



HUMAN SETTLEMENT PLAN

PHASE 2: STRATEGIES AND POLICIES

Draft for Discussion

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1. Introduction

1.1 Background

Fifteen years of the South African housing delivery programme has brought shelter to many households. However, economic opportunities, social and community facilities, variety in tenure and typology and the quality of top structures have been sacrificed in the drive to meet the housing demand. The National Department of Housing and its provincial counterpart in the Western Cape have introduced policy reforms to address these oversights. The focus has therefore shifted towards the qualitative aspects of housing and developing settlements as a whole rather than merely the supply of houses.

These shifts are captured in the National Housing Policy (*Breaking New Ground*) and in the Western Cape Integrated Human Settlements Policy (Isidima). Taking the lead from these policy guidelines the Langeberg Municipality aims to address the Housing and its related issues in a strategic manner through developing a Human Settlement Plan.

1.2 The HSP in Context

1.2.1 The HSP: a chapter in the IDP

The Human Settlement Plan is an important sectoral tool within the family of IDP documents. The inclusion of the Human Settlement Plan within the IDP should achieve among others the following key goals:

- Feed into the overall development of municipal policies on issues such as poverty alleviation, economic growth, environmental sustainability, disaster management and delivery of essential services
- Provide the means to communicate with other spheres of government and departments around their concomitant responsibility in human settlement development
- Alignment between the various municipal departments, in particular engineering services, regarding budgeting, planning and implementation in the delivery of joint sustainable human settlements

1.2.2 Role of National Policy: “Breaking New Ground”

Also known as the *Comprehensive Plan for Sustainable Human Settlements*, the National Housing Policy approved by Cabinet reinforces the vision “to promote the achievement of a non-racial, integrated society through the development of integrated human settlements and quality housing”.

- The plan advocates the shift from housing supply to delivering integrated sustainable human settlements by:
- Progressive informal settlement eradication
- Promoting densification and integration
- Enhancing spatial planning
- Enhancing the location of new housing
- Supporting urban renewal, and inner city regeneration
- Developing social and economic infrastructure
- Enhancing the housing product

1.2.3 Role of Provincial Policy: “Isidima”

As stipulated in the Provincial Guidelines on Human Settlement Plans (Western Cape Department of Local Government and Housing, Provincial government’s role is to:

- Work with municipalities to ensure integrated planning and align development programmes and public sector investments with PGDS, PSDF and IDP.
- Identify and release well-located or suitable land for mixed use and mixed-income groups.

- Promote skills development, job creation and empowerment in the delivery of services and housing.
- Develop planning tools for municipalities that will enable them to plan for sustainable and integrated human settlements.

1.2.4 Role of the Local Municipality

Municipalities are responsible for developing IDPs which guide development at municipal level. The outcome of integrated development planning should be appropriate delivery of services and the provision of a framework for economic and social development in a municipality. Integrated development planning and the related Human Settlements Plan process, is meant to deliver not only houses to meet the backlog, but be located within a spatial development framework, economic and social plan which together delivers sustainable settlements.

Within this context, the local municipality is responsible, within the context of their IDP, to define a local housing vision, determine the sustainable settlement evaluation criteria and develop housing strategies for all settlements.

2. Langeberg Municipal Context

This section deals with the approach and process to prepare the Breede River ISHSP; the key findings of the situational analysis and the housing challenge.

2.1 Langeberg Human Settlement Plan Development: Approach and Process

Preparation of the Integrated Sustainable Settlements plan follows a project management cycle approach as a means to firstly evaluate and secondly to redress any gaps or weaknesses within the current housing planning processes (See Figure 1 below). The end result envisaged is an Integrated Sustainable Human Settlement Plan which is comprehensive in terms of coverage but selectively strategic by identifying the most important housing process areas to focus on and improve upon.

Preceding the strategy and policy document, the situational analysis described the housing policy context and evaluated the current problems and challenges facing housing in relation to sustainable settlement development. The current document deals with the strategies and policies which informed by the situational analysis attempts to identify the key strategies for the Langeberg Municipality to undertake which could improve settlements as a whole as well as at the level of the housing project. A range of policies, the tools with which to give effect to the strategies, are selected from a policy primer document housed with the district municipality and is available to each municipality for reference purposes

2.2 The Housing Challenge

To summarise the challenges related to human settlements, the problem can viewed from the supply and demand.

The supply side constraints include, 1) the total national envelope allocated to housing falls far short of the demand, affecting both quantity and quality of housing products. On a local government level issues relate to 2) institutional capacity; 3) the degree to which political policy and spatial planning identified appropriate housing location and settlement growth; 4) bio-physical constraints to settlement growth particularly in the Langeberg Municipal Area; 5) the delivery of quantity rather than quality housing products, and 6) coordination of funding and planning processes.

The demand side in turn contributes to the housing challenge in a number of ways, broadly classified as issues relating to spatial, economic and the social. With the ushering in of a democracy, municipalities have dealt with 1) large in-migration swelling settlement populations within a short period of time, 2) economically, labour markets could not absorb the influx of unskilled labour and socially 3) class and cultural schisms between new entrants to the settlements and older inhabitants often created a resistance to spatial and social integration.

3. Housing Vision and Sustainability Criteria

Vision and Objectives

Developing a vision and a set of objectives for the LANGEBERG sustainable human settlements plan is guided by the national housing vision and municipal vision set out in the IDP. Spelt out below is the national vision and definition for sustainable settlements and the municipality's strategic vision, mission and objectives, and taken together a sustainable settlements vision and mission are drafted.

3.1 National Housing Vision

The National Department of Housing's vision for sustainable settlements aims at promoting a non-racial, integrated society achieved through sustainable settlements and quality housing products. The department's definition of sustainable settlements is based on a classical sustainability definition, that of meeting current and future needs of those inhabiting settlements. Also included in the definition are performance criteria relating to settlement performance especially in the sphere of economic, social and the natural environment.

Based on the national sustainable settlements vision and definition, a number of specific objectives for integrated sustainable human settlements were identified and listed below:

- Create urban and rural settlements that generate meaningful **livelihood opportunities** for all residents.
- Create opportunities for **quality housing and a range of housing options**, adequately provided with the **full range of utility services**, such as electricity and water provision, sanitation and storm water disposal.
- Increase the value of **property as an asset**, in particular those owned by poor communities.
- Locate poor communities **close to economic activity, employment, other social and public services and facilities**.
- Ensure that areas that are **prone to flooding, landslides and contamination** are avoided.
- Create pleasant settlement environments with **adequate landscaping, and passive and active recreational opportunities**.
- Ensure that housing delivery occurs within a framework of **meaningful participation** of the key role players and through a prioritised and accelerated process.

The national vision for sustainable settlements sets the tone for a new focus on housing supply in South Africa.

3.2 Provincial Vision: Isidima Principles

The Provincial Department of Human Settlements has in turn developed a housing framework, 'Isidima', to guide sustainable settlement development in the Western Cape. The principles guiding sustainable settlements are listed below.

- Sense of justice
- Sense of limits
- Sense of place
- Sense of history
- Sense of craft
- Sense of nature

With these principles as a guide for sustainable settlement design, the Province¹ has also prioritised a number of strategies to achieve Sustainable and Integrated Human Settlements. These are:

- Prioritising secure access to basic services
- Acquiring well-located land for planned integrated human settlements
- Increasing densities of new housing developments
- Closing the Gap in the Property Market
- Inculcating a sense of ownership
- Improving Property Management
- A fairer allocation of housing opportunities
- Reducing our carbon footprint

With the national vision and provincial principles as a reference point; the vision and objectives for sustainable settlements in the Langeberg follows in the next section.

3.3 Langeberg Municipality: Vision, Mission and Strategic Objectives

The municipality's approach to fulfilling its overall constitutional mandate is captured in its **vision** (IDP 2007):

'Together we strive for a unified, prosperous community where people are at the centre of development'

The concepts of integration (unity), social and economic development (prosperity) and people centeredness tie in closely with the goals of sustainable settlement development.

Langeberg Municipality's **Mission** is to achieve:

- Good governance/government
- Equity, sustainability and affordability regarding services
- Participation and stakeholder engagement
- Socio-economic development
- A sustainable environment

The mission captures a number of elements regarding sustainable settlements, 1) the idea of well-managed settlements, 2) reliable and affordable basic services 3) social development and economic growth and access to opportunities, 4) development which takes into account the carrying capacity of the natural environment and 5) enrolling the inhabitants in an overarching process to achieve the above.

The municipalities' **strategic objectives** are set out below and stem from the mission, while each one of the objectives is related to development of sustainable settlements as argued above, the first three objectives are directly related to sustainable settlement development.

- i.) Effectively respond to the housing needs of the community
- ii.) Deliver quality basic services
- iii.) Create a basis for local economic development
- iv.) Transform the organization and develop its administration in line with council's new vision
- v.) Practice sound financial management
- vi.) Strengthen public confidence through effective stakeholder involvement
- vii.) Effective management

¹ Department of Human Settlements (2010) Integrated Sustainable Human Settlements: Strategic Objectives (PGWC)

Langeberg Municipality's vision, mission and strategic objectives support and contribute to the achievement of sustainable human settlements. To make these explicit the vision and mission have been adapted to support a human settlement's plan.

3.4 Langeberg Municipality: Sustainable Settlements Vision and Mission

In keeping with the IDP vision, the **Human Settlement's Plan vision** has been developed to read:

'A unified, prosperous community with people at the centre of development through the development of sustainable human settlements and quality housing '

Langeberg **Human Settlements' Plan Strategic Objectives**

- Establish and maintain transparency and good governance with regard to housing delivery and administration.
- Provide equitable, sustainable and affordable services through higher-density housing provision.
- Through community participation processes, identify needs and priorities regarding housing and related amenities, basic services, social and economic priorities.
- Improve efficiencies and prevent sprawl by providing higher-density housing closer to the urban core or within established neighbourhoods.
- Provide a range of tenure options suited to the needs of the settlement inhabitants that facilitate social cohesion and greater participation in the economy.
- Provide a range of housing typologies which accommodates special-needs households, promotes asset development and facilitates home-based economic activities while still in keeping with the receiving environment.
- Improve the urban environment through provision of well-located open space, urban landscaping initiatives and, where appropriate, urban agriculture opportunities.
- Improve safety and social cohesion through location, project layout and design.

The proposed vision and objectives are a point of departure for integrated sustainable settlement development in the Langeberg Municipality. The remainder of Chapter 3 is devoted to evaluation of the settlements in the Langeberg municipal area; specifically aiming at 1) establishing a hierarchy of settlements, 2) selecting towns for sustainable housing supply, 3) assessing the selected towns in terms of sustainability criteria.

3.5 Role of settlements

This section provides an overview of the role and functional hierarchy of settlements within the Langeberg. This will be achieved through guidance from the National Spatial Development Perspective (NSDP) (2003), the Western Cape Provincial Spatial Development Framework (PSDF) (2005), the 'Growth Potential of Towns Study' (2004) as well as the Cape Winelands SDF (2005).

The **NSDP**, a guideline document, recommends targeting public-sector investment into areas which possess economic growth potential and where job creation can be fostered, poverty reduced and social cohesion achieved.

The principles underpinning the NSDP recognise:

- The state's obligation to provide basic services to its citizens where they reside.
- That areas of economic growth or potential and where maximum leverage can be achieved receive priority.
- That people not places are the focus of redressing inequalities. Where settlements show low economic potential, the focus should be people's basic needs and human capital development.

- In terms of redressing the historical imbalance of spatial investment; nodes and corridors should be the focus of investment particularly where they link to existing growth centres.

The **Western Cape Provincial Spatial Development Framework** interprets the NSDP for the province and makes more specific recommendations. Moreover, it includes a set of policies pertaining to densification, infill development, clustering of facilities, accessibility, protection of valuable natural resources and sustainable resource use.

- Align the future settlement pattern of the province with economic potential and the location of environmental resources.
- Strategically invest scarce public-sector resources where they will incur the highest socio-economic returns.
- Support land reform.
- Conserve and strengthen the sense of place of important natural, cultural and productive landscapes, artefacts and buildings.
- End the Apartheid structure of urban settlements.
- Conveniently locate urban activities and promote public and non-motorised transport.
- Protect biodiversity and agricultural resources, minimise the consumption of scarce environmental resources, particularly water, fuel, building materials, mineral resources, electricity and land.

The **Growth Potential of Towns in the Western Cape** was commissioned as an outflow of the NSDP guidelines in terms of investing in towns with economic potential versus towns which should receive social investment. The study proceeded to rank towns according to their development potential and human needs, the following emerged for the towns in the Langeberg Municipal boundary.

Table 1 Development Potential of towns

Town	Human Needs	Development: Quant.	Development: Qual.	Economic base	Town Identity
Ashton	Medium	Medium	Medium	Agricultural Service Centre	Fruit Processing
Bonnie Vale	Low	Low	Medium	Agricultural Service Centre	Pantry of Breede Valley
McGregor	Medium	Low	Low	Tourism/Residential	Historic Cottages
Montague	Low	Low	High	Tourism, Residential	Spa, Muscadel
Robertson	Medium	Medium	High	Agricultural Service Centre	Equestrian Centre, wines, roses

The quantitative development potential and human need ranking of the towns are as follows:

Based on the above-mentioned study, the towns of Robertson and Ashton could benefit from both economic and social investment. Bonnievale on the other hand has less need of social investment, ranking higher than all the towns in the municipal area but having the necessary prerequisites for economic investment.

The **Cape Winelands District SDF** (2005) argues that size and function inform hierarchical significance; the SDF outlines four settlement typologies:

- Core Primary Settlements
- Regional (Secondary) Settlements
- Rural Towns (service centres), and
- Hamlets

According to the SDF, low- and middle-income housing should be located in core and regional settlements. Robertson, and Ashton could be considered regional settlements at the scale of the municipality, considering the economic, institutional and social facilities located in these towns. Montagu, Bonnievale and McGregor are rural towns or even hamlets.

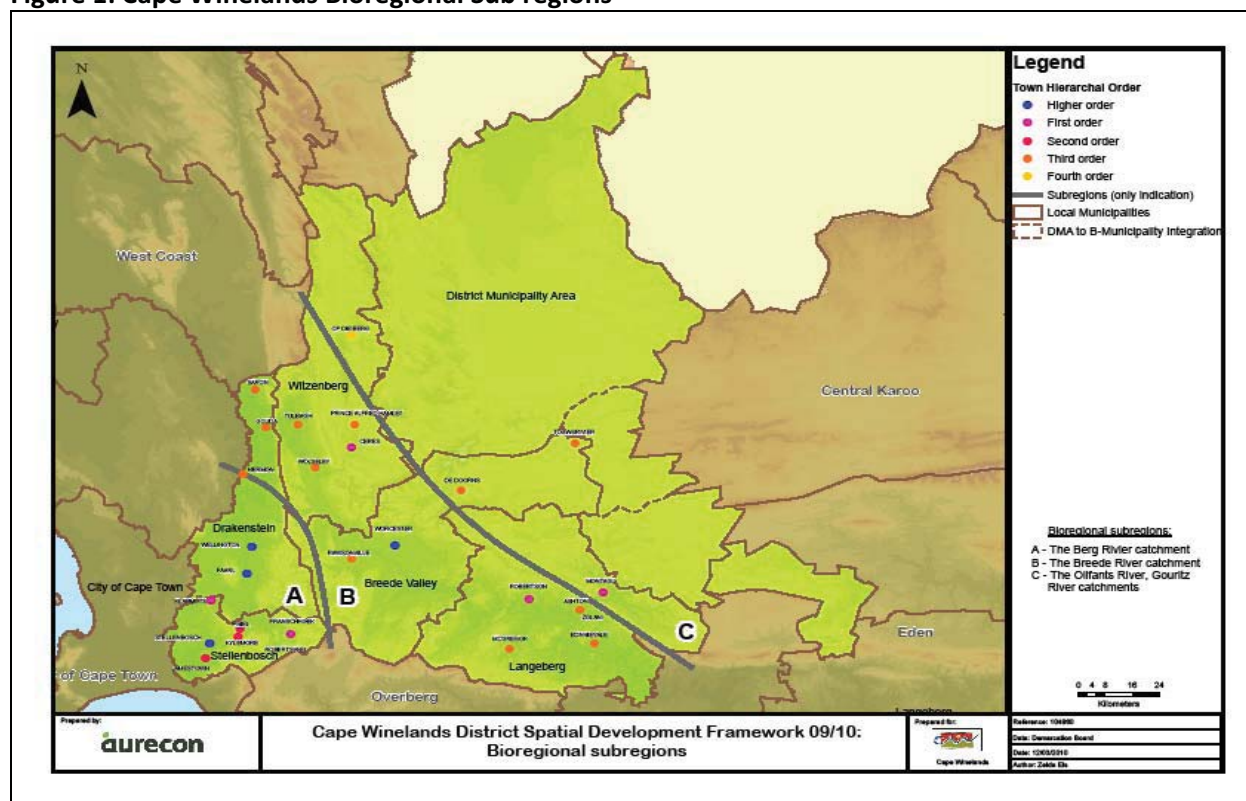
The Cape Winelands District SDF is currently under review. The draft SDF advocates among others the concentration of activity within the current land footprint. Moreover the SDF suggests addressing the housing issues within a settlement hierarchy. Further more, most of the towns are located within the Breede River catchment area, a heterogeneous bioregional area, as indicated in the map below.

Table 2: CWSDF: Strategic Objectives

Obj1	To improve the quality of life for the people of the region by ensuring principle-led responses
Obj2	To ensure collective recognition of ensuing spatial guidelines
Obj3	To manage the impact and exposure of external and internal threats to growth and development (read: sustainable development)
Obj4	To restructure urban settlements (where feasible)
Obj5	To promote the concentration and intensification of human and economic activities within the current land footprint and in areas of high accessibility
Obj6	To promote sustainable resource use and responsible rural development
Obj7	To address housing backlogs within a settlement hierarchy and propose alternative settlement options
Obj8	To foster the inclusion of an economic perspective in land use management and land development
Obj9	To improve and conserve the district's natural environment
Obj10	To consider the spatial rationale for the implementation of government policies within the Cape Winelands district

Source: CWSDF (draft 2010)

Figure 1: Cape Winelands Bioregional Sub regions



Source: CWSDF (draft 2010)

Synthesis: Langeberg Settlement Hierarchy

Informed by the policies and guidelines above, the settlement hierarchy and investment typology could be arranged as follows:

Table 3: Langeberg Settlement Hierarchy

Town	Investment type
Robertson: Regional settlement:	Social and Economic Infrastructure
Ashton: Regional settlement	Social and Economic Infrastructure
Bonnievale: Rural Town	Social Infrastructure
Montagu: Rural Town	Social Infrastructure
McGregor: Rural Town/Hamlet	Social Infrastructure

Robertson and Ashton are suitable for further economic and social investment including housing. Further growth of Montagu and McGregor should be limited and investment should focus on upgrading of current social infrastructure and maintenance of economic infrastructure.

3.6 Settlement Selection

Based on the hierarchical role and function of the various towns in the Langeberg Municipality, Robertson and Ashton were identified as settlements for further growth in terms of housing, social and economic investment. As for the remaining settlements, growth should be limited, not only to preserve the town's rural character, but the opportunity cost of delivering scarce resources to these towns cannot be sustained by any strategic spatial or economic logic. However, attention should be paid to cultural and historic attachments to the settlements and where possible means to accommodate human settlements should be made within the current infrastructural capacity.

Robertson is well known for its wines and an equestrian centre where thoroughbreds are bred and trained. Ashton on the other hand has a more industrial character; it is well known for its canning of fruit and vegetables and is also ideally situated along two major arterial routes which facilitates this role. It is also the institutional seat of the municipality. Montagu is a scenic rural town well known for its hot spring and the muscadel wines it produces. It has an old-world character enhanced by its unique urban agriculture, the well-preserved town architecture and the many hospitality establishments perpetuating the rural character. Bonnievale is well known for its wines, a tourism attraction due to its proximity to the Breede River and for its dairy processing plant. McGregor is a historic town with architectural qualities, even size and layout that render a tranquil rural town with a yesteryear charm.

A common feature, however, of all of these towns is their dualistic nature where largely poor black and coloured townships are located on the edge of these settlements, separated by vacant land, railway lines, mobility routes and natural barriers. On the other hand, the agricultural sector linked to the town core, surrounded by well-established formerly white residential neighbourhoods to a large extent controls the local economy. These constructs and their consequences need to be addressed in every settlement within the Langeberg Municipality.

3.7 Settlement Sustainability Performance Criteria and Evaluation

Evaluation criteria to assess the sustainability of settlements can be considered at the level of the overall settlement as well as at the level of the housing unit. Based on the guiding Isidima principles, the following criteria/principles are suggested when evaluating if settlements are sustainable:

Access to Opportunities: To what extent are opportunities such as housing, employment, economic, recreation, social amenities, utility services, and transport accessible to all the local residents, in particular poor and marginalised individuals, households and communities. Accessibility can be measured in terms of

the ability of individuals, households and communities with limited resources to overcome physical distance (either through walking or public transport); costs and affordability as well as social exclusion.

Place Competitiveness and Employment: The ability of a place to combine its social, historical, physical, financial and entrepreneurial skills and resources to increase its place competitiveness through attracting and retaining businesses and people that grow and develop the local economy. It is also important to consider the degree to which informal economic activity has been accommodated in relation to formal activity, not only within townships, but more importantly within the main town. The ultimate goal should be to increase business and employment opportunities for all existing and new residents, in particular those that are living on the outskirts of main settlements.

Integration: The extent to which land uses are mixed and integrated, recognising that this is not applicable to all land parcels. Also the extent to which townships are physically, socially and economically separated from the main towns. The extent or lack of integration can also be measured by observing the use of land surrounding clusters of community facilities and economic nodes and along public transport routes. It is also important to facilitate mix and proximity of various income groups in order to encourage social engagement and improve the viability and sustainability of both public facilities and private sector investments.

Environmental Resource Sustainability: The extent to which natural resources, such as agricultural land, wetlands, natural vegetation, rivers, mountains are protected. These are critical to the long-term economic and social sustainability of local communities as they form the bases of food security; biodiversity and ensure protection from potentially hazardous environments.

Sense of Place: The extent to which the settlement displays a uniqueness in terms of its people, its history, social structure, physical setting; its built form, public spaces; housing typologies, transport systems, etc, in short its uniqueness as a place. This can be measured in terms of its diversity and vitality of land uses and if it is a unique and interesting place. The opposite of uniqueness, for example, can be observed when all of the main roads of local towns looks the same.

Based on precedent, integrated sustainable settlements are best achieved through establishing compact towns with high residential densities, mixed and interdependent land uses, activities and income groups, local economies strongly linked to the rural hinterland and urban development well balanced with rural and wilderness areas. More so is the incidence of varying developmental partnerships between the public, private, community and NGO sectors.

3.8 Settlement Evaluation

The table below provides a brief evaluation of the three selected settlements in the LANGEBERG Municipality. Each of the assessment themes or concepts; Access to opportunity, Place Competitiveness, Integration, Environmental Resource Sustainability, Sense of Place, can be further broken down into a range of concepts which require measurement and indicators. However, the purpose of the evaluation is to be brief and descriptive rather than in depth and analytical. The evaluation is undertaken primarily from a housing vantage point. In the table below each settlement assessed according to the respective criteria.

Table 4 LANGEBERG Sustainable Settlement Evaluation

<i>Criterion/</i>	<i>Access to Opportunity</i>	<i>Place Competitiveness</i>	<i>Integration</i>	<i>Settlement Scale: Environmental Resource Sustainability</i>	<i>Sense of Place</i>	<i>Housing Unit Scale Sustainable Resources Use</i>
Settlement						
Robertson	High	High	Medium	Medium	High	Low
Ashton	Medium-High	Low-Medium	Low	Low-Medium	Low	Low

Montagu	Medium-High	Low-Medium	Low	Low	High	Low
Bonnievale	Low	Low	Low	Low	Medium	Low
Mc Gregor	Low	Low	Medium	Medium	High	Low

3.9 Settlement Evaluation: SWOT Analysis

The assessment against the sustainability criteria provides an overview of the shortcoming and weaknesses of settlements vis a vis sustainability. However, it does not provide a full picture of the strengths potential and opportunities for incorporating sustainability measures into settlement development. The strengths, weaknesses, opportunities and threats (SWOT) analysis below attempts to identify areas where sustainability can be incorporated into settlement growth and development.

Table 5: SWOT Analysis

Settlement	Strengths	Weaknesses	Opportunity	Threats
Robertson	-Location -Transport route -Diversified economy	-Sprawl -Single tenure/monotone typology	-Integration (economic, spatial) -Densification	-Growing settlement - Pressure on Infrastructure and natural resources/ environment
Ashton	-Industrial business -Regional Transport route intersection	-Lack of place identity	-Passing trade through the town -Housing typology and architecture to strengthen place identity	-Dispersed settlement form -Social Exclusion
Montagu	-Scenic location -Tourism industry -Agri-business	-Sprawl -Single tenure/monotone typology	-Tourism -Extending the towns identity to include outlying areas	-Social exclusion -Natural disasters
Bonnievale	-Agri-business -Scenic location -Tourism	-Lack of integration -Sprawl -Single tenure/monotone typology	-Housing typology and architecture to strengthen place identity -Tourism facilities along main route -Integration (economic, spatial) -	-Social Exclusion -Pressure on Infrastructure and natural Resources
McGregor	-Architectural/Cultural Heritage	- Exclusion - Informal housing - Biophysical barriers	- Housing typology and architecture to strengthen place identity -Tourism facilities along main route -Integration (economic, spatial)	- Natural disasters - Social Exclusion - Pressure on Infrastructure and natural resources/ Environment - Economically stagnant

SWOT: Summary

Strengths

The selected towns in the Langeberg area enjoy scenic natural, historic and agricultural landscapes, which contribute to their economic development, identity and a tourist attraction. The towns are well served by bulk infrastructure services along or close to major arterial routes. They benefit from fairly diverse economic activity.

Weaknesses

New housing developments have largely been located at the periphery of the urban core. These largely poor areas are dislocated from the main historic settlements. Further, they lack the greening and definition of the historic town areas, and in addition, the housing units provided are of poor quality (mainly due to budgetary and design constraints).

Opportunities

Opportunities for densification and infill exist in all towns. Also, creativity around sourcing alternative funding, which in turn but is not dependent on improved settlement and unit level design features could enhance sustainability. Economic opportunities and means to integrate economically should be sought.

Threats

Land availability and costs along with bio-physical barriers prove a significant challenge in the Breede River Valley Municipality. Pressures on the environment and infrastructural services are a potential threat. Natural disasters threaten the area as do the socio-economic exclusion.

This chapter has explored the National and Provincial guidelines and imperatives. It has also indicated the role of the settlements which lends direction to the settlements' which should receive priority for settlement expansion and investment. In addition, the performance of the various settlements wrt to sustainability was investigated and the chapter briefly explored some of the strengths weaknesses and opportunities for each settlement which a sustainable human settlement strategy should take cognisance of and could contribute towards improving the settlements' performance as a whole and with regards to housing as a stand alone priority.

4. Towards Sustainable Settlements: Strategies and Policies

This section deals with identifying suitable sites for housing and community facilities in order to achieve integrated sustainable human settlements.

4.1 Strategic Approach

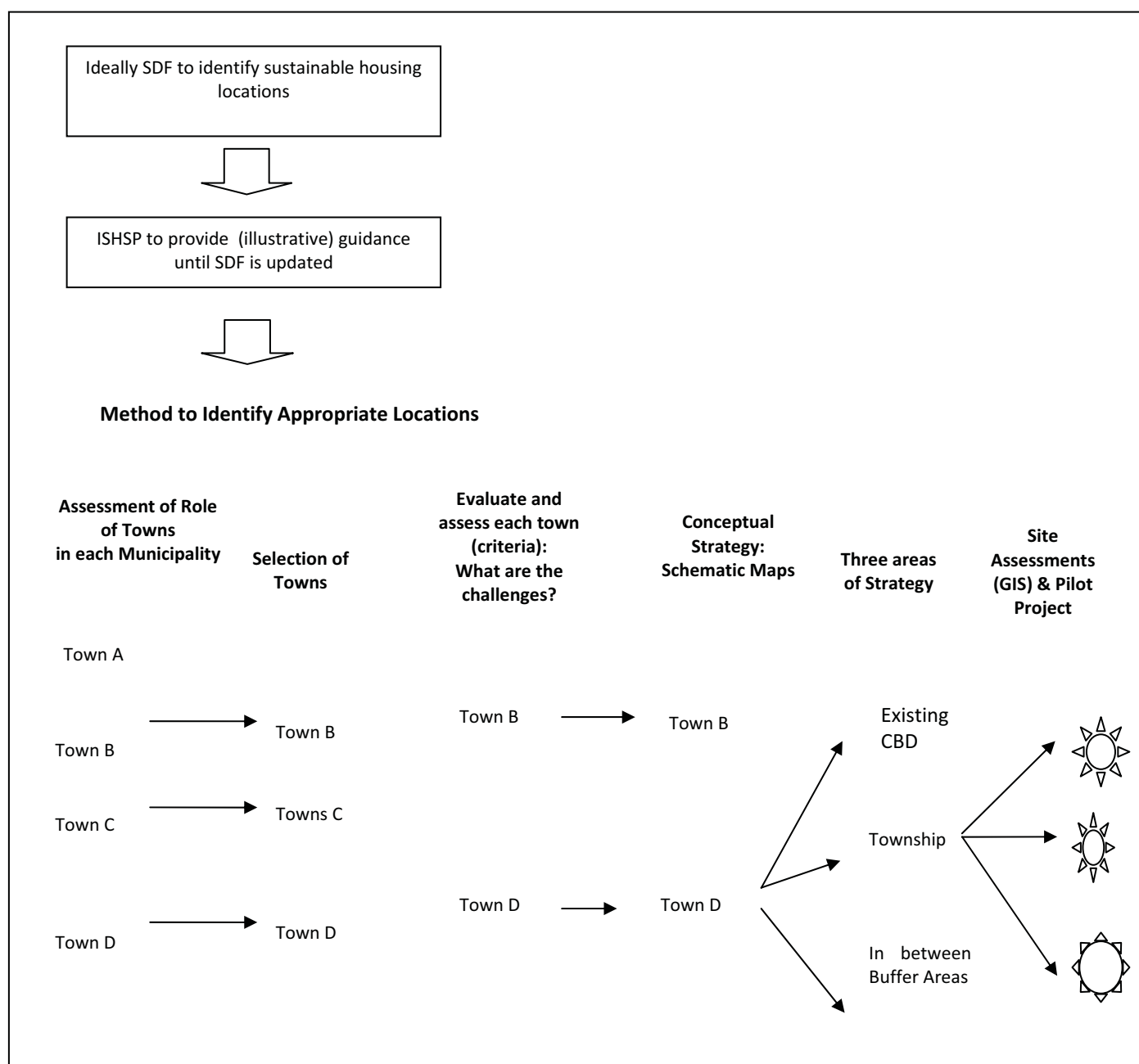
Ideally the municipal SDF should provide the strategic guidance at a level detailed enough to provide direction for housing development. The SDF is currently under review; currently the status quo document is available and provides the following strategic guidance for town growth.

Way Forward

Although the current SDF therefore provides some indication of spatial restructuring for the various local towns; it lacks adequate details on how the SDF should guide new housing locations

However, it would be unrealistic for the municipality to put all housing developments on hold until this has been achieved. Therefore the Langeberg HSP has proceeded to explore a conceptual understanding of the spatial structure of these settlements. This approach is illustrated in the figure below.

Figure 2 CWIHP Method to Identify Sustainable Housing Locations



Please note, following this does not negate the need for a more comprehensive and thorough SDF. Rather this approach seeks to ensure that housing projects are identified with a far better understanding of the impact on the selected settlements. The conceptual approaches for the selected settlements are therefore largely illustrative.

The key settlement strategies with accompanying policies employed for the Langeberg Municipality focus on:

- a. Ideal locations for sustainable housing within three key areas:
 - i. The established CBDs;
 - ii. Marginalised areas (townships); and
 - iii. Integration, linkage or buffer areas.
- b. How sustainable housing should be undertaken, (appropriate policies have also been identified to accompany these strategies) .
 - i. focussing on strategies such as infill, densification,
 - ii. and provision of appropriate housing typology,
 - iii. community facilities,
 - iv. urban greening and
 - v. development of activity streets.

Please note, issues pertaining to land ownership and zoning have been deliberately omitted from considered at this stage. What is of more importance is the question of what would an ideal sustainable settlement look like without any obstacles (key factors are well located vacant land); only thereafter deciding on what is appropriate are the barriers to sustainable settlements incorporated.

4.2 Overarching Cape Winelands ISHSP Strategies and Policies

As mentioned above, the spatial strategy adopted is to investigate ways and means of improving settlement sustainability housing and facility provision by looking at three areas 1) CBDs or the urban core, 2) Marginalised areas (often race based townships) and 3) Linkage, integration or buffer areas. The generic rationale and strategies for these three areas are dealt with below.

4.2.1 CBD and Associated Suburbs

Rationale: The existing CBD and associated suburbs are generally well supplied with good education, health and other social facilities. These areas are also closer to work and good quality recreational facilities. These areas are ideal for densification, infill and redevelopment to create a wider range of residential opportunities. This should, however, be done in a manner that complements the architectural heritage of towns in the municipality and improves the quality of life for all.

Strategy 1: CBD Densification and Infil

Objectives

To encourage the inclusion of a residential component in development and redevelopment of CBD sites. This will contribute to:

- providing rental housing opportunities for low- to middle-income groups;
- increasing the population threshold in order to support wider variety of commercial and social land uses;
- reducing the reliance on car transport and improving the viability of public transport; and
- making more efficient use of existing bulk infrastructure.

Components

-“Gap” housing flats on top or rear of commercial uses

Mechanism

Private Land

- Consolidation, rezoning and redevelopment of privately owned land
- Possible rates rebates, lowered service connection fees and assistance and support to address land use management issues.
- Allowance of this within the zoning scheme.

Public Land

- Make well-located public land available for infill housing projects, specifically catering for the “gap” market at high densities.

Strategy 2: Densification of CBD Suburbs

Objectives

- To allow subdivision and the densification of existing residential properties within suburbs.

Components

- “Gap”/Social/Rental housing in the form of flats; second dwellings

Mechanism

- Consolidation and redevelopment of sites.
- Subdivision of larger plots and the construction of second dwellings.
- Inclusion in SDF a basic policy on the types of densification suitable for the various parts of CBD suburbs.

4.2.2 Linkage Areas between CBDs and Townships

Rationale: These areas have traditionally been set aside as Apartheid buffer areas and have generally better development potential than the township. They also offer the opportunity to link the historic CBDs with the townships.

Strategy 3: Strategy Infill Development – Linkage Areas

Objectives

To focus on areas between the townships and the CBD areas for infill developments. The important point of this strategy is to direct growth to these strategic infill areas, away from the periphery of townships furthest from opportunities.

Components

Ideally this should be mixed use developments, with significant non-residential activities (retail; community facilities, etc) but also ‘gap’ and affordable housing. This is to facilitate usage by the broader community and facilitate economic and social integration.

Mechanisms

It is recommended that these sites become HSP project areas.

Strategy 4: Improve Connections, Promote Activity Streets and Reduce Barriers

The hallmark of Apartheid townships is the extensive use of barriers such as fast mobility routes, railway lines, large vacant land, etc as barriers to reduce connection between townships and the historic CBD areas. Township routes were also designed as loops to avoid links with road network grids in historical CBDs.

Objectives

Promote the development of activity streets between historic CBDs and township. Encourage and support businesses along the activity streets. Focus on improvement of public transport facilities along these routes. Improve also non-motorised transport links between townships and the CBD. Reduce the carbon footprint of settlements as well as the cost of transport to residents.

Components

This could include new road links, provision of pedestrian pathway and cyclist routes.

Mechanisms

This could include de-proclaiming certain roads; removal of fencing; building missing link in road systems etc. Generally the MIG and municipal annual budgeting could be used as funding sources.

4.2.3 Township areas

Rationale: Virtually all former black and coloured areas are located either on the edge or far outside the historic CBD areas. These areas will require considerable redevelopment, in order to improve the quality of the environments and the asset value of residential properties. Apart from the obvious difference in the quality and size of houses between the former white areas and the townships, the lack of green spaces, trees and proper sidewalks, present the starkest contrast between these areas.

Strategy 5: Improvement of Community and Public Facilities

Objectives

To improve the quality of community and public facilities in townships, so as to improve the quality of life of local residents and increase the asset value of residential properties.

Components

This includes provision of needed day care centres, play areas and the improvement of education and health facilities. Also critical is the planting of trees, improving the quality of sidewalks, improving public spaces and play areas, and cleaning of rubbish. Although it is understood that these programmes are difficult and costly to implement, this is regarded as a critical aspect of improving the asset value of properties. It also has environmental benefits such as assisting with storm water retention and drainage and creating cooler micro-climates.

Strategy 6: Development of Township CBD areas and Activity Streets.

Objectives

The planning of older townships made provision of a local CBD, focussing on community facilities and commercial activities. However, for various reasons, most of these never developed significantly. A key constraint with these local CBDs is that due to their location, they only depend on local buying power and do not benefit from passing traffic.

Components

This could include a wide range of activities:

- Appropriate commercial; retail developments; art and craft markets, etc;
- Informal trading areas; public squares, open spaces and parking;
- Mixed-use developments, including 'gap' housing, rental, sectional title and combinations of these; and
- Focus on activity streets, which are well used public transport linkage routes between the township and the CBD (see below).

Mechanisms

- Development of these areas will require carefully structured public-private partnerships; possibly using grants such as MIG and NDPG.
- In most cases the land is owned by the municipality and could therefore be used with appropriate infrastructure funding to attract private-sector investors.

Strategy 7: Alternative Housing Typologies

The current subsidised housing projects provide only single houses on a small erf that not only limits shelter options and but also creates bland mono-functional environments.

Objectives

To provide a variety of housing tenure options within quality high-density environments. These environments have significant sustainability advantages (e.g. shorter service lengths required, more thermal mass for buildings, etc.)

Components

- Both purchase and rental schemes: semi-detached, duplexes; blocks of flats; row housing; etc.

Mechanisms

It is accepted that there are some issues regarding perceptions and preferences amongst beneficiaries, but it is suggested that some effort should be made to educate and inform communities of the various options available and the pros and cons of each.

Strategy 8: Appropriate Single Subsidised Housing

There is some concern with the current housing model in terms of size of erven and the placing of the house, and that it does not allow for sufficient street surveillance (windows are often placed on the side walls, very close to neighbouring properties). Also, the space on the erf is not optimally being used thereby limiting the potential to have functional gardens and enable future expansion of the house.

Objectives

Ensure that single subsidised housing is designed and placed so that it contributes to the public environment and can be expanded. The objective is to increase the functionality and the asset value of the house.

Strategy 9: Small Scale Farming/Community Gardens

Persistent high levels of unemployment, coupled with the current global financial crisis, necessitate the need to facilitate food security and augment current (mainly grant) source of income for the poor.

Objectives

To make suitable land available for small scale farming/community gardens, in close proximity to residents.

Components

Land parcels for small-scale farming, could include food crops, grazing and community gardens.

Mechanisms

This should ideally be through partnerships with NGOs and the community, as well as supporting government agencies such as the departments of Social Services and Agriculture, to ensure the long-term viability of such projects

4.3 Application of ISHSP Strategies to Langeberg Towns

4.3.1 Robertson

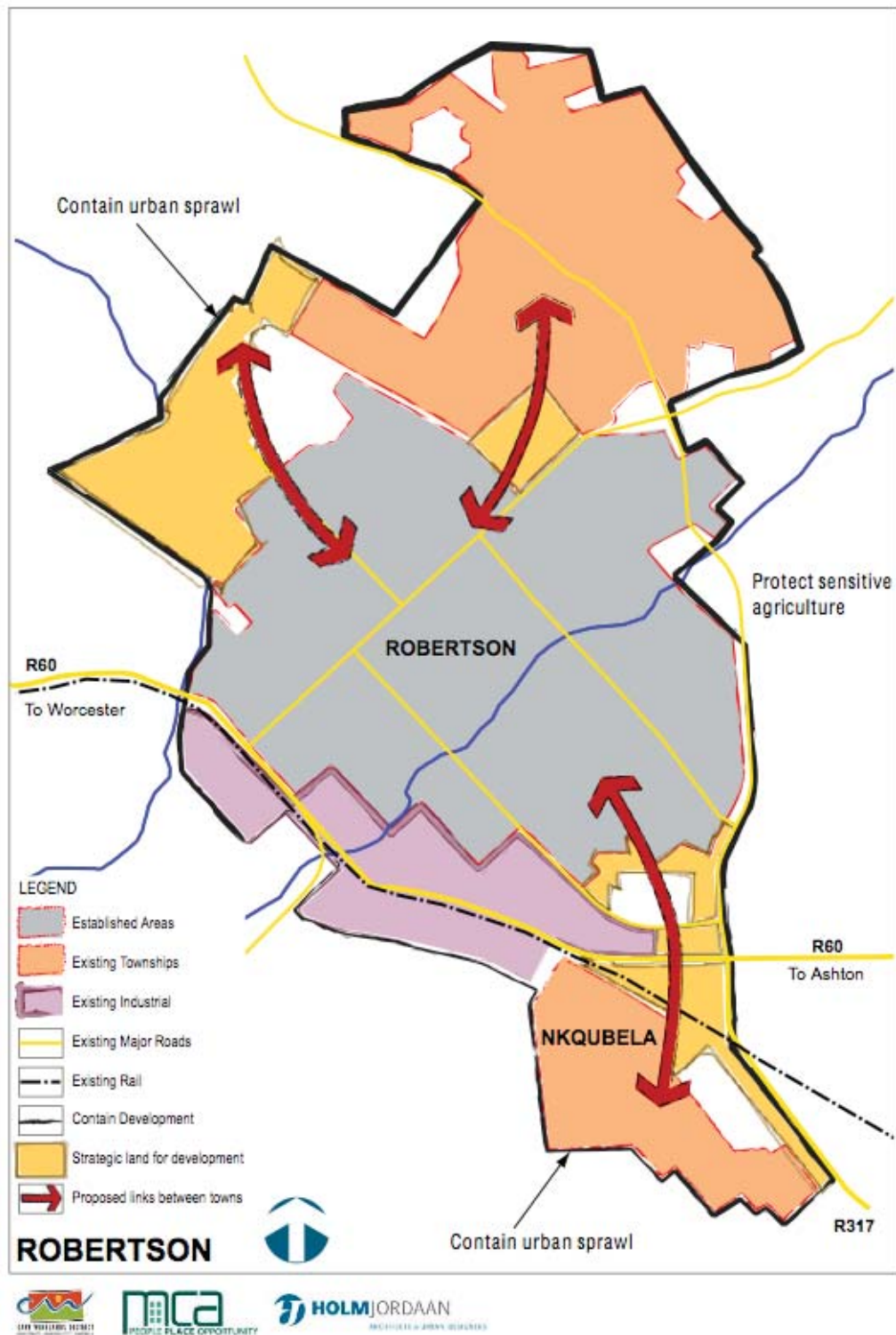
The following provides suggestions for possible locations for housing projects.

Conceptual Strategy

Figure 3 below illustrates a Conceptual Spatial Structure for Robertson, illustrating:

- The location of the townships in relation to the established CBDs
- Barriers such as the railway line
- Key road linkages and road connections
- The need to contain urban sprawl (urban edge to be identified through SDF study).
- Focus of integration, connectivity and links between settlements
- Strategic land for development

Figure 3: Robertson: Conceptual Spatial Strategy



Proposed Integrated Sustainable Human Settlement Strategy

The following strategies are proposed for the CBD, marginalised and linkage areas.

CBD Area

Strategy: Infill and densification

The land surrounding the Callie De Wet stadium is recommended for developing mixed use, medium density, mixed tenure options for gap, rental and the low-cost markets. The site is close to the industrial area, sports facilities, and social amenities and relatively close to the CBD.

Sites identified in Robertson north are also ideal for infill with medium-density gap housing. The sites are close to the CBD and social amenities. Other possible sites are currently agricultural land within the urban edge that are well located, but would be costly to acquire. Land swapping should be investigated.

A further site, south and west of Van Zyl Street Sports ground and adjacent to the cemetery could be investigated for higher density, gap housing or low-cost housing. The appropriate typology is recommended as the site abuts valuable agricultural land and the cemetery. The site proximity is ideal, less than a kilometre from the CBD.

Linkage Areas

Strategy: Main street extension and Provision of Commercial Facilities

The site north of Nqubela, between the main road and the township, adjacent to the weighbridge is an ideal integration site linking the township to the main town. Extension of the street interface, as is the case along the town entrance portion of the R60 route is recommended. This initiative could contribute including Nkubela as part of Robertson. Land uses could include retail or commercial for craftwork and small business supplying the general public and tourists. The successful development can be enhanced through appropriate layout and design and ensuring that the development has access and fronts onto the main road, as is the case to the south of the CBD.

Marginalised Areas

Strategy: Urban Greening and Upgrade

Both Robertson north and south would benefit from urban greening and landscaping. Particularly in the south, road upgrades, pavements and play parks are required, which again would improve the residents' quality of life and enhance the sense of place of the area and contribute to enhancing housing units as a capital asset.

Strategy: Infill

Both the north and the south have various pockets of land identified where medium density housing with varying tenure options for a broader market could be provided.

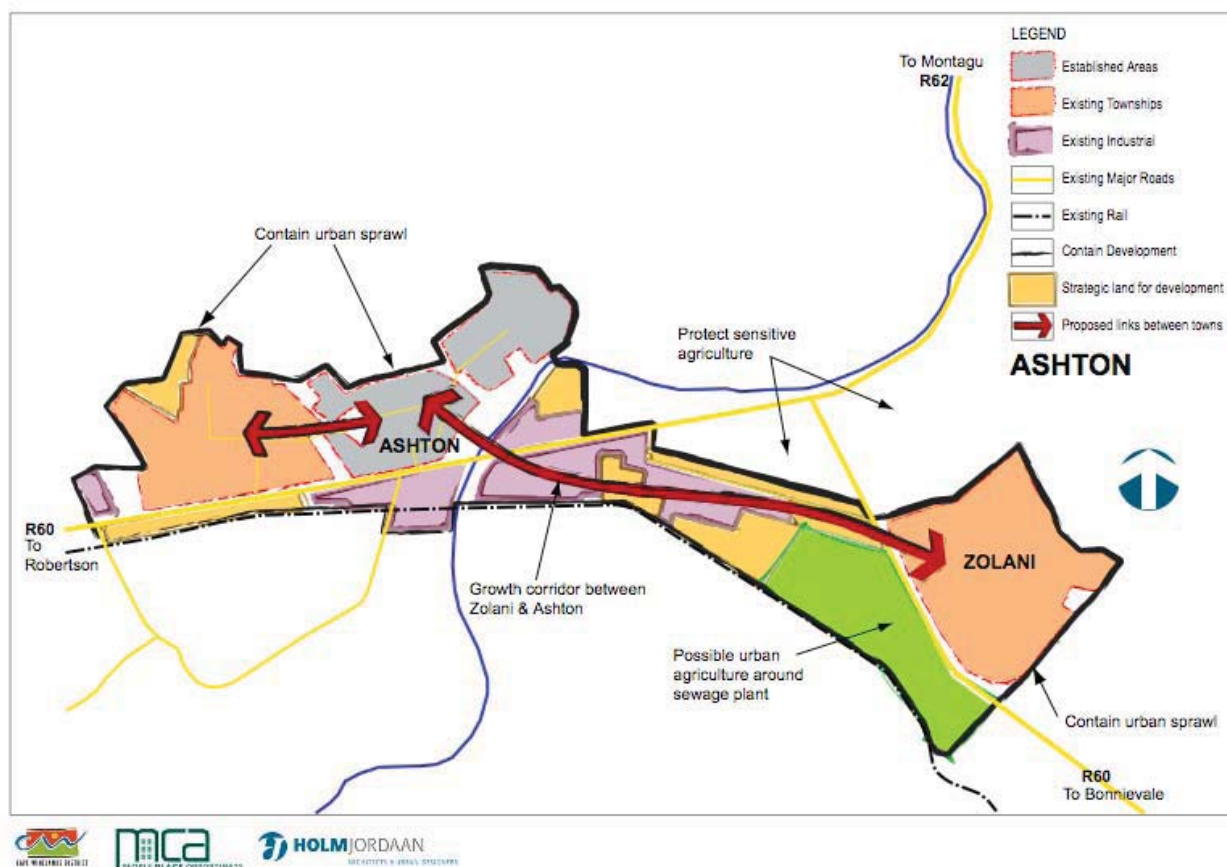
4.3.2 Ashton

Ashton is different from the other Langeberg towns, in that it is dominated by food processing industries.

Conceptual Strategy

The conceptual spatial strategy for Ashton is illustrated in Figure 8 below. This illustrates the need to facilitate linkages between Zolani, the CBD, Cogmanskloof and Conradiedorp.

Figure 4: Ashton: Conceptual Spatial Strategy



Proposed Integrated Sustainable Human Settlement Strategy

Opportunities for sustainable housing developments exist in the CBD, the marginalised areas and the in-between areas.

CBD Area

Strategy: Infill along access route

Along the south-western entrance to the town, promote medium-density low-cost and gap housing. Ensure the appropriate housing typology matches the heritage of the LANGEBERG area where a vibrant interface can be created with the town's access route. Providing appropriate typologies for the character of the environment could enhance the gateway to the town. For example, a row of mixed-use activities (commercial/residential) could be encouraged to create a vibrant interface with Main Road, while limiting access (e.g. service roads and parking at the back).

Strategy: Infill and Integration

A vacant site which has been identified in the industrial area, shows potential for infill, densification and an appropriate housing typology. The site also provides an opportunity for providing a diversity of housing tenure options, which could also accommodate seasonal workers.

Linkage Areas

Strategy: Infill and Activity Street development

The vacant land between Zolani and the CBD is ideal for infill development to support the principles of integration, connectivity and merging the two historically separated areas.

Erven 1869-1879 (Uitspan street)

This site is located in the older residential area on the border between the erstwhile coloured (Cogmanskloof and Conradiedorp) and former white areas of Ashton, thus providing an opportunity for integration. The site is ideal for medium-density housing opportunities for the gap market.

Marginalised Areas

Strategy: Urban Greening and Community Facility Upgrade

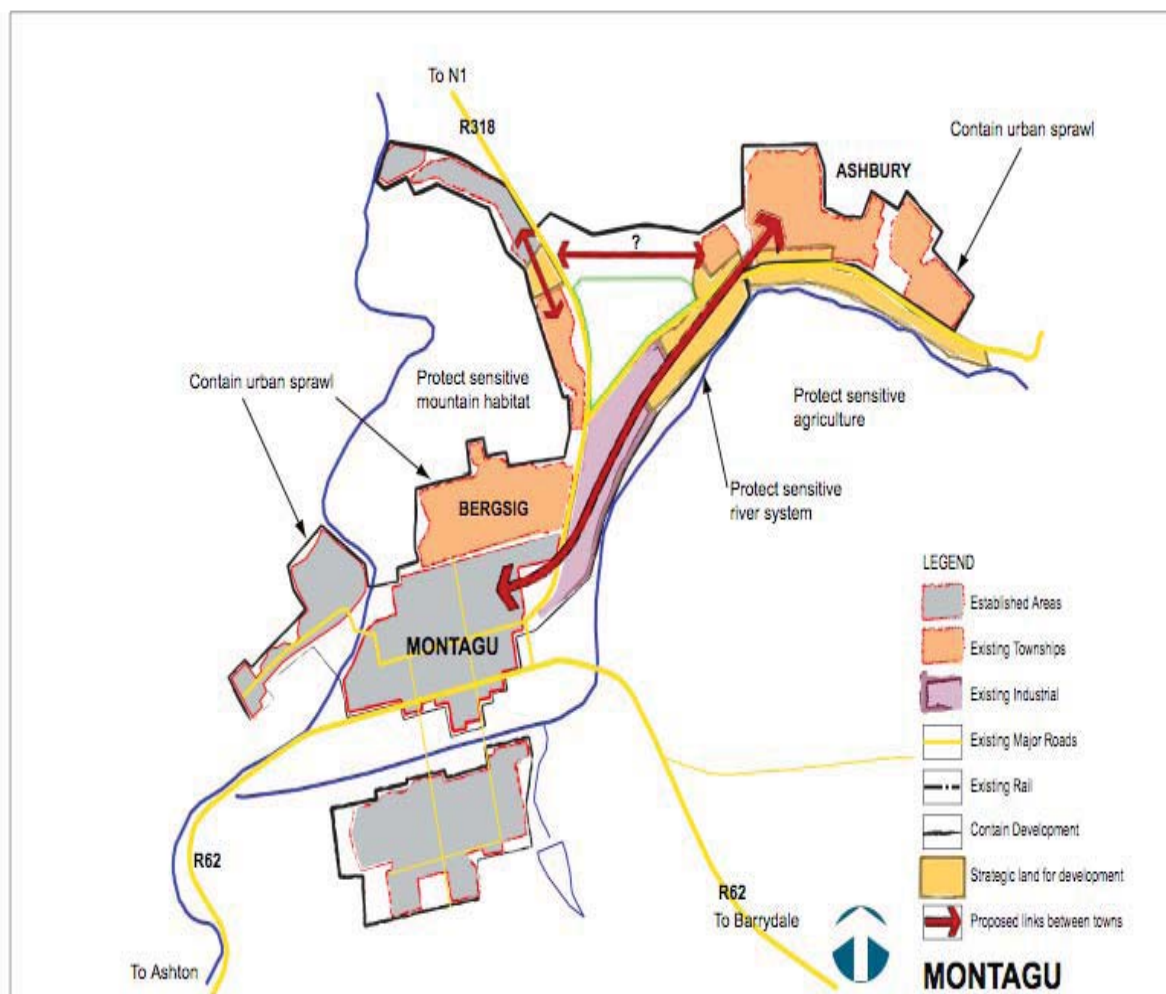
Areas such as Cogmanskloof, Conradie and Zolani can be significantly improved through appropriate street landscaping, tree, bush and shrubbery planting, street paving, and road upgrades as well as the improvement and provision of much needed community and social facilities. These should be undertaken along the main access roads and key internal roads. These interventions would increase the desirability of these areas and indirectly contribute towards increasing the asset value of residential property.

4.3.3 Montagu

Conceptual Strategy

The figure below illustrates the need to integrate and link areas such as Ashbury and Bergsig with the Montague CBD area. The area is significantly constrained by geographic features (mountains and rivers), while the rich architectural heritage of the town (Edwardian, Victorian and Cape Dutch) should inform future developments, in particular the CBD.

Figure 5: Montagu Conceptual Spatial Strategy



Proposed Integrated Sustainable Human Settlement Strategy

Possible areas of intervention exist within the CBD, the townships and the linkage areas. These are illustrated in the figure above.

CBD Area

Limited land exists for development within the CBD. However, where private sector redevelopment opportunities do emerge, developers should be encouraged to include variety of tenure and housing options within developments. The potential of providing flats above commercial and businesses should also be encouraged.

Linkage Areas

Strategy: Activity street extension and Infill

The access road to Ashbury is abutted by a golf course to the north and the Kinga River and agricultural land to the south. North of the road, a large road verge and a number of vacant erven are available for possible mixed use and residential-commercial, and development of an activity street and tourist facilities could be developed given the plush valley and river providing superb views. This serves the function of integrating communities and the various land uses, sports/open space, agricultural land, commercial and residential. Extension of activity along the main road to this area is recommended as a means to include the town's distant residents as part of its identity and provide economic opportunity through capturing tourist traffic and golf enthusiasts.

Marginalised Areas

Strategy: Infill and Densification

Various vacant sites in the former coloured areas (e.g. Bergsig) and municipal owned land close to the hospital in the south of Montagu should be investigated for infill and densification.

Strategy: Urban Greening and Upgrade

Ashbury and Bergsig require greening, paving and internal road upgrades to improve the general appearance of the area, in so doing enhancing the sense of place. Creating functional open space is recommended, particularly the ravines marring and dividing the area into three distinct pockets.

Strategy: Infill

The land south of the Ashbury access road is ideally suited for low-cost housing of varying densities and typologies. Considering the strategy for the linkage area, both the typology and supply of housing serve to stitch the outlying areas with the town core.

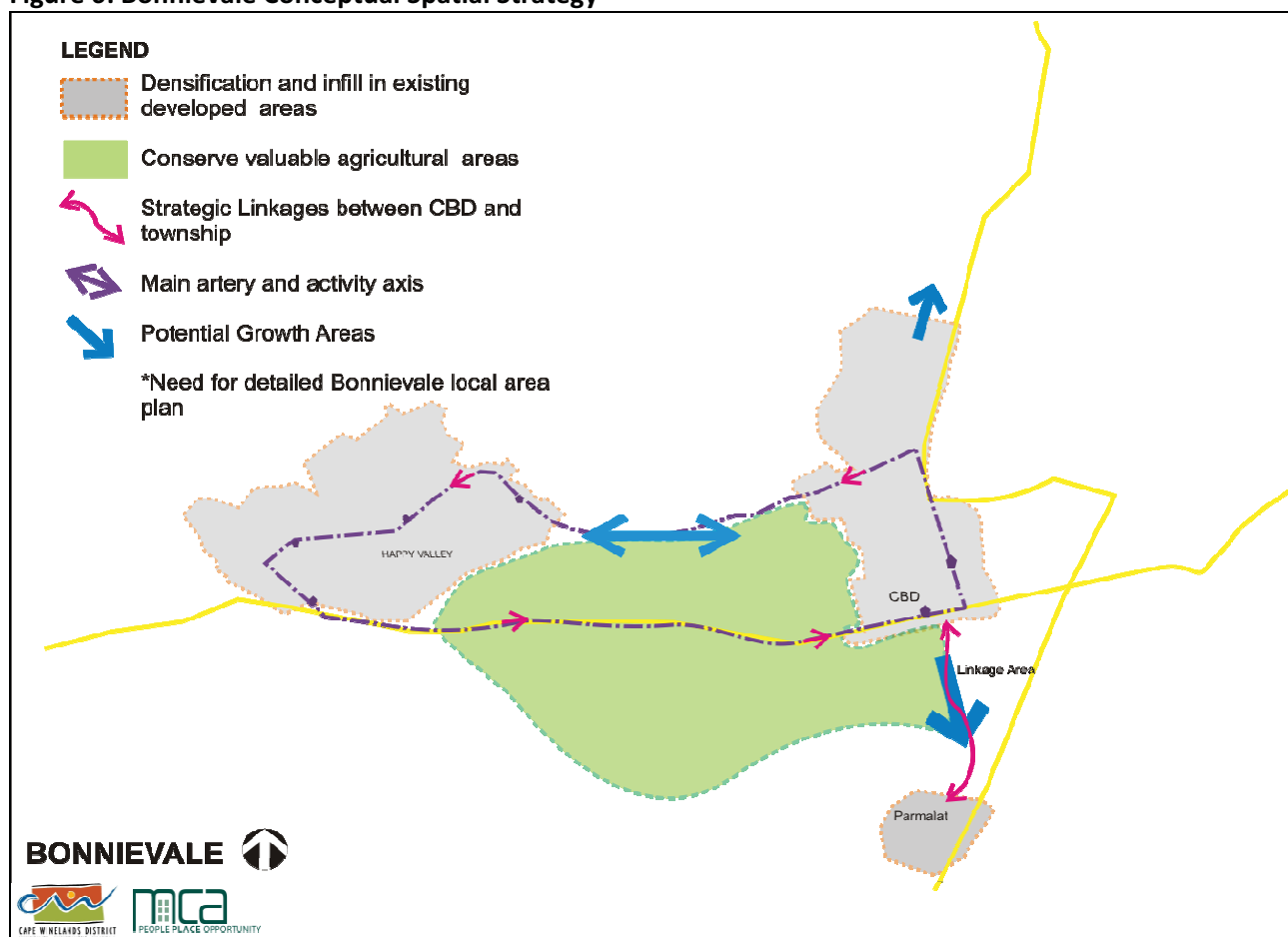
4.3.4 Bonnievale

Conceptual Strategy

The conceptual map indicates shows areas for densification and intensified development in the north of the settlement and the southerly aspects of the town. Growth can be possibly be fostered in the southern end of the settlement in an westerly direction, towards the industrial agri-plant located west of the Breede river along the access route. The unique urban agricultural elements of the town should be preserved which contributes to the identity and the economic potential (tourism and agriculture) of Bonnievale. Further linkages and strengthening of existing access routes between the CBD and the northerly outlying suburbs (Happy Valley) these could include north-south linkages east of the main road.

The inherent bio-physical limitations of the town preclude a satisfactory solution consistent with sustainable settlement principles. It is for this reason that the SDF should explore the role of and define the optimal growth limitation for Bonnievale in the medium term. A detailed local area plan should be developed for the settlement and should investigate more fully the issues raised.

Figure 6: Bonnievale Conceptual Spatial Strategy



Proposed Integrated Sustainable Human Settlement Strategy

CBD Area

Opportunities for infill and densification currently exist in the historical town core. The appropriate typology, architecture and target market needs to be determined.

Linkage Areas

Growth in a southerly direction from the northern suburbs to the CBD is limited due to the valued agricultural land and the mountainous terrain placing a constraint on development. possible avenues for extension exist between the CBD and the western industrial development which also currently includes an area for employer housing already developed.

Marginalised Areas

A number of opportunities exist for infill and densification in the marginalised areas. The southern (historically more established area of the suburb) holds a number of infill opportunities; in addition the south western flank of the suburb can be more intensely developed contributing to an improved urban form and supporting stronger access routes into the suburb and towards the CBD. Urban greening, paving are also recommended to improve the sense of place.

4.3.5 McGregor

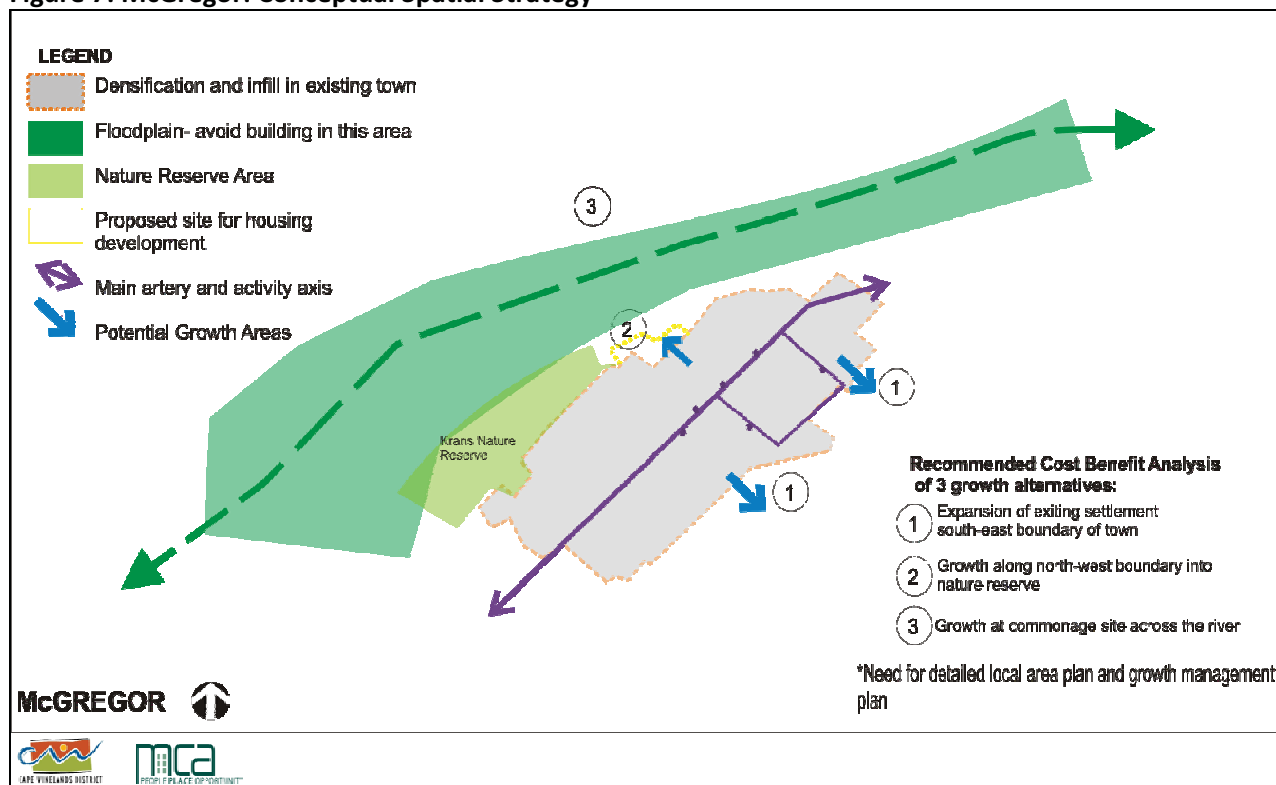
Conceptual Strategy

Currently at least three development scenarios are detailed in the conceptual strategy. However, it is recommended that the scenarios be developed in a transparent manner in conjunction with the community along with a detailed local area plan which determines the role of the settlement its growth constraints. The scenarios as per figure below, show 1) expansion in an easterly direction and where most of the demand is currently pent up, 2) growth on the north western flanks of the settlement; and 3) development in a far north westerly direction across the river. Each of these options holds either

environmental constraints or a combination of environmental risk and accompanying financial cost to mitigate the constraints. For this reason, it is recommended that a cost benefit analysis be undertaken to determine the true cost of development in any of the options.

As the map shows, the natural activity axis runs in a north south direction. In addition, over time a secondary activity loop has developed the east of the settlement. Consolidating these axes in a manner conversant and supportive of the heritage of the town needs to be investigated.

Figure 7: McGregor: Conceptual Spatial Strategy



Proposed Integrated Sustainable Human Settlement Strategy

CBD Area

Infill opportunities and densification through subdivision especially for the gap or lower-middle income market exists. These options could be exercised along with the private sector.

Linkage Areas

The nature of the settlement, its history and the surrounded natural environment has to date limited any growth in disjuncture with the CBD. No linkage strategy is required.

Marginalised Areas

The marginalised areas are atypical of the areas within the Langeberg municipality. They are spatially indistinct from the core of the town; however services and formal top structures are required. informal settlement upgrade should be explored and further housing supply should be explored cognisant of the rich architectural and natural heritage of the receiving environment.

4.4 Policy Guidelines

This section deals with the appropriate policies required to implement and realise the strategies required to establish integrated sustainable human settlements. A range of generic policies have been developed for the Cape Winelands District Municipal area and serve as a policy primer (*Cape Winelands District Draft Housing Policy*) from which the Langeberg Municipality can draw from as needed. The following section provides a list of the policies.

- Sustainable Environmental Resource Utilisation
- Densification
- Integration
- Housing Typologies
- Community Facilities
- Economic Opportunities
- Transport
- Utility Services
- Safety and Security
- Food Security
- Special-Needs Households and Child-Headed Households
- Emergency housing
- Housing for Rural Dwellers
- Land Swop and Acquisition/Land Banking

Together these guidelines form the backbone of the policies needed to implement the strategies required to gear the supply of housing towards more sustainable settlements. Policies will need to be adapted and where necessary passed as municipal by-laws to take full effect.

5. Conclusion

The strategies and policies outlined in this document will form the basis for developing the business case in the next phase of the project.

Some of the implications for the business case phase include the following:

- *Partnerships*: Given the cost constraints of implementing certain elements of the strategies (typologies/renewable energy), it is recommended that relationships be developed with a range of public, civil and private partners that could fund or support sustainable housing or settlement development.
- *Realigning Expectations*: Changing the urban form of local towns to be more integrated and inclusive, is a long-term goal. Trade offs are required that will enable packaging the implications of achieving sustainable settlements in a manner which can generate support from all sectors of the community.

Defining the required strategies to improve sustainability at a settlement level, housing project level, and housing unit level is a critical component of the *Integrated Sustainable Human Settlement Plan*. This phase answers the question of what to do, where to do it and to some degree how to do it. The project cycle approach, however suggests a more detailed work plan of the strategies, the content of the next phase: *The Business Plan*.



Human Settlement Plan

Phase 3: Business Plan

Draft for Discussion

May 2010



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1. Introduction and Background

1.1 The Project Brief and Approach

This document presents a business plan for the Langeberg Municipality (LM) Human Settlement Plan (HSP). The HSP reflects the shift in housing policy from the delivery of houses to a holistic view of settlement development. This change in perspective focuses on housing typology, housing location, variety of tenure and supply of socio-economic facilities that would contribute to sustainable settlement development.

The LM HSP was developed using the project cycle approach. This approach allows the user to evaluate the entire housing delivery cycle, starting with the housing policy context, the problems and challenges at the delivery front, then developing the strategies and policies at a local level from which emanate the housing projects and implementation framework. Preparation of the LM HSP consists following phases

Phase 1: Situational Analysis

Phase 2: Strategies and Policies

Phase 3: Business Plans

Phase 4: Integration and Approval

The LM HSP Business Plan covers and builds on the following reports and processes conducted up to this stage; these documents can be referred to or consulted where necessary.

Table 1 HSP Documents

Document	Date	Contents	Contact Person
LM: Situational Analysis	Dec 2008	Housing delivery status quo: problems and issues	LM Housing Manager
CWDM: Situational Analysis	Dec 2008	District level analysis of housing delivery challenges. Includes evaluation of various housing projects in CWDM and best-practice case studies throughout the country	CWDM Housing Manager
LM: Policies and Strategies	May 2009	Identifies the strategies to achieve and needed for improved sustainability in settlements via the housing delivery process. Includes the policies required to achieve the specified strategies.	LM Housing Manager
CWDM: Policies and Strategies	May 2009	Takes an overall strategic view of the district and includes ' policy library ' which any of the local municipalities can make use of. Includes housing architectural policy primer	CWDM Housing Manager
LM: Business Plan	Sept 2009	Provides budgets and implementation plan for housing projects identified in strategy phase.	LM Housing Manager
CWDM: Business Plan	Sept 2009	Provides budgets and implementation plan for housing projects identified in strategy phase. Identifies cross cutting issues and role for CWDM	CWDM Housing Manager

Table 2 Processes followed

Process	Date	Content/Purpose	Stakeholders
Workshop	26 Feb 2009	Discuss and Workshop the strategies for the various municipalities	Municipal and Provincial Officials
Workshop	18 June	Discuss and Workshop the strategies for the LM	Local Municipal Officials,

	2009	Municipality	Provincial Officials and Local Councilors
Workshop	1 Sept 2009	Cross Cutting Issues and Analysis	District Wide Municipal Officials, Provincial Officials

1.2 Situational Analysis Phase

A review of the current relevant housing and development related policies at a national and provincial level has been conducted and can be found as an annex to the district situational analysis. The challenges for the LM housing cycle have been identified and documented in the 'Situational Analysis' report. In this document the key issues hampering the housing delivery process in the LM will receive brief treatment here.

- Demand for subsidized housing is in excess of 7500 units
- Housing supply has slowed in recent years, to approximately 100 units per annum, in the first decade of democracy supply reached ± 400 units per annum
- Current and planned projects for the next 3-5 years indicate an average supply of almost 500 units per annum
- Location: The housing opportunities were not generally located close to economic opportunities and the locations by and large did not facilitate integration
- Structural Integrity: The majority of top structures built were of poor quality; in the region of 5000 require structural repairs and are currently being repaired¹
- Typology and Tenure: single free-hold tenure remains the only tenure available. In terms of typology, while varied, no vast improvements have been made to deal with the variety of needs.
- Institutional constraints: relate mostly to capacity in terms of skill, experience and planning at a local level and institutional alignment of budgets and services between departments both at local and provincial level.
- Implementation: issues relate to the tendering process, and project management capacity
- The funding gap from the division of revenue falls far short of meeting the demand
- The municipality has developed a service delivery implementation plan which include targets and indicators for housing delivery

In sum the key challenges faced can be summarised into supply and demand side issues. On the supply side, constraints include 1) the total national funding allocated to housing falls short of the demand. On a local government level issues relate to 2) institutional capacity; 3) the degree to which political processes, housing policy and spatial planning determine appropriate housing location and settlement growth; 4) bio-physical constraints to settlement growth particularly in the Langeberg Municipal Area; 5) the delivery of quantity rather than quality housing products, and 6) coordination of funding and planning processes.

On the demand side the housing challenge is affected in a number of ways. With the change to a democratic and free society, municipalities have had to deal with 1) large in-migration and swelling populations, 2) labour markets which could not absorb the influx of unskilled labour and socially 3) cultural schisms between new entrants to the settlements and older inhabitants created a resistance to spatial and social integration.

1.3 Summary of the Strategies and Policies Phase

The purpose of Strategies and Policies phase was to develop a set of strategies which would determine ideal locations to absorb the housing demand and simultaneously contribute to an

¹ Discussion with LM Housing manager

improved sustainability at a settlement and a project level. To achieve this goal a 'sustainable settlement' vision and mission was developed whereafter the settlement hierarchy and function were determined (see tables 3 & 4). From this process followed a determination of the settlements where further economic investment should take place. Once these settlements were identified, they were then evaluated as to their current level of sustainability. Strategies were then developed which focused on three areas of the settlement; these were: 1) the historic town core or the CBD, 2) buffer areas or the areas connecting CBDs with marginalized areas and 3) marginalized or historically neglected areas.

The strategies developed are diagrammatically represented below. From these strategies, possible pilot sites are identified in yellow, these sites are developed further in this document and represent the main body of work for the business plan phase.

Figure 1 Robertson: Proposed Sustainable Housing Strategy

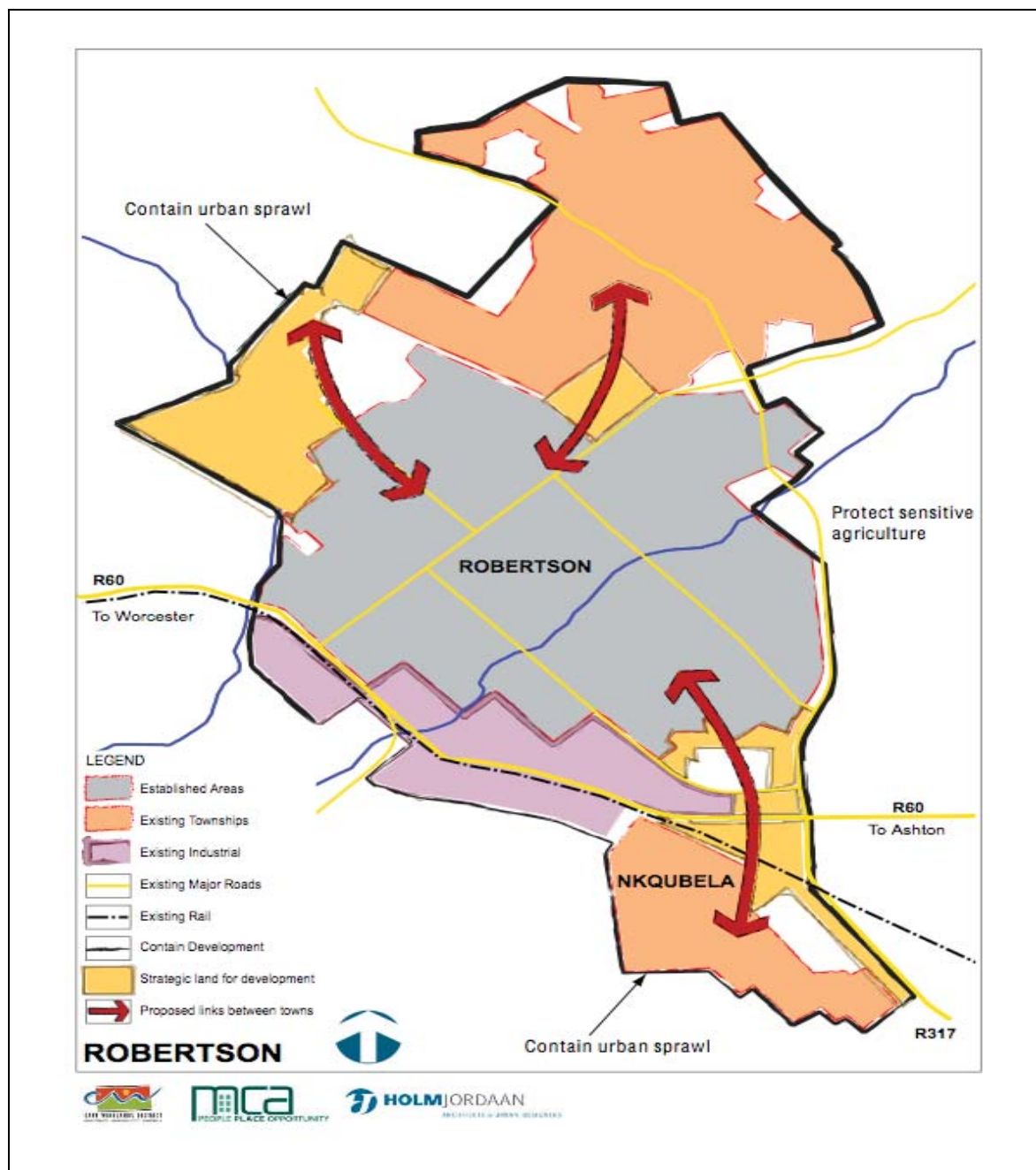


Figure 2 Ashton: Proposed Sustainable Housing Strategy

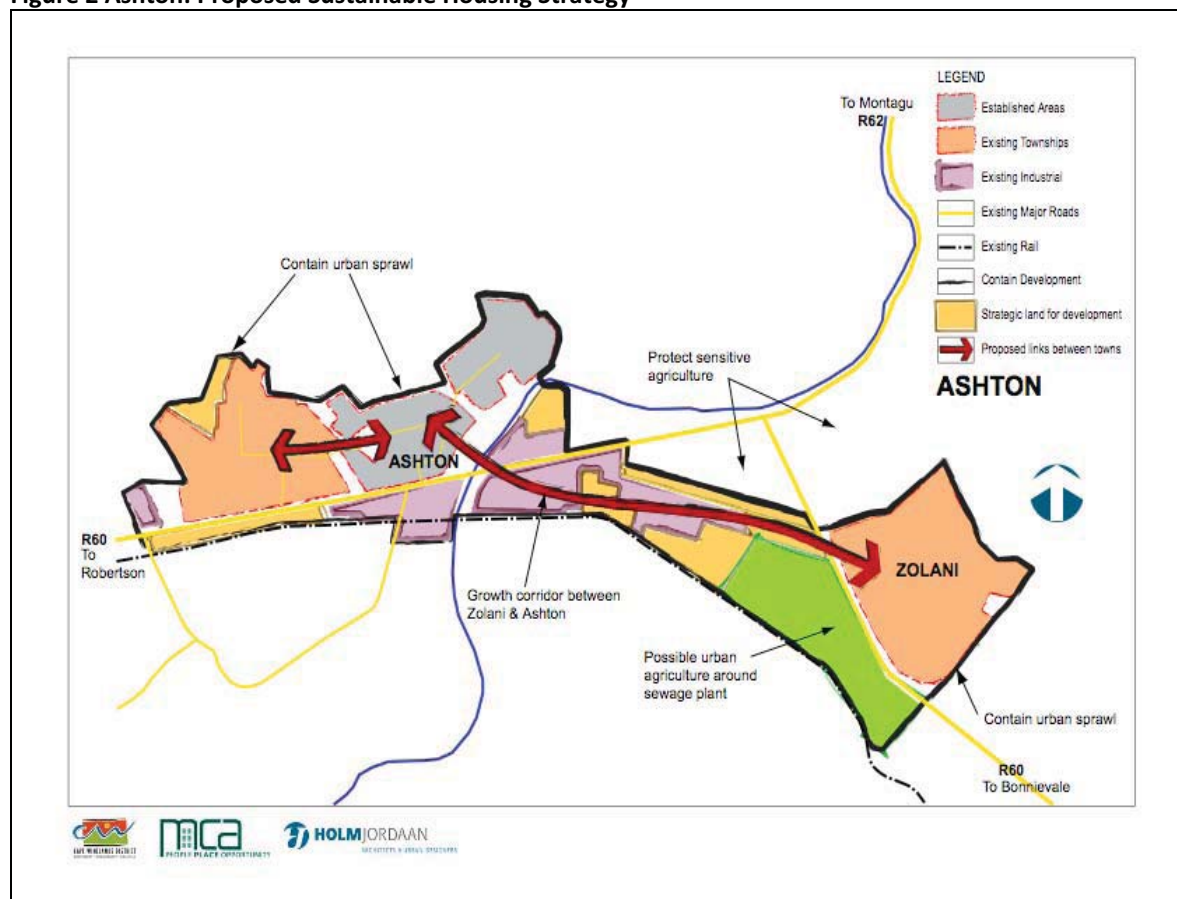


Figure 3: Montagu: Proposed Sustainable Housing Strategy

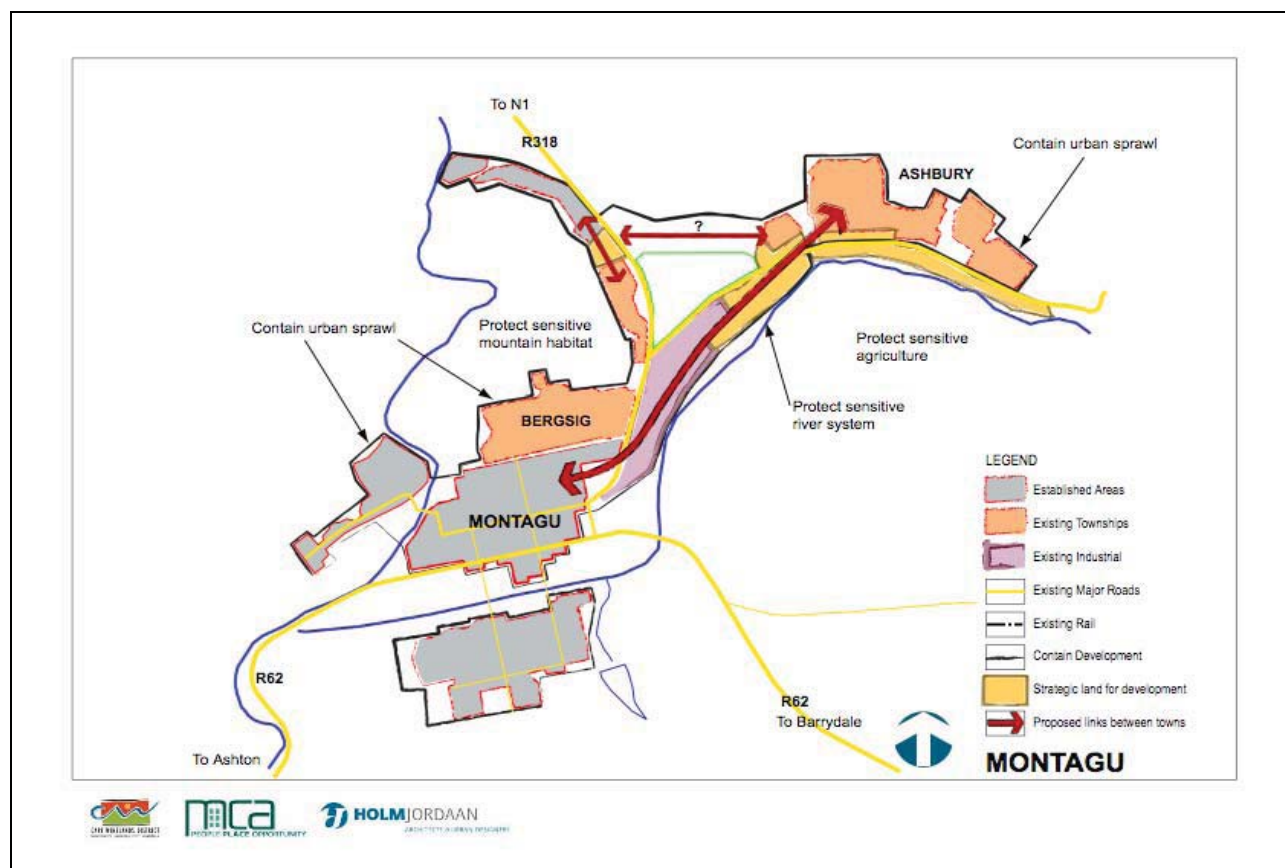


Figure 4: Bonnievale: Proposed Sustainable Housing Strategy

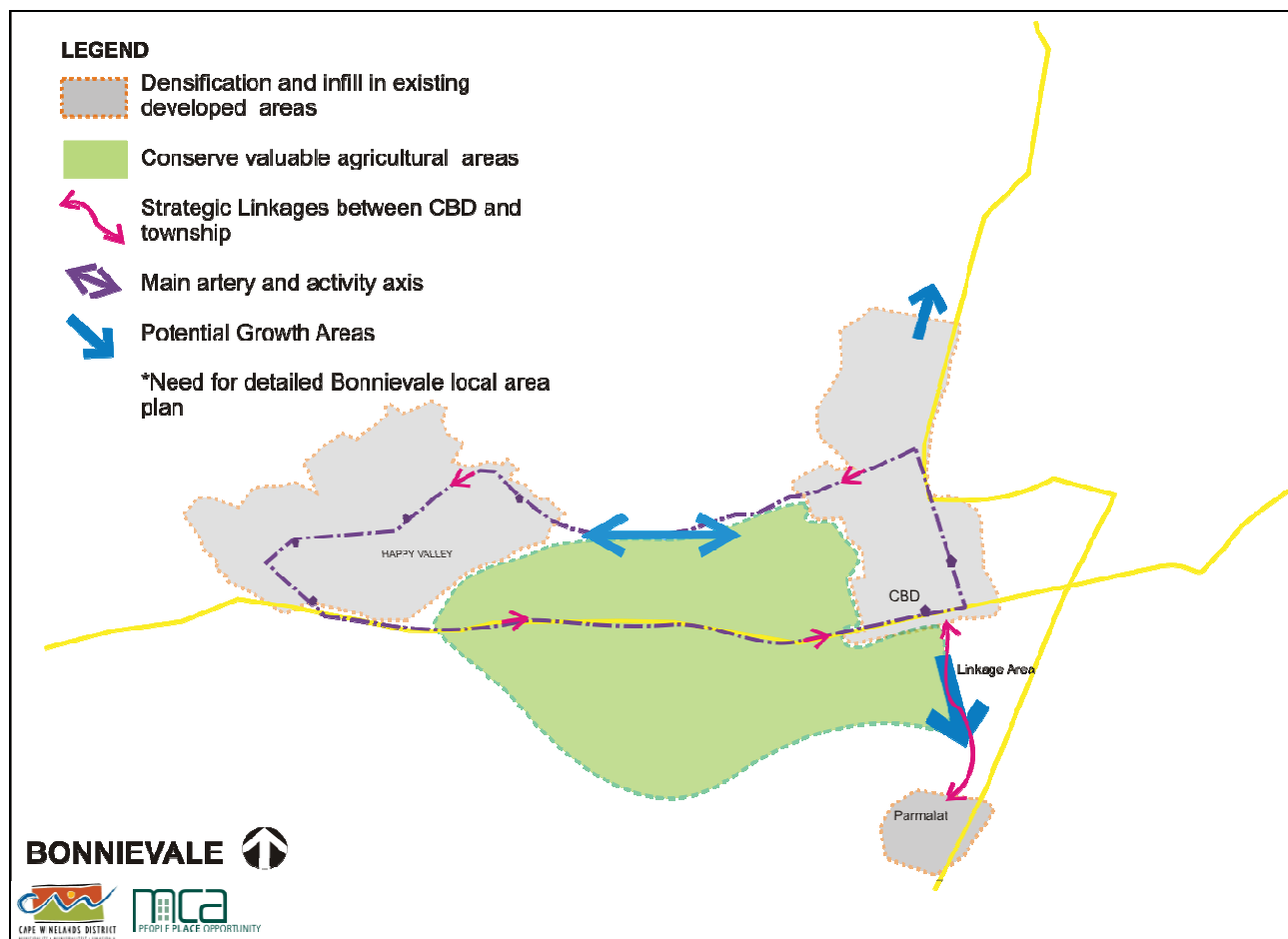


Figure 5: McGregor: Proposed Sustainable Housing Strategy

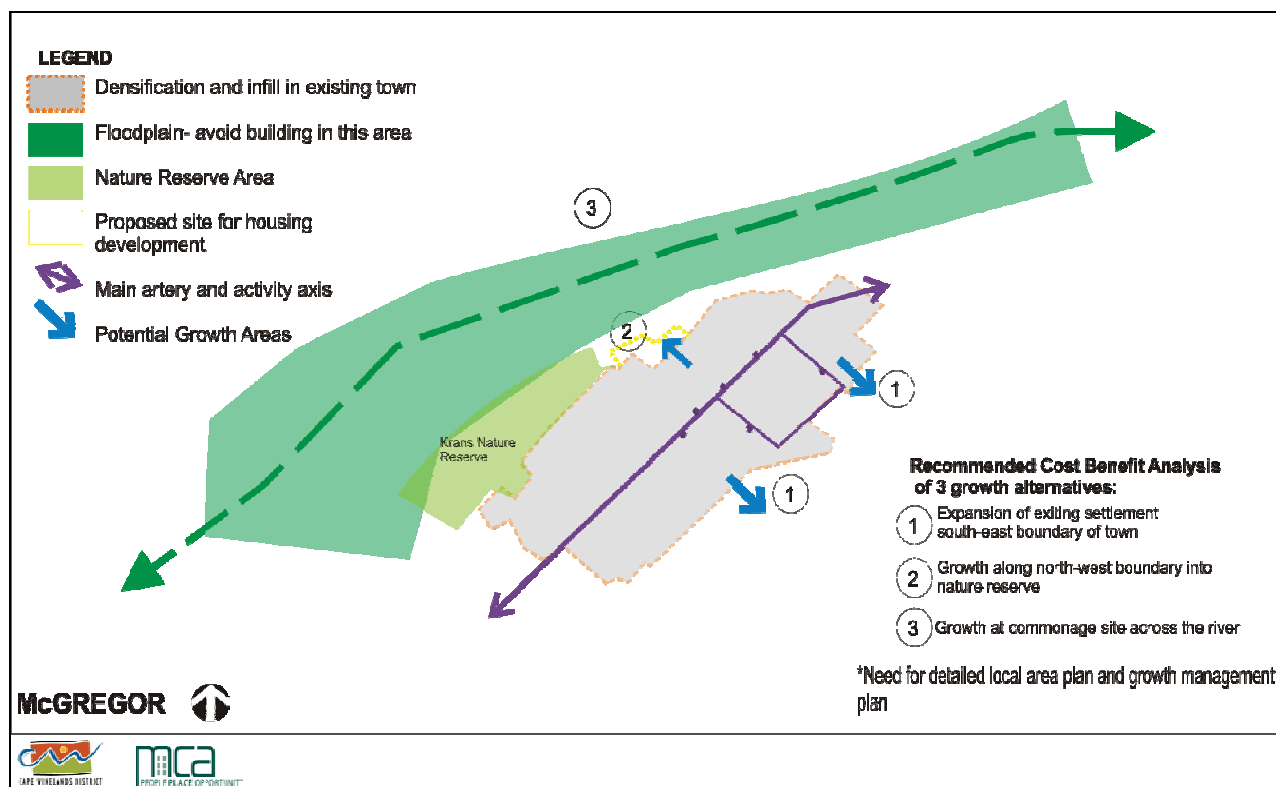


Table 3: Proposed Project List

Erf	Description	Size	Strategy Realised
Robertson			
1. Portion of Erf 2	Callie De Wet Stadium	6.4 ha	Integration, mixed land use, typology
2. Portion of erf 2	Kaktus Tuin	2.7ha	Integration, Mixed land use
3. Portion of Erf 2	South of R60 between Kaktus Tuin and Railway line	6.26ha	Integration, Mixed land use
4. Portion of erf 136	Sports field	4.27ha	Densification, infill
5. Portion of erf 136	August Str (adjacent to sports field)	1.3ha	Densification, infill
6. Portion of erf 136	Ngonyama str (opposite sports field)	0.35ha	Densification, infill
7. Erf 3944	Paddy str (Robertson North)	0.96ha	Densification, infill
8. Erf 3942	Paddy str (Robertson North)	TBD	Infill
9. Erf 4024	Paul Kruger street (Robertson North)	2.32ha	Densification, infill
10. Erf 1783	Robertson north	TBD	Infill
11. Erf 1790	Robertson north	TBD	Infill
12. Erf 1791	Robertson north	TBD	Infill
13. Erf 1796	Robertson north	TBD	Infill
14. Erven 2481/2482	Robertson north	TBD	
15. Erven 2090/2695	Robertson north	TBD	Infill
16. Erven 2251, 1099, 1106, 1107	Corner Paul Kruger and Coetzee streets	8.04ha	Densification, integration
17. Muiskraalkop	South of Industrial Area, Western extension to Nqubela	Unknown ±150 erven	
18. Roodehoogte	Adjacent to airstrip and R60	109 ha	Typology Densification, mixed land use
Ashton			
1. Portion 54/158	Near railway, between silos and beverage packing depot	7.15 ha	Mixed land use Densification, infill
2. Portion 158/171	Behind traffic office		Densification, infill
3. Erf 599	Western entrance to Ashton	8.45ha	Densification, Gateway
4. Erf 313	Fullard Str	0.46 ha	Infill
5. Erf 314	Between Green and Bruwer str	1.05	Infill
6. Erven 1869-1878	Uitspan & Voortrekker streets	0.8ha	Integration, infill

It must be noted that future projects for Bonnievale and McGregor have not been included at this stage. It is of paramount importance that the SDF deal with the issue of the role of the settlement and address the need of a local area plan. In the absence of the SDF, the probability of large scale projects meeting the provincial guidelines for sustainable human settlements is diminished. When the SDF has been completed any recommendations and projects can be incorporated into the HSP in the short or medium term.

In sum the strategies proposed attempt to rationalise the urban form through infill on vacant sites, and efficiency through densification where appropriate as well as to achieve socio-economic justice through integration by locating low and housing on better strategies for the urban core. For buffer areas, developing or extending activity streets linking the CBD to marginalised areas, introducing mixed land uses, further densification and rationalisation of the urban form. Key strategies for marginalised areas include greening and infill and densification.

2. Role of Housing Sites and the Demand for Socio-Economic Facilities

Improving the sustainability of human settlements is an incremental task; with contributions by each site developed. The provision of housing has the potential both to diminish the performance of the settlement and to contribute to improved sustainability. This can be achieved through the type of housing, densities provided, and associated socio-economic facilities provided. In this section the role of the site and the associated amenities are explored in the context of settlement performance. The settlements with the highest demand for housing and identified as growth towns were selected for this exercise. This does not preclude development or identification of need for social facilities in other facilities however it does express the prioritization of investment in these settlements.

However, prior to this task, the supply and demand of socio-economic facilities and public open space needs to be determined in order to inform the proposed role of the sites. For the town of Robertson, the table below indicates a need for crèches, and arguably a need for neighbourhood level parks and recreational space and community halls. Ashton also shows a need for crèches, parks and recreational as well as cultural spaces. Both towns appear to be well served in terms of schools and other public services and institutions.²

Table 4: Supply and Demand of Socio-Economic Amenities³

Variable	Population Threshold max	Need for facility	Supply	Shortfall	Need for facility	Supply	Shortfall
Population Robertson⁴	18335						
Population Ashton	11641	Robertson	Robertson	Robertson	Ashton	Ashton	Ashton
Education							
Creche- low income area	2400	8	0	8	5	0	5
Primary School	6000	3	6		2	3	
Secondary School	10000	2	3		1	2	
Municipal Offices	50000	1	1	0	0	1	
Public Services And Institutions							
Post Office	10000	2	1	1	1	1	0

² The CSIR document referenced below was used as a normative guideline for calculating the demand for facilities. The current supply, usage and access to any of these facilities is not within the ambit of this study. The appropriate government (local and municipal) departments should be consulted for more detailed figures and planning and should ideally be undertaken through the SDF process.

³ CSIR (2006) Schedule of Standards and Guidelines for the spatial provisions and development of social facilities public institutions and Public Open space in Cape Town

⁴ Statistics SA 2001

Variable	Population Threshold max	Need for facility	Supply	Shortfall	Need for facility	Supply	Shortfall
Police Station	25000	1	1	0	0	1	
Home Affairs (mobile)	20000	1	1	0	1	1	0
Multi Purpose Community Centres	22000	1	0	1	1	0	1
Town Hall	50000	1	1	0	0		0
Magistrates Court	varies		1				
Old Age Homes	50000	0	2		0	1	
Health Facilities							
Static Clinic	30000	1	6		0	3	-3
Community Health Centre	30000	1	1	0	0	0	0
Social Facilities							
Library	35000	1	1	0	0		0
Community Hall	15000	1	1	0	1		1
Religious Centre Established	2100	9		9	6		6
Recreational & Sport Facilities							
Community	5000	4	4	0	2		2
Local /Neighbourhood	7700	2	?	?	2		2
Cultural Open Spaces							
Food Gardens	6000	3	0	3	2		2
Livestock	Depends on number of owners	?	0	?			
Market- Trading	5000	4	0	4	2		2
Cemetery	regional demand		2			0	
Parks							
General Public Open Space (ha)	1000	7	unknown		4	unknown	

The table below provides an overview of the projects deemed to improve settlement level sustainability and explicitly exploring the following:

- The role of the site in local and surrounding context
- Role of the site in terms of the required community facilities, open space, commercial activities and road space

Table 5 Housing Project Site Context

Description (size and location)	Ownership	Role and Context	Community Facilities ⁵	Commercial, Manufacturing	Transport and Utility Infrastructure	Environmental Informants
Robertson						
● Callie De Wet Stadium⁶ ● Portion of Erf 2 ● 6.4 ha (Strategically linked to Kaktus Tuin and Depot projects)	Municipal Owned	● Potential integration role with gap housing. ● Sports stadium and high income housing adjacent.	Sports stadium, school, hospital, commercial centre within walking distance.	Close proximity to Industrial zone	Transport: None Utilities: Unknown	Wetland on site
● Kaktus Tuin ● Portion of erf 2 ● 2.7ha (Strategically linked to Callie De Wet and Depot projects)	Municipal Owned	● Potential role in extension of activity street. ● Situated along the R60 at the circle. Industrial land lies adjacent. Close to the sports stadium.	Sports stadium in close proximity	Close proximity to Industrial zone	Transport: None Utilities: Unknown	Unknown, EIA to be conducted
● Depot ● Portion of Erf 2 ● 6.26ha (Strategically linked to Callie De Wet and Kaktus Tuin projects)	Municipal Owned	● Potential role in extension of activity street. ● Situated along R60, at the circle, Nqubela is adjacent to the south.	None	Close proximity to Industrial zone	Taxi terminus within walking distance	Unknown

⁵ See tables in Annex for demand calculations for community facilities.

⁶ The three projects located on various portions erf 2 (Callie De Wet, Kaktus Tuin and Depot), while are separate sites, should be seen and treated as one strategic proposal; the individual proposals on each site are interrelated and support one another.

Description (size and location)	Ownership	Role and Context	Community Facilities ⁵	Commercial, Manufacturing	Transport and Utility Infrastructure	Environmental Informants
● August str ● Portion of erf 136 ● 1.3ha	Municipal Owned	● Potential role for infill with medium density housing. ● Sports stadium and low income housing adjacent	Sports ground adjacent to site	Walking distance to Industrial zone	Taxi terminus within walking distance	Unknown
● Nkonyama str ● Portion of erf 136 ● 0.35ha	Municipal Owned	● Potential role for infill with medium density housing. ● Sports stadium and low income housing adjacent	Sports ground adjacent to site	Walking distance to Industrial zone	Taxi terminus within walking distance	None
● Paddy str ● Erf 3944 ● 0.96ha	Municipal Owned	● Potential role for infill with medium density housing. ● Low income housing adjacent	Clinic and school in close proximity.	CBD in close proximity	Taxi terminus within walking distance	None
● Paddy str ● Erf 3942 ●	Municipal Owned	● Potential role for infill with medium density housing. ● Low income housing adjacent	Clinic and school in close proximity.	CBD in close proximity	Taxi terminus within walking distance	None
● Paul Kruger street ● Erf 4024 ● 2.32ha	Municipal Owned	● Potential role for infill with medium density housing. ● Situated on key access road through town. Low income housing adjacent and POS opposite	Clinic and school in close proximity.	CBD in close proximity	Taxi terminus within walking distance	Unknown
● Erf 1783	Municipal Owned	● Potential role for infill with medium density housing. ● Low income housing adjacent	Clinic and school in close proximity.	CBD in close proximity	Taxi terminus within walking distance	None
● Erf 1790/91	Municipal Owned	● Potential role for infill with medium density housing. ● Low income housing adjacent	Clinic and school in close proximity.	CBD in close proximity	Taxi terminus within walking distance	None

Description (size and location)	Ownership	Role and Context	Community Facilities ⁵	Commercial, Manufacturing	Transport and Utility Infrastructure	Environmental Informants
• Erf 1796	Municipal Owned	• Potential role for infill with medium density housing. • Low income housing adjacent	Clinic and school in close proximity.	CBD in close proximity	Taxi terminus within walking distance	None
• Erven 2481/82	Municipal Owned	• Potential role for infill with medium density housing. • Low income housing adjacent	Clinic and school in close proximity.	CBD in close proximity	Taxi terminus within walking distance	None
• Erven 3942	Municipal Owned	• Potential role for infill with medium density housing. • Low income housing adjacent	Clinic and school in close proximity.	CBD in close proximity	Taxi terminus within walking distance	None
• Paul Kruger & Coetzee Str • Erven 2251, 1099, 1106, 1107 • 8.04ha	Privately owned	• Potential role for infill with medium density middle income housing. • Role for mixed land use including agriculture • Situated on key access road through town. Middle income housing adjacent, currently used for urban agricultural purposes.	Clinic and school in close proximity.	CBD in close proximity	Taxi terminus within walking distance	Unknown
• Muiskraalkop Site	Municipal Owned	• Role for medium density housing • Ideal for developing light industrial hive/complex for small scale artisans in close proximity to or on the site given its location	Clinic and school in close proximity.	CBD and Industrial area in close proximity	Taxi terminus and CBD within walking distance	Unknown

Description (size and location)	Ownership	Role and Context	Community Facilities ⁵	Commercial, Manufacturing	Transport and Utility Infrastructure	Environmental Informants
● Roodehoogte Farm ● Adjacent to airstrip ● 109ha	Municipal Owned	● Potential role as housing development; with mixed land use, various typologies and tenure forms ● Situated along R60, adjacent to airstrip. Currently unutilised farmland. Site would extend growth in easterly direction.	None. Would require provision of community facilities if fully developed at medium density	Industrial zone in walking distance. Extension of activity street and commercial development of portion of erf 2 would locate commercial, retail services in closer proximity	None	Unknown
Ashton						
● Portion 171/158 ● Behind traffic office ● TBD	Municipal Owned	● Potential role integrating Ashton with Zolani. ● Role for linking urban agriculture to the site given the proximity to the sewerage works and current land use.	None currently. Would require provision of community facilities if fully developed at medium density	Located close to industrial zone and key employers in town.	Transport: None Utilities: Unknown Walking distance to CBD	Low lying land to the south of the site. EIA would need to be conducted.
● Portion 54/158 ● Near railway station ● 7.15 ha	Privately owned	● Potential integration role and medium density middle income housing. ● Potential for mixed land use, such as commercial (office) retail/entertainment ● Located close to key industrial employers and within the centre of town. site used for urban agriculture.	None currently. Site's central location however would use current facilities in the surrounds.	Located close to industrial zone and key employers in town.	Transport: None Utilities: Unknown	Unknown

Description (size and location)	Ownership	Role and Context	Community Facilities ⁵	Commercial, Manufacturing	Transport and Utility Infrastructure	Environmental Informants
● Erf 599 ● Western entrance to Ashton ● 8.45ha	Privately owned	● Potential role for creating a uniform gateway at the western entrance to the town informed by vernacular architectural informants.	None currently. Schools and sports field in close proximity	Located along the R62 innervating the town.	Transport: None Utilities: Unknown	Unknown
● Green str ● Erf 314 ● 1.05 ha	Municipal Owned	● Potential role for integration and medium density gap housing. ● Currently zoned as POS, however located opposite another POS site.	Close to school, clinic, municipal offices and CBD	Located in close proximity to the CBD	Transport: None Utilities: Unknown	Unknown
● Fullard Str ● Erf 313 ● 0.46 ha	Municipal Owned	● Potential role for integration and medium density gap housing.	Close to school, clinic, municipal offices and CBD	Located in close proximity to the CBD	Transport: None Utilities: Unknown	Unknown
● Uitspan & Voortrekker str ● Erven 1869-1878 ● 0.8ha	Municipal Owned	● Potential role for integration and medium density gap housing. ● Currently zoned as POS, however located opposite another POS site.	Close to school, clinic, municipal offices and CBD	Located in close proximity to the CBD	Transport: None Utilities: Unknown	Unknown

Most of the sites selected plays an integration role but also a role in improving the urban form through infill and improving performance through increasing densities. Some of the sites identified are greenfields developments and would require services and community facilities if developed. Other sites are not earmarked for housing at all, but serve a dual purpose of provision of economic facilities and integrating the (spatial) economy.

3. Housing Funding Options and Delivery Mechanisms

There are a range of programmes and associated funding mechanisms for settlement development on offer to the LM municipality. They vary in their intent and include funds making provision for 1) social housing processes, 2) infrastructure funding, 3) social and economic facilities provision and the 4) variety of housing typologies and tenures. Funding can be sourced from the national departments of Human Settlements, National Treasury, the Department Cooperative Governance and Traditional Affairs, the municipality's own funding, philanthropic organisations, corporate social investment sources, bilateral donor agencies (such as DFID, USAID, SIDA) and the National Housing Finance Corporation, among others. The key programmes and funding mechanisms are tabulated below (see table 8). The onus rests on the municipality to identify and approach the various institutions for human settlement development related funding.

Table 6 Settlement Development Programmes and Funding Mechanisms

Intervention Category	Description
1. Financial Instruments and programmes facilitating Human Settlement Development Funds and Programmes that facilitate access to housing goods and services	i. Individual Housing Subsidies: Credit and Noncredit linked R0 – R3 500 ii. Integrated Residential Development Programme (project linked subsidy) iii. Consolidation Subsidy (for top structures on serviced sites) iv. Relocation Subsidies (allows the borrower to 'right size') v. Institutional Subsidies (includes transitional subsidies, allocated to housing institutions esp. for rental/social housing or for special needs and linked to health or welfare departments) vi. Enhanced Extended Discount Benefit Scheme vii. Rural subsidies (used to provide functional tenure as opposed to full title) viii. Municipal Operational/Capital Budget (OPS/CAP) ix. FLISP: to assist first time home owners earning between R3500-R7000 x. Community Residential Unit (funding is to upgrade of hostels or other rental stock owned by government) xi. Upgrade of informal settlements programme xii. People's Housing Process (beneficiaries build or manage the building of their houses, which affords greater choice of the top structure) xiii. Social Housing (run by housing institution and facilitates development of rental stock) xiv. Rectification of Houses (post 1994 housing stock through subsidy or post 2002 through NHBRC managed process) Emergency Housing Programme (provides temporary shelter and services for exceptional circumstances)
2. Provision of Social and Economic Amenities Funding and programmes for social and economic amenities	i. <i>Programme for the provision of social and economic facilities (WC Dept. of Local Government and Housing)</i> Provides funding for provision of facilities such as community halls, taxi ranks, sports facilities, clinics, parks, trading areas, etc ii. <i>Neighbourhood Development Partnership Grant (Dept. of National Treasury)</i> Funds capital expenditure and technical assistance for township renewal and redevelopment. Projects include catalytic economic development projects but also urban greening initiatives
3. Municipal Infrastructure	Municipal Infrastructure Grant provides funding for the following Infrastructure i. Electricity ii. Water supply iii. Sanitation iv. Storm water management v. Municipal roads

Intervention Category	Description
	vi. Refuse removal vii. Street lighting
4. Miscellaneous Funding Sources	i. Bilateral Donor Agencies (DFID, SIDA, USAID, etc) ii. National Housing Finance Corporation iii. Social housing foundation iv. Corporate Social Responsibility funds (bridging finance etc) v. Employers

Sources:

- a. NDGP Toolkit 1 of 1.
- b. Integrated and Sustainable Human Settlements: A guide for the IDP Human Settlement Plan. Guidelines for the provision of Social and Economic Amenities within the Housing Development Context
- c. MIG: 2004-2007 from programmes to projects to sustainable services

4. The Gap Housing Market

The housing backlog or demand for subsidized housing has been the key focus of housing policy and practice in South Africa to date. The underserved market segment has been labeled the 'gap market'; this section seeks to characterize the gap in the province and the municipality and seeks to lay the basis for a role for the municipality in catering for this market.

4.1 Gap Market in the Western Cape Province

Practitioners define the Gap Market in various ways. 'Gap housing' or the 'Gap Market' has come to mean the gap in the housing market that is not catered for by the public sector housing schemes or by the private sector financial institutions. This gap in the market, in practical terms, can be defined by income means or product price, which until now has come to mean:

- Household income of between R3500 and R7000 pm⁷, or
- Housing products priced between R100 000 and R250 000

Some data sources⁸ indicate that both the Western Cape and Gauteng make up just short of half of all gap households nationally. In the Western Cape, approximately one third⁹ to half¹⁰ of all households could be located in the gap market, depending on the data source. All data sources concur that the Western Cape Province has the highest proportion of households in the gap market.

Gap Market: Growth

The gap market also appears to be growing, estimated to be at 7% per annum¹¹ between 2004 and 2008. This is partly explained by a rigid the lower end of the market (R3500) and an expanding upper end of the market, which could be between R9000 and R12000 at this stage.

Another contributing factor to growth is population growth, where the provincial households grew by 11% between 2004 and 2007¹². Furthermore, the population is set to expand by a further due to migration by 193 254 persons between 2006-2011 (update this with later figures, see stats sa pop growth)

Gap Market: Spatial Distribution

The gap households in the province, 359 377, are mostly located in the city of Cape Town. According to the Community Survey 62% are located in the city and 15% in the Cape Winelands District, 11% in the Eden District and 7% in the West Coast District. The remaining 5% is spread over the Karoo and Overberg Districts.

Gap Market: Household Characteristics

Household composition in the Western Cape shows distribution of roughly a third (34%) nuclear families, another third (31%) extended family or non related, approximately are 14% single person households, almost 10% are single parent households and a further 10% are married with no children.

In terms of household size in the province, the majority (>60%) of households in the gap market have 2-4 persons, about a fifth have 5-7 persons, less than 10% have more than 8 persons and just more than 11% have 1 person.

⁷ For this data set a range of R3500 to R12000 is used.

⁸ IES

⁹ IES

¹⁰ AMPS 2008

¹¹ AMPS 2008 data

¹² General Household Survey

In terms of employment profiles in the Western Cape, employers in the private sector seem to play a bigger role. The majority of residents in gap households have formal permanent employment in the private sector, and to a lesser degree formal employment in the public sector.

Within the gap market in the province, 63% (252500 households) indicate they own their own homes, and almost a third has access to housing finance. Rental appears to be the more common tenure arrangement probably due to stock levels.

Gap Market: Housing Characteristics

Approximately one fifth (21%), or 84500 households, of the gap market in the province are inadequately housed. There is roughly an even split between informal dwellings (shacks, backyard dwellings) and formal housing issues such as overcrowding and poor sanitation which make up the inadequately housed.

Gap Market: Housing expenditure

On average, households in the gap market in the province earning between R3500 and R7000 are spending R748 per month on housing related expenditures (includes, insurance, energy, maintenance, water and services, rental or bond repayments). In terms of other household expenditure, 22% is spent on food, 17% on housing and 8% on transport. In the higher income bands, the average expenditure on housing increases to between R1375 (R7000-R10000) and R1999 (R10 000-R12000) per month. The picture in terms of overall household expenditure shifts however; less is spent on food and more on transport, housing and savings.

Table 7 Provincial Gap Market statistics

Variable	Figure	
Number of households in Gap Market	222813	
Household Size		
1 person	>10%	
2-4 persons	>60%	
5-7 person	<20%	
More than 8 persons	<10%	
% Gap market Inadequately Housed	21%	
Household Expenditure	Average Expenditure on Housing	% of total Household expenditure
Income Band R3500-R7000	R748	± 13.0%
Income Band R7001- R10001	R1375	± 16.0%
Income Band R10001-R12000	R1999	± 18.0%

Source: Eighty20; based on IES data 2005/06

The data indicate that the Gap market has been misunderstood and underserved. That they may be poorly housed and have either a nuclear family or be overcrowded and that they can afford to pay up to 20% of their income on the housing product. In the LM the larger proportion of the gap market falls in the category earning below R7000pm.

4.2 Langeberg Market

The situational analysis phase and data from a recent survey¹³ on middle income housing demand give some indication on matching product to demand. In the Langeberg area more than 60% of households qualify for subsidy housing, approximately 30% fall in the gap market¹⁴ and 10% are bankable. (see Table below):

¹³Marais, L (undated) Housing need in middle income households in Ashton and Robertson: A Market Profile

¹⁴ The current definition and policy for gap housing describes households earning between R3500 and R7000 as falling within the gap. However, since then, due to various factors, the gap has widened and practitioners from various quarters the gap market to extend as far as R10000 or even R12000.

Table 8 LM Income distribution

Annual Household Income	Number of Households	%
0-R38400	16551	60.61%
R38401-R76800	2405	16.29%
R76801 – R 153600	1423	12.49%
> R153600	773	10.62%

Source: Statistics SA (2001)

To further elucidate the characteristics of the housing market in the municipality a study was commissioned by the municipality to look into the housing needs of middle income households in Robertson and Ashton. The study targeted the population earning more than R2000 per month and yielded the following results (in table 11 below) regarding the middle income market.

Table 9 Robertson, Ashton: Middle Income Housing Demand

Variable	Percentage
Prefer Rental Housing	15.1%
Rent to buy	36.5%
Prefer ownership	48.4%
Average Flat Rental Price	R1800 – R2500
Average House Rental Price	R2500 – R3500
Ownership Affordability (Willingness to Pay)	
>R1000	60%
> R1500	42%
> R 2000	22.7%
Rental Affordability (Willingness to pay)	
> R600pm	59%
> R1000	32%
> R1500	25%
> R2000	9.5%
Demand for Rental: Ashton	70
Demand for Ownership: Ashton	133
Demand for Rental: Robertson	137
Demand for Ownership: Robertson	382
Key Recommendation: Development to cater for	R130 000 – R 250 000

Source: Marais et al

The market research for Robertson and Ashton appears to be in line with the provincial data in terms of what the sample is currently willing to pay for rental or ownership. Supply in the gap market can be thought of as coming from three sources or products; 'new build' houses, resale and rental units. By and large the market seems to indicate the desire to own or rent (with the rent to buy option, in both cases it would largely mean new stock coming on line.

5. Project Sustainability Criteria and Guidelines

5.1 Development and Intended use of the Criteria

The Western Cape Sustainable Human Settlements Strategy, Isidima, is the principle guide document towards human settlement development in the Western Cape. This document sets out the shift of focus from housing supply to the incorporation of other factors that impact on settlement performance as a whole. The strategy acknowledges an incrementalist approach is required to change the urban form; a number of avenues are offered, such as, high density rental, social housing, in situ upgrades etc.

The sustainability criteria in turn were developed and approved to assess new human settlement projects in the Western Cape. The criteria are a tool which assists in achieving the overarching goal of improved settlement performance; they in effect operationalise the principles set out in the strategy document. Principles such as economic sustainability, social sustainability and ecological sustainability underpin the criteria. It is important to note however, that the criteria will be applied as a filter prior to project approval, and therefore should be used as a planning tool and guide rather than a project approval tool. To this end the criteria are split in two; step 1) encompasses the 'prequalification criteria', which acts as a funnel and step 2) the 'project benefits criteria' which aims to evaluate to what degree the project makes an impact on the economic, social and environmental fronts.

5.2 The Sustainability Criteria

In Step 1 (see table 16 in Annex), the prequalification criteria are applied and attempts to filter projects at the outset to ensure projects contribute to settlement sustainability. In step 2, the criteria deal with whether the project addresses a range of social, economic and environmental criteria.

STEP 1:

- Evidence-based **demand** for housing
- **bulk capacity** for additional housing, or
- **funding** for the extra **bulk** services capacity required
- avoidance of critical **environmental risks**
- proximity to **economic opportunities**
- availability of **land**

STEP 2:

Economic efficiency:

- Enhancement of **economic opportunities**
- **land use** and **housing typology** variegation
- optimal use of **bulk infrastructure**
- **Innovation**

Social Justice:

- Access to **social amenities**
- Promotion of **social integration**
- **Community Participation**

Ecological Integrity:

Ecologically sensitive settlement **design** alternatives

The pilot projects will be held up to scrutiny through means of these criteria in the project evaluation table in section 5.3

5.3 Project Level Sustainability Criteria

Table 10: Project Sustainability and Prioritisation¹⁵

Pilot Project	Assessment in Terms of Pre-Qualification Criteria ¹⁶	Assessment in Terms of Sustainability Criteria	Required procedural issue	Skills and resource required	Prioritisation: Sustainability ¹⁷	Comments
• Callie De Wet Stadium • 6.4 ha	• Demand: Gap housing need has been determined by market study • Bulk Capacity: TBD • Bulk Funding: TBD • Disaster Management: TBD • Economic: Site is adjacent to industrial area	Economic Efficiency • Promotes economic security • Medium density housing making optimum use of land. • Promotes range of options • Promotes optimal use of space • Promotes economic activity Social Justice • Promotes spatial/social integration • Quality of Life/access to resources • Builds communities	None Required	Full Range of Services Required	High priority Sustainability: High Impediments: No Quick win	Residents opposition to lower middle income housing
• Kaktus Tuin • 2.7ha	• Demand: Created by housing project on site, Callie De Wet project and passing trade • Bulk Capacity: TBD • Bulk Funding: TBD • Disaster Management: TBD • Economic: provides commercial space and extends activity street	Economic Efficiency • Promotes economic security • Promotes optimal use of land. • Promotes range of options • Promotes economic activity Social Justice • Promotes spatial/social integration • Quality of life/access to resources	EIA	Full Range of Services Required	Medium Priority Sustainability: High Impediments: Yes	Publicly owned land. Possible EIA

¹⁵ This table needs to be read in conjunction with the table 13, which outlines the strategic role of the site.

¹⁶ See figures 3 and 4 below for site location

¹⁷ High Priority=high sustainability score and now impediments

Pilot Project	Assessment in Terms of Pre-Qualification Criteria ¹⁶	Assessment in Terms of Sustainability Criteria	Required procedural issue	Skills and resource required	Prioritisation: Sustainability ¹⁷	Comments
• Depot: North of Nqubela • 6.26ha	• Demand: TBD • Bulk Capacity: TBD • Bulk Funding: TBD • Disaster Management: depot on site already • Economic: The project provides small industrial space and extends the activity street towards low income areas	Economic Efficiency • Promotes economic security • Promotes optimal use of space • Promotes range of options • Promotes economic activity	EIA	Full Range of Services Required	High priority Sustainability: High Impediments: None Quick Win	Publicly owned land
• August Str • 1.3ha	• Demand: subsidized housing backlog ± 2500 in Robertson • Bulk Capacity: TBD • Bulk Funding: TBD • Disaster Management: TBD • Economic: close to Depot	Economic Efficiency • Promotes economic security • Promotes optimal use of space • Promotes range of options Social Justice • Quality of life/access to resources	none	Full Range of Services Required	Medium priority Sustainability: Medium Impediments: None Quick Win	Publicly owned land in township
• Ngonyama str • 0.35ha	• Demand: subsidized housing backlog ± 2500 in Robertson • Bulk Capacity: TBD • Bulk Funding: TBD • Disaster Management: infill site/TBD • Economic: Residential area	Economic Efficiency • Promotes economic security • Promotes optimal use of space • Promotes range of options Social Justice • Quality of life/access to resources	None	Full Range of Services Required	Medium priority Sustainability: Medium Impediments: None Quick Win	Publicly owned land in township
• Paddy str • Erf 3944 • 0.96ha	• Demand: subsidized housing backlog ± 2500 in Robertson • Bulk Capacity: TBD • Bulk Funding: TBD • Disaster Management: infill site/TBD • Economic: Walking distance of CBD	Economic Efficiency • Promotes economic security • Promotes optimal use of space/infrastructure Social Justice • Access to social amenities • Promotion of social integration	None	Full Range of Services Required	Medium priority Sustainability: Medium Impediments: None Quick Win	Publicly owned land

Pilot Project	Assessment in Terms of Pre-Qualification Criteria ¹⁶	Assessment in Terms of Sustainability Criteria	Required procedural issue	Skills and resource required	Prioritisation: Sustainability ¹⁷	Comments
• Erf 3942	• Demand: Robertson has highest demand for low income housing • Bulk Capacity: TBD • Bulk Funding: TBD • Disaster Management: TBD • Economic: In walking distance of and on key route to CBD	Economic Efficiency • Promotes economic security • Promotes optimal use of space Social Justice • Access to social amenities • Promotion of social integration	Rezoning (POS)	Full Range of Services Required	High Priority Sustainability: High Impediments: None Quick Win	Publicly owned land
• Paul Kruger street (4024) • 2.32ha	• Demand: Gap and rental tenure in demand in Robertson/See demand study • Bulk Capacity: TBD • Bulk Funding: TBD • Disaster Management: TBD • Economic: In walking distance of and on key route to CBD	Economic Efficiency • Promotes economic security • Promotes optimal use of space/infrastructure • Promotes range of options Social Justice • Quality of life/access to resources	None	Full Range of Services Required	Medium priority Sustainability: Medium Impediments: None Quick Win	Publicly owned land
• Paul Kruger and Coetzee Str • 8.04ha	• Demand: Gap and rental tenure in demand in Robertson/See demand study • Land use variegation • Bulk Capacity: TBD • Bulk Funding: TBD • Disaster Management: TBD • Economic: In walking distance of and on key route to CBD	Economic Efficiency • Promotes economic security • Promotes optimal use of space/infrastructure • Promotes range of options Social Justice • Quality of life/access to resources • Promotes spatial/social integration	EIA/HIA/ Geotech required	Full Range of Services Required	Medium priority Sustainability: High Impediments: Yes	Privately owned agricultural land with in urban edge
• Erf 1783	• Demand: Robertson has highest demand for low income housing • Bulk Capacity: TBD • Bulk Funding: TBD • Disaster Management: TBD • Economic: In walking distance of and on key route to CBD	Economic Efficiency • Promotes economic security • Promotes optimal use of space Social Justice • Access to social amenities • Promotion of social integration	Rezoning (education)	Full Range of Services Required	High Priority Sustainability: High Impediments: None Quick Win	Publicly owned land

Pilot Project	Assessment in Terms of Pre-Qualification Criteria ¹⁶	Assessment in Terms of Sustainability Criteria	Required procedural issue	Skills and resource required	Prioritisation: Sustainability ¹⁷	Comments
• Erf 1790	• Demand: Robertson has highest demand for low income housing • Bulk Capacity: TBD • Bulk Funding: TBD • Disaster Management: TBD • Economic: In walking distance of and on key route to CBD	Economic Efficiency • Promotes economic security • Promotes optimal use of space Social Justice • Access to social amenities • Promotion of social integration	Rezoning (POS)	Full Range of Services Required	High Priority Sustainability: High Impediments: None Quick Win	Publicly owned land
• Erf 1791	• Demand: Robertson has highest demand for low income housing • Bulk Capacity: TBD • Bulk Funding: TBD • Disaster Management: TBD • Economic: In walking distance of and on key route to CBD	Economic Efficiency • Promotes economic security • Promotes optimal use of space Social Justice • Access to social amenities • Promotion of social integration	Rezoning (POS)	Full Range of Services Required	High Priority Sustainability: High Impediments: None Quick Win	Publicly owned land
• Erf 1796	• Demand: Robertson has highest demand for low income housing • Bulk Capacity: TBD • Bulk Funding: TBD • Disaster Management: TBD • Economic: In walking distance of and on key route to CBD	Economic Efficiency • Promotes economic security • Promotes optimal use of space Social Justice • Access to social amenities • Promotion of social integration	Rezoning (POS)	Full Range of Services Required	High Priority Sustainability: High Impediments: None Quick Win	Publicly owned land
• Erven 2481/82	• Demand: Robertson has highest demand for low income housing • Bulk Capacity: TBD • Bulk Funding: TBD • Disaster Management: TBD • Economic: In walking distance of and on key route to CBD	Economic Efficiency • Promotes economic security • Promotes optimal use of space Social Justice • Access to social amenities • Promotion of social integration	Rezoning (POS)	Full Range of Services Required	High Priority Sustainability: High Impediments: None Quick Win	Publicly owned land

Pilot Project	Assessment in Terms of Pre-Qualification Criteria ¹⁶	Assessment in Terms of Sustainability Criteria	Required procedural issue	Skills and resource required	Prioritisation: Sustainability ¹⁷	Comments
• Erven 2090/2695	• Demand: Robertson has highest demand for low income housing • Bulk Capacity: TBD • Bulk Funding: TBD • Disaster Management: TBD • Economic: In walking distance of and on key route to CBD	Economic Efficiency • Promotes economic security • Promotes optimal use of space Social Justice • Access to social amenities • Promotion of social integration	Rezoning (commercial/parking)	Full Range of Services Required	High Priority Sustainability: High Impediments: None Quick Win	Publicly owned land
• Muiskraalkop Site	• Demand: Robertson has highest demand for low income housing • Bulk Capacity: TBD • Bulk Funding: TBD • Disaster Management: TBD • Economic: In walking distance of and on key route to CBD	Economic Efficiency • Promotes economic security • Promotes optimal use of space Social Justice • Access to social amenities • Promotion of social integration	Rezoning (undetermined)	Full Range of Services Required	High Priority Sustainability: Medium Impediments: None Quick Win	Publicly owned land
• Roodehoogte • Adjacent airstrip • 109ha	• Demand: Low cost housing demand ± 2500 in Robertson • Bulk Capacity: TBD • Bulk Funding: TBD • Disaster Management: TBD • Economic: Commercial land use to be made available, close to industrial zone and depot project, project would contribute to extension of activity street and contribute to economic activity node around the circle	Economic Efficiency • Promotes economic security • Promotes optimal use of space/infrastructure • Promotes range of options • Promotes economic activity Social Justice • Quality of life/access to resources	EIA/HIA/Geotech required	Full Range of Services Required	Medium priority Sustainability: Medium Impediments: Yes	Located close to airstrip; rezoning

Pilot Project	Assessment in Terms of Pre-Qualification Criteria ¹⁶	Assessment in Terms of Sustainability Criteria	Required procedural issue	Skills and resource required	Prioritisation: Sustainability ¹⁷	Comments
• Portion 158/171	• Demand: low cost housing demand ± 2100 units • Bulk Capacity: TBD • Bulk Funding: TBD • Disaster Management: TBC • Economic: Walking distance to CBD and large employers	Economic Efficiency • Promotes economic security • Promotes optimal use of space /infrastructure • Promotes range of options • Promotes economic activity Social Justice • Quality of life/access to resources • Promotes spatial/social integration	Rezoning (light industrial)	Full Range of Services Required	High priority Sustainability: High	
• Portion 54/158 • 7.15ha	• Demand: rental and gap demand established by market study • Land use variegation • Bulk Capacity: TBD • Bulk Funding: TBD • Disaster Management: TBD • Economic: Situated adjacent to key employers in the town and walking distance to CBD	Economic Efficiency • Promotes economic security • Promotes optimal use of space /infrastructure • Promotes range of options • Promotes economic activity Social Justice • Quality of life/access to resources • Promotes spatial/social integration	EIA Required	Full Range of Services Required	High priority Sustainability: High Impediments: Yes	Privately owned, cultivated with olive trees
• Erf 599 • 8.45ha	• Demand: low cost housing demand ± 2100 units • Bulk Capacity: TBD • Bulk Funding: TBD • Disaster Management: TBD • Economic: situated along main road, walking distance to key employers and CBD	Economic Efficiency • Promotes economic security • Promotes optimal use of space /infrastructure • Promotes range of options Social Justice • Quality of life/access to resources • Promotes spatial/social integration Ecological Integrity • Promotes cultural sustainability through vernacular architecture	EIA/geotech required	Full Range of Services Required	Medium priority Sustainability: High Impediments: Yes	Privately owned

Pilot Project	Assessment in Terms of Pre-Qualification Criteria ¹⁶	Assessment in Terms of Sustainability Criteria	Required procedural issue	Skills and resource required	Prioritisation: Sustainability ¹⁷	Comments
• Green str Erf 313 • 0.46 ha	• Demand: gap housing/rental demand established by market study • Bulk Capacity: TBD • Bulk Funding: TBD • Disaster Management: infill site/TBD • Economic: walking distance to CBD and key employers	Economic Efficiency • Promotes economic security • Promotes optimal use of space /infrastructure • Promotes range of options Social Justice • Quality of life/access to resources • Promotes spatial/social integration	None	Full Range of Services Required	High priority Sustainability: High Impediments: None Quick Win	
• Green & Bruwer Str Erf 314 • 1.05 ha	• Demand: gap housing/rental demand established by market study • Bulk Capacity: TBD • Bulk Funding: TBD • Disaster Management: infill site/TBD • Economic: walking distance to CBD and key employers	Economic Efficiency • Promotes economic security • Promotes optimal use of space /infrastructure • Promotes range of options Social Justice • Quality of life/access to resources • Promotes spatial/social integration	none	Full Range of Services Required	High priority Sustainability: High Impediments: None Quick Win	
• Uitspan & Voortrekker streets • Erven 1868-1878 • 0.8ha	• Demand: gap housing/rental demand established by market study • Bulk Capacity: TBD • Bulk Funding: TBD • Disaster Management: infill site TBD • Economic: walking distance to CBD and key employers	Economic Efficiency • Promotes economic security • Promotes optimal use of space /infrastructure • Promotes range of options Social Justice • Quality of life/access to resources • Promotes spatial/social integration	None	Full Range of Services Required	High priority Sustainability: High Impediments: None Quick Win	Consolidated erven and rezoning application required
• Portion of erf 462	• Demand: gap housing/rental demand established by market study • Bulk Capacity: TBD • Bulk Funding: TBD • Disaster Management: infill site TBD • Economic: walking distance to CBD	Economic Efficiency • Availability of land • Settlement level economic sustainability • Typology and providing a range of market opportunities	None	Full Range of Services Required	High priority Sustainability: High Impediments: None Quick Win	Middle income

6. Pilot Projects: Business Plans

6.1 Pilot Projects

The South African housing policy, Breaking New Ground¹⁸ advocates for both integration and densification in its emphasis on sustainable settlements. Indirect references such as, access to affordable services, educational opportunities and other social services and well utilised land all pre-suppose higher density development. Direct references to compact development, mixed land use, pedestrian movement, all pre-point to higher density development. Given the population pressures and demand for housing on the one hand; and the surrounding agricultural land and bio-physical constraints on the other, the Cape Winelands and in particular the settlements in the Langebergare more suited to medium density residential developments. It is for this reason that the site proposals employ medium density standards. It should be noted however that there is no one definition for medium density, but for the purposes of this exercise the definition will be assumed as a dwelling unit density of between 40 and 100du/ha.¹⁹ The section that follows proposes various scenarios for the land use, densities, housing typologies and housing delivery mechanisms.

Table 11 Pilot Project Summary Table

Pilot Project	Strategic Role of Site	Proposed Land Use Budget	Proposed breakdown of residential component	Funding and Delivery Mechanism	Housing Typologies	Net Density Option A (Total Units)	Infrastructure requirements
● Callie De Wet Stadium ● 6.4 ha	● Medium Density Housing ● Gap/Middle Income market ● Integration	● Primarily Residential (76%) ● See land use table in annex	● Gap ● Lower middle income	● Private sector funded/ FLISP	● Semidetached duplex ● Semi-detached simplex	● 50 du/ha ● 246 units	● Bulk infrastructure needs to be determined
● Kaktus Tuin ● 2.7ha	● Commercial ● Residential ● Mixed land use	● Primarily Commercial (73%) ● See land use table annex	● Rental/Lower middle income units	● Private sector funded/ FLISP	● Flats (second floor)	● 50 du/ha ● 33 units	● Bulk infrastructure needs to be determined

¹⁸ This is also implied in Isidima, in particular, through its principles of 'a sense of limits', 'a sense of place' and 'a sense of craft' and 'a sense of nature'

¹⁹ Tonkin, A (2008) Sustainable medium-density housing: a resource book. DAG.

● Depot: North of Nqubela ● 6.26ha	● Commercial ● Agriculture	● Primarily Commercial (30%) & Agriculture (35%)	● None	● Provincial Social and Economic facilities programme ● NDPG	● None	● None	● Bulk infrastructure needs to be determined
● August Str ● 1.3ha	● Medium density low income housing ● Rationalising the urban form	● Primarily Residential (71%)	● Subsidy housing	● IRDP ● Bridge financing /other	● 2/3 storey walk ups	● 50du/ha ● 48 units	● Bulk infrastructure needs to be determined
● Ngonyama str ● 0.35ha	● Medium density low income housing ● Rationalising the urban form	● Residential (100%)	● Subsidy housing	● IRDP ● Bridge financing/other	● Semi detached duplex	● 50 du/ha ● 18 units	● Bulk infrastructure needs to be determined
● Paddy str (3944) ● 0.96ha	● Medium density residential ● densification	● Residential (100%) ● See land use table annex	● Gap housing	● Private sector funded and delivered ● FLISP	● Row housing	● 50du/ha ● 48 units	● Bulk infrastructure needs to be determined
● Paddy str (3942) ● Erf Size TBD	● Medium density residential ● densification	● Residential (100%)	● Gap housing	● Private sector funded and delivered ● FLISP	● Row housing	● 50du/ha	● Bulk infrastructure needs to be determined
● Paul Kruger street (4024) ● 2.32ha	● Medium density residential ● densification	● Residential (78%)	● Gap ● Rental	● Private sector funded and delivered/Flisp	● Semi detached duplex	● 50 du/ha ● 90 units	● Bulk infrastructure needs to be determined
● Erf 1783 ● Erf Size TBD	● Medium density residential ● Densification	● Residential (100%)	● Subsidy housing	● IRDP ● Bridge financing/other	● Row housing	● 50 du/ha	● Bulk infrastructure needs to be determined
● Erf 1790 ● Erf Size TBD	● Medium density residential ● Densification	● Residential (100%)	● Subsidy housing	● IRDP ● Bridge financing/other	● Row housing	● 50 du/ha	● Bulk infrastructure needs to be determined
● Erf 1796 ● Erf Size TBD	● Medium density residential ● Densification	● Residential (100%)	● Subsidy housing	● IRDP ● Bridge financing/other	● Row housing	● 50 du/ha	● Bulk infrastructure needs to be determined

• Erf 2481/2482 • Erf Size TBD	• Medium density residential • Densification	• Residential (100%)	• Subsidy housing	• IRDP • Bridge financing/other	• Row housing	• 50 du/ha	• Bulk infrastructure needs to be determined
• Erf 2090/2695 • Erf Size TBD	• Medium density residential • Densification	• Residential (100%)	• Subsidy housing	• IRDP • Bridge financing/other	• Row housing	• 50 du/ha	• Bulk infrastructure needs to be determined
• Paul Kruger and Coetzee Str (2251, 1099,1106,1107) • 8.04ha	• Medium Density gap and entry level housing	• Residential (77%)	• Gap/Rental (30%) • Entry level economic (70%)	• Private sector	• Semi detached simplex	• 50du/ha • 310 units	• Bulk infrastructure needs to be determined
• Roodehoogte • Adjacent airstrip • 109ha	• Medium density • Subsidy and gap housing • Contribute to extending the activity street and commercial hub around the circle	• Residential (59.2%) • See land use budget for the remainder	• Subsidy (70%) • Gap (30%)	• IRDP • Private sector • End user finance • Bridge financing	• Semi detached simplex/Duplex Row housing	• 50du/ha • 3226 units	• Bulk infrastructure needs to be determined
• Portion 171/158 • Erf Size TBD	• Mixed land use • Densification • Integration • Residential • agricultural	• Residential (61%) • See land use table annex	• Subsidy • Gap Housing • Rental stock	• IRDP • FLISP • CRU • Social housing • Employers	• Row housing • Semi-detached simplex/duplex	• 50 du/ha	• Bulk infrastructure needs to be determined
• Portion 54/158 • 7.15ha	• Densification • Infill • Tenure diversity	• Residential • 73%	• Rental • Entry Level Economic	• Private sector funded and delivered • Social Housing	• Semi detached simplex • Semi detached duplex	• 50 du/ha • 277 units	• Bulk infrastructure needs to be determined
• Erf 599 • 8.45ha	• Densification • Gateway to Ashton	• Residential (68%)	• Gap/rental • Subsidy/IRDP	• Private sector funded and delivered • IRDP	• Semi detached simplex/duplex • Row housing	• 50 du/ha • 290 units	• Bulk infrastructure needs to be determined

• Fullard Str (313) • Erf Size TBD	• Residential • Integration • Densification	• Residential (100%)	• Gap housing	• Private sector funded and delivered • FLISP	• Semi detached simplex • Row housing	• 50du/ha • 53 units	• Bulk infrastructure needs to be determined
• Green str (314) • 1.05 ha	• Residential • Infill • Densification	• Residential (100%)	• Gap housing	• Private sector funded and delivered • FLISP	• Semi detached simplex • Row housing	• 50du/ha • 53 units	• Bulk infrastructure needs to be determined
• Uitspan & Voortrekker streets • 0.8ha	• Residential • Integration • Densification	• Residential (100%)	• Gap housing	• Private sector funded and delivered • FLISP	• Row housing	• 50 du/ha • 40 units	• Bulk infrastructure needs to be determined

7. Project Costing and Budget Scheduling

7.1 Project Costing

The tables below attempt to quantify the cost of settlement delivery and sequence the cost of funding the developments in a predictable manner. The assumptions used to develop the costing framework (table 14) are based on the following:

- Number of units are based on a net density 50du/ha (considered a medium density standard attainable and applicable to the type of settlements in the LM)
- Subsidy House: R88000 (A grade services R35000 per stand)
- Gap Market House: R109800 (A grade services R35000 per stand)
- An additional 10% is added for professional services
- Where sites host both gap and subsidy a formula of 70% subsidy housing and 30% for gap housing was used.
- The costs of social and economic facilities were not costed and would require a separate exercise in order to do so dependent on the design requirements.
- The funding sources provided are a guide for sourcing the primary funds; various options are often applicable to the project depending on the final project specification (e.g. tenure and typology). The top up or bridging financing requires the work and initiative of the municipality to source alternative funding sources.

Table 12 Indicative Project Costing

Project Title	Settle- ment	No. of Units	Target Market	Housing Typologies	Project Value ²⁰	Top Structure Cost	A Grade Services Cost	Potential Funding Source
Callie De Wet	R	246	Gap/Middle Income	Semidetached simplex/duplex	R 39,182,880	R 27,010,800	R 8,610,000	Private/sector FLISP
Kaktus Tuin	R	33	Gap/Middle Income	Second floor units/mixed land use	R 5,256,240	R 3,623,400	R 1,155,000	Private/sector FLISP
Depot: Nqubela North	R	none	Commercial/light industrial tenants	Industrial Units	R 0			Social/Economic Facilities Fund (DPLGH)/ NDPG
August str	R	48	Subsidy Market	2/3storey walk ups	R 6,494,400	R 4,224,000	R 1,680,000	IRD/DP/Bridge Financing
Ngonyama str	R	18	Subsidy Market	Semi Detached Duplex	R 2,435,400	R 1,584,000	R 630,000	IRD/DP/Bridge Financing
Paddy str (3944)	R	48	Subsidy Market	Row Housing	R 6,494,400	R 4,224,000	R 1,680,000	IRD/DP/Bridge Financing
Paddy str (3942)	R	TBD	Subsidy Market	Semidetached simplex/duplex	TBD			IRD/DP/Bridge Financing
Paul Kruger str (4024)	R	90	Subsidy Market	Semidetached simplex /duplex	R 14,335,200	R 9,882,000	R 3,150,000	Private/sector FLISP
Erf 1783	R	TBD	Subsidy Market	Semidetached simplex /duplex	TBD			IRD/DP/Bridge Financing
Erf 1790	R	TBD	Subsidy Market	Semidetached simplex /duplex	TBD			IRD/DP/Bridge Financing
Erf 1791	R	TBD	Subsidy Market	Semidetached simplex /duplex	TBD			IRD/DP/Bridge Financing
Erf 1796	R	TBD	Subsidy Market	Semidetached simplex /duplex	TBD			IRD/DP/Bridge Financing
Erven 2481/2482	R	TBD	Subsidy Market	Semidetached simplex /duplex	TBD			IRD/DP/Bridge Financing
Erven 2090/2695	R	TBD	Subsidy Market	Semidetached simplex /duplex	TBD			IRD/DP/Bridge Financing
Paul Kruger & Coetzee Str (2251-1107)	R	310	Gap/Middle Income	Semi Detached Simplex	R 49,376,800	R 34,038,000	R 10,850,000	Private/sector FLISP
Roodehoogte	R	3226	Subsidy Market/Gap	Mixed Typologies: Semidetached simplex/duplex, Row Housing	R 436,477,800	R 283,888,000	R 112,910,000	IRD/DP/Bridge Financing
Portion 171/158	A	TBD	Subsidy/Gap Market	Mixed Typologies: Semidetached simplex/duplex, Row Housing	TBD			IRD/DP/FLISP/CRU/SOCIAL HOUSING
Portion 54/158	A	277	Gap Market	Semidetached simplex/duplex	R 20,701,318	R 9,124,380	R 9,695,000	CRU/Employer Bridge Financing
Erf 599 Gateway	A	290	Subsidy/Gap Market	Mixed Typologies: Semidetached simplex/duplex, Row Housing	R 30,055,391	R 17,173,083	R 10,150,000	IRD/DP/FLISP
Green Str (314)	A	53	Gap Market	Semi Detached Simplex	R 8,441,840	R 5,819,400	R 1,855,000	Private/sector FLISP

²⁰ Includes 10% for professional fees

Fullard Str (313)	A	Gap Market	Semidetached simplex/duplex	TBD		Private/sector FLISP
Uitspan/Voortrekker str	A	40	Row Housing	R 6,371,200	R 4,392,000	Private/sector FLISP
	Total			R 907,191,013	R 591,794,103	R 232,925,000

7.2 Budget Schedule

The Budget Schedule table takes into account current projects (were data was available) and planned or pilot projects deemed to improve sustainability for the settlement as a whole. It must be borne in mind that not all the projects are recommended for development, however, the pilot sites and costing provides various scenarios for development. The municipality along with the communities would need to prioritise the most appropriate sites and typologies and tenure forms suited to the community.

The budget phasing assumptions are the following:

- Smaller projects (less than 500 units) are phased over 3 years
- Year 1: 20% of budget
- Year 2 and 3: 40% each of the total budget
- Larger projects (greater than 500 units or where high priority is not indicated-see 'project sustainability' table 12) are phased over 5 years at 20% per annum
- Caveats:

1) The current Division of Revenue bill (PGWC) indicates an annual increase of $\pm 20\%$ peaking at $\pm R26\,000\,000$ in 2011/2012 which is far lower than the total figure in that year or any subsequent year.

2) The costing for each project below is the total estimated cost for the project (top structure and bulk infrastructure, professional services, excluding land purchases) but includes gap or middle income housing and thus the total budgets do not reflect the demand on the state fiscus.

Table 13 Project Budget Scheduling

Project Title	Settlement	Units	Project Value	Year 4 09/10	Year 5 10/11	Year 6 11/12	Year 7 12/13	Year 8 13/14	Year 9 14/15	Year 10 15/16	Year 11 16/17	Year 12 17/18
Current Projects												
Ashton: Zolani	A	179	R 4,550,000									
Bonnievale: HV	B	66	R 3,600,000	R 5,640,000								
Bonnievale: B	B	701	R 29,775,000		R 8,676,000	R 19,824,000	R 22,800,000					
Robertson: Nqubela	R	444	R 20,460,000	R 11,200,000	R 8,000,000							
Montagu: Mandela Square	M	500	R 32,400,000	R 10,400,000	R 10,000,000							
McGregor 1	MG	300	R 5,775,000	R 6,768,000								
McGregor 2+3	MG	66+72	R 40,792,000	R 3,880,000	R 10,512,000	R 13,600,000	R 12,800,000					
Planned Projects												
Callie De Wet	R	246	R 39,182,880	R 7,836,576	R 15,673,152	R 15,673,152						
Kaktus Tuin	R	33	R 5,256,240		R 2,102,496	R 2,102,496	R 1,051,248					
Depot: Nqubela North	R	none	R 0									
Erf 136 August str	R	48	R 6,494,400		R 1,298,880	R 2,597,760	R 2,597,760					
Erf 136 Nkonyama str	R	18	R 2,435,400		R 487,080	R 974,160	R 974,160					
Paddy str (3944)	R	48	R 6,494,400		R 1,298,880	R 2,597,760	R 2,597,760					
Paddy str (3942)	R	TBD										
Paul Kruger str (4024)	R	90	R 14,335,200		R 2,867,040	R 5,734,080	R 5,734,080					

Project Title	Settlement	Units	Project Value	Year 4 09/10	Year 5 10/11	Year 6 11/12	Year 7 12/13	Year 8 13/14	Year 9 14/15	Year 10 15/16	Year 11 16/17	Year 12 17/18
Erf 1783	R	TBD										
Erf 1790	R	TBD										
Erf 1791	R	TBD										
Erf 1796	R	TBD										
Erf 2481/2482	R	TBD										
Erf 2090/2695	R	TBD										
Paul Kruger & Coetzee Str	R	310	R 49,376,800				R 9,875,360	R 19,750,720	R 19,750,720			
Roodehoogte	R	3226	R 436,477,800					R 87,295,560	R 87,295,560	R 87,295,560	R 87,295,560	R 87,295,560
Portion 171/158	A	TBD										
Portion 54/158	A	277	R 20,701,318				R 4,140,264	R 8,280,527	R 8,280,527			
Erf 599 Gateway	A	290	R 30,055,391					R 6,011,078	R 6,011,078	R 6,011,078	R 6,011,078	R 6,011,078
Erf 314 Green Str	A	53	R 8,441,840		R 1,688,368	R 3,376,736	R 3,376,736					
Erf 313 Fullard Str	A	TBD										
Uitspan/Voortrekker str	A	40	R 6,371,200		R 1,274,240	R 2,548,480	R 2,548,480					
Total			R 1,051,291,013	R 45,724,576	R 63,878,136	R 69,028,624	R 68,495,848	R 177,651,514	R 177,651,514	R 149,620,267	R 149,620,267	R 149,620,267
DORA Allocation²¹				R 18,651,000	R 22,175,000	R 26,336,000	R 31,339,840	R 37,294,410	R 44,380,347	R 52,812,613	R 62,847,010	R 74,787,942
Variance				-R 27,073,576	-R 41,703,136	-R 42,692,624	-R 37,156,008	-R 140,357,105	-R 133,271,167	-R 96,807,654	-R 86,773,257	-R 74,832,325

²¹ DORA allocations in blue have not been tabled, these are projections calculated by the author based on a 19% annual increase.

8. Implementation and Integration

The earliest implementation issues have been raised in the 2007 LM IDP; these relate to 1) planning, 2) budget alignment, 3) size of the budget, 4) human resource capacity constraints, 5) land availability, 6) need for bulk infrastructure, and 7) interdepartmental alignment.

Further assessment and facts in this study have also revealed the following:

- Housing demand is in excess of 7500 units
- Housing supply has slowed in recent years, to approximately 100 units per annum, in the first decade of democracy supply reached $\pm$ 400 units per annum
- Current and planned projects for the next 3-5 years indicate an average supply of almost 500 units per annum
- Location: The housing opportunities were not generally located close to economic opportunities and the locations by and large did not facilitate integration
- Structural Integrity: The majority of top structures built were of poor quality; in the region of 5000 require structural repairs and are currently being repaired²²
- Typology and Tenure: single free-hold tenure remains the only tenure available. In terms of typology, while varied, no vast improvements have been made to deal with the variety of needs.
- Implementation: issues relate to the tendering process, and project management capacity
- The funding gap from the division of revenue falls far short of meeting the demand

The district-wide workshop addressing cross cutting issues implementation issues highlighted the following (see table 32 in annex 3 for full minutes):

- Alternative mechanisms required to ensure greater co-ordination and interaction between provincial and local government departments
- Regular collaborative meetings to be held with municipalities, district and provincial departments to deal with Integrated Housing issues (see above)
- Problems of timing of EIA's with LUPO process were identified
- Housing typology education programme considered necessary as part of the delivery strategy.
- Possible consideration of a show/pilot village in the Cape Winelands – CWDM to investigate
- Municipalities need to make provisions for the gap market and create conditions for the private sector to implement
- There is a responsibility to cater for the gap market because of how the market contributes to the municipal revenue base and contributes to the community
- Private sector employers have shown willingness to assist in providing gap housing.
- Research on the demand and potential supply within the GAP housing market in the Cape Winelands as well as lower middle income market should be commissioned.

Moreover, in a parallel process the Western Cape Province: Built Environment Support Group has also raised key areas and recommendations for HSPs²³

HSP and SDF Guidelines

- SDF guideline to specify applicable principles and requirements for restructuring/sustainability objectives;
- Focus on “one housing market”
- Assessment of spatial and human settlement performance
- Consideration of rural issues and space economy in SDF and HSP's

²² Discussion with LM Housing manager

²³ Contact Rika van Rensburg Provincial for further detail Dept Local Government and Housing: Directorate: Planning, Research & Policy Development

Alignment of infrastructure and public facilities such as schools, with housing delivery.

- Identify relevant stakeholders in stakeholder analysis and housing project development cycle/process map (role of planning forum)
- Housing and MIG funding streams to be brought together.

Municipal Performance Agreements

- Piloting an approach in BESP for “mandatory” multi-functional project teams to lead SDF and HSP (integration into performance agreements) development at municipal level
- Performance Contracts associated with different functional areas must recognize the significance of the HSP and SDF.

In sum it is evident from the above mentioned issues that coordination is important on many levels. At a municipal level, strategic integration is a primary pre-requisite, the Sustainable Human Settlement Plan needs to be informed by an SDF that explicitly deals with housing location. Moreover, the IDP process and document needs to take cognizance of the multiple resources it needs to coordinate in order to reach the strategic goals of the municipality, in this case, comprehensively planned and implemented sustainable human settlements.

9. Conclusion

The pilot projects have been costed to provide possible development scenarios. The implications of the development scenarios and projects impact not only on the Housing Department but include the Department of Social Development and Education for funding ECD centres in particular. The need for primary schools is also evident should any of the larger projects be adopted. By and large the largest need would be to develop 1) ECD centres and 2) functional open space, pocket parks and urban landscaping and greening initiatives in general.

The single greatest implication for the Municipality is the assessment of spare bulk capacity and subsequently the provision thereof considering the development sites adopted. Moreover, the LM's core administrative responsibility remains the capacity and skills to implement the volume of projects as well as the responsibility to source bridging financing or alternative finance sources to achieve densities and typologies that foster sustainability. Lastly, the political will to remove or scupper impediments to sourcing ideally suitable land is the LM's key political achievable which will render a long lasting positive legacy for the peoples that call the Breede River Winelands, *home*.

10. Annexure

10.1 Annex 1: Sustainability Criteria

Table 14 Step 1 Pre-qualification Criteria

Pre-Qualification Criteria	Key objectives	Instrument calibration and measurements
A clear indication of housing / human settlement upgrading need exists	To ensure adequate planning of housing demand and supply has taken place (i.e. ensure there is political support and that municipality has applied their mind to assessing need and costs)	Provision of a list of project / community beneficiaries Record of municipal Council decision ²⁴ which supports implementation of project in principle ²⁵ Housing plan contained in the IDP and SDF (or compliant with SDF principles)
Evidence that sufficient funding is provided for bulk services	To ensure that the project has been factored into the budget cycle of relevant spheres of government	Documentation showing budgetary commitment by relevant spheres to cover key project costs factors (planning, land, bulk services, top structure etc.)
Existence of sufficient bulk infrastructure capacity to accommodate demand from project, or approved plans in place to upgrade infrastructure	To avoid bottlenecks created by insufficient bulk infrastructure	Evidence of existing bulk infrastructure capacity adequate to accommodate forecast additional demand, or plans to upgrade infrastructure which have been approved by DEADP
Disaster management and avoidance of critical environmental risks	To ensure that adequate disaster management takes place and that environmental disasters and loss of life are avoided or minimised	Existence of geo-technical study – a standard requirement Environmental scoping report (not full-blown EIA) indicating no significant environmental risks – This only applies if legislation requires an EIA
Proximity to nearest centre of economic opportunities	Maximise local community job creation and small business opportunities resulting from project	Map submitted by municipality to show location of project is within X kms of ²⁶ ; PHC clinic Economic hub Primary school Compliance with Provincial Government EPWP guidelines

Source: Sustainability criteria for assessment of IRDP, PHP, and UISP Projects

Table 15: Step 2 Criteria for evaluating housing project benefits

Key objectives	Criteria
(based upon provincial guidelines of PSDF, MEDS and integrated with settlement specific requirements)	
A: Economic efficiency (PROSPERITY)	
Enhance economic security and/or promote employment (job creation)	Access to economic opportunities Proximity to relevant employment opportunities (e.g. low and medium skilled)

²⁴ In case of CCT, decision of Housing Portfolio Committee.

²⁵ Where possible, also a decision to budget the necessary funds, and indication from the Council that the municipality has the capacity to maintain basic services following project implementation. Only a decision of support in principle is required.

²⁶ Perhaps travel time instead of distance?

Promote an “affordable” range of options (context of generally very poor customers)	Ability to leverage additional resources ▪ Ability to mobilise commercial housing finance ▪ Cross subsidisation of housing by other developments ▪ Mixed uses including commercial, business industry (hives) ▪ Mixed income communities Extent of bulk infrastructure (existing): ▪ Bulk services e.g. water, sewerage, electricity and roads ▪ Transport capacity, including public transport linkages Provision of higher density housing which supports efficiencies such as along major routes (e.g. public transport corridors/ routes/ interchanges), around open spaces, and underdeveloped sites with development potential Layout and/or design promoting and/or supporting economic activities e.g. ▪ Support to small business sector development and building connections between the second and first economy ▪ Extent to which make provision for commercial/SMME activities (e.g. innovative designs and layouts which provide commercially feasible formal and informal small business premises and trading areas) Ability/measures to reduce risk and enhance access to commercial housing credit (redress red-lining) Application of alternative construction methods to promote cost efficiency and/or employment creation
Promote optimal use of space and infrastructure	
Promoting economic activity and SMME's	
Fostering creativity	
B. Social justice (PEOPLE)	
Quality of life and access to resources	Improved access to social development resources- reliable basic services (education, recreational, cultural, health, welfare & policing) NB: <i>This could be achieved though the quality of the design (for example: the strategic location of the project close to such amenities and/or through the provision for the amenities within the overall project development plans.)</i>
Promoting social & spatial integration	Proximity and/or linkages with other income or social groups/communities (extent of integrated/mix communities and income groups (in close proximity)
Building communities (including: upgrading of informal settlements)	Involvement of communities at an early stage in planning process and establishment / implementation phases <i>Note: Evidenced by: records of community consultation; provision of beneficiary lists; community management and ownership structures and plans (e.g. community forums, body corporate & trusts)</i> Provision of social facilities and amenities integrated within the project (new)
C: Ecological integrity (PLANET)	
Attaining sustainability (e.g. Incorporating ecologically sensitive settlement design alternatives)	Compatibility with existing cultural landscapes, artefacts and buildings
	Application of building materials to conserve costly resources (recycling, insulation, solar heating etc.)
	Demonstrate the minimisation of the consumption of scarce environmental resources: water and electricity
	Promote ecologically sensitive settlement design alternatives (e.g. water saving potential, waste disposal, power, appropriate orientation)
Must have EIA (if relevant)	

Source: Sustainability criteria for assessment of IRDP, PHP, and UISP Projects

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Core Municipal Disaster Management Plan

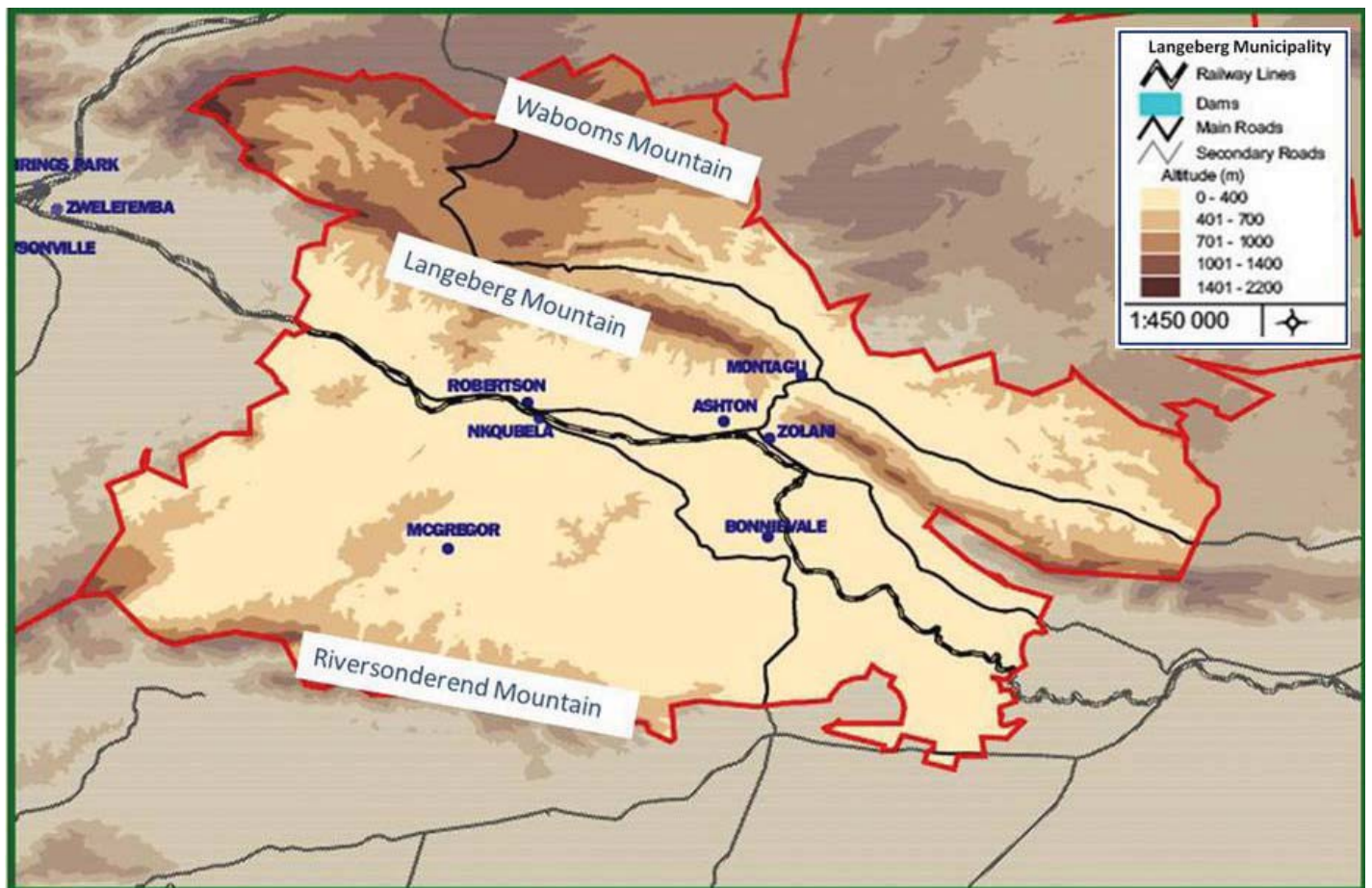


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SECTION A

EXECUTIVE SUMMARY CORE DISASTER MANAGEMENT PLAN

GENERAL DESCRIPTION AND OVERVIEW

Total Area: 4 519. km² (Approximately) Population density: 24.05 (persons/square kilometre - 2007) Western area (urban) 8.4 km² Eastern (urban) 10.6 km²	
Area: Robertson, McGregor and Adjacent Rural Area	Area: Ashton, Montagu and Bonnievale
General Description of the Area: Areas between Robertson/McGregor and Ashton are sub-divided in terms of Disaster Management purposes for application. Robertson is divided into Vinkrivier, Noree, Goree, Willem Nelsrivier, De Hoop, Le Chasseur/Agterkliphoogte and Klaas Voogdsrivier. McGregor is divided by the Koningsrivier system. Robertson district is basically divided in two by the Breede River which flows parallel to the mountain ranges (Langeberg and Riviersonderend).	General Description of the Area: Subdivided into several valleys: mountainous area, with Koo/Keisie, Pietersfontein, Baden and Rietrivier areas. A confluence of the Keisie and Kingna river systems is situated at the western town boundary of Montagu. Montagu is situated between Langeberg and Waboomsberg ranges. Bonnievale is situated appr. 20km south of Ashton, adjacent to the Breede River. The area is subdivided into the following sub-regions/communities: Wakkerstroom, Langverwacht/Angora, Boesmansrivier, Drew and Waboomsheuwel.
Approximate distances (from Robertson): Ashton (18km), Bonnievale (28km), McGregor(22) and Montagu (28). Surrounding municipalities are Breede Valley, north west (50km), Swellendam (72km), east and Cape Agulhas (110km) in the south.	
Connection Routes: The most important route: R60, between Worcester and Swellendam. Route 317 connects Robertson to Bonnievale. Various secondary routes e.g. main roads, (tar and dirt roads) in the rural area.	Connection Routes: The most important routes: R317 between Robertson/Bonnievale/Stormsvlei, the R60 between Worcester/Robertson/Ashton/Swellendam and several leading from the latter to Bonnievale. R62 between Ashton/Montagu/Barrydale Various secondary routes e.g. main roads, (tar and dirt roads) in the rural area. The R318 connects Montagu to the N1, via Keisie/Koo.
Occupancy types (Total Area) Approximation: Total Households 20 931 Total Commercial Businesses 1300 Total Industrial Businesses 61 Informal (by approximation – as per waste removal statistics) Ashton: 0 Bonnievale: 133 Mcgregor: 116 Montagu: 64 Robertson 444	

GENERAL DESCRIPTION AND OVERVIEW (CONT.)

Railway Lines – and Bridges Railway Bridges Vink River: Steel construction Willemnells River: (concrete) Zand River (concrete). The main railway line between Worcester and Mosselbay stretches for approximately 30km through the Robertson area and carries an amount of three (3) goods/passenger trains daily. A large number of hazardous loads are transported on this railway route. Railway Line Crossings: unguarded crossings at Cape Lime, Rooiberg Cellars, Goree, Silver Strand Road and Nkqubela. Important Bridges: Victoria bridge, between Robertson and McGregor over the Breede River. Vink River bridge: on the R60 between Robertson and Worcester. Vicinity of Vink River railway station: road bridge on the R60 over the main railway line. KeisersRiver bridge: on the road from Robertson to McGregor. Road bridge: at Robertson railway station over the railway line and the Hoops River	Railway Lines – and Bridges Railway line between Ashton and Bonnievale Railway Bridges One rail bridge in Ashton. The main railway line between Worcester and Mossel Bay stretches for approximately 20km through the Bonnievale area and carries approximately three (3) goods/passenger trains daily. A large number of hazardous loads are transported on this railway route. Railway Line Crossings: two (2) unguarded crossings in Bonnievale urban area, at the station and at the Golf club. Rural area at Drew and several on minor roads.
More Important causeway and Secondary Bridges: Breede River “Rooibrug” in the vicinity of Goudmyn (R317) Konings River: Near the Konings River farm. Situated in the Konings River road (dirt road). Houtbaais River: Situated on the dirt road between McGregor and the Konings River. Poesjesnells River: Near Wansbek in die Le Chasseur/Agterkliphoogte road and the farm at Le Chasseur. Willemnells River Causeway Bridge at Brandewynsdraai (Die Dros) Causeway Bridge at the cemetery (en route to Wolfkloof) Causeway Bridge at Dassieshoek Nature Reservation en route to the farm Die Laaitjie. Hoops River Causeway Bridge at the farm Roode Hoogteplaas. Causeway Bridge in Johan de Jongh avenue – near the correctional service facility Bridge at Van Zyl Street	More Important causeway and Secondary Bridges: Bonnievale Breede River bridge: near Parmalat factory, Die Plaat causeway in Angora Street at the urban fringe over Breede River Drew Causeway Montagu Van der Merwe Bridge: R62 (Lang Street) over Kingna Rivers Voortrekkers Bridge: R62(Lang Street) over confluence of Kingna and Keisie Rivers Loftus Bridge: R62 rural over Cogmanskloof river Boy Retief Bridge: R62 rural over Cogmanskloof river Ashton Bridge: R62 rural over Cogmanskloof river Cogmanskloof Bridge: R317 over Cogmanskloof river near farm Goudmyn Keisie river bridge: R318 over Keisie River near the farm Drieberge Koo Bridge: On R318 over Koo river, near the farm Concordia.

Bridge at Truter Street Bridge at Church Street Causeway bridge at Hoop Street Bridge at Adderly Street Causeway bridge at Constitution Street Bridge at Voortrekker Street Vink River Bridge on R60 Causeway bridge at the farm Goree Causeway bridge at Rooiberg Cellar Noree River Causeway bridge at the farm Goree. Droë River: Paddy Street bridge – situated on the Keurkloof road Causeway bridge in Doornbos Street (between Rolbos and Peper bos Streets			Most deep rural roads are inundated with causeways that are regularly flooded and could be deemed important for emergency service rendering during such incidents and rural farms are dependent on aerial support during incidents.		
Sewage pipelines Locality:	To be indicated on risk specific plan for particular discipline.				
Water pipelines Locality	To be indicated on risk specific plan for particular discipline.				
Electrical Power Supply Location	To be indicated on risk specific plan for particular discipline.				
Tele Communication	Telecommunication services are provided via Telkom under and above ground lines to a centrally situated centre situated at Van Reenen Street, Robertson and micro-wave equipment at Galgeberg, McGregor, Laatsrivier and Sandvlei, Koo. Three (3) cellular networks have coverage stations at Muiskraalskop, Rooiberg, Galgeberg, Knipe's Hope and generally along the main routes. Internal communication i.e. telephones, facimilee, cellphone services and radio communication (presently area and discipline limited) are used.				
Halls (Community and Other)	ROBERTSON Robertson Town Hall Robertson Civic Hall Nkqubela Community Hall Callie de Wet Hall Zolani Hall King Edward Sport Hall MCGREGOR McGregor Community Hall	Church Street Hospital Ave Ngonyama Street Church Street Building Street Piet Retief Street Voortrekker Street	BONNIEVALE Bonnievale Community Hall Happy Valley Hall Chris Van Zyl Hall Happy Valley Sport grounds MONTAGU Hofmeyer Hall King Edward Hall Montagu Community Hall ASHTON Ashton Town Hall Barnard Hall Rolihlahla Community Hall	New Cross Street New Cross Street Voortrekker Road Milner Street Bath Street Piet Retief Street Wilhelm Thys Avenue Swart Street Uitspan Street Building Street	
Hospital (Provincial)	Robertson Hospital: 40 Beds available. Doctors 3. Nursing staff: 45.		Montagu Hospital: 40 beds available. Doctors: 3 Nursing staff: 34		

LANGEBERG MUNICIPALITY DISASTER RISK ASSESSMENT (AFRICON) 2007

- Please note: As Assessments are contained in documents referring to the old name of the municipality and due to being directly cited, the names cannot be changed.

Risk Prioritisation Table for Breede River Local Municipality

Hazard	Exposure	Severity	Probability	Actions Needed
Fires	Occasional	Moderate	Normal	Preparedness Planning
Floods	Occasional	Extreme	Likely	Risk Reduction interventions and Preparedness Planning
Rail Derailment	Occasional	Moderate	Normal	Urgent Risk Reduction intervention

Risk Prioritisation Table for Breede River Local Municipality

Hazard	Awareness	Legislative Framework	Early Warning Systems	Government Resources	Existing Risk Reduction Measures	Public Participation	Municipal Management Capabilities
Fires	Poor	Good	Poor	Poor	Poor	Modest	Good
Floods	Poor	Modest	Modest	Modest	Poor	Modest	Good
Rail Derailment	Poor	Poor	Poor	Poor	Poor	Modest	Good

Relative Risk Priorities for Breede River Local Municipality

Hazard	Total Risk	Total Risk Manageability	Relative Risk Priority	Actions Needed
Fires	Tolerable	Modest	Safe	Preparedness Planning
Floods	Destructive	Modest	Tolerable	Risk Reduction interventions and Preparedness Planning
Rail Derailment	Destructive	Modest	Destructive	Urgent Risk Reduction intervention

CPUT: COMMUNITY BASED RISK ASSESSMENT (2008)

LANGEBERG MUNICIPALITY			
	LIKELY	NORMAL	UNLIKELY
Floods	22	0	0
Water management	21	1	0
Hazardous loads	17	3	0
Drought	16	4	0
Electricity theft	14	5	0
Economic vulnerability	11	10	1
Veld fire	10	9	0
Epidemics	9	10	0
Road infrastructure	7	13	4
Dangerous installations	4	16	2
Rapid development	4	3	14
Erosion	1	19	1
Structural fire	0	20	0
Bus accidents	0	18	3
Earthquakes	0	6	15
Nuclear spill-over	0	0	16

2009/2010 DISASTER RISK REDUCTION PROJECTS CAPEX

Depicted due to Disaster Flood Funds received: some projects continuing during the 2010/2011 financial year

CAPITAL BUDGET 2009/2010 (EXP ON 30 JUNE 2010)

Project	Budget	Total Expenditure	% Expenditure vs Budget
INFORMATION & COMMUNICATION TECHNOLOGY			
Disaster Recovery	R 400,000.00	R 398,924.65	
Disaster Recovery - own funds	R 140,587.00	R 139,087.09	
TOTAL INFORMATION & COMM. TECHNOLOGY	R 540,587.00	R 538,011.74	99.52%
HOUSING			
Building of Houses	R 6,955,485.00	R 9,131,940.73	
Infill Houses Robertson	R 2,833,715.00	R 2,164,033.33	
Land Acquisition McGregor	R 1,240,000.00	R 513,641.73	
Services Infill Houses Ashton	R 150,000.00	R 92,981.40	
Sewerage Nkqubela Robertson	R 300,000.00	R 376,081.12	
Installation of Services-Bonnievale Squatter Camp	R 210,000.00	R 14,166.84	
Building of Houses-Happy Valley Bonnievale	R 2,266,972.00	R 2,587,035.42	
Building of Houses-Mandela Square Montagu	R 2,730,671.00	R 3,025,215.47	
Building of Houses-Zolani Ashton	R 3,348,936.00	R 6,286,146.65	
Building of Igloo Houses Robertson	R 515,221.00	R 869,274.15	
Streets-Zolani Karpad Ashton	R 3,500,000.00	R 2,703,636.53	
Sewerage-Zolani Ashton	R 900,000.00	R 899,210.54	
Electrification Projects-Housing	R 2,700,000.00	R 1,295,876.61	
Emergency Housing	R 72,340.00	R 0.00	
TOTAL HOUSING	R 27,723,340.00	R 29,959,240.52	108.07%
SEWERAGE			
Upgrading Bonnievale Sewerage Treatment Plant	R 155,000.00	R 154,939.21	
TOTAL SEWERAGE	R 155,000.00	R 154,939.21	99.96%

ROADS & STREETS			
Tarring of Roads	R 4,200,000.00	R 4,200,000.00	
Flood Damage	R 3,500,000.00	R 999,984.89	
TOTAL ROAD TRANSPORT	R 7,700,000.00	R 5,199,984.89	67.53%
WATER			
Replacement / Upgrading of Water Network	R 7,065,900.00	R 6,287,813.16	
Upgrading of water Reservoir McGregor	R 681,100.00	R 679,672.80	
Upgrading of water treatment work Montagu	R 6,200,000.00	R 6,208,771.40	
Upgrading of water treatment work Montagu	R 1,600,000.00	R 1,599,999.99	
Robertson Bulk Water Provision	R 1,100,000.00	R 1,136,750.00	
TOTAL WATER	R 16,647,000.00	R 15,913,007.35	95.59%
ELECTRICAL ENGINEERING			
Electricity for Houses	R 601,727.00	R 501,771.67	
Electricity for Houses-McGregor Squatter Camp	R 20,000.00	R 7,813.20	
Electricity for Houses-Infill Houses	R 176,000.00	R 134,584.20	
Electricity for Houses-Nkqubela Houses	R 55,000.00	R 53,594.17	
Electricity for Houses-Igloo Houses	R 29,000.00	R 10,237.81	
Electricity for Houses-Zolani	R 191,000.00	R 155,064.47	
Electricity for Houses-Bonnievale	R 123,373.00	R 122,542.54	
Relocation of electrical connections for new housing project	R 499,000.00	R 212,731.55	
TOTAL ELECTRICAL ENGINEERING	R 1,695,100.00	R 1,198,339.61	70.69%
ENVIRONMENTAL SERVICES			
Flood Damage	R 681,000.00	R 113,561.21	
TOTAL ENVIRONMENTAL SERVICES	R 681,000.00	R 113,561.21	16.68%
CLEANSING			
Compactor	R 1,467,425.00	R 1,467,425.00	
Recycling Plant	R 410,000.00	R 331,410.14	
Transfer Stations McGregor	R 500,000.00	R 377,900.82	
Electrification-Recycling Plant	R 165,550.00	R 15,327.71	
TOTAL CLEANSING	R 2,542,975.00	R 2,192,063.67	86.20%
GRAND TOTAL	R 57,685,002.00	R 55,269,148.20	95.81%

2010/2011 DISASTER RISK REDUCTION PROJECTS CAPEX PROJECTS

Project	Budget
INFORMATION & COMMUNICATION TECHNOLOGY	
Disaster Recovery	R 400,000.00
Disaster Recovery - own funds	R 140,587.00
TOTAL INFORMATION & COMM.TECHNOLOGY	R 540,587.00
ROADS & STREETS	
Flood Damage	R 2,850,511.00
TOTAL ROADS & STREETS	R 2,850,511.00
HOUSING	
Building of Houses	R 6,955,485.00
Infill Houses Robertson	R 2,833,715.00
Land Acquisition McGregor	R 1,240,000.00
Services Infill Houses Ashton	R 150,000.00
Sewerage Nkqubela Robertson	R 300,000.00
Installation of Services-Bonnievale Squatter Camp	R 210,000.00
Building of Houses-Happy Valley Bonnievale	R 2,266,972.00
Building of Houses-Mandela Square Montagu	R 2,730,671.00
Building of Houses-Zolani Ashton	R 3,348,936.00
Building of Igloo Houses Robertson	R 515,221.00
Streets-Zolani Karpad Ashton	R 3,500,000.00
Sewerage-Zolani Ashton	R 900,000.00
Electrification Projects-Housing	R 2,700,000.00
Emergency Housing	R 72,340.00
TOTAL HOUSING	R 27,723,340.00
SEWERAGE	
Upgrading Bonnievale Sewerage Treatment Plant	R 155,000.00
TOTAL SEWERAGE	R 155,000.00
ROADS & STREETS	
Tarring of Roads	R 4,200,000.00
Flood Damage	R 3,500,000.00
TOTAL ROAD TRANSPORT	R 7,700,000.00
WATER	
Replacement / Upgrading of Water Network	R 7,065,900.00
Upgrading of water Reservoir McGregor	R 681,100.00
Upgrading of water treatment work Montagu	R 6,200,000.00
Upgrading of water treatment work Montagu	R 1,600,000.00
Robertson Bulk Water Provision	R 1,100,000.00
TOTAL WATER	R 16,647,000.00

ELECTRICAL ENGINEERING	
Electricity for Houses	R 601,727.00
Electricity for Houses-McGregor Squatter Camp	R 20,000.00
Electricity for Houses-Infill Houses	R 176,000.00
Electricity for Houses-Nkqubela Houses	R 55,000.00
Electricity for Houses-Igloo Houses	R 29,000.00
Electricity for Houses-Zolani	R 191,000.00
Electricity for Houses-Bonnievale	R 123,373.00
Relocation of electrical connections for new housing project	R 499,000.00
TOTAL ELECTRICAL ENGINEERING	R 1,695,100.00
ENVIRONMENTAL SERVICES	
Flood Damage	R 681,000.00
TOTAL ENVIRONMENTAL SERVICES	R 681,000.00
CLEANSING	
Compactor	R 1,467,425.00
Recycling Plant	R 410,000.00
Transfer Stations McGregor	R 500,000.00
Electrification-Recycling Plant	R 165,550.00
TOTAL CLEANSING	R 2,542,975.00
GRAND TOTAL	R 60,535,513.00

GENERIC DISASTER MANAGEMENT PREPAREDNESS PLAN

STANDARD PROCEDURES: CHAIN OF EVENTS DURING ANY SERIOUS/POTENTIAL DISASTER INCIDENT

1. The incident is reported to a responsible discipline or other instance/person (e.g. the 24 hour complaint centre).
 - 1.1. The responsible Discipline head informs the Manager: Disaster Management.
 - 1.2. The Manager: Disaster Management reports the incident to:
 - 1.2.1. Municipal Manager (Langeberg Municipality);
 - 1.2.2. Relevant Directors;
 - 1.2.3. Relevant OMT members;
 - 1.3. The Head: Disaster Operations (CWDM) reports the incident to:
Municipal Manager or delegated person;
 - 1.3.1. CWDM Head of Department 021 888 5304 071 156 0840
 - 1.3.2. SAPS Commander: Lt Col Rall (082N4691058)/Col Alexander (082 77969120) 023 626 8340
 - 1.3.3. Provincial Traffic Swellendam 028 514 1185 /0716784117
 - 1.3.4. Provincial Traffic Worcester 023 342 2357/08341420003
 - 1.3.5. Spoornet 023 348 4241
 - 1.3.6. Department of Water Affairs and Forestry 023 348 5600
 - 1.3.7. Provincial Disaster Management Centre 021 937 0808 083 577 1100
 - 1.3.8. District Health Officials 023 626 8300
2. The Manager Disaster Management reports the incident to:
 - 2.1. Director: Community Services 023 614 8000 Cell Phone Number: 082 8948025
 - 2.2. Role Players as per schedule.
 - 2.3. All discipline heads arrange for immediate size-up of the incident regarding the impact it has on his/her particular discipline, to determine:
 - 2.3.1. damage to infra-structure (e.g. water delivery, sewage, electricity, roads/bridges, roadways, housing and commercial/industrial institutions)
 - 2.3.2. life and property threatening situations;
 - 2.3.3. immediate mitigation operations;
 - 2.3.4. Auxiliary resource needs (e.g. private contractors, specialist equipment, other external institutions/organisations, including NGO's)
 - 2.3.5. projected short term and long term implications of the incident
 - 2.3.6. the impact the incident has on road and access for emergency transport and teams to the incident;
 - 2.3.7. any other aspect that needs immediate response for rapid service delivery continuation.
 - 2.4. The DMOC (Disaster Management Operations Centre (via the members of the OMT) performs the following functions:
 - 2.4.1. Co-ordinates mitigation operations according to priorities for:
 - 2.4.1.1. early warning of potentially afflicted areas;
 - 2.4.1.2. the saving of lives;
 - 2.4.1.3. emergency housing;
 - 2.4.1.4. emergency rations;
 - 2.4.1.5. other disaster management mitigation strategies;
 - 2.4.2. Keeps record of all incidents/events and actions and informs all strategic role-players and control centres at least once per hour regarding developments.

CORE DISASTER MANAGEMENT PREPAREDNESS PLAN: CONTACT LIST

Action		Responsibility		
1.Establishment of a DMOC (Disaster Management Operation Centre)				
Resources				
Mr J Durand (Langeberg Mun.)		Mr. R.C. Veldtmann		
Manager: Disaster Management		Senior Disaster Management Officer: Disaster Management (CWDM)		
Representation of all Disciplines as per need/request				
Role Players		Contact Details		
Name		Telephone	Cellular Telephone	Facsimile E-mail
Convenors: Disaster Management Operation Centre (DMOC)				
JJ Durand	Manager DM	023 615 2340	833 201073	023 615 2022 jdurand@langeberg.gov.za
R Veldtmann	Sr Officer DM (CWDM)	023 626 3456	082 7700848	023 626 3456 rcv@lando.co.za
Executive Management Team				
SA Mokweni	Municipal Manager (LM)	023 615 8001	082 8204036	023 615 1563 smokweni@langeberg.gov.za
Mr MJ Mhlom	Director Community Services	023 614 8037	0828948025	023 614 1841 jmhlom@langeberg.gov.za
Mr. J. de K Jooste	Director: Infrastructure Development	023 616 8002	0836351064	023 616 2937 jjooste@langeberg.gov.za
Mr CF Hoffmann	Chief Financial Officer	023 615 8032	0828960630	023 615 1563 choffmann@langeberg.gov.za
Mr. AWJ Everson	Director: Corporate Services	023 615 8006	0827716609	023 615 1563 aeverson@langeberg.gov.za
OMT (Operational Management Team)				
Mr J. Coetzee	Manager General Administration	023 615 8011		023 615 1563 jcoetzee@langeberg.gov.za
Mr T Carstens	Manager: Human Resources	023 615 8035	0824189672	023 615 1563 tcarstens@langeberg.gov.za
Ms. S. Kotzé	Manager: Property Administration	023 615 8019	0829053728	023 615 1563 skotze@langeberg.gov.za
Mr. HJ Kritzing	Manager: Budget and Support Services	023 615 8031	0788019041	023 615 1563 ckritzing@langeberg.gov.za
Mr. M Johnson	Manager: Civil Engineering Services (East)	023 615 8059	0827716613	023 615 1563 mjohnson@langeberg.gov.za
Mr. N Koegelenberg	Manager: Civil Engineering Services (West)	023 626 8248	0825777775	023 626 2426 nkoegelenberg@langeberg.gov.za
Mr. J Rossouw	Manager: Electrical Services	023 626 4960	0828960628	023 626 5532 jrossouw@langeberg.gov.za
Mr A Qhanqiso	Asst Manager: Electrical Services (West)	023 626 4960	0745877638	023 626 5532
Mr C Vorster	Asst Manager: Electrical Services (East)	023 614 8036	0827702371	023 614 1841 cvorster@langeberg.gov.za

Name		Telephone	Cellular Telephone	Facsimile	E-mail
Mr JJ Van Rooyen	Manager: New Housing	023 626 8289	0825800080	023 626 2426	jvnrooyen@langeberg.gov.za
Mr JV Brand	Manager: Town Planning	023 614 8003	0828204035	023 614 1841	kbrand@langeberg.gov.za
Ms Z Lesia	Manager: Environmental Services (West)	023 626 8203	0788012482	023 626 2426	zlesia@langeberg.gov.za
Mr D Steyn	Manager: Environmental Services (East)	023 615 8024	0823353108	023 615 1563	dsteyn@langeberg.gov.za
Mr P Wentzel	Manager: Traffic Services	023 626 8251	083 6328195	023 626 8550	pwentzel@langeberg.gov.za

SECTION B

CORE DOCUMENTS AND PLANNING BASE: CORPORATE DISASTER MANAGEMENT PLAN

1.0 Introduction

This plan confirms the arrangements for managing disaster risk and for preparing for- and responding to disasters within the Langeberg Municipality as required by the Disaster Management Act, 2002 (Act 57 of 2002).

2.0 Legal requirements

The mandatory requirements (in terms of the Disaster Management Act, 2002 (Act 57 of 2002) – hereafter referred to as “the Act”) for a Municipal Disaster Management Plan for the Langeberg Municipality are:

To prepare a disaster management plan for its area according to the circumstances prevailing in the area and within the ambit of its municipal disaster management framework.

The disaster management plan for a municipality must form an integral part of the municipality's integrated development plan (IDP) (Section 53(2)(a))

“Applicable disaster management plans” are deemed core components of an IDP (Government: Municipal Systems Act, 2000 (Act 32 of 2000)).

a District Municipality and local municipalities within the area of the district municipality must prepare their disaster management plans after consulting each other (Section 53(3)).

The Disaster Management (DM) plan, and of any amendment to the plan, must be submitted to the Disaster Management Centre of the Western Cape Province and the National Disaster Management Centre (Section 53(4)).

3.0 Key outcomes

This plan seeks to achieve the following key outcomes:

- Integration of Disaster Risk Management into the strategic and operational planning and project implementation of all line functions and role players within the municipality.
- Integration of Disaster Management Mitigation strategies and projects within the plan;
- Submission of the Disaster Management Plan to relevant Governmental structures, i.e. Disaster Management Control Centres of CWDM, Western Cape Province and the National Disaster Management Disaster Control Centre;
- An integrated, fast and efficient response to emergencies and disasters by all role-players.

4.0 Linkage with the Integrated Development Plan of the Langeberg Municipality

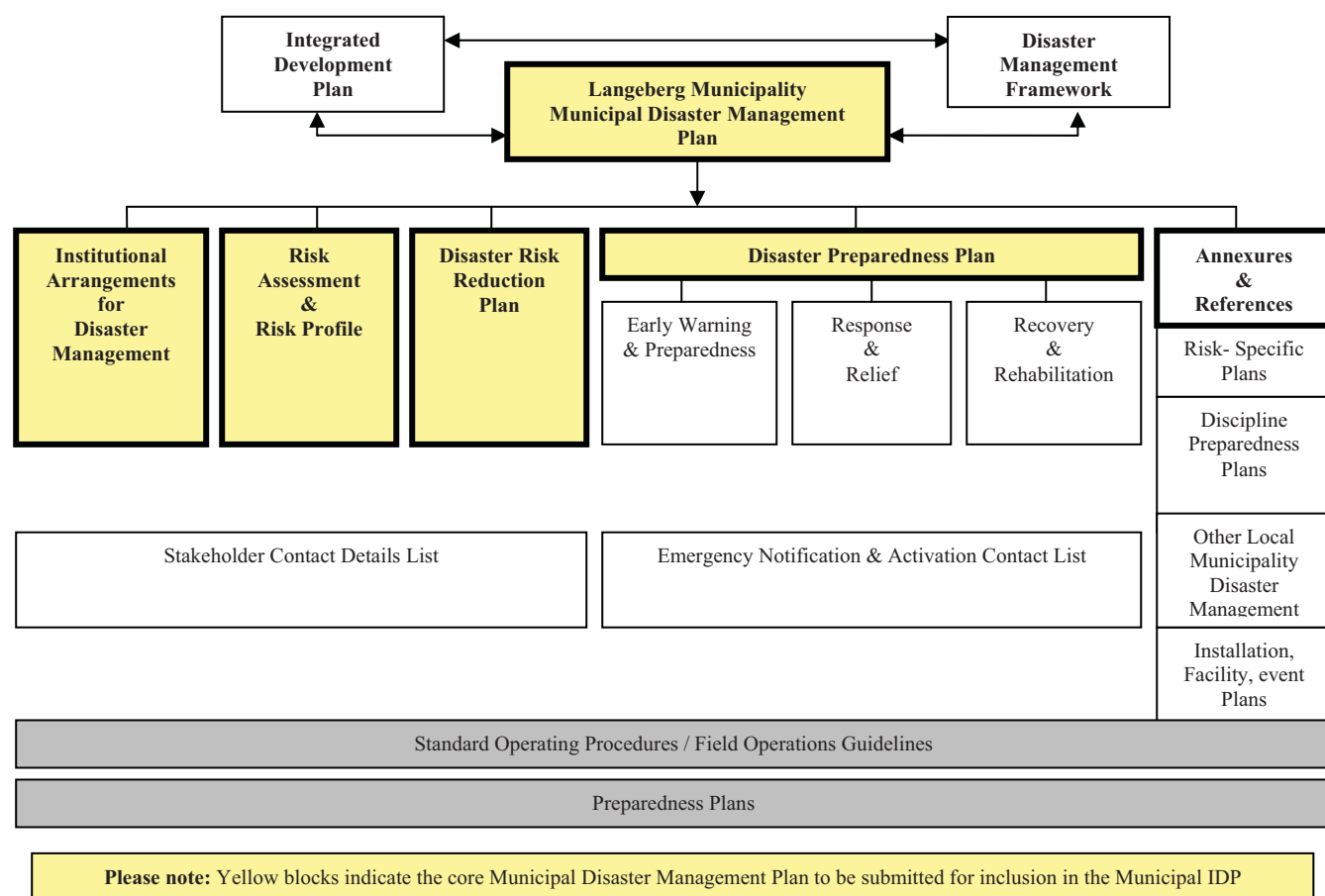
Both the Municipal Systems Act and the Disaster Management Act requires the inclusion of as an integral component of this plan into the Integrated Development Plan (IDP) of the Langeberg Municipality.

5.0 Linkage with the Disaster Management Framework of the Langeberg Municipality

The Langeberg Municipality must prepare and execute its disaster management plan within its disaster management framework. The National, Western Cape Provincial and Cape Winelands District Municipal Disaster Management frameworks will guide the development of this plan and future versions of this plan.

6.0 Structure of the plan

The Municipal Disaster Management Plan of the Langeberg Municipality consists of the components as indicated in the figure below.



7.0 Institutional Arrangements

7.1 Shared responsibility for disaster management

The responsibility for reducing disaster risk, preparing for disasters, and responding to disasters is shared among:

- all disciplines and employees of the Langeberg Municipality;
- all disciplines and employees of the Cape Winelands District Municipality;
- neighbouring local municipalities within the Cape Winelands District Municipality;
- all provincial and national organs of state operating within the municipality;
- all sectors of society within the municipality;
- all the residents of the municipality.

7.2 Nodal points for disaster management

The Manager: Disaster Management of the Langeberg Municipality, must *direct* and *facilitate* the disaster risk management process. However, this incumbent cannot perform the whole spectrum of disaster risk management activities on his/her own. Disaster Management is **not a line** function, but an advisory coordinative function.

Disaster risk management is everybody's business.

It is required that each municipal discipline within the Municipality assigns a person or section within each discipline to be the nodal point for disaster management activities in that particular discipline.

The Manager in each discipline is assigned this responsibility.

The disaster management activities performed within disciplines include participation in disaster risk reduction strategies as well as preparedness and response.

The Manager: Disaster Management of the Langeberg Municipality will regularly (at least once quarterly) update contact details of responsible Managers to ensure that the Plan remains current. This will reduce the possibility of changes in the management structure not being reflected in the plan.

7.3 Disciplines with primary responsibility for specific hazards and disaster risks

Where a discipline has primary responsibility for a specific hazard, the discipline's role in disaster risk management for that specific hazard will be more than mere participation: it will have to lead risk reduction as well as preparedness activities due to its expertise in the field.

The Langeberg Disaster Management can support such a discipline with advice, information, facilitation and coordination. The Manager: Disaster Management will attend any relevant meetings as pre request for the identification of disaster management mitigation projects and give inputs.

The description of risks and hazards are contained in the Disaster Management Plan and the specific plans for mitigation, relief, recovery and rehabilitation included.

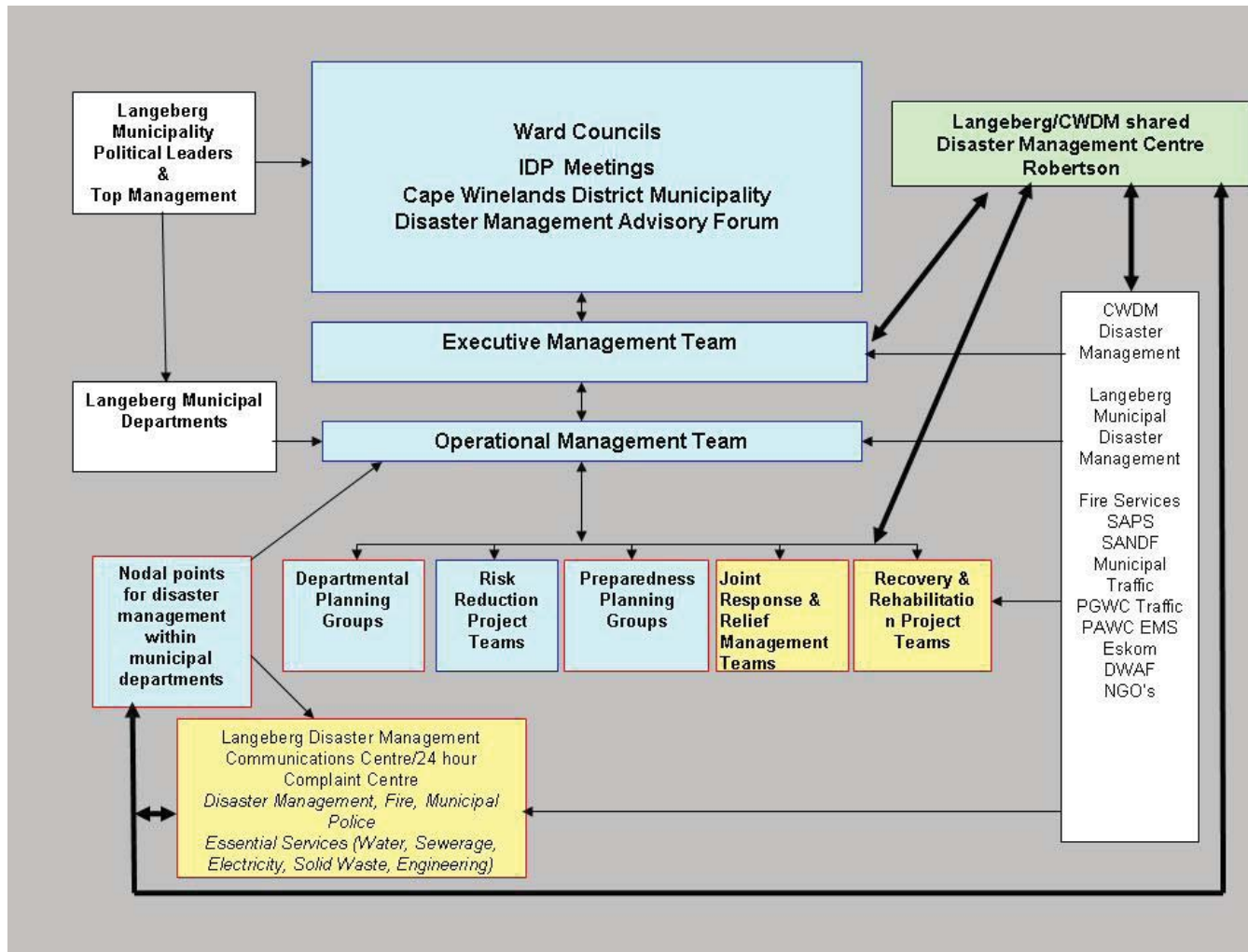
7.4 Assignment of responsibility to deal with specific disaster risks

Disciplines that are responsible for specific services in normal conditions will remain responsible for such services during disasters. The declaration of a state of disaster and the tighter coordination instituted during disasters does not absolve any agency of its assigned responsibilities.

7.5 Corporate Disaster Management Structure for the Langeberg Municipality

The Corporate Disaster Management structure for the Langeberg Municipality must deal with both pro-active and reactive disaster management issues and encompasses more than the discipline which is responsible for the function. It is envisaged that the normal municipal structures are used. Due to the fact that Pro-active and Re-active Processes differ, the following structures are in place:

Corporate Disaster Management Structure



7.6 Cape Winelands Disaster Management Centre

The Langeberg Municipality is not legally obliged to establish a Disaster Management Centre.

A fully established and functioning Municipal Disaster Management Centre (DMC) is a key element of this plan. Therefore the Langeberg Municipality consults with and operates in close collaboration with the Cape Winelands District Disaster Management Centre.

The Disaster Management Centre of the Cape Winelands District Municipality must aim to prevent or reduce the risk of disasters, mitigate the severity or consequences of disasters, prepare for emergencies, respond rapidly and effectively to disasters and to implement post-disaster recovery and rehabilitation within the municipality by monitoring, integrating, co-ordinating and directing the disaster risk management activities of all role players.

7.7 Municipal Disaster Management Advisory Forum

The Cape Winelands District Municipality has established a Disaster Management Advisory Forum. Various attempts to establish a Disaster Management Sub-Advisory Forum in the Langeberg Local Municipality have failed, due to frequent changes in the management structures of NGO's and other role-players. All relevant role-players in the Langeberg Municipality are represented on the Disaster Management Advisory Forum and attend these meetings and duplication is deemed impractical.

7.8 Inter-Discipline Disaster Management co-ordination

Identified projects from the Disaster Management Structures can be implemented and tracked by the normal budgetary processes. The EMT (Executive Management Team) Meetings, as strategic body on the municipal structure serves as the coordination forum for disaster management issues within the municipality, whereas the OMT (Operational Management Team) deals with operational issues. The handling of disaster management issues is simply an extension of normal municipal functions and systems

7.9 Planning groups per Discipline

This element relates to planning groups that should be established within disciplines to deal with internal disaster management issues such as the compilation of disciplinary and contingency plans.

The establishment of such disaster management nodal points resides with the Managers of the various disciplines and these nodal points will be involved in these planning groups.

7.10 Risk reduction project teams

A multi-disciplinary project team convened to address and reduce a specific disaster risk/s. Convened by the primary role-player for the risk and supported by Disaster Management.

The primary role-players for specific hazards or disaster risks, in collaboration with the Manager: Langeberg Disaster Management, will establish and manage risk-reduction project teams as required or requested by the structures identified for the development of the IDP.

7.11 Joint response & relief management teams

These teams, normally flowing from a preparedness planning group, are multi-disciplinary teams that are mobilised to deal with the immediate response & relief required during or immediately after major incidents and disasters. Response and relief teams will normally convene in the Disaster Management Operational Centre (CWDM) on request.

7.12 Recovery & rehabilitation project teams

These are project teams managing recovery and rehabilitation after disasters, mostly on a project-management basis. Disaster recovery and rehabilitation focus on risk elimination or mitigation.

7.13 Langeberg Complaint Centre

This is the centre providing 24-hour emergency and essential services contact points to the public within the municipal area. The Centre is responsible for day-to-day emergency response by municipal disciplines and for the establishment of strategic communication links.

The Langeberg Complaint Centre will liaise closely with the Emergency Services Control Centres (SAPS, PAWC, CWDM) and other stakeholders within the Langeberg Municipality on an ongoing basis.

7.14 Langeberg Disaster Management Operational Centre (DMOC)

The Langeberg DMOC has been established at the Cape Winelands District Municipal facility in Robertson as this authority (District Municipality) is responsible for coordination during disasters. This facility is equipped to serve as command and coordination centre during disasters, where the joint response & relief management team will convene. Alternative facilities should the DMOC not be accessible are available in all towns and the DMOC can be moved on short notice.

During any event which necessitates multi-disciplinary co-ordination, the Manager: Disaster Management will activate the DMOC.

8.0 Risk Assessment

Various disaster risks for the Langeberg Municipality have been identified and assessed during risk assessments executed during 2005 (Technological) and 2008 (Community based).

The risk assessment was done by respectively Africon Engineering and CPUT under instruction of the CWDM for all municipalities falling within the auspices of the District.

The Technical risk and vulnerability assessment by Africon led to the following resultant profile, as depicted by the following table:

8.1 Disaster Risk Assessment: Africon

"7.5 Results of analysis per local municipality

'...7.5.1 Breede River

Risk Prioritisation Table for Breede River Local Municipality

Hazard	Exposure	Severity	Probability	Actions Needed
Fires	Occasional	Moderate	Normal	Preparedness Planning
Floods	Occasional	Extreme	Likely	Risk Reduction interventions and Preparedness Planning
Rail Derailment	Occasional	Moderate	Normal	Urgent Risk Reduction intervention

Risk Prioritisation Table for Breede River Local Municipality

Hazard	Awareness	Legislative Framework	Early Warning Systems	Government Resources	Existing Risk Reduction Measures	Public Participation	Municipal Management Capabilities
Fires	Poor	Good	Poor	Poor	Poor	Modest	Good
Floods	Poor	Modest	Modest	Modest	Poor	Modest	Good
Rail Derailment	Poor	Poor	Poor	Poor	Poor	Modest	Good

Relative Risk Priorities for Breede River Local Municipality

Hazard	Total Risk	Total Risk Manageability	Relative Risk Priority	Actions Needed
Fires	Tolerable	Modest	Safe	Preparedness Planning
Floods	Destructive	Modest	Tolerable	Risk Reduction interventions and Preparedness Planning
Rail Derailment	Destructive	Modest	Destructive	Urgent Risk Reduction intervention

8.2 CPUT: Community Based Risk Assessment

Numerous work-shops were held in the Langeberg Municipality, and a wide spectrum of communities and applicable role-players were involved during the information gathering sessions during the process (2008).

The results of the assessment, in tabular form, are as follows:

LANGEBERG MUNICIPALITY			
	LIKELY	NORMAL	UNLIKELY
Floods	22	0	0
Water management	21	1	0
Hazardous loads	17	3	0
Drought	16	4	0
Electricity theft	14	5	0
Economic vulnerability	11	10	1
Veld fire	10	9	0
Epidemics	9	10	0
Road infrastructure	7	13	4
Dangerous installations	4	16	2
Rapid development	4	3	14
Erosion	1	19	1
Structural fire	0	20	0
Bus accidents	0	18	3
Earthquakes	0	6	15
Nuclear spill-over	0	0	16

The above lists illustrate the types of disasters that pose the highest risks within the area of the Langeberg Municipality and their possible effects. The communities at risk can be derived from the risk lists, and are also shown in the risk assessment that was conducted for the area.

To form a more realistic profile, it would be necessary to combine the two profiles and then indicate priorities – especially as some of the areas of risks identified falls out of the scope of Municipal service delivery.

It will be seen from Disaster Management Risk reduction projects identified that common elements present in both risk profiles are addressed.

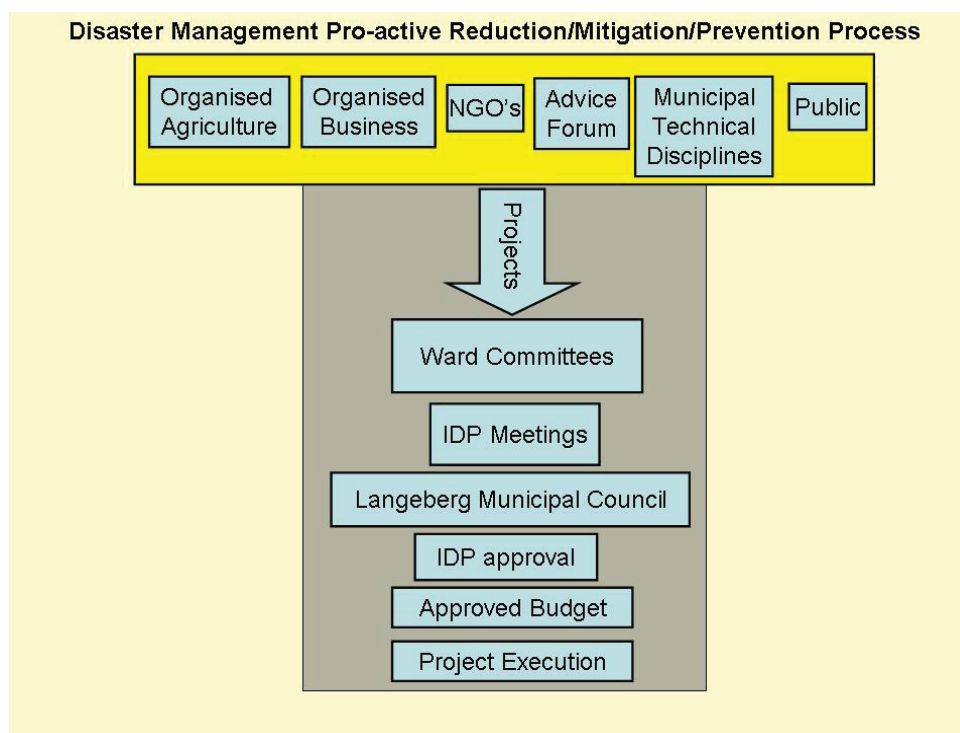
9.0 Disaster Risk Reduction Plans

Disaster risk reduction plans providing for prevention and mitigation strategies have been compiled through the participative processes and structures and are included in the CAPEX for the financial year.

Where the proposed disaster risk reduction project falls outside the mandate of the municipality, it is the responsibility of the Manager: Disaster Management to present the particular problem/project to the Cape Winelands District Advisory Forum for inclusion and consideration by the applicable discipline.

9.1 Risk reduction capacity for the Langeberg Municipality

The Risk reduction capacity and structure for Disaster Risk Reduction is as follows:



The total structure of the municipality, with every member of personnel and every resource should also be committed to disaster risk reduction.

It is vital that the Disaster Risk Reduction measures are included in the plan, as, inter alia, it becomes a mandatory issue with the declaration of a local disaster. In terms of Section 56 of the Act any financial assistance provided by a national, provincial or municipal organ of state may take into account:

- Whether any prevention and mitigation measures were taken, and if not, the reasons for the absence of such measures;
- Whether it is reasonable to expect that prevention and mitigation measures should have been taken in the circumstances;
- Whether the damage caused by the disaster is covered by adequate insurance, and if not, the reasons for the absence or inadequacy of insurance cover.

Due to the fact that the funds after the declaration of the local disaster 2008 only became available during the financial year, it is necessary to provide the expenditure of the 1009/10 financial year, as some projects are continuing during the 2010 2011 financial year.

9.2 Disaster Risk Reduction Projects 2009/2010

CAPITAL BUDGET 2009/2010			
Expenditure as on 30 June 2010			
Project	Budget	Total Expenditure	% Expenditure vs Budget
INFORMATION & COMMUNICATION TECHNOLOGY			
Disaster Recovery	R 400,000.00	R 398,924.65	
Disaster Recovery - own funds	R 140,587.00	R 139,087.09	
TOTAL INFORMATION & COMM.TECHNOLOGY	R 540,587.00	R 538,011.74	99.52%
HOUSING			
Building of Houses	R 6,955,485.00	R 9,131,940.73	
Infill Houses Robertson	R 2,833,715.00	R 2,164,033.33	
Land Acquisition McGregor	R 1,240,000.00	R 513,641.73	
Services Infill Houses Ashton	R 150,000.00	R 92,981.40	
Sewerage Nkqubela Robertson	R 300,000.00	R 376,081.12	
Installation of Services-Bonnievale Squatter Camp	R 210,000.00	R 14,166.84	
Building of Houses-Happy Valley Bonnievale	R 2,266,972.00	R 2,587,035.42	
Building of Houses-Mandela Square Montagu	R 2,730,671.00	R 3,025,215.47	
Building of Houses-Zolani Ashton	R 3,348,936.00	R 6,286,146.65	
Building of Igloo Houses Robertson	R 515,221.00	R 869,274.15	
Streets-Zolani Karpad Ashton	R 3,500,000.00	R 2,703,636.53	
Sewerage-Zolani Ashton	R 900,000.00	R 899,210.54	
Electrification Projects-Housing	R 2,700,000.00	R 1,295,876.61	
Emergency Housing	R 72,340.00	R 0.00	
TOTAL HOUSING	R 27,723,340.00	R 29,959,240.52	108.07%
SEWERAGE			
Upgrading Bonnievale Sewerage Treatment Plant	R 155,000.00	R 154,939.21	
TOTAL SEWERAGE	R 155,000.00	R 154,939.21	99.96%

ROADS & STREETS			
Tarring of Roads	R 4,200,000.00	R 4,200,000.00	
Flood Damage	R 3,500,000.00	R 999,984.89	
TOTAL ROAD TRANSPORT	R 7,700,000.00	R 5,199,984.89	67.53%
WATER			
Replacement / Upgrading of Water Network	R 7,065,900.00	R 6,287,813.16	
Upgrading of water Reservoir McGregor	R 681,100.00	R 679,672.80	
Upgrading of water treatment work Montagu	R 6,200,000.00	R 6,208,771.40	
Upgrading of water treatment work Montagu	R 1,600,000.00	R 1,599,999.99	
Robertson Bulk Water Provision	R 1,100,000.00	R 1,136,750.00	
TOTAL WATER	R 16,647,000.00	R 15,913,007.35	95.59%
ELECTRICAL ENGINEERING			
Electricity for Houses	R 601,727.00	R 501,771.67	
Electricity for Houses-McGregor Squatter Camp	R 20,000.00	R 7,813.20	
Electricity for Houses-Infill Houses	R 176,000.00	R 134,584.20	
Electricity for Houses-Nkqubela Houses	R 55,000.00	R 53,594.17	
Electricity for Houses-Igloo Houses	R 29,000.00	R 10,237.81	
Electricity for Houses-Zolani	R 191,000.00	R 155,064.47	
Electricity for Houses-Bonnievale	R 123,373.00	R 122,542.54	
Relocation of electrical connections for new housing project	R 499,000.00	R 212,731.55	
TOTAL ELECTRICAL ENGINEERING	R 1,695,100.00	R 1,198,339.61	70.69%
ENVIRONMENTAL SERVICES			
Flood Damage	R 681,000.00	R 113,561.21	
TOTAL ENVIRONMENTAL SERVICES	R 681,000.00	R 113,561.21	16.68%
CLEANSING			
Compactor	R 1,467,425.00	R 1,467,425.00	
Recycling Plant	R 410,000.00	R 331,410.14	
Transfer Stations McGregor	R 500,000.00	R 377,900.82	
Electrification-Recycling Plant	R 165,550.00	R 15,327.71	
TOTAL CLEANSING	R 2,542,975.00	R 2,192,063.67	86.20%
GRAND TOTAL	R 57,685,002.00	R 55,269,148.20	95.81%

9.3 Disaster Reduction Projects 2010/2011 CAPEX Projects

Project	Budget
INFORMATION & COMMUNICATION TECHNOLOGY	
Disaster Recovery	R 400,000.00
Disaster Recovery - own funds	R 140,587.00
TOTAL INFORMATION & COMM.TECHNOLOGY	R 540,587.00
ROADS & STREETS	
Flood Damage	R 2,850,511.00
TOTAL ROADS & STREETS	R 2,850,511.00
HOUSING	
Building of Houses	R 6,955,485.00
Infill Houses Robertson	R 2,833,715.00
Land Acquisition McGregor	R 1,240,000.00
Services Infill Houses Ashton	R 150,000.00
Sewerage Nkqubela Robertson	R 300,000.00
Installation of Services-Bonnievale Squatter Camp	R 210,000.00
Building of Houses-Happy Valley Bonnievale	R 2,266,972.00
Building of Houses-Mandela Square Montagu	R 2,730,671.00
Building of Houses-Zolani Ashton	R 3,348,936.00
Building of Igloo Houses Robertson	R 515,221.00
Streets-Zolani Karpad Ashton	R 3,500,000.00
Sewerage-Zolani Ashton	R 900,000.00
Electrification Projects-Housing	R 2,700,000.00
Emergency Housing	R 72,340.00
TOTAL HOUSING	R 27,723,340.00
SEWERAGE	
Upgrading Bonnievale Sewerage Treatment Plant	R 155,000.00
TOTAL SEWERAGE	R 155,000.00
ROADS & STREETS	
Tarring of Roads	R 4,200,000.00
Flood Damage	R 3,500,000.00
TOTAL ROAD TRANSPORT	R 7,700,000.00
WATER	
Replacement / Upgrading of Water Network	R 7,065,900.00
Upgrading of water Reservoir McGregor	R 681,100.00
Upgrading of water treatment work Montagu	R 6,200,000.00
Upgrading of water treatment work Montagu	R 1,600,000.00
Robertson Bulk Water Provision	R 1,100,000.00
TOTAL WATER	R 16,647,000.00
ELECTRICAL ENGINEERING	
Electricity for Houses	R 601,727.00
Electricity for Houses-McGregor Squatter Camp	R 20,000.00

Electricity for Houses-Infill Houses	R 176,000.00
Electricity for Houses-Nkqubela Houses	R 55,000.00
Electricity for Houses-Igloo Houses	R 29,000.00
Electricity for Houses-Zolani	R 191,000.00
Electricity for Houses-Bonnievale	R 123,373.00
Relocation of electrical connections for new housing project	R 499,000.00
TOTAL ELECTRICAL ENGINEERING	R 1,695,100.00
ENVIRONMENTAL SERVICES	
Flood Damage	R 681,000.00
TOTAL ENVIRONMENTAL SERVICES	R 681,000.00
CLEANSING	
Compactor	R 1,467,425.00
Recycling Plant	R 410,000.00
Transfer Stations McGregor	R 500,000.00
Electrification-Recycling Plant	R 165,550.00
TOTAL CLEANSING	R 2,542,975.00
GRAND TOTAL	R 60,535,513.00

10.0 Preparedness Plans

Preparedness plans are compiled in order to enable fast and efficient response to predicted and unpredicted emergencies.

10.1 Preparedness plans of the Langeberg Municipality

A generic preparedness plan has been compiled and is in operation. Each Manager is responsible to design and compile a risk preparedness plan for risks for his/her specific discipline.

10.2 Preparedness capacity for the Langeberg Municipality

The organisational structure for preparedness within the municipality includes Langeberg Disaster Management, The Executive Management Team of the Langeberg Municipality, and Joint Response & Relief Management Teams (appointed during multi-disciplinary events). Co-ordination will be applied by the DMOC in conjunction with the CWDM.

The total structure of the municipality, with every member of personnel and every resource forms part of preparedness capacity.

Ongoing capacity building programmes will be required to ensure the availability of adequate capacity for disaster preparedness.

11.0 Response & Recovery

During response and recovery operations the relevant disaster preparedness plans of the municipality will be executed by the disaster management structures (normal structures: executive functions by the EMT, operational functions by the OMT).

12.0 Declaration of a state of disaster and disaster classification

When a disastrous event occurs in the area of the municipality and the Municipal Manager regards the situation as a disaster in terms of the Act, he/she must

- initiate efforts to assess the magnitude and severity or potential magnitude and severity of the disaster;
- alert Disaster Management role players in the municipal area that may be of assistance in the circumstances;
- initiate the implementation of the disaster response plan or any contingency plans and emergency procedures that may be applicable in the circumstances; and
- inform the Cape Winelands, National and the Western Cape Provincial Disaster Management Centres of the disaster and its initial assessment of the magnitude and severity or potential magnitude and severity of the disaster.

Irrespective of whether a local state of disaster has been declared or not, the municipality is primarily responsible for the co-ordination and management of local disasters that occur in its area.

Whether or not an emergency situation is determined to exist, municipal and other agencies may take such actions under this plan as may be necessary to protect the lives and property of the inhabitants of the municipality.

12.1 Declaration of a local state of disaster:

In the event of a local disaster the municipal council may by notice in the provincial gazette declare a local state of disaster if existing legislation and contingency arrangements do not adequately provide for the municipality to deal effectively with the disaster; or other special circumstances warrant the declaration of a local state of disaster.

If a local state of disaster has been declared, the Council may make by-laws or issue directions, or authorise the issue of directions to:

- Assist and protect the public;
- Provide relief to the public;
- Prevent or combat disruption; or
- Deal with the destructive and other effects of the disaster.

13.0 Testing and review of the plan

The municipality will regularly review and update its plan, as required by Section 48 of the Disaster Management Act, 2002. The Disaster Management Advisory Forum shall be responsible for the review of the municipal disaster management plan on an annual basis.

Action: The DMAF will implement an annual review of this plan.

14.0 Annexures

Annexure A: Disaster Risk Reduction Plan for priority risks
Annexure B: Disaster Risk Preparedness Plan for priority risks
Annexure C: Emergency Numbers List for Langeberg
Annexure D: Advisory Forum Membership List

Annexures to be developed by the Langeberg Disaster Management Centre:

- Standard Operating Procedures and Field Operation Guides for each identified hazard
- Assignment of primary and supporting roleplayers for disaster risks
- Information and communication systems description
- Contact details for the Disaster Operations Centre representatives from the relevant role-players for each hazard.

15.0 Reference documents

Cape Winelands District Municipality Draft Disaster Management Framework

Cape Winelands District Municipality Community Based Risk Assessment, 2008.

Towards Disaster Management Plans for the Cape Winelands District Municipality (Hazard Identification, Vulnerability Assessment, and Risk Prioritisation), 2005

Sensitising document: Transport of Hazardous Materials in Bulk: Spoornet, Undated.

Agricultural Disaster Risk Management: Agricultural Drought Management Plan, Discipline of Agriculture, Aug 2007.

Emergency Preparedness and Response Plan, Drakenstein Local Municipality, March 2009.

Contingency Plan, Metrorail Western Cape, October 2008.

Hospital Emergency Plans, Medi-Clinic – Worcester, Paarl

Hospital Emergency Plans, Western Cape Discipline of Health

Outbreak response team

Education: Principal each school is responsible. Plan per school. Unannounced visits and testing of emergency plans. Schools must have plans for when things go wrong with transport. Organised into circuits.

Constitution of the Republic of South Africa, 1999.

Disaster Management Act, 2002 (Act 57 of 2002)

National Disaster Management Framework, 2005 (Government Notice 654 of April 2005: A

Policy Framework for Disaster Risk Management in South Africa)

Fire Brigade Services Act (Act 99 of 1997) as amended.

Fund Raising Act (Act No 107 of 1978) (FRA)

Local Government: Municipal Systems Act, 2000 (Act 32 of 2000).

Major Hazardous Installations Regulations of the Occupational Health and Safety Act

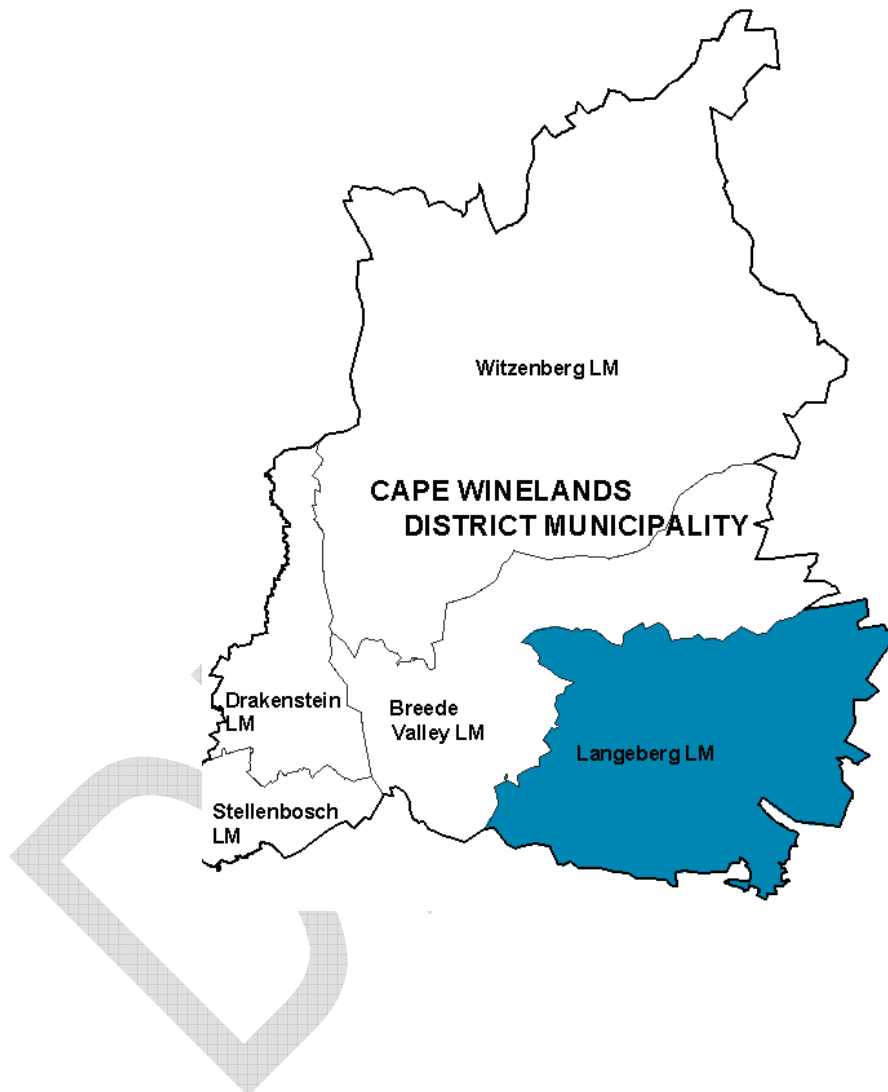
Road Traffic Act

Social Assistance Act, 1992 (Act no 59 of 1992)

Local Integrated Transport Plan Langeberg Local Municipality (Draft)

Local Integrated Transport Plan

2011-2016



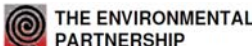
September 2010

Version 1.1

Prepared for:



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EXECUTIVE SUMMARY

INTRODUCTION

Langeberg municipality forms part of Cape Winelands District Municipality (CWDM) with four other local municipalities. The preparation of the Langeberg Local Integrated Transport Plan (LITP) is the responsibility of the CWDM, as mutually agreed by the Local Municipality. In the CWDM, an Integrated Transport Steering Committee has been established as part of the ITP process, to co-ordinate the preparation of ITPs by the CWDM and Langeberg. The Langeberg Local Municipality is a Type B municipality, which falls within the boundaries of CWDM.

TRANSPORT REGISTER

Langeberg Municipality covers an area of approximately 3 332 km² and includes the towns of Montagu, Ashton, Bonnievale, McGregor and Robertson as well as rural areas adjacent to and between these towns. Economic activity is driven primarily by the agriculture (53%), manufacturing and social services (10%) and trading (9%). The population of Langeberg is concentrated in Robertson, Ashton and Montagu. Robertson is the largest town in the area, and serves as the administrative centre.

The local economic development of (LED) of Langeberg municipality identifies poverty and the lack of income, in the low income communities, as the major issues that affect the economic performance of the municipality. The existing important local economic development activities in Langeberg municipality such as agriculture, branding and marketing, business retention and tourism can however respond to lack of income and poverty by providing employment opportunities. Public transport is an important mode of transport. Unlike private cars and hired vehicles, public transport provides passenger services which are available for use by the general public. Public transport services in Langeberg consist primarily of minibus taxis (MBT's). The local public transport services in Langeberg allows people to access destinations in their local area or settlement to which they travel regularly but which cannot be reached on foot or by other means of non-motorised transport modes. These destinations include essential services or activities accessed on a frequent basis, such as places of employment, shops, government services and schools.

Public transport accounts for approximately 8% of total work trips in Langeberg. From the NHTS 2007, 61% of passengers in Langeberg walk and 31% use private vehicles to reach their destinations. The MBT is the dominant public transport mode in Langeberg, providing both commuter and long-distance services. MBT services operate entirely out of Worcester during weekdays. The highest demand for taxis happens on Saturdays, especially at the end of the month, with the smaller towns of Bonnievale and Montagu operating only on weekends. Long distance MBT routes emanate from Ashton with routes running regularly to Cape Town.

There are currently no bus services for local commuters in the towns of Langeberg. The only bus services are subsidised learner transport and private (staff) contract services. The passenger rail service of Metrorail operates as far as Worcester. It has a single train in the morning and afternoon. From the timetable it is noted that the train leaves Worcester at 04:40 am and arrives in Cape Town more than two hours later at 08:00 am. The afternoon service arrives in Worcester at 20:04. From stakeholder engagements, some commuters travel to Worcester via MBT and then use the commuter rail to Cape Town.

Commercial long distance bus services that operate through the Langeberg municipality is TransLux. The services operate daily with 3 busses per day between Cape Town and East London. The service stops at Ashton at a filling station at Shell Ultra City in Ashton.

The maintenance and upgrade of public transport infrastructure is the responsibility of the local Municipality. There are a limited number of formal facilities provided by the Municipality but also a number of public areas that are used for parking or holding of vehicles. Public transport infrastructure challenges in Langeberg include provision of shelters at a number of informal ranks and within the rural areas. The scheduled stop for long distance bus services at Shell Ultra City in Ashton has no shelter for the passengers. The current stop cannot be upgraded as the land is privately owned.

The main road system in the Langeberg Municipality consists of the National Road N2 which passes through the south of the local municipality. Provincial roads include R60 (Robertson to Worcester), MR 287 (Robertson to Bonnievale), MR 290 (Robertson to McGregor) and the R62 (Montagu to Barrydale).

Robertson, being the major centre, is located far from other towns within the municipality (up to 30km) therefore NMT is not desirable between towns. There is an NMT desire line to Robertson due to a large number of educational and commercial institutions. However NMT in Langeberg is most favoured along the MR 287 (Robertson to Bonnievale) due to the high frequency of low income settlements along the route and the NMT connections between settlements favour desirable distances of 5km. In addition, an NMT link should be considered between Ashton and Zolani due to the settlement in Zolani as well as an NMT facility to the industrial Ashton linking with the proposed facility along the R62 from Montagu.

Records received from the Department of Education (WCED) 2009 indicated that there were a total of 71 primary, secondary and combined schools in Langeberg Municipality. The confirmed that 16 schools in Langeberg are served by 20 learner contract routes and are all receiving subsidies from the WCED. Therefore 22.5% of schools in the municipality are using learner contracts, and 21.3% of primary schools are using learner contracts. Bonnievale has the highest number of schools and primary schools using learner transport (7 routes serving 10 schools) followed by Montagu with 4 routes serving 25 schools.

The growth in road freight haulage is the main contributor to high transportation costs and heavy vehicles are damaging the road infrastructure. The volume of heavy vehicles along the R60 and R317 are negatively affecting the quality of these roads through town. The PGWC and Langeberg cannot keep up with the increased requirement for road maintenance. Fortunately the proclaimed municipal main roads receive an 80% subsidy from PGWC for road maintenance.

There is one operational airfield in Langeberg to the east of Robertson next to the R60. It is the only registered runway in Langeberg. Apart from the international airports in Cape Town and George, Robertson also has the longest paved runway in the Western Cape. The Robertson regional airport's paved surface makes it suitable to accommodate light aircraft such as ambulance and law enforcement aircraft and smaller passenger charter aircraft up to a capacity of about 12 passengers. Upgrading of the surface to accommodate larger aircraft should be considered due to the strategic importance of the facility and it's considerable potential to contribute to the growth and development of the CWDM.

Langeberg's local economy is dependent on tourism and the financial benefits it brings. The catering and accommodation trade was the third largest economic sector in Langeberg, growing at over 7% per annum, whilst contributing 17.9 % to the GDP. The wine industry is the main tourism attraction especially via marketing of the Route 62 tourism initiative.

The Department of Health provides health services for patients within Langeberg in the form of various hospitals, clinics and mobile clinics. The department has at their disposal a fleet of vehicles which is used to transport staff, medicine as well as to provide mobile clinic services. The fleet is not designed to carry passengers. There is 3 Patient Transport Vehicle (PTV) servicing the 2 sub-stations in Robertson and Montagu.

Transport planning should also include provision for special categories of passengers by incorporating principles of universal access design that will assist passengers to move comfortably from one place to another. People with physical disabilities represent 5.3 % of the population in Langeberg and it compares with the concentration of people with physical disabilities in CWDM.

OPERATING LICENCE STRATEGY

The Langeberg OLS was informed by the 2009 CPTR report for Langeberg, and incorporates the towns of Ashton, Bonnievale, McGregor, Montagu, and Robertson.. In order to develop an OLS it was important to analyse each route separately with regard to the demand and supply of public transport services. This analysis concluded that a total of 48 routes were observed operating out of 14 ranks on the survey days namely, 21 routes in Robertson, 13 routes in Ashton, 6 routes in Bonnievale, 4 routes in McGregor and 4 in Montagu. Twenty-nine routes were identified that could potentially warrant additional operating licenses. Currently, the passenger demand on these routes is serviced by illegal operators, some who might include those awaiting documentation from the OLB. The preparation of an IPTN for the Langeberg Municipality is regarded as one of the key implementations in addressing the public transport strategies for Langeberg Municipality.

TRANSPORT NEEDS ASSESSMENT

In order to identify particular issues and needs with respect to transport in the CWDM a number of interviews were held with stakeholders during the data capturing phase of this ITP. The stakeholders included LM representatives, taxi associations and drivers, MBT passengers and local school principals. In addition, in response to issues and concerns that were raised during these engagements meetings were held with and SANRAL, Metrorail and the Provincial Departments of Health, Tourism and Education. A review of the CPTR, as well as an evaluation of the results of the NHTS, was also carried out to evaluate the current transportation situation. A list of projects per sector was developed in response to the status quo analysis. Information received from public meetings, passenger and driver interviews and interviews with local authorities was also used to develop the list of projects.

TRANSPORT IMPROVEMENT PROPOSAL

Project prioritisation has become critical to making the best use out of limited funding sources. It is becoming increasingly important to determine which projects are the most feasible. All projects identified in the status quo analysis and stakeholder participation processes were prioritised together with the Langeberg representatives where each project was evaluated, scored and ranked. Projects were categorised based on project type and focus areas i.e. Road infrastructure upgrade, Road Maintenance, Planning and Feasibility, Public transport infrastructure and NMT facilities. In each focus area projects were scored based on criteria such as traffic/passenger volumes, existing conditions, network considerations and the impact on social and development considerations. Projects were then ranked from the highest to the lowest evaluation score and the

5 highest ranking projects per category were included in the implementation and financial plans. The prioritised list of projects for Langeberg Municipality was developed in this manner.

IMPLEMENTATION BUDGET AND PROGRAMME

Availability of funding for project implementation is limited. The need for transport services and infrastructure competes for funding with other essential services such as water, housing and health services. In identifying the funding for the prioritised projects over the next 5 years, funding sources include public contributions and donations, borrowing internally generated funds, capital transfers recognised and direct or indirect National and Provincial grants (transfers). Alternative funding sources includes international funding sources as well as national lotteries. A budget and programme for the five-year implementation period was prepared for the local municipal high-priority projects. In addition a project plan was prepared for each of the priority projects and the pavement management system will assist the municipal engineer in prioritising road maintenance projects.

PUBLIC AND STAKEHOLDER CONSULTATIONS

The following public and stakeholder consultations were undertaken as part of the review process: steering committee meetings, key stakeholder interviews, interviews with public transport passengers, MBT drivers and associations, interviews with school principals and 2 rounds of public meetings in strategic locations in the CWDM and Langeberg Municipality to inform public of the ITP process, obtain information on existing conditions and to present the proposed projects.

The overall aim of the consultation process is to ensure that all relevant stakeholders have adequate opportunity to provide input into the CW ITP. More specifically the objectives of public consultation are to: identify stakeholders and inform them about the review of the ITP for the CWDM, provide stakeholders with the opportunity to identify issues and concerns associated with the integrated transport system in the area, identify possible solutions to key issues relating the integrated transport system. The summary findings of the interviews with stakeholders in Langeberg Municipality can be found in the Transport Needs Assessment chapter of this report

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LIST OF ABBREVIATIONS

LLM	:	Langeberg Local Municipality
CPTR	:	Current Public Transport Record
CMIP	:	Consolidated Municipal Infrastructure Programme
CR	:	Capitalisation Reserve (CR)
CRR	:	Capital Replacement Reserve
CWDM	:	Cape Winelands District Municipality
DBSA	:	Development Bank of South Africa
DM	:	District Municipality
DORA	:	Division of Revenue Act
DoT	:	Department of Transport
ECMT	:	European Conference of Ministers of Transport
EMS	:	Emergency Medical Services
EPWP	:	Expanded Public Works Programme
GGR	:	Government Grant Reserve (GGR)
GIS	:	Geographic Information System
IDP	:	Integrated Development Plan
IMQS	:	Infrastructure Management Query Systems
ITP	:	Integrated Transport Plan
KWF	:	German Development Bank
LDV	:	Light delivery vehicle (bakkies)
LEDf	:	Local Economic Development Fund
LM	:	Local Municipality
MBT	:	MBT
MIG	:	Municipal Infrastructure Grant
MTEF	:	Medium Term Expenditure Framework
NHTS	:	National Household Travel Survey
NMT	:	Non-motorised transport
OLB	:	Operating Licence Board
OLS	:	Operating Licence Strategy
ORIO	:	Dutch Ministry of Economic Affairs
PDTPW	:	Provincial Department of Transport and Public Works
PGWC	:	Provincial Government Western Cape
PLTF	:	Provincial Land Transport Framework

RMS	:	Road Management System
SARCC:		South African Rail Commuter Corporation
SDF	:	Spatial Development Framework
SIDA	:	Swedish International Development Agency
SIR	:	Self-Insurance Reserve
SMIF	:	Special Municipal Innovation Funds
SMMe	:	Small Micro Medium enterprise
WCED:		Western Cape Education Department

DRAFT

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- Cape Winelands Transport Planning Unit
- Pendulum Consulting
- Breede Valley, Drakenstein, Langeberg, Stellenbosch and Witzenberg local municipalities representatives as part of the LM working groups
- SCM representatives as part of the district steering committee
- Metrorail /SARCC /PRASA
- SANRAL
- Tourism and Development Department
- Health Department including EMS
- Provincial Education Department including regional Education offices in Worcester
- All taxi associations in the Cape Winelands particularly the Boland Taxi Council members

1. INTRODUCTION

1.1 Background

Langeberg municipality forms part of Cape Winelands District Municipality (CWDM) with four other local municipalities. The preparation of Langeberg Local Integrated Transport Plan (LITP) is the responsibility of CWDM, as mutually agreed by the Local Municipality. In the Cape Winelands region, an Integrated Transport Steering Committee has been established as part of the ITP process, to co-ordinate the preparation of ITP's by the District and Local Municipalities. Langeberg has no dedicated staff that can assume responsibility for the planning and implementation of its ITP, but it is represented on the Steering Committee by the departments of Special Projects, Town Planning, Civil Engineering, Local Economic Development and Traffic Services.

1.2 Study area description

Langeberg municipality is a Type B municipality, which falls within the boundaries of CWDM. Table 1.1 provides indicators of Langeberg's Socio-economic standing.

Table 1.1: Langeberg Socio-Economic Indicators (2007)

Population density	24.0 persons per km ²
Households	80 121 (+ 4.4% over 2001)
Population growth rate	-1.4% for the period 2001 - 2007

Source: Municipal Community Survey 2007

Figure 1.1 shows the location of Langeberg in relation to the District Municipality.

1.3 Purpose of the ITP

As part of a legislated development planning process local municipalities have to compile Integrated Development Plans (IDP). The ITP is a specific sector plan that feeds into the IDP and ultimately the ITP supports and forms part of the development of the Provincial Land Transport Framework (PLTF). (See Figure 1.2) The ITP considers all modes of transport and aims to identify the issues and concerns surrounding the various modes. Through a process of data collection, planning and analysis the ITP puts forward various strategies and prioritised projects.



Figure 1.1: Location of Langeberg

September 2010

Draft

Langeberg Local Integrated Transport Plan

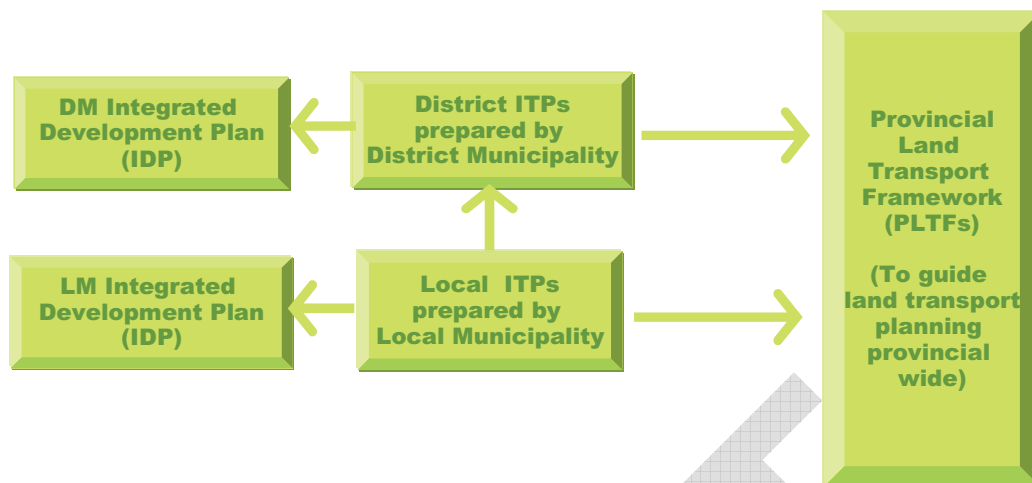


Figure 1.2: Role of ITP in local development planning

1.4 Layout of the Report

The Local ITP report is divided into the following chapters:

Chapter 1: Introduction

Chapter 2: Transport Register

Chapter 3: Operating Licence Strategy

Chapter 4: Transport Needs Assessment

Chapter 5: Transport Improvement Proposals

Chapter 6: Implementation Budget and Programme

Chapter 7: Public Participation

2. TRANSPORT REGISTER

This chapter describes the existing state and quality of transport provision in Langeberg. The sections in this chapter provide an integrated overview of passenger transport as it occurs at present in the district.

2.1 *Spatial development framework*

Langeberg municipality forms part of CWDM and covers an area of approximately 3332 km². Robertson, Montagu and Ashton are the main urban centres in the municipality with smaller rural settlements at Bonnievale and McGregor in the south. See Figure 1.1.

The various development nodes in the municipality are listed in Table 2.1 as highlighted in the Spatial Development Framework (SDF) for Langeberg.

Table 2.1: Development nodes in the municipality

Node type	Location
Administrative/primary urban node	Robertson
Secondary urban node	
Urban service centre	Montagu, Ashton
Rural settlement	Bonnievale, McGregor

Source: Langeberg SDF, 2005

Table 2.1 summarises the key towns in Langeberg and the type of nodes they are. Robertson, Montagu and Ashton serves as the main administrative nodes or urban centres of Langeberg. The surrounding smaller towns or rural settlements serve as smaller urban centres for surrounding rural hinterlands. In the remote areas of Langeberg, smaller towns such as Bonnievale and McGregor require public transport services. Issues such as safety, affordability, accessibility, and reliability especially on public and non-motorised transport services are a huge challenge to the service providers.

2.2 *Population density and distribution*

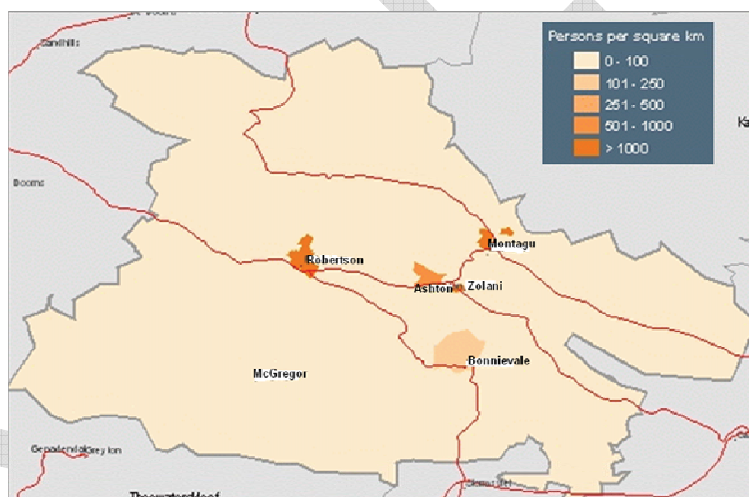
Population distribution and density in Langeberg differs according to the type of development and activities. Langeberg municipality is the lowest densely populated municipality in Cape Winelands with a population density of 24.0 people per square kilometre as indicated in Figure 1.1. The municipality's total population of 80 121 is the 2nd lowest in the Cape Winelands

Table 2.2 Population within Langeberg

LMs	Area(km ²)	Total population	Pop. Density (People/km ²)	No of households
Breede Valley	2995	134 271	44.8	36495
Drakenstein	1538	217 089	141.0	56614
Langeberg	3332	80 121	24.0	21856
Stellenbosch	831	200 524	241.0	36413
Witzenberg	13611	75 148	26.4	24410
CWDM	22307	707153	61.7	175788

Source: Municipal Community Survey, 2001

The municipality also has the lowest number of households in the Cape Winelands, yet still there is pressure on housing provision and municipal and social service delivery.



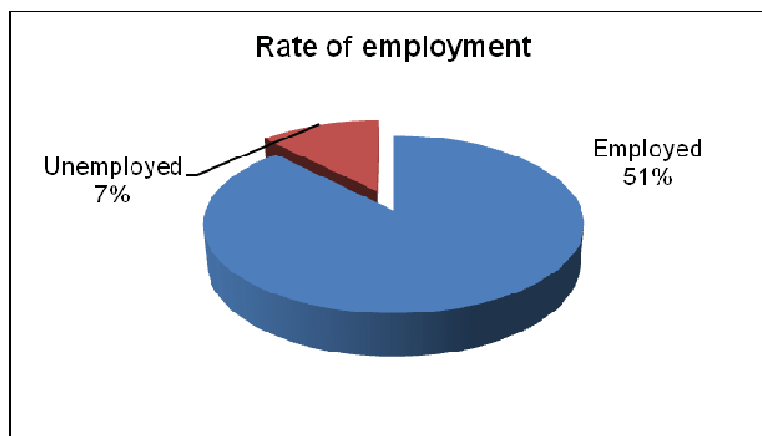
Source: Municipal Demarcation Board, 2003

Figure 2.1: Langeberg population distribution and density

The bulk of the population of Langeberg live in and around the urban areas of Robertson, Ashton and Montagu with the rest living on the farms and rural hinterland of the municipal area. Figure 2.1 depicts the population distribution and densities of the towns and it shows that Robertson is the most densely populated town in Langeberg.

2.2.1 Employment levels

According to Stats SA-2001, 7% of the people in Langeberg are unemployed as illustrated in Figure 2.2 below. When compared to the other municipalities in the CWDM, Langeberg municipality has the lowest unemployment rate. This could be due to the low population of the municipality.



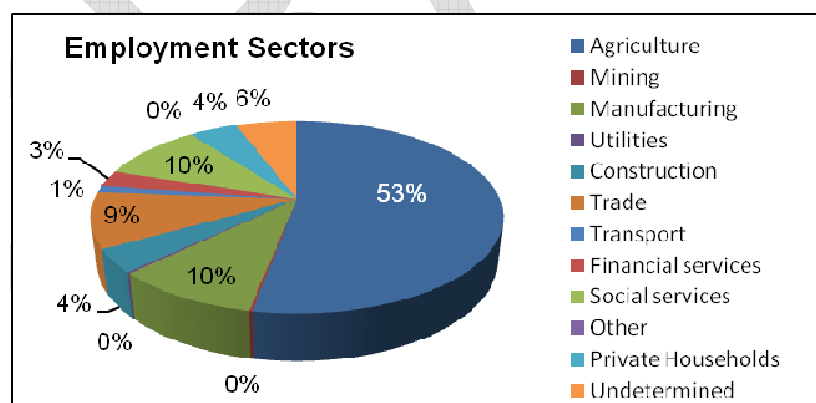
Source: LLM SDF, 2005

Figure 2.2: Unemployment rate for Langeberg

2.2.2 Economic activities

The agricultural sector forms the back bone of Langeberg's economy. 53% of the people in Langeberg are employed in the agricultural sector, supported by 10% in manufacturing and social services, and 9% in trade as illustrated in Fig 2.3.

The total agricultural land in Langeberg is 294 221 hectare. The following progress within the Municipality area has been achieved with the target of 88 266.3 hectare (30%) of Agricultural land to be transferred to farm workers. To date only 2117.4 ha (2.4%) of land has been transferred which leaves an outstanding amount of 86 148.9 hectares (97.6%) still to be achieved by 2014 (Langeberg IDP, 2007). This initiative aims to empower small scale farming in the municipal area especially in the towns of Zolani (Ashton) and McGregor.



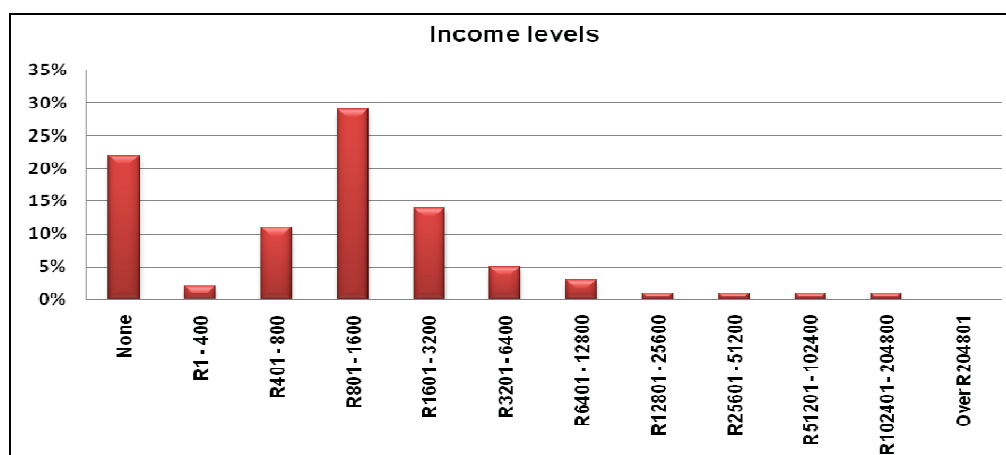
Source: LLM SDF, 2005

Figure 2.3 Employment sectors for Langeberg

Langeberg is highly dependant on agriculture and the workforce employed in this sector is seasonal workers which could be one of the reasons why so many people are living in the towns and work on the farms. Sections such as manufacturing and tourism in the municipality are also developing.

2.2.3 Income level

Langeberg have the lowest number of people with no income in the whole CWDM. As illustrated in Figure 2.4, more than 20% of people have no income, and almost 39 % of the labour force in Langeberg earn within the R801 – R1600 category.



Source: Municipal Demarcation Board, 2003

Figure 2.4: Monthly income for Langeberg

Lack of skilled employees and off-season unemployment especially in the agricultural sector leads to low monthly wages and lack of income. This applies also to secondary manufacturing or agro processing activities which are reliant on harvesting times.

2.3 Local economic development

The Local Economic Development (LED) of Langeberg identifies poverty and lack of income, especially in low income communities, as the largest issues which affects the economic performance of the municipality. The existing important local economic development activities in Langeberg as outlined below can however respond to lack of income and poverty by providing employment opportunities:

- Agriculture
- Branding and marketing
- Business retention
- Small micro medium enterprises (SMMe) business development programme
- Tourism

Some of the strategies or projects to respond to the development needs of each focus area are as follows:

- Improvements of tourism:
- Developing commercial hubs
- Provision of housing
- Develop and Pilot off-season business development

2.3.1 Need and development typology

The needs and development typology study was undertaken in 2005 in the Western Cape Province. The purpose of this study was to group the towns into a single set of relationships for investment decisions and policy implementation. The following criteria were used to determine the investment potential of towns in the Western Cape Province:

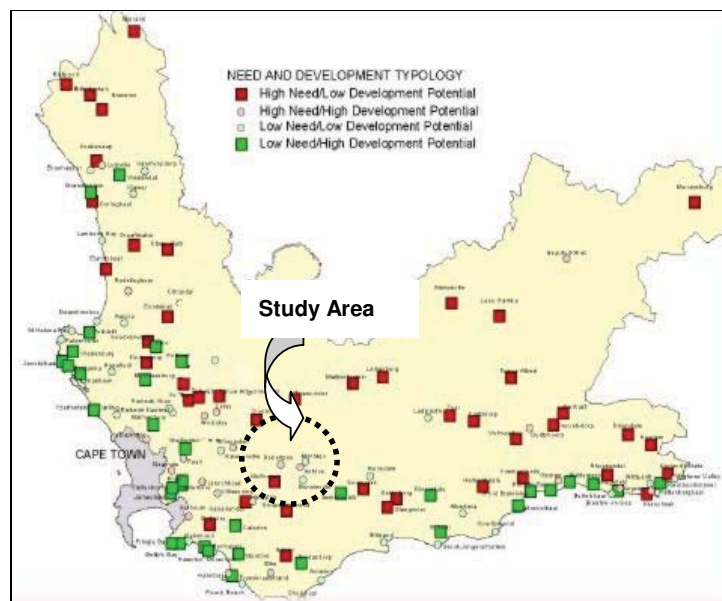
Priority for fixed investment	Growth Potential	Need
First	High	High
Second	High	Low
Third	Low	High
Fourth	Low	Low

The reasons for this priority ranking for fixed investment are as follows:

- Investing in towns with high growth potential and high need will ensure not only that that expenditure will have the highest leverage but also that it will have the greatest possibility for social benefits.
- Towns with high growth potential but low human need rank second, to give effect to the policy of prioritising fixed investment spending in settlements with the highest potential rather than those with low growth potential.
- The third category is low growth potential and high human need. Low growth potential is common to the third and fourth categories and it is only differences in human need that distinguish them. Clearly the most equitable choice will be to target those centres with high human need. The emphasis in these towns should be on social investment rather than fixed investment.
- The fourth level of priority is those settlements with both low growth potential and low human need.

These criteria were applied as follow in the towns in Langeberg. The outcomes of this study for the CWDM are also indicated in Figure 2.5:

- **Robertson and Ashton** high human needs index and high development potential;
- **McGregor** have high needs low development potential;
- **Bonnievale and Montagu** have low needs low development potential.



Source: Western Cape SDF,

Figure 2.5: Development need for the towns in Langeberg

Investing in towns with high growth potential and high need will ensure not only that that expenditure will have the highest leverage but also that it will have the greatest possibility for social benefits.

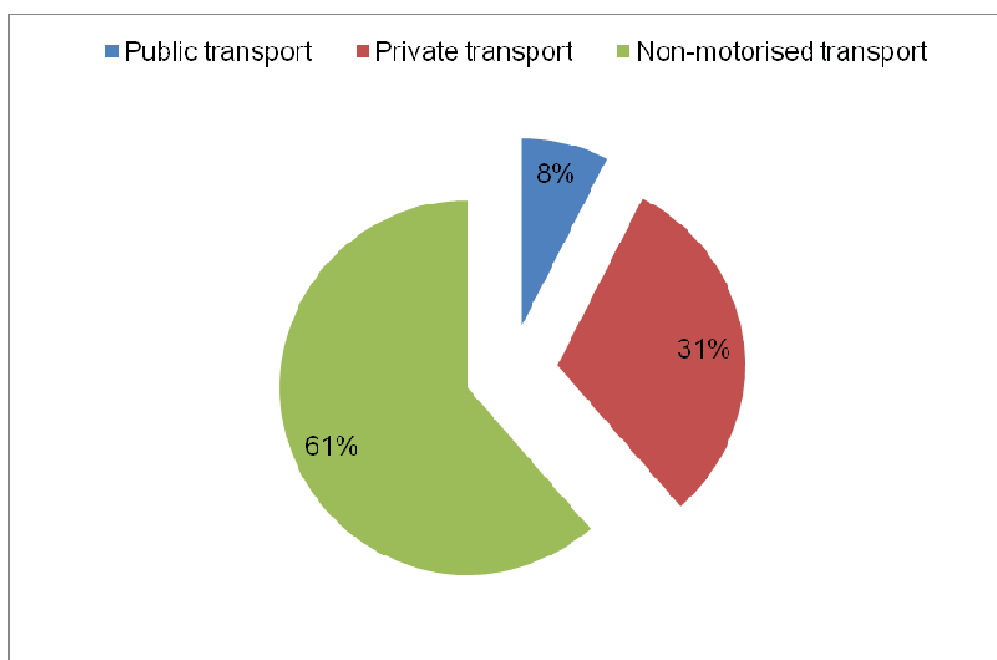
2.4 Public Transport Services

Public transport is an important mode of transport. Unlike private cars and hired vehicles, public transport provides passenger services which are available for use by the general public. Public transport services consist primarily of buses, mini-bus taxis (MBT's) and commuter trains.

2.4.1 Overview

The local public transport services in Langeberg allows people to access destinations in their local area or settlement to which they travel regularly but which cannot be reached on foot or by other means of non-motorised transport modes. These destinations include essential services or activities accessed on a frequent basis, such as places of employment, shops, government services and schools.

Langeberg comprises numerous small towns and low density settlements. Most of these settlements are linked to the towns of Robertson and Ashton, which serve as the main service centres in the Local Municipality.



Source: NHTS 2007

Figure 2.6: Modal Split of Public Transport in Langeberg

From Figure 2.6 it appears that only 8% make use of public transport in the local municipality. Most people walk (61%) or use private cars (31%). This modal split could be as a result of the extreme difference in income levels within the municipality.

Currently MBT is the dominant public transport mode providing both commuter and long-distance services. Low population densities result in inefficient bus services which are not cost effective for operators or end users.

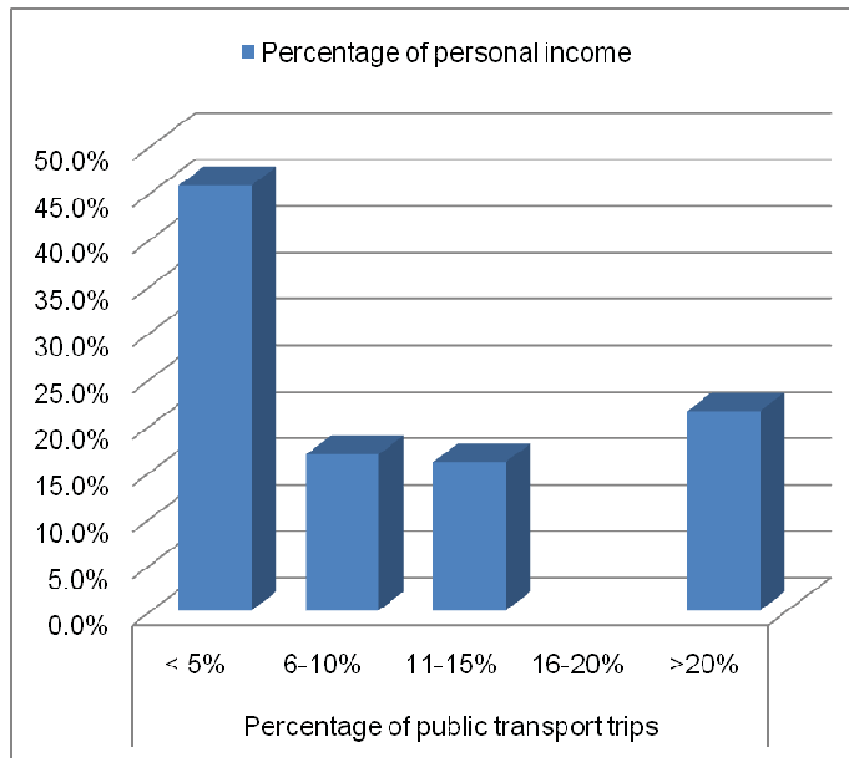
Bus services do exist for transporting learners as part of the contract services provided by the Department of Education. The National Household Travel Survey (NHTS) does not include long distance bus travel. A breakdown of public transport services in Langeberg can be seen in Table 2.3 below.

Table 2.3: Breakdown of Public Transport Services in Langeberg

Mode	Type of trips
MBT	Commuter, learner, health
Bus	Learner
Rail	Commuter and learner

Source: NHTS (2007)

Scheduled long distance luxury coach bus services have regular stops in Worcester and Touwsrivier throughout the week. Rail services provide once a day commuter rail services in Worcester, and limited long distance rail services to East London, Johannesburg and Durban with Worcester and Touwsrivier the only stops near Langeberg.



Source: NHTS (2007)

Figure 2.7: Percentage of monthly income spent on work trips

Figure 2.7 illustrates that public transport can be considered quite affordable in Langeberg with most commuters paying less than 5% of monthly income on public transport.

2.4.2 MBT operations

The MBT is the dominant public transport mode in Langeberg primarily due to the flexibility of the industry to adapt to different passenger demands between towns and more remote rural areas. Government funds also make provision for other subsidised scheduled services.

- The majority of MBT's do not display their routing, origin or destination, while none advertise their fare structures. Fare collection takes place inside the vehicle and payment is only accepted in cash. The type of vehicle that is used depends on the passenger demand as well as the operating conditions.
- MBTs have seating capacities ranging from 12 to 16 passengers. These vehicles are used in urban areas and on paved roads or gravel roads that are in a good condition.
- The majority of light delivery vehicles (LDVs) that are used as MBT's are single cabs with canopies. Narrow wooden benches are retro-fitted along the sides of the loading area, providing seating for approximately eight passengers, with a further two passengers in the front cab. This type of vehicle is also used where passenger demand is low, or where the operator cannot afford a government approved vehicle. The DoT is currently investigating a regulatory framework to include LDVs as recognised public transport vehicles where the operating conditions warrant their use.
- Passenger cars used as MBT's come in a range of shapes, sizes, ages and conditions. These include sedans, station wagons and multi-purpose vehicles (e.g. Toyota

Condor/Avanza) with typical seating capacities for five to seven people. Passenger cars are used where demand is low, when the operator cannot afford an approved vehicle or by private drivers carrying passengers for reward illegally. Passenger cars are also rented out by operators, for instance to a person needing to transport a bulky load that cannot be transported by minibus, or for occasional trips to destinations not served by public transport.

MBT services operating from the towns in Cape Winelands are administered by several MBT associations based in larger towns in the district. There are 4 registered taxi associations in the area, namely,

- Robertson Taxi Association
- Ashton Taxi Association
- Montagu Taxi Association
- Bonnievale Taxi Association,

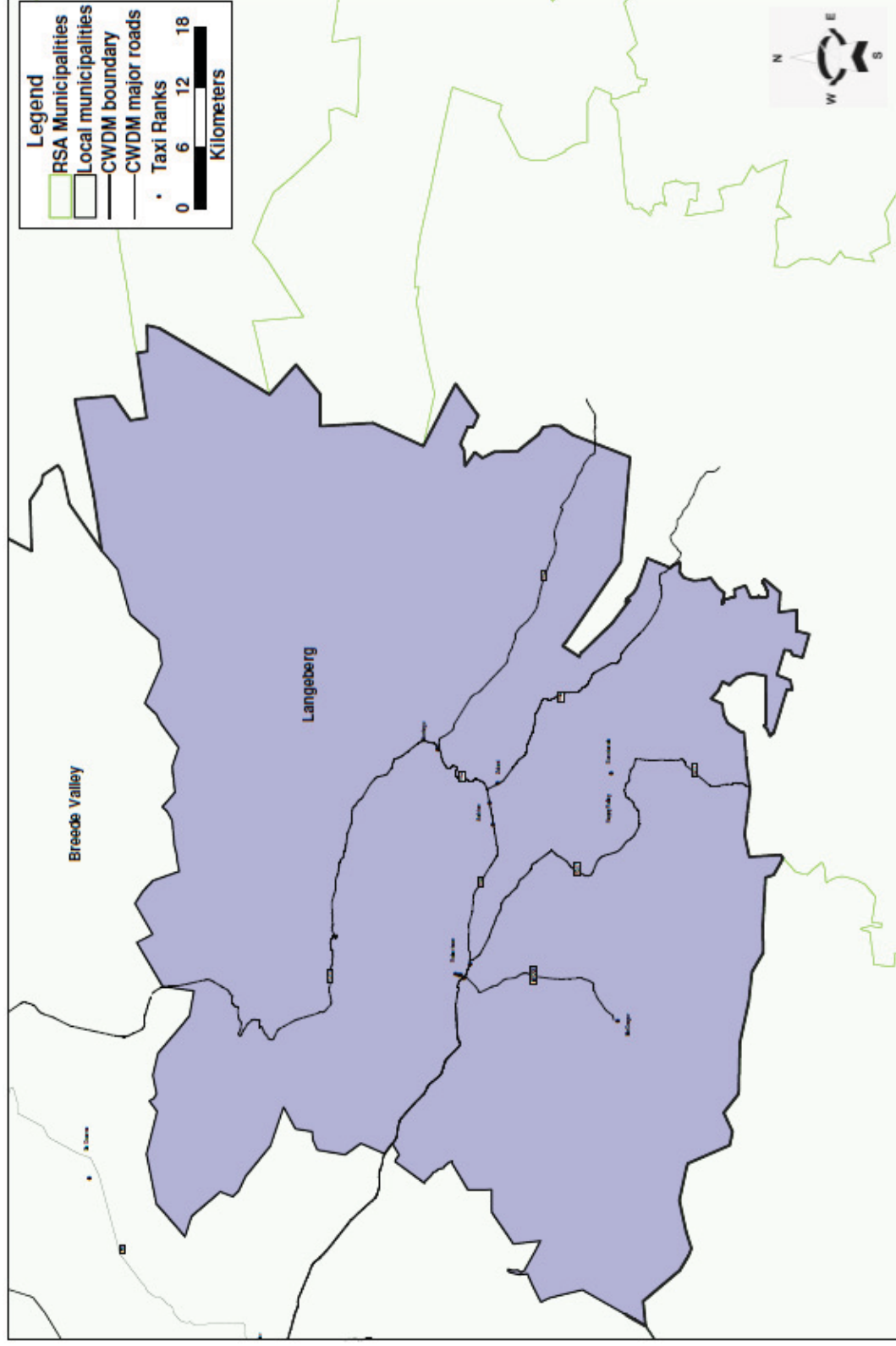
which are each members of the Boland Regional Taxi Council. These associations perform a number of functions, as outlined below:

- An individual operator wishing to provide additional services on an existing route or to operate on a new route first has to register with an association. The operator then applies to the Operating Licensing Board (OLB) for an operating license on a particular route.
- Associations protect the rights of their individual members and the routes in which they have a stake. In the past this has led to violence between competing associations, but of late associations prefer to settle disputes through negotiation.

At the local municipal level the MBT associations generally provide services in the areas and in and around the towns in which they are based, e.g. Robertson Taxi Association is based in Robertson and operate all routes that originate in that town.

2.4.3 Routes and ranks

As part of the 2009 CPTR, rank surveys were undertaken in the towns of Robertson, Ashton, Bonnievale, McGregor and Montagu in Langeberg. There are currently 15 operational MBT ranks located within Langeberg; 8 of these ranks are located in the towns of Robertson and Ashton. Figure 2.8 illustrates the locations of major taxi ranks in Langeberg. Approximately 65% of all taxi ranks in Langeberg are paved, with 50% of these ranks located off street. Most ranks in Langeberg are informal in nature and are not equipped with sufficient infrastructure such as seating and ablution facilities. The public transport infrastructure will be discussed further in section 2.5).



Source: CWDM GIS, 2010

Figure 2.8: Rank locations in Langeberg

A summary of MBT rank activity is shown in the Table 2.4 below.

Table 2.4: MBT Rank activity in Langeberg

Towns	Facility	Weekdays			Saturdays		
		Trips	Pax	% of Total Weekday Pax	Trips	Pax	% of Total Saturday Pax
Ashton	Ashton Langeberg	15	79	1.9%	11	107	1.8%
	Ashton Multisave	55	475	11.3%	43	156	2.7%
	Ashton Zolani	72	729	17.4%	53	465	8.0%
Bonnievale	Bonnievale Happy Valley	71	318	7.6%	98	783	13.5%
	Bonnievale Multisave	53	419	10.0%	60	713	12.3%
McGregor	Mcgregor Church	22	285	6.8%	16	123	2.1%
Montagu	Montagu Food Zone	7	11	0.3%	18	99	1.7%
	Montagu OK Bazaars	7	77	1.8%	43	529	9.1%
Robertson	Robertson Fishmarket	15	68	1.6%	46	516	8.9%
	Robertson Nkqubela	110	426	10.2%	107	349	6.0%
	Robertson Pick n Pay	56	404	9.6%	92	1344	23.1%
	Robertson SAP	43	569	13.6%	21	174	3.0%
	Robertson Shoprite	34	415	9.9%	39	559	9.6%
TOTAL		545	4196		636	5810	

Source: LLM CPTR, 2009

The highest demand for MBT occurs on Saturdays, especially at month end, with the smaller towns of Bonnievale, and Montagu becoming significantly active on weekends. Passenger movement in Langeberg peaks on Saturdays with an additional 1000 passengers being transported via MBT. This is primarily due to additional demand attractors such as shopping, banking and other such functions.

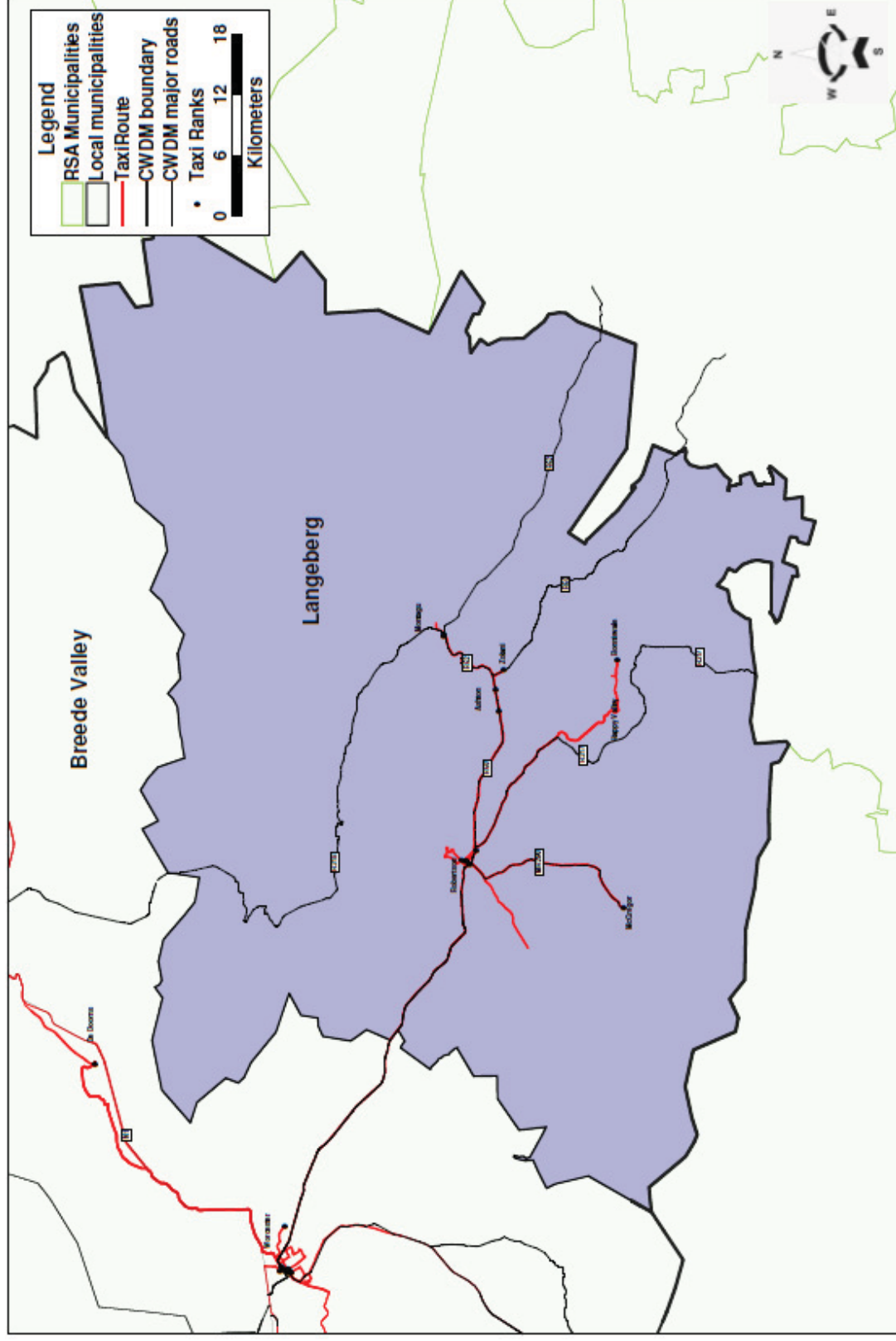
MBT services operate predominantly out of the towns of Robertson and Ashton during the week accounting for approximately 75% of total passenger demand in the municipality. During weekdays, the Ashton Zolani and Robertson SAP taxi rank facilities are the most active, with the Robertson Pick n Pay facility being the most active on weekends. From the Langeberg CPTR, 2009 it becomes clear that during the week, the residential MBT ranks are the busiest, while on weekends the ranks located near shopping services are most active. A summary of the MBT movements in and out of the major towns is shown in Table 2.5 overleaf.

Table 2.5: MBT movement patterns in Langeberg

Origin	Type of movement		
	Local	Inter-town	Long Distance
Ashton	Farms	Worcester	Cape Town
	Multisave	Robertson	
	Ashton Zolani		
Bonnievale	Multisave	Swellendam	
	Farms		
	Happy Valley		
Mcgregor	Farms	Robertson	
		Montagu	
		Bonnievale	
Montagu	Food Zone	Ashton	
	Ok Bazaars		
	Farms		
Robertson	Fishmarket	Ashton	Cape Town
	Farms	Bonnievale	
	Pick n Pay	Worcester	
	SAPD	Montagu	

Source: LLM CPTR, 2009

Table 2.5 indicates that Langeberg's transport movements occur between the major settlements in and around the local municipality. Robertson serves as the public transport hub in Langeberg with most routes originating or terminating in the town. Most of the settlements in Langeberg (such as Bonnievale and McGregor) are small, and thus there is not a great demand for motorised travel within the settlement boundaries. Most daily activities can usually be accomplished on foot since the distance to be travelled is relatively small in comparison to the greater distances between settlements. In the case of Robertson, however, intra-town routes are necessary due to the size of the settlement. MBT movements originating from Langeberg are shown in Figure 2.9 overleaf.



Source: CWD GIS, 2010

Figure 2.9: MBT routes in and around Langeberg

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Langeberg Local Integrated Transport Plan

Route utilisation and passenger waiting times are important criteria when determining additional capacity on existing routes. Extended passenger waiting times is usually an indication of an under supply of vehicle services, which means that the current fleet is not large enough to service the current demand efficiently. Generally passenger waiting time is not an issue in Langeberg, with passengers waiting between 5 and 30 mins for a MBT during the peak. However the longest passenger waiting times were observed on farm routes and long distance routes (30 minutes), which is acceptable in less urban conditions.

Detailed peak hour route information is illustrated in Table 2.6 to Table 2.9 for the towns of Ashton, Bonnievale, McGregor and Robertson. These tables provide information on MBT rank activity for the specified peak hours during the week in each major town in Langeberg. These tables only reflect rank departure information and do not reflect the number of passengers that alighted along the route.

Table 2.6: Peak Hour operational information for MBT ranks in Ashton on weekdays

Origin	Destination	Route Code	Peak Hour start	No. of trips	Average Vehicle Capacity	Peak Service Capacity	Peak Pax	% Utilisation
Ashton Langeberg	Montagu	967	13:15	3	11	32	27	84%
Ashton Multisave	Worcester	693	06:00	1	16	16	16	100%
	Bonnievale	809	13:00	2	10	20	20	100%
	Ashton Service	812	06:15	6	17	99	80	81%
	Montagu	967	12:45	1	32	32	26	81%
	Robertson	968	06:45	6	13	76	68	90%
	Ashton Zolani	D95	13:15	4	11	43	27	63%
Ashton Zolani	Bonnievale	809	06:00	1	32	32	30	94%
	Montagu	810	07:45	2	8	17	18	107%
	Robertson	812	06:00	5	14	68	69	101%
	Ashton	D95	06:30	18	10	172	157	91%
	Cape Town	NewRouteBR01	10:45	1	16	16	14	88%
	McGregor	NewRouteBR02	06:30	1	60	60	60	100%

Source: LLM CPTR, 2009

Ashton has 3 MBT ranks which are active throughout the week. MBT routes operating at these facilities operate at well above 80% utilisation during the peak. However this high utilisation rate is a reflection of a low number of passengers (15 to 30 passengers) per route with adequate capacity during the peak, rendering a low passenger demand per route during the peak. There is, however, a significant demand for MBT services operating locally within Ashton, and also between Robertson. The Ashton service (which services the farms and schools within Ashton), transports over 250 passengers at over 90% of peak service capacity, during the week. There is also a significant demand for MBT movements from Ashton to Robertson, where approximately 130 passengers are travelling during the peak on weekdays. Currently there are two Robertson services operating, both of which are operating at over 90% of peak service capacity. MBT demand is significantly lower on weekends, which is mostly due to the decreased work trips generated on weekends

Table 2.7: Peak Hour operational information for MBT ranks in Bonnievale on weekdays

Origin	Destination	Route Code	Peak Hour start	No. of trips	Average Vehicle Capacity	Peak Service Capacity	Peak Pax	% Utilisation
Bonnievale Happy Valley	Bonnievale	832	07:30	10	16	158	77	49%
	Bonnievale Farms	F02	12:45	1	60	60	87	145%
	Robertson	N40	07:45	1	12	12	5	42%
	Swellendam	NewRoute BR10	15:15	1	12	12	15	125%
Bonnievale Multisave	Bonnievale Happy Valley	832	15:15	9	18	158	152	96%

Source: LLM CPTR, 2009

There are 2 routes operating out of Bonnievale, which show significant passenger movements during the week. Currently there are approximately 90 passengers using the Bonnievale Farms route which originates from the Bonnievale Happy Valley rank facility. This route is serviced by a single 60 seater vehicle used for transporting passengers to the various farms in Bonnievale. The Route between the Bonnievale Multisave MBT facility and Bonnievale Happy Valley MBT facility also displays significant passenger utilisation. The Bonnievale Happy Valley MBT service is currently transporting 150 passengers at 96% of peak service capacity during the peak hour on weekdays. On Saturdays 2 MBT routes to Ashton become active. Approximately 290 passengers leave for Ashton during the peak, with just over 70% of the service utilised

Table 2.8: Peak Hour operational information for MBT ranks in McGregor on weekdays

Origin	Destination	Route Code	Peak Hour start	No. of trips	Average Vehicle Capacity	Peak Service Capacity	Peak Pax	% Utilisation
Mcgregor Church	Bonnievale	NewRouteBR03	12:00	1	60	60	60	100%
	Montagu	NewRouteBR04	13:45	1	6	6	3	50%
	Robertson	NewRouteBR05	06:30	6	22	134	96	72%
	McGregor Farms	NewRouteBR06	12:00	3	15	44	60	136%

Source: LLM CPTR, 2009

There are four routes operating out of the MBT rank in McGregor. MBT movements to Bonnievale, Robertson and the surrounding farms are the most utilised. On weekends there is a low demand service from within McGregor.

Table 2.9: Peak operational information for MBT ranks in Robertson on weekdays

Origin	Destination	Route Code	Peak Hour start	No. of trips	Average Vehicle Capacity	Peak Service Capacity	Peak Pax	% Utilisation
Robertson Fishmarket	Robertson	686	14:15	2	15	30	18	60%
	Ashton Zolani	812	06:00	1	12	12	0	0%
	Ashton	968	13:00	1	12	12	4	33%
	Bonnievale	N37	09:30	1	12	12	5	42%
	McGregor	NewRouteBR05	09:30	1	12	12	10	83%
Robertson Nkqubela	Robertson	686	14:00	12	11	126	76	60%
	Robertson Farms	690	06:30	2	13	25	25	99%
	Worcester	693	06:00	1	12	12	13	108%
	Ashton	968	14:45	1	11	11	6	53%
	Bonnievale	N37	12:15	1	60	60	38	63%
	McGregor	NewRouteBR05	06:45	3	31	94	45	48%
	Cape Town	NewRouteBR07	14:45	1	12	12	1	8%
	George	NewRouteBR08	13:00	1	60	60	4	7%
Robertson Pick n Pay	Robertson	686	16:00	7	11	77	79	103%
	Ashton Zolani	812	15:15	8	11	91	92	101%
Robertson SADP	Robertson Farms	687	06:30	7	27	189	77	41%
	Worcester	693	07:00	3	11	34	33	97%
	Cape Town	NewRouteBR07	11:15	3	14	42	48	114%
	Ceres	NewRouteBR09	10:30	1	12	12	11	92%
Robertson Shoprite	Robertson	686	17:15	7	13	88	100	113%

Source: LLM CPTR, 2009

Robertson has 3 MBT ranks which are active throughout the week. Most of the routes operating out of these ranks are low demand services, departing only once or twice during the peak hour. There is, however, a significant demand for MBT services operating locally within Robertson. There are also significant passenger movements to Ashton from the Robertson Pick n Pay facility, transporting approximately 90 passengers at 100% of peak service capacity.

2.4.4 Bus services

There are no commuter bus services in Langeberg.

2.4.5 Rail services

There are no rail services in Langeberg.

2.4.6 Long distance services

There is no long distance commuter rail service but there is a tourist rail service and a freight rail service which runs through Langeberg. There is also a long distance bus.

Tourist Rail

A premier class tourist rail service (see Figure 2.10) is also in operation that departs Cape Town Station en-route to Port Elizabeth. This service only takes place on Fridays returning from Port Elizabeth on a Sunday. The train departs Cape Town Station at 15:00 on a Friday makes one stop at Oudtshoorn Station at 07:10 before arriving at Port Elizabeth at 16:00. The journey is a total of 25 hours between the two towns. Even though Worcester Station is indicated on the map and falls in the CWDM it does not stop there

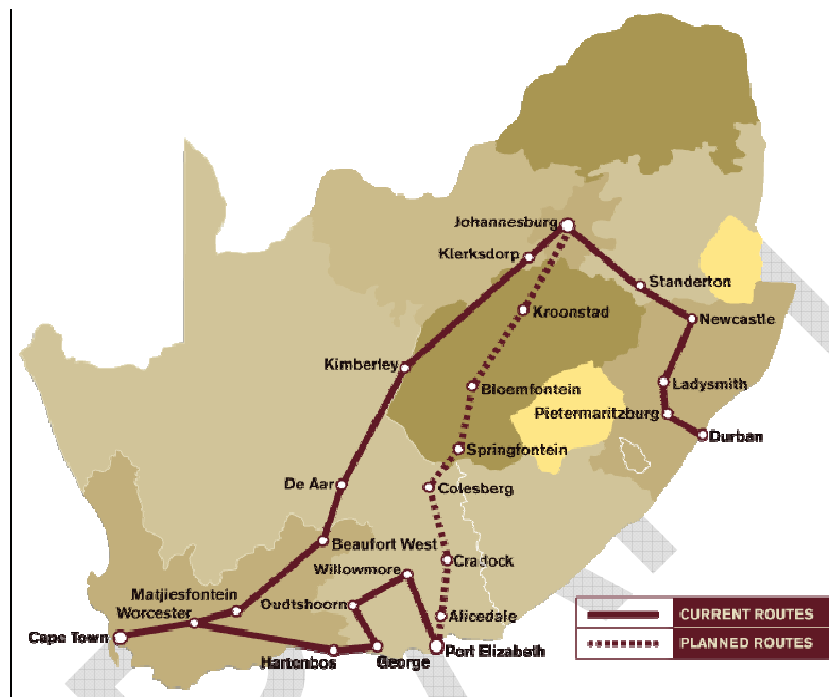


Figure 2.10: Tourist Rail Service

Freight Rail

Currently, rail freight passing through Langeberg is mainly agricultural and container freight. The only active freight handling station in Langeberg is the Ashton station.

Bus

Frequency

The only commercial bus service that operates through Langeberg is TransLux. The service operates daily with 3 busses per day from Cape Town to East London, with stops at Robertson and Ashton.

Table 2.10 overleaf depicts the frequency of the busses on the route. The routes are outlined in Figure 2.11

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Table 2.10: Frequency via Langeberg

Service	Route	Trip per day	Towns Served
East London	From Cape Town	3	Robertson & Ashton
	To Cape Town	3	Robertson & Ashton

Source: Informal interview with Roadlink, Intercape and Translux



Source: Informal interview with Roadlink, Intercape and Translux

Figure 2.11: Long distance routes

Time table

The service has a scheduled stop at a filling station at the Shell Ultra City in Ashton and it stops at a public transport stop in Robertson. There are 5 buses servicing the AM peak along the Cape Town to East London route. The departure times for these buses are 06:30am, 14:45 and the evening bus 18:00.

Fares

As shown in Table 2.11 overleaf, fares between Cape Town and the towns of Robertson and Ashton are similar as depicted in. The afternoon bus is cheaper because the City to City coaches are used. Since there is no long distance rail services in Langeberg most people rely on bus services to travel long distances.

Table 2.11: Bus fares between Cape Town, Robertson and Ashton

Departure City	Destination City	Full Price	Arrival Time	Carrier
Cape Town	Robertson	R150.00	08h40	TransLux
	Ashton	R150.00	08h55	TransLux
Cape Town	Robertson	R100.00	16h55	CitytoCity
	Ashton	R100.00	17h15	CitytoCity
Cape Town	Robertson	R150.00	20h10	TransLux
	Ashton	R150.00	20h30	TransLux

Source: Informal interview with Roadlink, Intercape and Traanslux

2.5 Public Transport Infrastructure

Public transport infrastructure in this section deals primarily with road-based facilities for buses and MBT's. The following types of facilities are discussed for both buses and MBT's:

- Formal terminals, ranks, stops and holding facilities
- Informal ranks, stops and holding/parking areas

2.5.1 Bus Facilities

An adequate bus facility is required in the Langeberg area. The bus service has a scheduled stop at a filling station at the Shell Ultra City in Ashton and at a public transport facility originally intended for used by the MBT industry Robertson. Here, shelter is provided and regular maintenance of the area is done. The stop in Ashton cannot be upgraded as the land is privately owned and there is no shelter provided for the passengers. Figure 2.12 includes photographs of the public transport facility in Robertson.



Figure 2.12: Bus facility in Robertson

2.5.2 MBT Facilities

Table 2.12 overleaf provides a summary of the various formal MBT facilities.

Table 2.12: Summary of formal taxi facilities

TOWN	NAME	CODE	STATUS	NO OF BAYS	ON/OFF STREET	PAVED
Robertson	Pick n Pay	WC026 001	I	9	OFF	YES
Robertson	Shoprite	WC026 003	I	2	OFF	YES
Robertson	Nkqubela	WC026 004	I	6	ON	YES
Robertson	Fish market	WC026 005	I	4	OFF	NO
Ashton	Langeberg	WC026 007	I	4	OFF	YES
Ashton	Multisave	WC026 008	I	6	OFF	NO
Ashton	Zolani	WC026 009	I	4	ON	YES
Montagu	OK Bazaars	WC026 010	I	4	ON	YES
Montagu	Food Zone	WC026 011	I	3	ON	YES
Bonnievale	Multisave	WC026 012	I	5	OFF	YES
McGregor	Church	WC026 013	I	2	ON	NO
Bonnievale	Spar	-	I	-	OFF	YES
Bonnievale	Happy Valley	NewSiteBR02	I	-	-	-
Robertson	SAPD	NewSiteBR01	F	10	OFF	YES

Source: Langeberg CPTR, 2009

The challenge facing the municipalities is mainly the availability of funds to address the priority needs at the public transport facilities. An assessment study of the operational requirements at each facility will provide a basis for the consolidation of various facilities as well as for funding applications for the construction of required facilities and upgrades. Besides providing public transport facilities, the municipalities are required to maintain the facilities as part of their annual infrastructure maintenance activities.

In addition to the formal facilities, each LM has a number of informal facilities and stopping points that require upgrades. It remains a challenge to provide adequate shelter at the informal facilities, which are summarised in Table 2.13 overleaf.

Table 2.13: Summary of informal taxi facilities

TOWN	NAME	CODE	STATUS	NO OF BAYS	ON/OFF STREET	PAVED
Bonnievale	Spar	-	I	-	OFF	YES
Bonnievale	Happy Valley	NewSiteBR02	I	-	-	-
Robertson	SAPD	NewSiteBR01	F	10	OFF	YES

Source: Cape Winelands CPTR, 2002/2003

2.5.3 Rail Infrastructure

There is no passenger rail service operating in the Langeberg area. The rail infrastructure is used for transporting freight and an occasional tourist train only. The relevant freight rail facilities are discussed in section 2.10.2

2.6 Road Network and Traffic

The road network in Langeberg consists of three components, the first being the national road which is owned and managed by the South African National Road Agency Limited (SANRAL). Secondly, there are the provincial roads, or the rural road network, owned and managed by the provincial road authority, which is the PGWC. Together, the national and provincial road networks form the major road network in the area. Lastly, upgrade and maintenance of the local street network is the responsibility of the local authority, which is the Langeberg municipality

2.6.1 Extent of the road network

The road network through Langeberg consists of about 1 200 kilometres of national and provincial roads. Major provincial roads include the R60 starting at Worcester and running through Robertson and Montagu. The R60 is also the road based transport link between Langeberg and the Overberg region via the N2.

Provincial roads are classified into four categories according to function, and include trunk roads, main roads, divisional roads and minor roads. Trunk roads and main roads link larger towns and provide access to bordering districts. Divisional roads link rural areas to trunk and main roads, while minor roads provide local access. Table 2.14 provides a summary of the extent of the major road network.

Table 2.14: Extent of Langeberg major road network

MUNICIPALITY	FUNCTIONAL ROAD TYPE					
	National	Trunk	Main	Divisional	Minor	TOTAL
Langeberg LM	2.39	113.96	244.32	368.45	467.18	1 196.30
Cape Winelands DM	169.39	387.51	969.02	1 411.29	1 931.40	4 868.61

Source: RNIS Road Length Summary per Authority, 4 March 2010

The road network can also be presented in terms of the extent of surfaced and gravel pavement. All national and trunk roads, and most main roads are paved. Table 2.15 provides a summary of the major road network by surfaced and gravel surface type.

Table 2.15: Major road network by surface type

FUNCTIONAL ROAD TYPE	ROAD SURFACE TYPE		TOTAL KM
	PAVED KM	GRAVEL KM	
National Roads	2.39	0.00	2.39
Trunk Roads	113.96	0.00	113.96
Main Roads	186.24	58.08	244.32
Divisional Roads	75.36	293.09	368.45
Minor Roads	7.39	459.79	467.18
TOTAL	385.34	810.96	1 196.30

Source: PGWC RNIS (Road Length Summary per Authority Type/ Surfaced and Gravel Roads per LM), 4 March 2010

The provincial RNIS system provides a report on the estimated asset value of around R 3.5 billion (2010 value) for the provincial trunk, main and divisional road network. The surfaced road network accounts for 99.4% of this amount.

Table 2.16 contains the rural network asset value for Langeberg.

Table 2.16: Provincial road network asset value

CATEGORY	ROAD CATEGORY		
	SURFACED	GRAVEL	TOTAL
Total of trunk, main & divisional roads	382.95 km	810.96 km	1 193.91 km
Asset value	R3 456 857 000	R19 761 000	R3 476 618 000
Asset value (2010 Rand per km)	R9 026 914.74	R24 367.42	-

Source: RNIS: Asset Value by Authority, 21 April 2010:

Figure 2.13 contains a map of the major road network in the Langeberg area.

Figure 2.13: Major road network in Langeberg municipality



The provincial trunk and main roads passing through some of the towns are municipal main roads. These sections are the joint responsibility of the Langeberg municipality and the provincial authority. The extent of the municipal main roads are summarised in Table 2.17.

Table 2.17: Langeberg municipal main roads

TOWN	ROUTE NUMBER	CW	START KM	END KM	LENGTH (km)
Robertson	TR03101	+	45.02	45.67	0.65
Robertson	TR03101	-	45.18	45.67	0.49
Robertson	TR03102	+	0.00	1.46	1.46
Robertson	TR03102	-	0.00	1.05	1.05
Robertson	MR00290	+	0.00	0.25	0.25
Ashton	TR03102	+	15.68	18.67	3.03
Montagu	TR03102	+	25.99	27.29	1.30
Montagu	TR03103	+	0	1.22	1.22
Montagu	MR0295	+	75.49	78.27	2.78
Bonnievale	MR0291	+	8.99	9.72	0.73
Bonnievale	MR0287	+	30.03	30.71	0.68
McGregor	MR0290	+	18.5	20.24	1.74
TOTAL					15.43

Note: The indicator in column CW is depicting whether the road is the second carriageway of a dual carriageway. For single carriageways and the first carriageway of a dual carriageway, a plus (+) is used. For the second carriageway of a dual carriageway, a minus (-) is used. This second carriageway is the one on which the direction of travel does not correspond to the direction of increasing kilometre value.

Source: WCPG RNIS List of Urban Roads per Urban Langeberg 4 March 2010

Proclaimed municipal main roads form part of the urban road network, creating a local street network of 232.5 km in Langeberg. Street classification categories and definitions used and are as follows:

- Primary streets are main routes carrying traffic through areas and between towns;
- Secondary streets are distributor/collectors providing access to an area and/or suburbs;
- Main Tertiary streets are local distributor/collectors, giving access to a suburb;
- Tertiary streets are local residential streets giving access to the residences.

Langeberg is responsible for the urban road network within the various towns. Table 2.18 contains detail of the extent and classification of the local streets.

Table 2.18: Urban road length by category

ROAD CATEGORY	LENGTH (KM)	% PER CATEGORY
Primary Roads	3.20	1%
Secondary Roads	10.10	4%
Main Tertiary Roads	34.20	15%
Tertiary Roads	185.00	80%
TOTAL	232.50	100%

Source: V&V PMS, March 2010

2.6.2 Condition of the road network

The PGWC, through agency agreements with the District Municipalities, manages the majority of unsurfaced roads in the Western Cape. The District Municipality and the Paarl District Roads Engineer (DRE) carry out routine maintenance and the bulk of the periodic maintenance. The objective of the PGWC is to provide and maintain the road network in an acceptable condition at the minimum total cost to society.

The current condition of unsurfaced roads in the Western Cape Province is as follows:

- Gravel wearing course replacement is required on 8 200 km (77%) of the gravel roads. This includes all gravel roads where the gravel wearing course thickness is below 25 mm, as well as 771 km of earth roads.
- The average gravel thickness was 63 mm in 1998; this average has dropped to 27 mm in 2008.
- Over the past 10 years, approximately 280 km of road was re-gravelled annually. This is only 3% of the total gravel network, resulting in the huge backlog of roads with insufficient gravel material.

Paved Provincial Roads

The PGWC uses a Pavement Management System (PMS) to produce maintenance programmes for all paved roads in the Western Cape Province. Prioritisation of work for these maintenance programmes are based on parameters measuring the condition of the road.

The Pavement Condition Index (PCI) and Reseal Condition Index (RCI) are both Visual Condition Indices (VCI) that give an indication of the condition of the road as determined through visual inspection.

- The PCI is a numerical index value relating to the condition of the pavement as road users experience it.
- The RCI relates to the road reseal condition. Resealing is the process of constructing a new, waterproof surface on an existing road to prevent accelerated moisture induced failure. Reseal is therefore an important preventive maintenance action.

The Visual Condition Indices range from zero to 100, with 100 representing an excellent condition, provide the details of pavement conditions with corresponding index ranges.

Table 2.19: Road Condition Categories

DESCRIPTION OF CATEGORY	VISUAL CONDITION INDEX RANGE
Very good	$85 \leq VCI \leq 100$
Good	$70 \leq VCI \leq 85$
Fair	$50 \leq VCI \leq 70$
Poor	$30 \leq VCI \leq 50$
Very Poor	$0 \leq VCI \leq 30$

Source: THR22, Table 6.2

The pavement condition indicators are summarised in Table 2.20 and illustrated in Figure 2.14. A map showing the surface condition of the paved provincial roads are included in Figure 2.15.

Table 2.20: Provincial Roads: Pavement and Reseal Condition

ROAD CONDITION	PAVEMENT CONDITION			RESEAL CONDITION		
	%	Cumulative %	Length (km)	%	Cumulative %	Length (km)
Very Poor	-	0%	0	39%	39%	141.17
Poor	6%	6%	20.97	16%	55%	60.05
Fair	21%	27%	78.32	15%	70%	55.16
Good	43%	70%	156.24	16%	86%	60.05
Very Good	30%	100%	106.35	14%	100%	51.37
TOTAL	100%	-	361.88	100%		361.88

Data Source: PGWC DMC_Cape Winelands_Pavecondition.xls, 24 March 2010

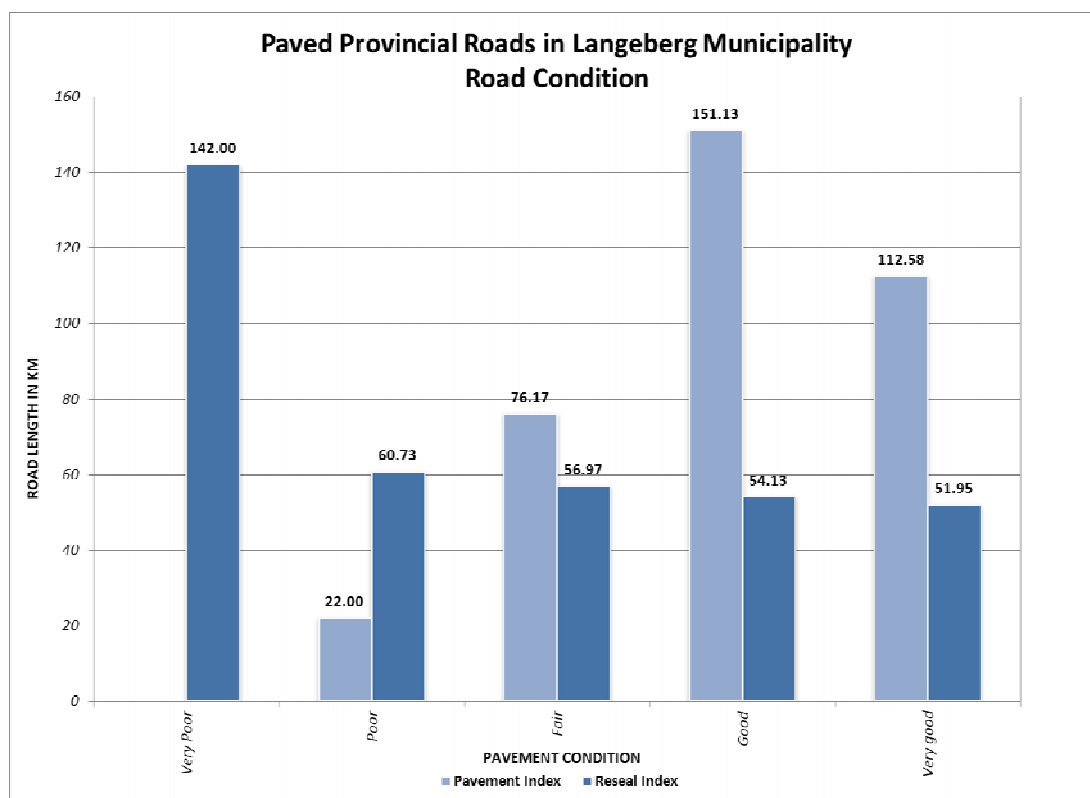


Figure 2.14: Road Condition: Length per Category

Source: PGWC RNIS March 201

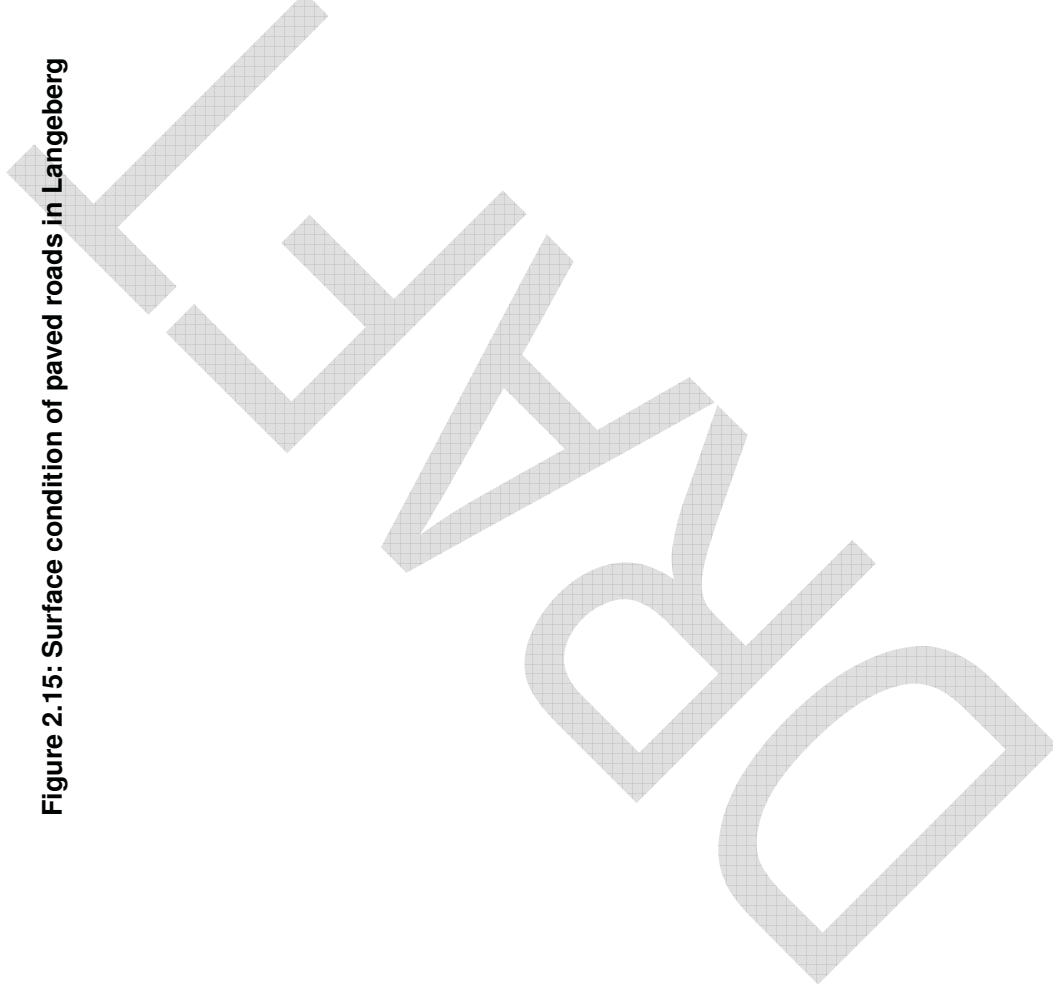
Considering only the pavement index condition, trunk roads are generally in a very good condition, while main and divisional roads are in a good/fair condition. Overall, only 6% (21km) of the road appears to be in a poor condition.

However, the condition of the road surface is not nearly as good. The reseal indices indicate that 55% (200km) of road surfacing is in poor/bad condition and urgently need maintenance. This means that although road users will perceive roads in general to be in good condition, most of them need urgent maintenance in the form of resealing. Failure to address the maintenance requirements will result in the overall condition of the road network to deteriorating significantly.

Generally, the R60 between Worcester and Robertson is in very good condition, while the section between Robertson and Ashton is in a fair condition. The map in Figure 2.15 illustrates the surface condition of the paved roads in Langeberg.

Figure 2.15: Surface condition of paved roads in Langeberg

Source: PGWC GIS department, July 2010



The PGWC prioritised maintenance projects for 2010/2011 are summarised in

Table 2.21. The project status categories are as follows:

- “A” status projects are roads requiring maintenance during 2010/2011, but maintenance is postponed due to budget limitations.
- “B” status projects require less urgent maintenance and remain unscheduled for maintenance work in 2010/2011.
- “S” status projects are roads that require maintenance during 2010/2011. Work is in progress or scheduled for 2010/2011.

Rehabilitation of the section of MR282 between Bonnievale and the N2 was recently completed. This section, closest to the N2 between km 2.86 and km 7.0 is in a very good condition. The 10 km section from Bonnievale to this section remains in a bad condition, as indicated in the summary below.

Table 2.21: Provincial Roads: Upgrade and Maintenance Programme

ROAD	START KM	END KM	STATUS	CONDITION		AUTHORITY & BUDGET YEAR
				Visual (PCI)	Reseal (RCI)	
MR0282	7.00	17.38	S	Fair	Very poor	-
MR0287	14.49	30.03	S	Fair	Very poor	-
MR0287	30.71	31.76	S	Fair	Very poor	-
TR03102	18.76	25.99	S	Fair/Poor	Very poor	-
DR01339	0.00	6.63	A	Fair/Poor	Very Poor	CWDM 2010/11
DR01342	10.80	14.28	A	Good	Fair/Poor	CWDM 2010/11
DR01384	0.00	2.83	A	Fair	Very Poor	CWDM 2010/11
MR00289	12.18	13.83	A	Fair	Very Poor	CWDM 2010/11
MR00289	13.83	18.54	A	Good/Fair	Very Poor	CWDM 2010/11
MR00291	0.00	0.38	A	Good	Very Poor	CWDM 2010/11
MR00291	4.22	8.99	B	Fair/Poor	Very Poor	CWDM 2010/11+
MR00295	50.35	68.30	B	Very Good/Fair	Fair/Very Poor	CWDM 2010/11+
TR03103	13.20	30.00	B	Very Good/Good	Good/Very Poor	RO Paarl 2007

Source: PGWC DMC_Cape Winelands_Seal and Pave.xls, 24 March 2010

A map showing the preliminary projects of the provincial roads are included in Figure 2.16, and the map displaying the road maintenance projects on the provincial roads are included in Figure 2.17

Figure 2.16: Candidate project status

Source: PGWC GIS department, July 2010

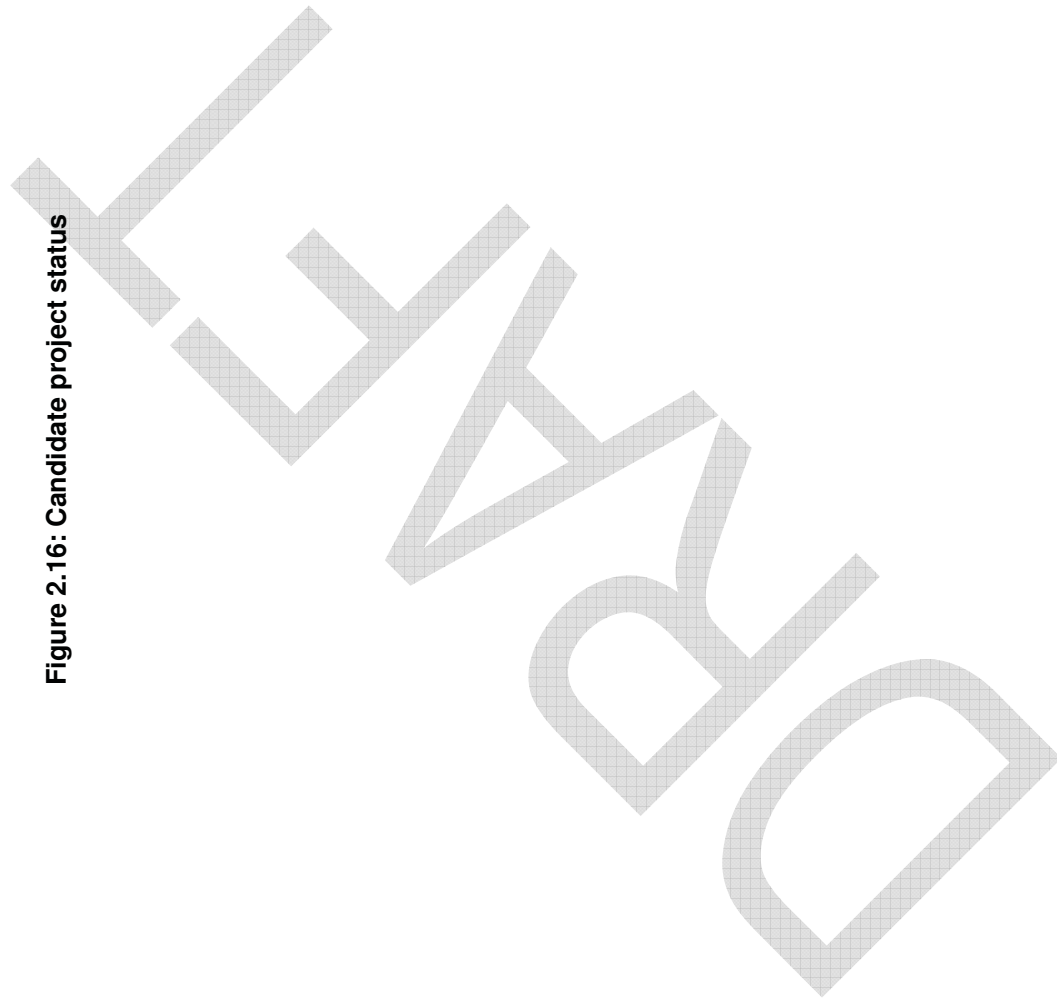


Figure 2.17: Paved maintenance projects

Source: PGWC GIS department, July 2010



Gravel Provincial Roads

The PGWC, through agency agreements with the District Municipalities, manages the majority of unsurfaced main, divisional and minor roads in the Western Cape. The Cape Winelands and the Paarl DRE carry out routine maintenance and the bulk of the periodic maintenance. The PGWC uses a Gravel Road Management System (GRMS) to provide both strategic and tactical level information to assist in the management of the unsurfaced road network. Some of the information provided is as follows:

- Condition data and statistics
- Recommended blading frequencies
- Periodic maintenance activities and priorities

The GRMS produces a number of indices based on condition input data, guiding road condition assessment and project prioritisation. Project priority is determined through the interpretation of the indices as well as through visual inspection of the road, inter alia.

The PGWC report data contains indices for 398.78km of the gravel roads in Langeberg. This includes all Main and Divisional gravel roads, as well as 47.64km of minor gravel roads. Table 2.22 summarises the road condition. Figure 2.18 illustrates the condition of the unsurfaced provincial road network.

Table 2.22: Gravel Road condition per class

ROAD TYPE	GRAVEL KM	EXTENT PER VCI CATEGORY (KM)			
		Good	Fair	Poor	Very poor
Main Roads	58.08	-	8.15	39.93	10.00
Divisional Roads	293.06	4.2	48.83	163.86	76.17
Minor Roads	47.64	-	-	8.91	38.73
TOTAL	398.78	4.2	56.98	212.7	124.9
%	-	1%	14%	54%	31%
Cumulative %	-	1%	15%	69%	100%

Data Source: PGWC DMC_Cape Winelands_Gravelcondition.xls, 24 March 2010

It is evident that nearly all gravel roads are require immediate maintenance or upgrade, as most Main and Divisional Roads are in a poor condition, while almost all Minor Roads are in a very poor condition. The condition of the gravel road network is certainly substandard. The VCI indicate that 85% (97.48 km) of road surfacing is in poor to very poor condition. A map showing the gravel road condition is included in Figure 2.18 overleaf.

Figure 2.18: Candidate project status (Gravel)

Source: PGWC GIS department, July 2010



The PGWC prioritised maintenance projects for 2010/2011 are summarised in Table 2.23: Provincial gravel roads scheduled works programme. The project status categories are like to those used for the paved road projects.

Table 2.23: Provincial gravel roads scheduled works programme

ROAD	START KM	END KM	TOTAL KM	STATUS	AREA/LOCATION
MR00294	1.59	20.00	18.41	Scheduled	East of Montagu
DR01334	0.19	11.20	11.01	Scheduled	McGregor
DR01339	6.63	10.00	3.37	Scheduled	Langverwacht to McGregor
DR01339	20.00	28.99	8.99	Scheduled	Langverwacht to McGregor
DR01380	0.00	7.11	7.11	Scheduled	De Norree to Moordkuil
TOTAL			48.89		

Source: PGWC DMC_Capewinlands_Gravel.xls, 24 March 2010

The 48.89km of scheduled road maintenance represent 19% of the gravel road prioritised project list.

Table 2.24 has the remainder of the prioritised roads listed, all of which is unlikely to receive any maintenance upgrade in the near future.

Table 2.24: Provincial gravel roads prioritised works programme

ROAD	START KM	END KM	TOTAL KM	PRIORITY	CONDITION
MR00280	0.00	8.15	8.15	A	Very Poor/Fair
MR00294	32.00	51.52	19.52	A	Poor
DR01340	0.00	10.06	10.06	A	Poor
DR01346	0.00	8.02	8.02	A	Poor
DR01377	1.68	4.00	2.32	A	Fair
DR01377	11.00	13.98	2.98	A	Poor
DR01382	2.55	6.20	3.65	A	Poor
DR01392	0.00	4.60	4.60	A	Poor
DR01402	0.00	9.26	9.26	A	Poor
DR01411	0.00	32.53	32.53	A	Poor/Very Poor
DR01428	0.00	19.53	19.53	A	Very Poor
OP05960	0.00	6.49	6.49	A	Very Poor
TOTAL			127.11		
MR00294	20.00	32.00	12.00	B	Poor
DR01331	0.00	6.13	6.13	B	Very Poor
DR01355	5.11	6.20	1.09	B	Very Poor

ROAD	START KM	END KM	TOTAL KM	PRIORITY	CONDITION
DR01367	1.60	4.53	2.93	B	Poor
DR01369	0.00	0.98	0.98	B	Very Poor
DR01369	1.03	4.26	3.23	B	Very Poor
DR01374	1.32	5.51	4.19	B	Very Poor
DR01378	0.00	2.39	2.39	B	Poor
DR01383	2.07	3.32	1.25	B	Poor
DR01391	0.00	5.96	5.96	B	Poor
DR01432	0.00	10.66	10.66	B	Poor/Very Poor
OP05914	0.02	4.06	4.04	B	Poor
OP05915	0.00	0.94	0.94	B	Poor
OP05916	0.00	1.57	1.57	B	Very Poor
OP05959	0.03	2.76	2.73	B	Very Poor
OP05962	4.00	11.95	7.95	B	Very Poor
OP06042	0.00	6.00	6.00	B	Very Poor
OP06104	0.00	13.91	13.91	B	Very Poor/Poor
TOTAL			87.95		

Source: PGWC DMC_Cape Winelands_Gravel.xls, 24 March 2010

Municipal main roads and local streets

Urban road management utilises the pavement management module of the Infrastructure Management Query System (IMQS). Such a management system is limited to the provision of information on which to make informed decisions.

The IMQS information update took place in 2008. Table 2.25 gives a summary of the structural condition of the roads. The structural index provides an indication of the ability of the road to withstand traffic loads.

Table 2.25: Structural condition of municipal roads in Langeberg

ROAD CATEGORY	CONDITION BY ROAD CATEGORY (%)				
	VERY GOOD	GOOD	FAIR	POOR	BAD
Primary Roads	5	20	37	38	0
Secondary Roads	31	38	13	9	9
Main Tertiary Roads	35	27	14	19	5
Tertiary Roads	51	30	9	5	4
TOTAL	46	30	11	8	5

Source: V&V PMS, March 2010

Condition of the road structure is good, with 76% of roads being in good or very good condition. Following is a summary of pavement condition indices. A pavement index is an

indication of the quality of the surface as an impermeable layer preventing ingress of water into the pavement structure.

Table 2.26: Pavement condition of municipal roads in Langeberg

ROAD CATEGORY	CONDITION BY CATEGORY (%)				
	VERY GOOD	GOOD	FAIR	POOR	BAD
Primary Roads	26	54	19	1	0
Secondary Roads	39	35	15	11	0
Main Tertiary Roads	29	36	26	8	0
Tertiary Roads	35	32	25	7	1
TOTAL	34	33	24	8	1

Source: V&V PMS, March 2010

Condition of the road pavement indicated that 67% of pavement is good or very good condition. The corresponding value for road structure is 76%. If road surface conditions deteriorate too much, road structure is adversely affected. Therefore, upkeep to protection of the structure through regular maintenance is very important.

2.6.3 Traffic Volumes

Provincial Roads

Rural roads are typically two-lane roads with or without paved shoulders. The roads carry low to moderate traffic volumes and traffic flows are not characterised by high peak-hour commuter volumes. Figure 2.19 contains a line diagram illustrating the traffic volumes on the major road network by means of different line types, where lines are scales according to ADT volumes.

It is evident that the R60 carries the highest traffic volumes, as it is the main regional route between Robertson, Ashton and Montagu. Besides carrying local traffic, it is the road transport link between Langeberg and Worcester towards the west and Swellendam and the N2 towards the east. It also carries a large percentage of long-distance traffic travelling between Cape Town and the Eastern Cape. Other major provincial roads include the R317 between Robertson and Bonnievale, MR290 between Robertson and McGregor and the R318 between Montagu and the N1 near Touwsriver.

Approximately 810 km of the unsurfaced roads are categorised as Trunk, Main, Divisional and Minor roads. These roads are referred to as gravel roads. The remaining unsurfaced roads are earth roads and tracks.

Unsurfaced roads typically carry very low traffic volumes. A limited number of traffic volumes were available, as counting is only possible when there is a short paved section on the gravel road. Traffic volumes are summarised in Table 2.27.

Table 2.27: 2009 Traffic Volumes on paved section of gravel roads

ROUTE	START KM	END KM	AADT	AADTT	% HEAVY VEHICLES	GROWTH RATE
MR00280	8.15	9.54	102	26	25%	3.36
DR01339	6.38	6.63	142	12	8%	3.36
DR01342	20.11	20.15	69	4	6%	3.36
DR01355	5.05	5.11	88	13	15%	-0.32
DR01369	0.98	1.03	181	14	8%	5.59
DR01380	7.11	7.79	140	19	14%	3.68
DR01383	2.01	2.07	123	4	3%	5.68

Source: PGWC DMC_Cape Winelands_Traffic.xls, 24 March 2010

Figure 2.20: Annual Average Daily Traffic

Source: PGWC GIS department, July 2010

DRAFT

Municipal Main Roads

Municipal Main Roads are the provincial trunk and main roads passing through the major towns in the local municipality. Upgrade and maintenance of these road sections are the joint responsibility of the local municipality and the provincial authority. The municipal main roads in Langeberg are summarised in Table 2.28.

Table 2.28: Municipal Main Roads

TOWN	ROAD NUMBER		CHAINAGE KM		THROUGH-TRAFFIC VOLUME
	Municipal	Provincial	START	END	AADT (AADTT)
Ashton	MT031	TR03102	15.68	18.76	6 000 (50)
Bonnievale	MM291	MR0291	8.99	9.72	1 000 (100)
Bonnievale	MM287	MR0287	30.03	30.71	1 800 (230)
McGregor	MM290	MR0290	18.5	20.24	1 080 (40)
Montagu	MT031	TR03102	25.99	27.29	3 800 (310)
Montagu	MT031	TR03103	0.00	1.22	1 350 (185)
Montagu	MR295	MR0295	75.49	78.27	580 (40)

Source: WCPG RNIS List of Urban Roads per Urban Municipality 4 March 2010

Transfer payments from the PGWC to the local municipality to maintain the proclaimed municipal main roads. Budget allocations are based on the PGWC PMS and a priority listing. Local municipalities need to provide 20% of the funds while PGWC subsidises the remaining 80%. All information about funding categories, timeframes and procedures on this subject is contained in "Guidelines for the allocation of funding and the execution of projects in terms of proclaimed municipal roads", a downloadable document from the provincial roads website at <http://rnis.wcape.gov.za>.

Local street network

Urban streets carry moderate peak-hour flow volumes. High ADT volumes in the town centres usually follow lower heavy vehicle incidence. Except for traffic volumes logged on municipal main roads through the urban centres, there are no accurate traffic volumes presently available for the remainder of the street network.

2.7 Road safety

The status quo of road safety and accident statistics in Langeberg is reflected by the accident data collected by the PGWC Accident Bureau. This section aims to summarise the locations and reasons for the highest number of accidents in the major towns of Langeberg. The 2008 data is the latest available data. Interpretation of the results of the data analysis is limited by the fact that the road name, number, intersection or chain distance at best describes the exact

location of an accident. Road safety is further discussed in terms of National Roads and Provincial Roads

Most accident in the LM takes place on provincial roads, which carry high traffic volumes. Following them, the main accident locations are the town centres/urban areas of Robertson, Montagu and Ashton. The roads and areas with the highest number of accidents in the municipality are as follows:

- TR32/1 from Ashton to Swellendam
- TR31/02 from Robertson to Montagu
- MR287 from Robertson to Bonnievale and beyond
- Unspecified Private Properties, Robertson urban area
- Voortrekker Street, Robertson
- Bath Street, Montagu
- Main Road, Ashton

The following tables and figures summarise the locations and reasons for the highest number of accidents in the major towns in the LM between 2005 and 2008. Interpretation of the results of the data analysis is limited by the fact that the road name, number, intersection or chain distance at best describes the exact location of an accident.

Table 2.29: Total accidents per town

TOWN	YEAR			
	2005	2006	2007	2008
Robertson & Nkqubela	187	200	203	246
Montagu & Ashbury	98	108	131	117
Bonnievale	51	65	72	81
Ashton & Zolani	67	58	71	61
McGregor	10	4	10	2
TOTAL	413	435	487	507

Source: PGWC Provincial Accident Bureau: March 2010

It is evident that the most accidents in Langeberg occurred in the Robertson area. The number of accidents is obviously a function of the size of the town and the number of vehicles travelling in and through the town. A closer look at the accident trend in each of the towns from 2005 to 2008, reveal a positive trend, or an increase in accidents, in Robertson, Montagu and Bonnievale. As the population and vehicle ownership increase every year, it is normal that the actual number of accidents will increase. Further analysis of these parameters against the accidents will reveal whether there was an actual real increase in accidents.

The most accidents occur along the main road passing through the towns. As these are the most heavily operated routes, the municipalities should focus their efforts and investment in these areas to reduce the number of accidents. Most pedestrian safety and traffic calming measures are not appropriate along these routes as they form part of the major road network in Langeberg. Additionally, these routes carry a large volume of heavy freight vehicles

between the Cape Town and the east coast area. The most frequent accident locations are summarised in **Error! Reference source not found.0**.

Table 2.30: Most frequent accident locations

LOCATION	OCCURANCE PER YEAR			
	2005	2006	2007	2008
ASHTON & ZOLANI				
Main Road R60	23	33	38	22
Station Way	6	3	2	2
Mantlana Street, Zolani	4	2	4	1
ROBERTSON & NQUBELA				
Voortrekker Street	25	29	31	33
Church Street	18	26	16	30
MONTAGU & ASHBURY				
Bath Street	30	26	17	22
Mark Street	11	7	9	9

Source: PGWC Provincial Accident Bureau: March 2010

The types of most common accidents are summarised in Table 2.31 for all the towns in Langeberg and for the years 2005 to 2008.

Table 2.31: Most common types of accidents in Langeberg

ACCIDENT TYPE	YEAR			
	2005	2006	2007	2008
Reversing	143	143	146	162
Sideswipe - same direction	37	55	50	77
Accident with fixed object	46	45	56	55
Accident with pedestrian	43	40	46	49
Head/Rear end	34	53	51	37
Sideswipe - opposite direction	22	25	37	48

Source: PGWC Provincial Accident Bureau: March 2010

Most traffic accidents in Langeberg occur as a result of reversing. These accidents usually have minor consequences with no or minor injuries to the occupants. Accidents where pedestrians are involved are relatively common. This is an area where the municipality can benefit from the implementation of pedestrian facilities as guided by a NMT safety plan. Other mitigation measures could involve closer investigation of the incidents and the consequent

identification of infrastructure projects or spatial development guidelines in an attempt to eliminate the involvement of vulnerable road users in fatal accidents in the towns.

2.8 Non-motorised Transport

NMT is a form of active transportation consists of human-powered forms of travel such as walking, cycling, rickshaws, skating/ roller-blading, shopping trolleys and manual wheelchairs. However, this could also be extended to include forms of transportation that do not rely on battery and/or fuel combustion driven mechanisms to be propel. NMT also includes animal-drawn carts (especially in rural areas).

2.8.1 Quality of Non-motorised transport

There is no NMT network in Langeberg. NMT routes within road environments, are often not sociable, are poorly maintained, seldom used and suffer from the infiltration of crime. This is often due to poor infrastructural planning, lack of integrated design approach, and difficulties experienced in operation and marketing of public spaces. Sidewalks within areas are often untarred and not desirable to pedestrian and cycling individuals. Figure 2.21 illustrates the existing NMT environment in Montagu and Robertson.



Figure 2.21: NMT in the town of Montagu and Robertson

2.8.2 Modal Share of NMT users

Where public transport cannot be afforded or communities do not have access or have limited access to public transport, people and learners have to walk long distances to their destinations. This increasing trend is illustrated through statistics that indicate that NMT usage in Langeberg is substantially high. This is according to the transport modal share in Table 2.32 obtained from the National Household Travel Survey (NHTS).

Table 2.32: Main mode to work

LM	Percentage of trips						Number of trips
	Train	Bus	MBT	Car	Walk	Other	
Witzenberg		0.7	4.7	13.6	65.8	15.1	37 362
Drakenstein	9.6		18.3	29.8	30.6	11.6	72 149
Stellenbosch	9.7		13	33.2	36.4	7.7	42 801
Breede Valley			4.1	35.5	48.4	12	58 237
Langeberg			7.5	18.3	58.9	15.3	27 863

Source: NHTS, 2007

Investigations into learner travel have indicated that learners travel to school on foot. In Table 2.35 below according to the National Household Travel Survey 71.8% of learners in Langeberg are on foot. With such a high percentage of learners on foot, pedestrian safety is a big concern. Table 2.33 also shows that most learners in the LMs rely on NMT as their primary mode of transport to school.

Table 2.33: Main mode to education

LM	Percentage of trips						Number of trips	Number of PT trips
	Train	Bus	MBT	Car	Walk	Other		
Witzenberg			3.3	16.3	59.2	21.1	28 000	1 000
Drakenstein	6.8		15.4	14.5	51.0	12.3	57 000	12 600
Stellenbosch	5.8		4.6	21.9	46.8	20.9	37 000	3 900
Breede Valley			6.5	15.3	52.2	26.1	44 000	2 800
Langeberg			0.7	8.4	71.8	19	25 000	200

Source: NHTS, 2007

Rail safety for pedestrians is also extremely problematic, owing to the illegal crossings of railway lines and the unprotected rail reserves.

2.8.3 NMT Policy and planning framework

The policies, strategies and resulting design and implementation projects should strive for improved universal access that also takes into consideration the needs of special categories of passengers that include the physically disabled, women with perambulators, shopping trolleys, etc. The focus of NMT policy and planning is to elevate the planning and provision for NMT in Langeberg, especially for rural communities.

2.8.4 NMT environment

The Breede River cuts diagonally across Langeberg, This is challenging when dealing with NMT movement where distance and safety are essential considerations. The road connecting Robertson and Bonnievale (34km apart) carries local commuter traffic, local farming traffic and freight traffic. The distance between these two towns are too large to expect commuters to cycle between them. However, observations indicated that there is a high frequency of lower order settlements along the route, the majority of which are within 15km of either the two

towns. Cycling could be promoted among farm residents to improve their accessibility to either town. Within Robertson there are numerous wine estates that draw tourists on a daily basis for wine tasting or just a scenic drive to explore the area. Providing NMT facilities would not only benefit farm residents within the area but also generate more tourists to the area. Table 2.34 indicates travel distances between settlements varying from 11km to 49km. Towns spaced less than the 15km have been highlighted as acceptable cycling distances.

Table 2.34: Distance between towns

		Ashton	Bonnievale	McGregor	Montagu	Robertson
Ashton	KM	1.5	21	39	11	21
	NMT	√	x	x	√	x
Bonnievale	KM	21	1	39	28	34
	NMT	x	√	x	x	x
McGregor	KM	39	39	1	49	27
	NMT	x	x	√	x	x
Montagu	KM	11	28	49	2	31
	NMT	√	x	x	√	x
Robertson	KM	21	34	27	31	1.5
	NMT	x	x	x	x	√

Source: Google Earth, 2010

Ashton and Montagu are only 11km apart and there is considerable movement on a daily basis between them via motorised means of transport. According to the PTP, this stretch of road (R62) experienced a growth in traffic by 4.1% per annum. Due to the close proximity of Ashton and Montagu to one another and having a distance of less than 15km, it is encouraged to promote bicycle use for residents of Montagu to commute to the industries in Ashton.

The Kogmanskloof that separates Montagu and Ashton has recreational features attached to it such as rock climbing and hiking. A bicycle facility along the length of the R62 would increase tourists, pedestrians and cyclists to the area.

Zolani, a settlement close to Ashton, has approximately 1000 residential units indicating that there is a strong desire for people to access Ashton on either a weekly or daily basis. Therefore a safe NMT link between Zolani and Ashton should be considered. In addition, while a direct informal pedestrian link exists along a road reserve between Zolani and the industrial area of Ashton, a formalized NMT facility could be provided that links up with the facility proposed along the R62 from Montagu.

There is a desire for people from McGregor to access Robertson. Movement in this catchment area is directed towards the commercial, social support and recreational opportunities available in Robertson. Residents of the lower income areas in McGregor as well as those on farms along this route need to use public transport, on a weekly basis, into Robertson. At present no safe pickup / drop off points are located along this route and given the number of trucks that serves surrounding farms in McGregor NMT safety is imperative. It is common to see groups of people walking in the narrow gravel shoulder along this road because of the intra- farming activities taking place. Therefore NMT infrastructure along this route would

accommodate the needs of farm workers and tourists as this section is purely agricultural and could attract tourists.

2.8.5 Issues and Concerns

The following issues and concerns were raised in various interactions with stakeholders and role players:

- Road crossing are problematic due to high speeds, lack of bridges and the unsafe conditions of non-motorised transport along the R62.
- Discontinued sidewalks in Ashton
- Lack of NMT facilities at drop off points

2.8.6 Possible priority projects

A list of projects was developed in response to the status quo analysis and these include

- The R62 which links Worcester and Oudtshoorn to Robertson, Ashton and Montagu offers recreational cycling as well as tourist's routes, especially along the scenic section between Ashton and Montagu.
- The upgrading of discontinuous sidewalks on the main road in the town of Ashton.
- Improving safety for all NMT users along the main road in the town of McGregor.
- Provide continuous NMT facilities along the length of main road in and around the town of Bonnievale.

2.8.7 Shova Kalula

Shova Kalula is a National Department of Transport (NDoT) initiative aimed at promoting cycling as a low-cost mobility solution to low-income households. Its aim is to provide sustainable and affordable mobility to through the distribution of low-cost or rental bicycles in a manner which will enable the establishment of self-sustaining bicycle micro-business in the community.

The Bicycling Empowerment Network (BEN) has been involved in taking aspects of this programme forward across the CWDM and Western Cape, by setting projects up in various settlements, such as Robertson. BEN is currently conducting a training programme until October 2010. The bicycle distribution programme has been rolled out at 58 schools in the Western Cape including many across the CWDM. BEN has also been involved in bicycle supply programmes to public health care workers. These have also been successful especially where they are supported by BEN bicycle shops

2.9 Learner Transport

The South African Schools Act of 1996 makes it compulsory for children between the ages of 7 and 15 to attend school. Thus, in order to facilitate access to schools in Langeberg the WCED has been administering transport subsidies for learners who live further than 5km from their local school. At the same time there has been increasing call to shift institutional responsibility for learner transport to the PGWC to allow the WCED to focus on their core activity. The PGWC through the various district and local municipal offices could better respond to local conditions which, vary greatly not only in the CWDM, but also within the boundaries of each district.

2.9.1 Learner transport policy

The Western Cape is one of the few provinces who address learner travel through learner bus contracts. Budgetary constraints impact upon the provision of transport to learners and determine the minimum distance needed between a school and a learners residence to enable the learner to qualify for transport. There are two policy documents which describe the criteria for the transportation of learners attending ordinary public schools:

- Western Cape Education Department: Learner Transport Policy for Ordinary Public Schools (Draft, 2010)
- National Learner Transport Policy, (Final Draft, February 2009)

2.9.2 Concentration of schools

Records received from the Department of Education 2010 indicated that there were a total of 71 primary, secondary and combined schools in Langeberg. See Figure 2.22. A comprehensive list of these schools is attached as Annexure A. The towns of Montagu and Robertson, has the highest concentration of schools and primary schools. The WCED confirmed that 16 schools in the LLM are served by 20 learner contract routes and are all receiving subsidies from the WCED. This is listed in Table 2.35. Learner contracts are utilised by 22.5% of schools in the municipality and of these 21.3% of primary schools are using learner contracts. The towns of Bonnievale, Montagu and Robertson utilised the most learner contract routes, namely 7 routes (10 schools) in Bonnievale, 4 routes (25 schools) in Montagu and 4 routes (22 schools) in Robertson.

Figure 2.23 spatially presents the schools in the Langeberg as well as the learner transport routes. The coverage of the learner contract routes in the Langeberg is concentrated in the central areas of the municipality, thus providing access to a proportional concentration of schools.



Source: WCED website, 2010

Figure 2.22: Concentration of Schools in Langeberg

Table 2.35: Schools with subsidised transport services in Langeberg

Town	School							
	Total		Primary		Secondary		Combined	
	Schools	LT	Schools	LT	Schools	LT	Schools	LT
Ashton	6	1	4	0	1	1	1	0
Barrydale	1	0	1	0	0	0	0	0
Bonnievale	10	5	8	4	0	0	2	1
Breerivier	2	1	2	1	0	0	0	0
Klaasvogds	1	1	1	1	0	0	0	0
McGregor	4	2	2	0	0	1	2	1
Montagu	25	2	14	1	1	0	10	1
Robertson	22	4	15	3	2	0	5	1
Total	71	16	47	10	4	2	20	4

Note: LT – Learner Transport routes in particular town

Source: WCED website, 2010



Source: CWDm GIS, 2010

Figure 2.23: Schools and Learner Transport Routes in Langeberg

2.9.3 Infrastructure projects at schools

From the CWDM Safer Journey to Schools Strategy, 2009, 7 primary schools listed in Table 2.36 were selected for an infrastructure upgrade; improvements included upgraded access, bus embayments and sidewalks to each of the following schools in 2009. In addition, a list of 3 schools is provided for infrastructure upgrades of a similar nature in 2010 to 2012; listed in Table 2.37.

Table 2.36: Recent upgrades at primary schools in Langeberg, 2009

Upgraded 2009	
Town	School
Bonnievale	Bruintjiesrivier Primary School
	Welville E.K. Primary School
	Gelukshoop Primary School
Robertson	LE Chasseur Primary School
Montagu	Keisie Primary School
	GB Batt Primary School
Parkersdam	Concordia Primary School

Source: WCED website, 2010

Table 2.37: Future upgrades at primary schools in Langeberg, 2010 - 2012

Upgrades 2010 - 2012	
Town	School
Bonnievale	Waboomheuwel NGK Primary
	Wakkerstroom NGK Primary
Montagu	Wardia VGK Primary

Source: CWDM Safer Journeys to Schools, 2009

2.9.4 Issues, concerns and transport needs

In order to identify particular issues and concerns with respect to learner transport in the Langeberg, interviews were held with school principals and the WCED. Telephone interviews were conducted with 4 out of 34 primary schools during the month of March 2010 and a meeting with the WCED was held on 24 May 2010. The issues, concerns and transport needs as identified from the interviews and meeting are presented in Chapter 3. Other sources for learner issues identification include public meetings and reviews of the CPTR and NHTS.

The following issues and concerns were raised in various interactions with stakeholders and role players:

- The WCED learner transport tenders are awarded to operators that are not from the area.
- The learner transport policy of the WCED requires learners to live outside the 5 km radius of the nearest schools. The 5km extends from the school, along the surfaced road network up to the collection point of the learner. The 5km distance is too far for young learners and some learners have to walk additional distances on the farm roads.
- There are reports of overloading on the contract vehicles so that operators do not have perform multiple trips over the same routes.
- The collection points for learners using learner transport, has little shelter or lighting. In addition, there are no pedestrian or cycling facilities along known learner routes.

Possible priority projects

- Take issue with CWED regarding operators who allow overloading.
- Review subsidy process so that non attendance at schools is not due to transport costs.
- WCED to review subsidy process (see National Learner Transport policy 2009) .
- Investigate non attendance at schools due to transport costs.

2.10 Freight Transport

Langeberg is an active farming area with many industries supporting the agricultural industry such as the large cannery situated in Ashton. The two largest contributing sectors to the economy in 2005 were manufacturing and agriculture, forestry and fishing. This type of industries, agriculture in particular, relies heavily on road-based transport.

The R60 is the major freight route in Langeberg, linking the N1 at Worcester with the N2 at Swellendam. The R317 is also an important and growing freight route. Apart from the volume of heavy vehicles, traffic capacity and traffic safety concerns, the major road freight related issue in Langeberg towns along the freight route are the lack of overnight facilities to accommodate freight vehicles and operators.

There are no heavy vehicle overnight facilities anywhere in the LM. The site adjacent to the main road (R60) in Robertson was identified as a possible an overnight stop. Unfortunately, there are no overnight facilities provided for the freight vehicle drivers. Long distance bus and taxi operators currently use the site.

Essentially, the provision of a formal overnight area with the necessary facilities (rest rooms, fast food outlets, and pharmacy) is essential to resolve the issues ranging from noise, safety, and parking to the damaging of the road surface.

2.10.1 Road Freight

The PGWC and Langeberg cannot keep up with the increased requirement for road maintenance. Fortunately, the proclaimed municipal main roads receive an 80% subsidy from PGWC for road maintenance. Langeberg would like to redirect most of the heavy freight movement out of the town of Worcester. Other issues are as follows:

- Long distance heavy freight vehicles travelling on provincial roads is problematic to Langeberg
- An intermodal transport/transfer point could provide a solution
- The eastern bypass between Worcester and Robertson could be another possible solution.

- The R43 is the main freight route to Ceres and is used to transport freight to-and from Saldanha Steel. It is a relatively bad road with no shoulders. Tractors carrying grapes to the cellars are driving along the road. Aurecon is busy with the project of realignment and reconstructions of the last part of the road up to the T-junction. CWDM has requested that the hardened road used by the tractors next to the road be preserved during the upgrade and construction.

Figure 2.24 overleaf contains a map of the heavy vehicle AADT on the provincial road network through Langeberg.

Dangerous Goods

NLTA (Act 5 of 2009) stipulates that all ITP's must include routes for the transporting of dangerous goods by road through their areas. Information relating to this topic was not available at the time of the compilation of the transport register. This topic should be included in the Disaster Management Plan and integration with the ITP process will be addressed as part of the improvement proposals in Chapter 4.

Overload Control

No weighbridges are located within Langeberg. However, PGWC operates weighbridges situated on the N2 at Swellendam and on the N1 near Rawsonville. The Swellendam weighbridge is located to the west of the two access roads to Swellendam. Heavy vehicles en route to Cape Town wishing to bypass the weighbridge take the eastern access road to Swellendam and along the R60 through Bonnievale and take the R317 back to the N2.

The overall freight transport activity in South Africa increased by 4% in 2008 in ton-kilometres shipped and 2% in tons shipped. According to the 6th annual State of Logistics Survey (2009), 1.4 billionn tons of freight at an average transport distance of 185 km was transported by road, while 204 million tons at an average transport distance of 640 km was transported by rail. Of this 204m tons, 100 million tons were on the two bulk mining corridors.

The local situation with freight is the same as in the past number of years with all growth being in road freight haulage. This is the main contributor to high transportation costs and heavy vehicles are damaging the road infrastructure. Efforts to get the appropriate freight moved by rail were not successful. Over the past ten years, increasing cost and the deterioration and withdrawal of rail services have contributed to the reduction in the use of rail transport and increasing usage of road haulage.

Langeberg is an active farming area with many industries supporting the agricultural industry such as the large cannery situated in Ashton. The two largest contributing sectors to the economy in 2005 were manufacturing and agriculture, forestry & fishing. This type of industries, agriculture in particular, relies heavily on road-based transport.

The R60 is the major freight route in the LM, linking the N1 at Worcester with the N2 at Swellendam. The R317 is also an important and growing freight route. Apart from the volume of heavy vehicles, traffic capacity and traffic safety concerns, the major road freight related issue in Langeberg towns along the freight route are the lack of overnight facilities to accommodate freight vehicles and operators.

Figure 2.24: Annual Average Daily Traffic (Heavy Vehicles)



There are no heavy vehicle overnight facilities anywhere in Langeberg. The site adjacent to the main road (R60) in Robertson was identified as a possible an overnight stop. Unfortunately, there are no overnight facilities provided for the freight vehicle drivers. Long distance bus and taxi operators currently use the site. Essentially, the provision of a formal overnight area with the necessary facilities (rest rooms, fast food outlets, and pharmacy) is essential to resolve the issues ranging from noise, safety, and parking to the damaging of the road surface. Figure 2.25 provides an overview of link volumes on Langeberg's road network

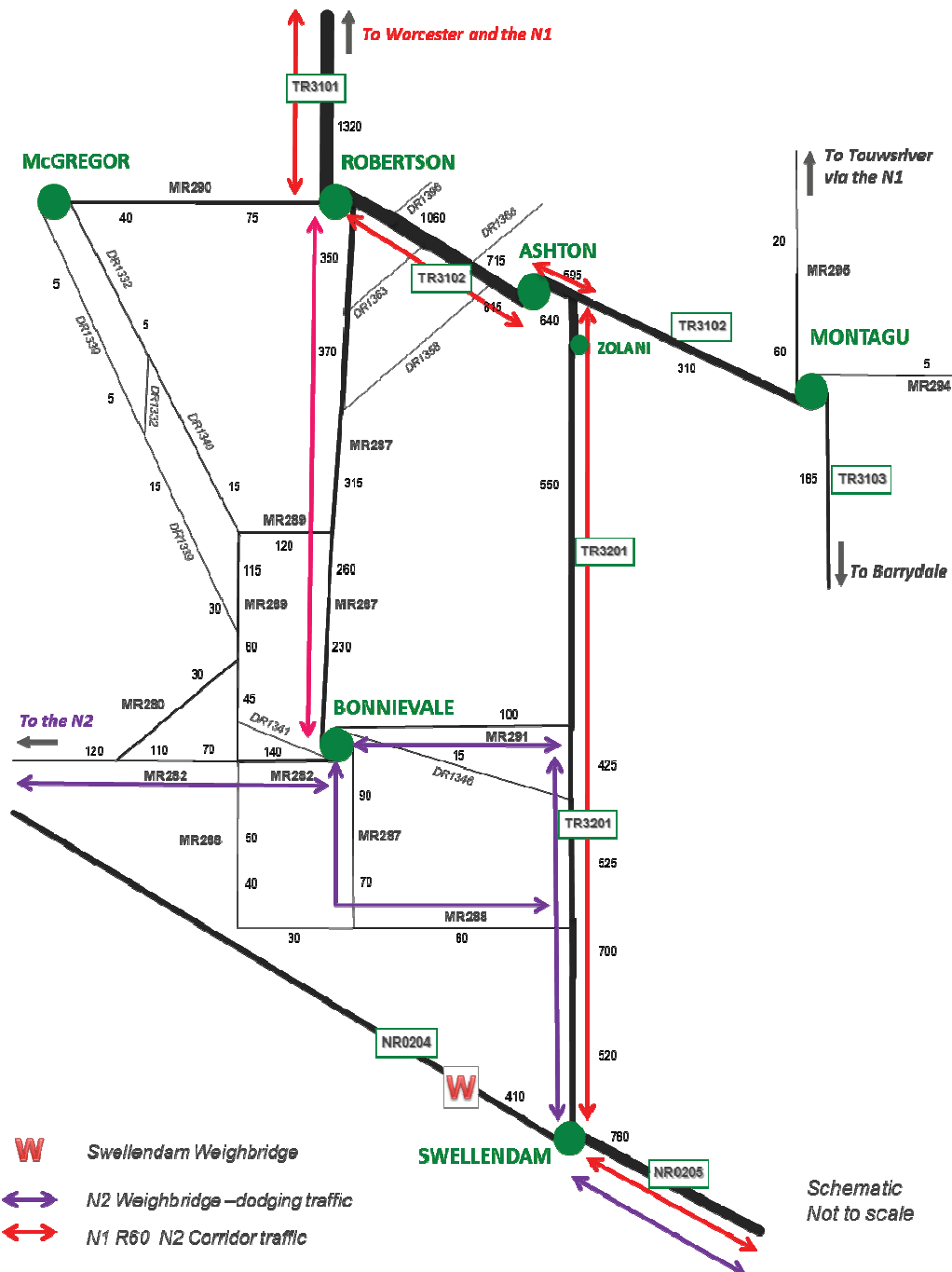


Figure 2.25: Link Volumes on Langeberg road network

2.10.2 Rail Freight

The parallel nature of the rail and road routes through Langeberg (see Figure 2.26) creates the potential for greater use of the rail network. However, the current freight volumes transported by rail illustrate the marginal role that rail is playing in the Cape Winelands Area. The Western Cape Mainline Rail route is transporting less than 20% of the freight tonnage carried by road freight along the N1 national road. Furthermore, containers and chemicals are two of the three top commodities transported along the N1. Currently, Rail freight passing through Langeberg is mainly agricultural and container freight. The only active freight handling station in Langeberg is the Ashton station. See Table 2.38.

Table 2.38: Types of Freight Transported along Western Cape Railway Mainline

FREIGHT RECEIVED		FREIGHT FORWARDED		TOTAL	% OF ROAD FREIGHT
TON (1000)	COMMODITY TYPE	TON (1000)	COMMODITY TYPE	TON (1000)	
1 226	Containers; Cement; Wheat; Maize	997	Containers; Maize; Barley	2 223	19% at Huguenot Toll Plaza

Source

2.11 Air Transport Service

The Robertson regional airport (see Table 2.41), located to the east of Robertson next to the R60, is the only registered runway in Langeberg. It serves a large area as the only other registered runways are in Swellendam and Worcester. Apart from the international airports in Cape Town and George, Robertson also has the longest paved runway in the Western Cape. The paved surface makes it suitable to accommodate light aircraft such as ambulance and law enforcement aircraft and smaller passenger charter aircraft up to a capacity of about 12 passengers. The facility is used by sport flying clubs, emergency aircraft and some charter services.

Robertson airport is a strategically important facility and it has considerable potential to contribute to the growth and development of the Cape Winelands District Municipality. It would be sensible to investigate the feasibility of improving the weight carrying capacity of the runway to accommodate larger aircraft. These aircraft currently make use of either the Cape Town or George airports. Other possibilities are to provide more hangars to house both emergency planes and bigger charter planes. Other important information of the facility features in Table 2.39.

Table 2.39: Robertson Regional Airport Information

ICAO location code	FARS
IATA Code	ROD
Usage	Civilian airport (open for public use)
Runway	Paved (hard surface), not lighted
Dimensions	15m x 1500m
Customs	Not available
Elevation	195 m MSL
Coordinates	33°49'00"S 19°54'00" E
Current use	Sport flying, emergency services, charter planes

Contact person	Alwyn du Plessis: 023 626 3894 alwyn@lando.co.za
ICAO: International Civil Aviation Organization ; IATA: International Air Transport Association	

Sources: www.stelfly.co.za, www.worcesterflyingclub.co.za, and www.google.com

2.12 Transport Planning for Tourism

Langeberg's local economy is dependent on tourism and the financial benefits it brings. The catering and accommodation trade was the third largest economic sector in Langeberg growing at over seven percent per annum, whilst contributing 17.9 percent to GDP. The wine industry is the main tourism attraction especially via marketing of the Route 62 tourism initiative. See Figure 2.27.

Safe, reliable and efficient transport services will contribute to the growth of tourism and in turn the local economy. The Cape Town Routes Unlimited (CTRU) initiative, created in 2004 to promote Cape Town and the Western Cape as a premier leisure, events and business destination, guide tourists towards popular tourist destinations in the Western Cape. It will be sensible to provide infrastructure support to the tourism industry for outstanding local tourism features, which feature in the CTRU initiative.

The main elements of transport related support from Langeberg to the tourism industry capable of improving the tourism experience are as follows:

- Signage should be clear, correct and strategically located;
- The municipality should also ensure that various comfort features like drinking water, safety railings, ablution facilities and picnic facilities are located at major tourist destinations and along scenic routes.
- Landscaping helps to create a clean and tidy environment. This, together with regular maintenance and cleaning should be a priority.
- Tourism information should be readily available. This could include information on available public transport, time-tables and support services in co-operation with taxis associations
- Municipal spatial planning guidelines and standards must allow for NMT movement and sidewalk activities in future developments.

It is important from a tourism perspective that municipal spatial planning guidelines and standards are set to allow for NMT movement and sidewalk activities in future developments.

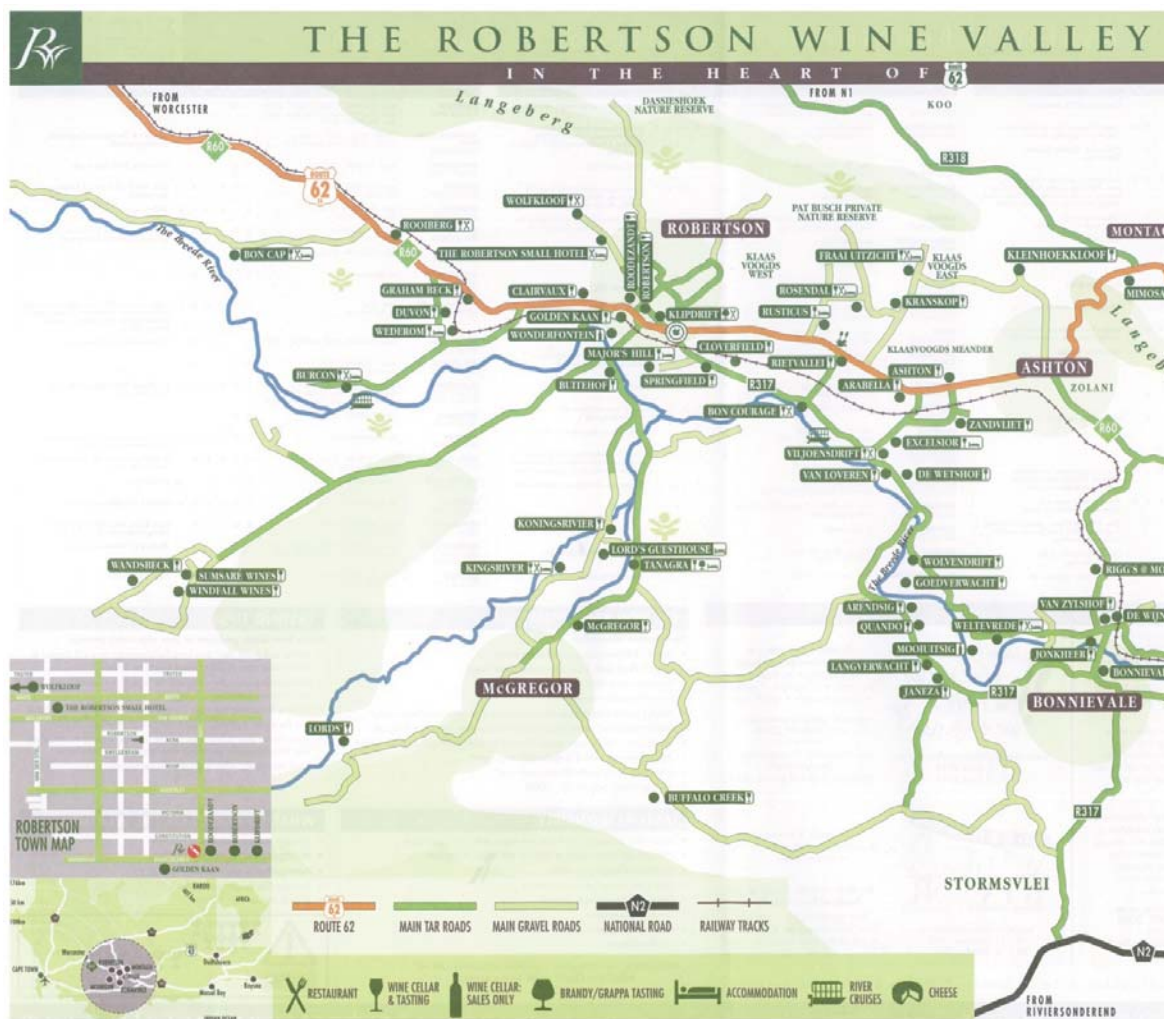


Figure 2.27: Tourism destinations Langeberg

2.13 Health

Health facilities within Langeberg include facilities such as the following

- Tertiary health care - metro hospital, specialist treatments for dialysis, heart, cancer etc
- Level 1 facilities – district hospital requires referral from the clinics
- Level 2 facilities – secondary or regional hospital with specialists
- Primary health care – Clinics close to the community.
- Mobile clinics available to rural areas

A more detailed summary of the Langeberg health services is provided below:

2.13.1 Services provided by the Department of Health

The Department of Health provides health services for patients within the Langeberg in the form of various hospitals, clinics and mobile clinics. The department has at their disposal a fleet of vehicles which is used to transport staff, medicine as well as to provide mobile clinic services. The fleet is not designed to carry non-patients.

2.13.2 Services provided by the Emergency Medical Services (EMS)

The EMS is a subsidiary of the Department of Health and is divided into emergency and Healthnet services. Healthnet is not an emergency service, but it provides services for patients going for treatments and to collect medication. Healthnet services are located in each of the local municipalities within the towns of Worcester, Towsrivier, Paarl, Robertson and Montagu (sub-stations). There are 3 Patient Transport Vehicles (PTVs) servicing the sub-stations of Robertson and Montagu in Langeber. Table 2.40 below outlines the distribution of sub-stations as well as the number of PTV's per sub-station.

Table 2.40: Healthnet sub-stations and PTV's

Local Municipality	Towns (sub-stations)	No of PTV's
Breede Valley	Worcester	3
	Touwsrivier	1
Drakenstein	Paarl	1
Langeberg	Robertson	1
	Montagu	2
Witzenberg	Ceres	2

The service is pre-booked by the hospital or clinic and the patients are notified of the date when the service will be available and location of the pick-up point within their town.

Table 2.41 overleaf outlines the number of pick-up points for Healthnet services in various towns within Langeberg. Special arrangements, such as collections from the home to the hospital are made for patients who cannot access transport or public transport.

Table 2.41 Pick up points for Healthnet Services

Healthnet Cape Winelands: Wolseley to Cape Town	
Pick-up points	Address
Ashbury Bus stop	Ashbury
Montagu Primary Health Clinic	Montagu
Montagu Provincial Hospital	c/o Hospital & Church Street
Zolani Clinic	Zolani
Cogmanskloof Clinic	Ashton
Happy Valley Clinic	Bonnievale
Bonnievale Municipal offices	Bonnievale
Bergsig Clinic	Robertson
Robertson Clinic	Robertson
Nkqubela Clinic	Robertson

Source: Meeting with EMS

2.13.3 Issues and concerns surrounding access to health

In order to access these facilities, patients require an integrated public transport system with appropriate infrastructure. During the public meetings, major issues and concerns regarding access to health facilities were raised and these were further discussed in meetings with the Department of Health and Emergency Medical Services (EMS). The issues and concerns surrounding health are summarised in Chapter 4.

2.14 Special categories of passengers

Within the National Land Transport Act, 2009, “special categories of passengers” are defined as persons with disabilities, the aged, pregnant women and those who are limited in their movements by children. Transport planning should also include provisions for special categories of passengers. For example drop kerbs on sidewalks with obstructions placed in the centre (e.g. poles) and orientation blocks for sight impaired pedestrians create a difficulty for the user to access the sidewalk. Planning should incorporate universal access design principles that will assist special categories of passengers to move comfortably from one place to another. Census 2001 provided information on one grouping within special categories of passengers, namely persons with physical disabilities. Table 2.42 provides an overview of the number of persons with physical disabilities within CWDM.

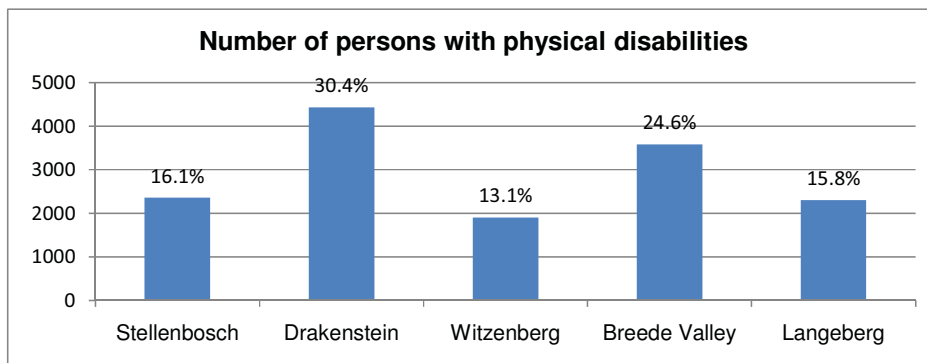
Table 2.42: People with special disabilities in the CWDM

Municipality	Persons with physical disabilities in CWDM	Population	% of Population
Langeberg	4 300	81 266	5.3
Breedee Valley	7 082	146 029	4.8

Drakenstein	8 849	194 418	4.6
Stellenbosch	5 457	117 713	4.6
Witzenberg	4 644	83 555	5.6
Cape Winelands District	31 332	622 981	5.0

Source: NHTS, 2007

Census 2001 indicated that 5.3% (4300 persons) of Langeberg's population were classified as persons with physical disabilities. There is a marginal difference between the 5.3% (Langeberg), 5.0% (CWDM) and the 4.1 % of the Western Cape Province. People with physical disabilities are the most affected by access to transportation and thus limited in their use of public transport. Figure 2.28 below represents persons with physical disabilities per local municipality; extracted from Census, 2001.



Source: NHTS, 2007

Figure 2.28: Number of people with physical challenges and visually impaired

Langeberg is home to the 2nd lowest concentrations of people with physical disabilities in CWDM. From the European Conference of Ministers of Transport (ECMT), 2004, improving access to public transport should consider the principles of universal access in the development of and linkage to public transport and NMT infrastructure. These principals include:

- Design standard for bus stops.
- Provide safety lines around the bus stop with colour contrast to assist partially sighted people to keep clear of the bus rear view mirror, which overrides the edge of the platform.
- Provide tactile surface paving where the door of the bus is positioned;
- Provide ramped access for wheelchair users at the centre of the door
- Align the height of bus facility to the bus boarding ramp
- Provide painted lines on the roadway to guide the bus to align with the bus stop
- Provide suitable drainage channels to fit the type of public transport vehicle
- Provide driver training
- Provide ramps and lifts in existing infrastructure facilities for blind and deaf passengers.
- Provide applicable lighting and seating to the transport facility

-
- Provide drop kerbs that align with NMT facilities and do not place impediments (e.g. poles) in path of wheel chair users.
 - Provide Tow-away policies to restrict vehicles from parking in public transport zones.

Within the list of prioritised projects for the CWDM and Langeberg discussed in Chapter 4, provision is made for an Integrated Public Transport Network Plan and Non-Motorised Transport Plan. These planning projects will include principles of universal access, some of which are described above.

3. OPERATING LICENCE STRATEGY

3.1 Background

This section of the report comprises the Operating Licenses Strategy (OLS) for Langeberg Municipality. The OLS was informed by the CPTR data from the 2009 CPTR report for Langeberg, and should therefore be taken and recorded as the 2010 OLS. This OLS covers the Langeberg Municipality and incorporates the towns of Worcester, De Doorns, and Touwsrivier.

3.1.1 Purpose of the OLS

The OLS for the CWDM has been prepared in accordance with the Minimum Requirements for an Integrated Transport Plan as stipulated in Government Notice R1119 dated 30 November 2007. The purpose of the OLS is to present:

- The role of each public transport mode.
- The circumstances in which operating authorities should be allowed.
- The use of public transport facilities within its area.
- The avoidance of wasteful competition between transport operators.
- The conclusion of commercial service contracts for unsubsidised public transport services.
- The conditions, which should be imposed by the provincial operating licences board.

3.1.2 Source Information

The data collected as part of the 2009 CPTR for Langeberg was used to determine the locations of major taxi ranks in the CWDM and to determine the utilisation on the current MBT routes. Discussions with the Langeberg steering committee representatives and, in certain areas, traffic officials indicated that operations and routes have changed significantly since the last survey which was undertaken in 2007. This led to identification of ranks and routes for further surveys. The following sources of information were utilised:

- Interviews with taxi associations, their members and with transport officials at the provincial district and local municipality offices.
- 2009 CPTR information to identify MBT ranks and major boarding locations.
- The route numbers and route descriptions obtained through the OLB.
- The number of registered taxi association members, and associations' details, were also obtained from the OLB.
- MBT rank surveys, on-board MBT surveys and passenger interviews to verify routes and services.

3.1.3 Assumptions and Disclaimers

This OLS was only developed for local MBT routes in Langeberg. There is an extreme seasonal variation on long distance trips, a fact borne out by the lack of CPTR data on almost all long distance routes. More accurate representation of long distance routes would require observations and counting during these peak holiday periods. Long distance MBT routes were therefore omitted from the OLS.

Current operators who have made applications to convert their area-based permits to route-based operating licenses, for which the applications are still being processed, will be granted an operating licence, in accordance with a national government decision, irrespective of the findings of this OLS.

It is assumed that the information obtained from the OLB is a true reflection of the number of operators that are legally registered in the system. However this information does not include the owners of area-based permits. These operators with area-based permits are considered to be legal operators when the surveys were undertaken and the CPTR and OLS were compiled.

Operating licences are issued per vehicle and for routes that are valid for a particular taxi association. This means that more than one route is listed on an operating licence. This makes it impossible to identify the actual number of vehicles that are legally assigned to a particular route. Assumptions were therefore made for route capacity assessments by using the number of vehicles legally registered to a particular association operating on that route

3.2 Analysis of CPTR

Through this OLS process it became clear that the data on MBT routes in the Langeberg Municipality varies depending on the source of that information. Since the OLB is the official database for the recording of operating licence information it has been used as the basis of all analyses of MBT operations wherever possible.

The route numbering system has also changed over the years with the introduction of the National Land Transport Information System (NLTIS). The CPTR has also adopted a particular route numbering system. The only common element in the varying route numbering system is the route description and the route origins and destinations.

In order to develop an OLS and make recommendations regarding the issuing of operating licenses, it was important to analyse each route separately with regard to the demand and supply of public transport services. A route in this context refers to a single origin-destination or a combination of routes with the same origin and destination, but with route variations distinguishing them. The actual route driven by the operator varies depending on the demand at any point in time and also the actual destination of the passenger. In this way, the operators respond to the demand and make minor adjustments to the service to suit the needs of the demand. Therefore, where a route serves the same origin and destination, but has minor route variations, it is treated as a single route. This in fact reflects the actual situation where MBT will take the option of the route variation depending upon the passenger demand.

The data received from the surveys was captured and analysed and used to produce the operational characteristics at the ranks as provided in **Error! Reference source not found.** Route assessments and interventions. A total of 48 routes were observed operating out of 14 ranks on the survey days namely, 21 routes in Robertson, 13 routes in Ashton, 6 routes in Bonnievale, 4 routes in McGregor and 4 in Montagu. MBT services were observed to operate regularly throughout the week, with the majority of services currently operating on Fridays (06:00 – 17:00) and Saturdays (08:00 – 13:00).

3.3 Policy framework

The relevant legislation, national and provincial policies guiding the OLS and the disposal of operating licences were used to determine this OLS.

- Types of public transport services that require operating licences.
- Types of vehicles which may be used for public transport services.
- Conversion of permits to operating licences.
- Operating licences for contracted services.
- Operating licences for non-contracted services.
- Validity period for operating licences.
- Cancellation of operating licences not brought into use.
- Withdrawal of operating licence or permit in rationalisation of public transport services.
- Passengers with Special Requirements

Some potential strategies to address these issues, listed above, within the Langeberg Municipality fall outside the mandate of the local authority as they are mostly likely to be resolved at national or provincial government levels. The CWDM undertakes the lead role in public transport planning, in co-operation with the Langeberg Municipality. Public transport regulation is the responsibility of the Western Cape Department of Transport and Public Works through the office of the OLB.

The approach of this OLS is to capacitate Langeberg in its policy response to addressing public transport regulation and enforcement in Langeberg. This policy framework (this OLS) for Langeberg Municipality is developed to act as a guide when responding to an OLB request for comment on applications received from operators. This framework considers issues listed below and are further discussed hereafter.

- Types of vehicles which may be used for public transport services
- Conversion to operating licences
- Moratorium on over-traded routes

3.3.1 Types of vehicles which may be used for public transport services

Langeberg Municipality has fairly high levels of urban development, but services a highly developed agricultural sector. The routes serving the farming communities are in most cases fairly accessible, however, some routes are only accessible by 4x4 or 2x4 type “bakkies”. In some areas LDVs have become common for transporting passengers on certain farm routes. However, in some areas these LDVs are the only suitable vehicles to operate in these rural conditions. Although legislation makes reference to the acceptance of a “suitably modified LDV”, no guidelines or formal specifications for modified LDVs have been provided yet by the Department of Transport. Accordingly, these operators have been allowed to operate without an operating licence for their LDVs.

Accordingly, in the absence of approved regulations and specifications for “suitably modified LDVs”, it is recommended that Langeberg Municipality and the CWDM be flexible on the matter of enforcement of LDVs operating without the required operating license. However, the legal position on this matter and the liability it creates for the Langeberg and the CWDM should be considered.

3.3.2 Conversion to Operating licences

The NLTAA enacted the conversion of public transport permits to operating licences. The conversion includes the shift from radius to route-based permits to ensure that operators confine their operations to specific routes. The Minister of Transport in consultation with all Transport Members of Executive Councils initially indicated that this permit conversion process should be

completed by 30 November 2005, but the date has been extended as requested by OLBs that required more time to finalise the conversion process. This date has not been finalised yet.

The following requirements must be met in order to apply for an operating licence:

- Individual operator must be a registered member of a valid taxi association.
- Own a vehicle which is in accordance with required vehicle specifications.
- Have a roadworthy certificate for that vehicle.
- Be registered as a tax-payer with a valid tax-clearance certificate.
- Have a special professional driving permit to be able to transport paying passengers.
- Have special passenger insurance.
- Provide proof of operations for at least a 180 days prior to the date of the application

However, there are a number of MBT operators in Langeberg that currently still require operating licences for the following reasons noted by taxi associations, the Transport Registrar and the OLB:

- A backlog remains due to capacity constraints at the OLB and Transport Registrar, which has resulted in a number of applications still to be reviewed.
- According to the BRTC there are a number of operators that have been operating within the system prior to October 2007 that must still apply for operating licences. At national level a decision was made to not exclude any members operating prior to October 2007.

It should also be noted that although many taxi associations and MBT operators have route-based operating licenses, it is most likely to only be compliant in the larger towns where there is sufficient passenger demand on the routes. In smaller towns and more remote area, the existing passenger demand is so low that MBT deviate from the routes in an attempt to source more passengers. On-board MBT surveys and interviews with MBT operators have confirmed this.

Although the conversion of area-based permits to route-based operating licenses is a legislative requirement, it is recommended that the Langeberg Municipality and the CWDM engage with relevant role-players on this matter. Route-based operating licenses in areas with very little passenger demand encourage non-compliance.

3.3.3 Moratorium on over traded routes

Apart from enforcement, commenting on the approval of operating licenses is one of the functions of the CWDM and the Langeberg Municipality. When applications for operating licenses are submitted to the OLB, they request comment from the CWDM and/or Langeberg Municipality. This OLS has attempted to identify the routes where over-trading is taking place. It is recommended that the OLB, CWDM and Langeberg consider the recommendations with respect to this.

3.4 Restructuring of Public Transport System

The primary objectives of restructuring of the public transport system are:

- To formalise and to legalise all public transport operations
- To enhance the viability of public transport operations
- To improve on the quality of public transport operations
- To improve on the safety of public transport system

Various strategies are recommended for implementation by the CWDM and/ or Langeberg. As previously stated, as the regulation of public transport is a provincial responsibility, the CWDM and Langeberg has a limited role in affecting the more strategic focus areas that require restructuring.

The approach of this OLS is to recommend strategies that fall within the area of responsibility of the respective municipalities.

3.4.1 Strategies

Based on the existing public transport operations in the CWDM, the primary strategies to be used in restructuring the public transport system are as follows:

- Formalisation of the administration process at the OLB
- Improved assessments of passenger demand
- Enforcement of illegal operations
- Improved regulation of long distance transport
- Moratorium on over-traded routes
- Development of an Integrated Public Transport Networks (IPTN)
- A new approach to developing OLS

Formalisation of the administration process for MBT regulation

As can be deduced from the previous sections of this chapter, the informal nature of the MBT industry makes it virtually impossible to effectively capture operational data that is required to enact the prescriptions for CPTRs and OLS'. This can at least be ascribed to the lack of formal regulation of the MBT industry. This is further elaborated as follows:

- The NLTIS database cannot presently provide details of the number of MBTs that are registered to operate on each route. This makes it impossible to calculate the actual capacity on each route and it is thus equally impossible to provide conclusive grounds for approving or denying operating licence applications.
- The best source of information on the level of service offered by MBT appears to be the MBT associations themselves. There is no central database that contains MBT level of service information and the information that exists is held by the *operators* (i.e. taxi associations) and not the planning authority (i.e. the CWDM). A new mechanism for data collection should be developed and implemented to ensure that taxi associations are accountable to provide daily passenger, vehicle and route data to the authorities.
- Operating license applications are submitted to the OLB by MBT operators for consideration. The OLB then advertises these applications in the provincial gazette for public comment, as well as to Langeberg for input. After the Langeberg has commented, these comments are forwarded to the OLB who take these comments into consideration when handling the operating license applications. However, the OLB, after disposing of the operating license applications, does not necessarily communicate these results to Langeberg or CWDM. This result in ineffective law enforcement as the traffic officials are fully informed of the status of the application. The database used by transport planning officials is also not up to date when dealing with future requests for comment on operating license applications. This situation is detrimental to improved public transport regulation in Langeberg.
- It is recommended that the CWDM facilitates improved communication with the OLB and the Registrar's office to specifically ensure up to date status report with respect to operating license applications,

- It is recommended that the CWDM creates opportunities for empowering the MBT industry with respect any legislative matters that impact their operations. This will also improve communication between law enforcement officials and MBT operators.
- The legal requirements for the regulation of public transport services (e.g. ITP, CPTR, OLS, etc.) appear to be far too onerous in relation to the capacity that is currently available within the planning authority. For public transport to adequately serve the transport needs of the people of the CWDM and for the transformation of the MBT industry to be successful, the planning authority should have direct and internal access to the skills and the capacity that will enable it to do so. It is recommended that the CWDM and Langeberg, assisted by the Western Cape Department of Transport and Public Works, develops the appropriate level of capacity and competence to provide the required service.
- Functions related to public transport provision and regulations are spread over many agencies at various levels of government (CWDM, local municipalities, OLB, Transport Registrar). Subsequently, there is no single entity that oversees or understands all aspects of the process of regulation of public transport services in the CWDM. It is recommended that the role of the CWDM as a planning authority and the Langeberg, in relation to that of the Province, be further clarified within the context of the NLTA. The latter Act transfers the responsibility of public transport planning and regulation to the local municipalities.
- The lack of a consolidated database of public transport services in the CWDM severely hampers any efforts to plan for or make recommendations on the extent to which public transport services are currently responding to the needs of the people of CWDM. This is compounded by the lack of regular and coordinated surveys on which to base such recommendations. It is recommended that the CWDM initiates the development of a real-time comprehensive database of all public transport operator information and vehicle information.

Improved assessments of passenger demand

Currently the assumption prevails that the level of service supplied by informal operations such as the MBT industry provide a good estimate of passenger demand. This assumes that the industry would respond automatically to a sudden increase in demand by increasing the services offered. This does not take into account the latent demand of passengers who are currently not being served by public transport, such as passengers who are currently hitchhiking or walking or participating in lift-clubs. In some rural areas, the passenger demand is too low and it is not economically viable for MBTs to provide a service, yet there is still a need for a public transport service in these areas.

Furthermore, the CPTR records the number of passengers boarding and alighting only at ranks and not along routes, which also does not provide a real reflection of origin-destination patterns or of the additional demand served along the route as it is assumed in the MBT rank survey methodology that all passengers board and alight at the rank. In this regard, it is recommend that on-board MBT surveys be included as part of the method of gathering data for the CPTR.

If the planning of the future public transport system is to be improved then it will require a more accurate reflection of passenger demand patterns. The only adequate way of recording origin-destination demand is to undertake extensive household travel surveys. At the very least this should be incorporated as part of the local public transport plan preparation.

Improved enforcement

Enforcement is critical for the success of public transport operations and is needed to improve and maintain the level of service of operations as well as to ensure the roadworthiness of public transport vehicles. The success of the OLS, which tries to balance supply and demand, is based on the assumption that illegal operations can be enforced, i.e. current operators possess a valid operating licence, vehicles conform to the prescribed specification in terms of roadworthiness and passenger safety, and illegal operators can be identified and removed from the system. Enforcement is a vital component, but there are a number of challenges to enforcement in the short-term and the following strategies are recommended to improve current conditions:

a. Additional resources for enforcement

The lack of capacity is a serious constraint at DM and LM levels. This implies that enforcement cannot be given priority over other basic needs such as housing, sanitation, water, etc. It is recommended that the enforcement resources be enhanced at municipal level. It is accepted that this might be beyond the financial resources of Drakenstein. It is recommended that the CWDM initiate discussions with the Western Cape Departments of Community Safety and Transport and Public Works to investigate the feasibility of a dedicated public transport law enforcement team to assist and enhance the resources within Drakenstein.

b. Enforcement of illegal operations

It is difficult to enforce real illegal operators from those operators whose applications have not been evaluated as a result of backlogs at the OLB or other administration delays. It is recommended that the CWDM and the Drakenstein liaise with the OLB about filing all applications from current operators within the system by a cut-off date. Thereafter, a moratorium should be placed on all new applications until all OLs are up to date and a true reflection of the legally registered supply can be established. The supply and demand within the public transport service can then be determined and the number of operators that can be sustained on particular routes can be established. Stricter enforcement of illegal operations can then take place.

Additional training should be provided to the enforcement personnel. The judiciary should be capacitated in understanding all aspects of the NLTA. This will enable the development of manpower capacity in the law enforcement sector, especially around elements such as impounding facilities and the proposed public transport inspectorate.

Current operations with respect to impounding of vehicles are hampered by the jurisdictional boundaries of traffic officials. An impounding facility within the CWDM or alternatively, within each local municipality will result increase the effectiveness of law enforcement. An impounding facility should be constructed as a matter of urgency.

Improved regulation of long distance transport

Long distance transport is problematic in Langeberg, but these issues are common for long distance transport throughout the country. Currently long distance road-based public transport services are provided by long distance luxury coach buses such as InterCape, etc. and long distance MBT. These services are generally offered to major city centres on a weekend and during peak holiday seasons. These concerns have been summarised in greater detail in the long distance transport section in the Transport Register, but are summarised as follows:

- Managing seasonal fluctuations in passenger demand
- Matching operating licenses to this seasonal demand
- When operating licenses are considered, the passenger demand in both directions should be considered. However, the success of this strongly depends on the cooperation between affected taxi associations.
- Condition of vehicles and provision of luggage.
- Long distance infrastructure facilities i.e. waiting area with seating, cover, etc.

Strategies to improve the regulation of long distance transport service include:

- OLs for long distance services are currently issued to taxi associations based on the town of origin of the trip, without considering any demand in the return direction. . Before issuing long distance operating licenses, future applications should consider existing service in the return direction that already exists with the destination MBT association. Currently no consideration is given to other MBT associations which provide a service in the return direction. Alternatively, in the future when Integrated Public Transport Networks have been developed, long distance operating licenses should be awarded as such or the service will form part of any subsidized contract or commercial service.
- Season fluctuation in passenger demand will need to be recorded and a decision must be made as to whether temporary operating licenses should be issued only to address seasonal demand.
- Un-roadworthy vehicles, unsafe driver behaviour and fatigue are creating high accident rates on long distance routes. Driver training and increased roadworthy checks must be implemented.

Development of an Integrated Public Transport Network (IPTN)

A long term plan for restructuring the public transport network is required to modify the existing MBT operations and to plan public transport in an integrated manner. Each local municipality will require an Integrated Public Transport Network (IPTN) to be prepared which will take into account the demand and the changing travel patterns. This would include the type of service e.g. 1/day, hourly, etc. The IPTN will enable the local municipalities to identify the required routes and corridors and manage the issuing of associated operating licenses. It is recommended that the CWDM develops a framework that will guide future IPTN development in the local municipality and that Langeberg Municipality follows suit in developing their IPTN.

Develop a new approach to determine Operating Licensing Strategies

A process must be established to update the OLS on a continuous basis in order to serve as an on-going instrument to assist the municipality. It is accepted that comprehensive updates on a regular basis is a costly and onerous exercise. It is recommended that a cost effective and managed process be developed. In many areas, there is little change or new developments, and the transport patterns remain stable. In these areas frequent updates will not be necessary. Where there are new developments, or noticeable changes in travel patterns, updated surveys will be required. In this way, the municipality should develop a managed process to keep the OLS as a useful guidance document.

3.5 Summary of route assessments and interventions

The OLS comprises an analysis of the utilisation of MBT services in Langeberg Municipality in relation to the capacity available in the system. The basis of the analysis was the route information

presented in the previous section summarising the MBT routes that are in use in Langeberg, as well as the utilisation levels obtained from the taxi associations and verified through the MBT surveys.

3.5.1 Assumptions and Calculations

In order to formulate recommendations with respect to the over- or under-supply on each route, the daily capacity had to be calculated on all routes. The estimated daily capacity was calculated as follows: the number of vehicles that have operating licences to operate on that route, multiplied by the passengers capacity of a vehicle, multiplied by the number of daily trips. This is perhaps a coarse calculation of available capacity and certain assumptions had to be made as discussed hereafter.

- The number of daily trips may vary widely since MBT services are unscheduled, but it was assumed that 2 daily trips were the minimum number of daily trips that could practically be achieved on all local routes in Langeberg.
- As stated previously in this chapter, any vehicle registered with a taxi association may operate under any of the operating licences, and thus any routes, granted to that association. The maximum number of vehicles and resulting capacity on any particular route is equal to the entire fleet of vehicles registered to the association in question. In practice it is unlikely that all an association's vehicles will operate on the same route, but since MBT services fluctuate according to many variables (season, demand, day of week, etc.), it is not possible at present to calculate capacity in another way.
- No records are presently available indicating which vehicles operate on which routes. As a consequence it is not possible to calculate the detailed capacity for any particular route. Thus, an average vehicle capacity of 14 passengers was assumed, which reflects the specified legal capacity of the majority of new vehicles available to operators.

Furthermore, it should be noted that it is difficult to obtain accurate MBT services information due to certain vehicles from a particular association operating from both formal and informal ranks and due to the informal nature of MBT services, especially in the rural areas, which are mainly demand driven. Informal ranks are not necessarily in a fixed position or easily identifiable (e.g. on an unmarked plot or simply under a particular tree). This further complicates comprehensive surveys.

3.5.2 OLS recommendations

Table 3.1 (see overleaf) indicates the routes which were counted as part of the rank and the resulting recommendation as part of the OLS whether additional licences should be issued to the routes or not. The recommendations in these tables either indicate that:

- There is an under-supply of services on that route and the need for additional operating licences should be investigated;
- There is sufficient existing capacity in the system and thus new operating licences should not be granted, or they should be granted only after detailed investigation into the overall capacity in the system,
- There is only demand for the route on weekends, and that additional operating licenses should be investigated,
- Over 50% of the vehicles observed were found to be illegal, and special attention is required in terms of enforcement.

Table 3.1: Summary of route assessments and interventions (based on passenger demand and utilisation on Weekdays)

Route details					Route operations				Analysis of Operating licenses				Recommendations				
Town	Route Code	Rank	Route Name	Period	No of Departures	Vehicle Cap	Service Capacity	No. of Pax	% Utilisation	Average wailing time (min)	Required Ols (weekday)	No. of Vehicles on route	Vehicles with Ols	% Vehicles without Ols	Over/Under Supply	Operating licenses required	Enforcement required (>50% illegal operators)
Ashton	967	Ashton Langeberg	Montagu	13:15 to 14:15	3	11	32	27	84%	10	3	20	12	40%	9	Sufficient existing capacity	
Ashton	693	Ashton Multisave	Worcester	06:00 to 7:00	4	11	43	27	63%	8	8	29	1	97%	-7	Investigate additional Ols	
Ashton	809	Ashton Multisave	Bonnievale	13:00 to 14:00	6	17	99	80	81%	5	3	3	1	67%	-2	Investigate additional Ols	
Ashton	812	Ashton Multisave	Ashton Service	06:15 to 7:15	1	60	60	16	27%	30	11	66	0	100%	-11	Investigate additional Ols	
Ashton	967	Ashton Multisave	Montagu	12:45 to 13:45	1	32	32	26	81%	30	3	20	12	40%	9	Sufficient existing capacity	
Ashton	968	Ashton Multisave	Robertson	06:45 to 7:45	6	13	76	68	90%	5	3	50	12	76%	9	Sufficient existing capacity	Enforce illegal operators
Ashton	D95	Ashton Multisave	Ashton Zolani	13:15 to 14:15	2	10	20	20	100%	15	3	51	1	98%	-2	Investigate additional Ols	
Ashton	809	Ashton Zolani	Bonnievale	06:00 to 7:00	2	8	17	18	107%	15	3	3	1	67%	-2	Investigate additional Ols	
Ashton	810	Ashton Zolani	Montagu	07:45 to 8:45	1	16	16	14	88%	30	1	16	0	100%	-1	Investigate additional Ols	
Ashton	812	Ashton Zolani	Robertson	06:00 to 7:00	1	60	60	60	100%	30	11	66	0	100%	-11	Investigate additional Ols	
Ashton	D95	Ashton Zolani	Ashton	06:30 to 7:30	1	32	32	30	94%	30	3	51	1	98%	-2	Investigate additional Ols	
Ashton	NewRoute BR01	Ashton Zolani	Cape Town	10:45 to 11:45	5	14	68	109	160%	6	2	3	0	100%	-2	Investigate additional Ols	
Ashton	NewRoute BR02	Ashton Zolani	McGregor	06:30 to 7:30	18	10	172	157	91%	2	4	1	0	100%	-4	Investigate additional Ols	
Bonnievale	832	Bonnievale Happy Valley	Bonnievale	07:30 to 8:30	10	16	158	77	49%	3	3	39	4	90%	1	Sufficient existing capacity	Enforce illegal operators
Bonnievale	969	Bonnievale Happy Valley	Ashton (Saturday)	12:30 to 13:30	2	36	72	24	33%	15	0	4	11	-175%	11	Sufficient existing capacity	
Bonnievale	F02	Bonnievale Happy Valley	Bonnievale Farms	12:45 to 13:45	1	60	60	87	145%	30	5	15	0	100%	-5	Investigate additional Ols	
Bonnievale	N40	Bonnievale Happy Valley	Robertson	07:45 to 8:45	1	12	12	5	42%	30	1	N/A	N/A	N/A	N/A	No existing information on Ols, investigate additional	Enforce illegal operators
Bonnievale	NewRoute BR10	Bonnievale Happy Valley	Swellendam	15:15 to 16:15	1	12	12	15	125%	30	2	1	0	100%	-2	Investigate additional Ols	
Bonnievale	832	Bonnievale Multisave	Bonnievale Happy Valley	15:15 to 16:15	9	18	158	152	96%	3	3	39	4	90%	1	Sufficient existing capacity	Enforce illegal operators
McGregor	NewRoute BR03	Mcgregor Church	Bonnievale	12:00 to 13:00	1	60	60	60	100%	30	5	1	0	100%	-5	Investigate additional Ols	
McGregor	NewRoute BR04	Mcgregor Church	Montagu	13:45 to 14:45	6	22	134	96	72%	5	1	1	0	100%	-1	Investigate additional Ols	
McGregor	NewRoute BR05	Mcgregor Church	Robertson	06:30 to 7:30	3	15	44	60	136%	10	5	18	0	100%	-5	Investigate additional Ols	
McGregor	NewRoute BR06	Mcgregor Church	McGregor Farms	12:00 to 13:00	1	6	6	3	50%	30	2	5	0	100%	-2	Investigate additional Ols	
Montagu	810	Montagu Food Zone	Ashton Zolani	13:00 to 14:00	1	11	11	2	18%	30	1	16	0	100%	-1	Investigate additional Ols	
Montagu	967	Montagu Food Zone	Ashton	10:45 to 11:45	1	10	10	4	38%	30	3	20	12	40%	9	Sufficient existing capacity	
Montagu	725	Montagu OK Bazaars	Montagu Ashbury	16:00 to 17:00	2	18	35	27	76%	15	1	6	3	50%	2	Sufficient existing capacity	
Montagu	872	Montagu OK Bazaars	Montagu OK Bazaars (Saturday)	10:30 to 11:30	2	10	20	32	160%	15	0	4	0	100%	0	Route operates only on Weekends, investigate	
Robertson	686	Robertson Fishmarket	Robertson	14:15 to 15:15	1	12	12	10	83%	30	4	73	12	84%	8	Sufficient existing capacity	Enforce illegal operators

Route Details					Route operations				Analysis of Operating licenses				Recommendations				
Town	Route Code	Rank	Route Name	Period	No of Departures	Vehicle Cap	Service Capacity	No. of Pax	% Utilisation	Average waiting time (min)	Required Ols (weekday)	No. of Vehicles on route	Vehicles with Ols	% Vehicles without Ols	Over/Under Supply	Operating licenses required	Enforcement required (>50% illegal operators)
Robertson	812	Robertson Fishmarket	Ashton Zolani	06:00 to 7:00	1	12	12	0	0%	30	11	66	0	100%	-11	Investigate additional Ols	
Robertson	968	Robertson Fishmarket	Ashton	13:00 to 14:00	2	15	30	18	60%	15	3	50	12	76%	9	Sufficient existing capacity	Enforce illegal operators
Robertson	N37	Robertson Fishmarket	Bonnievale	09:30 to 10:30	1	12	12	4	33%	30	3	7	6	14%	3	Sufficient existing capacity	
Robertson	NewRoute BR05	Robertson Fishmarket	McGregor	09:30 to 10:30	1	12	12	5	42%	30	5	18	0	100%	-5	Investigate additional Ols	
Robertson	686	Robertson Nkqubela	Robertson	14:00 to 15:00	3	31	94	45	48%	10	4	73	12	84%	8	Sufficient existing capacity	Enforce illegal operators
Robertson	690	Robertson Nkqubela	Robertson Fams	06:30 to 7:30	1	12	12	1	8%	30	2	36	11	69%	9	Sufficient existing capacity	Enforce illegal operators
Robertson	693	Robertson Nkqubela	Worcester	06:00 to 7:00	1	60	60	4	7%	30	8	29	1	97%	-7	Investigate additional Ols	
Robertson	968	Robertson Nkqubela	Ashton	14:45 to 15:45	12	11	126	76	60%	3	3	50	12	76%	9	Sufficient existing capacity	Enforce illegal operators
Robertson	N37	Robertson Nkqubela	Bonnievale	12:15 to 13:15	2	13	25	25	99%	15	3	7	6	14%	3	Sufficient existing capacity	
Robertson	NewRoute BR05	Robertson Nkqubela	McGregor	06:45 to 7:45	1	60	60	38	63%	30	5	18	0	100%	-5	Investigate additional Ols	
Robertson	NewRoute BR07	Robertson Nkqubela	Cape Town	14:45 to 15:45	1	12	12	13	108%	30	5	18	0	100%	-5	Investigate additional Ols	
Robertson	NewRoute BR08	Robertson Nkqubela	George	13:00 to 14:00	1	11	11	6	53%	30	1	1	0	100%	-1	Investigate additional Ols	
Robertson	NewRoute BR11	Robertson Nqubela	Montagu (Saturday)	07:00 to 8:00	1	32	32	23	72%	30	0	2	0	100%	0	Route operates only on Weekends, investigate additional Ols	
Robertson	686	Robertson Pick n Pay	Robertson	16:00 to 17:00	8	11	91	92	101%	4	4	73	12	84%	8	Sufficient existing capacity	Enforce illegal operators
Robertson	812	Robertson Pick n Pay	Ashton Zolani	15:15 to 16:15	7	11	77	79	103%	4	11	66	0	100%	-11	Investigate additional Ols	
Robertson	687	Robertson SADP	Robertson Fams	06:30 to 7:30	3	14	42	48	114%	10	3	14	10	29%	7	Sufficient existing capacity	
Robertson	693	Robertson SADP	Worcester	07:00 to 8:00	1	12	12	11	92%	30	8	29	1	97%	-7	Investigate additional Ols	
Robertson	NewRoute BR07	Robertson SADP	Cape Town	11:15 to 12:15	7	27	189	77	41%	4	5	18	0	100%	-5	Investigate additional Ols	
Robertson	NewRoute BR09	Robertson SADP	Ceres	10:30 to 11:30	3	11	34	33	97%	10	2	1	0	100%	-2	Investigate additional Ols	
Robertson	686	Robertson Shoprite	Robertson	17:15 to 18:15	7	13	88	100	113%	4	4	73	12	84%	8	Sufficient existing capacity	Enforce illegal operators

Error! Reference source not found. below provides a brief summary of Table 3.1 and highlights capacity requirements for each large town within Langeberg.

Table 3-2: Capacity requirements per town in the Langeberg

Town	Total number of routes	Sufficient Capacity	Under-Supply
Ashton	13	3	10
Bonnievale	6	3	2
Mcgregor	4	0	4
Montagu	4	2	2
Robertson	21	10	11
TOTAL	48	18	29

****** *These routes currently only operate on weekends*

Generally, it was found that there were significantly more vehicles operating on most existing MBT routes than expected. This large number of vehicles is mostly attributed to illegal vehicles. Analysis of the existing operating licenses on these routes revealed that there are too many operating licences issued on most existing MBT routes.

Twenty nine routes were identified that could potentially warrant additional operating licenses. Currently, the passenger demand on these routes is being serviced by illegal operators, some who might include those awaiting documentation from the OLB.

The steps envisaged to align the current number of operating licences available with the number required for the implementation of the proposed public transport strategy will need to be discussed between the local municipalities and the various taxi associations once the OLS report has been accepted and adopted. This action should also include regular liaison with the MBT industry to ensure better co-ordination between the operator and the municipality.

3.6 Implementation

The following is required for the implementation of the proposed public transport strategies:

- Assistance from the CWDM and Langeberg in managing operating license applications. The CWDM should provide assistance in improving communication between MBT operators and the OLB.
- Sample household travel surveys to determine actual passenger demand within the CWDM
- Identification of routes with significantly high numbers of illegal operators (see Table 3.1), in order to utilise law enforcement services effectively
- The calculation of utilisation and capacity for all routes currently operating in the CWDM (see Table 3.1), in order to efficiently manage the process of issuing operating licenses in the CWDM.
- The preparation of an IPTN Framework for the CWDM and an IPTN for the Langeberg Municipality.

3.7 Financial Implications

Various proposals have been made in the OLS in an attempt to address public transport restructuring within Langeberg, and mainly focused on the sphere of influence of the respective municipalities. These include the following:

- Improved communication between the CWDM, Langeberg, the OLB and taxi associations,
- Household travel surveys to determine actual passenger demand within Langeberg.
- Identification of routes with significantly high numbers of illegal operators in order to utilise law enforcement services effectively
- The calculation of utilisation and capacity levels for all routes currently operating in the Langeberg in order to efficiently manage the process of issuing operating licenses in Langeberg.

The financial implications of the implementation plan to restructure the MBT public transport system in the CWDM is estimated in Table 3.3 below.

Table 3.3: Financial Requirements

Implementation actions	Budget M~R1 Million
Improved communication	0.3M
Household travel surveys for all municipalities	4 M
CPTR and OLS assessment	2.5M
Identification of "problem routes"	0.5M
Improved communication between Taxi Associations	0.3M
Road worthiness checks and driver training	0.2M
Seasonal demand assessments	1M
Preparation of planning project for the IPTN	1.5M
TOTAL	10.3 M

4. TRANSPORT NEEDS ASSESSMENT

4.1 Summary Findings from Stakeholder Interviews

The aim of the transport needs assessment chapter is to arrive at a comprehensive list of projects through the following phases:

- Problem areas: Identification of problem areas in the transport system
- Strategies: Development of strategies for each priority issue to achieve the stated objective
- Projects: To identify and compile a comprehensive list of projects from the status quo inventory, grouped in relation to each of the selected strategies

4.2 Methodology for assessing transport needs

In order to identify particular issues and needs with respect to transport in the CWDM, 2 rounds of public meetings were held in each of the local municipalities as well as a number of interviews held with stakeholders during the data capturing phase of this ITP.

The stakeholders included LM representatives, taxi associations and drivers, MBT passengers and local school principals as well as meetings with Sanral, Metrorail and the provincial departments of Health, Tourism and Education. A review of the CPTR, as well as an evaluation of the results of the NHTS, was also carried out to evaluate the current transportation situation.

Based on the public meetings, interviews and evaluations undertaken, a summary of the issues per transport sector is listed in Table 4.1. A comprehensive record of public meetings and interviews are attached in Annexure B2 to B4.

4.3 Needs Assessment per transport sector

Table 4.1: Local Economic Development

ISSUES	STRATEGIES TO RESPOND
LOCAL ECONOMIC DEVELOPMENT	
• Employment opportunities concentrated in Robertson and Ashton, limited economic opportunities elsewhere in the LM. • Affordability of public transport problematic. • Unemployment and Poverty is high especially in rural area. • Lack of small business development • High off season unemployment.	• Promote, support and enable job creation through tourism, manufacturing, agriculture and retail. • Public Transport improvements to support and maximize economic growth particularly in rural settlements. • Develop off season employment opportunities.

ISSUES	STRATEGIES TO RESPOND
TOURISM	
• Lack of coordination between tourism needs and transport improvements towards promotion of tourism growth. • Inadequate road and tourism signage. • Tourism inadequately marketed. • Local operators not given access to tourism opportunities in Langeberg. • Tourism potential of area not efficiently maximised.	• Provide a well signed, legible network of roads to tourism destinations in the region. • Identify opportunities to empower local operators to become more active in tourism sector as part of LED. • Create tourism opportunities in historically disadvantaged communities. • Identify tourism routes and link to Route 62, Flower Route. • Promote accommodation development in rural areas.
ISSUES	STRATEGIES TO RESPOND
PUBLIC TRANSPORT OPERATIONS	
Administration and Law Enforcement	
• Long permit waiting periods. • Operators believe they are being targeted by law enforcement, while others operate illegally.	• Provide an effective and responsive administrative system that supports high quality public transport services • Law enforcement is visible, effective and well planned.
Routes and Operations	
• Emergency travel services problematic outside Robertson and Ashton. • Very high unemployment and low incomes levels make public transport unaffordable daily or in an emergency. • No passenger rail service in the Langeberg Municipality • Only tourist rail service that passes through the area on route to Port Elizabeth.	• Provide a good quality public transport system that is responsive to public needs. • Provide subsidized services for rural towns where required.
Long distance buses and rail	
• Limited long distance bus services in Robertson and Ashton. • Not adequate long distance facilities.	• Provide long distance public transport solutions that cater for the needs of longer distance trips in the municipality.

ISSUES	STRATEGIES TO RESPOND
PUBLIC TRANSPORT INFRASTRUCTURE	
• Main challenge at the Taxi ranks are holding space and lack of wash bay or dry-cleaning area • Lack of, or no, roadside embayments • Inadequate and unsafe public transport infrastructure • Formal taxi rank required for Ashton	• Suitable and well maintained infrastructure will be provided to support the good quality public transport services in the district. • Investigate functionality of ranks • Promotion of all modes of transport by the supply of supporting infrastructure
ISSUES	STRATEGIES TO RESPOND
ROAD NETWORK	
• Limited funding available to maintain road pavement standards • Effectiveness of road maintenance • Intersection problematic in Bath Street, Montagu	• The road network will be well maintained and connectivity and accessibility is maximised.
Road Safety	
• Lack of safe pedestrian facilities along major roads. • Overloading of buses used for learner transport • Roadworthiness of learner transport buses • Speeding and reckless driving in certain areas • Unsafe intersections along high traffic volume routes. • Inadequate embayments for public transport vehicles make for unsafe conditions.	• Create a safe transport environment for all road users including those with special needs. • Improve road safety and reduce road accidents • Finalisation of learner transport issues and responsibility between the DOE and DOT

ISSUES	STRATEGIES TO RESPOND
LEARNER TRANSPORT	
• Conditions to qualify for a transport subsidy - learners have to live outside a 5km prescribed radius of the school to qualify for a subsidy. • Local operators not informed of Department of Education tenders. • Condition of learner travel vehicles problematic. • Limited enforcement of learner travel vehicles and operators. • Lack of embayments contribute toward unsafe conditions for learners. • Lack of continuous pathways make walking and cycling unsafe. • River crossing dangerous during high water levels. • Unpaved and unmaintained road shoulders problematic. • Learner visibility problematic particularly during winter.	• The travel needs of learners will be prioritised to emphasise the importance of ensuring each child receives maximum levels of education.
ISSUES	STRATEGIES TO RESPOND
Non-Motorised Transport	
• Lack of NMT drop off and pick up points • Distances between towns are too great for cycling to be feasible • Discontinuous or gravel sidewalks. • NMT safety along the R62 • Lack of affordability of public or private transport, therefore NMT is used as an alternative.	• Walking, cycling and other non-motorised transport modes needs to be accommodated to ensure safe, convenient ease of movement. • Increase distribution of bicycles • Improve NMT safety education. • Ensure that road projects take cognisance of NMT guidelines and provisions

ISSUES	STRATEGIES TO RESPOND
FREIGHT TRANSPORT	
Road Freight	
• Heavy vehicles are contributing to high road infrastructure costs by reducing the life span of the road surface • Town roads are not equipped to have heavy vehicles driving and parking on them. • Inadequate facilities for overnight and stop-over truck parking.	• Provide adequate network and facilities to cater for road freight requirements in Langeberg. • Businesses utilizing freight transport must incorporate suitable freight holding and access facilities.
Rail Freight	
• Rail freight lines and handling facilities are available but not well used due to cost, safety and speed of rail goods delivery.	• Rail freight is promoted as the primary mode of goods movement particularly for bulky raw materials.
INSTITUTIONAL AND FINANCIAL	
Institutional	
• ITP is not integrated with IDP • Transport is not integrated with other departments e.g. tourism, LED, health, education, etc. • Inadequate capacity to undertake transport function at LM and DM levels	• Planning of transport is well integrated with other development needs of the district. • Provide adequate and skilled capacity at district and local municipal levels to be able to effortlessly carry out transport functions.
Financial	
• Inadequate budget for public transport operations • Inadequate budget to cover road and public transport infrastructure maintenance • Public Transport facilities are built and maintained with the municipal roads budget, which is too small to cover all needs • Limited funding available for resealing, maintenance, etc. of roads surface	• Make adequate funding available for transport requirements.

4.4 Projects

Both planning and implementation projects were considered as part of the process of identifying projects.

The process that was followed to identify the upgrading and maintenance needs of all roads and public transport facilities, for which the local municipality assumes responsibility, is described hereafter.

A list of projects per sector was identified. These sectors include the following:

- Road infrastructure upgrade,
- Road Maintenance
- Planning and Feasibility and
- Public transport infrastructure and
- NMT facilities;

A list of projects was developed in response to the needs assessment. Information received from public meetings, passenger and driver interviews and interviews with local authorities was also used to develop the list of projects. Table 4.2 to 4.6 presents a list of prioritised projects per sector.

The initial list of projects will also be subjected to public and political scrutiny to ensure that the actual needs of the community are being addressed.

Table 4.2: Road infrastructure and upgrade

PRIORITY PROJECTS PER SECTOR	NO.	AREA	TYPE OF PROJECT	HORIZON	DESCRIPTION	RESPONSIBILITY/FUNDING			SCORE	SOURCE
						DM	LM	PGWC		
ROAD INFRASTRUCTURE UPGRADE - BASED ON EXISTING INTERNAL PRIORITISATION										
1	LMRU001	McGregor	Road Construction	Long Term	Upgrade shoulder on road between Robertson and Macgregor			✓		Langeberg Municipality PMS
2	LMRU002	McGregor	Road Safety	Short Term	Provision of safety signs on rural roads	✓		✓		Langeberg Municipality PMS
3	LMRU003	Robertson- Bonnievale	Road Maintenance	Short Term	Road maintenance required on Sections of Stormsvei Road (R317) between Robertson and Bonnievale	✓				Langeberg Municipality PMS
4	LMRU004	Ashton-Montagu	Road Reconstruction	Short Term	Upgrading/reconstruction of R62 between Ashton and Montagu due to traffic growth	✓		✓		Langeberg Municipality PMS
5	LMRU005	Robertson- Worcester	Infrastructure Upgrade	Short Term	Widening of the portion of R60 between Robertson and Worcester (bypass lanes)	✓		✓		Langeberg Municipality PMS

Table 4.3: Road Maintenance

PRIORITY PROJECTS PER SECTOR	NO.	AREA	TYPE OF PROJECT	HORIZON	DESCRIPTION	RESPONSIBILITY/FUNDING			SCORE	SOURCE
						DM	LM	PGWC		
ROAD MAINTENANCE - BASED ON EXISTING INTERNAL PRIORITISATION										
LIMRM001	Langeberg	Road Maintenance	Short Term		Implementation of Rehabilitation projects for Flexible Pavements as per FPMS		✓			Langeberg Municipality PMS
LIMRM002	Langeberg	Road Maintenance	Short Term		Implementation of Resurfacing projects for Flexible Pavements as per FPMS		✓			Langeberg Municipality PMS
LIMRM003	Langeberg	Road Maintenance	Short Term		Implementation of Diluted Emulsion projects for Flexible Pavements as per FPMS		✓			Langeberg Municipality PMS
LIMRM004	Langeberg	Road Maintenance	Short Term		Upgrade of Gravel Roads as per GRMS		✓			Langeberg Municipality PMS
LIMRM005	Langeberg	Road Maintenance	Short Term		Maintenance of Gravel Roads as per GRMS		✓			Langeberg Municipality PMS
LIMRM006	Langeberg	Road Maintenance	Short Term		Maintenance of Municipal Main Roads		✓			Langeberg Municipality PMS
LIMRM007	Langeberg	Road Maintenance	Short Term		Maintenance of Jointed Concrete Roads as per JCMS		✓			Langeberg Municipality PMS
LIMRM008	Langeberg	Road Maintenance	Short Term		Upgrade of No Roads as per GRMS		✓			Langeberg Municipality PMS

Table 4.4: Planning and feasibility projects

PRIORITY PROJECTS PER SECTOR	NO.	AREA	TYPE OF PROJECT	HORIZON	DESCRIPTION	RESPONSIBILITY/FUNDING			SCORE	SOURCE
						DM	LM	PGWC		
PLANNING AND FEASIBILITY - PRIORITISED										
1	LMPF001	Langeberg	Public Transport Services	Medium to Long Term	Integrated Public Transport Network for Langeberg Municipality	✓			10	CWDM
2	LMPF002	Langeberg	Non- motorised transport	Short Term	Investigation into Non-motorised transport plan for the municipality		✓		10	PC
3	LMPF003	Langeberg	Infrastructure Upgrade	Medium Term	Investigate provision of overnight facilities and truck stops for heavy vehicles in Langeberg		✓		10	Public Participation
4	LMPF004	Langeberg	Public Transport	Short Term	Investigation into an expanded law enforcement management plan in Langeberg			✓	10	Public Participation
5	LMPF005	Langeberg	Public Transport Facilities	Short Term	Investigation into provision of long distance bus facilities in Langeberg	✓	✓		10	PC
	LMPF006	Langeberg	public Transport	Medium Term	Investigation of subsidised public transport in rural areas of Langeberg			✓	10	LM Meetings
	LMPF007	Langeberg	Tourism Infrastructure	Short Term	Investigate maintenance of (lay-bys) tourism rest areas on scenic routes in Langeberg			✓	10	LM Meetings
	LMPF008	Bonnievale	Safety measures	Short Term	Investigate safety measures on R317 in Goudmyn, Roolbrug			✓	10	LM Meetings
	LMPF009	Langeberg	Infrastructure Upgrade	Short Term	Rehabilitation/retrofitting of sidewalks or pavements in old buildings in the municipality			✓	10	LM Meetings
	LMPF010	Langeberg	public Transport	Long Term	Investigation into utilisation of passenger rail in Langeberg				10	LM Meetings
	LMPF011	Langeberg	public Transport	Long Term	Revitalization of existing rail stations that has been decommissioned in Langeberg				10	LM Meetings
	LMPF012	Montagu	Road Planning	Short Term	Investigation into converting Market Street into one way streets, Montagu		✓		10	Public Participation
	LMPF013	Langeberg	Learner Transport	Short Term	Investigation into provision of school transport for children on farms			✓	10	LIDP 2007 Public participation
	LMPF014	Bonnievale	Road Upgrade	Short Term	Investigate inaccessible roads in Mandela Park		✓		8	CWDP 2004
	LMPF015	Montagu	Tourism development	Medium Term	Improve tourism corridor along Long street, Montagu		✓		8	Public Participation
	LMPF016	Langeberg	Learner Transport Services	Medium Term	Investigation into the implementation of subsidised learner transport within the 5km range of schools			✓	8	Public Participation
	LMPF017	Langeberg	Learner Transport	Short Term	Training of local operators to inform them of learner contract tender processes	✓			8	Public Participation
	LMPF018	Langeberg	Freight	Medium Term	Freight strategy for the area addressing the road network, enforcement, infrastructure facilities required and minimum requirements for businesses using freight		✓		6	Public Participation/ LM Meetings
	LMPF019	Robertson	Road Planning	Short Term	Investigation into converting Hope Street into one way streets, Robertson	✓		✓	6	LM Meetings
	LMPF020	Langeberg	Traffic Calming	Medium Term	Implementation of traffic calming measures plan in Langeberg		✓		4	LM Meetings

Table 4.5: Public Transport infrastructure

PRIORITY PROJECTS PER SECTOR	NO.	AREA	TYPE OF PROJECT	HORIZON	DESCRIPTION	RESPONSIBILITY/FUNDING			SCORE	SOURCE
						DM	LM	PGWC		
PUBLIC TRANSPORT INFRASTRUCTURE - PRIORITISED										
1	LMP001	Ashbury	MBT Facility Upgrade	Short Term	Provision of bus-shelters and embayments in Langeberg area	✓	✓		80	LITP 2007
2	LMP002	Langeberg	Public Transport Facilities	Short Term	Provision of public transport facilities (ranks) in Langeberg (Study)		✓		80	LM Meetings
3	LMP003	Robertson	Public Transport Facilities	Medium Term	Provision of public transport facility in Wesley Street, Robertson		✓		68	LITP 2007

Table 4.6: NMT facilities

PRIORITY PROJECTS PER SECTOR	NO.	AREA	TYPE OF PROJECT	HORIZON	DESCRIPTION	RESPONSIBILITY/FUNDING			SCORE	SOURCE
						DM	LM	PGWC		
NMT FACILITIES - PRIORITISED										
1	BMP001	Langeberg	NMT Facility	Short Term	Upgrade of traffic signals to accommodate pedestrians		✓		41	Public Participation/ LM Meetings
2	BMP004	Langeberg	NMT Facility	Short Term	Design and construction of pedestrian crossings in the municipal area (Study)			✓	37	Public Participation/ LM Meetings
3	BMP005	Ashton	Street lighting	Short Term	Provision of street lights in Ashton/Zolani on R60		✓		37	Public Participation/ LM Meetings
	BMP006	Robertson	Street lighting	Short Term	Provision of street lights from Robertson to Gooee		✓		21	LITP 2007

5. TRANSPORT IMPROVEMENT PROPOSALS

5.1 *Purpose of project evaluation and prioritisation*

The aim of this chapter is to reduce the list of projects through project prioritisation to arrive at an implementation plan that is affordable, given the available budgets and the different sources of funding available to the planning authority. The different projects identified through the process in Chapter 3 must be listed and prioritised.

Project proposals were identified from the following sources:

- Previous ITP projects not implemented or funded
- Reports and documents that describe needs as identified through previous public participation processes, stakeholder inputs and studies
- Public Participation meetings in each local municipality
- Meetings, discussions and workgroups with local municipal representatives
- Meetings and discussions with various stakeholders in the transport industry

From the comments, suggestions, remarks and complaints gathered during the consultation with all the relevant parties mentioned above, an initial summary of issues/needs was compiled. The issues were then categorised into different transport focus areas. A summary of the needs per transport sector is included in Chapter 3.

The issues were aligned with the various improvement strategies developed to address public transport in the Cape Winelands. Furthermore, the project proposals were aligned with the Western Cape provincial strategic objectives. The project categories based on project type and transport focus area are as follows:

- Road Infrastructure Upgrade
- Road maintenance
- Planning and feasibility studies
- Public Transport Infrastructure
- Non-motorised transport

5.2 *Project prioritisation*

The projects developed from the project proposals for the final implementation plan were subject to a prioritisation process. The importance of project prioritisation is that investment in transport infrastructure will only benefit economic growth and development if it is economically viable. The current process allowed for in the development of an ITP does not permit an economic evaluation in the development of the infrastructure implementation plan. It is advisable that the prioritisation process be done together with politicians to ensure political support of the final project lists.

All projects identified in the status quo analysis and the public participation processes were prioritised by a special Local Municipal Working Group consisting of the area Engineer and other municipal sectors, senior Traffic Officials and Councillors. The following criteria were used for the prioritisation of the projects:

- traffic/passenger volumes,
- existing conditions,
- network considerations and
- the impact on social and developmental conditions

Completed project evaluation forms for all projects per local municipality are included in Annexure C.

Both the infrastructure and maintenance projects were subjected to prioritisation, albeit through different processes. Prioritisation of municipal road maintenance projects takes place through evaluation on a network level with the use of the IMQS Pavement Management System. This is in contrast with prioritisation of individual projects or sections of road. Visual assessment forms the basis of evaluating the condition of the road network and the need for specific actions. The systems reporting function provides a mechanism for strategic planning and budgeting purposes. The various road maintenance programmes in which projects/links are listed according to priority are as follows:

- Preliminary reconstruction programme (Flexible pavements): This report gives tentative recommendations for rehabilitation programming. These projects and remedial measures need verification by further field investigations.
- Resurfacing programme (Flexible pavements): Resurfacing projects, listed in order of priority, are divided into those considered necessary during the first year, followed by those necessary during the second year. For the five-year budget implementation programme, the average resurfacing cost for these two years was used as an annual estimate.
- Diluted emulsions programme: Before distress is visible, a dry and brittle road surface will benefit greatly from a treatment of diluted emulsion.
- Upgrade of gravel roads as per the Gravel Road Maintenance System (GRMS)
- Maintenance of gravel roads as per the GRMS
- Upgrade priorities of dirt roads to gravel standards: A road usually starts as a dirt road and as traffic increases, gravel is added over the natural material. This report gives a priority list and cost implications of such projects.
- Maintenance of jointed concrete road sections

The prioritised list of projects for Langeberg is provided in Table 5.1.

5.3 Budget constraints

The available budget for the improvement of the transport system is nearly always insufficient to fund all identified projects and a process of project prioritisation will have to be used to ensure that the available budget is spent in those areas where the greatest needs are.

Table 5.1: Prioritised projects for Langeberg

PRIORITY PROJECTS PER SECTOR	NO.	AREA	TYPE OF PROJECT	HORIZON	DESCRIPTION	RESPONSIBILITY/FUNDING			SCORE	SOURCE
						DM	LM	PGWC		
ROAD INFRASTRUCTURE UPGRADE - BASED ON EXISTING INTERNAL PRIORITISATION										
1	LMRU001	McGregor	Road Construction	Long Term	Upgrade shoulder on road between Robertson and Macgregor			✓		Langeberg Municipality PMS
2	LMRU002	McGregor	Road Safety	Short Term	Provision of safety signs on rural roads	✓		✓		Langeberg Municipality PMS
3	LMRU003	Robertson- Bonnievale	Road Maintenance	Short Term	Road maintenance required on Sections of Stormsveel Road (R317) between Robertson and Bonnievale	✓				Langeberg Municipality PMS
4	LMRU004	Ashton-Montagu	Road Reconstruction	Short Term	Upgrading/reconstruction of R62 between Ashton and Montagu due to traffic growth	✓		✓		Langeberg Municipality PMS
5	LMRU005	Robertson- Worcester	Infrastructure Upgrade	Short Term	Widening of the portion of R60 between Robertson and Worcester (bypass lanes)	✓		✓		Langeberg Municipality PMS
ROAD MAINTENANCE - DONE THROUGH THE MAINTENANCE BUDGET AS IDENTIFIED BY THE MUNICIPALITY AND BUDGETED FOR IN OPERATIONAL BUDGET										
LMRM001	Langeberg	Road Maintenance	Short Term		Implementation of Rehabilitation projects for Flexible Pavements as per FPMS		✓			Langeberg Municipality PMS
LMRM002	Langeberg	Road Maintenance	Short Term		Implementation of Resurfacing projects for Flexible Pavements as per FPMS		✓			Langeberg Municipality PMS
LMRM003	Langeberg	Road Maintenance	Short Term		Implementation of Diluted Emulsion projects for Flexible Pavements as per FPMS		✓			Langeberg Municipality PMS
LMRM004	Langeberg	Road Maintenance	Short Term		Upgrade of Gravel Roads as per GRMS		✓			Langeberg Municipality PMS
LMRM005	Langeberg	Road Maintenance	Short Term		Maintenance of Gravel Roads as per GRMS		✓			Langeberg Municipality PMS
LMRM006	Langeberg	Road Maintenance	Short Term		Maintenance of Municipal Main Roads		✓			Langeberg Municipality PMS
LMRM007	Langeberg	Road Maintenance	Short Term		Maintenance of Jointed Concrete Roads as per JCMS		✓			Langeberg Municipality PMS
LMRM008	Langeberg	Road Maintenance	Short Term		Upgrade of No Roads as per GRMS		✓			Langeberg Municipality PMS
PUBLIC TRANSPORT INFRASTRUCTURE - PRIORITISED										
1	LMPF001	Langeberg	Public Transport Services	Medium to Long Term	Integrated Public Transport Network for Langeberg Municipality	✓			10	CWDM
2	LMPF002	Langeberg	Non- motorised transport	Short Term	Investigation into Non-motorised transport plan for the municipality		✓		10	PC
3	LMPF003	Langeberg	Infrastructure Upgrade	Medium Term	Investigate provision of overnight facilities and truck stops for heavy vehicles in Langeberg		✓		10	Public Participation
4	LMPF004	Langeberg	Public Transport	Short Term	Investigation into an expanded law enforcement management plan in Langeberg			✓	10	Public Participation
5	LMPF005	Langeberg	Public Transport Facilities	Short Term	Investigation into provision of long distance bus facilities in Langeberg	✓	✓		10	PC
PUBLIC TRANSPORT INFRASTRUCTURE - PRIORITISED										
1	LMP T001	Ashbury	MBT Facility Upgrade	Short Term	Provision of bus-shelters and embayments in Langeberg area	✓	✓		80	LITP 2007
2	LMP T002	Langeberg	Public Transport Facilities	Short Term	Provision of public transport facilities (ranks) in Langeberg		✓		80	LM Meetings
3	LMP T003	Robertson	Public Transport Facilities	Medium Term	Provision of public transport facility in Wesley Street, Robertson		✓		68	LITP 2007

PRIORITY PROJECTS PER SECTOR	NO.	AREA	TYPE OF PROJECT	HORIZON	DESCRIPTION	RESPONSIBILITY/FUNDING			SCORE	SOURCE
						DM	LM	PGWC		
NMT FACILITIES - PRIORITISED										
1	BMP001	Langeberg	NMT Facility	Short Term	Upgrade of traffic signals to accommodate pedestrians		✓		41	Public Participation/ LM Meetings
2	BMP004	Langeberg	NMT Facility	Short Term	Design and construction of pedestrian crossings in the municipal area (Study)			✓	37	Public Participation/ LM Meetings
3	BMP005	Ashton	Street lighting	Short Term	Provision of street lights in Ashton/Zolani on R60		✓		37	Public Participation/ LM Meetings
	BMP006	Robertson	Street lighting	Short Term	Provision of street lights from Robertson to Goree		✓		21	LITP 2007

6. IMPLEMENTATION PLAN

After estimation of the cost of an implementation plan that is affordable given the available budgets and the different sources of funding available to the planning authority. In reaching this aim, the following steps are identified:

- Sources of funding and affordability limit
- Cost estimates
- Implementation programme and budgets
- Project Plans

The initial step would be to identify all possible sources of funding that will be available for transport over the next five year implementation period. The costs for implementing the identified projects also need to be estimated. The available funding then needs to be matched with the costs of implementing the prioritised list of projects, to determine the affordability cut-off line. Finally, a five-year budget and cash-flow of the selected high priority projects must be compiled, of which the first year will be in substantially greater detail than the following four years. Selected projects are further described in terms of project plans which specify the detail of each project.

6.1 Sources of funding

Availability of funding to implement the prioritised projects is limited. While the various modes of transport compete against each other for funding, they also compete with other essential services such as water, housing and health. The main existing sources of capital funding are as follows:

- Public contributions and donations
- Borrowing
- Internally generated funds
- Capital transfers recognised
- Direct or indirect National and Provincial grants (transfers)

6.1.1 Public contributions and donations

Donor funding has a variety of objectives which include:

- Crime prevention
- Community participation
- Policy support programmes
- Strengthening local governance programmes

Public contributions and donations is a possible additional source of funding.

6.1.2 Borrowing

Municipalities can acquire loans to fund high-priority projects through various means which include the following:

- Internally generated funds (own funding sources)
- Capital transfers
- Direct or indirect National and Provincial grants

6.1.3 Internally generated funds (own funding sources)

Internally generated funds are funds generated from services or other initiatives within Langeberg. The distribution of this funding to transport related projects at local level is limited by the competing needs of transport with other essential services such as water, housing and health. In the municipal environment, the following internal funds and reserves were established in the past:

- Capital Replacement Reserve (CRR)
- Self-Insurance Reserve (SIR)
- Capitalisation Reserve (CR)
- Reserve established for Compensation for occupational Injuries and Diseases
- Government Grant Reserve (GGR) and Donations and Public Contributions Reserve

6.1.4 Capital transfers

The single most important source of local government transfers is the Equitable Share (Local Government's share of the revenue raised by the National Government) designed to help municipalities cover operational costs of providing basic services to poor households. The municipalities sources about 44 % of its budget from unconditional funding (Local Government equitable share)

6.1.5 Direct or indirect National and Provincial grants

The LM sources between 15 and 20 % of its budget from this category, 39% from conditional grants from national departments and 17 % via the provinces. Direct funding from the transferring authority (National or Provincial Departments) is allocated directly to Langeberg. The transferring authority determines the conditions that apply.

- Allocation criteria – mathematical formula that is “need-based” (operating cost of a Langeberg to deliver basic needs to households)
- Minimal process conditions – basic financial governance and governance (budget and financial report).
- Funding windows – portions of the grant that are each intended for different funding purposes and/or uses a different set of allocation criteria {suggesting funding priorities to municipalities – nodes identified in local Integrated sustainable Rural Development Programme (ISRDP) and Urban Renewal Programme(URP)}
- In accordance with the Division of Revenue Act (reviewed annually)

Indirect funding is allocated via an intermediate management body (Provincial Department) with discretionary powers to allocate funds. It can also happen via the Development Bank of South Africa (DBSA) through in-kind grants i.e. funding controlled by National Treasury. National Treasury has contracted the DBSA to purchase financial management services that are supplied to municipalities in kind). The intermediate authority decides whether to transfer the grant in cash or kind. The intermediate authority disburses the funds in terms of intervention programmes, which they are required to develop in order to access national grants.

National Treasury: DORA (Division of Revenue Act) Allocations: The National Department of Transport: Public Transport Infrastructure Fund: The Public Transport Infrastructure fund, established by the National Treasury for administration by the National Department of

Transport, was created to provide a dedicated fund for ensuring the delivery of an improved public transport and non-motorised transport system.

- Special Municipal Innovation Funds (SMIF) and the Municipal Infrastructure Grant (MIG): The MIG gives effect to earlier Cabinet decisions and policy positions on the establishment of a single consolidated funding mechanism to support municipal infrastructure. The MIG is an infrastructure-funding mechanism, created to facilitate the implementation of the Expanded Public Works Programme (EPWP).
- The MIG is an infrastructure transfer mechanism geared to making the system of transfers to municipalities simpler, more certain and direct. Its conditions are more flexible, designed to support the capital budgets of municipalities, and to facilitate integrated development planning.
 - The MIG will not fund specific projects, but is designed to complement the capital budgets of municipalities (similar to the provincial infrastructure grant). Reporting on spending will therefore be on the entire capital budget of municipalities, which also has to ensure that there are sufficient operational budgets in the future to fund such capital expenditure. Individual national line departments will continue to lead the monitoring and support of implementation in their specific functions and priorities.
 - The MIG has been set up to merge the following funding programmes in a phased manner:
 - Consolidated Municipal Infrastructure Programme (CMIP), in support of internal bulk, connector infrastructure and community facilities to poor households
 - Community based Expanded Public Works Programme, in support of the creation of community assets in rural, historically disadvantaged communities
 - Local Economic Development Fund, in support of planning, and implementation of job creation and poverty alleviation
- The Provincial Department of Transport and Public Works Allocations: Transfer payments from the PGWC can be made to the local municipality to maintain the proclaimed municipal main roads. Budget allocations are based on the PGWC PMS and a priority listing. Local municipalities need to provide 20% of the funds while PGWC subsidises the remaining 80%. All information about funding categories, timeframes and procedures on this subject is contained in “Guidelines for the allocation of funding and the execution of projects in terms of proclaimed municipal roads”, a downloadable document from the provincial roads website at <http://rnis.wcape.gov.za>. The provincial Road Infrastructure Branch Medium Term Expenditure Framework (MTEF) budget commitments for road network improvement spending over the next three years appear in Annexure D.

6.1.6 Alternative Funding Sources

Possibilities for donor funding sources are as follows:

- DBSA (The development bank of Southern Africa)
- National Lottery funds
- Swedish International Development Agency (SIDA)
- German Development Bank (KWF)
- European Commission

- ORIO (Dutch Ministry of Economic Affairs) contributes to the development, implementation (construction and/or expansion), operation and maintenance of public infrastructure in developing countries.

6.2 Cost Estimates

After estimation of the cost of implementation of the priority projects, the next step would be to identify all possible sources of funding available to transport over the five-year implementation period. The available funding then needs to be matched with the costs of implementation to determine the affordability cut-off line.

Funding at local level is extremely limited due to competing needs. The emphasis is placed on essential services and maintenance rather than the expansion of infrastructure.

In the event that allocated funds are not spent by the end of the financial year, the funding is generally withdrawn. Only in exceptional circumstances are funds rolled over to the following financial year. In cases where it has become impossible to implement an identified project within the envisaged timeframe, municipalities are encouraged to implement a similar alternative project. Municipalities are required to submit monthly progress reports so that implementation and financial progress may be tracked. PGWC submits a financial update to Treasury on a monthly basis

6.3 Implementation Plan

A budget and programme for the five-year implementation period was prepared for the high-priority projects. Table 5.1 provides a list of the five highest-ranking projects per category when combining the prioritised projects for Langeberg.

6.4 Project Plans

Selected projects are further described in terms of project plans which specify:

- Project objectives and how these objectives will be achieved.
- Project outputs, targets and locations. Targets should relate to the period of time in which the different phases of upgrading should take place.
- Project tasks / activities, responsible agencies and timing. This will typically relate to the breakdown of the project into tasks including the implementation programme. Responsible agencies and their involvement in the project will be listed.
- Project costs including budget estimates and sources of finance.
- Any further information or remarks relating to the specific project

Completed project plans for each project proposed in Langeberg and the municipal PMS reports are included in Annexure F.

Table 6.1: Project Implementation Budget and Programme

AREA	PROJECT REFERENCE	PROJECT DESCRIPTION	Estimated Budget per Year (2010 ZAR value)					Total (2010 R Value)	
			2010/11	2011/12	2012/13	2013/14	2014/15		2015/16
ROAD INFRASTRUCTURE									
Langeberg	LMRU001	Upgrade of shoulder on MR230 between Robertson and McGregor	R	- R	- R	200 000 R	- R	- R	200 000 R
Langeberg	LMRU002	Provision of additional road Safety signage along rural roads	R	- R	350 000 R	- R	- R	- R	350 000 R
Langeberg	LMRU003	Maintenance on sections of Stomsvlei Rd (R317), Robertson to Bonnievale	R	- R	- R	- R	- R	- R	- R
Langeberg	LMRU004	Upgrading/reconstruction of TR312 (R62) between Ashton and Montagu	R	- R	- R	- R	- R	- R	- R
Langeberg	LMRU005	By pass lanes on sections of the R60 between Robertson and Worcester	R	- R	- R	500 000 R	- R	- R	500 000 R
Sub Total: ROAD INFRASTRUCTURE			R	- R	350 000 R	700 000 R	- R	- R	1 050 000 R
ROAD MAINTENANCE									
Langeberg	LMRM001	Resealing Johan de Jongh & Paddy St between Hoop River and Droe River	R	609 390 R	- R	- R	- R	- R	609 390 R
Langeberg	LMRM002	Resealing of Dike Uys Street between Kerk and Van Zyl Streets	R	244 800 R	- R	- R	- R	- R	244 800 R
Langeberg	LMRM003	Resealing of Nerina Street between Valsbonia and Paddy Streets	R	32 760 R	- R	- R	- R	- R	32 760 R
Langeberg	LMRM004	Resealing of Rosita Street between Valsbonia and Ross Streets	R	79 560 R	- R	- R	- R	- R	79 560 R
Langeberg	LMRM005	Resealing of Someblom Street up to Jasmyrn Street	R	70 200 R	- R	- R	- R	- R	70 200 R
Langeberg	LMRM006	Resealing of Dagbreek Street Heuvel and Paddy Streets	R	70 200 R	- R	- R	- R	- R	70 200 R
Langeberg	LMRM007	Resealing of Paul Kruger/Waterkant and Coetzee and Loop and Van Reenen	R	528 750 R	- R	- R	- R	- R	528 750 R
Langeberg	LMRM008	Resealing of Van Reenen Street between Barry and Reitz Streets	R	257 400 R	- R	- R	- R	- R	257 400 R
Langeberg	LMRM009	Resealing of Reitz Street between Van Reenen and Albert Streets	R	153 000 R	- R	- R	- R	- R	153 000 R
Langeberg	LMRM010	Resealing of Kerk Street from Hoop River bridge to Johan de Jongh Drive	R	489 600 R	- R	- R	- R	- R	489 600 R
Langeberg	LMRM011	Resealing of Aderley Street between Dike Uys and Reitz Streets	R	162 000 R	- R	- R	- R	- R	162 000 R
Langeberg	LMRM012	Resealing of Wouter Street between Staggale and McGregor Roads	R	216 000 R	- R	- R	- R	- R	216 000 R
Langeberg	LMRM013	Resealing of Konstante Street up to Reitz Street	R	62 100 R	- R	- R	- R	- R	62 100 R
Langeberg	LMRM014	Resealing of Van Oudhoorn Street between Van Zyl and Polack Streets	R	124 200 R	- R	- R	- R	- R	124 200 R
Langeberg	LMRM015	Resealing of Swellendam Street between Barry and Kruger Streets	R	270 000 R	- R	- R	- R	- R	270 000 R
Langeberg	LMRM016	Implementation of Rehabilitation projects for Flexible Pavements as per FPMS	R	- R	7 942 800 R	1 659 600 R	13 591 100 R	6 798 900 R	42 372 200 R
Langeberg	LMRM017	Implementation of Resurfacing projects for Flexible Pavements as per FPMS	R	- R	8 232 900 R	10 448 000 R	9 340 450 R	9 340 450 R	46 702 250 R
Langeberg	LMRM018	Implementation of Diluted Emulsion projects for Flexible Pavements as per FPMS	R	- R	2 028 900 R	2 028 900 R	2 028 900 R	2 028 900 R	10 144 500 R
Langeberg	LMRM019	Upgrade of Gravel Roads as per GRMS	R	101 000 R	- R	146 000 R	- R	- R	247 000 R
Langeberg	LMRM020	Maintenance of Gravel Roads as per GRMS	R	- R	59 320 R	3 120 R	- R	- R	62 440 R
Langeberg	LMRM021	Upgrade of Dirt roads to gravel as per GRMS	R	- R	113 743 R	113 743 R	113 743 R	- R	341 230 R
Sub Total: ROAD MAINTENANCE			R	3 470 960 R	18 523 663 R	14 253 363 R	25 074 193 R	18 168 250 R	103 239 580 R
PLANNING AND FEASIBILITY STUDIES									
Langeberg	LMPF001	Integrated Public Transport Network Plan for Langeberg LM	R	- R	500 000 R	- R	- R	- R	500 000 R
Langeberg	LMPF002	Investigation into Non-motorised Transport plan for Langeberg LM	R	- R	- R	- R	500 000 R	- R	- R
Langeberg	LMPF003	Investigate provision of overnight facilities and truck stops for heavy vehicles	R	- R	- R	- R	- R	500 000 R	500 000 R
Langeberg	LMPF004	Investigation into an expanded law enforcement management plan	R	- R	- R	150 000 R	- R	- R	150 000 R
Langeberg	LMPF005	Investigation into provision of long distance bus facilities in Langeberg LM	R	- R	- R	- R	- R	250 000 R	250 000 R
Sub Total: PLANNING AND FEASIBILITY STUDIES			R	- R	500 000 R	150 000 R	500 000 R	500 000 R	1 900 000 R
PUBLIC TRANSPORT INFRASTRUCTURE									
Langeberg	LMPU001	Locations of bus shelters and embayments	R	- R	200 000 R	550 000 R	- R	- R	750 000 R
Langeberg	LMPU002	Provision of public transport ranks in Langeberg LM	R	- R	- R	- R	250 000 R	1 500 000 R	1 750 000 R
Langeberg	LMPU003	Provision of public transport facility in Wesley Street	R	- R	- R	- R	- R	- R	3 200 000 R
Sub Total: PUBLIC TRANSPORT INFRASTRUCTURE			R	- R	200 000 R	550 000 R	250 000 R	1 500 000 R	5 700 000 R
NMT FACILITIES									
Langeberg	LMPN001	Upgrade of traffic signals to accommodate pedestrians	R	- R	- R	300 000 R	300 000 R	- R	900 000 R
Langeberg	LMPN004	Scoping study for new pedestrian crossings in the Langeberg LM	R	- R	250 000 R	- R	- R	- R	250 000 R
Langeberg	LMPN005	Provision of street lighting in Ashton	R	- R	- R	- R	- R	250 000 R	250 000 R
Sub Total: NMT FACILITIES			R	- R	250 000 R	300 000 R	300 000 R	250 000 R	1 400 000 R
Langeberg LM			R	3 470 960 R	19 823 663 R	15 953 363 R	26 124 193 R	27 449 150 R	113 289 580 R

7. PUBLIC AND STAKEHOLDER CONSULTATION

The following public and stakeholder consultations were undertaken as part of the review process:

- Steering committee meetings with representatives of DM and LM and PGWC, where key milestones on project progress was presented and discussed.
- Key stakeholder interviews to obtain views on current ITPs strengths and weaknesses and current issues experienced with transport in the district.
- Interviews with public transport passengers and taxi drivers.
- Interviews with school principals to determine the extent of learner transport and the issues associated with this mode.
- Two rounds of public meetings in strategic locations in the District and Local Municipalities to inform public of the ITP process, obtain information on existing conditions and to present the proposed projects.

The summary findings of the interviews with stakeholders in Langeberg can be found in the Transport Needs Assessment chapter of this report. The contact person at Langeberg is Mr Nicolaas Koegelenberg, Manger: Civil Engineering. Tel: 023-626 8272, E-mail: Ewagner@langeberg.gov.za

In addition, the following organisations were also contacted:

- Long Distance Bus Companies
- The Department of Education which subsidises learner transport
- Schools in Ashton, Montagu, Bonnievale and Robertson
- SARCC /.PRASA
- Department of Tourism and Economic Development
- Department of Health and Emergency Medical Services
- SANRAL

7.1 Public Meetings

The towns forming part of included Robertson, Montague, Ashton, Bonnievale and McGregor. Two public meetings were held. The first public meeting was held on 24 March 2010 and the second meeting was held on the 22 June 2010. Both these meetings were held at the City Hall at Langeberg in Robertson and were attended by members of the public as well as key stakeholders from different sectors.

7.1.1 Objectives of the public participation process

The overall aim of the first meeting held on 24th March 2010 meeting was to ensure that any member of the public, as well as key identified interested parties have an adequate opportunity to provide input into Langeberg ITP.

More specifically the objectives of the first public meeting were to:

- Inform the members of the public and key stakeholders about the ITP for Langeberg
- Provide members of the public and key stakeholders with the opportunity to identify issues and concerns associated with transport in the area
- Identify possible solutions to key transport related issues

The objectives of the second public meeting held on 22 June 2010 were to

- Present progress/findings on data collection,
- Summarise the issues from the first public meeting and
- Present a list of projects identified to be included in the ITP.

7.1.2 Approach

The activities undertaken in preparation for the 1st public meeting are summarised as follows: In consultation with Langeberg, an appropriate date, time and venue was confirmed for the 1st public meeting. It was decided to hold the meeting in Robertson as it is considered the focal town within the municipality.

General public:

- An advertisement was placed for two consecutive weeks prior to the meeting in The Worcester Standard and one week prior in The Worcester Standard and The Gazette to invite the public to the meeting (see Annexure F1: Adverts placed in newspapers)
- A notice inviting members of the public to the meeting was placed on Langeberg's website
- Posters inviting members of the public to the public meeting were placed on the notice boards of different municipal offices' and libraries (see Annexure F2: Photographs of posters placed)

Key interest groups:

- A database of key stakeholders for Langeberg was compiled. The identification of these key stakeholders was done in consultation with the project team, the Cape Winelands District Municipality (CWDM) as well as Langeberg (see Annexure F3: Database of key stakeholders and public meeting attendees).
- Local municipality representatives were contacted to assist with finding contact details of key stakeholders. The internet was utilised in this regard as well.
- Once key stakeholders were identified and contacted, they were requested to assist in the identification of other key stakeholders that may be interested in attending the public meeting.
- The identified key stakeholders were contacted and invited to attend the public meeting either via The Environmental Partnership, the CWDM or via Langeberg.
- The Environmental Partnership used telephonic as well as email communication to invite the identified key public.
- The CWDM invited the taxi associations operating within Langeberg to the public meeting.

A representative of Langeberg was contacted and requested to invite the following key stakeholders to the public meeting:

- Representatives from the traffic department
- Representatives from the municipality's tourism board
- Municipal ward councillors
- IDP representatives
- Municipal officials

The Environmental Partnership invited the following key stakeholders to the public meeting:

- Long distance bus operators
- Representatives from the freight industry
- Representatives from the farming industry
- Representatives from the Western Cape Education Department
- Representatives from the Tourism Bureaus
- Representatives from the Black Business Forum

The activities undertaken at the public meeting:

The meeting was attended by the following key stakeholder representatives and members from the public (see Annexure F4: Attendance register for the public meeting)

- Local municipality representatives
- Various taxi associations operating in the area
- Western Cape Department of Education
- Private road users

During the public meeting, the meeting attendees were provided an opportunity to raise issues and provide possible solutions to these issues. Comments and issues raised at the public meeting were noted and incorporated into meeting minutes which are included in Annexure F: Public meeting minutes)

An opportunity to provide additional comments within the two weeks following the meeting was made possible by providing comment sheets for the meeting attendees. This could be returned by fax, e-mail, post or place it in a comments box provided at the municipality.

The activities undertaken in preparation for the 2nd public meeting are summarised as follows: In consultation with Langeberg, an appropriate date, time and venue was confirmed for the public meeting.

General public:

- An advertisement was placed one week prior to the meeting one week prior to the meeting in The Worcester Standard and one and a half weeks prior in Die Burger to invite the public to the meeting (see Appendix A: Adverts placed in newspapers)
- Posters inviting members of the public to the public meeting were placed on the notice boards of different municipal offices', shops and other key public areas (see Annexure F2: Photographs of posters placed)
- Key interest groups:
- A database of key stakeholders for Langeberg was updated. The identification of these key stakeholders was done in consultation with the project team, the CWDM (CWDM) as well as Langeberg (see Annexure F3: Database of key stakeholders and public meeting attendees).
- Local municipality representatives were contacted to assist with finding contact details of key stakeholders. The internet was utilised in this regard as well.
- Once key stakeholders were identified and contacted, they were requested to assist in the identification of other key stakeholders that may be interested in attending the public meeting.

- The identified key stakeholders were contacted and invited to attend the public meeting either via The Environmental Partnership, the CWDM or via Langeberg.
- Telephonic as well as email communication to invite the identified key public.
- Members of the public who attended the first public meeting. This was done two weeks prior to the meeting via e-mail. One week prior to the public meeting, a reminder e-mail was sent out. Follow-up phone calls were also undertaken.
- The CWDM invited the taxi associations operating within Langeberg to the public meeting.

A representative of Langeberg was contacted and requested to invite the following key stakeholders to the public meeting:

- Representatives from the traffic department
- Representatives from the municipality's tourism board
- Municipal ward councillors
- IDP representatives
- Municipal officials

The following key stakeholders to the public meeting:

- Long distance bus operators
- Representatives from the freight industry
- Representatives from the farming industry
- Representatives from the Western Cape Education Department
- Representatives from the tourism bureaus
- Representatives from the Black Business Forum
- Representatives from community safety
- Representatives from culture groups
- Representatives from disability groups
- Representatives from organisations for the elderly
- Representatives from faith based organisations
- Farm workers
- Representatives from gender based groups
- Representatives from health and HIV AIDS and poverty groups
- Representatives from human rights and democracy groups
- Representatives from sport groups
- Representatives from youth groups

The activities undertaken at the public meeting:

The meeting was attended by the following key stakeholder representatives and members from the public (see Annexure F4: Attendance register for the public meeting)

- Local municipality representatives
- Various taxi associations operating in the area
- Private road users
- Department of Health

During the public meeting, the meeting attendees were provided an opportunity to comment on the projects proposed as well as suggest other projects which need to be prioritised. Comments and issues raised at the public meeting were noted and incorporated into meeting minutes (see Annexure F5: Public meeting minutes)

An opportunity to provide additional comments within the two weeks following the meeting was made possible by providing comment sheets for the meeting attendees. This could be returned to The Environmental Partnership by fax, e-mail, post or placed in a comments box provided at the municipality.

7.1.3 Issues and concerns raised by interested and affected parties (I&AP's)

Stakeholders in Langeberg raised a number of issues and concerns regarding the ITP for the Cape Winelands. Comments were raised by I&APs mainly during the scheduled meetings, but stakeholders also had an opportunity to address concerns via fax and telephone. Full details of the comments received during the meetings for Langeberg is included in the minutes attached in Annexure F5

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ANNEXURE A : LIST OF SCHOOLS IN LANGEBERG

**ANNEXURE B : NEEDS ASSESSMENT: PUBLIC
PARTICIPATION PROCESS**

ANNEXURE B1 : INTERVIEWS WITH SCHOOL PRINCIPALS

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ANNEXURE E2 : PAVEMENT MANAGEMENT SYSTEM REPORTS

ANNEXURE F : PUBLIC MEETINGS

ANNEXURE F1 : ADVERTS PLACED IN NEWSPAPERS

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**ANNEXURE F3 : DATABASE OF KEY STAKEHOLDERS AND
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ANNEXURE F4 : PUBLIC MEETING ATTENDANCE REGISTER

ANNEXURE F5 : PUBLIC-MEETING MINUTES

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WATER SECTOR IDP REPORT

**WSDP WATER SECTOR INTEGRATION OUTFLOW:
Water Services Delivery, Resources & Infrastructure
Planning**

LANGEBERG LOCAL MUNICIPALITY: OCTOBER 2010



DRAFT DISCUSSION DOCUMENT

15 OCTOBER 2010

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WSDP WATER SECTOR INTEGRATION OUTFLOW:

Water Services Delivery, Resources & Infrastructure Planning

LANGEBERG LOCAL MUNICIPALITY

September 2010

EXPLANATION PAGE

For any Local Government to supply sustainable water services to their customers it is important to regard the issues listed below in planning and implementation to ensure continuous service delivery at the required standards. The issues are important aspects within the Water Services Development Planning process for the specific area of authority. The information provided below are required issues that need to be addressed in an IDP as reflected in the IDP Analysis Framework and was extracted from the detail WSDP Module 1 document compiled for the municipality.

Evidential Criteria / KPIs WATER	Evidential Criteria / KPIs SANITATION
Is the WSDP a) Adopted ? NO b) Has it been reviewed in last year.? NO	Does the IDP reflect knowledge, implementation, strategies and target programmes w.r.t. a) Backlogs b) Basic services provision c) Free basic sanitation d) Higher levels of service requirements e) Associated services eg. Schools and clinics
Do the IDP reflect knowledge, implementation, strategies and target programmes w.r.t. a) Backlogs b) Basic services provision c) Free basic water d) Higher levels of service requirements e) Associated services eg. Schools and clinics f) Water for growth and development.	Does the WDSP reflect multi - year projects to address the backlog?
Did the IDP integrate other sector programme's water requirements and specially address the impact on water planning. a) Housing b) Agriculture c) Mining d) Tourism e) Public Works programmes	Does the municipality have a sanitation implementation plan put in place?
	Does the municipality have the CAPEX Plan which indicates allocation for sanitation for the next three years?
	Does the municipality manage (a) waste water treatment?
	Is there a plan to manage untreated effluent? Has this Municipality determined the need / extent for basic services, (a) free basic and (b) higher level service?
	Is the sanitation service financially viable and is there a budget that is ring fenced?
	Is the licensing/contractual arrangement i.t.o of (a) WSA, (b) WSP, (c) WWTW working? YES

- Did the IDP provide a proper project list that addresses all the needs as identified in the future plans and implementation strategies?

Are there approved budgets in the MTEF allocations for all these projects?

- Is there a plan and budget for Operations and Maintenance for Water services and infrastructure?

- Is the water services programme financially viable w.r.t. Cost recovery, Metering and billing with an associated budget that is ring fenced?

Does the IDP address water resources development w.r.t. demand management, water balance issues and ecological reserve?

Are there specific references to the status of all contracting and licensing issues?

Does the IDP reflect the status of water quality monitoring w.r.t. drinking water quality, water resources quality and WWTW releases?

- Is there a plan and budget for Operations and Maintenance for sanitation services and infrastructure?

1. WSDP ADOPTION STATUS

Status	Modules: All/1/2/3 or 4	Date Submitted
Interim	Module1	15 March 2010
Draft	Module1	15 March 2010
Adopted		
Annual Review		
Public Viewed		

[Link to Topic 1 page 1 in WSDP Module 1](#)

2. KNOWLEDGE OVERVIEW

2.1. DEMOGRAPHICS

Number of People	102560
Total Number of Settlements	16
Total Number of People: Urban	66062
Total Number of People: Rural	36498
Total Number of Settlements: Urban	14
Total Number of Settlements: Rural	2

[Link to Page IV in WSDP Module 1](#)

2.2. ASSOCIATED SERVICES

Public amenities consumer types	Type	No. Of consumer units (HH)	No. Of consumer units with access to:				
			None or inadequate Supply		Communal supply	Controlled volume supply	Uncontrolled volume supply
			Water	Sanitation			
Police Stations	Urban	4	0	0	0	0	4
	Rural		0	0	0	0	
Magistrate offices	Urban	133	0	0	0	0	133
	Rural		0	0	0	0	
Businesses	Urban	705	0	0	0	0	705
	Rural		0	0	0	0	
“Dry” Industries	Urban	11	0	0	0	0	11
	Rural		0	0	0	0	
Office Buildings	Urban		0	0	0	0	
	Rural		0	0	0	0	
Prisons	Urban	2	0	0	0	0	2
	Rural		0	0	0	0	
Schools	Urban	67	0	0	0	0	67
	Rural		0	0	0	0	
Hospitals	Urban	25	0	0	0	0	25
	Rural		0	0	0	0	
Clinics	Urban	14	0	0	0	0	14

	Rural		0	0	0	0	
"Wet" Industries	Urban	13	0	0	0	0	13
	Rural		0	0	0	0	

[Link to Topic 3 Page 7 in WSDP Module 1](#)

2.3. BACKLOGS: WATER NEED DESCRIPTION & STATUS OF SUPPLY

Water Priority	Water Need Description	Settlements	Population	Households
Definition 1	No Water Services	1	2208	552
Definition 2	Inadequate RDP Infrastructure Need: Extension Required	2	2844	711
Definition 3	Inadequate RDP Infrastructure Need: Upgrade Required	0	0	0
Definition 4	Inadequate RDP Resource Need	0	0	0
Definition 5	Inadequate RDP Management Need: O&M Required	0	0	0
Definition 6	Inadequate RDP Management Need: Refurbishment Required	0	0	0
Definition 7	Inadequate Housing Interim Solutions	0	0	0
Definition 8	Inadequate Housing Permanent Solutions	9	21055	5263
Adequate:	Standpipe	18	76454	19124
Adequate:	Yard Connection			
Adequate:	House Connection			
TOTALS		18	76454	19124

[Link to Page IV & Topic 3 Page 5 in WSDP Module 1](#)

2.4. PLANNING STRATEGIES FOR INADEQUATE SUPPLIES

Water Priority & Levels of Supply		Future Plan to address the issue		Future Strategy to address the issue	
Water Priority	Water Need Description	In Place?	Sufficient?	In Place?	Sufficient?
Definition 1	No Water Services	Y	Y	Y	Y
Definition 2	Inadequate RDP Infrastructure Need: Extension Required	Y	Y	Y	Y
Definition 3	Inadequate RDP Infrastructure Need: Upgrade Required	N/A	N/A	N/A	N/A
Definition 4	Inadequate RDP Resource Need	N/A	N/A	N/A	N/A
Definition 5	Inadequate RDP Management Need: O&M Required	N/A	N/A	N/A	N/A
Definition 6	Inadequate RDP Management Need: Refurbishment Required	N/A	N/A	N/A	N/A
Definition 7	Inadequate Housing Interim Solutions	Y	Y	N/A	N/A
Definition 8	Inadequate Housing Permanent Solutions	Y	Y	Y	Y

[Link to Page IV & Topic 3 Page 5 in WSDP Module 1](#)

2.5. FUTURE PLANS TO ADDRESS SERVICE DELIVERY & GROWTH AND DEVELOPMENT

Water Priority	Water Need Description	Are the future plans indicated in 2.4 sufficient to address service delivery at :		Do future plans cater for the Growth & Development strategy	Are these plans included in Module 3 of the WSDP <i>(Provide reference)</i>
		RDP LEVEL	HIGHER LEVEL		
Definition 1	No Water Services	Y	Y	Y	
Definition 2	Inadequate RDP Infrastructure Need: Extension required	Y	Y	Y	
Definition 3	Inadequate RDP Infrastructure Need: Upgrade required	N/A	N/A	N/A	
Definition 4	Inadequate RDP Resource Need	N/A	N/A	N/A	
Definition 5	Inadequate RDP Management Need: O&M required	N/A	N/A	N/A	
Definition 6	Inadequate RDP Management Need: Refurbishment required	N/A	N/A	N/A	
Definition 7	Inadequate Housing Interim Solutions	Y	Y	Y	
Definition 8	Inadequate Housing Permanent Solutions	Y	Y	Y	

[Link to section 1.1 in WSDP Module 1](#)

2.6. FREE BASIC WATER

Is there a Free Basic Services Policy in Place?: YES

Subsidy Targeting Approach	Current % of HH's requiring FBW	% of HH Targeted: Water	% of HH Targeted: Sanitation
Rising block tariff	100	100	N/A
Service level targeting	N/A	N/A	N/A
* Credits to Water account	N/A	N/A	N/A
* Credits to Sanitation account	N/A	N/A	N/A
* Number of units requiring free basic services (Water)	100	100	N/A
* Number of units requiring free basic services (Sanitation)	N/A	N/A	N/A
Number of units with access to free basic services	N/A	N/A	N/A

[Link to Topic 10 Page 33 in WSDP Module 1](#)

3. SECTOR INTEGRATION

Consultation and Integration with other Sector Plans to incorporate their needs

Sector	Interaction (None, Limited, Partial, Good, Excellent)
Agri-Culture	None
Mining	None
Tourism	Partial
Public Works programmes	
Other 1: IDP	Good
Other 2: SDF	Good
Other 3: Master Plans	Good
Other 4: ISP	Good

INTERACTION

To which extent has interaction taken place?

None - 0%

Limited - 10%

Partial - 30%

Good - 75%

Excellent - 90%

[Link to Topic 1 Page 3 in WSDP Module 1](#)

4. PROJECT LISTS

4.1. TOTAL NUMBER OF PROJECTS

Total number of projects	18
Total number of projects: Water	14
Total number of projects: Sanitation	4

4.2. LEVELS OF SERVICE

Total number of projects aimed at Basic Levels of Services	0
Total number of projects aimed at Higher levels of Services	0
Total number of projects aimed at System Improvement	18

4.3. POPULATION BENEFITTING

	Water	Sanitation
Basic Levels of Services	0	0
Higher levels of Services	0	0
System Improvement	322269	42268

4.4. FUNDING SOURCES (RM)

MIG	9.944
RBIG	0
ACIP	0
DROUGHT RELIEF	0
MUNICIPAL INTERVENTION	0
DWA	0

Own/Other	0
TOTAL	9.944

4.5. DETAIL PROJECT LISTS

Description		Services Type	Programme type	Project Primary Class	Proposed project funding (RM)		
Project number	Name & Description				09/10	10/11	11/12
		W: Water S: Sanitation	Water Services WIB: Internal Bulk WRB: Regional Bulk WT: Treatment WWT: Waste Water Treatment WR: Reticulation SS: Sanitation Service H: Housing O: Other	B - Basic H - Higher S - System Improvement	Total	Total	Total
BR0910004	Bonnievale: Upgrading of WTW's (BC0840/W/09/11)	Water	WS: SW, Purific	System Improvements	0.00	4.80	0.00
BR0708009	Montagu: Ashbury: New Reservoir (WC0529/S/07/09)	Water	WS: Internal Bulk	System Improvements	0.00	0.00	0.00
BR0809002	Upgrading of sewerage rising main - Nkqubela	Sanitation	Sanitation Services	System Improvements	0.00	0.00	0.00
BR0809001	Upgrading of existing sewer network Robertson	Sanitation	Sanitation Services	System Improvements	0.00	0.00	0.00
BR0809004	Sand filters water treatment work Ashton	Water	WS: SW, Purific	System Improvements	0.00	0.00	4.68
BR0809011	Upgrading of existing water treatment Network Robertson	Water	WS: SW, Purific	System Improvements	0.00	0.00	0.00
BR0809006	Replacement of water valves	Water	WS: Reticulation	System Improvements	0.00	0.00	0.00
BR0809009	Upgrading of water network McGregor	Water	WS: Reticulation	System Improvements	0.00	0.00	0.00
BR0809014	McGregor Water treatment and reservoir (WC0606/W/08/10)	Water	WS: SW, Purific	System Improvements	3.15	0.00	0.00
BR0809013	Replacement of water Valves Zolani	Water	WS: Reticulation	System Improvements	0.00	0.00	0.00
BR0809010	Upgrading of Montagu WTWs (WC0732/W/09/10)	Water	WS: SW, Purific	System Improvements	2.95	3.55	0.00
BR0910005	McGregor sewer reticulation	Sanitation	Sanitation Services	System Improvements	0.00	4.50	1.50
BR0910006	Replacement of water pump line to reservoir	Water	WS: Internal Bulk	System Improvements	0.00	0.40	0.00
BR0910007	Replacement and upgrading of water network: Langeberg (WC0718/W09/10)	Water	WS: Reticulation	System Improvements	1.99	3.08	1.23
BR0910008	McGregor geophysics investigation Dam Linkage	Water	Other	System Improvements	0.00	0.10	0.00
BR0910009	Replacement of pump line to Ashton reservoir	Water	WS: Internal Bulk	System Improvements	0.00	0.35	0.00
BR0910002	Montagu: Bulk Water Supply Ph 2&3 (0186/W/05/07)	Water	WS: Internal Bulk	System Improvements	1.00	6.93	0.00
BR0910003	Ashton: Upgrade Waste Water Treatment Works (0208/S/05/07)	Sanitation	Sanitation Services	System Improvements	0.86	0.55	0.00

[Link to Topic 13 Page 41 – 43 \(optional\) in WSDP Module 1](#)

4.6. APPROVED BUDGETS IN THE MTEF ALLOCATIONS

Are there approved budgets in the MTEF allocations for all these projects?

Income Subsidies From:	Housing	Trading Services							Grand Total
		Environmental Protection	Waste Management (solid waste)	Waste water management	Road transport	Water	Electricity	Other Trading Services	
	RM	RM	RM	RM	RM	RM	RM	RM	RM
National Government									
Provincial Government									
Local Government									
Other									
Grants (including the equitable share) from:									
National Government									
Provincial Government									
Local Government									
Other									
Spent conditional grants									
Metering & Billing Income									
Other Income									
Deficit									
Total Income									

[Link to Topic 10 Page 30 in WSDP Module 1](#)

5. PREPARATION & MAINTENANCE

Is there an Operation & Maintenance Plan in place?: YES

5.1. WATER SERVICES INFRASTRUCTURE:

Existing Groundwater Infrastructure

Staff to perform the function	Information not included in the WSDP	Z - Zero Compliance 1 - Below minimum requirement 2 - Minimum basic requirement 3 - Above minimum requirement N/R Not Required
Budget to perform the function		
Sufficient for:		
RDP		
Higher level services:		
the Growth & Development Strategy of the WSA:		

Existing Surface water Infrastructure

Staff to perform the function	Information not included in the WSDP
Budget to perform the function	
Sufficient for:	
RDP	
Higher level services:	
the Growth & Development Strategy of the WSA:	

Existing Water Treatment Works Infrastructure

Staff to perform the function	Information not included in the WSDP
Budget to perform the function	
Sufficient for:	
RDP	
Higher level services:	
the Growth & Development Strategy of the WSA:	

Existing Pump Station Infrastructure

Staff to perform the function	Information not included in the WSDP
Budget to perform the function	
Sufficient for:	
RDP	
Higher level services:	
the Growth & Development Strategy of the WSA:	

Existing Bulk Pipeline Infrastructure

Staff to perform the function	Information not included in the WSDP
Budget to perform the function	
Sufficient for:	
RDP	
Higher level services:	
the Growth & Development Strategy of the WSA:	

Existing Tower & Reservoir Infrastructure

Staff to perform the function	Information not included in the WSDP
Budget to perform the function	
Sufficient for:	
RDP	
Higher level services:	
the Growth & Development Strategy of the WSA:	

[Link to Topic 6 Page 14 - 17 in WSDP Module 1](#)

6. FINANCIAL VIABILITY, INCOME, METERING & BILLING

6.1. Residential: Water

	URBAN	RURAL
Units Supplied	N/A	No metering and billing takes place.
Metered %	100	
Billed %	100	
Not Metered	0	
Income Received %	88	
Non Payment %	12	

[Link to Topic 10 Page 34 in WSDP Module 1](#)

6.2. Industrial: Water

	URBAN	RURAL
Units Supplied	N/A	No metering and billing takes place.
Metered %	N/A	
Billed %	N/A	
Not Metered	N/A	
Income Received %	N/A	
Non Payment %	N/A	

[Link to Topic 10 Page 34 in WSDP Module 1](#)

6.3. Commercial: Sanitation

	URBAN	RURAL
Units Supplied	N/A	No metering and billing takes place.
Metered %	N/A	
Billed %	100	
Not Metered	100	
Income Received %	74	
Non Payment %	26	

[Link to Topic 10 Page 35 in WSDP Module 1](#)

6.4. Industrial: Sanitation

	URBAN	RURAL
Units Supplied	N/A	No metering and billing takes place.
Metered %	N/A	
Billed %	N/A	
Not Metered	N/A	
Income Received %	N/A	
Non Payment %	N/A	

[Link to Topic 10 Page 35 in WSDP Module 1](#)

7. WATER RESOURCE DEVELOPMENT

7.1. Water resources development w.r.t. demand management, water balance issues and ecological reserve?

Is there Water conservation and demand management strategy in place?:	YES
Is there Budget to perform the function	YES
Sufficient Personnel perform the function	YES
Adequate for Higher Level Services	YES
Does the municipality have a strategy in place to meet 2014 targets?	YES

7.2. WATER RESOURCE MANAGEMENT

Conjunctive use of surface – and groundwater (Number of settlements)

Ground Water	0
Surface Water	0
Conjunctive Use	0

[Link to Topic 8 Page 22 in WSDP Module 1](#)

7.3. WATER BALANCE & LOSSES

Water Losses (%)

Raw Water Bulk Loss	Unknown
Treated Water Loss :Bulk	Unknown
Treated Water Loss :Internal	Unknown

[Link to Topic 8 Page 24 in WSDP Module 1](#)

Water Balance (Volume Units in Mℓ/d)

Bulk	Unknown
Usage	Unknown
Discharged	Unknown
Balance value	

[Link to Topic 8 Page 24 in WSDP Module 1](#)

8. CONTRACTING & LICENSING

References to the status of all contracting and licensing issues

FUNCTIONS	% in place
GENERAL FUNCTIONS	100%
BULK & RETAIL FUNCTIONS	100%
WATER SERVICES PROVIDERS	100%

[Link to Topic 11 Page 37 – 38 in WSDP Module 1](#)

8.1. Contracting issues

GENERAL FUNCTIONS	Policy in Place	Budget to perform the function	Personnel to perform the function	Gazetted	Council approved	Adequate for Basic Services
Policy development						
Indigent Policy	Y	Y	Y	N	Y	Y
Free basic water policy (including equitable share)	Y	Y	Y	N	Y	Y
Free basic sanitation policy	Y	Y	Y	N	Y	Y
Procurement policy	Y	Y	Y	N	Y	Y
Credit control & debt collection policy	Y	Y	Y	N	Y	Y
Regulation and tariffs						
Water Services bylaws with conditions as required by the Water Services Act	Y	Y	Y	N	Y	Y
Mechanisms to ensure compliance with bylaws	Y	Y	Y	N	Y	Y
Tariff structure	Y	Y	Y	N	Y	Y
Tariffs promulgated	Y	Y	Y	N	Y	Y

Water Services Providers	Name	Contract type	% Consumers served by the WSP
Retail water	Breede Valley Local Municipality	N/A	Urban Only
Sanitation	Breede Valley Local Municipality	N/A	22

[Link to Topic 11 Page 37 – 38 in WSDP Module 1](#)

8.2. Licensing issues

CURRENT Water sources	Number of sources	Current abstraction (Mm³/A)	Licensed abstraction (Mm³/A)	Community water supply	
				Rural	Urban
Groundwater	3	259	836	N/A	N/A
Surface Water	6	14108	15011	N/A	N/A
External Sources (Bulk purchase)	0	0	0	N/A	N/A
Water returned to source	2	4025	Unk	N/A	N/A

FUTURE Water sources	Number of sources	Current abstraction (Mm³/A)	Licensed abstraction (Mm³/A)	Community water supply	
				Rural	Urban
Groundwater	3	259	836	N/A	N/A
Surface Water	6	14108	15011	N/A	N/A
External Sources (Bulk purchase)	0	0	0	N/A	N/A
Water returned to source	2	4025	Unk	N/A	N/A

[Link to Topic 9 Page 26 in WSDP Module 1](#)

9. QUALITY & MONITORING

9.1. MONITORING

% Compliance to drinking water acceptable limits 100%

% Compliance to effluent release acceptable limits 89.3%

9.2. WATER QUALITY

Is there a Water Quality Plan in Place YES

WATER QUALITY	% or Number of / Yes No	Policy in Place	Budget to perform the function	Personnel to perform the function	Gazetted	Council approved	Adequate for Basic Services
Reporting on quality of water taken from source: urban & rural	Y	Y	Y	Y	N	N	Y
Quality of water returned to the resource: urban	Y	Y	Y	Y	N	N	Y
Quality of water returned to the resource: rural	Y	Y	Y	Y	N	N	Y
Is there a Pollution contingency measures plan in place?	N	Y	Y	Y	N	N	Y
Quality of water taken from source: urban - % monitored	Y	Y	Y	Y	N	N	Y
Quality of water taken from source: rural - % monitored	Y	Y	Y	Y	N	N	Y
Quality of water returned to the source: urban - %	Y	Y	Y	Y	N	N	Y
Quality of water returned to the source: rural - %	Y	Y	Y	Y	N	N	Y
Are these results available in electronic format? (Yes/no)	Y	Y	Y	Y	N	N	Y
% Time (days) within SABS 241 standards per year	95	Y	Y	Y	N	N	Y

[Link to Topic 9 Page 27 in WSDP Module 1](#)