the use of existing infrastructure systems must be prioritised as well. This means actively increasing densities within the existing footprint of the municipality, specifically in the middle- and upper-income areas, to moderately increased densities. Outward expansion will be assessed against the Beaufort West's Growth Proposals Assessment Framework (see Annexure A).

5.5 NEXT STEPS TO FINALISE A CEF

The following remains to be done in order to develop a comprehensive Capital Expenditure Framework for Beaufort West Municipality:

- a) Phase 2a which is to understand the potential yield of the land available for future urban

development and reconciling it with the projected household growth until 2030.

- b) **Tabulate and map all infrastructure master plan maintenance and expansion projects** that have been proposed for the next 10 years, ascertaining the infrastructure proposals for each zone and priority development areas. Determine investment requirements per functional area as a draft Capital Investment Framework, determine the operational and maintenance expenditure per asset class, per functional area.
- c) **Reflect on the Long-Term Financial Plan**, and the ability of the municipality to fund it's the infrastructure maintenance and expansion programmes into the future.
- d) **Prioritise, map, sequence and determine funding** for all infrastructure projects, based on the extent to which they achieve the MSDF objectives.
- e) **Finalise a prioritised Capital Expenditure Framework** by developing and applying a prioritisation framework and present a final spatial analysis of the CEF.

CHAPTER 6: IMPLEMENTATION FRAMEWORK

6. IMPLEMENTATION FRAMEWORK

The purpose of this implementation framework is to set out the various implementation requirements of the Beaufort West SDF, primarily focusing on:

- Determining the functional areas of the municipality through which the SDF can be implemented;
- Setting out the institutional arrangements for the implementation of the SDF;
- Providing concise inputs into municipal sector plans;
- Highlighting the role of the private sector and where partnerships and partnering can be explored as a tool for implementation;
- Set out the local area planning priorities;
- Set out inputs for the municipal budgeting process and the Integrated Development Plan; and
- Highlighting the implementation actions, priorities, and associated time frames for implementation;

It should be noted upfront that the Beaufort West Municipality, as the key administrator of its land use management function, both records the current legal use of land in its zoning scheme, but also can proactively use its land use management system, zoning scheme and rights allocated to various land uses as a means to stimulate or implement various aspects of this SDF that envisage either a change in land use rights, such as the intent to densify a particular area or provide additional rights to a certain land use (such as single residential zoning).

Similarly, the municipality provides various infrastructure delivery, management, maintenance, and local service functions such as municipal road network management, water reticulation, wastewater treatment, storm water and electricity reticulation, amongst others. Its infrastructure spending, areas of focus and priorities (both in space, and per programme) can assist in implementing various elements of the SDF. As has been illustrated in the Capital Expenditure Framework section, the infrastructure focus areas and budgets need to be responsive to the proposals as set out in the SDF, as well as affordable as determined by the Long -Term Financial Plan. In this particular instance the Beaufort West Municipality does not have a LTFFP.

6.1. IMPLEMENTATION REQUIREMENTS

SPLUMA requires that MSDF's include an Implementation Plan that contains the following:

- (i) Sectoral requirements, including budgets and resources for implementation.
- (ii) Necessary amendments to the Municipal Zoning Scheme By-Law
- (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.

DARD&LR's SDF Guidelines also guides the implementation framework requirements.

6.2. INSTITUTIONAL ARRANGEMENTS

The MSDF is a transversal planning instrument – impacting on most, if not all, of the Beaufort West Municipality’s departments as well as the other spheres of government and state-owned entities operating within the municipal area. Institutional alignment is essential to implementing the MSDF.

- The **main argument and strategies** of the MSDF must be incorporated into Annual Reports, annual IDP Reviews, and future municipal IDPs.
- Any amendment to the MSDF must form part of the IDP review and amendment process.
- The main vision, strategies, proposals, and policies of the MSDF must inform sector planning and resource allocation (refer to 6.3 Inputs into Sector Plans for more detail). In particular, the Municipality’s Human Settlement Plan and Integrated Transport Plan must be led by and aligned to the vision, strategies, proposals, and policies set out in the MSDF.
- The vision, strategies, proposals, and policies of the MSDF must inform land use management decision-making.
- National and provincial plans, programmes, and actions; such as through User Asset Management Plans (in particular for the Health and Education sectors) and Comprehensive Asset Management Plans related to national and provincial assets and facilities, must be guided by the MSDF as they pertain to the Beaufort West Municipality. In particular the development pipelines articulated in the MSDF should be considered in the User Asset Management Plans in terms of adequate social facility provision.

6.3. INPUTS INTO SECTOR PLANS

The MSDF is a long term, transversal planning and coordination tool and a spatial expression of the Beaufort West Municipality’s vision. While existing Sector Plans give context to the formulation of the MSDF, strategically and spatially, the Sector Plans should be led by the MSDF. To this end, with the adoption of this MSDF for the Beaufort West Municipality, when the Municipality’s Sector Plans are reviewed, the MSDF must be a key consideration or framework for such a review. This is important to ensure alignment and for the sector plans to realise their full potential as implementation tools of the MSDF. The table below summarises the Beaufort West Municipality’s sector plans, their status, and implications of the MSDF for these plans. A major issue for aligned planning is a shared understanding of population growth projections and projections of space needed to accommodate this growth. A corporate decision must be made on the most credible numbers which will be the basis for all planning in the Municipality.

Sector Plan	Status & SDF Relationship
Beaufort West Local Integrated Transport Plan 2019 - 2024	The plan was finalised in 2019 and was prepared for a five-year period. Updates of specific aspects of the plan ought to be undertaken on an annual basis with a specific focus of programmes and budgets. Although the municipality does not currently have NMT master plan in place, ITP in its current format does include proposed and planned NMT routes for each settlement within the municipality. Needed and there are funds

	allocated for the implementation of some the projects. There is a need to gather Gender disaggregated data from surveys on traveller experiences while cycling, walking, and moving around in the district, to give insight about the realities and needs of people navigating between towns. Gender disaggregated data could analyse why men and women make trips to particular places at a particular time, which will provide a better understanding about functional relationships between settlements and larger towns and assist to respond to the transport needs of the people in a gender responsive manner.
Beaufort West Human Settlement Plan	Future revisions of the Beaufort West Human Settlement Plan must consider the detail in the chapter 4 strategies and policies, specifically strategy two and three. Policy B2 provides settlement hierarchy whilst policy C2 provides Human Settlement Focus Areas for Beaufort West. Subsidised housing should be located in those settlements where the need is greatest, which have access to an existing array of services and facilities, where there are employment opportunities, and where municipal financial sustainability is not undermined.

	Service provision should be affordable for the municipality and on this basis, the extensive expansion of low growth small settlements is discouraged, not only on account of affordability for the municipality, but on the basis that these areas could become pockets of poverty lacking employment prospects, locking people into poverty.
Disaster Management Plan	Future revisions must consider spatial aspects of drought-mitigation and building increased resilience to drought and fire, such as the need to proactively protect valuable water catchment areas from alien vegetation invasion. Riverine systems to be, as far as possible, rehabilitated and aquifer resources and recharge areas to be protected from incompatible land uses.
Climate Change Adaptation Plan	See the entire policy and proposals section of this SDF for implications for Climate Change Adaptation Plan, generally the policies under strategy one and specifically policy A8.
Infrastructure Master Plans	
Electricity	In addition to catering for maintenance, and addressing backlogs in access to electricity infrastructure, electrical infrastructure investment should be focused in priority development

	areas, as shown in the municipal-wide and town-specific maps for Beaufort West in the Capital Expenditure Framework.
Roads Pavement Management System	Road network and pavement management systems must prioritise the maintenance of existing road networks, and where upgrades and improvements are considered, in conjunction with urban design improvements, priority development areas as dictated by the CEF should guide these decisions.
Water Services Development Plan	Water security is the priority objective for Beaufort West and ensuring secure, consistent supply of water via new water sources. Future updates must indicate the areas identified in this SDF as needing protection or rehabilitation, such as riverine systems, catchment areas or aquifer recharge areas.
Integrated Waste Management Plan	Ensuring correct management of the existing waste sites, ensuring key management buffers around waste sites are in place, and potential impacts of waste sites on surrounding land uses prevented or mitigated where prevention is not possible.

6.4. PROVINCIAL AND MUNICIPAL EXPENDITURE IN THE DISTRICT (2024/25/26/27)

Based on the Overview of Provincial and Municipal Infrastructure Investment (OPMII) Report, 2024, it is anticipated that provincial infrastructure investment for the Beaufort West municipality will amount to R 22 873 734.00 for the 2024/25 – 2026/27 period, which amounts to 71.0% of the budget allocated throughout the entire Central Karoo District. This represents the budgets of the Departments of Arts and Culture, Health, and Infrastructure. It is noted that Education, Social Development and Cape Nature do not have infrastructure investments in Beaufort West municipality during this MTEF period.

Table 18 summarizes the planned and funded provincial infrastructure projects and programs for the Beaufort West Municipality for the Medium-Term Expenditure Framework (MTEF) period 2024/25 to 2026/27. A total of 16 projects are planned, with a combined budget of R228,737,000. The Arts & Culture sector has one project valued at R1,500,000, focused on capital transfers likely intended to enhance cultural facilities. The Health sector features six projects totalling R10,506,000, with notable investments in new infrastructure, non-infrastructure improvements, and minor refurbishments and upgrades. The Human Settlements sector has five projects with a significant allocation of R26,806,000 for housing infrastructure, emphasizing the expansion or upgrading of housing facilities to meet population growth and improve living conditions. The Transport sector, receiving the largest share of the budget allocation at R189,925,000 for four projects, prioritizes the rehabilitation and refurbishment of transport infrastructure, which is crucial for maintaining economic connectivity and development.

Summary of Planned and Funded Provincial Infrastructure Projects & Programmes in the Municipality for the MTEF period 2024/25-2026/27¹

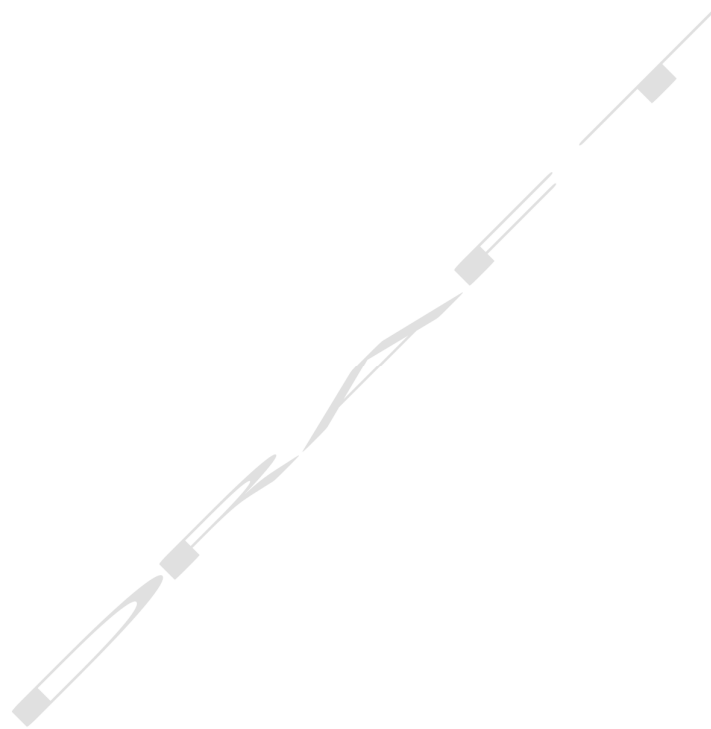
Sector	No of Projects	Value of Infrastructure Projects & Programmes (R'000)					Grand Total
		Infrastructure Transfers - Capital	New or Replaced Infrastructure	Non-Infrastructure	Rehabilitation, Renovations & Refurbishment	Upgrading and Additions	
Arts & Culture	1	1500	0	0	0	0	1500
Health	6	0	1	9547	784	174	10506
Human Settlements	5	26806	0	0	0	0	26806
Transport	4	0	0	0	189925	0	189925
Grand Total	16	28306	1	9547	190709	174	228737

Table 18: Provincial Infrastructure Investment Projects in Beaufort West (2023/24 – 2025/26)

6.5. IMPLEMENTATION ACTIONS, PRIORITIES & TIMEFRAMES

It should be noted that the actions, priorities, and timeframes outlined in the table below are a summary of the actions emanating out of the policies and policy guidelines in Chapter 4, which sets out the strategies, policies, and related items to be taken forward.

The municipality will have to undergo a priority-setting exercise, and re-visit this on an annual basis and as part of the IDP review process, to determine if new priorities emerge and if the priorities highlighted below remain priorities or have been implemented.



SPATIAL PLANNING, LAND USE MANAGEMENT AND URBAN DESIGN

Proposal	Approximate Budget	Time Frames	Lead Role-players and funding source
<p>SPLUM 1) To ensure that land use planning decision making is consistent with and congruent with the Biodiversity Spatial Planning Manual and the recommended land use as per the Spatial Planning Categories, adopted within this SDF.</p>	Operational costs – town planning function of Beaufort West municipality	Immediate and ongoing	Beaufort West municipality – town planning Provincial Department of Environmental Affairs and Development Planning
<p>SPLUM 2) To ensure the integrity of the municipality's scenic assets by promoting appropriate development typologies and preventing inappropriate development typologies that undermines this character and hence undermines the tourism economy and sense of place.</p> <p>SPLUM 3) Develop design guidelines for building typologies appropriate in different contexts of the Central Karoo, specifically for Merweville.</p>	Operational costs – town planning department and human settlements department of Beaufort West municipality	Immediate and ongoing	Beaufort West municipality – town planning department Beaufort West municipality – human settlements department
<p>SPLUM 4) To ensure that all settlements of the municipality are enhanced, made more liveable, more multi-functional, economically vibrant, pedestrian-friendly, landscaped, and beautiful places by the application of the settlement-design principles adopted and promoted in this SDF;</p>	Operational costs – town planning department and human settlements department of Beaufort West municipality	Immediate and ongoing	Beaufort West municipality – town planning Private sector developers and landowners Beaufort West municipality – human settlements department Beaufort West municipality – Parks and recreation department
<p>SPLUM 5) To ensure that the delivery of any municipal, provincial, and national facility is done in a way that maximises efficiency of space, seeks to co-locate it with compatible functions and facilities that promotes multi-functionality, significant and special places in the built fabric and that contributes towards the settlement design principles adopted in this SDF.</p> <p>Clustered facilities to be encouraged in the priority development area or upgrade area as shown on settlement maps.</p>	Capital budget for the delivery of facilities (e.g., Halls, libraries, schools, clinics, courts) of the relevant municipal, provincial, or national government department.	Immediate and ongoing	National Department of Public Works Provincial Department of Transport and Public Works Municipal Facilities Planning & maintenance.
<p>SPLUM 6) Rejuvenate and invest in the historic settlement cores of each town to make these appealing to tourists, businesses and attract investment into the town centres.</p>	Town improvement plan can be developed inhouse or at cost of R400 000.	Immediate and Ongoing	Beaufort West municipality LED department Beaufort West municipality – Parks and Recreation department

SPATIAL PLANNING, LAND USE MANAGEMENT AND URBAN DESIGN

Proposal	Approximate Budget	Time Frames	Lead Role-players and funding source
<p>SPLUM 7) All settlements to carry out basic beautification measures at its entrances and main through-fares, including cleaning and sanitation services, tree-planting (in drought-tolerant species) and investment in public-walkways and main streets, including infrastructure maintenance.</p> <p>SPLUM 8) Investigate low-cost high-impact measures to increase the appeal of settlements for attracting tourists.</p>	Implementation cost of between R5 000 000 and R10 000 000 over a period of 3 years.		Beaufort West municipality – town planning
<p>SPLUM 9) Amend zoning scheme to allow for additional residential rights in single residential zoning, where feasible, to allow for up to 2 additional dwellings as an additional use right.</p>	Cost of Employment	2024/25	Beaufort West Municipality – town planning DEA&DP

ECONOMIC DEVELOPMENT

Proposal	Approximate Budget	Time Frames	Lead Role-players and funding source
<p>ED 1) To ensure that the Economic Development Strategy of the municipality and the broader District Municipality seeks to establish, manage, and market the Central Karoo as a unique region, capitalising on inherent and latent tourism and agri-processing opportunities.</p>	To be determined – beyond operational costs	Immediate and ongoing	Western Cape Department of Economic Development and Tourism Central Karoo DM Beaufort West Local Tourism Office

SERVICES AND INFRASTRUCTURE

Proposal	Approximate Budget	Time Frames	Lead Role-players and funding source
<p>SI 1) Developing water and sanitation infrastructure that utilises water re-cycling and reuse.</p> <p>SI 2) Promote household and farm-scale rainwater capturing for non-potable uses.</p> <p>SI 3) Ensure rainwater tanks are included in new developments of households on erven larger than 120m².</p>	Multiple projects – some with potential multi-million-rand infrastructure implications	Immediate and ongoing	Beaufort West municipality – Engineering department Beaufort West municipality – town planning departments

SERVICES AND INFRASTRUCTURE

Proposal	Approximate Budget	Time Frames	Lead Role-players and funding source
<p>SI 4) Regulate borehole use to ensure sustainable use of groundwater systems.</p> <p>SI 5) Monitoring ground water resources and implementing effective water reduction techniques when sources are low.</p> <p>SI 6) Ensuring the integrity of valuable rainwater catchment areas and riverine systems are kept clear of invasive plant species or any use that will either degrade the quality or quantity of water available for use.</p> <p>SI 7) Promoting farming techniques that minimise water use.</p>			
<p>SI 8) Lobby the implementation of a Mobility Strategy, even if a reduced service thereof, to provide the most basic level of accessibility.</p> <p>SI 9) Invest in rural pedestrian safety, non-motorised transport networks and scholar transport safety.</p>	<p>Cost of implementation of a mobility strategy between R10 000 000 and R50 000 000 operational subsidy per annum.</p>	<p>Medium to long term</p>	<p>Provincial Department of Transport and Public Works</p> <p>Central Karoo District Municipality</p>
<p>SI 10) Develop and implement a Non-Motorised Transport Master Plan for Beaufort West Municipal area which seeks to identify and invest in the necessary infrastructure to support pedestrian and bicycle movement in the region.</p>	<p>R500 000 to develop plan.</p> <p>Cost of implementation as per plan</p>	<p>Short to medium term</p>	<p>Beaufort West municipality</p> <p>Provincial Department of Transport and Public Works</p>
<p>SI 11) From an infrastructure prioritisation perspective, focus high quality services and infrastructure investments in priority development areas, in support of the CEF and with the aim of reinvigorating the Beaufort Wes CBD.</p> <p>SI 12) Ensure basic level of services to all settlements but discourage the extensive provision of subsidy housing in low growth and low opportunity settlements, where the chance of exacerbating poverty is high.</p>	<p>To be mainstreamed into all infrastructure programmes and masterplans</p>	<p>Immediate and ongoing</p>	<p>Beaufort West Municipality Engineering Departments</p> <p>Beaufort West Municipality Housing or Human Settlements Department</p>
<p>SI 13) The local municipality must prepare and implement an Asset and Infrastructure Maintenance Plan.</p>	<p>R1 500 000.00</p>	<p>2021/22 – 2022/23</p>	<p>Beaufort West Municipality – Engineering Divisions</p>

ENVIRONMENT

Proposal	Approximate Budget	Time Frames	Lead Role-players and funding source
<p>E1) Facilitate the formal protection of priority conservation areas (public and private), as well as the conservation of natural habitats that are not formally proclaimed nature reserves.</p>	<p>To be determined by feasibility study – R500 000</p>	<p>2020 - 2025</p>	<p>Beaufort West Municipality Cape Nature Department of Environmental Affairs and Development Planning SANPARKS</p>
<p>E 2) Implement alien clearing programmes in river systems and catchment areas, specifically Sout Rivier, but others to also be determined by Ecological Infrastructure Investment Framework.</p>	<p>To be determined – multiple agencies currently undertake alien clearing programmes.</p>	<p>Immediate and ongoing</p>	<p>Beaufort West municipality Cape Nature SANPARKS</p>

6.6 ROLE OF THE PRIVATE SECTOR

The following sets out the areas of action where businesses and the private sector could either lead or play a significant role in implementing aspects of the Beaufort West MSDF:

1. As per action SPLUM 2, **scenic asset preservation** will be enhanced both through regulatory oversight of the local municipality (ensuring that approved building typologies and urban design is appropriate to the Central Karoo scale and context) but also the private sector will ensure that appropriate building typologies are built and rolled out in the municipality.
2. Similarly, as per SPLUM 2, new **tourism opportunities**, and enhancement of existing tourism opportunities, will be primarily driven by the private sector, together with creating tourism experiences that reflect and build the Central Karoo brand.
3. As per SI 1, **water conservation** will be achieved both through municipal infrastructure investments, but also through private sector and resident behavioural change. **Water resilience** will require residents, private landowners, and businesses to change their consumption behaviours, use of water and also to use ground water and rainwater responsibly.
4. As per SPLUM 1, much of the **Critical Biodiversity Areas** and riverine systems that need to be **protected or rehabilitated** are mostly located on private farmland. Farmers will play a role in ensuring the integrity of these ecological systems remain intact into the future.

5. As per ED 1, **agri-processing and agricultural expansion** and resilience will be driven by the private sector.
6. **Renewable energy opportunities** will be driven by private sector businesses and Independent Power Producers, on condition that national government set in place the appropriate enabling policy and regulatory framework.

6.7 POSSIBLE PARTNERSHIPS

Key potential partnerships in driving elements of this MSDF forward are:

1. **Town Improvement Plans** and basic urban management improvements within the Beaufort West town centre will require effort, coordination, and partnerships between local municipalities, as the lead organisations, local business, civic organisations, and ratepayer's associations.

6.8 LOCAL AREA PLANNING PRIORITIES

The following sets out the precinct plans and / or Local SDFs (LSDFs) that will need to be developed, or implemented within the next 10-year period, as per this SDF:

1. **Airport Precinct Plan** – to adequately plan for future airport operations, associated auxiliary needs and expansion, as well as related and complimentary uses;
2. Detailed **precinct plans / layout plans** for all numbered sites indicated for urban expansion,

considering existing environmental and topographical constraints, only on the basis that demand is real and not speculative.

3. Detailed precinct plans / layout plans for the proposed industrial expansion area which has now been included in the Urban Edge.

6.9 INPUTS INTO IDP & MUNICIPAL BUDGET PROCESS

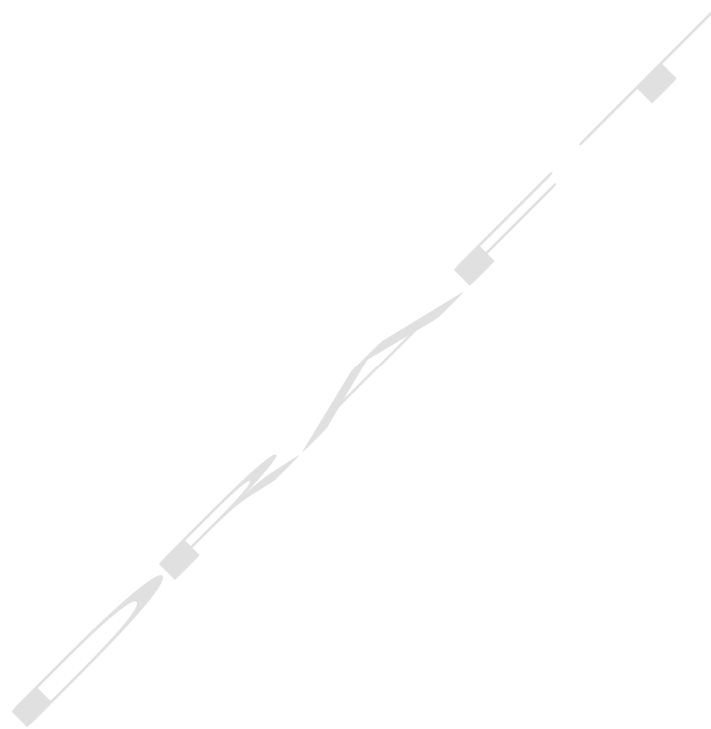
The context, logic and proposals as set out within the Chapter 4 (policy and proposals) as well as the Capital Expenditure Framework (chapter 5) and implementation chapter (chapter 6) – which set out actions and potential partnerships - must be brought into the IDP process and considered for budgeting. Specifically, the IDP and budget should illustrate clearly how the Priority Development Areas, restructuring zones and upgrading areas are being made budgetary priorities. Similarly, infrastructure maintenance and asset care, as articulated extensively in this SDF, must be prioritised in future budgets.

6.10 CONCLUSION

Where the municipality locates its infrastructure spend, its housing, urban expansion opportunities, effort, and programmes to develop or maintain the towns of the region, matters. This is because resources are scarce and therefore to have impact, strategic decisions are required to focus expenditure to maximise impact. This is also to ensure that municipal financial sustainability is advanced, but also to ensure that people are located in settlements that have the legitimate chance of creating employment opportunities and providing access to a range of services and facilities.

The foreseeable future is set to be one of increasing austerity, with continued cuts from National Treasury a likely possibility. The Beaufort West municipality must therefore respond to this sensibly, responsibly and ensure limited resources are spent wisely and strategically.

This SDF has set out the state of the municipality (as articulated in chapter 3), has developed appropriate spatial policy and policy guideline responses (in chapter 4), developed the conceptual foundations of a Capital Expenditure Framework which should be used to inform budget setting and priority setting in the municipality (chapter 5) and has articulated the most important implementation elements in chapter 6.



ANNEXURE A: BEAUFORT WEST URBAN GROWTH PROPOSALS ASSESSMENT FRAMEWORK

In the context of an outdated Long Term Financial Plan for the Beaufort West municipality, any new private land development proposals would have to demonstrate that they not only pay for themselves from a long-term operational perspective but also enhance Beaufort West's efficiency, make a net contribution to the economy, and ensure that land is used productively from a revenue generation perspective. Any development that proposes to extend the urban footprint of Beaufort West or create a new urban or suburban footprint in the municipal area should be deemed satisfactory in terms of these key sustainability concerns before an assessment of desirability can proceed.

It would not be responsible for the municipality, within its MSDF, to speculate on opportunities for new settlement outside of a comprehensive assessment of what such settlement would bring to the table from a development perspective versus what the impacts and costs would be and who would meet these short and long term (capital and operating) obligations and/or mitigate or manage impacts. It is not within the means of the process to prepare an MSDF that considers the full lifecycle implications of such development proposals to inform its recommendations and to subsequently apportion responsibility for the costs for such development in its Capital Expenditure Framework, that would then need to be reflected in the Beaufort West Municipality's Integrated Development Plan and in turn its budget, given that the MSDF is the spatial expression of the IDP. The normal land development and impact assessment procedures must deal with such proposals. Given that the MSDF should, with the IDP, drive the municipality's budget, and spatial form has a direct bearing on the municipality's financial sustainability, an in-principle decision on development in an MSDF cannot be separated from its financial implications.

At the same time, recognising that unforeseen economic prospects or opportunities and/ or new information may arise and a compelling case might be made for economic investment that is able to realise a net return on investment for Beaufort West as a whole, the MSDF does however provide the following framework for decision-makers who may wish to consider proposals for lateral urban growth of the settlements within Beaufort West or new remote/isolated settlement of an urban or suburban nature. The burden being on the proponent to provide sufficient evidence in respect of the conditions set out below and on the Municipality to ensure the objectivity of this evidence.

A. GENERAL CONSIDERATIONS

a) Planning and development regulation in the rural areas of the Beaufort West Municipality will be governed by The Western Cape's Rural Development Guidelines and Spatial Planning Category map which covers most of the rural area under the authority of the Municipality. This framework as far as it pertains to the rural areas, will be an additional regulating tool.

b) The Provincial PSDF principles and policies as they relate to improving the position of municipal financial sustainability through infill and appropriate densification and the need to prevent commercial decentralisation and the associated decline of central business areas are key policies to inform both municipal spatial frameworks and growth management.

c) Where the urban edge has been delineated to protect natural resources (e.g., critical biodiversity / the coastlines) it should not be amended.

d) Arguments regarding poor agricultural conditions will not be accepted as the basis for a review of the urban edge. Arguments regarding the availability of infrastructure will not be accepted as the basis for a review of the urban edge. An agri-village is a privately established and managed settlement situated on private land within a farming area and exclusively accommodates the local agri- worker community. The only circumstances under which an agri-village should be considered include the following:

- i. in a farming area where there is a concentration of agri workers due to the type of agricultural activities and that has a substantial demand for "off-the-farm" settlement;
- ii. areas where there are no established settlements within practical commuting distance (approximately 30km) and a municipality that has no feasible means of establishing and managing a new town;
- iii. In light of the substantial managerial and financial resources required to establish and maintain small settlements, and their potential negative impact on the environment and also due to the relatively short distance between settlements in the Western Cape, the

establishment of agri-villages or new settlements as "off-the-farm" options both have limited applicability in the Western Cape.

B. PERFORMANCE CONSIDERATIONS

Assessing the performance of proposed extensions to the urban footprint of Beaufort West Town, Murraysburg, Nelspoort, Merweville or new remote, isolated settlements of an essentially urban or suburban nature such as agri-villages; eco-estates and other forms of lifestyle residential estates is important to adequately inform decision-makers in order that their decisions:

- a) Do not reinforce / exacerbate or continue segregated settlement patterns;
- b) Do not reinforce / exacerbate or continue inefficient settlement patterns through non-contiguous or leapfrog development;
- c) Do not trigger costly commuting distances (to work, education and health facilities, amenities, and services) for people living or working in these settlements that would rely heavily on private motor vehicle use that would increase carbon emissions and incur prohibitively expensive costs for particularly the poor – effectively leading to economic exclusion or spatial poverty entrapment
- d) Do not trigger unaffordable capital and/or operating cost burdens on the public sector to provide requisite public facilities and/or services in these settlements or to provide the transport for scholars and patients to access facilities elsewhere
- e) Do not exacerbate the Municipality's risk and the associated disaster management costs associated with such risk in respect of securing life and property in the case of extreme events associated with *inter alia* fire, inundation / flooding, coastal erosion by virtue of their location and/or distance from emergency services
- f) Do not compromise the unique character of an area.
- g) Do not compromise the rural economy and/or existing value adding land uses.

- h) Do bring opportunity for the whole existing settlement to improve and prosper.
- i) Are not based on providing in a housing need alone (only) but comply with all the guidelines in this framework.
- j) Protect valuable view corridors, undeveloped ridge lines, heritage assets and existing vistas should not be compromised by any development proposal or cumulative impact of development proposals. The proportion of urban development up the slope of a prominent hill or mountain should not degrade its aesthetic/ visual value.
- k) Do realise tangible economic benefits for the municipality.

C. VIABILITY CONSIDERATIONS.

Assessing the viability of proposed extensions to the urban footprint of the settlements of Beaufort West and remote settlements of an essentially urban or suburban nature such as agri-villages; eco-estates and other forms of lifestyle residential estates is important to adequately inform decision-makers in order that their decisions:

- a) Safeguard the fiscal sustainability of the municipality – in the short term in terms of capital costs and in the long term in terms of operating costs – by ensuring that the development is self-funded in terms of bulk and link servicing requirements.
- b) Ensure that there is no undue subsidisation of services to and in these areas on the part of the existing ratepayers of the Municipality and or the state where this is not of equitable benefit to those most in need of public resources.
- c) Safeguard the long-term sustainability of servicing these settlements to the extent that the public sector is responsible or might reasonably be found to be the default responsible party

- d) Demonstrate tangible social and economic benefits for the municipality and existing settlement residents, balancing the provision of live – work - play opportunities, and securing the financial sustainability of the existing settlement being extended.

D. EVIDENCE REQUIRED

Such development proposals must provide the Beaufort West Municipality with the following:

- a) Evidence as to why the proposed target market of the proposed development cannot be accommodated within the existing urban edge on existing vacant and under-utilised land;
- b) Evidence that the development fulfil the needs and priorities identified in the IDP and does not draw attention and resources away from other priorities
- c) A clear assessment of the impact on bulk services, what bulk services would be required and when these would practically come into operation
- d) Evidence that there is no impact on existing capacity and future capacity being brought on stream by existing infrastructure investment programmes, given service delivery backlogs in the existing built footprint of the city and the need to maintain and upgrade existing infrastructure.
- e) Evidence that landowners and developers within the urban edge, who have acted in alignment with Council policy, with legitimate expectations of obtaining services from the Municipality will not be negatively affected.
- f) Assurance that the development funds the Public Transport Network infrastructure requirements to ensure that access to public transport modes is integrated with the planning and implementation of the development and offered from the outset of occupation of the development
- g) Adequate provision to ensure permanent employment generating activities are part of the development to minimise commuting costs, and that this is not limited to retail which has little local generative impact;
- h) Assurance that such economic land uses are operational from the outset of residential occupation of the development
- i) A signed written agreement committing the applicant (and its successors in title) to the planning, design, construction, and full upfront financing of the following all bulk utility and public transport infrastructure external to the site, in addition to development contribution requirements
- j) Any changes to the terms and conditions of this agreement (including the a. signatories) would need Council approval given the possibility that this would impact financially on the Beaufort West Municipality and as a result impact on its IDP;
- k) An assessment of the operational costs and any other 'hidden costs' of the proposed development to the Municipality and whether these will be retrieved in full by rates and tariff charges based on an understanding of the proportion of landowners within the development that will be liable for such charges and the proportion that will require subsidisation;
- l) Developer commitment to the construction and operation of the full extent of social facilities required by the development, including confirmation on the timing of construction and the period that the social facilities will be operated at the expense of the developer;
- m) Should the development be residential in nature, an inclusive approach must be followed that enables well planned on-site integration. Where state funding is required for housing, an agreement must be in place that specifies:

- a. subsidies obtained for the development of housing will not be used to fund link infrastructure to market housing;
 - b. the number of houses that will qualify for the housing subsidy, and the number of houses to be built for the GAP market, the provisions made for the proposed subsidised units on the Municipality's Housing Plan, pipeline, and three-year capital budget; and the requisite infrastructure. The GAP market is defined as households earning more than R3,500 and less than R22,000.
 - c. assumptions on subsidies (infrastructure, land, and top structure) to be received from the Municipality and discounted development contributions should also be documented;
 - d. the agreed standard of services to be installed.
 - e. the maintenance agreement with respect to state-subsidised housing units which guarantees the infrastructure and associated services for a minimum of five years at the cost of the developer with performance indicators to ensure prompt service delivery.
- n) Should any green or 'off the grid' infrastructure be proposed – evidence that there is no permanent risk of negative impact on environmental systems and services should there be a break in the functioning of these services
 - o) Legal provision that the Municipality will not become obliged by default to service the development in the future should such off the grid systems fail to perform without due provision being made by the landowners to pay the full capital and operating costs of such services
 - p) An assessment of fire risk along the wild land – urban interface must be done and satisfactory mitigation actions identified. Provisions for ongoing maintenance of such actions must be documented and it must be clear how these will be complied with in perpetuity.

This tool aims to assess the long-term operating and capital costs of development to multiple actors. The tool provides a template that can be adapted to cost parameters specific to the Municipality. Importantly, it not only assesses the fiscal impact – the total life-cycle cost incurred by government – but also the financial impact on household budgets and environmental cost.

The CSIR have a geospatial assessment procedure for the calculation and mapping of fire risk along the wild land – fire interface.

E. TOOLS TO ASSIST WITH THE ASSESSMENT

Tools are available to assist the Municipality in these decision-making processes:

- a) The Cities Support Programme's Fiscal Impacts Tool: