Mossel Bay
MUNICIPALITY

SECTION A

STATUS QUO ANALYSIS




MOSSEL BAY SPATIAL DEVELOPMENT FRAMEWORK / ENVIRONMENTAL MANAGEMENT FRAMEWORK

SECTION A - STATUS QUO AND REVIEW REPORT (MAY 2022)

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STATUS QUO AND REVIEW REPORT (MAY 2022)

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MOSSEL BAY SPATIAL DEVELOPMENT FRAMEWORK

STATUS QUO AND REVIEW REPORT (MAY 2022)

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1 INTRODUCTION

1.1 Purpose of the Report

The unique attributes and the intrinsic possibilities of Mossel Bay have been accentuated in many documents - to name a few:

- *Explore endless horizons … 45th Generation IDP 2017-2022*
- *To create a long term sustainable land use pattern… 2018 MSDF*
- *Mossel Bay is a special place … Baumann & Winter, Heritage policy.*
- *Mossel Bay is the origin of modern human capital and the historic capital of the world - Adv De W Lubbe, modern Human Origins, 2018*
- *The Fynbos Biome of Mossel Bay is part of an internationally recognized biodiversity hotspot, with the Diosma Aristata growing only here and occurring only here and nowhere else on earth – various environmental documents.*
- *The Municipality's GDPR increased to R 7.9 billion in 2019, employing more than 36 000 people – Municipal Economic Review and Outlook (Mero) 2020.*
- *With the semi-gration trend and remote working becoming commonplace, more people are moving to areas usually considered holiday destinations, and Mossel Bay is coming up tops for coastal living in the Western Cape, being a "zoom town' enjoying a boom in property sales and rentals (Saturday Star 22 May2021), with quality of life, peace of mind, natural beauty, seaside lifestyle, excellent educational opportunities and other opportunities, strong sense of community and being in a perceived well-managed municipality (SA's financially stable municipality according to Ratings Africa.*

Yet various challenges have been highlighted, including, per example:

- *The expansion of Mossel Bay into any remaining natural vegetation, especially of the endangered Groot Brak Dune Strandveld, would be of biodiversity concern – Growth Options Study (2015).*
- *The uncertainty about Mossgas could result in large-scale job losses – Mero 2020.*
- *As a result of the lockdown regulations owing to the COVID-19 pandemic, the Mossel Bay municipal area's GDPR is expected to contract by 6.5 per cent in 2020 before recovering to 3.5 per cent in 2021. This recovery is, however, not sufficient to restore the economic performance to the same levels pre-2020 lock. – Mero 2020.*

Even though a variety of sources/documents recognized the special character of Mossel Bay, the challenges in the biophysical and socio-economic spheres, exacerbated by the Covid pandemic, require careful strategic planning. Spatially managing these challenges, and the possible solutions thereto is of strategic importance to ensure that Mossel Bay remains a vibrant, sustainable area.

The following Status Quo Report are a key component of the integrated Mossel Bay Municipal Spatial Development Framework / Environmental Management Framework. Against this background the purpose of this Status Quo report is to:

- to identify and analyse the changing socio-economic, biophysical and built environment informants to spatial planning in the Mossel Bay Municipal area; and
- to identify and analyse development shifts and trends, new information and any other spatial information influencing the future development of the Mossel Bay Municipal area, framed specifically by the MSDF content requirements set out in SPLUMA.

The Mossel Bay Municipality, in conjunction with the Department of Environmental Affairs and Development Planning (DEA&DP), compiled the Mossel Bay Spatial Development Framework 2018 (2018 MSDF). The Integrated Development Plan (IDP) Cycle to compile the 2022 Mossel Bay Integrated Development Plan (MIDP) will start in August 2021. Since a Municipal Spatial Development Framework (MSDF) is an important sector plan in the MIDP it must be reviewed/amended or a new MSDF compiled to ensure it is up to date and relevant. The objective is to update the 2018 MSDF in the light of new planning, trends and studies that took place since 2018 as well as to take into account the effect of the Covid pandemic.

In the Status Quo report, the focus is on a clear, strategic and integrated assessment of the key spatial and land use management-related patterns, issues, opportunities and trends in the municipality that have to serve as a framework for an update of the MSDF. The issues identified should provide a framework for the Council to do their long-term strategic planning. It will further be informed by the local needs in each ward as identified in the IDP. The MSDF will give spatial expression to these issues and needs on ground level.

The MSDF review is based on the foundations and directions of the 2018 MSDF which will be acknowledged and quoted where applicable.

1.2 Drafting Process, Timeframes and Participation Structure

In terms of Section 3(2)(ii) of the Mossel Bay Municipality: By-Law on Municipal Land Use Planning, the SDF process must be aligned with the next (2021/22) IDP and Budget Process Plan of Council and the following process has been approved by Council for such purpose:

- Establishment of a Project Committee

- Development of an updated /reviewed Status Quo report. The Council will then approve the mentioned Status Quo document as a base document for the development of the amended SDF;
- The Project Committee will develop a draft SDF, which will be presented to the Municipal Council for approval. The proposed Public Participation Process will also be sanctioned;
- The draft SDF will subsequently be made available for public and interested parties/groups for input during the IDP/Budget Public Participation stage and sent to the Provincial Minister and relevant Departments/entities for comments;
- The Project Committee will consider all comments and representations during the mentioned process and submit a final draft SDF to the Municipal Council for adoption. Should the final draft SDF be materially different from the draft SDF that was public participated, a second Public Participation Process will be followed;
- The final SDF will be presented to Council for adoption, as a component of the IDP and Budget and a notice will be published in the Provincial Gazette and media to inform the public of the adopted SDF.

The aforementioned process is expected to take about 14 months to conclude; from March 2021 to May 2022.

In terms of the EMF Regulations, Environmental Management Framework must include an assessment of the status quo of the geographical area that forms part of the EMF. I.e. The Status Quo Report (EMF Regulations, 2010). The Status Quo Assessment will include a sensitivity analysis, environmental opportunities and constraints of the geographical area.

1.3 Document Structure

The structure of this report, being an update/review of the Status Quo information/data sets which informed the 2018 SDF, is as per the Department of Rural Development and Land Reform Guidelines for Spatial Development Frameworks, with particular focus on how the biophysical, socio-economical and built environments impact on the spatial planning of the municipality. In addition to the analysis of updated input in respect of the aforesaid factors, the institutional/policy framework is sketched to provide a context framework within which the SDF / EMF will be reviewed/updated.

Furthermore, the document will also include the requirements as per the EMF regulations, 2010 and the Department of Forestry, Fisheries and the Environment's EMF Guidelines, 2012.

The document is compiled in three sections for easy refence:

Section A – Status Quo Analysis

Section B – Spatial Strategies and Proposals

Section C – Further Environmental Management Background and Guidelines to inform the EMF component of this document

It is a Municipal GIS-based document which means that all the maps and figures in the three Sections of the report are available on the municipal GIS system for those who want to study certain aspects further.

The document as a whole will throughout be referred to as the SDF / EMF.

2 POLICY CONTEXT AND VISION DIRECTIVES

The SDF strives to align with relevant global, national, provincial and municipal policy and strategic plans, including local strategic plans of the district and neighbouring municipalities; to inform appropriate responses to local spatial development challenges. The majority of the goals set by all tiers of government relate to some aspect of land development, and the spatial manifestation of these developmental solutions, specifically at local SDF level, must reflect the intent of government to build an equitable, sustainable and enabling South Africa.

The documents that have been consulted as part of the SDF review process include:

- International Agreements e.g. the Paris Agreement, Sustainable Development Goals etc.
- Key **national** spatial development policies and programmes, e.g. the National Development Plan 2030, the Draft National Spatial Development Plan and Strategy, Strategic Infrastructure Plans, the Integrated Urban Development Framework, the Spatial and Land Use Planning Act, Municipal Systems Act, Local Government Municipal Planning and Performance Management Regulations, National Environmental Management: Protected Areas Act, National Transport Master Plan 2005-2050, the Breaking New Ground policy, Comprehensive Rural Development Programme, Integrated Cities Development Grant Framework, State of the Nation Address, and also acknowledging the documents/processes which advised the drafting of these plans/programs/policies.
- Key **provincial,** Western Cape, spatial development policies and programmes, e.g. Provincial Spatial Development Framework, Western Cape Land Use Planning Act, Western Cape Human Settlements Framework, Municipal Economic Review and Outlook, Provincial Economic Review and Outlook, Greater Cape Metro Regional Spatial Implementation Framework, Rural Land Use Guidelines, Western Cape Biodiversity Spatial Plan Handbook, OneCape 2040, Western Cape Infrastructure Framework, Western Cape Provincial Land Transport Framework, Development programmes as implemented by different government departments, State of the Province Address; etc. Climate Change Response Strategy, WC Ecological Infrastructure Investment Framework, WC Provincial Air Quality Management Plan, WC Waste Management Plan, Groot Brak Estuary Management Plan, Klein Brak Estuary Management Plan.
- Key **district** level spatial development policies and programmes, e.g. the Eden District Rural Development Plan, Garden Route MSDF, Southern Cape Regional Spatial Implementation Framework, Garden Route Rebuild 2017, adjacent municipal planning frameworks (SDF's and IDP's of George-, Hessequa-, Oudtshoorn-, Kannaland MSDF).
- Key **local**, Mossel Bay Municipality, spatial development policies and programmes, e.g. the Municipal Vision Statement, Integrated Development Plan, Sector Plans, Medium Term Budget, Long Term Financial Plan, Built Environment Performance Plans (BEPP), 100 Resilience Programme and Climate Change Strategy Mossel Bay Municipal Waste Management Plan, Mossel Bay Municipal Air Quality Management Plan.

In the following report sections the content/intent of the relevant acts/policies/programs, as well as some reference to specific elements noted in relation to spatial structure, is discussed. The aim is to determine which policies and directives are applicable to Mossel Bay and the influence thereof on the Mossel Bay SDF.

2.1 Implications of Relevant National Policies & Legislation

2.1.1 The National Development Plan 2030 (NDP)

- Author/institution: National Planning Commission
- Date: August 2017
- Web link to full document: https://www.gov.za/issues/national-development-plan-2030

The National Development Plan 2030 –"Our future – make it work" - is a foundational document for the country focussed on the elimination of poverty and the reduction of inequality by 2030 through uniting South Africans, unleashing the energies of its citizens, growing an inclusive economy, building capabilities, enhancing the capacity of the state and leaders working together to solve complex problems. The focus is on enabling sustainable and inclusive development. Very specific, quantified targets/objectives are set, as it relates to interrelated spheres of society. The NDP sets out some of the key interventions; nearly all of which has spatial application, which seeks to achieve developmental objectives. A large number of objectives are listed under the following headings:

- Economy and employment
- Economic infrastructure
- Environmental sustainability and resilience
- Inclusive rural economy
- South Africa in the region and the world
- Transforming human settlements
- Education, training, health care
- Social protection
- Building safer communities
- Building safer communities
- Governance

The SDF / EMF must illustrate how it actively seeks to support/achieve these objectives at local level. The Mossel Bay spatial reality must endeavour to ensure:

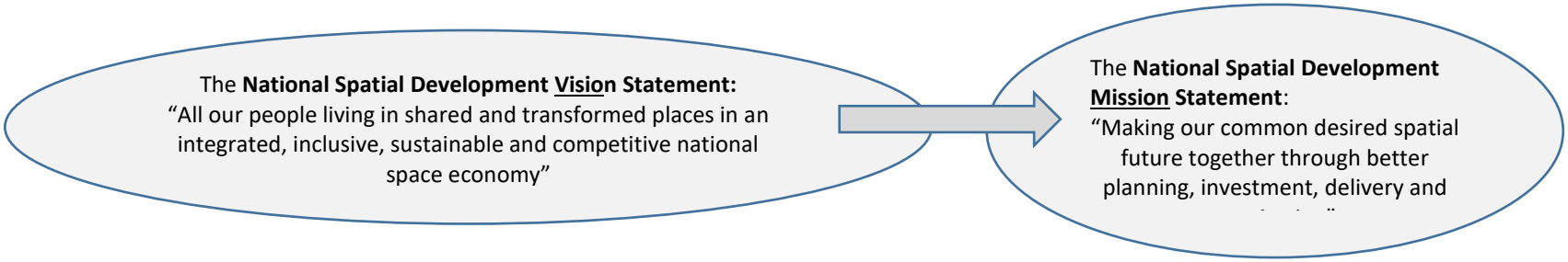
- The transformation of human settlements and the national space economy as set out in Chapter 8 of the NDP;
- Reaching transformational targets by, per example, facilitating measures to ensure that more people living closer to their places of work and/or locating work where people live; better quality public transport; and more jobs in proximity to townships.

- Actions to be taken, including desisting from further housing development in marginal places, increasing urban densities and improving the location of housing, improving public transport, incentivising economic opportunities in highly populated townships, upgrading informal settlements and fixing the gap housing market.
- Activation of inclusive rural economies through the stimulation of small-scale agriculture, tourism, infrastructure investment and social service delivery (Chapter 6).
- Investment in economic infrastructure including the roll out of fibre-optic networks in municipalities.is highlighted in Chapter 3.
- Improving education and training, through inter alia a focus on expanding early childhood development (ECD) and further education and training (FET) facilities.
- Building of safer communities (Chapter 12) including, by implication, improving safety through sound urban design and investment in the public realm.
- Building of environmental sustainability and resilience (Chapter 5) with a strong focus on protecting the natural environment and enhancing the resilience of people and the environment to climate change.
- Actions that include an equitable transition to a low-carbon economy (which would inter alia imply making settlements more efficient) and regulating land use to ensure conservation and restoration of protected areas;
- Acknowledgment of the spatial inefficiencies that characterizes existing settlements and comment to apply the intent/policies as per the National Spatial Framework.

While the NDP is an extensive plan with a significant volume of detail, SDFs are envisioned to be local tools through which each and every intervention/objective of the NDP should be accommodated to ensure that the intent of these policies/measures are felt by South African citizens. The MSDF must illustrate how the abovementioned aspects are practically translated to spatial development/ land use form in the implementation of the IDP objectives.

2.1.2 The National Spatial Development Framework (NSDF)

- Author/institution: DRDLR, approved 22 March 2022
  Web link to full document: https://drive.google.com/drive/folders/1iLD0lQncA_BUanMMORX3J2rq6JXFbSdM?usp=sharing



The NDP recognises that *overcoming our triple challenges of inequality, unemployment and poverty lies in transforming our physical space*. In doing so, it recognises that tackling the triple challenges means:

- Fundamentally *disrupting and undoing* inherited and persisting (1) colonial and apartheid economic, social and spatial investment logics, and (2) their resultant spatial forms and land-use patterns, which in turn impede inclusive economic growth and spatial transformation;
- Making radical changes *in* and *to* space; and
- Introducing a *national inclusionary economic growth and spatial transformation-focused investment and spending logic* that all spheres and sectors of government can (1) *buy into*, (2) *drive forward,* and (3) be *assessed on*" (NSDF 2019)

The foundation for the National SDF consists of five frames. These emanate from the NDP 2030 priorities, the National Spatial Development Vision and Logic as well as development issues identified through the analysis process. The five frames formed the foundation for the formulation of a National Spatial Development Framework. The five frames are listed below:

Frame One: Urban Regions, Clusters and Development Corridors as the engines of national transformation and economic growth; to focus and sustain national economic growth, drive inclusive economic development and derive maximum transformative benefit from urbanisation and urban living.

***Frame Two*: Productive Rural Regions and Regional Development Anchors as the foundation of national transformation: To ensure national food security, rural transformation and rural enterprise development and quality of life in rural South Africa through a set of strong urban-rural development anchors in functional regional-rural economies**

***Frame Three*: National Ecological Infrastructure System as enabler for a shared and sustainable resource foundation: To protect and enable sustainable and just access to water and other national resources for quality livelihoods of current and future generations.**

Frame Four: National Connectivity and Economic Infrastructure Networks as enabler for a shared, sustainable and inclusive economy: To develop, expand and maintain a transport, trade and communication network in support of national, regional and local economic development.

Frame Five: National Social Service and Settlement Infrastructure Network in support of national well-being: To ensure effective access to the benefits of high-quality basic, social and economic services in a well-located system of vibrant rural service towns, acting as urban-rural anchors and rural-rural connectors

The above five frames imply a shift in the spatial logic which, among others, will lead to the following spatial changes:

- Recognising our settlements as 'our new gold', and establishing a new, renewable **people and place-based economy** based on human interaction and ingenuity in quality urban spaces, and no longer a finite, ecologically-unfriendly mineral and metals resource-extraction driven economic model;
- Reframing the old logic of cities as 'engines of growth' in service of capital, to '***cities as engines of radical transformation*** *in service of inclusive, people-focused, people-driven development and transformation',* and unleashing the enormous opportunities they offer for (1) the human-to-human services sector, (2) the innovation, knowledge-creation, valorisation and sharing sector, (3) the culture, entertainment and restaurant sector, and (4) the domestic and international tourism sector;
- Optimising the **dividend** of the millions **of young South Africans** that will be entering higher education, and be (1) gaining new insights, (2) 'making new sense' of the world, and (3) developing new forms of knowledge;

- Recognising cities as democratic spaces in which millions of economic activities and transactions take place and *can* take place, and in doing so, have the power to disrupt and destroy the highly concentrated, monopolistic **nature of our economy**;
- Emphasising the need to develop a new kind of city in which ***public space*** can become a key driver of a new '***people's economy*** *from below*';
- Pursuing a **denser, smaller, polycentric system of settlements** that has (1) a smaller footprint, and (2) spans urban and rural areas;
- Making a clear distinction between the roles and capacity of different **types of settlement** on the national settlement network; and
- Recognising the need for the **future-proofing of cities** as sites of human innovation in becoming active participants in, and not victims of the era of Artificial Intelligence (AI) and the 4th Industrial Revolution.
- Recognising the need to develop and **strengthen regional-rural systems** in the pursuit of vibrant**, inclusive and sustainable rural** development;
- Pursuing the identification, development and strengthening of '***regional development anchors'*** in rural areas, to (1) *connect urban to rural areas* in mutually-beneficial ways, and (2) act as catalysts for *regional-rural development*;
- Developing a systems-based '*polycentric* ***rural service-delivery network'*** around regional developments anchors and carefully selected '*rural service towns*', to provide quality public services, and ensure far greater levels of rural-to-rural interaction and local economic development;
- Exploring the delineation of 'rural edges' in rural areas to ensure the **protection of** (1) the unique, intrinsic qualities of **our rural areas**, (2) the **cultural, customary and historical value** they have, and (3) the often highly **sensitive ecosystems** they harbour;
- Pursuing ***intra-rural trade*** as core systemic and social glue/cohesion-activity between villages and towns in rural areas, and *not shopping malls,* which at core are little more than 'one-sided- extraction transaction points'; and
- Pursuing greater resilience of **rural areas** through **diversification**, in so doing ensuring that they are not and do not become 'single economic sector' places.

The resultant Draft NSDF, relates to a policy document and an interrelated spatial plan, which indicates that:

- Mossel Bay, together with George, Oudtshoorn, Swellendam and Knysna are identified as "**Regional Development Anchors**", as part of a national "network of consolidated, transformed and well-connected national urban nodes, regional development anchors, and development corridors that enable South Africa to derive maximum transformative benefit from urbanisation, urban living and inclusive economic development"
- Mossel Bay lies within a "**Key National Coastal Corridor**" along the N2 (key regional road) and is reflected as a "**main import- export node**",
- **the towns falls in the "Eco resource production region",** with an **"**Agri Enterprise and small scale farming resource region" in the northern regions)

- Mossel Bay is not deemed part of one of the 11 Urban Regions, nor part of the Transformation corridors. The Southern Cape does not include a national node. Neither is Mossel Bay does not form part of the National Inter-Regional Road- and rail corridors. Rail is prioritized, over road transport for freight. IPAP and NATMAP 2050 to be read with the NSDF;
- The Smart re-Industrialization approach/program ; focus on east-of SA due to increasing drought in western and north western part of the country; The vision for the eastern part of the country relates to :" the enormous agriculture, industrial and settlement development opportunities", to be unlocked by massive land reform programs
- There is an emphasis on creating "**strong vibrant cities**", including mixed-use buildings, strong pedestrian and cycling friendly activity streets, solar and wind generation, rooftops used for arts/restaurants, tourist attractions, fewer cars in the street, cycling, electric busses, small shops, public spaces, arts and culture academies, research- and educational institutions etc.
- With respect to '**A good life in rural South Africa'**, strong rural regions with trade connections between smaller places and carefully chosen rural service centres are envisaged. Government launched its grant-funded '*National Spatial Restructuring Priority Plans*-focus on developing '*functional rural regions'* throughout rural South Africa, using social services wheel, which aims to provide a hierarchy of facilities in rural areas, including fast internet (Communications network) everywhere and "
- The growing movement of millions of **retired South Africans to rural areas** is acknowledged- with the associated "economies of these places have been given a strong and stable financial injection."
- In terms of the envisaged **National System of Nodes and Corridors (Draft NSDF-Sub Frame** 2), settlement development, both in urban and rural South Africa, must be undertaken in such a way that it (1) increases development density, (2) reduces urban sprawl, (3) prevents the unsustainable use of productive land, and (4) optimises investment in infrastructure networks;
- Inclusive **economic development, livelihoods, land and housing** is a specific developmental objective accordance with this objective, *municipalities, supported by provincial and national government sector departments,* must:
    - Prepare and implement appropriate local and regional economic interventions;
    - Enable and support a wide spectrum of livelihood opportunities;
    - Ensure timeous identification, acquisition and release of well-located land; and
    - Make provision for a diverse range of *housing options* for a diverse range of *household types;*
    - In *rural settlements,* it is imperative that (1) environmentally-sensitive settlement planning be undertaken, (2) *'rural design'* be introduced, and (3) viable, new agri-eco-focussed enterprises be established and existing ones supported.
- Social services and settlements: If South Africa is to meet the social needs of its *very young*, but also *increasingly older* population, then a rational process of providing social infrastructure is required. The NSDF is therefore underpinned by a ***'national spatial social service provisioning model'*** *(Social Services wheel)'* in terms of which social services are provided in accordance with the (1) role and (2) service-reach of the type of settlement on the national settlement network. This system provides the basis for guiding investment in infrastructure and social services, especially by national sector departments;
- The availability, affordability, safety and quality of **mass public passenger transport** must drastically be improved.

- **Water availability:** Given the dire water situation, water demand must be curbed, water sources must be augmented, and the little water we have, be protected from loss through well-maintained infrastructure. In addition to this, (1) our **ecological infrastructure** must be **protected** and its use be well managed, and (2) **new settlement development must be restricted** and **existing settlement growth carefully managed** in water-stressed catchments and regions.
  Figure 1, presenting the national system and nodes and corridors, shows that Mossel Bay is located on the National Coastal corridor between Cape Town and Port Elizabeth / Gebregha.

As noted, Mossel Bay is identified in the NSDF as a **Regional Development Anchor.** The NSDF states:

- Prioritise and strengthen strategically located regional development anchor towns in productive rural regions and priority national development, trade and transport corridors to provide (1) a range of services within the specific towns/cities and the surrounding network of settlements and productive rural regions • Support and strengthen strategically located regional development anchors through (1) targeted settlement planning and development, (2) higher-order social infrastructure provision, and (3) focused support for small and medium-sized enterprise development, industrialisation and economic diversification.

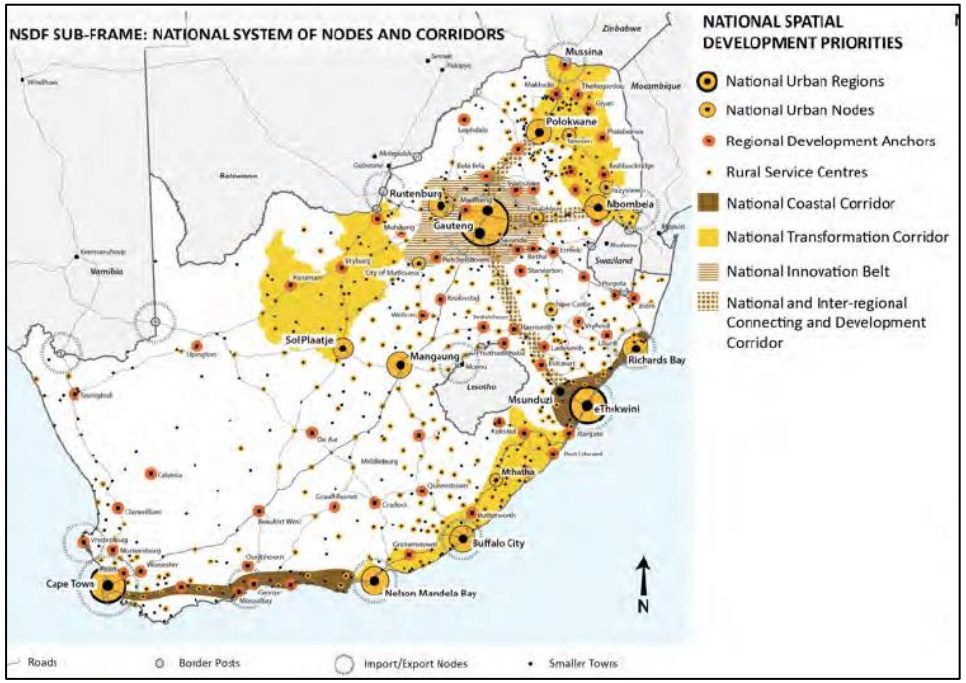


Figure 1: National System of Nodes: Spatial Development- and Investment Priorities (NSDF Extract Figure 4.1)

- Use the investment and enhanced social service provision in regional development anchors to encourage officials working in these rural regions to stay in these settlements and contribute to the local economy, instead of commuting to larger towns or cities on a daily or weekly basis.
- Clearly identify the role of specific settlements as gateways and interchanges on the regional public transportation network, and incorporate these as such into the planning of functional rural regions.
- Strengthen the connectivity of traditional areas and rural settlements with (1) higher-order urban *settlements*, and (2) *economic systems* in functional rural regions, by making use of the road and rail network and regional corridor development.
- Plan social infrastructure provision within a regional-rural setting using the 'social services wheel', and use such investment to establish and create well-functioning, compact, lively, rural settlements and regional rural systems
- Strengthen and Consolidate Existing Regional Development Anchor Towns, e.g.: Bigger nodes in denser regions, such as Mossel Bay.

- There are a number of Rural Service Centres within the Mossel Bay area, including Brandwacht, Freimersheim and Herbertsdale. The Spatial Development and Investment Guidance and priority guide/table, notes, in respect of these smaller rural nodes that rural development must be supported through a hierarchical network of prioritised service centres where people in rural areas and settlements can optimally be provided with core municipal services, social and government services, and where rural logistics and support can be provided to optimally support rural development. In arid areas and areas experiencing a decline in population, settlements must be consolidated and maintenance prioritised in such core towns. In areas that are ecologically-sensitive and that experience harsh climatic conditions, new settlement must be discouraged.
- Mossel Bay falls within the **National Coastal Development Corridor**, which implies:
  - The *Coastal Growth and Development Corridor* along the eastern and south coasts (N2) is supported as an area of strong interconnection between high-value **rural resource production, ecological resource regions, popular tourist destinations,** comfortable climatic zones and urban nodes.
  - This corridor also provides opportunities for the consolidation of existing cities supported by well-developed multi-modal connectivity infrastructure. This requires that:
    - Port and airport development be strengthened in support of inter-regional trade flows and efficiency;
    - Small harbour development in support of the fishing, tourism and maritime economy at identified coastal regional development anchor and rural service centres be maintained, expanded and accelerated.
- Climate change requires ***innovative agricultural adaptation***, and may open up opportunities for new economic activities in some regions, notably in the *area of solar energy generation*.
- NSDF Sub-Frame Four relates to the National Movement and Connectivity Infrastructure System. Mossel Bay is not on the main national movement corridor, nor is it connected to the main rail corridors. The N2 does, however, provides **regional connectivity** and forms the spine of the coastal corridor. The NSDF, nonetheless, places emphasis on:
  - ***Logistics hubs, ports*** *(airports and harbours) and border posts are maintained and expanded,* as and where necessary, to keep pace with national economic growth and reduce delays at ports. Note that Mossel Bay is not noted as a priority port;
  - ***ICT networks*** are extended to the whole country with national corridors, urban regions, cities, regional development anchors, and rural service centres being prioritised, and the rest of the country incrementally covered over time.
  - **Energy-transmission networks:** Maintenance of the national electricity grid infrastructure is crucial and timeous expansion of the network must be done as and where required from *a national development perspective*. Where new sources of energy are to be introduced to the national energy mix, the following should be observed:
    - ***Solar and wind****:* Production is to be located in close proximity to the national grid or users, and in distributed networks in low-density areas/small remote towns where it should be delivered though small scale distributed networks;
    - ***Nuclear****:* If supported, power stations must be located in close proximity to large water bodies (for cooling) and the existing national distribution network; and
    - ***Gas:*** Gas pipelines must be spatially located in such a way that they do not encumber, but support national economic development.

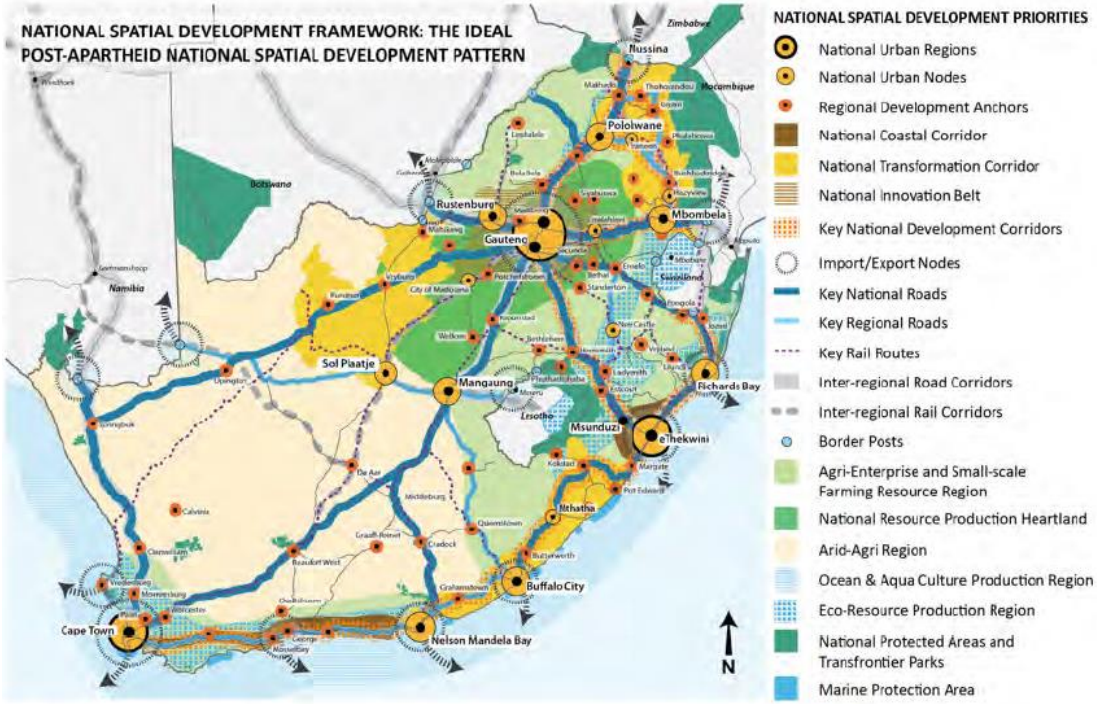


Figure 2: NSDF Spatial Development Priorities (Extract of the Draft NSDF 2019):

2.1.3 Spatial Planning and Land Use Management, Act 16 of 2013 (SPLUMA)

- Author/institution: DRDLR
- Date: August 2013

Web link to document: https://www.gov.za/documents/spatial-planning-and-land-use-management-act

It is noted that the PSDF is currently in the process of being amended and that a comprehensive review will be conducted in 2024.

The Spatial Planning and Land Use Management Act, Act 16 of 2013 (SPLUMA) provides the legislative foundation for all spatial planning and land use management activities in South Africa. It seeks to promote consistency and uniformity in procedures and decision-making. Its policy objectives aim to address historical spatial imbalances and embed the principles of sustainable development into land use and planning regulatory tools, and legislative instruments, such as SDFs and their supporting tools, such as zoning schemes. SPLUMA establishes a process to develop an SDF, as well as the minimum content requirements of an SDF. An SDF must achieve the following:

• Create, and be informed by, a long term spatial vision;
• Guide the planning of all spheres of government;
• Identify risks associated with particular developments;
• Identify and quantify engineering infrastructure needed for future growth; and
• Provide the spatial expression of the coordination, alignment and integration of all sector plans.

SPLUMA requires that the MSDF should include the following:

- A 5-year spatial plan for the municipality, specifically geared towards implementation of the IDP, in such a manner that the SPLUMA principles are visibly realized and actively working towards achieving the NPD, NSDF, PSDF, DSDF goals in a spatially measurable way
- A 10-20 year spatial vision for the pattern of growth and development of the municipality.
- The structuring and restructuring elements of the spatial framework (e.g. development corridors)
- An understanding of expected growth, housing demand, urban-rural interconnectivity, economic outlook and job creation and where this will be accommodated
- The implications for infrastructure provision over the 5-year period
- Environmental pressures and opportunities, including critical and vulnerable resources, agricultural land and coastal access
- Identification of areas where detailed local plans are needed
- Implications of the SDF for land use management
- An implementation plan which should include all details of actions required to realise the SDF
- A capital expenditure framework

In addition to the policy directives provided by the NDP, SPLUMA provides five guiding principles that have to be used and observed in all spatial planning processes at all scales, being the following:

- **Spatial Justice:** *A need to:*
  - Ensure redress in terms of access to the economic opportunities and locational benefits that the country and its cities, towns and rural areas offer, including well-located, productive land;
  - Include inclusion of previously excluded areas in the national space economy; and
  - Pursue intergenerational justice in (1) the location and pattern of settlement development, and (2) the use of natural resources;
  - In the broadest sense, it seeks to promote the integration of communities and the creation of settlements that allow the poor to access opportunities.

- **Spatial Sustainability:** *A need to:*
  - Ensure national spatial development within the limits of the natural resource base of the country – now and in the future;
  - Pursue the development of viable settlements and sustainable economies; and
  - Pursue a more concentrated, well-connected and more compact national footprint, to increase access to opportunities for all, and reduce (1) use and wastage of natural resources and State finances, and (2) the need for motorised transport;
  - Spatial Sustainability essentially refers to a sustainable form of development. A part of this means promoting less resource consumptive development typologies, 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. A core component of spatial sustainability ultimately seeks to limit urban sprawl

- **Spatial Resilience:** *A need to:*
  - Proactively minimise risks to settlements through the considered selection of the location and pattern of settlement development;
  - Develop settlements in ways that reduce their dependency on carbon-based fuels and grid-based energy-distribution systems, as and where possible, to mitigate and reduce their climatic impact;
  - 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 a long-term adaptation to ensure increased resilience in terms of future shocks (United Nations Office for Disaster Risk Reduction, 2009)..

- **Efficiency:** *A need to:*
  - Optimise the use of all State and non-State resources, and minimise the negative impacts of settlement development, wherever it is done and whatever spatial form it takes;
  - Diversify and densify settlements to reduce transactional costs and the need for motorised transport;
  - Efficiency refers to the need to create and restructure our settlements in order to optimise the use of space, energy, infrastructure, resources and land. Inherent in this statement is the need to promote densification and urban (as opposed to suburban) development typologies either in new build or retro-fitting exercises, gradually over time. Efficiency also has to do with the manner in which the settlement itself is designed and functions; which ought to reduce the need to travel long distances to access services, facilities and opportunities.
  - Efficiency also refers to decision-making procedures which should be designed to minimise negative financial, social, economic or environmental impact

- **Good Administration:** *A need to:*
  - Pursue coordination, integration and spatial alignment in all forms of government spatial planning, budgeting and investment;
  - Ensure maximum participation and active engagement in spatial planning and settlement building, grow the local economy and tax base, and build social cohesion; and
  - Ensure adherence to the law, notably SDFs and municipal Land Use Schemes (LUSs), to ensure that the social, spatial and economic benefits of good spatial planning materialise;
  - 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. Furthermore, '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 the abovementioned five principles and seek to jointly guide all actors in space.

SPLUMA was introduced to "*provide a framework for spatial planning and land use management*" in South Africa. As such, it not only seeks to attend to and rectify the fragmented, unequal and unfair apartheid planning system inherited from the Apartheid era, but also its consequences in space. As in the case of the IUDF, this means the active pursuit of (1) *spatial transformation* and (2) *social and economic inclusion*, to ensure *equal access for all* to the services, amenities and opportunities that are *well-planned, well-functioning and well-managed* urban and rural settlements offer. Core in this regard is the introduction of single, uniform spatial planning and land use management systems in municipal areas that include places previously excluded from such systems. Being framework legislation, it seeks to provide "*principles, guidance and norms and standards*" for planning in the provincial and municipal spheres of government. SPLUMA furthermore mandates the preparation of "*Spatial Development Frameworks*" (SDFs) by all three spheres of government, including the "*National Spatial Development Framework*".

2.1.4 National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA)

The National Environmental Management Act, 1998 (Act No. 107 of 1998), commonly referred to as NEMA, is a framework law that gives effect to the environmental right in the Constitution. Chapter 5 of NEMA sets out the objectives of integrated environmental management and provides, among other things, for the listing of activities that may not commence without an environmental authorisation. Section 24 (which forms part of Chapter 5) of NEMA states that in order to give effect to the objectives of integrated environmental management, the potential impact on the environment of listed activities must be considered, investigated, assessed and reported on to the competent authority charged with granting environmental authorisations. The process of doing so is commonly referred to as Environmental Impact Assessment (EIA). Section 24 also allows the Minister of Environmental Affairs and Members of the Executive Council (MEC) responsible for environmental affairs in the nine provinces, to compile "*information and maps that specify the attributes of the environment in particular geographical areas, including the sensitivity, extent, interrelationship and significance of such attributes*…".

Specific Environmental Management Acts:

- National Environmental Management: Integrated Coastal Management Act, 2008 (Act No.24 of 2008);
- National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008)
- National Environmental Management: Air Quality Act, 2004 (Act No.39 of 2004)
- National Environmental Management: Protected Areas Act, 2003 (Act No. 57 of 2003)
- National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004)

2.1.5 NEMA Environmental Management Framework Regulations, 2010 (EMF Regulations)

The purpose of the EMF Regulations is to provide the Minister or MEC with the concurrence of the Minister to initiate the compilation of information and maps referred to in section 24(3) of the Act specifying the attributes of the environment in particular geographical areas; for such information to inform environmental management; and for such information and maps to be used as environmental management frameworks in the consideration, as contemplated in section 24(4)(b)(vi) of the Act of applications for environmental authorisations in or affecting the geographical areas to which those frameworks apply.

2.1.6 An Overview of Environmental Management Frameworks

A primary objective of an EMF is to support environmental decision-making, not only for environmental authorities such as the DEA&DP, but also for other authorities whose decisions could have environmental implications. It is particularly important to have close liaison with the municipality during the development of the EMF.

The National Environmental Management Act (Act 107 of 1998, as amended) commonly referred to as NEMA is a framework law that gives effect to the environmental right in the Constitution[1]. Chapter 5 of NEMA sets out the objectives of integrated environmental management and provides, among other things, for the listing of activities that may not commence without an environmental authorisation. Section 24 (which forms part of Chapter 5) of NEMA states that in order to give effect to the objectives of integrated environmental management, the potential impact on the environment of listed activities must be considered, investigated, assessed, and reported on to the competent authority charged with granting environmental authorisations[2]. The process of doing so is commonly referred to as environmental impact assessment (EIA). Section 24 also allows the Minister responsible and the Members of the Executive Councils responsible for environmental affairs (MEC), to compile "*information and maps that specify the attributes of the environment in particular geographical areas, including the sensitivity, extent, interrelationship and significance of such attributes…*"[3]

The EIA Regulations gave further effect to section 24 when it came into effect on 3 July 2006 (GN 385, 386 and 387 of 21 April 2006). These Regulations replaced those promulgated in 1997 under the Environment Conservation Act (Act 73 of 1989). The "information and maps" referred to in section 24(3) of the Act were defined in the 2006 EIA Regulations as an EMF. Chapter 8 in the 2006 EIA Regulations dealt with EMFs. The 2006 EIA Regulations were repealed and replaced with the 2010 EIA Regulations, which came into effect on 3 July 2010 (GN 543, 544, 545 and 546 of

1 See section 24 of the Constitution of the Republic of South Africa, 1996.

2 Section 24(1) – This is typically the environmental authority (provincial or national) or any other Minister as specified in the EIA Regulations published in terms of section 24 of NEMA.

3 Section 24(3) of NEMA.

18 June 2010). These Regulations included, for the first time, a Listing Notice 3 which included various activities in sensitive locations as specified by the respective provinces. In addition to Regulations relating to EIAs, EMF Regulations were promulgated separately (GN 547 of 18 June 2010).

The 2010 EIA Regulations have been repealed and replaced with the 2014 EIA Regulations (Government Notice (GN) R 982, 983, 984 and 985 of 4 December 2014). These new regulations came into effect on 8 December 2014. In addition, Exemption Regulations (GNR 994 of 8 December 2014) and Appeal Regulations (GNR 993 of 8 December 2014) were also published. Further amendments to the EIA Regulations, 2014 came into effect on 6 April 2017. Amended 2014 EIA Regulations promulgated in terms of the NEMA, Act No 107 of 1998 GNR 324, 325, 326 and 327 on 07 April 2017, Government Gazette 40772, 07 April 2017.

- What is the legal standing of an EMF?

This section deals with the question of whether there is a legal obligation to implement and adhere to an EMF. The legislation states the following:

1. Section *24(3) of NEMA*: "*The Minister, or an MEC with the concurrence of the Minister, may compile information and maps that specify the attributes of the environment in particular geographical areas, including the sensitivity, extent, interrelationship and significance of such attributes which must be taken into account by every competent authority.*"[4]
2. Section *24(4)(b)(vi) of NEMA*: Procedures for the investigation, assessment and communication of the potential consequences or impacts of activities on the environment must include, with respect to every application for environmental authorisation, the "*consideration of environmental attributes identified in the compilation of information and maps contemplated in subsection (3)*". This creates an obligation for an applicant to consider any applicable EMF when investigating, assessing, and communicating to the competent authority the potential impacts of activities on the environment. The EMF Guideline, 2012, prepared by the Department of Environmental Affairs (DEA - formerly DEAT) states that "*EMFs provide applicants with an early indication of the areas in which it would be potentially appropriate to undertake an activity*".
3. *Section 24O(b)(v) of NEMA*: In terms of this section the competent authority must consider all relevant factors, which may include "*any information and maps compiled in terms of section 24(3), including any prescribed environmental management frameworks, to the extent that such information, maps and frameworks are relevant to the application*". Arguably, where an EMF has been drafted, this should be considered to be a "relevant factor" and must accordingly be considered.
4. Regulation 2(1)(c) of the 2010 EMF Regulations: When considering an application for an environmental authorisation the environmental authority is required to (i.e., must) take an EMF into consideration.
5. Regulation 5 of the 2010 EMF Regulations: An EMF may be adopted by the MEC in concurrence with the Minister[5]. Where an EMF has been adopted it must be considered in the consideration of applications for environmental authorisation in or affecting the geographical area to

[4] "competent authority", in respect of a listed activity or specified activity, means the organ of state charged by this Act with evaluating the environmental impact of that activity and, where appropriate, with granting or refusing an environmental authorisation in respect of that activity;

[5] Regulation 5(1) of the 2010 EMF Regulations

which the framework applies.[6] The Regulations also allow for EMFs to be considered even if not adopted by the MEC in concurrence with the Minister[7] but the terminology used in this case is less definitive, as follows: "*may be taken into account in the consideration of environmental applications if such environmental management framework complies with the content requirements as stipulated in regulation 4 and the development of such EMF complied with the process requirements as stipulated in regulation 3*".

In summary, in the case of the competent authority responsible for environmental obligations, the EMF must be considered if it is an adopted EMF in terms of regulation 5(1) of the 2010 EMF Regulations. Similarly, in undertaking EIA processes, EAPs must consider proposed developments in the context of the EMF. Such consideration should be explicitly indicated in the reports. Although there is no specific obligation placed on other organs of state to apply or use EMFs in their planning and decision-making processes, section 2(1) of NEMA does state that: "the principles set out in this section apply throughout the Republic to the actions of all organs of state that may significantly affect the environment." In instances where an EMF is in place, this should assist an organ of state in taking account of the NEMA principles in relation to actions that could have a significant environmental impact.

- What is the purpose of an EMF?

Given the relatively broad definition of "environment" in NEMA as well as the growing recognition that the development path of the country needs to be shifted onto a more sustainable footing, EMFs must be used to support the goal of sustainability. This is acknowledged in Regulation 2(3) the EMF Regulations as follows (Regulation 2(3) where it is stated that EMFs are aimed at (a) promoting sustainability; (b) securing environmental protection; and (c) promoting cooperative environmental governance.

Furthermore, in terms of section 24(2)(b) and (c) of NEMA are also intended to assist the environmental authorities in determining the following:

- Whether there are any activities within the geographical area that may not commence without environmental authorisation in light of environmental attributes (section 24(2)(b)). These are referred to as specified activities.
- Whether there are any activities within the geographical area that may be excluded from having to obtain environmental authorisation in light of environmental attributes (section 24(2)(c)), in which case such activities must meet required norms and standards (section 24(2)(d)).

In summary, therefore, the **objectives of the EMF** are to provide:

1. A framework to facilitate the pursuit of a sustainable development path in the geographical area with which it is concerned, specifically in relation to land use and development.

[6] Regulation 5(2) of the 2010 EMF Regulations
[7] Regulation 5(3) of the 2010 EMF Regulations

2. A comprehensive and integrated information base on the environmental attributes of an area and their sensitivity, together with management information in respect of these attributes (e.g., limits of acceptable change, thresholds, management objectives).
3. A tool to support the identification of issues that require consideration/investigation in an EIA process through referring to the information base of environmental attributes.
4. A decision-support tool for environmental authorities when considering environmental applications in terms of section 24 of NEMA and the associated EIA Regulations.
5. Guidance to applicants with respect to the appropriateness of development or land use proposals and to any professionals that are assisting in the application process, particularly in the environmental and planning fields.
6. Assistance and support to other authorities in the consideration of environmental factors in their decision-making processes, especially where these are concerned with the use of land and resources.
7. Support for cooperative governance, particularly as regards land and resource use planning and development.

An EMF comprises a set or compilation of information maps showing the environmental attributes or characteristics of an area. These maps must show information that is important for planning of development and for decision-making purposes about land use and development. The main purpose of an EMF is to support the competent environmental authority, which in the Western Cape is the DEA&DP, in making their decisions in terms of the EIA Regulations. It must also be considered by the DFFE or any other authority that may be designated as the competent authority for certain identified activities as it includes both listed and specified activities and where the application falls within an area for which an EMF has been prepared.

Ideally, the EMF should also be used by other authorities, especially those that are involved in decisions about the use of land (e.g., municipal rezoning decisions, issuing of "plough permits" by the Department of Agriculture). Thus, the authorities would then be using a common information base and goals, which in turn would support the obligation placed on them to give effect to co-operative governance principles.

It must be borne in mind that the EMF is a strategic-level document and thus it does not replace the need for EIAs to be undertaken for projects. The EMF does not replace the Spatial Development Framework (SDF). Ideally, the SDF and EMF documents should be integrated as far as possible. The EMF is concerned with the environmental attributes of an area and the sensitivity of those attributes, with a view to promoting development that is responsive to the prevailing environmental conditions. In this way the EMF can contribute to the objectives of sustainable development.

From the perspective of projects that are subject to the EIA Regulations, the EMF can assist in:

- Assessing a project in the context of the area/region/landscape within which it is located.
- Screening a project proposal in terms of the environmental attributes applicable to its location to determine:
    - the likely environmental issues and thus specialist inputs required;
    - the appropriateness of the proposed project given the attributes of the site and its surroundings;

    - the alignment of the project with environmental management and sustainability objectives;
    - alternatives for assessment.
- Identifying the factors that need to be considered in formulating a development proposal that is responsive to environmental conditions – proactive planning rather than reactive planning.
- Identifying sensitive areas or characteristics that need to be considered and to which the development proposal should respond in a manner that avoids or at least minimises negative impacts in this regard.
- Establishing the need for environmental authorisation in respect of identified activities that are based on their location/position in the landscape. For example, many of the activities in Listing Notice 3 of the EIA Regulations fall into this category and the spatial information on environmental attributes in the EMF provides a reference point for determining whether an environmental application needs to be made or not.

In summary, the EMF is aimed at providing information that can be used by the authorities to support decision-making that will take development in the "right direction." Similarly, applicants can use the EMF to inform their development proposals. The idea is to find the best possible match between protecting resources (i.e., preventing their loss or degradation) on which humankind depends, whilst taking account of the need for development to address pressing social needs such as poverty and unemployment.

- What is the relationship between the EMF, IDP and SDF?

An Integrated Development Plan (IDP) "*must reflect [an SDF] which must include the provision of basic guidelines for a land use management system for the municipality.*"[8] Regulations made under the Local Government: Municipal Systems Act, Act 32 of 2000 (MSA)[9] set out the requirements for an SDF, including that it "must provide a visual representation of the desired spatial form of the municipality…which representation must indicate desired or undesired utilisation of space in a particular area"[10] and "must contain a strategic assessment of the environmental impact of the [SDF]".[11] *Spatial Planning and Land Use Management Act, 2013 (SPLUMA) section 21(j) which states: A municipal spatial development framework must - include a strategic assessment of the environmental pressures and opportunities within the municipal area, including the spatial location of environmental sensitivities, high potential agricultural land and coastal access strips, where applicable*"[12].

An EMF could, therefore, be used to inform the Strategic Environmental Assessment (SEA) or to "determine the desired or undesired utilisation of space in a particular area." This is also supported by section 37(3) of the Western Cape Biodiversity (Act 6 of 2021) which states that "*When a*

[8] Section 26(1)(e) of the Local Government: Municipal Systems Act 32 of 2000.
[9] Municipal Systems Regulations (GNR 459 of 25 May 2001).
[10] Regulation 4(i)(ii) of the EMF Regulations, 2010.
[11] Regulation 4(f) of the EMF Regulations,2010.
[12] Section 21(j) Spatial Planning and Land Use Management Act, 2013

municipality adopts or amends its spatial development framework in terms of the Local Government: Municipal Systems Act in respect of land use matters in areas identified in the Biodiversity Spatial Plan as biodiversity priority areas, it must indicate how the land use planning categories in the spatial development framework have taken into account the desired management objectives in the guidelines contemplated in section 36(e)"[13].

The provisions of the MSA require that the compilers of IDPs and SDFs consider any information contained in a relevant EMF. This conclusion is based on the general obligations of municipalities, as set out in this Act. Sections 23 and 24 respectively require that a municipality must undertake planning that gives effect to its development duties as set out in the Constitution and to its duties in terms of co-operative government. As far as cooperative governance is concerned, the MSA requires that planning undertaken by a municipality must be aligned with and complement the development plans and strategies of other affected municipalities and other organs of state, which would include EMFs developed by an MEC or the Minister.[14] The constitutional duties of municipalities include:

- that development planning gives progressive effect to the environmental right in section 24 of the Constitution;[15]
- that a clean and healthy environment is promoted;[16] and
- that municipalities participate in national and provincial development programmes.[17]

The EMF serves primarily as an environmental decision-making tool for the provincial authority (DEA&DP) but can be used by other decision-makers as well. In the light of the general obligations to harmonise planning instruments and to consider environmental considerations referred to above, a municipality that fails to consider an applicable EMF when compiling or reviewing an IDP or SDF fails to consider a relevant consideration. Under these circumstances, the adoption of the SDF or IDP may well be reviewable in terms of the principles of administrative justice.

Thus, the EMF should be used to inform the SDF since environmental resources are fundamental to development planning or determining how land should be used. Accordingly, the EMF could be incorporated into the SDF as an environmental "layer" or series of "layers" thereby informing the identification of areas suitable/unsuitable for particular land uses. The EMZs determined in the EMF should thus directly inform the spatial planning categories in the SDF. The relationship between the IDP, SDF and EMF is discussed in more detail in Part 3 – the SEMP.

The integration of the SDF / EMF is important in order to have one vision of sustainable development to promote consistent decision-making. This SDF/EMF is one of the first integrated products.

[13] Section 37(3) of the Western Cape Biodiversity (Act 6 of 2021).

[14] Section 24(1) of the MSA.

[15] Section 23(1)(c) of the MSA.

[16] Section 152(1)(d) of the Constitution.

[17] Section 153(b) of the Constitution.

The EIA Regulations 2014 define "urban areas" as "areas situated within the urban edge (as defined or adopted by the competent authority), or in instances where no urban edge or boundary has been defined or adopted, it refers to areas situated within the edge of built-up areas" (EIA Regulations, 2014). There is a difference between "urban areas" in terms of the EIA Regulations, 2014 and "urban edges" in terms of the MSA. "Urban areas" in terms of the EIA Regulations may be defined and adopted only be the environmental authorities, while "urban edges" in terms of MSA may only be defined by Municipalities. In 2012, the Department issued a NEMA EIA Circular 1 of 2012 that defined an "interim urban edge, which means "the current extent of urban development including serviced erven and erven for which rezoning approvals have been granted". This means that erven that were either already lawfully developed as urban development or were already rezoned or lawfully serviced prior to 5 March 2012, are regarded as being within urban areas. The exception is if this Department has adopted different urban areas through the use of, for example, environmental management frameworks. The adoption of the urban edges by the environmental authority based on this EMF will however require further assessment and discussion.

Another consideration is the NEMA. This Act sets out principles that apply to the actions of all organs of state that may significantly affect the environment[18]. The principles include that "there must be intergovernmental co-ordination and harmonisation of policies, legislation and actions relating to the environment." Since the adoption of a development plan is an "action that may significantly affect the environment" the NEMA principles apply to the adoption of plans by organs of state. Thus, development plans such as the SDF should consider any EMF in respect of the area concerned.

The EMF is focused on the environmental attributes of an area. The EMF therefore:

- Recognises that there are important natural resources that need to be retained in order to provide for the needs and ensure the health and well-being of citizens in the municipality in the long-term. These natural resources are important because it is due to their existence that the citizens of the Mossel Bay can have clean air, clean/drinkable water, soil in which to grow crops and pollinators that are needed to produce food. Completely undisturbed natural areas such as wilderness areas and conservation areas are also important not only because of the role they play in keeping resources such as water clean, but also because of their role in human well-being (e.g., spiritual, or cultural significance). The benefits that are provided to humankind by nature are often referred to as "ecosystem services."
- Recognises that citizens value an area based on its important cultural and social resources. These contribute to the "sense of place" and "sense of community." They may also play an important role in the local economy (e.g., tourist attractions).

2.1.7 The Integrated Urban Development Framework, 2016 (IUDF)

- Author/institution: COGTA
- Date: Draft April 2016

[18] Section 2 of NEMA

- Web link to full document: https://www.africancentreforcities.net/wp-content/uploads/2017/05/IUDF-2016_WEB-min.pdf

The Integrated Urban Development Framework (IUDF) is a policy initiative of the Government of South Africa, coordinated by the Department of Cooperative Governance and Traditional Affairs (COGTA) aimed at transforming and restructuring South Africa's urban spaces. The IUDF is guided by the vision of creating 'liveable, safe, resource-efficient cities and towns that are socially integrated, economically inclusive and globally competitive, where residents actively participate in urban life' (the "New Deal'). The IUDF's premise is that jobs, housing and transport should be used to promote urban restructuring as outlined in the NDP.

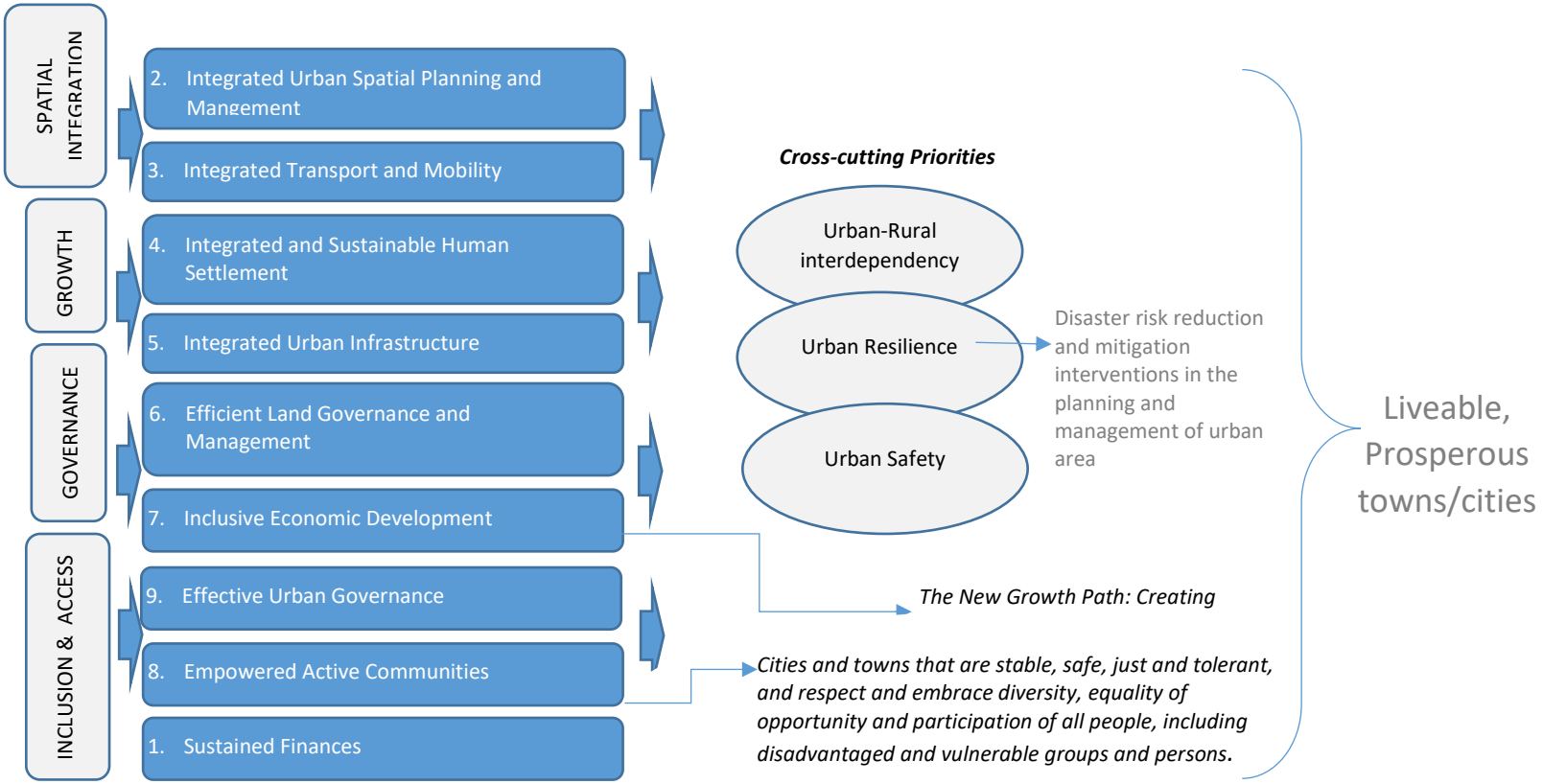
The IUDF advocates the effective management of urbanisation so that the increasing concentration of an economically active population translates into higher levels of economic activity, greater productivity and higher rates of growth, thereby transforming our South African cities into engines of growth. Appropriate/planned densification is advocated.

The key outcome of the IUDF is spatial transformation. The identified policy levers and priorities are crucial for maximising the potential of urban areas, by integrating and aligning investments in a way that improves the urban form. The intention is to retrofit existing city footprints to produce compact, coordinated and connected cities, using transit-oriented and other urban planning strategies to yield desirable social, economic and environmental outcomes, as envisioned in the National Development Plan. This should be done in a way that strengthens rural-urban linkages and promotes urban resilience and urban safety. It should be noted that the implementation of the IUDF is dependent on several critical dependencies, such as a competent and capacitated administration, integrated planning, integrated budgeting, and integrated implementation between all spheres of government and political and administrative will. The IUDF itself recognises these dependencies.

The IUDF consists of five strategic goals with eight related priority development levers for change (as depicted below).

- 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
- Governance: To enhance the capacity of the state and its citizens to work together to achieve social integration.
- Spatial Integration & Transformation: To forge new spatial forms in the settlement, transport, social and economic areas.

These **goals** inform the nine priority **policy levers** of the strategy:



The IUDF makes a strong case for:

- Working with and sharing the urban spaces built up during colonial and Apartheid times; and
- Retrofitting' our urban spaces to optimise their footprint and produce compact, coordinated and well-connected cities and towns;
- Different types and hierarchies of cities and towns exist, with different roles and requirements.
- A multi-faceted *implementation plan is called for,* including short-term interventions, with active participation of a range of stakeholders, including all three spheres and sectors of government, the private sector, NGOs, NPOs and local community organisations.
- Preparation, at IUDF level of a "*Localisation Framework*" for implementation of the global Urban Agenda – in this way advancing the global pursuit of *SDG Goal 11: "Make cities and human settlement inclusive, safe, resilient and sustainable".*

- *The* changing nature of global economic competitiveness, as international measures (e.g. the Kyoto Protocol), come into force to deal with climate change must be anticipated;
- The governance social compact is to be adapted, by giving citizens more scope to shape their own lives, and improving public services and the accountability of public institutions;
- Spatial planning forms the basis for achieving integrated urban development, which follows a specific sequence of urban policy actions
- Integrated transport that informs targeted investment into integrated human settlements, underpinned by integrated infrastructure network system
- Efficient land governance which all together trigger economic diversification inclusion and empowered communities.

Practical measures to creating **efficient urban spaces** should include:

- Reducing travel costs and distances especially for poor people, -
- aligning housing development with land use and transport planning,
- preventing housing development in marginal areas,
- increasing urban densities and reducing urban sprawl, specifically, shift jobs and investment towards dense peripheral townships
- improving public transport, the coordination between transport modes,
- making cities and human settlements inclusive, safe, resilient and sustainable and developing and
- implementing holistic disaster risk management at all levels.

Programmes emanating from the IUDF, such as the proposed Integrated Urban Development Grant focus on intermediate cities and smaller towns, in support of the implementation of the IUDF's objectives.

Inclusive, resilient and liveable cities and towns will result in urban spaces that:

i. Encourage inclusive growth, social cohesion and good governance; protect civic rights and vulnerable populations, enabling their contributions to growth and development; and place local participation and ownership at the centre of city development.
ii. Have growing, innovative economies that create jobs, support diverse livelihoods and activities, respond to social developments, and can anticipate and adapt successfully to challenging conditions.
iii. Are safe, caring and creative, shaped by citizens and government; celebrate diversity; provide universal access to social and other services; and contain accessible public green spaces and affordable housing.

Urban resilience and Urban Safety

Urban areas contain high concentrations of people, homes and other buildings, and infrastructure. This increases exposure to hazards, such as floods, earthquakes, infectious diseases, crimes, fires, transport and industrial accidents. Living free from the threat or fear of violence and crime – is a basic human right and a public good. It is also a necessary condition for realising the intended outcomes of the IUDF, such as spatial transformation, integrated and sustainable human settlements, economic development and job creation, and active citizenship. Inadequately planned/ managed urbanisation, poor access to decent housing and services and socio-spatial segregation

can result in creating unsafe living environments, specifically for the poor and marginalised. A lack of safety in urban or rural areas directly affects socio-economic development prospects.
The 'New Deal' supports **Transport Orientated Development** (TOD). The correct understanding/definition of TOD is imperative. Policy/planning choices should not lead to sprawling, car-dependent cities but to more compact, public transport-oriented urban development.

The IUDF's spatial transformation outcome is anchored around three elements – jobs, housing and appropriate transport – that should be used to achieve the urban restructuring as outlined in the NDP.
The IUDF policy levers should, therefore, help restructure urban space by:

- Reducing travel costs and distances;
- Preventing further development of housing in marginal places;
- Increasing urban densities to reduce sprawl;
- Improving public transport and the coordination between transport modes;
- Shifting jobs and investment towards dense peripheral townships;
- Making cities and human settlements inclusive, safe, resilient and sustainable; and
- Developing and implementing holistic disaster risk management at all levels

The UIDF compels all participants and sectors to actively work towards more compact urban growth, connected infrastructure and coordinated governance and investments.

New Growth Path, the Industrial Policy Framework and Industrial Policy Action Plans, the Strategic Integrated Projects, the National Transport Master Plan 2050 and a range of national plans for human settlement also have bearing on the Mossel Bay context.

With regards to the **national spatial development logic**, Chapter 8 of the NDP, and the IUDF and SPLUMA frame, mandate, allow and guide the changes that need to be made in:

- *Our space economy,* in terms of what we do, where and why, which resources we use, and how we use them, and who participates in, and benefits and gains from these activities; and
- *Our settlements,* in terms of how, and with what outcomes in mind, we plan and invest as a country, how and where we provide which services, and (3) how we sustain these services.

This they do by enabling:

- The *use of spatial development planning to integrate and optimise* all public and private sector infrastructure and investment spending proposals in space, both in the national interest and to the advantage of local spaces and those who live their lives in these spaces; and
- The *radical, decisive and sustainable transformation of our settlements* into productive, liveable and resilient places for all, through wise spatial planning and land-use planning, development and management, and the provision of access to land, economic opportunities and all the other amenities and opportunities that good, quality settlements offer.

Policies must however, be translated to spatial/economic/social reality at all levels, specifically neighbourhood/people level.

2.1.8 The Municipal Systems Act, 2000 (MSA)

- Author/institution: COGTA
- Date: Sept 2000

Web link to full document: https://www.gov.za/documents/local-government-municipal-systems-act

Section 24 of the Municipal Systems Act (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 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. The key message is that planning must be joint, integrated and aligned; and express all spheres of government development plans and programmes within the municipal space. (DRDLR Resource Handbook).

2.1.9 The Local Government Municipal Planning and Performance Management Regulations

- Author/institution: COGTA
- Date: 2001

Web link to full document: https://www.gov.za/sites/default/files/gcis_document/201409/226050.pdf

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 SDFs should seek to achieve. Most importantly, SDF's 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. It should be noted that SPLUMA provides greater detail to these requirements. (DRDLR Resource Handbook).

2.1.10 The National Biodiversity Strategy and Action Plan 2015-2025

- Author/institution: DEA
- Date: 2015

Web link to full document: https://www.environment.co.za/environmental-laws-and-legislation-in-south-africa/south-africa-national-biodiversity-strategy.html

The National Biodiversity Strategy and Action Plan (NBSAP) has endeavored 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. (DRDLR Resource Handbook).

2.1.11 The National Environmental Management: Protected Areas Act

- Author/institution: DEA
- Date: February 2004

Web link to full document: https://www.gov.za/documents/national-environmental-management-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:

- to provide for the protection and conservation of ecologically viable areas representative of South Africa's biological diversity and its natural landscapes and seascapes;
- for the establishment of a national register of all national, provincial and local protected areas;
- for the management of those areas in accordance with national norms and standards;
- or intergovernmental co-operation and public consultation in matters concerning protected areas; and
- for matters in connection therewith. (DRDLR Resource Handbook).

2.1.12 The National Transport Master Plan 2005-2050

- Author/institution: DT
- Date: 2005

Web link to full document: https://www.transport.gov.za/natmap-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 networks, infrastructure facilities, interchange and termini facilities, and service delivery strategies for South Africa.

(DRDLR Resource Handbook).

2.1.13 Medium-Term Budget Policy Statement (MTBPS) (2020)

Medium-Term Budget Policy Statement (MTBPS) (2020) noted the impact of the Covid19 pandemic on the economy and predicted an expected to contraction of the economy of 7.8 percent in 2020, with the 2021 outlook being more uncertain. Job losses re noted as a concern. It was forecasted that the SA economy will grow by 3.3% in 2021, 1,7% in 2022 and 1.5% in 2023. The five-year fiscal consolidation pathway (Economic Reconstruction and Recovery Plan) aims to promote the economy and enable growth of 3%p.a.

The MTBPS2020 notes plans/measures to better the economic outlook, which includes:

- progress in allowing municipalities to buy electricity from different sources;
- the implementation of the Infrastructure Fund;
- Subsidies of R2.2 billion to support the Social Housing Programme aimed at poor, working South Africans. A further R6.7 billion has been contractually committed to this program. The total investment from this program is expected to be R20 billion over the next 10 years;
- Student Housing Programs (300 000 students) worth an estimated R96 billion is underway;
- The Budget Facility for Infrastructure will support new projects, including through blended finance in partnership with the private sector. Hospital and harbour development projects are noted
- The public finance regulatory framework will be reviewed to unblock infrastructure investment by the broader government;
- Regulations to be amended to allow retirement funds to increase investment in infrastructure;
- Operation Vulindlela is a critical coordination tool to unlock and fast track implementation of the structural economic reform agenda

In April 2020, the government announced a major fiscal relief package of around R500 billion or 10 percent of GDP, including noted funding for health and frontline services, support to vulnerable households (including expanded social protection and food relief programs, for job creation initiatives (including *Working for Fire, Working for Water and Working for Forests,* transport, arts, sports and culture, health and agricultural), support to municipalities to assist them with COVID-19 related activities, funding support to schools (free-paying and government-subsidized independent schools), ECD development. The District Development Model will apply.

The MTBPS 2020 advocates a transition from spending on consumption to investment. Resources are pledged for the Economic Reconstruction and Recovery Program.

2.1.14 Comprehensive Rural Development Program

The principles of the CRDP area are supported and should include, at least, the identification of target areas for rural development, ensuring that rural areas and peri-urban areas are clearly defined and ensuring developmental outcomes of the rural development programmes and the protection of rural and agricultural land.

2.2 Implications of Relevant Provincial Policies & Legislation

2.2.1 Western Cape Provincial Spatial Development Framework

- Author/institution: DEA&DP
- Date: 2014
- Web link to full document: https://www.westerncape.gov.za/eadp/about-us/meet-chief-directorates/development-planning/spatial-planning

The aims of the Western Cape Provincial Spatial Development Framework (PSDF) are as follows: To give spatial expression to the Provincial Strategic Plan; To serve as a basis for coordinating, integrating and aligning "on the ground" delivery of national and provincial departmental programmes; To support municipalities to fulfill their Municipal Planning mandate in line with national and provincial agendas and to communicate government's spatial development intentions to the private sector and civil society.

The logic underpinning the Western Cape Provincial SDF'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 (i.e. freight logistics, public transport, broadband, priority climate change ecological corridors, etc.); 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.

The PSDF includes four spatial themes namely; Resources, Space Economy, Settlement and Spatial Governance. The first three themes, which have a spatial component, resulted in the development of 13 spatial policies. The fourth theme, spatial governance, explored the governance structure required to implement the PSDF. The PSDF composite map also 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. (DRDLR Resource Handbook).

Changing the apartheid/segregated spatial legacy (highly unequal, inefficient and segregated places), fostering inclusive growth and taking forward land restitution and redistribution remains important components of the Provincial spatial agenda. Formal housing stock remains unaffordable to 80% of the residents of the Western Cape, placing a housing provision burden on the state. "The settlement challenge facing the Province revolves around:

i. transforming apartheid era dormitory townships into integrated and sustainable human settlements,

ii. recognising and proactively managing urban informality,

iii. managing urban growth patterns.

The evidence from the PSDF specialist study into the impact of spatial growth patterns on municipal finances is compelling, current urban growth patterns are unaffordable and unsustainable"

The PSDF responds to the following escalating risks:

i. Understanding the spatial implications of known risks (e.g. climate change and its economic impact; and sea level rise, flooding and wind damage associated with extreme climatic events).

ii. Energy insecurity, high levels of carbon emissions, and the economic impacts of the introduction of a carbon tax.

iii. Water quality and quantity deficits.

iv. Exclusionary land markets and the continued reality of urban informality".

v. Food insecurity.

vi. The sustainability of municipal finances.

PSDF: SPATIAL GOALS: "To address the spatial challenges identified the PSDF takes the Western Cape on a path towards:

i. more inclusivity, productivity, competitiveness and opportunities in urban and rural space-economies;

ii. better protection of spatial assets (e.g. cultural and scenic landscapes) and strengthened resilience of natural and built environments;

iii. improved effectiveness in the governance of urban and rural areas.

PSDF SPATIAL VISION: The PSDF builds on OneCape 2040's vision of "a highly-skilled, innovation-driven, resource-efficient, connected, high opportunity and collaborative society". For each of these societal attributes aspired to OneCape 2040 identifies thematic 'big step' changes that need to take place.

The PSDF envisages the spatial expression of these themes as follows:

i. Educating Cape: Everyone has access to a good education, and the cities, towns and rural villages are places of innovation and learning.

ii. Working Cape: There are livelihood prospects available to urban and rural residents, and opportunities for them to find employment and develop enterprises in these markets.

iii. Green Cape: All households can access basic services that are delivered resource efficiently, residents use land and finite resources prudently, and safeguard their ecosystems.

iv. Connecting Cape: Urban and rural communities are inclusive, integrated, connected and collaborate.

v. Living Cape: Living and working environments are healthy, safe, enabling and accessible, and all have access to the region's unique lifestyle offering.

vi. Leading Cape: Urban and rural areas are effectively managed

The composition of the Composite PSDF, 2014 was derived, within four themes namely, **Resources**, **Space Economy**, **Settlement** and **Spatial Governance**. The policies and strategies that flow from these themes focus on strategic investment in the space economy, settlement restructuring and protecting the province's natural and cultural resource base.
These PSDF policies have application in the Mossel Bay Municipality:

- Protect biodiversity and ecosystem services (Policy R1)
- Safeguard inland and coastal water resources, and manage the sustainable use of water (Policy R2)
- Safeguard the province's agricultural and mineral resources, and manage their sustainable and productive use (Policy R3)
- Recycle and recover waste, deliver clean sources of energy to urban households, shift from private to public transport, adapt to and mitigate against climate change (Policy R4)
- Protect and manage provincial landscape and scenic assets (Policy R5)
- Diversify and strengthen the rural economy (Policy E2)
- Revitalise and strengthen urban space-economies as the engine of growth (Policy E3)
- Protect, manage and enhance sense of place, heritage and cultural landscapes (Policy S1)
- Improve inter and intra-regional accessibility (Policy S2)
- Promote compact, mixed use and integrated settlements
- Ensure balanced and coordinated the delivery of facilities and social services (Policy S4)
- Ensure sustainable, integrated and inclusive housing planning and implementation in formal and informal markets. (Policy S5)

The *Provincial Strategic Plan 2019 – 2024* (PSP) that was launched by the Premier in March 2020 is the guiding document for the growth and development of the Western Cape. It outlines the priorities of the Western Cape Government (WCG) in the form of five Vision-Inspired Priorities (VIPs), namely: (1) Safe and Cohesive Communities; (2) Growth and Jobs; (3) Empowering People; (4) Mobility and Spatial Transformation; and (5) Innovation and Culture.

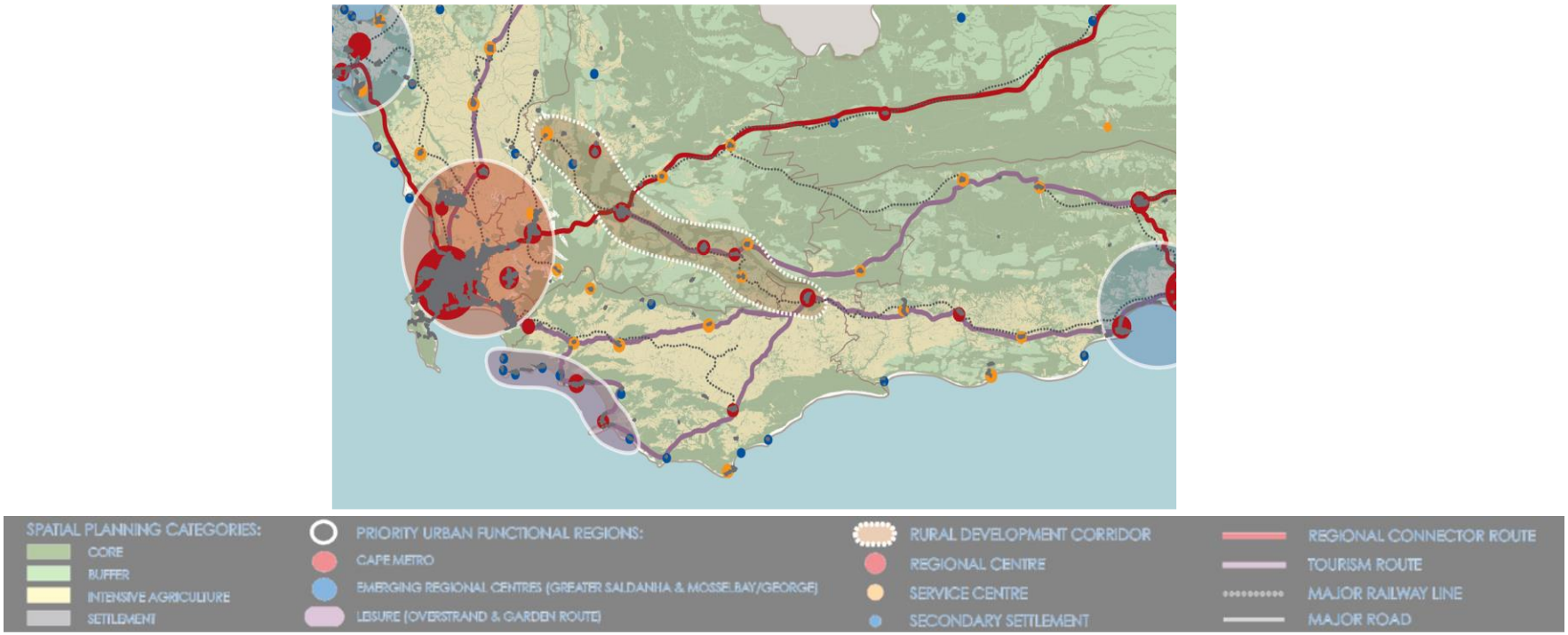


Figure 3: Provincial Strategic Plan 2019-2024: Nodal Areas and Corridors (Plan Extract Composite PSDF

2.2.2 Western Cape Recovery Plan, 2021

The Western Cape Recovery Plan, March 2021 relates specifically to measures in response to the impact of the COVID19 pandemic.

"The plan to help the economy "bounce back" has involved the provision of immediate public sector support to provide capital and jobs for the economy and boost business and consumer confidence.
In the medium term, the aim is to help the economy "bounce up" by fast-tracking private and public sector infrastructure projects and addressing some of the fundamentals constraining economic growth and job creation. This strategy builds on the "Jobs and Growth" Priority of the PSP in the areas of skills development, increasing investments and exports, creating economic (resource) resilience, and boosting infrastructure". "Using the Joint District & Metro Approach and the District Consultative forums as key platforms for engagement, the provincial approach to economic recovery is transversal in nature and will apply a spatial lens at district, rural and township level"

Sectors	GVA in 2019	GVA loss in 2020	GVA in 2020	GVA loss as a % of subsector	Emp in 2019	Emp losses in 2020	Total employed 2020	Emp loss % of sub-sector
Tourism	15 534 736	9 474 751	6 059 985	61.0%	174 982	75 477	99 505	43.1%
Informal	N/A	N/A	N/A	N/A	301 543	25 705	275 838	8.5%
Construction	31 715 441	5 045 860	26 669 581	15.9%	159 542	17 578	141 964	11.0%
Trade	102 087 570	9 716 082	92 371 488	9.5%	354 328	7 967	346 361	2.2%
Manufacturing	94 959 965	8 114 377	86 845 588	8.5%	295 183	7 858	287 325	2.7%

Table 1: Impact of COVID-19 on Economic Sectors in the Western Cape (Extract: WC Recovery Plan, 2021

Immediate (April 2021-March 2022) interventions include:

- Accelerating the ease of doing business (Find and implement systemic solutions for economic challenges and binding constraints, provide Red Tape Reduction support for municipalities, improve efficiency of government procedures and administrative systems, provide clear policy direction and legislative reform);
- Boost investment and exports (Enhance international and national positioning of the Western Cape region, implement investment facilitation and retention strategy, promote trade in key destination markets (i.e. rest of Africa), increase productivity growth and product complexity, support tourism, support agribusiness, support growth opportunities in sectors like Agriculture and SMMEs, including support to the township economy);
- Boost Infrastructure; (Identify and guide the planning and execution of major public infrastructure interventions, support municipal infrastructure implementation and spend, particularly on labour-intensive projects, identify enabling infrastructure gaps, mobilise and direct new infrastructure investments, e.g. ecological infrastructure investment);

- Scaling up work opportunities and skills for people without jobs (Increase internships and skills programmes, improve access to skills opportunities and workplace opportunities, improve the skills ecosystem, place people into public sector work opportunities, e.g. EPWP programmes);
- Economic resilience (Diversify the regional energy mix and reduce energy intensity by promoting the natural gas sector and promoting & enabling solar PV installations and energy efficiency by businesses and households, initiatives that support the Green Economy, climate change resilience, water resilience, waste management);
- Interventions supporting businesses to retain or grow employment opportunities; municipal self-generation of power, fast-tracking projects and supporting the extended EPWP, were highlighted
- Investment will be attracted into our two special economic zones and other economic development infrastructure initiatives,
- Interventions will create an enabling environment for job creation and in turn will contribute to wellbeing and safety

The WCRP, 2021 notes the importance of adequate/effective/suited spatial planning and infrastructure development, as various area remain breeding grounds for weak social cohesion and criminal activity. Active spatial planning interventions, at all levels, specifically local/neighbourhood (but also rural) to create safer public spaces and living environments and create social cohesion, should be priority. \interventions to be informed by evidence/data. Safety through urban design is a positive approach, but must be quantified, implemented, and even retrofitted.

With regard to community wellness, the provision/operation of ECD centres d and decreasing the digital divide in the post-COVID19 education options were prioritized. The Quarterly Labour Force data (Q3 of 2020) show that 25% of Western Cape youth aged 15-24 fall into the category of NEETS (not in education, employment or training). Job creation/enablement is of utmost importance. Nutrition, TB management and food security were also noted as areas where active intervention is required. "A central theme within Wellbeing is social cohesion, which is the ongoing process of fostering dignity, social participation within communities, and cooperation and trust across socio-economic divides. It is also a transversal theme in the Recovery Plan, as creating safe communities goes hand in hand with social cohesion".

Although near all interventions mentioned in the WCRP have spatial implications, the following is of specific note:
- Food relief via resourcing of food kitchen in partnership with NGO's (per example) and
- Community, school, and household food gardens;
- Shelter spaces for the homeless
- Thusong homework hubs
- Additional/alternative education support – such as aftercare/neighborhood schools
- Design of safe spaces in urban areas;
- Facilitation of sport, arts and culture spaces, activities and skills to build social cohesion; and

The Joint District Approach (since re-named the Joint District and Metro Approach, or JDMA), the value of deeper citizen engagement through an area-based approach, the importance of data/information guided decision and the New Norm culture program (more adaptive, stimulates innovation, harnesses data intelligence, and promotes continuous learning and a caring approach)are stressed.

2.2.3 Western Cape Land Use Planning Act, 2014 (LUPA)

- Author/institution: DEA&DP
- Date: 2014

Web link to full document:
https://www.westerncape.gov.za/eadp/files/atoms/files/WC%20Land%20Use%20Planning%20Act%203%20of%202014%20prov-gazette-Extra_7250.pdf

The Western Cape Land Use Planning Act, 2014 (Act 3 of 2014) (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 a Spatial Development Framework, content requirements of SDFs, as well as setting out the functions of municipalities and provincial government. In brief, LUPA allows municipalities to follow 2 different processes in developing SDF's – one with an Intergovernmental Steering Committee and one without. (DRDLR Resource Handbook).

Section 10 of LUPA states that a MSDF should:

- Comply with other applicable legislation (e.g. SPLUMA)
- Promote predictability in the utilisation of land
- Address development priorities
- Where relevant, provide for specific spatial focus areas, including towns, other nodes, sensitive areas, or areas experiencing specific development pressure
- Consist of a report and maps covering the whole municipal area, reflecting municipal planning and the following structuring elements:
  - *Transportation routes*
  - *Open space systems and ecological corridors.*
  - *Proposed major projects of organs of state with substantial spatial implications*
  - *Outer limits to lateral expansion*
  - *Densification of urban areas*
  - *Be aligned with provincial spatial plans and strategies and indicate structuring elements such as provincial road networks and cultural and ecological resources of provincial importance.*

2.2.4 Western Cape Human Settlements Framework

- Author/institution: DHS
- Date: February 2019

Web link to full document: https://www.westerncape.gov.za/assets/departments/human-settlements/docs/research/hs-living-cape-human-settlements-framework-feb2019.pdf

The **Living Cape Framework** aims to support a departure from the current housing delivery model. The focus of the Framework is explicitly on improving the quantity and quality of human settlements, where these settlements are understood as holistic spaces comprising of land, housing, social, economic and networked infrastructure, and communities (DHS, 2017).

The Department of Human Settlements in the Western Cape, emphasizes the following three strategic objectives which seek to:
1. Accelerate the provision of housing opportunities within the Affordable Housing Market (GAP Market);
2. Accelerate the upgrading of informal settlements, including the provision of basic interim services to ensure adequate living conditions for all residents in the Western Cape; and
3. Ensure that the most deserving individuals are prioritized when providing housing opportunities. . (DRDLR Resource Handbook).

The requirements and spatial implications of the **draft Inclusionary Housing Policy** must be considered.

The creation and/or placement of integrated settlements, of significant size/quantity should be a spatial priority.

2.2.5 The Provincial Economic Review and Outlook

- Author/institution: Provincial Treasury
- Date: 2019
- Web link to full document: https://www.westerncape.gov.za/provincial-treasury/services/research

The 2019 Provincial Economic Review and Outlook (PERO) is an objective review and analysis of recent and forecasted economic growth, labour market trends, as well as key socio-economic indicators in the Western Cape. Understanding the dynamics, prospects and constraints of the regional economy is essential to enhance economic growth and drive socio-economic development in the Province. The 2019 PERO is published together with its sister publication, the Municipal Economic Review and Outlook (MERO), which further breaks down the socio-economic data to a district and local government level. These two publications provide valuable evidence-based information to inform policies, plans and budgets that are responsive, aligned and sensitive to spatial idiosyncrasies.
(DRDLR Resource Handbook).

2.2.6 The Municipal Economic Review and Outlook

- Author/institution: DHS
- Date: February 2019

Web link to full document: https://www.westerncape.gov.za/provincial-treasury/services/research

The Municipal Economic Review and Outlook (MERO) is an annual research publication produced by the Provincial Treasury of the Western Cape Government. The first edition of the MERO was published in 2012. It is aimed at informing policymakers at municipalities on key economic issues that affect policy, planning and budgeting. The overall aim of the MERO is to unpack regional development and sectors that feature in the Provincial Economic Review and Outlook (PERO) and other economic literature available to local policymakers across the Western Cape. This economic
intelligence is to be achieved specifically by analysing factors that is driving broad sector developments. This allows an informed interpretation of development in the Province. The aim is to provide more recent information of the economic and sectoral environment, which in turn informs policy, planning and budgeting and responsive interventions required by policymakers for sustainable economic and human development. . (DRDLR Resource Handbook).

2.2.7 The Southern Cape Regional Spatial Implementation Framework (RSIF)

- Author/institution: DEA&DP
- Date: May 2019
- Web link to full document: https://www.westerncape.gov.za/eadp/files/atoms/files/31%2005%202019%20DRAFT%20Southern%20Cape%20RSIF%20-%20NOT%20FINAL.pdf

In response to the WCG Provincial Spatial Development Framework's (PSDF) agenda for the sustainable development and management of urban and rural areas in the province, and in particular in seeking to stimulate and accelerate the growth and development opportunities that exist in the three growth engines of the province, a Regional Spatial Implementation Framework has been developed for the Southern Cape Region (the Southern Cape RSIF), as well as the Greater Cape functional regions and the Greater Saldanha region, which are urban priority areas for the province. The economically defined Southern Cape region covers the coastal corridor stretching between Mossel Bay, George, Knysna and Plettenberg Bay, and includes the greater Oudtshoorn area. (DRDLR Resource Handbook).

2.2.8 The Rural Land Use Guidelines

- Author/institution: DEA&DP
- Date: March 2019
- Web link to full document: https://www.westerncape.gov.za/eadp/files/atoms/files/Rural%20Areas%20Guideline_web_0.pdf

Forming part of the roll-out of the PSDF, the objectives of the Rural Areas Guideline are to:

- Promote sustainable development in appropriate rural locations throughout the Western Cape, and ensure the inclusive growth of the rural economy.
- Safeguard priority biodiversity areas and the functionality of the Province's life supporting ecological infrastructure and ecosystem services (i.e. environmental goods and services).

- Maintain the integrity, authenticity and accessibility of the Western Cape's significant farming, ecological, coastal, cultural and scenic rural landscapes, and natural resources.
- Assist Western Cape municipalities to plan and manage their rural areas more effectively, and to inform the principles of their zoning schemes and spatial development frameworks in a pro-active manner.
- Provide clarity to all role players and partners (public and private) on the type of development that is appropriate beyond the current built-up areas, suitable locations where it could take place, and the desirable form and scale of such development.
- Be viewed as a gender mainstreaming tool which will move the Western Cape further along the trajectory towards the achievement of equality, particularly the youth and gender equality imperatives in rural land use planning. . (DRDLR Resource Handbook).

2.2.9 The Western Cape Biodiversity Spatial Plan Handbook

- Author/institution: Cape Nature
- Date: 2017
- Web link to full document: https://www.capenature.co.za/about-us/2017-western-cape-biodiversity-spatial-plan-handbook-download/

The handbook acknowledges that ecosystem goods and services are the foundation for the economy for inclusive economic growth and the sustainable delivery of basic services. It proactively identifies priority biodiversity areas and ecological infrastructure to enable forward planning as per Goal 4 of the Western Cape Government's Provincial Strategic Plan (2014 – 2019), "to enable a resilient, sustainable, quality and inclusive living environment." The handbook is linked to the Aichi Targets for the UN's Convention on Biological Diversity and the National Biodiversity Strategy and Action Plan of 2015. The handbook describes the various biomes of the Western Cape, the sensitivities and ecosystem threat status. (DRDLR Resource Handbook).

2.2.10 OneCape 2040

- Author/institution: Western Cape Government
- Date: 2012
- Web link to full document: http://www.fewlbnexus.uct.ac.za/sites/default/files/image_tool/images/91/OneCape-2040.pdf

ONECAPE 2040 is a deliberate attempt to stimulate a transition towards a more inclusive and resilient economic future for the Western Cape Province. It articulates a vision about how the people of the Western Cape can work together to develop the economy and society. It seeks to set a common direction to guide planning and action and to promote a common commitment and accountability to sustained long-term progress. Towards this end, the following six transitions have been identified: Educating Cape, Green Cape, Connecting Cape, Enterprising Cape, Living Cape and Leading Cape.

Like the National Development Plan (NDP), it is a vision and strategy for society, rather than a plan of government, although all three spheres of government are essential for implementation. It does not replace any existing statutory plans required of either province or

municipalities. It is rather intended as a reference point and guide for all stakeholders in order to:
- promote fresh thinking and critical engagement on the future;
- provide a common agenda for private, public and civil society collaboration;
- help align government action and investment decisions;
- facilitate the necessary changes we need to make to adapt to our (rapidly) changing local and global context;
- address our development, sustainability, inclusion and competitiveness imperatives

It will also hopefully influence the priorities of our stakeholders, including government, and the allocation of resources. (DRDLR Resource Handbook).

2.2.11 Western Cape Infrastructure Framework

- Author/institution: DTPW
- Date: 2013
- Web link to full document: https://www.westerncape.gov.za/assets/departments/transport-public-works/Documents/western_cape_infrastructure_framework.pdf

The Western Cape Infrastructure Framework (WCIF) is a long-term strategic framework that aligns with the ONECAPE 2040 Vision and timeframe. The framework sets out high-level transitions required to achieve the optimised development agenda and is broken down in sub-infrastructure sectors. The PSDF strategically aligns with these transitional agendas to ensure the optimisation and alignment of provincial planning policies with
service delivery. (DRDLR Resource Handbook).

2.2.12 Western Cape Provincial Land Transport Framework

- Author/institution: DTPW
- Date: 2013
- Web link to full document: https://www.westerncape.gov.za/general-publication/provincial-land-transport-framework-2012

The Western Cape Provincial Land Transport Framework sets out a long term vision for transport in the Western Cape and states that by 2050 the
transport system in the Western Cape will be:

Fully Integrated Rapid Public Transport Networks (IRPTN) in the higher order urban centres of the Province;
Fully Integrated Public Transport Networks (IPTN) in the rural regions of the province;
A safe public transport system;

A well-maintained road network;
A sustainable, efficient, high speed, long-distance rail network (public and freight transport);
An efficient international airport that links the rest of the world to the choice gateway of the African continent;
International-standard ports and logistics systems;
A transport system that is resilient to peak oil. (DRDLR Resource Handbook).

2.2.13 Western Cape Climate Change Response Strategy 2022

The Western Cape Climate Change Response Strategy 2022 has been completed. The draft revised strategy highlights that there is a climate crisis unfolding, and that urgent action needs to be taken to respond to the emergency. The response must include an equitable and inclusive transition to net zero emissions by 2050, founded on investment in natural capital to reduce climate risks and increase socio-economic resilience.

The document could be accessed at
https://www.westerncape.gov.za/eadp/files/atoms/files/Biennial%20Climate%20Change%20ME%20Report%202020_final.docx.pdf
and

https://www.westerncape.gov.za/eadp/files/atoms/files/Draft%20WCCCRS_Nov%202021.pdf

2.2.14 Western Cape Provincial Integrated Waste Management Plan

The Western Cape Integrated Waste Management Plan is a high-level strategic document, providing strategic direction to industry, the private sector, municipalities, and the broader community in terms of integrated waste management. Furthermore, the purpose of this plan is to provide a strategic direction regarding integrated waste management over the short, medium, and long term to provincial government, local government, industry, commerce, and civil society (DEA&DP, 2017)

2.2.15 Western Cape Provincial Air Quality Management Plan

The Air Quality Management Plan is a tool that aims to minimize the emissions of air pollutants and environmental impacts through implementing interventions and strategies that would contribute towards communities becoming resilient to climate change vulnerabilities, natural hazards, and disasters (DEA&DP, 2022).

2.3.16 Ecological Infrastructure Investment Framework

The purpose of the Ecological Infrastructure Investment Framework (EIIF) is to guide decision-makers from both the private and public sector in making choices around where – and how – to invest in order to promote the resilience of the Western Cape's ecological infrastructure. This investment framework provides a point of departure for further exploration and planning by investors in the context relevant to their proposal (e.g., time, spatial and institutional context of the investor, as well as the proposed investment) (DEA&DP, 2021).

The EIIF is informed by the benefits that society derives from ecological infrastructure and the potential loss of some (or all) of these benefits if such ecological infrastructure is not restored. Within this context, the focus is on the following specific risks: risks to water security (primarily due to alien plant invasions and rangeland degradation), the risks to human life, property and livelihoods posed by uncontrolled fires and by floods (coastal and inland), and the risks to food supply and livelihoods due to rangeland degradation, particularly from over-grazing. The EIIF focuses on where – and how - maximum benefits can be derived from the restoration of ecological infrastructure, in order alleviate these risks, which typically affect the poor the most (DEA&DP,2021).

The EIIF for the Western Cape seeks to advance, facilitate, and align investments in Ecological Infrastructure (EI) in the Western Cape Province. The aim of these investments, derived from a consultation process with a wide group of stakeholders and organisations across the province, is to achieve the EIIF's vision for EI, which is as follows (DEA&DP, 2021):

"By 2040, people of the Western Cape live and organise themselves in a way that promotes healthy and resilient ecological infrastructure, so that it yields goods and services that support physical, psychological and spiritual well-being in the face of population pressure, rapid urbanisation and climate change."

The EIIF sets out four strategic objectives to guide decision-makers from the public and private sector in making choices on where and how to invest in order to promote the resilience of the Western Cape's EI. The EIIF lists four investment objectives, and this component of the Implementation and Monitoring Plan is meant to enable DEA&DP to transform the EIIF into action, to achieve these objectives in a demonstrable manner. The objectives are:

1. To **improve water quality and quantity** in support of people's health and livelihoods in the Province, by controlling the threat of alien invasive plants specifically and improving the ecological status of rivers, wetlands, and estuaries more generally.
2. **To reduce the vulnerability** of people, property, and the environment **to the threat of uncontrolled wildfires.**
3. To sustainably support local livelihoods and food supply provided by the Province's rangelands through **improved land management practices**, particularly relating to grazing.
4. **To reduce the exposure** of communities, infrastructure, and economic activities **to the impacts of increased flooding** within the catchment and along the coast.

In order to achieve the desired outcomes for resilient EI in the Western Cape, cooperation among different stakeholders mandated with guardianship over EI is critical (DEA&DP, 2021)

2.2.17 Sustainable Water Management Plan (SWMP) (2017 – 2022)

The Sustainable Water Management Plan (SWMP) for the Western Cape Province was developed, following the recommendations made at the National Water Indaba held in Cape Town during November 2009, whereby the then National Minister of Water Affairs and Forestry, Minister Sonjica, called on the Western Cape Government to develop such a plan. The updated plan dated 2018, defines a strategic and incremental approach towards the sustainable management of water in the Western Cape. Aligning goals and objectives with the natural cycle of water, the updated Plan takes a systems approach to water security, promoting good water management practice from source to sea. This has led to the development of 16 Strategic Objectives that map the incremental steps towards improved water resilience (DEA&DP, 2018).

In addition, the updated plan has identified 12 focus areas that together will address the core goals and all the strategic objectives. The success of the Focus Areas is underpinned by effective cooperative governance, while innovation and socio-economic consideration are core Focus Areas which should run throughout the proposed activities. This plan provides the framework for improved co-operative governance to strengthen a collaborative approach to the management of the Western Cape's water resources (DEA&DP, 2018).

2.2.18 Coastal Management Lines

Estuary Management Plans in Mossel Bay Municipality:

- Groot Brak Estuary Management Plan
- Klein Brak Estuary Management Plan
- Blinde EMP
- Maalgate EMP (bordering Mossel Bay)
- Gouritz EMP

2.3 District Planning Informants

2.3.1 Eden District Rural Development Plan (2017)

The Department of Rural Development and Land Reform's (DRDLR) Eden District Rural Development Plan (RDP) presents extensive information on agricultural activity in the district and rural poverty pockets. The RDP identifies Oudtshoorn as an Agripark - a networked innovation system of agro-production, processing, logistics, marketing, training, and extension services to enable growth of market-driven commodity value chains and the achievement of rural economic transformation. The agri-hub is linked to Farmer Production Support Units (FPSU) - a rural outreach unit that does the primary collection, some storage, some processing for the local market, and extension services including mechanization. Mossel Bay is identified as a Farmer Production Support Unit (FPSU) to support emerging farmers producing lucerne although it is stated that the locations of FPSU's for this purpose need to be further investigated.

2.3.2 Garden Route District Municipal Spatial Development Framework (2017)

The Garden Route District MSDF is framed around four overarching, integrative and connected strategic drivers relevant to the District Municipality's context. These are fundamental to achieving coordinated (spatial) planning for the sustainable growth and resilience of the District. Three strategic **spatial** drivers, a sustainable environment, regional accessibility for inclusive and equitable growth and coordinated growth management, are underpinned by a fourth driver; effective, transversal institutional integration; i.e. we need to plan, budget and manage as one government. This speaks to the institutional context within which spatial planning must take effect, with particular reference to municipal finance, coordinated infrastructure planning and delivery, as well as robust project preparation and pipelines.

These spatial drivers are translated into four spatial strategies with supporting policy statements:

- **The Economy *is* the Environment**
  Recognising the unique attributes, resources and risks of the Klein Karoo and Garden Route, namely:
  - Natural and Agricultural Resource Base;
  - Economic Role and Potential; and
  - Celebrate the diverse landscape, lifestyle and tourism offerings.

- **Regional Accessibility for Equitable and Inclusive Growth**
  Enabling appropriate accessibility to and between the Klein Karoo and Garden Route as well as the greater Eden District:
  - Establish a clear primary and secondary regional route hierarchy, role and investment priorities (N2 vs R62);
  - Address connectivity between the coastal belt and inland areas; and
  - Enable virtual and physical accessibility.

- **Coordinated Growth Management for Financial and Social Sustainability**
  Defining a clear settlement hierarchy and framework for accommodating growth in relation to infrastructure, economic and institutional capacity. Directing and encouraging growth to match capacity, resources and opportunity:

  - Align needs with capacity, jobs, social services and opportunity;
  - Recognise population dynamics in infrastructure investment (more diverse housing products and opportunities in the correct location);
  - Optimise the potential of a reconceptualised accessibility network to improve livelihoods and sustainable service delivery.

Implications for Mossel Bay municipal area

Planning decisions must take these spatial drivers of the region into account.

2.3.3 Garden Route District: Joint District and Metro Approach (Draft) (2021)

The Draft Garden Route District: Joint District and Metro Approach (JDMA) Implementation Plan (One Plan, draft Jul2021) has been circulated for comment. Such document aims to create synergy between initiatives in the district and relates to creating enabling networks (such as economic forums, skills development platforms, etc.) and catalytic projects, including the following projects in the Mossel Bay Municipal area:

Key Strategic Priority (Regional + National)	Municipal Area	Project	Budget	Timeframes
A Water Secure Future				
A Circular Economy	Mossel Bay	Regional Landfill SiteR150 million Waste to energy: MB: None (projects in Knysna and Oudtshoorn)	**R152 million**	5-10 years
Resilient Agriculture	Garden Route District	Agri-processing and Food Security Projects relating to the Agri-Park (Oudtshoorn Regional Agri-Park, Abattoir, fresh produce markets (R270Mil – project links to regional project is an opportunity to be investigated)	**R12 million**	5-10 year
Sustainable Tourism	None			
Supporting Wellbeing and resilliance	Garden Route District	Skills Mecca (position tbc), education, training and skills development	R18 billion	10-15 years
	Mossel Bay	Medical Facilities		

Key Strategic Priority (Regional + National)	Municipal Area	Project	Budget	Timeframes
A connected economy: transport and rural-urban integration and ICT	Mossel Bay	Southern Cape Economic Optimisation Initiative Smart Region Special Economic Zones / Industrial Development Parks *A private sector-driven initiative that envisages an injection of up to R40 billion of infrastructure funding and R30 billion of which is FDI. It is anchored on a concession agreement with TNPA for the development of the Mossel Bay Port, the revamp and development of the Rail infrastructure between Oudtshoorn (waste & goods transport) Knysna, George and Mossel Bay including the rolling stock thereof. Independent Power Production to support such initiatives. The George Airport Aerotropolis with Possible development of a private airport (like Lanseria) in Mossel Bay and Oudtshoorn. This project will add about 300 000 direct and indirect jobs in the region. The project is planned over a 7 – 10 years period and aims to attract about 300 top international manufacturers, process organisations, hotels, university, vocational training, and business process outsourcing campus.*	Design Dependent R350 Billion R70 billion	20-30 years 7-10 years
	Garden Route District	Accessibility Projects and Integrated Public Transport	R15 billion	20-30 years
Sustainable Local Energy Transition	Garden District	Sustainable and Renewable Energy Projects (tbc)	Estimates R30 billion	20- 30 years
Environmental (DEFF – EPIP)	WC – Wftc Gouritsmond to Nature Valley (18/21)	Cleaning of the coast and coastal catchments; cleaning of blue flag beaches; clearing of historical dumpsites along the coast; assist during coastal disasters –Control of invasive alien vegetation as per Working Implementation	R 12 000 000.00	Three years
Oceans & Coast	General	Operation Phakisa- A National Pollution Lab established for the monitoring of coastal waters, determining water quality status for human use and health, including industrial purposes.	Not indicated	Not indicated
NRM	Various projects	Alien vegetation clearance Fire control and prevention		
Small Business Development (GRMD area)	SheTradesZA	Initiative supporting women-owned businesses with products that are ready for market or with limited market access. It is a platform that serves as a unique opportunity for women entrepreneurs in the SMME sector to participate in the global value chains and markets	Targeted beneficiaries - 3200	2019-2024
	100 Thousand young entrepreneurs	Initiative targeting young people between the ages of 16 and 40 with businesses with the potential to create a minimum of 10 sustainable jobs	Targeted beneficiaries - 1300	2019-2024

Key Strategic Priority (Regional + National)	Municipal Area	Project	Budget	Timeframes
	SMME expansion/ scale up	Initiative targeting small and medium enterprises that have been in existence for more than 4 years and employ more than 5/10 staff members. It supports businesses to scale up and expand through access to working capital and markets for goods and services.	Targeted beneficiaries - 2600	2019-2024
	Township and rural entrepreneurship	A dedicated programme to transform and integrate opportunities in townships and rural areas into productive business ventures.	Targeted beneficiaries - 6113	2019-2024
	Incubation and digital hubs	Business and technology incubation centres that offer enterprises business and management skills, support and platforms for a minimum of 3 years. It targets start-ups that require hand holding as they start their journey in business. 2019 - 2024 Not indicated	Targeted beneficiaries - 4	2019-2024
	Cooperatives	Initiative aimed at supporting cooperatives as enterprises that are income and profit generating. It targets registered cooperatives that have potential to generate income and profit.	Targeted beneficiaries - 130	2019-2024
	Informal businesses	Initiative aimed at supporting informal businesses with compliance support, business skills development, business infrastructure and technical support.	Targeted beneficiaries – 12225	2019-2024
	SMME products	Initiative to coordinate and direct the buy local campaign to be impactful by targeting a minimum number of enterprises that should benefit.	Targeted beneficiaries - 2400	2019-2024
	Start-up nation	Initiative that seeks to promote innovation that can have a ripple effect on the national economy. Target beneficiaries are Tech and Engineering Start-ups and Social enterprise	Targeted beneficiaries - 4800	2019-2024
DALRRD	Various	Skills development, including boat building, furniture making, electrical		
DTPS	SITA BPI DCDT	Connectivity services Broadcasting Digital Migration (BDM) Distribution of Vouchers and decoder rollout		2020/21 – 2022/23
DHET	Training/skill courses	Various		

The JDMA also highlights the increase in job opportunities in Mossel Bay from 2014 to 2019 and then a marked decline in job opportunities in 2019 (Quantec 2020). The JDMA One Plan highlights economic trends, such as '… intensive migration patterns in between some of the towns within a radius of less that 140 kms – George, Mossel Bay, Knysna and Bitou which appear to bear the brunt of increased internal migration and proliferation of informal settlements – people migrate due to reality of poverty and seeking of jobs to sustain themselves and their households. In essence therefore economic migration and sustainability are an undeniable factor which influences or drive these patterns)". The decline in the creation of job opportunities in this scenario is a concern and places a burden on the municipality.

2.3.4 The Southern Cape Regional Spatial Implementation Framework (Draft) (2018)

The Southern Cape Regional Spatial Implementation Framework (RSIF) is a regional scale plan, provided for in SPLUMA. Its objectives are to stimulate inter-municipal growth and development opportunities and to better support an integrated, regional approach to sustainable development and urban and rural area management practices. More specifically it endeavours to:

- produce a competitive regional space-economy that re-energises and shares growth;
- create an integrated network of regional settlements that provide resilient, sustainable, quality and inclusive living environments for a growing population;
- design sustainable regional infrastructure networks (i.e. ecological, utility and transport);
- promote collaborative regional management and governance arrangements.

The drivers of spatial change identified in the Garden Route District MSDF are linked to a shared set of regional values. In the spatial concept for the region, Mossel Bay is seen as "the thriving tourism, trade, port, industrial and service centre anchoring the western portion of the garden route. Its industrial focus and capability can better absorb 'heavy' industrial activities than other urban centres in the region. It also provides a Special Economic Zone that focuses primarily on green energy technologies, but also secondarily on agri-exports, aviation, bunker fuel, rig-repairs and trans-shipment. Some of the services at the SEZ develop value-added products and services related to the oil, gas and related industries – both down-stream and upstream from the existing PetroSA facility, as well as waste reduction, recycling and agri-processing. Mossel Bay's port is also completely transformed – offering both shipping and tourism functions in the broader regional economy".

Implications for Mossel Bay municipal area

The strategic role of the port and the oil- and gas industry in the regional economy will increase and will have a down-stream effect on the local economy.

The spatial requirements of all (but specifically small/local-) economic initiatives to be facilitated via the MSDF

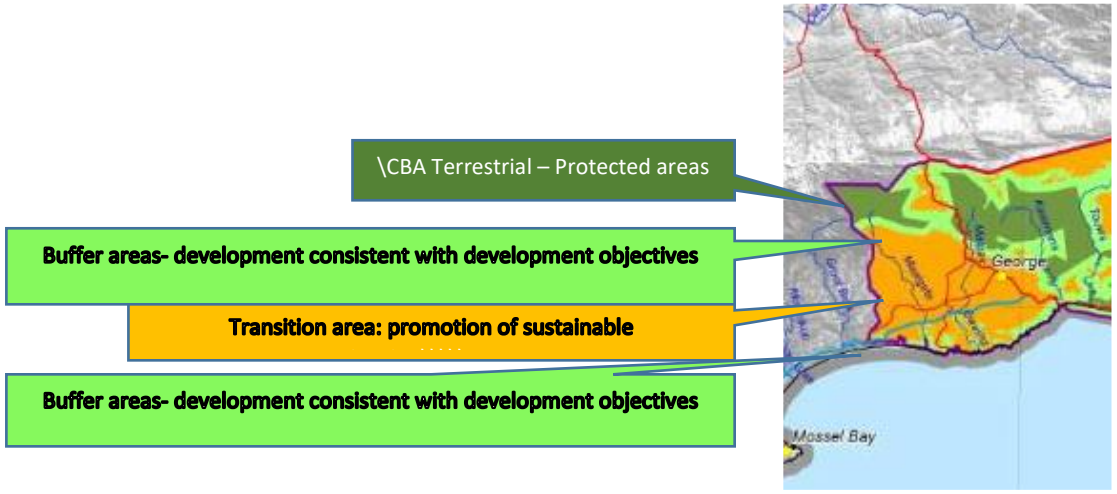
2.3.5 Biosphere Reserves

Whilst the Mossel Bay area includes diverse biophysical zones within its municipal area (See Par 3.2.5) it is essential to preserve the continuity of the ecological zones on a regional level. Par 3.2.5 relates to biodiversity aspects affecting Mossel Bay. Biodiversity is deemed a district and regional planning informant.

Figure 3 shows the land cover- and terrestrial ecological threat status of the areas in adjoining municipal areas, as well as the position of the Garden Route- and Gourikwa Biosphere reserves. Note the position of protected natural areas to the north and the critically endangered and endangered terrestrial ecological threat status of sections of the large central mountainous areas in the adjacent municipal areas. Note the correlation between the topographical features and the zone sensitivity.

The **Gourits Cluster Biosphere Reserve** is divided into four connected sectors ranging from sea level to 2,240 metres. The area, declared by UNESCO in 2015, is the only place in the world where three recognized biodiversity hotspots converge (Fynbos, Succulent Karoo and Maputoland-Tongoland-Albany). The site is characterized by high endemism of plant species (1,325 species including 182 Succulent Karoo endemics and 92 Red List species) and threatened invertebrates including seven endemic species of the enigmatic beetle genus Colophon and 14 butterfly species. It provides a migratory route for large mammals such as the leopard and serves as a nursery for marine species. "Notwithstanding the richness in biodiversity, the area currently faces deep rooted socio-economic challenges including high unemployment, wide-spread poverty, sprawling informal settlements with inadequate services, rising HIV and crime rates".

The Garden Route Biosphere reserve (Final Strategic Planning Workshop Report, Feb 2020, plan extract alongside; Source Cape Nature) is not an implementing agent but notes the importance of the recognizing the reserve in spatial planning and related Guidelines / policies) as a means of implementing the conservation agenda.



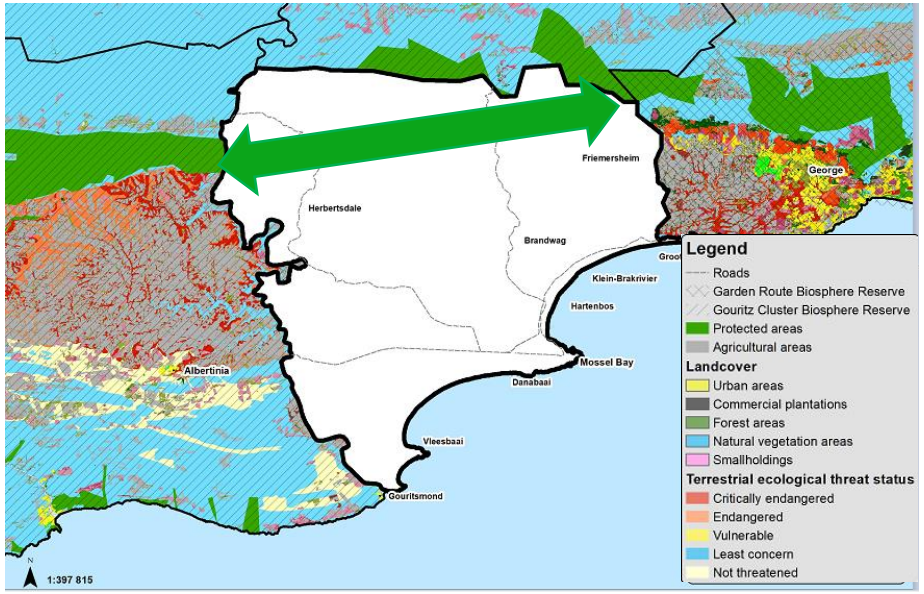


Figure 4 Adjacent Municipal Areas: Biosphere Reserves, Land Cover and Terrestrial Ecological Threat Status Area

2.4 Adjacent Municipal Planning

The Mossel Bay Municipal Area (MMA) is bordered by the Hessequa Municipality to its west and north and the George Municipality to the east and the Oudtshoorn municipal area to the north. Cognizance must be taken of regional issues covered in the SDF's of these municipalities which have an effect or which must be taken into account on the Mossel Bay SDF.

The Mossel Bay, George, Knysna and Bitou municipalities are all guardians of the linear Garden Route landscape. This landscape is a national natural and economic asset that hosts very valuable, beautiful and sensitive natural ecosystems. Increasingly these municipalities are sharing infrastructure; for example, with the new regional waste facility based in Mossel Bay that is serving three municipalities.

These municipalities are dependent on one another, as has been shown in several natural disasters in the recent past where co-operation was of utmost importance. They must share a consistent approach to certain key elements in this linear system to maintain the functionality, sustainability and resilience of the whole:

- consistent management of the linear coastal system

- maintaining and managing the integrity of the linear green/open space systems
- understanding the regional settlement hierarchy and positioning of the major nodes and their sustainable growth related to one another
- alien invasive management – to reduce fire, the spread of fire and to enhance water supply into rivers
- disaster risk management (associated with alien invasive species management, sustainable water use, fire risk mitigation, etc.)
- management of land use and alien invasive species alongside and extraction from river systems to ensure their functionality and integrity
- protection of cultural and scenic landscapes, routes and passes
  (adapted from the Knysna SDF Status Quo report)

2.4.1 George MSDF (2019)

The main strategies in the George SDF are**:**

***Strategy*: Consolidate: Making what we have work better for our people**	
Policy B	Direct public and private fixed investment to existing settlements reinforcing their economic development potential
***Strategy*: Strengthen: Build on George's foundations for growth and resilience**	
Policy D	Manage the use of land in the municipal area in a manner which protects natural ecosystem functioning and values ecosystem services, respecting that these are assets that underpin the economy, settlement and their resilience
Policy E	Safeguard the municipality's farming and forestry areas as productive landscapes equal in value to urban land
***Strategy*: Smart Growth: Invest in the Catalysts for Social and Economic Prosperity**	
Policy G	Support place-making interventions through building economic infrastructure and upgrading the public environment in priority investment locations to promote inclusivity and invite private sector response

The alignment requirements are:

- Protecting and expanding natural and agricultural assets which contribute to the regional economy
- Supporting cross-boundary land use, management and conservation initiatives
- Maintaining and expanding the regional potential of key infrastructure and facilities (e.g. the airport)
- Maintaining and expanding services which serve in the needs of the region (e.g. the higher order industrial services and educational facilities role of George)
- Areas of conservation worth (i.e. critical terrestrial and aquatic biodiversity areas, and ecological support areas) are consolidated as far as possible
- Enhance the Rural Livelihood and promote Integrated Rural Development Strategy
- Enhancing the region's attraction as a tourism and recreation destination by safeguarding the character of its unique natural, cultural and working landscapes, townscapes and seascapes, and opening up new tourist attractions.

(adapted from the George SDF)

2.4.2 Hessequa SDF (2017)

Vision

A cooperative society where everyone reaps the benefits of a growing economy through sustainable development and utilization of our human potential and our natural resources.

Mission

The mission of the municipality is defined as follows:

- Being a cooperative and prosperous community;
- Future generations will be able to share fairly in the abundance of our region;
- To ensure compliance of basic needs
- To preserve our environment, archaeological and cultural heritage; and,
- To live in harmony with nature and each other in honour of our common ancestry in the place that gave rise to our humanity.

This mission provides clear direction the forward planning of the Hessequa Municipality set to ensure sustainable development for the benefit of all the inhabitants of the area. The spatial planning concept reflects the ideal situation for future development. This concept is illustrated by the structural elements or building blocks in accordance with relevant guidelines and planning concepts. The concept is the starting point in the formulation of planning proposals. The detailed spatial proposals should be seen as the "complete" of the concept. The spatial planning concept also does not have any statutory/legal status given the guiding role of the concept.

Gourits Rivier is the closest abutting coastal settlement at the Gourits river mouth on the boundary of the Mossel Bay municipal area. Only limited growth is proposed.

The alignment requirements are:

- Mossel Bay Municipality shares the Gourits River with Hessequa Municipality for much of its eastern boundary. Planning proposals in the Gourits River Valley should be carefully coordinated by both municipalities.
- The SDF notes the N2 as a primary movement and development corridor along which its main settlements are located.
- There are two important bands of conservation areas that also have tourism potential, especially the coastal strip including Stilbaai, Witsands, Jongensfontein and Gouritsmond.

(Adapted from the 2018 Mossel Bay SDF)

2.4.3 Oudtshoorn SDF (2017)

The vision, strategies, spatial concept, and principles of the SDF is undergirded by a set of strategies and policies of which those applicable to Mossel Bay area are the following:

STRATEGY A	**THE ECONOMY IS THE ENVIRONMENT TOWARDS AS SUSTAINABLE RESOURCE USE**	
	Policy A1	Establish, manage and market the Klein Karoo as a unique sub-region of the garden route district by containing development and managing rural areas through appropriate application of spatial planning categories.
	Policy A2	Protect the municipality's scenic assets, cultural landscape and heritage resources.
	Policy A3	Promote resilient, sustainable & inclusive agriculture & agri-processing.
	Policy A4	Manage and mitigate flood risk.
	Policy A5	Mitigate fire risks and impacts on disaster management
STRATEGY B	**ACCESSIBILITY FOR INCLUSIVE GROWTH AND LIVEABILITY**	
	Policy B1	Rationalise the regional mobility network
STRATEGY C	**SUSTAINABLE GROWTH MANAGEMENT ENABLING NEW DEVELOPMENT OPPORTUNITIES.**	

The alignment requirements (corresponding with those in the Oudtshoorn SDF) are:

- The various routes through the rural areas play a very important role in the experience of the character thereof. In this regard, inappropriate signage and intrusive land use activities adjoining to these routes could significantly detract from the rural character.
- The identification of scenic routes and the drafting of management plans for the identified routes. In this regard, the Robinson Pass has been identified as a scenic route that requires a specific management plan.

2.5 Municipal Planning

Also refer to Par 2.5.6 (Local Area Framework- and Precinct Plans).

2.5.1 Municipal Vision and Mission Statement

The 2017-2022 Vision, Mission of the Mossel Bay Municipality, as reflected in the IDP is:

Vision	***Mission***	***Values***
We strive to be a trend-setting, dynamic Municipality delivering quality services responsive to the demands and challenges of the community and our constitutional mandate, in which all stakeholders can participate in harmony and dignity.	*To render cost-effective and sustainable services to the entire community with diligence and empathy.* *To create mutual trust and understanding between the municipality and the community.* *To have a motivated and representative municipal workforce with high ethical standards, which is empowered to render optimal services to the community.* *The community is our inspiration and our workforce is our strength in the quest for community development and service delivery.*	Work Pride Accountability Loyalty Integrity Service Excellence

Table 2: Mossel Bay IDP:2017-2022: Vision, Mission and Values

2.5.2 Integrated Development Plan (IDP) (2018/2019 Review)

The fourth-generation IDP cycle allowed for the adoption of a new 5-year strategic plan that articulated the development agenda for the Mossel Bay Municipality for the period 2017 – 2022. The IDP is currently in a process of review. Nonetheless, the following developmental priorities were set by the executive major:

- Implementation of the Ward Discretionary Budget Model to strengthen participatory democracy.
- Supporting the acceleration of the rural development programme.
- The renewal of the Central Business District.
- Optimisation of local tourism potential through good governance modelling.
- Initiation of Socio-Economic Programmes and Projects to alleviate poverty.
- Leverage on the Extended Public Works Programme and Community Work programme to alleviate poverty.
- Institutionalisation and effective and efficient operation of the newly established Youth Café.
- Acceleration of human settlement delivery and realisation of low-cost housing along the Louis Fourie Corridor.
- Expanding the Entrepreneur Cleaning Project "Job Creation initiative".
- Expansion of the Thusong Service Centre under Phase II to broaden the basket of Government services.
- Advocating for the upgrading of all major intersections along Louis Fourie Road.

The fourth-generation IDP (2017-2022) included an analysis of each ward, set development priorities, project identification, -budgets and timelines, via a participatory process. These projects were linked, spatially, where applicable, to the 2016 Mossel Bay SDF.
Key Performance Areas (KPA'S) and Strategic Objectives were better positioned to respond to the service delivery demands and expectations of all residents. The following key considerations gave effect to the amendment of the Municipality's strategic thrust during the fourth generation review:

- To demonstrate better alignment with National and Provincial Strategies.

- *Strategically reposition the Municipality to respond better to demands and expectations of its residents, ultimately enhancing service delivery.*
- To enhance accountability through performance monitoring and reporting.
- *To demonstrate pragmatic alignment between IDP and MSCOA Budget.*

These priorities, are presented in the context of the Mossel Bay development mission and vision, and the subsequent, corresponding interventions relevant to the MSDF as identified in the Mossel Bay IDP Review 2018/19 .
The SDF links the development objectives taken from the Integrated Development Plan (MB IDP2022) and the Budget of the Municipality. Therefore, the SDF becomes the spatial presentation of the IDP objectives that guides projects funded through the budget of the local Municipality. This link between the SDF, IDP and Budget is shown in the Figure below

The MB IDP2022 confirms that the Spatial Vision of the Municipality is to create a long-term, sustainable land-use pattern that:

- *Conserves the Mossel Bay municipality's significant rural resources for the biodiversity conservation of its rivers, wetlands, estuaries and coastline, natural vegetation, scenic landscapes, and extensive and intensive agriculture resources.*
- *To support rural tourism and agricultural economic growth and employment creation. The Municipality places a greater focus on leveraging its history, heritage and sense of place of the natural scenic areas and old town to revive its underperforming tourism economy; and*
- Promotes inclusionary, efficient, urban growth that provides comfortable and convenient access to urban opportunities *and livelihoods for all its existing and future residents; while at the same time;*
- *decoupling this growth from excessive water, energy and land consumption along the coastal settlement strip;*
- *That the Municipality places effort and energy into developing partnerships, lobbying and undertaking proactive planning initiatives in seeking to upgrade, refurbish and link the 'old town' with the existing port in a heritage, appropriate way to create a new jewel in the crown of the Garden Route which both attracts visitors but creates a solid locally-driven economy.*

The needs of the community, per ward, were analysed, based on public participation conducted as part of the IDP process – Annexure A has reference.

2.5.3 Sector Planning

Various Sector and Operational Plans advise the MSDF, including:

SECTOR / OPERATIONAL PLAN	CURRENT STATUS	IMPLEMENTATING DIRECTORATE	DUE FOR REVIEW
Spatial Development Framework (SDF)2017	Draft	Plan & Integrated Services	To be adopted 2017
Local Economic Development Strategy	Draft to be Adopted	Corporate Services	2022
Integrated Human Settlement Plan	Approved: Reviewed Annually	Planning and Integrated Services	
Water Services Development Plan	Approved in 2017	Technical Services	2022
Road Master Plan	Approved 15/16 IDP	Plan & Integrated Services	2020
Louis Fourie Corridor Study	Approved	Plan & Integrated Services	
Integrated Transport Management Plan	Approved in 2010	Plan & Integrated Services	2017
Integrated Waste Management Plan	Draft	Community Services	2018
Air Quality Management Plan	Approved	Community Services	2018
Disaster Management Plan	Approved	Community Services	2027 / Annual
Workplace Skills Plan	Annual Revision	Corporate Services	Annual
Coastal Management Programme	Approved	Plan & Integrated Services	2018
Climate Change Adaptation And Mitigation Strategy	Approved	Plan & Integrated Services	2018
Pavement Management System	Reviewed 2017	Plan & Integrated Services	2020
Stormwater Management Plans	Stormwater management plans for the major run-off systems have been compiled for each residential area, excluding the CBD.		

Table 3: Mossel Bay IDP Extract: 2017-2022: Sectoral and Implementation Plans

2.5.4 The Medium Term Municipal Budget 2021/22 MTREF Budget

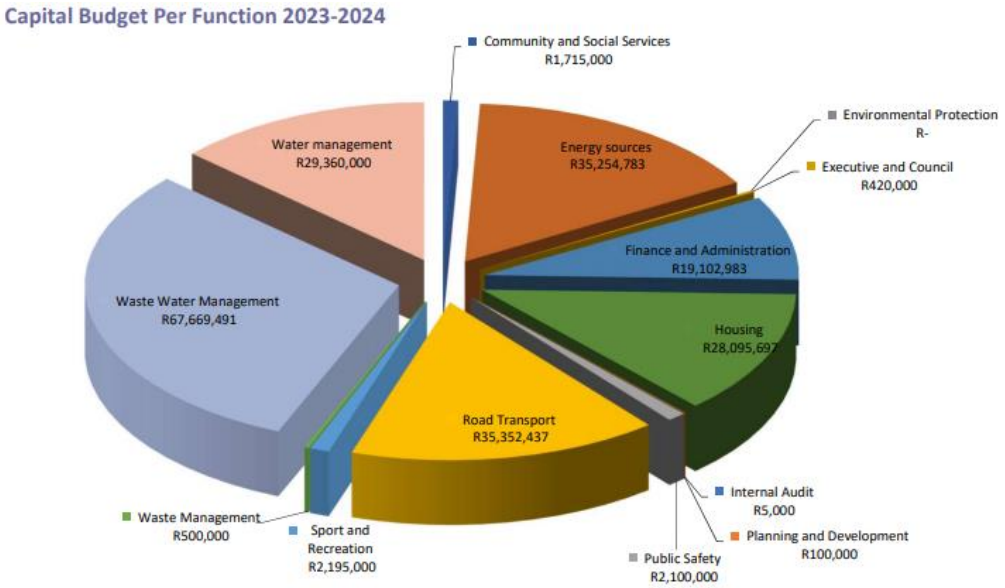
The Mossel Bay Municipality reviews its financial sustainability, current financial positions and Medium Term Revenue and Expenditure Framework (MTREF) on an annual basis to enable the Municipality to deliver acceptable levels of services at affordable tariffs.

The executive summary of the budget shows that the total 2021/22 budget amounts to R 1 605 020 466. This consists of a capital budget of R 241 084 372 or 15.0 per cent of the total budget and an operating budget of R 1 363 936 094 or 85.0 per cent of the total budget. Much of the total Operational Budget - almost 80% thereof - is made up of the bulk purchases of electricity, the cost of purified water, debt impairment and depreciation charges, employee-related cost, and the remuneration of Councillors.

According to the Acting Mayor, in his budget speech, this leaves the Council no or very little room for maneuvering. Major cuts were made to both the Capital and the Operational Budgets, yet the Municipality was unable to cut the budget to such an extent that it will be fully funded.

The total operating budget before recognition of capital transfers for 2021/22 amounts to a deficit of R 87 102 405. The total operating expenditure budget amounts to R 1 363 936 094, which is 5.8 per cent more than the revised budget of 2020/21 of R 1 289 617 231.

Municipal expenditure in the various sectors is illustrated in the 2020 Socio-economic Profile:



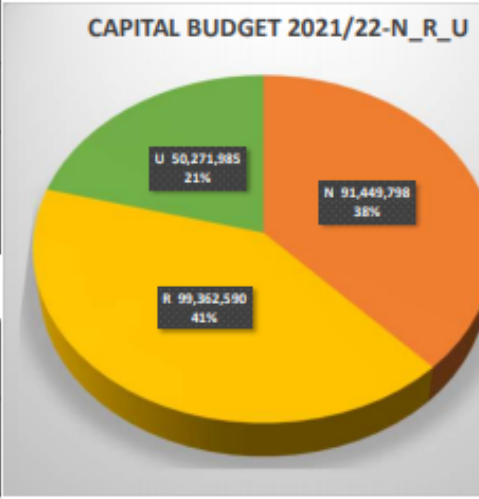
The Capital Budget 2021/22 METRF summary shows the following:

DRAFT CAPITAL BUDGET_2021/22 MTREF SUMMARY_NEW_RENEWAL & UPGRADE

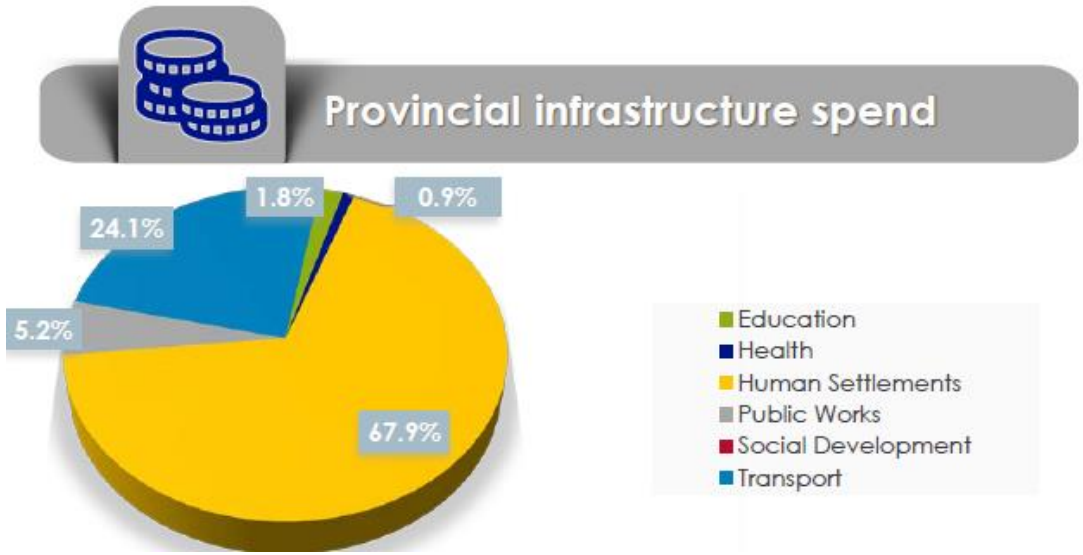
	2021/2022			2022/2023			2023/2024		
	CRR	OTHER	TOTAL	CRR	OTHER	TOTAL	CRR	OTHER	TOTAL
N	52,177,654	39,272,144	91,449,798	57,438,814	33,359,772	90,798,585	62,691,183	21,608,696	84,299,879
R	33,679,624	65,682,966	99,362,590	44,047,046	115,386,429	159,433,475	38,830,124	43,740,064	82,570,188
U	36,709,313	13,562,672	50,271,985	47,331,498	14,568,257	61,899,755	52,079,390	2,920,934	55,000,324
	122,566,591	**118,517,781**	**241,084,372**	**148,817,357**	**163,314,458**	**312,131,815**	**153,600,697**	**68,269,694**	**221,870,391**

	-	-	-	-	0	-	-	-	-

	2020/2021			2021/2022			2022/2023		
	CRR	OTHER	TOTAL	CRR	OTHER	TOTAL	CRR	OTHER	TOTAL
N	43%	33%	37.93%	39%	20%	29%	41%	32%	38%
R	27%	55%	41.21%	30%	71%	51%	25%	64%	37%
U	30%	11%	20.85%	32%	9%	20%	34%	4%	25%
	100%	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**



Provincial expenditure in socio-economic infrastructure in Mossel Bay is illustrated in the 2020 Socio -economic Profile:



The Provincial Infrastructure Investment shows the following specific expenditure in Mossel Bay projects:

PROVINCIAL INFRASTRUCTURE INVESTMENT IN 2021 MTEF

Department	Budget (R million)	Item
Human Settlements	187	Mountian View
	135	New Rest, Yakh'indlu
Transport and Public Works	240	Louis Fourie Road upgrading
	70	Hartenbos-Oudtshoorn road upgrading
Health	7.2	Hospital upgrading
Education	2	Replacement of Mossel Bay Technical

Total	641.2	

Source: 2021 Overview of Provincial and Municipal Infrastructure Investment
Table 4: Provincial Infrastructure Expenditure

The budget report emphasizes that it is of absolute importance that capital projects be prioritized to ensure that available funds are allocated towards the most important projects as well as to the replacement of existing assets. A municipality will always have the challenge to allocate its limited resources amongst the vast number of needs of its community, but a sustained program will be needed to balance the resources with the needs.

To this end, the MSDF will play a major role in guiding the budget in terms of the requirements for bulk services, roads and community facilities. The guidance the MSDF gives to the future development of urban areas can have a direct impact on the future costs to the municipality of meeting its service delivery obligations. The SDF and land use management decision-making will direct the form and location of new development which will impact the budget and in turn impact the cost to ratepayers and the quality of neighbourhoods.

The population growth in the various income group segments will further impact the budget if the segment that cannot afford to pay rates is growing faster than the economy, it will compromise the financial viability of the municipality.

2.5.5 Mossel Bay Growth Options Study (2015)

The WC Provincial Department of Environment and Development Planning undertook the Mossel Bay Growth Options study with the explicit intention to guide land-use decision-making in the municipality. It promotes more contained urban development utilizing increased densities, promotes a more functional urban settlement and protects Critical Biodiversity Areas, view sheds, areas of natural beauty and agricultural land, which are currently all under threat from the current urban development trend of Mossel Bay.

The study investigates the financial and non-financial impacts of sprawling versus compact growth options for the settlement of Mossel Bay. The analysis builds on earlier work commissioned by the WC Department of Environmental Affairs and Development Planning (WCG DEA&DP) as part of the 2013 Municipal Financial Sustainability of Current Spatial Patterns project for the Provincial Spatial Development Framework (PSDF). The study is intended to understand the comparative capital and operational cost projections associated with sprawling or compact urban growth, within the specific context of the Mossel Bay settlement area. It assesses the impact on:

- The municipal operating and capital costs across the full suite of municipal functions;
- Provincial capital and operational costs with regard to health, education, and roads;
- Residents in terms of service tariffs, rates and travel costs;

- Businesses in terms of service tariffs, rates, and developer charges; and
- the environmental resource base in terms of agricultural potential, ecosystem services, tourism impacts/visual quality, greenhouse gas emissions related to passenger transport.

The intention is to provide guidance on the financial and non-financial costs associated with different spatial development forms in Mossel Bay, which can be used to inform future planning within the municipal area by both the municipality and the province.It is shown that there are clear financial benefits for the municipality to pursue a **compact as opposed to a sprawling settlement form**. It shows that there is a compelling case for the merits of compact development over the current sprawling trend in the Mossel Bay settlement areas.

Figure 8: Comparison of total land requirement under both growth scenarios

Implications for Mossel Bay municipal area

Although the document may be outdated in terms of the sites analysed , demand projections and sizes of areas, the principles are still valid and it provides the most important guidelines for direction of growth of Mossel Bay.

2.5.5 Local Strategic Development Frameworks

The LSDF's discussed below were all approved by the Council and are available on the municipal web site. The extracts from plans shown here are for illustrative purposes only and the full set of plans should be consulted in the documents themselves. Some of the LSDF's will have to aligned with the SDF /EMF.

2.5.6.1 Mossel Bay Central Precinct Plan (2013)

This strategic plan deals with the CBD and port and proposes a number of revitalization, urban design and renewal proposals, some of which are being implemented. The precinct plan concludes that the availability of a land-use development plan creates investor confidence and promotes sound planning principles during the process of change and growth in the urban area as it is primarily based on practical principles, underwritten by national and provincial policy. The report states that the CBD of Mossel Bay offers one of the greatest challenges in the history of the town. This MBCPP is a tool to use to change the future of the CBD. The proposals and guidelines

in the precinct plan, if implemented diligently, will restructure and revitalize the CBD and surrounding area to the benefit of all communities of the town and for future generations to experience the quality of life in Mossel Bay

The plan led to two further plans: one by the port authority (NPTA) for the development of land for their port activities and one by the municipality in conjunction with the NPTA for the waterfront area – see below.

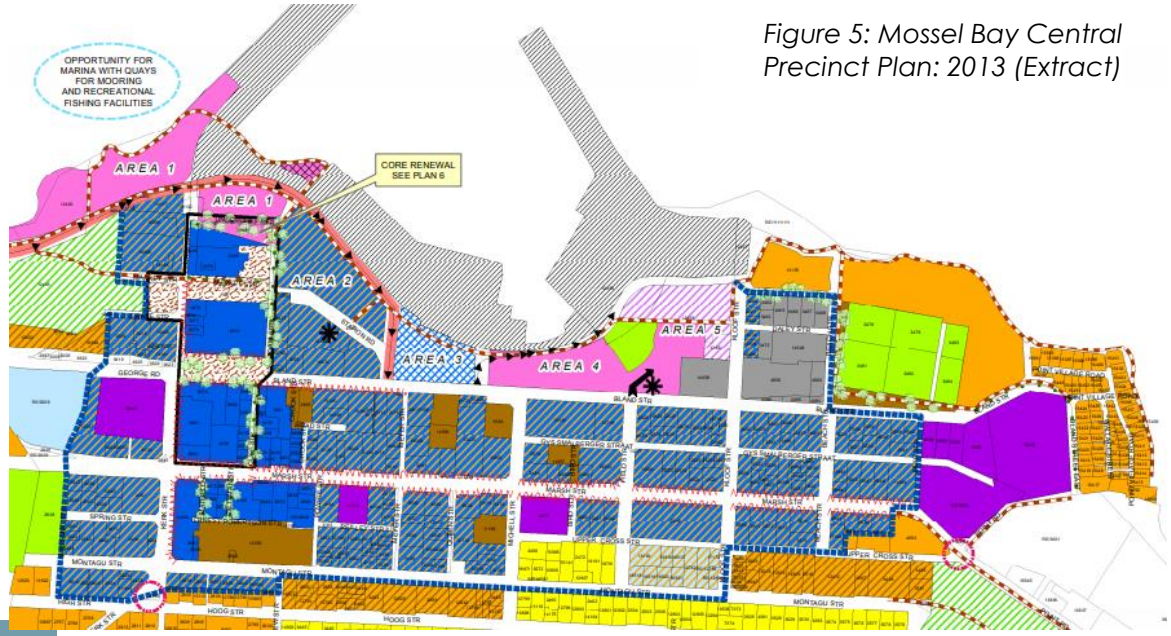


Figure 5: Mossel Bay Central Precinct Plan: 2013 (Extract)

2.5.6.2 *Waterfront Development Concept (2020)*

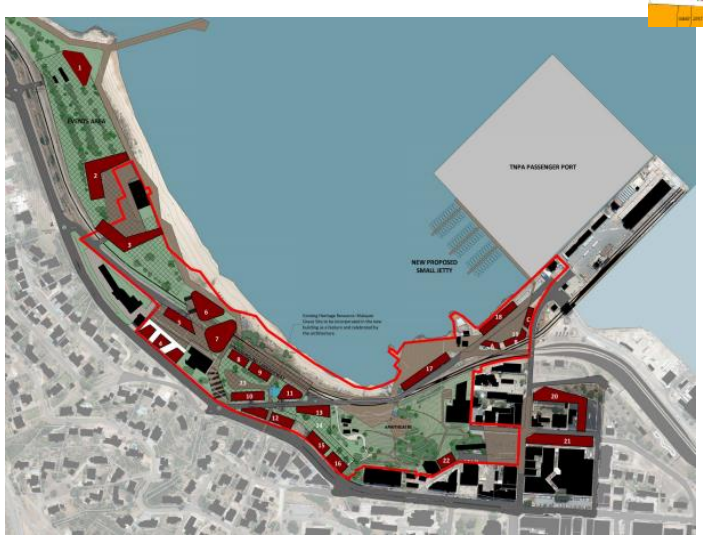


Figure 6: Waterfront Development Concept, 2020 (Extract)

Utilizing urban design principles the plan provides guidelines for a mixed-use development of the waterfront next to the port. It formalizes activities in and around Santos Beach which promotes economic growth. It promotes integration and connection with the old town through creating pedestrian ways and urban squares as well as integration with the natural landscapes.

2.5.6.3 *Port Development Framework Plan (2020)*

The NPTA compiled a framework plan showing short, medium, and long term proposals with the following objectives:

- Expand the infrastructure to support oil and gas exploration.
- Provide improved facilities for cruise liners and ensure integration with the city.
- Develop a waterfront on the western side of the port outside the operational area of the port.
- Rehabilitate the rail infrastructure to tap into the flow of cargo through the Garden Route into the hinterland.

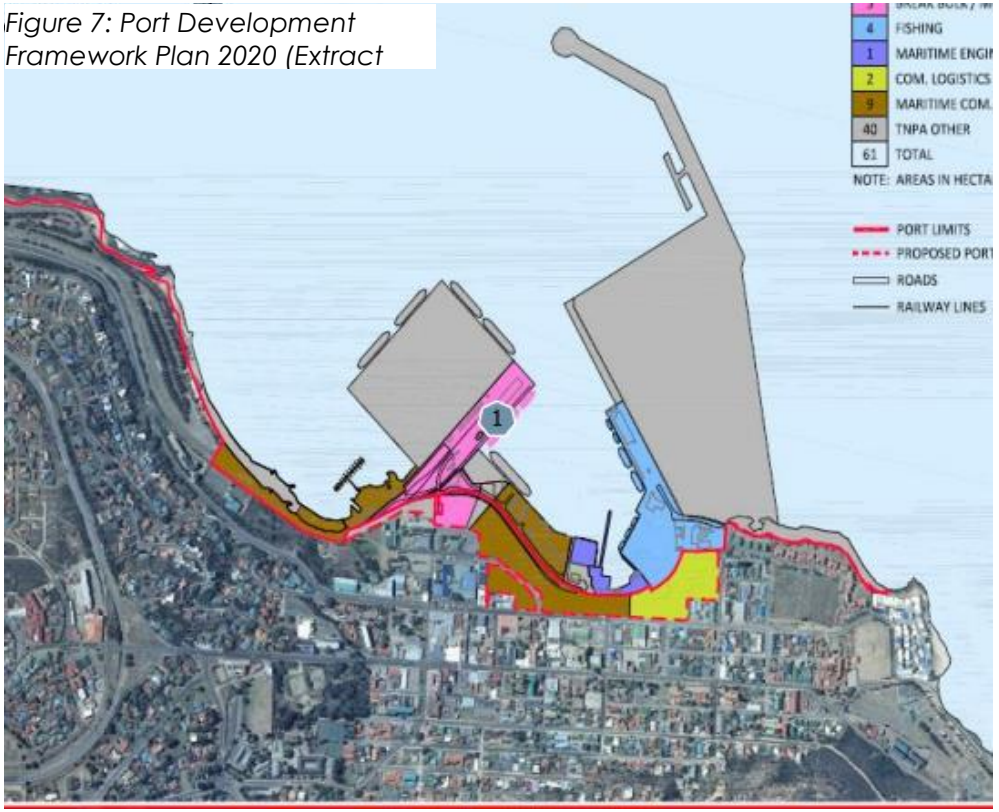


Figure 7: Port Development Framework Plan 2020 (Extract

2.5.6.4 *Mossel Bay Central Tourist Route (2019)*

This document consists of the identification and design of thematic routes for tourists with information displayed at resting stations and by QR codes. The emphasis is on the storytelling of the various themes of the town at the focus points. A tourism marketing plan with implementation strategies is included.

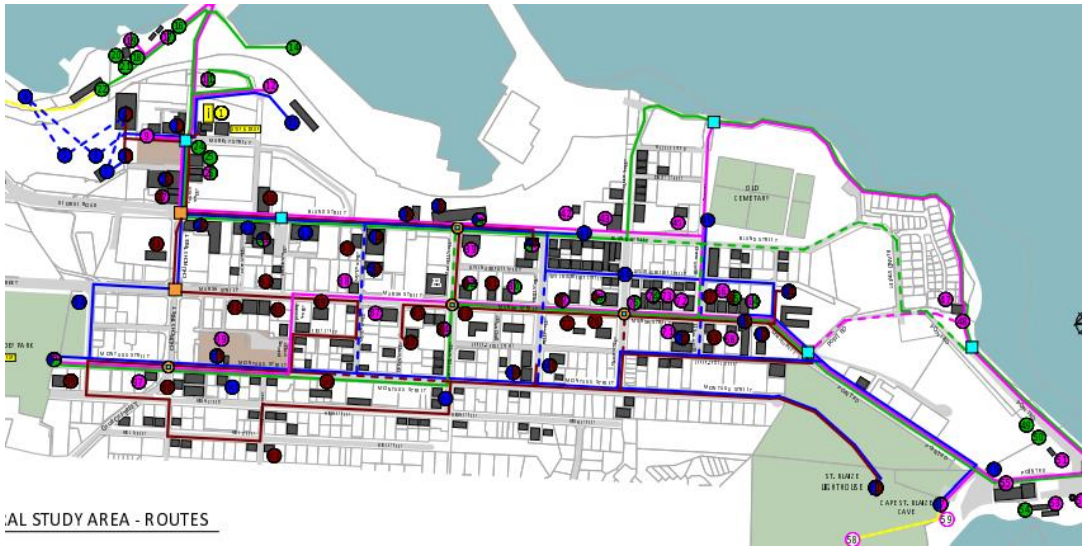


Figure 8: Mossel Bay Central Tourist Route, 2019(Extract)

2.5.6.5 Louis Fourie Corridor Precinct Plan (2013)

This Precinct Plan flows from the Louis Fourie Corridor Plan in the 2018 SDF and covers the undeveloped area to the southwest of the town. The report explains that the proposed Integrated Scenario aims to provide a middle ground between the three main economic clusters. Known as the "property ladder" the Integrated Scenario proposes to fill the gap in property value to increase social mobility and opportunities for people looking to improve their socio-economic status and add value to their assets. The proposal not only proposes an integrated approach in terms of socio-economic conditions but also a coming together of the existing urban fabric with the new proposed precinct, through hard and soft edges, gradual transitioning between property zoning as well as green open space. An overall road system and urban design principles are proposed. It is estimated that about 7400 families could be accommodated in the area.

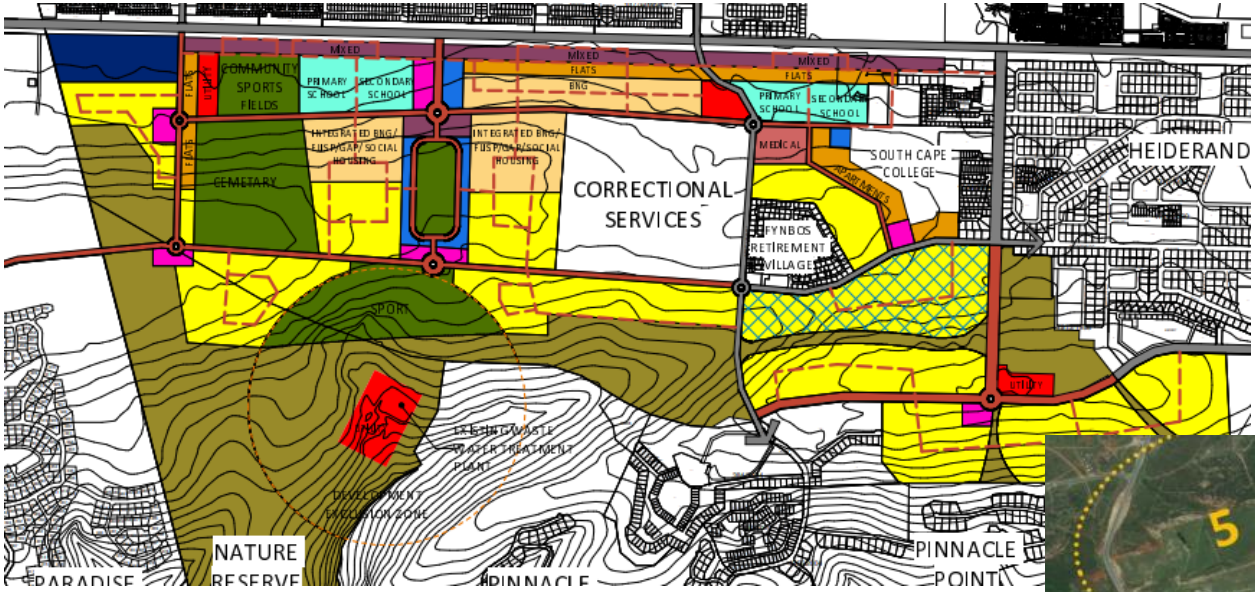


Figure 9: Louis Fourie Corridor,2013 (Extract)

Figure 10: Mayhixhale Street Precinct Plan, 2000 (Extract)

2.5.6.6 *Mayhixhale Street Precinct Plan (2000)*

The Mayhixhale Street Precinct Plan was compiled by the WCG: DEA&P as part of the Regional Socio-Economic Programme (RESP). It describes the area as a precinct is designated as an activity node in the Mossel Bay SDF. Based on the concept of mixed uses, guidelines for land uses along the corridor are provided for the five focus areas which are:

- Kwano Commercial Node;
- Mayixhale Community Node;
- Mayixhale Active Business Street; '
- Kwano Nature Valley; and the
- Kwano Multi-Purpose Recreational Valley.

Key information from the community, IDP and SDF had been obtained for each focus area.

2.5.6.7 *Da Nova Medical Precinct Plan (2021)*

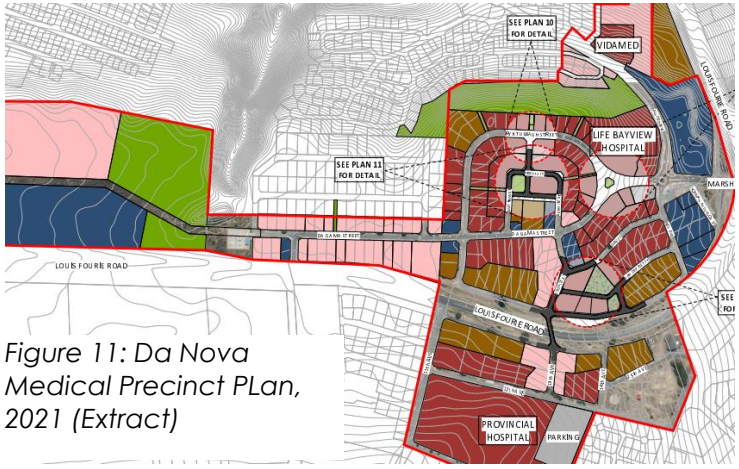


Figure 11: Da Nova Medical Precinct PLan, 2021 (Extract)

This precinct plan replaces the 2012 plan for Da Nova and is being finalized during the writing of this report.

Since the Life Bay View Hospital opened in 1995, many medical-related land uses and practitioners located in the area and gained the character of a medical and health precinct. It is realized that socio-economic changes in society and pending legislative changes will put pressure on the functioning of these facilities in the urban environment in the long run. Furthermore, the Government's introduction of National Health Insurance (NHI) is bringing new challenges in the way medical services are provided and managed to the fore. The Da Nova Medical Precinct has evolved around the Life Hospital since 1995. Planning applications were submitted as the need for expansion of the medical-related uses was identified. The applications were evaluated on a case-by-case basis. The result is a functioning medical precinct that was planned and evolved by different components and needs in the area without addressing the needs of the total precinct. Against this background, the Municipality of Mossel Bay has taken the initiative to enhance the potential of a well-controlled and designed medical precinct in Da Nova and the surrounding area. To give physical expression to the spatial and building needs in a medical precinct, a dedicated Overlay Zone in the municipal Zoning Scheme By-law is required to provide specific parameters for sites and the design of buildings

The plan concludes that Da Nova has the potential to accommodate the health services required in the new era of medical and health challenges. The proposed Overlay Zone will provide the framework within which the spatial challenges could be met within clear and practical parameters. As mentioned in the introduction of this report, the status quo that is portrayed is a largely 'midst-Covid-19' and a 'pre-NHI' situation that may be changing rapidly within the next few months.

2.5.6.8 *Aalwyndal Precinct Plan (2003)*

As a result of the findings of the Growth Options Study, the Aalwyndal Precinct plan was compiled to provide a framework for an integrated, mixed-use and sustainable neighborhood that builds on the spatial vision of the Mossel Bay Spatial Development Framework.

The vision is undergirded by the following design objectives:

- Contribute towards the goal of densification and compact development by designing the residential component accordingly

- Provide housing for a gradient mix of income groups

- Incorporating the natural environment in the design of land parcels

- Contain the footprint of the neighborhood and land use mix at a density that will promote walkability

- Linking the commercial area with the airport activities to create a viable economic hub

- Design and build with renewable energy and green construction in mind

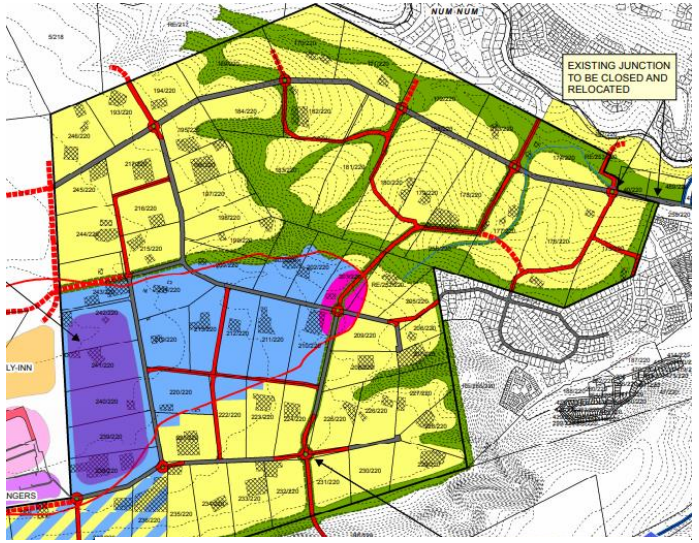


Figure 12: Aalwyndal Precinct Plan, 2003 (Extract)

- Integrate Aalwyndal with the rest of the town by road linkages, bulk service networks, and continuing natural systems.

In a subsequent study, it was found that the occurrence of scarce natural vegetation is limiting the potential for development on certain sites.. An estimated 15 000 families could be accommodated in Aalwyndal if all sites should be developed without significant limitation by vegetation to be conserved.

2.5.6.9 *Mossel Bay Airport Investigation (2018)*

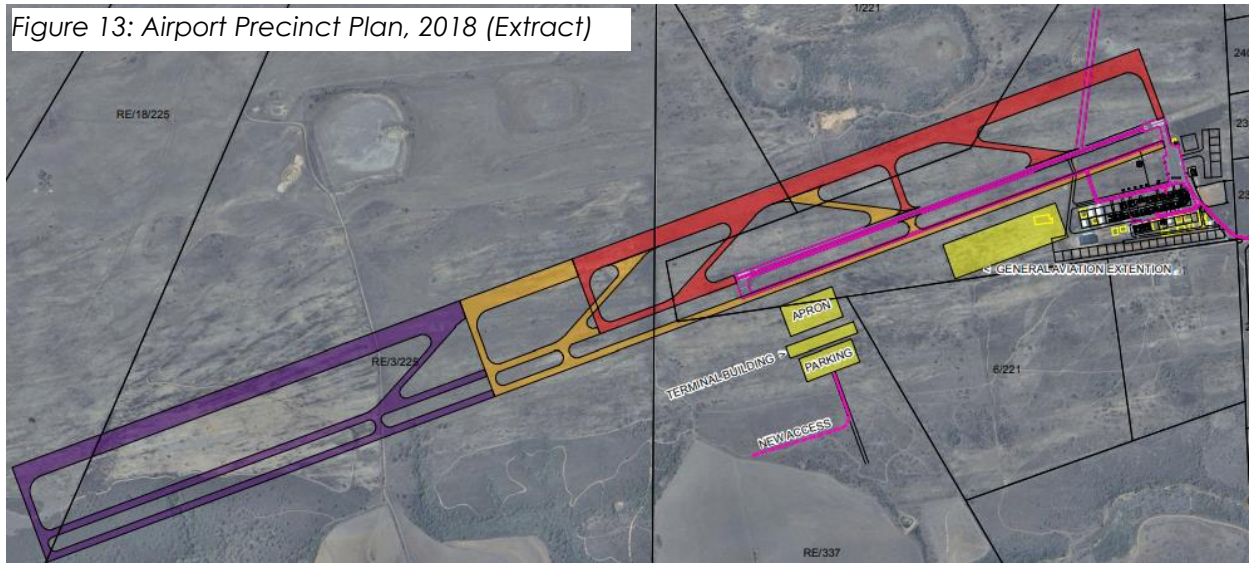
This report explains that the activities of the Mossel Bay Airfield have developed over the past years to such a level that it became a cause for concern because of its location from a land-use point of view and because of the perceived level of noise created by certain aircraft. As the municipality has to take steps to ensure a proper and compatible land use pattern for the future, this study was commissioned to the professional team as indicated on page 2 of this report. The objectives of the investigation were to:

- Establish and analyse the status quo of the airport and all its activities

- To consider alternative locations for the airport and/or some if its activities
- To recommend guidelines and to make proposals for its current and future management

The objective of the study was to consider the future function of the airfield – if it is to remain in its present location – in the larger spatial and economic context of Mossel Bay. To this end, a long-term view is taken - longer than the five and ten-year periods of the IDP and the SDF, for if it is to remain in the present position it will be there permanently and its position will impact the spatial and infrastructure pattern. The investigation found that no alternative location for the airfield is more feasible and that it should remain in its current location.

Figure 13: Airport Precinct Plan, 2018 (Extract)



Based on aviation principles, sound impact study and the economic impact of the airport, proposals for the upgrading of the airport over the medium and long term are made.

The study has shown that the Mossel Bay Airfield in its current capacity contributes significantly to the Mossel Bay economy and employment creation. This is displayed by the total impact of the airport (including direct, indirect and induced impacts). The growth of the Mossel Bay Airfield is mainly driven by the growth of the economic activities located at the airport which in return is driven by the locational attributes of the airport, the ability to unlock opportunities for niche markets and unlocking its full potential within the regional context of airports. Therefore, by retaining and developing the airfield into an airport, it has the potential to remain and become a large economical asset for Mossel Bay with advantages for employment and job creation as well as investment from elsewhere into the town. Positive leadership from the decision-makers will ensure a sustainable asset for generations to come.

2.5.6.10 Hartenbos Central Business Area Local Structure Plan (2010)

The plan contains spatial proposals to guide the future land use pattern in order to achieve consolidation, urban renewal, parking space and more effective functioning of the area. It should be noted that the waterfront development took place since this plan was compiled which changed the land use and movement patterns considerably. The plan should therefore be revisited in light of the latest approach and land uses in the area.

Figure 15: Hartenbos CBA Local Structure Plan, 2010 (Extract)

Figure 14: Hartenbos River Basin Precinct Plan, 2013 (Extract)

2.5.6.11 Hartenbos River Basin Precinct Plan (2013)

The study area contains three land portions that are associated with different development constraints and limitations due to steep and unstable slopes, flood-prone areas, existing mines and industrial areas sensitive biophysical areas and the regional sewage works.

Spatial land use and design guidelines are provided.

2.5.6.12 Dana Bay Business Area Precinct Plan (2011)

The Dana Bay Business Area Precinct Plan provides directions for future land uses in and around the business corridor in Dana Bay in the short, medium and long term.

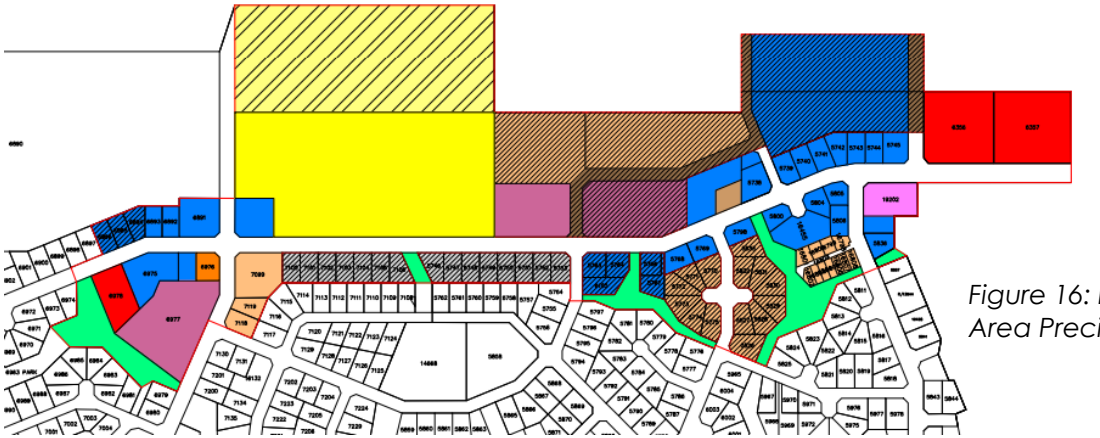


Figure 16: Dana Bay Business Area Precinct Plan,2011 (Extract)

2.5.6.13 Great Brak River Precinct Plan and Long Street Zoning

Such plan identifies different land use precincts along Long Street and proposes appropriate zonings for future land uses. The current land use pattern indicates that these proposals have been implemented to a large extent.

2.5.7 Land Use Regulations

Land use is regulated by several legislations applicable to municipalities, including:

- The Spatial Planning and Land Use Management Act and associated regulations
- The Land Use Planning Act
- The Mossel Bay Municipality By-Law on Municipal Land Use Planning.
- The National Environmental Management Act (NEMA)
- The National Heritage Resources Act 25 of 1999 (NHRA)
- The Outeniqua Sensitive Coastal Area Extension (OSCAE) (Government Gazette No 1526, as a schedule to the Environment Conservation Act 73 of 1989)

Land use management in the municipal area is governed by Munjcipal Integrated Zoning Scheme By-Law.

3 MOSSEL BAY MUNICIPAL AREA STATUS QUO

3.1 Introduction to the Status Quo

Figure 17: Mossel Bay Municipal Area: District Level Locality

Mossel Bay is situated in the Garden Route bounded by the Hessequa Municipality to its west, George Municipality to its east and Oudtshoorn Municipality to its north. It includes the towns of Mossel Bay, smaller settlements like Groot and Klein Brak River, Brandwacht, and Herbertsdale and the coastal towns or neighborhoods of Dana Bay, Glentana, Boggomsbaai and Vleesbaai.

Many studies from previous SDF's and specialist documents exist which describe the biophysical, socio-economic and built environment characteristics, strengths, opportunities, weaknesses and threats experienced in the Mossel Bay Municipal Area. This report refers to those characteristics selectively and in summary form but focuses mainly on those that have spatial implications for current development scenarios, a capital investment framework. And land use management.

The 2018 SDF explains how activities in the Municipality occur as a multi-layered matrix in a single space – the geographical extent of the Municipality. Although there is clearly exchange outside the boundaries, e.g. imports and exports, fiscal transfers, energy transmission and cyclical and permanent migration, ultimately the Municipality depends on the resources within its boundaries.

The 2018 SDF contains a matrix of 26 layers of the Municipal's analysis which are all interrelated within the spatial extent of the Municipality, even though they may be separated for the purposes of research, implementation and management.

At the macro level, the layers can be grouped into three categories which concur with the spatial themes in the PSDF:

- Resources – bio-physical characteristics,
- Space economy – socio-economic characteristics
- Settlement – the built environment

Throughout this report, a distinction will be made between the whole of the Mossel Bay Municipal Area and the settlements within it. Mossel Bay town refers collectively to the town of Mossel Bay, including Hantenbos. Glentana, Groot and Klein Brakriver and Glentana .

3.2 Environmental Attributes / The Natural and Rural Environment

3.2.1 Geology and soils

The municipality contains eight types of geological formations. Most of the Municipality is comprises of Arenite and Conglomerate. Arenite is found in the northern portion of the municipal district along the high mountains and along the N2. The conglomerate deposits occur in the central portion of the Municipality. Sedimentary soils are found along the coast and the south-western part of the Municipality. The Mossel Bay SDF

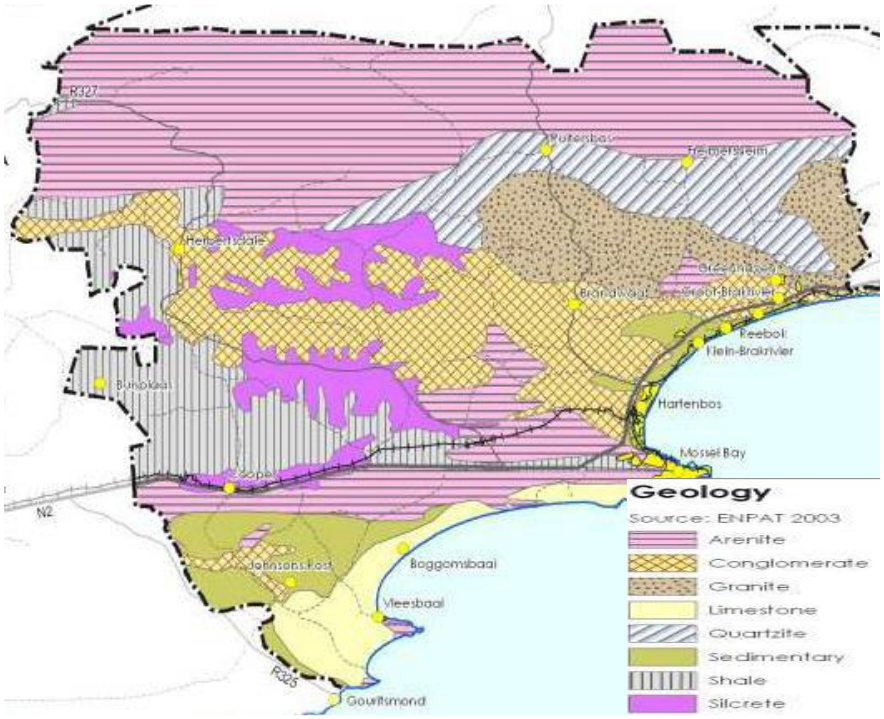


Figure 18: Geology

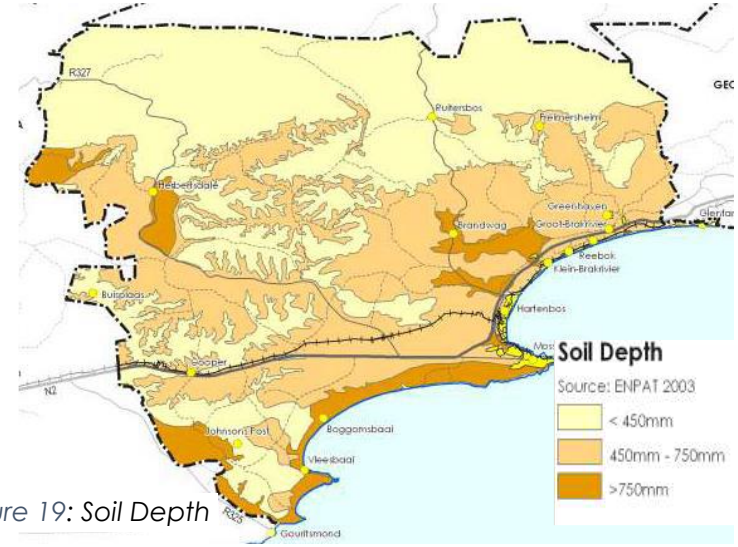


Figure 19: Soil Depth

Status Quo Report, Oct.2016 inferred the following in respect of the geology and soils of the Mossel Bay area:

- Areas with high clay content, sandy and estuarine soils, and previous quarries and land fill sites are of concern for future urban development. Detailed geo-technical studies should be undertaken prior to development.
- It is important from an agricultural land use perspective that the soils with greater soil depths should be protected from being converted to non-agricultural land uses.
- Figure 19 indicates that a large section, spec ious areas, of the Municipality has a very shallow ground/soil layer, albeit with higher rainfall (See Par. 3.2.2). Various applicable biophysical datasets should be read in conjunction to infer the suitability of areas for various uses, specifically in view of the possible impact of climate change. Progress in economic fields

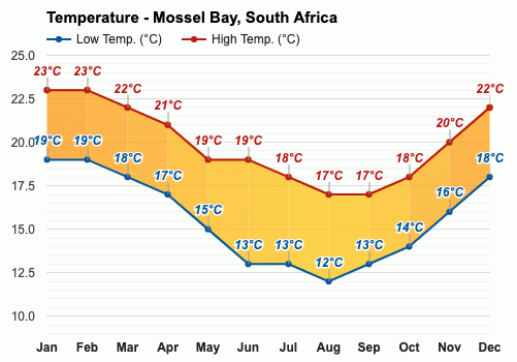
(such as hydroponic agriculture) may also skew the traditional understanding of the relation between the biophysical and the allocation of land use areas;

- Nonetheless, areas with soil depths greater than 450mm, as identified in Figure 19 is identified as a biophysical dataset to consider in the spatial structuring of Mossel Bay;
- The areas with the greatest soil depths (more than 750mm deep) are located along the southern coast, around Herbertsdale and Brandwacht. Although there are also deeper soils along the coast, it can be seen from these figures that they are not as suitable for agriculture as the inland soils, due to the harsh coastal environment.
- Most of the municipal area has a soil clay percentage of less than 15%. Various areas around the centre of the municipality have a clay percentage of between 15% and 35%.

3.2.2 Climate and Climate Change

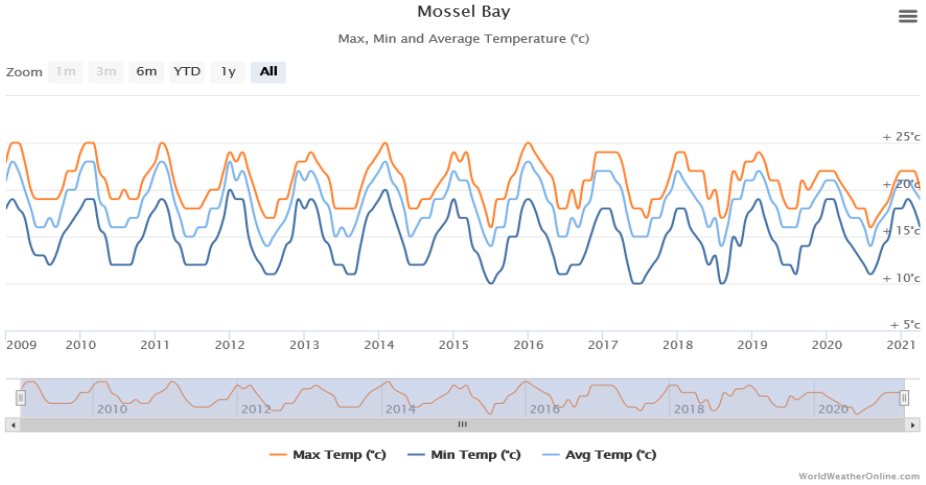
Mossel Bay has an ocean-moderate semi-arid climate and partially a temperate oceanic climate (Koppen -Geiger Climate Classification of Bsh and Cfb (Weatherbase.com)

3.2.2.1 Temperature



(Source: https://www.weather-atlas.com/en/s, April 2021)

Figure 20: Temperature



The average minimum and maximum temperatures range from 10°C to 25°C. See Figure 20. En.climate-data.org mention that, on average, temperature only vary by 8.3°C throughout the year.

(Source: en.climate-data.org, 2021)

Weather averages	Humidity (%)	Summer Min. Temp. (°C)	Summer Max. Temp. (°C)	Winter Min. Temp. (°C)	Winter Max. Temp. (°C)
Mossel Bay	68-73	16	26	8	19

Mossel Bay has a very temperate climate. Water temperature range between 16.4°C (in Jul) and 21.8 °C (in Jan). The average water temperature is 18.60 °C.

3.2.2.2 Rainfall

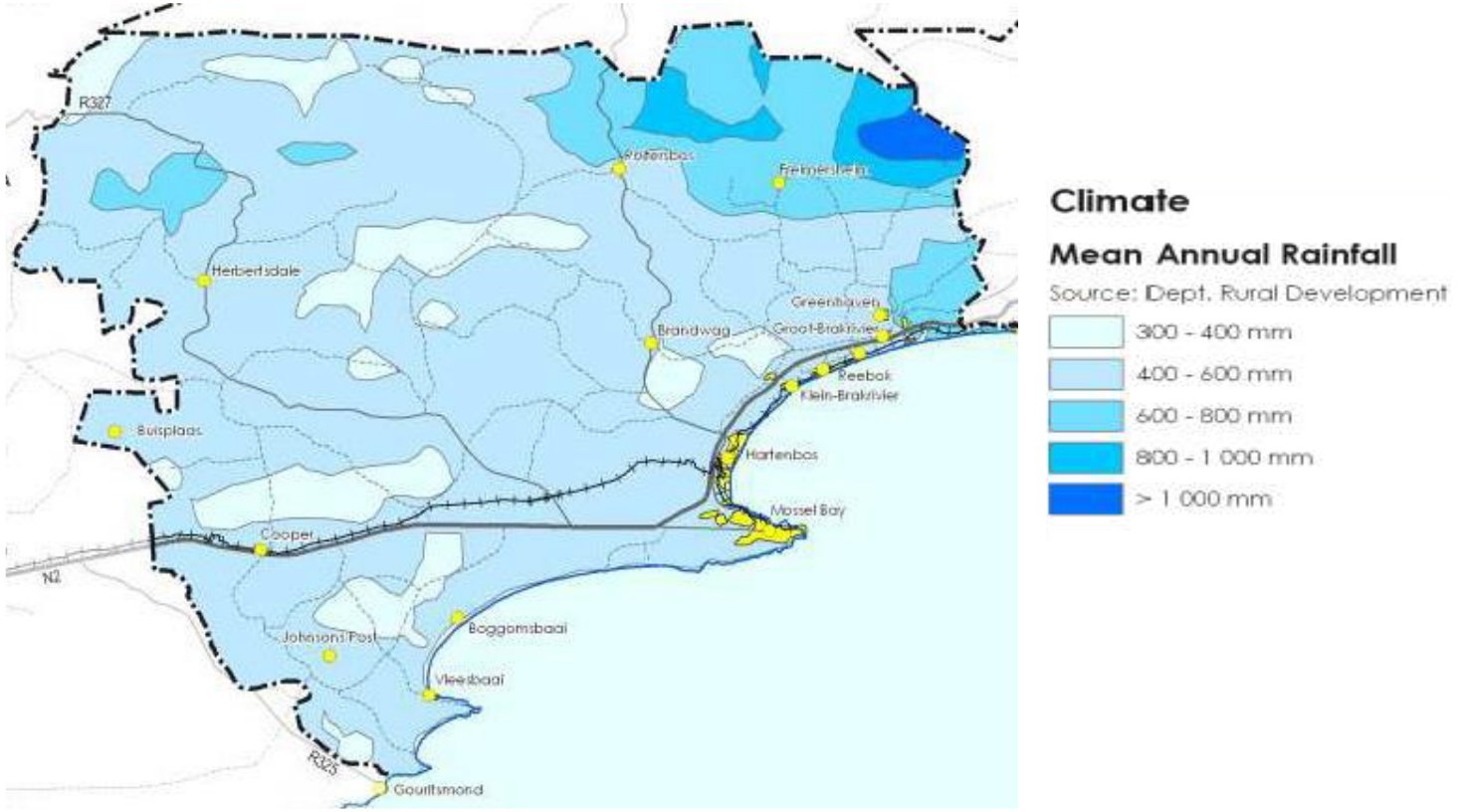
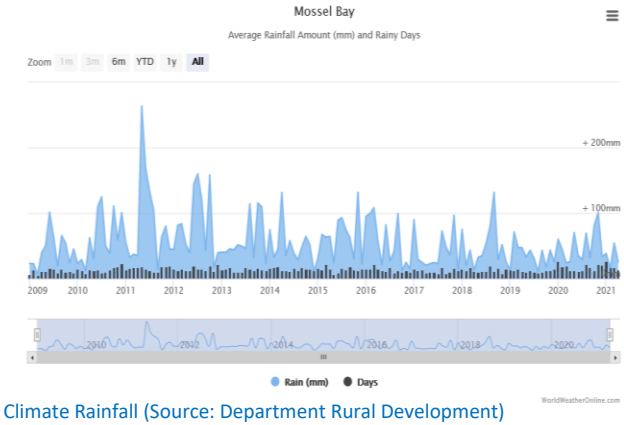
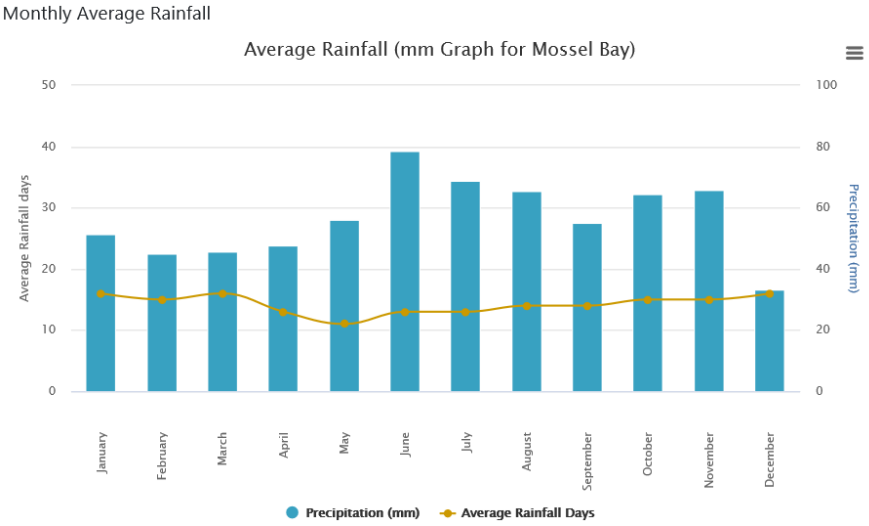


Figure 21: Rainfall





Climate Rainfall (Source: Department Rural Development)

The graphs above shows that the highest rainfall is experienced in winter (June, average of 78mm) and the lowest average in Dec (46mm) . The Köppen climate classification . Note however the extreme variance of the year on year averages. The figure above shows that the highest rainfall is experienced along the Outeniqua Mountains. Rainfall in this area is between 600 mm to more than 1 000 mm a year. High rainfall of more than 1 000 mm is experienced east of Friemersheim. The remainder of the area receives less than 600mm per annum, on average.

3.2.2.3 Wind

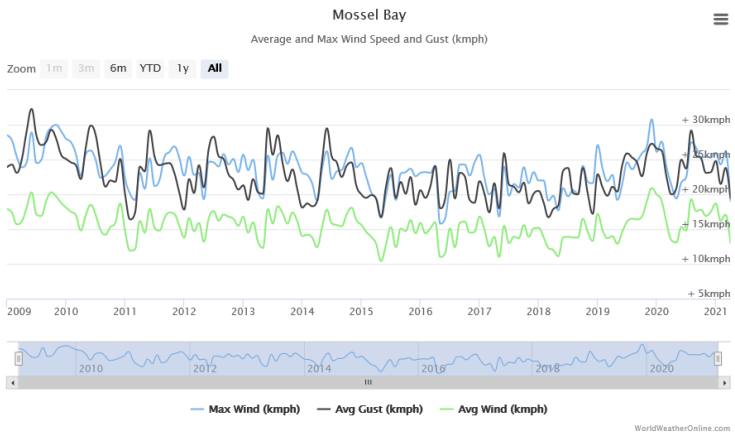


Figure 22: Wind

The northern part of Mossel Bay Municipality along the Outeniqua Mountains is estimated to have a mean annual wind speed of 7-8 m/s with most of the Municipality being between 4-7m/s. This indicates that this region of the Municipality has some potential for providing wind-generated energy.

3.2.2.4 Solar and UV

Data (En.climate-data.org) shows that around 3037.97 hours of sunshine are counted in Mossel Bay throughout the year, with a monthly average of 99.97.

The average sun hours/day in the recent years seem relatively lower than the data of years since 2009 (worldWeatherOnline.com)

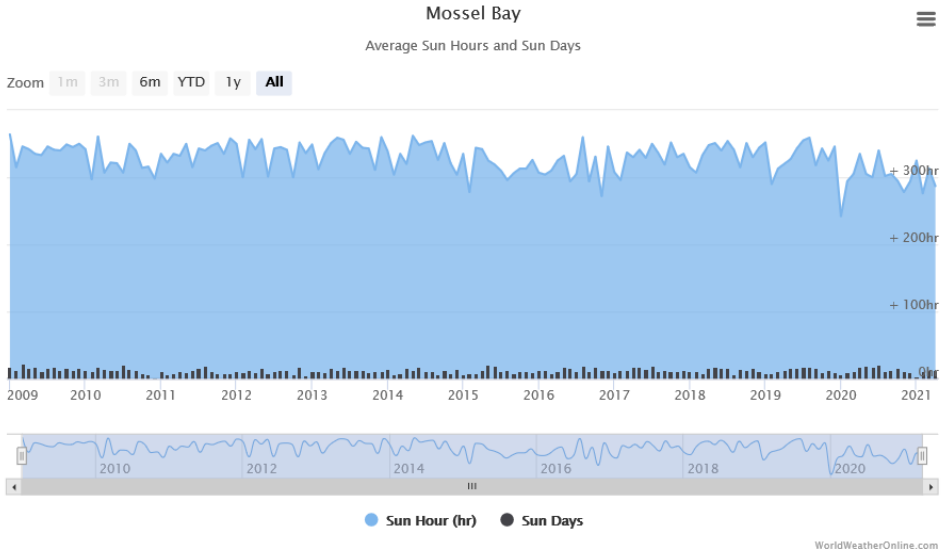


Figure 23: Sun Hours and Sun Days

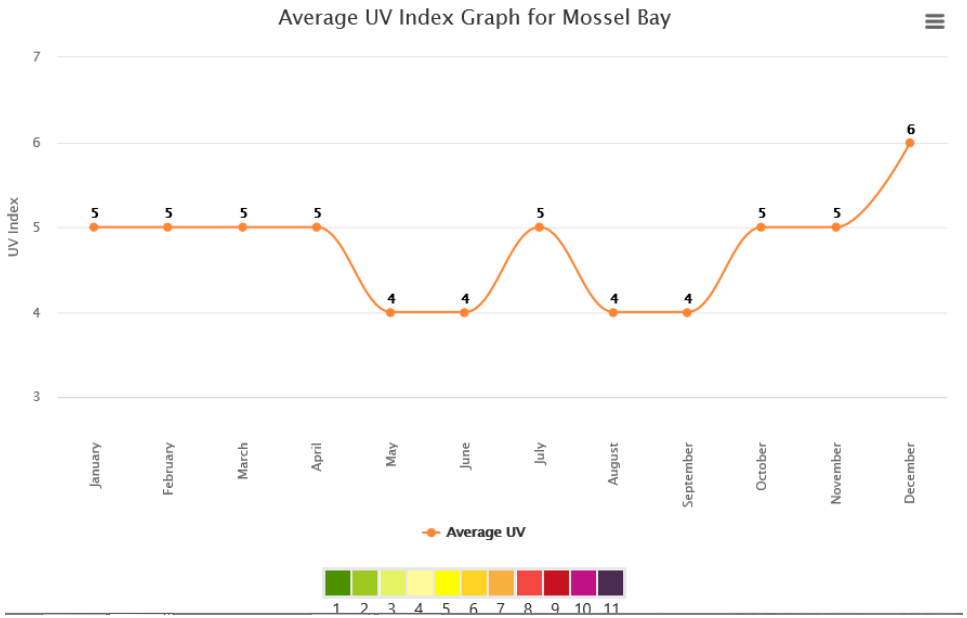


Figure 24: UV Index

The Mossel Bay Municipality falls in an area with intermediate solar radiation levels estimated at between 1700 - 1800 kWh/m² (SDF2016: Source: Solargis, 2012). The Solaris Photovoltaic Potential Index (See Figure 25) shows a relatively low Photovoltaic Power potential, compared to the central-west portion of South Africa.

The UV Index is between 4-6 (https://www.worldweather online.com/mossel-bay-weather-averages/western-cape/za.aspx)

(South-africa/mossel-bay-climate#temperature (May2021))

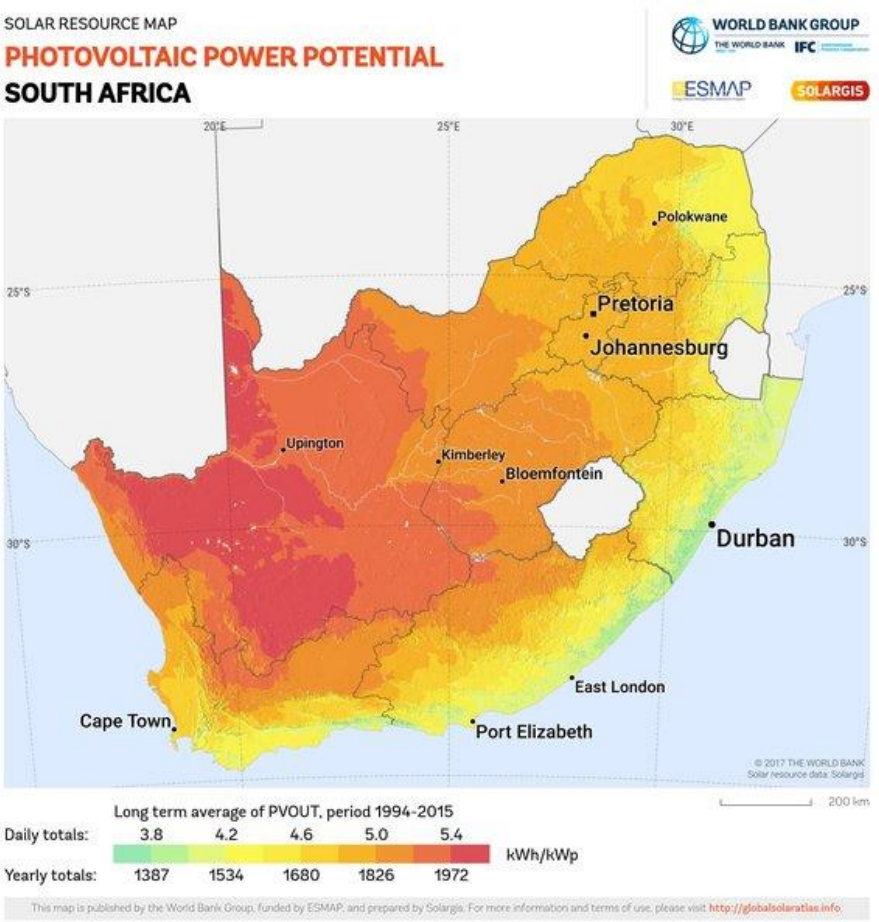


Figure 25: Photovoltaic Power Potential

3.2.2.5 Sea Level Rises

The sediment study (Royal Haskoning, DMV 2015) examined the implications of sea level rise. It noted a rate of sea level rise of 1,5mm/pa between 1960 and 2008 and from this estimated future lateral shoreline erosion, in terms of low, medium and high risk for Vleesbaai, Danabaai and Mossel Bay (to Glentana).

Regional Sediment Management strategies (RSM) have been proposed for the Mossel Bay coastline The coastline of Mossel Bay is approximately 122km long and it is characterised by the presence of three crenulated bays situated between headlands. From the west, these bays is Vlees Bay (4km wide), Dana Bay (18km wide) and Mossel Bay (23km). The planform of these bays are a direct consequence of the preferential erosion of sandstones of the Bredasdorp group (Drew & Jones 2015). The dynamics of crenulated bays are such that there is great seasonal variation in coastal erosion rates, which influences off-shore sediment transport and has a shaping effect onshore dune formation and destruction.

The site-specific impact of the measured sea level rises, as well as projected increased sea levels have been mapped and the resultant impacts are noted below.

3.2.2.6 Climate: Implications and Climate change

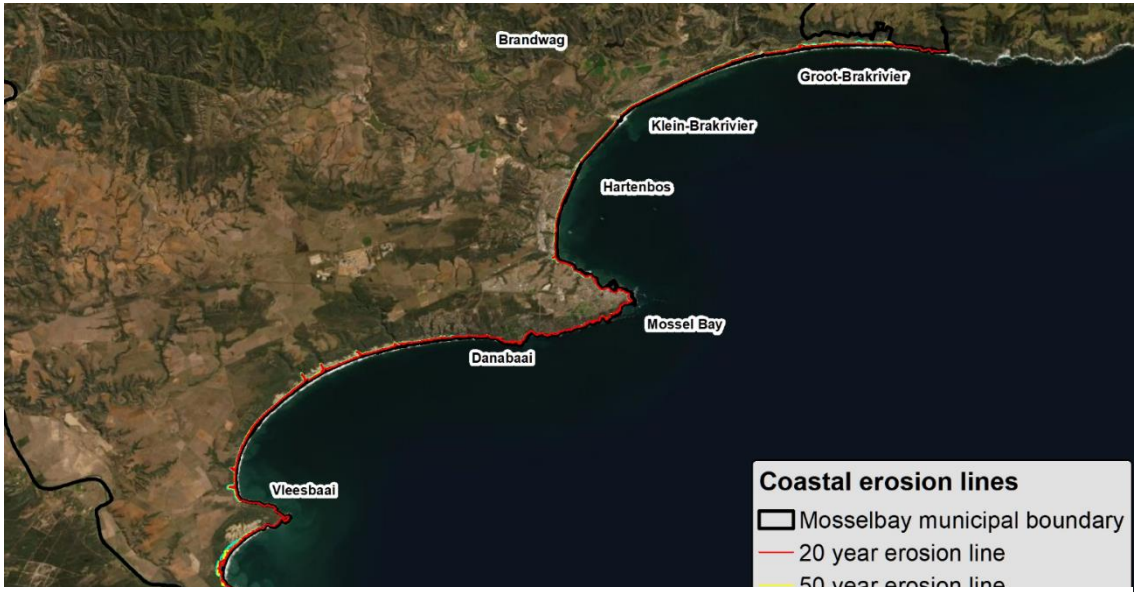
The MBGO2015 states that "In Mossel Bay, sprawling coastal and housing estate development has increased significantly in recent years. Urban areas consume the majority of energy production worldwide and account for the largest share of global CO2 emissions (Satterthwaite *et al.* 2007, OECD 2010). Greenhouse gas (GHG) emissions in cities and towns are increasingly driven by transport and energy services, rather than industrial processes.

Coordinated compact growth development and efficient human settlement in urban areas form an important part of climate change mitigation and adaptation strategies and in Mossel Bay has started to form part of local spatial development plans and future growth policies (see the MBM 2013 Spatial Development Framework, and the MBM Draft IDP 2014/15.) This includes outlining the implications of climate change in terms of disaster management and improved infrastructure provision. The potential influx of people into Mossel Bay as it becomes a more popular destination results in a need for controlled and careful planning listed as a measure to adapt to a growing urban population. Set-back lines along the coast and in estuaries already form part of the national legislation as an adaptation to possible sea-level rise, coastal erosion and increased storm events.
In the Mossel Bay Municipality, carbon sequestration forms an important part of mitigation as naturally vegetated areas trap and store carbon. The extensive salt marsh areas in the estuaries along the Mossel Bay coast contribute significantly to carbon sequestration within the municipality. The compact scenario results in lower losses of carbon storage land to development than the sprawling scenario as well as lower carbon emissions due to lower transport-related emissions (see the section on passenger

transport impacts below.) However, the degree of climate change mitigated by these changes would be minimal on a global scale".

The Mossel Bay SDF Status Quo Report, Oct. 2016 and the IDP 2017-2022 concluded, in respect of the climate of the Mossel Bay area, the following:

- Mossel Bay is relatively hotter(maximum), drier and colder (minimum)than the other Eden District municipalities;
- Rain falls throughout the year and, thus, the municipality is well suited to rain water harvesting which should be strongly promoted as a retrofit on existing buildings and made compulsory on all new buildings.
- The design of buildings needs to carefully consider insulation, orientation, materials and environmentally sensitive design linked to thermal characteristics and considerations: This will help reduce water demand especially in the winter.
- The municipality has good potential in the western, central and north-eastern for the implementation of renewable energy projects with medium solar radiation and wind speeds.
- To date, there has been a number of wind farm applications. Concern was previously expressed about the location of some of these win farms with regards to impact on views, and bat and bird movement routes and breeding ground. Data showing the 2016 site positions relating to wind/solar farm applications and the position of enquiries/applications to date is available.
- However, domestic scale wind turbines, together with domestic hot water heating and photovoltaic electricity generators should be promoted throughout the municipality.
- A 2017 estimate shows that in the medium term (10years) coastal erosion is likely to impacted the coastal areas. Recent study data, to be consulted in the evaluation of all applications in the coastal/floodline vicinities.



Coastal Erosion Lines

Updated erosion line information is shown in Figure 26 and must be imposed on the LSDF areas to gauge the impact.

The WCG DEA&DP is compiling a new Climate Change Strategy as referred to in par 2.2.13 above. When finalised, the key findings of this strategy will be included in an update of this SDF / EMF. It is important to note that it will contain a GHG (green house gas) Inventory. It wil contain milestones with a vision to aim for a net-zero emissions province by 2050.

Authorities will have to recognise the opportunities associated with lower-carbon economic activities, soil carbon restoring land management, etc. vs. the opportunity costs of a failure to respond. Although in areas such as Mossel Bay where there is a strong focus on industrial activities, these still remain a key contributor to GHG emissions, particularly when looking at their electricity (from fossil fuel) as well as a primary use of fossil fuels, such as coal and diesel for industrial purposes.

Immediate actions that are indentified in the said strategy are the following:

1. Increase the share of renewable energy and decentralised energy systems in the overall energy mix, and improving our energy security, through the **Municipal Energy Resilience programme**
2. Improve the province's water security through transversal collaboration on the **Sustainable Water Management Plan**
3. Adapt the agricultural sector to the changing climate and global situation, in accordance with the **SmartAgri strategy**
4. Kick-start the transition to electric mobility and subsequent decarbonisation of transport through a government-led **Electric Vehicle fleet transition**
5. Complete the Western Cape's greenhouse gas emissions inventory and detailing a **2050 Greenhouse Gas Emissions Mitigation Pathway**
6. Identify climate change hazards as part of **Risk Assessments in Disaster Management Plan(s)**
7. Develop a **Short-Lived Climate Forcers Strategy** for urgent curtailing of emissions such as methane, ozone, refrigerants and aerosols
8. Utilize the **Ecological Infrastructure Investment Framework** as a backbone to investment into natural capital and the restoration of our land and oceans
9. Create a space for citizenry to have their voices heard, in the form of a **Climate Assembly** and ensuring that women have a voice
10. Ensure that there are **effective climate governance structures** that can provide technical support to the Western Cape Government, including the Premier and Treasury
11. Utilize a **sustainable procurement programme and public employment programmes** to create sustainable jobs and divest from fossil fuels, whilst ensuring women's economic empowerment
12. Consider **climate change in all development and spatial planning processes**
13. Develop a roadmap and mechanism for the formulation of **sector-specific climate change response strategies**

3.2.3 Topographic and Landscape Characteristics

The topography of the municipality is characterised by:

- The Outeniqua Mountains which create a great west-east spine on the northern boundary of the municipality;
- A hilly region of undulating, rolling river valleys reaching to the coast east of Mossel Bay town; and,
- A flat coastal plain west of Mossel Bay town.

The slopes greater than 1:4 (25%) should be avoided during development.

Differences in elevation, on a local level, create varying degrees of visual impact, albeit negative or positive, and should be considered, in the placement of uses.

Aspect (north-facing for instance) plays a role in the placement of specifically residential/ energy uses, from a green-architecture perspective. Relevant datasets are available and should be used in the evaluation of new land use/ development.

3.2.3 Strategic Water Resource Areas and Ecological Infrastructure

Strategic Water Source Areas (SWSAs) are areas, such as mountain catchments, which produce disproportionately greater volumes of water per unit area than other areas. Reasons for this include climatic conditions like high rainfall or physical properties such as the ability of the soils and underlying weathered material and rocks to store water as groundwater. The water in wetlands, streams and rivers is known as surface water or runoff, and large volumes are typically generated in high rainfall areas over a year. Water in saturated layers or zones below the land surface is known as groundwater and discharges, or outflows of groundwater sustain springs and river flows in the dry season (known as baseflow).

Strategic Water Source Areas are defined as areas of land that either:

- Supply a disproportionate quantity of mean annual surface water runoff in relation to their size and so are considered nationally important
- or have high groundwater recharge and where the groundwater forms a nationally important resource
- or areas that both supply a high volume of surface water and groundwater recharge

Strategic Water Source Areas for groundwater (SWSA-gw) provides up to 42% of the baseflow in their areas and have a crucial role in sustaining surface water flows during the dry season. Approximately 24% of the settlements that are reliant on groundwater lie within SWSA-gw, equivalent to 10% of all settlements in South Africa. SWSA-gw supply about 46% of the groundwater used by agriculture and 47% of the groundwater used for industrial purposes in South Africa

The Fynbos biome covers 8.47 million ha (6.7% of the country) and has a mean annual river flow of 6 628 million m3/year, twice the national average. SWSAs cover just 2.12 million ha (26% of the biome) and generate a mean annual runoff of 5 032 million m3/year or 76% of the total for the biome, making them a priority for protection and restoration (Le Maitre *et al.* 2018).

Rivers and wetlands, including floodplain wetlands, are inherently resilient systems which are physically and ecologically adapted to their water flow regimes. Riparian vegetation is resistant to floods and can absorb and dissipate flood water energy that reduces the level of damage to these systems, adjacent land and infrastructure. River systems also purify water by assimilation or decomposition of pollutants.

These systems also have essential production functions including products such as food (fish, water plants) and a wide range of recreation functions including canoeing, swimming and angling. The linear nature of many of these ecosystems and the small sizes of many exposes them to human impacts, and a high proportion of these systems have been, and continue to be, degraded.

The Fynbos biome is prone to the invasion of woody invasive alien plants. The dominant invasive alien plants are Australian acacias, pines and hakea followed by eucalypts. Black wattle (*Acacia mearnsii*) and eucalypts are particularly challenging because they invade river floodplains and the adjacent areas and have relatively high water use.

During workshops (George, Stellenbosch & Clanwilliam) held as part of the study that investigates *The Implementation of the Development of an Ecological Infrastructure Investment Framework (EIIF) and an Alien Invasive Species Strategy (AISS) for the Western Cape Province* the following key ecological infrastructure was identified as important to protect and restore for social-ecological resilience:

- Water source areas
- Rivers and their associated wetlands
- Productive rangelands

The following primary threats to the ecological infrastructure was also identified and include the following:

- Invasive alien plant invasions and specifically species with a high water use and which increase fuel loads such as Black wattle that is the dominant species in the project rivers
- The degradation of river systems through agricultural practices
- The degradation of rangelands especially in the Succulent and Nama Karoo[19]

Perennial rivers flowing throughout the municipality are the Langtou, Kamma, Kayaking, Stink, Hartenbos, Kleinbrak and Brakrivers. The main inland water bodies are the Wolwedans Dam north of Great Brak rivier and the Kilpheuwel Dam north of Little Brakrivier.

[19] The Implementation of the Development of an Ecological Infrastructure Investment Framework (EIIF) and an Alien Invasive Species Strategy (AISS) for the Western Cape Province. Draft Catchment Prioritisation Report: February 2019
Le Maitre, D.C., Seyler, H., Holland, M., Smith-Adao, L., Nel, J.L., Maherry, A. and Witthuser, K. (2018) Identification, Delineation and Importance of the Strategic Water Source Areas of South Africa, Lesotho and Swaziland for Surface Water and Groundwater. Report No. TT 743/1/18, Water Research Commission, Pretoria[19]

In terms of SANBI: National Freshwater Ecosystem Priority Areas (updated), the rivers to the west of the Municipality are Critically Endangered. All the rivers in the east are classified as Endangered and vulnerable.

The interior of Mossel Bay is the location of the headwaters for the three largest rivers in the area namely the Little Brak, Great Brak and the Hartenbos River. The catchments of all three rivers have been extensively modified via a number of land uses that range from agriculture to residential and institutional use.

The table below summarising the profiled of freshwater aquatic systems in Mossel Bay (Source: Wessels 2011, Clark 2013 & Clark 2015)

Attribute		Hartenbos	Great Brak River	Little Brak River
Location		34deg06'58.07"; 22deg06'45.84"	34o03'09.69"; 22deg13'58.27"	34º05' S; 22º08' E
Catchment size		144 km2	555km2	562km2
Length		32 km	5km	15km
Government Dams	Name	Ernst Robertson	Wolwedans	None
	Capacity	500 000 cubic meters	25 530 000 cubic meters	N/A
	Purpose/ Water Use	Irrigation: too brackish for potable use	Main supply of potable water to Mossel Bay	N/A
	Operator	Department of Water and Sanitation	Department of Water and Sanitation	N/A

Attribute		Hartenbos	Great Brak River	Little Brak River
Land use in catchment	Upper catchment	Grain, wheat and dairy farming	Grain, wheat and dairy farming. Game farming and pine plantation	Dry land crop production, Irrigated crop farming, forestry and livestock grazing (e.g. cattle).
	Lower Catchment	Sand mining, grazing, residential and resort.	Residential and commercial development. Subsistence vegetable farming	Residential development, livestock grazing
Conservation ranking (out of 100, with importance decreasing as one moves towards 100)		74	46	93

Table 5: Freshwater Aquatic Systems

The data of a recent updated flood-line study has been imposed on historical (2016) datasets. The resultant effect on the river systems and the adjacent land use in the Groot Brak- Klein Brak river systems is shown on Maps 27 to 29.

Figure 26: Groot Brak River and Tributary: 1:50year flood-lines (now and future)

Figure 27: Groot Brak River and Tributary 1:100 year flood-lines (now and future)

Note that flood-line data should be read with other ecological data sets (such as wetlands, ecological buffers, etc.) to determine developable areas, as per detailed land use applications. Owners/users of existing development in areas within or in close proximity to current and future flood-lines (and other ecological infrastructure areas) should take note of the associated risks and no further development/construction should be allowed, unless the environmental impact thereof (on both the use and the wider surrounding area/systems) can be measured, quantified and mitigated.

Figure 28: Klein Brakriver Flood-lines (1:50 and 1:100)(now and future)

Strategic Water Source Areas (SWSAs) are areas, such as mountain catchments, which produce disproportionately greater volumes of water per unit area than other areas. Reasons for this include climatic conditions like high rainfall or physical properties such as the ability of the soils and underlying weathered material and rocks to store water as groundwater. The water in wetlands, streams and rivers is known as surface water or runoff, and large volumes are typically generated in high rainfall areas over a year. Water in saturated layers or zones below the land surface is known as groundwater and discharges, or outflows of groundwater sustain springs and river flows in the dry season (known as baseflow).

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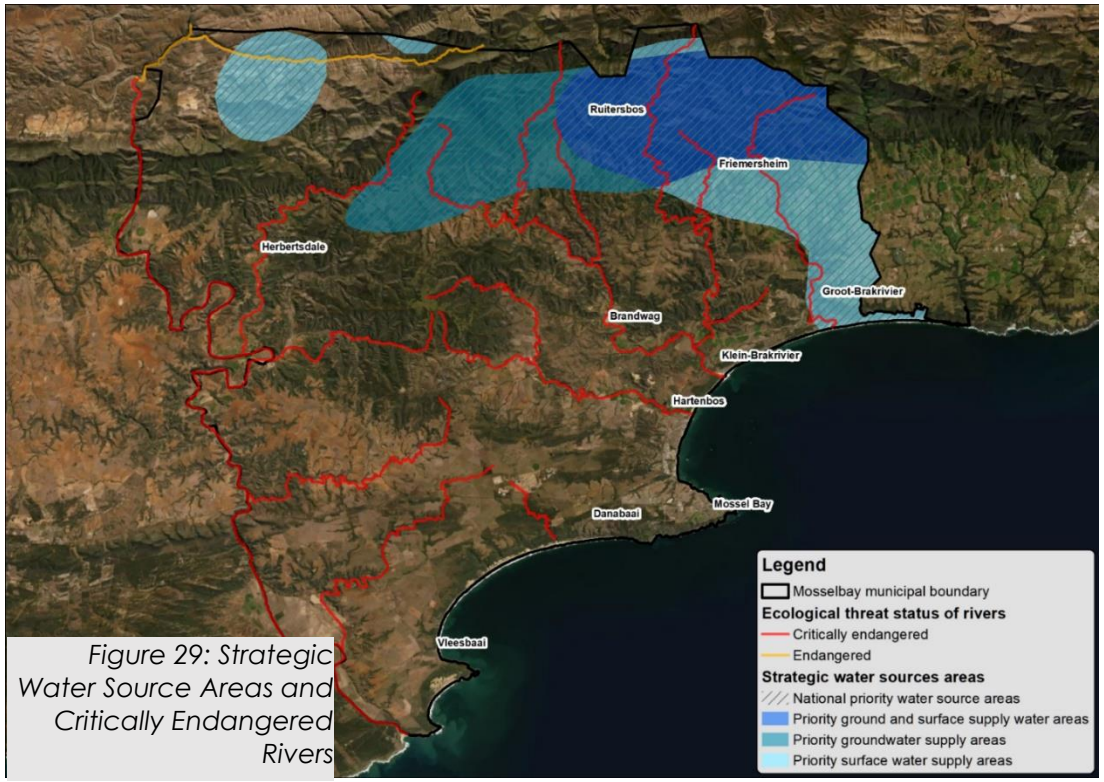


Figure 29: Strategic Water Source Areas and Critically Endangered Rivers

[20] *The Implementation of the Development of an Ecological Infrastructure Investment Framework (EIIF) and an Alien Invasive Species Strategy (AISS) for the Western Cape Province. Draft Catchment Prioritisation Report: February 2019*
Le Maitre, D.C., Seyler, H., Holland, M., Smith-Adao, L., Nel, J.L., Maherry, A. and Witthuser, K. (2018) Identification, Delineation and Importance of the Strategic Water Source Areas of South Africa, Lesotho and Swaziland for Surface Water and Groundwater. Report No. TT 743/1/18, Water Research Commission, Pretoria

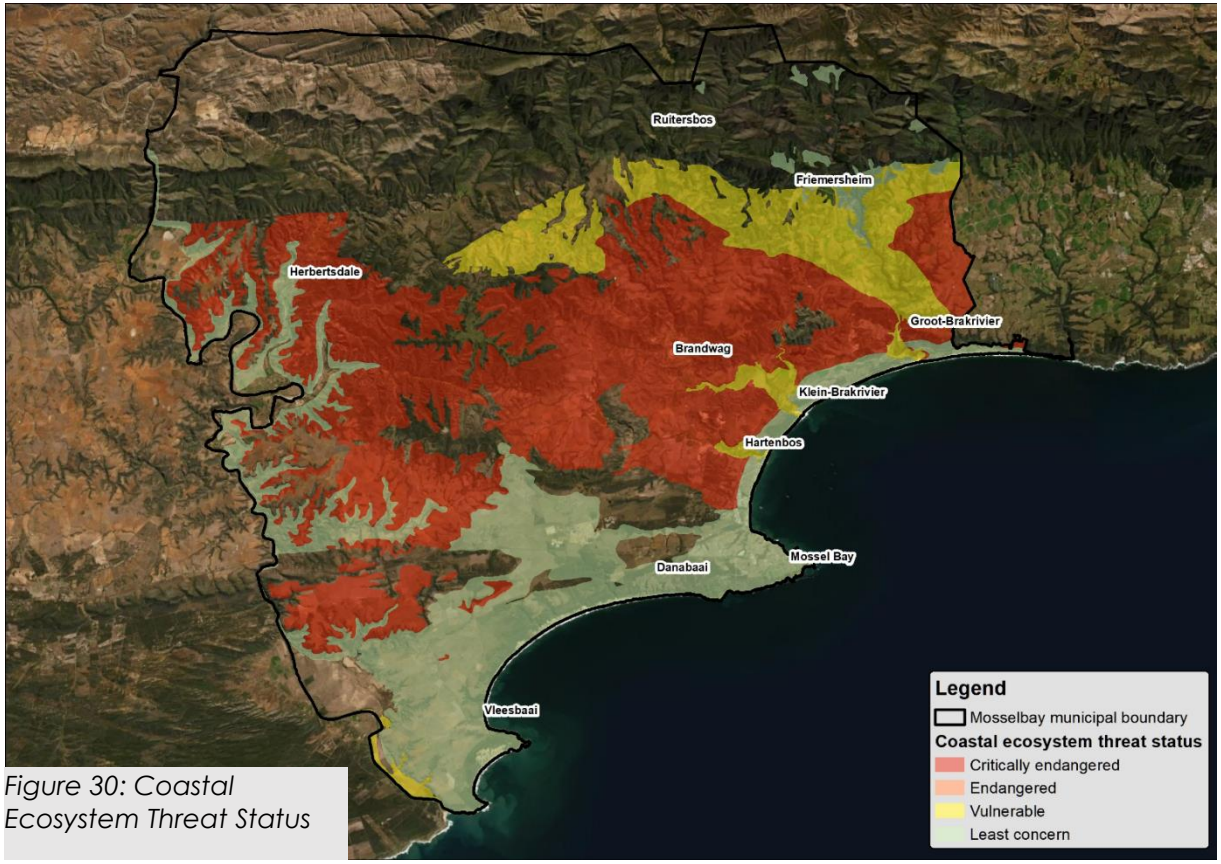


Figure 30: Coastal Ecosystem Threat Status

In addition, the Mossel Bay SDF Status Quo Report, Oct.2016 concluded, in respect of the water resources and hydrology of the Mossel Bay area, the following:

- The SDF proposals in the municipality need to assist with the protection of the river systems and the immediate environment, especially the Gourits- and Groot Brak rivers and, to lesser extent the Kleinbrak- and Hartenbos rivers.
- The Gourits river requires an integrated approach with coordinated implementation of river management policies in the other municipalities through which the river flows. The guidelines and policies applicable to the Gauritz-Breede River Catchment Management Area applies.
- Proper management is required of the catchments and particular stream banks throughout the municipality, but particularly in the west and centre.

- The rivers with the poorest quality flow through the main agricultural areas of the municipality and supply water to where the majority of the inhabitants are living, mainly in the west and centre.
- Large portions of developed land, located to the south and north of the N2 and the R102 are located within the 1:50 year and 1:100 year floodlines respectively.
- Development of vacant land within existing approved townships may be considered if the floor levels are raised above the 1:100 year floodline. *Note the updated floodline data – Maps above.*
- A Storm Water Management Plan is to be prepared.
- Measures to mitigate the risk of flooding should be implemented where practicable including
  - Prohibiting urban development or ploughing within a 32m boundary from the banks of a watercourse.
  - preventing excessive hardening of surface areas in urban development, and,
  - implementing a sustainable urban drainage strategy (SUDS) to storm-water management.

- The permissible extent and type of land use, development and activities within floodlines are to be subject to stringent evaluation.
- The type of development permissible within the 1:50 and 1:100 year floodlines – this is to be determined by the Municipality.
- Land Use activities that contribute to the restoration of eco-system services will be prioritised, as will those that contribute to reducing the nutrient loads in the rivers.
- It is proposed that any development proposed within floodlines be supported by the relevant specialist.
- Preventing excessive hardening of surface areas in urban development and implementing a sustainable urban drainage strategy (SUDS) to storm-water management.
- Large portions of developed land, located to the west and east of Long Street are located within the 1:50 year flood line
- The report proposed that the future land uses along Long Street are not residential in nature
- Storm Water Management Plans are to be prepared for the drainage areas along Amie Searle and Sandhoogte Roads.
- The banks of the rivers within the area of the Police Station are to be protected.

3.2.4 Biodiversity and Biodiversity Conservation

The Western Cape Biodiversity Spatial Plan frames the biodiversity and biodiversity aspects affecting the Mossel Bay area.

Creating functional connectivity such as river corridors in landscapes is a crucial aspect of promoting ecosystem resilience. Ecosystem resilience refers to the ability of the ecosystems to absorb some level of change and remain functional. Resilient ecosystems can be preserved through an approach that emphasizes the following key actions:

- Focus conservation efforts on natural areas that are still intact

- Maintain biodiversity priority areas in a natural or near-natural state
- Maximise the connectivity between these areas and the diversity of species and ecosystems

Maintaining resilient ecosystems have the following benefits:
- They maintain the ecological and evolutionary processes that allow biodiversity to persist in these ecosystems
- They can better withstand human-induced pressures such as too frequent fires
- They can adapt better to the impacts of climate change, such as increased rainfall variability
- They deliver ecosystem services, such as the provision of clean water and flood attenuation

Ecological infrastructure refers to naturally functioning ecosystems that deliver valuable services to people, such as water and disaster risk reduction. It is the nature-based equivalent of built or hard infrastructure and can be just as important for providing services and underpinning socio-economic development. Ecological infrastructure includes healthy mountain catchments, rivers, wetlands and corridors of natural habitat, which together form a network of interconnected structural elements in the landscape.

The Western Cape Biodiversity Spatial Plan (WCBSP) is a spatial tool that comprises the Biodiversity Spatial Plan Map (BSP Map) of biodiversity priority areas, accompanied by contextual information and land use guidelines that make the most recent and best quality biodiversity information available for land use and development planning, environmental assessment and regulation, and natural resource management.

The BSP Map covers terrestrial, freshwater, coastal and estuarine habitats. The WCBSP has been developed at a fine spatial scale that ranges between 1:10 000 and 1:50 000. The WCBSP identifies a province-wide network of Critical Biodiversity Areas (CBAs) and Ecological Support Areas (ESAs) that:
- Achieve national and provincial biodiversity targets on the least amount of land possible
- Have the least conflict with other forms of land use;
- Supports areas that are important for freshwater ecosystems and water security
- Promote adaptation to climate change and connectivity across the landscape

The WCBSP supports proactive conservation initiatives such as the expansion of protected areas and the identification of priority biodiversity areas that require restoration and other interventions to restore biodiversity pattern and ecological processes. For example, the removal of invasive alien plants from priority river areas will improve ecological processes.

The BSP Map includes Critical Biodiversity Areas 1 (CBA1) that are required to meet biodiversity targets for species, ecosystems or ecological processes and infrastructure. The following areas are covered in CBA1:
- All the areas needed to meet biodiversity pattern targets
- Critically Endangered ecosystems (terrestrial, wetland and river types)
- All areas required to meet ecological infrastructure targets, which are aimed at ensuring the continued existence and functioning of ecosystems and delivery of essential ecosystem services
- Critical corridors to maintain landscape connectivity.

The overall objective of the WCBSP is the effective management of biodiversity as required in Section 41(a) of the National Environmental Management: Biodiversity Act and in terms of the National Environmental Management Act. The WCBSP includes Desired Management Objectives (DMO) that determines the ecological state or condition in which a parcel of land or freshwater feature should be maintained. The WCBSP, therefore, provides advice on which land uses and activities are most compatible with maintaining the ecological integrity of CBAs and ESAs based on the Desired Management Objectives for the area.

CBA1 areas must be kept in a natural or near-natural state, with no further loss of habitat or species. Degraded areas should be rehabilitated to natural or near-natural condition, and invasive alien plant clearing should be given a high priority. Only low-impact, biodiversity-sensitive land uses are appropriate for CBA1 areas. CBA1 include the following categories:

- Forest areas include indigenous forest in a largely natural and functional condition that is required to meet biodiversity targets for Western Cape Milkwood Forests, Southern Cape Afrotemperate Forests, and Western Cape Afrotemperate Forests
- Terrestrial areas include any other terrestrial habitats in a mostly natural and functional condition that is required to meet biodiversity targets for species, ecosystems or ecological processes and infrastructure
- River areas that include a complete river, or a portion thereof, in a largely natural and functional condition that is required to meet biodiversity targets for river ecosystems and fish species
- Wetland areas include wetlands in a largely natural and functional state that is necessary to meet biodiversity targets for wetland ecosystem types and associated amphibian species
- Estuary areas include a portion of an estuary that is required to meet biodiversity targets for that specific estuary[21]

The Western Cape Biodiversity Spatial Plan applies. Creating functional connectivity such as river corridors in landscapes is a crucial aspect of promoting ecosystem resilience. Ecosystem resilience refers to the ability of the ecosystems to absorb some level of change and remain functional.

[21] The Western Cape Biodiversity Spatial Plan Handbook. Stellenbosch: CapeNature. Pool-Stanvliet, R., Duffell-Canham, A., Pence, G. & Smart, R. 2017

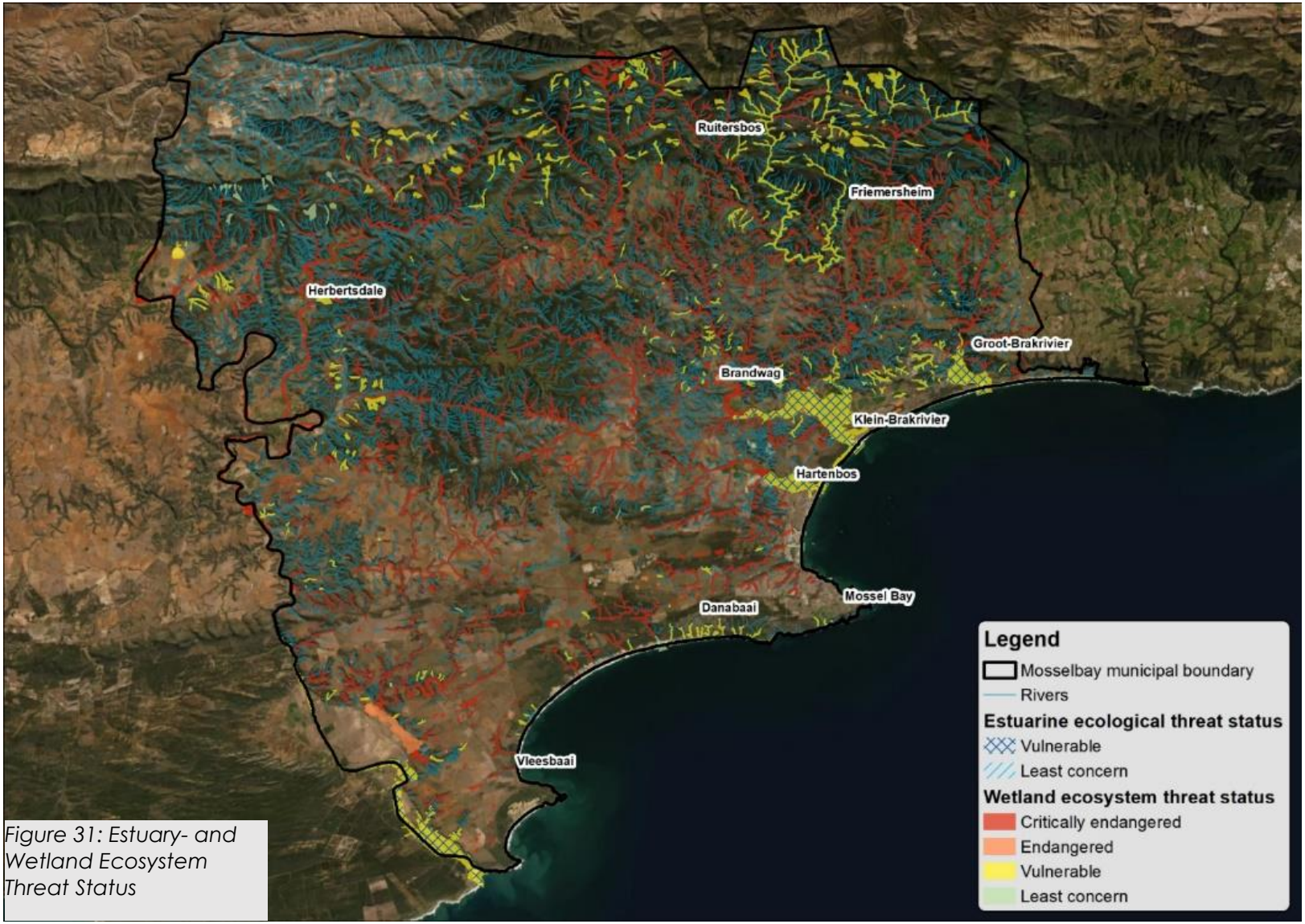


Figure 31: Estuary- and Wetland Ecosystem Threat Status

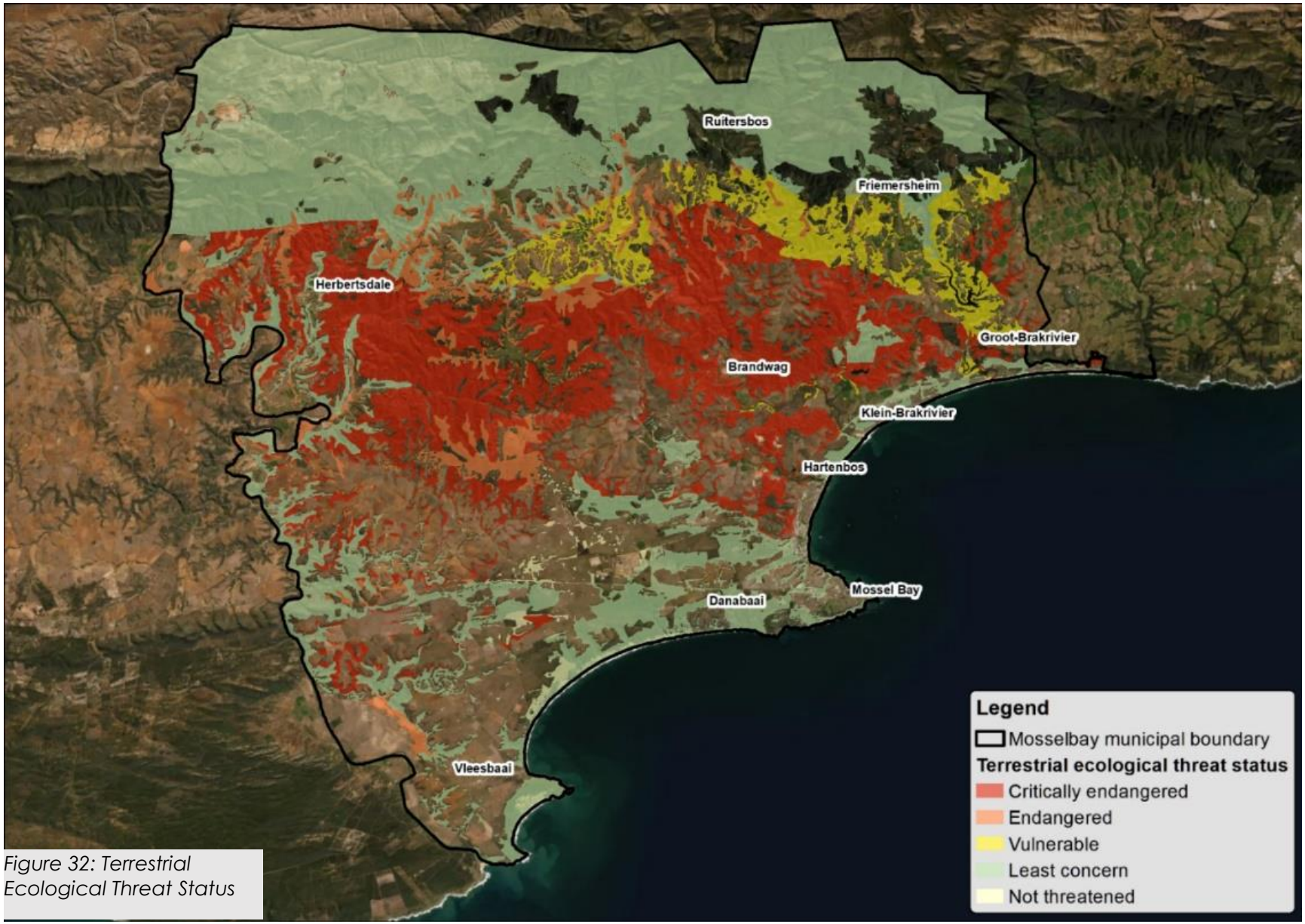


Figure 32: Terrestrial Ecological Threat Status

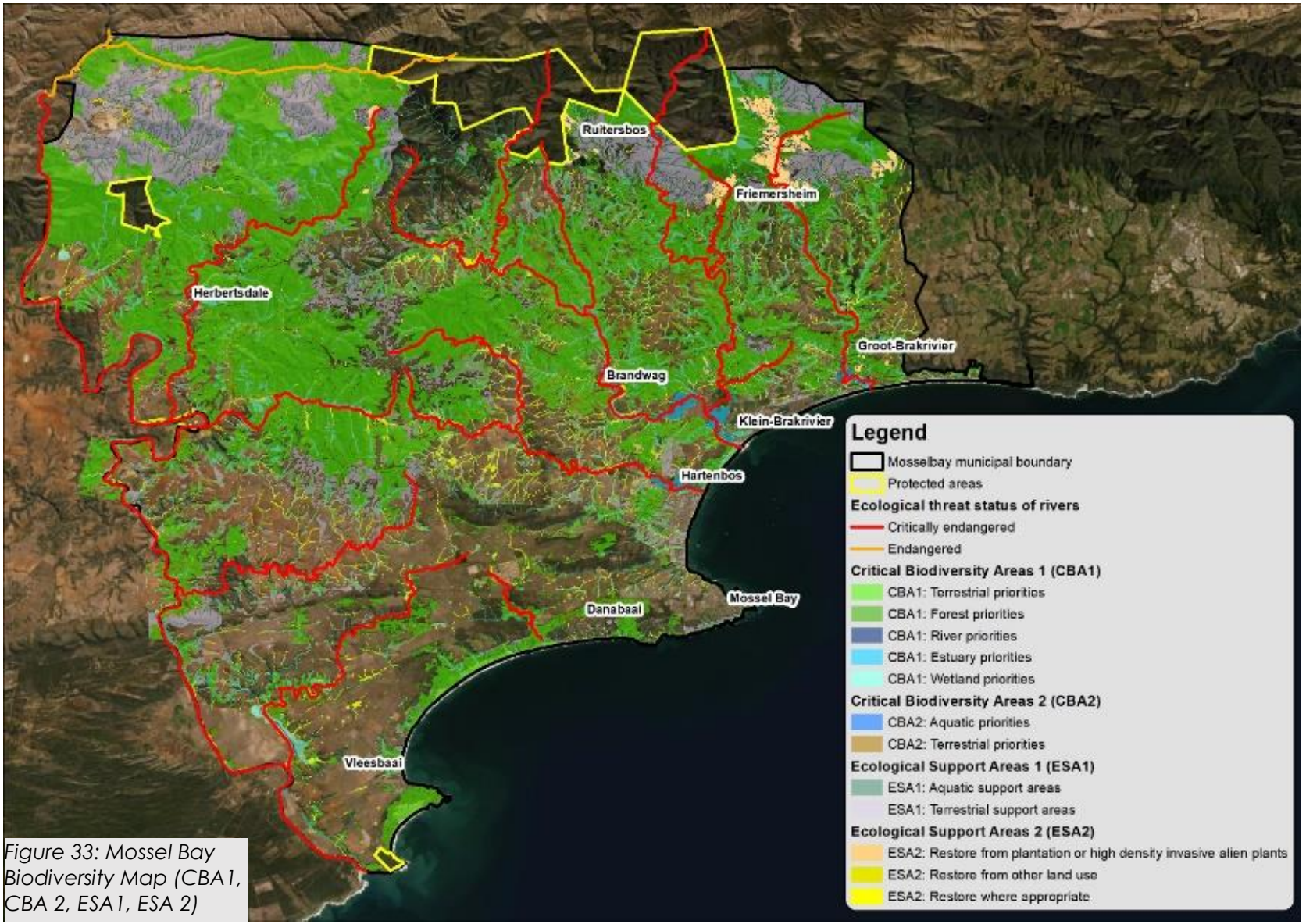


Figure 33: Mossel Bay Biodiversity Map (CBA1, CBA 2, ESA1, ESA 2)

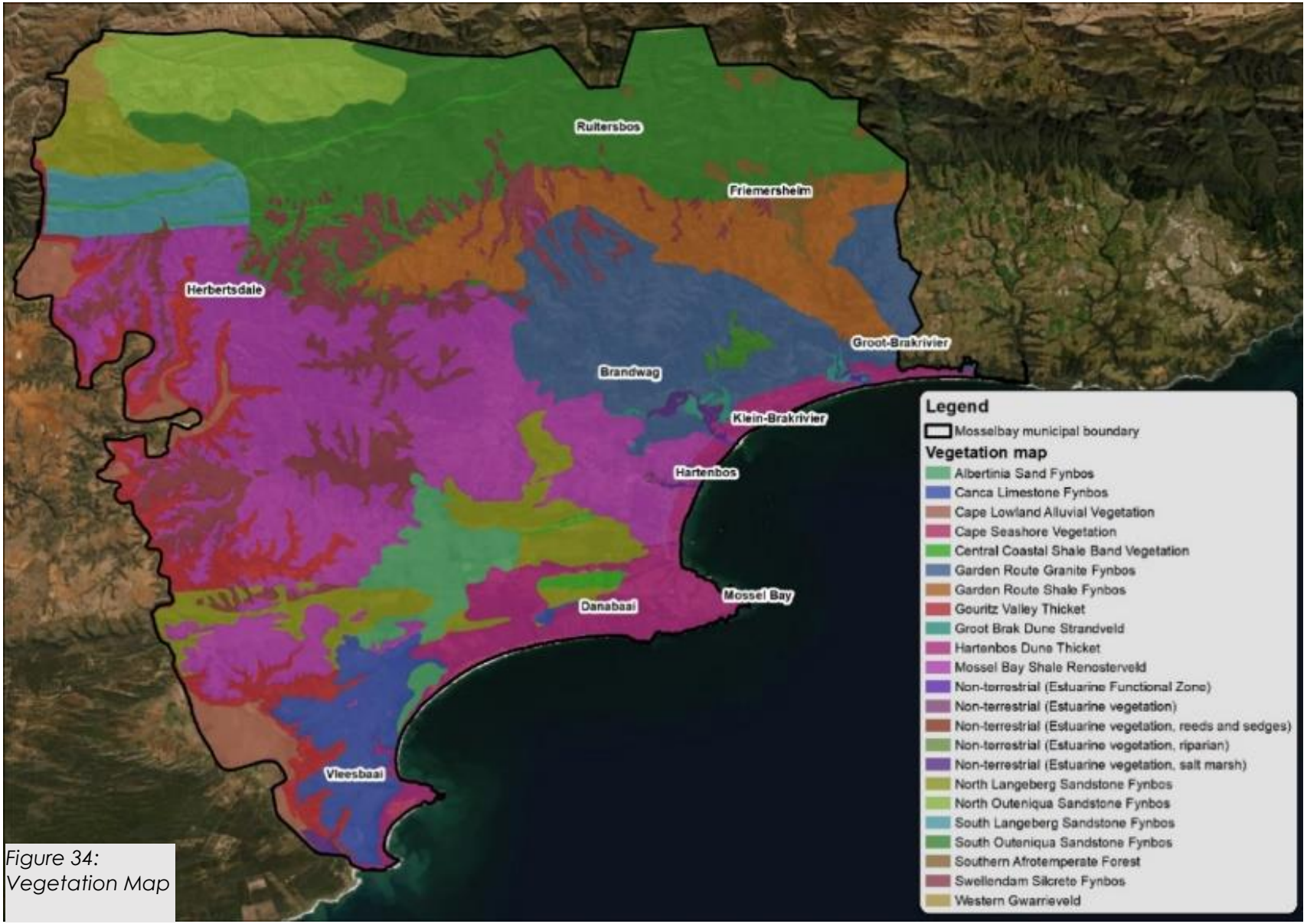


Figure 34: Vegetation Map

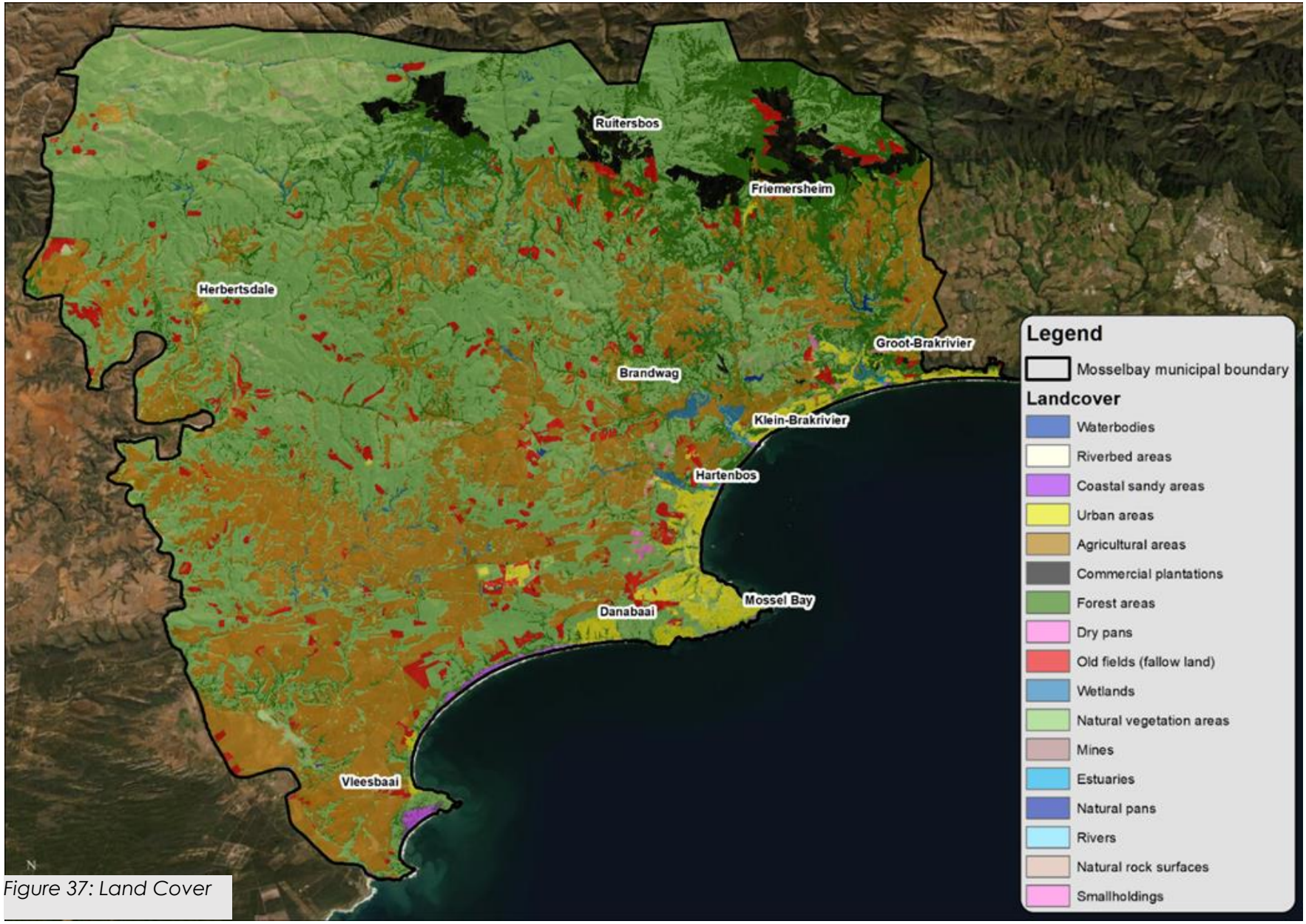


Figure 37: Land Cover

3.2.6 Vegetation

Note the continuous nature of general vegetation categories shown on the Vegetation Map; Figure 35.

The sensitivity and threat status of the vegetation types to be established in the evaluation of land use/ development proposals/applications. The fracturing of vegetation 'bands' should be avoided.

Conflict between biodiversity area protection and development pressures need to be balanced and managed. De Villiers Brownlie and Associates (Susie Brownlie, and Amrei von Hase: Report "Strategic Biodiversity Offset for Aalwyndal Precinct,Mossel Bay", 2021. Various references/extracts included below) contains basis a possible approach to creating a structured response to developments which fragment the natural environment. Environmental reports, applicable to individual development-related impact assessments, tend to favour the client/developer and may cause unsustainable ecological infrastructure network. Although applicable to the Alwynedal precinct only, the Offset principle should be applied on a municipal/district level as part of an attempt to secure natural corridors which should remain in tach irrespective of individual, development-orientated impact assessments.

All proposals for land use development, which apply for off-set consideration must be evaluated to establish whether the area is ecologically irreplaceable and/or the level of vulnerability. Both ecosystems or vegetation types, as well as affected species, may qualify as being 'non-offsetable'. Five core principles of biodiversity offsets are set. The retention of ecological corridors is further set, given the importance of ensuring continued ecological functioning and habitat linkages across landscapes and gradients, ecological corridors should be retained in the landscape and managed in a natural condition. While ecological corridors can overlap with areas used for different purposes, they must be explicitly managed to retain ecological connectivity. This may require specific management measures to this end. The purpose of these corridors is likely to include conserving priority ecological processes: enabling movement of species and genetic flows between different areas, reducing soil erosion, safeguarding water resources and ensuring downstream delivery of ecosystem services, regulating floods, providing natural areas for pollinators, amongst others. In essence, maintaining ecological connectivity is an investment in retaining living landscapes. The loss of any of the areas described above could not be compensated. They must, therefore, be conserved in a natural condition and managed for conservation as part of the precinct plan.

According to the provincial guideline, residual impacts are best assessed by considering their potential significance on:

- Composite considerations such as CBA's, Protected Area expansion plans, FEPAs;
- Biodiversity pattern considerations, covering both threatened ecosystems and SoCC, as well as special habitats such as wetlands;
- Ecological processes and areas sustaining biodiversity pattern; and
- Ecological infrastructure underpinning priority ecosystem services.

According to all available guidance on biodiversity offsets, residual impacts of 'medium' or 'high' significance require biodiversity offsets. These impacts must be quantified to provide a defensible basis for determining offset requirements. Various mechanisms for implementing the required biodiversity offsets are noted in the aforementioned report including on-site and off-site off-sets..

A possible mechanism, coordinated at a strategic scale is the selection of a strategic aggregated of-site offset area to aid the consolidation of priority areas for biodiversity. This approach should be investigated and cemented in terms of the provisions of the MSDF. The establishment of an on-the-ground 'offsets bank' where developers requiring offsets could secure their offsets through an appropriate payment to that 'bank', proportional to the size of residual impact, to cover the bank's establishment, protection and ongoing ecological management costs is proposed. The 'offsets bank' would preferably need to be in state ownership or in its control (e.g. through a long-term stewardship agreement); although the management of the area could be delegated to a third party appointed by the relevant authority. The extension/creation of continuous/specialized formal protected areas, preferably as a Nature Reserve, in terms of the NEMA: Protected Areas Act 2003 are mooted, subject to Biodiversity Offset Management Plans (BOMP) (This BOMP is a requirement for any biodiversity offset site, and a legal requirement where the offset is to be set aside as a Nature Reserve in terms of NEM:PAA).

3.2.5 Agriculture and Forestry

The homogeneous farming areas in the MB municipal area are in the areas along the Langebergvoet hills (Herbertsdale -Great Brak river) and the Jonkersberg/Geelhoutboom area (Great Brak River/George). In the first-named area, the small stock is dominating while the latter area is a dairy farming area.

The south-western agro-climatic zones of Ruens-East and Mossel Bay-Herbertsdale area lie in a climatic transition area between winter and year-round rainfall and have variable rainfall and low water storage capacity.

It is important to note the provincial planning initiatives of the WC DA and D:DRLR with the agriculture in the region:

The agricultural system of the Western Cape is discussed in a document titled "The Future of the WC Agricultural Sector in the context of the 4th Industrial Revolution' (20. It aligns the industry with the national documents discussed elsewhere in this report.

The D:DRLR compiled an Agri-Park Master Plan for the Eden Municipal district (2016). It proposes the base for the agricultural hub at Oudtshoorn with a number of Farmer Production Support Units (FPSP's). Mossel Bay is earmarked as an FPSP for lucerne, especially for pastures and own consumption.

<u>Challenges and risks</u>

The Eden SDF, evaluating the agricultural industry in a pre-Covid period (2016), identifies the following challenges and risks:

- Job losses

  Agriculture and forestry's contribution to the local economy is declining, in terms of both production, processing of products and employment numbers. While employment growth rebounded and grew at a rate of 3.4 per cent per annum on average since 2010, not all the jobs lost in this industry prior and during the recession have been reinstated and 6 656 jobs have been lost in this industry on net since 2005.

- Conservation & food security:

  Efforts must be increased to protect agricultural land that holds long-term agricultural and food security value, especially since this is the coolest region of the province and will remain so in the future.

- Climate change:

  Agriculture is sensitive to variable weather conditions within seasons and between seasons. Eden is prone to damaging climate extremes and disasters, particularly floods, droughts, hail and fires. The weather data shows that warming of approximately 1.0 °C has occurred over the last 50 years, particularly in mid-to-late summer, and the number of annual rain days has decreased, more so in autumn and in the Southern Cape.

The implications for Mossel Bay are that these challenges have to be factored into any strategies and dimensions concerning the local economy. The situation may be worse since Covid stated and has not been quantified yet.

The 2018 SDF contains a comprehensive section on agriculture and the potential thereof in the Mossel Bay region - refer to par 3.2.8 in the 2016/2018 report. The statistics may be outdated, but the findings and recommendations are still relevant in today's Covid conditions.

The 2018 SDF discusses the following commodities in depth:

- Wheat
- Lucerne
- Diary
- Sheep/wool
- Ostriches

This information is important for the agricultural fraternity and should be referred to them for evaluation amidst a Covid situation.

A 2013 survey by DOA indicates that the top 5 crops in the Mossel Bay area in terms of hectares utilized, are:

- Lucerne
- Planted pastures Perennial

- Natural grazing
- Planted pastures
- Small grain grazing

Agri-processing and agri-tourism are important and emerging growth areas. They are discussed further in the sections on the economy and tourism below.

3.2.6 Fishery

Mossel Bay is known for East Coast soles, oysters, mussels, hake, kinglip as well as sharks and shoals of dolphin and the biggest Black Marlin caught in SA waters. A whaling station for a few years.

According to the Eden SDF, commercial forestry in the Western Cape is in a 'turmoil' It does not play a significant role in the Mossel Bay municipal area. The PSDF, as quoted in the Eden SDF, states that the Western Cape's fishing harbours are significant but underutilized assets that have redevelopment potential. The closure of the Irving & Johnson operations at the Mossel Bay port, caused a present underutilization of the port as a fishing harbour. As fishing fleets are moving to the south coast because of the diminishing fish stocks along the west coast, the fishing industry might pick up again.

3.2.7 Coastal Access

Figure 36 shows the existing coastal access points and paths.

It is of importance that such access points be managed and protected with due consideration to environmental impact and safety.

Figure 35: Coastal Access Points and -Paths

3.2.8 Coastal Management Line and Coastal Protection Areas

The National Environmental Management Act: Integrated Coastal Management Act (24 of 2008) (ICM Act) emphasizes the need for establishing Coastal Management Lines (CMLs) (Section 25), with the aim of protecting the coastal public property, coastal protection zone, people and infrastructure from the dynamics of the coastal processes in the interest of public safety, and preserve the aesthetic value of the coastal zone. The coast is a dynamic zone and bears many hazards. In light of climate change it is predicted that the frequency and intensity of natural hazards such as storm surges will further increase, sea levels will rise, and erosion will be exacerbated beyond the increase observed in the past decades. CMLs are planning tools with the purpose of avoiding or minimizing negative impacts that emanate from natural processes that may have detrimental effects to the people and property, while also serving to protect the coast from human-induced threats to biodiversity and physical features and in so doing, preserve the coastal space. CMLs are thus multidimensional and can be applied to a number of coastal management aspects within the limitations of the ICM Act.

(Quoted: Department of Environmental Affairs, 2017. National Guideline Towards the Establishment of Coastal Management Lines.)
"It is imperative that the CMLs are incorporated into planning tools during establishment of the lines and during the development of Spatial Development Frameworks (SDFs) as well as land use schemes as prescribed by SPLUMA, depending on which process comes first within coastal municipalities and provinces. In so doing, South Africa, particularly in the coastal region, can achieve the harmonisation of plans and the much needed sustainable development. From a spatial and land use planning perspective, it can be argued that the coast is the area where the sea meets the land, an area that provides rich, diverse and complex natural resources thus having potential to sustain many opportunities of economic development. Furthermore to this, it creates competition, exclusive use and environmental degradation and at times, the same environment that created those resources in the first place, can potentially harm those who are exploiting it including property, infrastructure and human lives. It cannot be the responsibility of the coastal managers alone to manage this space or to mitigate the challenges, rather the integration of plans has been identified as key by various local and international statutes. The CMLs are a befitting tool for the coastal region and should not be viewed as merely an environmental conservation tool but rather a sustainable development tool. Therefore, the establishment of these lines cannot be exclusively driven by those who advocate for and are biased to environmental conservation without giving cognisance to socio-economic development. In order to efficiently implement the CMLs, there needs to be a balance, integration and a diverse group comprising of various sectors involved in this space at all levels as promoted by the ICM Act and its founding policy principles. The establishment of coastal management lines must thus be done in accordance with other legislation such as the Municipal Systems Act (Act No. 32 of 2000) and the Spatial Planning and Land Use Management Act (Act No. 16 of 2013) (SPLUMA) in order to ensure cooperative governance, in terms of the objective of the ICM Act.

Spatial Planning Considerations:

It is important to identify developed areas that are currently affected by coastal processes as well as areas earmarked for potential future development to ensure that the risks of developing in these areas are avoided. Taking the relevant legislation into account, there are also the more localized issues that would have to be considered when implementing CMLs. The ICM Act states:

S25(1A) An MEC may, in regulations published in the Gazette, prohibit or restrict the building, erection, alteration or extension of structures that are wholly or partially seaward of a coastal management line.
S25(1B) When establishing coastal management lines in terms of subsection (1), the MEC must consider the location of immovable property and the ownership and zonation of vacant land.
When planning for future development along the coast, coastal processes must be taken into account, including the role of topographical features such as dunes which serve as the land's defence system against ocean forces'

The DEA&DP reviews the CML on a regular basis and such review process is currently underway. The proposed line and the management measures linked to such lines should be acknowledged in the Municipal Planning By-Laws.

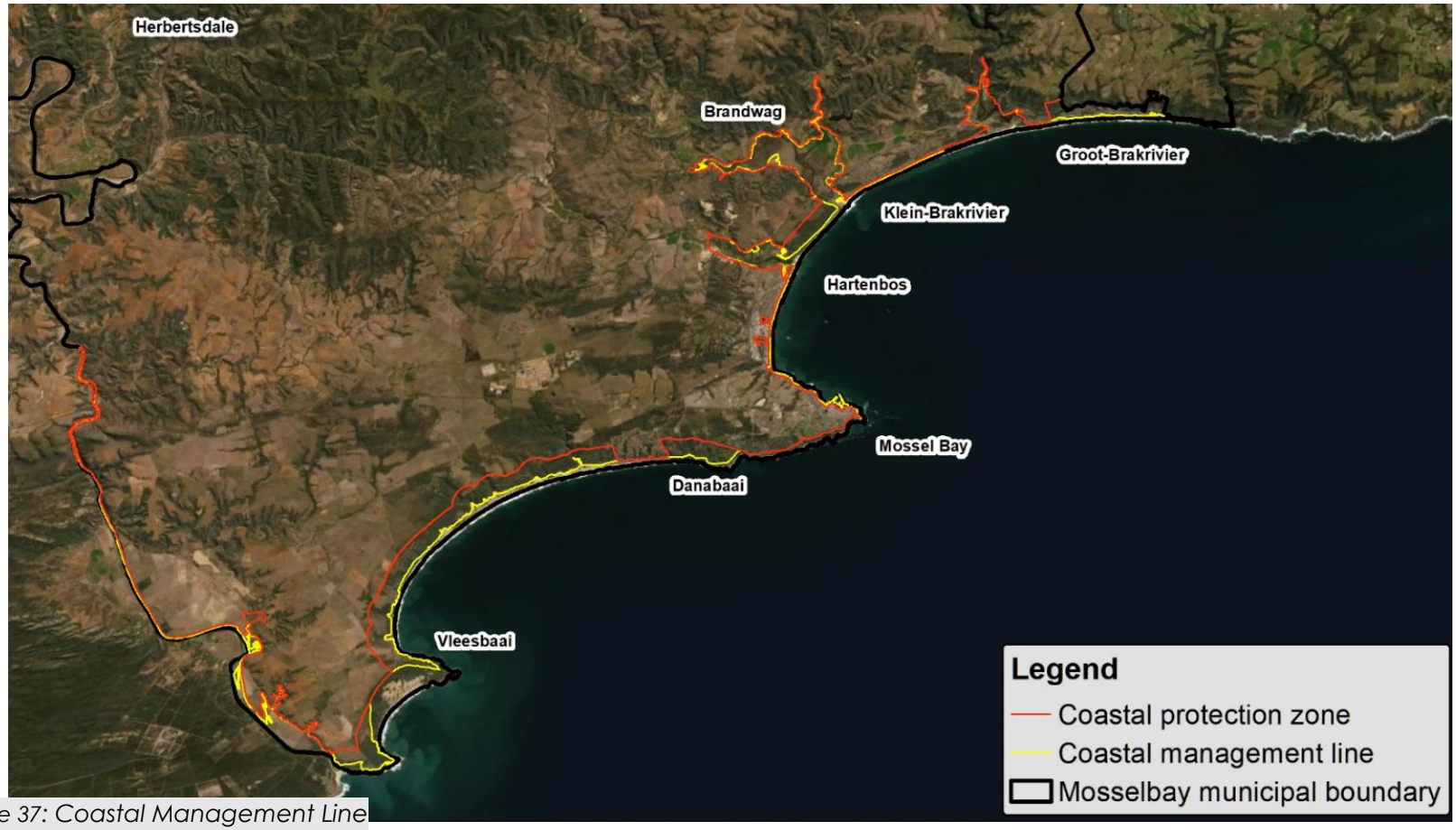


Figure 37: Coastal Management Line and Coastal Protection Zone

3.2.9 Mineral Resources

Mossel Bay municipality has little in the way of onshore mineral resources other than material quarrying. Its main mineral resource is offshore natural gas, which led to the establishment of a GTL oil refinery outside of Mossel Bay town

Deposits of conglomerate are located in the central portion of the municipality. A conglomerate is a type of sedimentary rock but consists of round fragments (larger than sand) which are cemented together. In these sediments in the Hartenbos area, the quarrying of sand and gravel takes place which is a good source of materials for road building and construction.

In reaction to the declining gas reserves, plans are afoot to exploit other gas accumulations/prospects within Block 9 to further augment gas feedstock to the refinery (E-BK Development Project). Declining gas feedstock is currently augmented by increased condensate importation (Heavy Condensate Processing), aiming to reach a processing rate of 18,000 – 21,000 barrels of oil per daty(bopd) in 2017/18.

French petroleum company Total announced, in 2020, that a significant discovery of natural gas was made in the Outeniqua Basin, 175km off Mossel Bay. The latest discovery follows one in an adjacent site, Brulpadda, in late 2019, which, as a new petroleum area, was a boost for the Western Cape and South Africa's oil- and gas-production ambitions and paves the way for possible large scale conditions of gas commercialization (Cape Argus 3Nov2020). Also refer to Par 3.4.2.

3.3 Built Environment Assets and Systems

3.3.1 Land Cover

Figure 37 clearly shows the concentration of urban areas between Danabaai and Groot Brakriver, with very little inland to coast natural connection zones remaining.

The land cover map also shows the area of agriculture-/fallow land compared to diminishing natural vegetation areas. The proximity of urban development to natural pans, rivers and estuaries is also to be noted.

3.3.2 Settlement Hierarchy

In the Mossel Bay municipal area several distinct settlements exist, In accordance with WC Growth Potential of towns and the hierarchy used in the Eden SDSF, the following hierarchy could be identified:

Regional Town	Secondary town	Local Town	Local Settlement
Mossel Bay		Hartenbos	Klein Brak River
		Great Brak River	Herbertsdale
			Glentana/Reebok/Tergniet
			Friemersheim
			Boggomsbaai
			Dana Bay
			Brandwacht
			Vleesbaai

In terms of function and role the various towns and settlements could also be categorised as follows:

SETTLEMENT TYPE	FUNCTION / ROLE	SETTLEMENT
Regional Service Centre	Main urban centre in terms of location of new housing, jobs, services and facilities with a focus on development and densification. The centre hosts main health, education, cultural facilities as well as government services. As an economic hub it contains industry and the services and retail sub-sector.	Mossel Bay Town
Specialised Coastal Centres	Urban centres with a special function (often tourism related) as well as a role in terms of servicing the surrounding areas and containing a mix of economic activities and services	Hartenbos Great Brak River Klein Brak River Glentana/Reebok/Tergniet Dana Bay

  		Boggomsbaai Vleesbaai
Villages	Meeting the local convenience needs with basic social facilities for the resident population and surrounding rural communities	Herbertsdale
Rural hamlets	Small residential clusters without or with limited commercial or business uses	Brandwacht Friemersheim Ruitersbos Buysplaas
Coastal resorts	Residential areas which have been planned for recreation near the coast without basic social and commercial facilities	Pinnacle Point Nautilus Bay Springerbaai

The urban characteristics of all the towns and settlements are described in detail in the 2018 SDF.

The Transformation of Certain Rural Areas Act, 1999 (Act No 94 of 1999), that came into effect on 02 November 1999, 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. This process is managed by the Department of Land Affairs and the Municipality. Friemersheim is one of twelve such Rural Areas in the Western Cape. The possible upgrading of tenure in this area and increased agricultural and other activities may affect the position of Friemersheim in the Settlement Hierarchy.In the case of Frlemersheim the prescribed process still has to be followed and no significant change has been experienced thus far. Nonetheless, the properties concerned (gazetted) are:

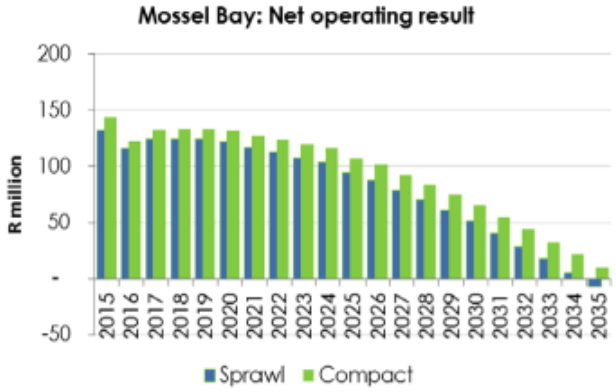
- The remainder of erf 106 of the Fram Moordkuyl no 38
- The remainder of erf 36 and erf 255, consolidated to form erf 106

The extent of the identified/proclaimed properties is more than 244 hectares. Among the recommendations of the report in this regard is that the municipality must develop a Commonage Management Plan in consultation with the WC Department of Agriculture and the DALRRD Land Tenure Branch. *(Source: Toolkit for integrating land reform and rural development into spatial and land use planning)*.



In the Brandwacht settlement area, however, the Communal Property Association (CPA) is active and the recent opening of the Brandwag E-Centre ('the Skuur').saw the finalisation of an agreement between the Mossel Bay Municipality and the CPA on 10 September 2020 to ensure that the municipality would assist with the maintenance of the building. The addition of an approximate 150ha (to be confirmed) to the Brandwacht CPA may aid the viability of the communal farming initiative and support the sustainability of the settlement. Formal progress to be confirmed as this may influence the settlement hierarchy/priority.

The implications of urban sprawl versus compact development in the case of Mossel Bay have been investigated in detail in the Urban Growth study has been explained before. It is clear that a continuing sprawl scenario would have resulted in a higher cost than a compact scenario. ARION. The 2018 SDF has taken cognizance of this and has promoted a compact town managed by a defined urban edge.



3.3.3 Planning and Provision of Human Settlements

The provision of subsidized and affordable housing is the main driver of spatial form to the residential spatial pattern in especially Mossel Bay and Great Brak River. The Integrated Human Settlement Plan is expressed in a detailed Human Settlement Pipeline (HSPP) and further explained in the IDP. in terms of the national policy (NUSP) a local Informal Settlement Upgrading Program (ISUP) is being implemented to provide basic services for 21 informal settlements – see below. (Please note that the Housing waiting list is a live list which change regularly)

According to the Human Settlements Department, the backlog remained relatively constant over the past five years:

Housing backlog	
Year	**Households**
2017	9942
2018	11316
2019	10109
2020	11670
2021	11454

According to the IDP, the housing backlog in the various settlements are as follows:

Housing backlog	
Area	**Households**
Brandwacht	168
Friemersheim	99
Great Brak River	913
Herbertsdale	235
Mossel Bay	8705
Sonskynvallei	165
	10 285

The following program for housing projects has been prioritized by the Council for implementation between 2016 and 2026 – more detailed data is available in the IDP and the HSPP:

Current prioritized housing projects	
Running projects	
Number of units and sites	**Estimated costs**
904	R 109 929 000
Projects in planning	
2965	R 408 086 161
Projects under consideration	
310	R 46 650 000
Future projects	
3989	R 718 924 834
8168	

The Upgrading of Informal Settlements Programme (UISP), forming part of a national initiative, is aimed at the formalized upgrading of all informal settlements in the municipal area for all eligible resident households. At least an existing 28 informal settlements are targeted in the program although more areas may be added if they qualify. There are 11 implementation phases envisaged over 9 years. Erven vary between 48m² and 70m² in size.

The latest number of households that will benefit in the UISP is 6077. When the project started in 2015, there were 4203 stands identified for upgrading which indicates an increase of 60% in the demand since then.

The number of UISP households in the various areas are as follows:

UISP households per area	
Mossel Bay / Kwanonqaba	5037
Brandwacht	100
Great Brak River	200
Ruiterbos	60
Other area added	680
	6077

A concern is the location of most of the IUSP projects are on steep slopes steeper than 1:4 outside the edges of the existing approved urban areas. In the long run, these activities could lead to erosion, uncontrolled stormwater runoff and pollution in the watercourses.

The latest housing project, Mountain View, shows an attempt to achieve high densities with innovative typologies.

The housing situation is further evaluated in par 6 of Section B of the SDF / EMF.

3.3.4 Catalytic and other projects

In the long run, the Louis Fourie Corridor and the so-called Spekboom projects provide a variety of opportunities for a housing mix that could include FLISP, social housing and other projects that provide in the housing gap. The objective should be to provide a housing ladder with opportunities to move from one neighbourhood to the other in the same area as the income of households improve and they can afford higher priced housing.

3.3.5 Residential Market Trends

With respect to market/private housing demand and provision: (in urban edge – approved, proposed), the following trends are noted:

The average asking price for a Mossel Bay town home has inched up from R1.55m to R1.64m in 2021 (Property 24), with most houses selling for around the R1 million mark. Rental demands remain high, with the average rental for a full title property at R11 900 towards the end of 2020.

Market data in November 2021. (Lightstone property data) indicate:

- Generally, coastal properties' inflation was up 5.5% compared to inland inflation of 3.9%.
- The price premium between coastal properties and their inland counterparts continues to widen.
- In November, coastal properties' inflation was up 5.5% compared with inland inflation of 3.9%.
- Market data pulled for Mossel Bay in the period May 2020 – April 2021 shows:
  - 57% of existing owners have owned for 11 years and more. 22% have owned for less than 5 years,
  - 43% of recent sellers have owned for less than 5 years. 38% have owned for more than 11 years,
  - 39% of recent buyers are aged 50-65 (mature), 32% are aged 36-49 (middle-aged),
  - 40% of recent sellers are aged 50-65 (mature), 32% are aged 65+ (pensioner),
  - There were 112 1st time registrations (new developments) and 1 269 repeat sales,
  - Sectional schemes and vacant land have seen positive growth (up 30+% and 9% respectively) year-on-year but freehold property prices have taken a 15% knock,
  - Currently there is a divergence between asking price and sale price of 40%.

A market study, known as the Housing Market Study is being conducted of which the outcomes will be incorporated in the SDF / EMF when available.

3.3.6 Transport Infrastructure

A large transport network exists in the municipal rea which is described in the 2016 Status Quo report while the IDP describes the budget proposal for several projects in Table 6.2.6.2 of which the following are the most significant:

- Louis Fourie Road upgrade is a comprehensive project, commencing in 2021
- Link road between wards 9, 12 and Extension 13
- New link road between Louis Fourie and Bill Jeffrey road

Public transport is served by the taxi industry (as described in par 3.4.12.4) while public bus transport is limited to a bus service between Mossel Bay and the nearby towns.

Mossel Bay is in the unique position to have both the airfield and the port to serve as transport infrastructure. These facilities are dep0scube elsewhere in this report.

The transport network as a system, however, is still based on conventional means which are fuel-based and motorised with few non-motorised opportunities. A revised Transport Master Plan should focus on energy-efficient, low-carbon and socially responsive transport.

3.3.5 Utility Infrastructure

The Mossel Bay 2017 - 2022 Fourth Generation IDP outline the current bulk infrastructure capacity and constraints for all municipal engineering services. The high-level strategies are discussed hereunder as reported in the IDP. The IDP also explains the projects on ground level together with the interventions towards sustainability which are budgeted for.

3.3.5.1 Water

After the worst drought recorded the worst drought recorded in 132 years, all possible water sources were exploited such as the drilling of boreholes, purification of effluent water and the construction of a seawater desalination plant with a production capacity 15mega litre. Today the available water capacity of the town of has almost doubled with the securing of sustainable water resources.

The Mossel Bay Municipality is presently supplying and distributing water through seven water supply schemes, namely; Mossel Bay, Midbrak, Great Brak River, Friemersheim, Ruiterbos, Herbertsdale and Buisplaas. Water is supplied via three major sources, namely the Ernest Robertson Dam, the Klipheuwel Dam, the Wolwedans Dam and secondary water sources such as Searle's Furrow, Kleinbos Weir and boreholes.

Short-, medium- and long-term water augmentation plans were identified for the supply schemes of Mossel Bay, Mid Brak and Great Brak River

The Municipality will embark on a number of water resource management interventions to secure the sustainability of its water resources:

The Municipality in addition to the above, has the infrastructure to desalinate 15 Mℓ of sea water per day as well as 5 Mℓ of treated sewage effluent per day. Although these installations are not in operation at present, the Municipality has a total water supply of 63 Mℓ per day

The Municipality is at present implementing several high-impact interventions that will contribute towards the objectives of the National Water Conservation and Water Demand initiatives currently underway throughout the country in support of the protection of scarce water supply resources. The following major projects/interventions are prioritized for implementation over the next five years.

MOSSEL BAY MUNICIPALITY WATER VOLUMES			
Resource Type	Name	Registered Volume /a (m^3)	Registered Volume /day (m^3)
Scheme	Wolwedans Dam	5 800 000	15 890.411
Scheme	Wolwedans Dam (Boltons)	160 000	438.356
Scheme	Klipheuwel	6 370 444	17 453.271
River/ Stream	Friemersheim Furrow	230 000	630.137
River/ Stream	Kleinbos Weir	219 000	600.000
Borehole	Lodewykstenk	15 000	41.096
Borehole	*Lodewykstenk**	95 000	260.274
Dam	Ernest Robertson	1 526 304	4 181.655
River/ Stream	Searle's Sloot	1 280 000	3 506.849
Borehole	Herbertsdale	95 000	260.274
TOTAL		15 790 748	43 262.323

PROJECT	AREA	POSSIBLE IMPACT	COST ESTIMATE
Replacement of asbestos cement water pipes with PVC pipes	Great Brak River	• To replace old water network • To increase asset lifespan and to reduce water losses and maintenance cost	R 10 000 000 over 5 Years R 2 000 000 annually
Water Meter Replacement Water meters should be replaced at least every 15 years to minimise losses.	All Areas	• Reduce Water losses • Revenue Protection Enhancement	R 8 000 0000
Alternative bulk water supply to Herbertsdale/Buisplaas	Herbertsdale Buysplaas	• To create alternative sustainable water supply sources	R 30 000 000
New bulk water pipeline between Klein Brak Water Purification Works and Langeberg Reservoir	All Areas	• New major water pipeline to meet growing demand for water supply	R 65 000 000 over 4 -5 Years

There are also water supply schemes at Herbetsdale, Friemersheim, Ruitersbos and Buysplaas that is being upgraded and maintained.

3.3.5.2 *Sewage and Sanitation*

There are seven wastewater treatment works with a total design capacity of 22.54 Mℓ per day. The current combined average daily inflow for the seven wastewater treatment plants is 10, 72 Mℓ per day.

The illegal discharge of foreign objects/material into the municipal sewer networks causes unnecessary blockages and adversely impacts on the operation of the Waste Water Treatment Works.

Urgent priority projects identified are:

- The replacement of the 110-mm diameter main sewerage lines in D'Almeida and KwaNonqaba with 165-mm diameter lines
- The upgrading of these lines has already commenced in some areas.

Other priorities identified for urgent attention are:

- The supply of a main sewerage line connection between Glentana and Little Brak Rivier.
- Replacement of the main sewer pipeline between Mossel Bay and Hartenbos
- The launching of public awareness campaigns to educate the community not to throw foreign objects into the sewerage system.
- Upgrading of main sewerage purification plants to increase capacity and to extend plant useful life

PROJECT	AREA	MOTIVATION	COST
Upgrade Great Brak Sewer Treatment Works from 1 Ml/day to 4 Ml/day	Great Brak River	• The upgrade is required to cater for various housing developments such as St Ellen, Wolwedans and the "Saagmeule" property which will generate additional sewerage	R 57 000 000
Upgrade of Hartenbos WWTW.	All Areas	• The Hartenbos WWTW was commissioned in 1984 and has a hydraulic capacity of 18ml/day. • Electrical, mechanical and civil infrastructure must be upgraded/refurbished on a phased	R 72 000 000
Upgrade Pinnacle Point Sewer Treatment Works from 3.7 Ml/day to 6.3 Ml/day	All Areas	• The Pinnacle Point Sewer Treatment Works presently caters for effluent from Mossdustria, Danabaai and Heiderand and is operating at full capacity. • It is proposed that the capacity of the plant be increased over the next 3-5years.	R 13 000 000

The following sewer network upgrading projects are currently underway:

Upgrade sewer pipe lines in Asla Park/ Kwanonqaba	Asla Park KwaNonqaba	• Replace undersized pipes with bigger diameter pipes by means of pipe cracking technology.	R 3 270 000
Replace Sewer Pipeline Between Mossel Bay and Hartenbos	All Areas	• Various sections of the pipeline must be renewed/replaced. • There are also sections which need to be re-routed. The total length of the pipeline is approximately 6,0km.	R 12 100 000

(Mossel Bay 2017 - 2022 Fourth Generation IDP)

3.3.5.3 *Electricity*

Electricity is purchased from Eskom at six intake substations with a notified maximum demand of 77,5MVA and is distributed under a NERSA licence at voltages ranging from 230V to 66000V to various industrial, commercial and domestic customers. The peak maximum demand at this stage is 65,6MVA and there is spare capacity of 11,9MVA for future growth. Also see updated demand estimates and capacity calculations, below.

The main projects are shown hereunder:

NAME	PROJECT DESCRIPTION	COST
Saunders Substation	Existing substation by building, providing 7 x 11 kV switches, 1 x 10MVA 66/11kV transformer, incl. NER	R 14 000 000
Main Intake Substation	Upgrade existing substation by installing additional 66 kV switches & 3 step up transformers	R 8 500 000
South Substation	Upgrade existing substation by installing one additional 10 MVA Transformer + switch gear	R 8 000 000
6 km x 66kV 95 mm² copper overhead line between Main Intake & Saunders Substations.	Building of a new line	R 6 000 000

(Mossel Bay 2017 - 2022 Fourth Generation IDP) Also see Municipal update below

The Mossel Bay Electrical Master Plans, 2019 has reference.

The 20 year electrical load forecast is noted below.

Load Forecast Data																					
Original Table 8-1 from Mossel Bay Municipality Electrical Master plan																					
	Yr 0	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10	Yr 11	Yr 12	Yr 13	Yr 14	Yr 15	Yr 16	Yr 17	Yr 18	Yr 19	Yr 20
Mossel Bay Municipality Substation	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
Intake SS (66/11kV)	10	10,52	11,04	11,56	12,08	12,6	13,22	13,84	14,46	15,07	15,69	16,21	16,71	17,21	17,71	18,21	18,71	19,21	19,71	20,21	20,71
Sonskynvallei SS (66/11kV)	10	10,46	10,92	11,38	11,83	12,29	13,76	14,73	15,7	16,67	17,64	18,25	18,31	18,35	18,39	18,43	18,47	18,47	18,47	18,47	18,47
South SS (66/11kV)	15	17,1	18,7	20,3	20,9	21,5	21,56	21,62	21,68	21,74	21,8	22,07	22,33	22,6	22,87	23,13	23,3	23,3	23,3	23,3	23,3
Ockert Bothma SS (66/11kV)	17	17,6	14,5	13,2	11,9	10,7	12	12,8	13,4	14,1	15	16,9	18,8	20,7	22,6	24,7	25,5	25,7	25,9	26,1	26,1
Grootbrak - 11kV from Eskom	4	4	4,1	4,2	4,3	4,4	4,57	4,73	4,9	5,07	5,23	5,32	5,32	5,32	5,32	5,32	5,32	5,32	5,32	5,32	5,32
Kleinbrak SS (66/22kV)	5	5,25	5,5	5,75	6	6,25	6,62	6,99	7,37	7,74	8,11	8,52	8,93	9,34	9,76	10,17	10,33	10,33	10,33	10,33	10,33
Saunders (66/11kV) - 2021/2022	0	0	4	6	8	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
Mossdustria - 11kV from Eskom	4	4,5	5	5,5	6	6,5	7	7,5	8	8,5	9	9,5	10	10,5	11	11,5	12	12,5	13	13,5	14
Glentana - 11kV from Eskom	2,8	2,8	2,8	2,8	2,8	2,8	2,91	3,02	3,13	3,24	3,35	3,4	3,4	3,4	3,4	3,4	3,4	3,4	3,4	3,4	3,4
TOTAL LOAD	67,8	72,23	76,56	80,69	83,81	87,04	91,64	95,23	98,64	102,13	105,82	110,17	113,8	117,42	121,05	124,86	127,03	128,23	129,43	130,63	131,63
	Yr 0	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10	Yr 11	Yr 12	Yr 13	Yr 14	Yr 15	Yr 16	Yr 17	Yr 18	Yr 19	Yr 20
Eskom Substation	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
Mossel Bay	10	10,52	11,04	11,56	12,08	12,6	13,22	13,84	14,46	15,07	15,69	16,21	16,71	17,21	17,71	18,21	18,71	19,21	19,71	20,21	20,71
Duinzicht	36	39,2	42,2	45	46,8	48,7	50,56	51,92	53,08	54,34	55,8	58,47	61,13	63,8	66,47	69,33	70,8	71,5	72,2	72,9	73,4
Sonskyn	10	10,46	10,92	11,38	11,83	12,29	13,76	14,73	15,7	16,67	17,64	18,25	18,31	18,35	18,39	18,43	18,47	18,47	18,47	18,47	18,47
Kleinbrak	5	5,25	5,5	5,75	6	6,25	6,62	6,99	7,37	7,74	8,11	8,52	8,93	9,34	9,76	10,17	10,33	10,33	10,33	10,33	10,33
Grootbrak	4	4	4,1	4,2	4,3	4,4	4,57	4,73	4,9	5,07	5,23	5,32	5,32	5,32	5,32	5,32	5,32	5,32	5,32	5,32	5,32
Glentana	2,8	2,8	2,8	2,8	2,8	2,8	2,91	3,02	3,13	3,24	3,35	3,4	3,4	3,4	3,4	3,4	3,4	3,4	3,4	3,4	3,4
TOTAL LOAD	67,8	72,23	76,56	80,69	83,81	87,04	91,64	95,23	98,64	102,13	105,82	110,17	113,8	117,42	121,05	124,86	127,03	128,23	129,43	130,63	131,63

The capacity of all main substations and in-take points, available for future use, is as follows:

Eskom Point of Supply	NMD (kVA)	2020/21 Year average max demand kVA	Spare kVA
Mossel Bay	30,000	23,077	6,923
Bothma Sub	18,000	16,267	1,733
Kleinbrak	9,000	5,187	3,813
Mossdustria	4,000	1,967	2,033
Boggoms Bay	400	286	114
Greatbrak	8,000	4,455	3,545
Sonskyn	9,000	6,993	2,007
Nautilus	100	53	47
Glentana	3,500	2,191	1,309

The Ecectrical Capital Expenditure projected for the next three years is as follows:

D2	ELECTRICAL SERVICES	2021/22	2022/23	2023/24
3	Replacement Network H/Bos	400,000	400,000	450,000
4	Replacement Network Low Voltage	400,000	400,000	450,000
5	New Connections	1,500,000	1,500,000	1,500,000
6	Capital Spares (Replace Mini Substations)	1,000,000	1,550,000	1,650,000
7	Replace MV Ring Main Units	600,000	1,000,000	1,100,000
8a)	Electrification Projects	4,978,261	5,852,174	10,434,783
8b)	Electrification Projects_CRR	200,000	200,000	
8c)	Electrification: Louis Fourie Corridor	3,740,000	4,582,609	
14a)	**Street Lights:** Great Brak Area	100,000	110,000	120,000
14b)	**Street Lights:** Mossel Bay Area	100,000	110,000	120,000
15	High mast and flood lights for various wards	190,000	200,000	200,000

20	Town Feeder 1 Great Brak Oh to cable 120mm	-	1,000,000	1,000,000
26	Replace LV Overhead Lines : Great Brak	600,000	-	-
27	Replace MV Oh Lines : Great and Klein Brak	600,000	-	-
30	Casino Sub-Replace Switchgear	-	2,300,000	
32	Rebuild & Extend 11kv Line Bothma - South Sub	0	1,000,000	
33	MV Extension to Hartenbos Landgoed Area	7,042,000		
34	Intake Substation Revamp (66 kV)	130,000	5,000,000	5,000,000
38	Smart grid, metering & monitoring	250,000	500,000	500,000
41	Aalwyndal MV network upgrade	500,000	1,125,000	
42	Aalwyndal MV switching station	200,000	1,500,000	5,000,000
43	Extension 13 Sub - Replace Switchgear		2,200,000	
44	Upgrade 66kV overhead line between Duinzicht and Ockert Bothma substations	6,000,000	10,000,000	
45	Replace Morrison Str OHL		2,500,000	2,500,000
46	LV supplies to various CCTV installations	100,00	50,000	
47	Upgrade Diaz Strand substation	1,950,000		
48	Upgrade Macs substation	-	2,500,000	
49	Upgrade Boltons Substation			2,000,000
50	MV network improvement between N2 Industrial Sites and Sijaji Str	760,000		
51	MV Network Improvement KwaNonqaba SS-B substation	-	800,000	

3.3.5.4 Roads, streets and sidewalks

A Roads Master Plan was developed and adopted in 2015 as a planning mechanism for the upgrading and maintenance of roads. The resealing of streets will be done in accordance with the Paving Management Programme at a cycle of 7 to 10 years whereas the tarring of streets will be done according to a priority process.

Currently the resurfacing and rebuilding of existing tarred roads are regarded as a higher priority than the tarring of gravel roads/construction of new tar roads. The Municipality is also committed to doing a traffic impact assessment study to fast track the possible upgrading of the road and traffic intersections. Four-way stops will be replaced with mini traffic circles at intersections with a high flow of traffic.

Main upgrade and development projects are shown hereunder:

PROJECT	ESTIMATED COST
Upgrade Link Road (Ward 9,12 to Extention 13)	R 25 000 000 Once Off R 9 000 000 over 5 years.
New Link Road Louis Fourie and Bill Jeffrey (Grunter and Essenhout)	R 4 200 000
Upgrade Louis Fourie, Flora and Crotz Street Intersection	To be determined

(Mossel Bay 2017 - 2022 Fourth Generation IDP)

3.3.5.5 Stormwater Management

Due to age, unknown conditions of some stormwater infrastructure, especially in the Central Business District, unforeseen failure of stormwater pipes systems occur. The aging stormwater infrastructure of the old part of town puts an additional burden on the Operating and Capital Budgets.

A policy has also been developed for the Great Brak River Estuary and breaching of the Great Brak River. It is also recommended that an updated policy be done and to take a flexible approach to accommodate ecological processes and socio-economic considerations for the breaching of the Hartenbos River.

3.3.5.6 Solid Waste Management

Provincial waste management targets have been set for organic and all solid waste - starting with a 50% reduction in organic waste to landfill by 2023. The reduction of waste going to landfill will have impacts on resource efficiency and on GHG emissions.

The Municipality has drafted its 3rd generation IWMP (2020-2025) dated February 2020. The Municipality has eight mini-drop off facilities located within residential areas for the collection of domestic waste and recyclables. It also operates two waste disposal facilities, the Louis Fourie Road garden waste site and Great Brak River garden and building waste site (licences in progress) as well as two waste transfer stations at KwaNonqaba and Sonskynvallei. The Department of Environmental Affairs (DEA) has issued closure licenses in respect of the D'Almeida-(decommissioning to be completed by 2032), Friemersheim-(decommissioning to be completed by 2032), Buysplaas (extended- decommissioning to be completed by 2029). Extension applications have been submitted in respect of the Herbertsdale-, Great Brak River- and Louis Fourie Road waste sites, to allow for closure completion only in 2029. De-commissioning costs are contained in the 2021 Closure Provision Report and due dates for decommissioning to commence is 2024.

Currently, the Municipality is confronted with quite a number of challenges in relation to pollution and waste management:

The Garden Rote District Municipality approved the appointment of a service provider (Eden Waste Management (RF)Pty Ltd to build and operate a regional waste facility. The facility is estimated to have a lifespan of approximately 40-60 years and will include both domestic (Class B) and hazardous(Class A) waste. The Petro SA site has an estimated lifespan of 12 months and is the only site that accepts domestic waste.

3.3.5.7 Parks & Recreation and clearance of alien vegetation

a) Regional

The municipal area has recreational facilities of international and national importance, i.e. two world-class private eco-resorts, i.e. Gondwana and Bottelierskop and the Pinnacle Point golf course and facilities. Apart from their conservation value which is enormous and could still be extended, these resorts attract international visitors and contribute to tourism and the local economy in a significant way.

b) Sports grounds

In the Social Service Strategy report, the provision of sports facilities in all the settlements in the municipal area are analysed and the conclusion is made that they are adequately provided although certain facilities could be upgraded. In Mossel Bay the Van Riebeeck Sports Grounds, the Almeida Sports Grounds, Kwanonqaba Sports Grounds and the Extension 23 Sports grounds provide in the needs of the community. According to the report, the Kwanonqaba Sports Fields are in need of maintenance work and proper management of the facility.

In Hartenbos, the residents have access to the Hartenbos Sports Grounds and in Great Brak River they have access to the Lang Street Sports and Green Haven Sports Grounds. The Kleinbrak-Reebok area has access to one sportsfield, a tennis club in Kleinbrak with two more tennis courts in Reebok, and a bowling club. Dana Bay has no sports field but has access to the Mossel Bay sports

facilities. Boggoms Bay has a jukskei club, tennis courts and a golf club. Herbertsdale has a sports field with an athletic track and tennis courts. Brandwag and Friemersheim both have sportsfields.

c) Neighbourhood parks

Mossel Bay has 48 neighbourhood parks of which 22 have playpark equipment. The town has one community park, Harry Giddey Park, with a variety of facilities.

According to CSIR standards, the town has adequate facilities but would need to plan for one or two additional community parks in the future according to growth taking place. According to the report, based on the said standards, the town does not require additional neighbourhood parks.

In short, the smaller settlements have the following facilities:

Neighborhood parks in settlements			
Settlement	**Number of parks**	**Equipped**	**Needs**
Brandwag	2	0	Upgrading
Friemersheim	1	1	Upgrading
Great Brak River	7	Some	Equipment and upgrading
Herbertsdale	1	1	
Hartenbos	5	5	Equipment and upgrading
Sonskynvallei	2	1	Equipment and upgrading
Kleinbrak,Reebok	5	3	Equipment and upgrading
Dana Bay	1	0	Equipment and maintenance
Vlees Bay, Boggoms Bay	0	0	Investigate playpark with equipment

In the IDP 2017-2022 a sports centre for the youth and a mini sports ground near the Magaba centre is identified and several playparks are earmarked for upgrading.

3.3.6 Social Infrastructure

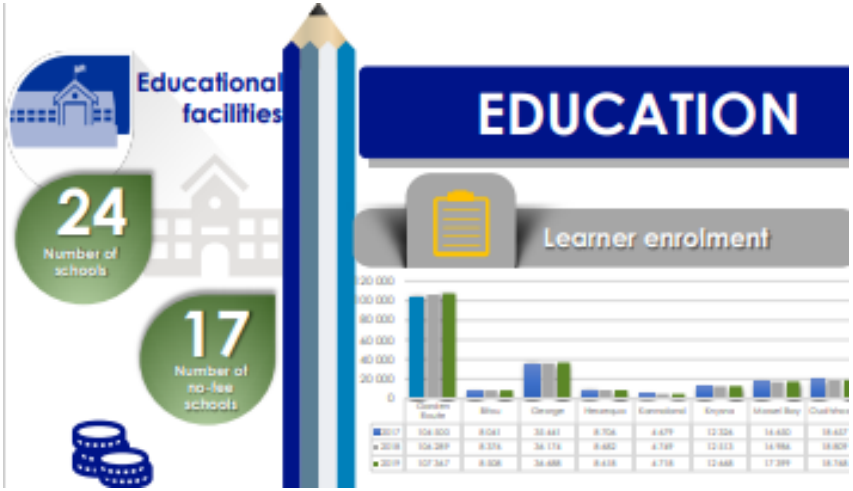
3.3.6.1 Social Facilities provided and demographic profiles

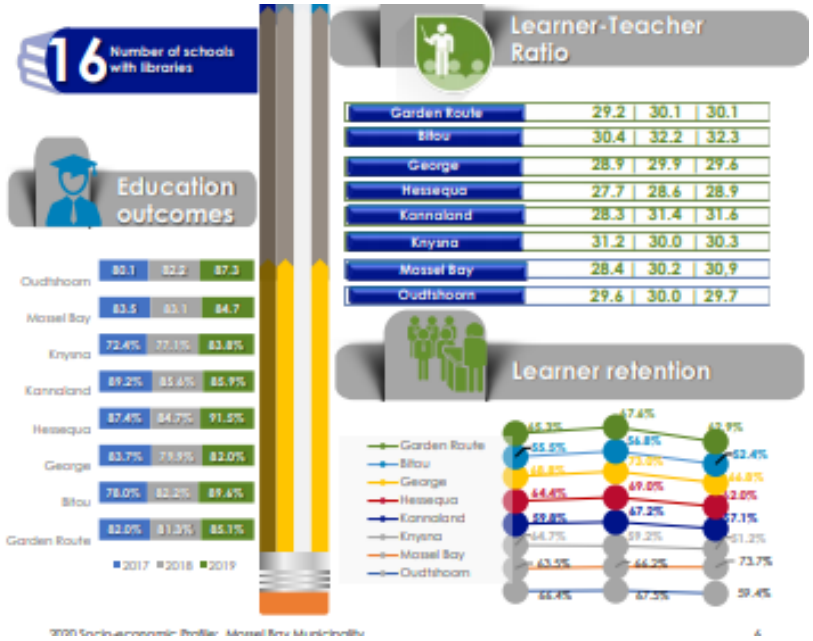
The representation of data relating to the current, 2020, social facilities, below, was sourced from the WC Socio-economic Profile for Mossel Bay and the graphic data is shown here for illustrative purposes only.

a) Education

Learner enrolment has remained relatively stable for the past three recorded years (2017-2019)

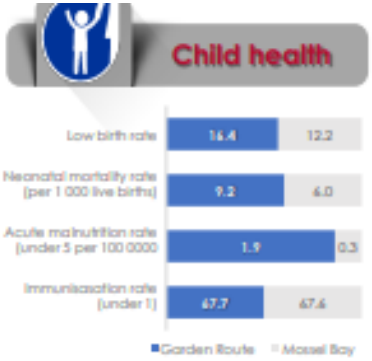
Note: Although there are 24 public schools in Mossel Bay, it is considered a low provision ratio in relation to the high learner enrolment and to the school-facility provision in other areas in the district, which accentuates the need for additional schools.

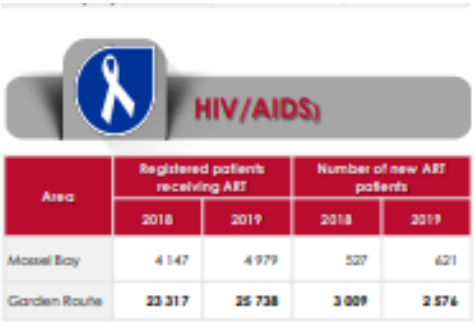




b) Health

The public health sector shows one District Hospital and five Public Health Facilities (Fixed Clinics, Community Health Clinics and Community Daycare Centres), which is low measured against the provision standards set by the CSIR Red book (Guidelines for Human Settlement and Planning). The provision of private health facilities to be confirmed.

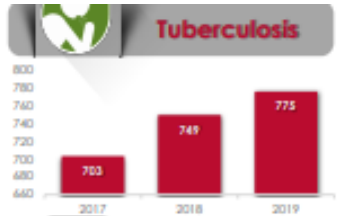




Area	Registered patients receiving ART		Number of new ART patients	
	2018	2019	2018	2019
Mossel Bay	4 147	4 979	527	621
Garden Route	23 317	25 738	3 009	2 576

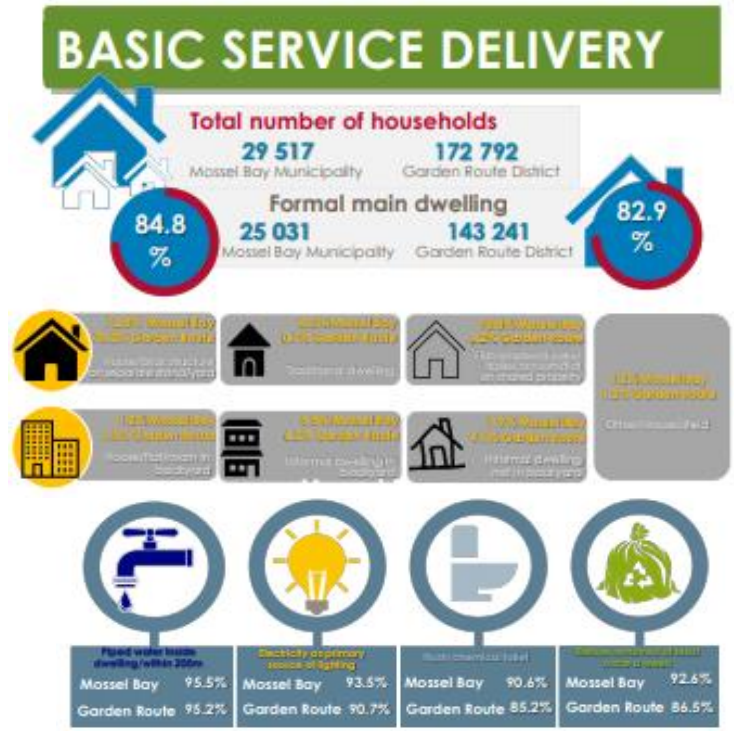
c) Basic Services

Note: These data supporting the figures in the 'Basis Services Delivery Infogram' are extrapolated from a 2016 Community Services Census survey. Although basic services are available to most of the population, there are still 13,4% (approximately 4000 families) of the population in informal dwellings, albeit mostly serviced.



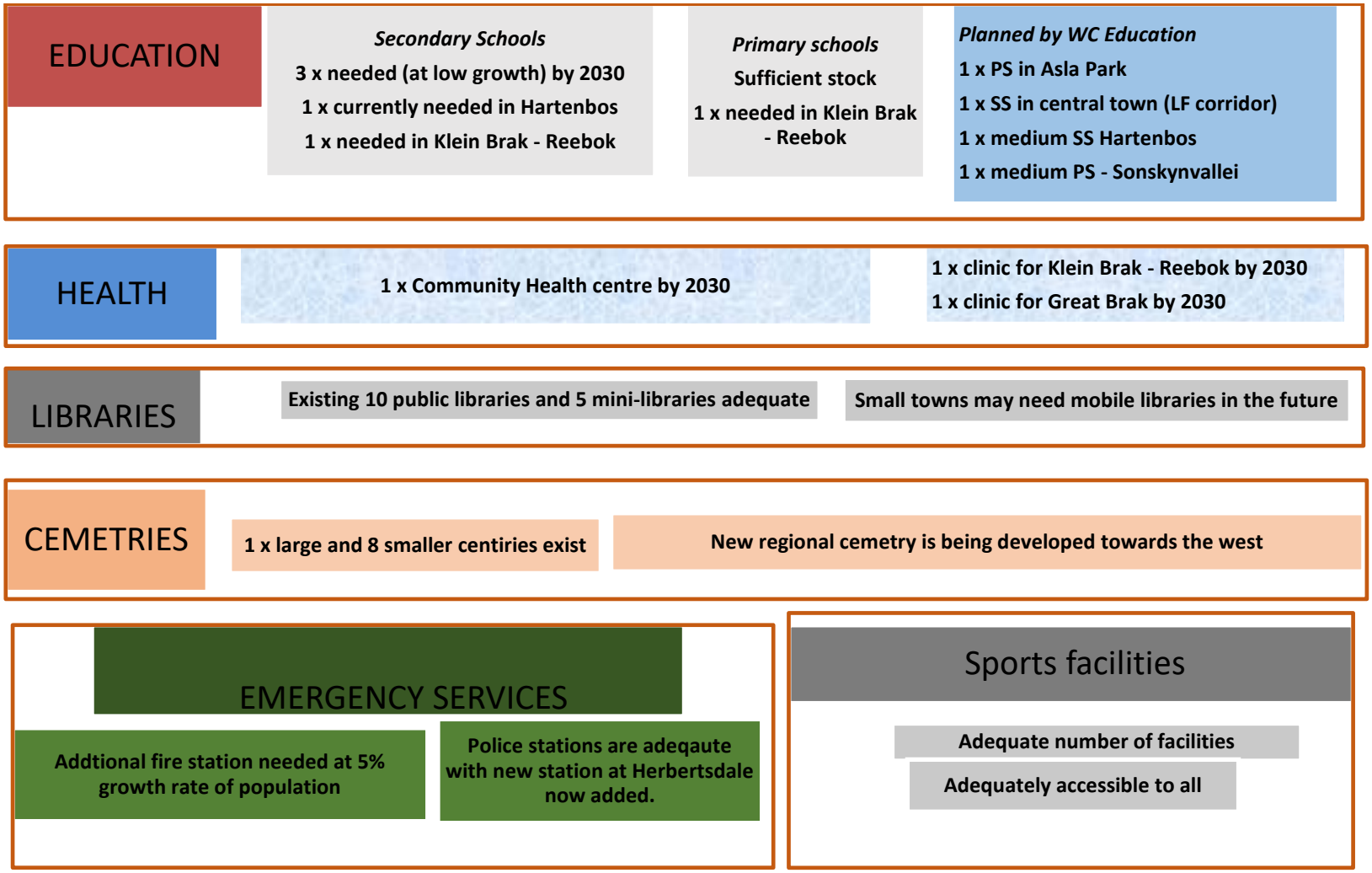
	Maternal Mortality Rate		Delivery rate to women under 20 years		Termination of pregnancy rate	
	2018	2019	2018	2019	2018	2019
Mossel Bay	0.0	0.0	14.9	16.8	0.5	0.4
Garden Route District	57.6	33.4	15.9	15.6	0.6	0.6

Health Indicator	Mossel Bay	Garden Route
No of operational ambulances per 10 000	3	2



3.3.6.2 *Social Facilities: Current Supply and Demand Estimates*

In a 2018 survey by Aurecon the current provision of social facilities was analysed and the need for additional facilities was estimated according to the norms and standards as set in the Red Book: Guidelines for Human Settlement Planning (CSIR).



MUSEUMS AND CULTURAL FACILITIES
4 x existing museums
Hartenebos Amphitheatre considered as large venue for cultural festivities
Town Hall and community halls also available

PLACES OF WORSHIP
Adequate provision according to norms and standards used - even an over-supply
In practice the situation shows the dynamics of division and differences and division among the churches is a reality.
Combined use of facilities which are mostly empty during the week, by ECD and creches is recommended

It is foreseen that the need for and the number of facilities may differ drastically after the impact of Covid-19 has filtered through the community and there is a return to relative normal social activities.

3.3.7 Heritage and Scenic Resources

Heritage in Mossel Bay is well recorded in many documents due to the efforts of local 'historians' and their Heritage Society. Ongoing research is taking place, expanding the known history of the town to outlying areas such as Great Brak River, Friemersheim and other settlements.

Baumann and Winter in their report on the Heritage Policy for Mossel Bay, recognised Mossel Bay as a "special place", because it has a character and appearance quite different from other towns in the Garden Route. Its character has been molded by a unique combination of natural environment and settlement patterns. It has a history that reflects the broad currents of the nation's history. All the phases of the history are reflected in the physical fabric of the town and are located in relative spatial proximity.

The history of **Mossel Bay** goes back many thousands of years, which explains the presence of our many archeological sites. The Gouriqwas, the Outeniqua of Attaqwa, and the San. The Khoi and San are both believed to be descendants of early man in Africa.

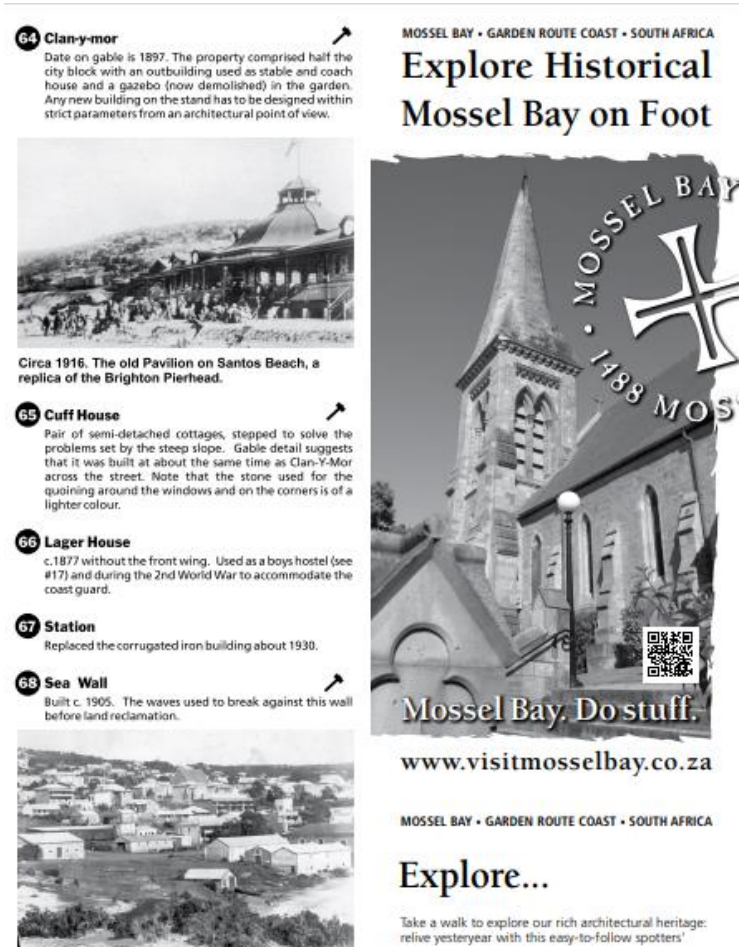
Excavation of a series of caves at Mossel Bay since the year 2000, was done by an International team and headed by prof. Curtis Marean from the Institute of Human Origins of the Arizona State University. The international team of researchers consisted of South Africa (UCT), Australia (UNSW, UoW), Israel and France, and their research revealed occupation by middle Stone Age people 164,000 years ago.

It been said that the fascinating history of **Mossel Bay** grants the town its status as the historical capital of the Garden Route and one of the most significant towns in South Africa. From those ancient, stone-age fish traps to cutting edge fuel from gas technology, Khoi-San herders and European traders to modern-day passenger liners and oil tankers – the history of **Mossel Bay i**s a microcosm of the history of the country itself.

Mossel Bay has always been associated with early European explorers. Bartholomeu Dias, the Portuguese Navigator, was the first European to discover the Southern tip of Africa while searching for a spice route to the East. He continued around the Point and landed in what is now Munro's Bay on 3 February 1488, 165 years before the first settlement in Cape Town. The Portuguese used this Bay for about 150 years until the Dutch Fleet forced them off the Indian Spice Route.

From there on follows the settlement history:
- the role of the town as a safe anchorage and source of fresh water and a refreshment station
- an early pre-colonial settlement
- a cattle station and grain site
- a harbour town
- a business area and regional service center
- a tourism and recreational center.

Mossel Bay as a town grew from a traditional fishing village to an administrative node, providing services and products to local residents as well as the surrounding farming communities. Mossel Bay gained municipal status in 1852 and consisted of 30 houses, which grew to a population of 600 by 1865. The first stone jetty was built in 1854 on the east side of the bay and another wooded jetty in the 1860. The majority of the stone buildings were constructed between 1870 and 1920. Since the early 1900's, Mossel Bay has known a seasonal influx of holidaymakers, giving rise to seaside camping sites and caravan parks. The ostrich feather boom in 1905 led to accelerated growth in the town, causing a need for the port to expand. This was also the year in which the rail link to Cape Town was completed and by 1907 the rail links to the north also existed. Ostrich feather was the chief export until the collapse of the trade-in 1913, when export in raw materials such as ochre became more dominant.



The local Tourist Office provides the visitor with a pamphlet and a small map of the historical buildings in the central area to visit.

The municipality developed the concept further by creating a dedicated tourist route in the central area whether the stories of the history and attributes of all attributes of Mossel Bay will be told at designed focal points and stations. This project must still be implemented – see par 2.5.6.4.

3.3.8 Economic Infrastructure

The Economic Infrastructure consists of the CBD, as well as the industrial and commercial nodes of Mossdustria, Voorbaai and the port. An aviation-orientated node was established adjacent to the existing airfield (See Par. 3.4.2 for an overview on the functioning of the local economy).

3.3.9 Disaster management

Mossel Bay has disaster risks unique to the area. The five main hazards have been identified in the IDP as:

- Land, water and marine pollution
- Hazardous material transport
- Agricultural epidemics
- Industrial and hazardous incidents
- Flooding

Several risks have been identified in the IDP as the most important:

- Fire at informal residents
- Transport of dangerous substances
- Human and animal diseases
- Hail storms
- Drought
- Floods
- Aircraft accidents
- Earthquakes
- Train accidents
- Service station fires
- Mass gatherings
- Power disruptions
- Bomb explosions / threats
- Displacement of foreign nationals (Xenophobia)

The Disaster Management Plan of 2016 includes several disaster and contingency plans and policies to forecast and prepare for the above incidents. Note that this plan was prepared before the Covid 19 and the latest unrest. It may be that certain components of the need to be revised in the light of recent experiences.

Disaster risk management needs to be integrated with the IDP and all plans and projects in order to contribute towards risk reductiion, preparedness, as disasters impact lives, property, community activities, the economy and the environment.

3.4 Socio-Economic Trends and Challenges

3.4.1 The Population at a Glance

The following data infographics are as per the 2020 WC Socio-economic Profile of Mossel Bay (Projected Stats SA (2011) and Community Survey (2016) data). For more clarity of the graphic illustrations the said document should be consulted.

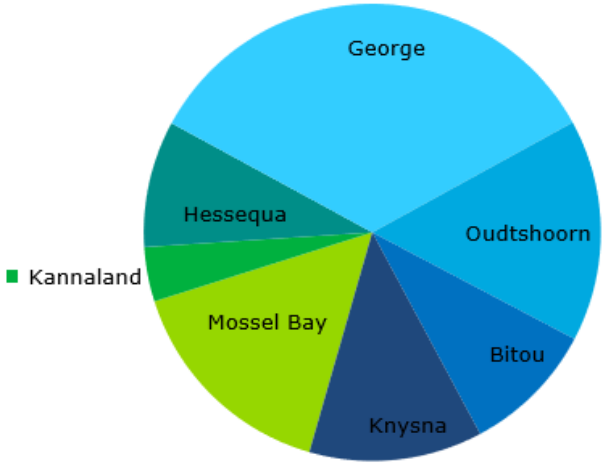
Municipal records and surveys however, show a higher population number as follows:

ESTIMATED POPULATION			
	Total residential units / households	**Vacant residential erven**	**Estimated population**
GREAT BRAK RIVER	3712	510	11136
GLENTANA	1019	188	14193
FRIEMERSHEIM	390	160	1170
MIDBRAK	3827	519	11481
BRANDWACHT	262	9	786
MOSSELBAAI PLASE	634	123	1902
HARTENBOS	4962	638	14886
AALWYNDAL	77	6	231
VOORBAAI	2878	406	8634
MOSSEL BAY	4990	390	14970
DA NOVA	254	0	762
D'ALMEIDA / TARKA	3226	166	9678
KWANONQABA	7439	71	22317
DANABAAI	2194	600	6582
COASTAL TOWNS AND RESORTS	475	334	1425
HERBERTSDALE	347	35	1041
RUITERBOS	130		390
INFORMAL SETTLEMENTS	6077		18231
	42893	**4155**	**139815**

3.4.2 Demographic analysis and trends

The research group IHS Markit Regional eXplorer states that understanding the changes in the composition of the population with respect to population group, age and gender is vital in the face of growing pressure on food, energy, water, jobs and social support on the country's citizens. An understanding of how the total fertility rates, age-specific fertility rates, sex ratios at birth, life expectancies and international migration affect the respective population groups, ages and genders is essential for effective planning on a spatial level.

The main findings of IHS Markit with 2019 pre-Covid data, are shown hereunder. (More detail data are available in their report Statistical Overview).



3.4.1.1 Population

	Mossel Bay
2009	84,900
2010	86,600
2011	88,500
2012	90,500
2013	92,500
2014	94,500

The total population of the Mossel Bay municipal area has increased from 84 900 in 2009 to 104 000 in 2019. When compared to other regions, the Mossel Bay Local Municipality accounts for a total population of 104,000, or 15.7% of the total population in the Garden Route District Municipality, with the George being the most populous region in the Garden Route District Municipality for 2019. The ranking in terms of the size of Mossel Bay compared to the other regions remained the same between 2009 and 2019.

3.4.1.2 Population growth

	Mossel Bay
2019	104,000
2020	106,000
2021	108,000
2022	109,000
2023	111,000
2024	113,000

Based on the present age-gender structure and the present fertility, mortality and migration rates, Mossel Bay's population is projected to grow at an average annual rate of 1.6% from 104 000 in 2019 to 113 000 in 2024.

3.4.1.3 Households numbers

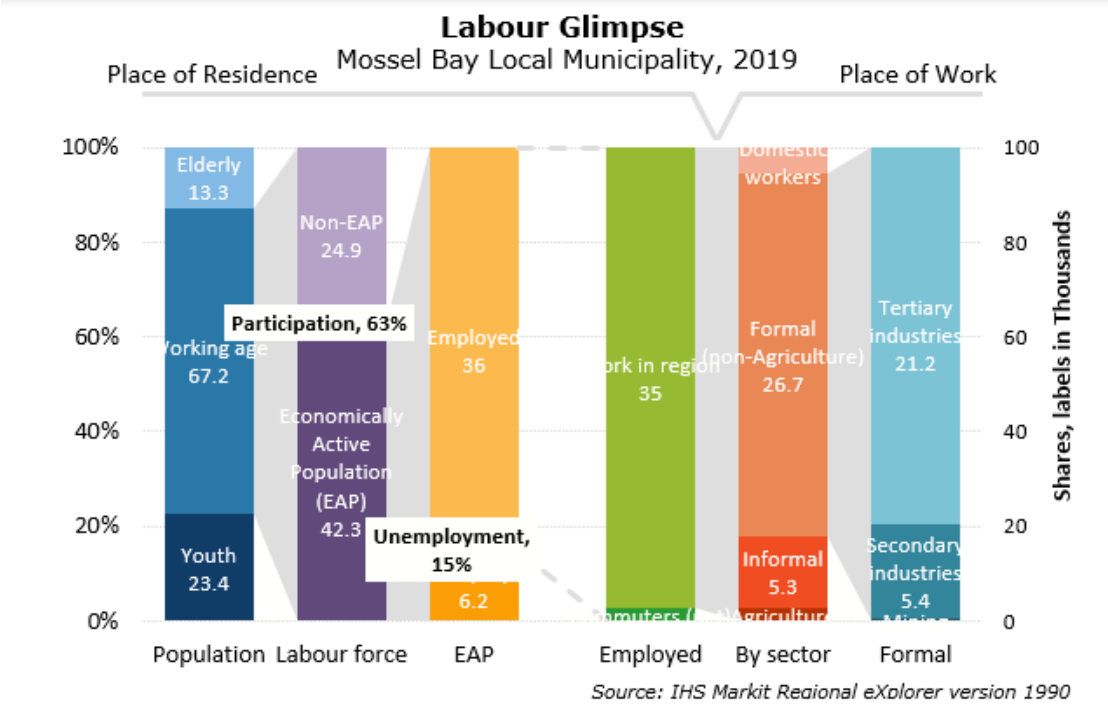
If the number of households is growing at a faster rate than that of the population it means that the average household size is decreasing, and vice versa. In 2019, the Mossel Bay Local Municipality comprised of 33 300 households. This equates to an average annual growth rate of 2.41% in the number of households from 2009 to 2019. With an average annual growth rate of 2.04% in the total population, the average household size in the Mossel Bay Local Municipality is by implication decreasing. This is confirmed by the data where the average household size in 2009 decreased from approximately 3.2 individuals per household to 3.1 persons per household in 2019.

	Mossel Bay
2009	26,200
2010	26,800
2011	27,500
2012	28,200
2013	28,900
2014	29,600
2015	30,400
2016	31,200
2017	31,800
2018	32,400
2019	33,300

3.4.1.4 Population structure

By comparing the population pyramid of the Mossel Bay Local Municipality with the national age structure, the most significant differences are:

- There is a significant smaller share of young working age people - aged 20 to 34 (24.1%) - in Mossel Bay, compared to the national picture (26.9%).
- The area seems to be a migrant sending area, with many people leaving the area to find work in the bigger cities.
- Fertility in Mossel Bay is significant lower compared to South Africa as a whole.
- Spatial policies changed since 1994.
- The share of children between the ages of 0 to 14 years is significant smaller (22.5%) in Mossel Bay compared to South Africa (28.6%). Demand for expenditure on schooling as percentage of total budget within Mossel Bay Local Municipality will therefore be lower than that of South Africa.



3.4.1.5 Population active in the economy

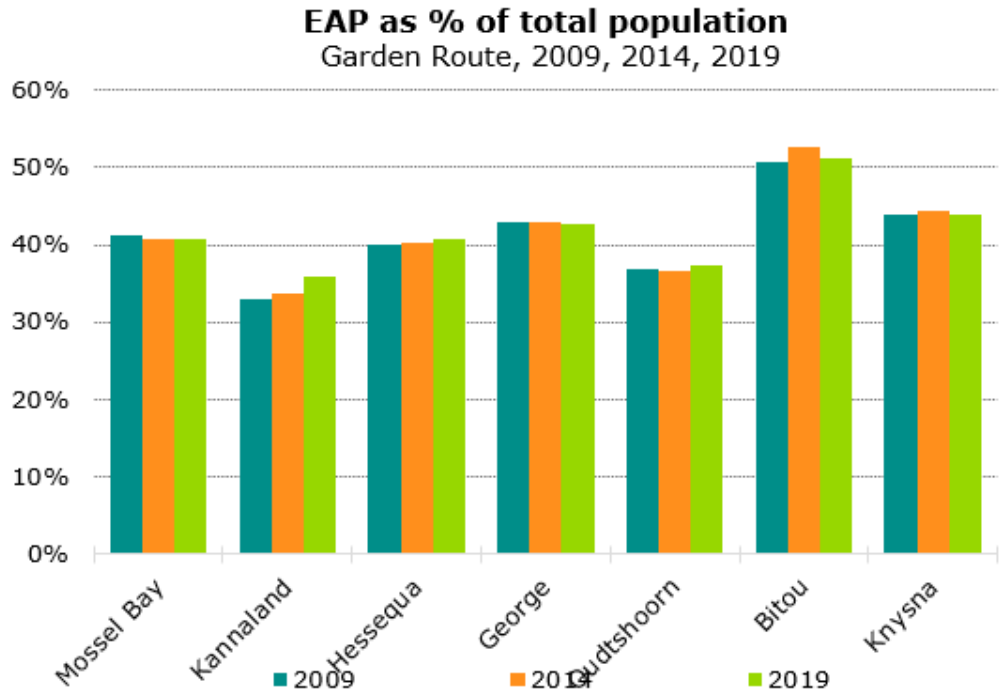
a) Labour force

The working age population in Mossel Bay in 2019 was 67 200, increasing at an average annual rate of 1.81% since 2009. For the same period, the working age population for Garden Route District Municipality increased at 1.94% annually, while that of Western Cape Province increased at 2.27% annually. South Africa's working age population has increased annually by 1.62% from 32.7 million in 2009 to 38.4 million in 2019.

The graph above combines all the facets of the labour force in the Mossel Bay Local Municipality into one compact view. The chart is divided into "place of residence" on the left, which is measured from the population side, and "place of work" on the right, which is measured from the business side.

b) Economically active population (EAP)

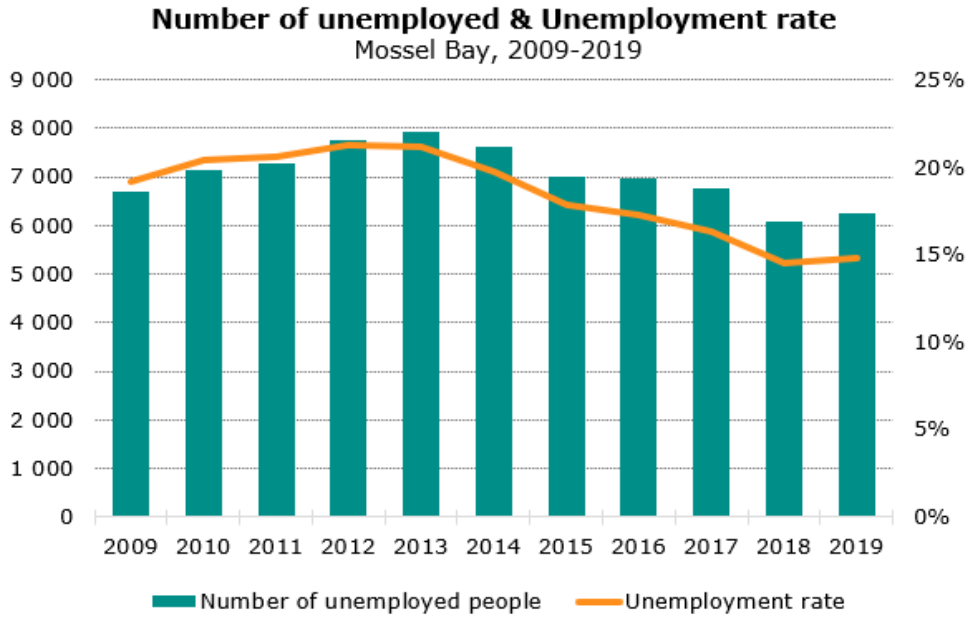
Mossel Bay Local Municipality's EAP was 42 300 in 2019, which is 40.70% of its total population of 104 000, and roughly 15.16% of the total EAP of the Garden Route District Municipality. From 2009 to 2019, the average annual increase in the EAP in the Mossel Bay Local Municipality was 1.91%.



In 2009, 41.2% of the total population in Mossel Bay Local Municipality were classified as economically active which decreased to 40.7% in 2019. It compares well with the other regions in the Garden Route District Municipal area.

c) Unemployment and Poverty

In 2019, there were a total number of 6 260 people unemployed in Mossel Bay, which is an decrease of -452 from 6 710 in 2009. The total number of unemployed people within Mossel Bay constitutes 14.32% of the total number of unemployed people in Garden Route District Municipality. The Mossel Bay Local Municipality experienced an average annual decrease of -0.69% in the number of unemployed people, which is better than that of the Garden Route District Municipality which had an average annual decrease in unemployment of -0.17%.



When comparing unemployment rates among regions within Garden Route District Municipality, Bitou Local Municipality has indicated the highest unemployment rate of 22.4%, which has decreased from 25.2% in 2009.

The 2020 WC Socio-economic Profile illustrates the poverty rates as noted in the diagram.

3.4.2 The Economy

3.4.2.1 Overview

The economy of Mossel Bay is impacted by several factors:

- The economy stagnated, (called sluggish growth in the IDP), in the years preceding 2019 as a result of the poor performing primary and secondary sectors on the back of a third consecutive quarter of economic decline.
- The impending depletion of domestic gas-to-liquids feedstock at PetroSA.
- Covid restrictions impacted all aspects of the economy but in particular the tourism industry.
  Job losses because of all the above factors.

GDPR (CURRENT PRICES) AND EMPLOYMENT, Mossel Bay, 2018 and 2019e

	2018		2019e
GDPR	R7.7 BILLION	↑ 0.2% GROWTH	R7.9 BILLION
JOBS	37 055	↓ -354 CONTRACTION	36 701

Source: Quantec Research, 2020 (e denotes estimate)

The economic situation over the past few years is quantified by MERO (Municipal Economic Review and Outlook, 2020) as follows: The Mossel Bay municipal area's GDPR was worth R7.7 billion in 2018 and is estimated to have increased by 0.2 percent (in real terms) to R7.9 billion in 2019. As illustrated below, it is estimated that 354 jobs were shed in the municipal area in 2019, bringing the total number of employed people in the region to 36 701 in 2019.

Top three sectors in terms of GDPR in 2018 :

- Finance, insurance, real estate and business services: 28.3%
- Insurance, real estate and business services: 28.3%
- Wholesale and retail trade, catering and accommodation: 17.5%
- Manufacturing sector: 4.7%

Top three sectors in terms of employment in 2018 :

- Wholesale and retail trade, catering and accommodation sector: 25.2%
- Finance, insurance, real estate and business services sector: 20.6%
- Community, social and personal services sector: 14.3%

Sectors providing informal employment in 2018:

- Wholesale and retail trade, catering and accommodation = 42.2%
- Construction = 39.2%
- Community, social and personal services = 38.2%

Transport, storage and communication = 36.7% *(Quantec Research, 2020 as quoted in MERO, 2021)*

According to the Municipality as quoted in MERO, informal businesses in the Mossel Bay municipal area are constrained by lack of rental space, high rental costs for business space, lack of capital to expand, market access, slow markets, low credit profile and business security. These constraints hinder informal businesses from expanding and creating jobs.

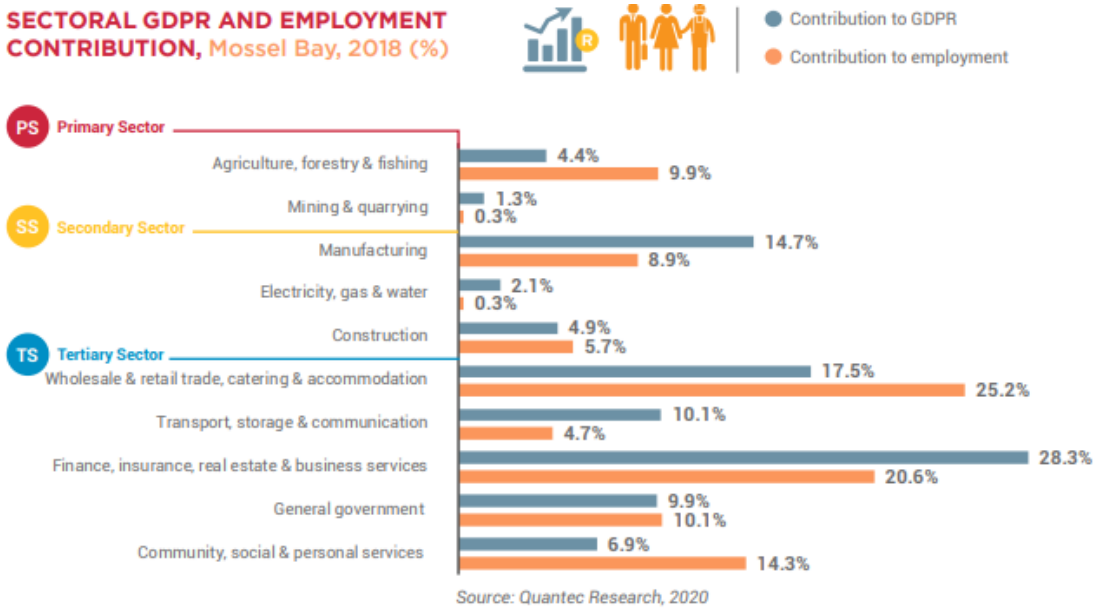
The JDMA (One Plan, draft 2021) lists the following threats to economic growth in the Garden Route Municipality: increased load-shedding, the South African economy entering a recession, the persistent drought in the region, limited land, infrastructure challenges, municipal red tape, intertown transport and inter-regional transport (Metrorail), water security, trading space, funding requirements, skills and market penetration.

3.4.2.2 Local Economic Drivers

It is derived from the above, that the **tertiary sector** is the main driver of the economy and employment in the area. The Covid-19 Impact Review (C-19IR) estimates that the tertiary sector, which contributes 71.8 percent of total GDPR in the municipal area, was valued at R5.4 billion in 2017. This sector is primarily driven by the finance, insurance, real estate and business services and the wholesale and retail trade, catering and accommodation sectors.

The main contributor to GDPR in the region - **the finance, insurance, real estate and business services sector** - achieved average annual growth rates of 3.9 percent between 2008 and 2017, which was nearly double the 2.0 percent growth rate achieved by the Mossel Bay municipal area as a whole. Estimates for 2018 indicate a slight slowdown in this sector, with a projected growth rate of 2.7 percent for 2018. The tertiary sector is, however, the only sector within the municipal region that has shown growth in 2018.

Accounting for 74.5 percent of **employment opportunities** in the municipal area, the tertiary sector is the main driver of employment in the region. The finance, insurance, real estate and business services sector has contributed significantly to employment, with a net of 2067 jobs being created between 2008 and 2017. The predominant source of employment in 2017 - wholesale and retail trade, catering and accommodation - has also been a main source of job creation, creating a total of 1 871 jobs over the same period. While estimates for 2018 indicate a slowdown in terms of job creation in the tertiary sector, 430 jobs are estimated to have been created in 2018. Employment in the tertiary sector has fared slightly better than its GDPR. Between 2008 and 2017, 3 582 jobs were created. Community, social and personal services have experienced significant employment growth, with the highest job creation of 1 105 jobs over the same period. However, job creation has dampened across the tertiary sector, with the finance, insurance, real estate and business service sector being the only industry to improve on its yearly average in 2018.



Source: Quantec Research, 2020

3.4.2.3 Key Economic Sectors

Quantec Research in MERO illustrates the contribution of each economic sector in more detail:

Observations in MERO from these **trends** are:

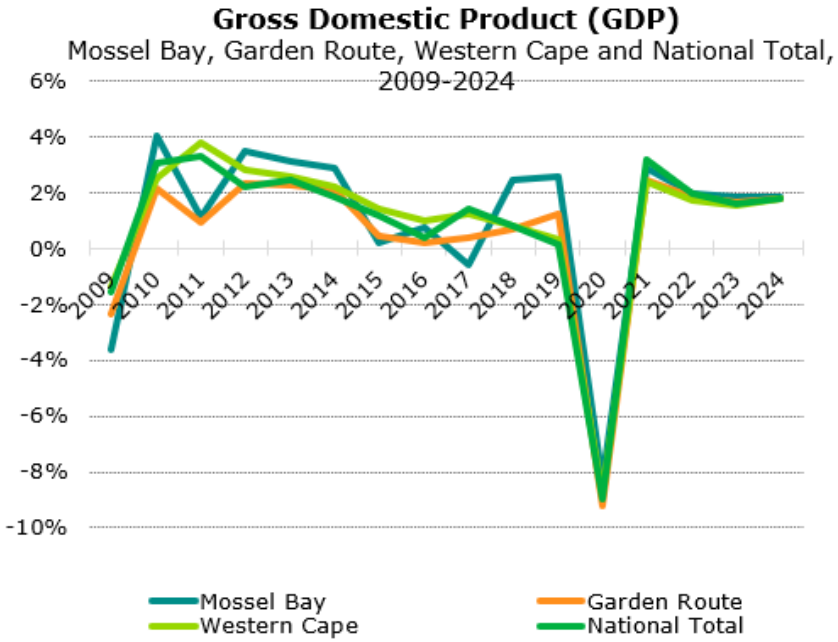
- The main economic driver in the Mossel Bay municipal area was the tertiary sector, valued at R5.6 billion in 2018 and accounting for 72.6 percent of the municipal area's GDPR.
- The secondary sector, which is mainly driven by the manufacturing sector, accounts for 21.7 percent of the Mossel Bay municipal area's GDPR.
- Estimates for 2019 indicate that the economy stagnated, with a GDPR growth rate of only 0.2 percent, which is 0.9 percentage points lower than the average experienced in the preceding five years.
- The reduced GDPR growth rate was mainly a result of the poor-performing primary and secondary sectors, which experienced contractions of 5.2 percent and 4.8 percent respectively.
- The largest contractions were experienced by the construction sector (7.5 per cent) and the agriculture, forestry and fishing sector (5.9 percent).
- Positively, the finance, insurance, real estate and business services sector and the general government sector realised growth rates of 3.6 percent and 1.1 percent respectively, which were higher than the average observed in the preceding five years.

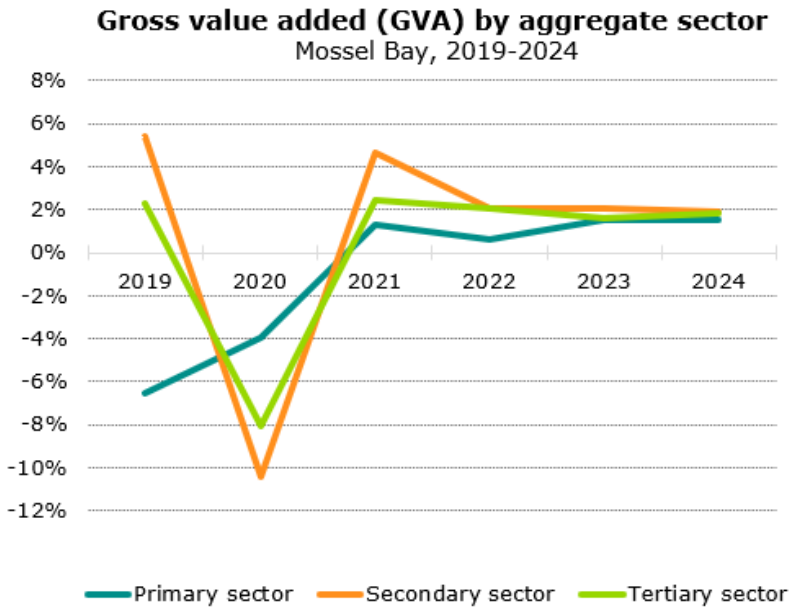
In terms of **employment** the following observations are made in MERO:

- The main employment driver in the Mossel Bay municipal area in 2018 was the tertiary sector with 27 757 jobs, employing 74.9 percent of the 37 055 total employed people in the area.
- Between 2014 and 2018, the municipal area created an average of 462 jobs per annum, which were mainly driven by the tertiary sector (529 jobs) and more specifically the finance, insurance, real estate and business services sector, which created 260 jobs per annum on average.
- The wholesale and retail trade, catering and accommodation sector created 191 jobs and the community, social and personal services sector 37 jobs.
- The Mossel Bay municipal area shed 354 jobs in 2019, largely because of job-shedding in the secondary sector (385 jobs).
- The tertiary sector created significantly fewer jobs than the average observed in the preceding five years, mainly as a result of job-shedding in the community, social and personal services sector (164 jobs).
- Positively, the transport, storage and communication sector and the general government sector created more jobs in 2019 compared with the averages observed
  in the preceding five years.
- Increasing the usage of the Mossel Bay Port beyond fishing and mining activities can increase job creation, particularly in the transport, storage and communication sector.

3.4.2.4 Pre-Covid economic growth trend and forecast

IHS Markit forecasted that Mossel Bay Local Municipality will grow at an average annual rate of -0.05% from 2019 to 2024. The average annual growth rate in the GDP of Garden Route District Municipality and Western Cape Province is expected to be -0.40% and -0.36% respectively. South Africa is forecasted to grow at an average annual growth rate of -0.20%, which is lower than that of the Mossel Bay Local Municipality.





The Primary sector is expected to grow at an average annual rate of 0.17% between 2019 and 2024, with the Secondary sector growing at -0.10% on average annually. The Tertiary sector is expected to grow at an average annual rate of -0.12% for the same period.

3.4.2.5 The effect of Covid-19

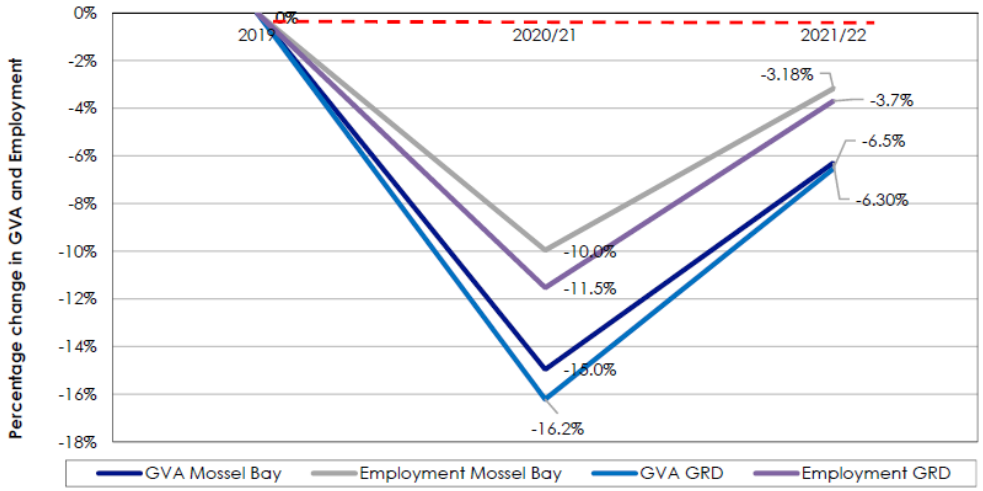
MERO comes to the following conclusions on the effect of Covid-19 on the local economy:

- As a result of the lockdown regulations owing to the Coved-19 pandemic, the Mossel Bay municipal area's GDPR is expected to contract by 6.5 percent in 2020 before recovering to 3.5 percent in 2021. This recovery is, however, not sufficient to restore the economic performance to the same levels pre-2020.
- The municipality introduced a range of responses to support households and businesses that were negatively affected by the Covid-19 pandemic. These include interest-free temporary amnesties on property rates, service accounts and lessees of the municipality for businesses. Residential customers benefited from an easing of water restrictions and an unblocking of electricity meter accounts. While laudable, these measures are forecast to contribute to a reduction in the Mossel Bay municipal area's general government sector GDPR of 3.7 percent in 2021.

The C-19IR concludes that the economy is expected to be heavily impacted by the Covid-19 pandemic and resultant lock-down restrictions, both in terms of reduced demand, as well as the need to halt/minimise operations in multiple industries.

The figure below, (the WC Department of Economics Development and Tourism, 2020), reflects the overall anticipated impact of the lockdown and consequent easing of restrictions on the Mossel Bay local economy and Garden Route District (GRD) economy:

Figure 2 GVA and Employment forecast



Source: Own calculations by Western Cape Department of Economic Development and Tourism, 2020

The above report further estimates that the overall impact of COVID-19 and the resultant lockdown on the economy is likely to be quite harsh.

The following scenarios are foreseen:

Covid impact and lockdown scenario

- The GVA is projected to contract by 15.0% by the end of the first year (2020/21).
- The overall GRD economy contraction will be 16.2%.
- For the same period employment within Mossel Bay is estimated to contract by 10% while the GRD will have 11.5% of its jobs lost.
- In the second-year (2021/22) after the lockdown, the economy will start recovering with a GVA of 6.5% lower than in 2019.
- The GRD will see a recovery but will still have a remaining 6.5% deficit from the 2019 levels.
- Similarly, in 2021/22 employment levels will also make a significant recovery but is not enough to make up for the -10 % loss in 2020/21, leaving a deficit of -3.18%.
- The GRD will recover but will still have a deficit of 3.7% from 2019.

Covid impact on sectors scenario

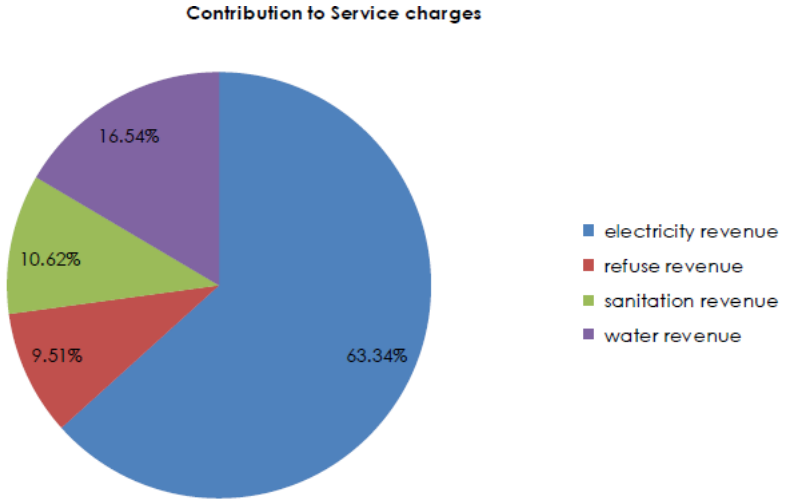
- Tourism, (83.9%, construction (40.7%) mining (20.1.%) will be hardest hit.
- The majority of job losses will come from the tourism (59.75), construction (25.95) and trade (5.0%).
- The least affected industries include electricity, finance and community services.
- Manufacturing: 13.9% contraction forecasted to 6.7% over a 12-month period with 4.2% (128) job losses with a further 73 job losses to follow in the 13-24 months recovery period.
- Construction: projected to take a 40% dive in the 12-month period and another 10.0% drop in the GVA in the 13-24 month recovery period. Employment loss will be 342 jobs (25.9%) in the 12-month period with another 63 jobs in the 134-24-month period.
- Trade: the net loss in GVA for the sector is 14.6% over the 12-month period with a further 6.5% decline in GVA within the 13 – 24-months' economic recovery period.
- The economic contraction is estimated to result in 223 job losses in the 12-month post-lockdown period, with a further 114 jobs (2.6%) shed in the 13 – 24-months' post-lockdown.

3.4.2.6 Impact on municipal revue

The C-19IR estimates that service charges make-up approximately 70.0 per cent of total revenue for 2020/21, with electricity revenue in particular accounting for 63.3 per cent of this particular bundle of services.

Given the shutdown of industrial activity by and large, especially in the sectors of manufacturing, construction and trade, the overall consumption of this key line item (electricity) is sure to constrain municipal finances in the short-term with annual projections severely impacted in this regard.

The C-19IR concludes that the Municipality will operate in a fiscally constrained environment over the medium term. The report further emphasizes that the Municipality, together with other spheres of Government, should balance sustainable budgeting with the provision of quality services, supporting economic activity and providing alleviation for those living in poverty.



The general recessionary and high unemployment environment which existed pre-COVID has further been hit hard by interlocking shocks to supply and demand. The immediate priority is to, as far as possible, support economic activity and alleviate hardship.

3.4.2.7 Strategic Economic Sectors

a) Tourism

The Tourist Route report states that it has been said that the fascinating history of **Mossel Bay** grants the town its status as the historical capital of the Garden Route and one of the most significant towns in South Africa. From ancient, stone-age fish traps to cutting-edge fuel from gas technology, Khoi-San herders and European traders to modern-day passenger liners and oil tankers – the history of **Mossel Bay** is a microcosm of the history of the country itself.

(Photo Cinematic Solutions SA)

As stated on one of the tourism websites, the reasons our common ancestors were drawn to Mossel Bay all those years ago, are the same reasons that still beckon us today**: pristine beaches, tranquil lagoons, fragrant fynbos, abundant wildlife, fresh seafood and year-round beach weather.**

Concerning heritage and regarding the museums of the area, the website visitmosselbay.co.za/ourhistory directs the visitor to a page with a history of the town and what could be explored in the museums.

Other tourist attractions in the commercial sector include restaurants, coffee shops, art galleries, arts and crafts activities, markets, gifts and décor etc. Outdoor tourism also has a very prominent presence in Mossel Bay with hiking trails, boat and helicopter trips, deep sea fishing excursions, shark cage diving and the like.

To ensure that the economic interventions and activities across various sectors are directed and aligned towards the systematic and seamless growth of the town's economy, the Municipality adopted a Local

Economic and Tourism Development Strategy which serves as a developmental policy guideline to attract new investors and business opportunities.

- LED Strategy

The LED strategy which was adopted by Council in 2012 has recently been reviewed the implementation of a Participatory Appraisal and Competitive Advantage (PACA) process in which process the following were identified as the key findings in this sector:

- Mossel Bay is situated in a unique natural environment that includes marine, coastal, vegetative, and montane components.
- Mossel Bay offers a greater number of things to do - attractions, adventures, activities, entertainment - than other towns of similar size.
- Mossel Bay is situated at a one-of-a-kind confluence of the Indian Ocean and the Outeniqua Mountains that enjoy excellent, comfortable weather throughout the year, as well as particularly interesting varieties of marine life and indigenous fynbos vegetation.
- The natural conditions that make Mossel Bay an important modern-day tourism destination.
- The local tourism industry has capitalised on this abundant natural environment to create an unusually large selection of attractions, adventures, and things to do: even the Dias Museum Complex is situated where it is because the environment around the Post Office Tree provided Bartolomeu Dias and his crew with safe anchorage and fresh water.

Tourism - tourists by origin
Mossel Bay Local Municipality, 2019

Tourism in Kwanoquaba opens another avenue for entrepreneurs to capitalize on tourism in Mossel Bay.

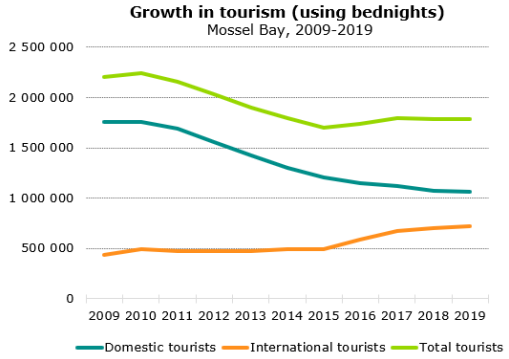
- Visitors

The pre-Covid-19 estimates by IHS Markit show that the number of trips by tourists visiting Mossel Bay Local Municipality from other regions in South Africa has decreased at an average annual rate of -1.94% from 2009 (266 000) to 2019 (218 000). The number of tourists visiting from other countries decreased at an average annual growth rate of 4.13% (from 29 600 in 2009 to 44 300). International tourists constitute 16.87% of the total number of trips, with domestic tourism representing the balance of 83.13%.

- Bednigths

From 2009 to 2019, the number of bed nights spent by domestic tourists has decreased at an average annual rate of -4.90%, while in the same period the international tourists had an average annual increase of 5.07%. The total number of bed nights spent by tourists decreased at an average annual growth rate of -2.06% from 2.2 million in 2009 to 1.79 million in 2019.

	Domestic tourists	International tourists	Total tourists
2009	266,000	29,600	295,000
2010	285,000	33,600	318,000
2011	289,000	34,500	323,000
2012	278,000	36,900	315,000
2013	265,000	37,800	302,000
2014	250,000	38,000	288,000
2015	235,000	36,500	272,000
2016	227,000	41,300	268,000
2017	222,000	43,400	266,000
2018	216,000	43,800	260,000
2019	218,000	44,300	263,000
Average Annual growth			
2009-2019	***-1.94%***	***4.13%***	***-1.16%***



- Spending

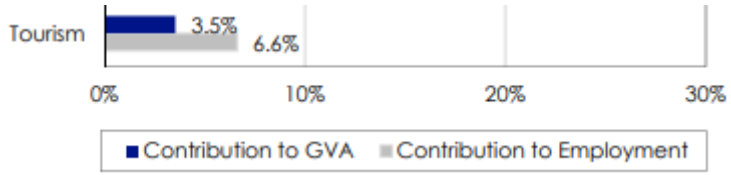
The pre-Covid-19 estimates by HIS Markit show that Mossel Bay Local Municipality had a total tourism spending of R 2 billion in 2019 with an average annual growth rate of 8.0% since 2009 (R 932 million). Garden Route District Municipality had a total tourism spending of R 8.73 billion in 2019 and an average annual growth rate of 8.2% over the period. Total spending in Western Cape Province increased from R 26.6 billion in 2009 to R 52.1 billion in 2019 at an average annual rate of 7.0%. South Africa as whole had an average annual rate of 6.4% and increased from R 153 billion in 2009 to R 285 billion in 2019.

TOTAL TOURIST SPENDING (R BILLIONS – CURRENT PRICES)

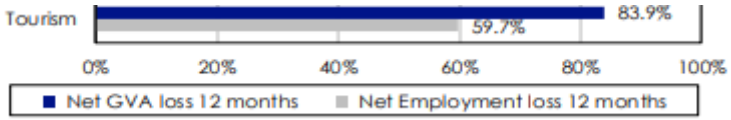
	Mossel Bay	Garden Route	Western Cape	National Total
2009	0.9	4.0	26.6	153.4
2010	1.0	4.2	28.6	167.2
2011	1.1	4.5	30.6	174.5
2012	1.2	5.0	34.5	199.4
2013	1.3	5.8	38.4	217.8
2014	1.5	6.5	42.8	240.5
2015	1.5	6.7	42.2	231.4
2016	1.8	7.8	48.6	267.2
2017	1.9	8.2	50.6	277.5
2018	1.8	8.0	49.5	273.2
2019	2.0	8.7	52.1	284.6
Average Annual growth				
2009-2019	***7.95%***	***8.20%***	***6.97%***	***6.37%***

- <u>Employment</u> and Covid-19 effect

MERO reports that sectors that are more labor-intensive have a relatively larger socio-economic impact when confronted with adverse economic conditions. Job losses in such sectors negatively impact the income of the employees which has the knock-on effect of lower demand for goods and services produced across all sectors.



The full effect of Covid-19 on the tourism industry still has to be seen, but the WC Department of Economic Development and Tourism estimates the net GV loss because of Covid at 83.9% and the net employment loss over 12 months at 59.7%.



b) Agri-tourism

Agri-tourism plays an important part in providing an additional income to farmers. Some of the establishments in the Mossel Bay are:

- Jakkalsvlei Private Wine cellar
- Little Creek farm cottages
- Jonqua farm cottages
- Ruiterbosch Lodge
- Groot Brak Fragrance Route
- Outeniqua Moon Percheron Stud farm
- Bottelierskop Game farm
- Nyaru Game farm
- Hakuna Matata Game farm
- Bonniedale Holiday farm (Hartenbos)
- Skaapplaas Guest farm (Ruiterbos)

The accommodation and wine sales activities in the agri-tourism industry were severely affected by the lockdown restrictions during early 2020 and again in June 2021.

c) Agri-processing and niche markets

The Eden SDF points out that agri-processing has been identified as a strong potential growth area in the province and is supported by the national initiative to create agri-parks. National Department of Rural Development and Land Reform, in the Eden District Rural Development Plan (2017) has indicated that an agri-park will be developed in Oudtshoorn, with farmer production support units (FPSU's) located in Dysselsdorp and Haarlem. The main commodities selected for inclusion into the Eden

District Municipality's agri-park for immediate focus in are fruit and vegetables (including vegetable seeds and possibly flower seeds) as well as honeybush tea and lucerne.

The agri-hub is linked to Farmer Production Support Units (FPSU) - a rural outreach unit that does the primary collection, some storage, some processing for the local market, and extension services including mechanization. Mossel Bay is identified as a Farmer Production Support Unit (FPSU) to support emerging farmers producing lucerne

The District LED Strategy identifies agriculture niche market opportunities such as horticulture, and expansion of existing production in essential oils, honey, and livestock and poultry farming, and aquafarming (fish) or aquaculture.

d) Gas and oil

PetroSA was established in 2002, following the merger of Soekor E & P and Mossgas (Pty) Ltd. It owns one of the largest natural-gas-to-liquid (GTL) refineries in the world and employs a total staff of about 1400. It has produced 70 MMbbl crude oil and more than 1.4 Tcf of natural gas up to date and sells diesel, gasoline, kerosene and specialty products. Also refer to Par 3.2.11.

According to the SCRSIF, Transnet has decided to establish liquid-to-natural-gas (LNG) import terminals in Saldanha Bay, Mossel Bay, Ngqura and Richards Bay. PetroSA is proposing to import liquefied natural gas into the Mossel Bay area for use at the refinery and at the adjacent Eskom Gourikwa power plant. The development would consist of a re-gasification terminal and sub-sea and overland pipelines transporting the gas to the GTL refinery and Gourikwa power plant. Conversion of the GTL Refinery to a 46,000 bopd liquid feedstock refinery (LNG) is under investigation through the "Enhanced Condensate Processing" project planned to come online

The recent approval of a R3bn investment to retool the plant for LNG conversion offers a significant potential economic boost to the region.

However, in order to sustain long-term economic benefits, local businesses need to be aware of the certifications and skills needed to participate in this mega-project. Without this, the impact of the upgrade will be a bubble, largely constrained to increased hotel occupancy for the duration of the upgrade triggered by the short term import of expertise.

The SCRSIF observes that the decline in the gas industry necessitates that other opportunities for economic growth and employment creation should be investigated.

Mossel Bay's gas infrastructure is identified as a potential location for Green Hydrogen production. Green Hydrogen is produced using low-carbon energy (typically renewable energy), which makes it particularly attractive in the search for alternatives to fossil fuels. At the same time, gas is seen as having a limited future, given the global goal of rapid decarbonisation of energy.

Proposals should consider how to optimize synergies between agri-parks, tourism and other economic sectors. The development opportunities presented by the intended LNG project should also be investigated.

d) Alternative energy

As explained par 3.2.2.2, the Mossel Bay area falls in an area with intermediate solar radiation levels estimated at between 1700 - 1800 kWh/m, There appears to be interest of developers in investing in alternative energy in the area and this sector may become a new contributor to the economy in the future.

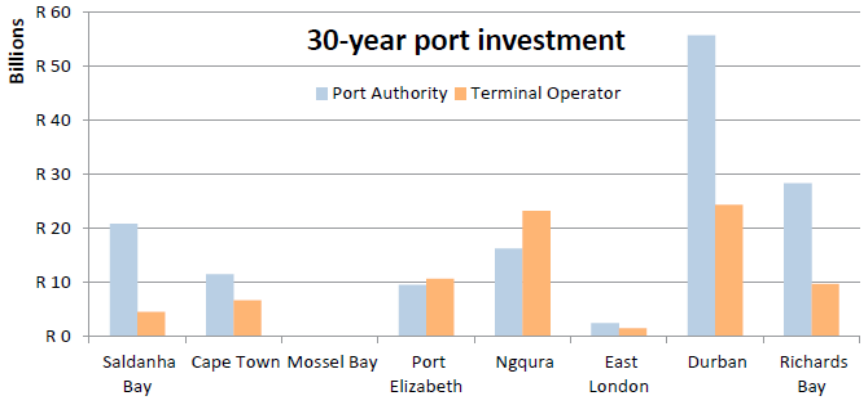
3.4.2.8 Strategic Economic Land Use Assets

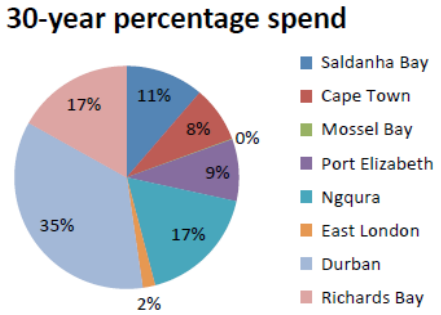
a) Port

Mossel Bay possesses two attributes that are great assets, one fo which is the port. It has the potential to become an even greater contributor in the economic growth of the town.

Mossel Bay Port is the smallest of 9 national ports that fall under the custodianship of Transnet National Ports Authority (TNPA). It is the only active harbour in the Eden District, servicing the fishing and oil/gas industries. Mossel Bay is classified as a district harbour that provides a major access point to markets within the district. This harbour accommodates a range of uses (sea and land-based) and can accommodate the transportation of freight.

According to TNPA (2014), a significant decrease in overall demand for use of the port is expected up until the year 2033 and furthermore, shown in the graphs below, no new port side investment will be spent on the port because current infrastructure capacity is sufficient to meet demand forecasts over the next 30 years.





Mossel Bay has always been a fishing harbour of substance with limited commercial cargo activity, but the development of Mossgas and PetroSA has played a major role in the development of the port. The port also serves the oil industry as an oil rig supply boat base and is the only South African port that operates two offshore mooring points within port limits. However, the harbour has a relatively limited capacity due to its entrance depth of only 8m.

Access by the public is restricted to the northern area and yacht owners have difficulty moving to and from their yachts. Fishermen from the local disadvantaged communities that traditionally used to fish at well-known sites along the quays are prohibited from doing so since the security system was put in place.

The current plans for the proposed waterfront (see par 2.5.6.2) and the Port Development Framework (see par 2.5.6.3) attempt to rectify the above situation.

b) Airport

The other important asset with potential is the Mossel Bay Airport. The Eden SDF identifies the need for upgrading and expansion of the Mossel Bay Airport, as is the case with the Oudtshoorn and Plettenberg Bay airfields. The airfield facilities in the region are economically very active and create economic spin-offs for the local economy and, in the case of George airport, the regional economy.

The Mossel Bay Municipality owns the Mossel Bay Airport. It is, however, managed and financially maintained by the Mossel Bay Aero Club members. Management activities performed by the Aero Club are detailed as follows (2016 data from the Airport Investigation):

- Operation of Airport flight traffic: this includes management of the airport and aviation services. A committee manages the airfield.
- Leasing of plot rights: to Aero Club members for the purpose of building hangers utilised for the storage of their aircraft.

- Selling of fuel at the Airport: Fuels sold include Avgas; Jet A1 and "Mogas" fuels. On average 14 556 litres of fuel are sold per month and in the last financial year (2015) 174 666 liters were sold.
- Repairs and maintenance of airport infrastructure: including Apron, Runway and Runway lighting upkeep, as well as Fuel Bay Jet A system repairs.
- Providing Airport security: utilising a combination of a Biometric security system to monitor the apron and fuel bay areas and an alarm system to monitor the clubhouse.

Some of the major aviaton-related activities on the airport site are:

- Starlite International Helicopter Training Academy: specialising in helicopter training and fixed-wing training of pilots and engineers, and recognised by the South African CAA and other international end-users. Starlite operates a fleet of 17 helicopters and two fixed-wing aircraft out of Mossel Bay for training purposes. They also provide maintenance services to Starlite Africa on their fleet of R22, R44, R66 and Cabri training helicopters, as well as on helicopters operated by other operators/privateers within the area.
- Skydive Mossel Bay Adventure sports centre, providing tandem skydiving to tourists, a club for experienced sports jumpers as well as a school offering courses to students aspiring to become sports skydivers.
- Tours for SA operates the largest touring operations on the Garden Route area, based in Mossel Bay, they operate a national servicing charter section, with 26 vehicles (sedans) from Mercedes- through to 48 full luxury coaches.

From the above, it can be observed that a large proportion of the inputs utilised by the different operators, based at Mossel Bay Airport, for their respective activities are sourced locally, from within Mossel Bay. This illustrates the linkage the Airport has in supporting economic activities locally. This is in addition to money induced into the Municipal economy from the various operations at the Airport and students and tourist participating in aircraft training, and tandem skydiving.

The activities undertaken by Mossel Bay Airport were analysed by Urban Econ and the following can be concluded:

- The Airport is a significant contributor to tourism in the area, in that it attracts a significant number of tourists through organising and hosting sporting spectaculars.

- It also contributes to tourism through providing a variety of other niche private aircraft services, including private landing facilities, hangar facilities, aircraft fuel sales and maintenance. The availability of these services at the airport attracts travelers from all over South Africa, who go on to utilise other leisure services in the area.
- Mossel Bay Airport specialises as a location for operators providing aircraft educational training and has become known for this; as such it attracts a significant amount of international and domestic travellers, contributing to tourism in the area.
- Additionally, the operations at the Airport also stimulate other economic activities in the local area, through sourcing the majority of their inputs locally, as well as through money injected into the economy from the various operations at the Airport, students and Aeroclub members' expenditure in the area.

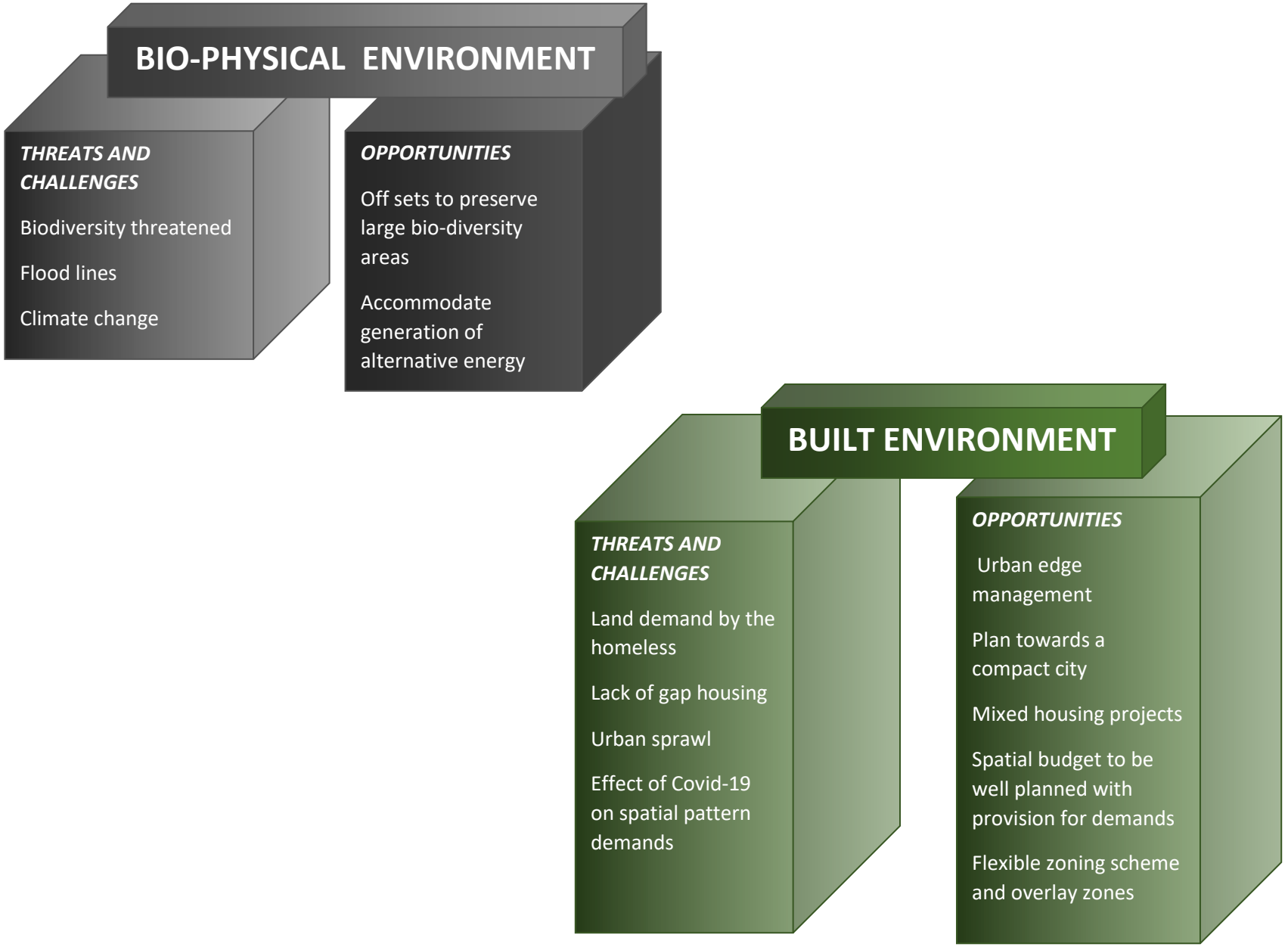
Increasing the operational capacity of the airport, will also lead to an increase in the major economic sectors of the municipality. Future expansion of the airport could also assist in expanding economic opportunities such as exporting produce.

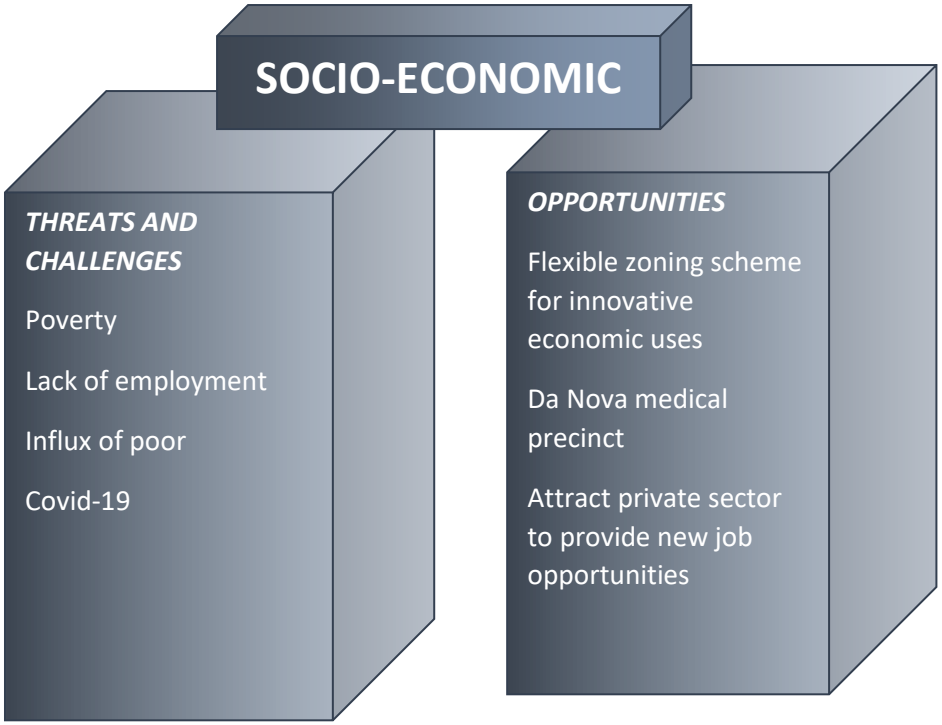
3.5 Challenges and Opportunities

3.5.1. Threats, Challenges and Opportunities

The Status Quo data in this report is presented and analysed within the three spheres of the bio-physical, the built and socio-economical environment. In all three areas certain threats and challenges were identified and observed, On the other hand, these threats and challenges present opportunities for the municipality to plan for the future of the area and its people. It is further an opportunity to prioritize its budget and capital expenditure to create a framework to counter the threats with sustainable projects. Ecosystem-based adaptation is the most cost-effective way of physical safeguarding of development - improving the resilience of water resources and reducing the threat of natural disasters. It also offers long-term entry level employment opportunities and easy access to finance.

The main opportunities, as opposed to the main threats and challenges in the municipal area, are schematically shown below:


BIO-PHYSICAL ENVIRONMENT
THREATS AND CHALLENGES
Biodiversity threatened
Flood lines
Climate change
OPPORTUNITIES
Off sets to preserve large bio-diversity areas
Accommodate generation of alternative energy
BUILT ENVIRONMENT
THREATS AND CHALLENGES
Land demand by the homeless
Lack of gap housing
Urban sprawl
Effect of Covid-19 on spatial pattern demands
OPPORTUNITIES
Urban edge management
Plan towards a compact city
Mixed housing projects
Spatial budget to be well planned with provision for demands
Flexible zoning scheme and overlay zones



This Status Quo reports on and analyses those aspects that form and structure the fabric and sustainability of the municipal area. These aspects are contained and underpinned by the three spheres of the environment: biophysical, the built and the socio-economic spheres. However, certain trends and risks emerge, as noted above, that challenge the sustainability of the area that should be addressed in and guide future planning. Some trends require action in terms of the NDP and SPLUMA and others are threats in the elements of the environment that require action in terms of the SDF and IDP.

3.5.2 Objectives

From the threats, challenges and opportunities, certain objectives are derived which build on opportunities and mitigate the threats and challenges. Such objectives guide the MSDF and Include:

- Achieving a compact city

The Growth Options Study proved that a compact town has many advantages in terms of cost savings, sustainability and conservation of the natural environment. The provision of space for urban growth in the 2018 SDF is aimed at guiding growth towards a compact form. The Louis Fourie Corridor (vacant areas between Heiderant, Pinnacle Point and Dana Bay) and Aalwyndal are earmarked in the 2018 SDF to accommodate growth. However, the recent surveys of the natural plant growth in these areas indicate vast areas with critical biodiversity areas (CBA). To conserve all the areas as identified, will severely limit these spaces to accommodate the residential demand and additional areas will have to be found for residential expansion – thereby countering the objective of a compact city.

- Achieving social integration

Social integration is a slow process and may not be noticeable in the built environment yet. However, the latest projects along the Louis Fourie Corridor are all aimed at achieving such social integration.

- Managing land use planning in terms of behavioral change and health requirements after Covid-19

The effect of land-use demands after Covid 19, or in the event of a more permanent presence of the illness, still have to be observed in the future. There may for instance be more work-from-home scenarios and less demand for office space in the town center. Before Covid-19, the NHI was a strong policy of National Health and the Da Nova Precinct Plan was compiled to facilitate the land use requirements and movement patterns expected in terms of the NHI through a specific Overlay Zone. The implementation of this policy needs to be observed in a new health environment with or after Covid-19.

- Conserving biodiversity

The bio-diversity of the municipal area is endangered in many ways and it has to be a guiding factor in future planning. However, conventional methods of ad hoc surveys and preservation of isolated pockets of CBA areas are not the ultimate solution. The offset approach of acquiring large land areas for permanent conservation is more sustainable and has to be pursued further. The ideal is to have a network of open spaces based on some core units linked with ecologically managed corridor linkages. Without the links snaking through development, the large conservation areas will degrade over time. The corridors are essential for population dynamics to play out, and for species to survive difficult times. See Section B for implementation proposals.

- Managing disaster threats

The municipality is well prepared for disasters in terms of the present Disaster Management Plans and projects to mitigate disaster, However, the Plan should be revised in terms of new potential threats and risks, especially in terms of health, climate and political unrest.

- Restoring the economy, providing employment

The general recessionary and high unemployment situation in Mossel Bay existed before Covid and has further been hard hit by the pandemic restrictions. A balance in the municipal budget and assistance to the economy as far as it is within the means of the municipal function, need to be found. The SDF will have to provide guidance that can be implemented in spatial form.

- Accommodating new spatial demands

Changing technology in energy generation, innovative transport, private initiatives and investment may play a role in the future demand for space for new land uses and the utilization of the port and airport.

The above trends, threats and challenges provide opportunities for an innovative approach in the SDF and 'big ideas' to guide the future spatial framework. For a town to be prosperous and sustainable, the three spheres sustaining the town and the community needs to be in balance, The MSDF provides the opportunity for a focussed budget framework and spatial framework to achieve sustainability.

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