

CHAPTER

4

4. SPATIAL DEVELOPMENT FRAMEWORK

4.1. Spatial Strategies and Proposals

4.1.1. Spatial Concept

Without a new complex and disruptive transformative approach, low density and sprawling settlement growth will continue. This will exacerbate the threats that impact negatively on a large proportion of the District's population, the financial viability of local municipalities, the economic prospects and functioning of the District.

The Eden District SDF aligns need with capacity, jobs, social services and opportunity. It also recognises the tensions between population dynamics and the economic, ecological and infrastructure capacity of settlements in the region. The SDF proposals aim to align investment in settlement with these capacities.

The challenges within the Eden District Municipal Area must be dealt with holistically and work towards achieving balance and completeness so that:

1. Legacies are redressed in the manner in which growth is managed;
2. Current challenges are confronted and dealt with in a just and sustainable manner;
3. Future risks are mitigated to improve the prospects of a socially, economically and environmentally sustainable future.

The overriding intention is to build Eden District into a region made up of "complete", just and inclusive ecosystems, societies and economies, where all can participate without undermining the resources needed to sustain future generations.

Three key spatial strategies are underpinned by an overarching fourth strategy to re-establish balance within Eden District. This balance speaks to many dimensions of the spatial organisation and future of the District, including:

Balance between development and the environment to ensure that growth is spatially just, financially viable and environmentally responsible by working towards compact, vibrant, livable and efficient settlements;

- Balance between settlements in relation to the allocation of and access to resources, recognising and consolidating their varied economic and social roles;
- Balance within settlements in terms of built versus natural areas, land use mix and a range of housing and economic areas to create complete neighbourhoods, towns and villages;
- Balance between the nature and location of growth and the impacts on environmental, financial and infrastructure capacity and resources;
- Balance between supply and demand so that the fiscal sustainability of the municipality and its residents is assured;
- Balance in the use of transport modes; and
- Regeneration of streets and public spaces to create "complete streets".

The elements of this spatial concept are illustrated in the three spatial strategies with their supporting policy statements and guidelines that are expanded in the sections that follow.

4.1.2. Spatial Strategies Approach

The SDF aims to grow the Eden District Economy sustainably by matching need to opportunity. Accordingly, the spatial concept is structured around the following three primary spatial objectives:

1. Identify and protect the "jewels" of the District that are the base of its economy and economic opportunity;
2. Strengthen physical and virtual accessibility within and into the District and improve the resilience of these systems to improve rural access to services and promote a more sustainable regional space economy;

3. Calibrate and align:

- Population growth, economic growth and growth potential, unemployment;
- The pipeline of development projects (especially housing projects); as well as
- The capacity to maintain urban systems and services over the long-term to facilitate, co-ordinate and enable the appropriate allocation of resources and investment to where need can be matched with economic growth potential.

The key proposals contained in these three strategies are introduced and illustrated in the following section.

4.1.3. Three Spatial Strategies

1: THE ECONOMY IS THE ENVIRONMENT IN EDEN DISTRICT

The economy of Eden District is highly dependent on its underlying natural resource base. The District is comprised of two diverse landscapes character areas, the Garden Route and the Klein Karoo. The District is also known for its indigenous forests and plantations, attractive water bodies and coastline. In combination with the District's natural beauty, biodiversity and mild climate, it attracts visitors throughout the year. Eden District is the only District in the Western Cape that represents all of the Western Cape's cultural and scenic landscape types.

The importance of the natural resource base in supporting livelihoods and its potential to improve the quality of life of all the District's residents cannot be underestimated and thus the protection and enhancement of the environment is one of the three main drivers of the spatial concept.

The spatial strategy is to protect, enhance and develop the distinct attributes and resources of the Klein Karoo and Garden Route, as two different but interconnected places each with their varied:

- Natural and agricultural resource base;
- Economic role and potential; and
- Diverse landscape, lifestyle and tourism offerings.

2. REGIONAL ACCESSIBILITY FOR INCLUSIVE AND EQUITABLE GROWTH

Access refers to the ability of people to access economic opportunities, social services and recreational amenities. Thus, ease of access is dependent on the functionality of the road network to connect communities, as well as the availability and viability of transport services. It is also dependent on the distribution of community facilities and economic opportunities in the municipal area.

International best practice, SPLUMA and the PSDF underscore that access is not only a matter of mobility for cars. Rather, walkability, the liveability of towns, land use mix and density are the ingredients that make it possible to improve access. These attributes allow for efficiency and equity of access for all communities to the regional economy, services and amenities.

This strategy directs the District to enable appropriate accessibility to and between the Klein Karoo and Garden Route, as well as the greater Eden District by:

- Establishing a clear primary and secondary regional route hierarchy, role and investment priorities (N2 versus R62);
- Addressing connectivity between the coastal belt and inland areas; and
- Enabling virtual and physical accessibility to improve access to opportunity and services.

The District also needs to be viewed as being part of the larger “coastal economy corridor” stretching between Richards Bay along the coast to Saldanha Bay and connecting a number of ports and Integrated Development Zones. Long-term infrastructure investments (especially rail) could be developed with the aim of strengthening this national corridor and thus benefiting the District.

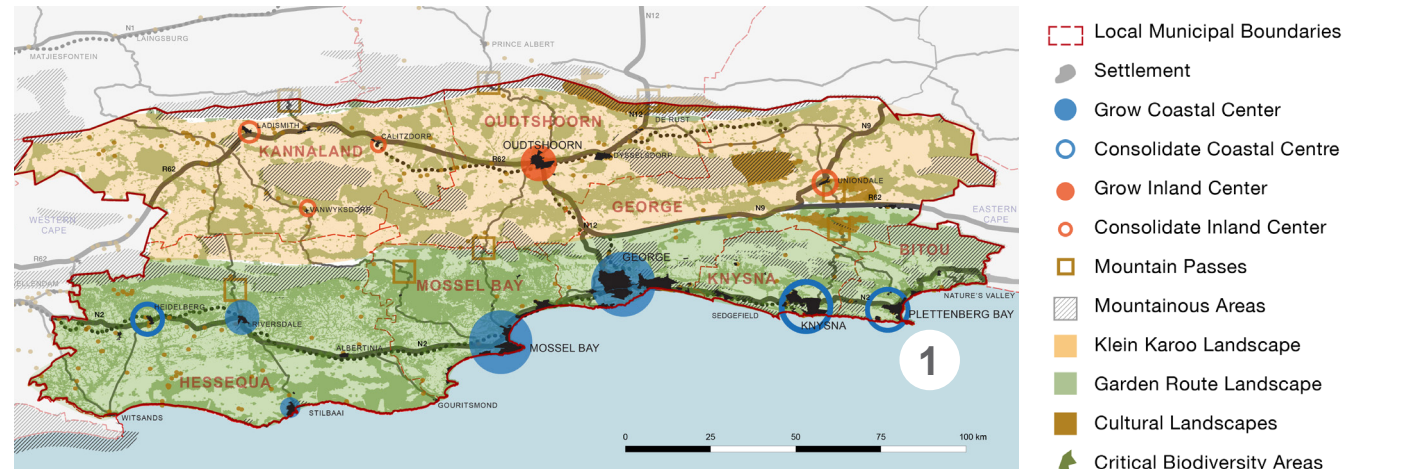


Figure 58. Strategy 1: The Economy is the Environment



Figure 59. Strategy 2: Regional Accessibility for Inclusive and Equitable Growth

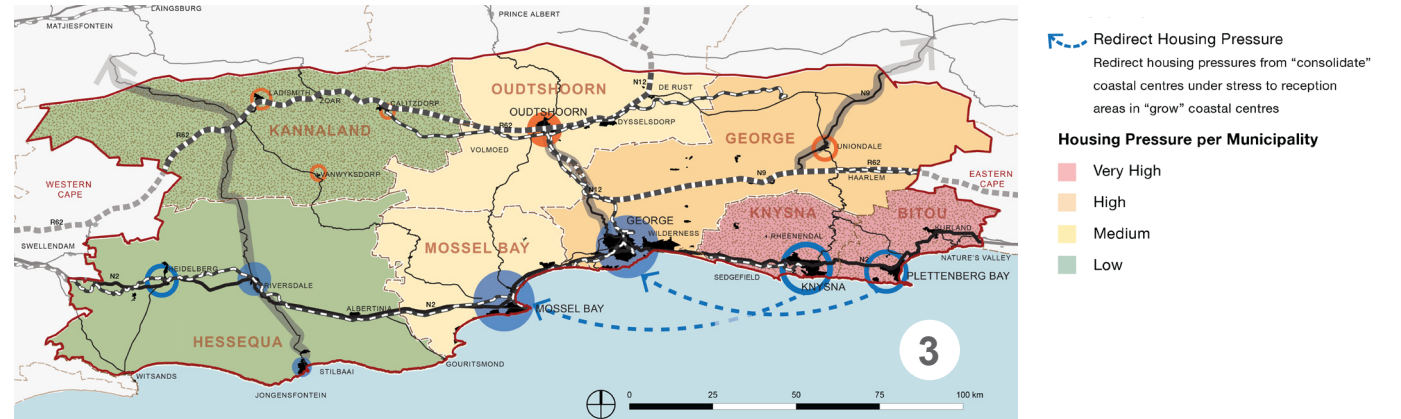


Figure 60. Strategy 3: Co-ordinated Growth Management for Financial Sustainability

3. CO-ORDINATED GROWTH MANAGEMENT FOR FINANCIAL SUSTAINABILITY

The third leg of a holistic approach to a prosperous and sustainable District, is the management of growth and the associated infrastructure systems so that:

- The physical resource base is protected;
- Opportunities are created for residents to prosper in a just space economy; and
- Limited resources are used efficiently to protect long term financial sustainability of households, businesses and government.

The spatial strategy indicates the future role of settlements and their potential to absorb growth.

In Eden District, development, investment and mitigation should be directed so that growth is matched to capacity, resources and opportunity. Specifically:

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

This does not mean that settlements without the capacity to grow should not develop. The overarching aim is to achieve balance within settlements so that they function optimally and within finite resource constraints.

The concept of achieving completeness is central to this strategy with the realisation of “complete neighborhoods,” towns, villages and hamlets.

Urban-Rural Continuum

The Urban Agenda is an UN-Habitat initiative that aims to strengthen urban-rural linkages. It is argued that the key to prosperity lies in a shift in conceptualising urban - rural relationships from one of disconnect to a continuum, where policies and programmes aimed at helping people on one side can help people on the other side as well. The Urban Agenda outlines the following lessons from the case studies below:

Chongqing’s master plan: To address urban-rural inequalities, this Chinese mega city adopted a master plan that emphasises affordable housing for low-income residents, including rural migrants. Roads, water supply and other infrastructure were improved for small- and medium-sized communities that circle the city.

Dar-es-Salaam’s embrace of agriculture: With drought as a constant threat, Tanzania’s largest city promotes urban farming as a way to promote food security. The concept is integral to its land-use policies. Small gardens in homes and vacant lots create economic opportunity and produce 90 percent of Dar-es-Salaam’s vegetables.

Bobo Dioulasso’s fight against “desertification”: The second largest municipality in Burkina Faso is pursuing reforestation to reduce the impacts of desert expansion linked to climate change. Three “green corridors” run north, west and east of the city.



Photo 3. Chongqing, China, a leader in planning that connects rural areas to the urban core. (HelloRF Zcool/shutterstock)

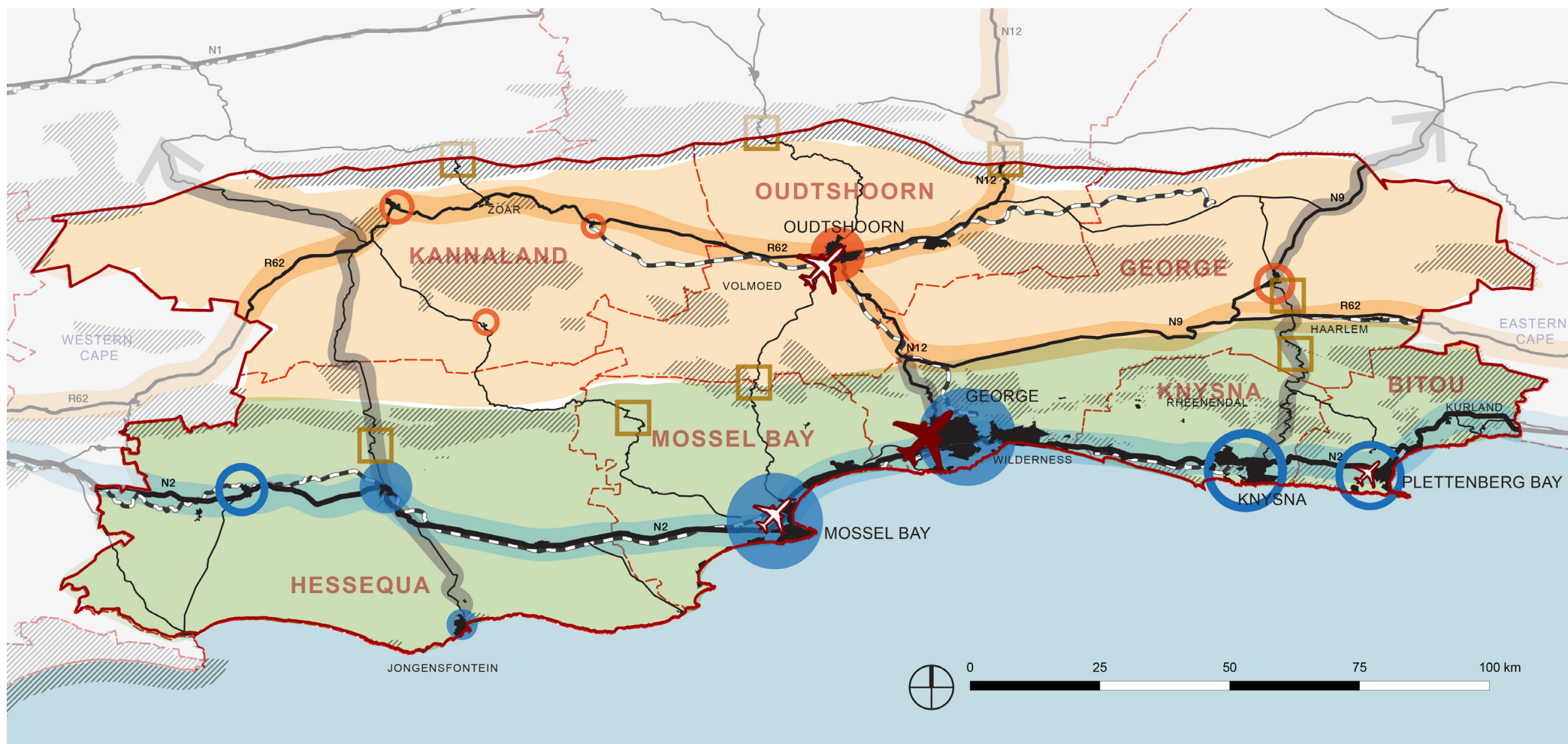


Figure 61. The SDF Spatial Concept

- Eden District Boundary
- Local Municipal Boundaries
- Settlement
- Airports
- Existing National East-West Routes

- Upgrade Routes to Serve East -West
- Function
- Upgrade Inland to Coastal Routes
- Grow Coastal Center
- Consolidate Coastal Centre
- Grow Inland Center
- Consolidate Inland Center
- Mountain Passes
- Mountainous Areas
- Klein Karoo Landscape
- Garden Route Landscape

4.2. The Economy IS the Environment

4.2.1. Objectives

Climate change, global economies and urban development are placing pressure on the declining rural economy. The fragile agricultural value chain needs to be bolstered by enhancing connections between rural and urban areas and developing ways to stabilise agricultural sectors.

The objective of the SDF is to limit the lateral spread of settlements as these are a predominant cause of habitat loss and consequently biodiversity loss. Similarly, the vulnerability of rural settlements including historic rural towns, farmworker and forestry villages must be prioritised. Additionally, inland, coastal, lake shore, high income estates must be evaluated in terms of need and household vulnerability, as well as the capacity of infrastructure, social services and economic realities.

Ultimately, the environment is the basis for economic development and growth in Eden District. The achievement of the following strategic objectives will unlock the District's economic growth potential.

4.2.2. Spatial Policy Statements & Guidelines

1. ECONOMY & ENVIRONMENT

POLICY 1.1. ESTABLISH, MANAGE AND MARKET THE GARDEN ROUTE AND KLEIN KAROO AS TWO UNIQUE SUB-REGIONS OF EDEN

Recognise the unique attributes, resources and risks of the Klein Karoo and Garden Route as two different but complementary, mutually reinforcing sub-regions. Designated SPCs (expanded on in Guideline 1.1.1) must be taken into account in terms of land use management, so that CBAs and protected areas are conserved and restored. Land use change should always favour rehabilitation of indigenous species in degraded areas

that have the potential to connect CBAs and protected areas.

This policy is in support of the District's Strategic Objective (SO4): Environmental management and public safety and their associated strategies.

- Protect and conserve important terrestrial, aquatic (rivers, wetlands and estuaries) and marine habitats, as identified through a Critical Biodiversity Area (CBA) mapping exercise or similar conservation planning process.
- Facilitate the formal protection of priority conservation areas (public and private), as well as the conservation of natural habitats that are not formally proclaimed nature reserves.

GUIDELINE 1.1.1. CONTAIN DEVELOPMENT AND MANAGE RURAL AREAS THROUGH APPROPRIATE APPLICATION OF SPCs

In line with WC DEA&DP guidelines for rural land use development, new investment in rural areas should not:

- Have significant impact on biodiversity;
- Alienate unique or high value agricultural land;
- Compromise existing farming activities;
- Compromise the current and future use of mineral resources;
- Be inconsistent with cultural and scenic landscapes within which it is situated;
- Involve extensions to the municipality's reticulation networks;
- Impose real costs or risks to the municipality delivering on their mandate; and
- Infringe on the authenticity of the rural landscape and heritage assets.

(DEA&DP, 2017)

The Eden District SDF adopts and recommends the application of the Draft WCG Rural Land Use Planning



Photo 4. The Unique Garden Route Character (www.aburstoflife.com)



Photo 5. The Unique Klein Karoo Character (www.scenicroute.co.za)



Photo 6. Mountain Pass in the Outeniqua mountains (drivesouthafrica.co.za)

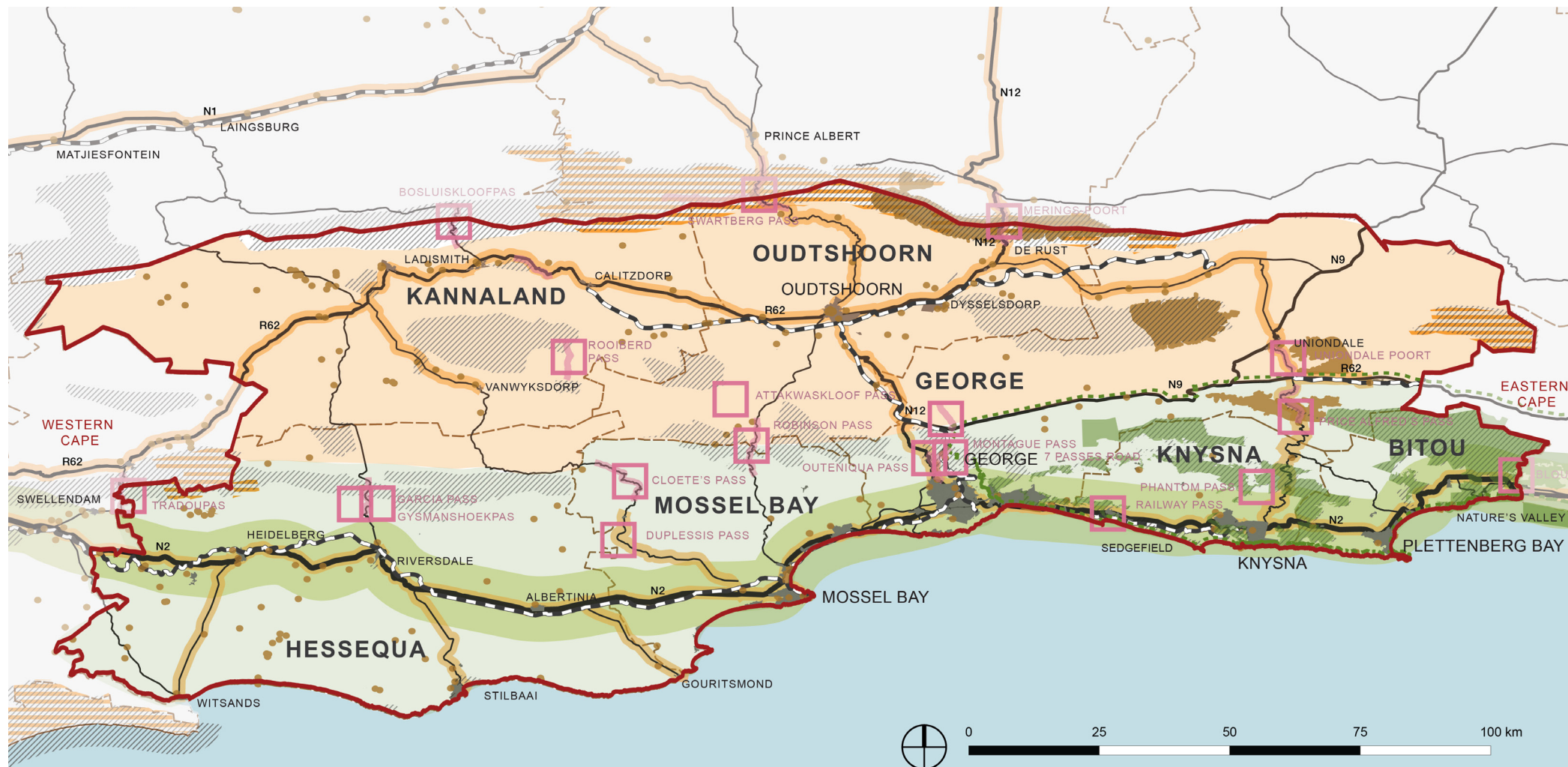


Figure 62. Environment and Cultural Landscapes

Legend

Eden District Boundary

Local Municipal Boundaries

Settlement

Roads

Rivers

Garden Route National Park

Heritage and Tourist Routes

The Garden Route

Heritage Protected Areas

Cultural Areas

Mountain Passes

Klein Karoo Landscape

Garden Route Landscape

and Management Guidelines (2017) and their definitions of rural and agricultural Spatial Planning Categories.

The following land uses are permitted per Spatial Planning Categories as follows:

- **Core 1:** Critical Biodiversity Areas 1 (CBA) and protected areas, these include habitats classified as highly irreplaceable, critically endangered, or endangered terrestrial (land), aquatic (rivers, wetlands and estuaries) and marine habitats. It also includes essential biological corridors vital to sustain their functionality. These areas must be regarded as “no-go” for development and must be kept in a natural state, with a management plan focused on maintaining or improving the state of biodiversity. There should be no further loss of natural habitat and degraded areas should be rehabilitated.
- **Core 2:** Consists of two areas: Critical Biodiversity Area 2 (Degraded) and Ecological Support Area 1. these areas are in a degraded or secondary condition that are required to meet biodiversity targets, for species, ecosystems or ecological processes and infrastructure. These areas should be maintained in a natural or near-natural state with no further loss of natural habitat. These areas should be rehabilitated.
- **Buffer 1:** These areas may be degraded but still play an important role in supporting the functioning of Protected Areas or CBAs, and are essential for delivering ecosystem services. These areas should be restored and/or managed to minimize impact on ecological infrastructure functioning; especially soil and water-related services. Two components of the rural landscape make up Buffer 1 Areas: (i) Ecological Support Area 2: Restore and/or manage to minimize impact on ecological infrastructure functioning; especially soil and water-related services. (ii) Other Natural Areas: Minimize habitat and species loss and ensure ecosystem functionality through strategic landscape planning. Offers flexibility in permissible land-uses, but some authorisation may still be required for high-impact land-uses.

- **Buffer 2:** This category includes areas designated as Other Natural Areas, located in an extensive and/or intensive agriculture matrix (i.e. livestock production) as the dominant land use. The Buffer 2 SPC requires that habitat and species loss is minimized and that ecosystem functionality is preserved through strategic landscape planning. Buffer 2 areas offer flexibility in permissible land-uses, but some authorisation may still be required for high-impact land-uses.
- **Agriculture:** Comprises of existing and potential intensive agricultural footprint (i.e. homogeneous farming areas made up of cultivated land and production support areas). It includes areas in which significant or complete loss of natural habitat and ecological functioning has taken place due to farming activities. Existing and potential agricultural landscapes should be consolidated and protected; sustainable agricultural development, land and agrarian reform, and food security should be facilitated and ecosystems must be stabilised and managed to restore their ecological functionality

- **Settlement:** This category includes all existing cities, large and smaller towns, villages and hamlets. Settlements are delineated by municipalities in terms of an urban edge or by DEA&DP in terms of the 2014 NEMA Listing Notices as urban areas. The purpose is to develop and manage settlements on a sustainable basis. Wherever possible existing settlements should be used to accommodate non-agricultural activities and facilities.

GUIDELINE 1.1.2. PROTECT AND CONSERVE EDEN DISTRICT’S IMPORTANT TERRESTRIAL, AQUATIC AND MARINE HABITATS

Facilitate the formal protection of priority conservation areas and natural habitats that are not formally proclaimed nature reserves.

The following mechanisms must be implemented when considering formally protected areas of endangered and irreplaceable biodiversity. These mechanisms include:

- Private Land: involving Stewardship Contract Nature Reserves, Biodiversity Agreements or Protected Environments,

CBA Map Category →	Protected Areas	Critical Biodiversity Area 1 (Terrestrial/ Aquatic)	Critical Biodiversity Area 2 (Degraded)	Ecological Support Area 1 (Terrestrial/ Aquatic)	Ecological Support Area 2	Other Natural Areas (Natural to Near-natural / Degraded)	No Natural Remaining
Spatial Planning Category ↓		CBA 1	CBA 2	ESA 1	ESA 2	ONA	NNR
CORE 1	•	•					
CORE 2			•	•			
BUFFER 1					•	•	
BUFFER 2						•	
AGRICULTURE							•
SETTLEMENT							•

Table 10. SPC CBA category relationship table (Draft WCG Rural Land Use Planning and Management Guidelines, 2017)

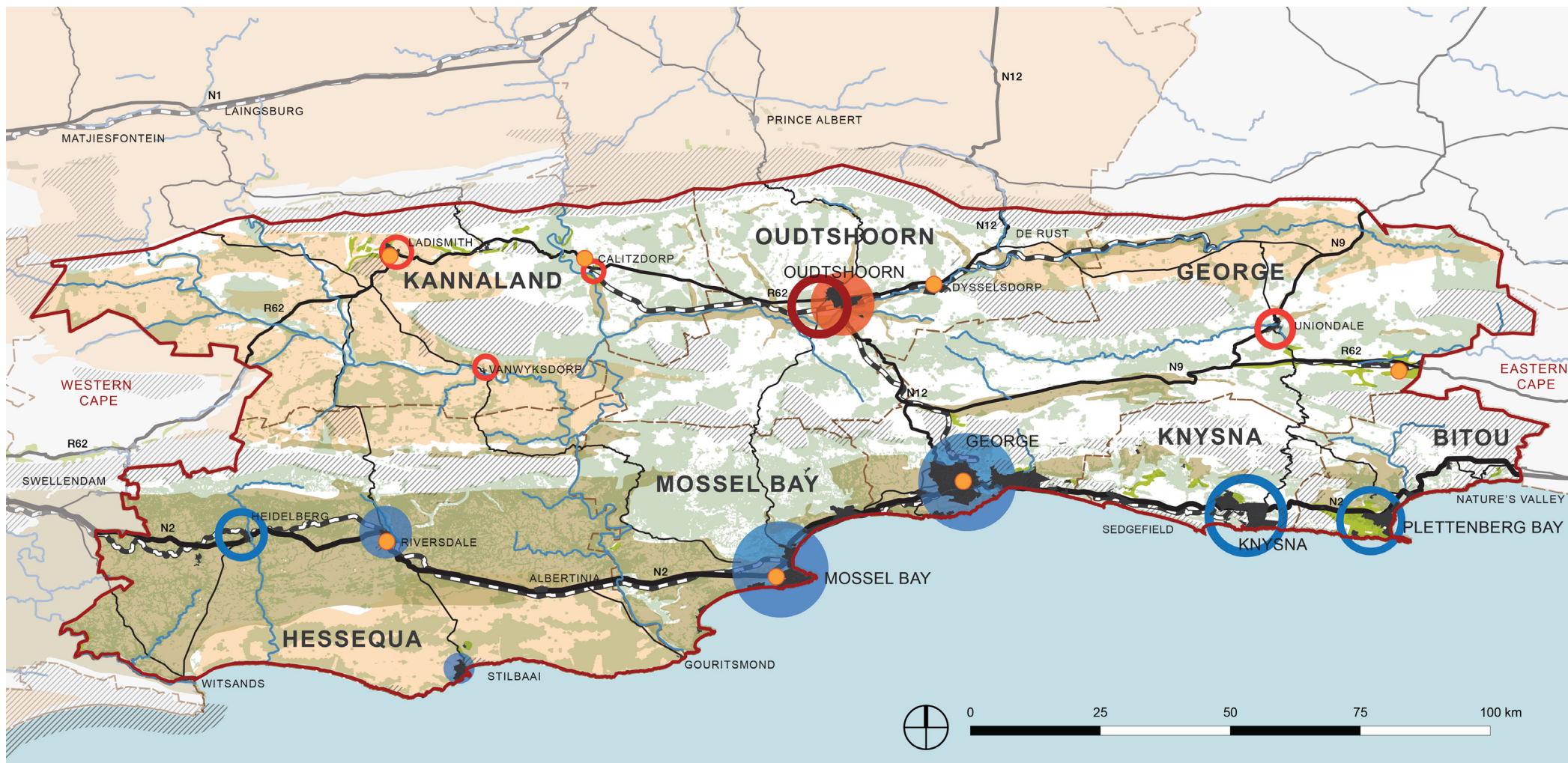


Figure 63. The Economy is the Environment

Heritage Protected Areas

Critical Biodiversity Areas

Agricultural Infrastructure

Proposed Agrihub

Farm Production Support Areas

Growth Management

Grow Coastal Center

Consolidate Coastal Centre

Grow Inland Center

Consolidate Inland Center

Primary Agricultural Sectors

Orchards and Vines

Grains and Pastures

Extensive Farming

- Municipal Land: Nature Reserve or Municipal Biodiversity Agreement (e.g. City of Cape Town,)
- Forest Nature Reserves through the National Forest Act and Wilderness Areas into Wilderness Act,
- Title deed restrictions where land has been designated under the Stewardship Programme or declared a Nature Reserve or Protected Environment,
- Contractual National Parks: the zoning of private properties to Open Space III could be used as a mechanism for conservation in terms of the 2016 DEA&DP Standard Draft Zoning Scheme By-Law. Financial and non-financial incentives have the potential to be linked to the conservation on private land with title deed restrictions.

POLICY 1.2. PROTECT THE DISTRICT CULTURAL LANDSCAPE AND HERITAGE RESOURCES

The PSDF Heritage and Scenic Resources Specialist Study (2013) provides guidance in terms of the development of spatial form and the character of settlements. These guidelines are adopted in this SDF and should be referred to in land use management decision making. The development of a settlement (consolidation or growth) should take the existing (and sometimes historic) structure and spatial form of an existing settlement into consideration and strengthen its character.

The spatial form of all settlement areas from large towns to hamlets must be compact and respond to the settlement form, as well as the topography of the landscape. This is required to ensure the protection of Eden District's heritage, cultural, scenic and environmental assets.

GUIDELINE 1.2.3. IDENTIFY AND PROTECT SCENIC AND CULTURAL LANDSCAPES IN EDEN DISTRICT

The significant scenic and cultural assets that drive growth of the service sectors have been identified for protection. These include agricultural landscapes and landscape features such as mountains, valleys, passes, estuaries, rivers and plains (Figure 62 and Figure 63).

The main cultural heritage and scenic resources as identified in the PSDF include:

Scenic routes and passes: Tradouw Pass, Garcia Pass, Cloete's Pass, Robinson Pass, Attaque-kloof Pass, Outeniqua Pass, Montagu Pass, Prince Alfred's Pass, Railway Pass (George-Knysna) and Old George-Knysna Road (7 Passes Road).

Important historic settlements: Haarlem, Uniondale, Oudtshoorn, De Rust, Ladismith, Calitzdorp, Riversdale, Van Wyksdorp, Heidelberg and Zoar.

Important natural landscapes: Stilbaai fish traps, Blombos Caves, Langeberg Mountains, Attakwasberg, Outeniqua Mountains, Langkloof and Tsitsikamma Mountains and Kougaberge. The Wilderness Lakes Ramsar Site, Swartvlei Lagoon, Knysna Lagoon and Bitou / Keurbooms River estuaries are among the water landscapes identified.

The landscape character of these areas and settlements must be safeguarded, and uncompromising development on ridge lines or in important view corridors must not be allowed.

POLICY 1.3. GROW AN INCLUSIVE AGRICULTURAL ECONOMY

Agriculture plays a significant role in Eden District municipality, it provides opportunities to increase employment and grow products for local and international markets. It also contributes to the Gross Domestic Produce (GDP), provides food security or a "food basket" in close proximity to major settlements and is the base for tourism activities (Laskey, 2013:60). Protecting and promoting the agricultural economy is therefore a priority for the District.

The preservation of agricultural land and the integrity of agricultural operations must be protected and enhanced. The conversion of irrigated, arable land is not supported in terms of the Subdivision of Agricultural Land, Act no. 70 of 1970, section 3 (f). This act states that "no area

Durban Metropolitan Open Space System (MOSS)

D'MOSS or the Durban Metropolitan Open Space System, is a network of open spaces that consists of a total of 74 000 ha of land and water. It integrates areas of high biodiversity value with a system of open spaces. In 2010, it was incorporated into planning schemes as a control area or overlay. As a result, D'MOSS is used as protective tool to conserve many provincial and national threatened ecosystems and species in EThekweni Municipality. In addition, D'MOSS provides a variety of "ecosystem goods and services to all residents of Durban, including the formation of soil, erosion control, water supply and regulation, climate regulation and cultural and recreational opportunities" (EThekweni Municipality, 2017).

EThekweni Municipality has also introduced incentives to decrease the financial burden on D'MOSS landowners who manage their land for conservation purposes. This has made it easier to ensure that the residents of the municipality will have access to ecosystem goods and services provided by D'MOSS. These are required to satisfy human needs and enhance our quality of life they are also needed to respond to the impacts of climate change. In Eden District, through incentives and clearly defining the Open Space System, it can be used to conserve and protect the natural environment, as well as improve residents' access to the goods and services that it provides.

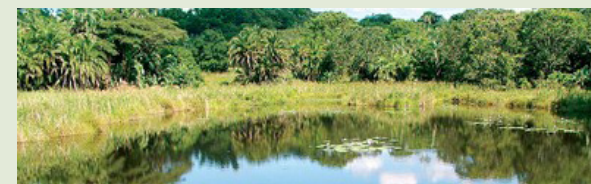


Photo 7. Example of D'MOSS (EThekweni Municipality, 2017)

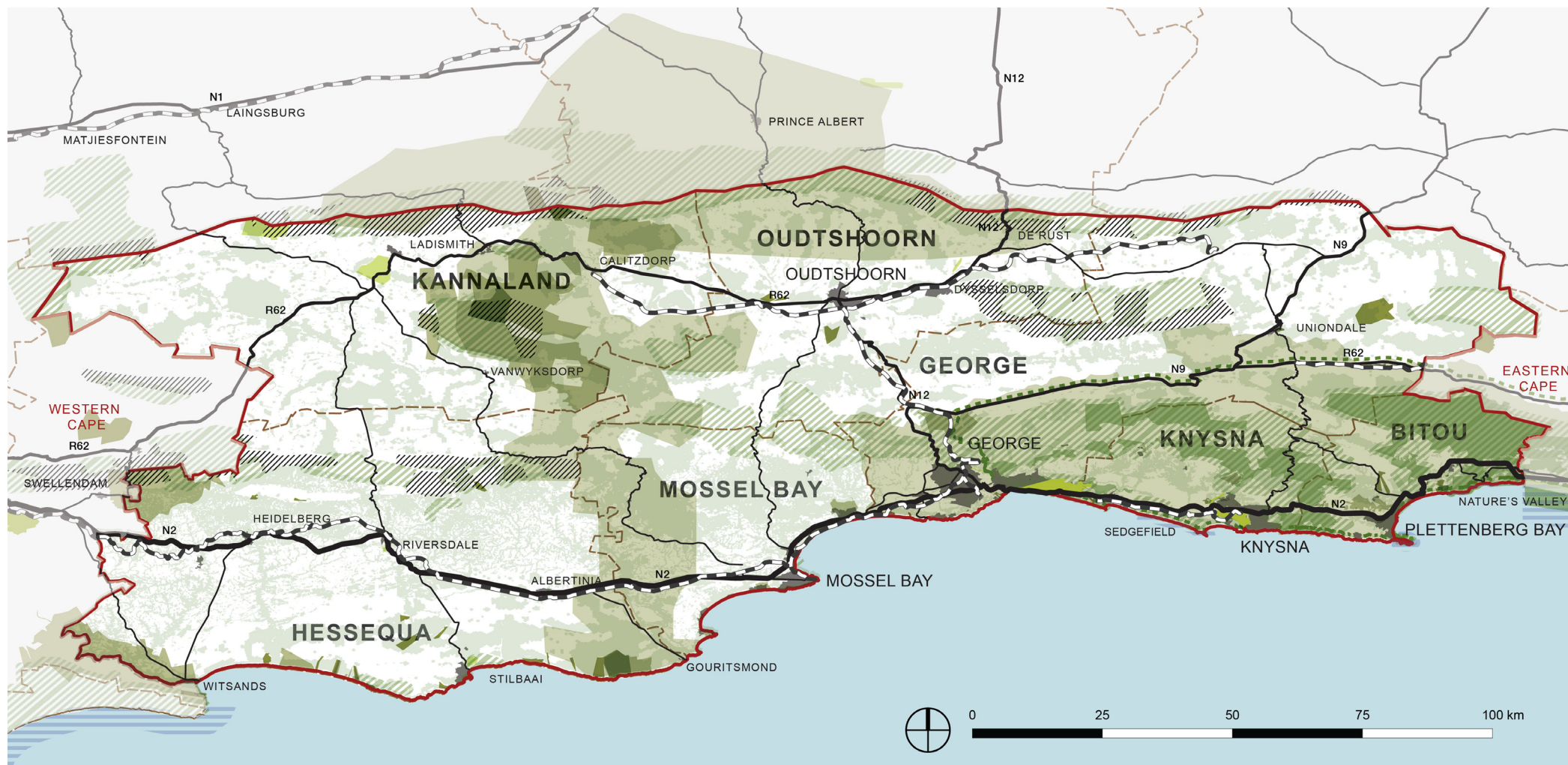


Figure 64. The Economy is the Environment

Protected Areas

- Eden District Boundary
- Local Municipal Boundaries
- Settlement
- Roads
- Rail

- Critical Biodiversity Areas
- Mountain Catchment Areas
- Marine reserves
- Private Nature Reserves
- National Nature Reserves & Parks

- Conservancies
- Biosphere reserves
- Buffer zones
- Garden Route National Park (GRNP)
- GRNP Buffer Zone

of jurisdiction, local area, development area, peri-urban area or other area... of the definition of ‘agricultural land’ in section 1, shall be established on or enlarged so as to include, any land which is agricultural” (Agricultural Land Act, 1970).

Development directed at ensuring water security for the agricultural sector and job creation for the inhabitants of the District should be a priority. In order to achieve this, disaster risk management measures must be implemented in order to protect important agricultural land, resources and employment that may be lost through flooding, water shortage and wild fires.

This underscores the need to protect agricultural land as stipulated in the Draft Preservation and Development of Agricultural Land Bill (2016):

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

Therefore, the regional rural landscapes and resources of Eden District should be rejuvenated to rebuild an agricultural economy based on the assets and resources of the District. The potential broadening of production and expansion to products should also be explored, in order to make a more significant contribution to national food security. Some of these resources include the forest, hops, fruit, livestock, flowers, honeybush and sustainable fynbos harvesting.

Agri-hubs and agri-processing zones have been identified in the Eden District Rural Development Plan, as well as B Municipality SDFs. These include:

- Agri-hub in Oudsthoorn,
- Aqua Hub in Mossel Bay

GUIDELINE 1.3.4. SUPPORT AN INCLUSIVE AND ACCESSIBLE AGRICULTURAL VALUE CHAIN

Integrate the proposed investment into Agri-hubs and rural support outlined in the Eden District Rural Development Plan.

POLICY 1.4. FACILITATE INCLUSIVE AND EQUITABLE, MANAGED PUBLIC ACCESS TO THE COASTLINE AND ESTUARIES

The coastline is a key economic resource and a public amenity for the District. Public access to this resource must be secured in an equitable and sustainable manner. Coastal management is a shared responsibility of the District and Local Municipalities with strong support from the Western Cape Government. The District has a critical role to play to ensure that the coastline, albeit the stretches of it that fall within different municipalities, is managed consistently as a system. Access to the coastline is also important, as it can be a means of promoting local economic development and tourism.

GUIDELINE 1.4.5. SUPPORT INCLUSIVE AND EQUITABLE, MANAGED PUBLIC ACCESS TO THE COASTLINE AND ESTUARIES

The coastline and estuaries should be given generous buffer zones, because of their ecological role in water filtration and purification. These coastal features are also critical wildlife habitats. Experts in the relevant field must monitor these areas on a regular basis. All inhabitants of the District municipality should have broadly equitable and easy access to similar coastlines and estuary resources. However, human intervention in these areas should be minimal and be aimed at only increasing the passive recreational value of the resource.

WCG Climate Resilience and SmartAgri Plan (2016)

Climate change is one of the most serious issues facing the world, and will have significant implications for rain fall, biodiversity and water supply and the agricultural sector in the Western Cape Province. The Western Cape Climate Change Response Strategy, 2014 (WCCCRS) pro-actively outlines sector responses to create climate change resilience within the province.

The SmartAgri Plan (2016) builds on the WCCCRS and its Implementation Framework, specifically the focus area of food security. It also aligns closely with the current five-year Provincial Strategic Plan and the WCG: Agriculture Strategic Goals.

Owing to its position as a highly vulnerable sector, the agriculture is the first sector in the province to benefit from a climate change response framework and plan.

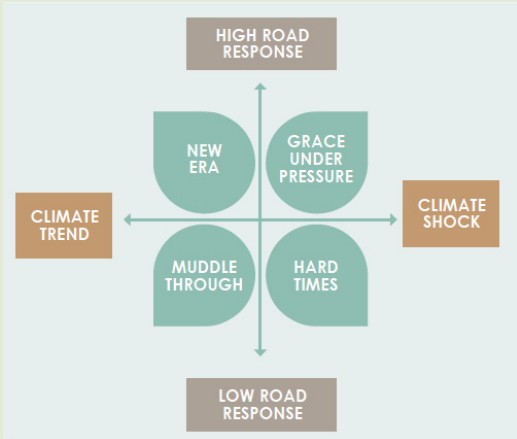


Diagram 10. The Four Climate Response Scenario Combinations (The SmartAgri Plan, 2016)

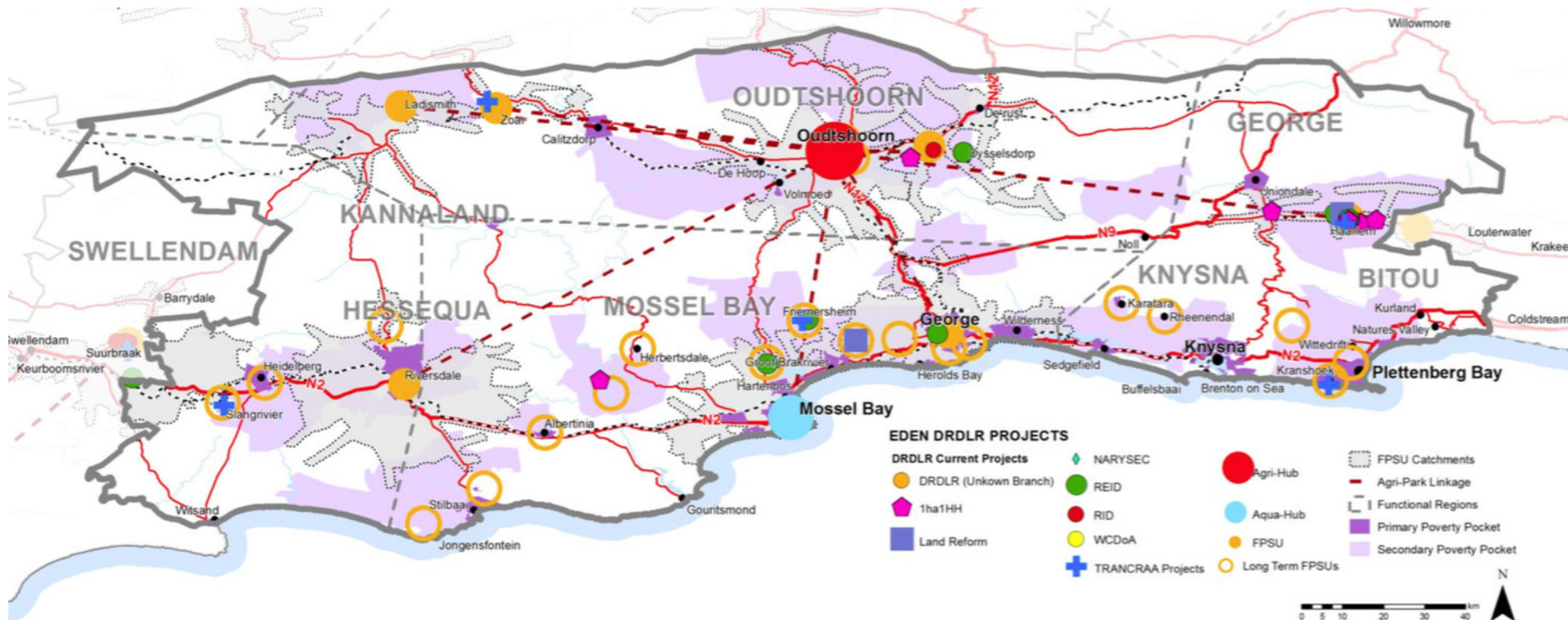


Figure 65. Eden Agri-Park Composite Map (Eden District Rural Development Plan)

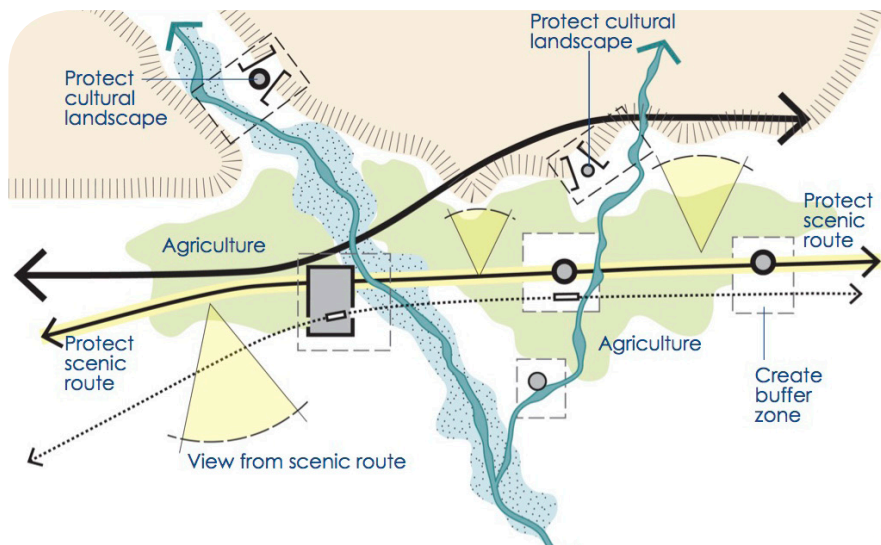


Figure 66. Protect Scenic and Cultural Landscapes (2013 PSDF)

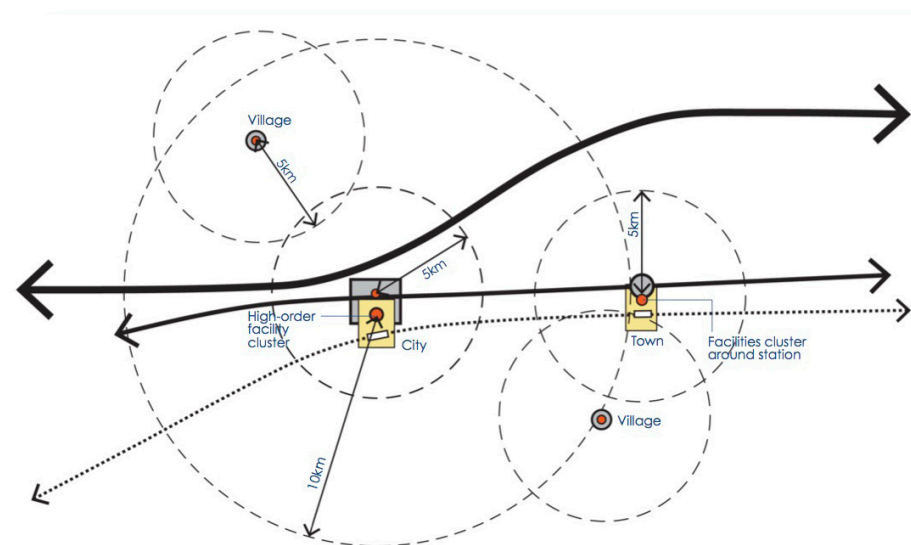


Figure 67. PSDF Integrate the Rural and Urban Space Economies

POLICY 1.5. MANAGE DEVELOPMENT ALONG THE COASTLINE IN A SUSTAINABLE AND PRECAUTIONARY MANNER

The coastline is a key economic resource for the District. If land use along the coast is not managed well, its quality will deteriorate and in turn the economic value derived from the coastline will be lost. The coastline also presents significant risks associated with the impacts of climate change, such as increased storm surges, shoreline movement and sea level rise (CapeNature, 2017).

A Draft Coastal Management Line (a development limit), as well as a Coastal Protection Zone (a planning and management zone) has been identified for Eden District. The draft lines are shown in Figure 68 and are based on a coastal risk assessment for 20 year (high risk), 50 year (medium risk) and 100 year (low risk) horizons. No further development is permitted within the Coastal Management Line. Note that the provisions that apply to the Coastal Management Line must still be determined and once finalised they must be incorporated by the B Municipalities in the District.

GUIDELINE 1.5.6. COASTAL MANAGEMENT

Coastal sensitivities must be integrated into all applicable planning decisions within the coastal region, in order to protect existing property, infrastructure and ecology. This will also ensure that only responsible and ecologically sustainable development takes place in high risk areas.

To prevent flooding of vulnerable coastal properties, natural defenses in the form of primary dune systems, estuarine mudflats and sand dunes should be safeguarded from further conversion through urban development or agricultural practices. There should be no development on primary dune systems or below the 5m contour line surrounding estuaries (Ecosystem Guidelines for Environments in the Western Cape, 2016)

Where feasible the retreat of at risk infrastructure should be considered in high hazard zones. The Eden District Draft Coastal Management Plan (2017) provides detailed

guidance on land and infrastructure management within the coastal zone.

POLICY 1.6. MANAGE AND MITIGATE FLOOD RISK

The risk of extreme events associated with climate change is occurring more frequently and in a manner that impacts on the District. Land uses must be managed to reduce the risk of flooding and to protect human life and property in the case of extreme flooding. Where critical infrastructure and areas are located within flood risk areas, the resilience of these settlements in the instance of extreme events will be compromised.

To improve District resilience to climate change, the flood risk mitigation strategies must be integrated into the land use management and infrastructure master planning systems of the B municipalities.

Flooding is a natural ecological process that occurs in many parts of the region. Sustainable urban drainage systems and ecologically sound rural practices must be adopted when planning new development and approving changes to existing land uses. This is required in order to reduce the future risk of flooding and associated impacts on life and property in both rural and urban areas at significant economic and social cost.

This policy is in support of the District's Strategic Objective (SO4): Environmental Management and public safety and associated strategies.

- The design of new infrastructure, in particular storm water systems, should consider the higher frequency of flooding associated with extreme weather conditions.
- There should be no development of new hard protective structures within storm water networks; sustainable urban drainage is preferred.

GUIDELINE 1.6.7. FLOOD RISK MITIGATION

Flood lines should be ground-truthed in the District and incorporated into the local municipalities' SDFs. Estuarine Management Plans should be developed for

Mossel Bay Growth Options Study: The Importance of Coastal Management

A pattern of urban sprawl along the coastline in Mossel Bay has heavily eroded the natural scenic qualities of this portion of the Garden Route. A pattern of unconsolidated urban growth resulting in continuous development along the coastline and abutting riverine corridors and estuaries will ultimately destroying and terminating the integrity of this landscape by negatively affecting visual linkages with the coastline.

From a cultural landscape perspective, the sprawling growth scenario that is occurring is highly undesirable in that it will ultimately destroy the remaining heritage and scenic qualities of this section of the District, and the experiential qualities of a number of important heritage places and routes embedded within this landscape. This will in turn undermine local tourism.

The municipality will also be liable and responsible for any future infrastructure that will be required in this area. Flood damage to infrastructure as a result of developing along the coast can have destructive consequences in terms of limiting access and increasing the costs of repair. In the long term, replacing this infrastructure may result in ecological and economic costs of ongoing flood damage and sea level rise, which places a financial burden on the municipality to maintain.

Therefore adhering to a more compact urban growth scenario and restricting any future development within the Coastal Management line will have a minimal impact on the significance of the cultural landscape.

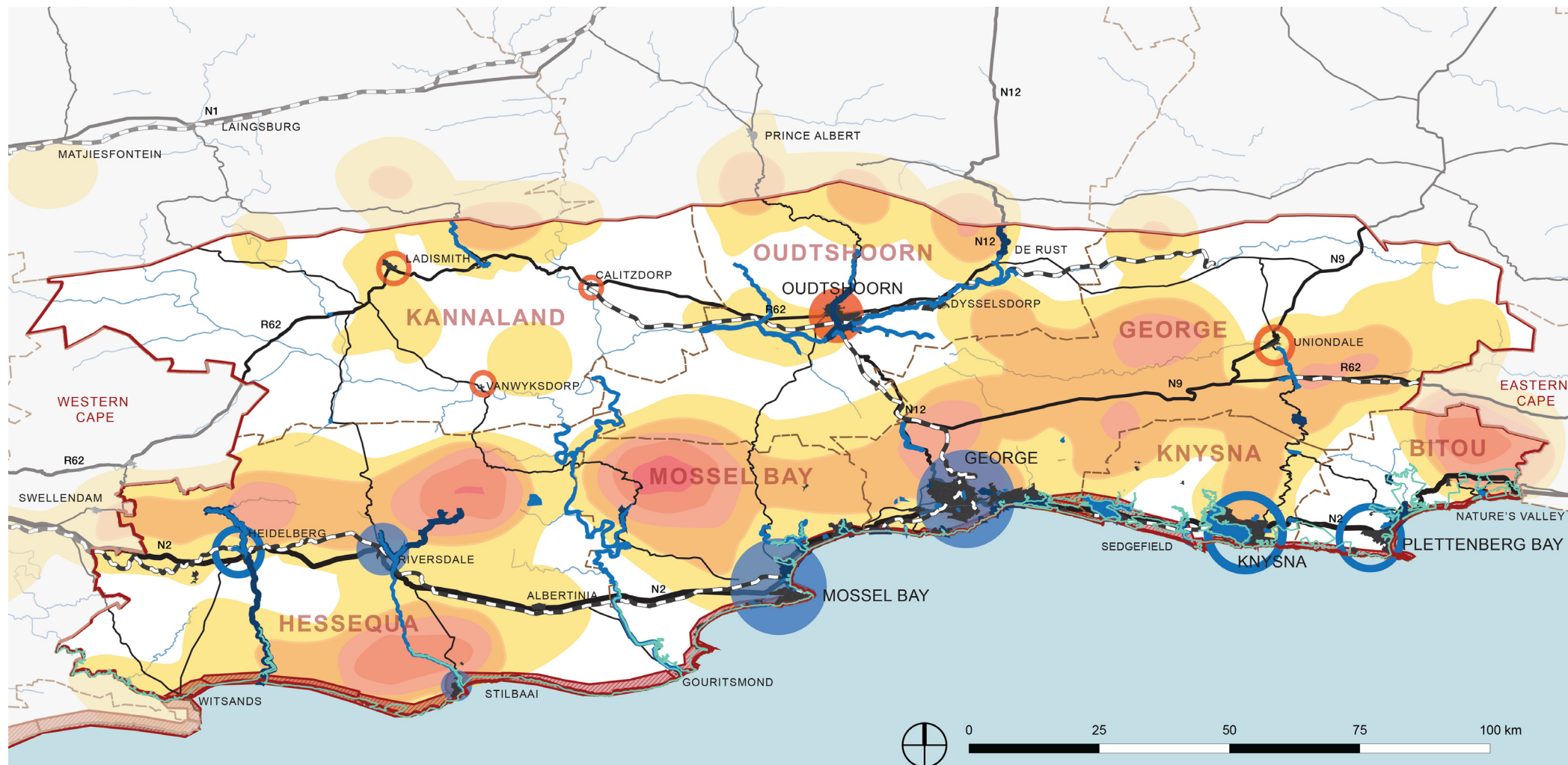


Figure 68. Environment Risks (EDM Disaster Risk Management (2017))

— Rivers

— Draft Coastal Management Line

▨ Sea Level Rise Risk

Fire Risk

● Very High

● High

● Medium

● Medium to Low

Flood Risk

— Very High

— High

Growth Management

● Grow Coastal Center

○ Consolidate Coastal Centre

● Grow Inland Center

○ Consolidate Inland Center

the Estuaries as the District is responsible for managing estuarine environments traversing municipalities.

As a general principle, large rivers should have a buffer zone of a minimum width of 150 m, medium rivers with a zone of 75 m and smaller rivers with a 32 m buffer. No development should occur within 1:100 flood lines surrounding rivers (DEA&DP, 2017). This will ensure that water quality and wildlife habitats are protected. In addition, it will aid in designating where and where not settlements should be developed or expanded and will aid in preventing the dumping of waste and chemicals in rivers.

New development should not be allowed to occur on slopes steeper than 1:4 as the land cleared for development increases erosion and stream siltation. Where development is permitted, it must be associated with sustainable urban drainage design. The design of new infrastructure should consider the higher frequency of flooding associated with extreme weather conditions.

POLICY 1.7. MITIGATE FIRE RISKS AND IMPACTS ON DISASTER MANAGEMENT

The SDF recognises that veld fire is a natural ecological process that occurs in many parts of the region. However if it is not managed or settlement patterns exacerbate the risk of veld fire, it places great risk to life and property in both rural and urban areas, at a significant economic and social cost.

Eden District has a direct disaster risk management mandate but the implementation of mitigation measures is directly impacted by land use management by the B Municipalities of the District. Therefore, the Eden District Municipality's Disaster Risk Management Department must be given an opportunity to provide input into development applications in interface areas where veldfire is a risk. A protocol between Eden District and local municipalities must be developed to facilitate this.

The management of veld fire risk must be integrated into the Planning By-Laws and the urban edge management of the Municipalities. This policy is in support of the District's Strategic Objective (SO4): Environmental management, public safety and associated strategies.

GUIDELINE 1.7.8. IMPLEMENT VELDFIRE MANAGEMENT ZONES

High veld fire risk areas and asset protection zones – the zones between the built environment and the hazard area within which modifications are made to protect the built environment – should be identified and incorporated into municipal planning systems.

Eco-estates must be conditioned to ensure ecological fire regimes at the correct intervals. Landowners in fire-prone areas should be encouraged to join the Southern Cape Fire Protection Association. Vacant properties which are poorly managed and present a fire risk should be identified and measures must be put in place to enhance the management and mitigate against the fire risk of these properties. Management zones must be in line with guidelines found within the ecosystem guidelines for environments in the Western Cape (2016).

GUIDELINE 1.7.9. ALIEN VEGETATION MANAGEMENT

Alien vegetation reduces biodiversity, exacerbates fire and flood risk and invades wetlands and catchment areas. Wetlands and catchment areas then lose the ability to retain rainwater runoff that feeds rivers, which in turn negatively affects municipal water supply. In addition, the loss of riverine vegetation results in a higher rate of erosion and estuarine siltation.

Guidelines for the monitoring, control and eradication of alien invasive species can be found in Section 76 of the National Environmental Management: Biodiversity Act, 2004 (ACT 10 of 2004 (NEMBA) and ecosystem guidelines for environments in the Western Cape (2016).

POLICY 1.8. MANAGE REGIONAL INFRASTRUCTURE IMPLEMENTATION AND MAINTENANCE

With regards to all infrastructure aspects, the District should focus on adopting the approach of “reduce and re-use” before and whilst increasing infrastructural capacity.

Waste water treatment capacity is exceeded in a number of bulk wastewater treatment facilities in Eden District (most notably in Knysna). The ensuing pollution of rivers has an adverse impact on human health and the environment and presents a considerable social and economic cost.

Inadequate waste management places an additional threat to critical water sources. This is exacerbated both by drought and high rainfall periods. A new regional waste facility has been identified adjacent to PetroSA. However, lack of agreement between local municipalities is delaying the process. High transport cost will limit access for municipalities located further from the facility. Hence, there is need to consider alternate forms of integrated waste management, such as recycling incentives and a waste-to-energy plant.

Sanitation bulk infrastructure master planning must ensure that investments are timelessly made to secure the integrity of the District's environmental systems and ecological services and to ensure risk to public health is mitigated.

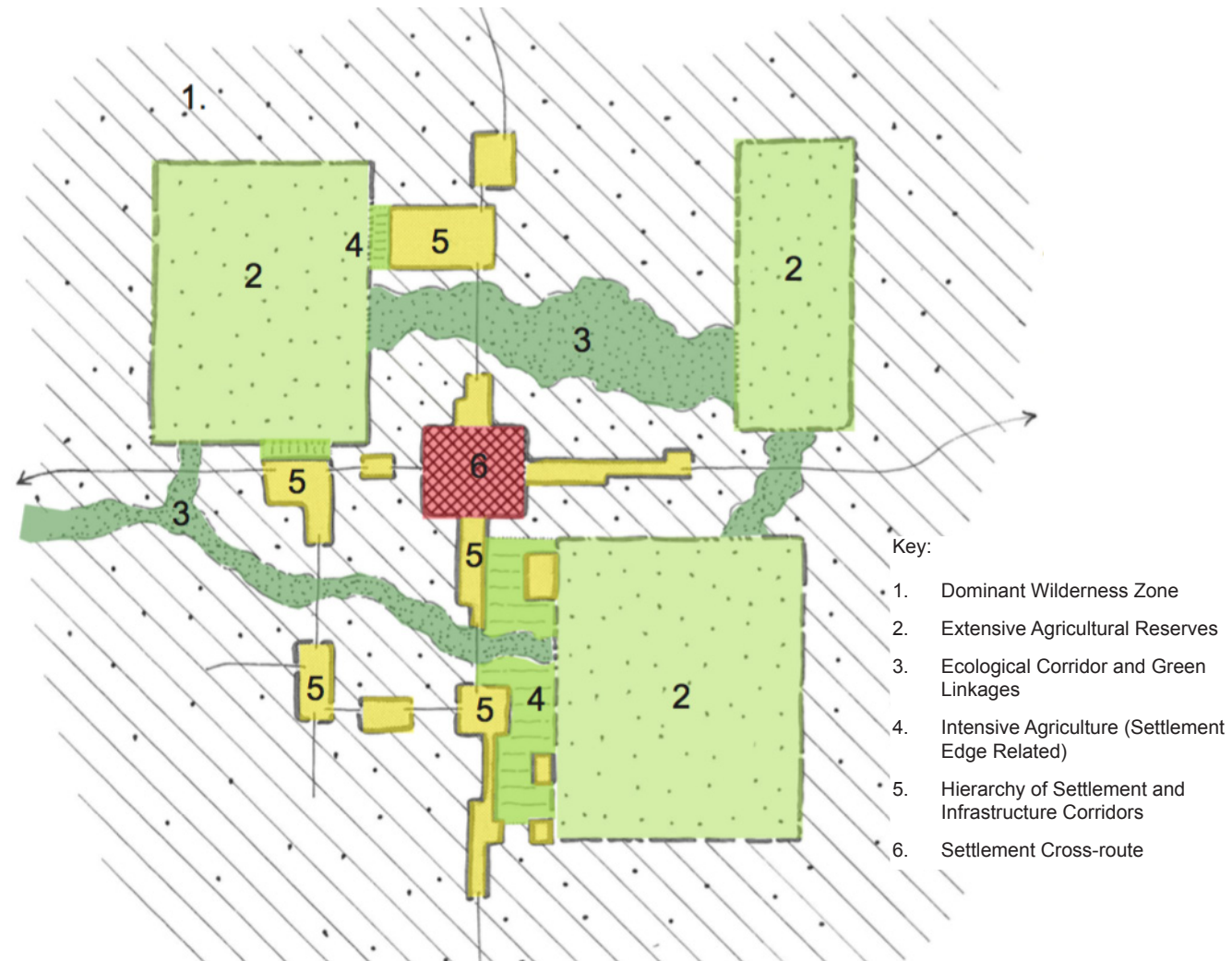


Diagram 11. The Three Regional Landscapes of Society - Wilderness, Rural and Urban



Photo 9. Flooding in Eden District (Source www.discoverededgefield.com).



Photo 10. Fire Disaster (Photo credit Chris Preen)

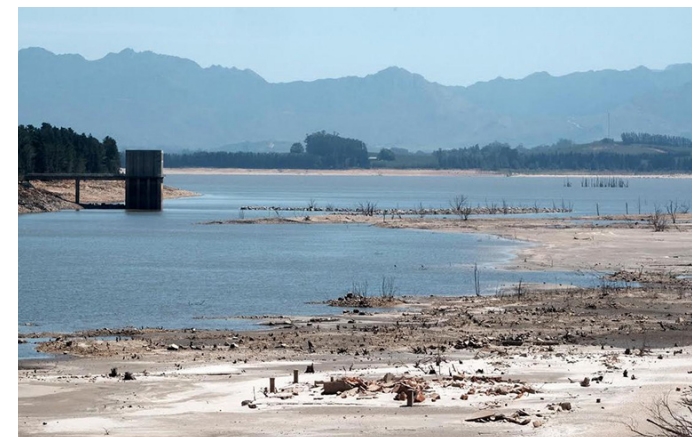


Photo 8. Examples of the Affects of Drought in Eden District (Source www.iol.co.za/news/south-africa/western-cape)

4.3. Equitable and Inclusive Regional Accessibility

4.3.1. Objectives

The transport system developed in the District must be appropriate and affordable for the inhabitants of the region. However, it must also gear the region for increased levels of growth and jobs. The contribution of informality to the broader economic vitality of the District must also be better understood in terms of informal public transportation.

4.3.2. Policy Statements and Guidelines

2. ACCESS

POLICY 2.1. RATIONALISE THE REGIONAL ACCESS NETWORK

It is necessary to establish an affordable and accessible integrated transport system that provides linkages across municipal boundaries to ensure that regional access is resilient. This can be achieved by implementing Guidelines 2.11 to 2.1.4.

GUIDELINE 2.1.1. REVIEW NEED, APPROPRIATE LOCATION AND IMPACTS OF THE N2 BYPASS

Given government funding constraints, the cost of realigning the N2 in various towns would be prohibitive. There exists a common misconception that introducing new roads leads to reduced traffic and economic benefits, as a result of easing congestion (Jaffe, 2015). However, it has been proven that building new highways encourages more people to drive, which contradicts any congestion savings. In fact, building new roads leads to more traffic. It has been found that increasing road capacity by 10% leads up to 3-6% more traffic in the short term and 6-10% more over the long term (Jaffe, 2015). Therefore, the high cost of introducing new highways, roads or bypasses places pressure on already strained government budgets in terms of road maintenance and increases carbon emissions.

The proposed N2 realignment also has the potential to negatively impact on the cultural landscape. Furthermore, due to EIA process requirements and land acquisition challenges, it is unlikely that the N2 bypass (designated by SANRAL) will materialise within the next five years, after which a review of the SDF will be required. The N2 realignment should be considered only as a long-term possible prospect. Currently only one portion of bypass has been earmarked for implementation by SANRAL in Bitou.

GUIDELINE 2.1.2. UPGRADE THE R62 TO ACCOMMODATE REGIONAL TOUR BUSES AND FREIGHT TRAFFIC

In order to improve congestion along the N2 (particularly during peak season), it is proposed that the R62 is upgraded to accommodate regional tour buses and freight traffic. This would enhance regional mobility and freight. There are three positive outcomes that could also potentially occur if the R62 were to be upgraded. Firstly, it would provide an alternative to the N2 for freight during peak season. Secondly, it would provide an additional route in the event of the closure of the N2 in a disaster situation. Thirdly, it would provide an economic driver to the towns along the R62, especially Oudtshoorn.

The R62 is a significant tourism route, the CNN has voted it as one of the top ten road trip destinations in the world (Bremmer & Shadbolt, 2017). It is proposed that in addition to upgrading the R62, land use and mobility tensions should be managed through street design and land use planning as opposed to the implementation of bypasses. This will ensure that the attractive quality of the route is maintained. An example of a tourism route in the Western Cape that accommodates both the scenic and tourism nature of a freight route is the section between Montagu and Barrydale as well as certain sections of the N2.

GUIDELINE 2.1.3. IMPROVE FREIGHT, TOURISM AND EMERGENCY MANAGEMENT CONNECTIVITY

It is necessary that the regional access network is rationalised. This would support access to the region's air, road, rail and port access points, promoting improved urban and rural transport linkages between communities and the businesses they support.

The role of the Eden District rationalised access network is envisioned below:

- George is envisaged as the primary regional ACSA commercial airport with recent accreditation as an international airport.
- Oudtshoorn is envisaged to consolidate its role as a training airport, with prospects to serve as a freight airport in support of the new role envisaged for the R62. Mossel Bay serves as both a training airport and a local light aircraft tourism entry point. Both airports have a specific function and should not compete with the George airport.

GUIDELINE 2.1.4. REVITALISE RAILWAY INFRASTRUCTURE, IMPROVING NATIONAL / MULTI-REGIONAL ACCESS

The urban areas that are situated along the coast of South Africa account for 23,6% of the national economy (Quantec Research, 2017). However, there is very poor rail infrastructure that links the urban areas along the coast from the Western Cape, to the Eastern Cape and KwaZulu-Natal (Figure 69). Therefore, it is imperative that the regional connectivity between these centres is improved in order to catalyse this economic potential. Railway infrastructure could play an important role in this regard. This could be achieved by extending the rail line between Oudtshoorn - Klippaart and Port Elizabeth towards Richard's Bay. Eden District forms part of this coastal corridor, and the success of the District in part depends on the success of this broader national corridor.

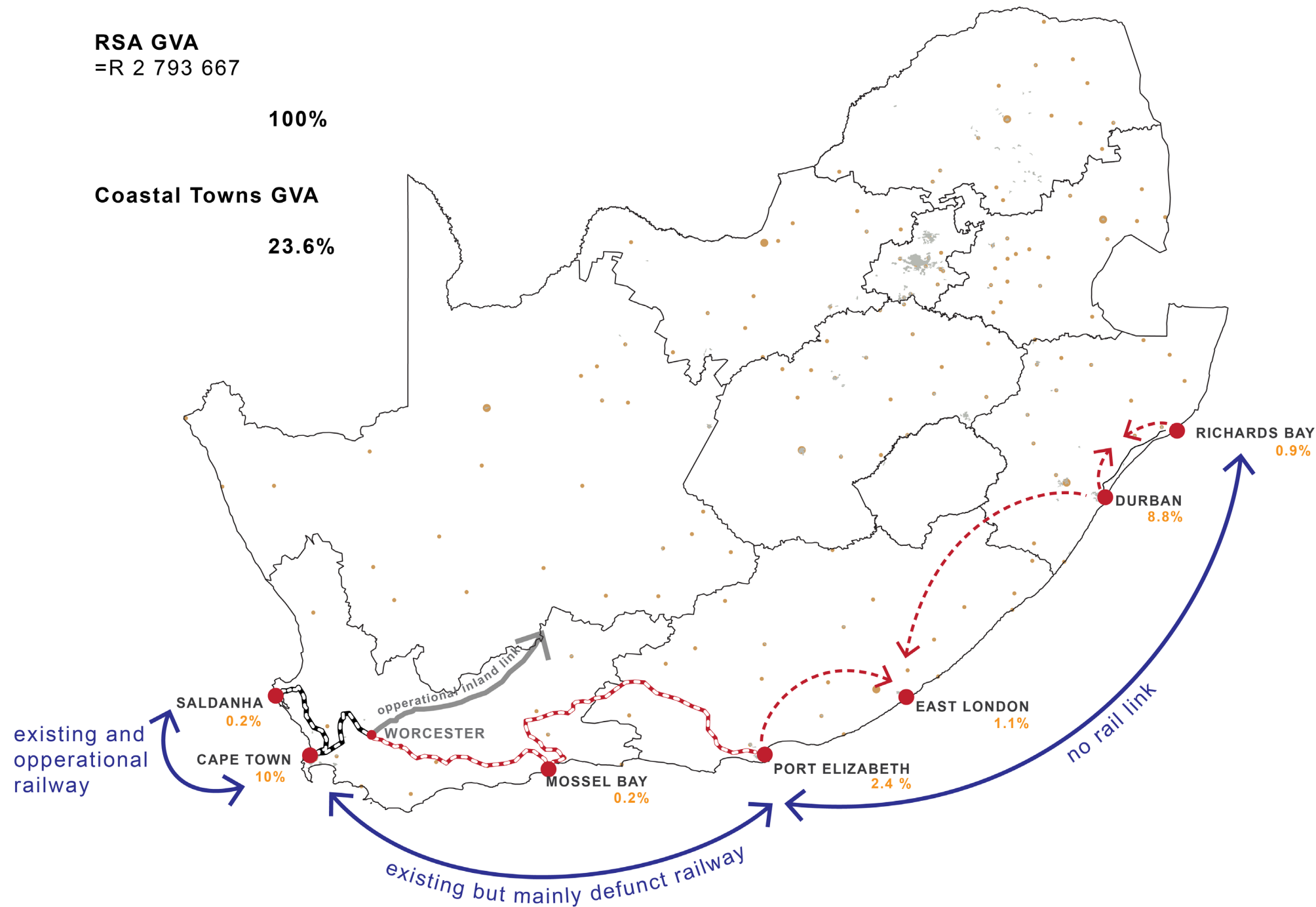


Figure 69. The Gross Value Added (GVA) of Coastal Municipalities and their Rail Infrastructure

Funding models beyond subsidies need to be considered in order to facilitate the rehabilitation of rail infrastructure.

POLICY 2.2. PRIORITISE ACCESS INFRASTRUCTURE AND SERVICES TO SUPPORT THE IDENTIFIED ROLE AND HIERARCHY OF TOWNS WITHIN THE REGIONAL SPACE ECONOMY

Investment in transport infrastructure and services in Eden District must:

- Align with and support a coherent network and hierarchy of regional nodes and linkages.
- Develop a demand responsive, balanced and sustainable rural transport system.

This policy supports the District's Strategic Objective (SO7): An Inclusive District Economy and its associated strategies.

GUIDELINE 2.2.5. CLUSTER SOCIAL FACILITIES TO OPTIMISE EQUITABLE ACCESS AND SPATIAL EFFICIENCY

The current and historic pattern of dispersed settlements across the District has resulted in a spatially fragmented distribution of social facilities. An equal distribution of facilities across an area as extensive as Eden District is unachievable and unsustainable, especially in areas with low densities and a scattered settlement pattern.

Conversely, it is necessary that access to social services is as equitable and efficient as possible across the dispersed District landscape. Therefore, it is required that future developments take place in an integrated and sustainable manner. The improvement of the District's spatial justice is highly dependent on the sustainable provision of fewer, but better quality and appropriate facilities. Spatial justice can also be improved by increasing the number of learner transport routes in rural settlements, as well as the number of satellite services such as libraries and clinics. Existing public facilities are illustrated in Figure 70 and Western Cape Government's planned public facilities are shown in Figure 74.

GUIDELINE 2.2.6. LOCATE REGIONAL FACILITIES AT THE MOST ACCESSIBLE POINTS IN REGIONAL NODES

Planning and investment in new facilities and facility upgrades should take account of a regional balance of need versus affordability. Facility rationalisation, upgrading and investment should be driven by the principles of co-location and clustering to improve affordability and convenience. This should respond to the development intention for the settlement (growth versus consolidation) and the role of the settlement within the regional settlement hierarchy.

Higher order, more accessible centres along primary regional routes should be the priority locations for social facility investment. The principle of clustering, as well as ease of access are the primary informants to locating new social services at a regional and provincial scale. Clusters or nodes of facilities must be located within walking distance of a public transport stop or along a higher order route within the regional or town level access network.

In addition, due to the economic growth potential of George Municipality and its existing strong educational offering, there is potential to expand the current university or develop a new facility. The university could enhance the tertiary sector by introducing a curriculum that is in line with the economic assets of the District, such as biodiversity resources and oil and gas economy.

POLICY 2.3. CONTAIN SETTLEMENT FOOTPRINTS AND LAND USE MIX TO PROMOTE WALKABILITY IN TOWNS

Establish walkable integrated and compact urban environments with a focus on Transit-oriented development (TOD). TOD is central to the SDF strategies. This term describes moderate to high density development that incorporates a mix of land uses, compact design, pedestrian and cycle friendly environments. It also promotes the clustering of public and civic spaces around the hub of a transit station or along a transit corridor.

Support integrated public transport proposals to achieve sustainable public transport through appropriate

settlement form and densities. In line with Rural Transport Strategies for South Africa, investment in transport infrastructure and services in Eden District must:

- Align with and support a coherent network and hierarchy of regional nodes and linkages.*
- Develop a demand responsive, balanced and sustainable rural transport system.*
- Ensure that development supports and improves motivation for walkability through the containment of the extent of towns and villages.*

POLICY 2.4. PROMOTE A BALANCED APPROACH TO MOBILITY AND ACCESS AT THE REGIONAL AND LOCAL LEVEL

When regional routes intersect local towns and local street networks there is a need to integrate the systems. A network of connected street hierarchies will offer greater benefits than the status quo, road classification approach. This connected method improves neighbourhood accessibility and the safety of people and their property. It also enables significant travel savings and economic benefits.

GUIDELINE 2.4.7. PROMOTE TRANSIT ORIENTED DEVELOPMENT (TOD)

To enhance their economic potential and strengthen the tertiary sector by attracting skills and investment, towns and cities in Eden District should be developed to become fiscally sustainable and pleasant places to live. In South Africa, TOD is a planning concept that encourages walkability and is characterised by:

- A mix of residential, retail, commercial and community uses.
- High quality public spaces and streets, which are pedestrian and cyclist friendly.
- Medium- to high-density development within 800 metres of the transit station (i.e. the TOD precinct).
- Reduced rates of private car parking.
- A rapid and frequent transit services.

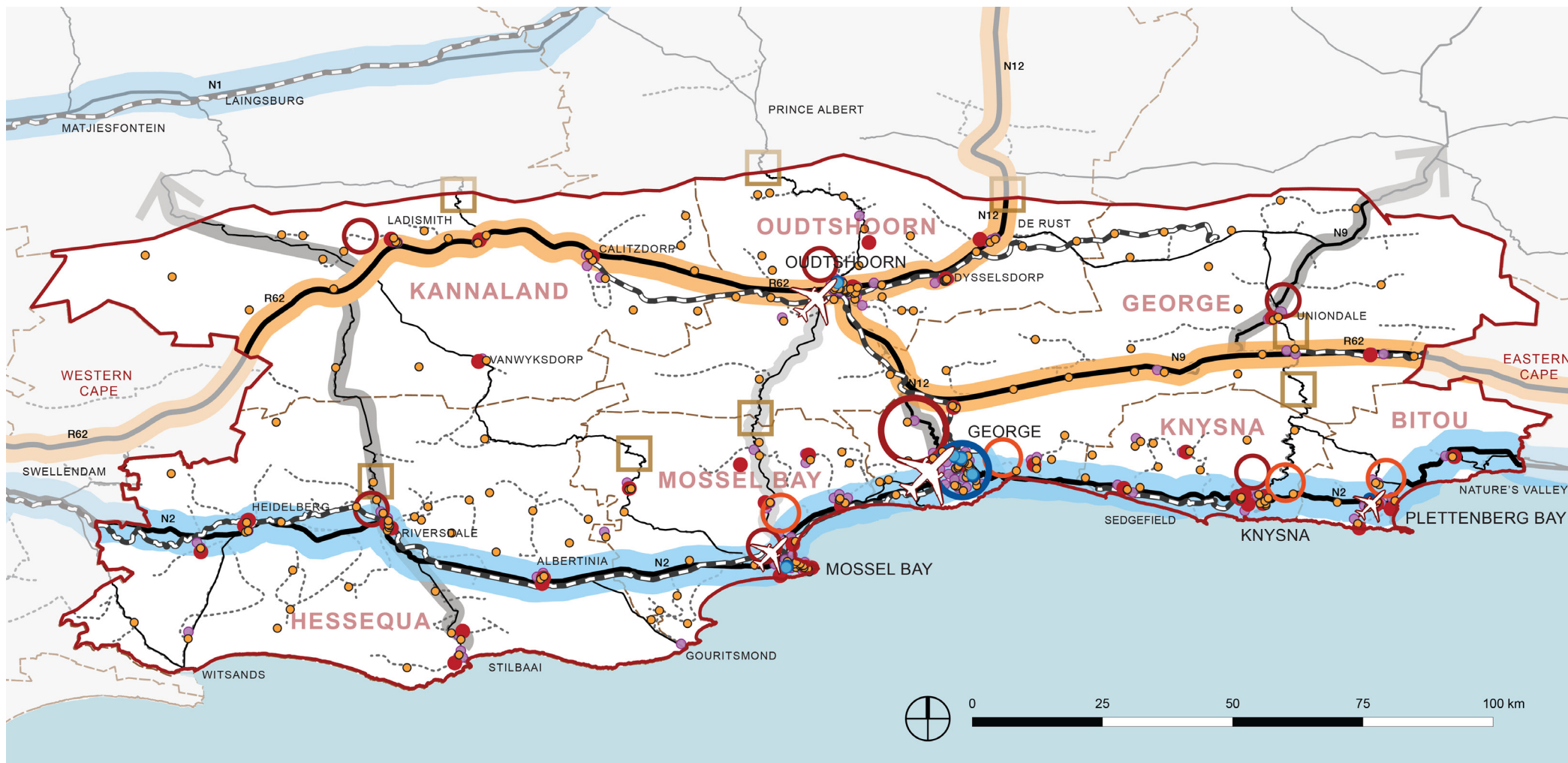
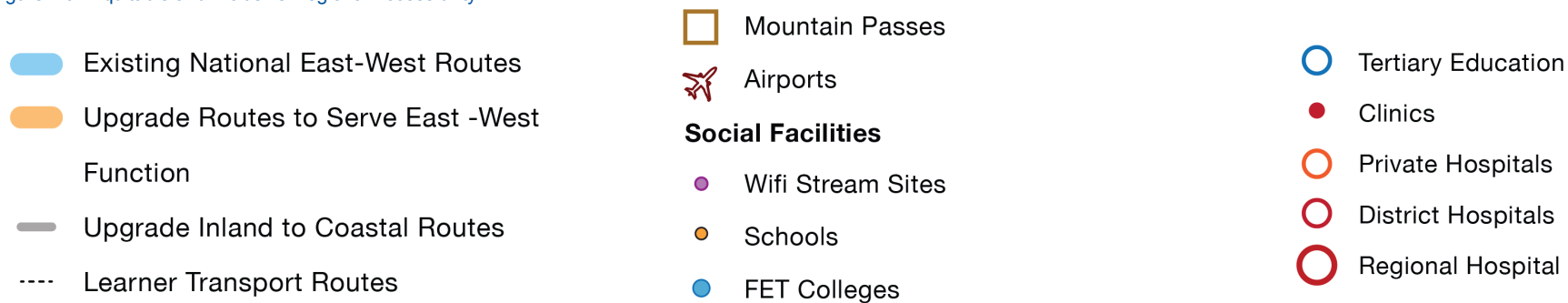


Figure 70. Equitable and Inclusive Regional Accessibility



- High accessibility to the transit station.

More recently, the economic, financial and social returns of the concept of WalkUPs (Walkable Urban Developments) are being researched and demonstrated. This form of development has much higher density, employs multiple modes of transportation that get people and goods to walkable environments and integrates many different real estate products in the same place. New research reveals how walkable urban places and projects will drive tomorrow's real estate industry and the economy and what actions are needed to take advantage of these market trends. WalkUPs "will be the primary location of economic growth in... metropolitan areas, regionally significant WalkUPs will also play a significant role in the future" (Coes, 2017).

GUIDELINE 2.4.8. ENSURE COMPLETE STREETS WHERE REGIONAL ROUTES GO THROUGH TOWNS

The planning and design of the street cross section and land use along regional routes such as the R62 should be undertaken to create Complete Streets. This should be undertaken to balance mobility and accessibility needs.

Guidelines should be prepared for managing regional routes in a small town urban environment in line with the concept of Complete Streets. Complete Streets are designed and operated to enable safe access for all users, including pedestrians, cyclists, motorists and transit riders of all ages and abilities. Complete Streets makes it easier to cross the street, walk to shops and cycle to work. They allow buses to run on time and make it safe for people to walk to and from train stations.

In order to create Complete Streets, transportation agencies must change their approach to community roads. By adopting a Complete Streets policy, communities can help to direct their transportation planners and engineers to design and operate the entire right of way to enable safe access for all users, regardless of age, ability, or mode of transportation.

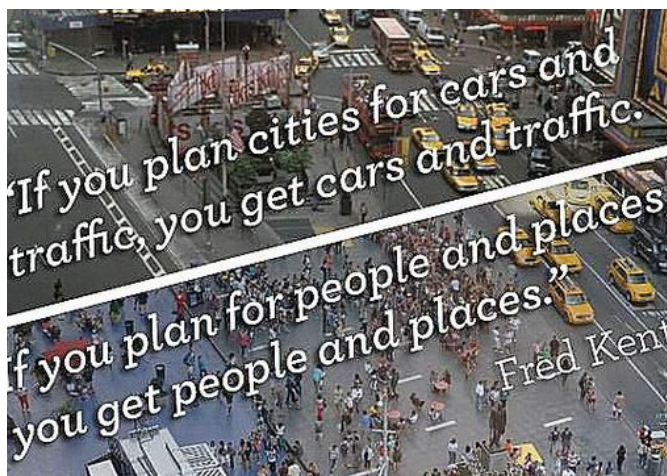
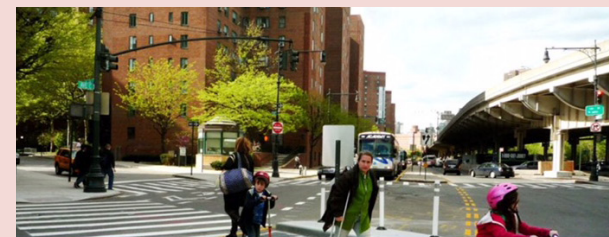


Figure 71. Planning for People (Fred Kent)



Figure 72. An Example of Improved Complete Streets in the USA

Complete Streets



WHAT ARE COMPLETE STREETS?

Complete Streets are streets for everyone. They are designed and operated to enable safe access for all users, including pedestrians, bicyclists, motorists and transit riders of all ages and abilities. Complete Streets make it easy to cross the street, walk to shops, and bicycle to work. They allow buses to run on time and make it safe for people to walk to and from train stations.

Creating Complete Streets means transportation agencies must change their approach to community roads. By adopting a Complete Streets policy, communities direct their transportation planners and engineers to **routinely design and operate the entire right of way to enable safe access for all users**, regardless of age, ability, or mode of transportation. This means that every transportation project will make the street network better and safer for drivers, transit users, pedestrians, and bicyclists—making your town a better place to live.

What does a Complete Street look like?

There is no singular design prescription for Complete Streets; each one is unique and responds to its community context. A complete street may include: sidewalks, bike lanes (or wide paved shoulders), special bus lanes, comfortable and accessible public transportation stops, frequent and safe crossing opportunities, median islands, accessible pedestrian signals, curb extensions, narrower travel lanes, roundabouts, and more.

A Complete Street in a rural area will look quite different from a Complete Street in a highly urban area, but both are designed to balance safety and convenience for everyone using the road.

Figure 73. Complete Streets (SmartGrowth America, 2017)

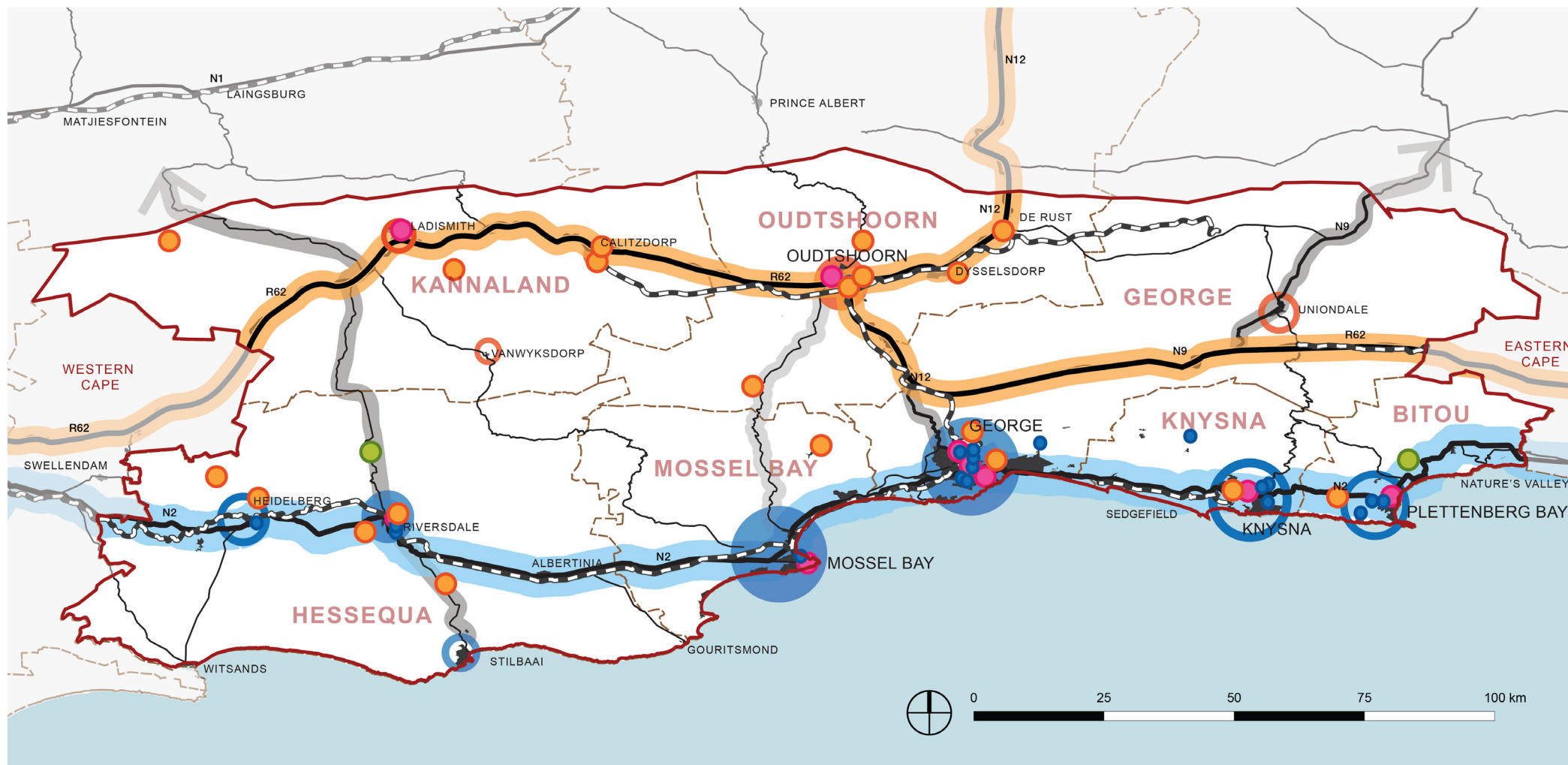


Figure 74. Access to Planned Projects (adapted from DEA&DP, 2017)

—+— Rail

— Existing National East-West Routes

--- Upgrade Routes to Serve East -West
Function

— Upgrade Inland to Coastal Routes

Planned Projects

● Health

● Environmental Affairs and Planning

● Transport and Public Works

● Education

Growth Management

● Grow Coastal Center

○ Consolidate Coastal Centre

● Grow Inland Center

○ Consolidate Inland Center

4.4. Sustainable Growth Management

4.4.1. Objectives.

The central objective is to align development and inclusive growth within real infrastructure capacity limits. This requires a radical shift in thinking about how and where to accommodate growth so that it is generative and cyclical rather than wasteful and linear. New ways of integrating development with infrastructure are recommended to secure a sustainable future for municipal finances, citizens and the economy. This change will necessitate a break from current institutional structures, planning approaches, non-integrated budgets and even procurement processes.

The SDF proposes a clear strategy for growth management that directs compact development for all settlements. Population growth must be directed to areas that are able to accommodate it, while settlements constrained by economic, ecological and infrastructural limits should be identified for consolidation. This is imperative to ensure municipal financial sustainability, balancing the need to invest in new infrastructure and proper maintenance programmes to keep existing regional assets in good condition.

The District and B Municipality planning and infrastructure investment plans, as per the mandate for this SDF, will need to align with this approach. Plans should also incorporate innovative regional waste and water solutions when considering the provision of new services.

At the provincial scale, this approach also relies on the rationalisation, alignment and clustering of social facility infrastructure. Additionally, the provincial housing pipeline must take into account the settlement growth management approach and align the location and prioritisation of housing investment. This will enable the integration of human settlements. In areas of consolidation, a strong focus on upgrading informal settlements and accommodating transient communities is required. In growth nodes new housing must be provided in well located areas.

This approach aligns with the SPLUMA principles of spatial justice, sustainability, efficiency and good governance, and necessitates a radical shift from business as usual. This includes finding ways to deliver more diverse housing projects and opportunities in locations where households can access the benefits of the regional space economy. Additionally, it is an explicit strategy to mitigate the history of spatial fragmentation, economic exclusion and socio-economic disparities.

4.4.2. Spatial Policy Statements and Guidelines

3. GROWTH MANAGEMENT

POLICY 3.1. DIRECT AND ENCOURAGE GROWTH TO MATCH CAPACITY, RESOURCES AND OPPORTUNITY IN RELATION TO THE REGIONAL SOCIO-ECONOMIC HIERARCHY OF CITIES AND TOWNS

Direct and encourage growth to match capacity, resources and opportunity in relation to the regional socio-economic hierarchy of cities and towns.

GUIDELINE 3.1.1. ALIGN GROWTH WITH INFRASTRUCTURE AND FISCAL CAPACITY

In order to make local planning and investment decisions, the district population growth, economic growth and growth potential, unemployment and the pipeline of development projects (especially housing projects) must be verified and calibrated. The capacity of urban systems to service development must also be properly tested within a Capital Investment Framework. This will aid in facilitating the sustainable allocation of resources to where need can be matched with economic growth potential.

This will also allow investment decisions (relating to settlement growth, infrastructure, housing, social facilities and so on), to be tested in relation to the realities of

current and future bulk capacity constraints and the long term operating impacts of capital investments.

A regional settlement hierarchy and framework for accommodating compact growth has been established in relation to infrastructure, economic and institutional capacity. Growth should be encouraged in towns that have economic, spatial and social capacity to ensure fiscal sustainability. The areas where growth should be directed are indicated in Figure 75. These areas include Mossel Bay, George, Oudtshoorn and Riversdale. Public capital investment in existing, remote (low income) settlements should only be considered where there is a compelling case for an existing or viable new economic base.

The SDF proposes a clear hierarchy and role of towns and recommends investment actions in line with these roles. The SDF directs growth to the regional services centres while it proposes consolidation for certain other nodes. The term growth refers to the accommodation of additional residents and expansion of facilities and social services in line with this.

The consolidation of settlements implies taking a strategic view on investment that facilitates population growth. Only making such investments where a compelling economic catalyst can demonstrate the financial, social and ecological sustainability of this investment. Settlements already stressed in relation to bulk service capacity or low economic growth should not be burdened with additional service delivery pressures that they cannot afford to service.

Settlements within the Eden District have been categorised in relation to the following roles and hierarchy. This builds on and refines the settlement categories set out in the 2009 SDF.

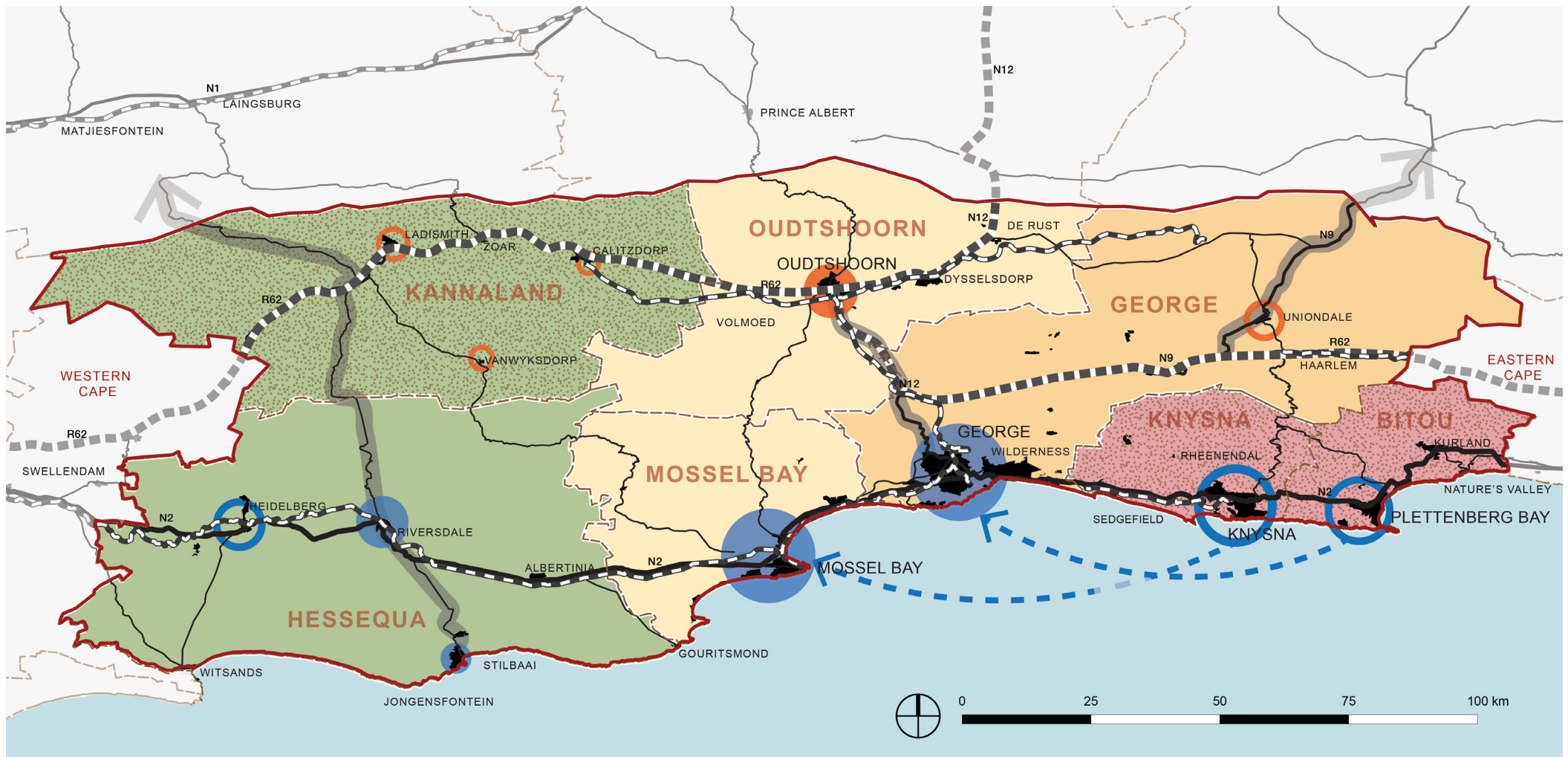
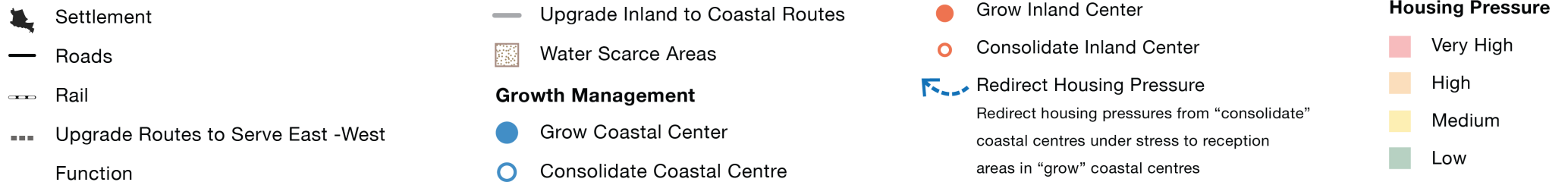


Figure 75. Sustainable Growth Management (adapted from DEA&DP, 2017)



1. Regional Service Centres:

- George: Major economic / services / education hub along the N2
- Oudtshoorn: Economic / transport hub along the upgraded R 62
- Mossel Bay: Economic / industrial hub along the N2
- Riversdale: Economic / transport hub along the N2

2. Specialised Coastal Centres:

- Knysna: Tourism, holiday, services and timber industry
- Plettenberg Bay: Tourism and recreation
- Groot Brak River: Retirement, recreation and tourism
- Sedgefield: Retirement, holiday homes and recreation
- Stilbaai: Retirement, holiday homes and fishing harbour
- Herold's Bay: Golf Estate
- Gouritsmond: Seaside holiday town
- Keurboomstrand: Retirement and second home
- Nature's Valley: Scenic recreation and second home
- Wilderness: Forest, beach tourism and residential
- Buffelsbaai: Beach and holiday town
- Brenton-on-Sea: Retirement and second home

3. Inland Service Centres:

These are Urban nodes focused on servicing the daily needs of the surrounding rural population and serving as agricultural and social support centres.

- Heidelberg
- Ladismith
- Albertinia
- Calitzdorp
- Herbertsdale

4. Villages

- Rheenendal
- Volmoed

- Friemersheim
- Karatara
- Brandwacht
- Schoemanshoek
- Spieskamp

5. Historic Inland Villages:

- Uniondale
- De Rust
- Haarlem

5. Inland Socio-economically Stressed Centres:

- Dysseldorp
- Ruiterbos

6. Hamlets:

Small residential clusters without commercial or business uses, they include:

- Bitou: Kranshoek, Wittedrift, Kurland, Harkerville
- Knysna: Noetzie, Bracken Hill, Kanonkop,
- George: Avontuur, Victoria Bay, Kleinkrantz, Ongelegen, Noll
- Kannaland: Zoar, Amalienstein, Vermaaklikheid, Melkhoutfontein, Van Wyksdorp
- Hessequa: Groot Jongensfontein, Glentana, Slangrivier, Witsand
- Oudtshoorn: De Hoop, Vlakeplaas, Volmoed
- Mosselbay: Tergniet, Boggoms Bay, Vlees Bay, Nautilus, Moquini, Klein Brak Rivier, Dana Bay, Buisplaas, Ruiterbos, Jonkersberg

GUIDELINE 3.1.2. ROLES OF REGIONAL SERVICE CENTRES

Regional Service Centres are main urban centres. They contain industry, service sectors and innovative business environments. They are described as being suitable to accommodate population growth and are viably supported by the centre's infrastructure capacity and offer access to jobs, services and facilities. These

centres should be enhanced and further developed through integration, infill, densification and mixed-use development in well-located areas. The tertiary health, education, cultural facilities and government services in these centres should be supplemented or upgraded to meet need where necessary.

GUIDELINE 3.1.3. ROLE AND INVESTMENT FOCUS OF SPECIALISED COASTAL CENTRES

These urban centres have a special function (often tourism related), as well as important roles in servicing the surrounding areas and rural settlements. They should be complete settlements. Complete settlements aim to improve standards of living and social inclusion. Investment in these areas should prioritise achieving a balanced mix of uses, economic activities, socio-economic groups and services.

GUIDELINE 3.1.4. DEVELOPMENT APPROACH TO RURAL SETTLEMENTS

Investment and resource management in rural settlements must meet local convenience needs with basic social facilities for the surrounding rural communities. Emphasis should be placed on establishing complete settlements (as discussed above). Where possible new local economic drivers should be explored to sustain existing residents before fixed capital investment is prioritised here.

As indicated in Table 11 limited development is permitted in rural villages under the condition that it creates long-term economic activities and promotes a walkable, compact urban environment. Gowrie Village, located in the midlands in KwaZulu-Natal is an example of this type of development. The mixed-use, compact, high-density intervention was able to economically revitalize the town of Nottingham Road. Gowrie Village was able to seamlessly integrate into the urban form of the town as it had significant infrastructure in place and a number of social facilities. As a result, this walkable development has added character and a sense of place to the village of Nottingham Road.

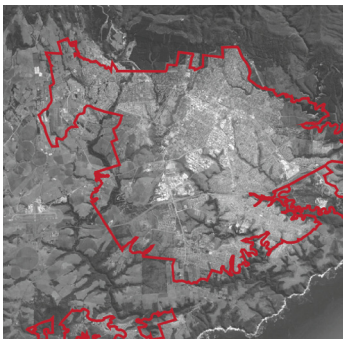
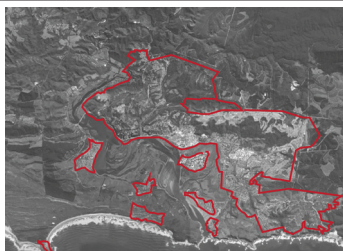




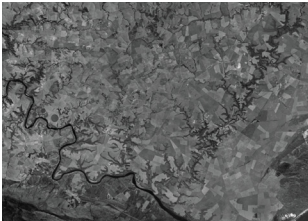
		Settlement	Function/Role	Appropriate Development		
1.	Regional / District Urban Centres	Main urban centres in terms of location of new housing, jobs, services and facilities with a focus on development and densification. The urban centres accommodate main health, education, cultural facilities, as well as government services. These economic hubs contain industry, services sector and innovative business environments.				
		George		General	Creation of walkable, integrated and compact urban environment with a focus on Transit-oriented development (TOD). TOD is the term used to describe moderate to high-density development that incorporates a mix of land uses, compact design, pedestrian- and cycle- friendly environments, and public and civic spaces around the hub of a transit station or along a transit corridor.	
		Oudtshoorn				
		Mossel Bay		Private Residential	Consolidate and focus integrated development in these centres.	
				Subsidised Residential	Consolidate and focus integrated development in these centres.	
		Riversdale		Services and Facilities	Promote the central role for services and facilities, focus on accessibility for regional services.	
				Economic Activities	Promote economic growth and diversification.	
2a.	Specialised Centres Coast	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.				
		Knysna	Tourism, holiday, services and timber industry	General	Creation of walkable, integrated and compact urban environment.	
		Plettenberg Bay	Exclusive tourism			
		Groot Brak River	Sea holiday and retirement			
		Sedgefield	Retirement and recreation			
		Stilbaai	Retirement and 2 nd home and fishing harbour	Private Residential	Within urban edge only and keeps in character with promotion of a walkable, compact urban environment.	
		Herold's Bay	Golf tourism			
		Gouritsmond	Sea holiday			
		Keurboomstrand	Retirement and 2 nd home			
		Nature's Valley	Scenic recreation and 2 nd home	Subsidised Residential	Discouraged and should be limited, only if economic base and education facilities are present.	
		Wilderness	Tourism and residential node in forest			
		Buffalo Bay	Sea holiday	Services and Facilities	Promote and cluster facilities to service the region.	
Brenton-on-Sea	Retirement					
2b.	Specialised Centres Inland					
		Dysseldorp	Historic mission station	Economic Activities	Focus on strengthening the specialisation of the centre and development of existing value chain.	
		Uniondale				
		De Rust	retirement and tourism			
		Haarlem	Historic mission			
		Ruiterbos	Mountain holiday resort			

Table 11. Regional Role and Hierarchy of Settlements and Appropriate Development

		Settlement	Function/Role	Appropriate Development	
3.	Rural Service Centres	<i>Urban nodes focused to service the daily needs of the mainly rural population in the area, key agricultural and social support centres.</i>			
		Heidelberg		General	Development must be in keeping with guidelines as set in the 2013 PSDF Study: Scenic and Cultural Resources.
		Ladismith		Private Residential	Within urban edge only and keeps in character with a walkable, compact urban environment.
		Albertinia		Subsidised Residential	Discouraged and should be limited, only if economic base and education facilities are present.
		Calitsdorp		Services and Facilities	Promote and cluster facilities to service the rural areas.
		Herbersdale		Economic Activities	Within the urban edge, focus on supports/diversifies agriculture, supports tourism, broadens the value chain.
4.	Villages	<i>Meeting the local convenience needs with basic social facilities for the surrounding rural communities.</i>			
		Volmoed		General	No extension of municipal reticulation networks or infrastructure.
		Friemersheim			Development must be in keeping with guidelines as set in the 2013 PSDF Study: Scenic and Cultural Resources.
		Katatara		Private Residential	Limited development permitted under condition that it creates long-term economic activities and promotes a walkable, compact urban environment.
		Brandwacht			
		Schoemanshoek		Subsidised Residential	Only farmworkers housing employed in the area.
		Spieskamp		Services and Facilities	Promote connectivity and provision of remote services as well as self-sustainable facilities.
		Rheenendal		Economic Activities	Only if it supports / diversifies agriculture, supports tourism, broadens the value chain.
5.	Hamlets	<i>Small residential clusters without commercial or business uses</i>			
		Bitou: Kranshoek, Wittedrift, Kurland, Harkerville		General	No extension of municipal reticulation networks or infrastructure. Development must be in keeping with guidelines as set in the 2013 PSDF Study: Scenic and Cultural Resources.
		Knysna: Bracken Hill, Noetzie, Kanonkop,		Private Residential	No new residential development permitted, unless it is linked to economic activity in the area (agriculture, biodiversity or value chain related economy).
		George: Avontuur, Ongelegen, Noll, Victoria Bay, Kleinkrantz		Subsidised Residential	Only farmworkers housing employed in the area.
				Services and Facilities	Promote connectivity and provision of remote services as well as self-sustainable facilities.

		Settlement	Function/Role	Appropriate Development	
5.	Hamlets	Small residential clusters without commercial or business uses			
		Kannaland: Zoar, Amalienstein, Vermaaklikheid, Melkhoutfontein, Van Wyksdorp	Economic Activities	If it supports / diversifies agriculture, supports tourism or broadens the value chain.	
		Hessequa: Groot Jongensfontein, Glentana, Witsand. Slangrivier			
		Oudtshoorn: De Hoop, Vlakteplaas, Volmoed			
		Mosselbay: Tergniet, Boggoms Bay, Vlees Bay, Nautilus, Moquini, Klein Brak Rivier, Dana Bay, Buisplaas, Ruiterbos, Jonkersberg			
6.	Rural Areas	As per SPC regulations			
				General	As per Rural Development and Management Guidelines. No extension of municipal reticulation networks or infrastructure. Development must be in keeping with guidelines as set in the 2013 PSDF Study: Scenic and Cultural Resources.
				Private Residential	Not permitted, unless it is linked to economic activity in the area (agriculture, biodiversity or value chain related economy).
				Subsidised Residential	Only if linked to local farming activity.
				Services and Facilities	Not supported, promote self sustainable facilities.
				Economic Activities	Only permitted if it enhances biodiversity, diversifies agriculture, supports tourism. Only allowed if appropriate scale, form and character of the relevant SPC.

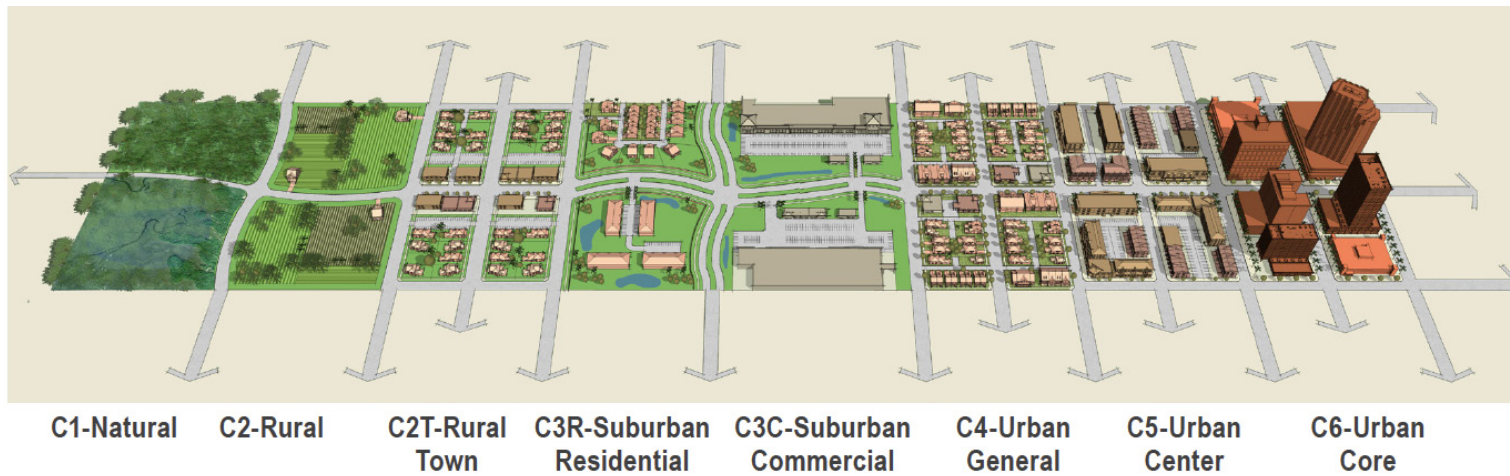


Figure 76. Urban Rural Transect (FDot Context Classification, 2017)

Where no economic catalyst exists, attention should be given to improving access to centres where opportunity does exist. The proposed expansion of these settlements in the form of agri-villages; eco-estates and other types of lifestyle residential estates should be carefully considered before they are approved, as they have the potential to further trigger costly commuting distances (to work, education and health facilities, amenities and services). People living or working in these settlements would rely heavily on private motor vehicle use that would increase carbon emissions and incur prohibitively expensive costs particularly for the poor – effectively leading to economic exclusion or spatial poverty entrapment.

Appropriate development guidelines are outlined in Section 4.2 The Economy is the Environment, Guideline 1.1.1 and Table 11.

POLICY 3.2. CONTAIN SETTLEMENT SPRAWL

Containing unsustainable urban sprawl and making more efficient use of land and existing facilities is a core

Growth Nodes

Growth Nodes are identified as settlements that have the economic, institutional and infrastructural capacity to accommodate new growth. Unless otherwise stated this “growth” refers to economic and population growth and should not be conflated with spatial / lateral growth. Where reference is made to lateral spatial growth this is specified or referred to as sprawl, which is not desirable. The rationale in the SDF is to encourage government and private sector investment in infrastructure and new housing opportunities in places where jobs and facilities are easily accessible rather than develop new housing projects or government facilities in places that have no economic opportunity or that have low growth potential. From a government investment and infrastructure development perspective, where funds are limited and need to be spent strategically, capital investment should be predominantly focused on growth nodes over consolidation nodes.

component of growth management and long-term fiscal resilience of municipalities and households. This policy promotes radical settlement transformation in support of accessible, walkable, inclusive and liveable environments that offer multiple opportunities for all sectors of society. This approach in turn facilitates the protection of environmentally sensitive and agricultural land, as less land will need to be developed.

GUIDELINE 3.2.5. URBAN EDGE GUIDELINES

While urban edges do not solve all land use management issues relating to the protection of important open spaces, biodiversity corridors and agricultural land, it is important that B Municipalities define and manage urban edges to contain lateral sprawl.

Urban edges should be determined within the context of the urban and rural environment. Urban edges aid in establishing where development should not occur to protect and conserve significant environmental and agricultural resources. The management of urban edges should be carried out by local authorities and ensure the reduction of urban sprawl.

Consolidation Nodes

Consolidation nodes are settlements where infrastructure and land development investment should be carefully assessed in terms of existing infrastructure, accessibility and economic potential. Government investments should be aimed at the consolidation of low growth, low opportunity settlements so that they function optimally. This may include the introduction of new virtual teaching facilities to lower the cost and time barriers of high quality education (including tertiary education) in remote rural settlements. The notion of consolidation implies that (unless it is associated with a new economic driver) investment in new housing and development in such nodes should not be encouraged.

GUIDELINE 3.2.6. MANAGE DEVELOPMENT IN RURAL AND AGRICULTURAL LANDSCAPES

This is discussed in detail in Section 4.2 The Economy is the Environment, Guideline 1.1.1 Contain development and manage rural areas through appropriate application of SPCs.

POLICY 3.3. OPTIMISE EXISTING INFRASTRUCTURE CAPACITY AND ECONOMIC OPPORTUNITY BY DIRECTING MIXED USE, HIGHER DENSITY DEVELOPMENT TO AREAS OF OPPORTUNITY

In line with SPLUMA principles, settlement solutions must address resource scarcity while recognising need and service delivery backlogs.



Photo 12. Gowrie Village (<http://www.meander.co.za>)



Photo 11. Gowrie Village in Context (GoogleEarth, 2017)

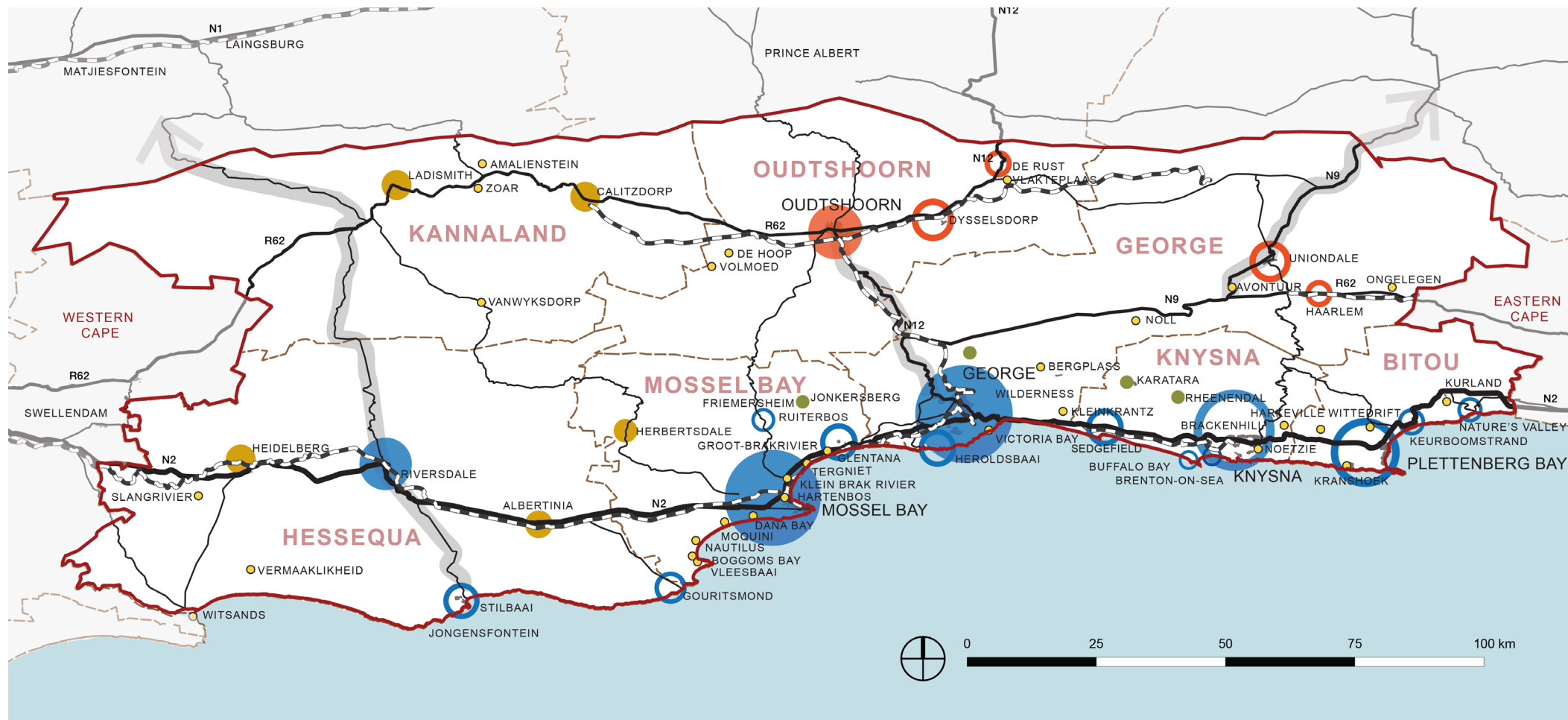


Figure 77. Hierarchy of Settlements (adapted from DEA&DP, 2016)

- Edén District Boundary
- Local Municipal Boundaries
- Settlement

Access

- Roads
- Rail

- Upgrade Inland to Coastal Routes

Settlement Hierarchy

- Regional Urban Centre (Coastal)
- Regional Urban Centre (Inland)
- Specialised Centre (Coastal)
- Specialised Centre (Inland)

- Rural Service Centre
- Village
- Hamlet

The financial and economic viability of towns in the District should be improved by promoting the intensification of existing urban areas (e.g. mixed use development in industrial areas). This can be achieved through infill, densification and redevelopment, which in turn makes the use of existing infrastructure capacity and services more efficient.

Land should only be developed in areas that are identified and suitable for urban growth. Vacant and underutilised land within the existing settlement footprint should be prioritised for development before new greenfield areas are considered for new development.

GUIDELINE 3.3.7. PROMOTE COMPACT DEVELOPMENT

Density should occur within 800-1600 m or 10-20 minutes from transport hubs and areas with mixed-use activity. This will encourage the use of non-motorised forms of transport such as walking and cycling.

The promotion of a more compact city form requires an increase in average gross density. However, an increase in density should maintain the character and form of certain heritage areas and natural environments so as to not damage or negatively impact the surroundings.

Return on investment to the municipality of higher density mixed use development has been demonstrated globally by the Strong Towns movement. When tested within George, an evaluation demonstrated that an outdated 1980's 4 storey building on York Road generated 6 times the rates per square meter than a newly developed mall. This dramatic difference in rates income is exaggerated once the operating costs are factored in.

Appropriate urban density is key to achieving Eden District's SDFs policy objectives. Transit Oriented Development (TOD) is a term used to describe the consolidation of real estate development around public transport nodes or stations that is typically mixed-use (retail, commercial and housing) human scaled, pedestrian friendly, walkable and with amenities that are easily accessible. This form of development helps to

reduce car usage and demand for parking, and supports increased public transport usage.

GUIDELINE 3.3.8. PRIORITISE INCLUSIVE MIXED USED DEVELOPMENT OVER PERIPHERAL MONO-FUNCTIONAL DEVELOPMENT

A walkable urban development includes:

- Substantially higher densities (1.0 to 4.0 Floor Area Ratio (FAR), though mostly in the 1.0 to 4.0 range).
- Mixed-use real-estate products, or the adjacent spatial mix of products.
- Emerging “new” product types, such as rental apartments over a ground-floor grocery store.
- Multiple transportation options, such as bus, rail, bicycle, and pedestrian-friendly sidewalks, as well as motor vehicles, that connect to the greater metro area. Within the boundaries of the WalkUP itself, most destinations are within walking distance.

(Smart Growth America, 2016)

This is concerned with much more than physical density around public transport hubs; it is a framework to get the most benefit from density. Density alone is not sufficient to improve access to the opportunities of the city, or to create a sustainable city. Two key elements of urban form that support Strong Towns are:

- Structure – The arrangement of infrastructure, buildings and open space plays a vital role in how the city operates and what it costs for residents, businesses and government.
- Quality – A city's success depends very much on how people use it, which is influenced by their levels of confidence and comfort in being active in different parts of the city. The quality of design and the levels of maintenance affect personal activity and the ability to effect change for a more functionally healthy city.

GUIDELINE 3.3.9. ENSURE THE DEVELOPMENT OF STRONG RESILIENT TOWNS AND PLACES

The SDF promotes a considered approach to investment in settlement and growth management that directs new investment towards the establishment of appropriate urban form.

The Strong Towns Movement in America is in line with the following principles which could be applied to growth and development of towns in Eden District:

- Local government is a platform for strong citizens to collaboratively build a prosperous place.
- Financial solvency is a prerequisite for long term prosperity.
- Land is the base resource from which community prosperity is built and sustained. It must not be squandered.
- A transportation system is a means of creating prosperity in a community, not an end unto itself.
- Job creation and economic growth are the results of a healthy local economy, not substitutes for one.
- Strong cities, towns and neighborhoods cannot happen without strong citizens.

The strong town approach relies on and is inspired by bottom-up action (citizens approach) and not top-down systems. The emphasis is on resilience, incremental investments, people scaled and accountability.

POLICY 3.4. RATIONALISE AND CLUSTER REGIONAL FACILITIES FOR SUSTAINABLE PROVISION AND OPERATIONS

The suburban nature of social facilities sites contribute to lateral sprawl of settlements and ties up large tracts of land that are often underutilised. This is fiscally inefficient and leads to the duplication of facilities and human and financial resources. A shift towards a more urban model of social facilities is required, facilities that are compact, mixed-use, multi-functional and used by a variety of groups over a 24 hour period.

Land Use Return on Investment - Strong Towns

Strong Towns, UN Habitat's Resilient Cities agency and the IUDF support a model of development that enable cities, towns and neighbourhoods to become financially strong and resilient. Strong Towns has published compelling data on infrastructure and maintenance to highlight the devastating and unsustainable impacts of continued sprawl. This is especially relevant in relation investment in new roads and other services versus the price of maintenance for the community.

Characteristics of strong and resilient towns are highlighted below:

- Rely on small, incremental investments (little bets) instead of large, transformative projects,



Figure 78. The 20 Minute Neighbourhood (Plan Melbourne 2030)

- Emphasise the resiliency of results over efficiency of execution,
- Are inclusive, accommodating bottom-up action (chaotic but smart) side by side with top-down systems (orderly but dumb),
- Seek to conduct as much of life as possible at a personal scale, and
- Are accountable for revenues, expenses, assets and long-term liabilities (do the math).

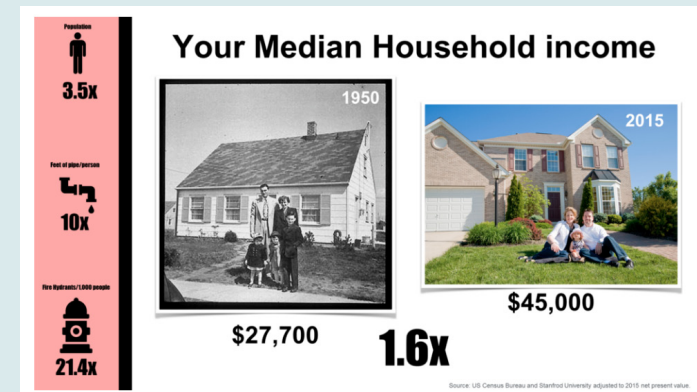


Figure 79. Illustration by Strong Towns to show the increase of household income in the same period in the US (Strong Towns, 2017)

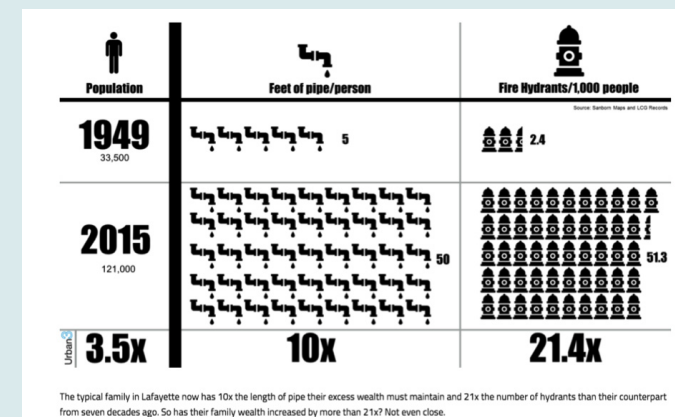


Figure 80. Infrastructure Efficiency (Strong Towns, 2017)

IMPACT OF COMMERCIAL AND OFFICE DECENTRALISATION: SPECIALIST STUDY FINDINGS AND EVIDENCE

An integrated assessment of the impacts of decentralised commercial and office centres on town centres was undertaken in the Western Cape. This study was based on the evaluation of three case studies in Vredenburg, Paarl and Hermanus. The assessment was supported by an international literature review and best practice study, while considerations in relation to urban design, spatial planning, transport planning, economic and property markets, as well as heritage factors were included. Trends identified in the literature review found that there is:

- A strong move away from developing decentralised malls in the USA and Australia, with 19% of malls having closed in the USA, with more closing as a consequence of the global economic recession. This has lead to the main streaming of moving “Malls to Mainstreet” and “Retrofitting Surburbia” as an a alternative;
- Strong evidence of the economic and urban regeneration benefits of “edge of centre” locations for commercial developments as an alternative to decentralised locations;
- That it pays to invest in town centres and high streets with 2-5 more non-retail jobs being created (Cullen, 2012).

The study found that decentralised commercial centres have a negative impact on the performance of the town centre. Various negative impacts include a lack of integration, an increase in vehicular travel; mono-functional, stand-alone, introverted and sterile development; and intrusion into sensitive natural and agricultural environments. The town centre of small towns are resilient by nature, but they struggle

to recover from the negative effects created by an additional competing economic centres, particularly in resource-scarce environments. Evidence suggests that town centres usually stagnate and slowly decline as result of loss of or a split of revenues and resources. Critically the focus of new commercial developments should be to provide new services to the town, not to duplicate them, which has occurred to some extent in Vredenburg.

It was found that when designed, planned and located appropriately, commercial and office developments will assist in improving the economic performance, usability, attractiveness and experiential quality of the town centre. “In centre” and “edge of centre” developments are the recommended location for new large scale commercial and retail developments, as they have the least negative impact on the town centres and towns as a whole. They are the most likely development model to lead to significant economic returns, as well as being the best suited to positively relate to its context and provide support to the sustainable functioning of the town centre (e.g. Hermanus). However, this development model is not the norm, with most of the new large scale commercial and retail centres in the Western Cape being proposed in decentralised locations.

Retail is one of the few significant forms of investment occurring in the emerging market, with 4 million m² of new retail space being expected to be added over the next 10-12 years in South Africa (Urban Landmark, 2013). Therefore, it is necessary to be adequately equipped to guide this new investment so its positive benefits are not lost. Thus, recommendations have been made in relation to improved monitoring and evaluation, as well as the identification new policy and guidelines.

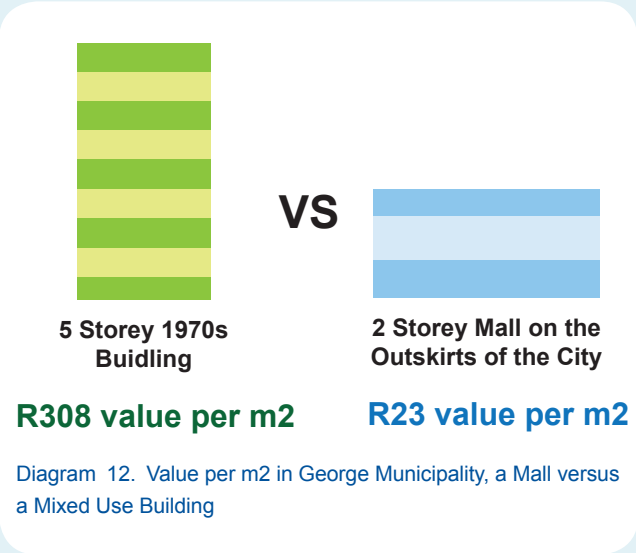


Diagram 12. Value per m2 in George Municipality, a Mall versus a Mixed Use Building

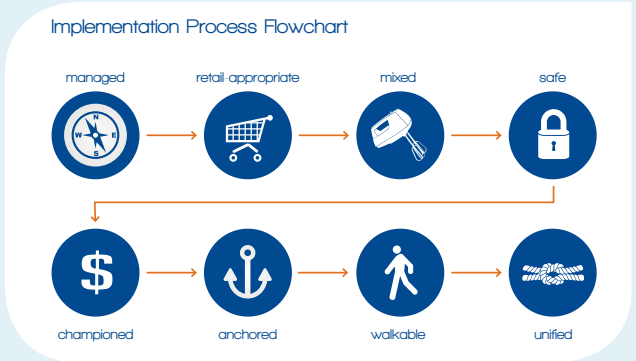


Diagram 13. Guideline Recommendations Include Greater Emphasis on Promoting Vibrant Retail Streets (DC Vibrant Retail Streets Toolkit, 2012)

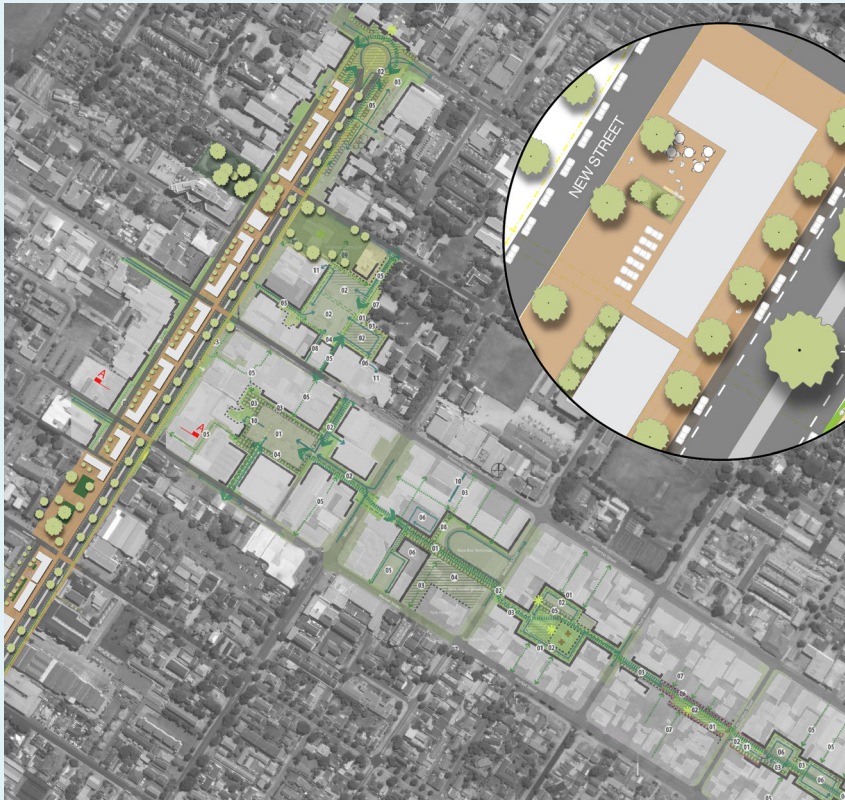


Figure 83. An Example of Infill in York and Courtney Street, George Municipality

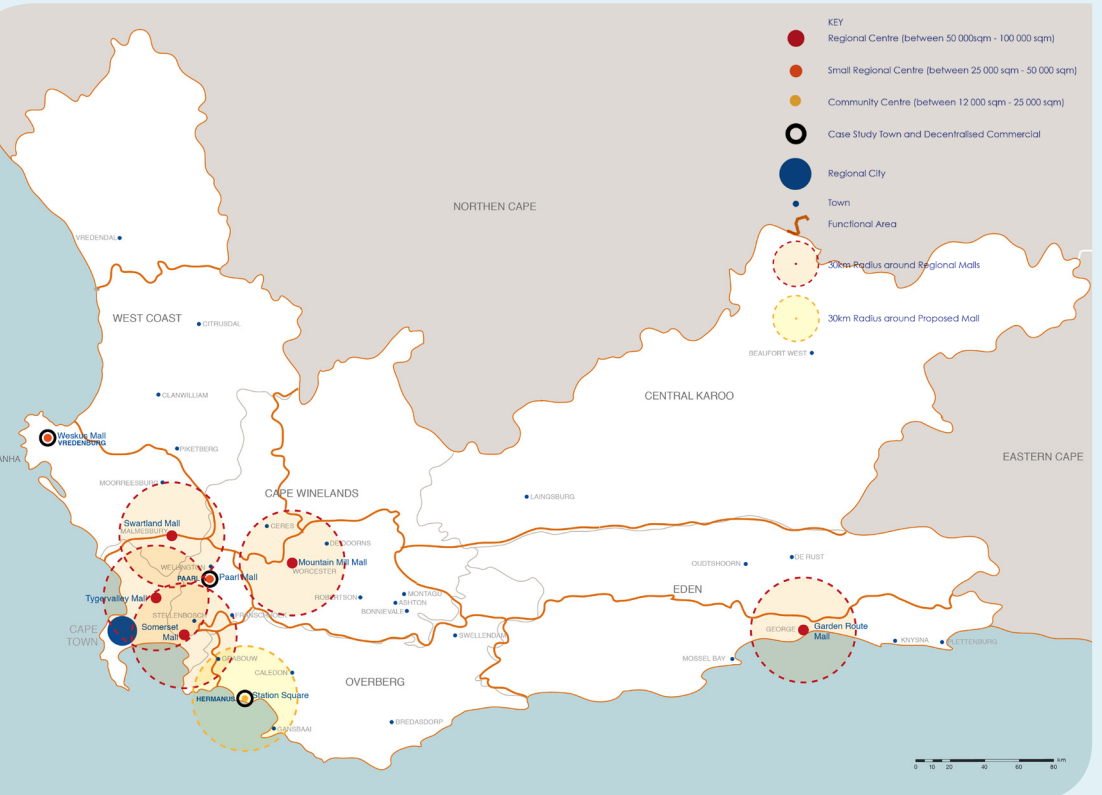


Figure 81. The Location of Existing and Proposed Super Regional Malls in the Western Cape, Showing a Clustering in the Cape Town Metro and Overstrand Districts which could lead to Retail Saturation



Figure 82. Transformation of a Mall into a Mixed Use Neighbourhood (Greyfields to Goldfields, 2002)

Two notable complementary processes initiated within the WCG could compliment the idea of rationalisation and clustering. Refer to the Department of Cultural Affairs and Sport MOD programme (WCG Mass Participation, Opportunity and Access; Development and Growth Programme and the DTPW's 2016 Clustering Study) to understand the opportunities and limitations to sharing and clustering underutilised public facilities.

GUIDELINE 3.4.10. CLUSTER REGIONAL SOCIAL FACILITIES TO ENHANCE ACCESSIBILITY

At the level of settlement planning, the following design principles should inform the provision of regional social facilities:

- Facilities should relate to the street hierarchy, access and landscape features;
- Ensure that the public amenities have an associated public space.

Within settlements, the following principles should guide the location of school sites:

- Situate school sites so that they are spatially connected with other public facilities and public transport within the area, even incorporating such facilities within one site or building (e.g. a municipal hall or library on the ground floor);
- Cluster schools into multi-use campuses in order to share the cost of amenities. By applying the principles of multi-functionality and clustering, several schools could share sports fields by combining their resources to create a functional, positive and active facility (Diagram 15). Land that is not used for sports fields should be consolidated into high-density residential developments;
- Create a feasible management system for sharing facilities that is efficient and equitable;
- Integrate schools into the community. Key strategies include:
 - Removing barriers such as fences around schools and playing fields. Schools can be wrapped by infill housing and landscaping in order to reduce the maintenance cost of fences. This will aid in increasing surveillance or “eyes on the street” and as result, will improve safety on school sites.
 - Using trails, sidewalks, or bike paths to connect neighbourhoods to the school;

Peripheral mono-functional settlements cannot be sustained. Municipal development approvals should only be supported where compact, mixed use and integrated development is supported. Mobile, internet based and period education systems and services should be delivered to settlements that are too small to require the provision of new school facilities.

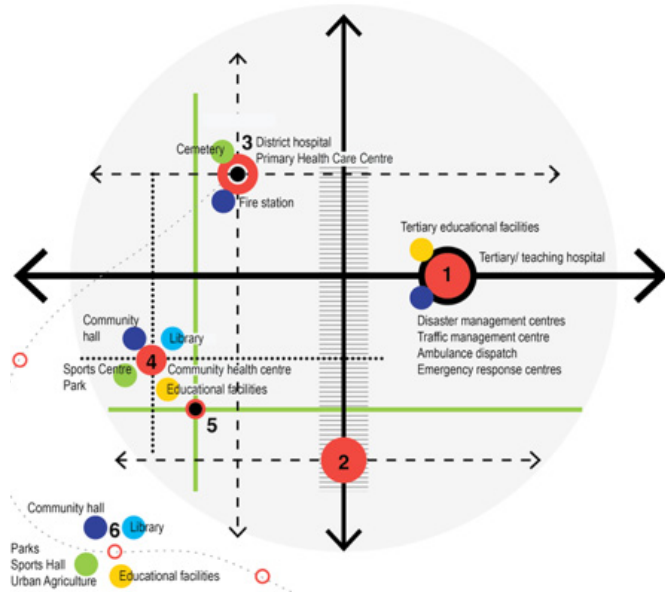


Diagram 14. Social Facilities Cluster and Distribution

POLICY 3.5. OPTIMISE EXISTING SOCIAL FACILITIES THROUGH RATIONALISATION AND STRATEGIC INFILL

Social facilities, especially schools are often positioned in well located areas, close to economic centres and other social services. These sites are typically underused and increasingly unaffordable to maintain but also hold the potential to drastically change the environment of social and gap housing delivery, as they have the ability to provide well located land for development.

In areas where resources are too scarce to accommodate all facility requirements, it is preferable to have fewer facilities of better quality. Social facilities with an excess of underutilised land that is over and above the norms and standards size, should be reclaimed for housing use. By wrapping the schools with housing it can lead to improved safety, reduced cost in maintenance and improved access to existing facilities.

The WC DoHS Human Settlement Framework focuses on improving the quantity and quality of human settlements as holistic spaces, rather densifying within than developing greenfield sites. Almost 33 % of the housing backlog (65 000 households) within Eden District could be met by wrapping 2 sides of the perimeter of existing school sites with housing (2 – 4 storey units at 100 du/ha). A notional illustration of this concept is shown in Diagram 15.

GUIDELINE 3.5.11. CEDE SURPLUS LAND TO THE AUTHORITY RESPONSIBLE FOR HOUSING DELIVERY

Ideally surplus land should be ceded to the authority responsible for housing delivery and infrastructure maintenance, which will reduce the rates burden on the DTPW and empower the municipality to plan and implement projects (including housing) on these land parcels. The authority should also provide space where economic development can occur that would bring employment opportunities within reach of these communities.

These actions could result in spatial clustering and sharing of public amenities between schools and other

social services. Rationalising the land acquisition, security, maintenance and letting of public facilities can achieve significant savings in government spending. This in turn can be directed to developing such social clusters into high quality, safe havens of learning, social engagement, sport culture and service delivery. Or be released to the market for economic activities, creating employment opportunities and diversity.

GUIDELINE 3.5.12. DEVELOP MULTIFUNCTIONAL FACILITIES

All facilities should be as multifunctional as possible. Generic facility types such as sports fields and halls should be designed and located in a way that affords multiple user groups at different times. Apply the principles of space utilisation, efficiency, multi- functionality and clustering to all facility provision projects.



Diagram 15. Notional Illustration of the Wrapping of School Sites Concept (WCG, 2015a)

	Primary Schools	High Schools	Potential du on Primary Schools	Potential Housing Units on High Schools
George	36	9	2304	576
Mossel Bay	25	4	1600	256
Oudtshoorn	28	9	1792	576
Knysna	18	4	1152	256
Hessequa	22	4	1408	256
Bitou	8	2	512	128
Kannaland	15	1	960	64
TOTAL	152	33	9 728	2 112
	185		11 840	10 656
				less 10% schools fully used

Table 12. Eden District Potential Housing Opportunities Generated through the Rationalisation of School Sites (adapted from WCG, 2017)



Photo 13. Riebeeck Primary, Belhar. The school boundary is wrapped with housing, creating a secure edge to the facility. The school hall, associated with a public space, is located on the accessible street corner of the site and is used by both community and school (WCG, 2015a) .



Photo 14. Facility Clustering Cato Manor, Durban (CMDA)

4.5. Consolidated Spatial Development Framework

4.5.1. Spatial Direction

The composite SDF for Eden District brings together the spatial strategies and policies and depicts the spatial intentions for the municipality in terms of the three spatial drivers of change.

The SDF proposals for the “economy is the environment” are framed to support the improvement of the economic vitality and environmental resilience of the District. These proposals also seek to enhance and capitalise on existing environmental and built assets.

In line with the WCG Southern Cape RSIF, the SDF promotes spatial resilience, climate change mitigation and adaptation through the conservation of natural resources, sustainable resource management and capitalisation of the region’s inherent potential.

The composite SDF includes the latest SANBI spatial mapping of CBAs and the protected and conservation areas as mapped by Cape Nature. These maps indicate the extensive natural resources and distinctive natural landscapes that are synonymous with Eden District. However, the CBA mapping has been carried out at a broad scale and areas need to be ground-truthed to inform land use planning at the municipal scale.

The SDF identifies a clear strategy for the rationalisation and improvement of the regional access network and identifies strategies for managing remote rural settlements. These strategies are based on people-centred development, creating quality living environments, enhancing the lives of the poor through poverty-alleviation and rural development strategies. The SDF identifies the spatial prerequisites needed to improve access to education and skills development. This will empower the youth, poor and excluded communities to participate in the region’s growth sector. This includes more inclusive and affordable physical, virtual and perceived access to

education, skills transfer and development, as well as livelihood opportunities.

For Eden District to thrive and to be safe, sustainable and equitable, all spheres of government must be nimble, innovative, and structured to deliver results. The SDF proposes the re-imagining of streets as public spaces designed to move people, sustain local economies, and support vibrant communities. This will require a re-evaluation and departmental restructuring. This is required to deliver transportation and public realm projects at the scale and pace that the public needs.

The SDF encourages urban design excellence in Eden District, where all spheres collaborate to move from individual project delivery to a comprehensive programme with a pipeline of transformative projects. Some of these projects could include the implementation of viable regional transport services and the redesign of streets to support increased pedestrian and economic activity. The implementation of these projects can be realised through collaboration. This is achievable at a broad scale, rather than attempting to realise projects on a piecemeal basis (Strong Towns, 2017).






The SDF identifies proposals for Sustainable Growth Management to promote spatial justice and efficiency by confirming the role of settlements within the regional space economy. In addition, the SDF aims to promote balanced development that supports the integration and densification of settlements within the District.

The SDF establishes a clear settlement hierarchy, where the role and development priorities for each type of settlement is clearly defined so that they function in a collaborative and complementary manner, mitigating apartheid spatial exclusion.

The quality of life, social inclusion and viability of infrastructure, social facilities and risk mitigation are dependent on the compaction and densification of settlements and mixed use, high quality urban environments. Based on the concept of “complete” neighborhoods, towns and villages, the SDF outlines a strategy of “development towards balance”, identifying settlements such as George, Mossel Bay, Oudtshoorn and Riversdale that have the capacity to accommodate population growth. Other settlements such as Knysna, Bitou and Kannaland, have been highlighted as areas where emphasis should be placed on achieving balance through consolidation. Here the strategy is to promote spatial justice and resilience by optimising under-utilised assets and where appropriate, identifying viable development catalysts for disadvantaged small settlements.



Figure 84. Composite SDF

-  Existing National East-West Routes
-  Upgrade Routes to Serve East -West Function
-  Upgrade Inland to Coastal Routes
-  Mountain Passes
-  Airports

 Harbours

Environment

-  Rivers
-  Critical Biodiversity Areas
-  Cape Nature Protection and Conservation Areas
-  Klein Karoo Landscape

 Garden Route Landscape

Growth Management

-  Settlement Hierarchy
-  Grow Coastal Center
-  Consolidate Coastal Centre
-  Grow Inland Center
-  Consolidate Inland Center

