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Stellenbosch Local Municipality: Capital Expenditure Framework - Update

Development of a Long-term Financial Plan and Capital Expenditure Framework in line with the provision of system driven support for integrated development planning, project prioritisation, budgeting, implementation and performance monitoring.

Version: Draft_2.00
26 March 2020



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Foreword

This document contains the update of the first-generation CEF for Stellenbosch Local Municipality. It will be tabled for approval by the Stellenbosch Local Municipality before formal submission to the Department of Cooperative Governance and Traditional Affairs (COGTA).

In 2019 Stellenbosch Municipality submitted the First Capital Expenditure Framework (CEF) to COGTA allowed the municipality to access grant funding from the IUDG as of 1 July 2019. The 2020 CEF is the first Review of the 2019 CEF taking into account changes in the capital investments planned for the next 10 years, as determined through revisionary processes of the municipality. The 2020 CEF Review will be submitted to CoGTA by 31 March 2020.

The principles of integrated planning have been incorporated into many municipal strategies and sector plans over the past decade. The implementation of these plans and strategies however, remains a challenge. The intersection between the complexity of integrated planning at local government level, the need for technological tools to simplify this complexity, and the need for a framework to move towards an improved planning and delivery model has led to the development of the Capital Expenditure Framework (CEF) concept.

The role of a CEF is to provide a framework which coordinates the outcomes of a multitude of planning initiatives and documents at local government level. This is to ensure that capital investment and project / programme implementation is guided by an over-arching, long-term strategic, spatial, financial and socio-economic logic. Key informants to the CEF are:

- the national and provincial strategies and policies (i.e. the NDP and Medium Term Strategic Framework (MTSF);
- the Provincial SDF or Growth and Development Strategy (GDS);
- municipal-level policies and strategies, typically embodied by the Integrated Development Plan (IDP), and;
- Spatial Development Framework(SDF), Integrated Zoning Scheme and the Stellenbosch Environmental Management Framework and other departmental sector plans.

Collectively these plans provide a spatial framework that local government must use to guide investment and development in order to realise short, medium and long-term developmental and socio-economic goals.

The CEF on its own is not the only mechanism that should enable integrated urban development. The intention of the CEF is to serve as a catalyst to streamline programme- and project-level preparation, prioritisation and implementation, and to overcome hierarchical and silo-based approaches.

As the first Review of the CEF for Stellenbosch Local Municipality and one of the first CEFs in South Africa, this document sets Stellenbosch Local Municipality on a new planning approach and development path towards improved cross-sectoral integrated planning, comprehensive investment needs assessment, long-term investment and financial planning and multi-criteria project prioritisation and budgeting.

Disclaimer

This document contains forward looking statements. While due care has been used in the preparation of forecasted information, the actual outcomes may differ from the forecasts. Whilst reasonable care was taken in the development of this document, forecasts and recommendations made in this document may be influenced by external factors or events that may occur subsequent to the development of this document, or by information or events that may not have been disclosed or known and therefore not incorporated at the time of the development of this document.

The information presented in the report is based on data that was provided by the municipality and other data that was obtained from provincial and national sources that are in the public domain. The author does not warrant or guarantee that there will be no change to relevant facts and circumstances in the future or that future events or outcomes will transpire.

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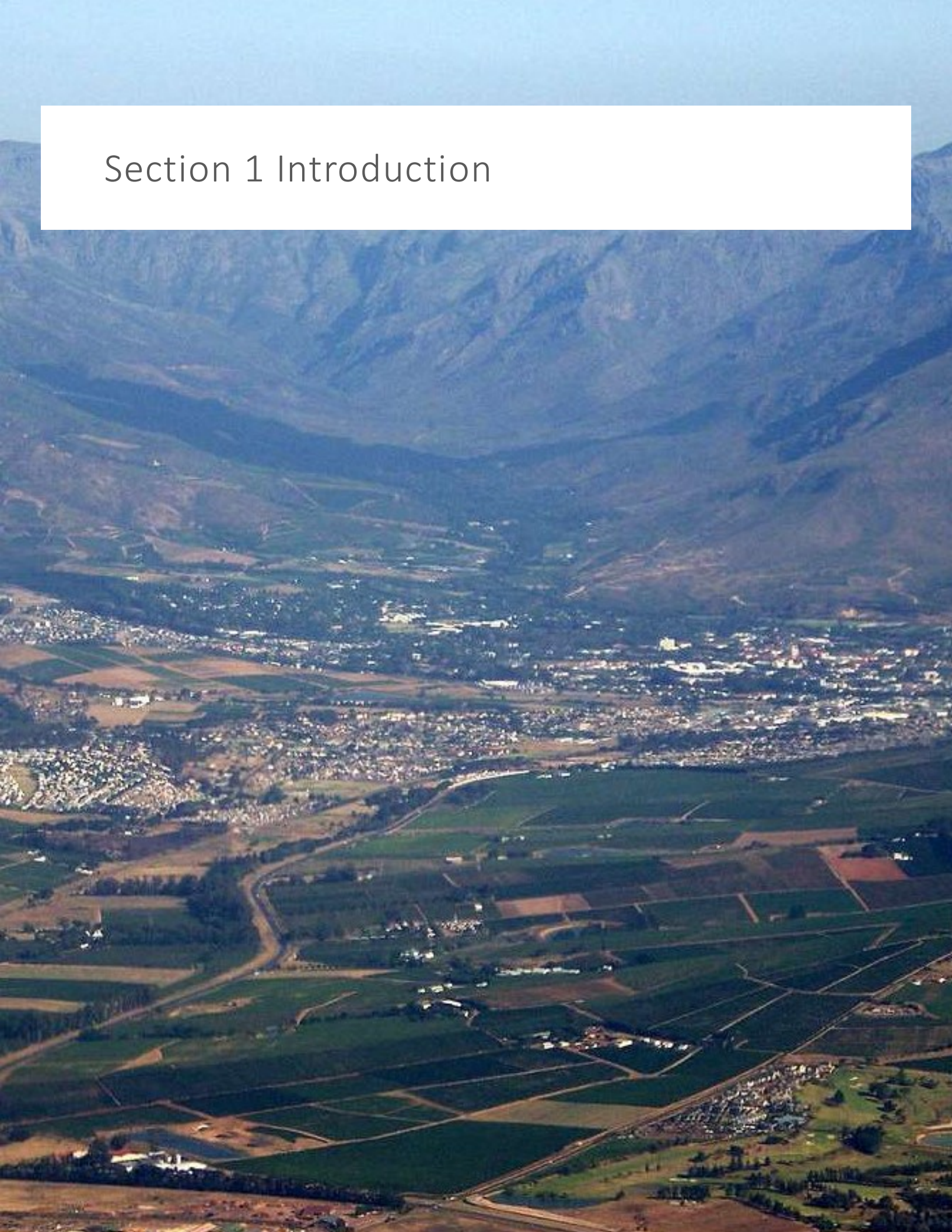
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Table of Abbreviations

AFS	Annual Financial Statements
CBD	Central Business District
CEF	Capital Expenditure Framework
CEIP	Capital Expenditure Implementation Plan
CIF	Capital Investment Framework
CLS	Community Library Services
COGTA	Cooperative Governance and Traditional Affairs
CPM	Capital Prioritisation Model
CRC	Current Replacement Cost
CRR	Capital Replacement Reserves
DORA	Division of Revenue Act
DRC	Depreciated Replacement Cost
EIM	Economic Impact Module
EUL	Economic Useful Life
FA	Functional Area
GDP	Gross Domestic Product
GDS	Growth and Development Strategy
GVA	Gross Value Add
ICDG	Integrated City Development Grant
ICM	Intermediate City Municipality
IDP	Integrated Development plan
IIF	Integrated Infrastructure Investment Framework
INEP	Integrated National Electrification Programme
IUDF	Integrated Urban Development Framework
IUDG	Integrated Urban Development Grant
LOS	Level of Service
LTFS	Long-term Financial Strategy
MFMA	Municipal Finance Management Act
MRRI	Municipal Revenue Risk Indicator
MSA	Municipal Systems Act
MSCOA	Municipal Standard Chart of Accounts
MTREF	Medium Term Revenue Expenditure Framework
MTSF	Medium Term Strategic Framework
NDP	National Development Plan
NDPG	Neighbourhood Development Partnership Grant
PDA	Priority Development Area
PTIS	Public Transport Infrastructure Systems Grant
RUL	Remaining Useful Life
SALGA	South African Local Government Association
SAPS	South African Police Services
SEZ	Special Economic Zone
SDF	Spatial Development Framework
SFA	Sub-functional Areas
SIG	Social infrastructure Grant

SIPDM	Standards for Infrastructure Procurement and Delivery Management
SPLUMA	Spatial Planning and Land use Management Act
STATSSA	Statistics South Africa
USDG	Urban Settlement Development Grant

Section 1 Introduction



1 Introduction

1.1 Legislative context of a Capital Expenditure Framework

1.1.1 The Constitution of South Africa

The term “Capital Expenditure Framework” (CEF) became a municipal mandate with the promulgation of the Spatial Planning and Land Use Management Act, Act 16 of 2013 (SPLUMA) section (21)(n). However, the concept of a Capital Investment- or Capital Expenditure Framework has been eluded to in several other preceding legislative and policy instruments. The legislative context is best understood when considering a brief history of municipal planning, with specific reference to IDPs, SDFs, and Municipal Budgeting. To understand the evolution of municipal planning in this context, the point of departure is the Constitution of South Africa.

Section 153 of the Constitution of South Africa states that a municipality must structure and manage its administration, budgeting and planning process to prioritise basic needs and to promote social and economic development. The Constitution instructs municipalities to have a developmental focus and that this should be achieved through the planning- and budgeting processes.

1.1.2 Municipal Planning Processes

The Local Government Transitions Act (Act 209 of 1993) was the first act stating that a municipality should compile an IDP - it did however not define the content or nature thereof.

The Local Government Transitions Act Second Amendment (Act 97 of 1996) then defined an IDP as a plan aimed at the integrated development and management of the area of jurisdiction of a municipality. Section (10)(c) specifically showed that IDPs would promote rational and developmentally oriented budgeting, monitoring and tracking of development. A similar definition of an IDP was included in the Local Government Municipal Structures Act (Act 117 of 1998). This definition further underlined the inter-relationship between the planning and budgeting process.

The Local Government Municipal Systems Act (MSA) (Act 32 of 2000) was a successor to the Local Government Municipal Structures Act (Act 117 of 1998). The MSA was deemed the most important statute furthering all aspects of integrated development planning. Chapter 5 of the act is titled “Integrated Development Planning” and provides that municipalities must undertake developmental-oriented planning. This is to ensure that the objectives of local government and its developmental duties (as set out in the constitution) are achieved.

The act states that an IDP is the principal, single, inclusive and strategic planning instrument of a municipality. One of the objectives of the IDP is to align the resources and capacity of the municipality with implementation of the plan. This forms the policy framework and general basis on which annual budgets must be based, and should be compatible with national and provincial development plans and planning requirements. The core components and content of an IDP must reflect the following:

- The municipality’s vision for its own long-term development of the municipality;
- An assessment of the existing level of development in the municipality;
- The municipality’s development priorities and objectives;
- The municipality’s development strategies;
- The municipality’s SDF;

- The municipality's operational strategies;
- An applicable disaster management plan;
- A financial plan, and;
- Performance indicators and performance targets.

In section (5)(1)(a) of SPLUMA (Act 16 of 2013), it is stated that municipal planning consists of the compilation, approval, and review of an IDP. SPLUMA further states in Part E (20)(2) that the municipal SDF must be prepared as part of a municipality's IDP in accordance with the provisions of the MSA (Act 32 of 2000).

Section 21 of SPLUMA prescribes what the content of a municipal SDF must be. Section 21(n) is of particular importance as it states that a municipal SDF must determine a CEF for the municipality's development programmes, depicted spatially.

1.1.3 Municipal Budgeting Processes

The Municipal Systems Act (Act 32 of 2000) states that an IDP must consist of a financial plan. The Municipal Planning and Performance Management Regulations (Regulation 2 of 2001) describes the details of such a financial plan and states in section (3) that the financial plan in a municipality's IDP must:

- Include budget projections;
- Indicate the financial resources that are available for capital project developments, and;
- Include a financial strategy that defines sound financial management and expenditure control, as well as ways and means of increasing revenues and external funding for the municipality and its development priorities and objectives.

After the MSA (Act 32 of 2000) defined what should be done in terms of the IDP and financial planning, the Local Government: Municipal Finance Management Act (MFMA) (Act 56 of 2003) was established to secure sound and sustainable management of the financial affairs of municipalities and other institutions in the local sphere of government and to establish treasury norms and standards for local government. The MFMA (Act 56 of 2003) was revised in 2011 and redefined its aim to enable improved processes of municipal planning budgeting, allowing for more informed decisions.

In order to achieve the aim of the MFMA (Act 56 of 2003), the MFMA prescribes the typical content of municipal budgets in chapter 4. In section 17(3)(b) the act states that when an annual budget is tabled it must be accompanied by measurable performance objectives for revenue from each source and for each vote in a budget, taking into account the municipality's IDP. This means that a municipal budget cannot be drafted in isolation of the IDP. Furthermore, section 21 of the act states that a mayor must co-ordinate the processes for preparing the annual budget and for reviewing the municipality's IDP in order to ensure that the tabled budget and the IDP are mutually consistent and credible.

Section 7(1) of the Municipal Budget and Reporting Regulations states that policies that affect or are affected by the annual budget of a municipality should include a policy related to a Long-term Financial Plan.

1.1.4 The relationship between the planning and budgeting processes

From the legislative context provided in this section, the following municipal mandate imperatives are highlighted:

- That the Constitution of South Africa demands planning and budgeting processes in local government (Constitution of South Africa, Act 108 of 1996);
- That the Constitution of South Africa demands local government to be developmental and resource efficient (Constitution of South Africa, Act 108 of 1996);
- That an IDP is deemed as the principal, single, inclusive and strategic planning instrument of a municipality and that it should comprise of a financial plan as well as a SDF (Municipal Systems Act, 32 of 2000);
- That the municipal budgeting process cannot stand alone from the IDP process (Municipal Finance Management Act, 56 of 2003), and;
- That the SDF must contain a CEF that is spatially referenced (Spatial Planning and Land Use Management Act, 16 of 2013).

In April 2016 Cabinet approved the Integrated Urban Development Framework (IUDF). The IUDF is coordinated by the Department of Cooperative Governance (COGTA). The IUDF capital programme requires alignment by participating municipalities wishing to access the Integrated Urban Development Grant (IUDG). This required alignment should be achieved through the development of a long-term CEF, with a 10-year planning horizon. According to the 2018 COGTA guideline on preparing a CEF, a CEF is the outcome of strategic prioritisation within the available affordability envelope of a municipality, based on a long-term financial plan. Furthermore, the CEF must:

- Translate the priorities identified in the SDF, into capital programmes;
- Promote long-term infrastructure planning;
- Promote infrastructure planning that is better integrated across sectors and spheres and within space, and;
- Promote a more integrated approach to planning within municipalities that brings together technical, financial and planning expertise.

1.2 The role of the CEF in relation to the IUDF

The IUDF is a policy initiative of the Government of South Africa, coordinated by COGTA, which seeks to foster an understanding between local government and civil society on how best to manage urbanisation and achieve the goals of economic development, job creation and improved living conditions within municipalities.

The IUDF marks a new deal for South African cities and towns and sets a policy framework to guide the development of inclusive, resilient and liveable urban settlements, while addressing the unique conditions and challenges facing South Africa's cities and towns. It advocates the effective management of urbanisation so that the increasing concentration of an economically active population translates into higher levels of economic activity, greater productivity and higher rates of growth, thereby transforming our South African cities into engines of growth and prosperity.

The key outcome of the IUDF is spatial transformation. The identified policy levers and priorities (refer to Figure 1) are crucial for maximising the potential of urban areas, by integrating and aligning investments in a way that improves the urban form. The CEF is therefore the recommended mechanism for local government to achieve spatial transformation by aligning capital investment in such a way that the key outcomes of the IUDF are achieved.

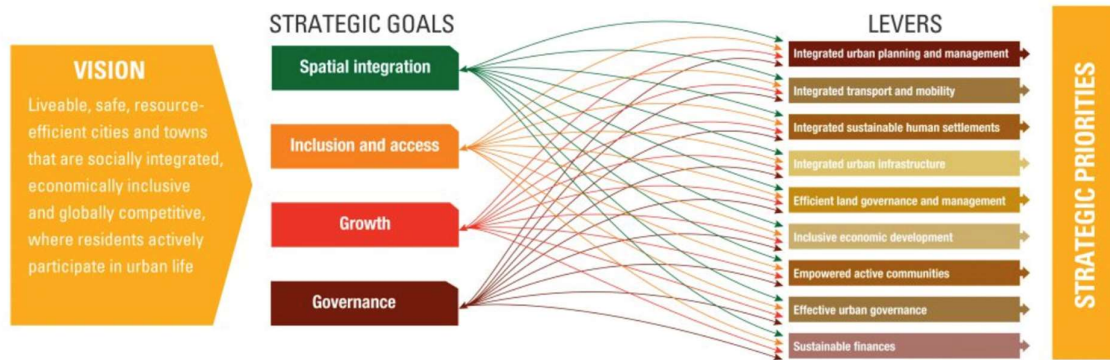


Figure 1: Core elements of the IUDF

1.3 The role of the CEF in relation to the IUDG

A review of Local Government Infrastructure Grants was initiated in October 2013, led by National Treasury together with the COGTA, the Financial and Fiscal Commission, the South African Local Government Association (SALGA), and the Department of Performance Monitoring and Evaluation. The review envisioned a grant system that should include:

- Greater differentiation in the type of grants provided to different municipalities;
- A move from focussing on rolling out new infrastructure to increased focus on the management, maintenance and renewal of existing infrastructure;
- An approach to ensure greater value for money for the funds spent, and;
- A framework to provide coherence and consistency in the management of the grant system.

The IUDF is consistent with-, and reinforces the findings of the Review of Local Government Infrastructure Grants. As a result, the IUDG is slated to be introduced in the 2019/20 Division of Revenue Act (DORA) as a consolidated grant for Intermediate City Municipalities (ICMs)¹. The aim of the IUDG is to support spatially aligned public infrastructure investment that will lead to functional and efficient urban spaces and to ultimately unlock urban growth. In terms of the IUDG description, the purpose of the grant is to:

- Provide funding for public investment in infrastructure for the poor;
- Promote increased access to municipal owned sources of capital finance in order to increase funding for public investment in economic infrastructure;
- Ensure that public investments are spatially aligned with the local government development vision, and;

¹ Intermediate City Municipalities was defined by COGTA through the IUDF programme.

- Promote the sound management of the assets delivered.

According to the IUDG policy framework, a CEF is a comprehensive, high-level, long-term infrastructure plan that flows from a SDF, which estimates the level of affordable capital investment by the municipality over the long-term. The CEF is therefore the municipal instrument to realise the agenda of the IUDF.

1.4 The role of the CEF

A Capital Expenditure Framework is a consolidated, high-level view of infrastructure investment needs in a municipality over the long-term (10 years) that considers not only infrastructure needs but also how these needs can be financed and what impact the required investment in infrastructure will have on the financial viability of the municipality going forward.

Guide to preparing an Infrastructure Investment Framework, SALGA, 2017, page 2

The role of a CEF is to frame the outcomes of a multitude of planning documents within the municipality in order to ensure that implementation is guided by a strategic, spatial, financial and socio-economic logic. A CEF serves not only as a performance evaluation mechanism, but also as a rationale towards capital investment planning that provides business intelligence, data validation, project synchronisation and prioritisation. Furthermore, the role of the CEF is to strengthen the process currently institutionalised within the municipality, and to show how capital investment matures from planning to implementation through various stages of governance.

The primary outputs of the CEF can be best understood in terms of the process flow shown in Figure 2 below:

- Firstly, prior to subjecting projects applying for budget to a prioritisation and budgeting process, the municipality must first identify all capital demand or needs that are required over the long-term within their jurisdiction, irrespective whether the capital demand stems from local, provincial or national spheres of government. The Integrated Infrastructure Investment Framework (IIIF) or Capital Investment Framework (CIF) therefore aims to gather the long-term capital demand required for the municipality to function optimally.
- The next step is to consolidate the capital demand into one synthesised plan depicted spatially, along with all the budget reform requirements emanating from the MFMA and National Treasury (i.e. SIPDM project life-cycle planning, mSCOA segments etc.).
- The SDF is then unpacked to identify the spatial vision as well as the functional areas and priority development areas for the municipality in order to prepare a socio-economic and developmental profile for the municipality.
- The socio-economic and developmental profiling serves as a primary input to the demand quantification and setting of programmatic long-term infrastructure investment targets required realise the spatial vision of the municipality.
- The spatial development vision of the municipality, along with other strategic, financial, policy, socio-economic and technical objectives are used to prepare a prioritisation model in order to rank or score capital demand (projects) based on their alignment to the spatial, strategic, financial, policy, socio-economic and technical objectives of the municipality.

- The process of setting up a budget for the CEF draws from the outcomes of the long-term financial plan whereby the affordability envelope and the optimal funding mix for capital investment for the municipal is modelled based on key socio-economic and population growth projections. Once the affordability envelope is known, the 10-year capital budget can be prepared with inputs from the project prioritisation results.
- The final step in preparing the CEF is to define an implementation programme for the medium term – in line with the Medium Term Expenditure Framework (MTEF). The medium-term implementation plan of the CEF is known as the Capital Expenditure Implementation Programme (CEIP) which is essentially the first three budget years of the 10-year Capital Expenditure Framework.

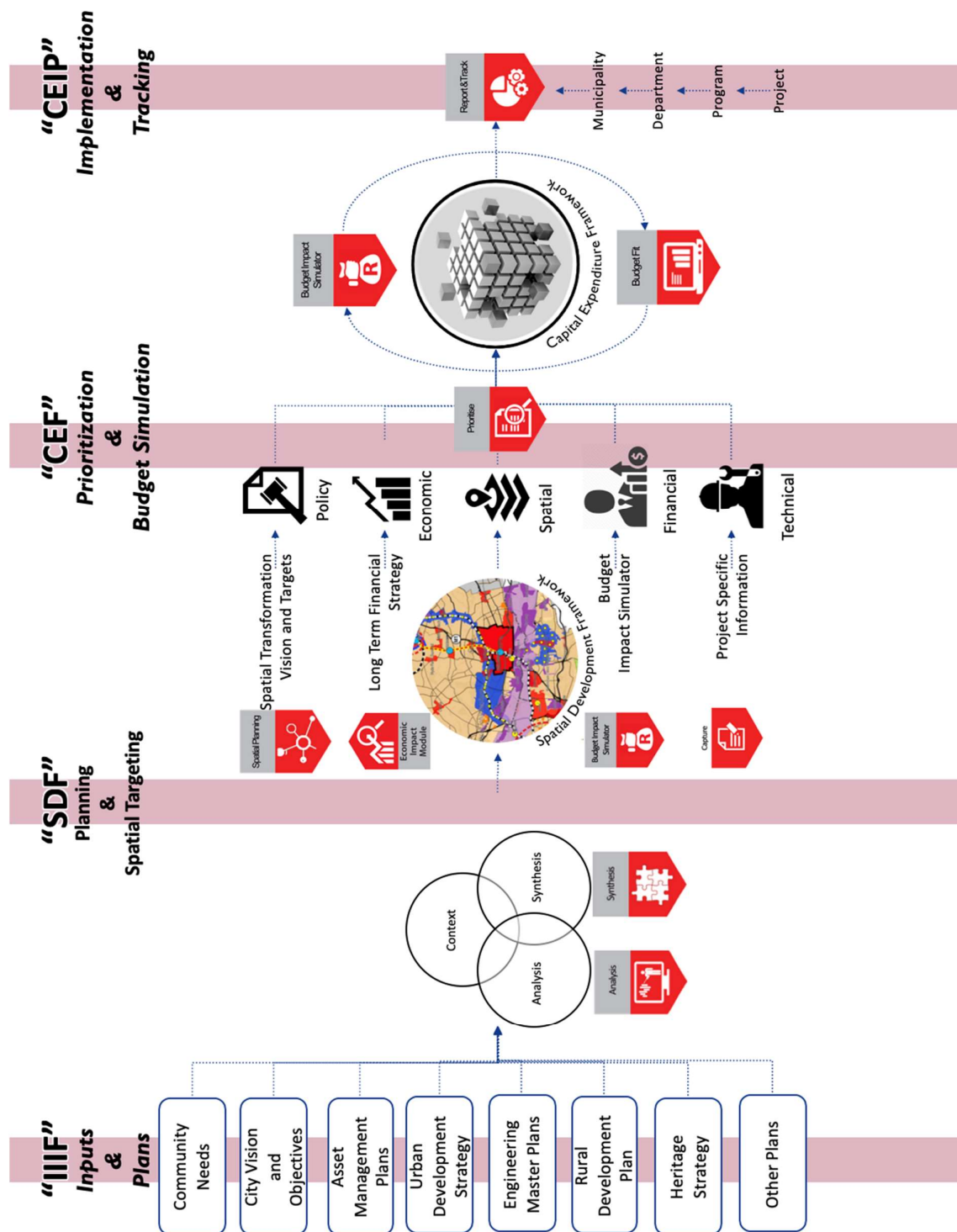


Figure 2: The role of the CEF in relation to other internal processes

1.5 Roll-out of the IUDG

In 2016, Cabinet adopted the IUDF which positions intermediate sized municipalities and towns (ICMs). The IUDF is coordinated by COGTA, which has set up the institutional arrangements for the coordination of activities across government departments and agencies, under the overall management of an IUDF Working Group.

The IUDF ICM programme, targeting 39 municipalities, is intended to provide support for the municipalities in the middle size and density range of cities and towns. The purpose of the ICM support strategy is to help translate IUDF policy into practical programmes of action. In so doing the initiative aims to give impetus to achieve the main IUDF goals, which are forging new integrated forms of spatial development; ensuring that people have access to social economic services, opportunities and choices; harnessing urban dynamism to achieve inclusive and sustainable growth; and enhancing the governance capacity of the state and citizens in ICMs.

One element of the implementation of the IUDF is the introduction of the IUDG. The 39 ICMs are all eligible for the IUDG as from the 2019/20 financial year. The IUDG is a three-year capital programme that must be aligned with a long-term Capital Expenditure Framework (CEF). This CEF must be developed by each ICM in order to qualify for the IUDG.

Stellenbosch Local Municipality is one of a handful of municipalities that have been approved for the IUDG funding application for the 2019/20 budget cycle, after preparing and submitting a draft CEF to COGTA by 31 March 2019 and submit a final CEF to COGTA by 31 May 2019. This CEF Review outlines the minor changes that has been absorbed as part of the capital investment period of the CEF for 2020 to 2030. The first Review of the Stellenbosch CEF will be submitted to CoGTA by 31 March 2020.

1.6 CEF Planning Method and Guidelines

1.6.1 CEF project preparation, prioritisation and budgeting process

The planning approach towards developing this CEF was to gather all relevant municipal information, taking account the institutional arrangements within the municipality, and the guidelines provided from the IUDF on the content of a CEF.

- Figure 3 below depicts the integrated planning and budgeting process that was implemented using the CP3 system at Stellenbosch Local Municipality to facilitate the process of project preparation, prioritisation and budget scenario development.

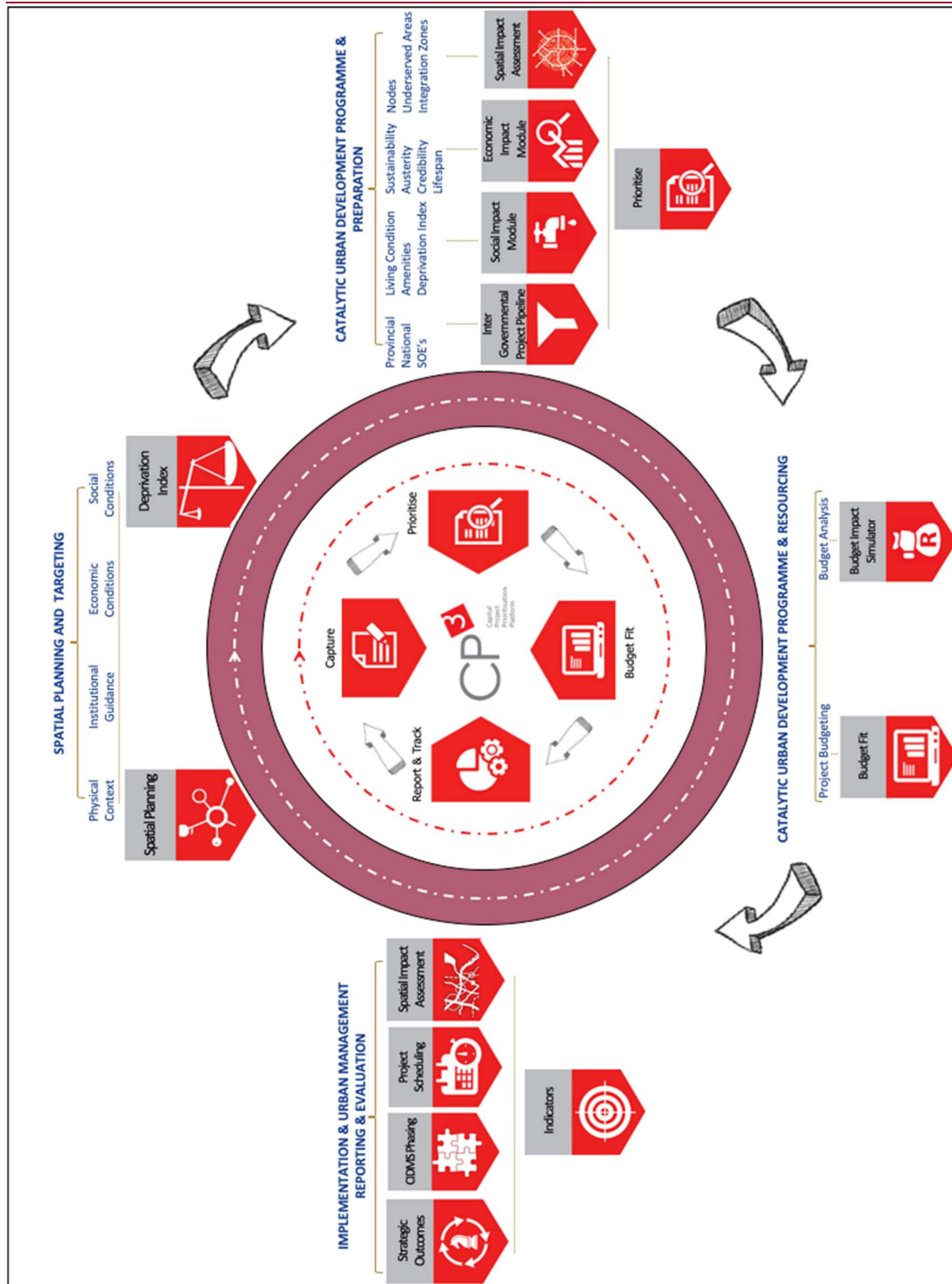


Figure 3: Institutional Arrangement

The integrated planning and budgeting CP3 process enables the municipality to amongst other:

- Capture all capital demand or capital needs emanating from municipal departments on one spatially enabled platform;
- Evaluate projects at the hand of various criteria – either quantitative, qualitative or spatial – based on data inputs from municipal departments;
- Evaluate capex against various spheres of governments’ strategic outcomes – as per the various policy documents of the municipality;
- Interact with other public realm entities in a collaborative manner – through means of the inter-governmental planning platform to consult on capital demands;
- Prioritise projects based on a sophisticated spatially-enabled prioritisation model – through means of a multi-criteria model;
- Run a budget analysis in order to test various capex scenarios - based on standardised indicators and inputs from the long-term financial model affordability envelope;
- Facilitate a budget scenario process together with the finance department of the municipality in order to determine the optimal MTREF capex budget for the municipality – annually; and
- Evaluate and report on a myriad of elements related to the capital investment book at any point in time based on the regulatory and institutional requirements emanating from the MFMA and National Treasury, i.e. SIPDM project phasing, mSCOA segments, MBRR schedule reports etc.

1.6.2 Draft IUDG CEF Guidelines

According the guidelines for the preparation of a CEF prepared by COGTA, a CEF should comprise of the following components:

- Step 1: Identify Functional Areas (FA) and Priority Development Areas (PDAs);
- Step 2: Undertake developmental and socio-economic profiling for the municipality as a whole, as well as each functional area;
- Step 3: Compile a land budget for residential and commercial growth for the next ten years;
- Step 4: Confirm the appropriateness of the SDF vision and long-term spatial structure for the municipality as a input to the prioritisation and budget alignment of the municipality;
- Step 5: Prepare programmatic and project-based responses per sector based on the land budget and residential and commercial growth estimates, in order to identify capital investment requirements and backlogs;
- Step 6: Develop a long-term financial plan, with a planning horizon of 10-years;
- Step 7: Compile an affordability envelope and optimal capital funding mix;
- Step 8: Structure capital investment programmes per functional area;

-
- Step 9: Compile a CEF for a 10-year horizon based on spatially-prioritisation; and
 - Step 10: Conceptualise a 3-year (MTREF) CEIP with project and programmes which will serve as the municipal capital budget.

1.6.3 Stellenbosch Strategic Planning and Implementation Framework Process

The figure below depicts the process followed to facilitate the development the Capital Expenditure Framework.

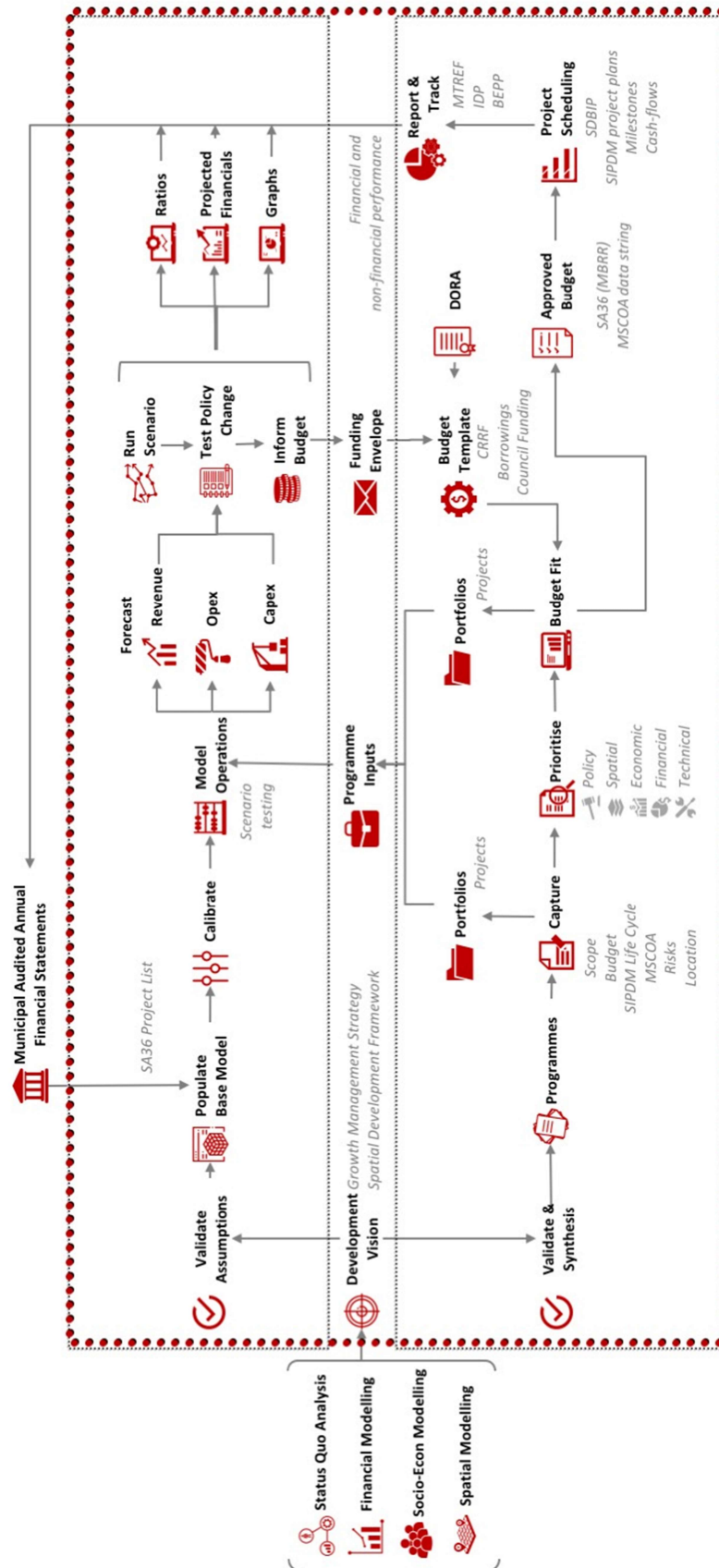


Figure 4: Compilation of the CEF based on CP3 and LTFS

This process depicted Figure 4 can be broken down into 11 distinct steps.

1.6.3.1 *Step 1: Identify Functional Areas and Priority Development Areas*

In order to define the context in which the CEF is applicable, this section aims to analyse the current spatial and demographic realities of the municipality, and conclude by identifying the functional areas² and Priority Development Areas from the SDF as the primary spatial structuring elements of the municipality.

This step is essential for the rest of the process, as it identifies the areas with sustainable development potential and areas which qualify as spatial targeting areas during the prioritisation process. Different Functional Areas / Priority Development Areas within the municipality, are fulfilling different functions, and should therefore not enjoy the same priority – a hierarchy of these areas should therefore be identified as to inform investment scenarios and decisions going forward.

1.6.3.2 *Step 2: Complete socio-economic and spatial profiling*

The purpose of this step is to understand the nature of the demographic and socio-economic characteristics of the municipality as a whole, and in each of the identified functional areas of the municipality. This assessment includes the current accessibility to, and quality of basic services as well as social facilities and amenities. This information serves as the base-data to be used for infrastructure and financial modelling.

1.6.3.3 *Step 3: Compile a land budget and demand quantification*

Once the socio-economic and spatial profiling has been concluded, growth scenarios are considered for the municipality in order to prepare a future land use budget including residential and commercial growth projections along with population projections over a 10-year period. These growth projections will serve as modelling input to derive demand for infrastructure and services in the municipality. Three components contribute to the demand for investment and can be summarised as follows:

- Existing households without access to services;
- Renewal and maintenance of existing infrastructure, and;
- The growth in households.

1.6.3.4 *Step 4: Verify the SDF*

The purpose of this step is to verify whether the municipal growth projections, in terms of the population, social facilities, basic services and land budget, is in line with the municipality's latest approved version of the SDF.

1.6.3.5 *Step 5: Identify infrastructure demand and Capital Investment Framework*

The purpose of this step is to identify specific infrastructure and service backlogs and requirements within the municipality's jurisdictional area. It will incorporate existing backlogs and include backlogs with regards to access-to-services requirements, assets refurbishment requirements and lastly, replacement and renewal requirements for a 10-year horizon. At the end of this step, a

² Please note, that the term "Functional Area" is defined by COGTA – but in essence refers to the core spatial structuring elements of the municipality.

comprehensive list of interventions will be identified that is required to realise the spatial vision of the municipality.

Considering firstly the institutional context in which municipalities find themselves and secondly the fact that other tiers of government are responsible for different investment mandates in the same jurisdiction, the CIF should not only consider capital investment from the local municipality, but also investment planning by provincial and national government. The purpose of the inter-governmental project pipeline is to enable a view of planned interventions by various spheres of government, within the same jurisdictional area, given that not all required infrastructure is the responsibility of the local government authority.

1.6.3.6 *Step 6: Develop a long-term financial model and plan*

The purpose of this step is to apply a sound long-term financial planning methodology which comprise of a four-step modelling process. This iterative process consists of the following key steps:

- Populate the financial planning base model;
- Calibrate financial planning base model;
- Forecast financial municipal financial position and ratios, and;
- Scenario Testing.

Once the long-term financial planning methodology has been applied, different scenarios can be tested, and the outcome results in a municipal affordability envelope and optimal capital investment funding mix.

1.6.3.7 *Step 7: Identify affordability envelope*

Based on the LTFM, an affordability-envelope is compiled. The aim of the affordability envelope is to set the financial parameters for the CEF to prepare a 10 year horizon capital investment scenario.

1.6.3.8 *Step 8: Project prioritisation and budget scenario development*

The purpose of this step is to prioritise the list of capital demand or needs to realise the SDF developmental vision and population growth scenario. Once the project needs have been prioritised, by using a sophisticated model that enables spatial and alpha numeric data inputs, the projects are fitted to the affordability envelope. The spatial prioritisation is of specific importance as it facilitates the allocation of budget towards the spatially targeted Functional Areas and Priority Development Areas of the municipality as required by legislation referred to in Section 1.1 of this document. The purpose of this step is to effectively and efficiently allocate limited resources to an unlimited demand which will enable the city to sustainably allocate resources and priority to projects that will realise the strategic and spatial vision of the municipality.

1.6.3.9 *Step 9: Compile programmes per Functional Area*

The purpose of this step is to allocate the identified projects to functional implementation programmes. This aims to enable and ease sequential implementation within the Functional Areas.

1.6.3.10 *Step 10: Capital Expenditure Implementation Framework*

Once the spatial and financial framework have been developed, the next step entails the identification of an medium-term implementation framework. The CEF is compiled to provide the most sustainable development path and implementation of the CEF is guided by the MTREF, which is the capital expenditure implementing mechanism of the municipality.

1.6.3.11 *Step 11: Implementation tracking*

The purpose of this step is to provide insight on the implementation of the MTREF. This is done by ensuring the project pipeline (from conceptualisation to prioritisation and budgeting), is compliant³ with the requirements of National Treasury and that the SDBIP project schedule, cashflows and milestones are captured after budget approval, to facilitate financial and non-financial performance reporting within the implementation year(s).

³Complies with the requirements of mSCOA and SIPDM

Section 2 Functional Area Identification



2 Functional and Priority Development Area Identification

2.1 Contextualisation

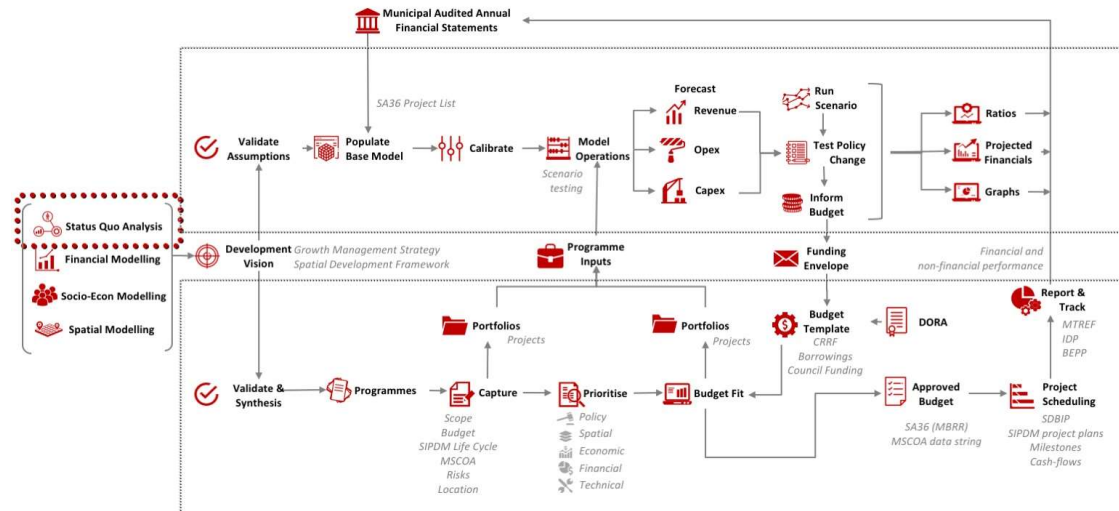


Figure 5: Spatial status quo analysis

In terms of section 152 (1) (b), (c) and (d) of the constitution, a municipality must ensure the provision of services to communities in a sustainable manner, promote social and economic development and promote safe and healthy environments. It continues and state in 152 (2) that a municipality must strive, within its financial and administrative capacity, to achieve the objectives set out in 152 (1). The current developmental pressures experienced within the South African context, specifically the lack of available resources to address the infrastructure demand faced by municipalities, together with the legislative framework as set out in the constitution of South Africa and other planning documents led to the implementation of the principle of spatial targeting. Spatial targeting simply refers to the deliberate focus of particular actions on a particular spatial area. This concept is currently very popular in the planning and urban management environment as it is a very effective and efficient principle to apply when dealing with limited resources and when a municipality aims to address spatial injustices in a focussed and integrated manner.

The purpose of this step is thus to contextualise the Functional Areas as well as the Priority Development Areas in the light of the municipalities jurisdictional area, future spatial structuring elements – as per the draft SDF, and current spatial structuring elements – such as the Urban Edge.

This section will firstly describe the concept of a Functional Area – as defined by COGTA. It will then continue to describe functional areas in terms of Stellenbosch and how it relates to the Spatial Development Framework, and the application thereof. The last component of this section will define the Priority Development areas, and express them in terms of Stellenbosch.

2.2 Status of the Spatial Development Framework

A vital component of the Capital Expenditure Framework, as envisioned by the Capital Expenditure Framework Guidelines (2018) developed by the National Department of Cooperative Governance and Traditional Affairs, is the relationship between the Spatial Development Framework and the Capital Expenditure Framework. It must be noted that even though the Spatial Development Framework is in draft format, its conceptual structure and investment paradigm guided the Capital Expenditure

Framework. In order to mitigate any possible risk in this regard, the Capital Expenditure Framework team has had numerous engagements with the Spatial Development Framework team in order to ensure that the investment paradigm and prioritisation models are effectively directed towards the development concept of the draft Spatial Development Framework.

With the enactment of the Spatial Planning and Land Use Management Act (SPLUMA) in 2013, a new planning regime was introduced in South Africa. It replaced disparate apartheid era laws with a coherent legislative system designed to spatially transform the country in its democratic era.

In broad terms, SPLUMA differentiates between two components of the planning system:

- Spatial Development Frameworks; and
- The Land Use Management System (LUMS).

As indicated above, SDFs are guiding and informing documents that indicate the desired spatial form and define strategies and policies to achieve this. They inform and guide the LUMS, which includes town planning or zoning schemes, allocating development rights, and the procedures and processes for maintaining the maintenance of or changes in development rights.

SPLUMA requires municipalities to prepare SDFs that establish a clear vision which must be developed through a thorough inventory and analysis based on national spatial planning principles and local long-term development goals and plans.

Over the last decade, the Stellenbosch Municipality has completed a considerable volume of studies, policy documents, and plans, specifically related to SDFs, as well as studies, policy documents, and plans that should inform or be informed by the SDF (for example comprehensive plans like the IDP covering all the activities of the Municipality, or sector specific work related to economic development, transport, the environment, housing, and so on). Some of these studies, policy documents, and plans cover the whole Municipal area, while others focus on specific parts of the area.

Starting in 2008, and culminating in an approved SDF and the “shaping Stellenbosch” initiative, broad consensus has been achieved on the desired future direction and form of development. Some of the country’s most accomplished professionals were involved in this work, we spent considerable time and money, and citizens bought in.

In 2013 Stellenbosch Municipality approved a SDF for the Stellenbosch municipal area that includes Franschhoek, the Dwars River Valley, Klapmuts, Stellenbosch town (including Kayamandi, Cloetessville, Idas Valley), Lynedoch, Vlootenburg and Raithby. An updated version of this document in terms of the requirements of SPLUMA (and summarized for public accessibility) was approved on May 2019.

Since approval of the SDF in 2013 and 2019, SDF related work has focused on:

- Development of scenarios of land demand to inform the development of a preferred 20-year growth strategy, development path, and nodal development concepts. This work culminated in status quo and draft Urban Development Strategy (UDS) documents during 2017;
- An analysis and synthesis of the rural areas of Stellenbosch Municipality with a view to prepare a Rural Area Plan (RAP);
- A Draft Heritage Inventory of large-scale landscape areas in the rural domain of the municipality informing proposed heritage areas (complementing previous inventory work completed for urban areas); and

- Area-based planning investigations for parts of the municipality, notably Stellenbosch town, Klappmuts, the area north of Kayamandi, and Paradyskloof.

In parallel to SDF work, considerable progress has been made, in collaboration with the Western Cape Government, developing a strategy for sustainable transport planning, infrastructure provision, and management in Stellenbosch. This work, through application of the Provincial Sustainable Transport Programme (PSTP).

2.3 Strategic Focus Areas

The table below illustrates how work on the SDF relates – in terms of its focus and contribution – to achieving the five municipal strategic focus areas as contained in the IDP.

Table 1: IDP strategic focus areas and the SDF

IDP Strategic Focus Area	Related concerns of the SDF	SDF Strategic Direction
Valley of possibility	The way settlements, nature and agricultural are spatially developed and managed to enhance individual and collective livelihood opportunities and enterprise development, and overcome inequity and exclusion.	<ul style="list-style-type: none"> • Containment of settlements to protect nature/ agricultural areas and enable public and non-motorized transport and movement. • A focus on public and non-motorized transport and movement.
Green and sustainable valley	The way settlements, nature and agricultural areas are spatially developed and managed to maintain and enhance natural resources and ensure future balance between human settlement and its use of natural resources and opportunity.	Protection of nature areas, agricultural areas, and river corridors.
Safe valley	The way settlements, nature and agricultural areas are spatially developed and managed to ensure individual and collective safety in living, in movement, at work, institutions, and play.	Denser settlements with diverse activity to ensure surveillance.
Dignified living	The way settlements, nature and agricultural areas are spatially developed and managed to ensure equal access to shelter, facilities and services, notwithstanding material wealth, age, gender, or physical ability.	A specific focus on the needs of “ordinary” citizens, experiencing limited access to opportunity because of restricted available material resources.
Good governance and compliance	The way settlements, nature and agricultural areas are spatially developed and managed to ensure individual and collective participation – based on accessible information and open processes – in matters related to spatial planning and land use management.	Presenting information, including opportunities and choices in a manner that assists its internalization by all.

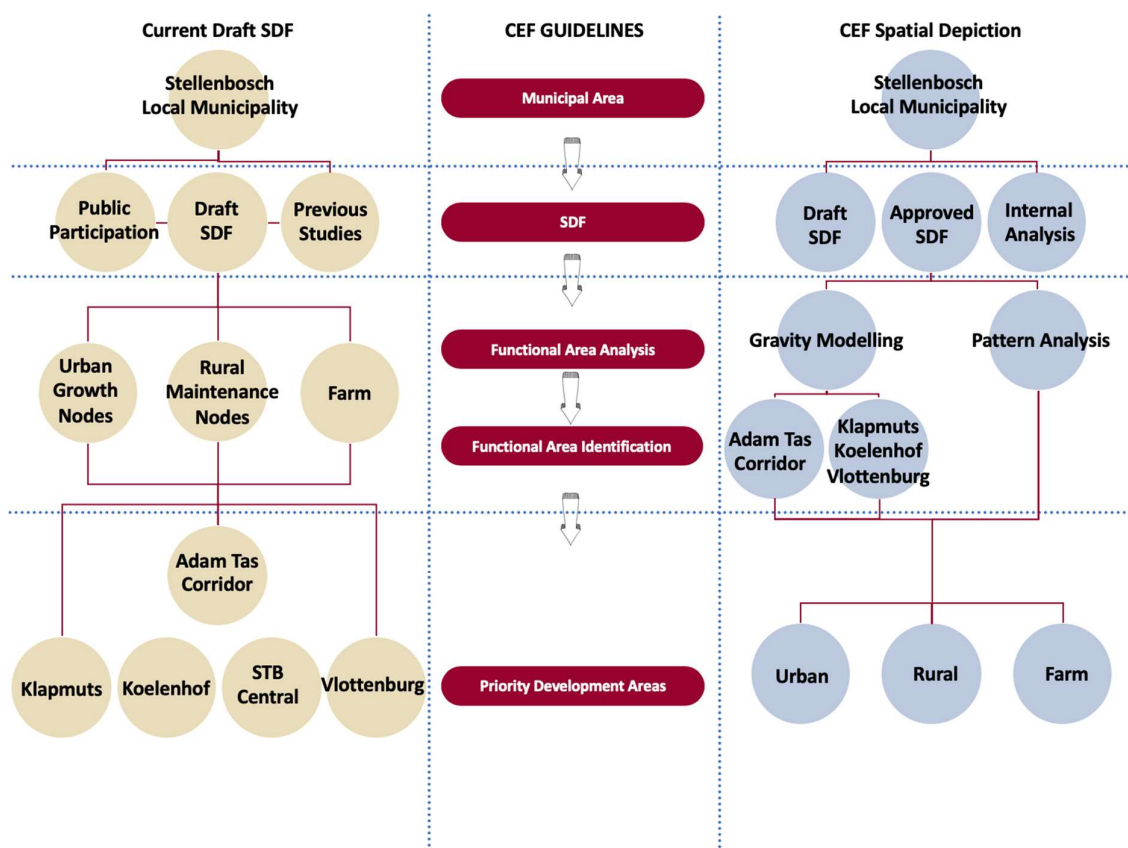
As it is not specifically mentioned in the strategic focus areas – perhaps as it is more an approach or “way of thinking and doing” about matters generally than a strategic focus area – a note on innovation is justified, specifically in relation to spatial planning and the SDF.

Innovation is not limited to – as it is often perceived to be – information technology. It cuts across all tasks; it must be at the basis of all efforts and approaches to meet challenges. Much of Stellenbosch’s current spatial challenges will not be resolved through conventional spatial planning approaches; ways of doing which have become part of a prevailing culture in planning and development, including accommodating new development on “undeveloped” nature or agricultural land, supporting relatively low density development, attempts to accommodate unimpeded movement by private vehicles with low occupancy, each potential land developer striving to maximize individual development opportunity, and so on. In many ways, these approaches have contributed to varied existing challenges to be addressed today, including inequity in access to opportunity, environmental degradation, and stress on municipal resources.

Arguably, exploring and implementing new approaches or strategy are not easy, as observed by Hamel: “When people sit down and think about strategy ... they take 90 or 95% of industry orthodoxies as a given ... Instead, they must stare down their orthodoxies and determine that they are not going to be bound by them anymore ... The deepest reason [for not doing this] is an unwillingness or inability to look outside of current experiences. It's the whole set of definitions that grew up over time ... about what business we're in ... you get convergence around those things. A lot of this is not simply blindness; a lot of this is denial. Yes, we see it, but it is so uncomfortable that we can't admit to it.”⁴

2.4 Spatial Structuring Elements as per the CEF Guidelines

The following figure depicts the relationship between specific spatial structuring elements and Stellenbosch’s planning paradigm. It is important to note that each Spatial Development Framework across all municipalities has a different view on what the concepts of different spatial structuring



⁴ An interview with Gary Hamel, strategy + business <http://www.strategy-business.com/press/16635507/13304>

elements entail. It is for that purpose that the CEF will relate the “wall-to-wall” Stellenbosch SDF in terms of the CEF Guidelines⁵.

Figure 6: Spatial Structuring as per the CEF Guidelines

The following subsections will describe the figure above. However, it is worth noting at this point that the CEF Spatial Depiction show that a wall to wall approach was taken in order to enable various modelling outcomes based on the total Stellenbosch population and in so doing, enabling the municipality to have a full understanding of its customer base.

2.5 Understanding the concept of Function Areas

According to the CEF Guidelines a functional area is an area with similar characteristics (homogenic) from a developmental and service demand perspective. A typical example is to demarcate the rural part of the municipality or the tribal land as a functional area because it has more or less similar challenges (low density, lack of high order services, etc.) and it requires a specific development strategy that is unique to the development challenges of the area.

The ability to sustain any function or service is based on a demand threshold. The threshold population, for example, to sustain a small café is completely different from the threshold population to sustain a hospital. Matters such as the income of the threshold population, their mobility and many other factors complicate matters. The crucial issue is, nevertheless, that functional boundaries vary and do not coincide with municipal boundaries. Municipal boundaries describe administrative jurisdiction, but for obvious reasons, the municipality cannot plan for areas outside their jurisdiction. In the same way that development efforts are focused on selected nodal areas the demand for services and uses are determined and generated by the broader functional area that a node serves rather than the extent of develop within the node only. To accommodate this dynamic it was necessary to make a distinction between different functional areas in the municipal area.

2.6 Spatial Development Framework and Functional Areas

Stellenbosch Municipality adopted a new Spatial Development Framework that seek to influence the overall spatial distribution of current and future land use within a municipality or other described region to give effect to the vision, goals and objectives of the municipal Integrated Development Plan (IDP) or related business plans of government.

In the case of Stellenbosch Municipality, the SDF must answer the following questions: “How is Stellenbosch going to develop over the next ten to thirty years? What kind of development will take place, where will it take place, and who will be responsible for what aspect of the development?”

To translate the Stellenbosch Spatial Development Framework in the context the functional areas as per the CEF guidelines; the point of departure was to consult the future development vision of Stellenbosch⁶. The main functional areas have been identified as:

- Stellenbosch;
- Klipmuts;

⁵ A similar approach of standardization can be found in the Built Environment Performance Plans (BEPP) Guidelines in terms of the Urban Network Concept via the National Treasury City Support Program

⁶ Refer to the Stellenbosch Spatial Development Framework review

- Koelenhof;
- Vlottenburg; and
- Franschhoek.

According to the development vision of the municipality, Franschhoek should enjoy a development approach based on maintenance expenditure. In tandem with the said approach, the remaining functional areas should be viewed in the light of urban restructuring, integration and densification with the aim to restructure Stellenbosch along the Adam Tas corridor (from Klappmuts to Vlottenburg).

As argued elsewhere in this document, it is here, by virtue of settlement location in relation to broader regional networks and existing opportunity within settlements, that the needs of most people can be met, in a compact settlement form while protecting the municipality's nature and agricultural assets.

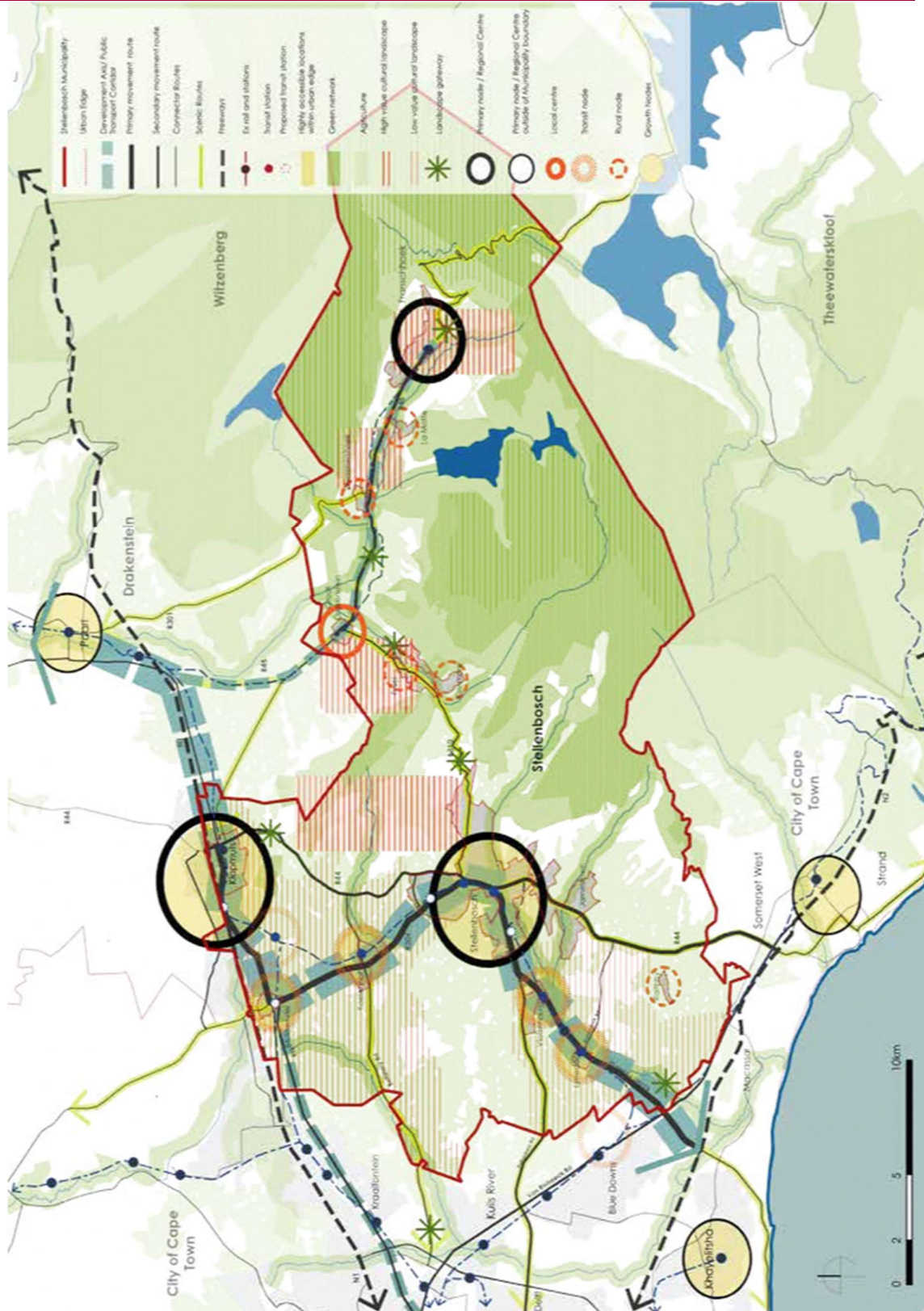
Over the longer term, Muldersvlei/ Koelenhof and Vlottenburg/ Lynedoch along the Baden Powell-Adam Tas-R304 could possibly accommodate more growth, and be established as inclusive settlements offering a range of opportunities. However, much work needs to be done to ensure the appropriate make-up of these settlements (including each providing opportunity for a range of income groups) and integration with the corridor in terms of public transport. They are therefore not prioritised for significant development over the MSDF period.

Should significant development be enabled in these areas now, it is likely to be focused on private vehicular use and higher income groups (in gated developments), and will in all probability reduce the potential of initiatives to transform Stellenbosch town and Klappmuts.

The focus on Stellenbosch town and Klappmuts does not exclude all development focus in Franschhoek and the smaller settlements. Rather, it is argued that these settlements should not accommodate significant growth as the pre-conditions for accommodating such growth does not exist to the same extent as in Stellenbosch town and Klappmuts. What should be emphasized in Franschhoek and smaller settlements is improving conditions for existing residents and natural growth within a context of retaining what is uniquely special in each (from the perspective of history, settlement structure and form, relationship with nature and agriculture, and so on).

In terms of sectoral or thematic focus, the spatial development priority in all settlements should be to:

- Upgrade the servicing and transformation of informal settlements;
- Provide housing for lower income groups in accessible locations (specifically through infill of vacant and underutilised land or redevelopment of existing building footprints);
- Expand and improve public and NMT routes;
- Improve public and community facilities and places (e.g. through clustering, framing them with infill development to improve edges and surveillance, prioritisation for landscaping, and so on); and
- Expand the recognition, restoration, and exposure of historically and culturally significant precincts and places (both in the form and use of precincts and places).



Map 1: Vision of Stellenbosch Local Municipality (As per Draft SDF Review)

These areas are narrowly demarcated and also substantially different in terms of current development. It is however not currently effective to determine future target populations for these areas for two reasons:

- Firstly, the development concept is still in process, and will only be clear once the detailed development plan has been established as part of the Spatial Development Framework; and
- Secondly, if you base future population on past population trends, the result will be underwhelming - especially in areas with no current population - and will not lead to a logical and defensible population size.

Furthermore, the fact that areas such as Vloottenburg are not developed makes long-term demand estimates for land uses and infrastructure that much more challenging without a clear spatial vision.

2.7 Defining Priority Development Areas

According to the CEF Guidelines "Priority Development Areas" as the name suggests, are areas where the municipality intends to focus investment in order to achieve the goals of the SDF and other strategic documents.

In order to define the Priority Development Areas, the following two regimes were considered:

- Gravity Modelling; and
- Current Settlement Pattern.

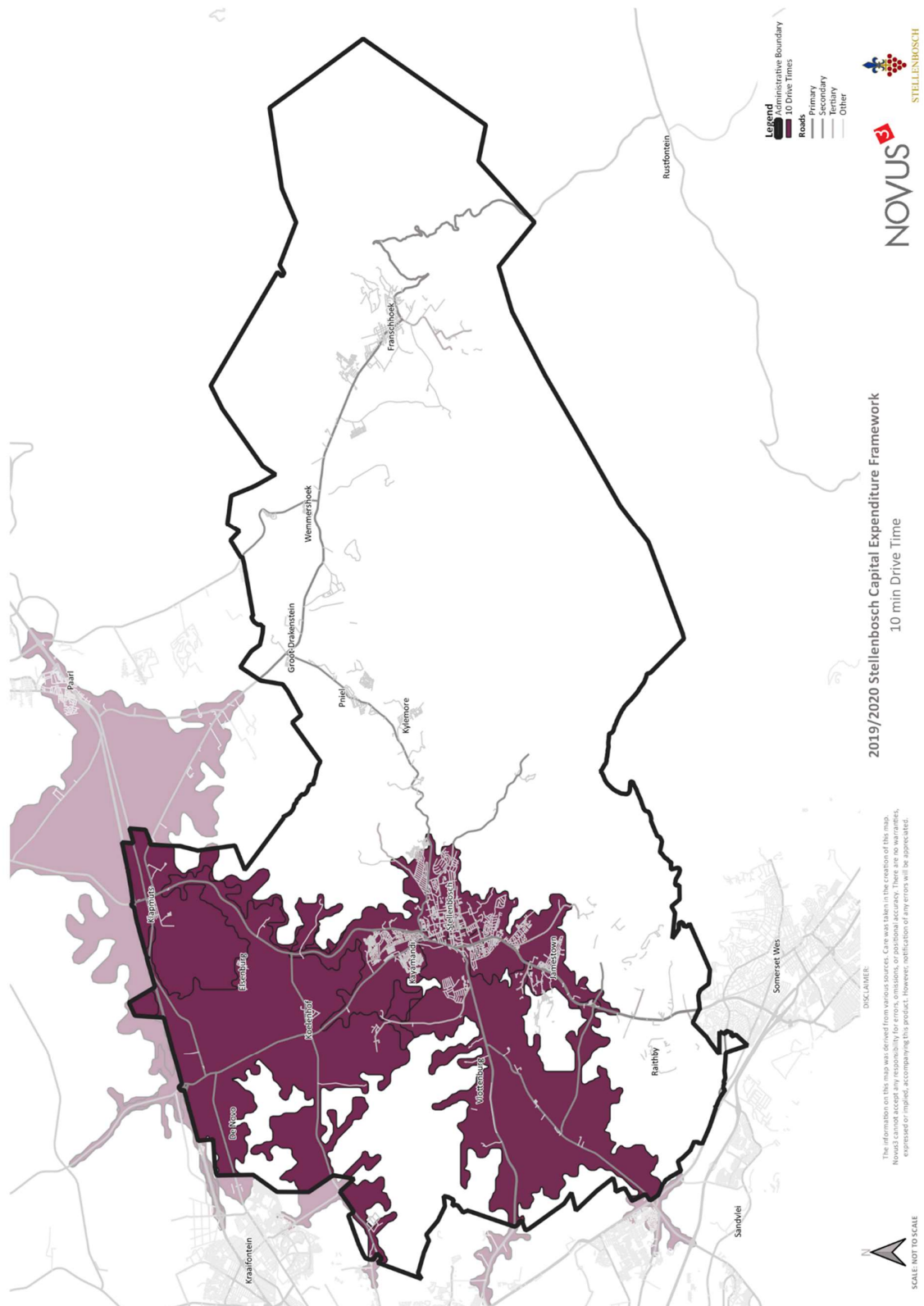
2.7.1 Gravity Modelling

The concept of a gravity models originates in transportation modelling and is a form of a trip distribution model. A distribution model produces a new origin-destination trip matrix to reflect new trips in the future made by population, employment and other demographic changes so as to reflect changes in people's choice of destination.

The gravity model gets its name from the idea of gravity where the 'pull' between two objects is proportional to the size of the object and inversely proportional to (some function of) the distance between them. This is similar to travel between areas where the amount of travel between two areas can be considered as being proportional to their population, numbers of jobs, schools, factories, offices etc. but inversely proportional to the distance (or some measure of the separation or deterrence) between them. When researchers started looking at this they found that generally this relationship holds up quite well - the bigger the towns the more travel there was between them and the further apart towns were, the less travel there was between them. The amount of pull between the origin zone and the destination zone is given as the origin and destination trip ends respectively.

It is the same logic that validated the investigation of Priority Development Areas as a function of 10 minute drive times with respect to the functional areas identified. The assumption was that the more connected a functional area is, the more people it will attract, reflecting a natural area of function, and so defining the area which the municipality should prioritise capital investment.

The map below depicts the 10 minute drivetime based on the functional area nodes:



Map 2: 10-minute travel time isochrones based on functional area nodes

Four issues are evident from the drive times:

- Firstly, even on a low threshold, there are substantial overlaps in the areas that the isochrones covered. This might point to the fact that should development occurs, the functional integration between the areas is possible but also that these areas are so close together that they will, from a business point of view compete with one another.
- Secondly, the areas reach over municipal boundaries. This especially true in the case of Klappmuts which implies that it competes with the adjacent areas in Drakenstein and also that development in Drakenstein will have a direct impact on the development of Klappmuts. It might be advisable for the municipality to consider absorbing the entire area, as Klappmuts serves and is likely to develop as a single functional area. This will contribute to developmental cohesion.
- Thirdly, the accessibility and the impact of major routes is evident. It implies that the long-term development of the road network will have major impacts on the success or failure of the identified areas.
- Lastly, and very importantly the isochrones do not cover the eastern parts of the municipal area. However, irrespective of the Municipality's priorities, the customers in the municipal area will legally demand services and will continue to impact on demand for services and infrastructure.

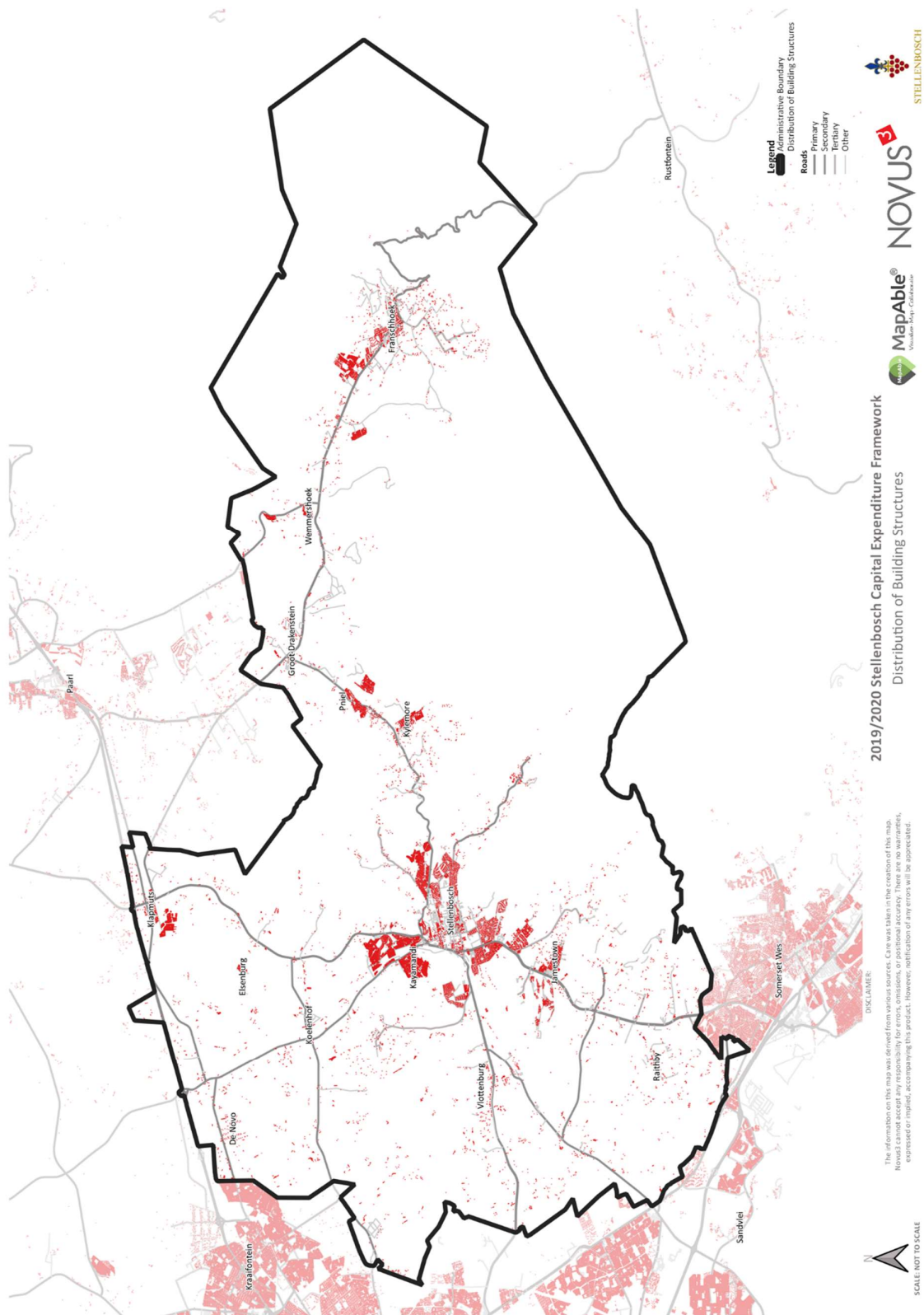
2.7.2 Current Settlement Patterns

Current settlement patterns provides a good understanding of the status quo and informs modelling exercises. Current settlement patterns serves as one of various informant to the Priority Development Areas.

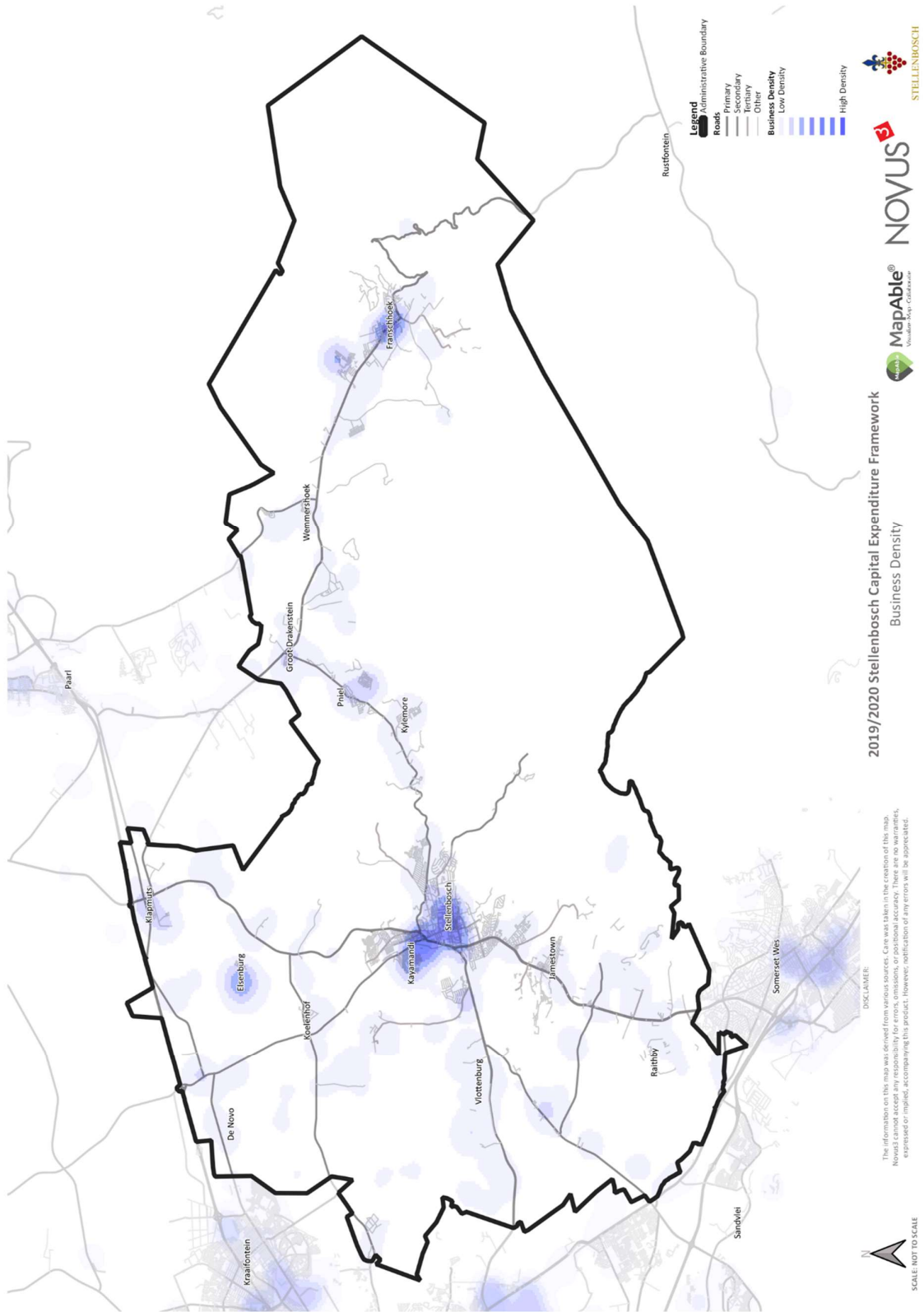
The following Maps illustrates the difference in development Intensities within the municipality⁷⁸:

⁷ MapAble database www.mapable.co.za

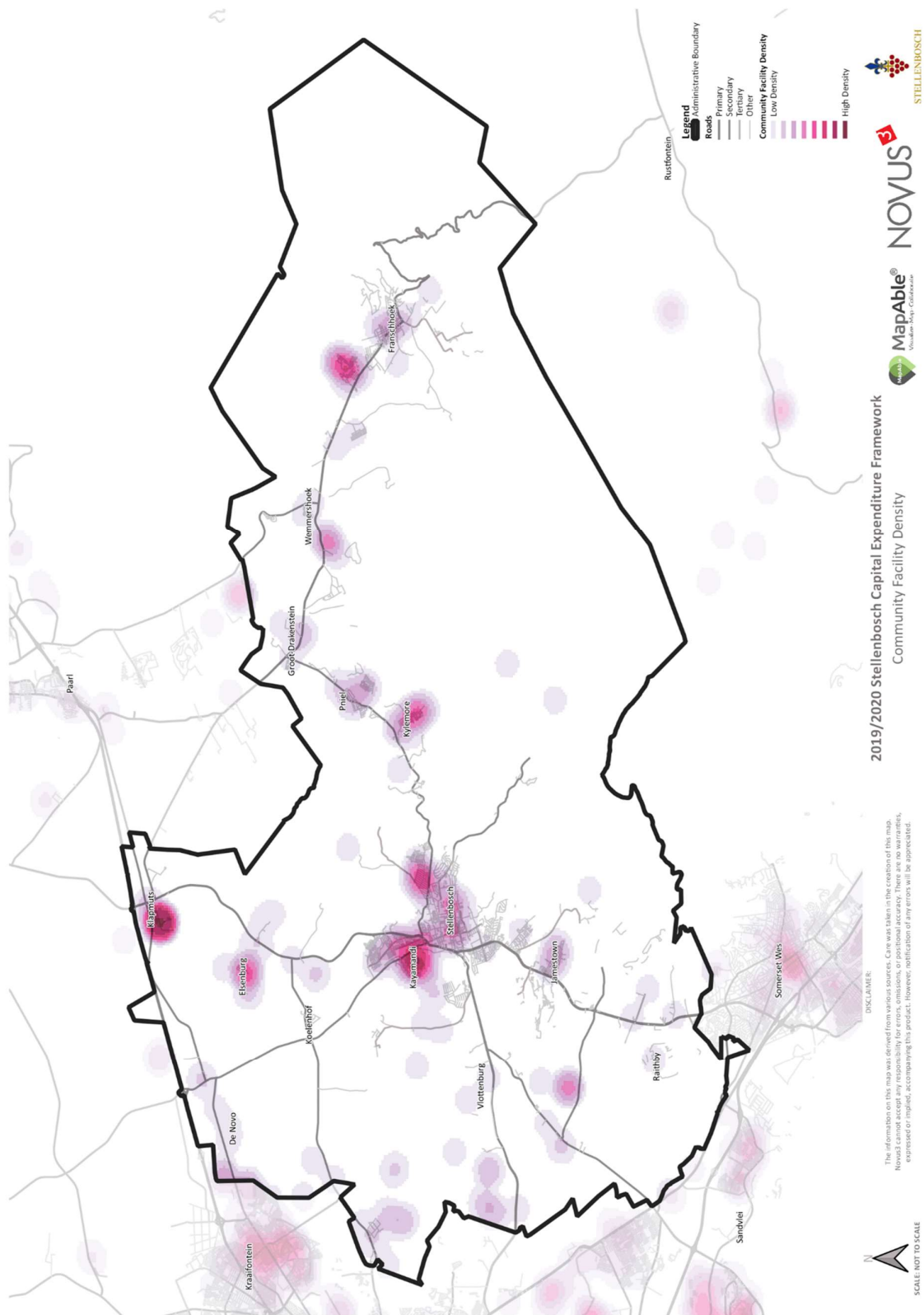
⁸ Please click on the maps to open them on your browser; powered by MapAble



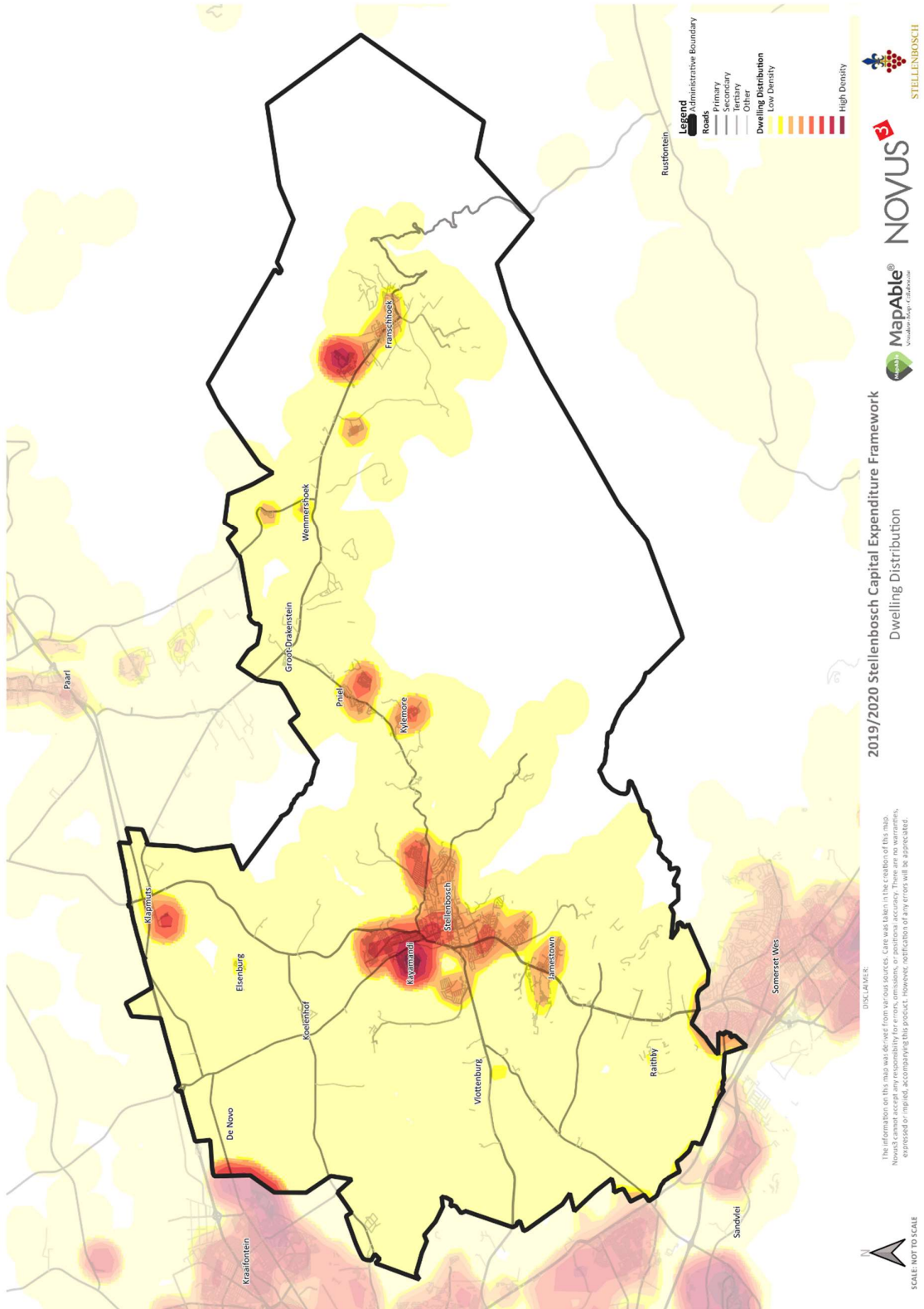
Map 3: Distribution of building Structures



Map 4: Business Densities



Map 5: Community Facilities densities



Map 6: Dwelling Distribution

The importance of secondary rural nodes is evident and do contribute to long-term demand. For the purposes of forecasting long-term land use, services and infrastructure demand, it is evident that not only the functional areas should be considered but the whole municipality.

2.7.3 The Adam Tas Corridor

The most strategically located land in Stellenbosch town comprises large industrial spaces, including land previously occupied by Cape Sawmills and Distell facilities. A significant proportion of these have been vacated or will be vacated in the foreseeable future in response to changes in the operating context of manufacturing enterprises. Thoughtful redevelopment of these spaces – at scale – can contribute meaningfully to meeting existing challenges and MSDF objectives. In simple terms, the concept is to launch a process of re-imagining and re-purposing the restructuring of land around the Adam Tas Road within the Stellenbosch town to enable maximum potential of this space. This will entail the through redevelopment of the Adam Tas Corridor which includes, the area stretching along the R310 and R44 along the foot of Papegaaiberg, from the disused Cape Sawmills site in to the west to of Kayamandi and Cloeteville in along the north part of this corridor.

It forms the western edge to the town but is not well integrated with the rest of Stellenbosch, largely because of the barrier/ severance effect of the R44 and the railway line. Much of the area was historically utilised for light industrial and manufacturing purposes. It includes the dis-used sawmill site, the government owned Droë Dyke area, Distell's Adam Tas facility, Oude Libertas, various Remgro property assets, Bosman's Crossing, the rail station, Bergkelder complex, Van der Stel sports complex, the George Blake Road area, and parts of Kayamandi and Cloeteville. Under-utilised and dis-used land in the area measures more than 300ha.

Conceptually, a linear new district within Stellenbosch is envisaged adjacent to and straddling (in places) Adam Tas Road, the R44, and railway line. Overall, development should be residentially-led with a strong mixed use basis, high density and should favour non-motorised ("NMT") access to the centre of Stellenbosch Town. It is estimated that Adam Tas Corridor through a preliminary development conceptual framework that the ATC will produce approximately 3 million square metres of bulk within a 293ha area, with 69% earmarked for residential usage.

A central movement system (with an emphasis on public transport and NMT) forms the spine of the area and is linked to adjacent districts south and west of the corridor. The corridor retains west-east and north-south vehicular movement (both destined for Stellenbosch town and through movement) as well as the rail line. Remote parking facilities will enable ease of access within the corridor concept, with passengers transferring via public transport, cycling and walking to reach destinations within the town of Stellenbosch.

The corridor is not envisaged as homogenous along its length, with uses and built form responding to existing conditions and its relationship with surrounding areas. Conceptually, three (3) areas could be defined as follows, each linked through a sub-district.

- ✚ The southern district comprises the disused sawmill site, Droë Dyke, and the Adam Tas complex. It can accommodate a mix of high density residential and commercial uses, as well as public facilities (including sports fields).
- ✚ The central district is the largest, including Bosman's Crossing, the Bergkelder, and the Van der Stel Sports complex. Here, development should be the most intense, comprising a mix of commercial, institutional, and high density residential use. The "seam" between this district and west Stellenbosch is Die Braak and Rhenish complex. The southern and central districts are

linked through Oude Libertas. Oude Libertas remains a public place, although some infill development (comprising additional public/ educational facilities) is possible.

- ✚ The northern district focuses on the southern parts of Kayamandi. The central and northern districts are linked through George Blake Road. This area effectively becomes the “main street” of Kayamandi, a focus for commercial, institutional, and high density residential use integrated with the rest of the corridor and western Stellenbosch town.

Along the corridor as a whole – depending on local conditions – significant re-use of existing buildings is envisaged. This is seen as a fundamental prerequisite for diversity, in built character and activity (as re-purpose offers the opportunity for great variety of spaces). Aspects of the industrial history of the area should remain visible. A range of housing typologies, accommodating different income groups and family types.

Redevelopment in terms of the concept offers the opportunity to:

- ✚ Re-imagine the future use of the land encompassed in the ATC;
- ✚ Grow Stellenbosch town – and accommodate existing demand – in a manner which prevents sprawl, and create conditions for efficient, creative living and working;
- ✚ Stimulate and act as a catalyst for the development of improved public transport and NMT;
- ✚ Reconstruct infrastructure, and particularly the movement system, including the possible partial grade separation of east-west and north-south movement systems, in turn, integrating the east and west of town and releasing land for development;
- ✚ Integrate Kayamandi and Stellenbosch town seamlessly;
- ✚ Shift new development focus to the west of town, with Die Braak and Rhenish complex forming the center and seam between the new west and east of Stellenbosch town;
- ✚ Investigate options for alternative parking provision initiatives in and around the town whilst the corridor provides for and promotes a greater focus -for non-motorised transport ;
- ✚ Accommodate uses which meet urgent needs, specifically higher density housing and university expansion, also assisting in establishing a compact, less sprawling town, public transport, and NMT; and

Existing manufacturing enterprises can gradually relocate to the north, closer to the N1 logistics corridor (as planned by Distell for their operations).

It is envisaged that a Local Spatial Development Framework (“LSDF”) will be used as the enabling planning framework to realise the implementation of the Adam Tas Corridor over the next 3 – 20 years. This LSDF will include an Implementation Framework that will provide guidance in respect of the following:

- Most appropriate Land Use Strategy;
- Action Areas / Catalytic Projects;
- Framework for Investment; and
- Other enabling Interventions.

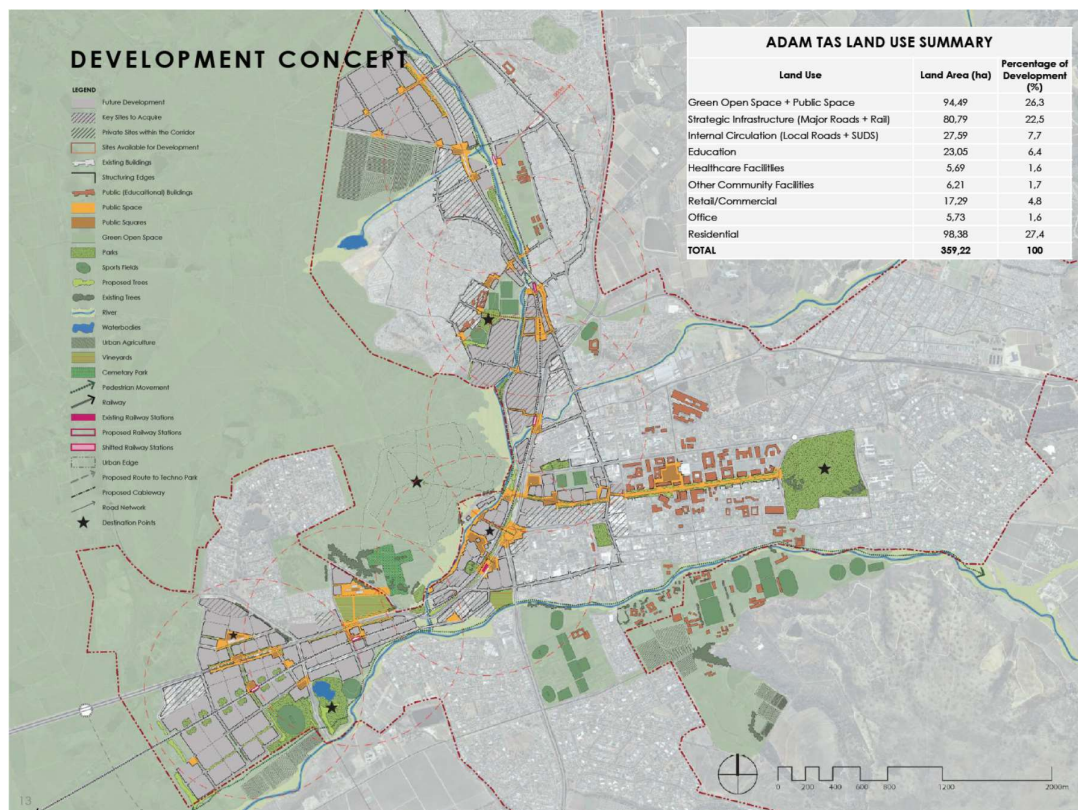
The LSDF and its Implementation Framework must spell out – in broad terms – what activities should ideally happen where (and in what form), where to start, and what infrastructure is anticipated by when. However, a spatial plan is not enough. The preparation of the plan has to be situated within a broader surround of development and transport objectives, institutional arrangements and

agreements, and parallel professional work streams, which is currently being initiated in conjunction with the Western Cape Government: Department of Environmental Affairs & Development Planning (“DEA&DP”) as the coordinator within WCG.

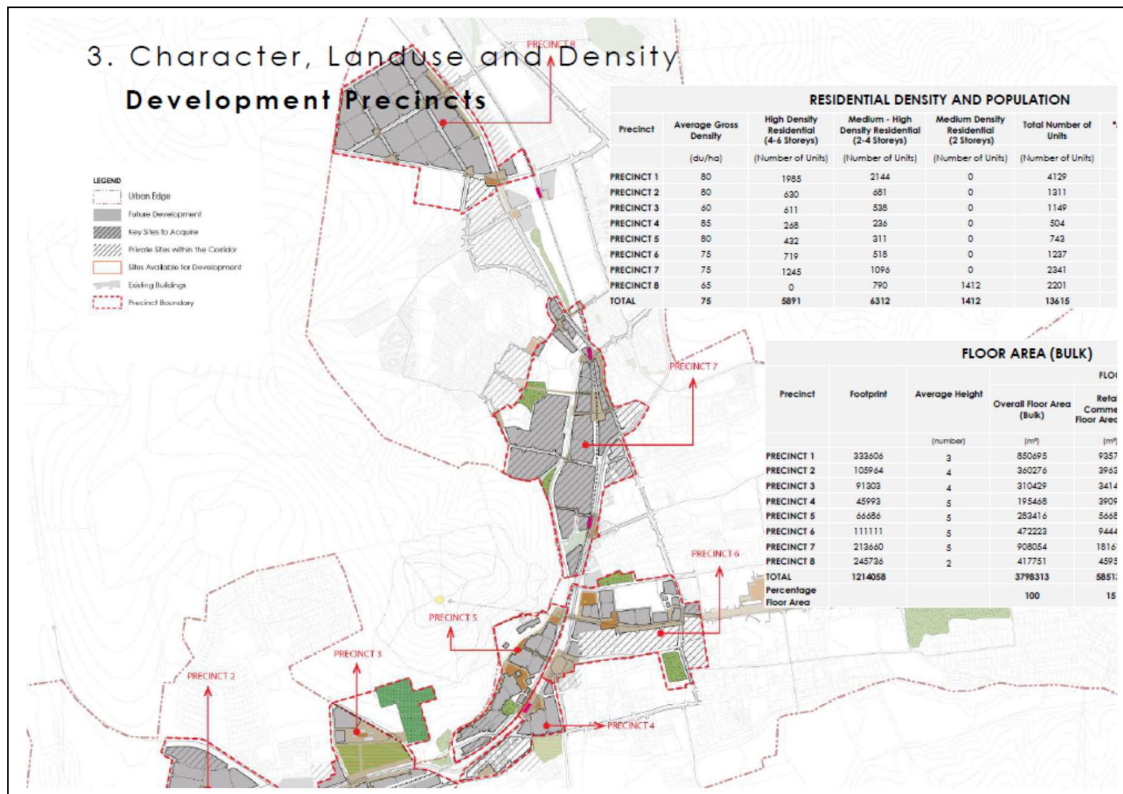
Institutional arrangements are critical, which includes all spheres government, private stakeholder involvement and established partnerships. It would include broad agreement between land owners and the municipality to pursue the corridor development concepts.

The emerging objectives for the Adam Tas Corridor are as follows:

- Re-purposing and transforming Stellenbosch Town, using existing under-utilised assets in a manner to benefit all and address critical needs;
- Establishing a process and plan which gives certainty and sufficient flexibility to accommodate the unknown while enabling a *“starting through sharing, learning by doing and using small steps to inform the next methodology”*;
- Broadening opportunity for a range of stakeholders, while accommodating varying degrees of readiness and material means; and
- To place Stellenbosch in the heart of the most important urban development project in the province.



Map 7: Adam Tas Corridor, Land Use



Map 8: Adam Tas Corridor, Development Potential

2.7.4 Conclusion

In its current planning, the municipality makes a distinction between urban and rural nodes, on the one hand, and the balance of the area. The balance of the land is predominantly farming land, but it also includes large tracts of undevelopable mountainous terrain.

For the purposes of the Capital Expenditure Framework, a distinction was made between the urban and rural nodes on the one hand and the balance of the areas on the other hand. This distinction is based on the assumption that urban related development and supporting social services will be focused within the nodal areas and the balance of the areas will be the mainstay of agricultural development. However, there are substantial numbers of people settled in the agricultural areas that will contribute to the demand for social and community services but not necessarily for housing and related infrastructure services. This assumption becomes the basis for modelling long-term growth and investment demand. This allows one to determine the demand for land and development in nodal areas based on the broader demand generated by the functional areas that these nodes serve.

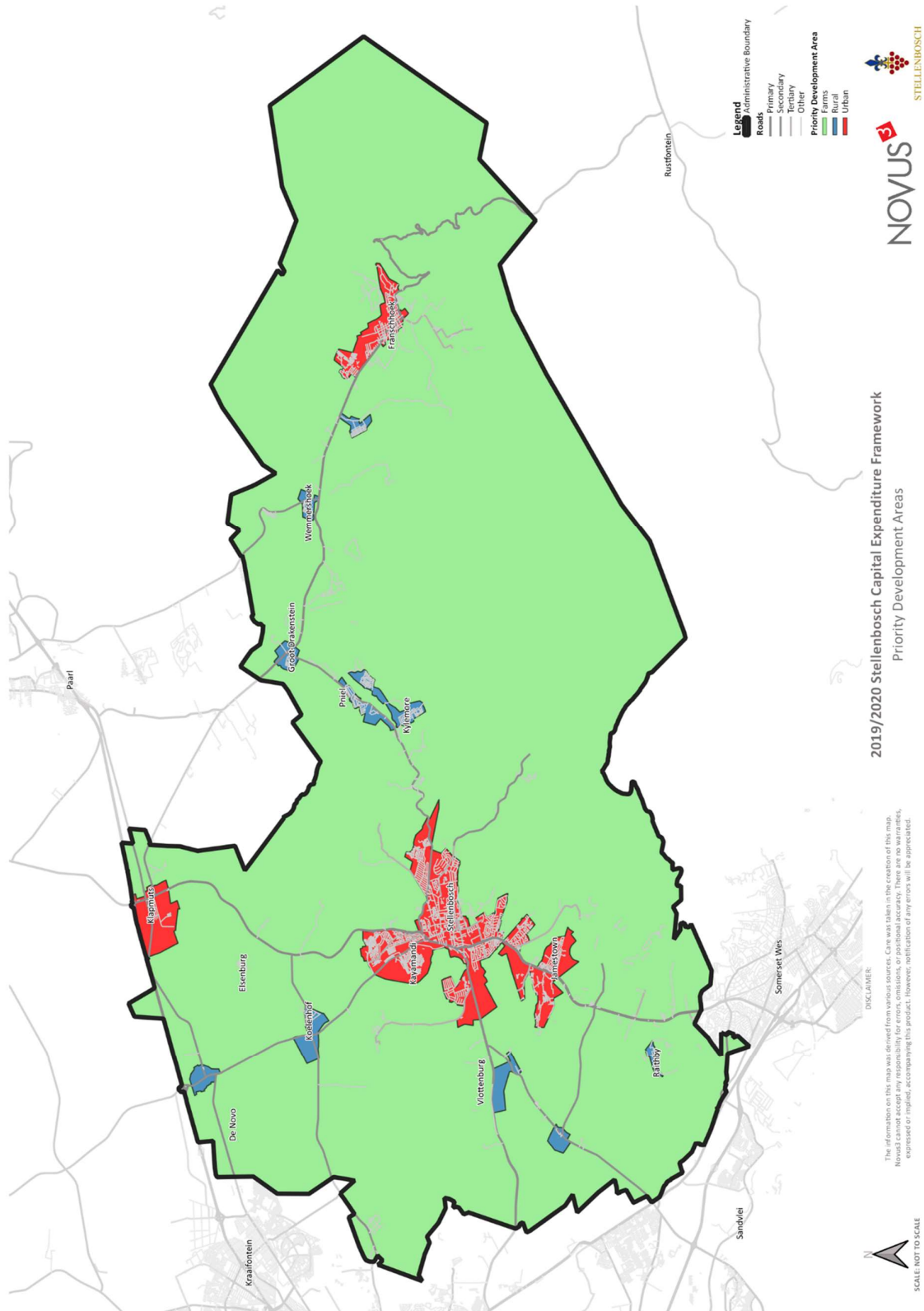
2.8 Unpacking the Priority Development Areas

When using the priority development areas as the basis for establishing future demand for services and infrastructure, the first step is to assess the long-term population trends. Although one works in a very interventionist environment, historical trends are the best indicators for future growth and change expectations. The next table shows a forecast for population growth expected in the municipal area.

Table 2: Population Distribution

	Timeline	Urban	Rural	Farm	%
1996		52.19%	5.04%	42.8%	100.00%
2001		47.68%	5.89%	46.4%	100.00%
2006		49.09%	7.12%	43.8%	100.00%
2011		50.50%	8.35%	41.1%	100.00%
2016		49.77%	9.44%	40.8%	100.00%
2021		49.49%	10.56%	40.0%	100.00%
2026		49.20%	11.68%	39.1%	100.00%
2030		48.97%	12.58%	38.5%	100.00%

Based on historical trends and prevailing policies of growth restrictions in the urban nodes, it is clear that development pressures will focus on the rural nodes. This is to the extent that the urban nodes will decrease in terms of its population share in the municipal areas. It does not imply that the urban and farming populations will not grow. The expected growth rates are, however, lower than the forecasts for the rural nodes.



Map 9: Priority Development Areas

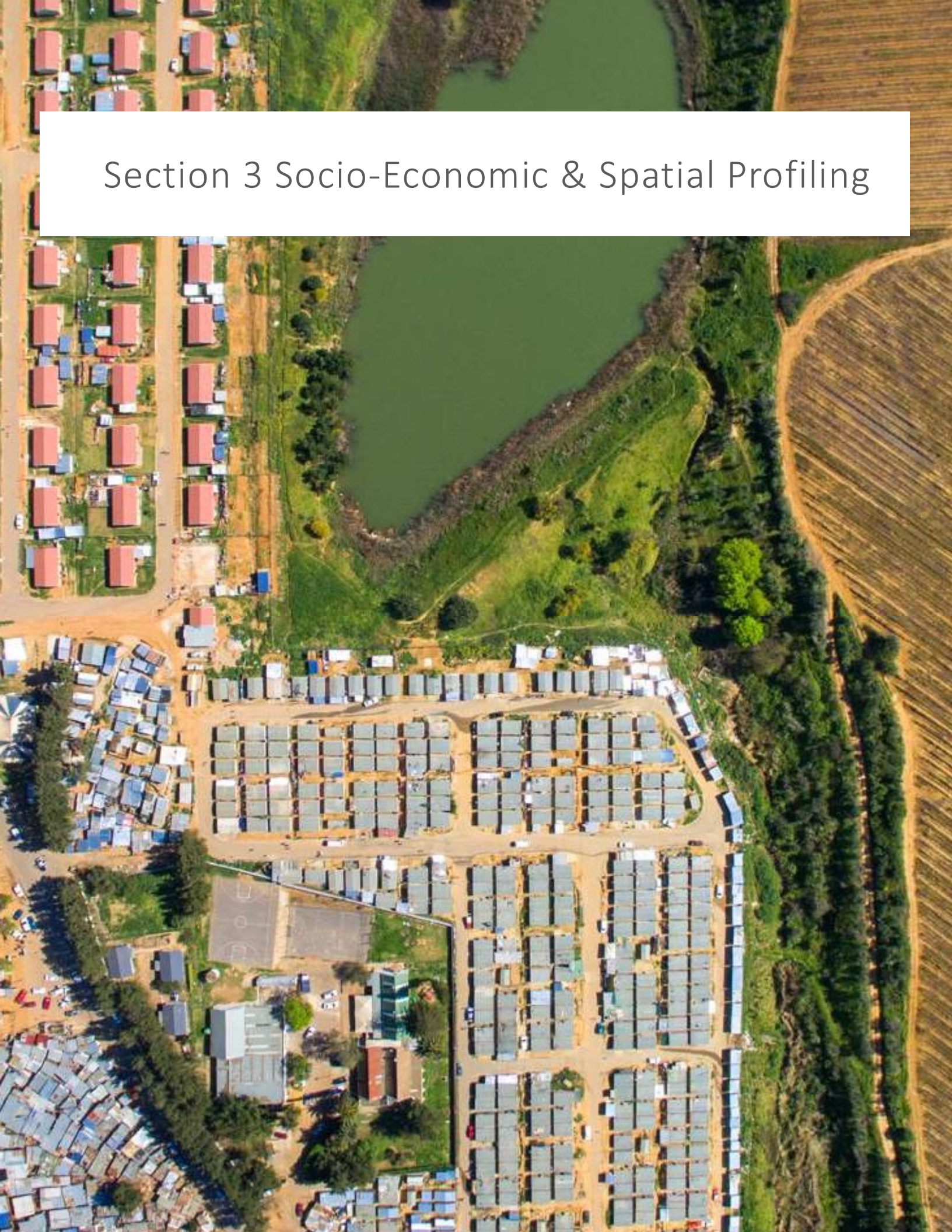
The following table is a summary of the Stellenbosch nodal points. For a detailed profile please refer to Annexure 1.

Table 3: Summary profile of the Priority Development Areas

	Type	Urban node	Rural Node	Farming	Total
	Area (ha)	3 803	1 099	79 977	84 879
Population	Population 1996	61 734	5 259	37 361	104 354
	Population 2001	68 810	7 013	43 153	118 976
	Population 2011	100 973	12 999	41 739	155 711
	Population/ha 1996	16.23	4.79	0.47	1.23
	Population/ha 2001	18.09	6.38	0.54	1.40
	Population/ha 2011	26.55	11.83	0.52	1.83
Households	Households 1996	15 973	1 091	9 091	26 155
	Households 2001	17 498	1 476	10 147	29 121
	Households 2011	30 495	3 040	9 793	43 328
	Households /ha 1996	4.20	0.99	0.11	0.31
	Households /ha 2001	4.60	1.34	0.13	0.34
	Households /ha 2011	8.02	2.77	0.12	0.51
	Households size 1996	3.86	4.82	4.11	3.99
	Households size 2001	3.93	4.75	4.25	4.09
	Households size 2011	3.31	4.28	4.26	3.59
Dwelling frame	DF18 Dwelling	32 186	3 692	7 014	42 892
	DF18 Businesses	591	46	268	905
	DF18 Special dwelling institutions	3 182	4	240	3 426
	DF18 Service units	126	17	66	209
	DF18 Recreational units	46	14	8	68
	DF18 Other Units	994	282	3 549	4 825
	DF18 Vacant	989	306	257	1 552
	DF18 Total units	38 114	4 361	11 402	53 877
Schools	Primary school	18	7	4	29
	Secondary school	10	0	1	11
	Intermediate school	0	0	1	1
	Combined schools	1	0	4	5
Facilities	Public health facilities	12	2	0	14
	Private health facilities	1	0	0	1
	SAPS stations	4	1	0	5
	Lower courts	1	0	1	2
Land cover 2014 (non-urban)	Cultivated commercial fields	99.37	22.78	3 870.32	3 992.47

	Type	Urban node	Rural Node	Farming	Total
(ha)	Cultivated commercial pivot	0.00	0.00	84.11	84.11
	Cultivated orchard and vines	297.58	132.72	19	19
				005.52	435.82
	Sugarcane	0.00	0.00	0.00	0.00
	Subsistence farming	0.00	0.00	0.00	0.00
	Forests & Plantations	43.97	15.04	2 951.10	3 010.11
	Mining	0.00	17.06	44.57	61.63
Land cover 2014 (urban)	Urban built-up	19.47	0.26	17.90	37.63
(ha)	Urban commercial	306.12	1.27	42.34	349.73
	Urban industrial	145.06	20.80	265.89	431.75
	Urban residential	867.70	28.90	58.46	955.06
	Urban townships	218.11	160.80	102.22	481.13
	Urban informal	47.61	0.00	3.92	51.53
	Rural villages	0.00	0.00	0.00	0.00
	Urban sports and golf	276.67	3.47	112.28	392.42
	School and sports grounds	66.67	13.05	22.86	102.58
	Small holdings	69.40	12.84	337.36	419.60
	TOTAL	2 016.81	241.39	963.23	3 221.43
Roads (km)	National	0	0	22.96	22.96
	Arterial	15.2	9.93	93.59	118.72
	Secondary	0.43	1.44	35.48	37.35
	Tertiary	22.64	19.42	513.75	555.81
	Main (Urban)	28.46	1.15	24.72	54.33
	Streets (Urban)	196.74	0.36	32.53	229.63
	Total roads	263.47	32.3	723.03	1018.8

Section 3 Socio-Economic & Spatial Profiling



3 Socio-Economic & Spatial Profiling

3.1 Contextualisation

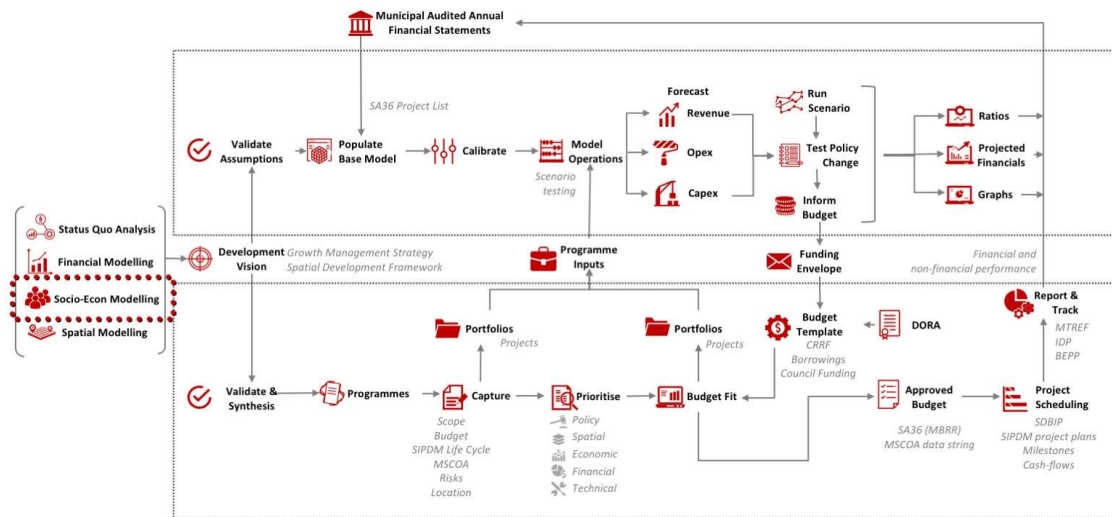


Figure 7: Socio Economic & Spatial Profiling

This section shows the demographic, socio-economic and spatial characteristics for the municipal area. The spatial and socio-economic profile of the municipality drives future demand and hence capital and operating investment and expenditure.

The aim of this analysis is to obtain an in-depth understanding of the demographic and socio-economic characteristics of the population that are being served in each FA of the municipality. This assessment typically includes the access to infrastructure and social services and amenities, as well as the level of service of these services and amenities. The purpose of the municipal profiling is therefore twofold:

- Firstly, to identify the population within the municipality and FAs in order to determine the base unit of needs estimation as input infrastructure modelling and financial modelling, and;
- Secondly, to understand the status quo of services within the municipality.

These two basic elements were used to quantify and to project growth in infrastructure provision demand over the planning horizon of 10-years. Understanding the socio-economic and spatial profile of the municipality enables the municipality to make more accurate and informed decisions regarding capital investment going forward.

Social profiling is usually presented in a municipality's SDF, however, given the lack of quantification in the existing SDFs across local governments nation-wide, municipal and FA profiling is deemed a necessary step by the CEF guidelines as a prerequisite to evidence-based planning. This section therefore only presents the municipal profile for purposes of planning contextualisation.

3.2 General Context: Background

3.2.1 Demarcation History

South Africa undergoes a major reassessment of its municipal demarcations prior to each municipal election. Changes in municipal and ward boundaries affect all levels of planning and also long-term development strategies. The next table shows the municipality's and wards which previously formed part of the current area under assessment.

Table 4: Stellenbosch Local Municipality's Demarcation History

	2016	2011	2006	2001	1996
District municipality(s) / Metropolitan area(s) affected	Cape Winelands	Cape Winelands	Cape Winelands DC	Boland DM, City of Cape Town MM	Metropolitan Area Overberg DC Winelands DC
The local municipality(s) affected:	Stellenbosch	Stellenbosch	Stellenbosch	City of Cape Town Stellenbosch	Franschhoek TLC Helderberg MLC Nuweberg TRC Oostenberg MLC Paarl TRC Pniel TLC Stellenbosch TLC Stellenbosch TRC
Municipal ward(s) affected	WC024-1 WC024-2 WC024-3 WC024-4 WC024-5 WC024-6 WC024-7 WC024-8 WC024-9 WC024-10 WC024-11 WC024-12 WC024-13 WC024-14 WC024-15 WC024-16 WC024-17 WC024-18 WC024-19 WC024-20 WC024-21 WC024-22	WC024-1 WC024-2 WC024-3 WC024-4 WC024-5 WC024-6 WC024-7 WC024-8 WC024-9 WC024-10 WC024-11 WC024-12 WC024-13 WC024-14 WC024-15 WC024-16 WC024-17 WC024-18 WC024-19 WC024-20 WC024-21 WC024-22	WC024-1 WC024-2 WC024-3 WC024-4 WC024-5 WC024-6 WC024-7 WC024-8 WC024-9 WC024-10 WC024-11 WC024-12 WC024-13 WC024-14 WC024-15 WC024-16 WC024-17 WC024-18 WC024-19	Cape Town-13 Cape Town-15 Cape Town-84 Cape Town-85 WC024-1 WC024-2 WC024-3 WC024-4 WC024-5 WC024-6 WC024-7 WC024-8 WC024-9 WC024-10 WC024-11 WC024-12 WC024-13 WC024-14 WC024-15 WC024-16 WC024-17 WC024-18	No data

The data shows that Stellenbosch had little demarcation disruptions. This contributes to stability in the municipal administrative area and allows more certainty in planning investment and operations.

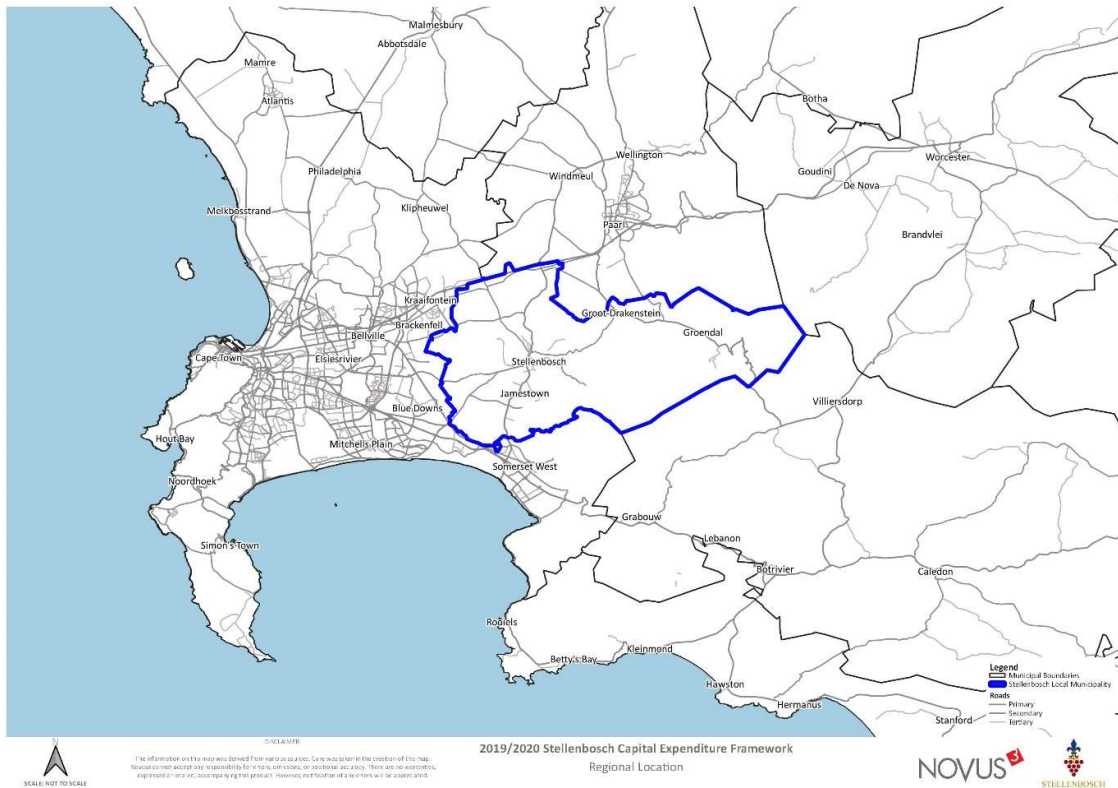
The current demarcation process set to affect municipality boundaries in 2021 after the Local Government elections indicates that a 23rd ward is on the cards for the municipality. The draft revised boundaries is in the process of discussion.

3.2.2 Spatial Relationship

Stellenbosch's location has a clear impact on its development. Its distance from the metropolitan core allows it to develop an own identity and carve its own strategies, but it will always be linked to the development of the greater Cape Town area.

Simply, in terms of distance relations, development will always tend to gravitate towards the metropolitan core rather than away from it. This implies that the western parts of the municipality will always have more development pressure than the eastern parts. However, its interface with the high levels of settlement in the adjacent parts of the metropolitan area will benefit Stellenbosch or alleviate pressure if the Metropolitan Government pursues densification strategies under the banner of building a compact city. It might allow the Municipality to create a band of low-intensity development between its urban core and the adjacent settlement areas in the metropolitan area.

These spatial relationships are important. The subsequent profile, and especially the maps continue to emphasise the spatial distribution of the elements and their impact on Stellenbosch.



Map 10: Spatial Relationship of Stellenbosch

Apart from formal settlement areas, the municipal area also includes a number of informal settlements and a growing demand for housing amongst low and middle income households.

The following municipalities share their borders with Stellenbosch Municipality:

- The City of Cape Town (South);
- Drakenstein Municipality, Cape Winelands District (North);
- Breede Valley Municipality, (North-east); and
- Theewaterskloof Municipality, (South-west).

3.3 Macro-Economic Context

3.3.1 Demography

3.3.1.1 Total Population

The CWDM currently has a population of 926 698, rendering it the most populated district in the Western Cape. The total is estimated to increase to 1 070 767 by 2024 which equates to a 2.4 per cent compounded growth rate between the two reference years.

With an estimated population of 186 274 in 2019, Stellenbosch is the third most populated municipal area in the Cape Winelands District (CWD). The area is expected to grow to 200 157 by 2023, equating to an average annual growth rate of 1.8 per cent, and set to become the second most populated area in the District after Drakenstein from 2020 onwards.

The estimated population growth rate of Stellenbosch is slightly higher than that of the CWD at 1.6 per cent and on par with the Western Cape average annual growth rate of 1.8 per cent over the same period.

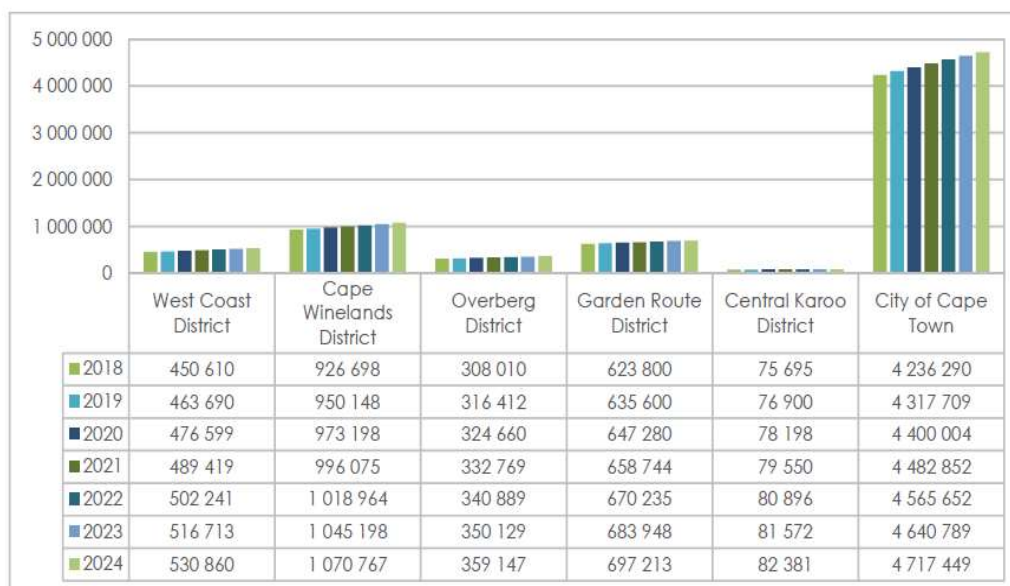


Figure 8: Population Profile, Cape Winelands and City of Cape Town

3.3.1.2 Household Income Distribution

13.3% of households earn an annual economic income of below R30 000 p.a., and the highest concentration of households (9.8%) earn between R192 000 – 360 000 p.a.

The average household's income for Stellenbosch is R 209 700 p.a (R 17 475 p.m). which is the second highest of all five municipalities in Cape Winelands District, but higher than the national average of R 190 386 p.a.

The average annual per capita income of Stellenbosch of R 78 293 is the highest in the district, followed by Drakenstein: R 76 593; Breede Valley; R 67 789; Langeberg: R 62 675; and Witzenberg: R 55 955.

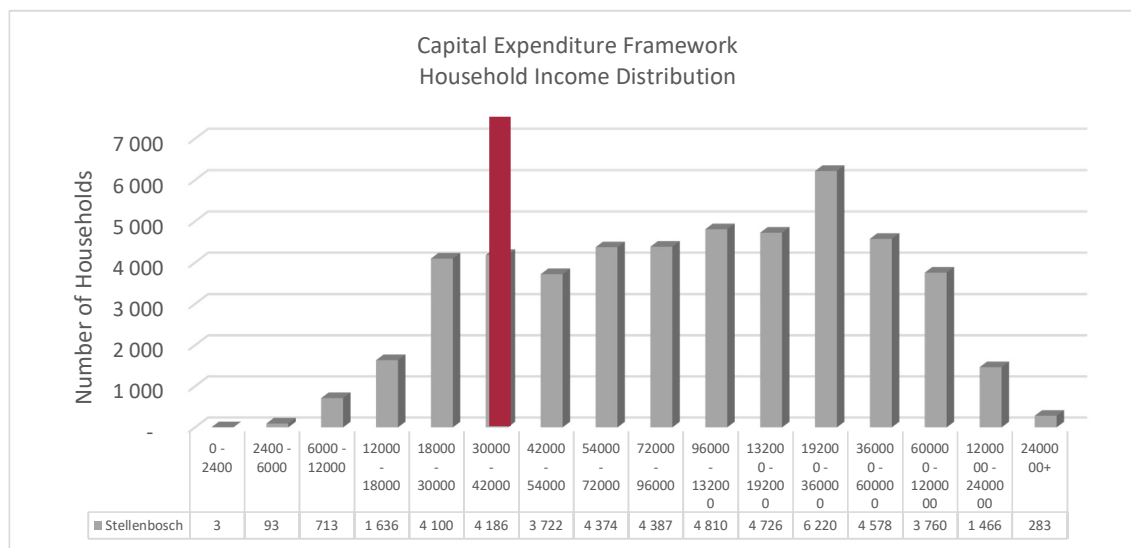


Figure 8: Distribution of Household Income

In 2017, the CWD economy grew by an estimated 1.7% which is higher than the provincial growth of 1%. In 2016, the CWD contributed R60.6 billion to the economy of the Western Cape, with the largest contributions made by the Drakenstein (R19.9 billion) and Stellenbosch (R14.6 billion) municipal areas. The economies of these two municipal areas grow at very similar rates, and it is estimated that between 2013 and 2017, the Drakenstein and Stellenbosch Municipal areas' economies grew at an annual average rate of 1.7%.

The local economies were influenced by the volatile national economy, especially in 2015, 2016 and 2017. The economic growth in these three years has fluctuated sporadically and is still much lower than the average 10-year economic growth rates.

The local economy of the Stellenbosch Municipal area is driven by the wholesale and retail trade sector; the finance, insurance, real estate and business services sector; and the manufacturing sector. Collectively, these sectors contribute 58.7% (R8.6 billion) to the Municipal GDP. The manufacturing sector in the Stellenbosch Municipal area is highly reliant on the agriculture, forestry and fishing sector, as 40% of manufacturing sector activities are within the food, beverages and tobacco subsector.

Table 5: Cape Winelands District GDPR contribution and average growth rates per municipal area, 2012 – 2017

Municipality	R million value 2016	Contribution to GDPR (%) 2016	Trend 2006 - 2016 2013 - 2017e		Real GDPR growth (%)					
					2012	2013	2014	2015	2016	2017e
Witzenberg	8 197.9	13.5	4.9	3.7	4.9	5.0	5.6	2.9	1.6	3.2
Drakenstein	19 896.8	32.9	2.4	1.7	2.8	2.6	2.7	1.4	0.7	1.2
Stellenbosch	14 561.2	24.0	2.5	1.7	2.9	2.6	2.7	1.5	0.9	1.0
Breede Valley	11 665.3	19.3	3.0	2.1	3.2	3.2	3.6	1.5	0.6	1.9
Langeberg	6 234.7	10.3	3.1	2.3	3.4	3.2	3.9	1.7	0.0	2.7
Total Cape Winelands District	60 555.9	100	2.9	2.1	3.2	3.1	3.4	1.7	0.8	1.7
Western Cape Province	529 927.7	-	2.6	1.8	2.9	2.6	2.4	1.5	1.2	1.0

3.3.1.3 Population Age profile

Population Age Profile of Stellenbosch reflects a very young population with the highest population being amongst the 20-24-year cohort. This is typical of a young developing society although in Stellenbosch's case. This number is likely influenced by the number of students coming in the area.

Between 2019 and 2025, the largest population growth was recorded in the 65+ aged cohort which grew at an annual average rate of 4.1 per cent. This predicted growth rate increases the dependency ratio towards 2025.

Table 6: Age Cohorts and Dependency Ratio

Year	Children: 0 – 14 Years	Working Age: 15 – 65 Years	Aged: 65 +	Total	Dependency Ratio
2019	45,105	131,887	9,282	186,274	41.2
2022	47,544	140,077	10,647	198,268	41.5
2025	49,749	145,910	11,806	207,465	42.2
Growth	1.6%	1.7%	4.1%		-

3.3.1.4 Unemployment Rate

The official Unemployment Rate of Stellenbosch of 16.8% is 9.6 percentage points lower than the national average of 26.4% but ranks second highest when compared to the other municipalities in the District. The rate has increased over the last 10 years.

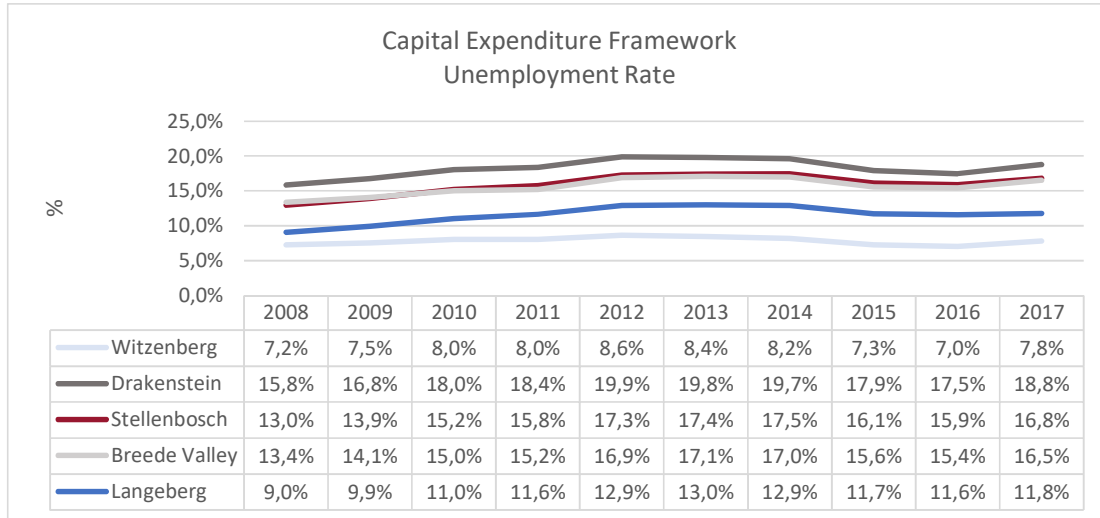


Figure 9: Unemployment Rate

3.3.2 Economy

The economy of Stellenbosch is relatively diversified with the manufacturing-; finance- trade-, and community services sectors jointly contributing 82% to local GVA. The contribution of agriculture is surprisingly low.

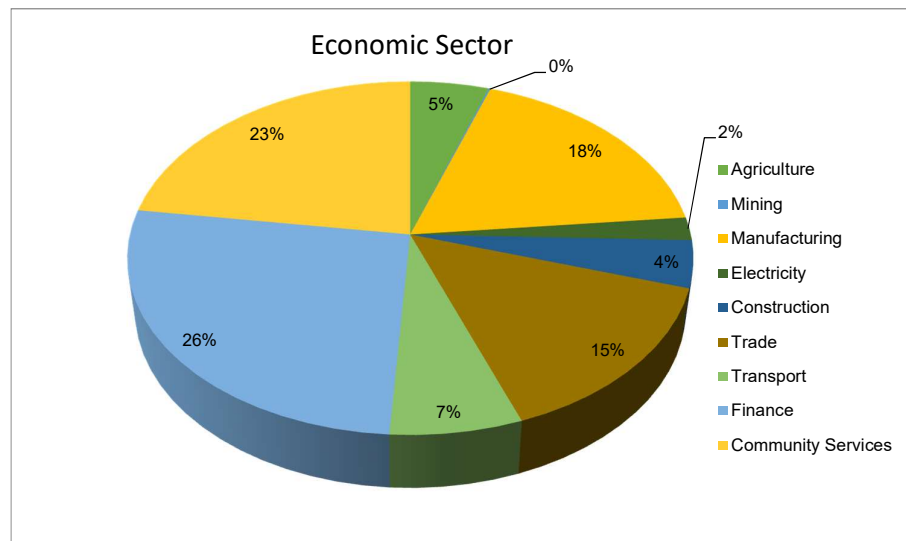


Figure 10: Economic Sectors

The average annual GVA growth rate of Stellenbosch for the past 5 years at 1.3% p.a. is lower than that of the Province at 1.7% p.a. and the National rate of 1.5% p.a.

Proportional growth was experienced in Finance's contribution to the local GVA, even though a declining trend is noted in Agriculture and Manufacturing, indicatives of a change in the economic structure is evident.

Table 7: Proportional Growth of economic Sectors

Subsector	2008	2017
Agriculture	6.5%	5.1%
Mining	0.1%	0.1%
Manufacturing	20.6%	18.2%
Electricity	1.7%	2.1%
Construction	4.1%	4.3%
Trade	14.0%	14.5%
Transport	6.4%	6.7%
Finance	24.4%	26.2%
Community Services	22.3%	22.7%

3.3.2.1 Employment

Since 2008 the number of people formally employed in Stellenbosch increased by just under 13%. This implies an average annual growth of 1.3%, which is lower than the annual population growth rate of 2%. Trade and Finance make a meaningful contribution to employment with each sector employing more than 14 000 people as illustrated in Graph 6 while the Agricultural sector is declining.

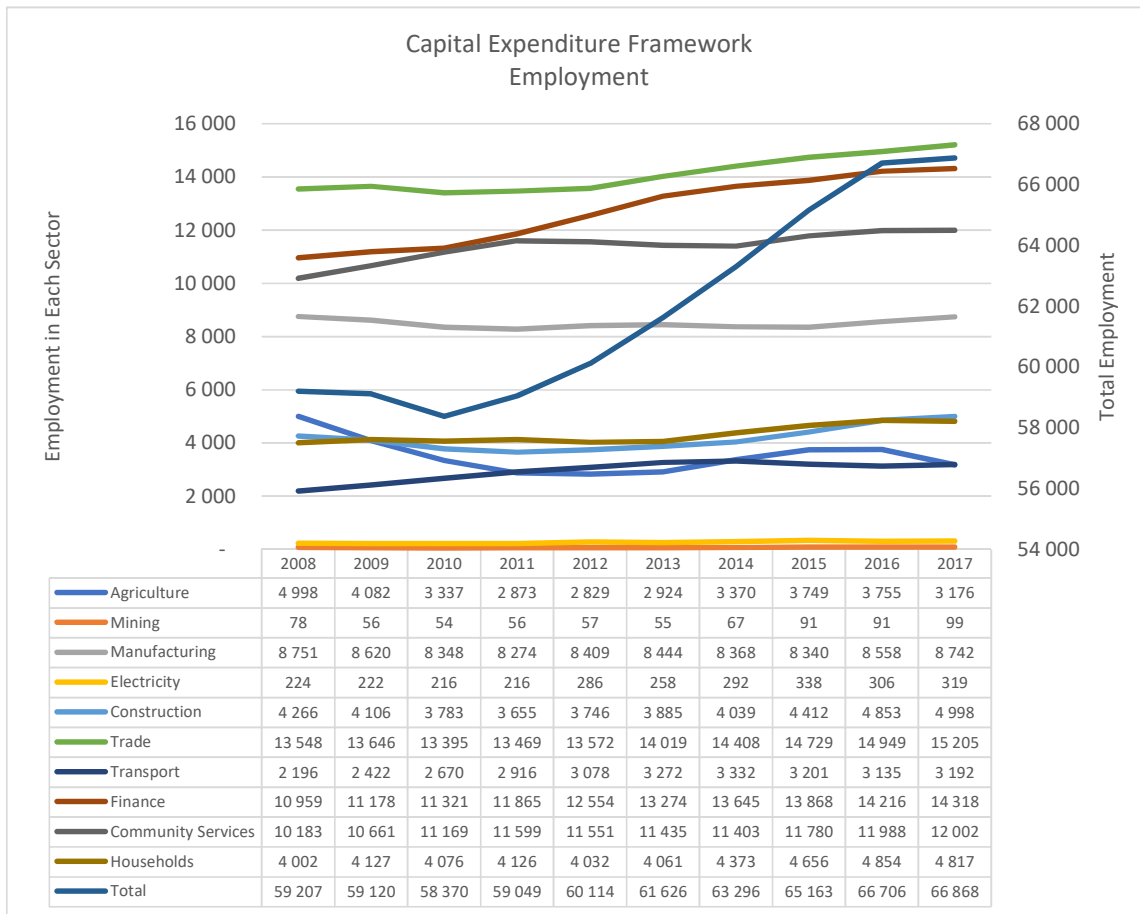


Figure 11: Employment

3.3.2.2 Tourism Spend

Tourism is a key economic driver and Tourism Spend has more than doubled since 2008 although number of visitors only increased by 15% over the same period. Tourism Spend in 2017 amounted to R 2.5 billion, which equates to 23.5% of GVA. Of the total tourism spend in the Cape Winelands DM; about 50% was spent in Stellenbosch LM.

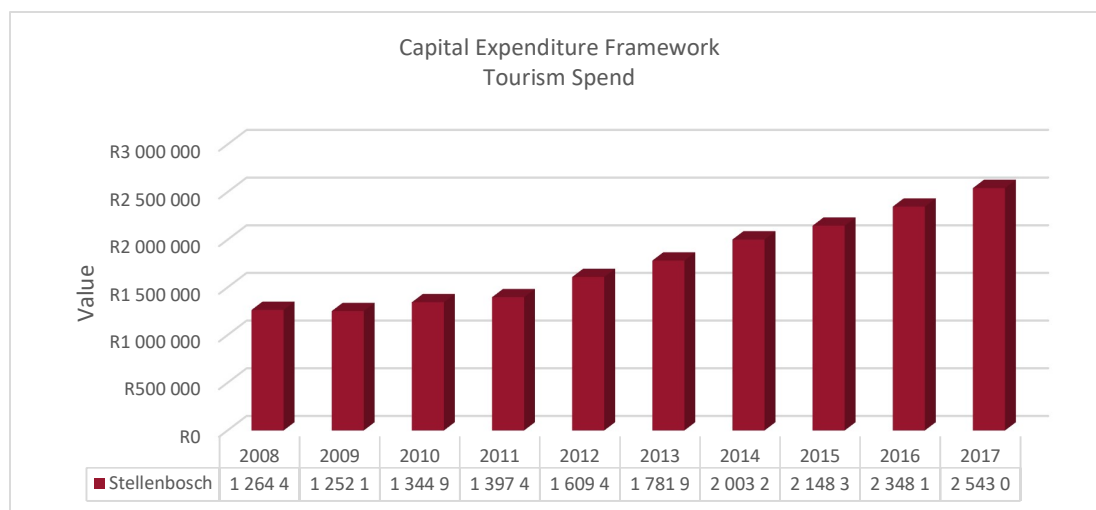


Figure 12: Tourism Spend

3.3.3 Household Infrastructure

The average Infrastructure Index (2008-17), a population-adjusted, access-to-service weighted index, which measures a region's overall access to household infrastructure, is 0.86⁹. This is higher than the National index of 0.74. Although service backlogs are relatively low, Housing backlogs contributed significantly to the decline in household infrastructure delivery.

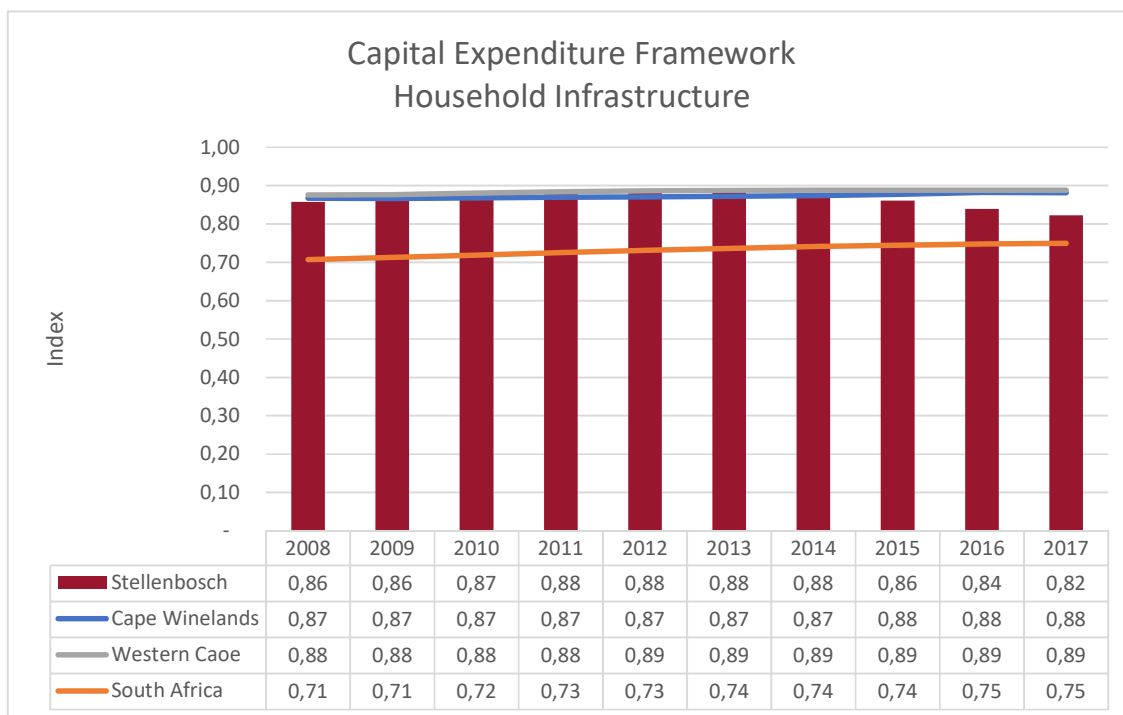


Figure 13: Infrastructure Index

⁹ A score of 1.00 would indicate a position where no backlogs exist. Stellenbosch's 0.86 implies a 14% on average level of backlogs. The index is, however, weighting based on cost of service basis – i.e. any backlog in housing (as is the case with Stellenbosch) would significantly impact on this index outcome due to this cost of delivering this service.

3.3.3.1 Household Formation

Stellenbosch experienced Household Formation increase of 20% between 2008 and 2017 which is below the Western Cape level, but higher than the national average. In 2017 there were approx. 50 000 households.

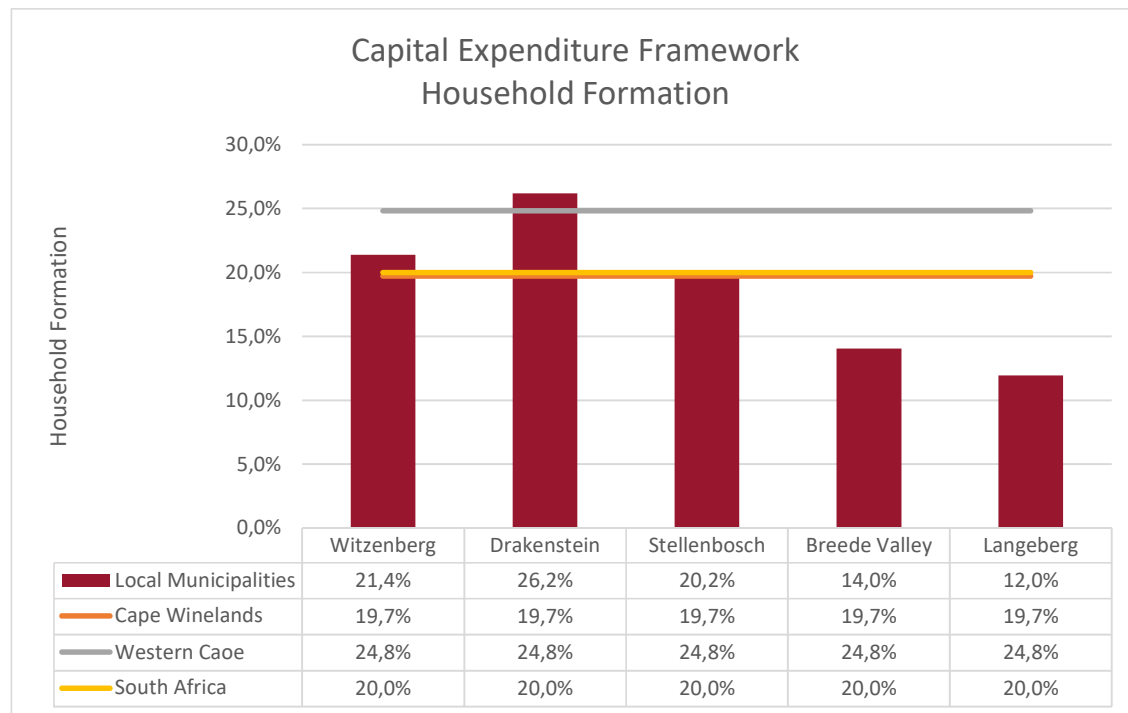


Figure 14: Household Formation

3.3.3.2 Household Infrastructure Provision

By comparing backlogs of sanitation, water, electricity and refuse removal in urban as well as non-urban areas one notes that the Stellenbosch municipality's overall infrastructure service delivery is high. Refuse removal and to a lesser extent, electricity provision reflects the remaining backlogs.

Table 8: Household Infrastructure Provision (2017)

Infrastructure	Cape Winelands		Stellenbosch	
Above RDP Level				
Sanitation	222 059	96,2%	48 019	96,5%
Water	225 813	97,8%	48100	96,6%
Electricity	221 550	96,0%	46 688	93,8%
Refuse Removal	203 040	87,9%	43 377	87,1%
Below RDP				
Sanitation	8 828	3,8%	1 764	3,5%
Water	5 084	2,2%	1 683	3,4%
Electricity	9 347	4,0%	3 095	6,2%
Refuse Removal	27 857	12,1%	6 406	12,9%
Total Number of Households	230 897	100%	49 783	100%

3.4 Stellenbosch Municipal Area: Demography

3.4.1 Basic population characteristics

Population dynamics, such as changes in population size, structure and distribution along with the associated demographic factors of births, deaths and migration affect all facets of human life. Planners in every sector should examine the population aspects of their sectors carefully and address their sector plans with reference to the relevant population issues.

The demographic profile and dynamics are critical infrastructure investment and largely determine the ability of the municipality to meet the operating consequences of its investment strategies.

3.4.1.1 Population and gender

The total population is the starting point. For any planning assessment, the total population is fundamental to the current and long-term demand for services and facilities. The table below shows the population for the three census periods with a gender split. From the time-related figures, inferences can be drawn on population growth or decline. (See details later in the report) Gender also serves as a proxy for economic conditions. Very generally speaking, male absenteeism can indicate that an area is shedding workers while a surplus of males might indicate the area is attracting migrant labour and hence higher expectation regarding economic growth and job creation. The table on age groups below will shed more light on this matter.

Table 9: Population and Gender

	1996	2001	2011	CS2016 ¹⁰
Males	51,224	57,850	76,158	
Females	53,411	61,129	79,536	
Population density (persons/ha)	1.15	1.40	1.83	2.04
Total Population	104,635	118,979	155,694	173,197

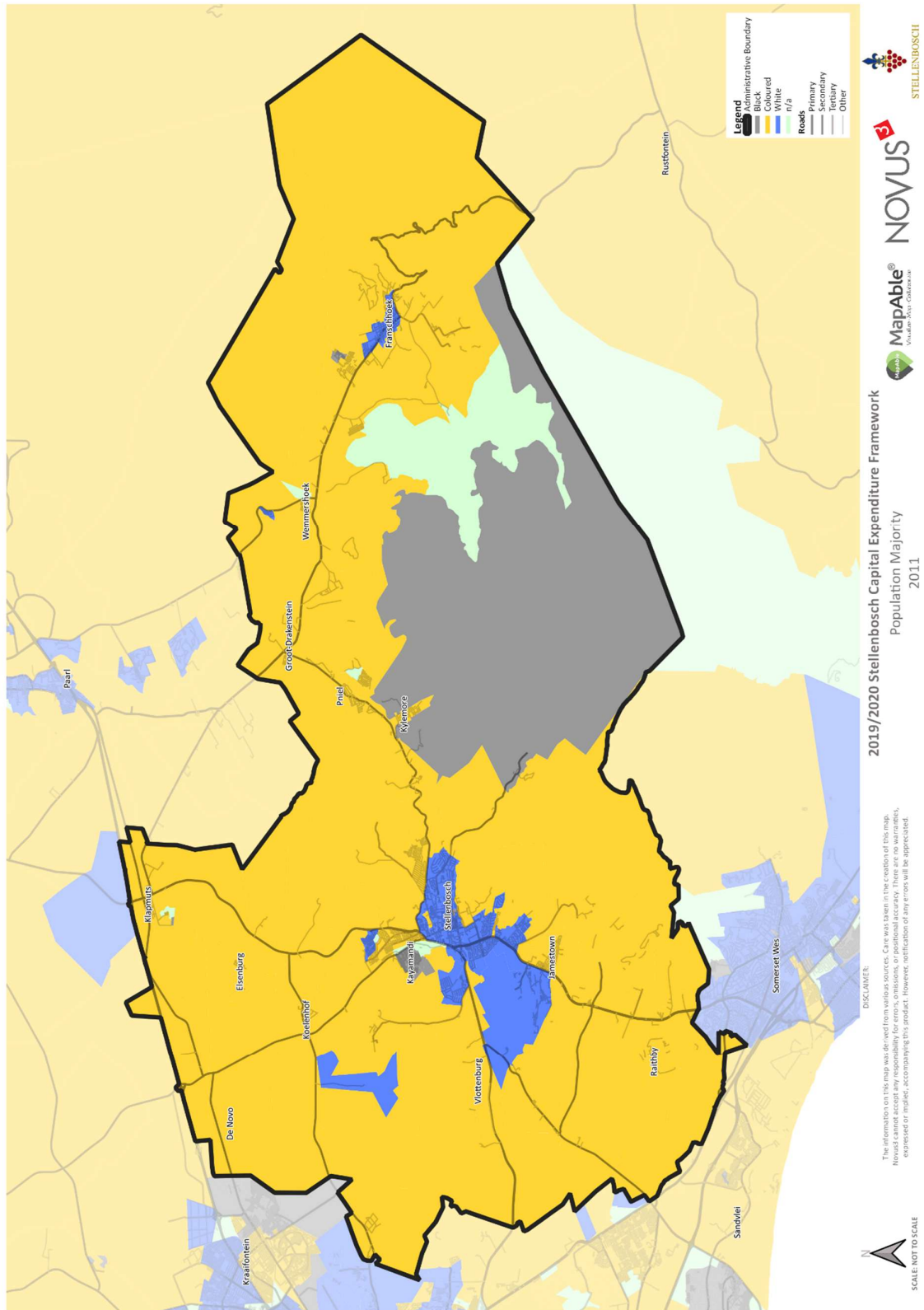
3.4.1.2 Population groups

Population groups need not be a central issue in development analysis. However, looking at the composition of the local population might help to explain current dynamics based on historical population settlement patterns.

Table 10: Population Groups

	1996	2001	2011	CS2016
Black	16,235	24,226	43,703	76,574
White	27,025	26,225	28,735	21,182
Coloured	59,039	68,259	81,329	75,386
Indian	264	269	620	72
Other	2,072	NA	1,307	
Total	104,635	118,979	155,694	173,197

¹⁰ The StatsSA Community Survey does not give a gender breakdown per municipality



Map 11: Population Majority 2011

3.4.1.3 Age groups

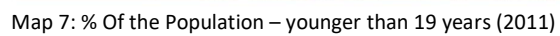
Age groups are very important in any demographic assessment. The age structure of the population provides a very direct indication of long-term demand for community and social services, housing and infrastructure demand. The table below only reflects on four age categories. The first category is the preschool population, and the second category is the extent of the school population, the third category is the economically active population, and the last group is the elderly population.

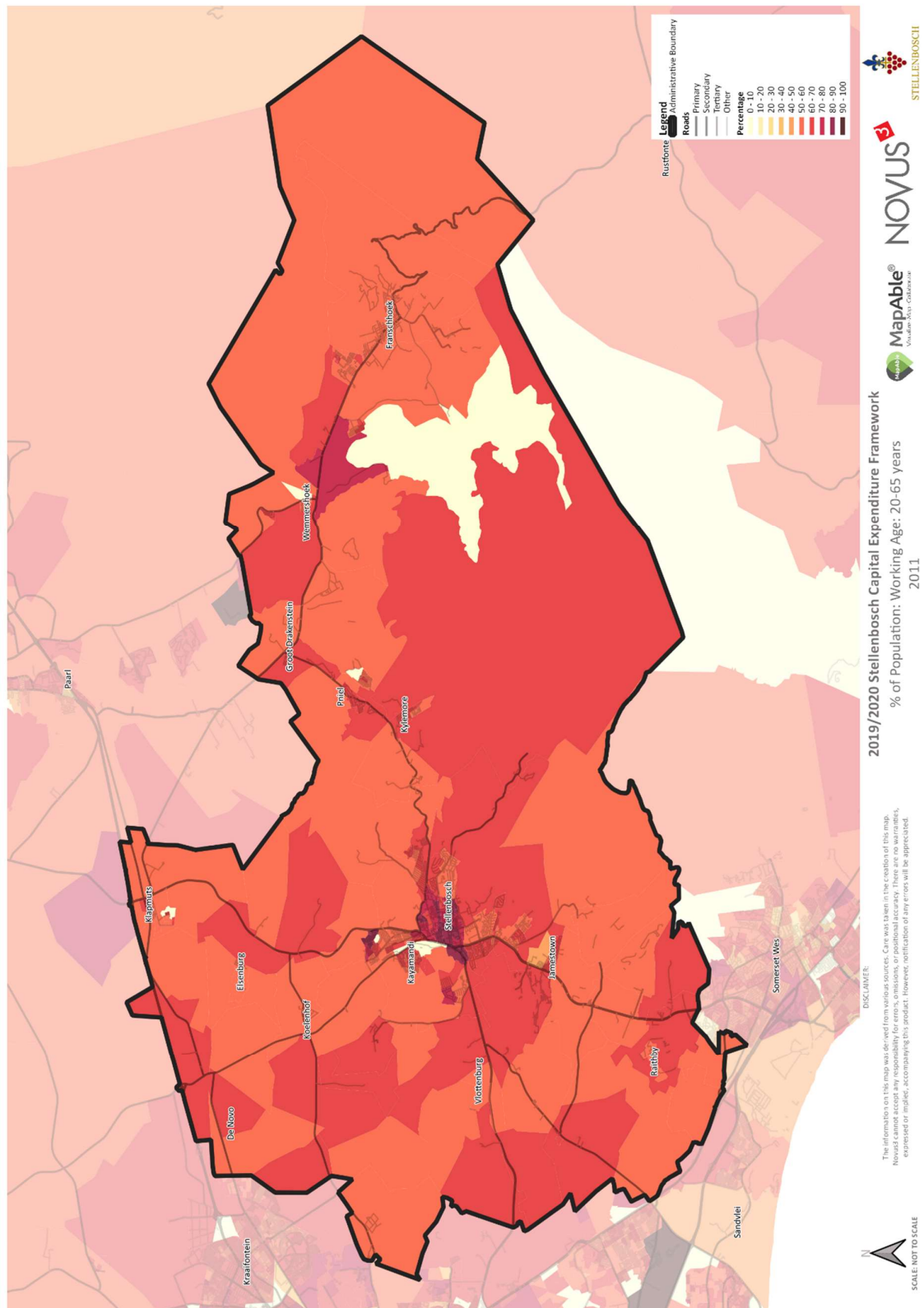
In considering age groups, the 20 to 65-year cohort is very significant. The male-female ratio in this age group is important. As explained above male absenteeism or a male surplus is a good proxy for migrant labour. Furthermore, the number of women in this age group is also a good indicator of the expected number of households in an area. Stellenbosch shows stability in this cohort with no or very little evidence of migrant labour.

Table 11: Age groups¹¹

	1996		2001		2011	
	Male	Female	Male	Female	Male	Female
<5	5,680	5,527	5,734	5,811	8,010	7,861
5 to 20	15,407	16,111	17,524	18,210	19,811	20,740
20 to 65	27,786	28,719	32,516	34,298	45,428	46,891
>65	1,637	2,412	2,077	2,810	2,909	4,045
Unspecified	715	642	0		0	
Total	51,224	53,411	57,850	61,129	76,158	79,536
	104,635		118,979		155,694	

¹¹ The Community Survey 2016 does not provide a compatible age breakdown at municipal a level. According to CS2016, 23,8% was under the age of 14 years, 42.4% in the 15-35 year bracket, 28.7% was between 35 and 64 years and 4.1% above 64 years.





Map 8: % of the Population: Working age – 20 to 65 year (2011)

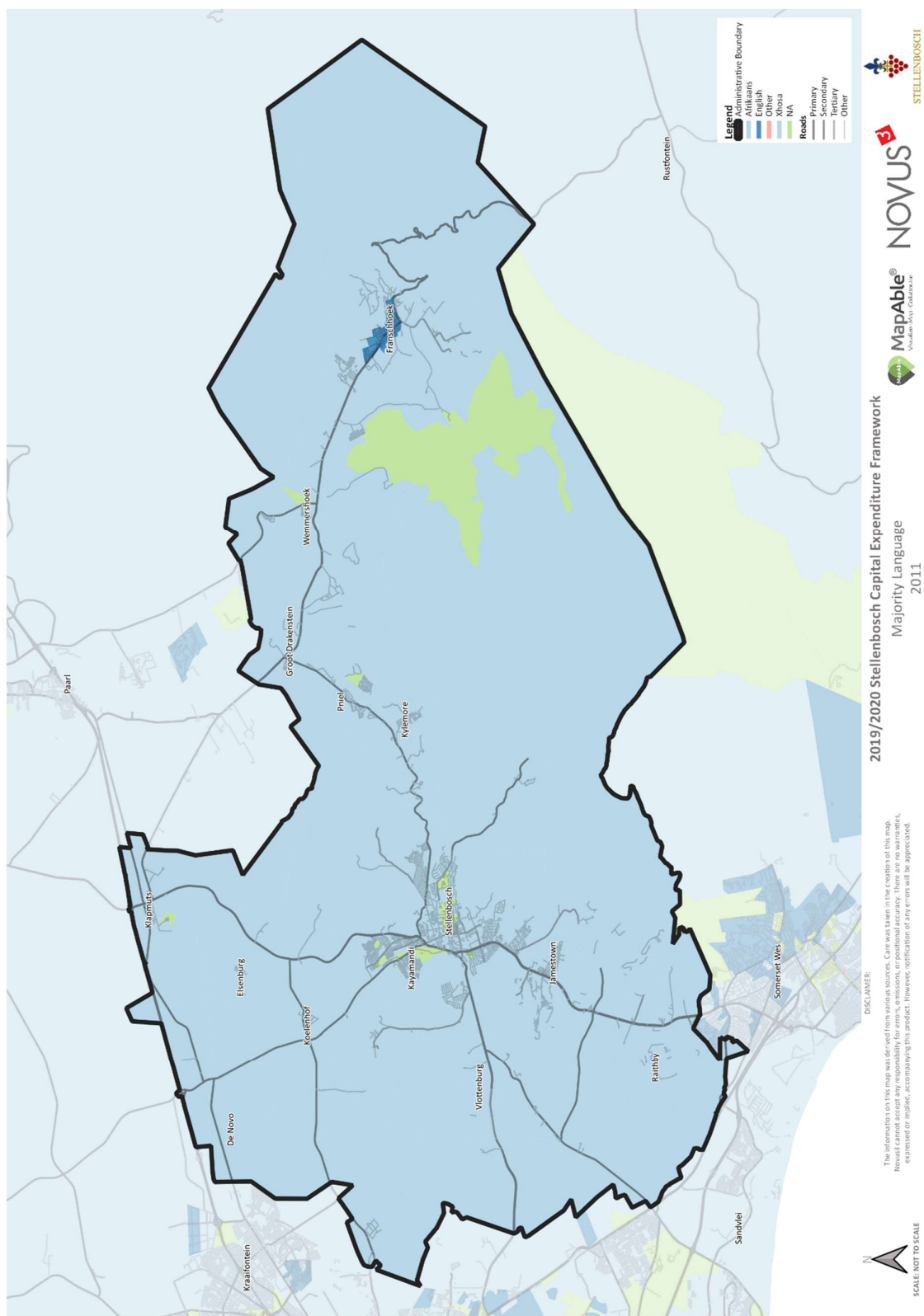
3.4.1.4 Language groups

Language groups display very strong spatial patterns in South Africa. These patterns and distributions have ramifications for education, labour markets, and labour relations. Its impact on the demand for community services, infrastructure and social facilities are, however, not significant for the planner.

Table 12: Language groups¹²

	1996	2001	2011
Afrikaans	80,767	88,185	99,397
English	7,275	8,329	10,613
Ndebele	445	36	225
Sepedi	10	78	143
Sesotho	514	1,155	1,783
Siswati	7	30	48
Tsonga	8	54	103
Tswana	29	54	538
Venda	3	27	65
Xhosa	13,234	20,189	30,538
Zulu	45	147	369
Other	2,297	695	11,873
Total	104,635	118,979	155,694

¹² CS2016 do not provide data for municipalities.



Map 9: Majority Language (2011)

3.4.2 Household Characteristics

Population numbers relate to the demand for community and or social facilities. Households, on the other hand, determine the demand for infrastructure and housing. Furthermore, many planning indicators are measured in terms of household sizes and densities.

3.4.2.1 *Households, size and density*

Households are usually assessed in the context of the total population. This gives rise to density ratios and household size. The total number of households is always an important factor in determining the overall demand for infrastructure services and housing. Household density is an important indicator for settlement efficiency and plays an important role in urban planning and development strategies. Household size has an impact on the extent of consumption of goods and services. One should note that housing support strategies have affected household formation to the extent that there are often different rates of change between households and population. The basic household profile for the assessment area is shown in the table below.

Table 1: Total Households, size and density

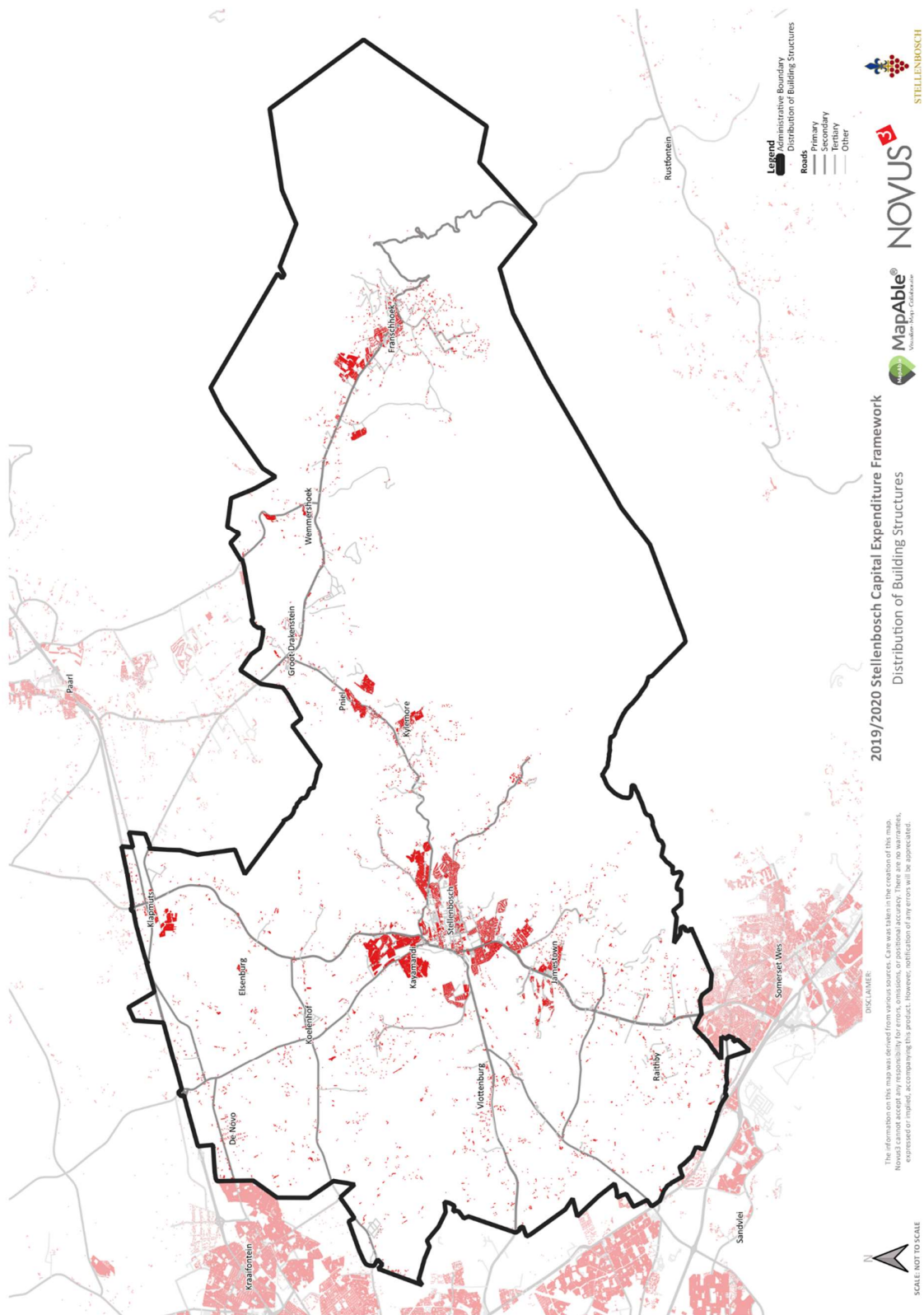
	1996	2001	2011	2016
Total households	26,154	35,165	43,328	52,274
Household density (households/ha)	0.29	0.41	0.51	0.62
Ave household size	4.00	3.38	3.59	3.3

3.4.2.2 *Dwelling frame 2018 profile*

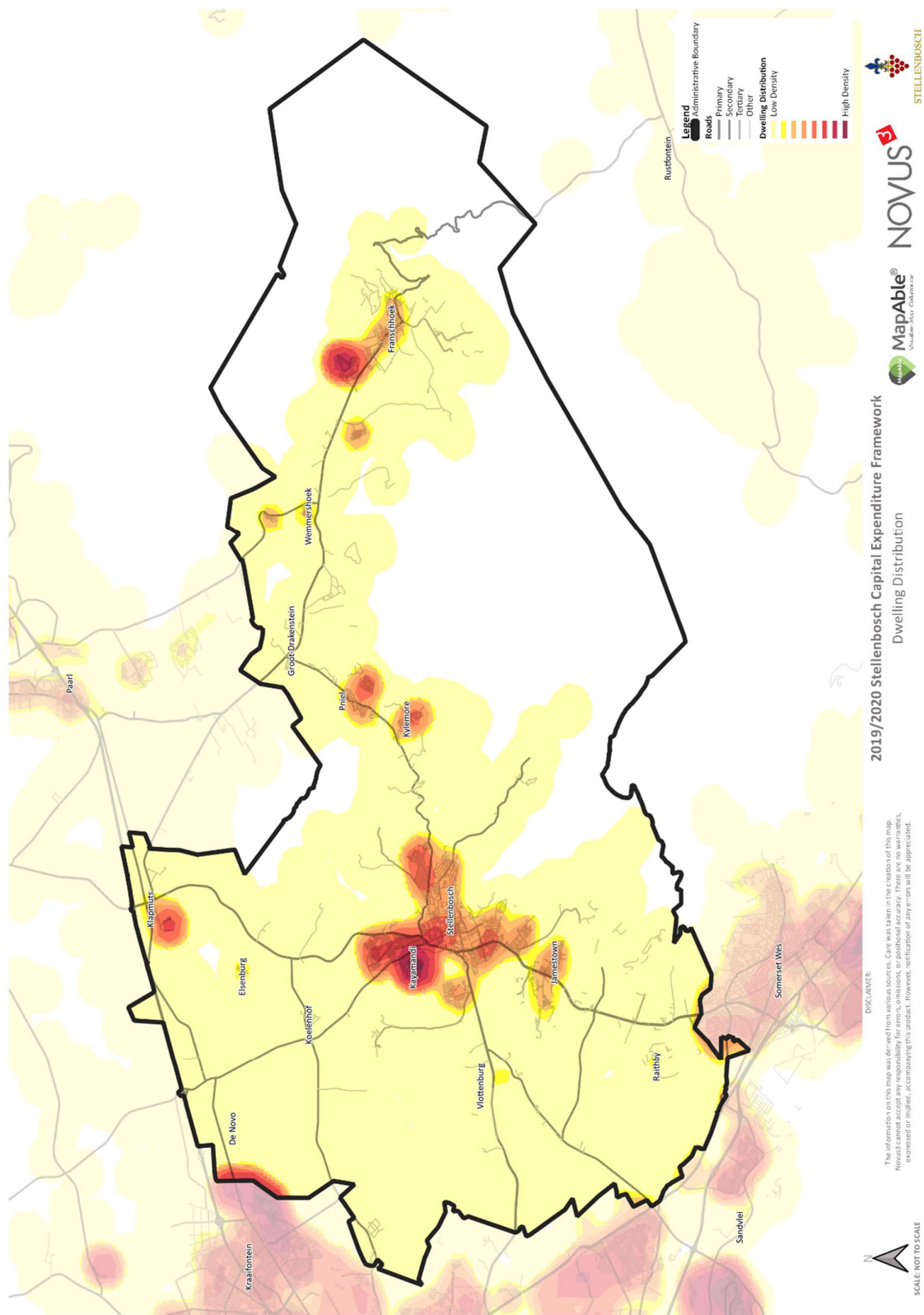
The Statistics South Africa Dwelling Frame data reports the following profile for the area. It indicates figure very similar to that of Census 2011 which is an indication, as is shown later in the report, of a slowdown in expected household growth over the longer term.

Table 2: Dwelling Frame 2018

Profile unit	Quantum
Dwelling unit	42,892
Business unit	905
Special dwelling institution unit	3,426
Service unit	209
Recreation unit	68
Other unit	4,825
Vacant unit	1,525



Map 10: Dwelling Frame 2018 – Building structures



Map 11: Dwelling Units per Km² (Kernel densities)

3.4.2.3 Head of household

Gender is an important aspect in any development environment. The gender of household heads relates to many socio-economic and cultural practices and factors. Therefore, the data below should be interpreted within the context of the environment that is being assessed.

Table 3: Head of Household by gender¹³

	1996	2001	2011
Male head of household	19,181	23,209	28,321
Female head of household	6,844	11,956	15,007
Unspecified	130	0	0
Total	26,154	35,165	43,328

3.4.2.4 Household income

Household income is used as one of the main poverty indicators in South Africa. Social support and subsidy systems are often based on household income parameters. When comparing household income, it is important to discount the impact of inflation. The figures in the table below were adjusted to 2011 Rand values. Increases in poverty are evident and with will serious consequences for service delivery and investment for the Municipality. High service levels and increasing poverty will lead to structural constraints on the Municipality and may eventually lead to cash flow challenges due to an increasing inability to pay for services.

Table 4: Household income per month in 2011 Rand values¹⁴

Income group (Rands)	1996	2001	2011
<1200	3,574	8,491	13,494
1 200 – 2 000	38	3,766	4,363
2 000 – 5 000	163	4,206	7,155
5000 – 10 000	791	6,600	7,381
10 000 – 20 000	2,039	8,208	5,098
20 000 – 50 000	7,577	2,572	3,678
>50 000	11,973	1,323	2,160
Total	26,154	35,165	43,328

3.4.2.5 Dwelling type

Housing backlogs and the demand for housing was and will always remain an issue in development and social support strategies in South Africa. The next table shows the different dwelling types in the area under assessment.

¹³ CS2016 does not provide compatible data. Data only available at district municipality level.

¹⁴ No compatible data available for 2016

Table 5: Dwelling type

	1996	2001	2011	CS2016
Traditional	467	768	254	366
House made of bricks	14,143	18,681	24,817	33,971
Flat	3,026	2,959	4,353	
Multiple housing	2,508	1,198	2,644	
Dwelling in backyard	1,180	554	445	
Room/ granny flat	700	265	279	
Informal	2,937	3,478	7,496	17,829
Informal dwelling in backyard	601	1,111	2,442	
Other	592	6,150	598	107
Total	26,154	35,165	43,328	52,274

Formal housing is clearly increasing, but the pressure from the informal settlements are clear.

3.4.2.6 Dwelling Ownership

Dwelling ownership data must be treated with circumspect. The data from the census below is based on the occupant's perceptions. There are many ownership systems available. If ownership is interpreted as freehold ownership in terms of a title deed, many areas in South Africa are excluded from this form of ownership. The table below reflects the position as reported for Stellenbosch in the censuses.¹⁵

Table 6: Dwelling Ownerships

Tenure	2001	2011
Rented	8,544	13,002
Owned but not yet paid off	4,533	4,312
Occupied rent-free	8,210	12,576
Owned and fully paid off	7,848	11,080
Other	6,031	2,358
Total	35,165	43,328

3.4.3 Migration

In a country where urbanisation plays a pivotal role in long-term development strategies and where the local economy is open, migration is an important issue.

¹⁵ 1996 census data is not comparable to the 2001 and 2011 census.

3.4.3.1 *Country of origin*

Migration into the area of assessment from abroad is shown in the next table.

Table 7: Migration - country of origin¹⁶

Migration	1996	2001	2011
RSA Origin	95,112	117,811	139,577
SADC	794	379	1,851
Rest of Africa	49	61	373
Europe	876	568	482
Asia	71	30	123
Oceania	16	21	33
North America	29	72	21
South America	15	36	43
Unspecified/Other	7,673	NA	13,191
Total	104,635	118,979	155,694

Migration comprises between 8% and 9% of the population of Stellenbosch. This seems to be a fairly consistent figure of the past three censuses. However, the proportion of people from SADC and other African countries increased while people with a European origin decreased.

3.4.3.2 *Province of previous residence*

This section describes the movement of people within South Africa to the area under assessment.

Table 8: Province of previous residence¹⁷

Migration	1996	2001	2011
Eastern Cape	4,131	3,928	4,368
Free State	331	699	352
Gauteng	1,559	2,004	2,275
KwaZulu-Natal	385	790	698
Limpopo	46	162	181
Mpumalanga	65	261	226
Northern Cape	496	885	431
North West	140	382	160
Western Cape	53,602	109,110	133,465
Unspecified/Other	43,879	759	13,538
Total	104,635	118,979	155,694

¹⁶ CS2016 only provides data at provincial level.

¹⁷ CS2016 only provides data at provincial level.

3.5 Education

Education is pivotal in the development process. Skill levels are derivatives of levels of education. The next table shows the profile of the highest level of education for the area.

Table 9: Highest level of education¹⁸

	1996	2001	2011
Under 5	9,240	9,584	22,172
No school	10,250	7,977	4,437
Primary	28,842	36,533	39,565
Secondary	25,307	31,556	43,569
Matric	16,016	19,571	27,110
Post matric	4,294	5,807	7,168
Graduate	4,010	4,111	3,813
Post-graduate	2,121	3,482	6,978
Other	4,555	357	883
Total	104,635	118,979	155,694

3.6 Employment

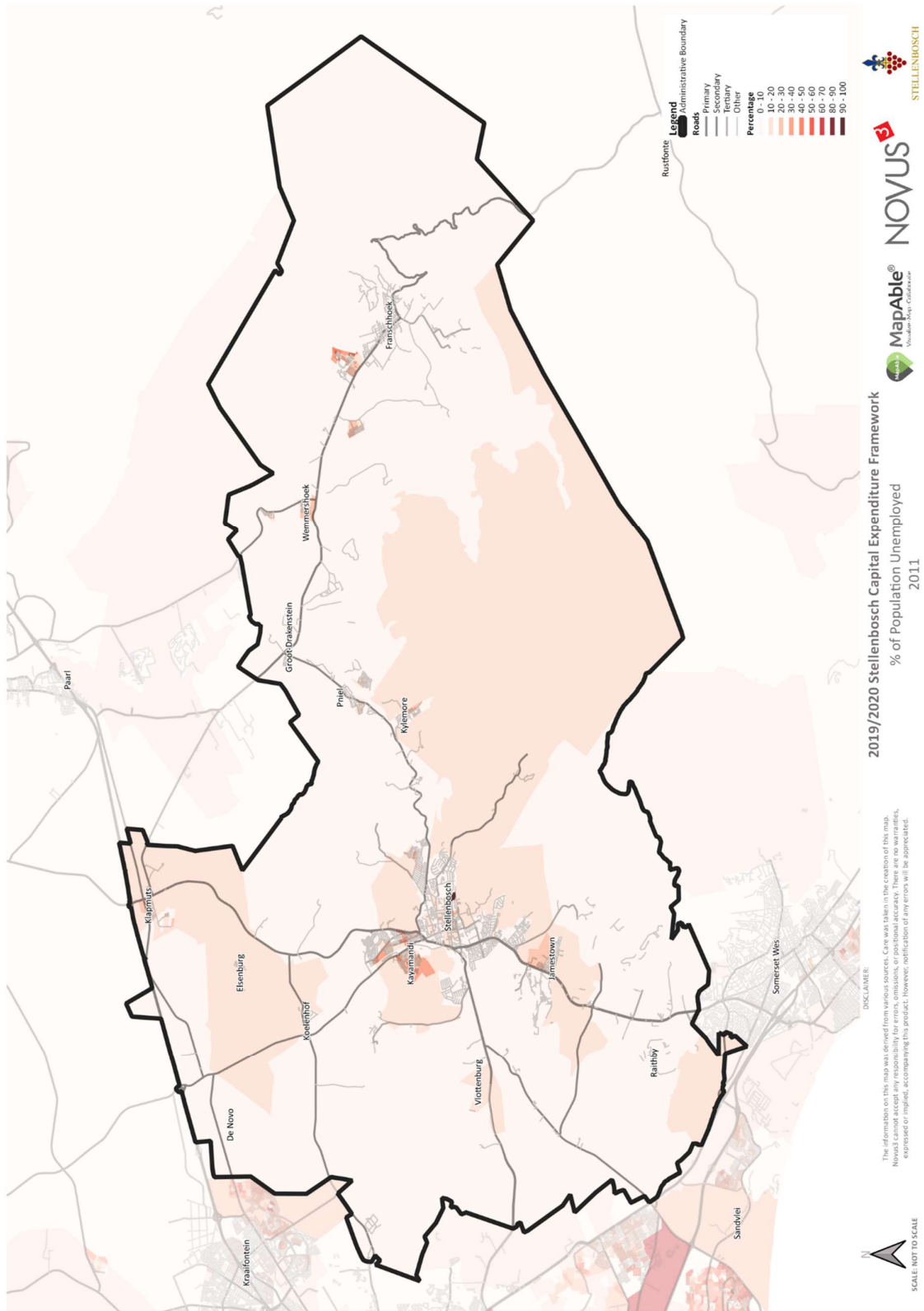
Employment and unemployment are some of the most challenging aspects of the South African development environment. The next table shows how employment and related factors have changed since 1996. Increasing unemployment obviously have serious consequences for the Municipality and its infrastructure investment and service delivery strategies.

Table 10: Employment within the area¹⁹

Employment	1996	2001	2011
Employed	40,135	44,177	56,942
Unemployed	4,894	9,010	10,177
Discouraged	1,002	1,148	2,730
Not economically active	23,954	18,189	42,654
< 15 years	27,207	46,455	0
Unspecified/Other	7,444	NA	43,191
Total	104,635	118,979	155,694

¹⁸ CS2016 not in a comparable format

¹⁹ Employment was not reported in CS2016



Map 12: Percentage people unemployed in 2011

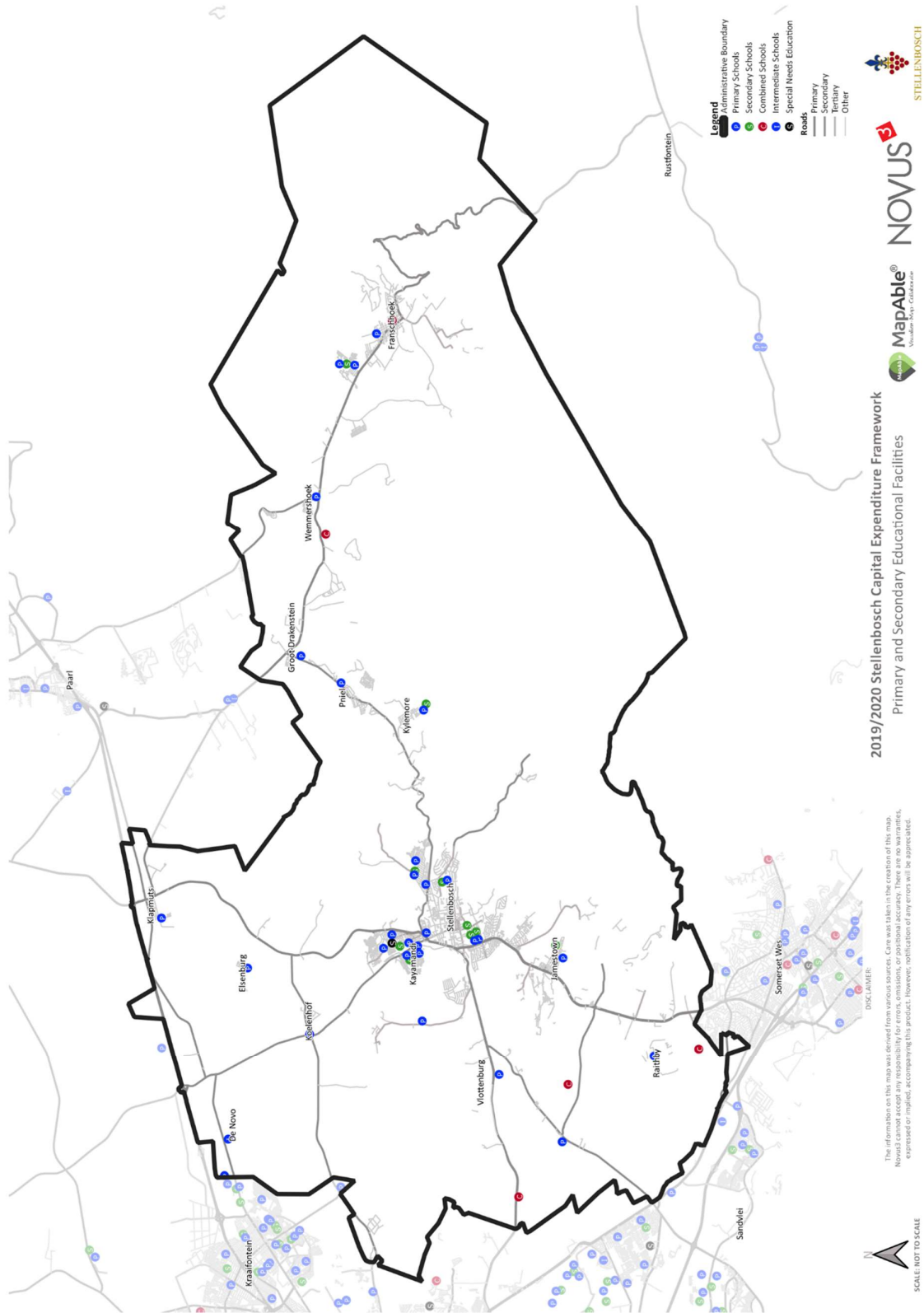
3.7 Social and community facilities

3.7.1 Education facilities

Education facilities include primary, secondary, combined and intermediate schools as listed in the database of the National Department of Education. Generally, the queries list educational facilities within the area.

There is a total of:

- 29 primary schools in the area;
- 11 secondary schools in the area; and
- 1 intermediate school in the area.



Map 13: Primary and secondary Educational facilities (2016)

3.7.2 Health Facilities

A distinction is made between public and private health facilities in the assessment.

There is a total of 14 public health facilities in the municipal area comprising of:

- 9 clinics;
- 2 satellite clinics;
- 1 community day centre;
- 1 district hospital; and
- 1 emergency service station.

There is only one private medical facility in the municipality, namely Stellenbosch Medi-Clinic with a total of 90 beds.

3.7.3 SAPS Stations

There are a total of 5 SAPS stations in the area.

Table 11: Police stations

Name of SAPS station in the area
Cloetesville
Franschhoek
Groot Drakenstein
Klapmuts
Stellenbosch

The following SAPS precinct(s) are affecting the area although the police stations for the precincts may be located outside the area of assessment²⁰:

Table 12: Area covered by SAPS precincts

Precinct name	% of the assessment area
Brackenfell	2.27 %
Cloetesville	2.52 %
Franschhoek	23.92 %
Groot-Drakenstein	12.89 %
Klapmuts	3.97 %
Kleinvlei	0.08 %
Kraaifontein	1.17 %
Kuilsrivier	0.15 %

²⁰ Please note that precinct boundaries do not align with cadastral boundaries. This causes “slivers” in spatial data which the reporting system picks up.

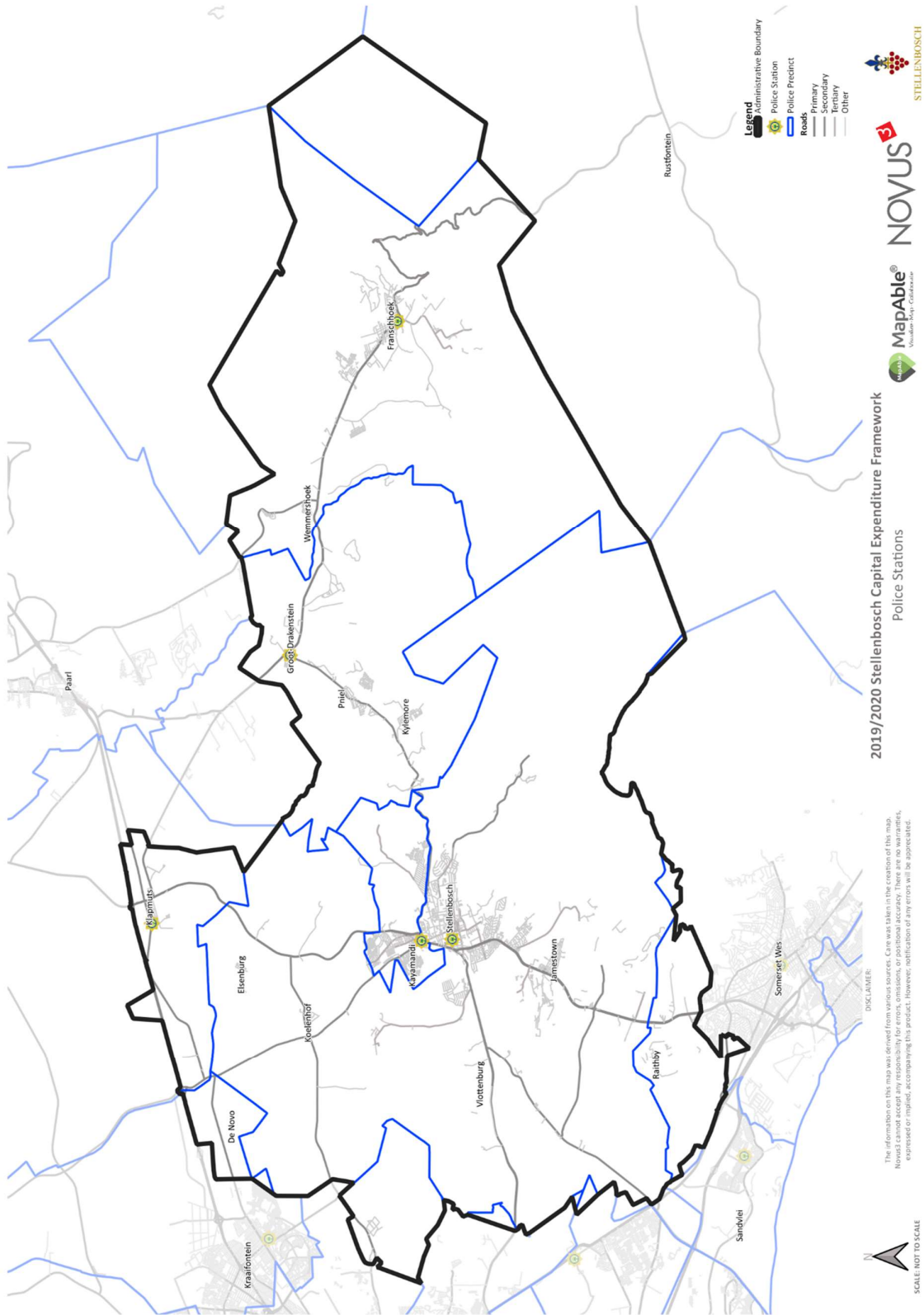
Somerset West	3.26 %
Stellenbosch	44.87 %
Villiersdorp	4.91 %

3.7.4 Lower courts

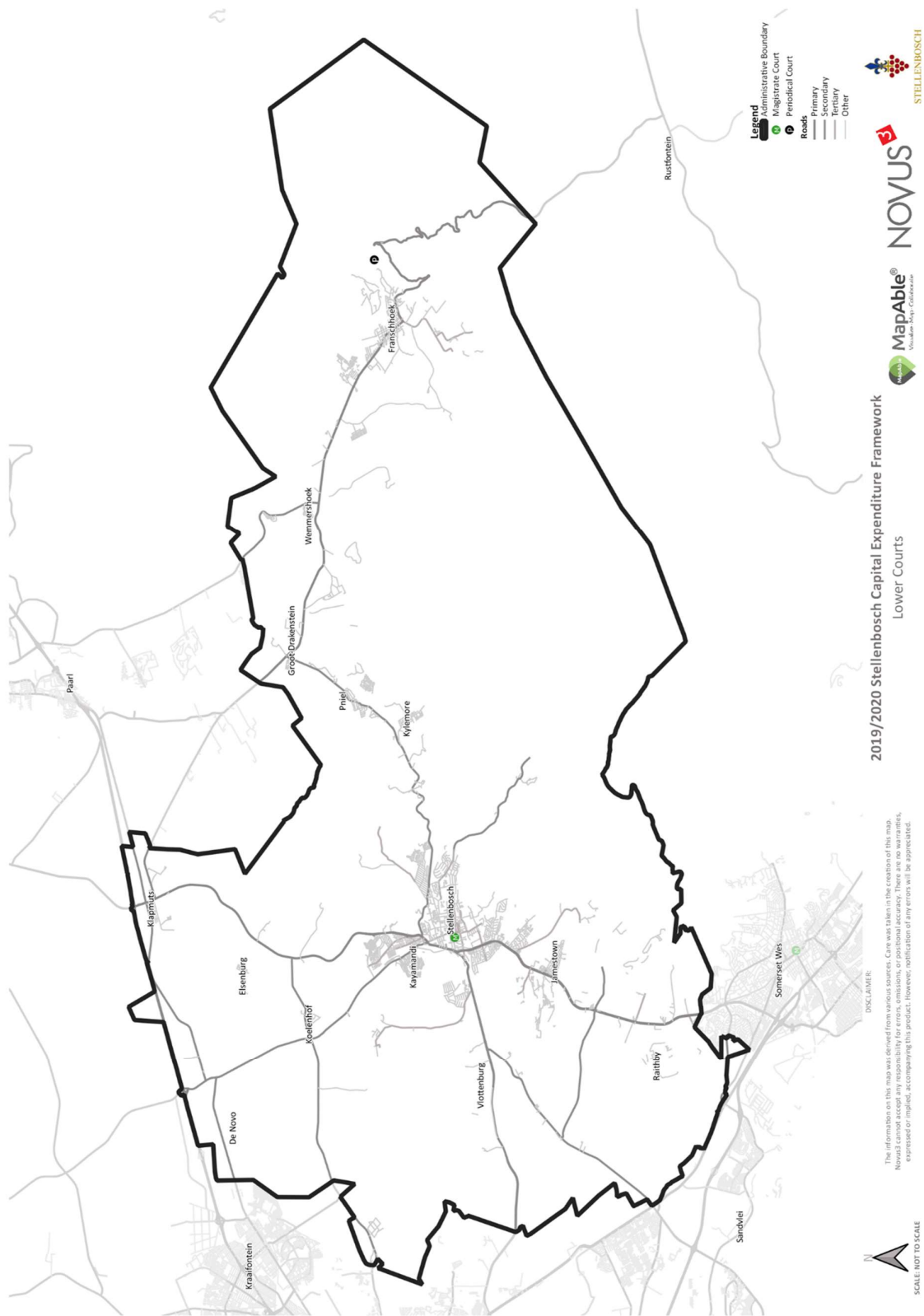
The courts of South Africa are the civil and criminal courts responsible for the administration of justice in South Africa. The following table below describes the courts within the area (if present).

Table 13: Lower courts in the area

Type of court	Area/Office	Address
Magistrate Court	Stellenbosch	Alexander Street, Stellenbosch 7600
Periodical Court	Franschhoek	n/a



Map 14: Safety and security



Map 15: Lower Courts

3.8 Settlement footprint

3.8.1 Land cover

This section deals with land cover. The dataset has been derived from multi-seasonal Landsat 8 imagery, using operationally proven, semi-automated modelling procedures developed specifically for the generation of this dataset, based on repeatable and standardised modelling routines. The dataset has been created by GEOTERRAIMAGE (GTI) and is available as a commercial data product. The data is presented at 30m resolution. As a result, the accuracy of the query results is affected accordingly.

The following table lists the extent of land cover in the area under assessment. The results are expressed as hectares covered by a category.²¹

Table 14: Land cover 1990 and 2014: Natural elements

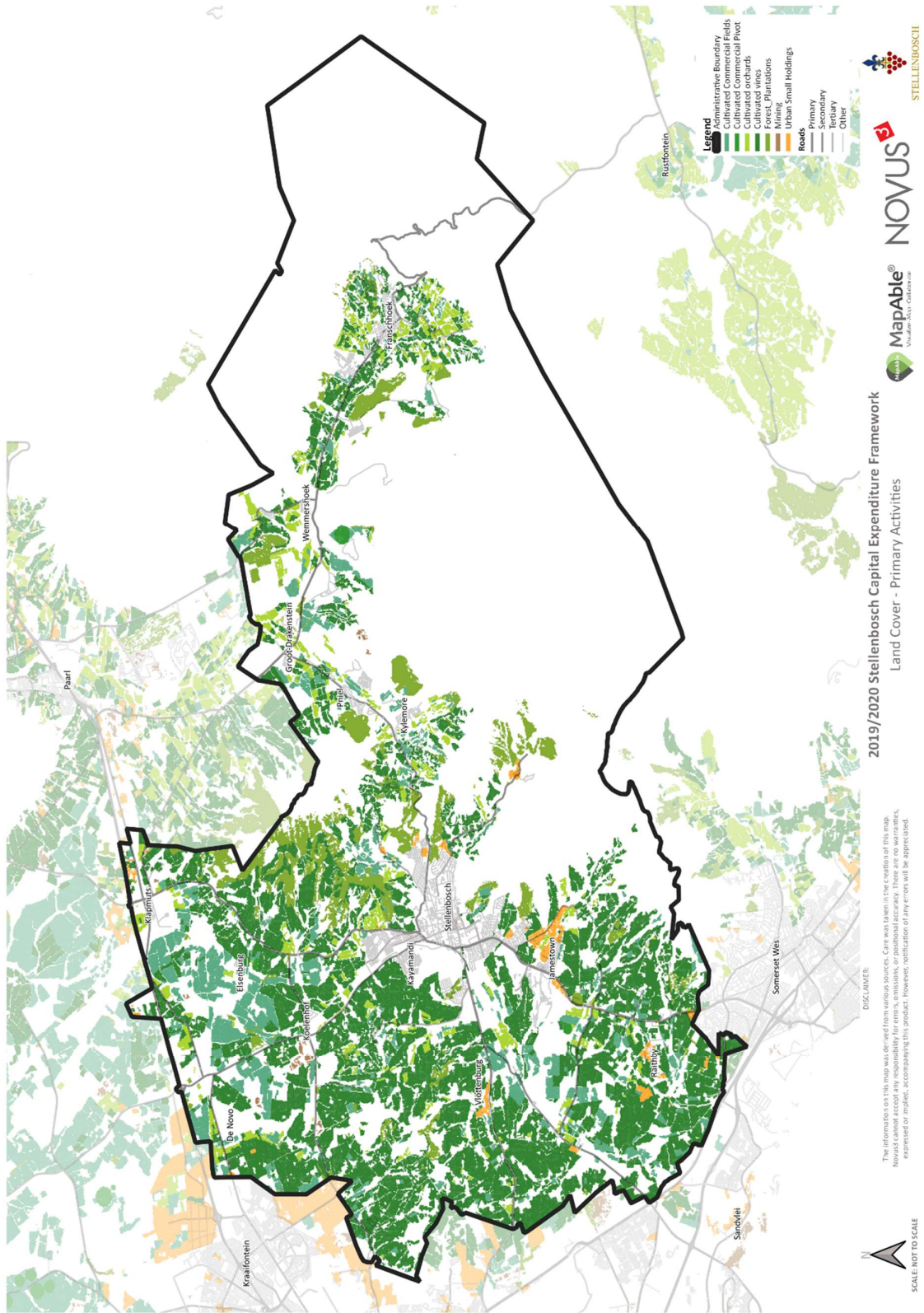
Land cover category	Extent of cover 1990 (ha)	Extent of cover 2014 (ha)
Erosion dongas		
Waterbodies	3509.6	3705

Table 15: Land cover 1990 and 2014²²: Primary economic activities

Land cover category	Extent of cover 1990 (ha)	Extent of cover 2014 (ha)
Cultivated commercial fields	4215.52	3992.47
Cultivated commercial pivot		84.11
Cultivated orchard and vines	19690.08	19435.82
Sugarcane		
Smallholdings	187.48	419.6
Subsistence farming		
Forests & Plantations	8019.04	3010.11
Mining		61.63

²¹ No data against a category implies that the category does not occur the assessment area.

²² No data against a category implies that in a particular land cover category does not occur the assessment area.

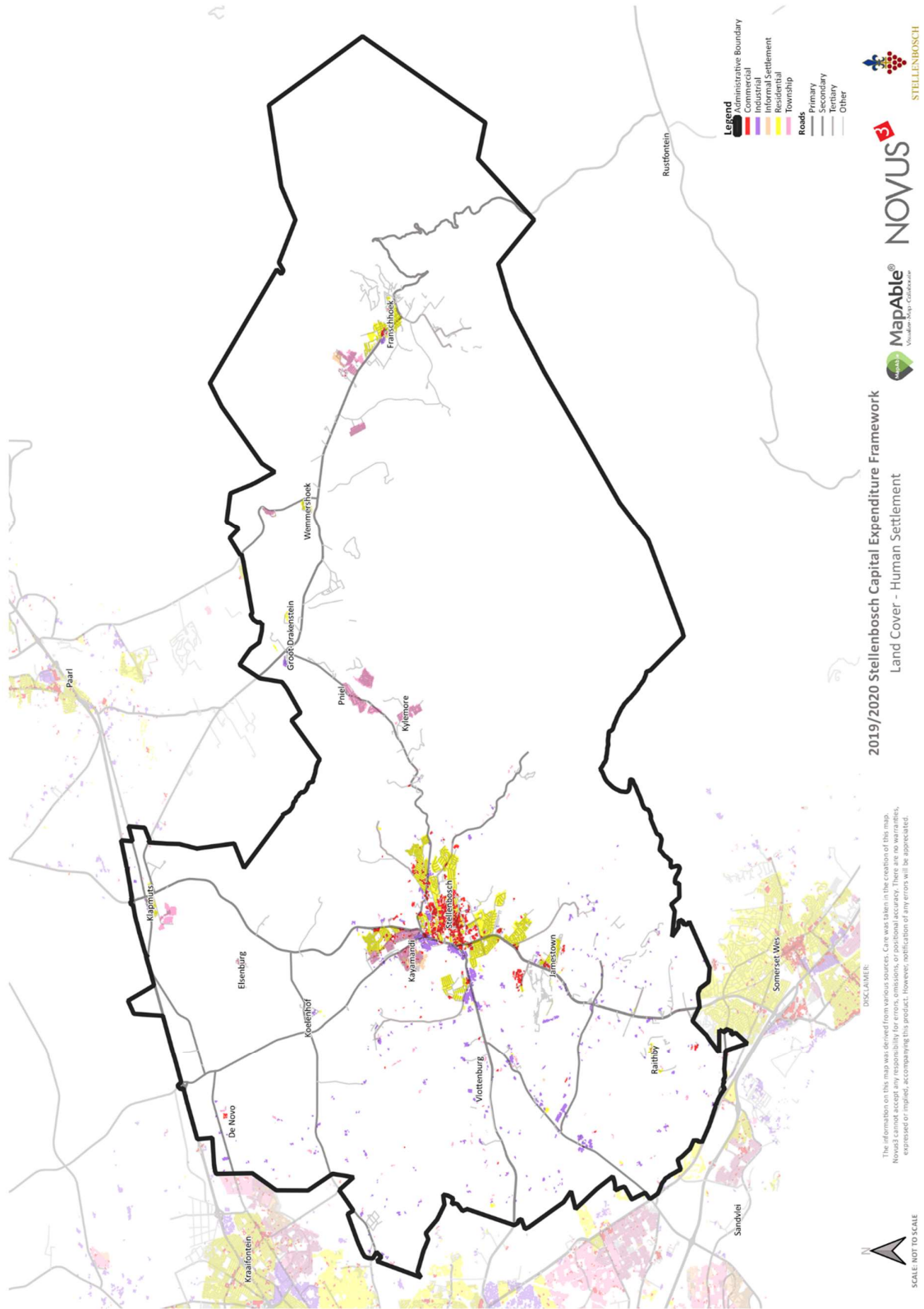


Map 16: Land cover – Primary activities

Table 16: Land cover 1990 and 2014: Human settlement

Land cover category ²³	Extent of cover 1990 (ha)	Extent of cover 2014 (ha)
Urban built-up	24.06	37.63
Urban commercial	339.57	349.73
Urban industrial	484.27	431.75
Urban residential	990.39	955.06
Urban townships	393.13	481.13
Urban informal	1.27	51.53
Rural villages		
Urban sports and golf	290.37	392.42
School and sports grounds	132.96	102.58

²³ No data against a category implies that in a particular land cover category does not occur the assessment area.



Map 17: Land Cover – Human Settlements

3.9 Service access

Access to infrastructure services is a driving force for the betterment of all communities in South Africa. It is a core function of government and since 1994 access to services for previously disadvantaged communities was emphasised to the extent that it becomes the driving force of most government delivery policies. Initial approaches were to meet the health requirements of the World Health Organisation and hence the adoptions of the so-called RDP standards, later referred to as access to basic services. However, these policies have evolved over time for many reasons to the extent that many of the services currently contemplated by the government at all levels exceed the initial norms and standards.

3.9.1 Water services

Water services have been a very high priority in services delivery strategies over the past two decades. It is one of the key Millennium Goals adopted in 2000, which stated that countries should aim to halve the proportion of people without access to safe drinking water and basic sanitation by 2015. In terms of these goals, at least 50% of households should have access to at least basic services.

The table below shows the access to water has changed between 1996 and 2011.

Table 17: Access to water services 1996, 2001 and 2011

		Full	Intermediate	Basic	Below Basic	None	Total
1996	Total	19,580	2,795	2,879	660	240	26,154
	%	74.86 %	10.69 %	100.00 %	2.52 %	0.92%	100 %
2001	Total	25,005	4,066	2,706	3,143	245	35,165
	%	71.11 %	11.56 %	7.70 %	8.94 %	0.70 %	100 %
2011	Total	31,337	3,521	6,231	1,835	404	43,328
	%	72.33 %	8.13 %	14.38 %	4.24 %	0.93 %	100 %

The Community Survey 2016 shows 4.8% of households in Stellenbosch did not have access to drinking water. This is lower than in the 5.17% indicated for 2011 in the table above. However, in terms of numbers this there were 207 more households in 2016.

3.9.2 Sanitation services

Access to appropriate sanitation services is a very high health priority. Although sanitation services received a high priority from the government, there are always challenges, and this service did not achieve the same level of success as improved access to water services. This section shows the sanitation access for the area.

Table 18: Access to sanitation services 1996, 2001 and 2011

		Full	Intermediate	Basic	Below Basic	None	Total
1996	Total	21,960	NA	NA	2,348	1,846	26,154
	%	83.96 %	NA	NA	8.98 %	7.06 %	100 %
2001	Total	31,132	114	596	1,067	2,257	35,165
	%	88.53 %	0.32 %	1.69 %	3.03 %	6.42 %	100 %
2011	Total	39,437	319	206	2,331	1,035	43,328
	%	91.02 %	0.74 %	0.48 %	5.38 %	2.39 %	100 %

The Community Survey 2016 shows 1.7% of households (892 households) in Stellenbosch did not have proper sanitation. This is lower than in the 7.7% indicated for 2011 in the table above.

3.9.3 Electricity services

Although electricity does not have the same implications for health as water and sanitation, access to electricity is very important for general development and especially education. Access to electricity was therefore always a high priority. The table below shows how access to electricity has changed since 1996. This table is based on access to lighting as a proxy for access to electricity.

Table 19: Access to electricity services 1996, 2001 and 2011

		Full access	No access	Total
1996	Total	23,530	2,625	26,154
	%	89.96 %	10.04 %	100 %
2001	Total	32,362	2,803	35,165
	%	92.03 %	7.97 %	100 %
2011	Total	40,305	3,023	43,328
	%	93.02 %	6.98 %	100 %

According to the Community Survey 2016, 93% of all household had access to electricity. This represents a growth in the backlog if household growth between 2011 and 2016 is accounted for.

3.9.4 Refuse removal

Solid waste management and refuse removal are important for health and environmental considerations. The table below shows how access to refuse removal services was reported in the previous three censuses.

Table 20: Access to refuse removal services 1996, 2001 and 2011

		Full	Intermediate	Basic	Below Basic	None	Total
1996	Total	19,946	257	2,415	2,632	905	26,154
	%	76.26 %	0.98 %	9.23 %	10.06 %	3.46 %	100 %
2001	Total	28,643	561	1,320	4,442	2,257	35,165
	%	81.45 %	1.60 %	3.75 %	12.63 %	0.57 %	100 %
2011	Total	37,672	1,068	1,347	2,053	1,188	43,328
	%	86.95 %	2.46 %	3.11 %	4.74 %	2.74 %	100 %

There were, deepening of how one categorises a basic service and whether a household is located in an urban area not, between about 1 253 and 6 400 household that may have less than a basic service.

3.9.5 Road network

Access to road services is not recorded the censuses. The next table shows the available roads data for the area.

Table 21: Road services in the area

Road type/class	Total (km)
National	22.96 km
Arterial	118.72 km
Secondary	37.35 km
Tertiary	555.81 km
Main (Urban)	54.33 km
Streets (Urban)	229.63 km

Section 4 Demand Quantification



4 Demand Quantification

4.1 Contextualisation

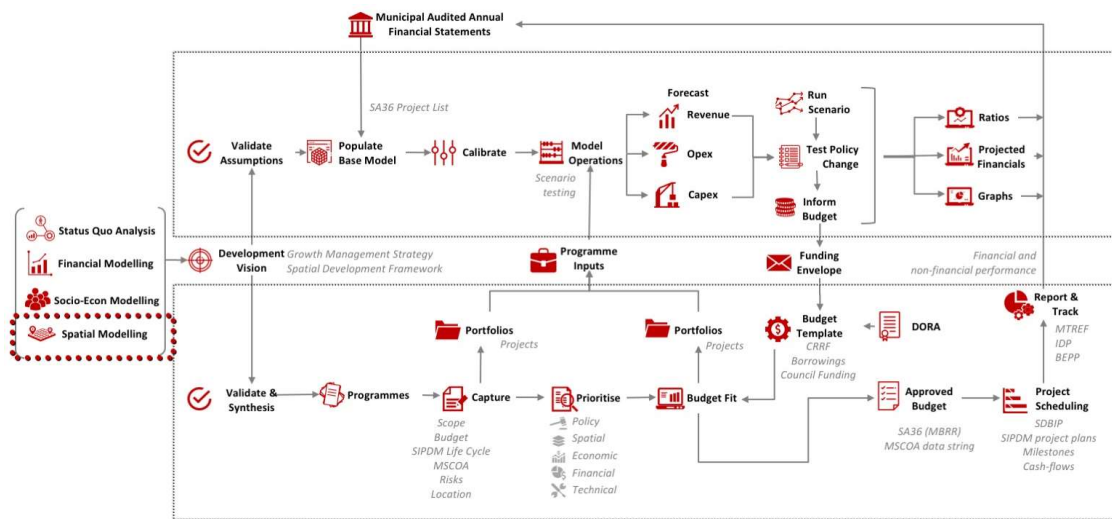


Figure 15: Demand Quantification

The capital investment emphasis within local government in South Africa over the past two decades was on extending services to poor households. This was done in an environment where major population shifts occurred, through accelerated urbanization and decreased growth and even population declines in rural areas. There are however other investment areas that will sustain or accelerate development and economic growth in any municipality. In this regard, three components contributing to the demand for investment should be considered:

- The number of existing households without access to services;
- The need to renew (rehabilitate and maintain) existing infrastructure, and;
- The growth in households and the economy.

In South Africa, the emphasis for the past two decades was mainly on addressing backlogs while demand created through growth received indirect and mostly inadequate attention to the extent that it often contributed to growing backlogs. Renewal of infrastructure was always recognised by infrastructure practitioners but is only recently that it started to feature in the policy debate and filtering through into formal government support strategies.

The purpose of this section can, therefore, be summarised as a process to identify the balance between the following three elements:

- Population Demand – population demand will determine the customer base served by the municipality and thus what the quantum of the services to be delivered should be;
- Level of Service choices – the level of service offered by the municipality for each infrastructure component varies, but has a significant effect on the affordability of services, and;
- Development Vision – the development vision in this instance do not necessarily cater to shock effects to the urban fabric but rather the policy regarding service provision of the municipality.

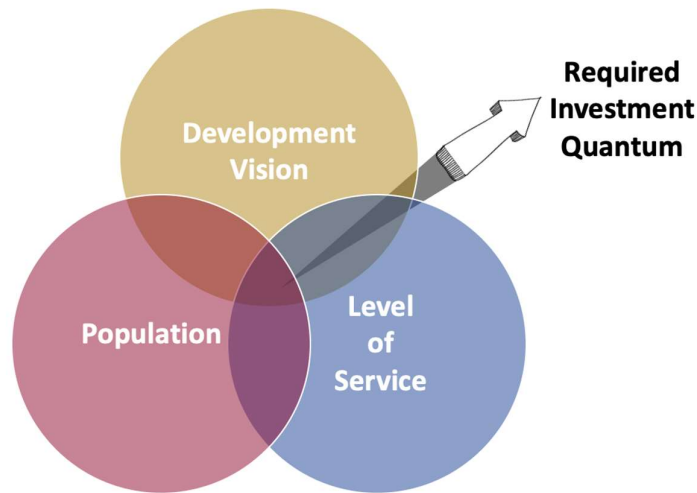


Figure 16: Elements contributing to the required investment quantum

4.2 Investment demand and growth - the infrastructure planning equation

Long-term customer growth is usually one of the biggest drivers of investment demand. The ability to address growth ensures, at a minimum, that backlog increases do not occur. It, however, adds to operating expenditure and the maintenance burden of a service provider which must be balanced against income.

The services, infrastructure delivery, and the relationship with demand and supply within a framework of sustainability are all embedded in the analytical framework shown in the diagram below. Within this framework, the demand for infrastructure services is determined by the extent of existing backlogs and household growth. This determines the need for new services, upgrading of existing services and the requirements for bulk infrastructure facilities.

When the requirements for the renewal of existing infrastructure are added, it defines the extent of the Municipality's capital investment programme. The demands of the investment programme are balanced against capital expenditure. The level of capital expenditure is a function of available funding and access to funding sources. To balance this equation the impact of capital expenditure, interest and redemption, operating and maintenance and bulk purchases must be smaller or equal to the total income sources. Financial sustainability implies that this equilibrium can be maintained over the long-term.

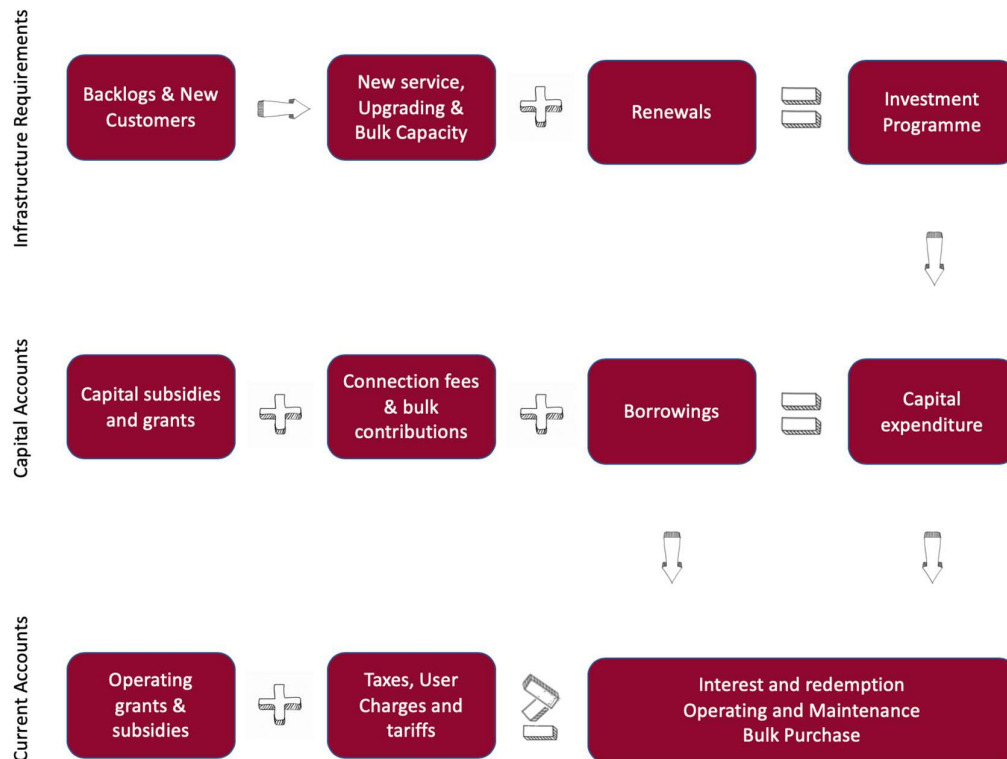


Figure 17: The Infrastructure Investment Planning Equation

Investment demand is a function of three core processes, namely:

- The investment required to address backlogs in services access.
- Investment to address the required maintenance and renewal of assets and renewal backlogs.
- The investment necessary as a result of the demand created through growth.

The manner in which this report deals with each of these elements was largely determined by the time available to appropriately address each of these components.

4.2.1 Dealing with infrastructure backlogs

The drive behind government infrastructure and service policies since 1994 was to eradicate service delivery and infrastructure backlogs. Many factors affect the extent of backlogs and the ability of municipalities to address these backlogs. The development of this CEF document did not include a backlogs study. Backlogs were appraised on existing, available data.

The table below shows the backlog situation as calculated from the 2011 Census. It was not possible to desegregate any 2016 figure or other data source on a sub-municipal level.

Table 22: Households with less than basic services in 2011

		Nodes		Farms		Municipality	
		Total	%	Total	%	Total	%
Population		113 972	73.19%	41 739	26.81%	155 711	100.00%
Households		33 535	77.40%	9 793	22.60%	43 328	100.00%
Water	%<Basic	5.67%		3.41%		5.16%	
	Households	1 902	85.06%	334	14.94%	2 236	100.00%
Sanitation	%<Basic	5.67%		11.17%		7.76%	
	Households	2 269	67.47%	1 094	32.53%	3 362	100.00%
Electricity	%<Basic	6.76%		7.84%		6.98%	
	Households	2 257	74.63%	767	25.37%	3 024	100.00%
Refuse	%<Basic	6.73%		25.47%		7.46%	
	Households	738	22.83%	2 494	77.17%	3 232	100.00%

The next table shows the extent of households with less than full services. Generally, the Municipality opted for providing full services.

Table 23: Households with less than full services

		Nodes		Farms		Municipality	
		Total	%	Total	%	Total	%
Population		113 972	73.19%	41 739	26.81%	155 711	100.00%
Households		33 535	77.40%	9 793	22.60%	43 328	100.00%
Water	% < full	29.85%		20.02%		27.63%	
	Households	10 011	83.62%	1 961	16.38%	11 972	100.00%
Sanitation	% < full	7.11%		15.38%		8.98%	
	Households	2 385	61.29%	1 506	38.71%	3 891	100.00%
Electricity	% < full	6.73%		7.84%		6.98%	
	Households	2 257	74.63%	767	25.37%	3 024	100.00%
Refuse	% < full	4.93%		41.07%		13.10%	
	Households	1 654	29.15%	4 022	70.85%	5 676	100.00%

When considering the tables above, it is important to note the following:

- The Municipality prefers higher levels or full services;
- Backlogs in 2011 were substantial, irrespective if measured against access to only basic services or measured against access to full services. In terms of access to at least basic services, none of the services had a backlog of more than about 3 300 households. That is 7.76% of all households. This equates to about 3.8 times the annual household growth rate. This is substantial and can have serious consequences for any capital investment programme. The same figures apply if backlogs are measured against access to full services. The notable exception is water services that then reported a backlog of nearly 12 000 units. However, full services are measured by in-house water connections. If a water connection to a stand is taken as the acceptable norm, the backlog figure falls to 6 500 units which remain high. It seems that the Municipality does, in the case of water

apply basic service approach. However, the relative low sanitation backlog notwithstanding the high number of customers without a water connection on their stands. Waterborne sanitation does require a water connection;

- The bulk of the backlogs is in the urban nodes, with the extent of backlogs in Franschhoek particularly noticeable; and
- Backlogs in the rural nodes vary, but the number is small that will make general upgrading programmes in these nodes difficult.

Backlogs will remain a significant issue and will have to be further addressed.

4.2.2 Asset renewals and renewal backlog

Asset renewals and renewal backlogs are calculated from asset management registers and plans. Condition assessments are central to the process. The Municipality do have challenges in this regard, and it was therefore not possible to calculate the extent of asset renewals. The general rule is that asset renewals should more or less equate the annual depreciation on assets based on their useful economic life (EUL). Depreciation in accounting terms is not necessarily the same as depreciation in an asset management context. Renewal backlogs is a function of the condition of an asset and renewal backlogs occur where an asset's remaining useful life (RUL) is less than about 45% of its current replacement cost (CRC). This information is currently not available in the Municipality, and the extent of asset renewal could not be calculated.

4.2.3 Demand created through growth

In the processes to determine the demand created through growth, four elements were addressed. The first is land demand created through growth expectations. The second is was the capital requirements to meet the growing demand. Capital requirements reflect the cost of the five major infrastructure services, namely water, sanitation, electricity, roads and stormwater and refuse removal services.

4.2.3.1 *Land demand*

Land demand is determined by norms standards that were applied to various land uses. In this respect, a distinction was made between the demand for housing (residential demand) demand for other land uses which includes business industrial, opens space, community and social facilities. Land demand for residential purposes was restricted to the areas within the urban edges determined by the Municipality's spatial plans. It was assumed that the Municipality would prioritise infrastructure services in these areas. However, the land demand for the other uses is a function of thresholds to sustain them, and it was therefore calculated on the total growth demand in the municipal area. This is technically not 100% correct since the service function of these uses may exceed administrative boundaries. It gives recognition that development demand in a municipality may be determined factors outside its jurisdiction. In the case of this assessment, the long-term demand was only calculate based on growth expectations within the municipal area.

4.2.3.2 *Long-term capital expenditure*

Long-term capital expenditure is a function of land demand and the growth in customers. The results show the incremental cost for bulk and reticulated infrastructure. The point of departure is the assignment of appropriate service levels to each user or customer category. This is essentially a policy matter. For the purposes of assessment, a full services approach was adopted. This one aspect where

different approaches and options can be introduced to assess the impact of service level approaches on the demand for capital and the operating impact thereof. The capital cost per service for each of the land use categories was calculated.

4.2.3.3 *The operating impact of capital expenditure*

It is relatively easy to calculate capital demand. However, the critical aspects are the long-term operating impact of capital expenditure. Furthermore, an over-investment in capital investment that does not address affordability may lead to structural impediments where the Municipality will find it difficult to meet the operating obligations of customers that cannot pay for services. This is usually one of the main contributors to cash flow constraints in municipalities.

Operating cost is based on a life-cycle approach that considers both maintenance and operating costs. All costs are marginal costs.

4.2.3.4 *Consumption and use*

Since consumptions and use norms are standards are used to calculate operating costs, the same values are used to calculate the demand for water, wastewater discharge, electricity consumption, the roads required and the solid volume and tonnage. The results are also presented as annual increments to reflect the impact of growth.

4.3 Modelling outcomes and growth impact forecasts

A development cost model²⁴ was used to model and forecast long terms investment demand.

4.3.1 Population growth as the basis for modelling demand

As indicated earlier the modelling is premised on population growth that is then translated into customer units. The first step was to do a population growth forecast. However, given the distinction between the areas within the municipality's urban edges (urban and rural) and the farming areas it was necessary to make forecasts based on these distinctions.

4.3.1.1 *Step 1: Define population*

The first step was to draw profiles for each of the areas based in order to determine the population and household spit.

Table 24: Distribution of population and households per Priority Development Area

Name	Type	Area (ha)	Population 1996	Population 2001	Population 2011	Household s 1996	Household s 2001	Household s 2011
La Motte	Rural	69	906	50	1 606	154	10	397
Wemmershoek	Rural	66	190	554	859	38	104	202
Lanquedoc	Rural	184	1 483	3 527	7 233	286	687	1 645
Pniel	Rural	119	1 983	2 412	1 725	434	566	428

²⁴ The Development Cost Model V13 is propriety model develop and applied by Gildenhuys and Associates over the past 20 years to address the land use and capital expenditure demand and the operating consequences thereof in municipal service delivery.

Name	Type	Area (ha)	Population 1996	Population 2001	Population 2011	Households 1996	Households 2001	Households 2011
Groot Drakenstein	Rural	98	102	71	118	19	14	27
Raithby	Rural	45	262	34	440	72	8	105
Lynedoch	Rural	78	35	50	164	11	12	36
Vlottenburg	Rural	153	98	99	334	24	23	86
Koelenhof	Rural	182	150	118	448	39	28	97
Muldersvlei	Rural	105	50	98	72	14	24	17
Cross Road								
Stellenbosch	Urban	2 868	54 466	56 725	78 638	14 310	14 598	23 744
Franschhoek	Urban	485	5 692	7 909	14 521	1 322	1 928	4 785
Klapmuts	Urban	450	1 576	4 176	7814	341	972	1966
Municipal areas	Total	84 879	104 354	118 976	155 711	26 155	29 121	43 328
Urban nodes		3 803	61 734	68 810	100 973	15 973	17 498	30 495
Rural node		1 099	5 259	7 013	12 999	1 091	1 476	3 040
Farming areas		79 977	37 361	43 153	41 739	9 091	10 147	9 793
Total municipality		84 879	104 354	118 976	155 711	26 155	29 121	43 328

4.3.1.2 Step 2: Forecast population

The next step was to forecast the population of the municipal area.^{25 2627}

Table 25: Population forecast per municipal area

	Timeline	Values	Threshold population			Residential target population		
			Forecast	Growth rate	Growth increment	Population	Growth rate	Number of persons
5	1997	112 073	112 073	2.35%	2 576	63 322	1.04%	654
6	1998	114 454	114 454	2.12%	2 381	63 829	0.80%	507
7	1999	116 680	116 680	1.95%	2 227	64 217	0.61%	387
8	2000	118 906	118 906	1.91%	2 226	64 571	0.55%	354
9	2001	120 995	120 995	1.76%	2 089	64 819	0.38%	248
10	2002	123 564	123 564	2.12%	2 569	66 848	3.13%	2 029
11	2003	126 029	126 029	2.00%	2 465	68 847	2.99%	1 999
12	2004	129 308	129 308	2.60%	3 278	71 321	3.59%	2 473

²⁵ This figure was used calculate the demand for non-residential land uses. It represents the total municipal area.

²⁶ These figures represented the growth expectations with in the demarcated urban edges of the Municipality (nodal areas)

²⁷ The details of the figures might differ slightly from other figure due to projection and analysis approaches.

	Timeline	Threshold population				Residential target population		
		Values	Forecast	Growth rate	Growth increment	Population	Growth rate	Number of persons
13	2005	133 051	133 051	2.89%	3 743	74 087	3.88%	2 767
14	2006	134 844	134 844	1.35%	1 793	75 798	2.31%	1 710
15	2007	138 614	138 614	2.80%	3 770	78 648	3.76%	2 851
16	2008	143 451	143 451	3.49%	4 838	82 150	4.45%	3 502
17	2009	146 790	146 790	2.33%	3 339	84 837	3.27%	2 687
18	2010	149 891	149 891	2.11%	3 101	87 421	3.05%	2 583
19	2011	152 944	152 944	2.04%	3 053	90 009	2.96%	2 588
20	2012	156 187	156 187	2.12%	3 244	92 031	2.25%	2 022
21	2013	159 751	159 751	2.28%	3 564	94 246	2.41%	2 216
22	2014	164 088	164 088	2.71%	4 337	96 924	2.84%	2 678
23	2015	166 931	166 931	1.73%	2 842	98 724	1.86%	1 800
24	2016	171 434	171 434	2.70%	4 504	101 512	2.82%	2 788
25	2017	176 130	176 130	2.74%	4 696	104 586	3.03%	3 074
26	2018		180 793	2.65%	4 663	107 656	2.94%	3 070
27	2019		185 456	2.58%	4 663	110 743	2.87%	3 086
28	2020		190 120	2.51%	4 663	113 844	2.80%	3 102
29	2021		194 783	2.45%	4 663	116 962	2.74%	3 117
30	2022		199 447	2.39%	4 663	120 095	2.68%	3 133
31	2023		204 110	2.34%	4 663	123 243	2.62%	3 148
32	2024		208 774	2.28%	4 663	126 407	2.57%	3 164
33	2025		213 437	2.23%	4 663	129 586	2.52%	3 180
34	2026		218 101	2.18%	4 663	132 781	2.47%	3 195
35	2027		222 764	2.14%	4 663	135 918	2.36%	3 136
36	2028		227 427	2.09%	4 663	139 067	2.32%	3 149
37	2029		232 091	2.05%	4 663	142 228	2.27%	3 161
38	2030		236 754	2.01%	4 663	145 717	2.45%	3 489

The 2018 (base year) figures of 180 793 for the threshold population and 107 565 people for the residential target population are important. These figures were used to calibrate the model for the base year service as the departure point for the rest of the modelling and forecasts. The residential target population refers to the extent of the population that will require housing and the threshold population refers to the service population that determines the demand for land and facilities for non-residential customers in the municipal area.

It is important to note that growth rates are slowly declining. However, the impact in terms of the number still shows consistent growth. The more important aspect is highlighted in the next table.

Table 26: Change in population distribution form 1996 to 2030

Timeline	Urban	Rural	Farm	%
1996	52.19%	5.04%	42.8%	100.00%
2001	47.68%	5.89%	46.4%	100.00%
2006	49.09%	7.12%	43.8%	100.00%
2011	50.50%	8.35%	41.1%	100.00%
2016	49.77%	9.44%	40.8%	100.00%
2021	49.49%	10.56%	40.0%	100.00%
2026	49.20%	11.68%	39.1%	100.00%
2030	48.97%	12.58%	38.5%	100.00%

It is important to note that expectation is that, irrespective of growth numbers, the share of rural nodes will increase while both the population share of the urban nodes and farming areas will decrease. The implication is that the demand for infrastructure and services will grow in the rural nodes as a higher rate and that these nodes will become increasingly more important in the Municipality's development and service delivery strategies.

4.3.2 The scenario assessed

The scenario applied for assessment tried emulating the current policies and strategies of the Municipality as closely as possible. However, one should always consider that it is a model that in sometimes in a very crude way tries to replicate a very complicated system. It was, therefore, necessary to make some basic assumptions before the model was calibrated.

4.3.2.1 Assumptions and inputs on housing variables

As described above the model uses the growth in population to determine housing demand as well as ancillary uses. However, there a number of key inputs that need to be considered. They are:

- Residential typologies, stand;
- The residential mix in terms of stand size; and
- Stand sizes assign to the different typologies.

Housing typologies for the CEF consist are configured around low, medium and high density residential development that includes different housing typologies. Stand, and households sizes were linked to these typologies. Household sizes and cars per were also considered. The following inputs were used:

Table 27: Assumptions on housing typologies, mix stand and household sizes

Residential types	Residential mix	Stand sizes	Household size
Single Residential: Low income	20.0%	350	4.00
Single Residential: Medium income	22.5%	600	3.75
Single Residential: High income	15.5%	850	3.20
Medium Density: Low income	15.0%	5 000	4.00
Medium Density: Medium income	7.0%	4 000	3.80

Residential types	Residential mix	Stand sizes	Household size
Medium Density: High income	5.0%	3 000	3.50
High Density: Low income	2.5%	5 000	3.50
High Density: Medium income	2.5%	4 000	3.25
High Density: High income	5.0%	3 000	2.80
Backyard dwellings	5.0%	Not applicable	2.00
Total/average	100.00%		3.59

The base distinction between income groups was derived from the 2011 census for the urban nodes. Backyard dwellers were included in the equation because of their demand to consume services. It was assumed that this would remain for the full assessment period although there are indications that household incomes have been decreasing.

4.3.2.2 Norms and standards for land use budgeting

The following land use norms and standards were used in the land use budgeting process.

Table 28: Land use norms and standards applied

Land use	Provision unit	Provision norm - persons/cars/ children	Ruling stand size m2
Residential			
Single Residential: Low income	units per net ha (net)	29	350
Single Residential: Medium income	units per net ha (net)	17	600
Single Residential: High income	units per net ha (net)	12	850
Medium Density: Low income	units per net ha (net)	40	5 000
Medium Density: Medium income	units per net ha (net)	30	4 000
Medium Density: High income	units per net ha (net)	25	3 000
High Density: Low income	units per net ha (net)	80	5 000
High Density: Medium income	units per net ha (net)	75	4 000
High Density: High income	units per net ha (net)	60	3 000
Backyard dwellings	units per household	0	0
Business			
Local Activity Centre	m2 per capita	2.00	2 500
Neighbourhood Activity Centre	m2 per capita	3.00	5 000
Regional Activity Centre	m2 per capita	6.00	50 000
CBD	m2 per capita	7.00	50 000
Garages & filling stations	per 2500 cars	1.00	3 000
Industrial & storage			
Light industrial	ha per 7500 people	5.00	2 000
Heavy industrial	ha per 5000 people	3.00	20 000
Storage & warehousing	ha per 5000 people	8.00	10 000

Land use	Provision unit	Provision norm - persons/cars/ children	Ruling stand size m2
Public spaces: recreation			
Parks: public	ha per 1000 people	0.33	5 000
Parks: private	ha per 1000 people	1.00	10 000
Sports fields	per 1000 housing units	3.50	10 000
Stadiums	per 125000 people	1.00	50 000
Community facilities: municipal			
Municipal office	per 75000 people	1.00	3 000
Community hall	per 25000 people	1.00	3 000
Local library	per 50000 people	1.00	1 500
Primary health clinic	per 50000 people	1.00	3 000
Fire station & Ambulance	per 75000 people	1.00	7 500
Ambulance station	per 75000 people	1.00	3 000
Cemeteries	ha per 5500 people	1.00	20 000
Public parking areas	m2 per capita	0.20	3 000
Market/trading area	ha per 10000 people	1.00	7 500
Taxi ranks	m2 per capita	0.10	3 000
Community facilities: other			
Post office	per 20000 people	1.00	1 500
Lower Court	per 100000 people	1.00	2 000
Post collection point	per 3000 housing units	1.00	200
Police station	per 80000 people	1.00	5 000
District hospital	per 300000 people	1.00	50 000
Community health centre	per 100000 people	1.00	2 000
Hospice	per 50000 people	1.00	2 000
Old age home	per 50000 people	1.00	10 000
Children's homes	per 200000 people	1.00	5 000
Thusong centre	per 70000 people	1.00	10 000
Place of worship	per 1000 people	1.00	2 000
Crèche	per 2800 people	1.00	2 000
Nursery school	per 5000 people	1.00	3 000
Primary school	per 5500 people	1.00	32 000
Secondary school	per 12500 people	1.00	45 000
After school centre	per 5000 people	1.00	2 000

The norms and standards were derived from different sources. The main sources were the Municipality's zoning scheme, cadastre from the office of the Surveyor General, the CSIR norms and

standards for social and community facilities and then also calculated from the current land cover in the municipality. The approach was to calibrate the model on local data as far as possible.

Average stand sizes were calculated the zoning scheme data of the Municipality. The following data was used.

Table 29: Calculated land parcels sizes per zoning

Integrated zoning scheme categories	Unit Count	Area m2	Average size (m2)
Group Residential Zone	5 148	1 721 858	334
High Density Residential Zone	110	74 941	681
Less Formal Residential Zone	2 184	725 973	332
Medium Density Residential Zone	1 686	1 738 576	1 031
Single Residential Zone	8 534	7 282 915	853
Unknown	206	1 345 158	6 530
Agriculture Zone	220	33 247 798	151 126
Community Zone	122	780 437	6 397
Education Zone	120	2 021 340	16 845
General Business Zone	504	1 616 983	3 208
General Industrial Zone	78	588 360	7 543
Light Industrial Zone	188	441 975	2 351
Limited Use Zone	18	157 905	8 773
Local Business Zone	29	121 224	4 180
Private Open Space Zone	156	4 680 409	30 003
Public Open Space Zone	115	793 306	6 898
Public Roads and Parking	23	61 644	2 680
Resort Zone	576	488 634	848
Sub divisional Area	2	61 372	30 686
Transport Facility Zone	14	125 865	8 990
Utility Services Zone	58	1 657 600	28 579
Total average	20 091	59 734 273	2 973

Further refinements were made by calculating the number of persons per social and community facilities based on location and 2011 population data where appropriate these values were incorporated into the modelling.

Table 30: Current provision of social and community facilities (persons per facility)

	Urban Node	Rural Node	Farming	Total
Primary schools	5 610	1 857	10 435	5 369
Secondary schools	10 097	0	41 739	14 156
Intermediate schools	0	0	41 739	155 711
Combined schools	100 973	0	10 435	31 142

Public health facilities	8 414	6 500	0	11 122
Private health facilities	100 973	0	0	155 711
SAPS stations	25 243	12 999	0	31 142
Lower courts	100 973	0	41 739	77 856

For other uses, the area per person was calculated based on location and using land cover data for 2014 and the 2011 population figures.

Table 31: Current provision per person (m²) based on land cover

	Urban Node	Rural Node	Farming	Total
Urban built-up (hard surfaces)	1.93	0.20	4.29	2.42
Urban commercial	30.32	0.98	10.14	22.46
Urban industrial	14.37	16.00	63.70	27.73
Urban residential	85.93	22.23	14.01	61.34
Urban townships	21.60	123.70	24.49	30.90
Urban informal	4.72	0.00	0.94	3.31
Rural villages	0.00	0.00	0.00	0.00
Urban sports and golf	27.40	2.67	26.90	25.20
School and sports grounds	6.60	10.04	5.48	6.59
Small holdings	6.87	9.88	80.83	26.95

4.3.2.3 Service levels

Service levels relates to the technology used to supply a customer with a service. It should not be confused with a service standard which represents the qualitative aspects of service delivery.

The following describes the levels of services (LOS) available for the modelling process.

Table 32: Levels of service options for water

Level of services	Description
LOS00	No formal service
LOS01	Water point more than 200m distance
LOS02	Communal standpipe less than 200m distance
LOS03	Yard tap connection (single tap) and or limited supply with a dry on-site system
LOS04	Yard tap connection (single tap) and or limited supply linked to waterborne sanitation
LOS05	House/building connection unlimited metered supply
LOS06	Supply volume. is limited to 100mm connection, peak flow limited, and on-site storage required
LOS07	All requirements met up to 150mm pipe, 150mm connection

Table 45: Levels of service options for sanitation

Level of services	Description
LOS00	No formal service
LOS01	Bucket system
LOS02	Unventilated pit latrines and soakaways
LOS03	Ventilated improved pit (VIP)
LOS04	Dry composting toilet
LOS05	Communal chemical toilet
LOS06	Low flow (small bore) system with toilet structure
LOS07	Septic or conservancy tank with toilet structure
LOS08	Waterborne sewerage to each stand 110mm connection (no toilet structure)
LOS09	Waterborne sewerage to each stand 110mm connection, with toilet structure
LOS10	Waterborne sewer available, max connection size 150 mm or larger
LOS11	Waterborne sewerage, discharge load is above normal limits.

Table 33: Levels of service options for electricity

Level of services	Description
LOS00	No electricity service
LOS01	None grid electricity service
LOS02	Grid-connected and metered - Single phase 230V up to 20A or 4.6 kVA
LOS03	Grid-connected and metered - Single phase 230V up to 60A or 13.8kVA
LOS04	Grid-connected and metered - Three phase / Multiphase 230/400V up to 150A or 100kVA
LOS05	Grid-connected and metered - Bulk higher than 230/400V - not exceeding 11kV (at least 25 kVA)
LOS06	Grid-connected and metered - Bulk - exceeding 11kV (at least 100 kVA)

Table 34: Levels of service options for roads and stormwater

Level of services	Description
LOS00	No service
LOS01	Tracks (Graded)
LOS02	Gravel within 500m
LOS03	Gravel
LOS04	Paved 4.5m
LOS05	Paved 5.5m
LOS06	Paved 6.5
LOS07	Paved heavy capacity 7.5m

Table 48: Levels of service options for refuse removal services

Level of services	Description
LOS00	None
LOS01	Communal waste collection point
LOS02	Weekly kerbside waste removal
LOS03	Bi-weekly kerbside waste removal
LOS04	Bi-weekly waste removal from site 1
LOS05	Daily waste removal from site 1
LOS06	Bi-weekly waste removal from site 2
LOS07	Daily waste removal from site 2

Based on the service level options the following service levels were assigned to the land uses in the model.

Table 35: Level of service option per land use

Land use	Water	Sanitation	Electricity	Roads & stormwater	Refuse removal
Residential					
Single Res: Low Inc	LOS05	LOS09	LOS02	LOS04	LOS02
Single Res: Med Inc	LOS05	LOS08	LOS03	LOS05	LOS02
Single Res: High Inc	LOS05	LOS08	LOS03	LOS05	LOS02
Medium Dens: Low Inc	LOS05	LOS09	LOS02	LOS04	LOS02
Medium Dens: Med Inc	LOS05	LOS08	LOS03	LOS06	LOS02
Medium Dens: High Inc	LOS05	LOS08	LOS03	LOS06	LOS02
High Dens: Low Inc	LOS05	LOS09	LOS02	LOS05	LOS02
High Dens: Med Inc	LOS05	LOS08	LOS03	LOS06	LOS02
High Dens: High Inc	LOS05	LOS08	LOS03	LOS06	LOS02
Backyard dwellings	LOS00	LOS00	LOS00	LOS00	LOS00
Business		0.00%	0.00%	0.00%	0.00%
Local Activity Centre	LOS05	LOS08	LOS04	LOS06	LOS05
Neighbourhood Activity Centre	LOS05	LOS08	LOS05	LOS06	LOS05
Regional Activity Centre	LOS07	LOS08	LOS06	LOS07	LOS05
CBD	LOS07	LOS10	LOS06	LOS07	LOS07
Garages & filling stations	LOS05	LOS08	LOS05	LOS07	LOS03
Industrial & storage		0.00%	0.00%	0.00%	0.00%
Light industrial	LOS05	LOS08	LOS05	LOS06	LOS05
Heavy industrial	LOS07	LOS11	LOS06	LOS07	LOS05
Storage & warehousing	LOS05	LOS08	LOS05	LOS06	LOS04
Public spaces: recreation		0.00%	0.00%	0.00%	0.00%

Land use	Water	Sanitation	Electricity	Roads & stormwater	Refuse removal
Parks: public	LOS05	LOS00	LOS04	LOS05	LOS02
Parks: private	LOS05	LOS00	LOS04	LOS05	LOS02
Sports fields	LOS05	LOS08	LOS04	LOS06	LOS02
Stadiums	LOS05	LOS10	LOS04	LOS07	LOS02
Community facilities: municipal		0.00%	0.00%	0.00%	0.00%
Municipal office	LOS05	LOS08	LOS04	LOS07	LOS02
Community hall	LOS05	LOS08	LOS04	LOS06	LOS02
Local library	LOS05	LOS08	LOS04	LOS06	LOS02
Primary health clinic	LOS05	LOS08	LOS04	LOS06	LOS02
Fire station & Ambulance	LOS07	LOS08	LOS04	LOS06	LOS02
Ambulance station	LOS05	LOS08	LOS04	LOS06	LOS02
Cemeteries	LOS05	LOS08	LOS03	LOS06	LOS02
Public parking areas	LOS05	LOS08	LOS03	LOS06	LOS02
Market/trading area	LOS05	LOS08	LOS04	LOS06	LOS05
Taxi ranks	LOS05	LOS08	LOS03	LOS07	LOS05
Community facilities: other		0.00%	0.00%	0.00%	0.00%
Post office	LOS05	LOS08	LOS05	LOS06	LOS02
Lower Court	LOS05	LOS08	LOS04	LOS06	LOS02
Post collection point	LOS05	LOS08	LOS04	LOS06	LOS02
Police station	LOS05	LOS08	LOS05	LOS06	LOS02
District hospital	LOS06	LOS11	LOS07	LOS06	LOS05
Community health centre	LOS05	LOS10	LOS06	LOS06	LOS05
Hospice	LOS05	LOS08	LOS05	LOS06	LOS02
Old age home	LOS05	LOS10	LOS06	LOS06	LOS02
Children's homes	LOS05	LOS08	LOS07	LOS06	LOS02
Thusong centre	LOS05	LOS08	LOS08	LOS06	LOS02
Place of worship	LOS05	LOS08	LOS05	LOS06	LOS02
Crèche	LOS05	LOS08	LOS03	LOS06	LOS02
Nursery school	LOS05	LOS08	LOS03	LOS06	LOS02
Primary school	LOS05	LOS10	LOS05	LOS06	LOS02
Secondary school	LOS05	LOS10	LOS04	LOS06	LOS02
After school centre	LOS05	LOS08	LOS03	LOS06	LOS02
ABET/Skills training	LOS06	LOS08	LOS05	LOS06	LOS02

4.3.3 Calibrating the model

Credible forecasts are incumbent on the base year of the model reflecting the current situation in the municipality as closely as possible. The following table shows how the model was set up for the base.

Table 36: Reference points in the calibration of the model

Element	Base year 2018	Comments
General		
Population	180 793	Population projections were done off model and brought into the model as a departing point.
Area (ha)	3820.6	The area calculated from land cover data was 3 221ha. This is 2014 data. Given a modelled increase of about 100ha per annum, the base year figure is acceptable
Average stand size m ²	1089	The figure calculated from cadastre of urban-related zoning is 1 103m ² .
Population density (p/ha):	43	This is a simple calculation by dividing the housing population into the area of the development footprint. The development footprint excludes the area of roads.
Household density (hh/ha):	12	This is a simple calculation by dividing the households into the area of the development footprint. The development footprint excludes the area of roads.
Residential customer units	51 759	Census 2011 indicated 43 328 households and the 2018 D Dwelling frame just more than 50 000 dwelling units. The figure as modelled seems to be acceptable
Other CUs:	1643	It was not possible to verify this figure, and it is accepted as modelled.
Total customer units	53 402	This is the sum of the previous two figures.
Total no of stands	31 497	This figure is higher than the 19 713 land parcels included in the cadastre for the zoning scheme. However, for modelling purposes, all informal dwelling were incorporated into the model as if they were on separate stands.
Roads area (ha)	554	The total roads in the municipality are in the order of 1 018km. and roads in the urban nodes amounts to 298km. This might be an underestimate.

Element	Base year 2018	Comments	
The current asset base (R'00)		%	The Municipality do have challenges with an
Water	1 032 455	20.9%	asset register, and it was not possible to
Sanitation	532 238	10.8%	verify the individual figures. The annual
Electricity	1 199 501	24.3%	financial statements of the Municipality
Roads & Stormwater	2 093 910	42.3%	report cost/valuation of infrastructure assets
Refuse removal	86 854	1.8%	to be R4 520 million. This figure is not to fare
Total (R'000)	4 944 958	100.0%	off the modelled figure if one adds an
			R300 million capital expenditure for FY1718.
			The figures for the five major service are not
			available by when comparing it to other
			existing asset registers the order of
			magnitude seems to be acceptable.
Annual operating expenditure			
(R'000)			
Water	115 000	The figures, as modelled, is acceptable and get close the	
Sanitation	132 600	actual figures of the Municipality. The biggest challenge	
Electricity	465 300	in modelling these figures is the allowances for	
Roads & Stormwater	121 498	management operations cost per services. Management	
Refuse removal	97 350	operation cost is largely determined by local	
Total (R'000)	931 748	management configuration and how the Municipality	
		organises itself to deliver services.	
Units consumed/generated			
Water (Ml/day)	32.5	These figures were difficult to verify. The figures for	
Wastewater (Ml/day)	24.9	water and sanitation should be within acceptable limits.	
Electricity (MWh/day)	6 131.6	It is very difficult to present the figure for electricity with	
Roads & Stormwater (km/annum)	555.9	any confidence since there are very many factors that	
Refuse removal (tons/day)	1 450.0	can affect the figure. There might be for example, how	
Refuse removal (m3/day)	2 910.2	the extent of the Eskom supply area affects the figure is	
		not clear. The same applies to refuse removal service.	

4.3.4 The modelling outcomes

This section shows the results of the modelling process. The outcomes are presented as a high-level summary. It is important to note that the tables show incremental quantities includes of all service elements and components. Currently, it is not possible to model the impact of major interventions such as building a new wastewater treatment work of big investment to reconfigure the management of solid waste. Those aspects must be discounted in the project prioritisation process.

Although the results link the demand to a specific year, it is still important to take note of budgeting processes and the extent of lead times before project implementation can commence.

4.3.4.1 Land use demand

This table shows the summary of land use demand which is a result of the growth forecasts.

Table 37: Land use demand for the programme period 2019 to 2028

Land uses	No of units	% of total land	No of stand required	Area included in project
Totals	8 997	100.00%	5 573	951.71
Residential	8 997	43.85%	5 189	379.48
Single Res: Low Inc	1 571	6.35%	1 571	55.00
Single Res: Med Inc	1 886	13.07%	1 886	113.13
Single Res: High Inc	1 521	14.94%	1 521	129.26
Medium Dens: Low Inc	1 178	3.40%	59	29.46
Medium Dens: Med Inc	579	2.23%	48	19.30
Medium Dens: High Inc	449	2.08%	60	17.96
High Dens: Low Inc	224	0.32%	6	2.81
High Dens: Med Inc	242	0.37%	8	3.22
High Dens: High Inc	561	1.08%	31	9.35
Backyard dwellings	786	0.00%	0	0.00
Business		9.81%	74	189.25
Local Activity Centre		1.08%	37	5.55
Neighbourhood Activity Centre		1.62%	27	8.10
Market/trading area		0.40%	0	0.00
Regional Activity Centre		3.23%	5	25.00
Garages & filling stations		0.11%	2	0.60
Industrial		8.62%	133	71.60
Light industrial		2.16%	93	18.60
Heavy industrial		3.23%	13	26.00
Storage and warehousing		3.23%	27	27.00
Public spaces: recreation		10.13%	107	92.00
Parks: public		0.89%	30	15.00
Sports fields		3.64%	31	31.00
Stadiums		0.22%	0	0.00
Community facilities: Municipality		2.74%	13	17.50
Municipal office		0.02%	0	0.00
Community hall		0.06%	1	0.30
Local library		0.02%	0	0.00

Land uses	No of units	% of total land	No of stand required	Area included in project
Primary health clinic		0.03%	0	0.00
Fire station & Ambulance		0.05%	0	0.00
Ambulance station		0.02%	0	0.00
Cemeteries		1.96%	8	16.00
Public parking areas		0.11%	3	0.90
Taxi ranks		0.05%	1	0.30
Community facilities other		7.16%	57	48.74
Post office		0.04%	2	0.30
Police station		0.03%	0	0.00
District hospital		0.09%	0	0.00
Community health centre		0.01%	0	0.00
Hospice		0.02%	0	0.00
Old age home		0.11%	0	0.00
Children's homes		0.01%	0	0.00
Place of worship		0.21%	8	1.60
Crèche		0.38%	16	3.20
Nursery school		0.32%	9	2.70
Primary school		3.14%	8	25.60
Secondary school		1.94%	3	13.50
After school centre		0.22%	9	1.80
Technical college		0.54%	0	0.00
Roads totals		17.70%	0	153.14

4.3.4.2 Summary of general elements

The next two table show the context and main elements that define the expected level of capital and operating expenditure. The outcomes are shown per annum (first table and cumulative in the second table).

Table 38: Summary of totals per annum (annual increments)

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Population	4	4	4	4	4	4	4	4	4	4
	663	663	663	663	663	663	663	663	663	663
Area (ha)	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5
Average stand size m ²	1102	1102	1104	1102	1102	1102	1102	1102	1102	1102
Population density (p/ha):	44	44	44	44	44	44	44	44	44	44
Household density	12	12	12	12	12	12	12	12	12	12
(hh/ha):										

Residential Customers	1	1	1	1	1	1	1	1	1	1
	335	335	335	335	335	335	335	335	335	335
Other CUs:	30	30	30	30	30	30	30	30	30	30
Total customer units	1	1	1	1	1	1	1	1	1	1
	365	365	365	365	365	365	365	365	365	365
Total no of stands	800	800	799	800	800	800	800	800	800	800
Roads area (ha)	9.6	9.6	9.5	9.6	9.6	9.6	9.6	9.6	9.6	9.6
Roads as % of total area	8.9%	8.9%	8.9%	8.9%	8.9%	8.9%	8.9%	8.9%	8.9%	8.9%

Table 39: Summary of totals per annum (Cumulative)

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Population	4	9	13	18	23	27	32	37	41	46
	663	327	990	654	317	981	644	308	971	635
Area (ha)	98	195	292	390	488	585	683	780	878	975
Average stand size m2	1	1	1 104	1 102	1 102	1 102	1 102	1 102	1 102	1 102
	102	102								
Population density	43.6	43.6	43.6	43.6	43.6	43.6	43.6	43.6	43.6	43.6
(p/ha):										
Household density	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
(hh/ha):										
Residential customers	1	2	4 005	5 340	6 675	8 011	9 346	10	12	13
	335	670						681	016	351
Other CUs:	30	60	90	120	150	180	210	240	270	300
Total customer units	1	2	4 095	5 460	6 825	8 191	9 556	10	12	13
	365	730						921	286	651
Total no of stands	800	1	2 399	3 199	3 999	4 799	5 599	6 399	7 199	7 999
		600								
Roads area (ha)	9.6	19.1	28.7	38.2	47.8	57.4	66.9	76.5	86.1	95.6
Roads as % of total area	8.9%	8.9%	8.9%	8.9%	8.9%	8.9%	8.9%	8.9%	8.9%	8.9%

4.3.4.3 Summary of capital expenditure per service

The next to two tables shows the required capital expenditure (incrementally per annum and cumulative per annum) to accommodate the forecasted demand.

Table 40: Incremental capital expenditure: All services (R'000)

Year	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Water	24	26	26	26	26	26	26	26	25	26
	161	436	090	362	144	200	782	342	958	416

Sanitation	12	13	13	13	13	13	14	13	13	13
	550	920	877	563	927	325	062	601	774	929
Electricity	28	31	31	31	30	31	32	31	31	31
	505	287	154	497	863	397	087	350	132	126
Roads &	49	54	53	53	54	53	55	53	53	54
Stormwater	957	372	499	801	428	480	423	745	136	316
Refuse removal	1 524	2 026	2 052	2 962	1 611	2 038	3 027	2 019	2 050	2 541
Total (R'000)	116 697	128 041	126 673	128 185	126 971	126 440	131 382	127 057	126 050	128 329

Table 41: Capital expenditure (all services (R'000) (Cumulative)

Year	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Water	24 161	50 597	76 688	103	129	155	182	208 517	234 476	260 891
				050	194	394	175			
Sanitation	12 550	26 470	40 347	53 909	67 836	81 161	95 223	108 824	122 598	136 527
Electricity	28 505	59 792	90 946	122	153	184	216	248 140	279 271	310 398
				443	306	703	790			
Roads &	49 957	104	157	211	266	319	374	428 704	481 840	536 156
Stormwater		329	828	629	056	536	959			
Refuse removal	1 524	3 550	5 602	8 564	10 175	12 213	15 240	17 260	19 310	21 851
Total (R'000)	116 697	244 738	371 411	499 596	626 567	753 007	884 388	1 011 445	1 137 495	1 265 823

4.3.4.4 Summary of operating expenditure

One of the key elements that are often overlooked in capital investment planning is the operating consequences of capital investment. The next two tables show the forecasted operating and maintenance cost associated with the projected capital expenditure. It is an incremental cost and does not reflect on the revenue side and cost recovery strategies that the Municipality may apply.

Table 42: Ops & maintenance expenditure: All services per annum (R'000)

Year	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Water	2 688	2 942	2 903	2 934	2 909	2 916	2 980	2 932	2 889	2 940
Sanitation	3 138	3 452	3 441	3 381	3 454	3 338	3 502	3 390	3 408	3 458
Electricity	10	12	12	12	11	12	12	12	12	12
	944	135	118	303	884	246	467	235	125	063
Roads &	2 900	3 155	3 105	3 121	3 159	3 103	3 215	3 118	3 085	3 152
Stormwater										
Refuse removal	1 709	2 271	2 300	3 319	1 805	2 285	3 393	2 263	2 298	2 849
Total (R'000)	21 379	23 956	23 868	25 059	23 211	23 888	25 557	23 939	23 805	24 462

Table 43: Ops & maintenance expenditure: All services per annum (R'000) (Cumulative)

Year	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Water	2 688	5 630	8 534	11	14	17	20	23	26 094	29 034
				468	377	293	274	206		
Sanitation	3 138	6 590	10	13	16	20	23	27	30 504	33 962
			031	411	866	204	705	096		
Electricity	10	23	35	47	59	71	84	96	108	120
	944	079	197	500	384	631	098	333	458	521
Roads &	2 900	6 056	9 161	12	15	18	21	24	27 961	31 113
Stormwater				282	441	544	759	877		
Refuse removal	1 709	3 979	6 280	9 599	11	13	17	19	21 643	24 492
				404	689	082	345			
Total (R'000)	21	45	69	94	117	141	166	190	214	239
	379	334	202	261	472	360	917	856	661	122

4.3.4.5 Summary of consumption and use

Service delivery is about consumption and use. The next two tables show the expected demand for water and electricity. Also, the estimated wastewater and solid waste generated was calculated. These number can be used to assess the impact of future demand on the existing capacities of bulk facilities.

Table 44: Incremental consumption and usage

Year	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Water (Ml/day)	0.7	0.8	0.8	0.8	0.8	0.8	0.9	0.8	0.8	0.8
Sanitation (Ml/day)	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.6	0.6	0.6
Electricity (MWh/day)	136.	156.	148.	158.	155.	167.	164.	156.	146.	159.
	1	8	0	6	9	4	2	0	6	0
Roads & Stormwater (km/annum)	13.3	14.5	14.3	14.3	14.5	14.2	14.7	14.2	14.2	14.4
Refuse removal (tons/day)	15.2	51.2	22.3	49.7	18.7	52.6	22.3	50.6	52.5	17.4
Refuse removal (m3/day)	30.6	102.	44.7	99.7	37.7	105.	45.0	101.	105.	35.2
		7				3		5	2	

Table 45: Cumulative consumption and usage

Year	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Water (Ml/day)	0.7	1.6	2.4	3.2	4.0	4.9	5.7	6.6	7.4	8.2
Sanitation (Ml/day)	0.6	1.2	1.8	2.5	3.1	3.7	4.4	5.0	5.7	6.3
Electricity (MWh/day)	136.	292.	440.	599.	755.	922.	1	1	1	1
	1	9	9	5	4	8	087.1	243.1	389.7	548.7
Roads & Stormwater (km/annum)	13.3	27.8	42.0	56.3	70.8	84.9	99.6	113.9	128.0	142.5

Refuse removal (tons/day)	15.2	66.4	88.7	138.	157.	209.	232.1	282.6	335.2	352.6
				4	1	7				
Refuse removal (m3/day)	30.6	133.	178.	277.	315.	420.	465.9	567.3	672.6	707.8
		4	1	8	5	9				

Section 5 Integrated Infrastructure Investment Framework



5 Integrated Infrastructure Investment Framework

5.1 Contextualisation

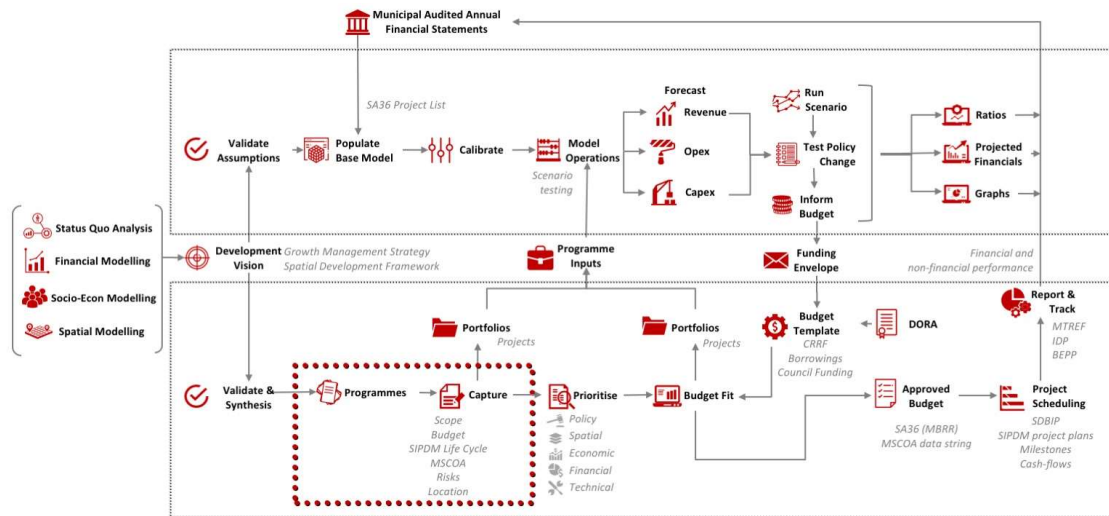


Figure 18: IIF in the context of the CEF

The Integrated Infrastructure Investment Framework (IIIF) outlines the demand identified of capital projects within the Stellenbosch Local Municipality jurisdiction. It represents all capital projects identified across various sectors by various departments on one platform. Stellenbosch Local Municipality has recognised the following three realities:

- Firstly, that Capital Expenditure projects not only originate and are implemented by the local municipality;
- Secondly, that it is the mandate of other bodies of government to provide services, specifically infrastructure related services; and
- Thirdly, that the IUDF calls for integrated planning and implementation.

Based on this above mentioned, Stellenbosch aims to identify the total investment demand within the Stellenbosch Local Municipality jurisdiction. The IIIF therefore depicts not only projects captured on CP³, but also of other government entities. Once other government entities' data is on the Consolidated Inter-Governmental Project Pipeline Platform, Stellenbosch Local Municipality has the ability to incorporate such projects to the Integrated Infrastructure Investment Framework and so the Capital Expenditure Framework. This will unlock the ability to:

- Develop an integrated urban form as guided by the National Development Plan and the Integrated Urban Development Framework;
- Reduce wasteful expenditure and so optimise capital investment; and
- Collaboratively invest in the urban form by different bodies of government.

The institutional process that can deliver an Integrated Infrastructure Investment Framework require project specific information in order to consolidate the capital expenditure demand as identified by various bodies of government within the municipal jurisdiction. Each project should be adjoined with a set of minimum information to enable CP3 to appraise the readiness of a project for prioritisation – and is stored on a centralised database. This is important for a number of reasons:

- A centralised record of all capital needs can be backed up regularly assuring a measure of redundancy and independence on the knowledge of individuals within the various technical departments;
- The centralised data can be called upon by those that are involved in the appraisal of the relative importance of the respective projects and the subsequent budgeting and tracking of those project;
- It provides a collaborative space for departments to keep record of their needs and to lobby for an appropriate and responsive portion of the annual budget allocation;
- It also provides a platform where project commitments can be communicated to the municipality, and;
- It enables in year monitoring of capital project roll-out.

Project capturing allows for the logging of a new project even though that particular project may still be a mere wish. In other words, not enough detail of the project is known to be able to graduate the “candidate” project to a “graduate” project status. Importantly though, the project is recorded and as a result, recognised as a need by the planning authority.

The minimum information collected includes:

- mSCOA Project Segment;
- Project location;
- Project beneficiary / affected area;
- Project budget; and
- Alignment of project budgets with Organisational Objectives.

5.2 Asset Management Framework

5.2.1 Introduction

Stellenbosch Municipality is positioning itself to be able to adopt a robust Asset Management (AM) Solution. This will only be possible through the result of improvements it has to make to its asset management practices. The Municipality is building on its sound performance in financial asset management to establish, in particular, improved physical asset management (that focusses on infrastructure-based service delivery), and in line with recognised good industry practice, the integration of these two domains.

Stellenbosch Municipality’s approach to the physical management of assets is in line with the requirements of the Municipal Finance Management Act (MFMA) and other relevant legislation governing municipalities, and industry standards, in particular, the South African National Standard 55001 indicating requirements for AM systems that were published in 2014. This includes the establishment of an asset management framework that comprises: the following core elements

- an Asset Management Policy (addressing physical asset management);
- Asset Management Procedures Manuals.

This process includes the annual preparation of:

- A Strategic Asset Management Plan; and
- Asset Management Plans per sector.

5.2.2 Status Quo: Asset Management Stellenbosch Municipality

5.2.2.1 *Global AM Statement for Stellenbosch*

Currently, the sector plans are sitting in multiple locations across Stellenbosch Municipality, are updated at different intervals, are generally five-year forecasts and do not integrate into a single GIS Environment. Specifically;

- i. Current information from systems may or may not be spatially enabled or linked;
- ii. Extracting business intelligence information is problematic as administrative rights can be limited;
- iii. Workflows and standard operating procedures vary between Departments and are either paper-based or stored electronically but separately;
- iv. Lack of integration between systems; and
- v. Duplication of systems and functions.

5.2.3 Asset Register

Stellenbosch Municipality has an established Financial Asset Register in an electronic system. This Municipal Standard Chart of Accounts (mSCOA) compliant register provides the data required by the Municipality to effectively apply the applicable accounting standards. The Municipality is in progress to appoint service providers to link the Financial Asset Register to a physical ('Technical') asset register (TAR) to support its Physical Asset Management practices. The Financial and Technical Asset Registers shall be configured to mutually inform each other while the Financial Asset Register shall be updated and reconciled to the general ledger on a monthly basis

The Financial Asset Register currently reflects, at a minimum, for each of the assets all the fields contained in the MFMA-Local Government Capital Asset Management Guideline section 5.1.1.

5.2.3.1 *Asset Classification*

The Municipality has further adopted Asset Categories in line with the prevailing accounting standards for assets, as well as Asset Sub-categories and Asset Groups that are appropriate to the entity's business operations relating to Physical Asset Management. The asset register consists of a six-level asset hierarchy, with the levels being:

Asset Accounting Group
Asset Category
Asset Sub-Category
Asset Group
Asset Type

Asset Component Type

This classification represents a level of detail appropriate for financial reporting purposes as well as the level required for effective Physical Asset Management.

5.2.3.2 *Significant measures the Municipality has to implement include the following*

- i. Establishment of an integrated information system – where the financial system has been established together with seamless links to the technical system;
- ii. The establishment of improved and standardised data models that have been agreed collectively by the technical, financial and planning departments, so that there is a single record of assets that meets the needs of all departments;
- iii. Refreshed and enhanced data in line with the new models, meeting statutory needs, and providing a baseline for ongoing improvement in physical asset management;
- iv. Preparation of an AM Policy and Immovable AM Procedures Manual (in support of, and to give effect to the AM Framework);
- v. Preparation of an AM Practices Assessment and Improvement Plan that establishes a record of practice improvements that have been made, and provides a foundation for planning and implementing further improvements;
- vi. Annual preparation of a Strategic Asset Management Plan and the annual review of Asset Management Plans per sector as informed by the Municipality's strategic direction contained in the IDP and SDF.
- vii. Awareness, change management and training of officials in recognised good infrastructure asset management practice to aid the institutionalisation of asset management.

This specification speaks specifically to the requirement for **refreshed and enhanced data in line with the new models, meeting statutory needs, and providing a baseline for ongoing improvement in physical asset management.**

5.2.4 Progress toward an Integrated Master Asset Framework

To date, the municipality has achieved the following towards the establishing an Asset Management Framework;

- i. A consultant has been appointed to develop Cityworks web GIS-centric platform which can help to streamline the care and maintenance of infrastructure assets.
- ii. Develop an Asset Management Policy and
- iii. Develop an Asset Management Procedure Manual

The capital needs for asset management will be identified through the integrated master asset framework to strengthen the planning and budgeting for the Capital Expenditure Framework.

5.3 Capital expenditure planning: Process

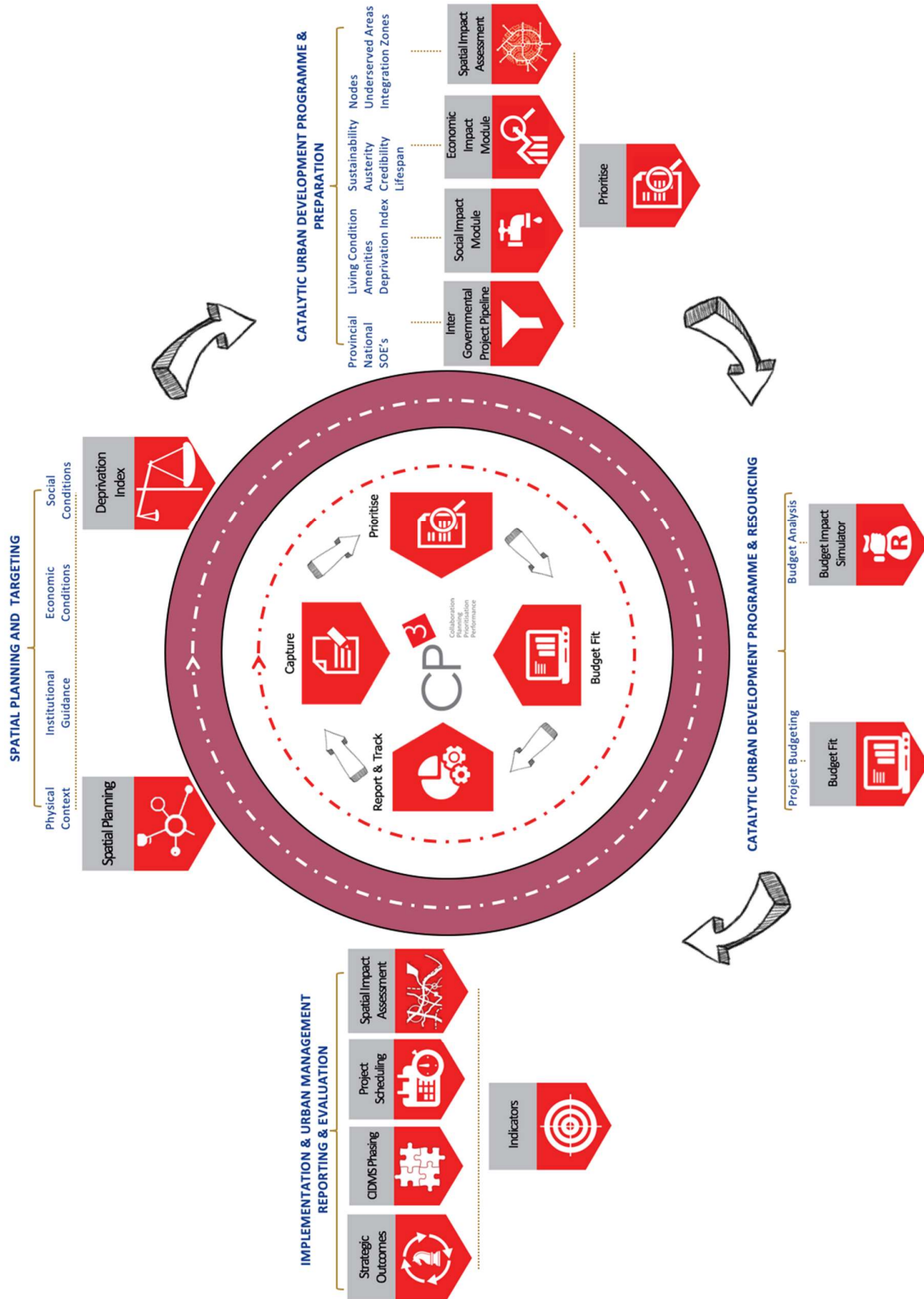


Figure 19: IGR collaboration

Figure 19 refers to the ideal process of capital expenditure planning, prioritisation, implementation and tracking. The first step towards initiating the process depicted in Figure 19 is to accumulate project specific information. This was done throughout the year by the whole municipality via the CP3 tool.

5.4 Inter-Governmental Project Pipeline

Several key role players has been identified in order to compile the inter-governmental project pipeline. This includes:

- Selected National Departments;
- Selected Provincial Departments, and;
- Selected SOE's.

Stellenbosch Local Municipality is working toward an inter-governmental project pipeline. To achieve this, the development of two additional prioritisation platforms are being developed, namely the Western Cape Collaboration Project Prioritisation and Performance platform as well as the National Government Collaboration Project Prioritisation and Performance platform of which the latter is already in place.

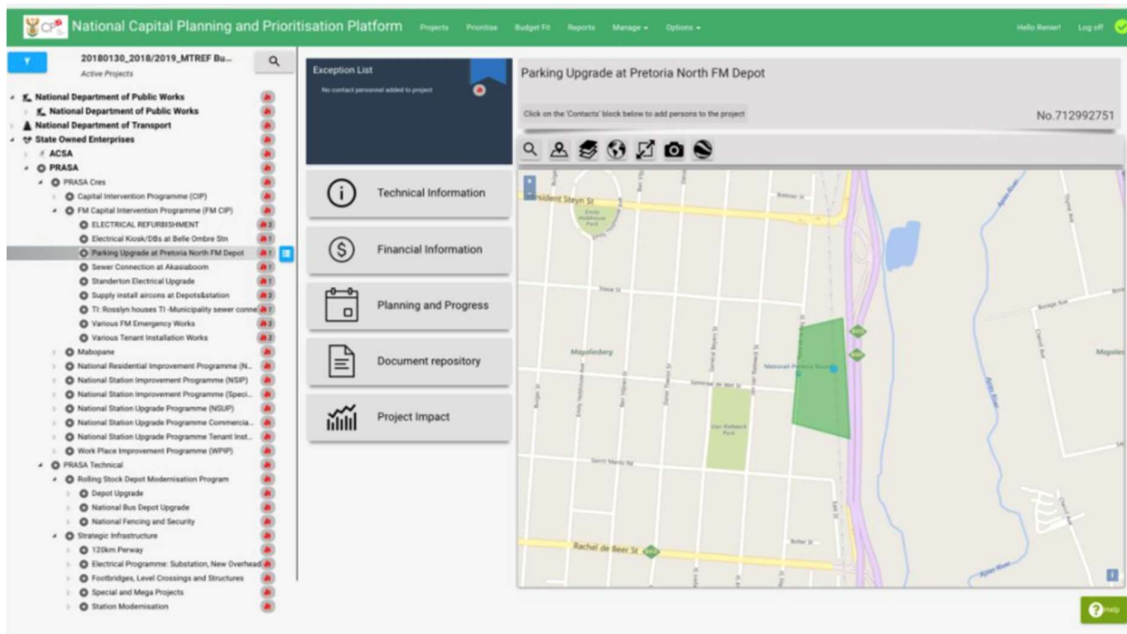


Figure 20: National Government capital Planning and Prioritisation Platform

Stellenbosch Local Municipality is awaiting information related to Capital projects from the government entities listed below. Following the receipt of this information, Stellenbosch will be in a position to populate the said platforms and so compile a comprehensive IIIF.

- Selected National Departments;
- Selected Provincial Departments, and;
- Selected SOE's.

The fact that these two platforms, together with Stellenbosch CP3 are essentially identical – it is possible to start with the first step of the Intergovernmental Project Pipeline process namely, to view the different entities of government planned intervention in space²⁸.

Once the platforms has been established, the second step will be to identify clear and obvious overlap or expenditure that is not in line with any other public entity's strategic vision or spatial targeting. Once these issues and opportunities has been identified, the various stakeholders and role players can use the same platform to coordinate and phase investment in a sustainable and efficient way which will lead to the most return on investment by the collaborative via the Capital Expenditure Framework.

Once such potentials have been identified and established, the CP3 platform will prioritize the investment opportunities, ranking projects based on the criteria engaged with by the Inter-governmental committee; such criteria will typically constitute of spatial, economic, social, technical and strategic qualities – each with a different weight – depending on the forum. The prioritized projects will then be sent through to the budget scenario process where the different entities' budget will be allocated to the prioritized projects in order to realize and give effect to spatial targeting. Throughout the process projects will be monitored as they are implemented.

5.5 Planned capital expenditure

The current capital expenditure project pipeline of the municipality includes the current planned capital expenditure for the financial year 2020/2021 up to financial year 2029/2030.

²⁸ The Stellenbosch jurisdictional area.

5.5.1 Planned capital expenditure: Summary

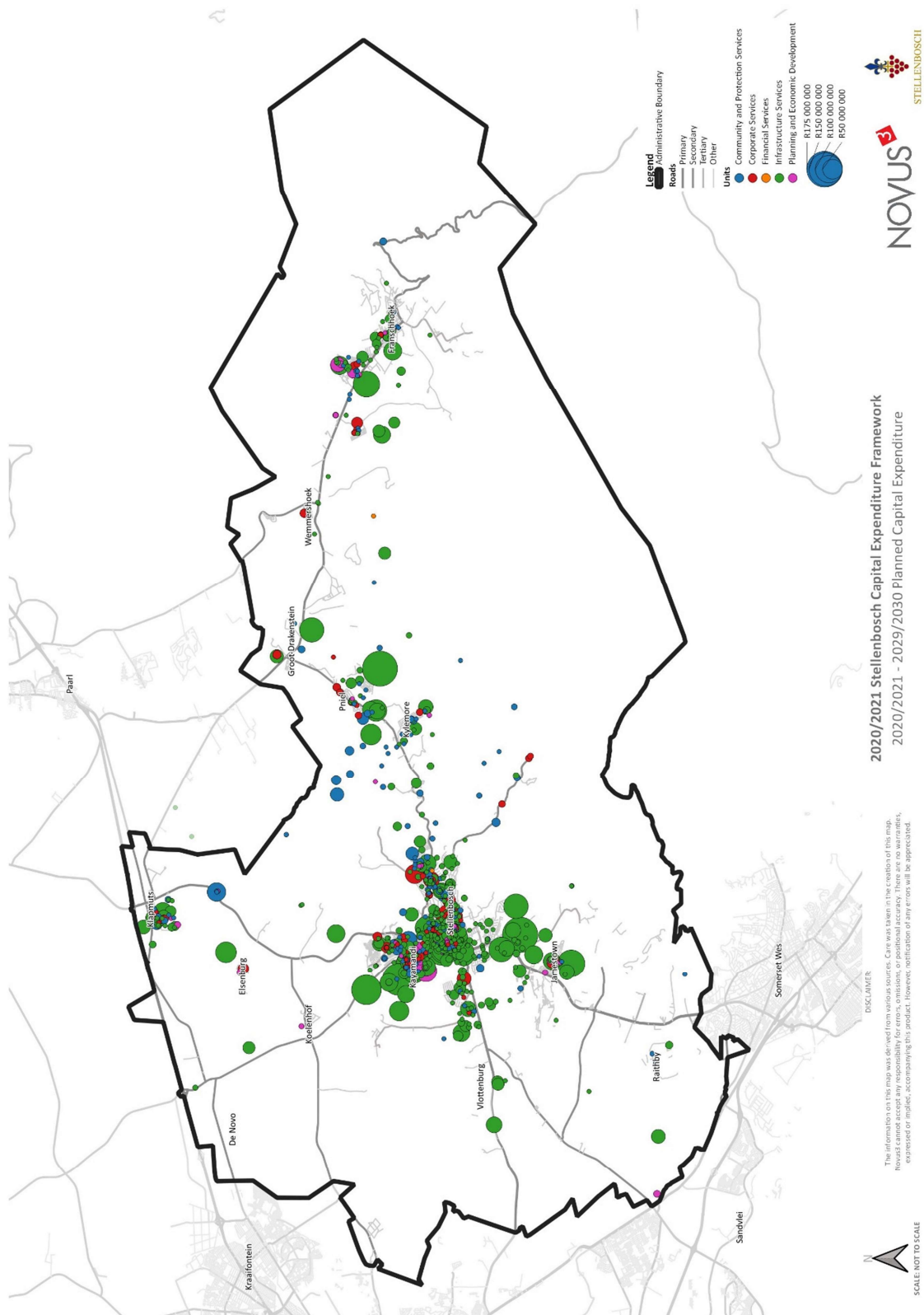
The traditional municipal process is based around a three year budget cycle as per the Medium Term Expenditure Framework (MTREF). This forced municipalities to plan in the same context. With the Introduction of the CEF, Stellenbosch first made an institutional change by planning on a five year horizon. Stellenbosch is working towards a thorough 10 year planning horizon, however several efforts needs to be made regarding the various sector plans before a mature 10 year planning perspective is formed.

It is important to note that the further one plans into the future, the more difficult it becomes to express a planned capital expenditure. It is for that reason that the total capital demand decrease as the years increase.

Table 46: 2020/2021-2030/2031 Planned capital expenditure

Year	Total Planned Capital Expenditure	Total Planned Capital Expenditure %
2020/2021	R721 785 076	12%
2021/2022	R698 492 030	12%
2022/2023	R628 843 580	10%
2023/2024	R735 459 363	12%
2024/2025	R570 881 401	9%
2025/2026	R531 788 364	9%
2026/2027	R604 008 592	10%
2027/2028	R547 032 074	9%
2028/2029	R563 960 613	9%
2029/2030	R410 858 322	7%
Total	R6 013 109 416	100%

From Table 46: , it is clear that planned capital expenditure decrease as time increase, with almost 30% of the planned capital expenditure in the first three years. This is because the near future is more predictable than the distant future, which means that project managers has a better idea of what projects is required now, and what the actual capital expenditure would be of the said projects. The total planned capital expenditure amounts to R 6 013 109 416 during the ten year planning horizon.



Map 18: 2020/2021 – 2029/2030 Total planned capital expenditure

5.5.2 Planned capital per Unit

Table 47: Planned capital expenditure per unit per year

Year	Community and Protection Services	Corporate Services	Financial Services	Infrastructure Services	Municipal Manager	Planning and Economic Development	Total
2020/2021	R70 559 847	R47 800 000	R150 000	R496 148 429	R40 000	R107 086 800	R721 785 076
2021/2022	R63 965 000	R57 840 000	R150 000	R573 613 230	R40 000	R2 883 800	R698 492 030
2022/2023	R65 844 000	R63 340 000	R-	R489 314 580	R-	R10 345 000	R628 843 580
2023/2024	R57 380 000	R77 800 000	R-	R586 652 763	R-	R13 626 600	R735 459 363
2024/2025	R62 030 000	R56 740 000	R-	R447 863 001	R-	R4 248 400	R570 881 401
2025/2026	R60 527 000	R47 690 000	R-	R417 407 164	R-	R6 164 200	R531 788 364
2026/2027	R82 510 000	R43 440 000	R-	R465 008 592	R-	R13 050 000	R604 008 592
2027/2028	R32 410 000	R42 240 000	R-	R449 027 074	R-	R23 355 000	R547 032 074
2028/2029	R54 670 000	R92 000 000	R-	R384 763 613	R-	R32 527 000	R563 960 613
2029/2030	R45 180 000	R55 470 000	R-	R281 393 322	R-	R28 815 000	R410 858 322
Total	R595 075 847	R584 360 000	R300 000	R4 591 191 769	R80 000	R242 101 800	R6 013 109 416
%	10%	10%	0%	76%	0%	4%	100%

Table 47: and Figure 22 shows planned capital expenditure per unit for each financial year. It is clear that Infrastructure services boasts with 76% of the total capital demand.

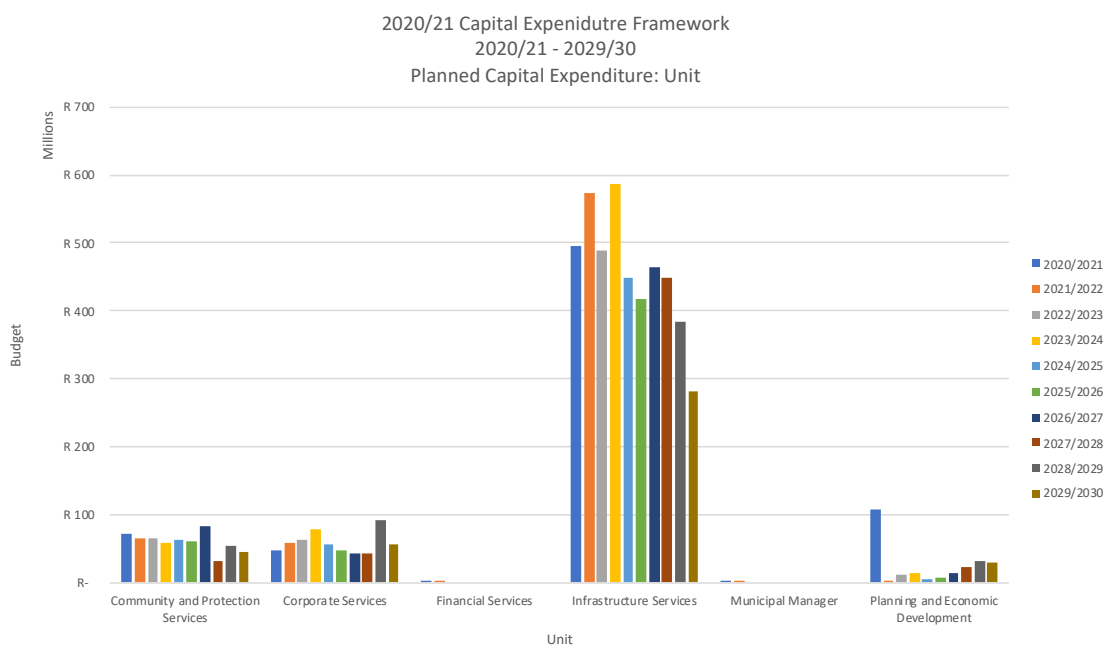


Figure 21: 2020/2021 – 2029/2030 Planned capital expenditure per unit

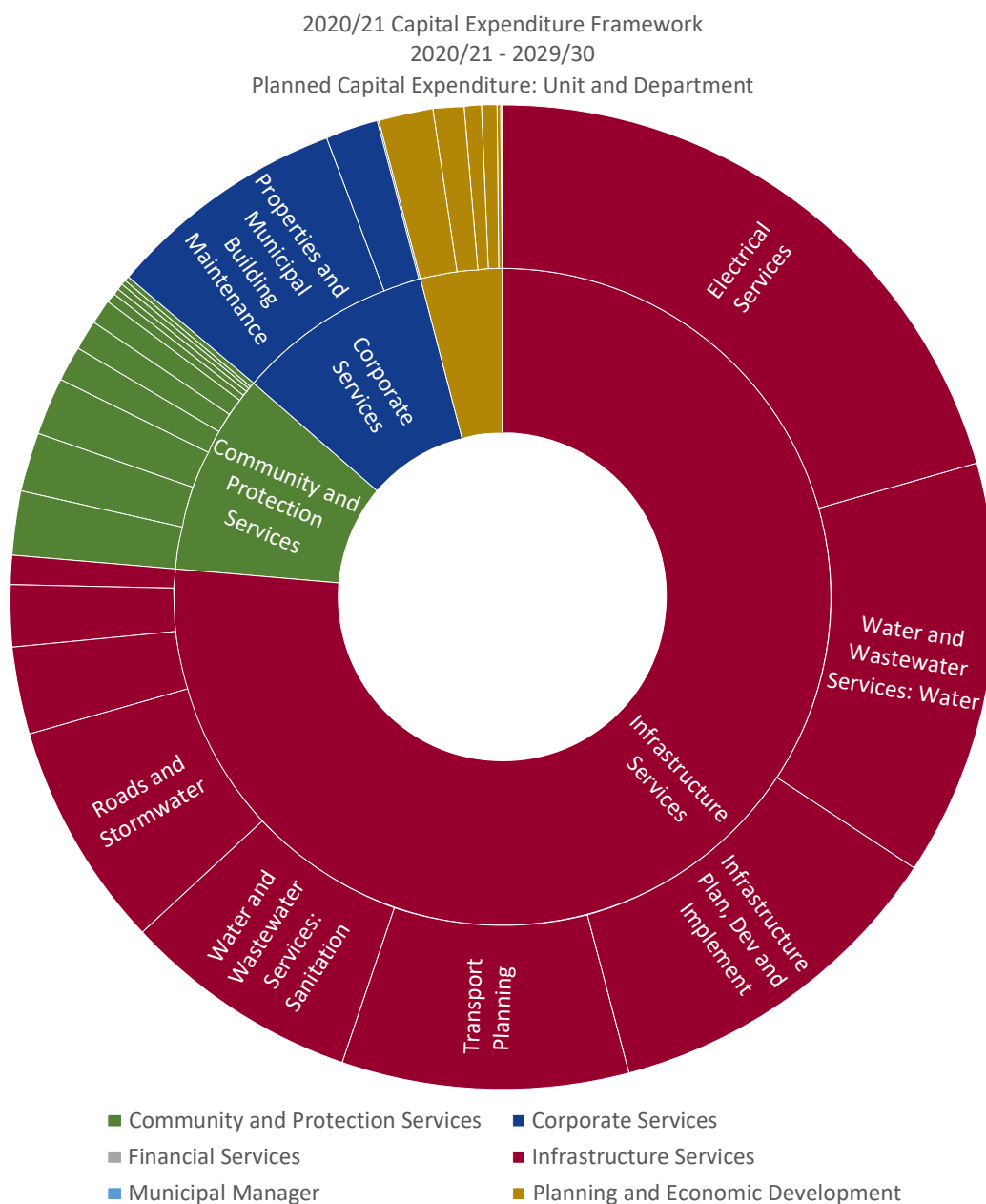


Figure 22: 2020/21 – 2029/30 Planned capital expenditure per unit & department

From Figure 22 it is clear that the infrastructure services unit requires, or rather plans, for the majority of the planned capital expenditure, amounting to +-75%, followed by corporate services and economic development – which are not surprising given that they are responsible for land acquisition (amongst others) in the municipality. One can also deduct the departmental split regarding planned capital expenditure. The department of Electrical Services, together with Water and Wastewater Services: Water represents almost 45% of the units total planned capital expenditure and a total of 34% of the entire 10-year planned capital expenditure of Stellenbosch Local Municipality.

5.5.2.1 *Planned Capital Expenditure: Infrastructure Services*

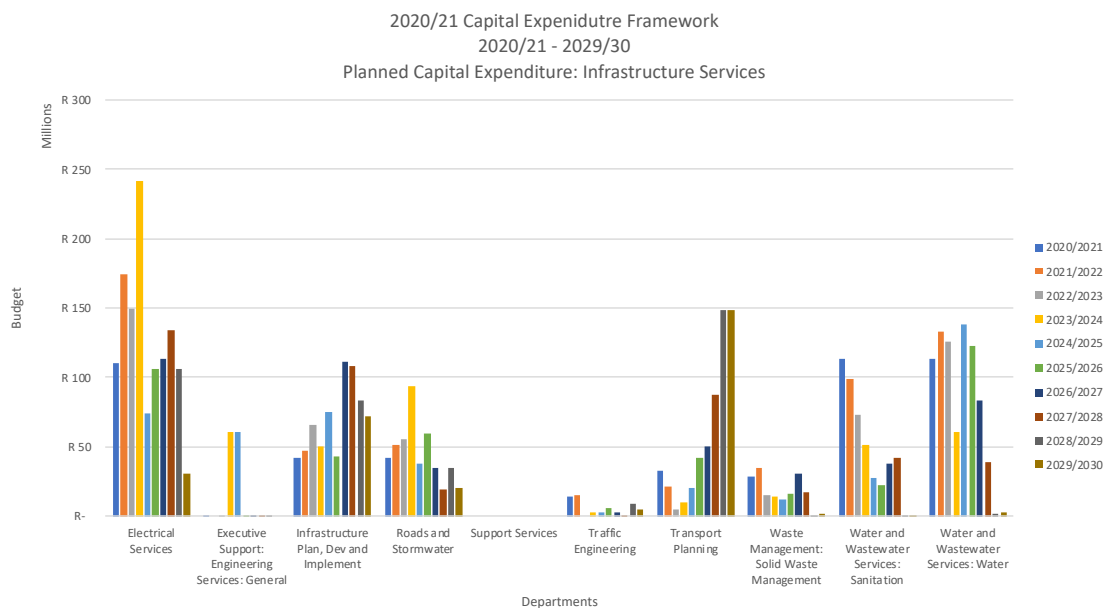


Figure 23: Ten Year planned capital expenditure: Infrastructure Services

Table 48: Ten Year planned capital expenditure: Infrastructure Services (R' 000)

Year	Electrical Services	Executive Support: Engineering Services:	Infrastructure Plan, Dev and Implement	Roads and Stormwater	Support Services	Traffic Engineering	Transport Planning	Waste Management : Solid Waste Management	Water and Wastewater Services: Sanitation	Water and Wastewater Services: Water	Grand Total
2020/21	R109 822	R400	R42 497	R41 550	R0	R13 700	R32 500	R28 945	R113 234	R113 500	R496 148
2021/22	R173 774	R0	R47 394	R51 000	R0	R14 650	R21 350	R34 345	R98 350	R132 750	R573 613
2022/23	R149 585	R10	R65 525	R55 450	R0	R0	R5 150	R15 495	R72 600	R125 500	R489 315
2023/24	R241 932	R60 910	R50 646	R93 750	R0	R2 950	R10 450	R14 015	R51 100	R60 900	R586 653
2024/25	R73 988	R60 700	R74 825	R38 250	R0	R2 600	R19 900	R11 700	R27 500	R138 400	R447 863
2025/26	R105 903	R300	R42 784	R59 200	R0	R6 000	R41 720	R16 150	R22 400	R122 950	R417 407
2026/27	R113 606	R300	R111 068	R34 600	R0	R3 000	R49 935	R31 050	R38 250	R83 200	R465 009
2027/28	R134 197	R300	R107 830	R19 350	R0	R500	R87 750	R17 600	R42 300	R39 200	R449 027
2028/29	R106 049	R250	R83 255	R34 600	R0	R8 900	R148 810	R600	R300	R2 000	R384 764
2029/30	R31 013	R0	R71 620	R19 850	R0	R4 750	R148 760	R2 100	R300	R3 000	R281 393
Total	R1 239 870	R123 170	R697 443	R447 600	R0	R57 050	R566 325	R172 000	R466 334	R821 400	R4 591 192
Total %	27%	3%	15%	10%	0%	1%	12%	4%	10%	18%	100%

Of all the departments within the infrastructure services unit, Electrical Services boast 27% of the unit's planned capital expenditure. This is not only because of the important regional role electrical planning has to deal with in the context of the Western Cape, but also because of the growing need within the municipality to basic services. As a response to the water crisis within the municipality, and the region, the municipality is developing various water strategies that should be implemented. These initiatives, in other words, planned capital expenditure projects, amounts to 18% of the department's total planned capital expenditure, which is also the most for a department in the whole municipality.

5.5.2.2 Planned Capital Expenditure: Planning and Economic Development

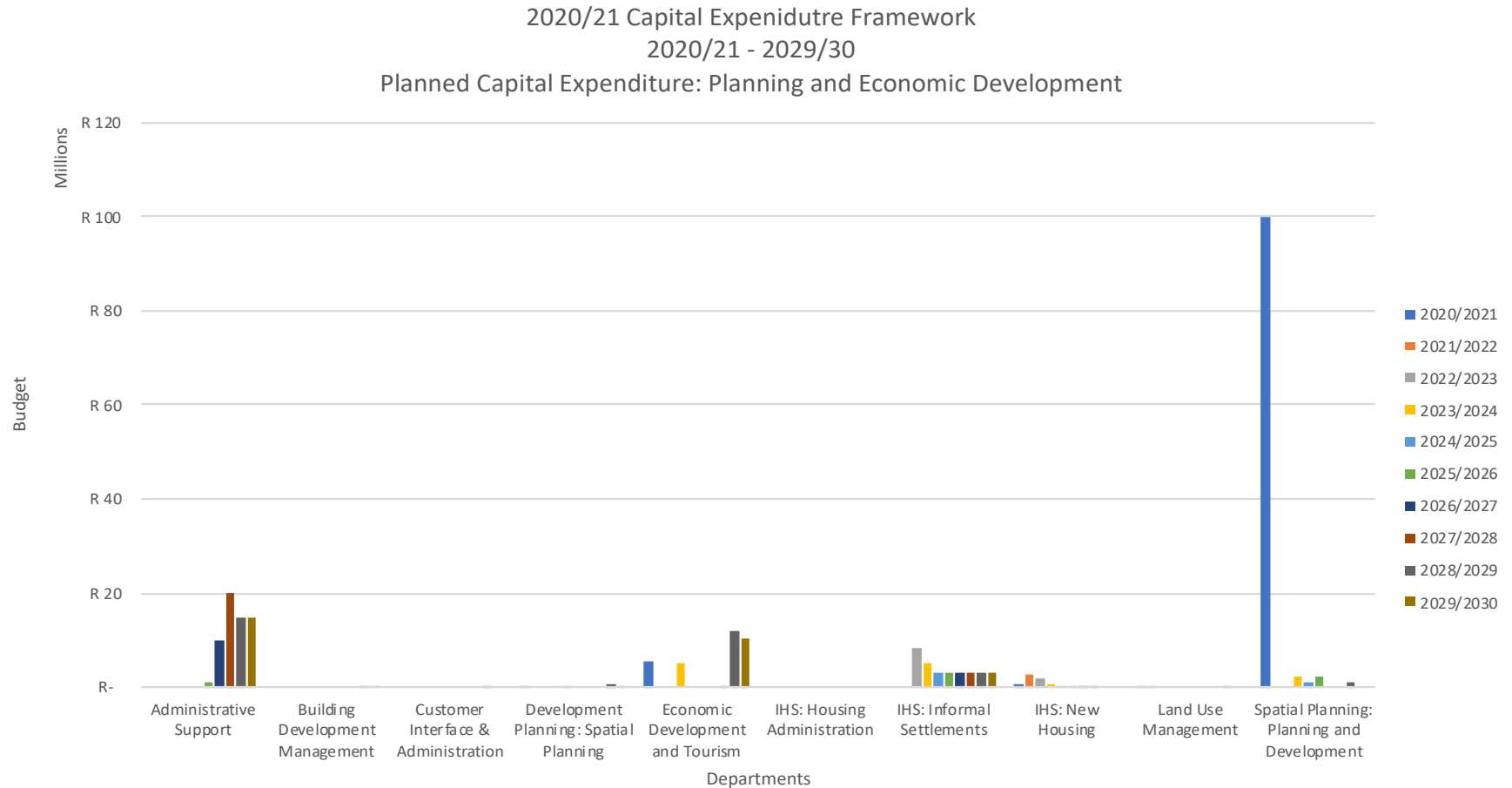


Figure 24: Ten Year planned capital expenditure: Planning and Economic Development

Table 49: Ten Year planned capital expenditure: P&E Development (R' 000)

Years	Administrative Support	Building Development Management	Customer Interface & Administration	Development Planning: Spatial Planning	Economic Development and Tourism	IHS: Housing Administration	IHS: Informal Settlements	IHS: New Housing	Land Use Management	Spatial Planning: Planning and Development	Grand Total
2020/2021	R0	R0	R0	R375	R5 665	R0	R0	R802	R210	R100 035	R107 087
2021/2022	R0	R0	R0	R0	R0	R0	R0	R2 759	R125	R0	R2 884
2022/2023	R0	R0	R0	R0	R0	R0	R8 270	R2 075	R0	R0	R10 345
2023/2024	R0	R0	R0	R255	R5 000	R0	R5 250	R774	R0	R2 348	R13 627
2024/2025	R0	R0	R0	R45	R0	R0	R3 020	R25	R0	R1 159	R4 248
2025/2026	R1 000	R0	R0	R0	R0	R0	R3 025	R25	R0	R2 114	R6 164
2026/2027	R10 000	R0	R0	R0	R0	R0	R3 025	R25	R0	R0	R13 050
2027/2028	R20 000	R0	R0	R0	R300	R0	R3 025	R30	R0	R0	R23 355
2028/2029	R15 000	R80	R100	R647	R12 145	R0	R3 030	R0	R275	R1 250	R32 527
2029/2030	R15 000	R35	R0	R380	R10 370	R0	R3 030	R0	R0	R0	R28 815
Total	R61 000	R115	R100	R1 702	R33 480	R0	R31 675	R6 514	R610	R106 906	R242 102
Total %	25%	0%	0%	1%	14%	0%	13%	3%	0%	44%	100%

The department Planning and Economic Development identified R 242 million worth of planned capital expenditure which are reported under the said department. It must be noted that – specifically with respect to housing projects – some project might be conceptualised and even be administered within the department, however, another department in another unit might be the implementing agent. Spatial Planning and Development indicates a large planned capital expenditure in the 2020/21 financial year in comparison to other departments and other financial years, it signifies a significant planned capital.

5.5.2.3 Planned Capital Expenditure: Community and Protection Services

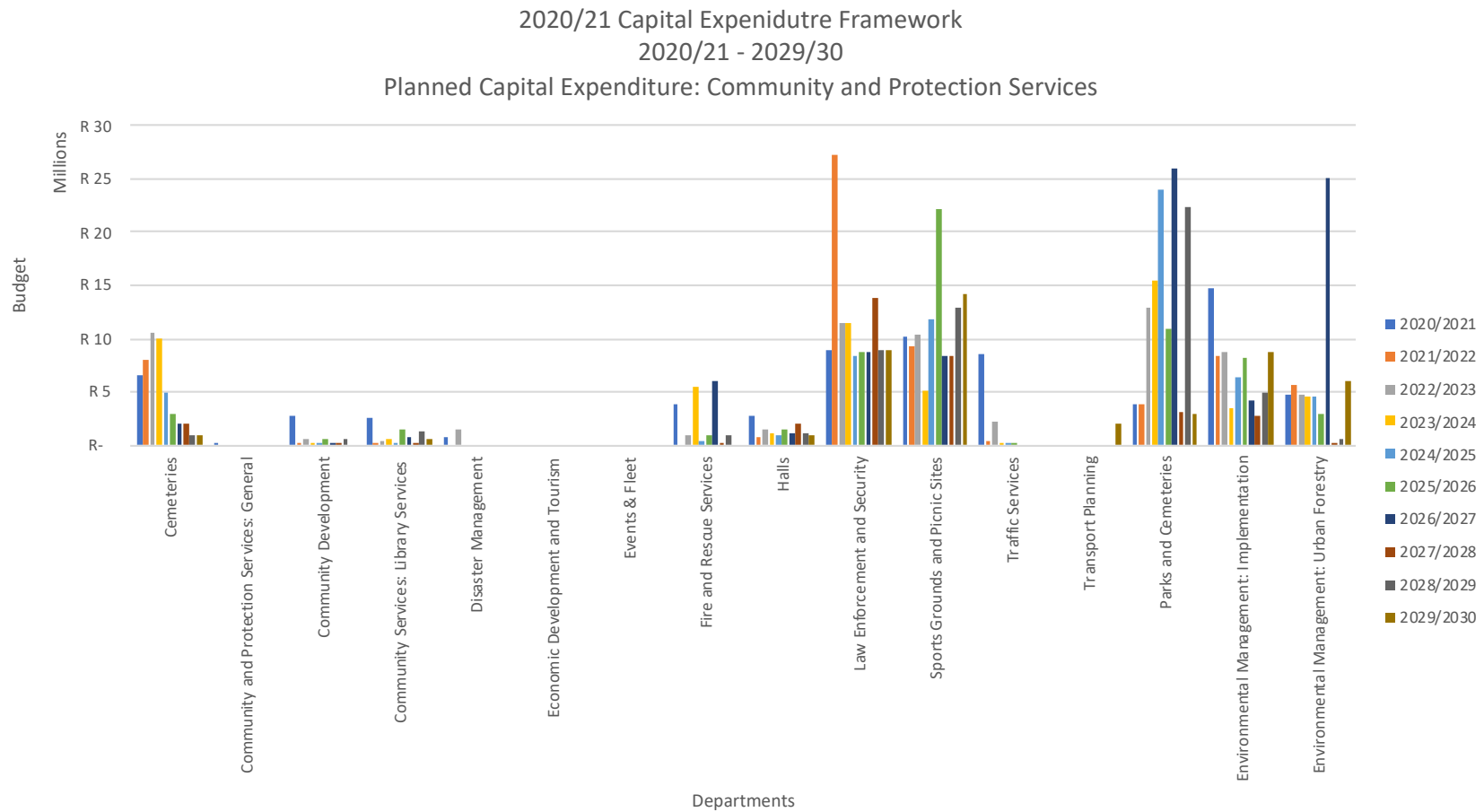


Figure 25: Ten Year planned capital expenditure: C & P Services

Table 50: Ten Year planned capital expenditure: C & P Services (R' 000)

Departments	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26
Cemeteries	R6 530	R8 000	R10 500	R10 000	R5 000	R3 000
Community and Protection Services: General	R250	R-	R-	R-	R-	R-
Community Development	R2 785	R100	R560	R55	R60	R607
Community Services: Library Services	R2 540	R305	R360	R630	R260	R1 500
Disaster Management	R800	R-	R1 500	R-	R-	R-
Economic Development and Tourism	R-	R-	R-	R-	R-	R-
Events & Fleet	R-	R-	R-	R-	R-	R-
Fire and Rescue Services	R3 800	R-	R1 000	R5 500	R350	R1 000
Halls	R2 850	R750	R1 450	R1 100	R1 000	R1 420
Law Enforcement and Security	R9 000	R27 300	R11 450	R11 450	R8 450	R8 700
Sports Grounds and Picnic Sites	R10 230	R9 380	R10 400	R5 075	R11 900	R22 170
Traffic Services	R8 600	R400	R2 164	R30	R40	R40
Transport Planning	R-	R-	R-	R-	R-	R-
Parks and Cemeteries	R3 821	R3 810	R12 880	R15 380	R24 040	R10 910
Environmental Management: Implementation	R14 654	R8 320	R8 800	R3 550	R6 400	R8 150
Environmental Management: Urban Forestry	R4 700	R5 600	R4 780	R4 610	R4 530	R3 030
Grand Total	R70 560	R63 965	R65 844	R57 380	R62 030	R60 527

Departments	2026/27	2027/28	2028/29	2029/30	Total	Total %
Cemeteries	R2 000	R2 000	R1 000	R1 000	R49 030	8%
Community and Protection Services: General	R-	R-	R-	R-	R250	0%
Community Development	R50	R60	R570	R-	R4 847	1%
Community Services: Library Services	R800	R50	R1 360	R600	R8 405	1%
Disaster Management	R-	R-	R-	R-	R2 300	0%
Economic Development and Tourism	R-	R-	R-	R-	R-	0%
Events & Fleet	R-	R-	R-	R-	R-	0%
Fire and Rescue Services	R6 000	R100	R1 000	R-	R18 750	3%
Halls	R1 140	R2 050	R1 220	R950	R13 930	2%
Law Enforcement and Security	R8 750	R13 800	R8 850	R8 900	R116 650	20%
Sports Grounds and Picnic Sites	R8 470	R8 370	R12 940	R14 100	R113 035	19%
Traffic Services	R-	R-	R-	R-	R11 274	2%
Transport Planning	R-	R-	R-	R2 000	R2 000	0%
Parks and Cemeteries	R26 020	R3 200	R22 320	R2 950	R125 331	21%
Environmental Management: Implementation	R4 250	R2 750	R4 850	R8 700	R70 424	12%
Environmental Management: Urban Forestry	R25 030	R30	R560	R5 980	R58 850	10%
Grand Total	R83	R32	R55	R45	R595	100%

Stellenbosch is well endowed with natural features. In order to maintain the character of the municipality, and to optimise on the natural assets within Stellenbosch, a department such as Parks, Rivers and Area Cleaning expresses the largest proportion of planned capital expenditure within this unit, amounting to 19% of this unit's planned capital expenditure. The highest capital expenditure total within this Unit is towards Law Enforcement and Security at a total of 20% of the units total. With the second and the seventh year at the highest totals of the department's capital demand.

5.5.2.4 Planned Capital Expenditure: Corporate Services

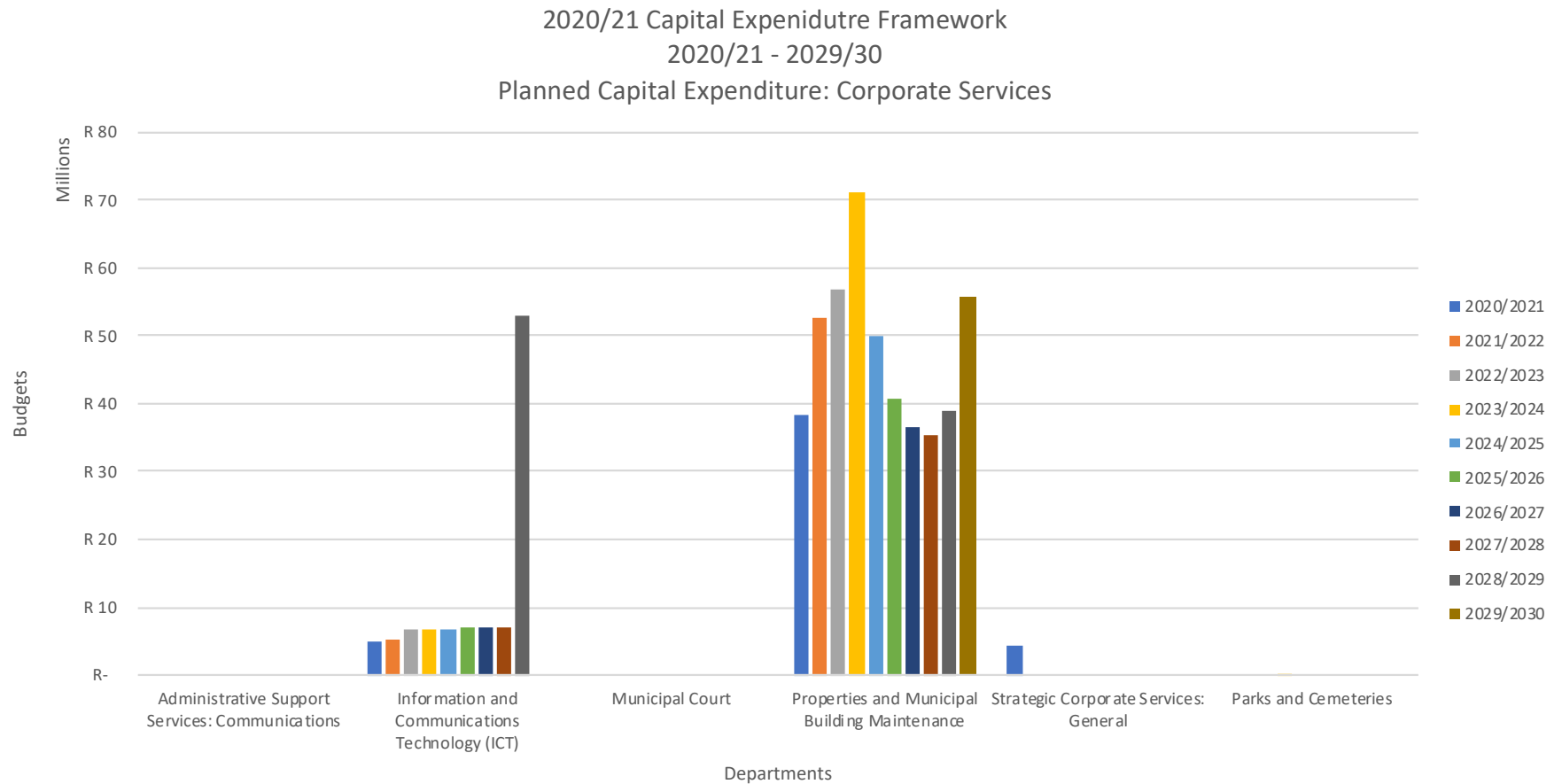


Figure 26: Ten Year planned capital expenditure: Corporate Services

Table 51: Ten Year planned capital expenditure: Corporate Services (R' 000)

Years	Administrative Support Services: Communications	Information and Communications Technology (ICT)	Municipal Court	Properties and Municipal Building Maintenance	Strategic Corporate Services: General	Parks and Cemeteries	Grand Total
2020/2021	R0	R5 100	R0	R38 300	R4 400	R0	R47 800
2021/2022	R0	R5 200	R0	R52 640	R0	R0	R57 840
2022/2023	R0	R6 600	R0	R56 740	R0	R0	R63 340
2023/2024	R0	R6 800	R0	R70 990	R0	R10	R77 800
2024/2025	R0	R6 800	R0	R49 940	R0	R0	R56 740
2025/2026	R0	R6 900	R0	R40 790	R0	R0	R47 690
2026/2027	R0	R6 900	R0	R36 540	R0	R0	R43 440
2027/2028	R0	R7 000	R0	R35 240	R0	R0	R42 240
2028/2029	R0	R53 000	R0	R39 000	R0	R0	R92 000
2029/2030	R0	R0	R0	R55 470	R0	R0	R55 470
Total	R0	R104 300	R0	R475 650	R4 400	R10	R584 360
Total %	0%	18%	0%	81%	1%	0%	100%

Corporate services hosts 10% of the planned capital expenditure within the municipality, of which 81% are requested by the department of Properties and Municipal Building Maintenance. The department of Information and Communications Technology (ICT) represents a further 18%. The mentioned departments thus foresee capital expenditure amounting to 99% of the unit.

5.6 Volume based demand

5.6.1 Capacity based demand versus Capital based demand

This section deals with the total Infrastructure demand within the Stellenbosch Local Municipality. As per the guidelines, it has expressed all capital demand in terms of budget requested and so answering the question of how much the total asset expenditure will cost. This enable financial modellers to determine what a sustainable path would be in terms of infrastructure roll out as well as the pace of implementation. However, at the core of the Capital Expenditure Framework is the aim to provide the desired urban form in an integrated manner – which means that capital demand should not only be viewed in monetary terms, but also in quantitative terms. The question that needs to be asked is therefore, how much units or how much capacity do we purchase with the identified demand within the Stellenbosch Local Municipality?

The first principles of economics dictate the relationship between quantity, price and demand. Without considering quantity, one does take the risk that not all demand is met over time.

5.6.2 Institutional processes in place to track capacity

Benchmarking of capital projects unit cost has been a difficult task throughout municipalities in South Africa. Not only because true project cost could never be measured accurately on a large scale, but also because actual expenditure and asset management has not been as sophisticated as one would hope. The Stellenbosch Local Municipality however, has the ability to amongst others, identify the volume that is being bought at a specific price.

5.7 Planned capital: Asset Action type demand

National Treasury has established a panel of service providers for the provision of an Integrated Financial Management and Internal Control System for local government. This is for municipalities to potentially procure financial management and internal control systems as they implement the Regulation of a Standard Chart of Accounts, commonly referred to as the Municipal Standard Chart of Accounts (*mSCOA*). *mSCOA* makes provision for a uniform and standardised financial transaction classification framework as per the Municipal Regulations and Standard Chart of Accounts as gazetted on 22 April 2014 (Gazette No 37577).

The Municipal Chart of Accounts is classified within the segments indicated in Figure 27 below:

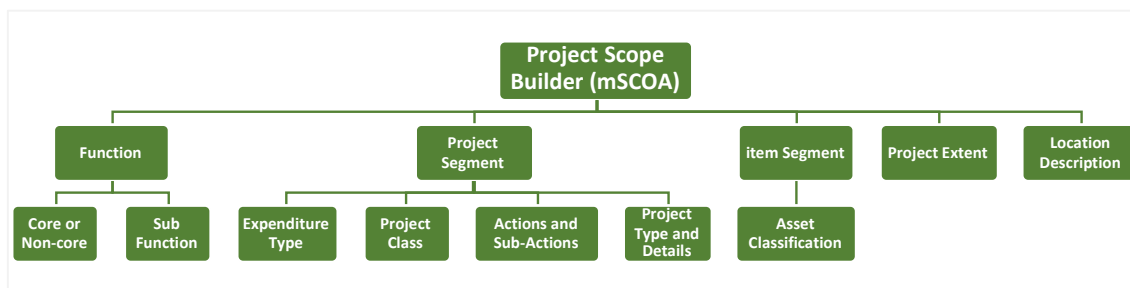


Figure 27: MSCOA segment classification

Within the Project Class, projects identified as “Infrastructure” are classified as “engineering type” services. These are inclusive of Electricity, Water and Sanitation as well as Roads and Storm-water type services. They display some or all of the following characteristics:

- Part of a system/ Network;
- Specific in nature and do not have alternative uses;
- Immovable, and;
- Subject to constraints at disposal.

Projects that fall under the “non- infrastructure” category are projects of a capital nature, identified by management. For example procurement of a new bus fleet for use as urban transport. Housing and Human Settlements also fall within the “non-infrastructure” category.

The project Action and Sub-Action component of the Project Segment within mSCOA, is an umbrella term that includes a “**New**” or “**Existing**” project. Sub-actions for an “**Existing**” project includes “**Upgrade**” or “**Renewal**”. For ease of reference the category descriptions are as follows:

- **New:** Capital projects to provide new assets to meet the current and future growth demands;
- **Existing:** Capital projects to provide an upgrade or renewal to asset in order to meet the current and future demands;
- **Existing - Upgrade:** Upgrade projects are generated according to the requirement for the replacement of a part of an asset component with the aim to increase the current capacity of the asset, and;
- **Existing - Renewal:** Replacing of existing infrastructure that has reached a Remaining Useful Life (RUL) of zero, while providing the same capacity and service.

Figure 28 and Table 52: indicate the asset type classification of the capital expenditure within the municipality.

2020/21 Capital Expenditure Framework
 2020/2021 - 2029/2030
 Planned Capital Expenditure: MSCOA Action Segment

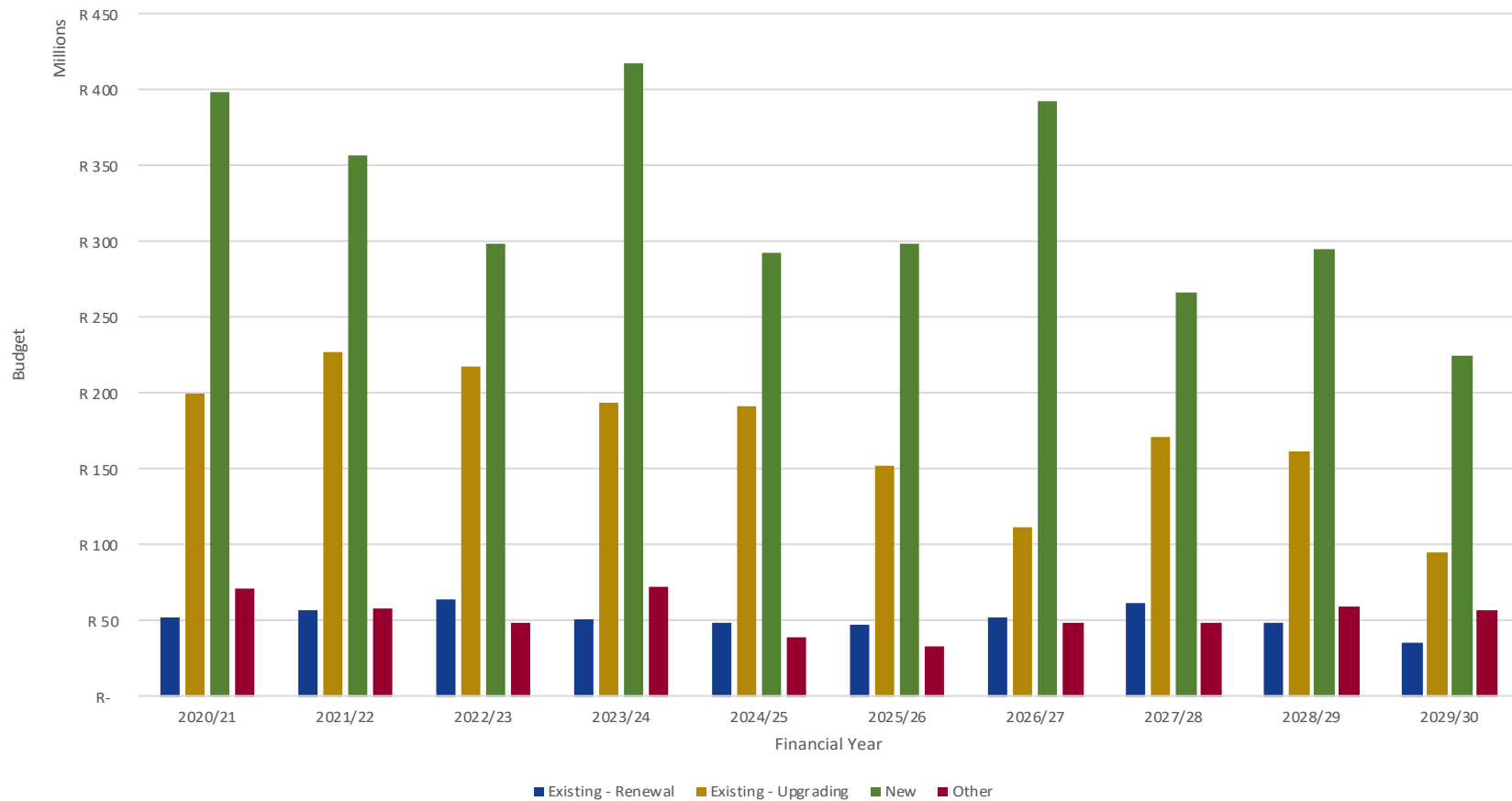


Figure 28: Planned capital expenditure per MSCOA action segment

Table 52: Planned capital expenditure per MSCOA action segment

Year	Existing - Renewal	Existing - Upgrading	New	Other	Grand Total
2020/21	R51 772 470	R199 338 778	R399 092 028	R71 581 800	R721 785 076
2021/22	R56 302 568	R227 621 000	R356 742 662	R57 825 800	R698 492 030
2022/23	R63 716 248	R218 052 126	R298 648 786	R48 426 420	R628 843 580
2023/24	R51 375 581	R194 100 000	R417 582 932	R72 400 850	R735 459 363
2024/25	R48 589 348	R190 900 000	R292 518 590	R38 873 463	R570 881 401
2025/26	R47 787 331	R152 401 268	R298 015 993	R33 583 772	R531 788 364
2026/27	R51 756 104	R111 512 905	R391 983 975	R48 755 608	R604 008 592
2027/28	R61 372 862	R171 050 000	R266 139 013	R48 470 199	R547 032 074
2028/29	R48 148 854	R162 077 215	R294 857 315	R58 877 229	R563 960 613
2029/30	R34 892 140	R94 620 000	R224 756 182	R56 590 000	R410 858 322
Total	R515 713 506	R1 721 673 292	R3 240 337 476	R535 385 141	R6 013 109 416
%	9%	29%	54%	9%	100%

The proportion of New to Existing asset planned capital expenditure remains relatively constant throughout the ten year horizon. The majority of assets, in terms of planned capital expenditure, are related to new assets, followed by upgrading of existing assets of 29% of the planned capital expenditure during the analysis period. This shows that the municipality is aiming on increasing the rates-base, the capacity and the general size of the town, while still expanding the urban footprint of Stellenbosch.

5.8 Planned capital expenditure: Discipline based analysis

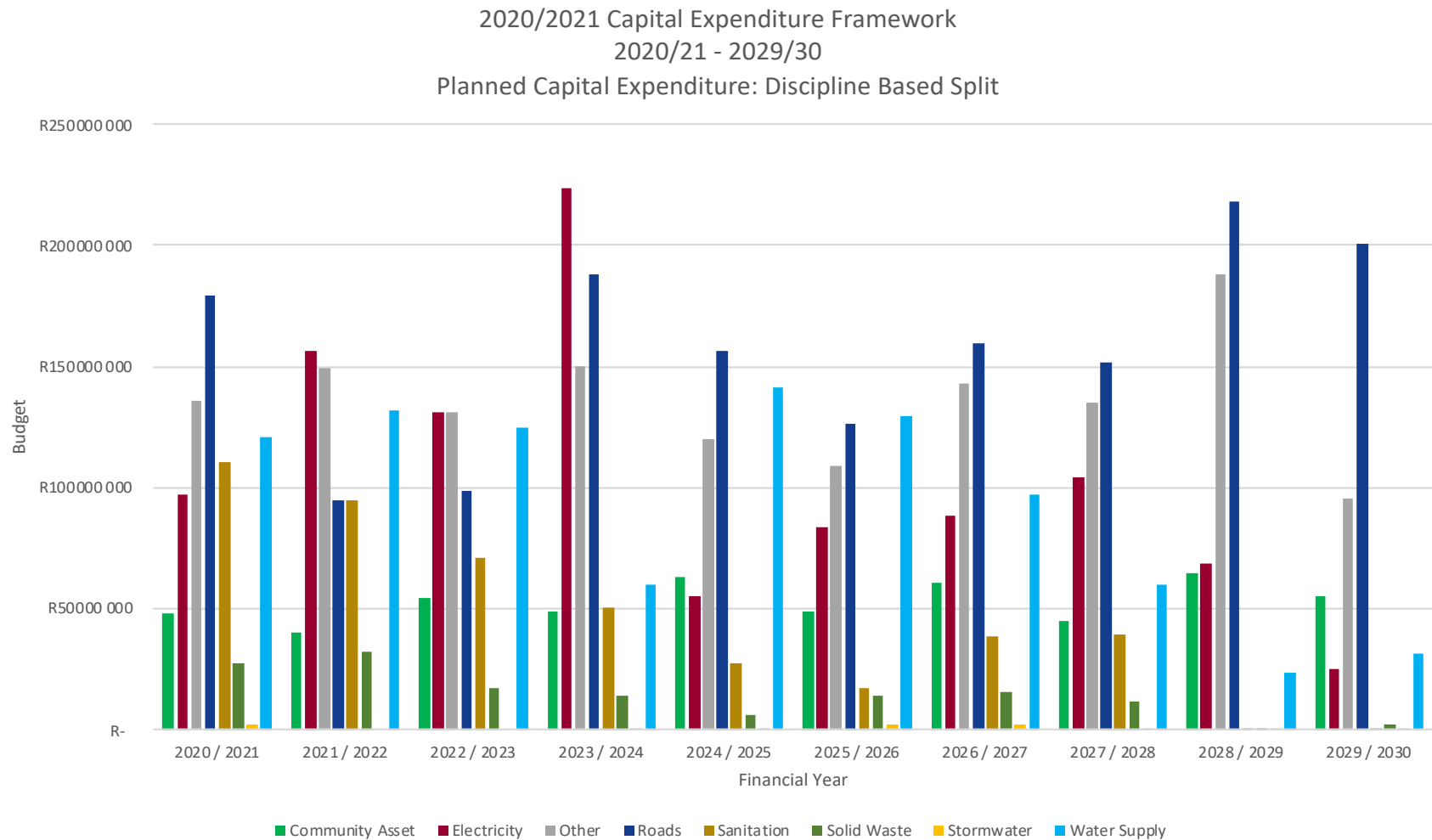


Figure 29: Planned capital expenditure per discipline

Table 53: Planned capital expenditure per discipline (R' 000)

Year	Community Asset	Electricity	Other	Roads	Sanitation	Solid Waste	Stormwater	Water Supply	Total
2020 /21	R47 690	R97 402	R135 967	R179 575	R110 884	R27 500	R2 000	R120 767	R721 785
2021 /22	R39 820	R156 391	R149 160	R94 390	R94 700	R32 000	R0	R132 031	R698 492
2022 /23	R54 445	R130 902	R131 457	R99 040	R71 200	R16 900	R0	R124 900	R628 844
2023 /24	R49 180	R223 854	R149 910	R187 985	R50 700	R14 100	R200	R59 530	R735 459
2024 /25	R62 960	R55 399	R120 152	R156 190	R27 750	R6 500	R200	R141 730	R570 881
2025 /26	R48 950	R84 015	R109 165	R126 428	R17 250	R14 300	R2 200	R129 480	R531 788
2026 /27	R60 550	R88 575	R142 771	R159 232	R38 500	R15 500	R2 100	R96 780	R604 009
2027 /28	R45 250	R103 888	R134 753	R151 911	R39 550	R11 300	R100	R60 280	R547 032
2028 /29	R64 435	R68 776	R187 929	R218 390	R550	R500	R100	R23 280	R563 961
2029 /30	R55 300	R25 183	R95 378	R201 067	R550	R2 000	R100	R31 280	R410 858
Total	R528 580	R1 034 386	R1 356 643	R1 574 209	R451 634	R140 600	R7 000	R920 057	R6 013 109
%	9%	17%	23%	26%	8%	2%	0%	15%	100%

The discipline based analysis is a method of showing what types of assets will, or are planned for. From this one can deduct what the intent is of the municipality over the next ten years. Please note, this is only considering the sector plans and not necessarily the IDP needs of future years. Assets related to the Roads discipline comprises of 26% of the total 10 year planned capital expenditure. For detail related as to what assets relate to each discipline category, please refer to the section below.

5.9 Planned capital expenditure: Asset type analysis

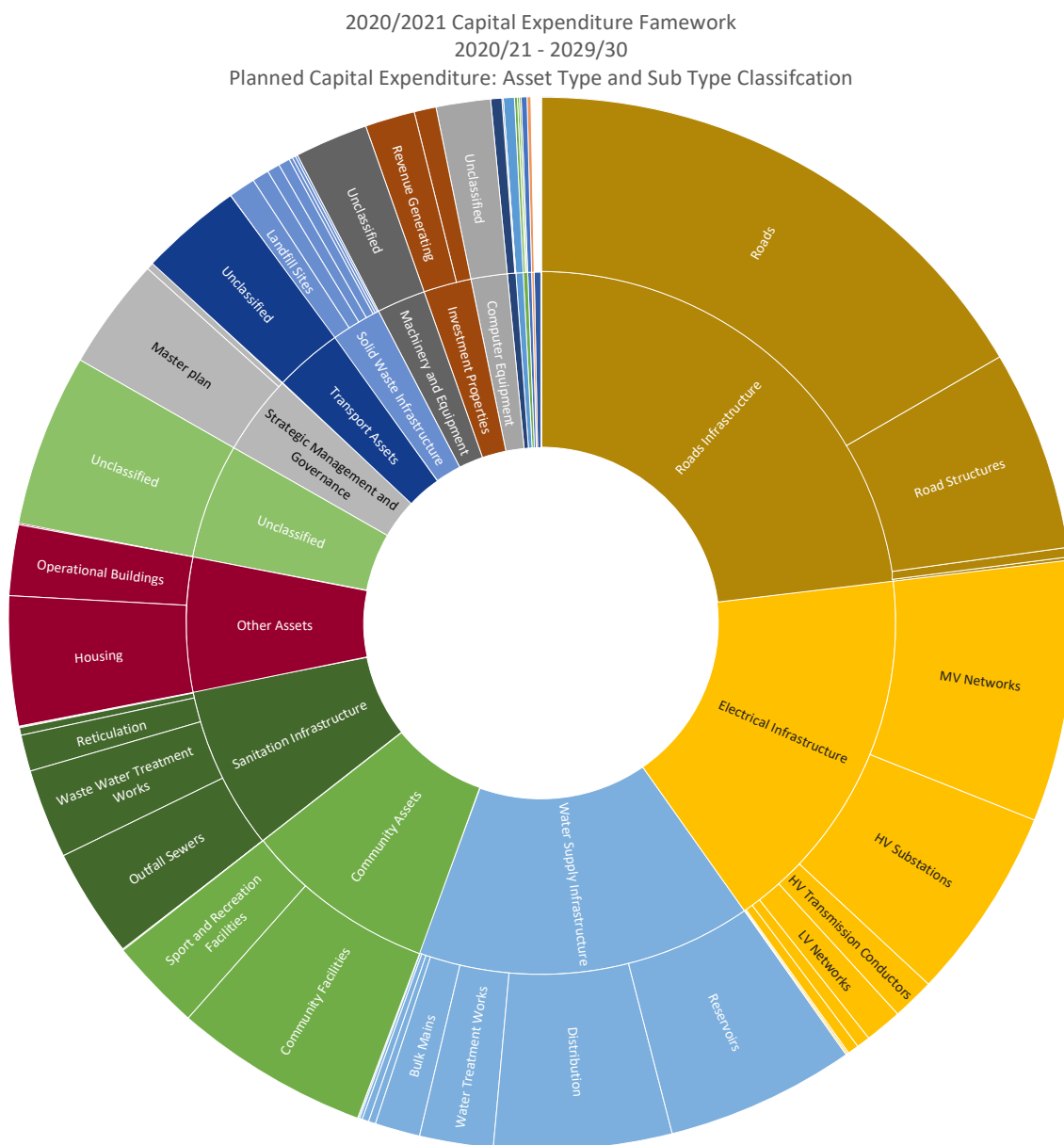


Figure 30: Planned capital expenditure – asset type and sub type classification

From the sunburst diagram it is clear that Roads infrastructure, Water Supply Infrastructure and Electrical Infrastructure collectively represent more than 50% of the total planned capital expenditure of the municipality. Considering the process of developing the new deal as stated by the IUDF. It could be deducted that the majority of planning in terms of capital expenditure lends towards establishing new services followed by other services such community assets and sanitation infrastructure in future. Collectively, all of these services will result in integrated urban spaces as envisioned by the IUDF. For a detailed view of the asset types planned for, as part of the planned capital expenditure, please refer to the summary sheet below. It is important to take note of the following:

- Each project that are being planned for by the municipality are classified in terms of the latest *mSCOA* – namely version 6.3, and;
- Some asset type strings, or in other words, asset type classifications, does not go down to the same level of categorisation – hence the term “blank” on the sheet. This does not mean there is a lack of data, but rather a lack of a request or an option to capture more detail per project.

5.10 Planned capital per Priority Development Area

Table 54: Planned capital expenditure per Priority Development Area

Functional Area Intersect	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26
Administrative HQ	R87 191 800	R60 066 800	R24 040 000	R22 029 000	R23 064 500	R27 687 060
City Wide	R124 132 970	R182 555 230	R138 186 080	R285 643 888	R103 198 869	R83 621 903
Farm	R134 568 712	R169 392 470	R149 997 242	R122 125 658	R131 436 585	R138 341 833
No Intersect	R440 982	R598 407	R1 093 781	R544 261	R149 767	R141 643
Not Mapped	R38 830 000	R33 360 000	R3 500 000	R6 200 000	R4 750 000	R13 350 000
Rural Node	R2 712 557	R10 162 154	R19 496 328	R14 724 107	R28 231 874	R23 858 156
Urban Node	R333 908 055	R242 356 969	R292 530 150	R284 192 449	R280 049 806	R244 787 771
Grand Total	R721 785 076	R698 492 030	R628 843 580	R735 459 363	R570 881 402	R531 788 366
Functional Area Intersect	2026/27	2027/28	2028/29	2029/30	Total	Percentage
Administrative HQ	R37 215 164	R30 236 302	R66 965 472	R18 672 000	R397 168 098	7%
City Wide	R104 422 151	R92 485 354	R77 588 016	R87 806 322	R1 279 640 783	21%
Farm	R113 381 232	R76 959 866	R29 606 455	R35 827 590	R1 101 637 644	18%
No Intersect	R308 761	R201 113	R4 367	R193 884	R3 676 966	0%
Not Mapped	R1 200 000	R4 240 000	R7 730 000	R6 340 000	R119 500 000	2%
Rural Node	R21 242 743	R4 009 869	R675 766	R788 931	R125 902 485	2%
Urban Node	R326 238 541	R338 899 570	R381 390 537	R261 229 595	R2 985 583 443	50%
Grand Total	R604 008 592	R547 032 074	R563 960 613	R410 858 322	R6 013 109 419	100%

Table 47: and Figure 22 shows planned capital expenditure per priority development area for each financial year. It is clear that the majority of capital expenditure across the 10 year horizon is planned to be spent in the urban node delineated areas.

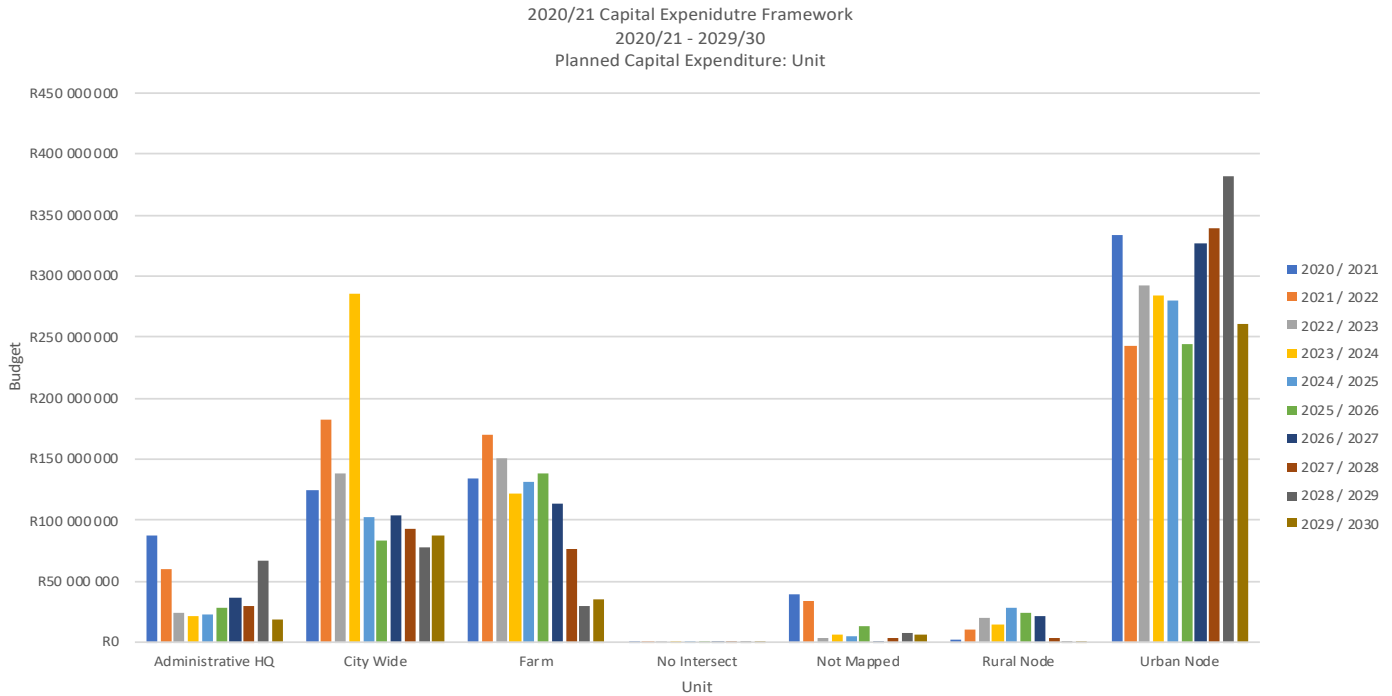
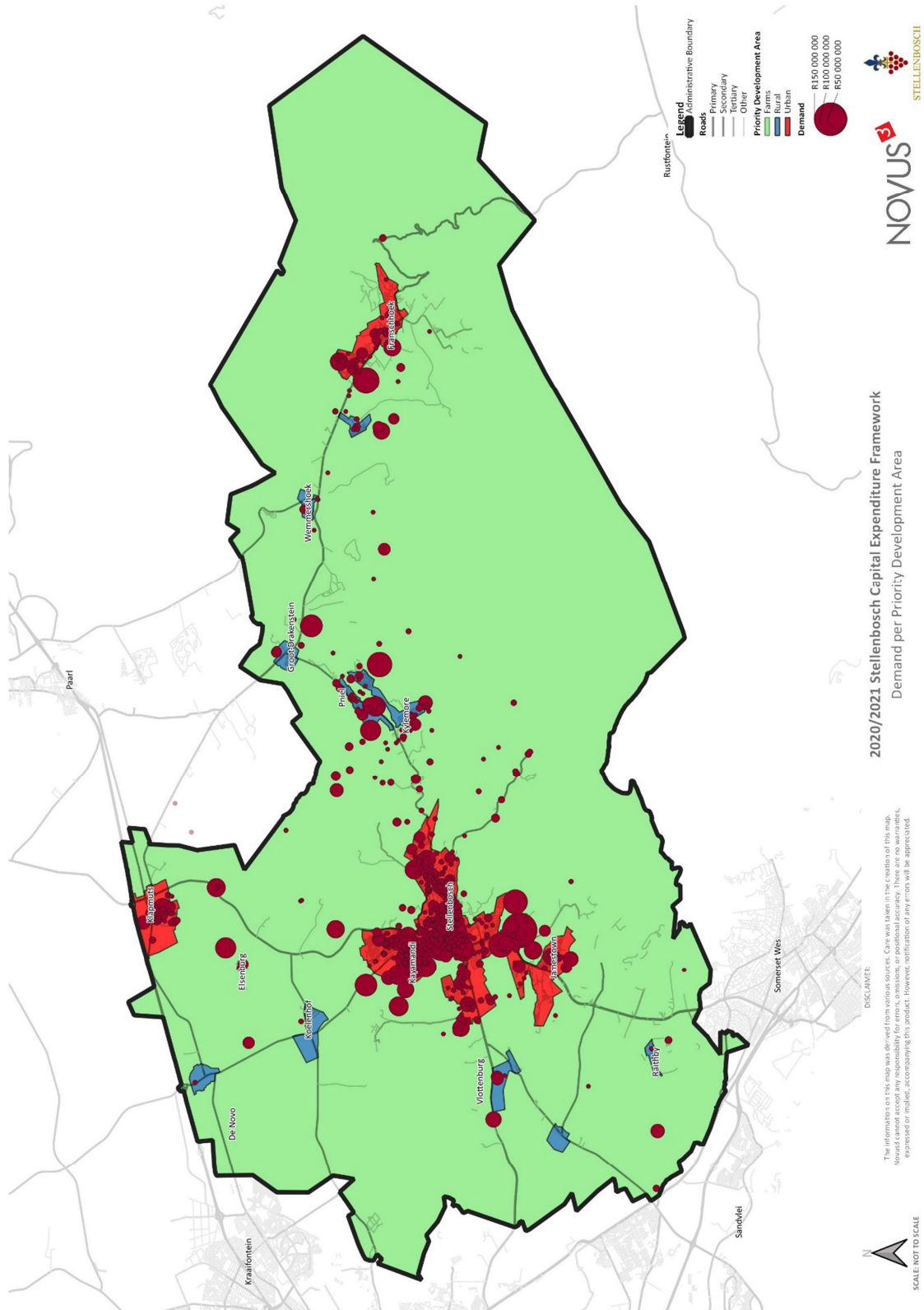


Figure 31: 2020/2021 – 2029/2030 Planned capital expenditure per PDA



Map 19: 2020/21 – 2029/30 Total planned capital expenditure per PDA

Table 55: Total planned capital expenditure per asset type captured on CP3

Type	Sub Type	Sum of 2020/21	Sum of 2021/22	Sum of 2022/23	Sum of 2023/24	Sum of 2024/25	Sum of 2025/26	Sum of 2026/27	Sum of 2027/28	Sum of 2028/29	Sum of 2029/30
■ Biological or Cultivated Assets	(blank)	R 1 250 000	R 500 000	R 350 000	R 3 250 000	R 550 000	R 1 350 000	R 1 500 000	R 1 000 000	R 100 000	R 600 000
■ Community Assets	Community Facilities	R 41 429 347	R 32 020 000	R 41 545 000	R 36 180 000	R 32 410 000	R 22 000 000	R 31 550 000	R 39 050 000	R 36 085 000	R 44 700 000
■ Community Assets	Sport and Recreation Facilities	R 5 760 500	R 7 800 000	R 12 900 000	R 13 000 000	R 30 550 000	R 26 950 000	R 29 000 000	R 6 200 000	R 28 350 000	R 10 600 000
■ Community Assets	(blank)	R 500 000	R -	R -	R -	R -	R -	R -	R -	R -	R -
■ Computer Equipment	(blank)	R 4 550 000	R 4 650 000	R 5 950 000	R 6 150 000	R 6 150 000	R 6 250 000	R 6 250 000	R 6 350 000	R 53 050 000	R 50 000
■ Electrical Infrastructure	Capital Spares	R 750 000	R 1 900 000	R 1 722 500	R 1 920 875	R 2 149 006	R 2 861 357	R 2 663 061	R 3 010 020	R 3 409 023	R -
■ Electrical Infrastructure	HV Substations	R 26 650 000	R 86 205 200	R 73 107 104	R 167 777 210	R 1 759 900	R 110 000	R 110 000	R 110 000	R 110 000	R 110 000
■ Electrical Infrastructure	HV Switching Station	R -	R -	R -	R -	R -	R -	R -	R 1 000 000	R 1 000 000	R 1 000 000
■ Electrical Infrastructure	LV Networks	R 3 700 000	R 7 250 000	R 1 422 500	R 1 520 875	R 1 749 000	R 22 511 357	R 22 813 061	R 2 660 020	R 4 434 667	R -
■ Electrical Infrastructure	MV Networks	R 55 472 470	R 41 355 268	R 51 873 864	R 33 243 018	R 35 596 002	R 43 590 135	R 48 645 026	R 95 307 903	R 53 792 120	R 23 342 140
■ Electrical Infrastructure	MV Substations	R 9 550 000	R 1 930 853	R 1 995 942	R 600 000	R 615 000	R 632 250	R 652 088	R 1 800 029	R 6 000 000	R 731 136
■ Electrical Infrastructure	MV Switching Stations	R -	R -	R -	R -	R -	R -	R -	R -	R -	R -
■ Electrical Infrastructure	Power Plants	R -	R -	R -	R -	R -	R -	R -	R -	R -	R -
■ Electrical Infrastructure	(blank)	R 830 000	R 950 000	R 780 000	R -	R 30 000	R -	R 30 000	R -	R 30 000	R -
■ Electrical Infrastructure	HV Transmission Conductors	R 450 000	R 16 800 000	R -	R 18 792 000	R 13 500 000	R 14 310 000	R 13 662 000	R -	R -	R -
■ Expanded Public Works Programme	Project	R 500 000	R 500 000	R 500 000	R 500 000	R 500 000	R 500 000	R 500 000	R 500 000	R 500 000	R 500 000
■ Furniture and Office Equipment	(blank)	R 2 615 000	R 2 218 000	R 2 074 000	R 1 780 000	R 3 000 000	R 2 003 000	R 1 673 000	R 1 345 000	R 1 615 000	R 1 565 000
■ Heritage Assets	Conservation Areas	R -	R -	R -	R -	R -	R -	R -	R -	R -	R -
■ Heritage Assets	Historic Buildings	R 500 000	R 500 000	R 200 000	R 400 000	R 700 000	R 1 700 000	R 200 000	R 200 000	R 200 000	R 200 000
■ Indigent and Cultural Management and Services	(blank)	R -	R -	R 250 000	R 250 000	R 250 000	R 250 000	R 250 000	R 250 000	R 250 000	R 250 000
■ Information and Communication Infrastructure	Capital Spares	R 650 000	R 220 000	R 100 000	R 350 000	R -	R 1 700 000	R -	R -	R 200 000	R 150 000
■ Information and Communication Infrastructure	Core Layers	R -	R -	R -	R -	R -	R -	R -	R -	R -	R -
■ Information and Communication Infrastructure	Data Centres	R -	R -	R -	R 1 500 000	R 1 000 000	R -	R -	R 1 000 000	R -	R -
■ Information and Communication Infrastructure	Distribution Layers	R 600 000	R 600 000	R 700 000	R 700 000	R 700 000	R 700 000	R 700 000	R 700 000	R -	R -
■ Intangible Assets	Computer Software and Applications	R 1 800 000	R 1 800 000	R 2 000 000	R 2 900 000	R 3 100 000	R 2 500 000	R 2 500 000	R 2 700 000	R 730 000	R 300 000
■ Intangible Assets	Licences and Rights	R -	R -	R 10 000	R 10 000	R -	R -	R -	R 100 000	R 50 000	R -
■ Intangible Assets	Unspecified	R -	R 650 000	R 100 000	R 200 000	R 300 000	R 100 000	R 400 000	R -	R -	R 800 000
■ Investment Properties	Non-revenue Generating	R 9 500 000	R 11 800 000	R 2 500 000	R 6 500 000	R 1 500 000	R 1 500 000	R 1 500 000	R 1 500 000	R 1 850 000	R 1 750 000
■ Investment Properties	Revenue Generating	R 6 300 000	R 2 000 000	R 1 350 000	R 10 000 000	R 12 000 000	R 15 000 000	R 15 000 000	R 15 000 000	R 16 100 000	R 2 000 000
■ Machinery and Equipment	(blank)	R 10 660 000	R 12 981 009	R 13 585 000	R 18 659 097	R 16 174 527	R 18 653 054	R 16 406 054	R 10 857 591	R 6 997 591	R 8 883 046
■ Meter Conversion and Replacement	(blank)	R -	R -	R -	R -	R -	R -	R -	R -	R -	R -
■ Other Assets	Housing	R 8 260 000	R 21 090 000	R 28 550 000	R 19 250 000	R 33 000 000	R 9 080 000	R 37 500 000	R 39 500 000	R 30 870 000	R 10 870 000
■ Other Assets	Operational Buildings	R 11 200 000	R 30 075 000	R 27 361 250	R 6 460 438	R 5 074 503	R 13 774 679	R 5 356 530	R 6 030 010	R 16 079 511	R 9 950 000
■ Other Assets	(blank)	R -	R -	R -	R -	R -	R -	R -	R -	R 80 000	R 420 000
■ Roads Infrastructure	Road Furniture	R 6 050 000	R 3 100 000	R 1 500 000	R 2 500 000	R 1 000 000	R 1 750 000	R 1 000 000	R -	R -	R 2 000 000
■ Roads Infrastructure	Road Structures	R 10 000 000	R 10 250 000	R 40 250 000	R 30 300 000	R 300 000	R 18 075 000	R 43 450 000	R 26 150 000	R 94 890 000	R 92 640 000
■ Roads Infrastructure	Roads	R 140 600 000	R 58 350 000	R 40 950 000	R 146 500 000	R 141 150 000	R 95 400 200	R 68 725 000	R 105 150 000	R 111 920 000	R 88 020 000
■ Roads Infrastructure	(blank)	R 1 500 000	R 2 000 000	R 2 000 000	R -	R -	R -	R -	R -	R -	R -
■ Sanitation Infrastructure	Capital Spares	R -	R -	R 200 000	R 200 000	R 250 000	R 250 000	R 250 000	R 300 000	R 300 000	R 300 000
■ Sanitation Infrastructure	Outfall Sewers	R 36 000 000	R 22 000 000	R 18 000 000	R 24 000 000	R 14 000 000	R 15 000 000	R 36 000 000	R 37 000 000	R -	R -
■ Sanitation Infrastructure	Pump Station	R 1 000 000	R 1 000 000	R 1 500 000	R 1 500 000	R 3 250 000	R 1 750 000	R 2 000 000	R 2 000 000	R -	R -
■ Sanitation Infrastructure	Reticulation	R 12 500 000	R 18 500 000	R 6 000 000	R 20 000 000	R 10 000 000	R -	R -	R -	R -	R -
■ Sanitation Infrastructure	Toilet Facilities	R -	R -	R -	R -	R 250 000	R -	R 250 000	R -	R 250 000	R 250 000
■ Sanitation Infrastructure	Waste Water Treatment Works	R 61 384 431	R 53 200 000	R 45 500 000	R 5 000 000	R -	R -	R -	R -	R -	R -
■ Solid Waste Infrastructure	Capital Spares	R -	R -	R -	R -	R -	R -	R -	R -	R -	R -
■ Solid Waste Infrastructure	Electricity Generation Facilities	R 3 500 000	R 1 500 000	R 10 300 000	R 1 500 000	R 1 000 000	R 300 000	R 1 200 000	R 1 700 000	R -	R -
■ Solid Waste Infrastructure	Landfill Sites	R 10 000 000	R 17 000 000	R 1 500 000	R 3 000 000	R 1 500 000	R 6 000 000	R 6 000 000	R 6 000 000	R 500 000	R 2 000 000
■ Solid Waste Infrastructure	Waste Drop-off Points	R 2 000 000	R 2 000 000	R 100 000	R 7 600 000	R 3 500 000	R 6 000 000	R 7 300 000	R 2 400 000	R -	R -
■ Solid Waste Infrastructure	Waste Processing Facilities	R -	R -	R -	R -	R -	R 6 000 000	R -	R -	R -	R -
■ Solid Waste Infrastructure	Waste Separation Facilities	R -	R -	R 500 000	R 1 000 000	R 500 000	R 500 000	R 500 000	R 1 000 000	R -	R -
■ Solid Waste Infrastructure	Waste Transfer Stations	R 10 000 000	R 10 000 000	R 2 500 000	R -	R -	R -	R 500 000	R 200 000	R -	R -
■ Solid Waste Infrastructure	(blank)	R 2 000 000	R 1 500 000	R 2 000 000	R 1 000 000	R -	R -	R -	R -	R -	R -
■ Spatial Planning	(blank)	R -	R -	R 500 000	R 2 547 600	R 1 258 900	R 1 545 200	R -	R -	R -	R -
■ Storm water Infrastructure	Attenuation	R -	R -	R -	R -	R -	R -	R -	R -	R -	R -
■ Storm water Infrastructure	Drainage Collection	R -	R -	R -	R -	R -	R -	R -	R -	R -	R -
■ Storm water Infrastructure	Storm water Conveyance	R 2 000 000	R -	R -	R 200 000	R 200 000	R 2 200 000	R 2 100 000	R 100 000	R 100 000	R 100 000
■ Strategic Management and Governance	Administrative Strategy and Planning	R -	R -	R 100 000	R 100 000	R -	R -	R -	R -	R -	R -
■ Strategic Management and Governance	Feasibility Studies	R 7 000 000	R 4 200 000	R 300 000	R 200 000	R 300 000	R -	R -	R 200 000	R 1 000 000	R 200 000
■ Strategic Management and Governance	Master plan	R 12 900 000	R 15 500 000	R 21 725 000	R 20 208 750	R 19 990 063	R 25 213 572	R 25 330 608	R 29 800 199	R 32 790 229	R 2 700 000
■ Strategic Management and Governance	Plan Development	R -	R -	R -	R -	R -	R -	R -	R -	R -	R -
■ Transport Assets	(blank)	R 21 425 000	R 20 690 000	R 14 340 000	R 8 685 000	R 13 740 000	R 11 203 060	R 46 057 164	R 20 611 302	R 11 580 472	R 18 407 000
■ Water Supply Infrastructure	Boreholes	R 1 150 000	R 1 200 000	R 700 000	R 1 050 000	R 750 000	R -	R -	R -	R -	R -
■ Water Supply Infrastructure	Bulk Mains	R 21 451 528	R 5 000 000	R 1 000 000	R 1 000 000	R 15 000 000	R 25 000 000	R 15 000 000	R -	R -	R -
■ Water Supply Infrastructure	Capital Spares	R 200 000	R 300 000	R 400 000	R 230 000	R 230 000	R 230 000	R 280 000	R 280 000	R 280 000	R 280 000
■ Water Supply Infrastructure	Dams and Weirs	R -	R -	R 1 000 000	R 1 000 000	R 2 000 000	R 2 000 000	R 2 000 000	R 2 000 000	R 2 000 000	R 3 000 000
■ Water Supply Infrastructure	Distribution	R 15 965 000	R 64 280 900	R 97 300 000	R 27 000 000	R 22 500 000	R 36 500 000	R 38 000 000	R 23 000 000	R -	R -
■ Water Supply Infrastructure	Pump Station	R 12 000 000	R -	R -	R -	R -	R -	R -	R -	R -	R -
■ Water Supply Infrastructure	Reservoirs	R 57 500 000	R 31 000 000	R 8 500 000	R 23 000 000	R 73 000 000	R 36 500 000	R 37 000 000	R 30 500 000	R 21 000 000	R 28 000 000
■ Water Supply Infrastructure	Water Treatment Works	R 12 500 000	R 30 250 000	R 18 000 000	R 6 250 000	R 29 250 000	R 29 250 000	R 4 500 000	R 4 500 000	R -	R -
■ (blank)	(blank)	R 57 681 800	R 39 875 800	R 23 251 420	R 47 994 500	R 14 604 500	R 10 845 500	R 27 705 000	R 17 720 000	R 24 917 000	R 54 190 000

Section 6 Long Term Financial Strategy



6 Long Term Financial Strategy

6.1 Contextualisation

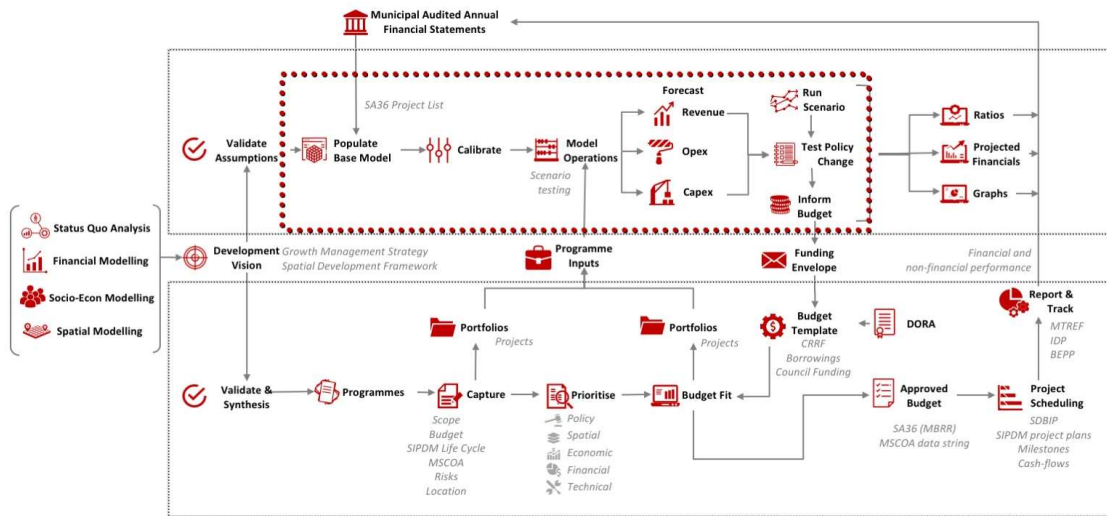


Figure 32: Long Term Financial Strategy in the context of the CEF

The objective of a Long-Term Financial Plan Strategy is to recommend strategies and policies that will maximise the probability of the municipality's financial sustainability into the future. This is achieved by forecasting future cash flows and affordable capital expenditure based on the municipality's historic performance and the environment in which it operates.

The main outcome of the Long-Term Financial Strategy, for the purposes of this report, is to determine the affordable future capital expenditure and proposed capital funding mix (affordability envelope) of the municipality over the next 10 years.

The forecast 10-year Affordability Envelope and proposed Capital Funding Mix is presented in Chapter 7.

6.2 Financial model high-level outline

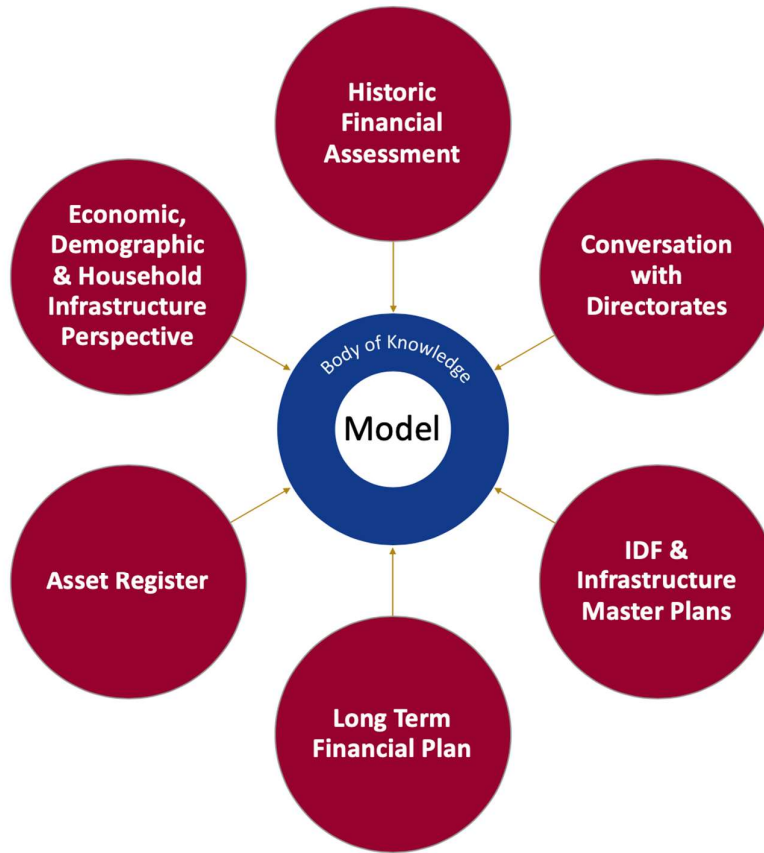


Figure 33: Financial Model Process

In forecasting the affordability envelope it is important to consider the four sources of capital funding available to the municipality, being:

- Capital grants from the fiscus, informed and affected by the National budget and macro-economic environment;
 - Capital contributions by developers;
 - Optimal and affordable external borrowings, informed by an analysis against financial sustainability parameters and ratios, including gearing levels, liquidity levels and the debt servicing capacity of the municipality; and
 - Own cash resources of the municipality, from either cash-backed capital replacement reserves or annual residual cash generated by the municipality.
- To recommend the most optimal funding mix between external borrowings and own cash resources, it is important to forecast the cash generated by the municipality (net cash for the year) in each of the next 10 years by considering the difference between:
- inflows from revenue (a function of quantity and price) and applying a reasonable collection rate and inflation expectations; and

- outflows of cash to staff and suppliers in the form of operating expenses of the municipality.

The net cash should first and foremost be utilised for servicing of existing loans and funding of cash backed reserves. Any free cash flow remaining after this would be available to service new debt, with the residual cash being utilised as part of own cash resources funding capital expenditure. These principles are depicted in the figure below.

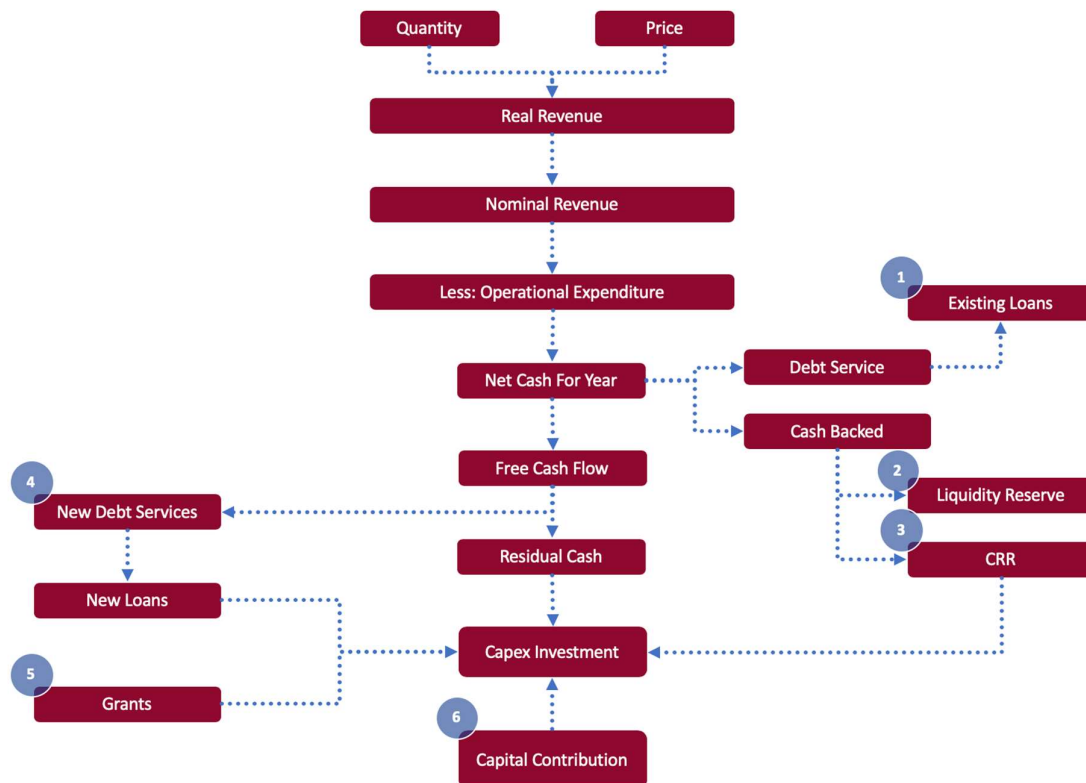


Figure 34: Financial model Input

6.2.1 Financial Model High Level Outline

The long term financial model used for this section of the Capital Expenditure Framework originated from National Treasury's Cities Support Program²⁹. It is populated with the latest information of Stellenbosch Local Municipality and is used to make a base case financial forecast. The figure below illustrates the outline of the model.

The model was adapted for the purpose of this update in that no large infrastructure projects has yet been assessed. Once the capital prioritisation exercise has been completed, we shall include selected projects to determine the impact on the long-term financial position of the municipality. For now, the capital budget as presented in the MTREF was included and used to forecast an affordable future capex programme.

²⁹ Part of National Treasury's Cities Support Programme and with technical assistance from the World Bank Group.

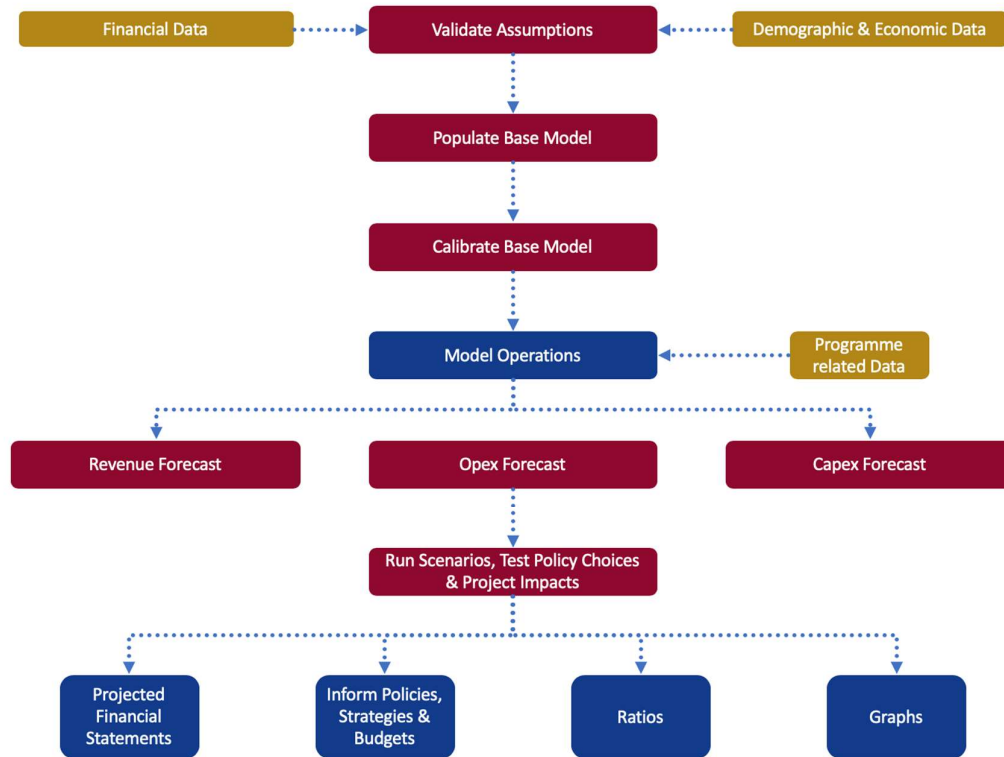


Figure 35: Financial model high level outline

6.2.2 Financial Model Detailed Elements

As a basis, the Long Term Financial Model relies on the input of reliable data and reasonable assumptions. The data utilised and key assumptions in the model are mainly informed by an independent financial assessment, which entails:

- a historic demographic-, economic- and household infrastructure perspective, which was based on the latest available information as published by iHS Global Insight;
- a historic financial analysis updated with the information captured in the municipality's audited annual financial statements of 30 June 2018;
- the 2018/19 to 2020/21 MTREF budget and associated worksheets data; and
- information gathered from market research, other strategic documents of the municipality (including the IDP, master plans etc), from experienced gained in the sector and other relevant sources.

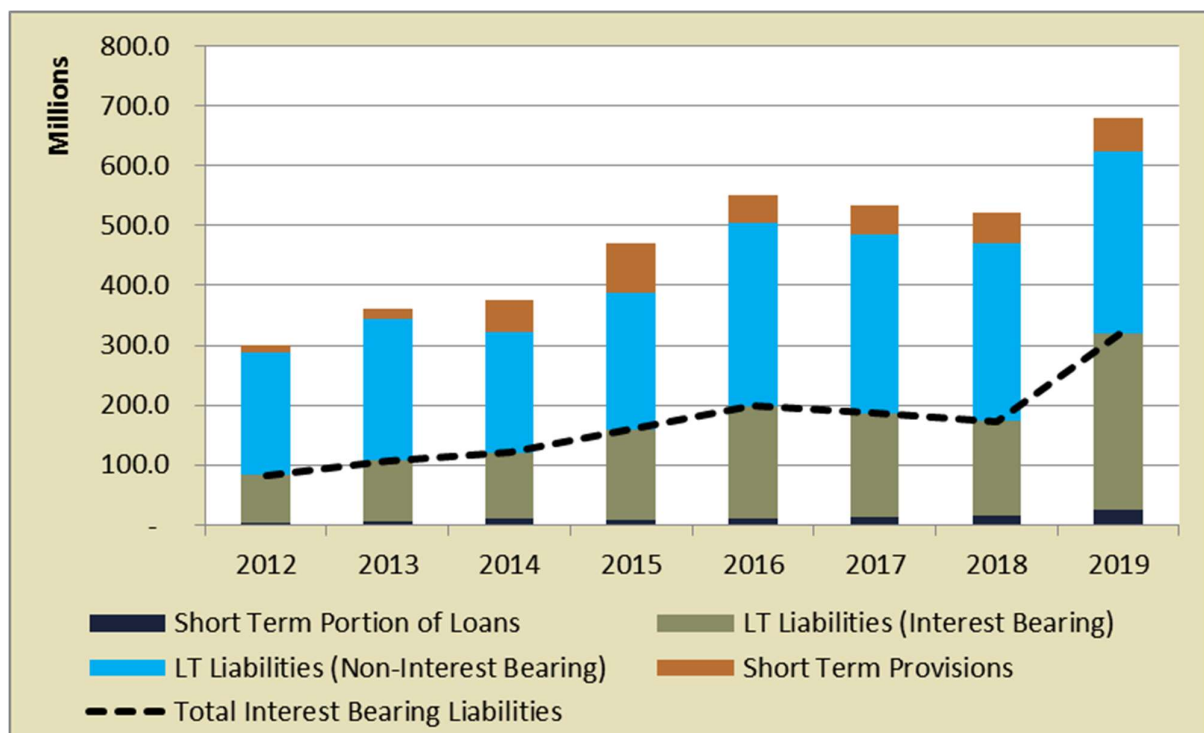
The outcomes of the independent financial assessment and the key assumptions made are discussed in more detail below.

6.3 Updated Historic Financial Assessment

6.3.1 Financial Position

The financial position of Stellenbosch remained positive throughout the 8 years of assessment. As at 30 June 2019, Stellenbosch's balance sheet reflected Total Asset position of R 6.4 billion, increasing from R 3.81 billion at the end of the 2011 financial year.

Stellenbosch's low gearing ratio of 19% and a positive debt coverage ratio (cash generated from operations/debt service) of 8.49 indicate that long term interest bearing liabilities levels are contained. Total interest-bearing liabilities was R 318.80 million at the end of 2019, increasing from R 41.54 million in 2010/11.



	2012	2013	2014	2015	2016	2017	2018	2019
Short Term Provisions	11.5	16.8	53.1	81.7	46.1	48.5	50.7	56.6
LT Liabilities (Interest Bearing)	78.9	102.2	110.0	150.3	186.4	173.3	158.8	292.9
LT Liabilities (Non-Interest Bearing)	205.0	235.8	202.3	229.2	304.9	298.4	296.6	303.5
Short Term Portion of Loans	4.0	5.2	10.5	9.1	11.9	13.1	14.5	25.9
Total Interest Bearing Liabilities	82.9	107.4	120.4	159.4	198.3	186.4	173.3	318.8

Figure 36: Interest Bearing vs Non Interest Bearing Liabilities

6.3.1.1 Current Liabilities

Current Liabilities peaked R516.8 million in 2019 from R425.5 million in 2018 (20% increase). The increase current liabilities contributes to a portion of increase in the cash and cash equivalents (current liabilities below) as well as the investment in capital projects within Stellenbosch in the current year.

Consumer deposits had increased at a consistent rate over the prior year (8%).

Unspent conditional grants had increased significantly from the prior year (48%), however the retention of the increased liability is only temporary as plans are currently in process for the grants to be utilised.

Table 56: Current Liabilities by item

	2012	2013	2014	2015	2016	2017	2018	2019
Consumer Deposits	9.7	10.7	11.4	12.5	13.2	14.6	15.7	17.1
ST Portion of Loans	4.0	5.2	10.5	9.1	11.9	13.1	14.5	25.9
Unspent Conditional Grants	-	-	33.7	37.1	46.0	74.4	100.3	148.2
Overdraft	-	-	-	-	-	-	-	-
Short Term Provisions	11.5	16.8	53.1	81.7	46.1	48.5	50.7	56.6
Creditors	148.8	179.7	134.3	185.1	204.0	282.1	243.3	269.0

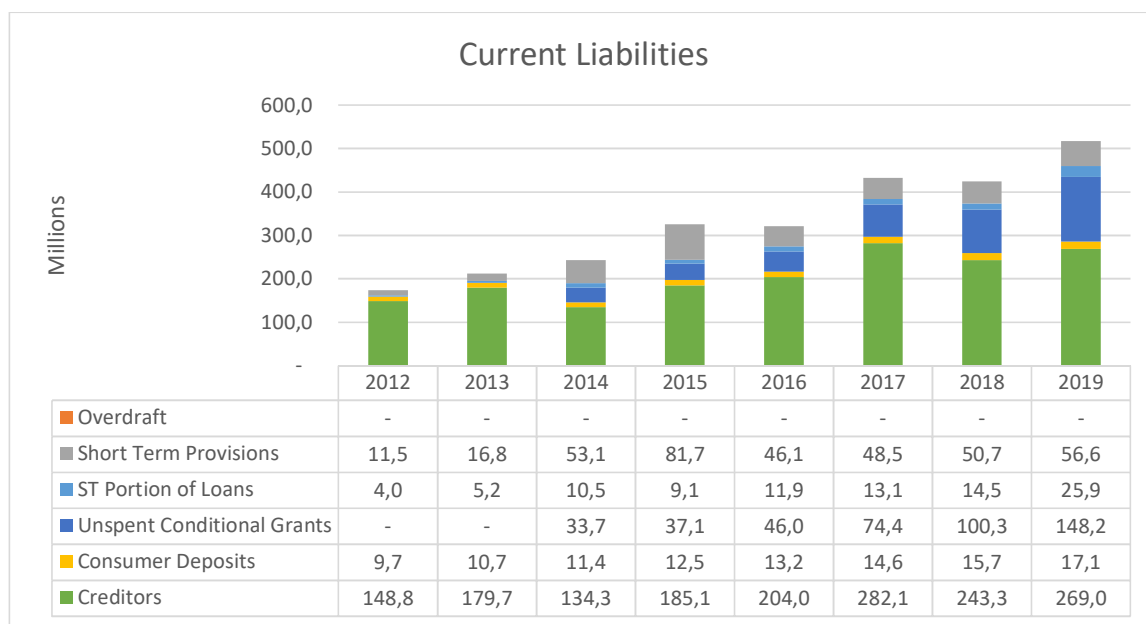


Figure 36: Current Liabilities in Total

6.3.1.2 Current Assets

Current cash had increased significantly from the prior year. This increase contributes to a large portion of the total cash and cash equivalents.

Short term investments had been decreasing from 2017 with the continuous decrease throughout 2018 and 2019

The significant increase in consumer debtors between 2016 and 2017 relates to reclassification of accrued income on water debtors from other debtors to consumer debtors. Throughout 2018 and 2019, these debtors had formed stability.

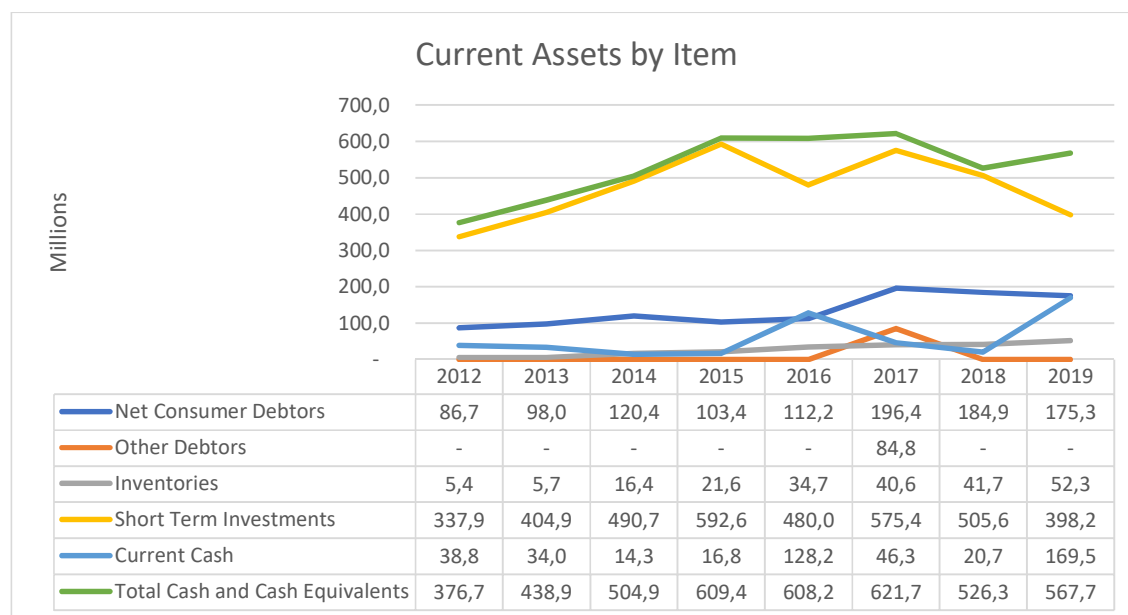
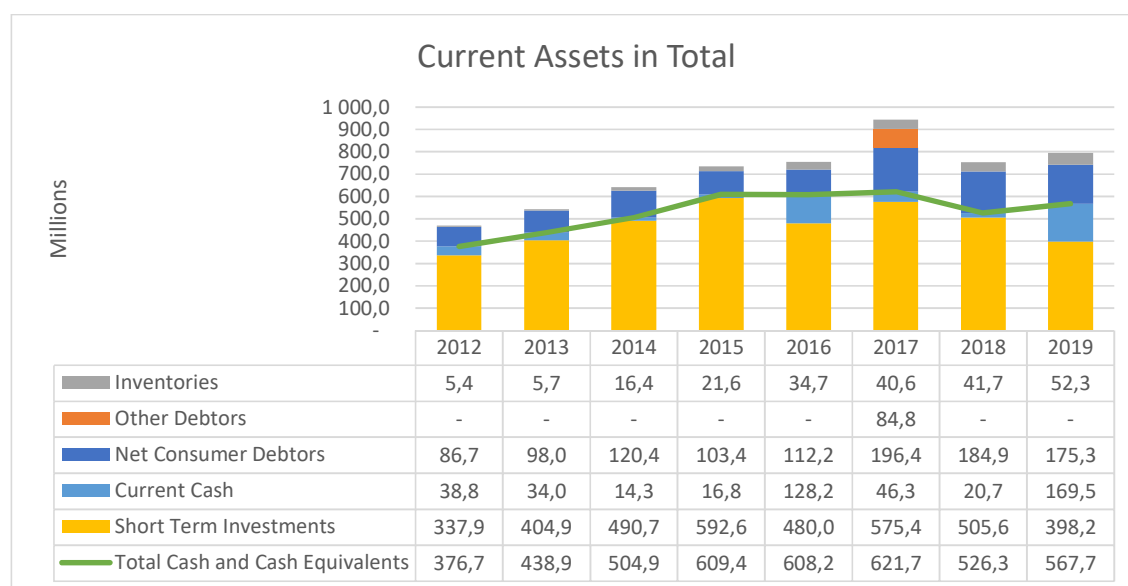


Figure 37: Current Assets by item



	2012	2013	2014	2015	2016	2017	2018	2019
Net Consumer Debtors	86.7	98.0	120.4	103.4	112.2	196.4	184.9	175.3
Other Debtors	-	-	-	-	-	84.8	-	-
Inventories	5.4	5.7	16.4	21.6	34.7	40.6	41.7	52.3
Short Term Investments	337.9	404.9	490.7	592.6	480.0	575.4	505.6	398.2
Current Cash	38.8	34.0	14.3	16.8	128.2	46.3	20.7	169.5
Total Cash and Cash Equivalents	376.7	438.9	504.9	609.4	608.2	621.7	526.3	567.7

Figure 38: Current Assets in Total

6.3.1.3 Liquidity Ratio

Although in a decline, the municipality remains in a healthy liquidity position of 1.75:1 as at the end of 2019 is consistent with the 2018 trend. The liquidity position remains healthy at 1.71:1 when debtors older than 30 days are excluded.

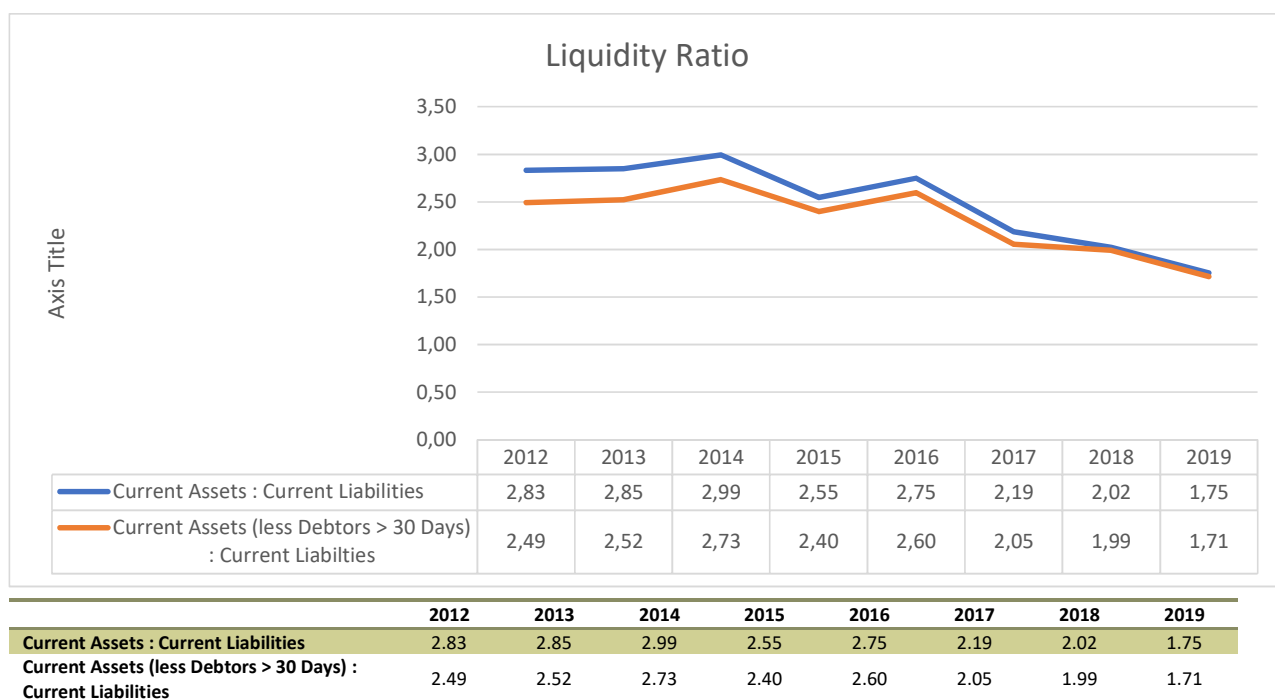


Figure 39: Liquidity Ratio

6.3.1.4 Net Consumer Debtors

Net Consumer Debtors decreased to R 175.3 million in 2019, due to growth in gross consumer debtors, while the provision for doubtful debts increased to R 150.2 million.

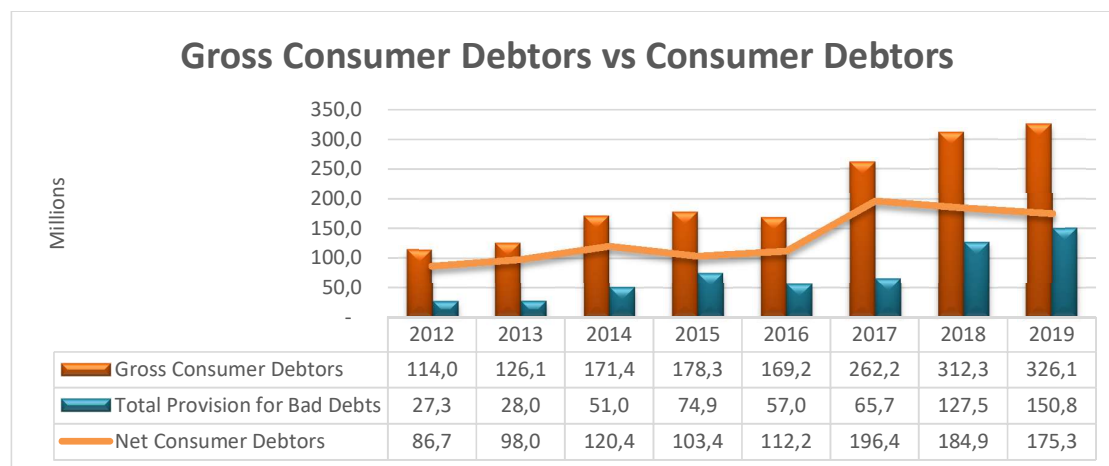
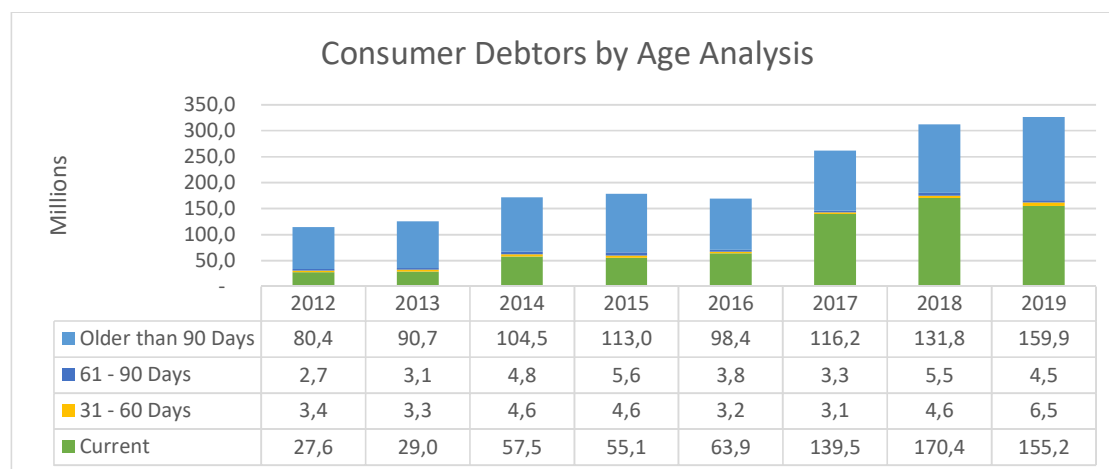


Figure 40: Gross Consumer Debtors vs. net Consumer Debtors

6.3.1.5 Debtors Age Profile

The Debtors Age Profile indicates 49% of Gross Consumer Debtors being older than 90 days. The provision does not sufficiently cover debtors older than 90 days as prescribed by National Treasury. Current debtors represent 47% of the debtor's book.



	2012	2013	2014	2015	2016	2017	2018	2019
Current	27.6	29.0	57.5	55.1	63.9	139.5	170.4	155.2
31 - 60 Days	3.4	3.3	4.6	4.6	3.2	3.1	4.6	6.5
61 - 90 Days	2.7	3.1	4.8	5.6	3.8	3.3	5.5	4.5
Older than 90 Days	80.4	90.7	104.5	113.0	98.4	116.2	131.8	159.9

Figure 41: Consumer Debtors by Age Analysis

6.3.1.6 Consumer Debtors by type

After 2017, consumer debtors had stabilised from 2018 throughout 2019. Debtors relating electricity is still the major contributor of debtors as expected, with water and rates also a major contributor but decreasing significantly from the prior year from the total debtors.

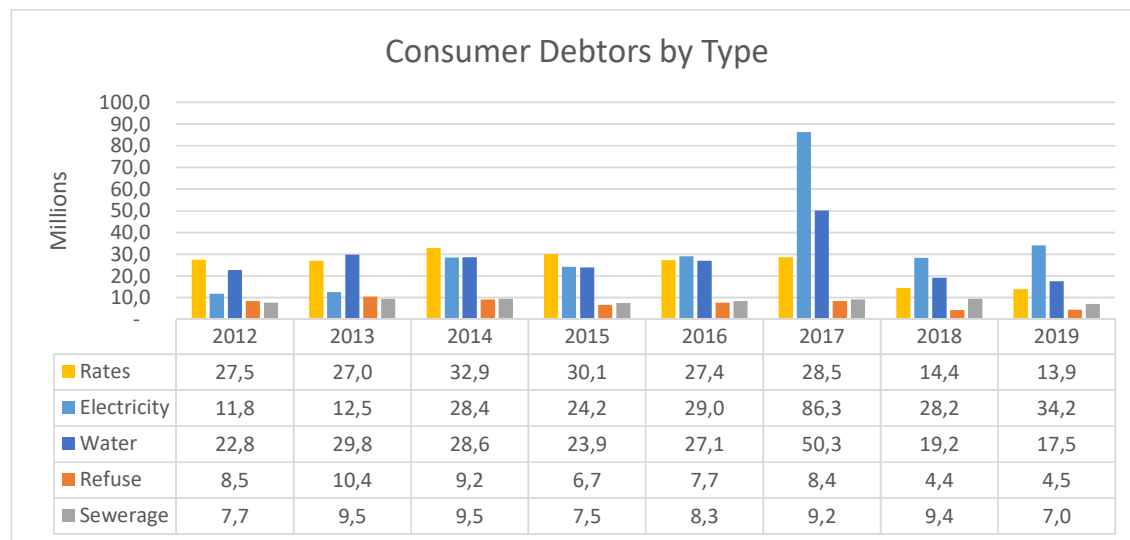
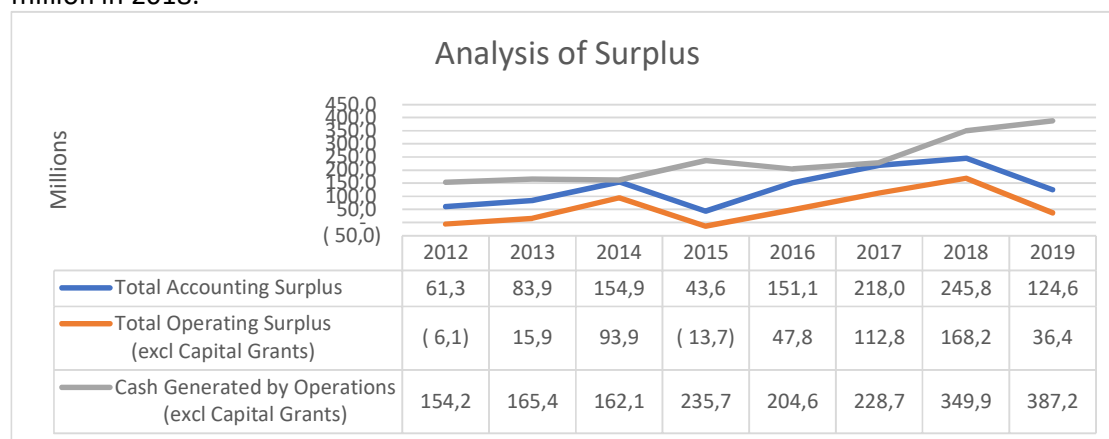


Figure 42: Consumer Debtors by Type

6.3.2 Financial Performance

Stellenbosch realised an Accounting Surplus of R 263.58 million in 2018, increasing from R 70.28 million at the end of the 2011 financial year. This accounting surplus was mainly driven by a significant increase in total income of R 800.17 million (98.8%), against an increase in total operating expenditure of R 606.08 million (83.33%).

When capital grants are excluded from total income, the municipality remained in a position to generate Total Operating Surpluses increasing from R 47.78 million in FY2016 to R 186.10 million in 2018.

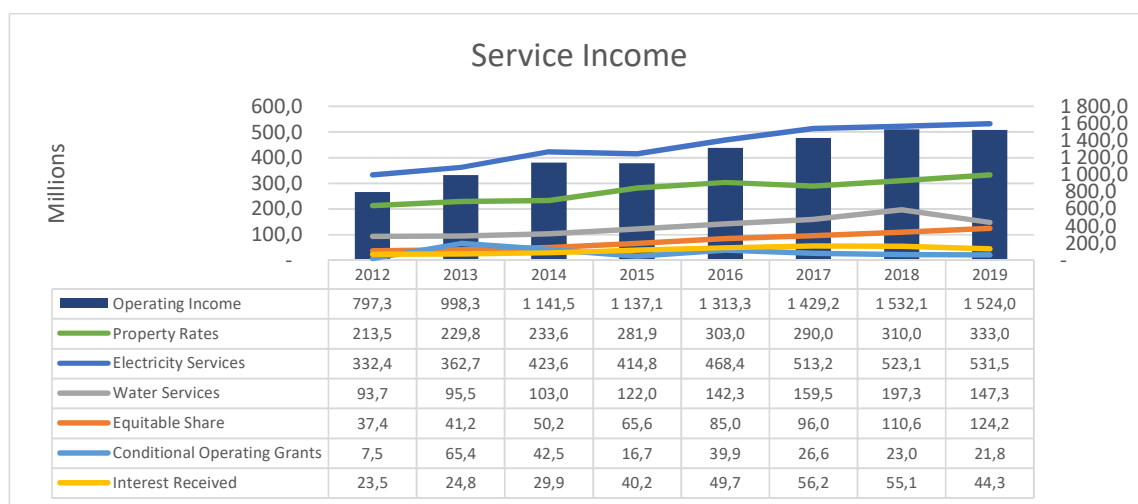


	2012	2013	2014	2015	2016	2017	2018	2019
Total Accounting Surplus	61.3	83.9	154.9	43.6	151.1	218.0	245.8	124.6
Total Operating Surplus (excl Capital Grants)	(6.1)	15.9	93.9	(13.7)	47.8	112.8	168.2	36.4
Cash Generated by Operations (excl Capital Grants)	154.2	165.4	162.1	235.7	204.6	228.7	349.9	387.2

Figure 43: Analysis of Surplus

Income from Electricity Services and Property Rates remain the biggest drivers of Total Operating Income, with a combined contribution of 53%. Income from Water Services and Equitable Share are also important contributors.

Water services showed a decrease from the prior year, due to the awareness conservation of water from the Stellenbosch public.



	2012	2013	2014	2015	2016	2017	2018	2019
Property Rates	213.5	229.8	233.6	281.9	303.0	290.0	310.0	333.0
Electricity Services	332.4	362.7	423.6	414.8	468.4	513.2	523.1	531.5
Water Services	93.7	95.5	103.0	122.0	142.3	159.5	197.3	147.3
Equitable Share	37.4	41.2	50.2	65.6	85.0	96.0	110.6	124.2
Conditional Operating Grants	7.5	65.4	42.5	16.7	39.9	26.6	23.0	21.8
Interest Received	23.5	24.8	29.9	40.2	49.7	56.2	55.1	44.3
Operating Income	797.3	998.3	141.5	137.1	313.3	429.2	532.1	524.0

Figure 44: Contribution per income source

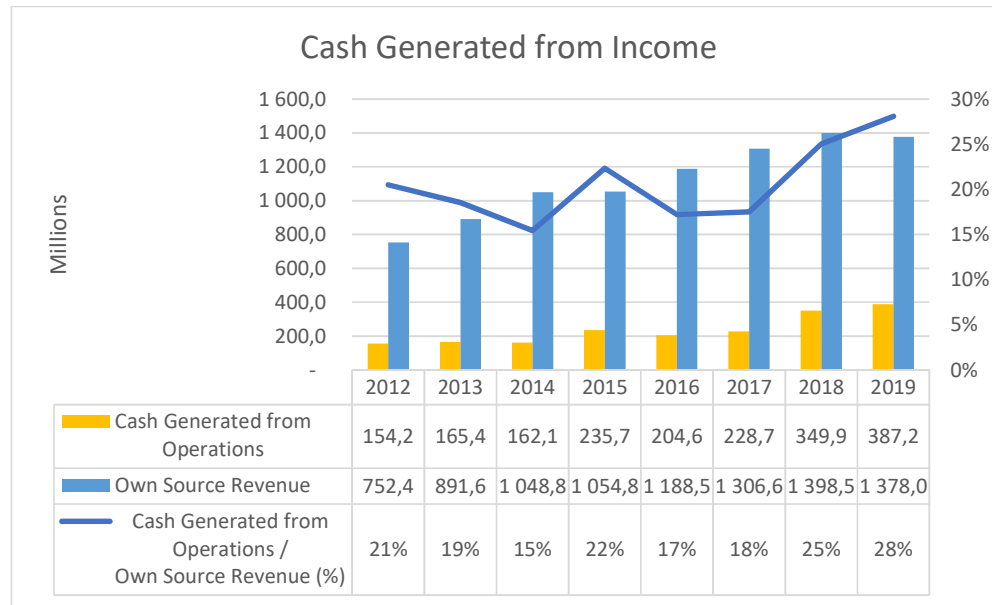
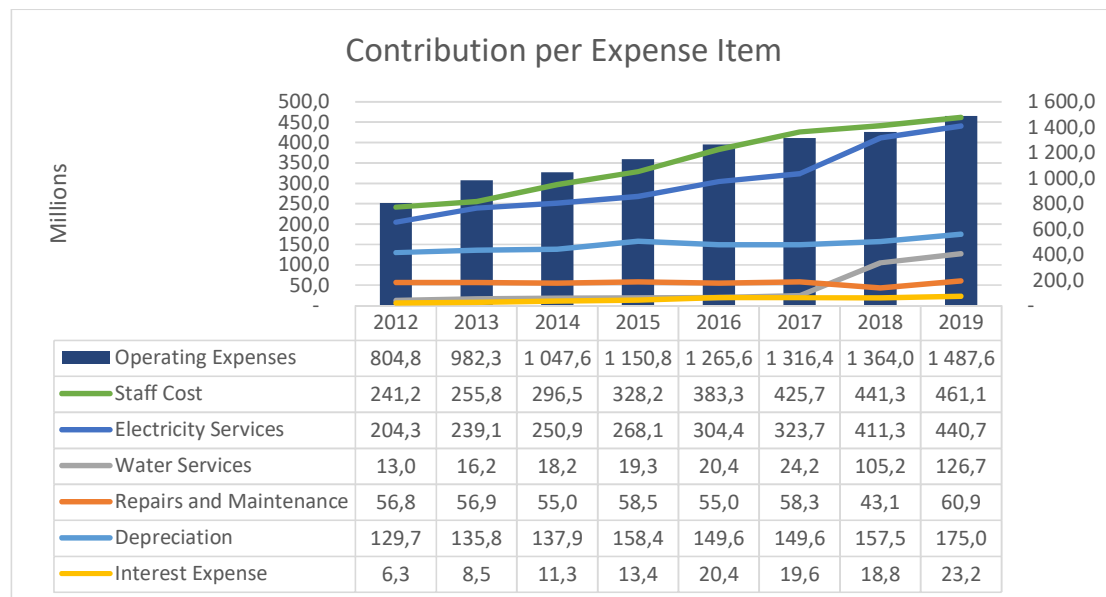


Figure 45: Cash Generated from Operations / Own Source Revenue

Staff Cost, Electricity Bulk Purchases and Depreciation represent 53% of Total Operating Expenses. The annual increases in Staff costs were generally high, with an average increase of 11% in the past 7 years.

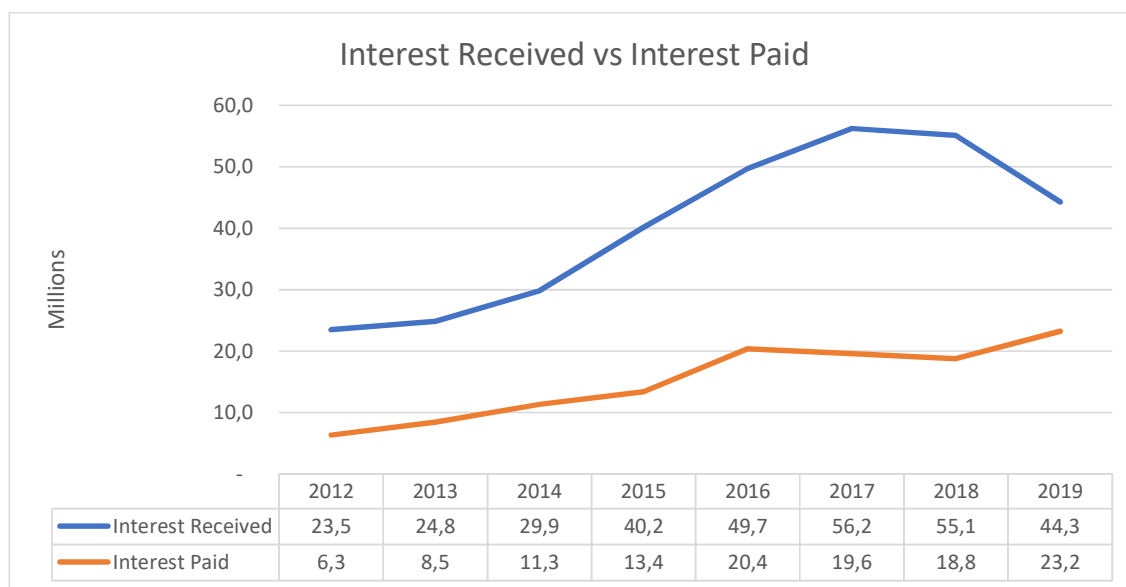
Electricity Services, being the largest contributor to Total Operating Income, represents the second largest expense after staff costs. Over the short term, expected steep increases in bulk electricity prices may narrow historic margins, lead to increased electricity theft and cause both businesses and higher income households to consider alternative energy sources. This will further reduce electricity sales. The increase in Water Services was as a result in the drought experienced in the Western Cape.



	2012	2013	2014	2015	2016	2017	2018	2019
Staff Cost	241.2	255.8	296.5	328.2	383.3	425.7	441.3	461.1
Electricity Services	204.3	239.1	250.9	268.1	304.4	323.7	411.3	440.7
Water Services	13.0	16.2	18.2	19.3	20.4	24.2	105.2	126.7
Repairs and Maintenance	56.8	56.9	55.0	58.5	55.0	58.3	43.1	60.9
Depreciation	129.7	135.8	137.9	158.4	149.6	149.6	157.5	175.0
Interest Expense	6.3	8.5	11.3	13.4	20.4	19.6	18.8	23.2
Operating Expenses	804.8	982.3	047.6	150.8	265.6	316.4	364.0	487.6

Figure 46: Contribution per Expense Item

Interest received from external investments exceeded interest paid on external borrowings throughout the assessment period; resulting in R 21.2 million accumulated net interest inflow. The decrease in interest received in 2019 is due to a decrease in cash and cash equivalents. The increase of 4% interest paid indicates that there is an increase in utilisation of external borrowing. However, the rate is still low which still creates a healthy scope exists for taking up borrowing for service delivery and development in the future.

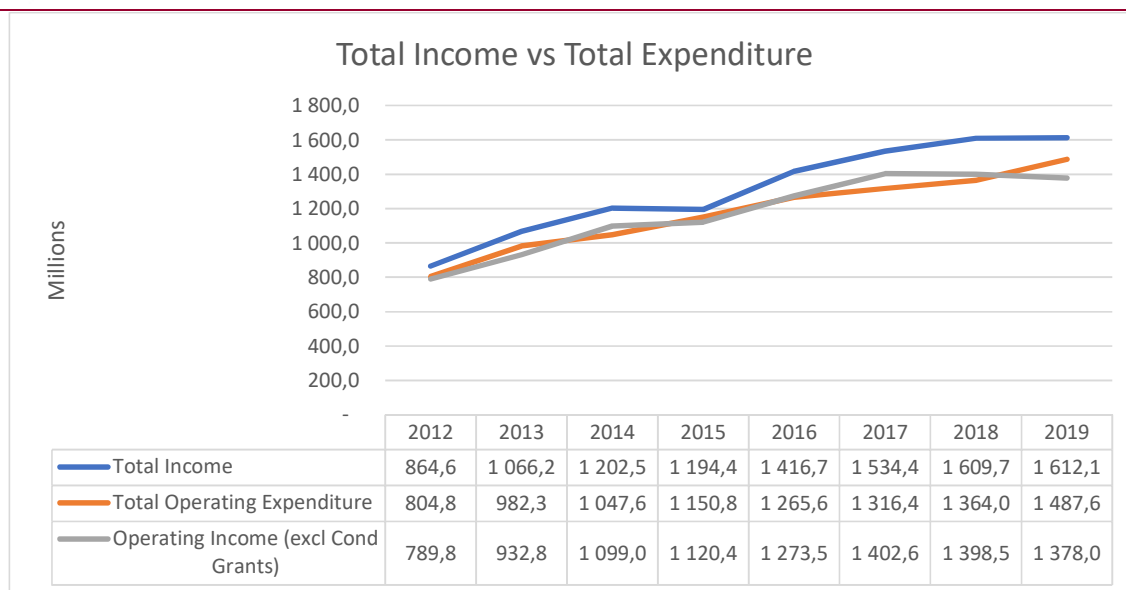


	2012	2013	2014	2015	2016	2017	2018	2019
Interest Received	23.5	24.8	29.9	40.2	49.7	56.2	55.1	44.3
Interest Paid	6.3	8.5	11.3	13.4	20.4	19.6	18.8	23.2

Figure 47: Interest Received vs. Interest Paid

Stellenbosch Local Municipality has recorded steady growth in both total income and total expenditure over the 9-year period under review. Total operating income increased to R 1.61 billion against a total operating expenditure of R 1.48 billion.

The gap between total income and total operating expenditure has notably decreased since 2018, resulting in income to somewhat stagnate and operating expenditure increase.



	2012	2013	2014	2015	2016	2017	2018	2019
Total Income	864.6	1 066.2	1 202.5	1 194.4	1 416.7	1 534.4	1 609.7	1 612.1
Total Operating Expenditure	804.8	982.3	1 047.6	1 150.8	1 265.6	1 316.4	1 364.0	1 487.6
Operating Income (excl Cond Grants)	789.8	932.8	1 099.0	1 120.4	1 273.5	1 402.6	1 398.5	1 378.0

Figure 48: Total Income vs Total Expenditure

Table 70: Contribution per Key Income Source (Rm)

	2012	2013	2014	2015	2016	2017	2018	2019
Property Rates	27%	23%	20%	25%	23%	20%	20%	22%
Electricity Services	42%	36%	37%	36%	36%	36%	34%	35%
Water Services	12%	10%	9%	11%	11%	11%	13%	10%
Equitable Share	5%	4%	4%	6%	6%	7%	7%	8%
Conditional Operating Grants	1%	7%	4%	1%	3%	2%	1%	1%
Interest Received	3%	2%	3%	4%	4%	4%	4%	3%

Table 71: Contribution per Key Expenditure Item (Rm)

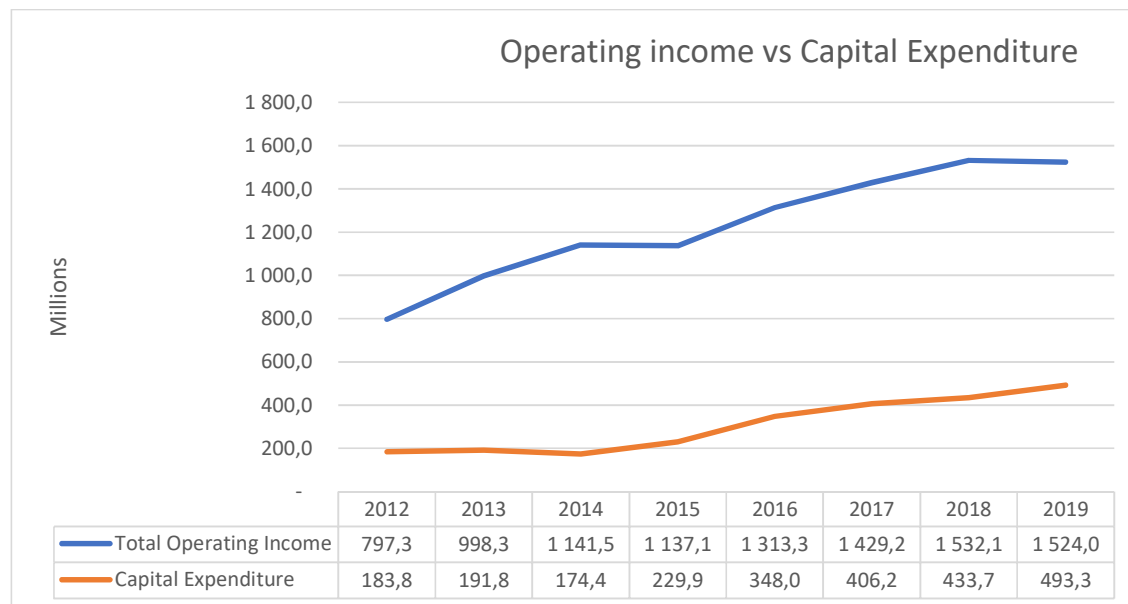
	2012	2013	2014	2015	2016	2017	2018	2019
Staff Cost	24%	22%	24%	24%	24%	25%	25%	23%
Electricity Services	21%	20%	21%	19%	19%	19%	23%	22%
Water Services	1%	1%	1%	1%	1%	1%	6%	6%
Repairs and Maintenance	6%	5%	5%	4%	3%	3%	2%	3%
Depreciation	13%	12%	11%	11%	9%	9%	9%	9%
Interest Expense	1%	1%	1%	1%	1%	1%	1%	1%

6.3.3 Cash Flow

The increased financial performance from the prior year and the increased cash and cash equivalents generated by Stellenbosch (excluding capital grants) in 2019, allows the municipality to remain in a strong position to maintain and increase capital expenditure with a timeous investment in capital asset replacement.

Total capital expenditure had been increasing slightly from 2014 throughout 2019. However, total operating income had been increasing by a greater marginal increase than capital expenditure, hence showing stability in the Capital Funding Mix. The Capital Funding Mix of Stellenbosch, in previous periods reliance has been on the municipality's own Cash Reserves. Noteworthy is that external borrowings has been utilised in the period of review.

Figure 49: Total Operating Income vs Capital Expenditure



	2012	2013	2014	2015	2016	2017	2018	2019
			1	1	1	1	1	1
Total Operating Income	797.3	998.3	141.5	137.1	313.3	429.2	532.1	524.0
Capital Expenditure	183.8	191.8	174.4	229.9	348.0	406.2	433.7	493.3

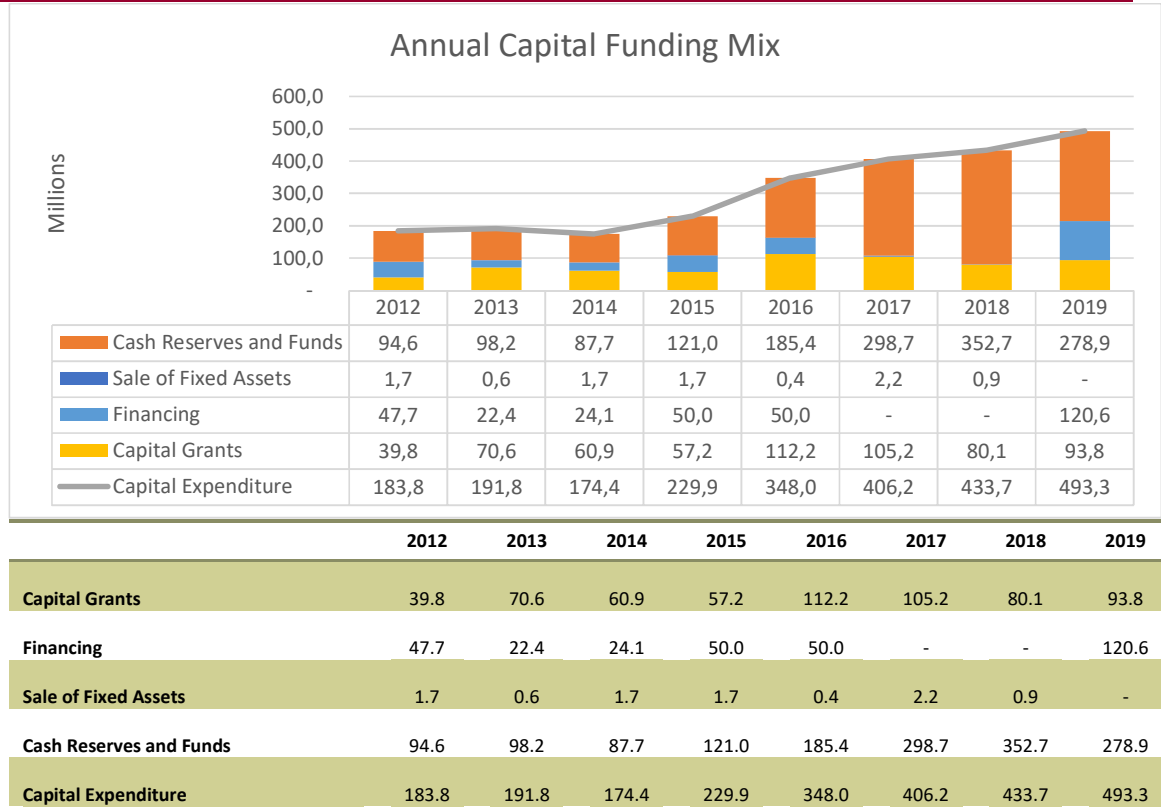


Figure 50: Annual Capital Funding Mix

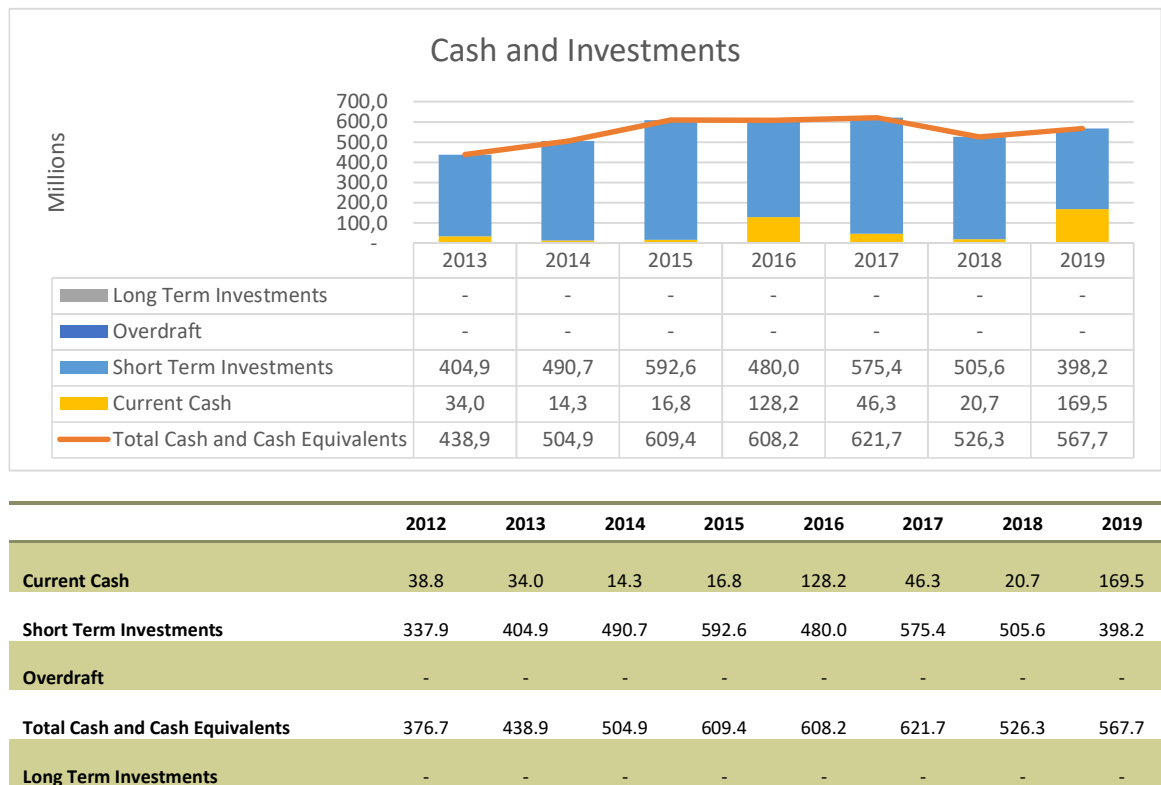


Figure 51: Cash and Investments

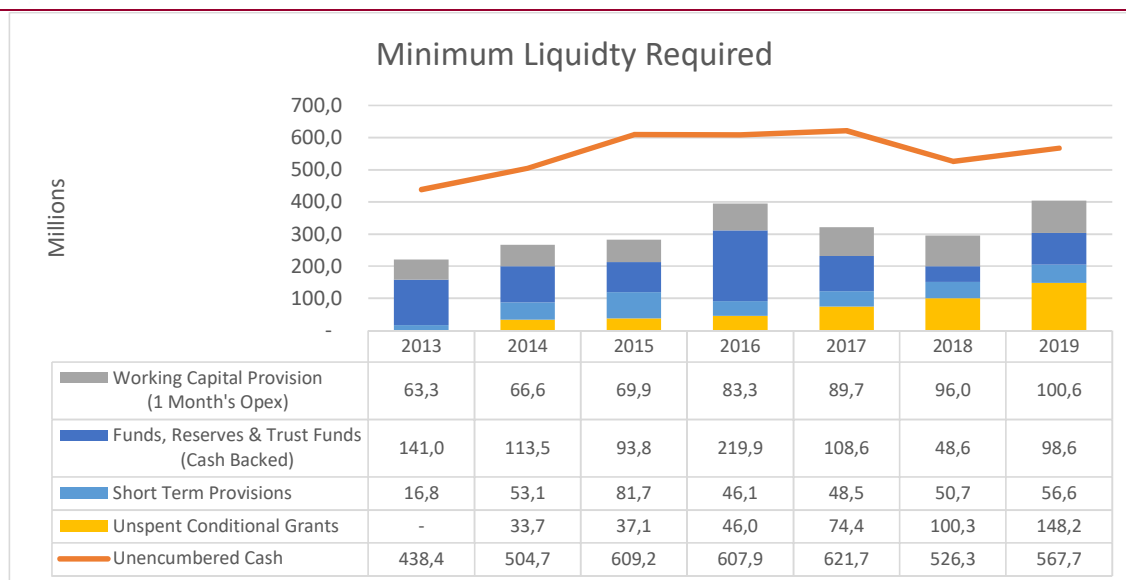


Figure 52: Minimum Liquidity Required

Total cash and cash equivalents increased from R 325.0 million in 2011 to R 528.7 million in 2018. This level of cash sufficiently covers the minimum liquidity requirements which includes Short Term Provisions of R 47.9 million, Unspent Conditional Grants and Receipts of R 101.6 million, Cash-backed reserves of R 48.6 million and Working capital provision (including one month's opex) of R 89.0 million. The cash surplus was R 241.6 million at the end of the 2018 financial year, decreased from the highest level of R 326.6 million in 2015.

The cash coverage ratio (including working capital) remained positive at 1.8 as at the end of the 2018 financial year.

Table 57: Minimum Liquidity Requirements

	2011	2012	2013	2014	2015	2016	2017	2018
Unspent Conditional Grants	-	-	-	33.7	37.1	46.0	74.4	101.6
Short Term Provisions	5.4	11.5	16.8	53.1	81.7	46.1	48.5	47.9
Funds, Reserves & Trust Funds (Cash Backed)	125.1	173.5	141.0	113.5	93.8	219.9	108.6	48.6
Total	130.5	185.0	157.8	200.4	212.6	312.0	231.5	198.1
Uncommitted Cash	325.0	376.2	438.4	504.7	609.2	607.9	621.7	528.7
Cash Coverage Ratio (excl. Working Capital)	2.5	2.0	2.8	2.5	2.09	1.9	2.7	2.7
Working Capital Provision (1 Month's Opex)	49.4	52.9	63.3	66.6	69.9	83.3	89.7	89.0
Cash Coverage Ratio (incl. Working Capital)	1.8	1.6	2.0	1.9	2.2	1.5	1.9	1.8
Minimum Liquidity Required	179.9	237.9	221.1	266.9	282.5	395.4	321.2	287.1
Cash Surplus/(Shortfall)	145.2	138.3	217.3	237.7	326.6	212.6	300.5	241.6

6.4 Outcome of the Independent Financial Assessment

Stellenbosch Local Municipality remained in a profitable position during the past 8 years of assessment. This was demonstrated by an Accounting Surplus of R 263.58 million posted at the end of the 2018 financial year, which increased from R 70.28 million in 2011.

Positive to note is that the municipality still managed to generate an operating surplus of R 186.10 million compared to R 33.63 million in 2011 when capital grants are excluded.

The municipality's strong financial performance, together with a healthy collection rate of 96%, enabled the municipality to generate R 270.47 million in cash from its operations (excl. capital grants). This was R 122.40 million higher than the cash generated from operations in 2011.

In 2018, the municipality spent R 433.68 million on capital infrastructure programs utilising most of its cash generated from operations (R 354.79 million) as well as Capital Grants to the value of R77.48 million. The funding structure was similar during the previous financial year.

In absence of new external loan liabilities taken during the past two years, the municipality maintained a healthy lower level of gearing of 11%, which is also the average level for the 8 years of assessment. The debt service coverage ratio was high in 2018(8.49), mainly as a result of higher repayment capability brought about by the positive cash generated by operations. These ratios are an indication that Stellenbosch still has the potential to increase gearing and obtain a more balanced funding mix.

Current Assets exceeded Current Liabilities by R 509.09 million in 2018. The gap between Current Assets and Current Liabilities remained positive during the assessment period. The healthy liquidity position was represented by a Liquidity Ratio of 2.19:1 in 2018 (2.19:1 at the end of the 2017 financial year). The ratio remains strong at 2.01:1 should debtors older than 30 days be excluded. This is underlined by the cash coverage ratio (including 1 month's working capital) of 1.8 at the end of the 2018 financial year.

The cash and investments balance of R 528.7 million (2017/18: R 621.7 million) was sufficient to cover minimum liquidity required. This comprised of Short Term Provisions of R 47.9 million, Unspent Conditional Grants and Receipts of R 101.6 million, Cash-backed reserves of R 48.6 million and working capital provision (including 1 month's opex) of R 89.0 million, resulting in a cash surplus of R 241.6 million at year end (2017: R300.5 million).

Cognisance is taken of the increase in unspent conditional grants, especially in the last two financial periods.

6.4.1 Strengths

- Strong balance sheet & liquidity position; low gearing;
- Investment-grade credit rating;
- Strong cashflows from own operations and limited reliance on transfers from national and provincial treasuries;
- High collection rate of 96%;
- Accelerated capex since 2014;
- Diversified economy with educational infrastructure;

- Aggressive addressing of backlogs; and
- High-quality financial and institutional governance evidenced by among others, clean audits.

6.4.2 Weaknesses

- Own cash reserves decreasing due to heavy reliance on own cash resources to fund its capital programme and the low reliance on utilisation of external borrowing;
- Urban limits & difficulties to densify;
- Repairs and Maintenance – below National Treasury Norm;
- High levels of unspent conditional grants since 2017; and
- Declining GVA growth rate.

6.5 Key Assumptions

The following key assumptions were used in the Long Term Financial Model:

Table 58: Key assumptions used in the LTFM

Variable	Base Case Average for a 10-Year Planning Period (per annum)
RSA consumer inflation rate (CPI)	5.7%
Population Growth Rate	1.2%
GVA Growth Rate	2.8%
Short term investment rate (Margin above CPI)	3.0%
Electricity Price Elasticity of Demand	-0.5
Water Price Elasticity of Demand	-0.2
Employee related cost escalation	9.1%
Bulk electricity cost escalation	6.9%
Collection Rate of customer billings	96.3%

6.6 Future Revenues

6.6.1 Municipal Revenue Risk Indicator (MRRI) = “Medium”

The latest iHS Global Insight update of the Stellenbosch economy reveals that the average economic growth rate during the past 5 years of 1.3% p.a is the 3rd highest of all municipalities in the district and with a relatively high Tress index³⁰ In combination these 2 factors result in an Economic Risk component of the MRRI of “Medium”. However, the size of the local economy and GVA growth rate which is higher than similar Municipalities help moderate the risk metric.

³⁰An increase in the tress index of a region reflects an increase in the dependence of the local economy on a single or a few economic activities and is an ostensibly negative trend.

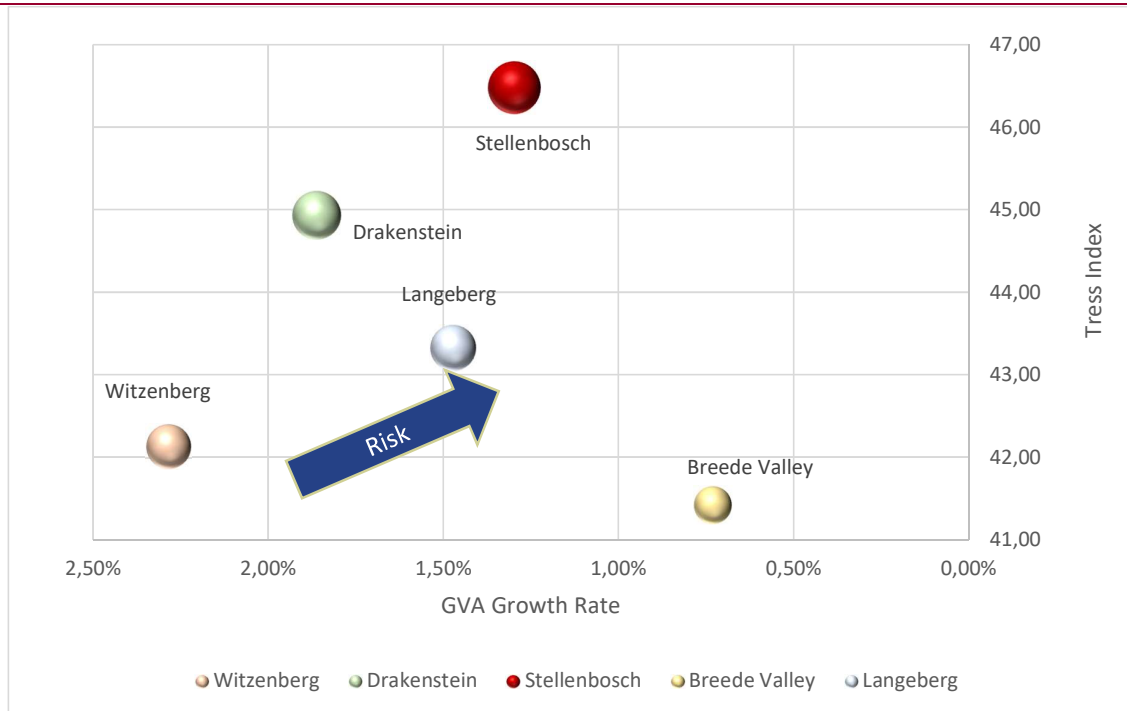


Figure 53: Economic Risk Component

The graph below indicates the non-payment risk by plotting the percentage of households earning less than R30 000 p.a and the unemployment rate. In comparison to municipalities in the region both these factors are higher than its peers in the case of Stellenbosch. Although these metrics are quite low within a national and provincial context the Household Ability to Pay Risk component of the MRRI is rated “Medium to High”.

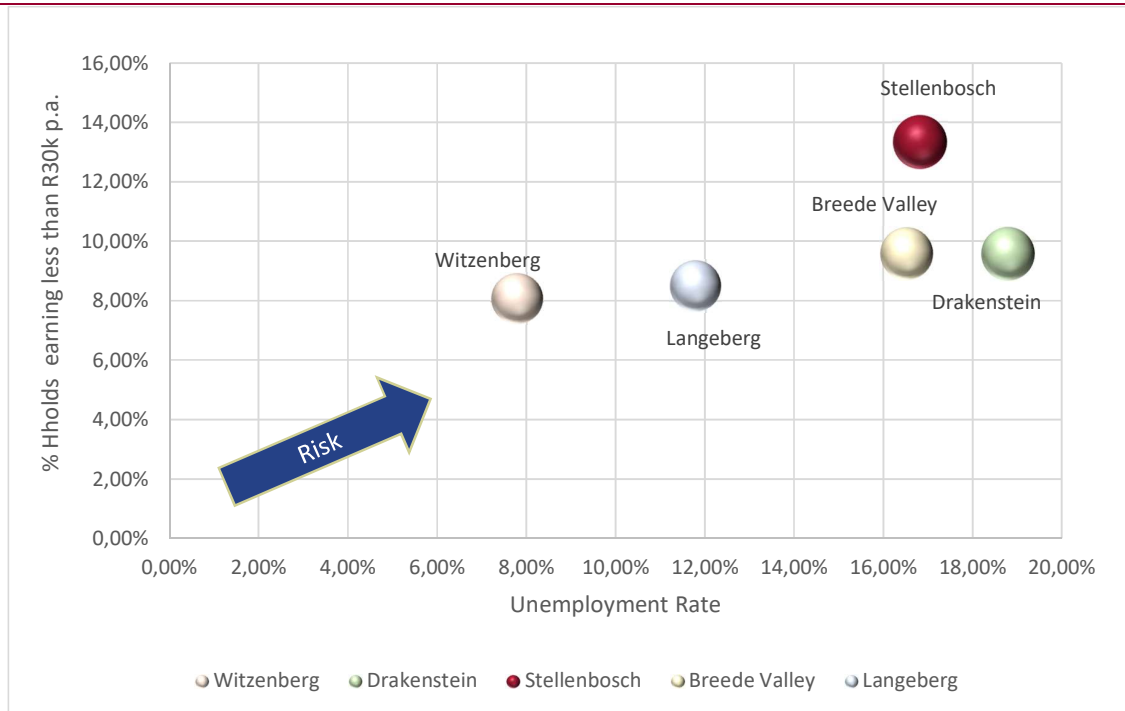


Figure 54: Household Ability to Pay Risk Component of MRRI

Based on the above, the overall Municipal Revenue Risk Indicator of Stellenbosch is considered to be “Medium”.

In 2018 the declining trend of both Real Municipal Revenue per Capita and Real GVA per Capita evidenced since 2013, continued. It is unlikely that real revenues per capita can increase significantly in future without a structural change in the economy and a return to economic growth rates which will help create some fiscal space for tariff adjustments. This issue was dealt with in the recent State of City Finances Report (SACN 2018) which assessed the progressiveness of municipal bills and the impact this might have on tariffs.

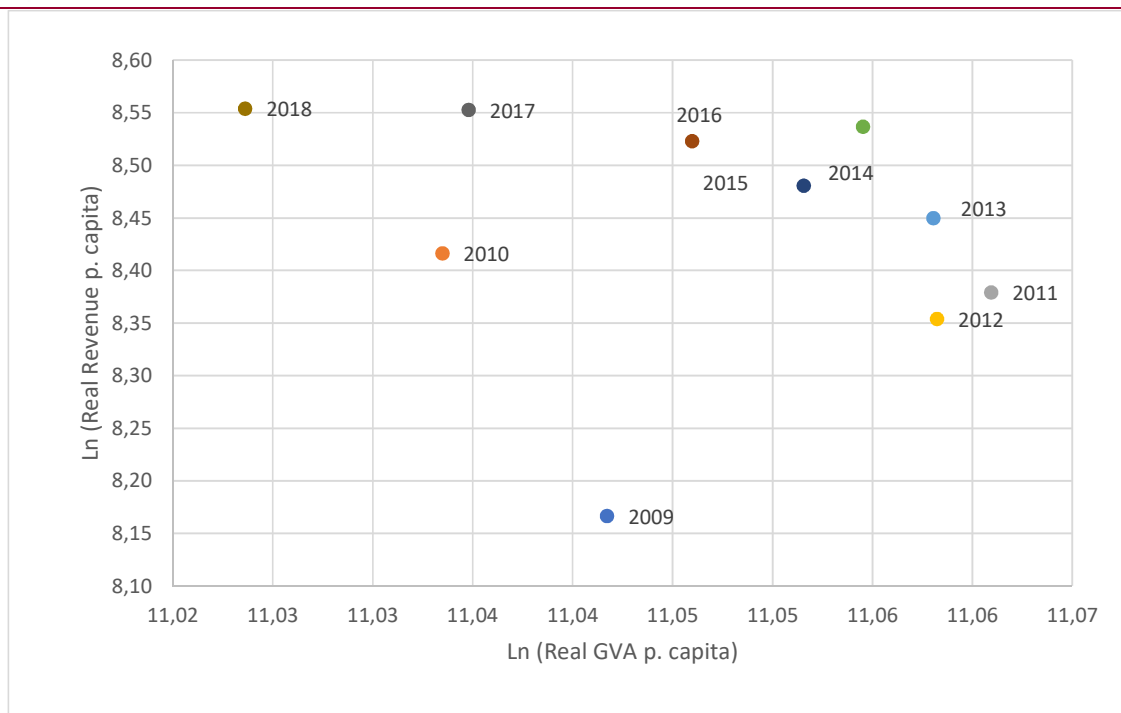


Figure 55: Real Revenues per Capital vs Real GVA

In Stellenbosch we note the rate of increase in the Real Revenue per Capita, but concurrently there is a decreasing growth rate in the Income per Capita. Such diverging trends place additional proportional financial pressure on households. The municipality should specifically note this situation when determining the fixed-cost portion of the household municipal bill going forward.

A comparison of the Average Household Bill for the Middle Income- and Affordable Range of a selected number of municipalities in the Western Cape (extracted from Budget Table SA14 as posted on the National Treasury local government database or the municipalities' websites), based on the 2018/19 tariffs, reveals that Stellenbosch features in the 2nd quartile of these municipalities. This suggest that the tariffs of Stellenbosch is comparatively more affordable.

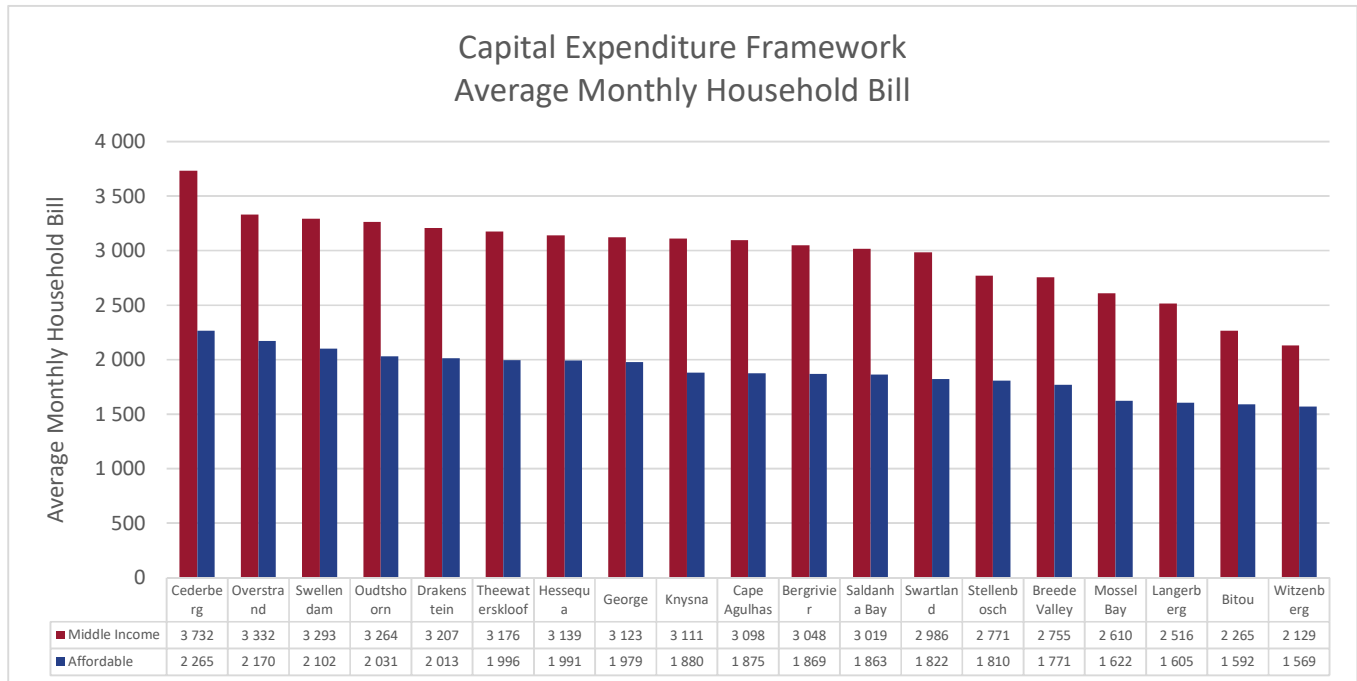


Figure 56: Average Monthly Household Bill

6.6.2 Municipal Revenues

In 2018 the Real Revenue per Capita of R 5 173 p.a. exceeded the expected amount for the Real GVA per Capita as researched by Schoeman³¹. This provides comfort since the proportional growth of indigent households the model forecast is in line with current data.

³¹ Fiscal Performance of Local Government in South Africa - an Empirical Analysis; Niek Schoeman; UP 22 July 2011; https://editorialexpress.com/cgi-bin/conference/download.cgi?db_name=IIPF67&paper_id=40

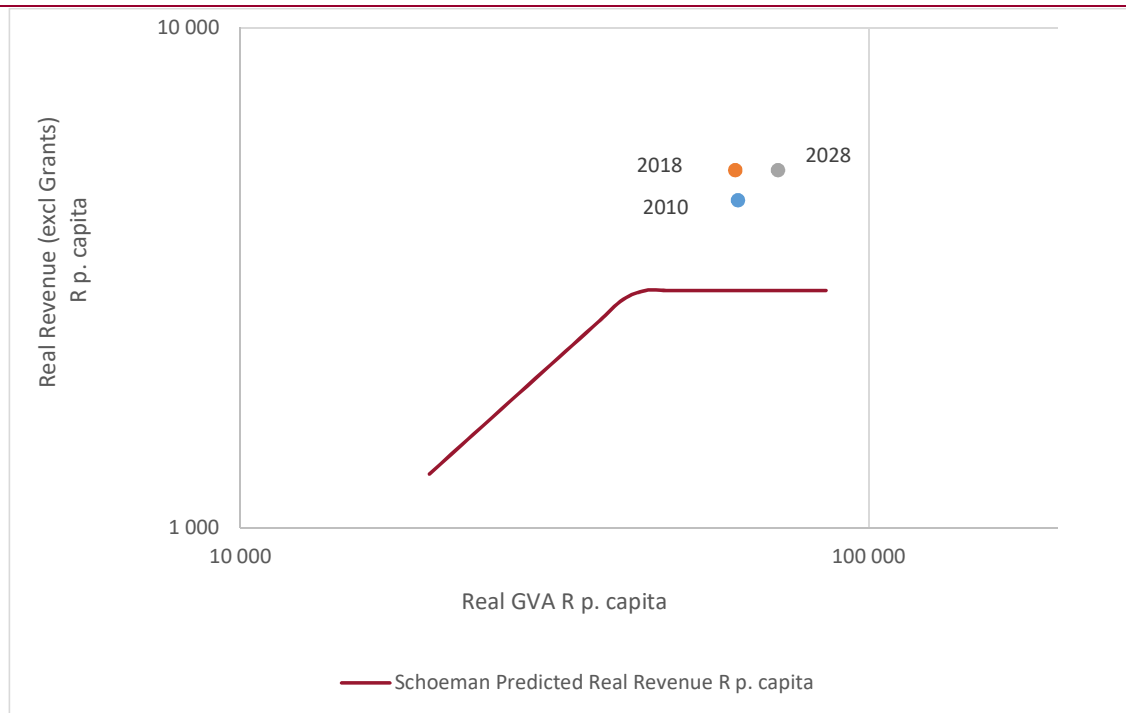


Figure 57: Real Revenue per Capita Across Time

Future Nominal Revenue (excluding Grants) is growing at an average rate of over 7 % p.a. Over the forecast period the municipality generates positive cash flow from operations and maintains a positive Accounting Surplus. The Total Operating Surplus (excluding grants) is negative up to 2028.

Improvements in revenue are ascribed to (i) tariff increases (ii) increased sales and (iii) additional revenue sources and importantly, (iv) sustained revenue-collection rates of over 96%. After 2022 we forecast a sustained period of Operating Surpluses.

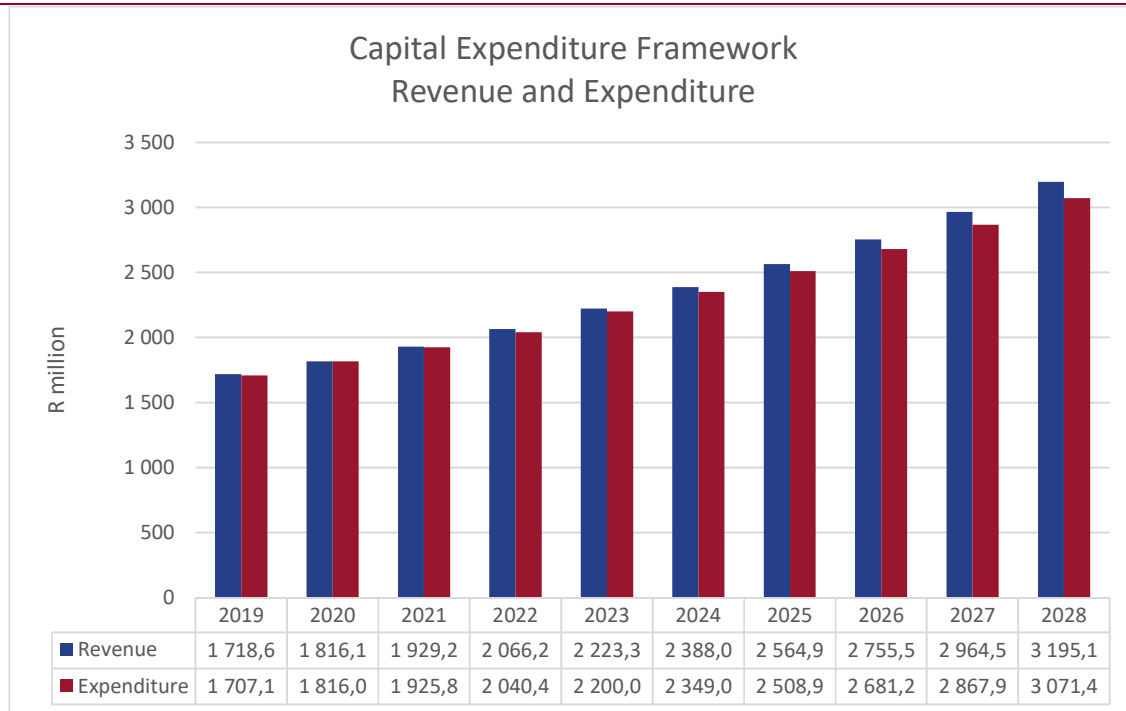


Figure 58: Revenue and Expenditure

The Stellenbosch municipal region is not immune to national and provincial socio-economic conditions. In the graph below, one notices a decline in the Real Revenue per Capita to 2022. This is largely the result of the rate of increase in population growth being higher than the rate of increase in total revenue of the municipality. Both the Real GVA per Capita and the Real Revenue per Capita are expected to improve after 2022. This is due to an economic growth rate expected to exceed the population growth rate at that time but is highly dependent on broader socio-economic conditions.

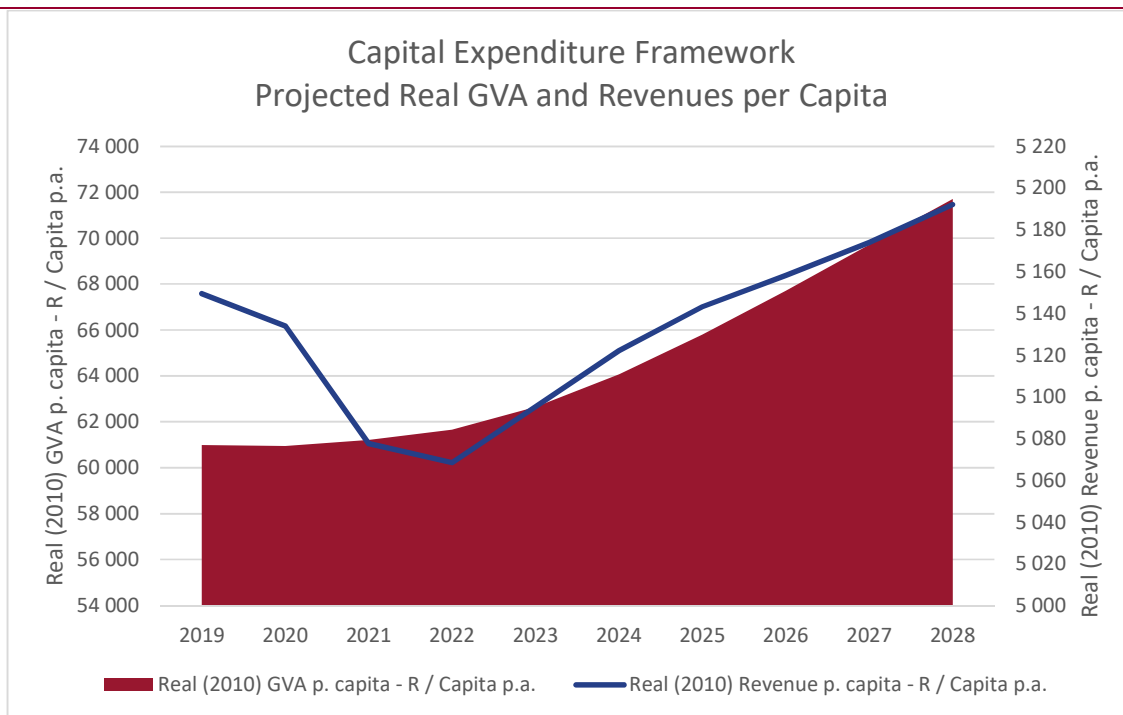


Figure 59: Projected Real GVA and Revenues per Capita

6.7 Affordable Future Capital Investment

The total affordable capital expenditure for the 10-year planning period amounts to R 4 129 million.

This 10-year amount was calculated by the Long Term Financial Model:

- by relying on and maintaining the capital programme and funding mix over the MTREF period up to 2020/21 (3 years), as contained in the latest approved MTREF budget of Stellenbosch; and
- forecasting the optimal capital programme and funding mix, taking several indicators and parameters into account, for the next 7 years of the forecast period.

The annual affordable envelope, which entails the forecast capital expenditure and proposed funding mix per annum is dealt with in detail in the next section of this report.

6.7.1 MTREF Capital Funding Mix

Stellenbosch Municipality's MTREF budget 2020/21 – 2022/23 expects a capital budget amounting to R1.4 billion and funded as follows:

Table 59: 3-Year MTREF Funding Mix

R'000	Total	2020/21	2021/22	2022/23
Loans	400 000	160 000	80 000	160 000
Cash	616 189	195 487	227 713	192 987
Grants	362 712	162 632	99 378	100 702
Total	1 378 901	518 120	407 091	453 689

The Long Term Financial Model accommodated the increased Borrowing of R400m, Internally Generated Funding of R616 m and Capital Grants of R362m for the MTREF period of 3 years to 2022/23 and allowed the model to calculate the future funding mix. Here we note the potential impact of the strong liquidity position on capital expenditure. Following sustained increases in the capital expenditure since 2014, this now declines over the MTREF-period to about R353m in 2020/21. To keep pace with anticipated population growth and ongoing investment in new infrastructure as well as upgrading and renewal projects, we increased the capital expenditure by 2% per year from 2022/23 over the planning period. The municipality has both sufficient own resources and capacity to borrow, allowing it to accelerate capital investment, despite the decreased grant transfers. (Fluctuations in grant amounts due to the allocation of housing grants for top structures and for infrastructure in different years.)

The capital expenditure budget of the municipality is financially feasible. Due to the healthy liquidity position, the budgeted capital expenditure can be implemented. Cash available is sufficient to cover the minimum recommended liquidity level to cater for unspent conditional grants, short term provisions, and working capital. These findings are illustrated in the graphs below.

The municipality's mainly relies on own reserves to fund the capital expenditure. The strong financial and liquidity position of the municipality allows it to accelerate the capital investment programmes which can be supported by borrowing.

6.7.2 10-Year Capital Funding Mix

Table 60: 10-Year Capital Funding Mix

Source	Rm	%
Public & Developers' Contributions	0	0%
Capital Grants	897	22%
Financing	1 529	37%
Cash Reserves and Funds	1 703	41%
Cash Shortfall	0	0%
Capital Expenditure	4 129	100%

Due to the prevailing national fiscal constraint, reliance on grant funding in future is probably doubtful and the amount of capital transfers in this latest estimate, when compared to previous estimates, has declined.

A balanced funding mix, incorporating a conservative level of external borrowing, will preserve Stellenbosch's own cash resources and will improve long term financial sustainability. Equally important is the average duration at which external borrowing are obtained in the market and the impact that this may have on liquidity and gearing levels. The most optimal average duration for loans is forecast at 13 years, to avoid breaching liquidity and/or gearing levels. IPM observed that Stellenbosch will breach minimum liquidity levels should an average duration of 10 years be achieved, while an average duration of 15 years may result in a breach of the upper gearing limit of 35%. Even at this upper gearing limits, these levels remain affordable and sustainable.

6.8 Scenarios

In the scenario analysis we developed two basic scenarios to compare to the Base Case. The Base Case reflects the model forecast. The Upside and Downside Scenarios were developed by adjusting (upwards and downwards, respectively) 6 variables as follows:

Table 61: Variables assessed in a Scenario Analysis

Variable	Base Case % of Base Case	Upside	Downside
Population Growth Rate	100%	98%	102%
GVA Growth Rate	100%	120%	80%
Employee related cost escalation (Margin above Inflation rate)	100%	80%	120%
Bulk electricity cost escalation (Margin above Inflation rate)	100%	80%	120%
Bulk water cost escalation (Margin above Inflation rate)	100%	80%	120%
Collection Rate of customer billings	100%	110%	90%

The impact of these adjustments was measured on 11 selected financial metrics. We noted the following outcomes:

- Average Annual Increase in Revenue differs only marginally over the three scenarios. The impact on percentage increases in Expenditure is more pronounced. Cash generated by Operations ranges between –R 247m and R 3 207m. The cash position after 10 years remains very healthy at R2 213 m in the base case. In the down-side case this amount is in deficit of R 247m;

- The 10-year capital investment for the Base Case is R 4 129 million and R4 701 million in the Upside. This is a modest change and is also evident in the External Loan Financing and Gearing during the planning period; and
- The great variation of outcome for a realistic combination of input variables, demonstrates the need to manage the municipality's finances with care and discipline.

Table 62: Outcome of Scenario Analysis

Outcome	Base Case	Upside	Down Side
Average annual % increase in Revenue	7.1%	7.2%	7.0%
Average annual % increase in Expenditure	9.1%	8.9%	10.3%
Accounting Surplus accumulated during Planning Period (Rm)	R 454	R 1 304	-R 1 926
Operating Surplus accumulated during Planning Period (Rm)	-R 443	R 408	-R 2 823
Cash generated by Operations during Planning Period (Rm)	R 2 190	R 3 215	-R 246
Average annual increase in Gross Consumer Debtors	6.6%	-8.5%	19.4%
Capital investment programme during Planning Period (Rm)	R 4 129	R 4 852	R 3 495
External Loan Financing during Planning Period (Rm)	R 1 529	R 1 640	R 1 305
Cash and Cash Equivalents at the end of the Planning Period (Rm)	R 454	R 839	-R 1 519
Gearing at the end of the Planning Period	36.3%	38.6%	31.2%
Debt Service to Total Expense Ratio at the end of the Planning Period	7.5%	8.2%	9.7%

6.9 Ratio Analysis

The Base Case forecast ratios are presented below. The model provides comfort that the municipality is sustainable in future - on condition that it operates within the assumed benchmarks set in the financial plan.

Table 63: Outcome of Future Ratio Analysis

		N.T. NORM	1 2019	3 2021	5 2023	7 2025	9 2027
FINANCIAL POSITION							
ASSET MANAGEMENT							
R29	Capital Expenditure / Total Expenditure	10% - 20%	23.6%	15.5%	14.5%	13.6%	12.8%
R27	Repairs and Maintenance as % of PPE and Investment Property	8%	1.7%	1.7%	2.3%	2.3%	2.3%
DEBTORS MANAGEMENT							
R4	Gross Consumer Debtors Growth		7.7%	7.6%	5.5%	5.9%	6.3%
R5	Payment Ratio / Collection Rate	95%	96.1%	96.1%	96.5%	96.5%	96.5%
	Net Debtors Days	30	76	65	57	49	43
LIQUIDITY MANAGEMENT							
R49	Cash Coverage Ratio (excl. Working Capital)		5.4 : 1	9.6 : 1	5.3 : 1	4.3 : 1	4 : 1
R50	Cash Coverage Ratio (incl. Working Capital)		2.3 : 1	1.3 : 1	1.2 : 1	1.2 : 1	1.3 : 1
R51	Cash Surplus / Shortfall on Minimum Liquidity Requirements		R 255.2 m	R 50.8 m	R 49.9 m	R 53.9 m	R 89.8 m
R1	Liquidity Ratio (Current Assets : Current Liabilities)	1.5 - 2.0 : 1	1.6 : 1	1 : 1	1 : 1	1 : 1	1 : 1
LIABILITY MANAGEMENT							
R45	Debt Service as % of Total Operating Expenditure	6% - 8%	3.2%	4.0%	5.5%	6.7%	7.1%
R6	Total Debt (Borrowings) / Operating Revenue	45%	19.2%	23.3%	31.3%	35.2%	36.6%
R7	Repayment Capacity Ratio		1.09	2.30	3.23	3.79	3.91
R46	Debt Service Cover Ratio (Cash Generated by Operations / Debt Service)		5.9 : 1	3 : 1	2.3 : 1	1.9 : 1	1.9 : 1
SUSTAINABILITY							
	Net Financial Liabilities Ratio	< 60%	18.6%	39.8%	47.3%	50.9%	50.6%
	Operating Surplus Ratio	0% - 10%	-4.9%	-3.5%	-2.9%	-1.6%	-0.4%
	Asset Sustainability Ratio	> 90%	21.1%	21.3%	21.4%	21.4%	21.4%

		N.T. NORM	1 2019	3 2021	5 2023	7 2025	9 2027
FINANCIAL PERFORMANCE							
EFFICIENCY							
R42	Net Operating Surplus / Total Operating Revenue	>= 0%	-4.9%	-3.5%	-2.9%	-1.6%	-0.4%
R43	Electricity Surplus / Total Electricity Revenue	0% - 15%	38.2%	38.5%	39.5%	40.7%	41.9%
R44	Water Surplus / Total Water Revenue	>= 0%	92.0%	91.9%	92.3%	92.3%	92.2%
REVENUE MANAGEMENT							
R8	Increase in Billed Income p.a. (R'm)		R 97.3 m	R 98.1 m	R 112.7 m	R 131.8 m	R 153.0 m
R9	% Increase in Billed Income p.a.	CPI	8.2%	7.1%	7.1%	7.2%	7.3%
R12	Operating Revenue Growth %	CPI	6.1%	5.9%	7.6%	7.5%	7.6%
R14	Contribution per Income Source: Equitable Share		7.6%	8.1%	8.6%	8.8%	9.0%
R15	Contribution per Income Source: Conditional Operating Grants		1.3%	2.1%	1.8%	1.8%	1.7%
R16	Contribution per Income Source: Property Rates		20.1%	19.6%	19.2%	19.0%	19.0%
R17	Contribution per Income Source: Electricity Services		33.8%	34.0%	34.0%	34.1%	34.3%
R18	Contribution per Income Source: Water Services		13.9%	14.4%	14.5%	14.3%	13.9%
R19	Contribution per Income Source: Interest on Investments		2.7%	1.2%	0.9%	1.0%	1.1%
R20	Annual Increase per Income Source: Equitable Share		12.2%	10.4%	10.7%	8.6%	8.8%
R21	Annual Increase per Income Source: Property Rates		5.7%	5.5%	6.5%	7.1%	7.5%
R22	Annual Increase per Income Source: Electricity Services		5.1%	7.1%	7.2%	7.7%	7.9%
R23	Annual Increase per Income Source: Water Services		14.2%	8.2%	6.9%	6.4%	5.9%
R24	Annual Increase per Income Source: Interest on Investments		-21.3%	-40.6%	12.9%	10.5%	13.9%
R47	Cash Generated by Operations / Own Revenue		21.6%	14.0%	14.5%	14.7%	15.0%
R48	Cash Generated by Operations / Total Operating Revenue		19.6%	12.6%	13.0%	13.1%	13.4%
EXPENDITURE MANAGEMENT							
	Creditors Payment Period	30	84	101	99	96	93
R30	Contribution per Expenditure Item: Staff Cost (Salaries, Wages and Allowances)	25% - 40%	26.2%	29.7%	29.9%	30.1%	30.5%
	Contribution per Expenditure Item: Contracted Services	2% - 5%	9.9%	9.9%	9.8%	10.3%	10.7%
R31	Contribution per Expenditure Item: Electricity Services		15.2%	17.1%	17.1%	17.2%	17.3%
R32	Contribution per Expenditure Item: Water Services		0.8%	0.9%	0.9%	0.9%	0.9%

		N.T. NORM	1 2019	3 2021	5 2023	7 2025	9 2027
R33	Contribution per Expenditure Item: Repairs & Maintenance		4.1%	4.5%	5.6%	5.3%	5.0%
R34	Contribution per Expenditure Item: Depreciation and Asset Impairment		7.9%	8.8%	8.2%	7.7%	7.2%
R35	Contribution per Expenditure Item: External Interest Charged		1.5%	2.0%	2.8%	3.3%	3.5%
R36	Annual Increase per Expenditure Item: Staff Cost (Salaries, Wages and Allowances)		26.8%	7.5%	6.5%	6.7%	7.0%
R37	Annual Increase per Expenditure Item: Electricity Services		8.4%	6.8%	6.1%	6.6%	6.8%
R38	Annual Increase per Expenditure Item: Water Services		11.9%	8.5%	4.8%	6.9%	7.0%
R39	Annual Increase per Expenditure Item: Repairs & Maintenance		111.6%	7.7%	30.2%	2.9%	2.9%
R40	Annual Increase per Expenditure Item: Depreciation		7.2%	5.5%	2.9%	3.0%	3.0%
R41	Annual Increase per Expenditure Item: External Interest Charged		75.3%	12.8%	21.1%	13.5%	9.7%
GRANT DEPENDENCY							
R10	Total Grants / Total Revenue		13.8%	13.3%	13.9%	13.9%	13.9%
R11	Own Source Revenue to Total Operating Revenue		91.1%	89.8%	89.6%	89.5%	89.3%
	Capital Grants to Total Capital Expenditure		17.4%	19.4%	23.1%	24.1%	25.6%
BUDGET IMPLEMENTATION							
R28	Actual Capital Expenditure / Budgeted Capital Expenditure						

6.10 Outcome of the Long Term Financial Model

6.10.1 The socio-economic base and future revenue

- Strong economic base and diversified economy, but rapid increase in migration to the municipal area placing pressure on existing infrastructure;
- However – national conditions also impact on the municipality – with only moderate growth forecast over the forecast period;
- A key structural weakness can now be identified: as economic growth rates slow, which might have a negative on revenue collection to extract additional revenue for ever-growing needs;
- To pursue and sustain progressive / redistributive / pro-poor policies – it is essential that the economic base expands and critically, job creation (especially at entry-level) accelerates; and
- Over the forecast period – we still see scope for tariff increases (broadly aligned with CPI) and for more progressive tariff structures.

6.10.2 Capital investment

- Stellenbosch embarked on an aggressive capex programme since 2014 – largely funded from own resources;
- As the population continues to increase, the municipality needs to deal with normalising historic settlement patterns to accommodate new migrants and improve access to and mobility within the municipal area;
- Although the total budgeted investment returns to the R350 million p.a. level over the MTREF period, we envisage a moderate growth-rate in capex over the forecast period. This is to ensure capital investment keeps pace with population growth and continues to address backlogs;
- We have introduced a conservative borrowing programme which remains well within the prudential limits;
- More spatial and economic modelling is required for a comprehensive perspective on the long-term corridor development and spatial settlement patterns in the municipal area;
- Significant “high-impact projects” can be modelled to determine long-term financial impact of such projects on the financial position of the municipality; and
- Despite continued use of own resources and a depletion of cash reserves, the liquidity metrics remain positive over the forecast period.

6.10.3 Scenario analysis

- The generic scenario analysis forecast reasonable logical outcomes;
- Two aspects worth noting is the modest differences between the scenarios on total capital expenditure (R4.7 b and R3.5 b in the upside and downside scenarios respectively) and on gearing ratio which is 30.1% and 23.5% for the up- and down side scenarios respectively.

6.11 Projected Financial Statements

Figure 78: Projected Financial Statements

Municipal Financial Model - Stellenbosch Statement of Financial Performance											
Model year Financial year (30 June) R thousands	0 2018	1 2019	2 2020	3 2021	4 2022	5 2023	6 2024	7 2025	8 2026	9 2027	10 2028
Revenue											
Property rates	309 989	327 692	344 938	363 823	384 930	408 858	437 898	469 140	503 652	541 509	582 725
Service Charges	862 001	938 822	1 015 185	1 093 245	1 178 283	1 264 292	1 359 447	1 457 873	1 561 470	1 674 024	1 796 978
Rental of facilities and equipment	14 992	17 766	18 831	19 961	21 159	22 940	24 886	27 021	29 370	31 962	34 828
Interest earned - external investments	55 110	43 352	39 030	23 172	17 275	19 507	21 574	23 845	26 644	30 349	35 871
Interest earned - outstanding debtors	6 849	10 576	11 264	11 996	12 776	15 323	15 098	16 390	17 822	19 422	21 194
Dividends received	—	—	—	—	—	—	—	—	—	—	—
Fines, penalties and forfeits	114 767	102 132	107 239	112 601	118 231	128 183	139 057	150 988	164 113	178 599	194 613
Licences and permits	6 571	5 092	5 398	5 722	6 065	6 584	7 197	7 905	8 712	9 617	10 620
Agency services	2 365	2 690	2 852	3 023	3 204	3 474	3 769	4 092	4 448	4 840	5 274
Transfers and subsidies (operating)	133 057	144 700	176 317	188 974	203 157	223 010	240 805	260 291	281 692	305 275	331 303
Other revenue	27 070	34 009	36 050	38 213	40 506	43 915	47 641	51 728	56 225	61 188	66 674
Gain on disposal of PPE	91	—	—	—	—	—	—	—	—	—	—
Revaluation on investment property gain / (loss)	—	—	—	—	—	—	—	—	—	—	—
Total revenue before Capital Grants	1 532 862	1 626 831	1 757 104	1 860 729	1 985 587	2 137 088	2 297 371	2 469 276	2 654 147	2 856 785	3 080 082
Capital Grants	77 477	91 804	58 980	68 477	80 586	86 238	90 669	95 674	101 332	107 743	115 002
Public & developers contributions	796	—	—	—	—	—	—	—	—	—	—
Total Revenue after Capital Grants	1 611 135	1 718 635	1 816 084	1 929 206	2 066 173	2 223 326	2 388 040	2 564 950	2 755 479	2 964 528	3 195 084
Operating expenditure											
Employee related costs	444 579	586 808	609 230	655 019	700 661	746 368	795 778	849 481	908 095	972 257	1 042 609
Remuneration of councillors	17 308	18 693	19 814	21 003	22 467	23 708	25 040	26 480	28 042	29 743	31 598
Debt impairment	47 971	123 344	130 735	138 442	146 709	149 862	161 917	174 952	189 133	204 715	221 867
Depreciation and asset impairment	163 948	175 830	189 268	199 705	205 364	211 352	217 624	224 156	230 941	237 967	245 221
Finance charges	18 775	32 922	40 888	46 137	59 042	71 478	83 343	94 582	105 115	115 294	125 671
Bulk purchases	329 682	357 921	384 259	410 738	437 334	463 881	494 086	526 721	562 040	600 419	642 231
Other Materials	—	31 909	33 488	34 504	35 551	39 249	43 357	47 937	53 054	58 788	65 224
Contracted services	123 010	220 297	216 541	224 717	233 202	252 832	274 280	297 813	323 700	352 273	383 860
Transfers and subsidies	6 261	9 102	8 377	8 828	9 303	10 086	10 942	11 881	12 914	14 053	15 314
Other expenditure	85 540	170 316	183 444	186 718	190 752	231 151	242 614	254 911	268 134	282 400	297 823
Loss on disposal of PPE	—	—	—	—	—	—	—	—	—	—	—
Total Expenditure	1 280 280	1 707 142	1 816 044	1 925 810	2 040 383	2 199 968	2 348 982	2 508 914	2 681 167	2 867 910	3 071 417
Surplus/ (Shortfall) for the year	330 856	11 493	40	3 396	25 789	23 358	39 058	56 036	74 312	96 617	123 667



Municipal Financial Model - Stellenbosch
Statement of Financial Position

Model year Financial year (30 June) R thousands	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Non-current assets:											
Property, plant and equipment	5,151,150	5,507,811	5,795,454	5,949,254	6,108,765	6,289,174	6,436,524	6,608,890	6,786,368	6,969,073	7,157,143
Intangible assets	4,710,275	5,082,486	5,340,880	5,493,480	5,650,991	5,813,400	5,980,750	6,153,116	6,330,594	6,513,299	6,701,369
Investment properties	8,368	8,718	8,868	8,968	8,968	8,968	8,968	8,968	8,968	8,968	8,968
Investments	423,252	425,652	434,652	435,652	435,652	435,652	435,652	435,652	435,652	435,652	435,652
Long-term receivables	—	—	—	—	—	—	—	—	—	—	—
Other non-current assets	2,158	2,158	2,158	2,158	2,158	2,158	2,158	2,158	2,158	2,158	2,158
	7,095	8,795	8,895	8,995	8,995	8,995	8,995	8,995	8,995	8,995	8,995
Current assets:											
Inventories	920,735	821,219	641,061	575,600	602,296	639,664	667,576	700,485	742,521	803,371	876,556
Trade and other receivables	48,991	73,133	78,452	80,003	81,841	97,788	103,420	109,523	116,156	123,389	131,294
Cash & Short-term investments	345,064	291,594	291,594	291,594	291,594	291,594	291,594	291,594	291,594	291,594	291,594
	528,680	456,491	271,015	204,002	228,660	250,281	272,562	299,367	334,771	388,387	453,668
TOTAL ASSETS	6,071,884	6,329,029	6,436,515	6,524,854	6,709,061	6,908,838	7,104,100	7,309,375	7,528,889	7,772,444	8,033,699
Municipal Funds:											
Housing development fund & Other Cash Backed Reserves	5,194,083	5,205,576	5,205,615	5,209,012	5,234,801	5,258,159	5,297,217	5,353,253	5,427,565	5,524,183	5,647,850
Reserves (Not Cash Backed)	—	(80,944)	(42,349)	(145,452)	(145,452)	(145,452)	(145,452)	(145,452)	(145,452)	(145,452)	(145,452)
Accumulated surplus	5,194,083	5,286,520	5,247,964	5,354,464	5,380,253	5,403,611	5,442,669	5,498,705	5,573,017	5,669,635	5,793,302
Non-current liabilities:											
Long-term liabilities (Interest Bearing)	457,152	601,051	688,618	749,681	881,410	1,005,869	1,121,865	1,232,226	1,342,542	1,441,601	1,527,761
Non-current provisions	158,800	284,995	353,652	394,520	504,821	606,606	698,683	783,880	867,785	939,188	996,446
	298,352	316,057	334,966	355,161	376,589	399,263	423,182	448,347	474,757	502,413	531,315
Current liabilities:											
Consumer deposits	420,649	522,402	542,282	566,162	592,851	644,810	685,018	723,896	758,782	806,660	858,088
Provisions	15,674	17,587	20,359	23,336	26,563	29,963	33,621	37,545	41,746	46,263	51,123
Trade and other payables	47,888	50,986	54,270	57,752	61,423	65,285	69,339	73,584	78,021	82,649	87,489
Bank overdraft	342,586	426,571	436,311	445,941	455,176	488,147	507,670	528,171	549,731	572,498	596,568
Current portion of interest bearing liabilities	—	—	—	—	—	—	—	—	—	—	—
	14,502	27,258	31,342	39,133	49,699	61,414	74,387	84,597	99,284	105,249	122,928
TOTAL MUNICIPAL FUNDS AND LIABILITIES	6,071,884	6,329,029	6,436,515	6,524,854	6,709,061	6,908,838	7,104,100	7,309,375	7,528,889	7,772,444	8,033,699

Municipal Financial Model - Stellenbosch Statement of Financial Position											
Model year	0	1	2	3	4	5	6	7	8	9	10
Financial year (30 June)	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
R thousands											
Non-current assets:											
Property, plant and equipment	5,151,150	5,507,811	5,795,454	5,949,254	6,106,765	6,269,174	6,436,524	6,608,890	6,786,368	6,969,073	7,157,143
Intangible assets	4,710,275	5,062,486	5,340,880	5,493,480	5,650,991	5,813,400	5,980,750	6,153,116	6,330,594	6,513,299	6,701,369
Investment properties	8,368	8,718	8,968	8,968	8,968	8,968	8,968	8,968	8,968	8,968	8,968
Investments	423,252	425,652	434,652	435,652	435,652	435,652	435,652	435,652	435,652	435,652	435,652
Long-term receivables	–	–	–	–	–	–	–	–	–	–	–
Other non-current assets	2,158	2,158	2,158	2,158	2,158	2,158	2,158	2,158	2,158	2,158	2,158
	7,095	8,795	8,995	8,995	8,995	8,995	8,995	8,995	8,995	8,995	8,995
Current assets:											
Inventories	920,735	821,219	641,061	575,600	602,296	639,664	667,576	700,485	742,521	803,371	876,556
Trade and other receivables	45,991	73,133	78,452	80,003	81,841	97,788	103,420	109,523	116,156	123,389	131,294
Cash & Short-term investments	345,064	291,594	291,594	291,594	291,594	291,594	291,594	291,594	291,594	291,594	291,594
	528,680	456,491	271,015	204,002	228,860	250,281	272,562	299,367	334,771	388,387	453,668
TOTAL ASSETS	6,071,884	6,329,029	6,436,515	6,524,854	6,709,061	6,908,838	7,104,100	7,309,375	7,528,889	7,772,444	8,033,699
Municipal Funds:											
Housing development fund & Other Cash Backed Reserves	5,194,083	5,205,576	5,205,615	5,209,012	5,234,801	5,258,159	5,297,217	5,353,253	5,427,565	5,524,183	5,647,850
Reserves (Not Cash Backed)	–	(80,944)	(42,349)	(145,452)	(145,452)	(145,452)	(145,452)	(145,452)	(145,452)	(145,452)	(145,452)
Accumulated surplus	5,194,083	5,286,520	5,247,964	5,354,464	5,380,253	5,403,611	5,442,669	5,498,705	5,573,017	5,669,635	5,793,302
Non-current liabilities:											
Long-term liabilities (Interest Bearing)	457,152	601,051	688,618	749,681	881,410	1,005,869	1,121,865	1,232,226	1,342,542	1,441,601	1,527,761
Non-current provisions	158,800	284,995	353,652	394,520	504,821	606,606	698,683	783,880	867,785	939,188	996,446
	298,352	316,057	334,966	355,161	376,589	399,263	423,182	448,347	474,757	502,413	531,315
Current liabilities:											
Consumer deposits	420,649	522,402	542,282	566,162	592,851	644,810	685,018	723,896	758,782	806,660	858,088
Provisions	15,674	17,587	20,359	23,336	26,553	29,963	33,621	37,545	41,746	46,263	51,123
Trade and other payables	47,888	50,986	54,270	57,752	61,423	65,285	69,339	73,584	78,021	82,649	87,469
Bank overdraft	342,586	426,571	436,311	445,941	455,176	488,147	507,670	528,171	549,731	572,498	596,568
Current portion of interest bearing liabilities	–	–	–	–	–	–	–	–	–	–	–
	14,502	27,258	31,342	39,133	49,689	61,414	74,387	84,597	99,284	105,249	122,928
TOTAL MUNICIPAL FUNDS AND LIABILITIES	6,071,884	6,329,029	6,436,515	6,524,854	6,709,061	6,908,838	7,104,100	7,309,375	7,528,889	7,772,444	8,033,699

Section 7 Affordability Envelope



7 Affordability Envelope

7.1 Contextualisation

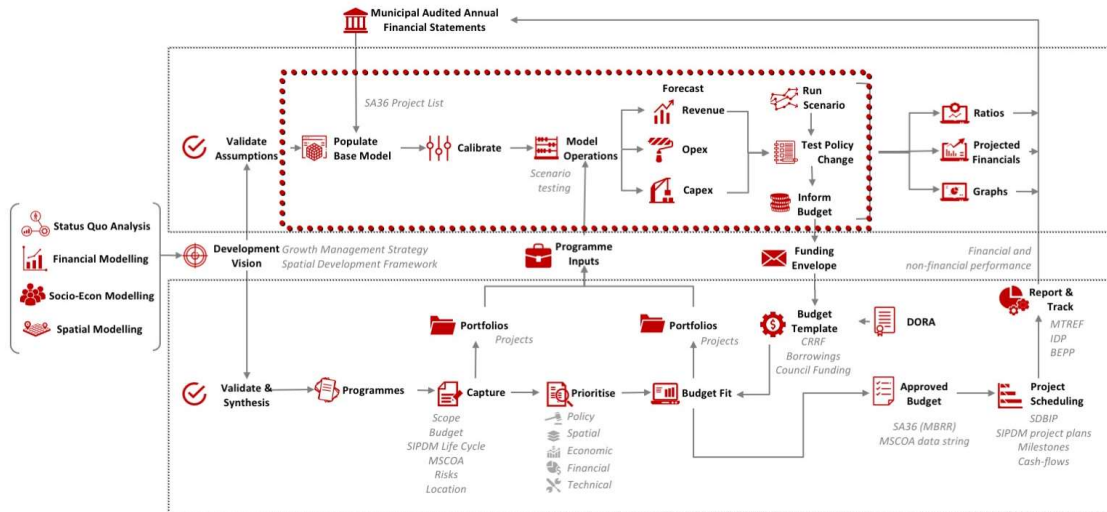


Figure 60: Affordability Envelope in the context of the CEF

The affordability envelope, or otherwise stated, the funding envelope is the result of the Long Term Financial Strategy. The aim of the Long Term Financial Model is to define a set of parameters to which the municipality can roll out capital expenditure projects. The key parameter of interest for the budget scenario process to continue is the total capital expenditure that is deemed as affordable per year.

The purpose of this section is therefore to take the results of the Long Term Financial Strategy and to indicate what should be actively used to guide capital investment through the budget scenario template – better defined as the total available capital expenditure budget per year.

7.2 A Sustainable Funding Mix

The annual funding mix proposed by the model, given the approved budget and optimal forecast thereafter, is illustrated by the graph below.

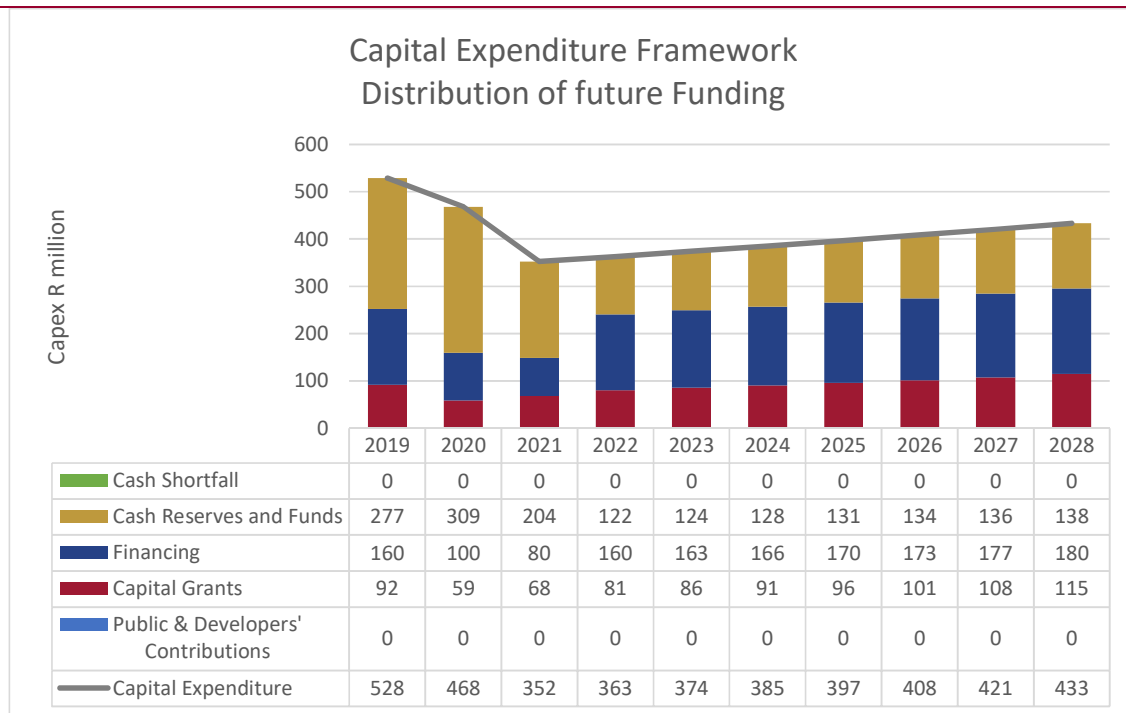


Figure 61: Distribution of Future Funding

7.2.1 Liquidity and Capital Replacement Reserve

For purposes of the projections in this report the minimum required liquidity level caters for unspent conditional grants, reserves, short term provisions, consumer deposits and 1 month's working capital. The municipality exceeds the minimum liquidity requirement over the MTREF-period and throughout the planning period.

Noteworthy though, is the decrease in liquidity over the MTREF period. Sufficient cash remains available to fund capital projects required with further potential for borrowing. The municipal bank balance recovers above the minimum required in later years Capital Expenditure Framework period.

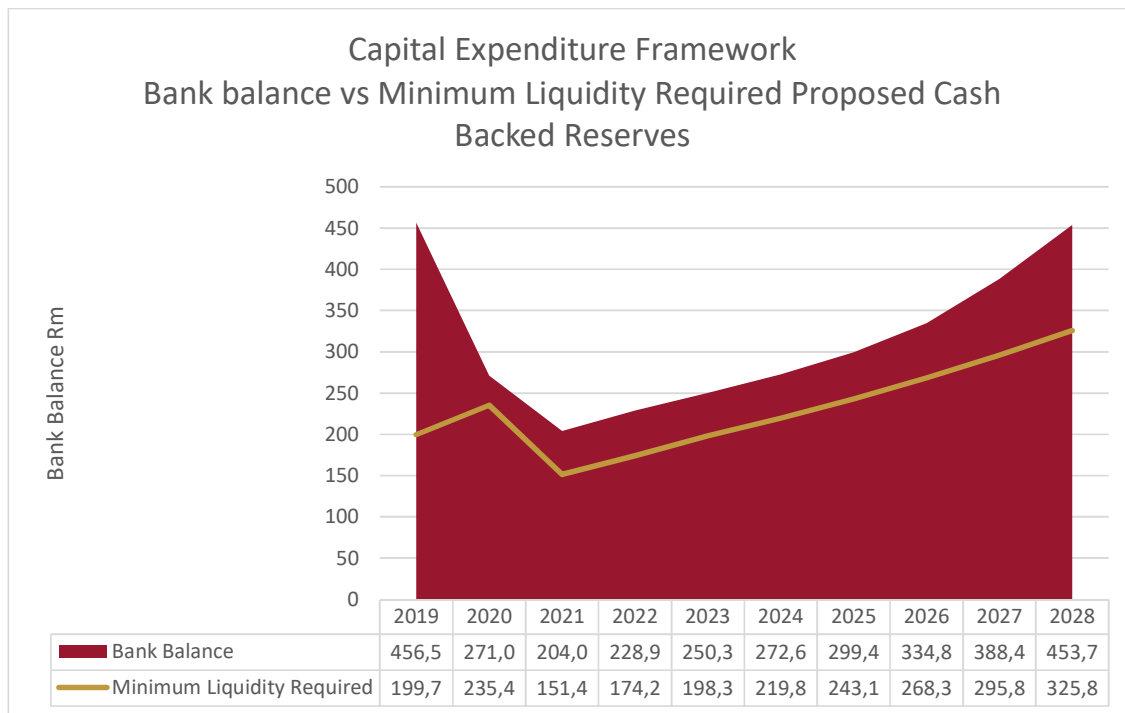


Figure 62: Bank balance vs Minimum Liquidity Required Proposed Cash Backed Reserves

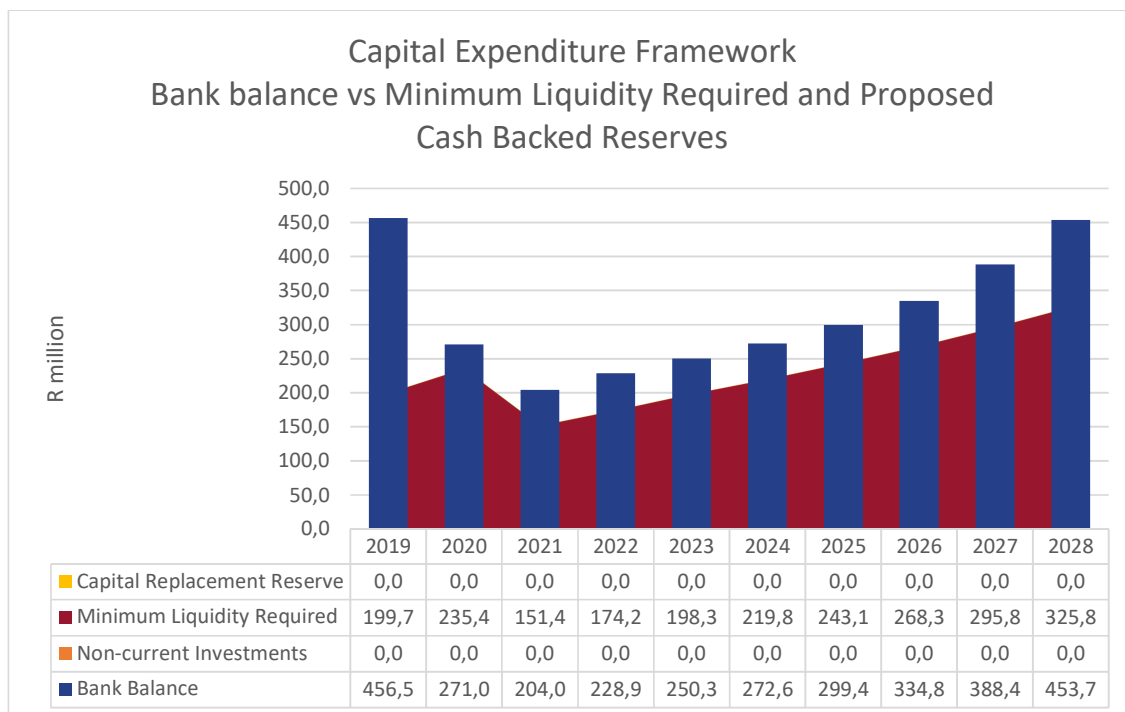


Figure 63: Bank balance vs Minimum Liquidity Required

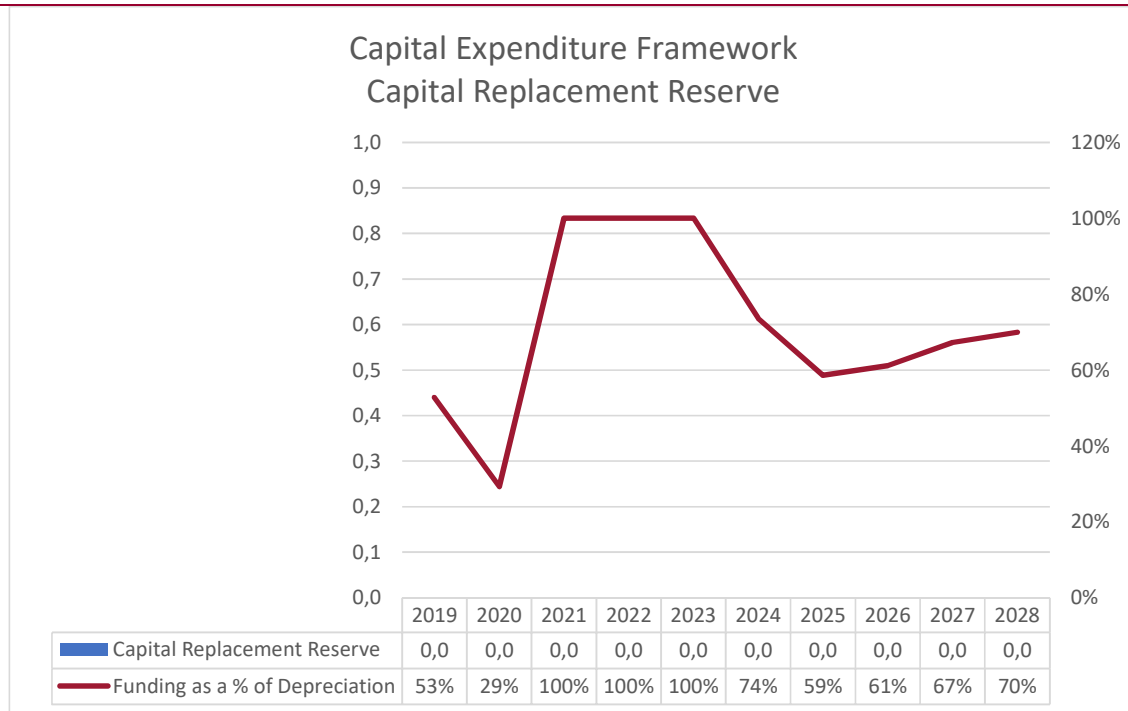


Figure 64: Capital Replacement Reserve

7.2.2 Gearing

The ratio of Long-Term Interest-Bearing Liabilities to Income is illustrated in the graph below.

The Stellenbosch Local Municipality has a debt policy which sets the gearing-level to 35%. The model forecast that gearing increases from 2019 and peaks at 35% during 2028, but never breaches this level. This level of gearing is within both its policy and National Treasury guidelines.

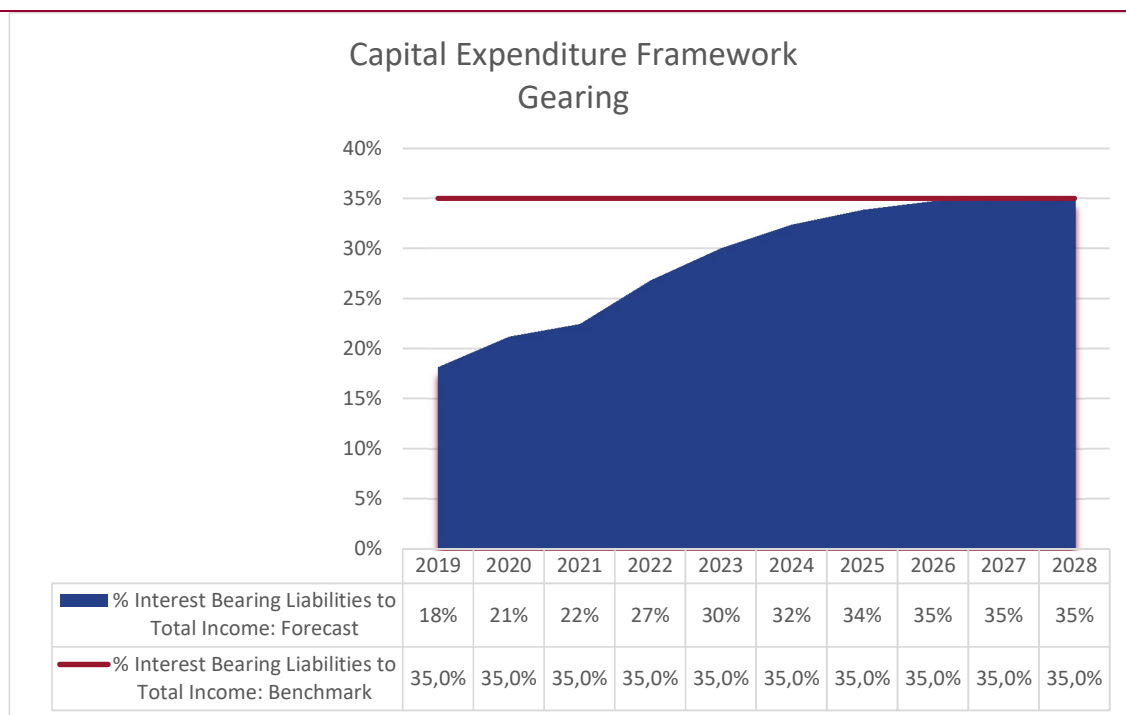


Figure 65: Gearing

Based on the forecast External Financing requirement, the Debt Service to Total Expense Ratio never breaches the 8% benchmark over the planning period.

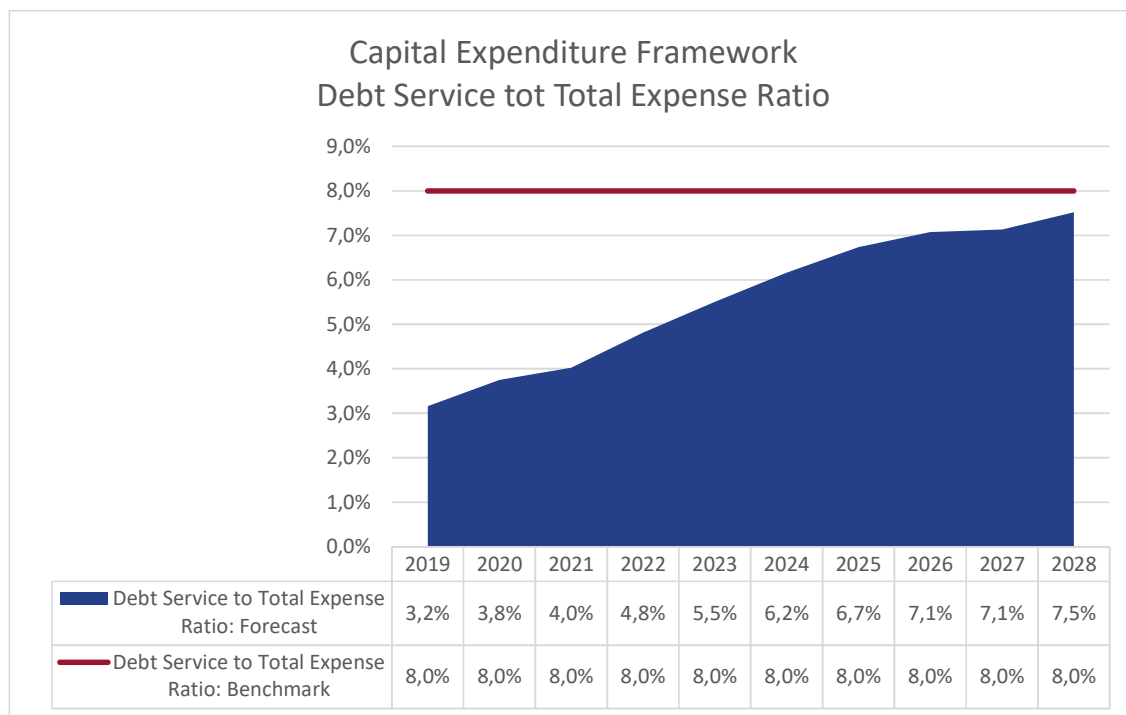


Figure 66: Debt Service tot Total Expense Ratio

The amount of annual external financing is estimated to be distributed as follows:

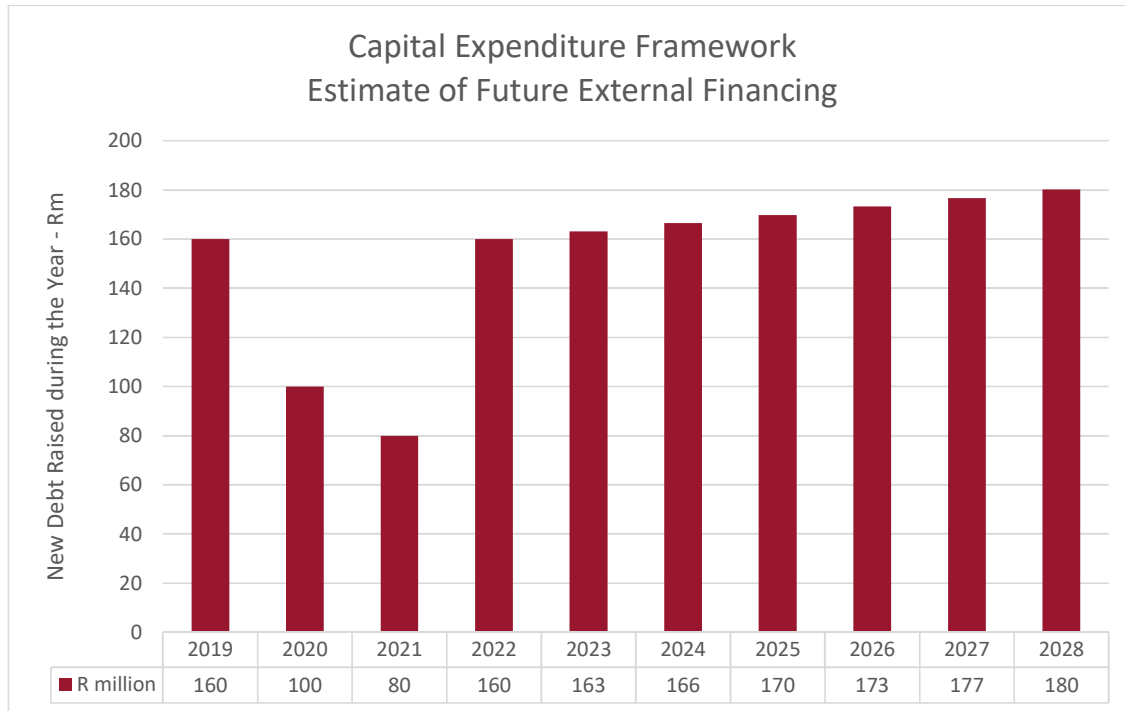


Figure 67: Estimate of Future External Financing

7.2.3 Capital Need and Affordability Envelope by Year

A summary of the capital need and affordability envelope by year is presented in the table below:

Table 64: Capex need

Year	Total Planned Capital Expenditure	Total Planned Capital Expenditure %
2020/2021	R721 785 076	12%
2021/2022	R698 492 030	12%
2022/2023	R628 843 580	10%
2023/2024	R735 459 363	12%
2024/2025	R570 881 401	9%
2025/2026	R531 788 364	9%
2026/2027	R604 008 592	10%
2027/2028	R547 032 074	9%
2028/2029	R563 960 613	9%
2029/2030	R410 858 322	7%
Total	R6 013 109 416	100%

The table above includes all capital projects captured by departments projected for the 10 year period of the Capital Expenditure Framework.

What the planned capital expenditure analysis illustrates is that:

- Near future is more predictable than the distant future;
- Insufficient demand captured across the ten year horizon;
- In total, the capital demand is equal to R5.8 billion, subject to what is affordable within the financial envelope available.

It is apparent that whilst good progress has been made to plan ahead over a longer period, more careful upfront planning, extension of master plan periods and upfront capturing of pending and approved projects must bear relevance.

Capital expenditure fluctuates annually in line with the needs identified.

Table 65: Affordability Envelope

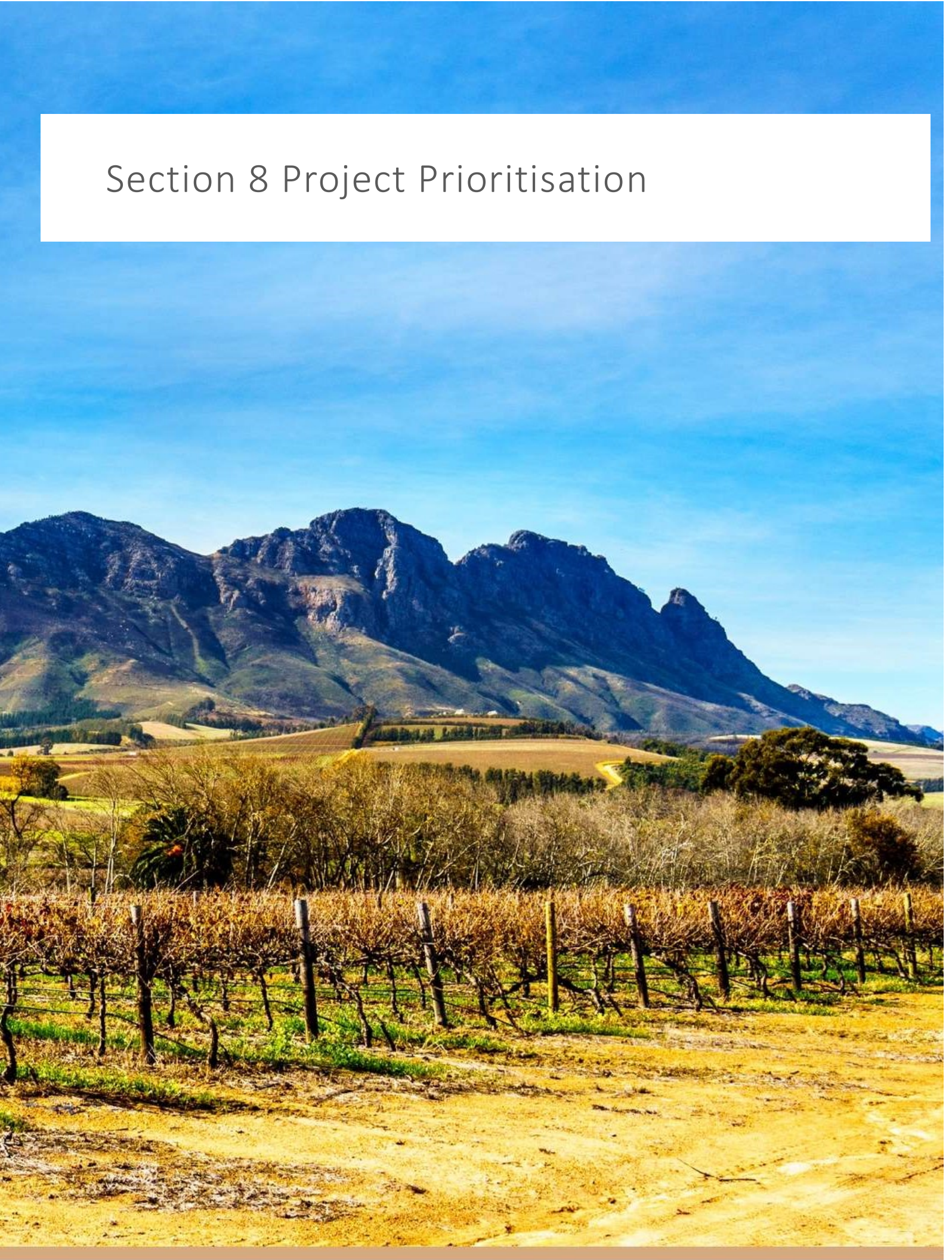
Year	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Public & Developers' Contributions	14	0	0	0	0	0	0	0	0	0	0
Capital Grants	59	68	81	86	91	96	101	108	115	123	123
Financing	100	80	160	163	166	170	173	177	180	184	184
Cash											
Reserves and Funds	309	204	122	124	128	131	134	136	138	139	139
Capital Expenditure	468	352	363	374	385	397	408	421	433	446	446

7.2.4 Proposed Amendments to MTREF Capital Programme and Associated Funding Mix

Whereas the current approved MTREF reflect a decrease in capital expenditure until 2021, the total capital spend over the next 10 years come to R4.1 billion, which is affordable to Stellenbosch LM.

The LTFM indicates that should there be a need for Stellenbosch to accelerate the capital spend over the MTREF, but still within an affordable envelope over the next ten years, such an acceleration would be possible with increased external borrowing. This will increase the capital spend over the next ten years to R4.3 billion. Such a scenario was modelled and is presented as part of Annexure A to this report.

Section 8 Project Prioritisation



8 Project Prioritisation

8.1 Contextualisation

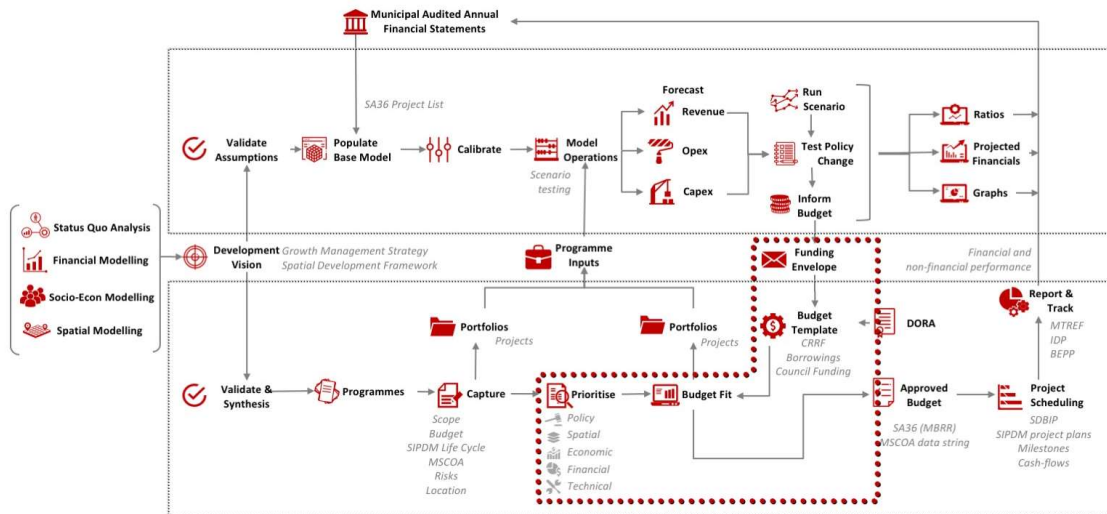


Figure 68: Prioritisation in the context of the CEF

The CP3 Capital Prioritisation Model (CPM) of the municipality is a systematic and objective methodology that provides a way to sort a diverse set of items / projects into an order of importance based on each project's alignment to the strategic, developmental, social, economic, environmental and financial objectives of the municipality. The CPM identifies each project's relative importance by deriving a numerical value representative of the project's priority.

The model provides a means for ranking projects (or project requests) based on criteria that are the most important to focus on first in terms of meeting the Municipality's overarching developmental objectives and strategies. This also assists in promoting co-ordinated and aligned departmental planning and budgeting.

Project prioritisation can therefore be described as a process for assessing a project against a number of variables such as, economic, social, environmental, legislative and financial variables, in order to determine a capital project's alignment with or contribution to such variables. It provides for a systematic and objective assessment of an ongoing or completed project. All the impacts associated with a capital project are identified, and where possible, costs and benefits valued in monetary terms, so as to ensure that project prioritised and selected by government will provide the maximum net benefit to the community, economy and environment – the balancing effect.

8.2 Planning for Priority

In South Africa, the capital expenditure of a municipality should primarily be driven by the IDP. SPLUMA,³² as explained in the introduction of this document, furthermore compels local authorities to formulate a Capital Expenditure Framework (CEF). The meaningful allocation of capital expenditure for municipalities is however a challenging balancing act that must seek to address:

- Infrastructure backlogs;

³² Spatial Planning and Land Use Management Act, Act 16 of 2013 section 21 (n).

- The restoration of human dignity;
- The creation of a safe and secure environment;
- The provision of basic services;
- The maintenance of existing assets;
- The protection of our heritage and environment;
- The creation of sustainable job opportunities;
- The boosting and creation of economic activities/opportunities; and
- Strategically investing into a growing, sustainable, liveable and globally competitive city environment.

A prioritisation methodology is therefore required that will consider qualitative, quantitative and spatial priorities as articulated by municipality's strategic as well as technical leadership, and as enshrined by municipality's various strategic plans. It is recognised that the planning environment is continuously changing in response to new challenges and new dynamics are introduced constantly due to a variety of reasons. The process of prioritisation therefore, must possess of the ability to comprehensively on-board new issues for consideration and easily, and most importantly transparently, bring on board and change to the changing needs of the municipality.

The need for a mechanism to drive the strategic, yet equitable, allocation of capital within the city, stems from the following realities:³³

- Urbanisation, immigration and growth: "The State of South African Cities" report produced by Cities Support Network in 2016, report that South African Cities are inundated by rapid urbanisation. A significant number of the population within South African Municipalities has low levels of education resulting in high unemployment, very low incomes and poor living standards. There are not enough job opportunities for unskilled labourers in the economy to address this issue adequately. Because of this urbanisation, Municipalities must deal with a relentless demand for infrastructure and services. Unconstrained urbanization and population growth have resulted in the demand for infrastructure and services outstripping the financial resources of Municipalities. Given the limited resources to address these needs, prioritization of capital expenditure has become a factor of critical importance. Typical prioritisation metrics used in this regard includes the consideration of a project with respect to the Urban Edge.
- The importance of the city and regional economy: One of the main drivers of economic sustainability is the creation of job-opportunities. Affecting economic changes requires a multi-pronged approach involving a range of interventions across a number of industries. From a capital expenditure perspective though, the process of prioritisation can benefit from the sophistication of a complex, macro-economic econometric model. Typical prioritisation metrics used in this regard includes Job creation (opportunities - per R1m capex).
- Increasing maintenance burden: Municipalities are faced with the conundrum of balancing spatial, social and economic transformation, whilst maintaining the existing asset base of the city. Spatial, social and economic transformation is often associated with the provision of new, quality

³³ For more information on how the realities are addressed in the prioritisation process, please refer to the annexure that unpacks the prioritisation model.

infrastructure in support of liveable communities either in newly demarcated development areas or as part of upgrading severely marginalized communities, with a poor service provision history and a backlog of service delivery demands. A balanced approach to capital spending, focusing partially on the provision of new infrastructure, whilst maintaining the existing asset base and revenue stream is important. A fundamental consideration of all capital expenditure therefore must include the estimated operating expenditure burden that will result from the capital that is being spent. The operating expenditure burden is inevitable – a situation can however arise whereby the operating expenditure continues to grow to the extent that it starts to impact on the available capital expenditure. Typical prioritisation metrics used in this regard is the lifespan of a specific asset.

- **Coordination and Inter-dependency:** Capital project preparation is often undertaken in a non-integrated way in that the different departments, divisions and agencies plan and budget for capital projects in isolation from each other. This is not necessarily intended, it is simply a consequence of a large, multi-disciplinary organisation. Departments often have their own priorities and their own methods of determining such priorities. These methods vary in terms of sophistication and detail. The provision of municipal infrastructure requires integrated project planning and preparation. Therefore, a decision support system, which facilitates the coordination and integration between planning and infrastructure provision on a project preparation as well as an institutional level is critical.
- **Competing Interests:** Although basic services infrastructure (i.e. water, sanitation, electricity and solid waste management) is often as high on the community delivery agenda as social facilities and amenities (i.e. clinics, libraries, community facilities etc.), these different infrastructure types do not always receive equitable capital allocation. Often, income generating capital expenditure (i.e. capital spent on infrastructure which can yield some form of monetary return) receives larger quantities of capital budget than non-income generating infrastructure. A decision support system, which allows for scenario testing in relation to the ratio of income generating and non-income generating capital expenditure, taking into account the impact that this would have on the city's financial sustainability is required.
- **Spatial transformation agenda:** The spatial vision of South African Municipalities seeks to transform the developmental landscape to become a more inclusive, efficient and equitable. Consequently, capital spending should be earmarked to drive the spatial transformation agenda which in turn will result in a spatially transformed and economically sustainable city structure. A decision support system, which enables capital project prioritisation, reporting and tracking quantitatively, qualitatively and spatially, is required to ensure that capital spending is focused on strategic spatial structuring areas to achieve the desired city spatial form. Typical prioritisation metrics used in this regard is the spatial consideration of the SDF.

The complexity and interdependency of these issues is very challenging, and each year, new considerations and priorities are introduced. The need for a system that assist in the facilitation of such a process, together with additional benefits of record-keeping, tracking and reporting is therefore evident.

The prioritisation process facilitated by a system, should be easy to understand and interpret whilst allowing for accessibility and input by its users on any level of detail required. Given the diverse range of different departments and divisions within the typical South African municipality and the divergent needs stemming from each department, it is essential that the prioritization methodology lends itself towards participation and allows for easy calibration by key decision makers.

In the process of prioritization, the importance of a multitude of considerations must be emphasized. Although it is commonly accepted that the municipality's IDP should be the primary driver of priorities, there are however many other metrics that should be considered in the process. Some of these considerations are briefly highlighted.

The first fundamental to consider is funding that is available for implementation and how this capital is sourced. This informs of the affordability of implementing the list of capital needs. In a municipal environment, capital is sourced from a number of places. Among these sources are bonds and loans. The affordability and the debt thresholds set by the MFMA are important considerations in this process.

Technical inputs stemming from the municipality's asset management system or from other technical reports or processes represent another important aspect to consider in the process of prioritization. These technical inputs often do not align optimally with IDP objectives but are important all the same due to age, wear or other important reasons. Other technical aspects such as the technical interdependence of projects also play an important role. This will have the consequence that projects that appear to be of a lower priority, may be elevated in importance if they are enablers of other, important projects.

The economic, socio-economic and environmental impacts also represent impact lenses that casts an important perspective on project impacts. There are various methods and models to determine these impacts to varying degrees of accuracy. Within a service delivery framework, it is essential that these elements be included in the prioritization process.

Lastly and very importantly, the spatial alignment of a project to a municipality's strategic or political objectives needs to be included in prioritization process. The assumption is often erroneously made that these spatial aspects are adequately captured by the IDP process. The reality is however more complex and dynamic. Spatial priorities are often revealed throughout the IDP cycle by new processes such as the development of Spatial Development Frameworks (SDFs).

8.3 Capital Prioritisation Model Mathematical Framework

The prioritisation process should be easy to understand and interpret whilst allowing for accessibility and input by its users on any level of detail required. Given the diverse range of different departments and divisions within the municipality and the divergent needs stemming from each, it was deemed essential that the methodology lends itself towards participation and allows for easy calibration by key decision makers.

To fully take into account all factors relevant in deciding which projects to receive priority, the utility analysis method is used that takes all the relevant system constraints into account.

"Utility analysis is in effect a semi-quantitative means of 'trading off' the effects of implementing any given scheme, that is, the relative desirability of achieving a given set of goals and objectives and the degree to which this target system is fulfilled, are combined to give a measure of how far each scheme will go in meeting all or any of the goals and objectives, and so provides the answer to the question of effectiveness of the scheme. The distinguishing feature of utility analysis is that it can handle financial, quantitative and qualitative effects simultaneously. Consequently, all of the impacts or effects of a project which can be envisaged can be included in the analysis."

Evaluation of Transportation Projects – Utility Analysis; JV Baxa; January 1981; CSIR

A utility analysis provides a structured input for the decision-maker. It provides an indication to the overall effectiveness with which alternatives will satisfy the complex target system. The process begins

by defining the problem in a structured way. As already mentioned, the problem definition can incorporate diverse inputs which covers quantitative, qualitative and financial factors. Firstly, certain goals that should ultimately be addressed, must be established. For each of these goals, relevant objectives then must be established. Each objective requires a specific input, which will be modelled based on a predetermined method or value function, to provide an output. The following basic steps apply:

- Define the relative preferences for each goal that was set out;
- Define relative preferences for each objective that was set out; and
- Weight each criterion that was set up to reflect their relative importance.

By following these steps, each alternative can be 'scored' to attain a measurement of performance that can be translated into a number of points. The points system with which each criterion is weighted, as indicated on the matrix of utilities, is a number between 0 and 100.

The complexity of the number of issues that had to be taken into account in the model from the municipality's point of view, required that the model methodology had to be adapted to allow for more than one level of "objectives". Importantly, these objectives all contribute towards a fundamental set of goals. These goals possess of the ability to influence the way in which projects will be rated rather dramatically. The benefit of this is that the municipality now has the ability to fix the fundamental considerations on this level, to ensure that it manifests in prudent financial management whilst still ensuring that the transformation as contained in the various municipal strategies, manifests itself at this level.

The figure below shows the basic structure of the model. More about the actual criteria that will be used is discussed later in this document.

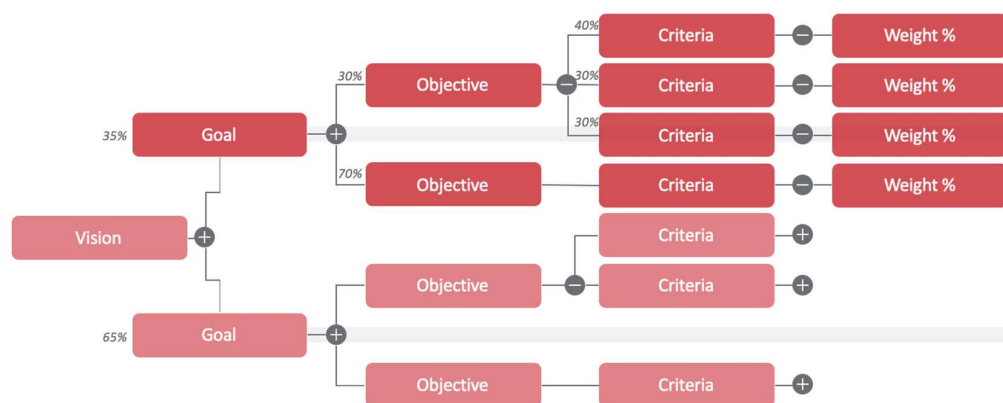


Figure 69: CP3 Capital Prioritisation Model (CPM) Mathematical Framework

The application of this methodology in CP3 had to find a balance between complexity and simplicity. This is required to ensure participation in the process by a very broad range of departments and divisions within departments. Not all departments are technically focussed to the same level of

sophistication – as is the case with the infrastructure departments. It is therefore necessary to find criteria and measurements that do not exclude such department.

This approach offers a significant advantage in that the “principles” of prioritisation becomes important debating points, instead of individual merits projects. Projects emanating from different departments do not have “common ground” to enable a meaningful one-to-one comparison. Using this model though, provides a platform where all projects, irrespective of their origin or sophistication, is subjected to the same principles.

8.4 Capital Prioritisation Model High Level Structure

The following part of this document will show how the prioritisation model works. It should be noted that this part of this section will start at the high level model structure, followed by a detailed layout of how each branch of the multi criteria decision making tool is used to evaluate projects.

The following figure displays a typical Prioritisation for Stellenbosch, as developed in CP3.

Figure 70: Screenshot of the prioritisation model that is used.



The CPM allows for projects to be ranked or scored between two mutually exclusive branches, namely:

- Model;
- Housing Outside Urban Edge.

The “Model” allows for projects to be ranked or scored between two mutually exclusive branches, namely:

- Spatially Mapped;

- City Wide; or
- Administrative Head Quarters.

These two model branches are mutually exclusive, which means that any project can only pass through one of the two branches and can never be scored on both branches. Projects which have spatial locations (i.e. works and affected areas) are evaluated through the “Spatially Mapped” branch of the model, whereas unmapped projects marked under the MSCOA regional segment as “City Wide” or “Admin HQ” are evaluated through the “City Wide / Admin HQ” branch of the model. This distinction is made so that City Wide and Admin HQ projects are not artificially penalised under the “Spatial” branch of the prioritisation model.

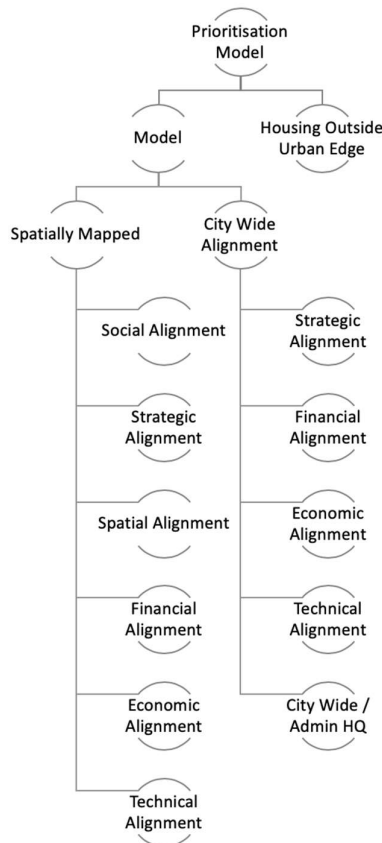


Figure 71: Capital Prioritisation Model High level Structure

Once it has been determined whether a project is **spatially mapped**, the project evaluation takes place according to the following themes or goals:

- Social alignment;
- Strategic alignment;
- Spatial alignment;
- Financial alignment;
- Economic alignment; and

- Technical alignment.

Once it has been determined whether a project is **city wide or Admin HQ**, the project evaluation takes place according to the following themes or goals:

- Social alignment;
- Strategic alignment;
- Financial alignment;
- Economic alignment; and
- Technical alignment.

It is evident from the high-level tree structure above that the “Spatial alignment” theme is only utilised under the “Spatially Mapped” scorecard.

The “Housing Outside Urban Edge” branch excludes all housing projects that are partially or totally outside the Urban Edge of Stellenbosch.

8.5 Capital Prioritisation Model Detailed Criteria

The following sections should be read in conjunction with Annexure 4: Prioritisation model. The annexure provides a more detailed description for each scoring criteria, whereas this section provides an overview of the scoring criteria branches.

The capital prioritisation model criteria will be discussed in more detail under the five (5) themes of the model, namely:

- Strategic alignment;
- Spatial alignment;
- Financial alignment;
- Economic alignment;
- Social alignment; and
- Technical alignment.

8.5.1 Strategic Alignment

The strategic alignment goal or theme of the prioritisation model evaluates the degree to which projects in the municipal capital budget aligns with the organisations developmental objectives as well as strategic outcomes set out in the strategic guiding document of the municipality. The policy alignment score is calculated within five distinct categories³⁴, namely:

- IDP Outcome 1: Valley of Possibility;

³⁴ These categories are aligned with the IDP Outcomes.

- IDP Outcome 2: Dignified Living;
- IDP Outcome 3: Good Governance and Compliance;
- IDP Outcome 4: Green and Sustainable Valley; and
- IDP Outcome 5: Safe Valley.

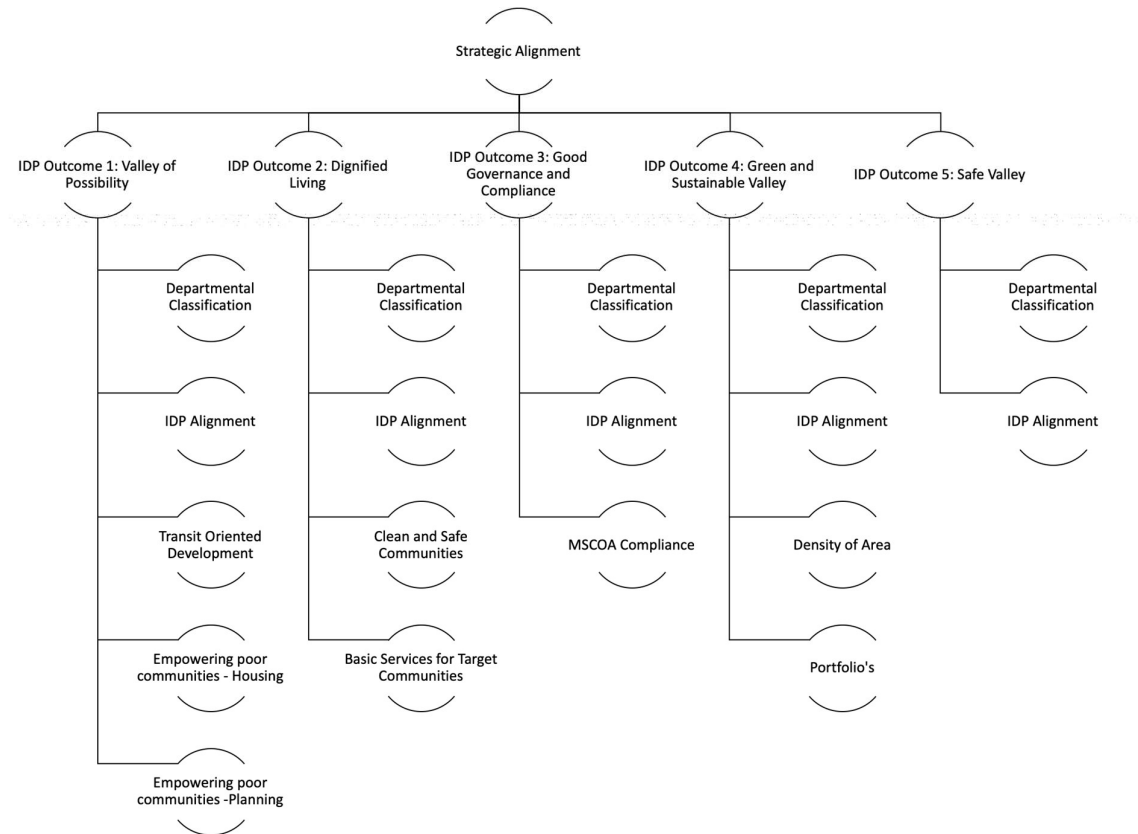


Figure 72: Capital Prioritisation Model: Strategic Alignment

8.5.2 Spatial Alignment

The spatial alignment goal or theme of the prioritisation model evaluates the degree to which projects aligns with the spatial development framework and other spatial targeting objectives set out in various strategic documents of the municipality (i.e. IDP, SDF, CIF etc.). The alignment of projects to the spatial targeting areas of the municipality are scored according to the following criteria:

- Spatial Development Framework; and
- Inside Urban Edge.

These criteria measured under these sub-branches seek to ensure that projects within the municipal budget align with the spatial structure or spatial development objectives of the municipality.

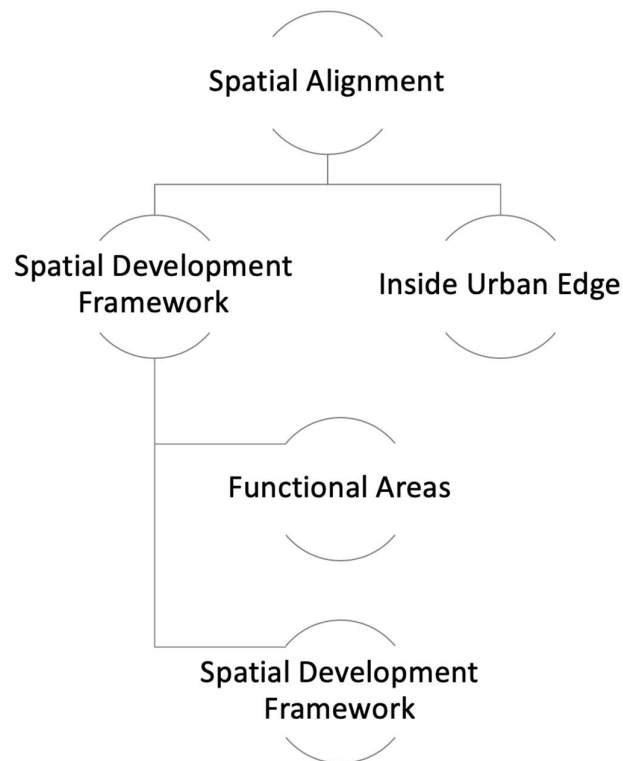


Figure 73: Capital Prioritisation Model: Spatial Alignment

8.5.3 Financial Alignment

The financial alignment goal or theme of the prioritisation model evaluates the degree to which projects in the municipal capital budget are considered to be credible, affordable, funded, applied to expand the rateable asset base and improving the fiscal position of the municipality. The financial alignment score is calculated within six distinct categories, namely:

- Fiscal deficit as % of GDP;
- Affordability;
- Confidence in Cost Estimate;
- Co-Funding;
- Lifespan of asset; and
- Opex Consequence.

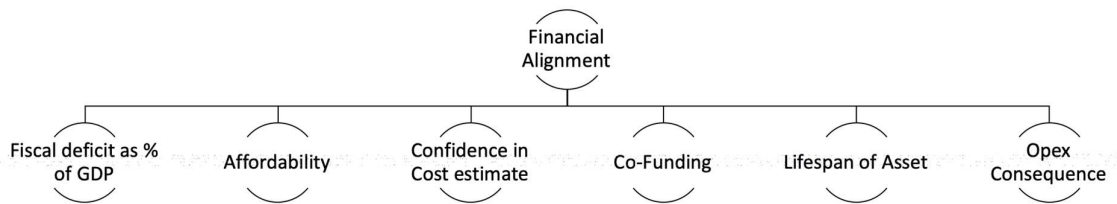


Figure 74: Capital Prioritisation Model Financial Alignment

8.5.4 Economic Alignment

The economic alignment goal or theme of the prioritisation model evaluates the degree to which projects in the municipal capital budget contributes to the growth of the municipal economy and improves the economic position of the residents within the municipality.

A macro-economic impact model (EIM) was developed for the municipality specifically to make use of the data from the CP3 system. The econometric model is specific for the municipality and draws from a sophisticated range of financial data, regional data, and population data sourced from STATSSA. As such, the EIM generates values for the impact of individual and portfolio capital projects in terms of a set of economic, socio-economic and fiscal indicators – for the City as a whole, as well as a selection of key sub-regions or ‘main places’.

The EIM is based on the outputs of a comprehensive suite of econometric models. The workings of the EIM are dynamic and consider the indirect City-wide impacts of projects and programmes – not only the localised ward-specific impact.

The EIM therefore captures the iterative, dynamic impacts of all of the role-players within the economy – households, business, government, foreign sector, as well as the full economic flow of goods, services, factors and money is accounted for, and an iterative computational process is utilised.

The outputs from the economic model is further augmented spatially by evaluating the alignment of the project’s location and affected area, with geographic areas that were graded across the entire

municipal area in terms of its economic impact in a separate economic study that was conducted for this purpose.

The economic alignment score is calculated within two distinct categories, namely:

- Focus on targeted portfolios;
- Focus on impact; and
- Focus on people.

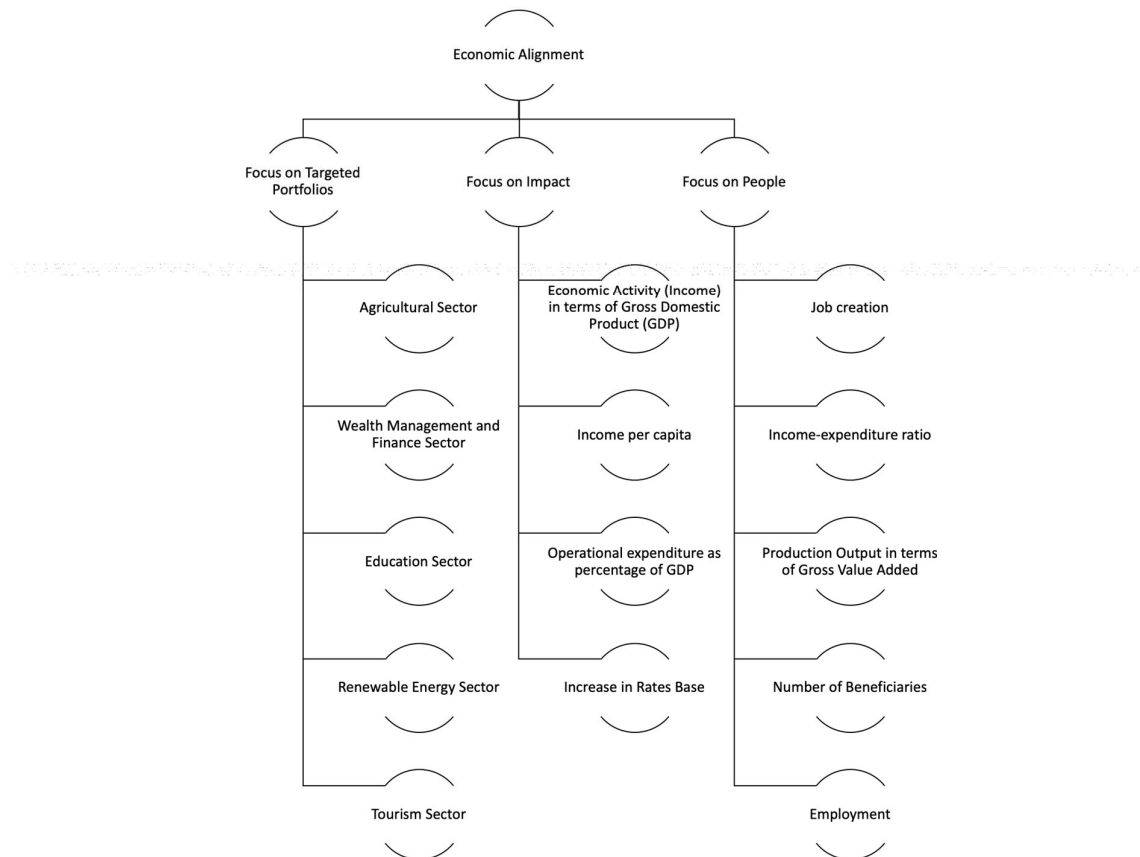


Figure 75: Capital Prioritisation Model: Economic Alignment

8.5.5 Social Alignment

The social alignment goal or theme of the prioritisation model evaluates the degree to which projects in the municipality aligns with servicing of areas with the highest demand and where the most vulnerable communities are situated.

The social alignment score is calculated within two distinct categories, namely:

- Services; and
- Deprivation Index.

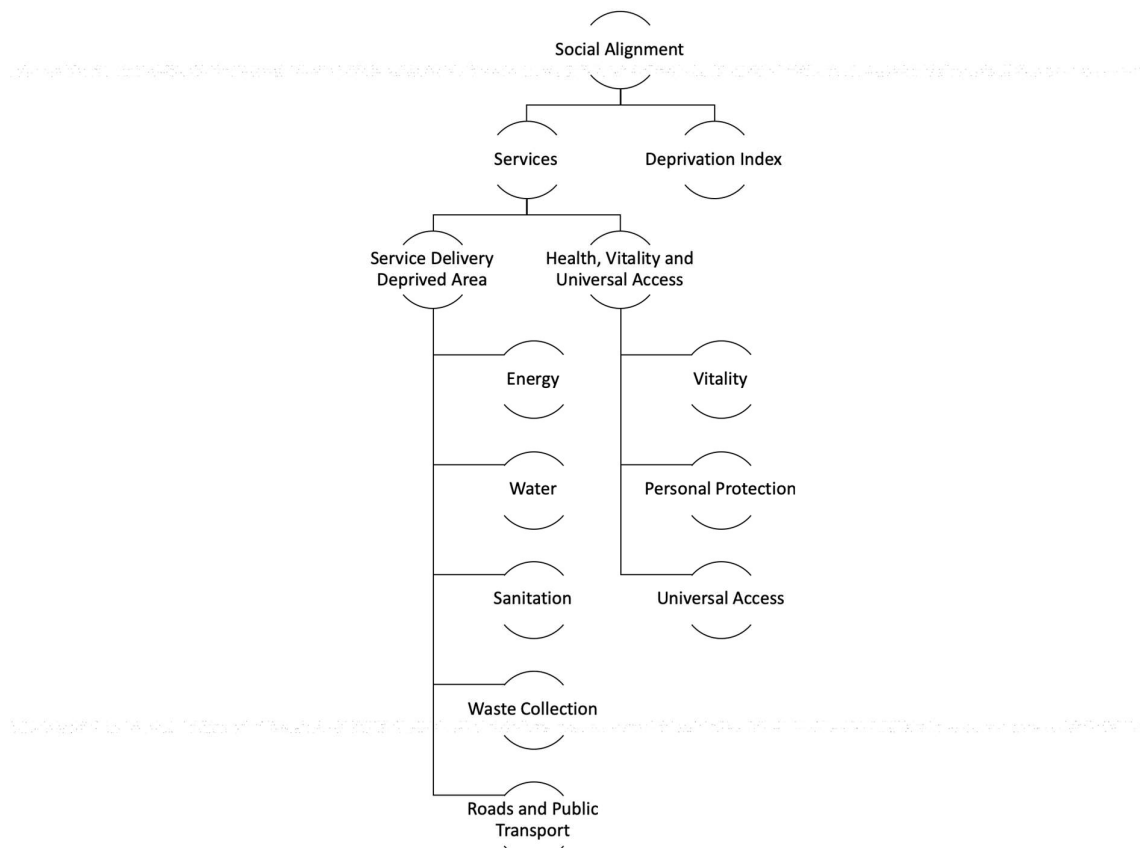


Figure 76: Capital Prioritisation Model: Social Alignment

8.5.6 Technical Alignment

The technical alignment goal or theme of the prioritisation model evaluates the degree to which projects in the municipal capital budget aligns with the asset management plans, analysis and modelling of the technical or utility services departments as well as the sustainability goals of the municipality, and most importantly, whether the project is ready to be implemented (i.e. all statutory and governance requirements have been met).

The technical alignment score is calculated within four distinct categories, namely:

- Implementation readiness;
- Risk Rating;
- Departmental Rating; and
- Legally Bound.

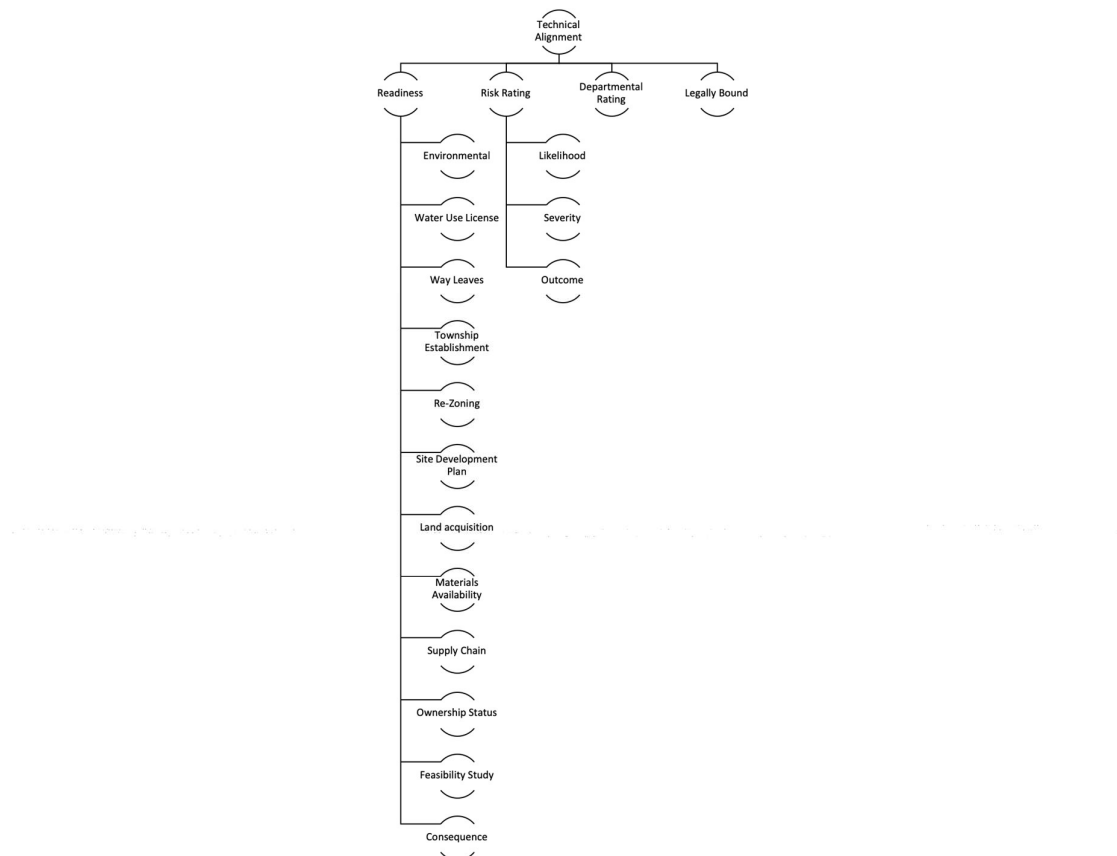


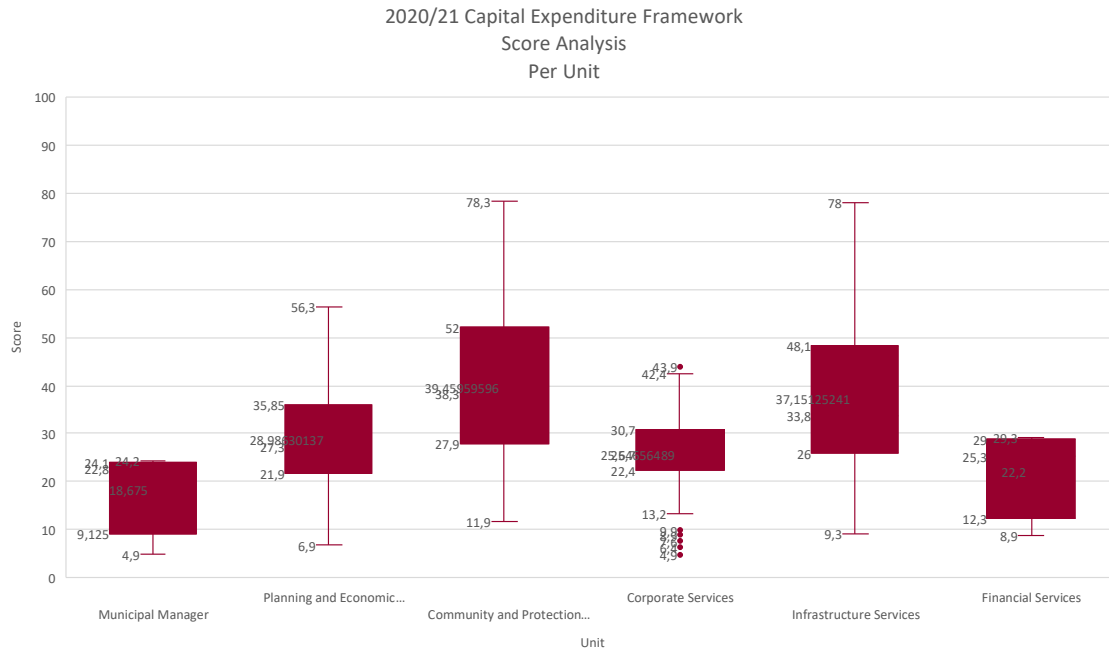
Figure 77: Capital Prioritisation Model: Technical Alignment

8.6 Capital Prioritisation Model Results

Based on the information captured on CP3, the Capital Prioritisation Model (CPM) has been run. The relative ranking which will contribute during the budget scenario routine are discussed in detail in the next sub section.

8.6.1 Scores per Unit

Figure 78: Prioritisation model results – score per unit



A box and whisker diagram are used to summarise a range of results per a unit. The box component of the diagram shows where the projects that scored between the 25th and 75th percentile scored of the specific unit. The average score of the unit is depicted by the "x". the ends of the whiskers are the maximum and minimum scores. Projects scoring between the minimum value and the 25th percentile are arranged along the bottom whisker, and projects scoring between the maximum value and the 75th percentile are arranged along the top whisker and the box.

The figure above shows that Community and Protection services, and Infrastructure services has the highest variability of project scores for the majority of their projects. The Municipal Manager and the Finance service units, scores relatively lower, but most of the projects within the units score close to the maximum value achieved within the department.

The project with the best score is situated in the Infrastructure services unit, whereas the project with the lowest score is situated in Corporate services.

8.6.2 Scores per Department

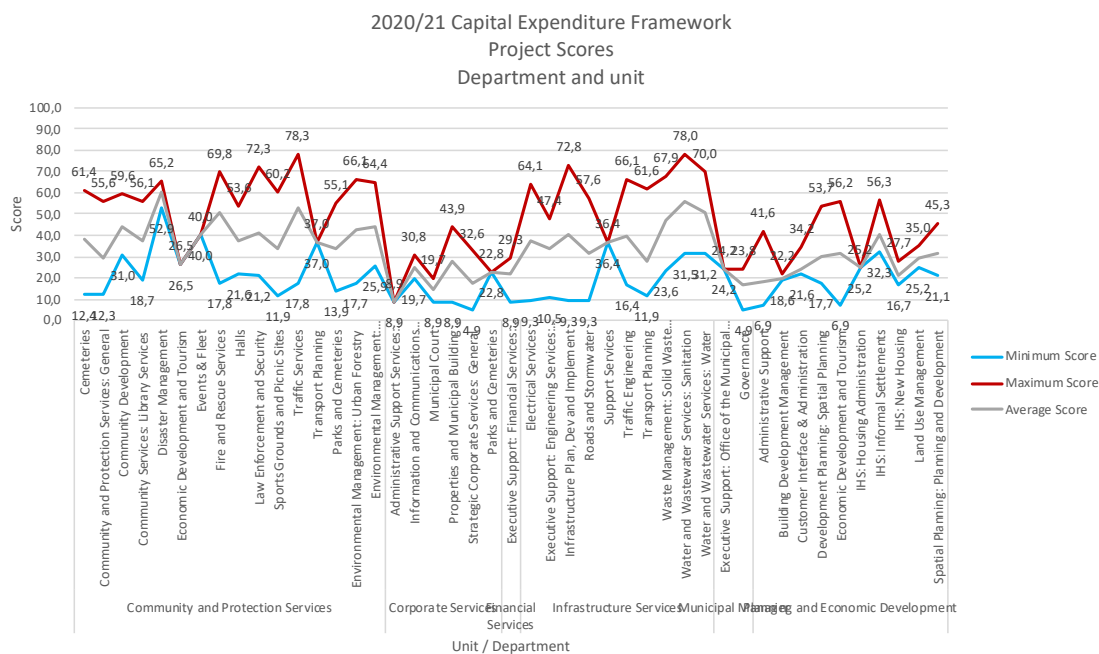


Figure 79: Prioritisation model results – Score per department

Table 66: Prioritisation model results

Unit / Department	Minimum Score	Maximum Score	Average Score
Community and Protection Services	11,9	78,3	39,5
Cemeteries	12,4	61,4	37,9
Community and Protection Services: General	12,3	55,6	29,6
Community Development	31,0	59,6	44,1
Community Services: Library Services	18,7	56,1	37,6
Disaster Management	52,9	65,2	60,2
Economic Development and Tourism	26,5	26,5	26,5
Events & Fleet	40,0	40,0	40,0
Fire and Rescue Services	17,8	69,8	50,8
Halls	21,6	53,6	37,1
Law Enforcement and Security	21,2	72,3	41,3
Sports Grounds and Picnic Sites	11,9	60,2	33,6
Traffic Services	17,8	78,3	52,7
Transport Planning	37,0	37,0	37,0
Parks and Cemeteries	13,9	55,1	33,5
Environmental Management: Urban Forestry	17,7	66,1	42,5
Environmental Management: Implementation	25,9	64,4	44,2

Unit / Department	Minimum Score	Maximum Score	Average Score
Corporate Services	4,9	43,9	25,6
Administrative Support Services: Communications	8,9	8,9	8,9
Information and Communications Technology (ICT)	19,7	30,8	24,9
Municipal Court	8,9	19,7	14,3
Properties and Municipal Building Maintenance	8,9	43,9	27,6
Strategic Corporate Services: General	4,9	32,6	17,2
Parks and Cemeteries	22,8	22,8	22,8
Financial Services	8,9	29,3	22,2
Executive Support: Financial Services: General	8,9	29,3	22,2
Infrastructure Services	9,3	78,0	37,2
Electrical Services	9,3	64,1	37,7
Executive Support: Engineering Services: General	10,5	47,4	33,6
Infrastructure Plan, Dev and Implement	9,3	72,8	40,0
Roads and Stormwater	9,3	57,6	31,4
Support Services	36,4	36,4	36,4
Traffic Engineering	16,4	66,1	39,9
Transport Planning	11,9	61,6	28,0
Waste Management: Solid Waste Management	23,6	67,9	47,1
Water and Wastewater Services: Sanitation	31,5	78,0	55,9
Water and Wastewater Services: Water	31,2	70,0	50,8
Municipal Manager	4,9	24,2	18,7
Executive Support: Office of the Municipal Manager	24,2	24,2	24,2
Governance	4,9	23,8	16,8
Planning and Economic Development	6,9	56,3	29,0
Administrative Support	6,9	41,6	18,5
Building Development Management	18,6	22,2	19,8
Customer Interface & Administration	21,6	34,2	24,0
Development Planning: Spatial Planning	17,7	53,7	29,7
Economic Development and Tourism	6,9	56,2	31,4
IHS: Housing Administration	25,2	25,2	25,2
IHS: Informal Settlements	32,3	56,3	40,0
IHS: New Housing	16,7	27,7	21,3
Land Use Management	25,2	35,0	29,0
Spatial Planning: Planning and Development	21,1	45,3	31,5
Grand Total	4,9	78,3	35,6

8.6.3 Scores Distribution

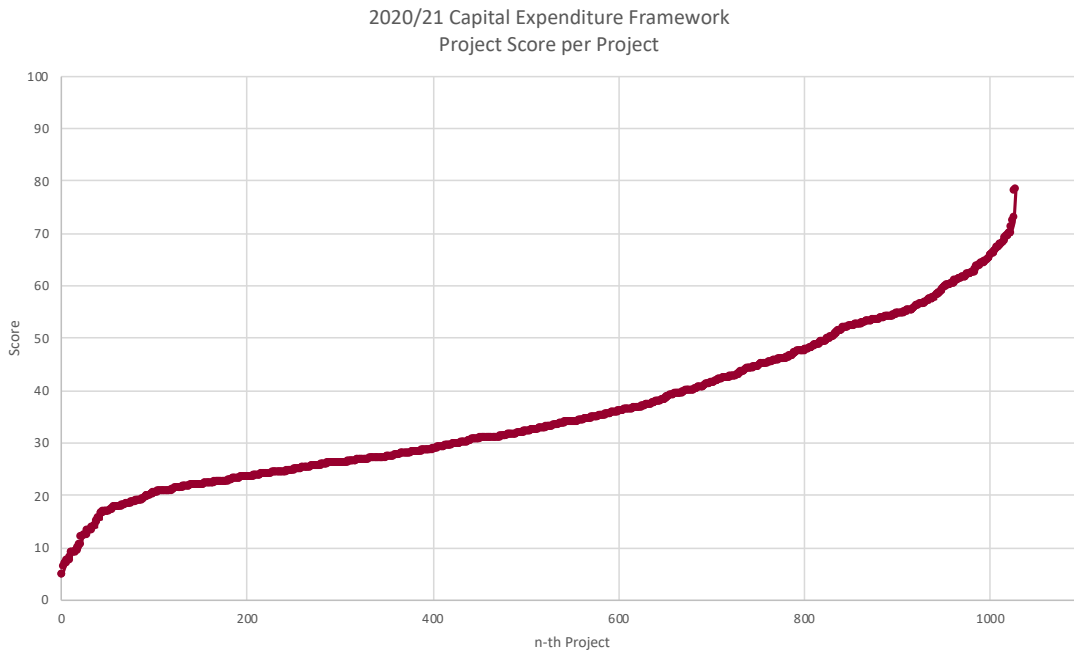


Figure 80: Project Score Distribution – per score

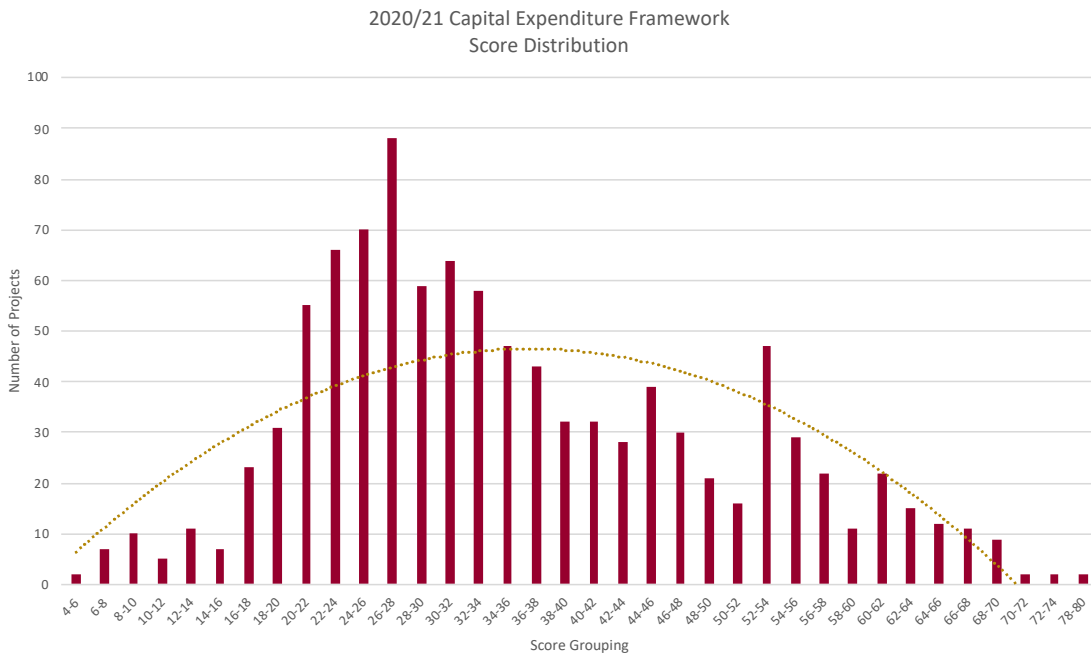


Figure 81: Project Score Distribution – per number of projects in score category

The project scores emanating from the Stellenbosch CPM approximates a normal distribution, which is indicative of the following:

- The prioritisation model is not bias towards any project;
- The prioritisation model evaluates projects on a scientific basis, and;

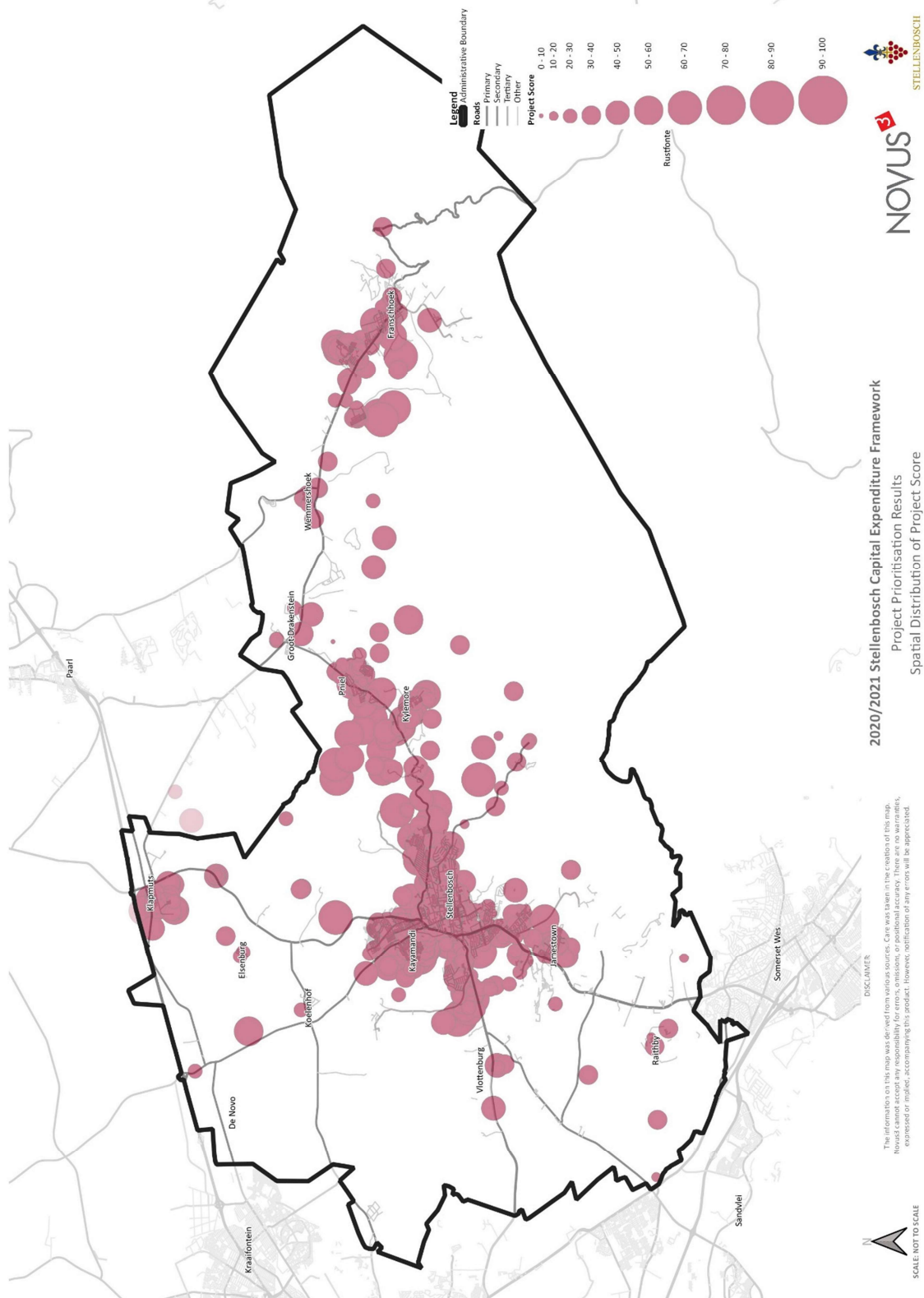
The fundamental data captured for projects is sufficient for a prioritisation.

8.6.4 Scores Distribution: Spatial distribution

One of the key benefits of the prioritisation model is that it enables alphanumeric and spatial data analytics, which means that spatial inputs are used to prioritise projects. Spatial prioritisation and budget alignment is not only a prerequisite in terms of SPLUMA, but it is also a policy imperative for the IUDF – therefore, spatially-based prioritisation enables true spatial targeting.

Considering the spatial parameters used in the CPM, it is not surprising to see that projects within the FAs, and PDAs scored higher than projects in the commercial farming areas. This is as a result of the increased emphasis and weighting on these criteria within the CPM. It is important to take note of the following when interpreting the spatial distribution of project prioritisation scores:

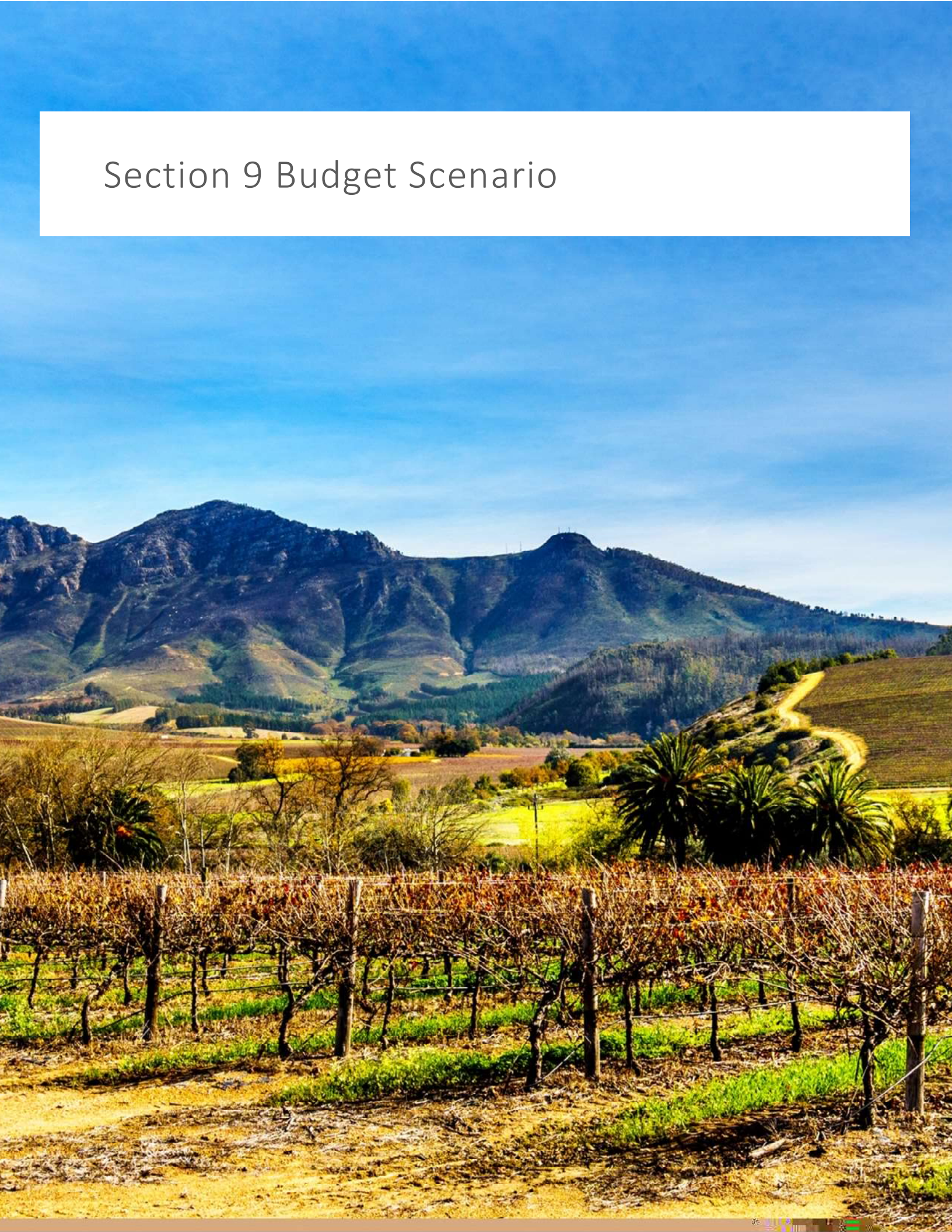
- Projects' geo-referenced locations are captured on CP3 as either a point, line or polygon geometry;
- Project geo-referenced locations were reduced to the centroid of each project location for aggregation and displaying purposed, and;



Project score distribution locations are therefore an approximation of a project's location, and not an absolute indication of the project's location or implementation area.

Map 20: Project Prioritisation Results - Spatial

Section 9 Budget Scenario



9 Budget Scenario

9.1 Contextualisation

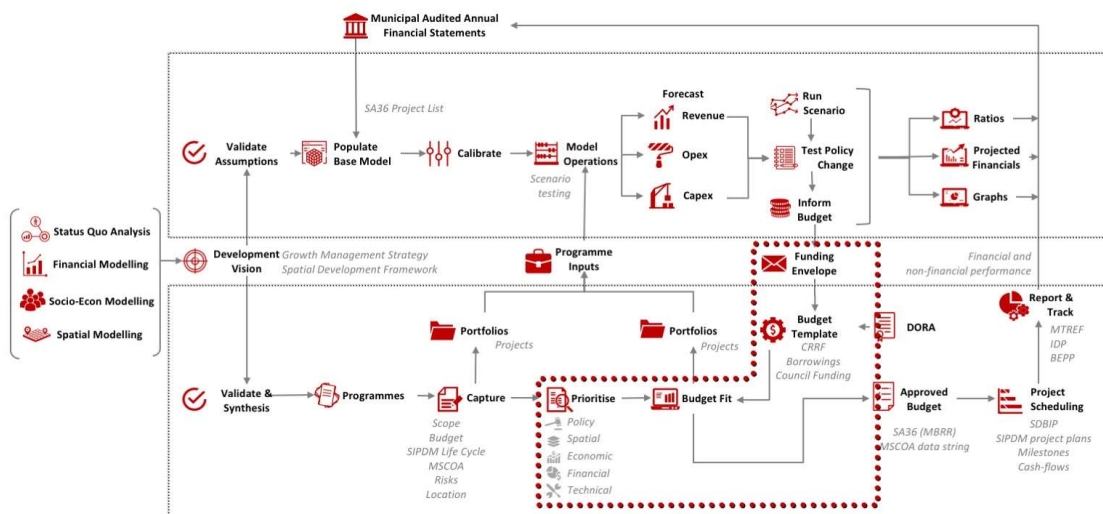


Figure 82: Budget Scenario

*“Improved processes for municipal planning and budgeting empower a municipality to make more informed decisions and are fundamental to sustainable and efficient service provision.
 - The generic municipal budget cycle is set out in the MFMA and described in MFMA circular 19.”*

National Treasury Local Government Budget and Expenditure Review: 2006/07 – 2012/13

The previous section explained the purpose of the CP³ Capital Prioritisation Model (CPM) as a systematic and objective methodology that provides a way to rank a diverse set of projects into an order of importance based on each project’s alignment to the strategic, spatial, social, economic, and financial objectives of the municipality. However, this process alone does not result in a capital budget for the municipality. The ranking of projects is but one input into the budget scenario methodology.

The purpose of this section of the Capital Expenditure Framework is to discuss the methodology, rule set and criteria used during the budget scenario process as well as to demonstrate how different choices regarding the budget scenario strategies will result in different capital budget results.

The budget scenario methodology can be summarised in a schematic diagram shown in the figure below. Essentially the budget scenario methodology is a systematic application of a set of rules and parameters which will result in a project either being added to the draft budget or rejected from the draft budget portfolio.

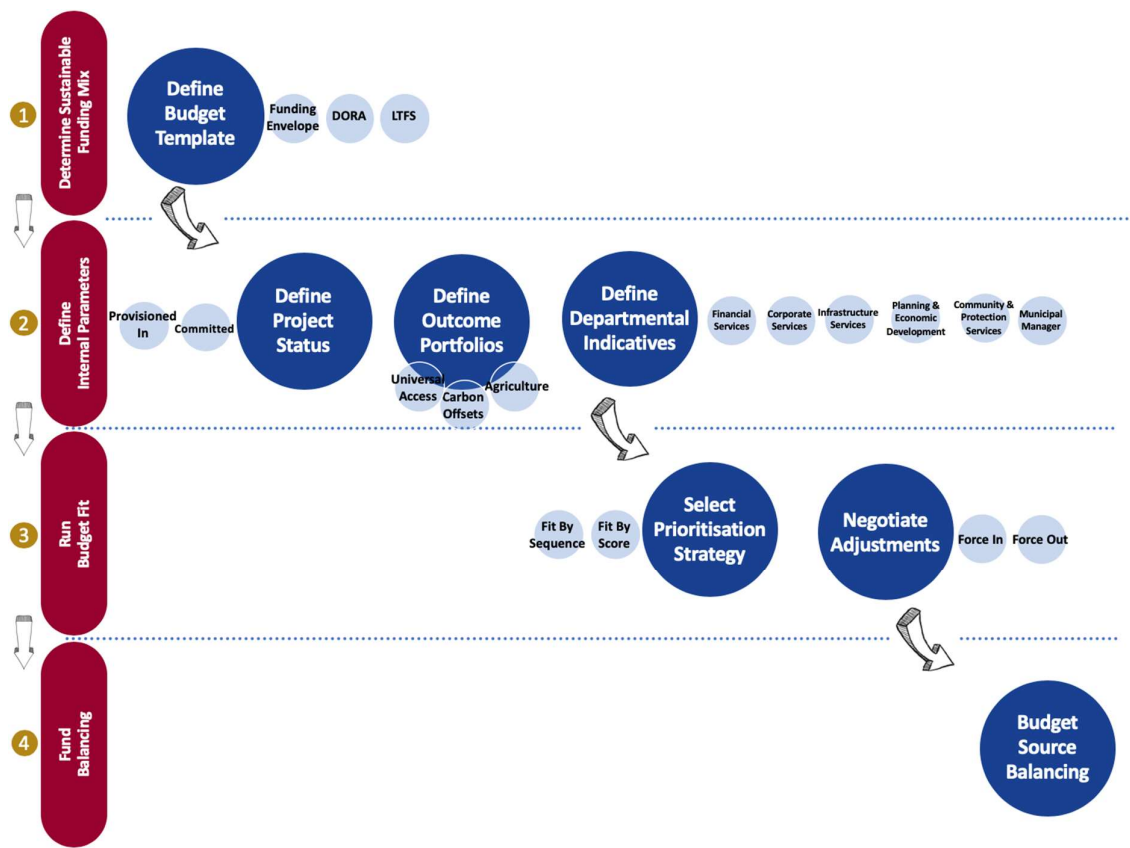


Figure 83: budget scenario methodology

9.2 budget scenario parameters

The following parameters all take part within the budget scenario process:

9.2.1 Affordability Envelope

The affordability envelope is the sustainable and financially tested total budget that should be maintained by the municipality. If the capital budget exceeds this total, the municipality could encounter some unforeseen circumstances in future that will compromise its financial sustainability.

The parameters of the affordability envelope determine the strategy used for budget scenario. It is possible to express the affordability envelope in terms of:

- Portfolios;
- Stages;
- Departments; and
- Total budget per year.

In each of the above-mentioned strategies, the total budget available are determined by either a Portfolio, Stage, or Department, or a combination of the different strategies. The sequence in which these strategies are organised, also determine the outcome of the budget scenario process. If no

strategy applies, or if a strategy's budget is depleted, the total budget parameter per year is utilised. Once the total budget parameter per year has been depleted, projects will obtain a "No Fit" status.

9.2.2 Project Score

Project scores has been determined as described in a previous section in this document. The purpose of a project score is to determine a relative ranking between all the projects with a capital demand. Projects with the highest score has the first opportunity to be allocated budget.

9.2.3 Project Status

Within the budget scenario, projects can be allocated a specific status based on the previous MTREF. These statuses are:

- **Committed** - Committed projects are those projects which formed part of either the approved capital budget (Annexure A) or the adjusted capital budget (Annexure B) of the municipality for the previous financial year, and which are contractually committed as assets under construction. Termination of any committed projects will result in either legal or financial liability for the municipality. Given commitments made on these projects by the municipality, the budget scenario methodology regards these projects as non-negotiable, irrespective of their CPM project score. Furthermore, projects that fall under this category will be fitted to the capital budget in the financial year in which they request money (no delays may be applied) and they may exceed the municipal, portfolio or departmental cap which have been applied in the template.
- **Provisioned In** - Provisioned projects are those projects which formed part of either the approved capital budget (Annexure A) or the adjusted capital budget (Annexure B) of the municipality for the previous financial year, but which are not contractually committed as assets under construction. Termination of any provisioned projects will not result in either legal or financial liability for the municipality. The budget scenario methodology regards these projects as having a higher priority than normal projects in the list (given their status received during previous MTREF budget publications) however their implementation timeframes are negotiable to an extent. Projects that fall under this category will be fitted to the capital budget in the financial year in which they request money only if there is sufficient capital budget available in the capital budget template and they may not exceed the municipal, portfolio or departmental cap which have been applied in the template. If the capital budget requests exceed the municipal capital budget template either at a municipal, portfolio or departmental indicative level, then provisioned projects may be fitted with delay to a financial year where there is sufficient municipal capital budget cap available.

9.2.4 Year of Budget Request

Projects has a specific budget request in a specific year, or a specific budget request over a period of years. The unique combination of budget request versus budget year is considered in the budget scenario process.

9.2.5 Project Budget Request

The project budget request is used to compile a MTREF budget, and is captured across the total lifecycle of the project.

9.3 budget scenario process

The following process explains how the above-mentioned parameters interact in order to compile a budget.

9.3.1 Step 1: Define a DORA MTREF Budget Template

The first step of the budget scenario process is a mandatory step required to determine the municipal capital budget cap or total amount of available capital funding for the Medium-Term Revenue and Expenditure Framework (MTREF). This is usually informed by a number of sources:

9.3.1.1 *Division of Revenue Act (DORA)*

The Division of Revenue Act is published on an annual basis with the distinct purpose to document the equitable share and grant allocations to municipalities. The exact publication dates of the DORA may differ from year to year. The DORA publication will therefore set out all the external available capital funding for the municipality emanating from the national and provincial budgets. Typical funding sources for the municipal capital budget emanating from the DORA publication include:

- Public Transport Infrastructure Systems Grant (PTIS);
- Neighbourhood Development Partnership Grant (NDPG);
- Urban Settlements Development Grant (USDG);
- Integrated National Electrification Programme (INEP);
- Community Library Services (CLS);
- Social Infrastructure Grant (SIG);
- LG SETA Discretionary Allocation;
- Integrated City Development Grant (ICDG); and
- Housing Delft Grant.

9.3.1.2 *Stellenbosch Long Term Financial Strategy*

All internally generated capital budget funding is determined through financial modelling undertaken by the Stellenbosch Local Municipality as part of their submissions to National Treasury on the Municipal Budget Reporting Regulations templates. Internal capital budget funding typically comprises the following funding sources:

- Own Municipal Funding: Funding generated from municipality revenue (i.e. rates and taxes).
- Public Contributions and Donations: Donations and bulk services contributions for capital expenditure to provide additional bulk capacity to service new developmental demand.
- Capital Replacement Reserves (CRR): Savings by the municipality for deferred capital expenditure to maintain the existing municipal asset base.

- **Borrowings:** External loans from the financial markets or bonds issued by the municipality to the financial markets.

It is important to note that not all projects are eligible to utilise all funding sources. For example, the PTIS grant is only applicable to infrastructure directly supportive of public transport and the INEP grant is only applicable to electrification programmes and projects. Therefore, although the budget template cap for the municipality is equal to the sum of the DORA publication and all internal capital funding sources, a funding source balancing exercise should be undertaken prior to publishing the final budget in order to ensure that only projects eligible for certain grants are funded by those grants.

The Stellenbosch Long Term Financial Modelling also results in a Long Term Financial Strategy which evaluates amongst others the Stellenbosch Local Municipality financial position and calculate what the optimal funding mix should be per annum, in order to maintain a desirable financial situation.

9.3.2 Step 2: Define project Committed or Provisional Status

The next step in the budget scenario process is regarded as an optional step, given that the municipality may decide to prepare a budget which either includes or excludes the budget scenario impact of multi-year capital project commitments. In reality, no budget preparation process is undertaken in isolation and the effect or commitments published in the previous financial year's approved capital budget (Annexure A) or the mid-year adjusted budget (Annexure B), will have an effect on the availability of capital funding for new projects to enter the budget list.

The municipality's CP3 system allows for two different project statuses during budget scenario in order to account for the multi-year budget effect of projects which were previously published as part of either the approved or adjusted municipal capital budget:

- **Committed Projects**

Committed projects are those projects which formed part of either the approved capital budget (Annexure A) or the adjusted capital budget (Annexure B) of the municipality for the previous financial year, and which are contractually committed as assets under construction. Termination of any committed projects will result in either legal or financial liability for the municipality. Given commitments made on these projects by the municipality, the budget scenario methodology regards these projects as non-negotiable, irrespective of their CPM project score. Furthermore, projects that fall under this category will be fitted to the capital budget in the financial year in which they request money (no delays may be applied) and they may exceed the municipal, portfolio or departmental CP3 which have been applied in the template.

- **Provisioned Projects**

Provisioned projects are those projects which formed part of either the approved capital budget (Annexure A) or the adjusted capital budget (Annexure B) of the municipality for the previous financial year, but which are not contractually committed as assets under construction. Termination of any provisioned projects will not result in either legal or financial liability for the municipality. The budget scenario methodology regards these projects as having a higher priority than normal projects in the list (given their status received during previous MTREF budget publications) however their implementation timeframes are negotiable to an extent. Projects that fall under this category will be fitted to the capital budget in the financial year in which they request money only if there is sufficient capital budget available in the capital budget template and they may not exceed the municipal, portfolio or departmental CP3 which have been applied in the template. If the capital budget requests exceed the municipal capital budget template either at a municipal, portfolio or departmental

indicative level, then provisioned projects may be fitted with delay to a financial year where there is sufficient municipal capital budget cap available.

From the above it is evident that the classification of committed and provisioned status of projects may have a profound impact on the content of the capital project budget list. For example, if the entire adjusted budget capital project list of the municipality is regarded as committed, then the only discretionary expenditure available to the municipality will be the difference between the adjustment budget bottom line for year 2 and year 3 of the MTREF and the available capital budget sources, as well as the total budget cap for year 3 of the MTREF, given that the adjusted budget publication does not extend to the third year of the new MTREF budget.

9.3.3 Step 3: Define Outcome Portfolios

The budget template which is the primary input to the budget scenario also allows the municipality to define capital budget amounts for key portfolios. The definition of portfolios and setting up budget cap amounts per portfolio is also an optional step in the budget scenario process. These budget amounts will be ring-fenced for these portfolios and only projects which are earmarked to form part of those portfolios may compete for those budget amounts. For example, suppose the municipality executives decide that 15% of the total municipal budget must be ring-fenced for repairs and maintenance of existing assets. The budget template could be used to ring-fence 15% of the total capital budget for a portfolio called “Repairs and Maintenance”.

During the budget preparation period, projects would be classified as contributing to the “Repairs and Maintenance” portfolio by virtue of their MSCOA project segment classification. When the budget scenario is executed, projects which belong to the “Repairs and Maintenance” portfolio will be fitted to the budget in order of highest CPM score to lowest CPM score until the budget cap of the “Repairs and Maintenance” portfolio has been reached.

This does not mean that no other repairs and maintenance projects will be fitted to the capital budget. It simply means that their preferential treatment during the budget scenario process has been depleted and that the remaining repairs and maintenance projects will have to compete on an even basis with other capital requests based on their CPM score.

Setting up of various portfolio budget CP3 based on the outcome which is achieved by each of the portfolios is one mechanism by which a municipal capital budget could be generated based on the desired outcomes which the municipality advocates in their strategic documents.

9.3.4 Step 4: Define Departmental Indicatives

The fourth step in preparing the budget scenario template allows for the municipality to set departmental budget CP3 or indicatives. The setting of budget cap amounts per department is also an optional step in the budget scenario process. Departmental CP3 can be set for all departments or only for some departments. For example, some projects have difficulty competing effectively for budget owing to their nature. Capital investments in the form of library books may struggle to compete on a CPM score basis with utility services projects such as water and sanitation or electricity.

Setting of departmental indicatives or departmental budget CP3 could be an alternative strategy to provide a minimum budget threshold amount for departments who struggle to compete effectively for capital budget based on the CPM project score. The budget scenario mechanism for departmental indicatives or departmental CP3 works on much the same basis as the portfolio CP3. The departmental budget amounts will be ring-fenced per department and only projects which are earmarked to form part of those departments may compete for those budget amounts. When the budget scenario is

executed, projects which belong to the ring-fenced departments will be fitted to the departmental budget cap in order of highest CPM score to lowest CPM score until the budget cap of that department has been reached.

9.3.5 Step 5: Select Prioritisation Model Run / Results

The prioritisation model (including the Economic Impact Model) must be run prior to undertaking any form of budget scenario. Therefore, the selection of a prioritisation model and its associated results is a mandatory step in any budget scenario process.

When the budget scenario is executed, as a rule, projects will be in order of highest CPM score to lowest CPM score until the municipal, portfolio or departmental budget CP3 has been reached, depending on the budget template which has been specified.

A visualisation of the budget scenario result is shown below. This shows the ranking of projects from highest CPM priority (on the right) to lowest CPM priority (on the left). Each project is shown as a stacked bar in bar graph format, where the sum of the MTREF financial year capital requests for the projects (total MTREF capital budget) is shown as the height of the bar.

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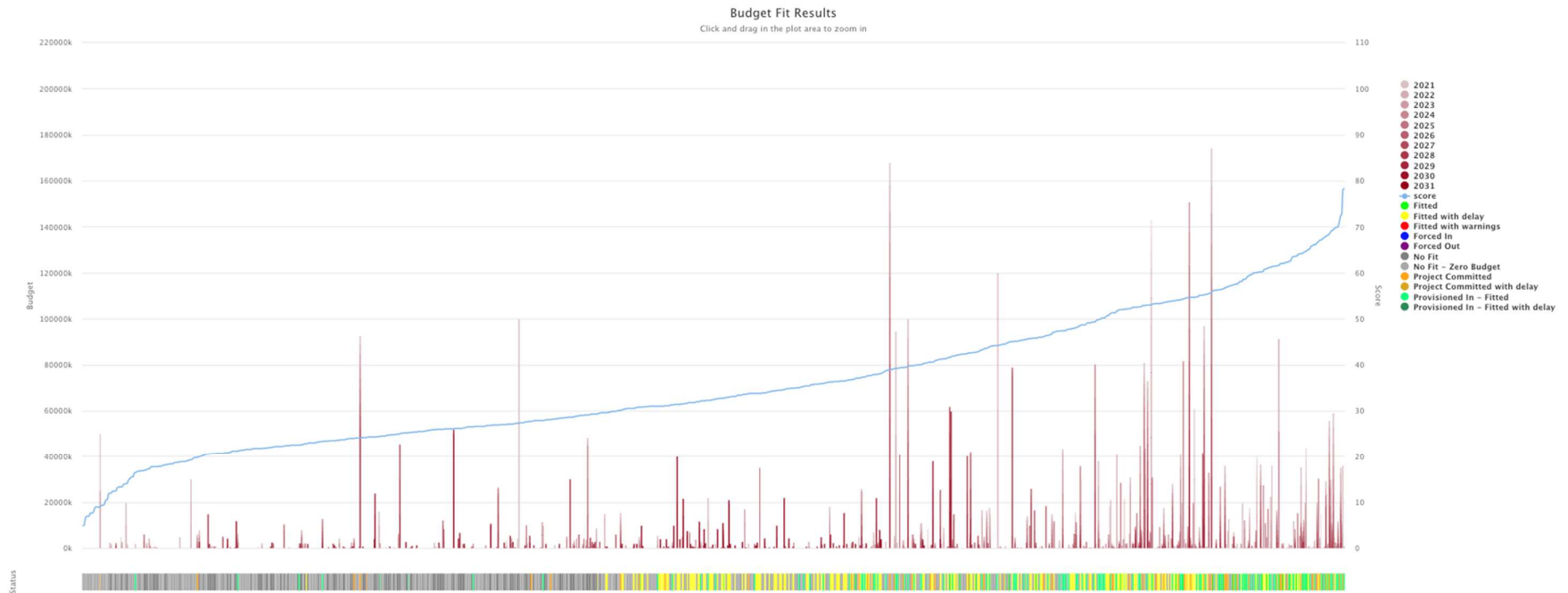


Figure 84: budget scenario results

³⁵ The budget scenario results graph is an interactive graph that can be accessed via the CP3 system used by the City.

The budget scenario status of each project, after executing of the budget scenario routine, is shown below the bar graph in colours. Each colour represents a different status. In the example provided, the orange projects represent committed projects, which means they were fitted irrespective of their CPM project score in the financial year in which they requested budget.

Green projects represent projects which were fitted based on their CPM project score in the year which they requested funding, given that there was available capital budget available in that financial year. The yellow projects represent projects that were fitted with delay. These projects received high scores on the CPM but there was not sufficient budget available in the financial year in which they requested capital funding, therefore the budget scenario routine fitted them to a financial year later than they requested budget, where sufficient available capital budget was available in the budget template.

Eligible status include:

- **Committed:** Committed projects are those projects which formed part of either the approved capital budget (Annexure A) or the adjusted capital budget (Annexure B) of the municipality for the previous financial year, and which are contractually committed as assets under construction. Termination of any committed projects will result in either legal or financial liability for the municipality.
- **Provisioned-In:** Provisioned projects are those projects which formed part of either the approved capital budget (Annexure A) or the adjusted capital budget (Annexure B) of the municipality for the previous financial year, but which are not contractually committed as assets under construction. Termination of any provisioned projects will not result in either legal or financial liability for the municipality.
- **Provisioned-in with delay:** Provisioned projects are those projects which formed part of either the approved capital budget (Annexure A) or the adjusted capital budget (Annexure B) of the municipality for the previous financial year, but which are not contractually committed as assets under construction. Termination of any provisioned projects will not result in either legal or financial liability for the municipality and are therefore delayed in the budget scenario process. A project will then be delayed to a financial year where the budget cap total has not been exceeded.
- **Fit:** Projects that enjoy the status “fit” are projects that scores highest in relation to the remaining projects to be fit, with the provision that the budget cap total has not been exceeded.
- **Fit with Delay:** Projects that enjoy the status “fit with delay” are projects that scores highest in relation to the remaining projects to be fit, with the exception that the budget cap total for the year in which the project requests budget has been exceeded. A project will then be delayed to a financial year where the budget cap total has not been exceeded.
- **No Fit:** This status is assigned to projects that were not able to qualify for budget.
- **No Fit – Zero Budget:** This status is assigned to projects that do not request budget.

9.3.6 Step 6: Negotiated adjustments (Force-in / Force-out)

Once a draft capital budget has been developed using the budget scenario process, the portfolio of projects which make up the draft capital budget needs to undergo a number of municipal approvals.

It is inconceivable that any portfolio of capital projects which has been prepared in a complex multi-disciplinary collaborative framework will meet all the expectations. Therefore, a negotiated

adjustment process is accommodated in the budget scenario process whereby projects can be added or removed from the portfolio of capital projects based on motivations and representations made during budget forums.

9.3.7 Step 7: Budget Source Balancing

The last step in the budget scenario process is to ensure that all available funding sources documented in the budget scenario Template have been utilised in full and that none of the funding sources are over-subscribed. The funding source balancing is also the last check to ensure that all projects which are linked to grant funding are eligible according to the funding definitions and rules as set out in the Division of Revenue Act (DORA).

9.4 Budget Scenario Results Analysis

9.4.1 Planned capital expenditure review

Overall planned capital expenditure was estimated at R6,0 Bn over the planning period, subsequent to the second capital demand capturing cycle. This, although already in excess of the affordable capital expenditure forecasted, represents only those planned capital expenditure which are captured in the CP3 system. The annual planned capital expenditure can be expressed as follows:

Table 67: Planned Capital Expenditure and Affordable Capital Expenditure

Year	Planned Capital Expenditure	%
2020/2021	R721 785 076	12%
2021/2022	R698 492 030	12%
2022/2023	R628 843 580	10%
2023/2024	R735 459 363	12%
2024/2025	R570 881 401	9%
2025/2026	R531 788 364	9%
2026/2027	R604 008 592	10%
2027/2028	R547 032 074	9%
2028/2029	R563 960 613	9%
2029/2030	R410 858 322	7%
Total	R6 013 109 416	100%

This planned capital expenditure should be considered in light of an affordable capital programme of R 4 150 million, as forecast by the Long Term Financial Model taking into account the 2019/20 Capital Expenditure Framework of Stellenbosch.

9.4.2 Budget Scenario Results

9.4.2.1 Fit Status

Table 68: Fit Status

Budget Scenario Status	Total during analysis period	Total %
Fitted	R331 486 898	6%
Fitted with delay	R1 788 436 438	33%
No Fit	R1 002 376 247	18%
No Fit - Zero Budget	R-	0%
Committed	R1 077 228 900	20%
Provisioned In - Fitted	R1 238 983 097	23%
Total	R5 438 511 581	100%

Table 68 expresses the capital budget after applying the budget scenario mechanism as described in the sub-section leading up to the budget scenario results. It shows that 49% of the capital demand has been assigned in the same year as it requests. 20% Of the capital demand however is Committed, which means it is projects with a higher priority than other projects and so were firstly eligible to the funding envelope. This means that the funding envelope were significantly smaller for other planned capital expenditure. It is because of the previously mentioned fact that 33% of the capital has been fit, but with a delay.

18% Of capital demand has not been fit over the 10 years. It is important to notice, that the following scenario would have realised if the funding envelope was bigger:

- the bigger the funding envelop, the less projects will be fit with delay, which means that capital demand will roll out as capital assets sooner, rather than later;
- The bigger the funding envelope, the less projects will not fit to the Capital Expenditure Framework at all, and;
- The bigger the funding envelope, the more projects will be fit to the Capital Expenditure Framework.

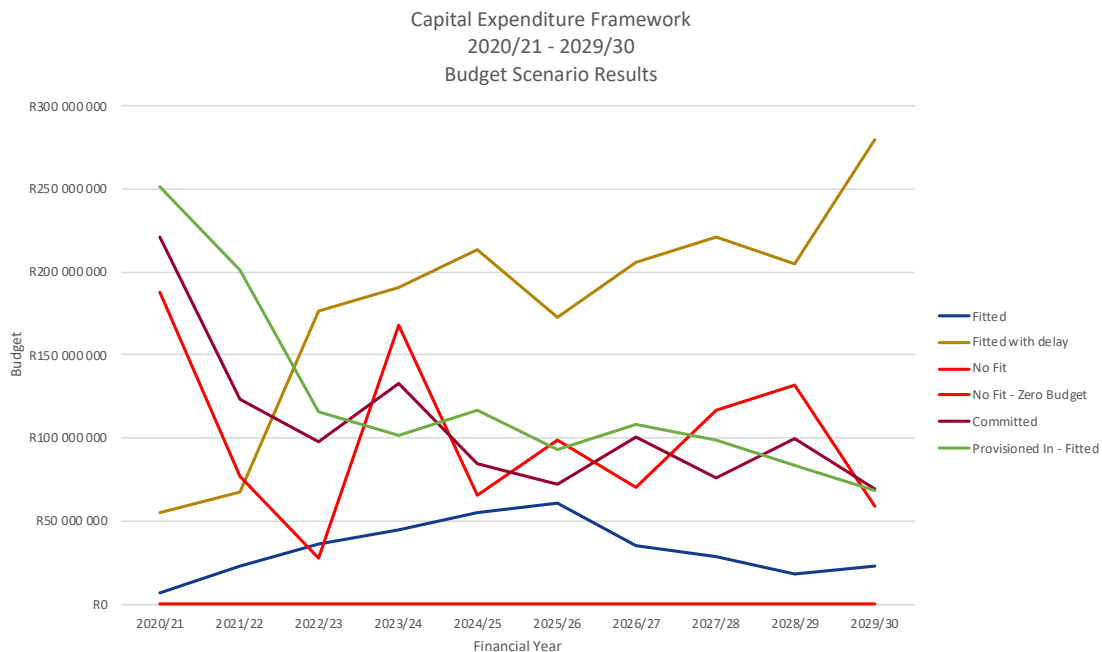


Figure 85: budget scenario status over time

The figure above represents the fit results as per the budget scenario applied. It can be interpreted as follows:

- **Committed:** In the first year, project that are currently under construction, still has contractual commitments and cannot be fit at any other stage without having a negative impact on the municipality. These projects therefore are allocated budget in the first year, and not at a later

stage over the 10 year period. These projects also have a long term effect in that it commits certain portions of each years available budget.

- **Provisioned in:** These projects receive the most budget in the first years as they are already declared on the MTREF. As time continues, these commitments decrease, and so does the capital requirement of these projects over time.
- **Fitted:** Between the first and second financial year there is a sharp increase in capital demand that is fitted. This is because of the finalisation of projects with a committed status. Once the commitments has been served, the funding envelope opens up capacity to fit new projects.
- **Fitted with delay:** In the first financial years almost no capital expenditure is allocated to projects with delay. That is because there is no capacity in the first year, and a Fit with Delay status can only be assigned to projects that are delayed. Fit with Delay budget gradually increase as the funding envelope opens up., and then decrease as the capital demand decrease.
- **No Fit:** Projects that do not fit are projects with the lowest score. This means that projects with higher score was fitted with delay. Once the funding envelopes has been depleted, these projects – the no fit projects – are not included in the budget scenario. It has a high proportion of the Capital demand in the first year, as the low scoring projects in this year compete with high capital demand assigned to statuses such as committed and provisioned in. It decrease sharply as more capital is fitted with delay.
- **No Fit – Zero Budget:** Even though these projects do not ask for any Capital Demand, they have been conceptualised and will reach a point of maturity in the next ten years where the will have a Capital Demand. It is therefore important to have sight of these projects on one single platform, together with the rest of the project pipeline.

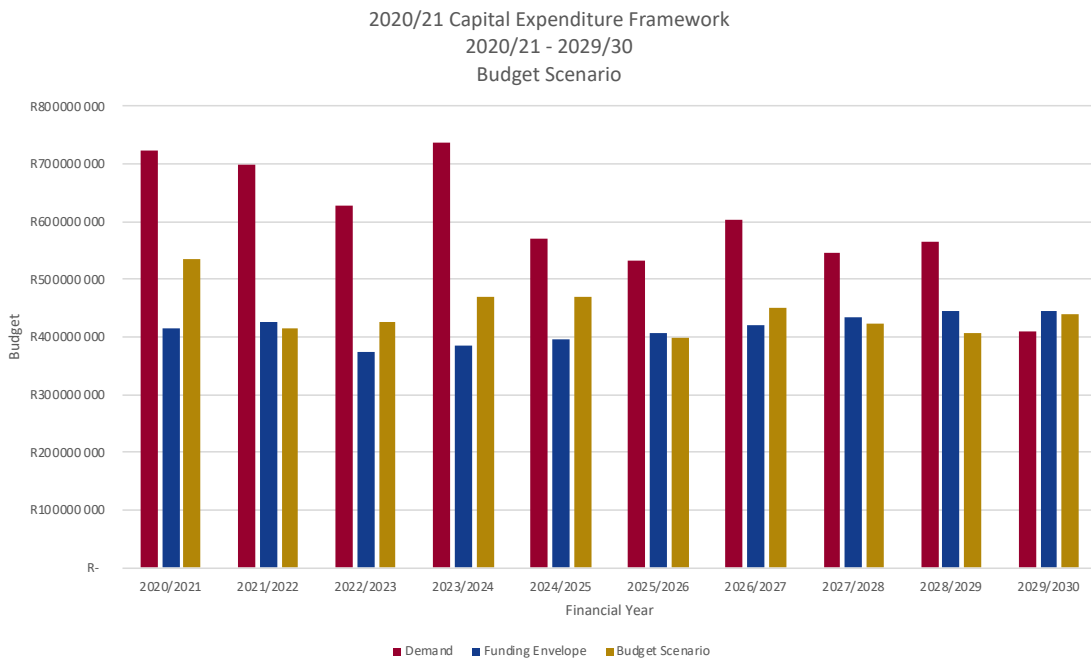


Figure 86: Planned capital expenditure vs funding envelope vs budget scenario results

Table 69: Planned capital expenditure vs funding envelope vs budget scenario results

Financial Year	Demand	Funding Envelope	Budget Scenario
2020/2021	R721 785 076	R414 612 759	R534 796 260
2021/2022	R698 492 030	R426 337 700	R415 019 562
2022/2023	R628 843 580	R374 000 000	R424 821 988
2023/2024	R735 459 363	R385 000 000	R470 221 953
2024/2025	R570 881 401	R397 000 000	R470 610 372
2025/2026	R531 788 364	R408 000 000	R398 923 043
2026/2027	R604 008 592	R421 000 000	R450 142 614
2027/2028	R547 032 074	R433 000 000	R424 041 406
2028/2029	R563 960 613	R446 000 000	R406 744 850
2029/2030	R410 858 322	R446 000 000	R440 813 285
Total	R6 013 109 416	R4 150 950 459	R4 436 135 333

From the graph above the following findings can be made:

- Planned capital expenditure exceed the desired funding envelope up to 2028/29 after which the available capital in terms of the funding envelope exceed the demand. The first four years has the highest proportion between planned capital expenditure and the funding envelope. This is because of the nature of forward planning and project budget estimation – project managers has more clarity and certainty on how much a project will cost in the near future versus a period further than that.
- In 2020/2021 the funding envelope is fitted to more than 100%. This means that the funding envelope is achieved, and that the municipality is planning to spend more than the funding envelope.
- In 2020/2021 the funding envelope is exceeded by the budget that is fitted. This is due to some projects that enjoy committed statuses and has a low first year capital demand, but increase in capital demand in the outer two years. These “trojan horses” should be reviewed as they place immense pressure on outer year budgets.

9.5 Budget profile

9.5.1 Contextualisation

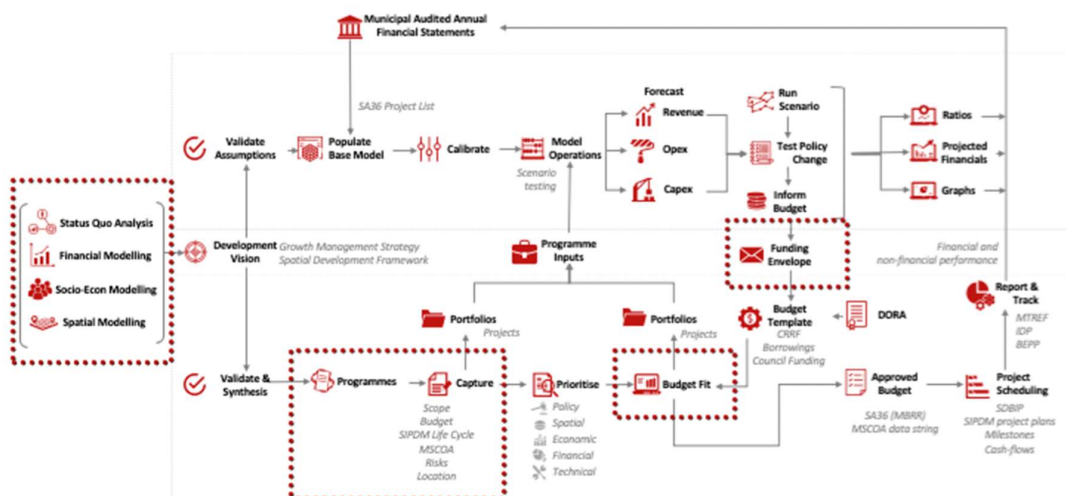


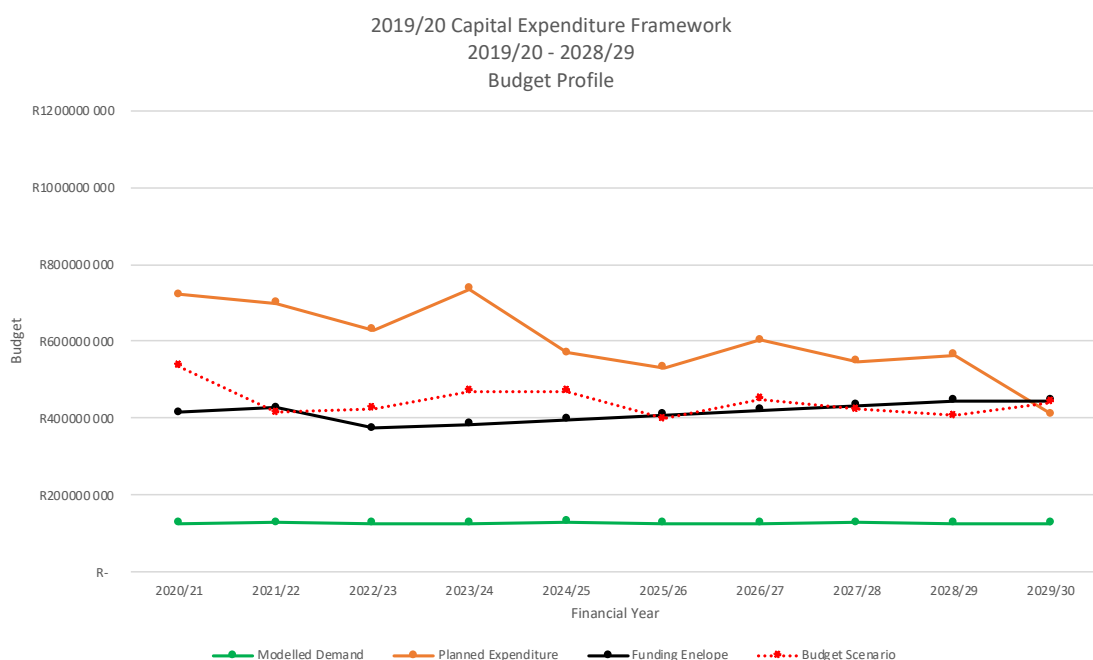
Figure 87: Budget profile input data

Four elements are used as input to the budget profile. This includes:

- Capital demand quantum modelling (Section 4);
- Planned capital expenditure (Section 5);
- Affordable envelope (Section 7), and;
- Budget scenario results (Section 9).

9.5.2 Key findings

Figure 88: Budget Profile



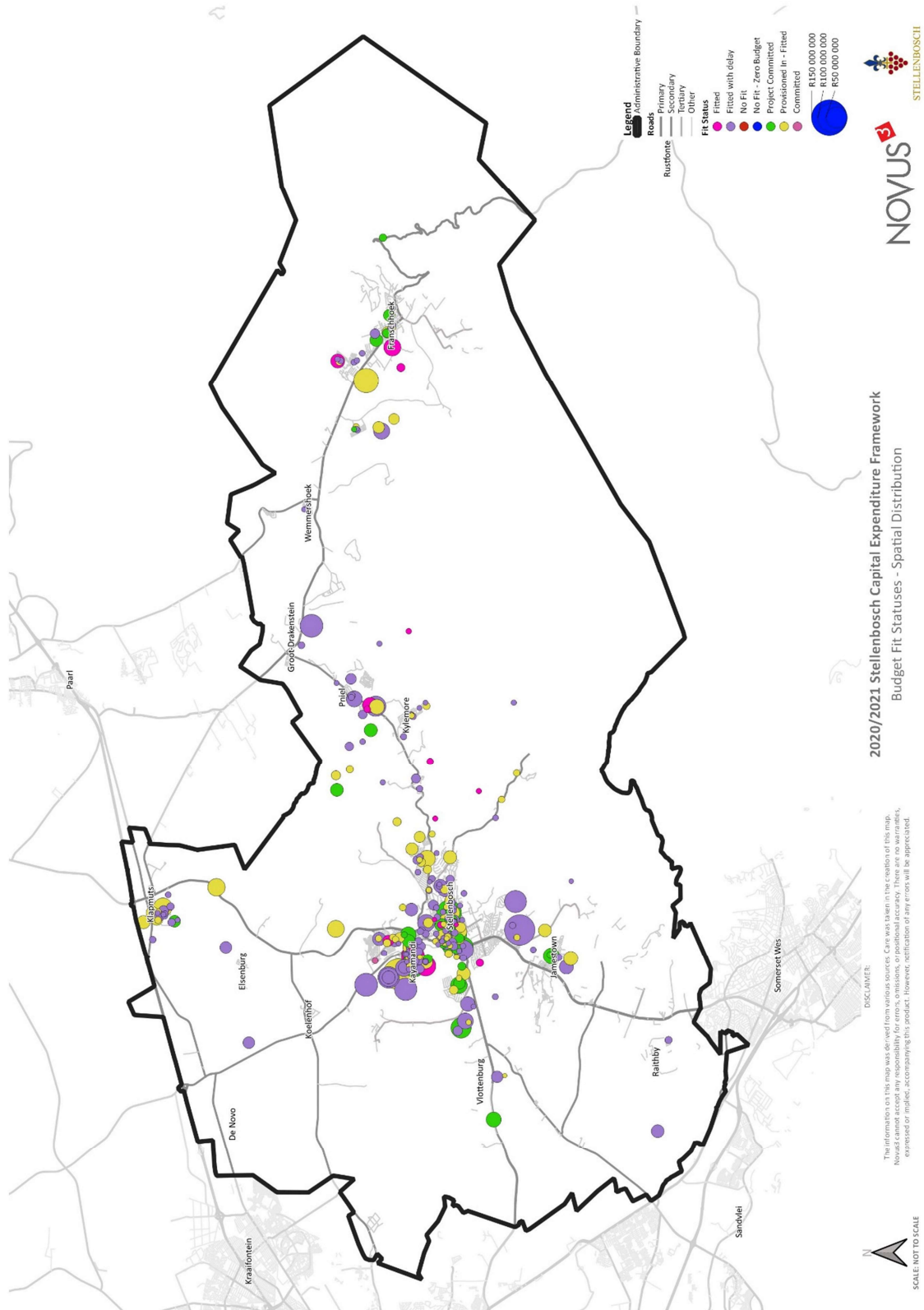
The budget profile is the culmination of the CEF, where the Modelled Demand, the Planned Capital Expenditure, the Funding Envelope and the Budget Scenario is compared over time.

- **Modelled Demand:** The modelled demand does not exceed the funding envelope. This means that the municipality can afford to deal with the modelled infrastructure demand based on the assumption that a dramatic influx of population will not be experienced in the short to medium term.
- **Planned Capital Expenditure:** The planned capital expenditure is significantly higher than what is affordable as per the funding envelope, and exceeds what is minimum requirements as per the modelled demand in terms of providing for the growing population of the municipality.
- **Funding Envelope:** The funding envelope that was proposed as per the Long Term Financial Plan was noted, however the first three years were increased. The assumption is, that even though the LTFP suggests a lower MTREF capital budget, the municipality was still able to find the necessary funds to allocate more funds in the first three years. From year 4 onward the budget scenario

aligns with the funding envelope, but reduce slightly in the last two financial years as there are not sufficient capital request eligible for these financial years.

- Budget Scenario: The budget scenario uses the funding envelope as guidance to fit projects to the affordable budget.

9.5.2.1 Fit Status: Spatial



Map 21: Budget scenario statuses - Spatial

From Map 21: above it can be seen that the spatial investment paradigm has realised through the Prioritisation and budget scenario methodology:

- Klapmuts: Most projects in this area either has no budget requested or are fit with delay. This highlight the fact that this future expansion node of Stellenbosch will enjoy capital expenditure, but the majority thereof will realise later on.
- Koelenhof: The Koelenhof node development is still in concept phase. One this area has a clear spatial vision, the municipality can respond with capital projects required to facilitate such expansion.
- Vlottenburg: The potential that boasts within this area is unprecedented. It is for that reason that most of the capital projects within the Vlottenburg area has been fit as per the budget scenario module of CP3.
- Stellenbosch Central: It is clear from the figure above that Stellenbosch central is house of a variety of projects, and so a variety of fit statuses is assigned to this part of the municipality.
- Franschoek: Small capital projects within the Franschhoek area has been fitted to the Capital Expenditure Framework. The majority has been fitted with delay which means that other projects across the municipality has been prioritised and fitted to the budget first.

Row Labels	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29
Community and Protection Services	R47 889 347	R39 480 000	R67 200 000	R62 045 000	R64 410 000	R57 320 000	R63 820 000	R35 595 000	R72 745 000
Cemeteries	R1 530 000	R8 000 000	R10 500 000	R10 000 000	R5 000 000	R3 000 000	R2 000 000	R2 000 000	R1 000 000
Community Development	R585 000	R100 000	R560 000	R55 000	R60 000	R2 750 000	R50 000	R60 000	R570 000
Community Services: Library Services	R2 490 000	R170 000	R615 000	R250 000	R250 000	R450 000	R410 000	R-	R730 000
Disaster Management	R800 000	R-	R1 500 000	R-	R-	R-	R-	R-	R-
Fire and Rescue Services	R6 700 000	R-	R4 200 000	R5 500 000	R1 300 000	R-	R6 000 000	R1 400 000	R-
Halls	R250 000	R200 000	R950 000	R1 400 000	R1 350 000	R3 120 000	R740 000	R1 450 000	R2 050 000
Law Enforcement and Security	R8 000 000	R12 300 000	R7 450 000	R21 450 000	R11 450 000	R11 700 000	R8 750 000	R13 800 000	R8 850 000
Sports Grounds and Picnic Sites	R5 980 000	R5 980 000	R8 450 000	R3 625 000	R10 650 000	R6 820 000	R8 420 000	R8 120 000	R9 290 000
Traffic Services	R1 620 000	R2 010 000	R10 965 000	R1 755 000	R1 030 000	R2 140 000	R400 000	R2 575 000	R1 755 000
Transport Planning	R-	R-	R-	R-	R-	R-	R-	R-	R-
Parks and Cemeteries	R10 130 000	R5 800 000	R9 230 000	R10 180 000	R22 390 000	R14 210 000	R24 070 000	R2 160 000	R20 120 000
Environmental Management: Urban Forestry	R1 150 000	R1 750 000	R3 480 000	R2 980 000	R3 030 000	R5 230 000	R5 530 000	R1 030 000	R25 580 000
Environmental Management: Implementation	R8 654 347	R3 170 000	R9 300 000	R4 850 000	R7 900 000	R7 900 000	R7 450 000	R3 000 000	R2 800 000
Corporate Services	R39 450 000	R48 050 000	R11 650 000	R34 250 000	R9 300 000	R10 010 000	R24 950 000	R21 000 000	R74 200 000
Information and Communications Technology (ICT)	R5 100 000	R5 200 000	R6 600 000	R6 800 000	R6 800 000	R6 900 000	R6 900 000	R7 000 000	R53 000 000
Properties and Municipal Building Maintenance	R34 350 000	R42 850 000	R5 050 000	R27 450 000	R2 500 000	R3 100 000	R18 050 000	R14 000 000	R21 200 000
Parks and Cemeteries	R-	R-	R-	R-	R-	R10 000	R-	R-	R-
Financial Services	R850 000	R200 000	R200 000	R-	R-	R-	R-	R-	R-
Executive Support: Financial Services: General	R850 000	R200 000	R200 000	R-	R-	R-	R-	R-	R-
Infrastructure Services	R446 035 113	R327 026 762	R333 157 988	R368 902 953	R394 625 872	R328 298 043	R349 097 614	R345 146 406	R234 922 250
Electrical Services	R71 000 000	R72 977 862	R151 637 988	R94 612 953	R108 840 872	R90 110 043	R51 719 614	R56 016 406	R44 166 750
Executive Support: Engineering Services: General	R5 400 000	R15 000 000	R-	R-	R10 000	R40 010 000	R40 000 000	R-	R900 000
Infrastructure Plan, Dev and Implement	R45 955 682	R16 303 900	R13 025 000	R37 575 000	R63 575 000	R46 078 000	R61 578 000	R46 580 000	R61 905 500
Roads and Stormwater	R30 000 000	R16 000 000	R14 200 000	R17 300 000	R24 100 000	R22 800 000	R29 800 000	R33 800 000	R56 250 000
Traffic Engineering	R18 850 000	R15 050 000	R3 800 000	R2 500 000	R2 400 000	R2 750 000	R2 900 000	R4 500 000	R5 900 000
Transport Planning	R19 350 000	R6 350 000	R11 150 000	R10 750 000	R6 200 000	R32 400 000	R31 700 000	R33 800 000	R9 400 000
Waste Management: Solid Waste Management	R9 245 000	R23 745 000	R50 245 000	R36 665 000	R33 100 000	R12 700 000	R18 450 000	R7 950 000	R2 600 000
Water and Wastewater Services: Sanitation	R115 734 431	R92 850 000	R44 600 000	R57 600 000	R40 500 000	R18 000 000	R19 250 000	R39 300 000	R300 000
Water and Wastewater Services: Water	R130 500 000	R68 750 000	R44 500 000	R111 900 000	R115 900 000	R63 450 000	R93 700 000	R123 200 000	R53 500 000
Municipal Manager	R40 000	R44 000	R49 000	R-	R-	R-	R-	R-	R-
Executive Support: Office of the Municipal Manager	R40 000	R44 000	R49 000	R-	R-	R-	R-	R-	R-
Planning and Economic Development	R531 800	R218 800	R12 565 000	R5 024 000	R2 274 500	R3 295 000	R12 275 000	R22 300 000	R24 877 600
Administrative Support	R-	R-	R-	R-	R-	R1 000 000	R10 000 000	R20 000 000	R15 000 000
Development Planning: Spatial Planning	R-	R-	R-	R-	R-	R-	R-	R-	R255 000
Economic Development and Tourism	R285 000	R-	R4 500 000	R-	R-	R-	R-	R-	R5 000 000
IHS: Informal Settlements	R-	R-	R8 000 000	R5 000 000	R2 250 000	R2 270 000	R2 250 000	R2 270 000	R2 275 000
IHS: New Housing	R81 800	R93 800	R65 000	R24 000	R24 500	R25 000	R25 000	R30 000	R-
Land Use Management	R130 000	R125 000	R-	R-	R-	R-	R-	R-	R-
Spatial Planning: Planning and Development	R35 000	R-	R-	R-	R-	R-	R-	R-	R2 347 600
Grand Total	R534 796 260	R415 019 562	R424 821 988	R470 221 953	R470 610 372	R398 923 043	R450 142 614	R424 041 406	R406 744 850

Table 70: Capital Expenditure Framework – budget scenario Results

Section 10 Programme per Functional Area



10 Programme per Priority Development Area

10.1 Contextualisation

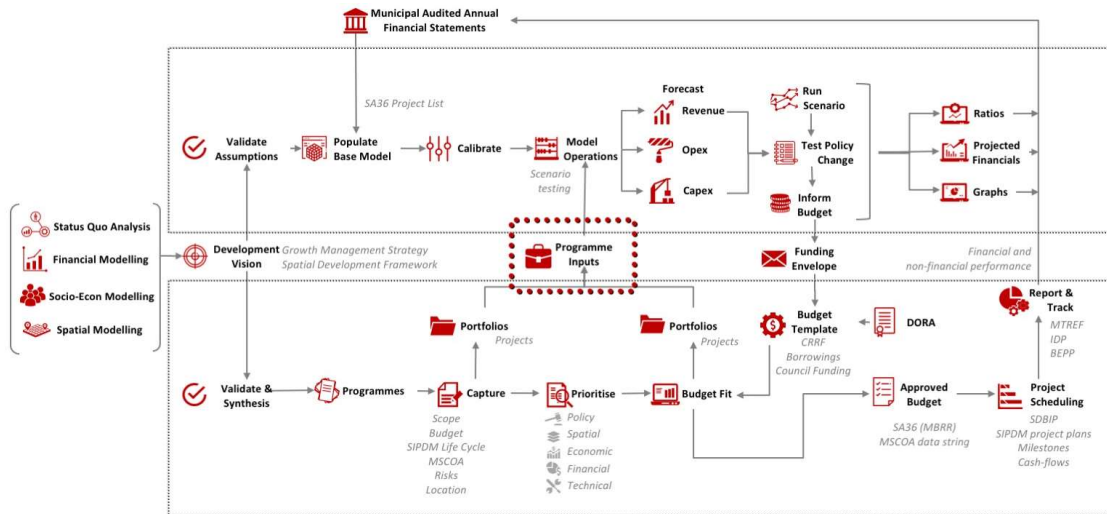


Figure 89: Programme analysis

The policies, plans and programmes of any sphere of government are part of a basic methodology developed in public administration for the rational performance of governmental functions entrusted by law to the Government. The policies, plans and programmes stand in a tiered or hierarchical relationship with one another:

- At the first level in this hierarchy lies the formulation of a governmental policy, which in essence identifies the desired outcome or goal of the governmental functions in question which the particular sphere of government is entrusted with;
- The second level in this hierarchy consists of the development of a plan, setting out the preferred strategy or pathway by means whereof the desired outcome or goal of the governmental functions in question will be pursued; in other words, the plan at this level manifests a strategic choice at a high level between the various options available for realising the adopted policy, inter alia taking into account the availability of resources, and;
- At the third level in this hierarchy then follows the identification of programmes, each of which details how various aspects of the approved plan will be implemented so that the desired outcomes or goals of the governmental functions in question can be achieved and the objectives of the adopted policy can be realised.

Within the context of this methodology, these three instruments (policies, plans and programmes) operate on a higher level of strategic assessment and decision-making. At the next level different projects are the implementation agents of programmes. Given the focus by government policy such as the National Development Plan, the Integrated Urban Development Framework and the Spatial Development Framework on spatial targeting, spatial justice, and spatial transformation projects are allocated to area based programmes to ensure an integrated view of project roll out and true integrated spatial development. To take a disciplinary based view of programmes revert planning methodology back to a per-line-function mentality within the municipality and so move away from the integrational effort of the IUDF and CEF, and toward the historic silo based planning style.

10.2 Investment paradigm

The investment paradigm of Stellenbosch Local Municipality is at its core rooted in the following:

- The Spatial Planning and Land Use Management Act; and
- The Spatial Development Framework.

It is necessary to consider all three of these guiding foundational elements of the Investment paradigm when evaluating the programmes per Priority Development Area.

10.2.1 SPLUMA Principles

The investment paradigm of Stellenbosch Local Municipality is informed by the principles of Spatial Planning and land Use Management Act (SPLUMA), and by the Integrated Urban Development Framework. The Spatial Planning and land Use Management Act set out the following principles to be applied in any organ of state that invest in space:

- Spatial Justice;
- Spatial Sustainability;
- Efficiency;
- Spatial Resilience; and
- Good Administration.

Stellenbosch adhered to the above mentioned principles by defining the investment paradigm as follow:

- Spatial Justice: To guide capital expenditure related to maintenance and renewal in settled areas within the municipality's jurisdiction but are not contributing to the desired urban structure of the municipality.
- Spatial Sustainability: Allocate capital expenditure in defined areas to realise integrated and compact urban form.
- Efficiency: Adhere to parameters set out in the Long-Term Financial Strategy in order to ensure capital expenditure that is in line with good financial practices and optimal usage.
- Spatial Resilience: Align capital expenditure at the hand of the Spatial Development Framework, which is developed with the intention to cope with any spatially based disturbance to the desired urban form.
- Good Administration: By implementing a municipal wide Capital Project Prioritisation and Performance platform, it is possible to track the implementation of the Capital Expenditure Framework.

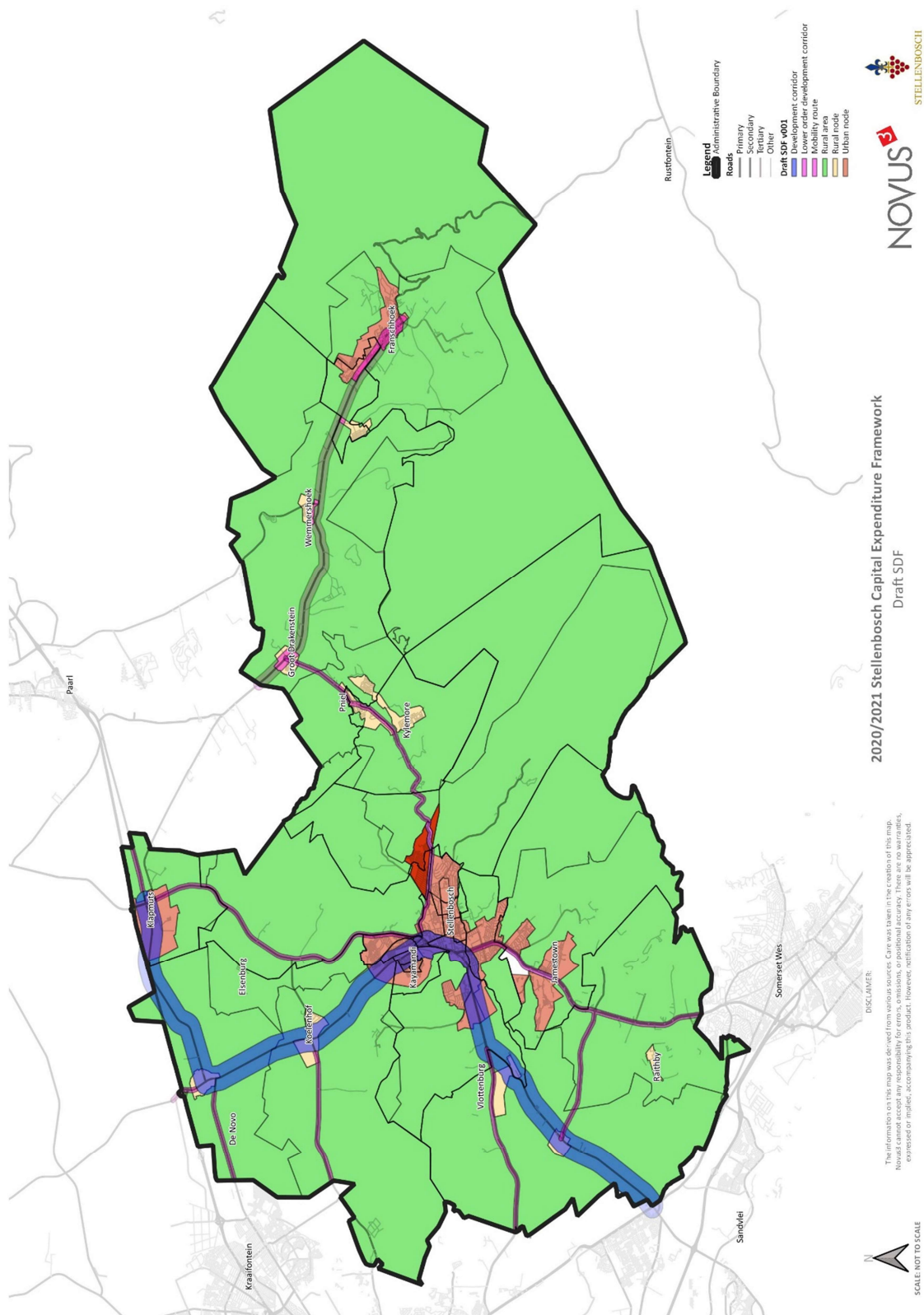
10.2.2 Draft Spatial Development Framework Narrative

The investment paradigm of Stellenbosch is also informed and based on a spatial vision³⁶, namely the Draft Spatial Development Framework.

The key spatial structuring elements of the draft Spatial Development Framework includes:

- **Urban nodes:** The primary urban nodes, firstly includes Klapmuts as this is the identified area of expansion – based on development potential and the larger regional framework. Secondly is Stellenbosch central as this is the core of Stellenbosch and is deemed the area of compaction. Thirdly, is Franschhoek – which is a major role player in terms of the current space economy in the region. Stellenbosch cannot disregard this area and so prioritise maintenance investment in this area.
- **Rural nodes:** Rural nodes on their own are deemed as areas which should only enjoy maintenance expenditure in order to preserve the character of these areas. However, in the event where such a rural node is effected by the Adam Tas corridor, the investment paradigm shifts from a maintenance oriented approach to an investment oriented approach, in order to stimulate a specific need for compaction and densification.
- **Rural Area:** The rural areas represent the agricultural and tourism sector that plays a major role in the financial sustainability of Stellenbosch. Capital demand in these areas are usually of low intensity.
- **Adam Tas Corridor:** Capital Investment in the Adam Tas Corridor is vital in terms of the IUDF and the aims identified therein. The Corridor is deemed as a catalytic spatial structuring element that not only serves a local function, but also a regional function and, if enforced, will capture a critical mass with the potential to attract incredible potential for economic development spatial reform. Please refer to the Draft SDF form more information regarding the potential and rationale of the Adam Tas Corridor.

³⁶ The spatial development framework is in draft form, awaiting approval.



Map 22: Draft Spatial Development Framework

10.3 Functional area budget split

For this part of this section, the 2020/2021 capital expenditure framework has been expressed in terms of the Functional Areas. It seeks to identify the degree of spatial targeting achieved by the municipality.

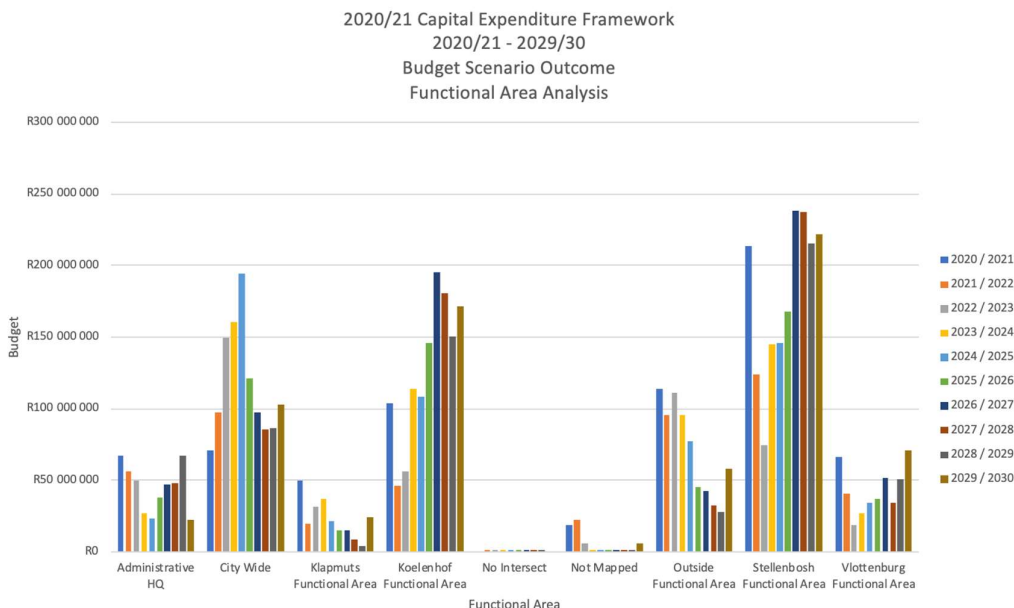


Figure 90: Programme totals per Functional Area

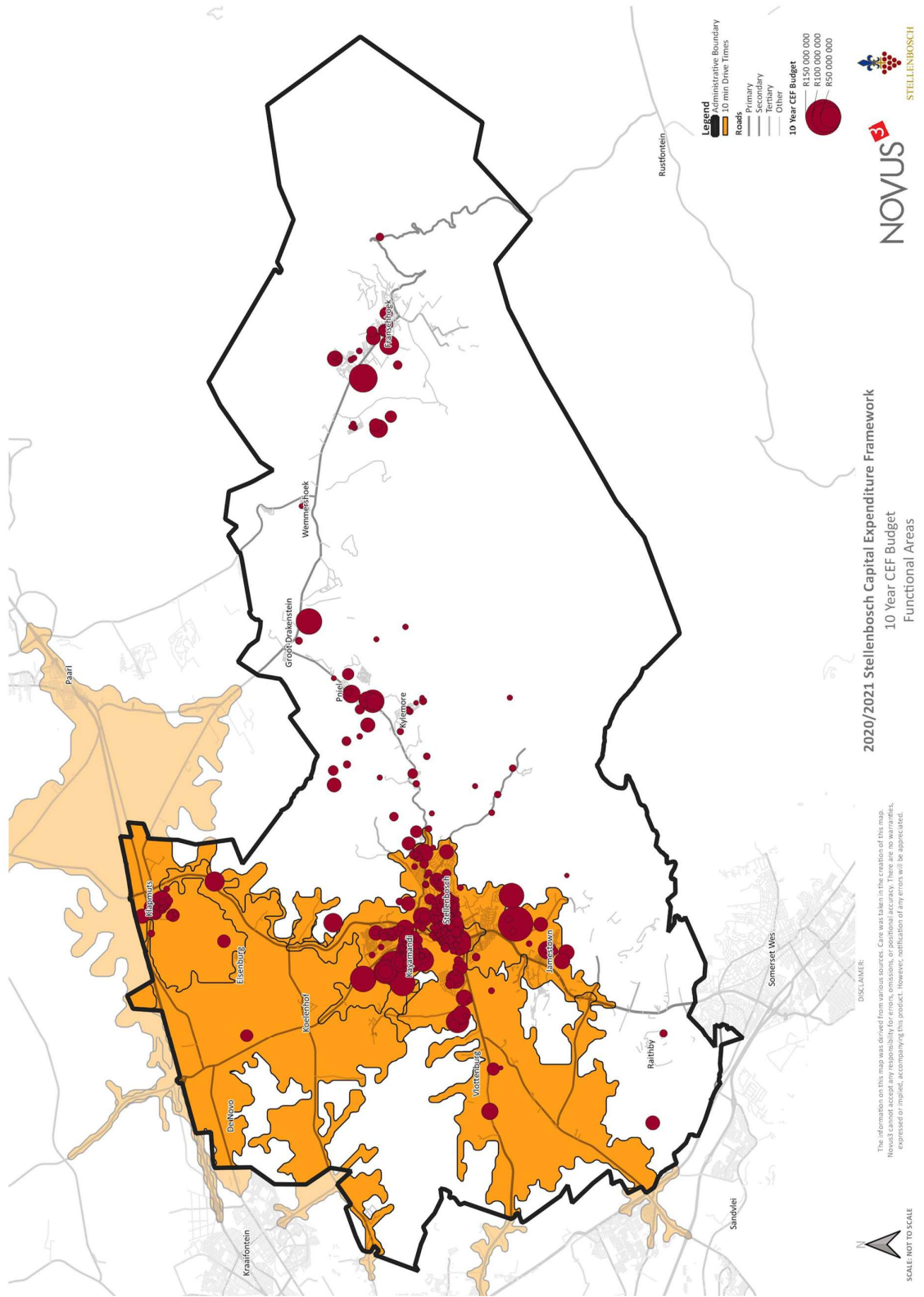
Functional Area Intersect	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26
Administrative HQ	R67 316 800	R56 015 800	R49 979 000	R26 524 000	R23 729 500	R38 126 060
City Wide	R70 770 000	R96 983 762	R149 772 988	R160 189 203	R194 020 872	R121 024 983
Klappmuts Functional Area	R49 540 000	R19 250 000	R31 849 937	R36 886 831	R21 191 241	R15 496 840
Koelenhof Functional Area	R103 450 835	R46 151 837	R56 189 225	R114 124 108	R107 976 792	R145 665 022
No Intersect	R0	R18 416	R28 880	R243 726	R120 333	R169 967
Not Mapped	R18 500 000	R22 800 000	R5 500 000	R500 000	R500 000	R500 000
Outside Functional Area	R113 637 662	R95 489 503	R111 016 834	R95 757 188	R77 241 110	R45 683 492
Stellenbosch Functional Area	R213 913 094	R123 728 756	R74 873 300	R145 187 280	R145 601 678	R168 102 709
Vlotenburg Functional Area	R66 415 824	R40 504 340	R18 741 864	R26 798 060	R33 906 269	R36 901 060
Grand Total	R703 544 215	R500 942 414	R497 952 029	R606 210 397	R604 287 795	R571 670 133

Functional Area Intersect	2026/27	2027/28	2028/29	2029/30	Total	Percentage
Administrative HQ	R47 095 164	R48 276 302	R66 945 472	R22 523 000	R446 531 098	7%
City Wide	R97 017 450	R85 043 104	R86 271 278	R102 946 185	R1 164 039 825	19%
Klappmuts Functional Area	R14 748 374	R9 047 703	R4 438 310	R24 186 198	R226 635 435	4%
Koelenhof Functional Area	R194 984 858	R180 369 231	R150 480 051	R171 712 964	R1 271 104 921	21%
No Intersect	R20 365	R19 325	R131 958	R0	R752 970	0%
Not Mapped	R500 000	R500 000	R500 000	R6 300 000	R56 100 000	1%
Outside Functional Area	R42 141 114	R32 267 848	R27 902 427	R57 767 213	R698 904 392	11%
Stellenbosch Functional Area	R238 521 353	R237 383 622	R215 382 652	R221 563 406	R1 784 257 850	29%
Vlotenburg Functional Area	R51 577 654	R34 037 585	R50 296 240	R71 311 395	R430 490 290	7%
Grand Total	R686 606 331	R626 944 718	R602 348 388	R678 310 361	R6 078 816 781	100%

From Table 71 it can be seen that 29% of the 10 year capital expenditure will occur in the Stellenbosch Functional Area, followed by 21% in the Koelenhof Functional Area. 7% of the capital expenditure will be allocated to Vlotenburg and 4% to Klappmuts. Considering the Investment paradigm of Stellenbosch, it is evident that Capital expenditure has been guided by the Prioritisation and budget scenario mechanisms towards the desired urban form. Subsequently, 11% of the capital expenditure is allocated outside the urban form, which relates to the principle of spatial justice.

Please note the following:

- Duplication of a project's budget is possible as the functional area, based on a 10 minute drive time overlap between most of the identified functional areas;
- No intersect refers to a portion of projects that falls outside the municipality's jurisdiction, and;
- Not Mapped refers to projects that that do not have geo-spatial data.



Map 23: Functional Area Programme based analysis

10.4 Priority Development Areas Budget Split

For this part of this section, the 2020/2021 capital expenditure framework has been expressed in terms of the Priority Development Areas. It seeks to identify the degree of spatial targeting achieved by the municipality.

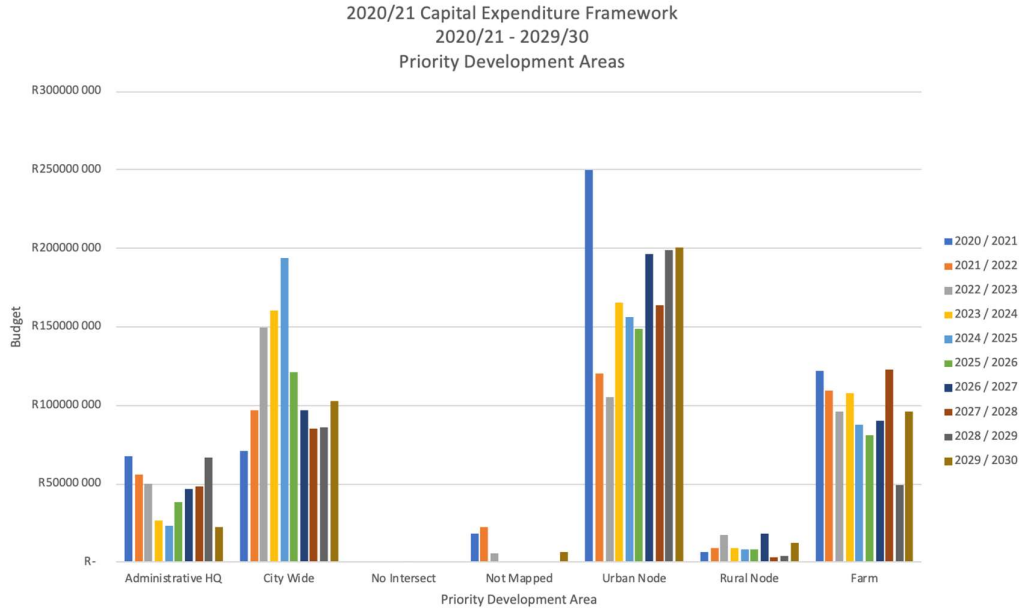


Figure 91: Programme totals per Priority Development Area

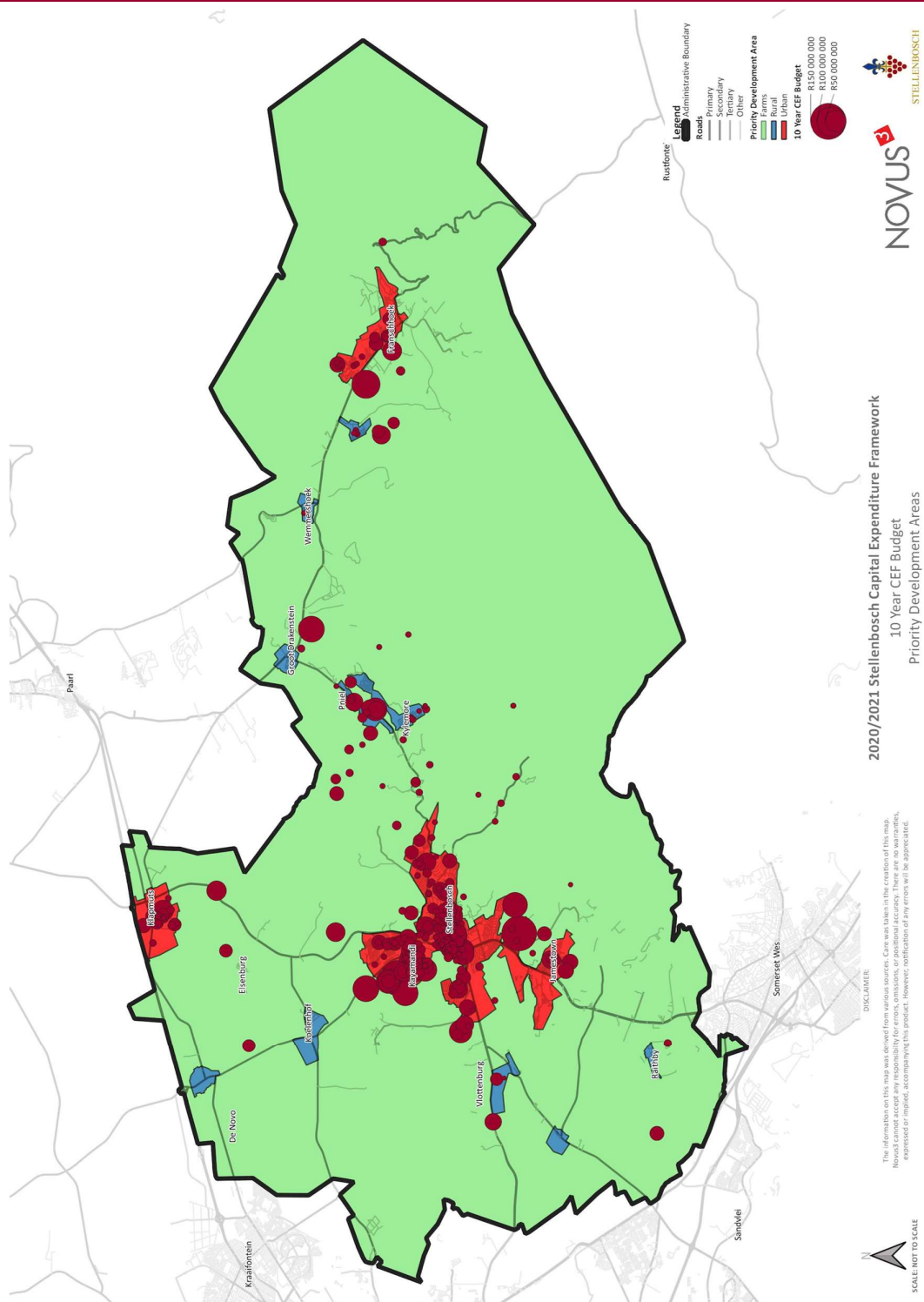
Priority Development Area	2020/21	2021/22	2022/23	2023/24	2024/25	2026/26
Administrative HQ	R67 316 800	R56 015 800	R49 979 000	R26 524 000	R23 729 500	R38 126 060
City Wide	R70 770 000	R96 983 762	R149 772 988	R160 189 203	R194 020 872	R121 024 983
No Intersect	R137 353	R18 416	R241 057	R660 298	R213 380	R956 102
Not Mapped	R18 500 000	R22 800 000	R5 500 000	R500 000	R500 000	R500 000
Urban Node	R249 628 710	R120 489 696	R105 702 324	R165 168 761	R155 987 837	R148 789 640
Rural Node	R6 396 405	R9 508 584	R17 215 246	R9 076 177	R8 452 909	R8 539 467
Farm	R122 046 993	R109 203 305	R96 411 373	R108 103 514	R87 705 875	R80 986 792
Grand Total	R534 796 260	R415 019 562	R424 821 988	R470 221 953	R470 610 372	R398 923 043
Priority Development Area	2026/27	2027/28	2028/29	2029/30	Total	Percentage
Administrative HQ	R47 095 164	R48 276 302	R66 945 472	R22 523 000	R446 531 098	10%
City Wide	R97 017 450	R85 043 104	R86 271 278	R102 946 185	R1 164 039 825	26%
No Intersect	R200 832	R65 848	R573 162	R133 463	R3 199 910	0%
Not Mapped	R500 000	R500 000	R500 000	R6 300 000	R56 100 000	1%
Urban Node	R196 533 539	R163 671 609	R199 297 391	R200 359 685	R1 705 629 192	38%
Rural Node	R18 594 731	R3 685 753	R3 810 095	R12 756 487	R98 035 852	2%
Farm	R90 200 898	R122 798 790	R49 347 452	R95 794 466	R962 599 458	22%
Grand Total	R450 142 614	R424 041 406	R406 744 850	R440 813 285	R4 436 135 335	100%

Table 72: Programme total per Priority Development Areas

Table 72 is indicative that 38% of the municipality's capital expenditure is assigned to the Urban Node Area, with only 2% allocated to Rural and 22% to Farm areas. This leaves the municipality with the remainder of the budget (equal to one MTREF) as Administrative HQ or City wide.

Please note the following:

- Duplication of a project's budget is possible as the functional area, based on a 10 minute drive time overlap between most of the identified functional areas;
- No intersect refers to a portion of projects that falls outside the municipality's jurisdiction, and;
- Not Mapped refers to projects that that do not have geo-spatial data.



Map 24: Priority Development area based analysis

10.5 Ward based Budget Split

This part of this section looks at the 2020/2021 capital expenditure framework has been expressed in terms of the municipality's wards. It seeks to identify the degree of spatial targeting achieved by the municipality in terms of ward based budget distribution.

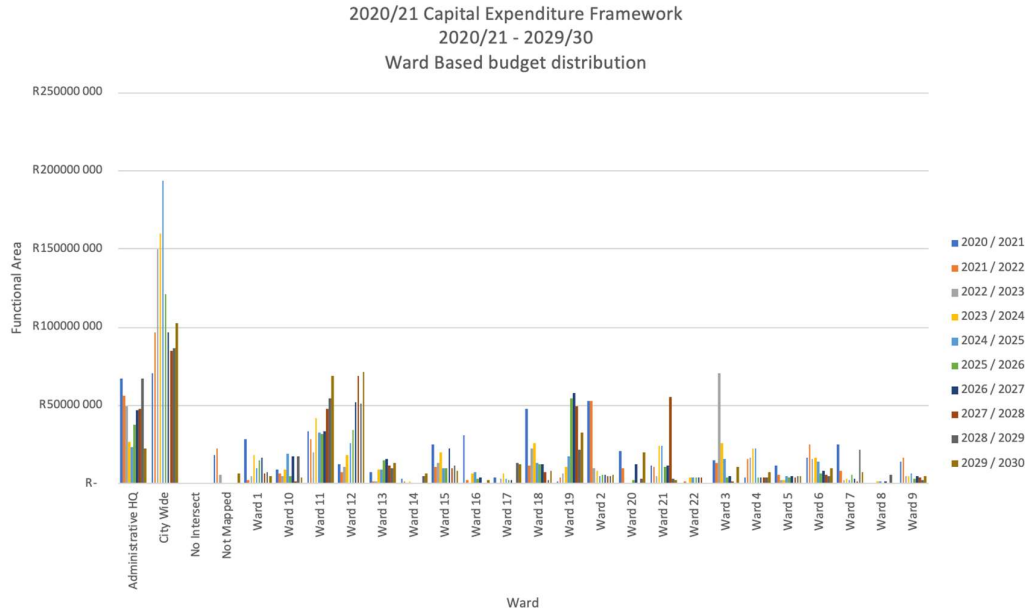


Figure 92: Programme totals per Ward

Ward	2020 / 2021	2021 / 2022	2022 / 2023	2023 / 2024	2024 / 2025	2025 / 2026
Administrative HQ	R67 316 800	R56 015 800	R49 979 000	R26 524 000	R23 729 500	R38 126 060
City Wide	R70 770 000	R96 983 762	R149 772 988	R160 189 203	R194 020 872	R121 024 983
No Intersect	R137 353	R18 416	R241 019	R659 866	R213 380	R956 023
Not Mapped	R18 500 000	R22 800 000	R5 500 000	R500 000	R500 000	R500 000
Ward 01	R28 622 880	R2 406 815	R5 157 133	R18 318 957	R10 226 803	R15 295 479
Ward 02	R53 055 350	R53 330 317	R10 198 634	R8 195 921	R5 340 501	R5 580 880
Ward 03	R14 945 103	R13 160 165	R70 413 518	R26 426 779	R16 285 909	R4 466 294
Ward 04	R3 897 124	R15 636 904	R16 539 097	R22 648 763	R22 371 600	R4 401 545
Ward 05	R11 272 161	R6 138 771	R2 578 242	R2 548 853	R5 130 083	R4 304 333
Ward 06	R16 493 883	R25 027 623	R16 066 539	R17 157 551	R14 441 361	R6 727 105
Ward 07	R25 236 665	R8 399 169	R2 248 771	R3 374 319	R2 585 439	R5 386 912
Ward 08	R524 165	R606 447	R503 710	R1 582 897	R1 641 718	R953 962
Ward 09	R14 557 979	R16 411 733	R5 123 581	R4 577 580	R6 350 143	R3 685 263
Ward 10	R9 350 328	R6 481 436	R4 847 723	R9 154 950	R19 243 195	R5 262 229
Ward 11	R33 311 507	R28 163 083	R19 822 001	R41 696 424	R32 996 003	R31 748 118
Ward 12	R12 536 754	R7 137 303	R10 810 757	R18 053 800	R26 053 707	R34 742 992
Ward 13	R7 190 125	R1 793 297	R1 911 422	R8 979 763	R9 127 895	R14 808 426
Ward 14	R3 096 717	R1 624 347	R1 073 005	R1 400 187	R700 548	R408 540
Ward 15	R25 407 022	R10 892 613	R13 132 355	R19 826 479	R10 118 622	R9 590 325
Ward 16	R31 363 565	R2 565 406	R537 921	R6 856 372	R7 113 775	R3 530 269
Ward 17	R3 714 674	R547 819	R3 538 029	R6 300 938	R3 159 242	R2 637 588
Ward 18	R48 171 513	R11 951 404	R22 416 449	R25 973 074	R13 522 553	R12 235 967
Ward 19	R1 457 158	R4 319 961	R6 744 636	R11 057 605	R17 258 499	R54 973 284
Ward 20	R21 028 088	R10 303 724	R456 058	R12 172	R12 172	R2 765 479
Ward 21	R11 782 208	R10 866 192	R4 720 854	R24 355 946	R24 378 442	R10 594 280
Ward 22	R1 057 139	R1 437 057	R488 546	R3 849 557	R4 088 410	R4 216 708
Grand Total	R534 796 261	R415 019 563	R424 821 989	R470 221 955	R470 610 374	R398 923 044
Ward	2026 / 2027	2027 / 2028	2028 / 2029	2029 / 2030	Total	Percentage
Administrative HQ	R47 095 164	R48 276 302	R66 945 472	R22 523 000	R446 531 098	10%
City Wide	R97 017 450	R85 043 104	R86 271 278	R102 946 185	R1 164 039 825	26%
No Intersect	R200 821	R65 848	R573 063	R133 464	R3 199 253	0%
Not Mapped	R500 000	R500 000	R500 000	R6 300 000	R56 100 000	1%
Ward 01	R17 019 342	R6 370 032	R7 368 756	R4 877 660	R115 663 857	3%
Ward 02	R5 943 679	R4 820 889	R4 845 071	R5 795 745	R157 106 987	4%
Ward 03	R5 192 505	R1 474 060	R943 871	R11 244 160	R164 552 362	4%
Ward 04	R4 239 536	R4 169 233	R4 357 819	R7 555 004	R105 816 624	2%
Ward 05	R4 710 714	R3 844 550	R4 782 823	R5 028 978	R50 339 507	1%

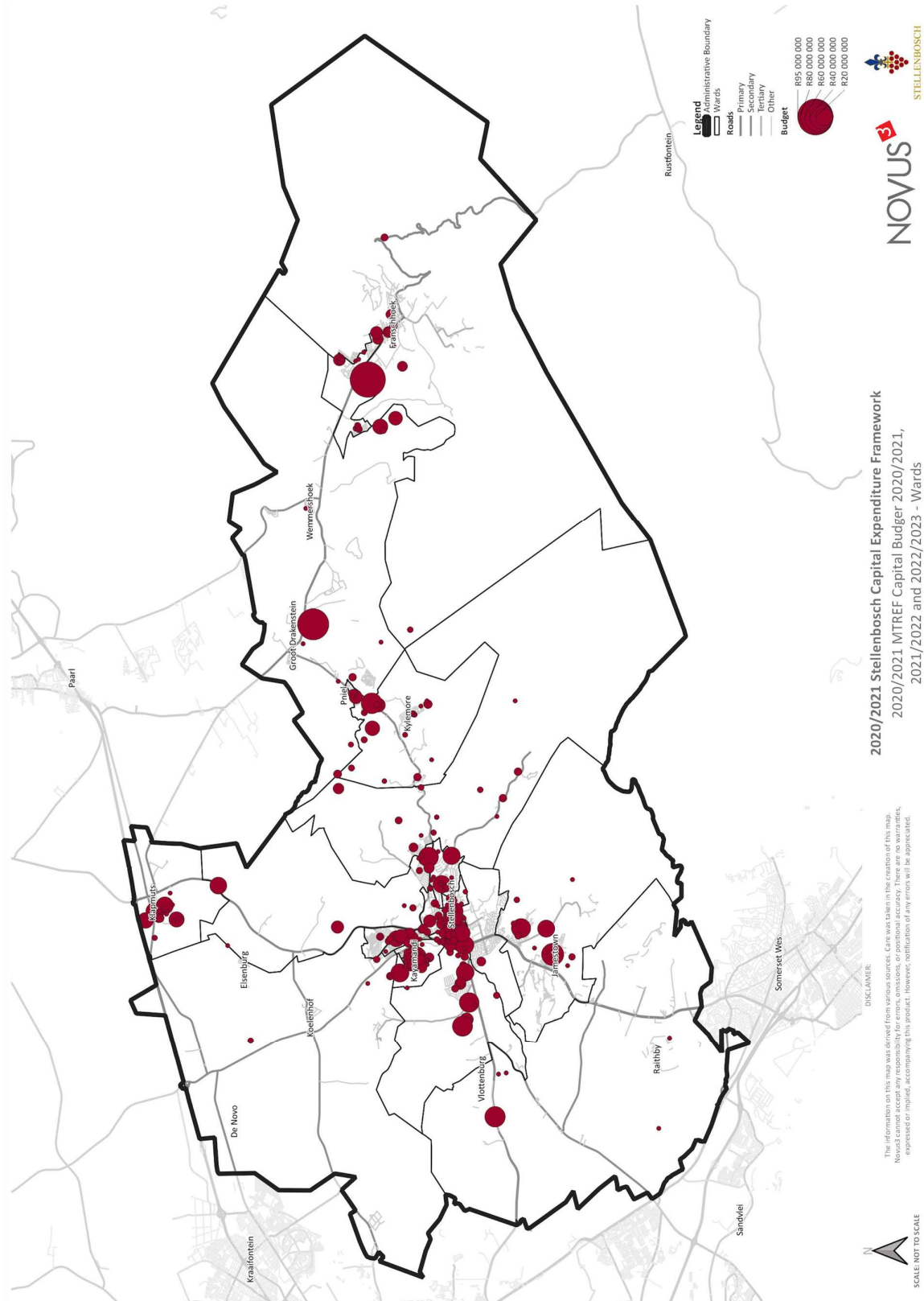
Ward	2020 / 2021	2021 / 2022	2022 / 2023	2023 / 2024	2024 / 2025	2025 / 2026
Ward 06	R8 621 185	R5 921 520	R5 028 518	R10 275 371	R125 760 656	3%
Ward 07	R3 490 542	R1 405 015	R21 531 803	R7 173 309	R80 831 945	2%
Ward 08	R1 872 235	R633 457	R5 557 444	R352 615	R14 228 651	0%
Ward 09	R5 143 674	R3 774 976	R2 248 279	R4 875 425	R66 748 632	2%
Ward 10	R17 539 938	R1 214 598	R17 814 645	R3 957 751	R94 866 793	2%
Ward 11	R33 956 669	R47 984 932	R54 766 857	R68 616 427	R393 062 021	9%
Ward 12	R52 093 269	R69 007 756	R51 679 176	R71 311 741	R353 427 256	8%
Ward 13	R15 882 366	R11 472 617	R9 790 232	R13 033 026	R93 989 170	2%
Ward 14	R412 937	R487 220	R5 033 794	R6 866 099	R21 103 394	0%
Ward 15	R22 982 369	R9 765 362	R11 491 561	R8 532 087	R141 738 794	3%
Ward 16	R3 921 417	R808 145	R555 518	R2 656 313	R59 908 703	1%
Ward 17	R2 838 324	R825 418	R13 336 254	R12 284 045	R49 182 332	1%
Ward 18	R12 800 203	R7 192 439	R2 298 396	R8 325 713	R164 887 710	4%
Ward 19	R58 026 605	R49 538 121	R22 137 680	R32 683 849	R258 197 397	6%
Ward 20	R12 700 487	R-	R3 363 832	R20 309 393	R70 951 405	2%
Ward 21	R11 563 395	R55 390 810	R3 269 091	R2 257 969	R159 179 186	4%
Ward 22	R4 377 792	R4 055 009	R253 621	R904 287	R24 728 127	1%
Grand Total	R450 142 618	R424 041 412	R406 744 854	R440 819 616	R4 436 141 687	100%

Table 73: Programme total per Ward

36% Of the municipality's capital expenditure are assigned to assets of an Administrative HQ or City wide nature. This means that 64% of the budget should be distributed between 22 wards.

Please note the following:

- Duplication of a project's budget is possible as the query layer contain delineations of different PDA's which overlaps at the same spot;
- No intersect refers to a portion of projects that falls outside the municipality's jurisdiction, and, and;
- Not Mapped refers to projects that that do not have geo-spatial data.



Map 25: MTREF Capital Budget per Ward

10.6 Discipline based Budget Split

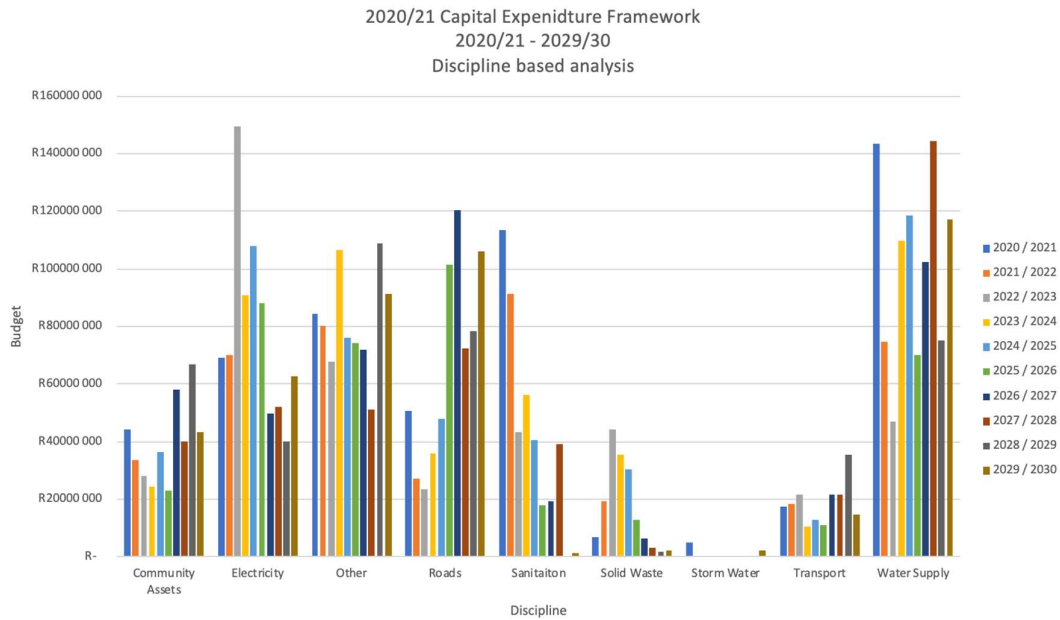


Figure 93: 2029/2030 MTREF Capital budget focussed on basic service delivery

Table 74: 2029/2030 MTREF Capital Budget focussed on basic service delivery

Discipline	2020 / 2021	2021 / 2022	2022 / 2023	2023 / 2024	2024 / 2025	2025 / 2026
Community Assets	R44 349 347	R33 620 000	R28 115 000	R24 500 000	R36 650 000	R23 250 000
Electricity	R68 980 000	R70 301 853	R149 506 738	R91 043 418	R107 741 842	R88 335 250
Other	R84 426 800	R80 141 809	R67 600 250	R106 583 535	R75 988 530	R74 194 733
Roads	R50 650 682	R27 150 000	R23 350 000	R36 200 000	R47 900 000	R101 400 000
Sanitation	R113 384 431	R91 400 000	R43 200 000	R56 200 000	R40 500 000	R18 000 000
Solid Waste	R7 000 000	R19 500 000	R44 400 000	R35 600 000	R30 500 000	R12 800 000
Storm Water	R5 000 000	R-	R-	R-	R-	R-
Transport	R17 450 000	R18 325 000	R21 550 000	R10 445 000	R12 850 000	R10 963 060
Water Supply	R143 555 000	R74 580 900	R47 100 000	R109 650 000	R118 480 000	R69 980 000
Grand Total	R 558 276 528	R 414 612 759	R 426 337 700	R 373 996 754	R 384 977 719	R 397 007 956

Discipline	2026 / 2027	2027 / 2028	2028 / 2029	2029 / 2030	Total	%
Community Assets	R58 210 000	R39 950 000	R66 880 000	R43 180 000	R398 704 347	9%
Electricity	R49 819 866	R52 307 503	R40 084 176	R62 569 201	R780 689 847	18%
Other	R72 015 584	R51 082 601	R108 705 202	R91 201 884	R811 940 928	18%
Roads	R120 600 000	R72 400 000	R78 400 000	R105 925 200	R663 975 882	15%
Sanitation	R19 250 000	R39 300 000	R300 000	R1 550 000	R423 084 431	10%
Solid Waste	R6 400 000	R3 200 000	R1 700 000	R2 200 000	R163 300 000	4%
Storm Water	R-	R-	R200 000	R2 200 000	R7 400 000	0%
Transport	R21 617 164	R21 571 302	R35 345 472	R14 707 000	R184 823 998	4%
Water Supply	R102 230 000	R144 230 000	R75 130 000	R117 280 000	R1 002 215 900	23%
Grand Total	R450 142 614	R424 041 406	R406 744 850	R440 813 285	R4 436 135 333	100%

29% of the CEF is assigned to Roads, Sanitation and Solid Waste infrastructure disciplines respectively. Of concern is that no asset type that relates to Storm water are noted – however this could be a function of classification, rather than actual projects not receiving any capital in this regard. Community Assets is allocated 9%, while Electricity sitting on 18% of the capital expenditure. The discipline based budget split has been compiled based on the MSCOA project segment category per project. Please refer to Table 75 below:

Table 75: MSCOA – Type Category and Discipline relationship

Discipline	MSCOA - Type Category
Community Assets	Community Assets
Community Assets	Libraries

Discipline	MSCOA - Type Category
Electricity	Electrical Infrastructure
Roads	Roads Infrastructure
Sanitation	Sanitation Infrastructure
Solid Waste	Solid Waste Infrastructure
Storm Water	Storm water Infrastructure
Transport	Transport Assets
Water Supply	Water Supply Infrastructure
Other	Biological or Cultivated Assets
Other	Computer Equipment
Other	Expanded Public Works Programme
Other	Furniture and Office Equipment
Other	Heritage Assets
Other	Indigent and Cultural Management and Services
Other	Information and Communication Infrastructure
Other	Intangible Assets
Other	Investment Properties
Other	Machinery and Equipment
Other	Other Assets
Other	Spatial Planning
Other	Strategic Management and Governance
Other	(blank)

10.7 Asset type budget split

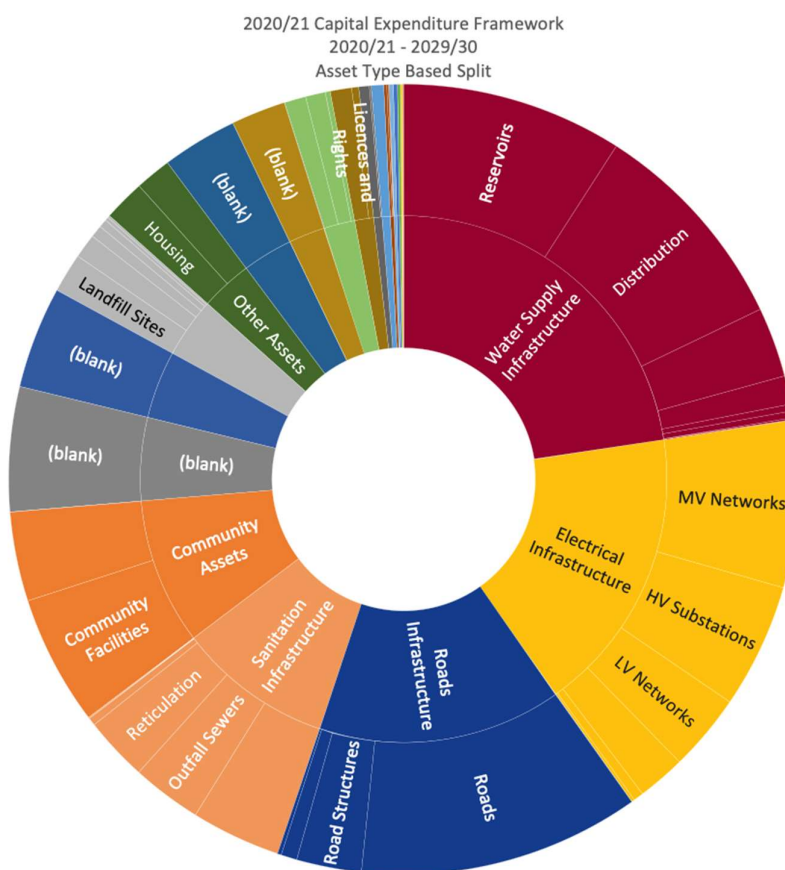


Figure 94: 2020/21 – 2029/30 Asset type budget split

From the sunburst diagram it is clear that Roads Infrastructure, Water Supply Asset and Electrical Infrastructure types represent a large portion of the 10 year capital expenditure framework. An approximate of a quarter of the portion is allocated to Community Assets, Sanitation Infrastructure as well as Housing. It should be noted that the category “blank” refers to one of two options: Firstly, the option exists that not all information has been captured. Secondly, the asset type selection is at its lowest reporting level, leaving the next selection redundant and so not possible – relating “blank” classifications.

10.8 Poor:Non Poor Expenditure

The IUDF guides municipalities to reconfigure urban spaces, from the inherited segregated spatial structure form to an integrated and optimally functional built environment. In order to do that noteworthy steps should be taken toward redeveloping and reconfiguring the spatial structure of today. One step towards achieving the vision of the IUDF is to identify the capital expenditure towards poor and non-poor communities. The CEF guidelines, in this regard, claims that a municipality should have the ability to report on the percentage of capital expenditure in poor versus non poor areas. This is however a difficult task for the following reasons:

- The definition of “poor”: “non-poor” is not clear;
- The definition of an “indigent” population is broadly defined;
- Municipal wide information that relates to metrics qualifying one as “indigent” is not commonly available;
- Various criticism exists for only using income as a measure as it does not necessarily relate to elements such as housing structures, access to services, levels of services, education, population density, household dynamics etc;
- The majority of data sources relies on pseudo-realistic interpretations of the number of people within a specific area, and;
- By framing the question of poor : non-poor expenditure with respect to the current urban form, together with the principle to increase capital expenditure in non-poor areas, forces the municipality to perpetuate the segregates spatial structure.
- Regardless of the technical pitfalls noted above, it is still possible to take a relative simplistic view on where the poor and non-poor population is situated within the municipality, followed by where the capital expenditure occurs which enables the municipality to determine the poor : non-poor capital expenditure ratio.

10.8.1 Step-wise process to calculate the poor : non-poor capital expenditure ratio

- The following section will plot the process used to calculate the poor : non-poor capital expenditure ratio.
 - Step 1: Generate 500m hexagon grid
 - Step 2: Determine household distribution
 - Step 3: Identify households per hexagon
 - Step 4: Calculate household income ratio per hexagon
 - Step 5: Calculate capital expenditure per hexagon
 - Step 6: Calculate capital expenditure per income class

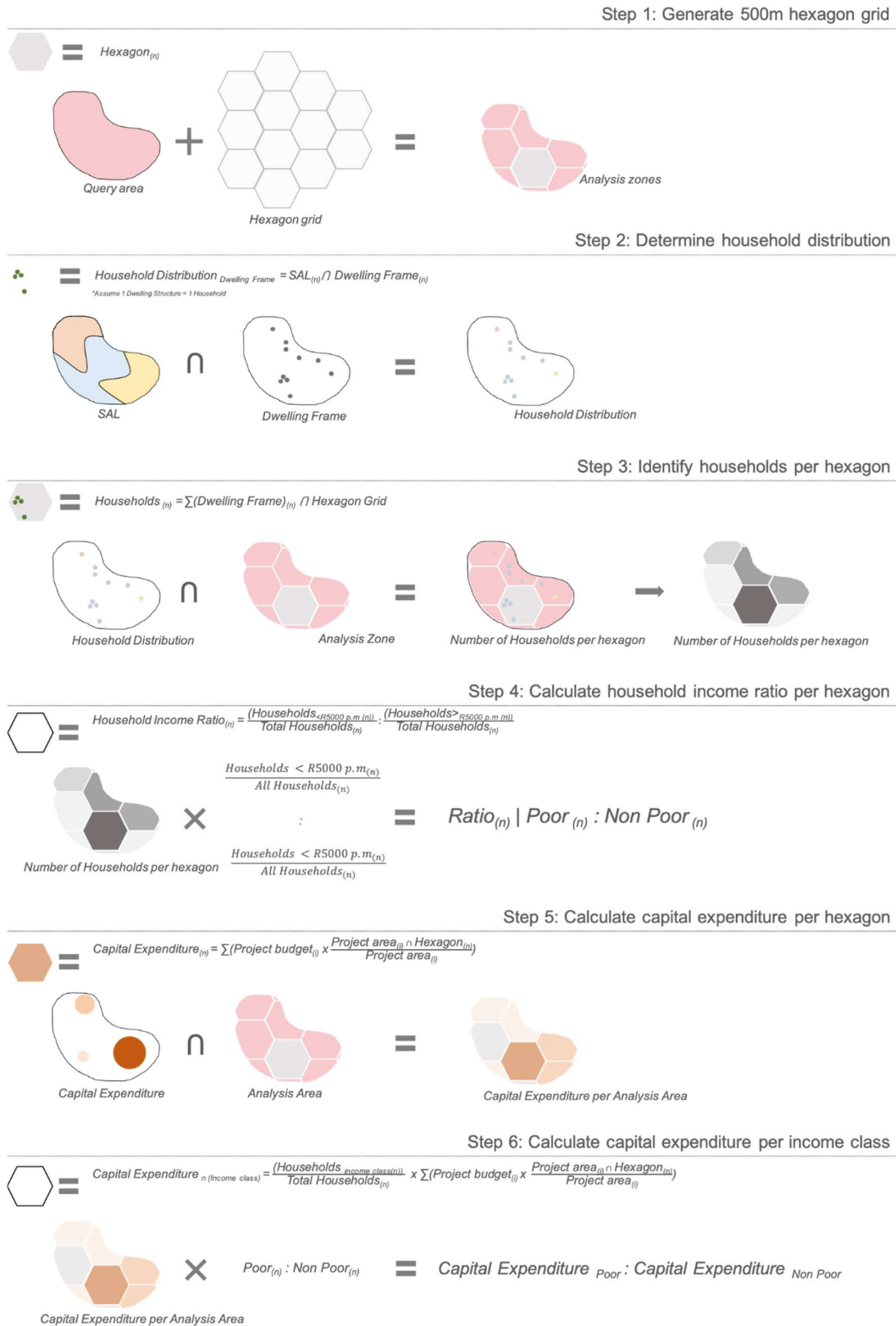


Figure 95: Poor : non-poor calculation process

10.8.2 Poor : non-poor capital expenditure ratio

- The following section will discuss the results after applying the poor vs non poor calculation methodology.

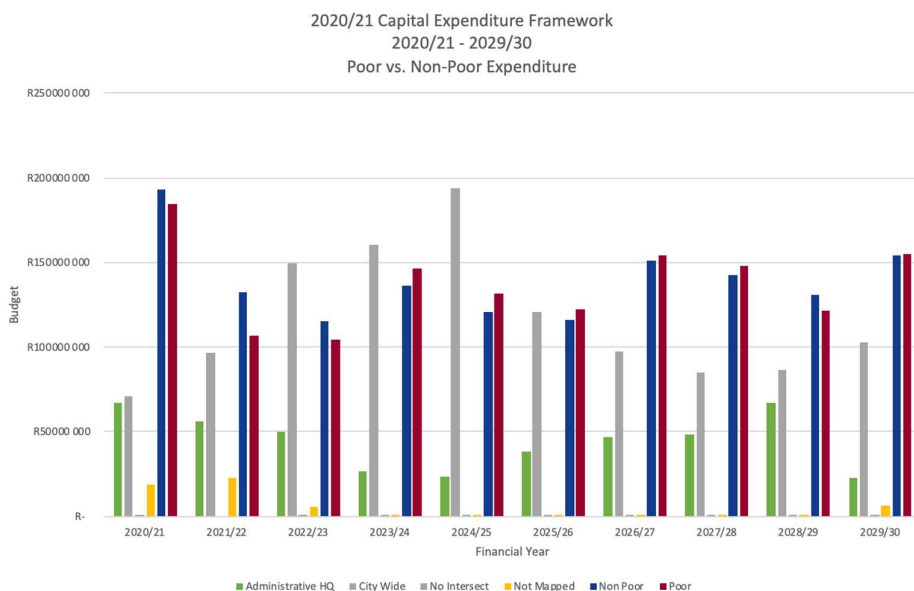


Figure 96: Poor : Non Poor capital expenditure ratio

Table 76: Poor : Non Poor capital expenditure ratio

	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26
Administrative HQ	R67 316 800	R56 015 800	R49 979 000	R26 524 000	R23 729 500	R38 126 060
City Wide	R70 770 000	R96 983 762	R149 772 988	R160 189 203	R194 020 872	R121 024 983
No Intersect	R118 994	R1	R157 986	R211 856	R149 443	R863 150
Not Mapped	R18 500 000	R22 800 000	R5 500 000	R500 000	R500 000	R500 000
Non Poor	R193 398 297	R132 437 475	R115 136 620	R136 096 154	R120 914 672	R116 145 077
Poor	R184 673 841	R106 755 030	R104 213 090	R146 700 741	R131 295 886	R122 219 800
Total	R534 777 932	R414 992 068	R424 759 684	R470 221 954	R470 610 373	R398 879 070
Poor : Non Poor	1 : 1	1 : 0,8	1 : 0,9	1 : 1,1	1 : 1,1	1 : 1,1
	2026/27	2027/28	2028/29	2029/30	Total	%
Administrative HQ	R47 095 164	R48 276 302	R66 945 472	R22 523 000	R446 531 098	10%
City Wide	R97 017 450	R85 043 104	R86 271 278	R102 946 185	R1 164 039 825	26%
No Intersect	R162 744	R55 214	R430 352	R103 410	R2 253 150	0%
Not Mapped	R500 000	R500 000	R500 000	R6 300 000	R56 100 000	1%
Non Poor	R151 063 016	R142 126 431	R131 176 728	R154 125 050	R1 392 619 519	31%
Poor	R154 271 263	R148 040 357	R121 377 049	R154 802 883	R1 374 349 940	31%
Total	R450 109 637	R424 041 408	R406 700 878	R440 800 528	R4 435 893 532	100%
Poor : Non Poor	1 : 1	1 : 1	1 : 0,9	1 : 1	1 : 1	1 : 1

The most significant findings of the results are that over the next ten years, there is a rand-for-rand spending on the non-poor and pro-poor areas. There are three financial years respectively that illustrate a ration that is favourable to pro-poor development and two financial years where there is a noticeable reserve. This is a good indication for integrated planning and equitable expenditure – specifically deriving from the principles of spatial targeting.

Section 11 Capital Expenditure Implementation Plan



11 Capital Expenditure Implementation Plan

11.1 Contextualisation

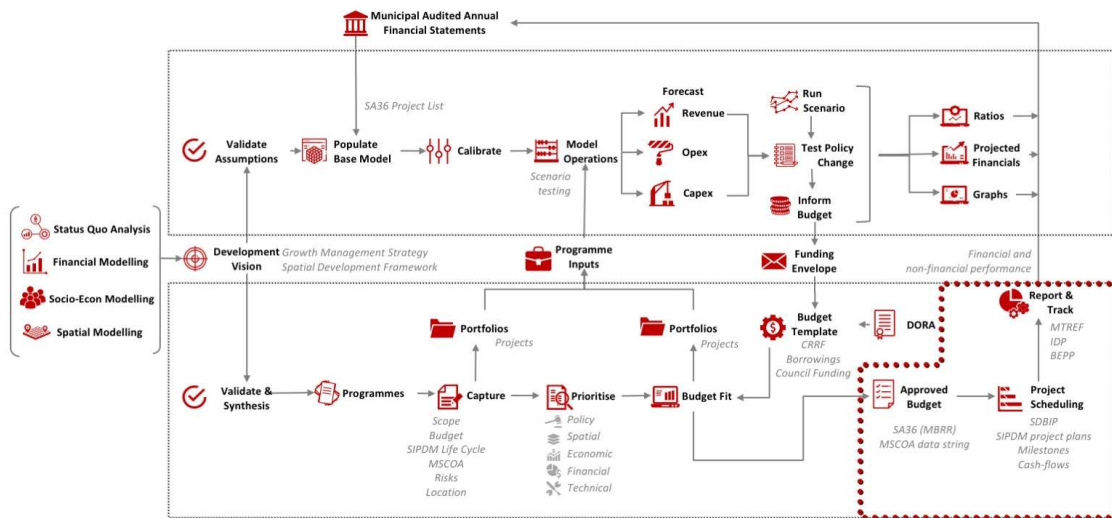


Figure 97: Capital Expenditure Implementation Plan

Once the ten year Capital Expenditure Framework has been set up as a result of the prioritisation and budget scenario process, a three year Capital Expenditure Implementation follows. In order to manage Capital Expenditure Implementation, National Government, through the MFMA has established the Medium Term Revenue and Expenditure Framework (MTREF). The MTREF is a rolling three-year expenditure planning tool and defines the expenditure priorities for a period of three years.

This section depicts the first three years of implementation. It show an estimation of the following implementation frameworks, however, one must take cognisance of the fact that the municipal planning and implementation process is ongoing and that the implementation framework will be adjusted as new capital demand is introduced to the Capital Expenditure Framework.

It is important to note that the Capital Expenditure Framework process must be aligned with the municipal budgeting process. This document will be submitted for approval with the final MTREF budget. The first three year therefore align 100% with the MTREF budget.

11.2 2020/2021 – 2022/23 Budget Analysis

The budget analysis will be done in terms of the total Capital Expenditure Framework. In some instance capital expenditure in the MTREF might seem without goal, but understanding that the budget is drafted with a ten year Capital Expenditure Framework in mind, it will be easier to rationalise several findings.

Given that the whole budgeting process up to this point has been done with the assistance of the CP3 platform, it is now possible to analyse the budget not only in terms of the total Capital Expenditure Framework, but also in terms of key project related information. It is therefore essential to plan on a project level – this enables to grouping and analysis of several project attributes.

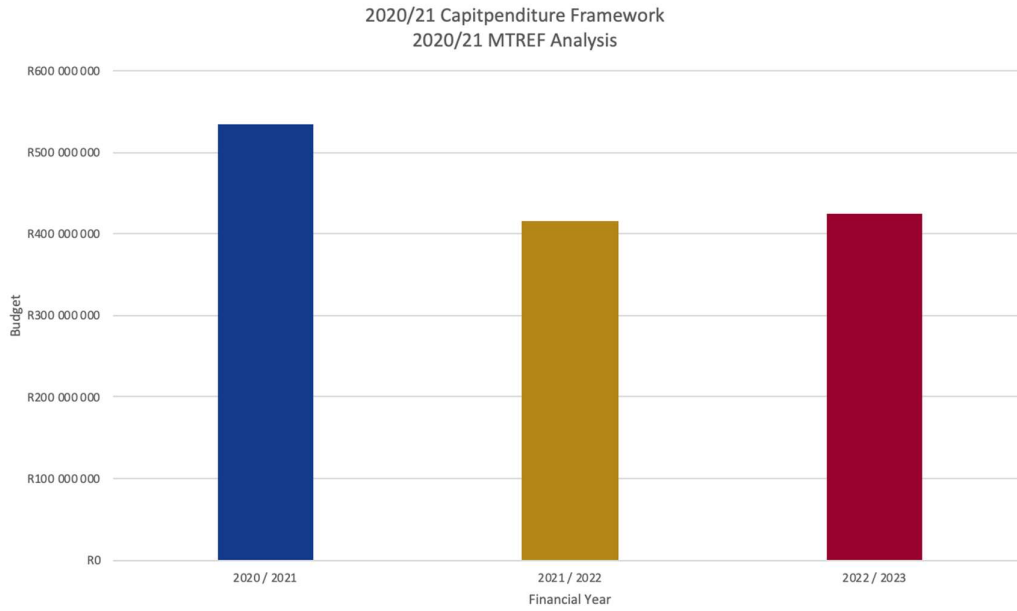


Figure 98: 2020/21 MTREF Annual Summary

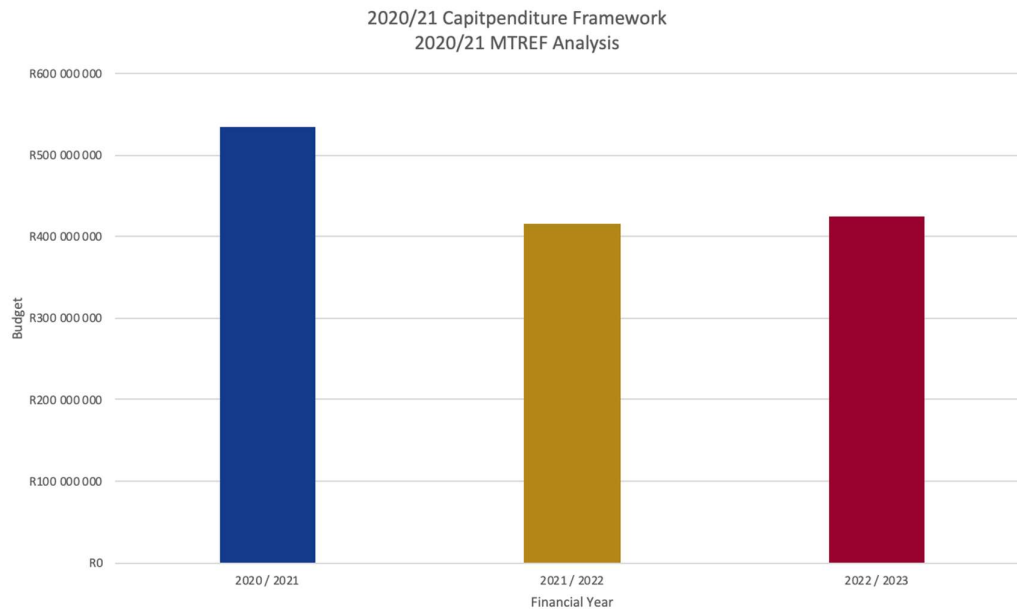
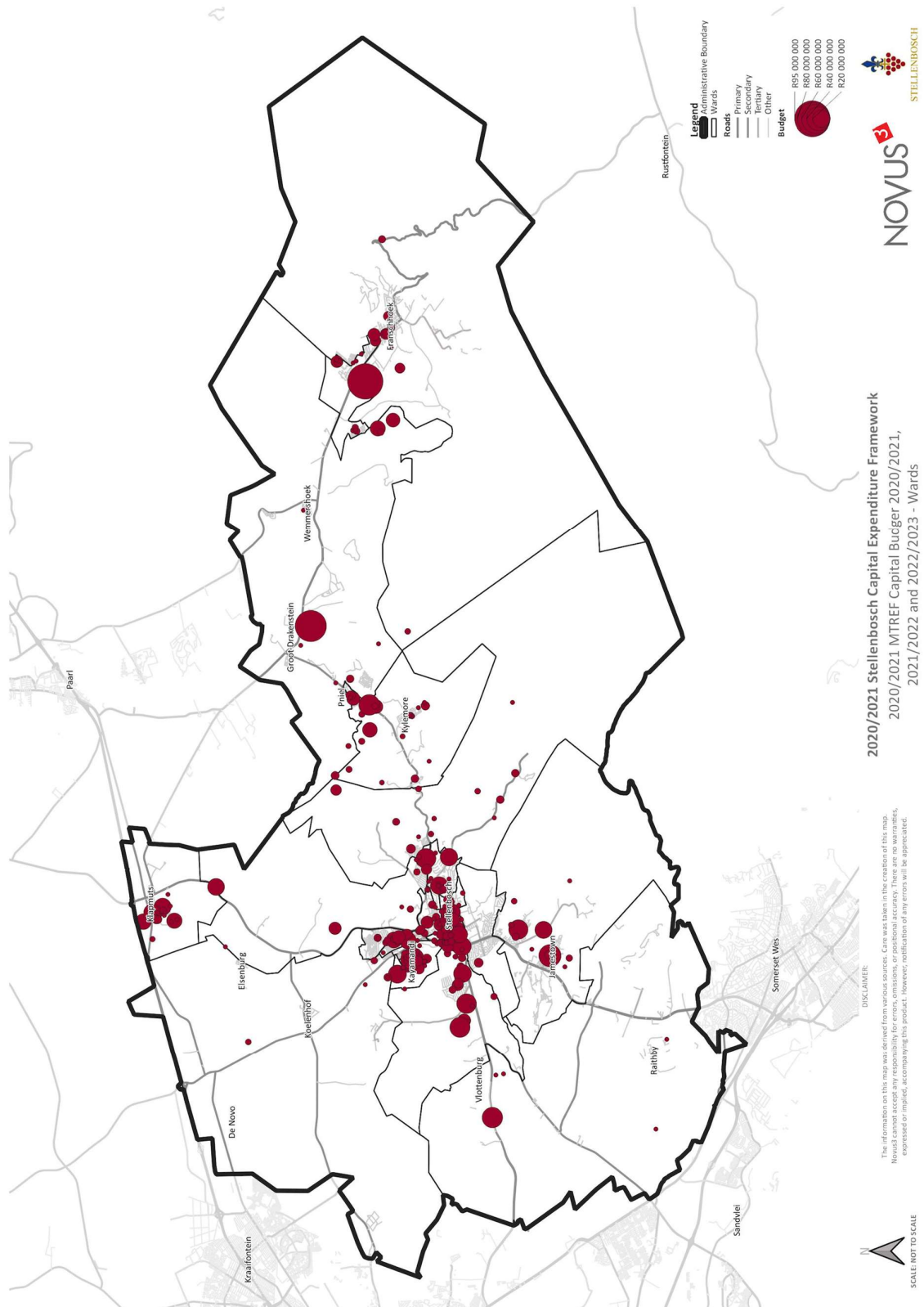


Figure 98 illustrates the 2020/21_MTREF for Stellenbosch Municipality. An observation from the graph shows that the first Financial Year (FY) represents an increased capital expenditure, as compared the following Financial Years. The heightened capital expenditure in first FY is due to the municipality's instruction to accelerate expenditure, in order to improve service delivery. The maps below are illustrative of the spatial distribution across the municipality during the three financial years

11.2.1 2020/2021 MTREF Capital Budget by Financial year



Map 26: 2020/21 MTREF Capital Budget by Financial year

11.2.2 2020/2021 MTREF Capital Budget by Unit

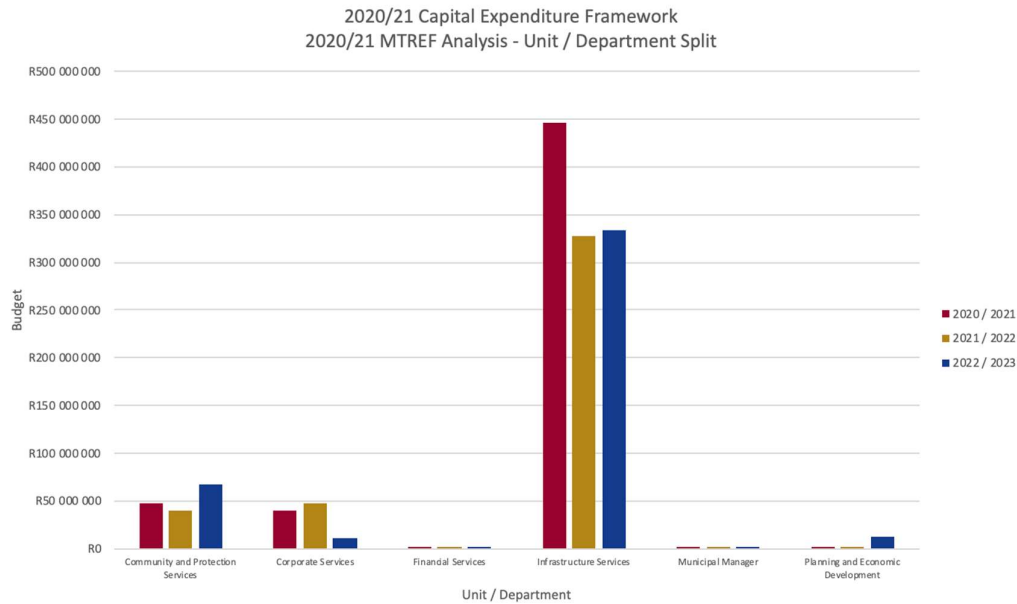


Figure 99: 2020/21 MTREF Capital budget per directorate

Row Labels	2020 / 2021	2021 / 2022	2022 / 2023	Total MTREF	%
Community and Protection Services	R47 889 347	R39 480 000	R67 200 000	R154 569 347	11%
Corporate Services	R39 450 000	R48 050 000	R11 650 000	R99 150 000	7%
Financial Services	R850 000	R200 000	R200 000	R1 250 000	0%
Infrastructure Services	R446 035 113	R327 026 762	R333 157 988	R1 106 219 863	80%
Municipal Manager	R40 000	R44 000	R49 000	R133 000	0%
Planning and Economic Development	R531 800	R218 800	R12 565 000	R13 315 600	1%
Grand Total	R534 796 260	R415 019 562	R424 821 988	R1 374 637 810	100%

80% of the capital expenditure in the MTREF is allocated to Infrastructure services – with specific focus on Water services and Sanitation. Community and Protection Services as well as Corporate Service receive a combined 18% total of capital expenditure in the MTREF, while Planning and Economic Development get 1% of the MTREF capital budget.

11.2.3 2020/2021 MTREF Capital Budget by mSCOA Expenditure and class

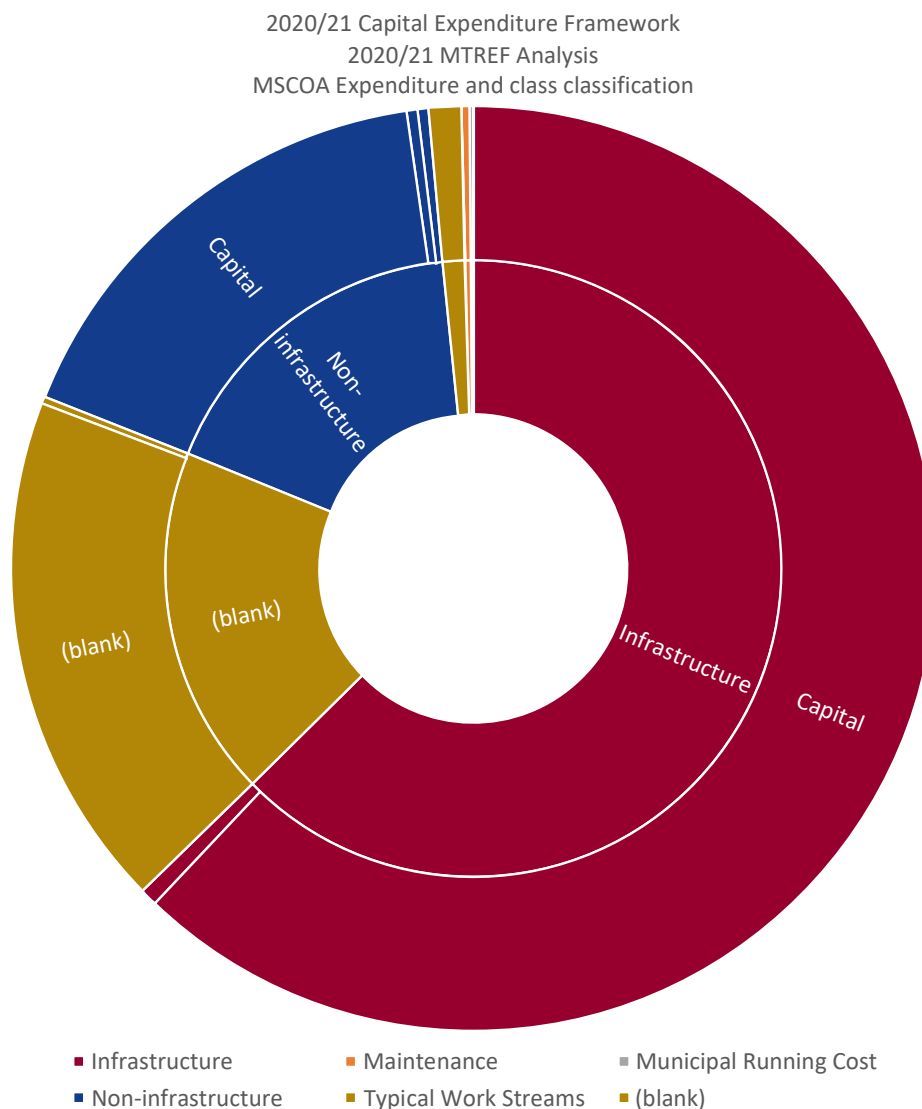


Figure 100: mSCOA Expenditure and class segment

This mSCOA segment aims to distinguish project based on existing or new assets. From Figure 100, it is indicative that the majority of capital expenditure across the analysis period relates to Infrastructure assets, of which the majority is reported as capital expenditure. “(blank)” refers to capital related to projects that are either not classified, or projects that exhausted their options of selections in another mSCOA segment – alternatively explained as “not applicable”.

Table 77: mSCOA Expenditure and class segment

mSCOA Segment	2020/21	2021/22	2022/23	Total	%
Capital	R458 616 913	R333 597 109	R293 249 702	R1 085 463 724	79%
Infrastructure	R375 375 113	R259 330 300	R218 919 452	R853 624 865	62%
Non-infrastructure	R82 941 800	R73 966 809	R71 830 250	R228 738 859	17%
(blank)	R300 000	R300 000	R2 500 000	R3 100 000	0%
Operational	R4 650 000	R5 900 000	R15 850 000	R26 400 000	2%
Maintenance	R-	R-	R3 850 000	R3 850 000	0%

mSCOA Segment	2020/21	2021/22	2022/23	Total	%
Municipal Running Cost	R750 000	R1 000 000	R-	R1 750 000	0%
Non-infrastructure	R1 500 000	R1 500 000	R2 000 000	R5 000 000	0%
Typical Work Streams	R2 400 000	R3 400 000	R10 000 000	R15 800 000	1%
(blank)	R-	R-	R-	R-	0%
(blank)	R71 529 347	R75 522 453	R115 722 286	R262 774 086	19%
Infrastructure	R4 045 000	R2 280 900	R2 330 000	R8 655 900	1%
Non-infrastructure	R2 504 347	R1 000 000	R1 535 000	R5 039 347	0%
(blank)	R64 980 000	R72 241 553	R111 857 286	R249 078 839	18%
Grand Total	R534 796 260	R415 019 562	R424 821 988	R1 374 637 810	100%

11.2.4 2020/2021 MTREF Capital Budget by mSCOA Type Segment

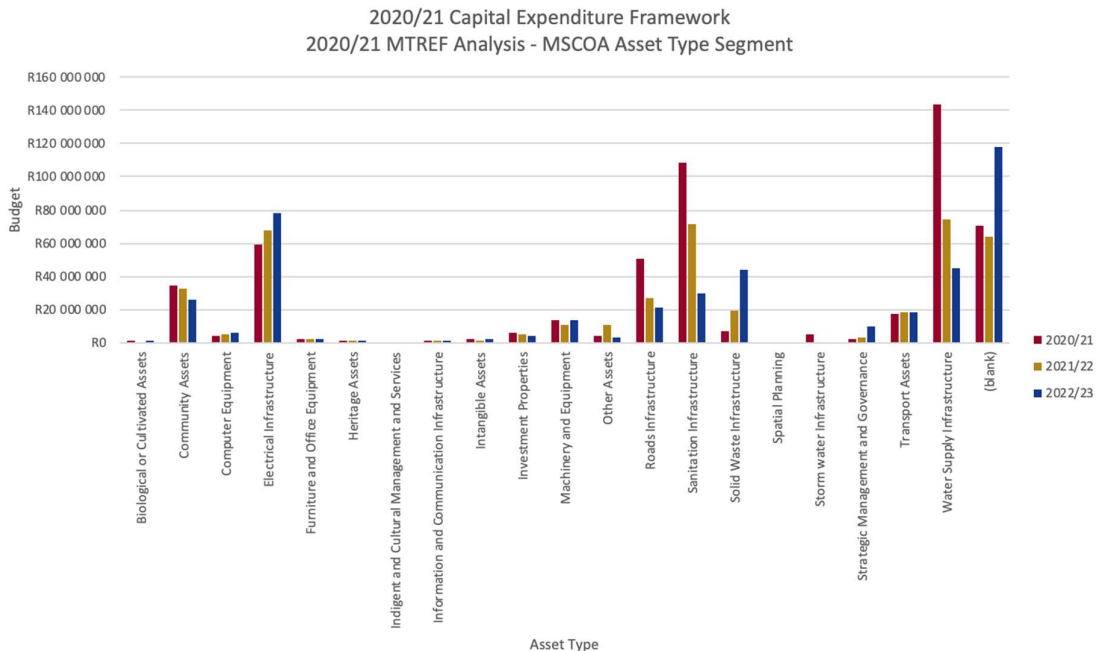


Figure 101: mSCOA Type Classification

The mSCOA type segment classifies projects in terms of the scope of projects and according to which typical programme it relates. Sanitation infrastructure, and Water supply infrastructure are the main benefactors of capital expenditure during the reporting period, followed by Electrical infrastructure.

Table 78: MSCOA -Type Classification

Asset Type	2020/21	2021/22	2022/23	Total	%
Biological or Cultivated Assets	R1 000 000	R-	R500 000	R1 500 000	0%
Community Assets	R34 349 347	R32 620 000	R26 365 000	R93 334 347	7%
Computer Equipment	R4 600 000	R4 650 000	R5 950 000	R15 200 000	1%
Electrical Infrastructure	R59 480 000	R67 730 300	R78 149 452	R205 359 752	15%
Furniture and Office Equipment	R2 715 000	R1 837 000	R2 394 000	R6 946 000	1%
Heritage Assets	R1 000 000	R1 500 000	R1 500 000	R4 000 000	0%
Indigent and Cultural Management and Services	R-	R-	R-	R-	0%
Information and Communication Infrastructure	R600 000	R600 000	R700 000	R1 900 000	0%
Intangible Assets	R1 800 000	R1 500 000	R2 200 000	R5 500 000	0%
Investment Properties	R5 700 000	R5 000 000	R4 000 000	R14 700 000	1%
Machinery and Equipment	R13 970 000	R11 166 009	R13 230 000	R38 366 009	3%
Other Assets	R4 300 000	R10 575 000	R3 061 250	R17 936 250	1%

Asset Type	2020/21	2021/22	2022/23	Total	%
Roads Infrastructure	R50 650 682	R27 050 000	R21 250 000	R98 950 682	7%
Sanitation Infrastructure	R108 384 431	R71 400 000	R29 700 000	R209 484 431	15%
Solid Waste Infrastructure	R7 000 000	R19 500 000	R44 400 000	R70 900 000	5%
Spatial Planning	R-	R-	R-	R-	0%
Storm water Infrastructure	R5 000 000	R-	R-	R5 000 000	0%
Strategic Management and Governance	R2 400 000	R3 400 000	R10 000 000	R15 800 000	1%
Transport Assets	R17 450 000	R18 325 000	R18 250 000	R54 025 000	4%
Water Supply Infrastructure	R143 555 000	R74 580 900	R45 100 000	R263 235 900	19%
(blank)	R70 841 800	R63 585 353	R118 072 286	R252 499 439	18%
Grand Total	R534 796 260	R415 019 562	R424 821 988	R1 374 637 810	100%

11.2.5 2020/2021 MTREF Capital budget focused on functional areas

Figure 102: 2020/2021 MTREF capital budget focused on functional areas

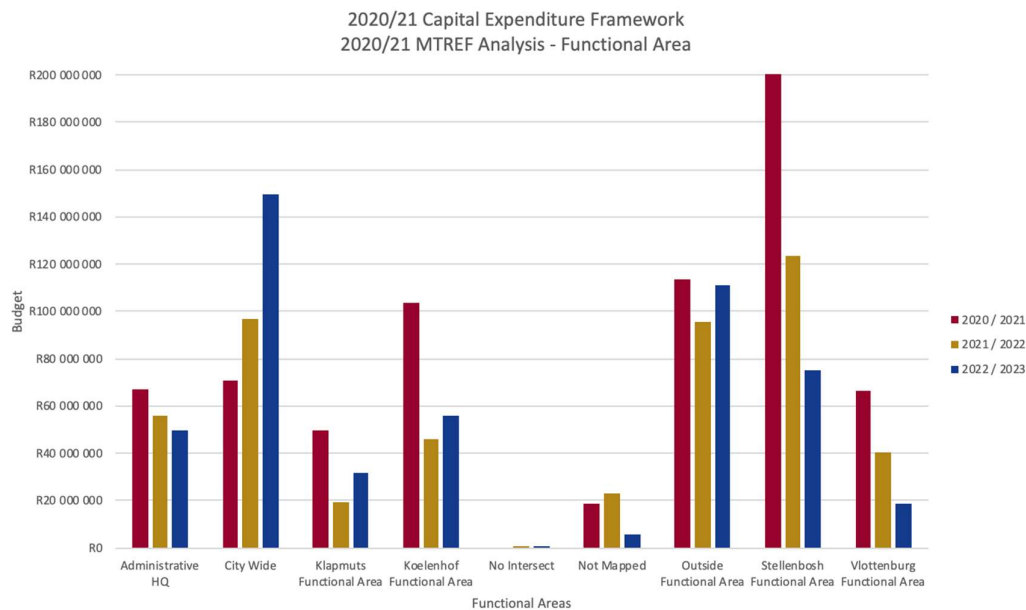
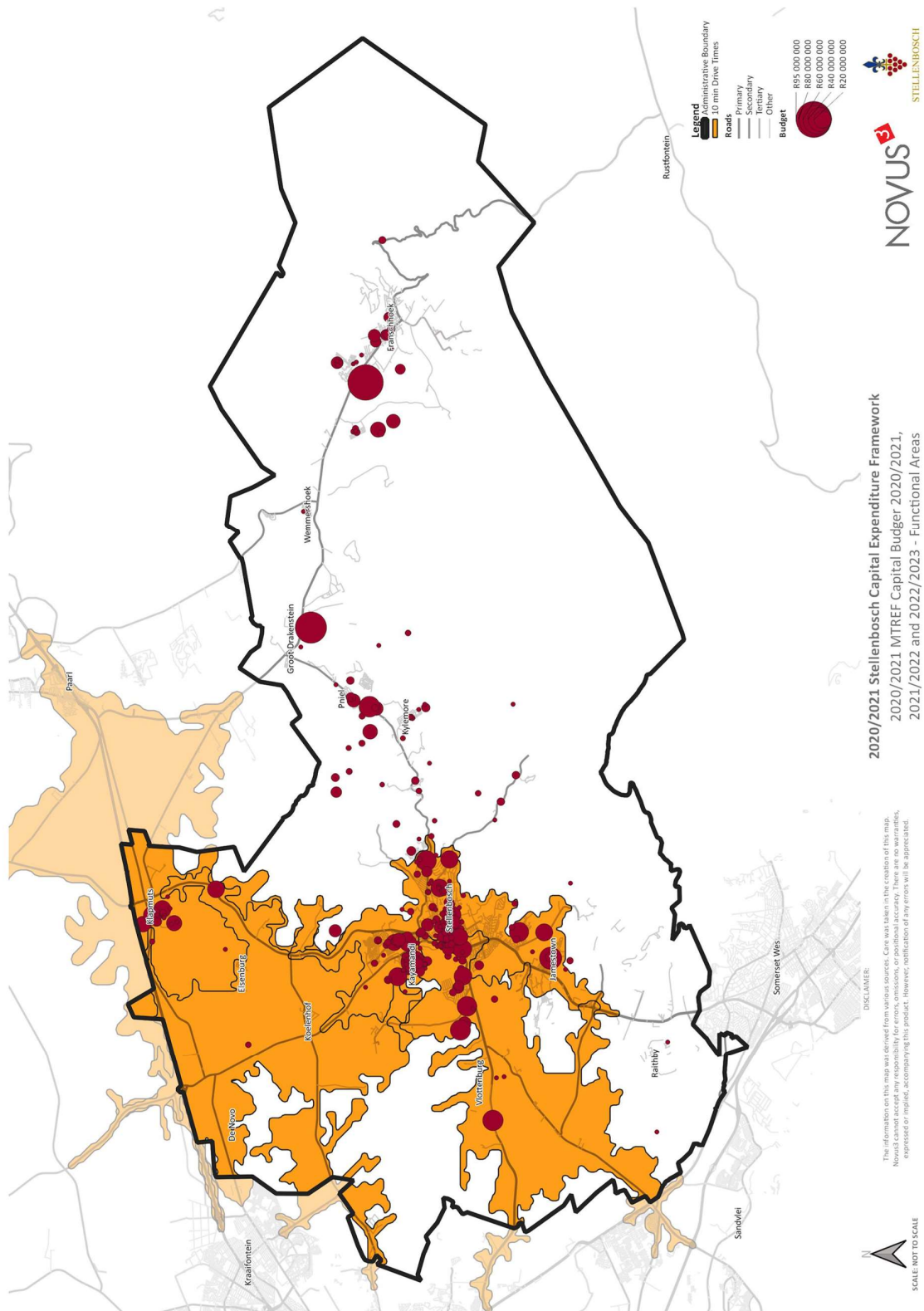


Table 79: 2020/2021 MTREF capital budget focused on functional areas

Functional Area	2020 / 2021	2021 / 2022	2022 / 2023	Total	Percentage
Administrative HQ	R67 316 800	R56 015 800	R49 979 000	R173 311 600	10%
City Wide	R70 770 000	R96 983 762	R149 772 988	R317 526 750	19%
Klappmuts Functional Area	R49 540 000	R19 250 000	R31 849 937	R100 639 937	6%
Koelenhof Functional Area	R103 450 835	R46 151 837	R56 189 225	R205 791 896	12%
No Intersect	R0	R18 416	R28 880	R47 296	0%
Not Mapped	R18 500 000	R22 800 000	R5 500 000	R46 800 000	3%
Outside Functional Area	R113 637 662	R95 489 503	R111 016 834	R320 143 999	19%
Stellenbosh Functional Area	R213 913 094	R123 728 756	R74 873 300	R412 515 150	24%
Vlottenburg Functional Area	R66 415 824	R40 504 340	R18 741 864	R125 662 029	7%
Grnd Total	R703 544 215	R500 942 414	R497 952 029	R1 702 438 657	100%



Map 27: 2020/2021 MTREF capital budget focused on functional areas

11.2.6 2020/2021 MTREF Capital budget by priority development area

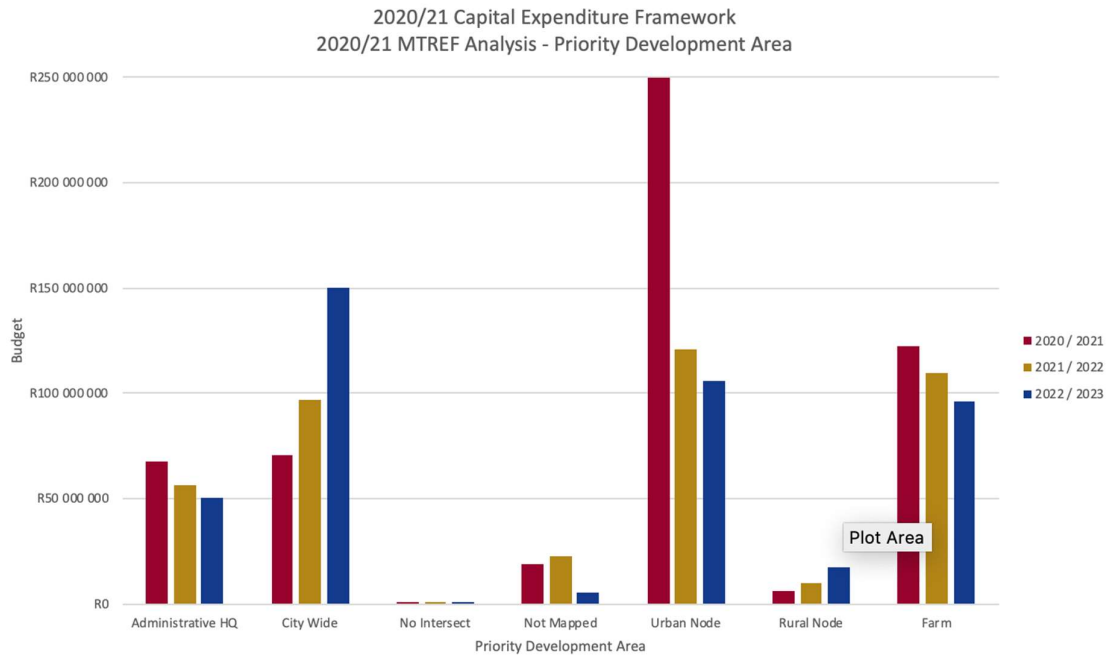


Figure 103: 2020/2021 MTREF capital budget focused on priority development areas

Table 80: 2020/2021 MTREF capital budget focused on priority development areas

PDA	2020 / 2021	2021 / 2022	2022 / 2023	Total	Percentage
Administrative HQ	R67 316 800	R56 015 800	R49 979 000	R173 311 600	13%
City Wide	R70 770 000	R96 983 762	R149 772 988	R317 526 750	23%
No Intersect	R137 353	R18 416	R241 057	R396 825	0%
Not Mapped	R18 500 000	R22 800 000	R5 500 000	R46 800 000	3%
Urban Node	R249 628 710	R120 489 696	R105 702 324	R475 820 730	35%
Rural Node	R6 396 405	R9 508 584	R17 215 246	R33 120 234	2%
Farm	R122 046 993	R109 203 305	R96 411 373	R327 661 670	24%
Grand Total	R534 796 260	R415 019 562	R424 821 988	R1 374 637 811	100%



11.2.7 2020/2021 MTREF Capital budget by electoral ward

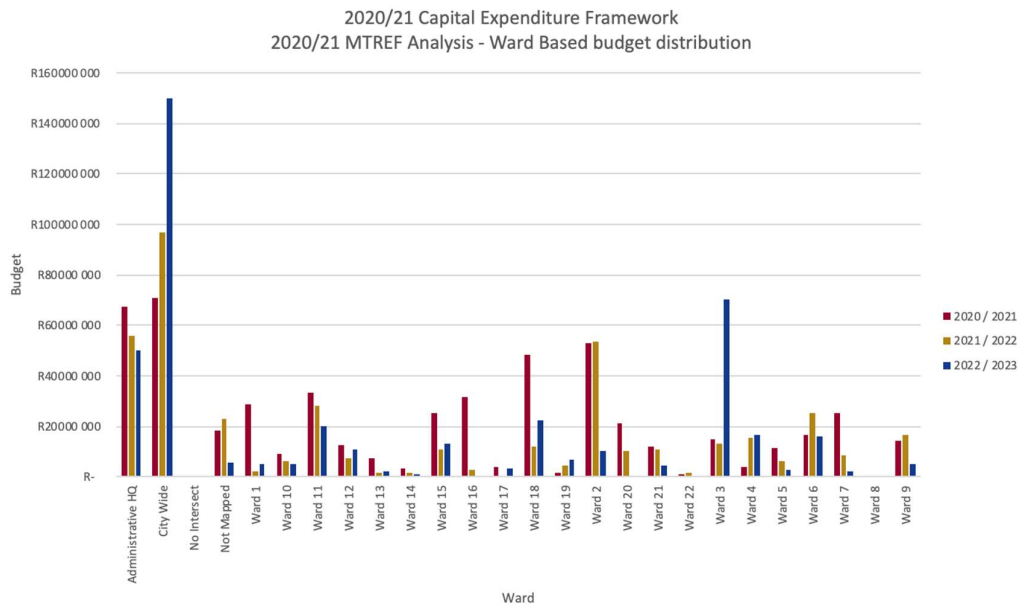
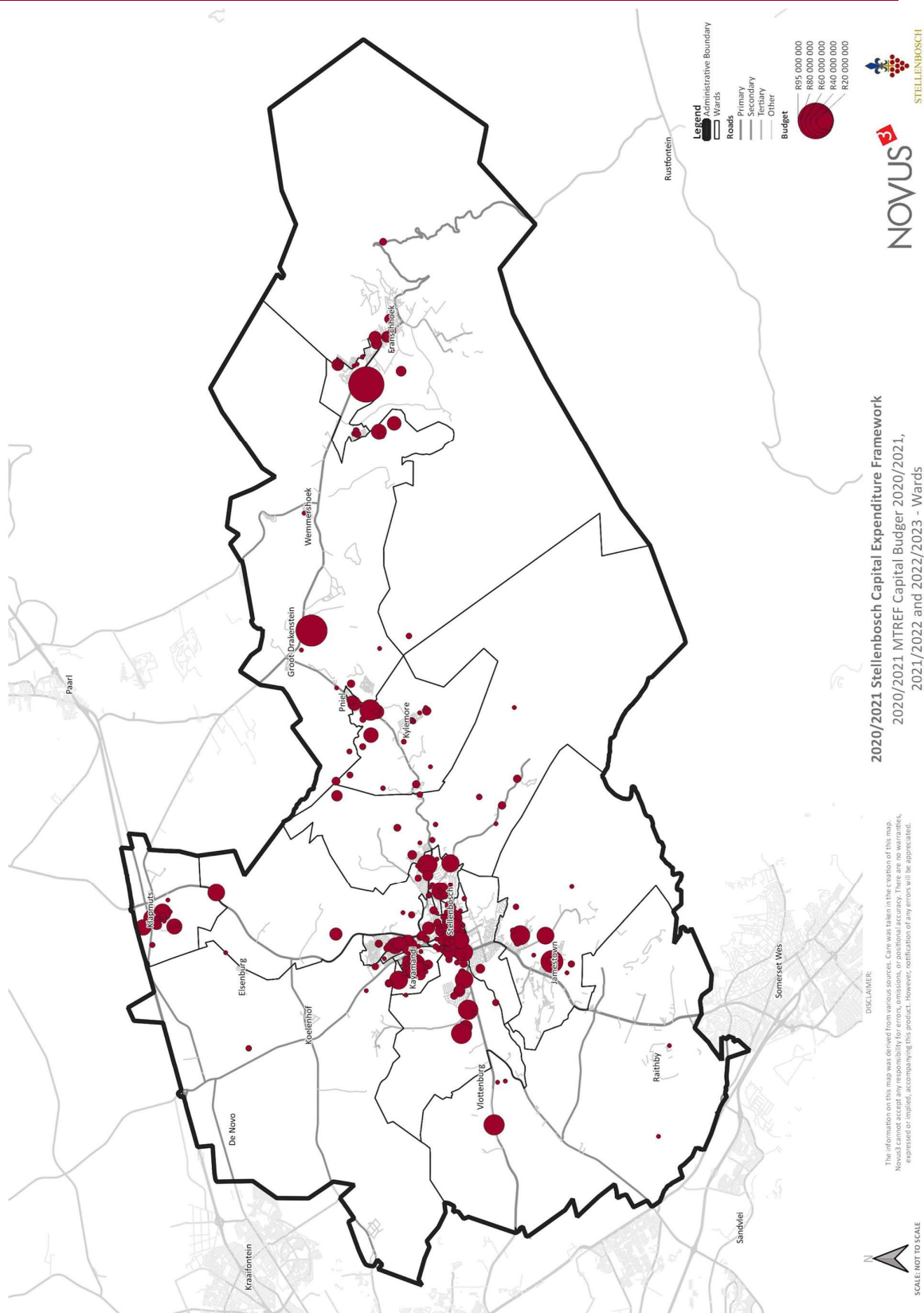


Figure 104: 2020/2021 MTREF capital budget focused on electoral wards

Table 81: 2020/2021 MTREF capital budget focused on priority electoral wards

Row Labels	2020 / 2021	2021 / 2022	2022 / 2023	Total	Percentage
Administrative HQ	R67 316 800	R56 015 800	R49 979 000	R173 311 600	13%
City Wide	R70 770 000	R96 983 762	R149 772 988	R317 526 750	23%
No Intersect	R137 353	R18 416	R241 019	R396 787	0%
Not Mapped	R18 500 000	R22 800 000	R5 500 000	R46 800 000	3%
Ward 1	R28 622 880	R2 406 815	R5 157 133	R36 186 828	3%
Ward 2	R53 055 350	R53 330 317	R10 198 634	R116 584 301	8%
Ward 3	R14 945 103	R13 160 165	R70 413 518	R98 518 785	7%
Ward 4	R3 897 124	R15 636 904	R16 539 097	R36 073 125	3%
Ward 5	R11 272 161	R6 138 771	R2 578 242	R19 989 174	1%
Ward 6	R16 493 883	R25 027 623	R16 066 539	R57 588 045	4%
Ward 7	R25 236 665	R8 399 169	R2 248 771	R35 884 606	3%
Ward 8	R524 165	R606 447	R503 710	R1 634 322	0%
Ward 9	R14 557 979	R16 411 733	R5 123 581	R36 093 293	3%
Ward 10	R9 350 328	R6 481 436	R4 847 723	R20 679 487	2%
Ward 11	R33 311 507	R28 163 083	R19 822 001	R81 296 592	6%
Ward 12	R12 536 754	R7 137 303	R10 810 757	R30 484 815	2%
Ward 13	R7 190 125	R1 793 297	R1 911 422	R10 894 844	1%
Ward 14	R3 096 717	R1 624 347	R1 073 005	R5 794 069	0%
Ward 15	R25 407 022	R10 892 613	R13 132 355	R49 431 989	4%
Ward 16	R31 363 565	R2 565 406	R537 921	R34 466 892	3%
Ward 17	R3 714 674	R547 819	R3 538 029	R7 800 522	1%
Ward 18	R48 171 513	R11 951 404	R22 416 449	R82 539 366	6%
Ward 19	R1 457 158	R4 319 961	R6 744 636	R12 521 755	1%
Ward 20	R21 028 088	R10 303 724	R456 058	R31 787 870	2%
Ward 21	R11 782 208	R10 866 192	R4 720 854	R27 369 254	2%
Ward 22	R1 057 139	R1 437 057	R488 546	R2 982 742	0%
Grand Total	R534 796 261	R415 019 563	R424 821 989	R1 374 637 814	100%



Map 29: 2020/2021 MTREF capital budget focused on priority electoral wards

11.3 2020/2021 – 2022/2023 MTREF Project List

Table 82: 2020/2021 – 2022/2023 MTREF Project list

MTREF PROJECT LIST	2020 / 2021	2021 / 2022	2022 / 2023
Community and Protection Services	R47 889 347	R39 480 000	R67 200 000
Cemeteries	R1 530 000	R8 000 000	R10 500 000
Extension of Cemetery Infrastructure	R1 500 000	R8 000 000	R10 000 000
Purchase of Equipment	R30 000	R-	R-
Purchase of Vehicles/ Fleet	R-	R-	R500 000
Community Development	R585 000	R100 000	R560 000
Furniture Tools and Equipment	R85 000	R100 000	R60 000
Sound Equipment for Outreaches	R-	R-	R-
SRD Vehicle	R-	R-	R500 000
Upgrading and Maintenance of buildings	R-	R-	R-
Upgrading of swimmingpool	R500 000	R-	R-
Community Services: Library Services	R2 490 000	R170 000	R615 000
Cloetesville: Furniture, Tools and Equipment	R50 000	R-	R-
Franschhoek: Furniture Tools and Equipment	R65 000	R-	R-
Groendal Library: Furniture Tools and Equipment	R75 000	R-	R-
Idas Valley: Furniture, Tools and Equipment	R55 000	R-	R-
Libraries: CCTV	R300 000	R-	R-
Libraries: Small Capital	R85 000	R-	R-
Library Books	R160 000	R170 000	R-
Mobile Libraries	R-	R-	R-
New Library: Kylemore	R-	R-	R-
Pniel: Furniture, Tools and Equipment	R-	R-	R35 000
Replacement of geysers	R-	R-	R100 000
Security cameras: All libraries	R-	R-	R-
Upgrading: Cloetesville Library	R1 700 000	R-	R180 000
Upgrading: Kayamandi Library	R-	R-	R-
Vehicles	R-	R-	R300 000
Disaster Management	R800 000	R-	R1 500 000
Disaster management incident command vehicle	R-	R-	R1 500 000
Rescue Vehicle	R800 000	R-	R-
Environmental Management: Implementation	R8 654 347	R3 170 000	R9 300 000
4x4 bakkie	R-	R-	R500 000
Air and Noise Control: FTE	R50 000	R70 000	R100 000
Botmaskop: Security Fencing	R1 500 000	R2 000 000	R2 000 000
Hiking Trails in Nature Areas	R-	R-	R2 000 000
Jan Marais Nature Reserve: Upgrading and maintenance of the reserve	R2 000 000	R-	R1 000 000
Jonkershoek Picnic Site: Upgrade of Facilities.	R-	R-	R-
Mont Rochelle Nature Reserve: Upgrade of Facilities.	R1 504 347	R-	R-
Nature Conservation:Vehicle Fleet	R-	R-	R800 000
Papegaaiberg Nature Reserve	R1 000 000	R-	R-
Upgrade office space: Simonsberg Road	R-	R-	R600 000
Upgrading of Jonkershoek Office Complex and Hatchery	R2 000 000	R-	R-
Workshop : FTE	R100 000	R100 000	R-
Workshop: Specialized equipment	R500 000	R1 000 000	R1 500 000
Workshop: Community Services Tractors	R-	R-	R800 000
Workshop: Upgrading of facilities	R-	R-	R-
Workshop: Vechicle lift	R-	R-	R-
Environmental Management: Urban Forestry	R1 150 000	R1 750 000	R3 480 000
Boreholes	R-	R-	R-
Design and implement electronic Urban Forestry management tool	R-	R-	R250 000
Irrigation Systems	R-	R-	R100 000
Revitalization of the Arboretum	R-	R-	R-
Security Fencing Gate	R-	R-	R-
Storage Containers: Fertilisers & Pesticides.	R-	R-	R30 000
Urban Forestry : Fleet vechiles	R1 000 000	R1 500 000	R1 000 000

MTREF PROJECT LIST	2020 / 2021	2021 / 2022	2022 / 2023
Urban Forestry Furniture, Tools and Equipment	R-	R-	R500 000
Urban Forestry Specialized equipment	R-	R-	R1 200 000
Urban Forestry: 8 ton tip truck	R-	R-	R-
Urban Forestry: Bakkie	R-	R-	R400 000
Urban Forestry: Double cab 4x4	R-	R-	R-
Urban Forestry:Digger loader	R-	R-	R-
Urban Greening: Beautification: Main Routes and Tourist Routes	R150 000	R250 000	R-
Fire and Rescue Services	R6 700 000	R-	R4 200 000
Furniture, tools & equipment	R400 000	R-	R400 000
Major Fire Pumper	R5 000 000	R-	R-
Rapid Response Vehicle	R-	R-	R2 500 000
Replacement of fleet vehicles	R1 000 000	R-	R1 000 000
Rescue equipment	R300 000	R-	R300 000
Halls	R250 000	R200 000	R950 000
Furniture Tools & Equipment	R250 000	R200 000	R100 000
Upgrading of Halls	R-	R-	R250 000
Upgrading/Tar of Klapmuts Fire Station	R-	R-	R-
Vehicle Fleet	R-	R-	R600 000
Law Enforcement and Security	R8 000 000	R12 300 000	R7 450 000
Furniture Tools and Equipment	R300 000	R300 000	R200 000
Install and Upgrade CCTV/ LPR Cameras In WC024	R2 000 000	R2 000 000	R2 000 000
Install Computerized Access Security Systems and CCTV Cameras At Municipal Buildings	R950 000	R950 000	R500 000
Law Enforcement Tools and Equipment	R750 000	R750 000	R750 000
Law Enforcement: Vehicle Fleet	R2 500 000	R7 500 000	R2 500 000
Neighborhood Watch Safety equipment	R1 500 000	R800 000	R500 000
Office accommodation	R-	R-	R1 000 000
Parks and Cemeteries	R10 130 000	R5 800 000	R9 230 000
4 Ton Trucks	R-	R-	R-
Artificial grass on parks and gardens	R-	R-	R300 000
Beautification of Main Routes	R-	R-	R-
Building of ablution facilities: Die Laan	R-	R-	R-
Expand offices for Dept Community Services	R-	R-	R-
Facilities upgrade- Nursery	R100 000	R-	R50 000
Fencing on Various Parks and Gardens	R-	R-	R200 000
Franschhoek Pedestrian Paths	R-	R-	R-
Furniture, Tools and Equipment	R50 000	R50 000	R200 000
Grab/crane truck	R-	R-	R-
Landscaping of Circles in Stellenbosch	R150 000	R-	R-
Legacy park Project	R-	R-	R-
Ornamental Horticulture FTE	R80 000	R-	R30 000
Pathways on Parks & gardens	R100 000	R100 000	R200 000
Purchase of Specialised Equipment	R-	R-	R-
Purchase of Specialised Vehicles	R1 000 000	R-	R-
River development	R-	R-	R250 000
SMART Parks Development	R5 000 000	R-	R-
Spray/Water Parks	R2 000 000	R4 000 000	R4 000 000
Upgrading of Parks	R1 650 000	R1 650 000	R3 000 000
Vehicle Fleet, Tractors, Trucks and Bakkies	R-	R-	R1 000 000
Ward 16: Upgrading of Parks	R-	R-	R-
Ward 21: Fencing	R-	R-	R-
Ward 5: Play Items and Fencing	R-	R-	R-
Sports Grounds and Picnic Sites	R5 980 000	R5 980 000	R8 450 000
Borehole: Rural Sportsgrounds	R550 000	R550 000	R-
Construction of swimming pool: Pniel and Kylemore	R-	R-	R2 000 000
Fencing of Netball Courts	R-	R-	R-
Fencing: Sport Grounds (WC024)	R1 000 000	R1 000 000	R1 500 000
Furniture, Tools and Equipment	R200 000	R200 000	R200 000
Kayamandi Sports Ground	R-	R-	R-
Re-Surface of Netball/Tennis Courts	R-	R-	R550 000
Recreational Equipment Sport	R80 000	R80 000	R100 000

MTREF PROJECT LIST	2020 / 2021	2021 / 2022	2022 / 2023
Sight Screens/Pitch Covers Sports Grounds	R250 000	R250 000	R250 000
Specialised Vehicles	R-	R-	R-
Sport: Community Services Special Equipment	R300 000	R300 000	R300 000
Upgrade of Irrigation System	R-	R-	R200 000
Upgrade of Sport Facilities	R3 000 000	R3 000 000	R3 000 000
Upgrading of Tennis Courts: Idas Valley & Cloetesville	R-	R-	R-
Vehicle Fleet	R600 000	R600 000	R350 000
Traffic Services	R1 620 000	R2 010 000	R10 965 000
Alcohol Screeners	R20 000	R25 000	R30 000
Body Cams	R-	R360 000	R420 000
Furniture, Tools & Equipment	R200 000	R200 000	R120 000
Junior Training Centre	R-	R-	R35 000
Mascot for Junior Training Centre	R-	R-	R30 000
Mobile Radios	R200 000	R200 000	R-
Motorcycle test equipment	R-	R-	R300 000
PLANING OF CONSTRUCTION OF A GRADE A DRIVING LICENCE TESTING CENTER	R-	R-	R2 000 000
Procure recovery (breakdown rollback) vehicle	R-	R-	R1 500 000
Procure specialised vehicles	R-	R-	R1 200 000
Replacement of Patrol Vehicles	R1 200 000	R1 225 000	R1 300 000
Replacement of Vehicle Testing Station Equipment	R-	R-	R4 000 000
Sound Equipment	R-	R-	R10 000
TV/LED Screen	R-	R-	R20 000
Transport Planning	R-	R-	R-
Update of NMT and Cycle plan	R-	R-	R-
Corporate Services	R39 450 000	R48 050 000	R11 650 000
Information and Communications Technology (ICT)	R5 100 000	R5 200 000	R6 600 000
Public WI-FI Network	R600 000	R600 000	R700 000
Purchase and Replacement of Computer/software and Peripheral devices	R500 000	R600 000	R600 000
Upgrade and Expansion of IT Infrastructure Platforms	R4 000 000	R4 000 000	R5 300 000
Parks and Cemeteries	R-	R-	R-
Radios	R-	R-	R-
Properties and Municipal Building Maintenance	R34 350 000	R42 850 000	R5 050 000
Beltana: Security Fencing	R-	R-	R-
Early Childhood Development Centre - Klapmuts	R-	R-	R-
Facilities for the Disabled	R-	R-	R-
Flats: Interior upgrading - Kayamandi	R-	R-	R-
Flats: Interior Upgrading: Cloetesville - Kloof and Long Streets	R1 500 000	R-	R-
Furniture Tools and Equipment: Property Management	R350 000	R250 000	R550 000
Kayamandi: Upgrading of Strongyard Hall	R-	R-	R-
Kayamandi: Upgrading of Makapula Hall	R1 000 000	R1 000 000	R-
La Motte Clubhouse	R800 000	R-	R-
Multi- Purpose Centre: Kayamandi	R-	R-	R-
New Library: Klapmuts	R-	R-	R-
Purchasing of land	R-	R-	R-
Rebuild: Kleine Libertas Theatre	R10 000 000	R12 000 000	R-
Structural Improvement: General	R3 400 000	R5 000 000	R2 000 000
Structural improvements at the Van der Stel Sport grounds	R1 000 000	R1 000 000	R-
Structural Upgrade: Heritage Building	R1 000 000	R1 500 000	R1 500 000
Structural Upgrading: Community Hall Lamotte	R300 000	R-	R-
Terrain Improvements: Klapmuts Sportgrounds	R-	R-	R-
Upgrade Millenium Hall Pniel	R-	R-	R-
Upgrading Fencing	R300 000	R300 000	R500 000
Upgrading of Business Hub: La Motte	R-	R-	R-
Upgrading of Community Facilities: Jonkershoek	R200 000	R1 800 000	R-
Upgrading of Community Facilities: Wemmershoek	R-	R-	R-
Cape access			
Upgrading of Creche: Kayamandi	R-	R-	R-
Upgrading of Eike Town Town Hall	R2 000 000	R-	R-

MTREF PROJECT LIST	2020 / 2021	2021 / 2022	2022 / 2023
Upgrading of Groendal Hall	R-	R-	R-
Upgrading of Groendal Sports Grounds	R-	R-	R-
Upgrading of Kayamandi Corridor	R-	R-	R-
Upgrading of Kylemore Community Hall	R-	R-	R-
Upgrading of Library in Kayamandi	R200 000	R1 000 000	R500 000
Upgrading of New Office Space: Ryneveld Street	R1 800 000	R9 000 000	R-
Upgrading of Public Amenities: Kayamandi	R-	R-	R-
Upgrading of Stellenbosch Town Hall	R2 500 000	R-	R-
Upgrading of Traffic Offices: Stellenbosch	R8 000 000	R10 000 000	R-
Upgrading of Wemmershoek Community Hall	R-	R-	R-
Financial Services	R850 000	R200 000	R200 000
Executive Support: Financial Services: General	R850 000	R200 000	R200 000
Furniture, Tools & Equipment	R600 000	R200 000	R200 000
Vehicle Fleet	R250 000	R-	R-
Infrastructure Services	R446 035 113	R327 026 762	R333 157 988
Electrical Services	R71 000 000	R72 977 862	R151 637 988
Ad-Hoc Provision of Streetlighting	R2 000 000	R2 300 000	R2 645 000
Automatic Meter Reader	R400 000	R400 000	R400 000
Bien don 66/11kV substation new (new development and demand)	R1 500 000	R2 200 000	R70 000 000
Buildings & Facilities Electrical Supply - Stellenbosch	R500 000	R575 000	R661 250
Cable replacement 66kV oil MN - US - MK	R-	R-	R480 000
Cloetesville - University New 66kV cable	R450 000	R16 800 000	R-
Construction and Maintenance Of Municipal Facilities - Franschhoek	R-	R-	R-
Data Network	R-	R500 000	R500 000
DSM Geyser Control	R200 000	R100 000	R100 000
Electricity Network: Pniel	R3 500 000	R3 500 000	R3 500 000
Energy Balancing Between Metering and Mini-Substations	R500 000	R500 000	R-
Energy Efficiency and Demand Side Management	R2 000 000	R2 300 000	R2 645 000
General System Improvements - Franschhoek	R2 000 000	R2 000 000	R2 000 000
General Systems Improvements - Stellenbosch	R3 500 000	R3 521 000	R3 542 126
Infrastructure Improvement - Franschhoek	R1 500 000	R1 500 000	R1 500 000
Integrated National Electrification Programme (Enkanini)	R16 400 000	R11 500 000	R13 225 000
Jan Marais Upgrade: Remove Existing Tx 1 and 2 and replace with 20MVA units	R15 800 000	R5 000 000	R500 000
Kayamandi(Costa grounds)new substation 66/11 kV 2x 20MVA	R-	R-	R300 000
Kwarentyn Sub cables: 11kV 3 core 185mmsq	R5 500 000	R-	R-
PILC(Table19) copper cabling, 3.8km			
Lattera SS	R8 000 000	R371 553	R427 286
Main substation - Tx upgrade: Remove Existing Tx 2 and 3 and replace with 10MVA units from Jan Marais	R-	R-	R27 571 200
Meter Panels	R500 000	R500 000	R400 000
Network Cable Replace 11 Kv	R3 000 000	R3 000 000	R3 000 000
Northern Extension: Phase 2 Electricity Infrastructure	R-	R-	R-
Replace Ineffective Meters & Energy Balance of mini-substations	R600 000	R250 000	R-
Small Capital: Fte Electrical Engineering Services	R-	R1 601 009	R-
Specialized Vehicles	R1 600 000	R-	R-
STB Switchgear (11kV) replace oil type with SF6	R-	R13 000 000	R13 272 470
Substation 66kV equipment, control, VT's, CT's, Isolator links and cable terminals	R-	R-	R1 950 000
System Control Centre & Upgrade Telemetry, Fiber optic cables, smart grid	R1 550 000	R1 559 300	R1 568 656
University substation upgrade 66/11kV 20MVA Trfr x 3	R-	R-	R450 000
Vehicle Fleet	R-	R-	R1 000 000
Vehicle Replacements 2000cc LVD's	R-	R-	R-
Executive Support: Engineering Services: General	R5 400 000	R15 000 000	R-

MTREF PROJECT LIST	2020 / 2021	2021 / 2022	2022 / 2023
Asset Management & Maintenance System Implementation	R-	R-	R-
Building Plan MIS	R-	R-	R-
Development Application MIS	R-	R-	R-
Environmental studies for Bulk Services	R-	R-	R-
Furniture, Tools & Equipment	R100 000	R-	R-
New Project	R5 000 000	R15 000 000	R-
Northern Extension: R304 dueling	R-	R-	R-
Planning & Design of Bulk Services	R-	R-	R-
Scanning and georeferencing of As-Built plans	R-	R-	R-
Update of DC tariff System	R-	R-	R-
Update of Engineering Infrastructure GIS Data	R300 000	R-	R-
Infrastructure Plan, Dev and Implement	R45 955 682	R16 303 900	R13 025 000
Access to Basic Services	R1 465 000	R280 900	R300 000
Basic Improvements: Langrug	R2 720 682	R-	R-
Computer - Hardware/Equipment: Human Settlements & Property	R100 000	R50 000	R50 000
Enkanini ABS	R3 250 000	R250 000	R250 000
Enkanini Planning and Implementation (Roads and Basic Services)	R180 000	R-	R-
Erf 64, Kylemore (±171 services & ± 171 units)	R-	R-	R-
Erf 7001 and other possible sites for mix-used development in Cloeteville	R-	R500 000	R1 400 000
Furniture, Tools and Equipment: Human Settlements and Property	R20 000	R23 000	R25 000
Idas Valley IRDP / FLISP	R1 000 000	R-	R-
ISSP Kayamandi Enkanini (Interim Services)	R-	R-	R-
Jamestown: Housing (Phase 3 & 4)	R500 000	R500 000	R-
Kayamandi Town Centre - top structures	R-	R-	R-
Kayamandi Town Centre: Planning (±700 units)	R1 000 000	R-	R-
Kayamandi: Zone O (±711 services)	R10 680 000	R-	R-
Klapmuts: Erf 2181 (298 serviced sites)	R15 540 000	R-	R-
La Motte Old Forest Station (±430 services & ±430 units)	R-	R1 200 000	R-
La Rochelle development (Erf 2183)	R-	R-	R-
Langrug Planning	R-	R-	R-
Longlands, Vloottenburg (±144 Services and ±144 units)	R-	R-	R-
Northern Extension: Feasibility	R1 000 000	R11 000 000	R11 000 000
Smartie Town, Cloeteville	R1 000 000	R-	R-
Town Centre Stellenbosch (Social Housing)	R-	R-	R-
Upgrading of The Steps/Orlean Lounge	R7 500 000	R2 500 000	R-
Roads and Stormwater	R30 000 000	R16 000 000	R14 200 000
Adhoc Reconstruction Of Roads (WC024)	R4 000 000	R4 000 000	R4 000 000
Airport Precinct Link Road	R-	R-	R-
Bridge Rehabilitation	R3 000 000	R-	R-
Furniture, Tools and Equipment : Tr&Stw	R500 000	R500 000	R500 000
Intersection Improvements	R-	R-	R-
Lower Dorp Straat Upgrading	R-	R-	R-
Parking area upgrades	R2 500 000	R-	R-
Planning of Klapmuts Hills Access Road	R-	R-	R-
Reseal Roads - Brandwacht & Surrounding	R1 500 000	R-	R-
Reseal Roads - Cloeteville & Surrounding	R-	R-	R1 500 000
Reseal Roads - Die Boord & Surrounding	R1 500 000	R-	R-
Reseal Roads - Groendal & Surrounding	R1 500 000	R-	R-
Reseal Roads - Idasvalley & Surrounding	R-	R-	R1 500 000
Reseal Roads - Jamestown & Technopark	R-	R1 500 000	R-
Reseal Roads - Johannesburg, Pniel, Lanquedoc	R-	R1 500 000	R-
Reseal Roads - Kayamandi & Surrounding	R1 500 000	R-	R-
Reseal Roads - Klapmuts, Raithby, Meerlust, wemmershoek, LaMotte, Maasdorp	R-	R1 500 000	R-
Reseal Roads - Kylemore & Surrounding	R-	R-	R700 000
Reseal Roads - Lacoline, Tennantville, Plankenburg	R-	R1 500 000	R-

MTREF PROJECT LIST	2020 / 2021	2021 / 2022	2022 / 2023
Reseal Roads - Mostertsdrif & Surrounding	R-	R1 500 000	R-
Reseal Roads - Onderpapegaai & Surrounding	R-	R-	R1 500 000
Reseal Roads - Paradyskloof & Surrounding	R-	R-	R1 500 000
Reseal Roads - Stellenbosch CBD	R2 000 000	R2 000 000	R2 000 000
Reseal Roads- Franschhoek CBD	R1 000 000	R1 000 000	R1 000 000
River Rehabilitation Implementation	R2 000 000	R-	R-
Rivers - Rehabilitation - Planning & Design	R1 000 000	R-	R-
Specialized Vehicles	R4 000 000	R1 000 000	R-
TLB - Digger Loader	R-	R-	R-
Update Pavement Management System	R-	R-	R-
Upgrade Gravel Roads - Johannesburg, Pniel, Kylemore	R-	R-	R-
Upgrade Gravel Roads- Jamestown	R-	R-	R-
Upgrade Stormwater implementation	R-	R-	R-
Upgrade Stormwater Water Conveyance System	R2 000 000	R-	R-
Upgrade Stormwater: WC024 - Planning & Design	R-	R-	R-
Upgrading Banghoek Street	R-	R-	R-
Upgrading of Laquedoc Access Road and Bridge	R2 000 000	R-	R-
Upgrading of Main Roads - WC024	R-	R-	R-
Vehicle Replacement / Procurement - Heavy Vehicles	R-	R-	R-
Western Bypass: Northern Extension	R-	R-	R-
Traffic Engineering	R18 850 000	R15 050 000	R3 800 000
Asset Management - Implement Traffic Calming Management System	R-	R-	R-
Asset Management - Roads Signs Management System	R-	R-	R-
Asset Management: Traffic Signaling Systems	R-	R-	R-
Directional Information Signage	R200 000	R-	R-
Furniture, Tools and Equipment : Traffic Engineering	R100 000	R-	R-
Jamestown South Transport Network	R2 000 000	R-	R-
Main Road Intersection Improvements: Franschhoek	R1 700 000	R-	R100 000
Main Road Intersection Improvements: Franschhoek - Design	R-	R-	R-
Main road intersection improvements: Helshoogte rd/La Colline	R2 400 000	R-	R700 000
Main road intersection improvements: R44 / Helshoogte	R2 000 000	R100 000	R100 000
Main Road Intersection Improvements: R44 / Merriman Street	R2 000 000	R100 000	R100 000
Main road intersection improvements: R44 / Molteno Street	R-	R-	R-
Main Road Intersection Improvements: Strand / Adam Tas / Alexander	R4 000 000	R1 700 000	R-
Main Road Intersection Improvements:: R44 / Dorp Street	R-	R-	R-
Main Road Intersection Improvements:Pniel / Kylemore	R-	R4 000 000	R-
Pedestrian Crossing Implementation	R100 000	R2 000 000	R-
Road Traffic Management System	R1 500 000	R2 000 000	R-
Road Transport Safety Master Plan - WC024	R-	R500 000	R-
Signalisation implementation	R250 000	R3 000 000	R-
Specialised Equipment: Roadmarking Machine + Trailer	R-	R-	R-
Specialized Vehicle	R-	R500 000	R2 400 000
Traffic Calming Projects: Implementation	R1 000 000	R100 000	R100 000
Traffic Management Improvement Programme	R1 000 000	R250 000	R-
Traffic Signal Control: Installation and Upgrading of Traffic Signals and Associated Components	R500 000	R500 000	R-
Universal Access Implementation	R100 000	R300 000	R-
Vehicles	R-	R-	R300 000
Transport Planning	R19 350 000	R6 350 000	R11 150 000
Adam Tas Road	R-	R-	R750 000
Bicycle Lockup Facilities	R-	R1 000 000	R500 000
Comprehensive Integrated Transport Plan	R1 000 000	R1 000 000	R1 000 000
Cycle Plan - Design & Implementation	R-	R500 000	R500 000
De Beer St	R-	R100 000	R100 000

MTREF PROJECT LIST	2020 / 2021	2021 / 2022	2022 / 2023
Eastern Link Road: Concept, Feasibility, Prelim design	R-	R-	R450 000
Feasibility to establish an transport operating company	R-	R-	R-
Freight Strategy for Stellenbosch & Franschhoek	R-	R-	R200 000
Joubert St	R-	R1 500 000	R-
Khayamandi Pedestrian Crossing (R304, River and Railway Line)	R2 500 000	R-	R-
New Development Transport Analysis	R-	R-	R-
NMT and site development	R-	R-	R-
NMT routes along all major arterials	R-	R-	R-
Non-Motorised Transport Implementation	R2 000 000	R-	R-
Northern Extension: Public Transport Network	R-	R-	R-
OLP Revision	R-	R-	R-
Park and Ride hub	R-	R-	R-
Parking Development	R1 000 000	R-	R-
Pedestrian and Cycle paths Design and Phased implementation	R-	R2 000 000	R-
Public Transport Facilities	R-	R-	R2 000 000
Public Transport Infrastructure (Public Transport Shelters & Embayments)	R350 000	R-	R500 000
Re-design of Bergzicht Public Transport Facility	R500 000	R-	R-
Stellenbosch NMT: Jamestown - new sidewalks	R1 000 000	R-	R2 000 000
Taxi Rank - Franschhoek	R5 000 000	R-	R1 500 000
Taxi Rank - Kayamandi	R3 500 000	R-	R-
Taxi Rank: Klappmuts	R2 000 000	R250 000	R250 000
Tour Bus Parking	R500 000	R-	R400 000
Update Roads Master Plan for WC024	R-	R-	R1 000 000
Waste Management: Solid Waste Management	R9 245 000	R23 745 000	R50 245 000
Expansion of the landfill site (New cells)	R2 000 000	R7 000 000	R20 000 000
Formalize skip areas in Franschhoek and Kayamandi	R-	R-	R500 000
Furniture, Tools and Equipment : Solid Waste	R45 000	R45 000	R45 000
Integrated Waste Management Plan	R-	R-	R100 000
Landfill Gas To Energy	R500 000	R2 000 000	R8 000 000
Major Drop-Offs : Construction - Franschhoek	R-	R-	R-
Major Drop-offs : Construction - Klappmuts	R-	R-	R-
Mini Waste drop-off facilities at inf. Settlements	R-	R-	R100 000
New Project	R-	R1 000 000	R5 000 000
Skips (5,5kl)	R200 000	R200 000	R200 000
Street Refuse Bins	R1 000 000	R1 000 000	R1 000 000
Transfer Station: Stellenbosch Planning and Design	R1 000 000	R8 000 000	R10 000 000
Upgrade Refuse disposal site (Existing Cell)- Rehab	R2 000 000	R1 000 000	R1 000 000
Vehicles	R2 000 000	R3 000 000	R-
Waste Biofuels	R-	R-	R300 000
Waste Management Software	R-	R-	R200 000
Waste Minimization Projects	R500 000	R500 000	R500 000
Waste to Energy - Implementation	R-	R-	R3 000 000
Waste to Energy - Planning	R-	R-	R300 000
Waste to Food	R-	R-	R-
Water and Wastewater Services: Sanitation	R115 734 431	R92 850 000	R44 600 000
100 New Development Bulk Sewer Supply WC024	R2 000 000	R2 000 000	R5 000 000
110 Bulk Sewer Outfall: Jamestown	R30 000 000	R6 000 000	R-
111 Sewerpipe Replacement: Dorp Straat	R12 000 000	R6 000 000	R-
113 Sewer Pumpstation & Telemetry Upgrade	R1 000 000	R1 000 000	R1 500 000
114 Sewerpipe Replacement	R3 000 000	R4 000 000	R7 000 000
122 Furniture, Tools and Equipment : Sanitation	R-	R-	R200 000
131 Update Sewer Masterplan and IMQS	R1 500 000	R1 500 000	R-
140 Compilation of Water Service Development Plan (tri-annually)	R-	R-	R-
150 Upgrade of WWTW: Pniel & Decommissioning Of Franschhoek	R44 684 431	R50 000 000	R-
151 Upgrade of WWTW: Klappmuts	R500 000	R1 000 000	R15 000 000
152 Upgrade of WWTW Wemmershoek	R15 000 000	R-	R-
154 Refurbish Plant & Equipment - Raithby WWTW	R-	R-	R-

MTREF PROJECT LIST	2020 / 2021	2021 / 2022	2022 / 2023
160 Furniture, Tools and Equipment	R-	R-	R200 000
160 Furniture, Tools and Equipment : Sanitation	R200 000	R200 000	R-
162 Upgrade Auto-Samplers	R100 000	R150 000	R200 000
Blaauwklippen Drainage Area	R-	R-	R-
Bulk Sewer Upgrade: Dwarsriver Area (Kylemore, Boschendal, Pniel)	R-	R20 000 000	R11 000 000
Cloetesville Bulk Sewer Upgrade	R-	R-	R1 000 000
Effluent Recycling of Waste Water 10Ml per day	R-	R-	R500 000
Franschhoek Sewer Network Upgrade	R5 000 000	R-	R-
Industrial Effluent Monitoring	R750 000	R1 000 000	R-
Kayamandi Bulk Sewer	R-	R-	R500 000
Klapmuts Bulk Sewer Upgrade	R-	R-	R1 000 000
Northern Extension: Phase 2 Sanitation Infrastructure	R-	R-	R-
Update Sewer Masterplan	R-	R-	R500 000
Vehicles	R-	R-	R1 000 000
Water and Wastewater Services: Water	R130 500 000	R68 750 000	R44 500 000
101 Bulk water Supply Pipe Line & Pumpstations: Franschhoek	R12 000 000	R-	R-
102.5 Bulk water Supply Pipe : Cloetesville/ Idas Valley	R-	R-	R1 000 000
103 Bulk Water Supply Pipeline & Reservoir - Jamestown	R10 000 000	R10 000 000	R-
104 Bulk water supply pipe and Reservoir: Kayamandi	R19 500 000	R-	R-
105 Bulk water supply Klapmuts	R15 000 000	R5 000 000	R-
107 Bulk Water Supply Pipe: Idas Valley/Papegaaiberg and Network Upgrades	R-	R-	R1 000 000
108 Water Treatment Works: Idasvalley	R11 000 000	R15 000 000	R2 000 000
109 Water Treatment Works: Paradyskloof and Associated works	R-	R-	R500 000
112 New 5 MI Reservoir: Cloetesville	R-	R-	R-
113 New 1 ML Raithby Reservoir Planning & Design	R-	R-	R-
115 Storage Dam and Reservoir Upgrade	R-	R-	R-
116 Chlorination Installation: Upgrade	R500 000	R500 000	R500 000
117 Water Conservation & Demand Management	R10 000 000	R5 000 000	R5 000 000
118 Reservoirs and Dam Safety	R1 500 000	R1 500 000	R1 500 000
119 New Developments Bulk Water Supply WC024	R2 000 000	R2 000 000	R8 000 000
120 Waterpipe Replacement	R8 000 000	R7 000 000	R10 000 000
121 Water Telemetry Upgrade	R500 000	R750 000	R1 500 000
122 Furniture, Tools and Equipment : Reticulation	R100 000	R100 000	R150 000
123 Upgrade and Replace Water Meters	R2 500 000	R3 000 000	R1 500 000
124 Vehicles	R1 000 000	R1 000 000	R1 500 000
125 Update Water Masterplan and IMQS	R1 500 000	R1 500 000	R2 000 000
Dwarsriver Bulk Supply Augmentation and Network Upgrades	R-	R-	R1 000 000
Franschhoek Bulk Water Upgrades	R-	R-	R-
Koelenhof and Mariendahl Bulk Water Supply Upgrade	R-	R-	R-
Longlands Vlotenburg: Infrastructure - Reservoir	R-	R-	R-
New 5 MI Reservoir: Kayamandi	R-	R-	R-
New Reservoir & Pipeline: Vlotenburg	R20 000 000	R10 000 000	R-
New Reservoir Kayamandi Northern Extension and Network Upgrade	R-	R-	R-
New Reservoir Rosendal	R15 000 000	R6 000 000	R-
Northern Extension: Phase 2 Water Infrastructure	R-	R-	R2 000 000
Provision of Services Jonkershoek: Planning	R-	R-	R-
Specialized vehicle: Jet Machine	R-	R-	R3 850 000
Upgrade of Franschhoek Reservoirs and Pipelines	R-	R-	R1 000 000
Upgrading of Koelenhof Water Scheme	R-	R-	R500 000
Upgrading of Raithby Water Scheme	R-	R-	R-
WSDP (tri-annually)	R400 000	R400 000	R-
Municipal Manager	R40 000	R44 000	R49 000
Executive Support: Office of the Municipal Manager	R40 000	R44 000	R49 000
Furniture, Tools and Equipment	R40 000	R44 000	R49 000
Planning and Economic Development	R531 800	R218 800	R12 565 000

MTREF PROJECT LIST	2020 / 2021	2021 / 2022	2022 / 2023
Administrative Support	R-	R-	R-
Enkanini (Planning)	R-	R-	R-
Development Planning: Spatial Planning	R-	R-	R-
Furniture, Tools and Equipment	R-	R-	R-
Economic Development and Tourism	R285 000	R-	R4 500 000
Development of 4-Passes Mountain Bike trail	R-	R-	R-
Establishment of Informal Trading Markets Bird Street	R-	R-	R-
Furniture Tools and Equipment	R35 000	R-	R-
Local Economic Development Hub Kayamandi	R-	R-	R4 500 000
Upgrading of the Kayamandi Economic Tourism Corridor	R250 000	R-	R-
IHS: Informal Settlements	R-	R-	R8 000 000
Furniture, Tools and Equipment	R-	R-	R-
Klapmuts ABS	R-	R-	R-
Langrug ABS	R-	R-	R-
Langrug UISP (1899)	R-	R-	R8 000 000
Upgrading of Informal Settlements: General	R-	R-	R-
IHS: New Housing	R81 800	R93 800	R65 000
Furniture, Tools and Equipment	R81 800	R93 800	R65 000
Land Use Management	R130 000	R125 000	R-
Furniture, Tools & Equipment	R130 000	R125 000	R-
Spatial Planning: Planning and Development	R35 000	R-	R-
AirConditioning Units	R-	R-	R-
Furniture, Tools and Equipment	R35 000	R-	R-
Hi speed and quality A0 network scanner	R-	R-	R-
Urban Planning	R-	R-	R-
Grand Total	R534 796 260	R415 019 562	R424 821 988

Section 12 Institutional Arrangements



12 Institutional Arrangements

Stellenbosch Local Municipality is one of the municipalities who has developed a Capital Expenditure Framework, and one of the only municipalities. The ease with which the CEF could be developed is largely attributable to the levels of institutional maturity which allowed function in an integrated fashion as intended by the IUDF.

Regardless of the institutional maturity, the municipality still identified areas of improvement that can be worked on towards the next version of the Capital Expenditure Framework.

This section will deal with mainly three components:

- Firstly, it will discuss elements of possible improvements and additions towards the second generation Capital Expenditure Framework;
- Secondly, it will unpack the performance indicators that could potentially be introduced in the second generation Capital Expenditure Frameworks, and;
- Thirdly, it will show the alignment of the Capital Expenditure Framework in terms of National, Provincial, and Municipal strategic outcomes.

12.1 Towards the second generation Capital Expenditure Framework

12.1.1 Volume based data collection

This CEF is financially oriented. In order to ensure that the service delivery needs within the municipality are met, it is necessary to have a better understanding of the asset quality within the municipality and what the volumes are that will be obtained after spending the capital as expressed in the CEF. This will lead to a CEF that not only look at whether the municipal budget is sustainable, but also meet the potential needs that is facing the municipality as identified in the demand quantification chapter of this document.

12.1.2 Updated master plans

The CEF is reports on an ongoing cycle of project conceptualisation, planning budgeting and implementation. Part of this process is to update master plans – alternatively referred to as sector plans. This will then feed into the Integrated Infrastructure Investment Framework (IIIF). Stellenbosch is in process of updating various master plans which, once updated, will result in a project list which will then feed into the CEF, and so ensure that the CEF remains current and relevant.

12.1.3 Continuation of the Capital Planning Forum

The Capital Planning Forum (CPF), is a mechanism within the Stellenbosch municipality where the proverbial tyre hits the proverbial ground. It is the engine room that led to a collaborative effort in delivering the CEF.

The CPF is headed by the CFO and Director of Governance (Responsible for the IDP, Public Participation and Performance Management) calling together all departments with a vested interest in capital planning, budgeting and implementation.

The CPF is the platform where integrative planning and collaboration occurs, and where departments have the opportunity to raise concerns, questions and suggestions regarding amongst others the capital budget. As a result the CPF is a critical forum for integrated infrastructure planning and budgeting.

12.1.4 Incorporation of Provincial departments capital need lists

The IIIF is intended to not only show the IIIF of the municipality, but rather the total planned capital expenditure within the municipal jurisdiction, and beyond. A first step would be to start gathering the information, and incorporating it into the reporting component of the CEF and as an informant to integrated planning.

12.1.5 Clear set of performance indicators

During the process of developing the CEF, various indicators were provided and discussed. The first round CEF's should show which metrics could assist in measuring performance towards the IUDF. Two such indicators include the Poor versus Non-Poor capital expenditure ratio, as well as the % of capital expenditure that is spatially targeted.

12.1.6 Adjustment of submission dates

There is a call for better alignment between municipal and national planning processes in terms of submission dates of critical document such as the MTREF budget, SDF review, IDP update and a CEF. What makes this even more critical of a call, is the fact that the said documents are all intertwined, which calls for stronger coordination within the municipality.

12.2 Performance Indicators

12.2.1 Contextualisation

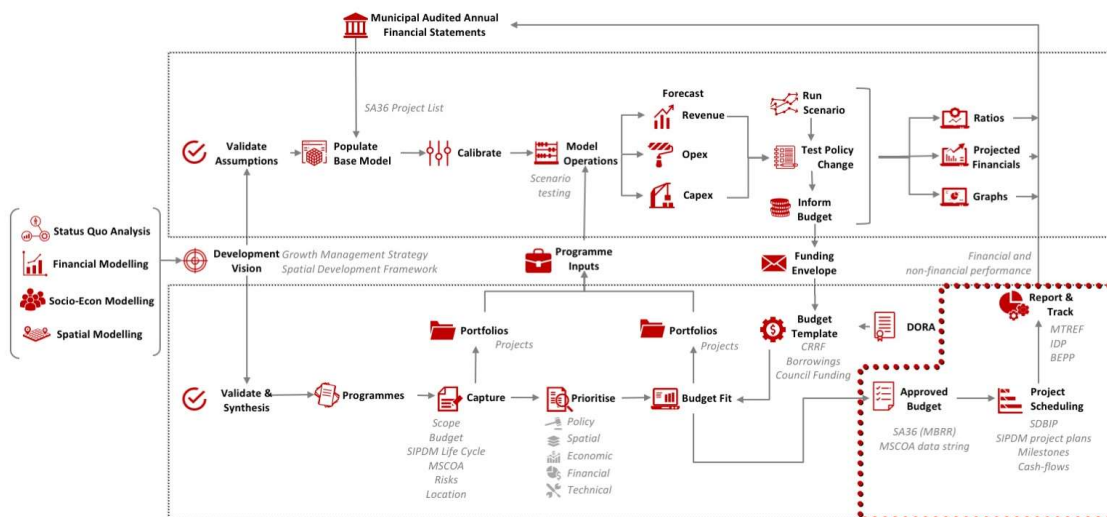


Figure 105: Reporting and Tracking

Reporting and tracking is one of the most important components of the total process. It enables a municipality, and other spheres of government to track the impact of capital investment. Performance indicators aims to assist in understanding the performance of a municipality in order to ensure that the municipality are strategically aligned with legislative, planning and budgeting requirements.

The CP3 system not only allows for project identification and implementation based on certain spatial targeted areas, but it continues to evaluate and track implementation. It provides a platform for reporting and evaluation and in doing so provides more credibility to the municipality's prioritisation process. Specific elements to which the said system can report include:

- Specific spatial impact of projects;
- Capital expenditure versus a multitude of spatial filters;
- Capital expenditure in terms of strategic direction of various tiers of government;
- CIDMS Phasing of projects; and
- Requested expenditure versus Planned expenditure versus Actual expenditure.

As this is the first reporting period of the IUDF programme, the maturity of the CEF process within different municipalities varies which means that the ability to respond to specific performance indicators varies. Based on the maturity and ability of the different municipalities, the performance indicators will evolve to enable uniform tracking of progress. Performance indicators are therefore used as a beta reporting attempt – pending further clarity on performance indicator requirements.

This section aims to shed a light on the performance indicators as required by the IUDF guidelines, with specific focus on a performance bonus available within the IUDF grant, and to show the expenditure of the City in terms of the various spheres of governments' outcomes.

12.2.2 Indicators for Performance based funding allocation

Each indicator will be discussed based on the following format:

- Target: outlines the factors (data) required in order to calculate each of the Indicators.
- Source data: outlines the datasets that have been collected for purposes of the calculation method as well as the corresponding source of each dataset.
- Data Integrity and comments: outlines a summarised data audit of the datasets collected as well as limitation factors that need to be taken into account during the calculation process.
- Assumptions: outlines assumptions made to conform to the criteria as set out by National Treasury. Calculating the Performance Indicator – outlines the methodology process used to calculate the indicator.
- Results: outlines the results from the methodology followed within the reporting format as set out by National Treasury.
- Proposed Methodology and Data Improvements: outlines solutions to the limitation factors described within the data audit process as well as factors that need to be taken into account for future calculation of the indicators.

For the indicators that could not be calculated a proposed methodology has been included for implementation once the outstanding/adequate datasets have been collected.

12.2.3 Indicator 1: Own funded capital expenditure

12.2.3.1 *Target*

The Ratio measures the extent to which the municipality's Total Capital Expenditure is funded through Internally Generated Funds and Borrowings, as indication of the Municipality's level of Grant Dependency in funding its capital programme. No norm is proposed at this time, but a lower result will indicate lower level of grant dependency, which indicates a stronger ability by the municipality to be financially sustainable in the longer term. It is critical that the funding mix of capital expenditure is undertaken in such a manner that affordable borrowing is directed towards addressing service delivery needs and that there is also opportunity for increased capacity on internally generated funding to attain an improved balance of the funding sources.

12.2.3.2 *Source Data*

Statement of Financial Position, Budget, Annual Financial Status Appendices, Notes to the Annual Financial Statements (Statement of Comparative and Actual Information), Budget, IDP, In-Year reports

12.2.3.3 *Data integrity and comments*

Unqualified audited annual financial statements of the municipality proves the most reliable source. In-year reports can be relied on for the purposes of ongoing and interim monitoring end reporting

12.2.3.4 *Calculating the indicator*

$$\text{Indicator 1} = \frac{\text{Own funded Capital Expenditure}_{\text{Internally Generated funds+Borrowing}}}{\text{Total Capital Expenditure}} \times 100$$

12.2.3.5 *Results*

Based on the 2018 audited annual financial statements of Stellenbosch a result of 82.13% was achieved, which indicates a low level of grant dependency to fund its capital expenditure.

12.2.3.6 *Proposed Methodology and Data Improvements*

The methodology followed are as proposed by National Treasury.

12.2.4 indicator 2: Total maintenance expenditure as percentage of carrying value of PPE

12.2.4.1 *Target*

The Ratio measures the level of repairs and maintenance to ensure adequate maintenance to prevent breakdowns and interruptions to service delivery. Repairs and maintenance of municipal assets is required to ensure the continued provision of services. A ratio result of 8% is recommended by National Treasury as an industry norm. A ratio below the norm may be a reflection that insufficient monies are being spent on repairs and maintenance to the extent that it could increase impairment of useful assets. An increasing expenditure trend may be indicative of high asset-usage levels, which can prematurely require advanced levels of Repairs and Maintenance or a need for Asset Renewal / Replacements. Also, should an increasing expenditure trend suddenly drop to lower levels without an increase in the fixed asset value, this may be indicative of challenges in spending patterns. This may also indicate that the Municipality is experiencing cash flow problems and therefore unable to spend at appropriate levels on its repairs to existing assets or purchase of new assets thus impacting negatively on service delivery.

12.2.4.2 *Source Data*

Statement of Financial Position, Statement of Financial Performance, IDP, Budgets and In-Year Reports.

12.2.4.3 *Data integrity and comments*

Unqualified audited annual financial statements of the municipality proves the most reliable source. The repairs and maintenance expense can be obtained from Table SA1 and SA34c in the latest approved MTREF budget and supporting schedules. In-year reports can be relied on for the purposes of ongoing and interim monitoring end reporting. Due to the nature of carrying value of PPE and the impact that Stellenbosch's accelerated capital investment in recent years may have had, this ratio should be seen as a guideline of average spend which need to be achieved over the longer term, considering average ageing of infrastructure on the entire asset register. Allocating repairs and maintenance correctly within mSCOA classification requirements is of essence in the calculation of this ratio.

12.2.4.4 *Calculating the indicator*

$$\text{Indicator 2} = \frac{\text{Total Repairs and Maintenance Expenditure}}{\text{Property, Plant and Equipment and Investment Property}_{\text{Carrying Value}}} \times 100$$

12.2.4.5 *Results*

Based on the 2018 audited annual financial statements of Stellenbosch a result of 0.8% was achieved, which indicates a very low level of repairs and maintenance to PPE. This may be due to lack of data integrity and availability, but may also indicate likelihood of possible impairments of PPE in future due to lack of proper maintenance. This may also result in increased spend on replacement assets as part of its annual capital programme. Over the longer term Stellenbosch should aim to improve this result to more acceptable levels.

12.2.4.6 *Proposed Methodology and Data Improvements*

The reasons for this low result should be investigated by the municipality. This result may be due to incomplete repairs and maintenance expense disclosure in its schedules to its latest approved budget (the repairs and maintenance expense appears to omit repairs and maintenance cost included under employee related costs, other materials and contracted services).

12.2.5 Indicator 3: Asset management plan is in place

12.2.5.1 Target

Asset management plans is vital in the context of capital expenditure as they provide the roadmap for achieving value from physical assets by optimising cost, risk and performance across the asset lifecycle. They define the implementation activities necessary to realise the municipality asset management objectives.

This indicator therefore aims to understand how the municipality is tracking previous capital expenditure, and how well current infrastructure is being monitored.

12.2.5.2 Source Data

Directorate, Infrastructure Services.

12.2.5.3 Data integrity and comments

Asset management plans listed here are the asset management plans that are in use by the municipality currently.

12.2.5.4 Calculating the indicator

The following steps were taken to determine this indicator:

- Identify if an asset management plan in place (if yes, proceed to next step, if no, score zero);
- Identify if they have been approved by municipality (if yes, proceed to next step, if no, score zero);
- Determine when last the asset management plan has been update (if equal to or less than three years, score 100%, if more than 3 years, score zero).

12.2.5.5 Results

Table 83: Indicator 3: Asset management plan is in place

Department	Asset Management Plan in Place	Approved by Municipality	Approval Date	Update Within last 3 Years (2018 FY)
Electricity	Yes	Yes	2016	Yes
Water	Yes	Yes	2017	Yes
Waste Water	Yes	Yes	2017	Yes
Solid Waste	Yes	Yes	2017	Yes
Roads, Stormwater	Yes	Yes	2015	Yes
Transport	Yes	Yes	2016	Yes
Result	1	1	1	1
Final Result				100%

12.2.5.6 Proposed Methodology and Data Improvements

The Boolean test implied in the formation of this indicator has been followed. This indicator should however consider asset registers as opposed to asset management plans.

12.2.6 Indicator 4: Number of land use applications processed in priority areas

NB: As per the IUDG description document, this indicator is dormant for 2019/20.

12.2.6.1 *Target*

This indicator aims to identify whether private development pressure are within the priority development areas and whether private development occurs outside the Priority Development Areas.

12.2.6.2 *Source Data*

The data is provided via the database of the internal system dealing with land use applications.

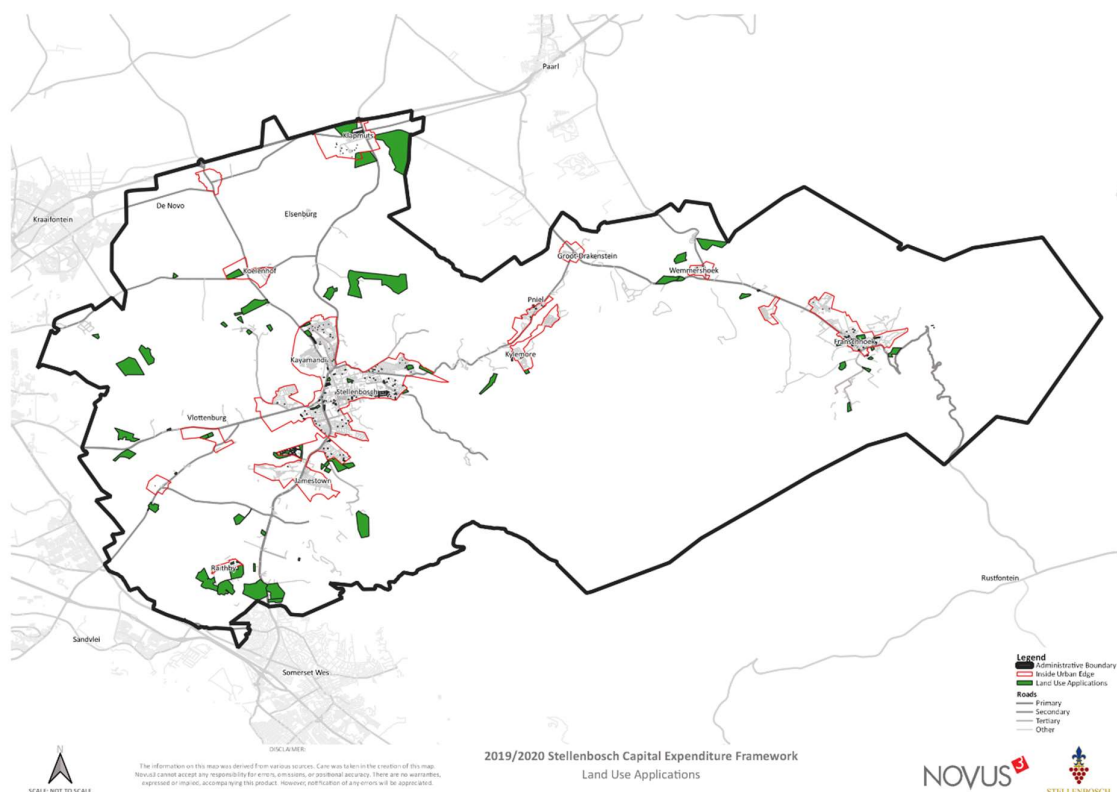
12.2.6.3 *Data integrity and comments*

Number of land use applications does not necessarily reflect development pressure. A land use application for a block of flats has a major impact on number of households and so on infrastructure, where a consent use for a creche does not.

12.2.6.4 *Calculating the indicator*

- Step 1: Collect data ranging from 2018-01-01 to 2018-12-31.
- Step 2: Clean data in order to link to the Cadastre of Stellenbosch local municipality.
- Step 3: Join the data spatially.
- Step 4: Identify Spatial Development Priority Development Areas.
- Step 5: Intersect the Cadastre and Priority Development Areas.
- Step 6: Calculate results.

12.2.6.5 Results



Map 30: Indicator 4: Number of land use applications processed in priority areas

Table 84: Indicator 4: Number of land use applications processed in priority areas

	Count	As a % of total number of land use applications	As a % of total number of land use applications joined
Total number of land use applications	376	100%	
Total number of land use applications joined	288	77%	100%
Total number of land use applications within urban edge	241	64%	84%

12.2.6.6 Proposed Methodology and Data Improvements

Municipality is in process to establish a land use application platform on an ESRI platform which will enable 100% accuracy in this indicator.

12.2.7 Indicator 5: Number of building plan applications processed in priority areas.

NB: As per the IUDG description document, this indicator is dormant for 2019/20.

12.2.7.1 Target

This indicator aims to identify whether development is being allowed outside the priority development areas. It aims to evaluate whether the municipality is aligning private development and infrastructure provision.

12.2.7.2 Source Data

The data is provided via the database of the internal system dealing with building plan applications.

12.2.7.3 Data integrity and comments

Given the fact that the data was provided from an online platform means that the data enjoys a high level of confidence, and will enjoy it even more so when the ESRI platform has been fully implemented within the Municipality.

12.2.7.4 Calculating the indicator

- Step 1: Collect data ranging from 2018-01-01 to 2018-12-31.
- Step 2: Clean data in order to link to the Cadastre of Stellenbosch local municipality.
- Step 3: Join the data spatially.
- Step 4: Identify Spatial Development Priority Development Areas.
- Step 5: Intersect the Cadastre and Priority Development Areas.
- Step 6: Calculate results.

12.2.7.5 Results

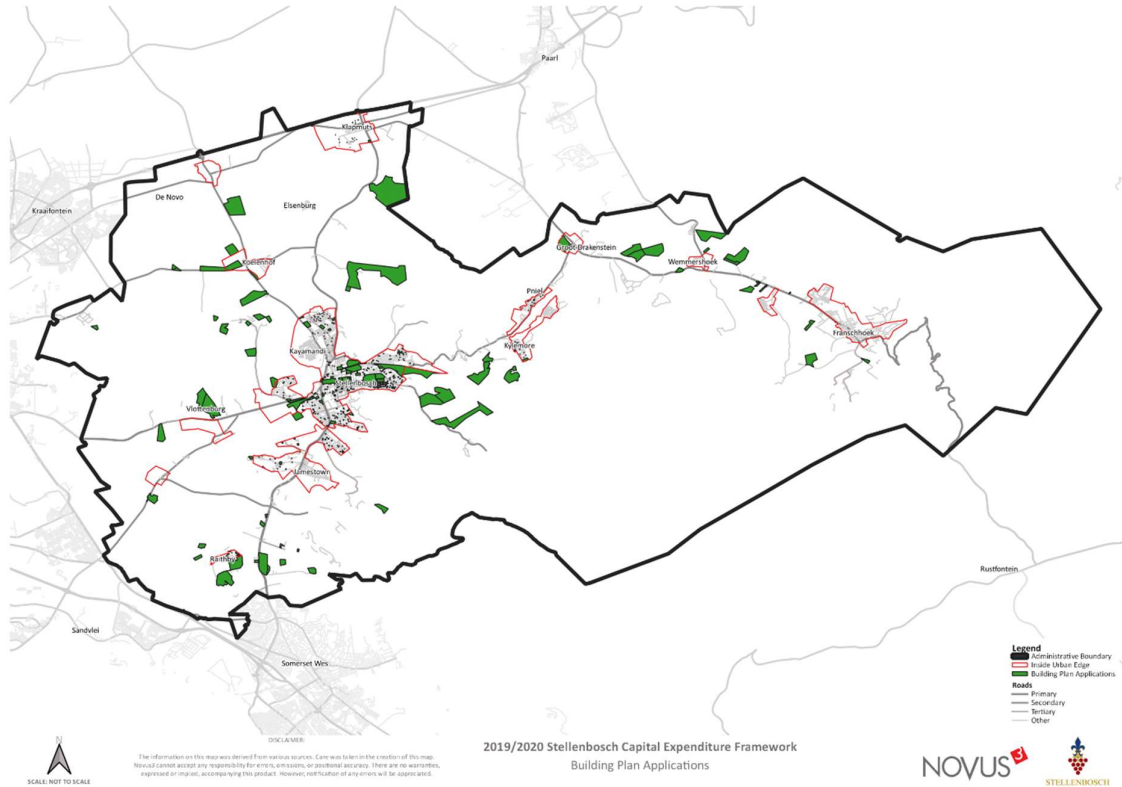
Table 85: Indicator 5: Number of building plan applications processed in priority areas

	Count	As a % of total number of building plan applications	As a % of total number of building plan applications joined
Total number of building plan applications	1 471		
Total number of building plan applications joined ³⁷	552	38%	100%
Total number of la building plan applications within urban edge	488	33%	88%

³⁷ 341 of building plan applications do not have erf related information to join.

12.2.7.6 Proposed Methodology and Data Improvements

The Stellenbosch Local Municipality has approved the development and integration of a GIS based management system. This system will be integrated to the. Whole municipality, and will have a spatial engine which enables spatial reporting. This institutional arrangement will ease the calculation of this performance indicator, and enable the calculation of other potential indicators.



Map 31: Indicator 5: Number of building plan applications processed in priority areas

12.2.8 Summary

Table 86: Performance Indicators Summary

Performance Measure	Definition	Score Parameters	Result	Score (Unweighted)	Weight	Score (Weighted)
Indicator 1: Own funded capital expenditure (internally generated funds + borrowing) as a percentage of total capital expenditure.	Own funded capital expenditure (internally generated funds + borrowing) as a percentage of total capital expenditure	Score of 1 if 70% or higher Score of 0 if 30% or lower Linear scale in between	82%	100%	40	40,0%
Indicator 2: Total maintenance expenditure as percentage of carrying value of PPE and investment property.	Total maintenance expenditure as percentage of carrying value of PPE and investment property	Score of 1 if 8% or higher Score of 0 if 2% or lower Linear scale in between	0,8%	0%	30	0,0%
Indicator 3: Asset management plan is in place, has been approved by Municipality and has been updated in last 3 years.	Asset management plan is in place, has been approved by Municipality and has been updated in last 3 years	Score 1 if yes for all three conditions Score 0 if no for any of the three conditions	Yes for all three	100%	30	30,0%
Indicator 4: Number of land use applications processed in priority areas identified in the spatial development framework as a percentage of the total number of land use applications submitted municipality-wide.	Number of land use applications processed in priority areas identified in the spatial development framework as a percentage of the total number of land use applications submitted municipality-wide.	Score of 1 if 50% or higher Score of 0 if 10% or lower Linear scale in between	84%	100%	0	Not Applicable

Indicator 5: Number of building plan applications processed in priority areas identified in the spatial development framework as a percentage of the total number of building plan applications submitted municipality-wide.	Number of building plan applications processed in priority areas identified in the spatial development framework as a percentage of the total number of building plan applications submitted municipality-wide.	Score of 1 if 50% or higher Score of 0 if 10% or lower Linear scale in between	88%	100%	0	Not Applicable
Total				67%	100	70%

Section 14 Bibliography



13 Bibliography

Sections of this report is based on queries generated from the MapAble® database (www.mapable.co.za). The data sources are indicated in the table below. All the data utilised is in the public domain and can be sourced from the respective data custodians.

The bulk of the data comes from census data from Statistics South Africa. Each census is queried at the smallest data level at which a census was released. The 1996 census was released at enumerator area (EA) level while the 2001 census was only released at sub-place level. A sub place consists of a number of EAs. The 2011 census was released as a small area layer (SAL). Small areas are larger than EA's but smaller than sub-places. It is important to note that the censuses are not consistent insofar as data categories are concerned. It was therefore necessary to adjust some census data (subdividing categories or lumping categories together) in order to get the data at a consistent and comparable basis. Due to the way data is extracted from the census the totals in the tables in the report are not necessarily consistent or the same throughout the report. The following affects table totals:

- When data is extracted from the censuses, values of less than 5 are randomised with values between 1 and 5 in order to protect individual's identities. This accounts for smaller variations in totals;
- Data categories are not consistent between the censuses; and
- The process of data partitioning is by its very nature affected by the physical scale at which queries are done. The smaller an area is the bigger the possibility for anomalies become.

Notwithstanding these issues, the results are valid and sufficiently accurate for general use.

Data partitioning is used in MapAble® to determine values for the selected areas. Data partitioning calculates the proportional ratios of underlying data sets (data linked to polygons such as EA's or sub-places) within a selected query area (ward, municipality, farm portion, etc.). Data partitioning is used to overcome the need for information on census demographics for areas that are not consistent with the standard boundaries themselves, or as the case in this report, where boundaries change from time to time and area profiles are not directly comparable. The proportions are based on the area of the intersecting themes.

Data partitioning allows for comparisons between datasets, which each having their own unique demarcations, and data that is not necessarily spatially comparable or compatible.

Data table	Data source
The area's demarcation history	Municipal Demarcation Board from 1996 to 2016
Smaller towns, settlements and villages	MapAble® 2015
Population and gender	Statistics South Africa. Census data for 1996, 2001 and 2011
Population groups	Statistics South Africa. Census data for 1996, 2001 and 2011
Age groups	Statistics South Africa. Census data for 1996, 2001 and 2011

Data table	Data source
Language groups	Statistics South Africa. Census data for 1996, 2001 and 2011
Total households, size and density	Statistics South Africa. Census data for 1996, 2001 and 2011
Dwelling frame 2018	Statistics South Africa 2018
Head of household by gender	Statistics South Africa. Census data for 1996, 2001 and 2011
Household income per month in 2011 Rand values	Calculated by MapAble® from census data 2016
Household income indicators per month in 2011 Rand values	Calculated by MapAble® from census data 2016
Dwelling type	Statistics South Africa. Census data for 1996, 2001 and 2011
Dwelling ownership	Statistics South Africa. Census data for 1996, 2001 and 2011
Migration - country of origin	Statistics South Africa. Census data for 1996, 2001 and 2011
Province of previous residence	Statistics South Africa. Census data for 1996, 2001 and 2011
Highest level of education	Statistics South Africa. Census data for 1996, 2001 and 2011
Employment within the area	Statistics South Africa. Census data for 1996, 2001 and 2011
Primary schools' statistics within the area	Department of Basic Education 2016
Secondary schools' statistics within the area	Department of Basic Education 2016
Intermediate schools' statistics within the area	Department of Basic Education 2016
Combined schools' statistics within the area	Department of Basic Education 2016
List of public health facilities within the area	Department of Health 2015
Private health facility and ownership within the area	Department of Health 2015
Number of beds per facility within the area	Department of Health 2015
Police stations	South African Police Services 2015
Area covered by SAPS precincts	Institute for Security Studies as calculated by Mandala GIS 2015
Lower courts in the area	Department of Justice mapped by MapAble
Land cover 1990 and 2014: Natural elements	GeoTerralImage (Pty) Ltd 2014

Data table	Data source
Land cover 1990 and 2014: Primary economic activities	GeoTerralimage (Pty) Ltd 2014
Land cover 1990 and 2014: Human settlement	GeoTerralimage (Pty) Ltd 2014
Access to water services 1996, 2001 and 2011	Statistics South Africa. Census data for 1996, 2001 and 2011
Access to sanitation services 1996, 2001 and 2011	Statistics South Africa. Census data for 1996, 2001 and 2011
Access to electricity services 1996, 2001 and 2011	Statistics South Africa. Census data for 1996, 2001 and 2011
Access to refuse removal services 1996, 2001 and 2011	Statistics South Africa. Census data for 1996, 2001 and 2011
Road services in the area	Calculated by MapAble® from various sources 2016

End of Document

