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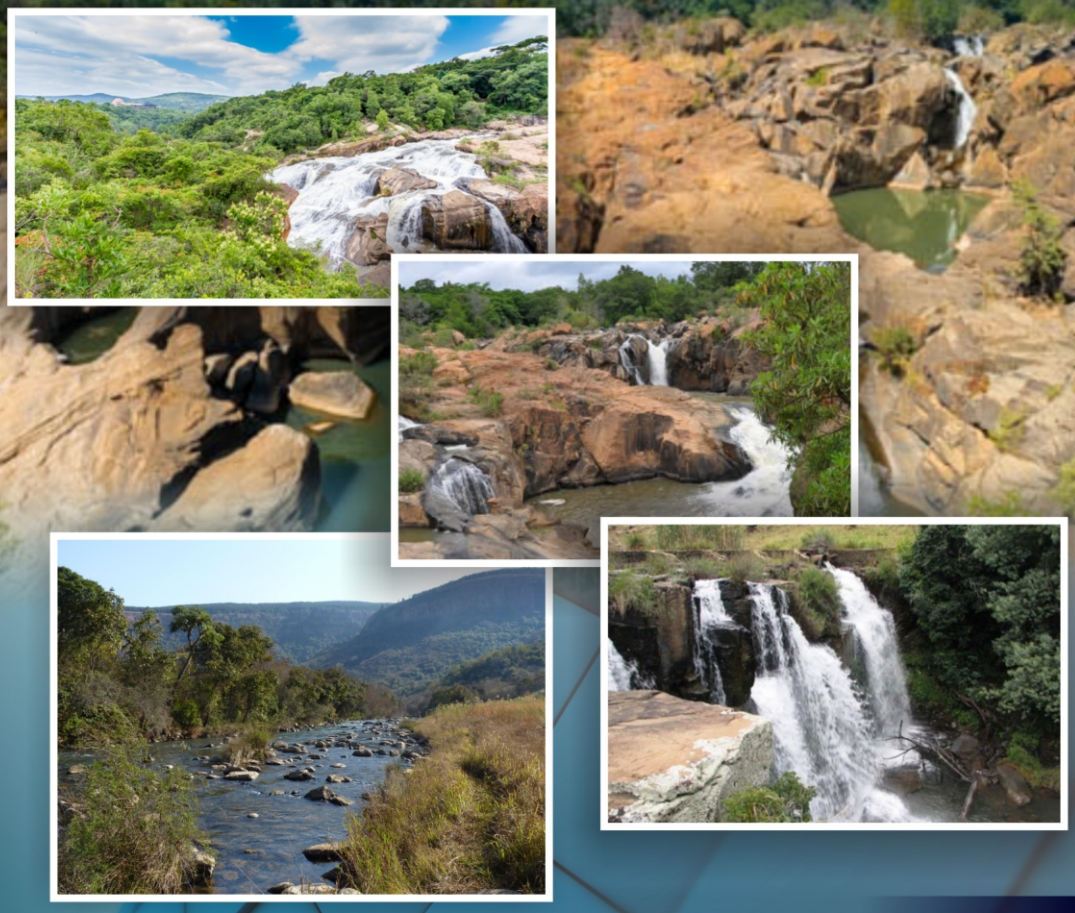
REPUBLIC OF SOUTH AFRICA

CONTINUATION OF WATER REQUIREMENTS AND AVAILABILITY RECONCILIATION STRATEGY STUDY FOR THE MBOMBELA MUNICIPAL AREA

Economic Growth and Demographic Analysis Report



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CONTINUATION OF WATER REQUIREMENTS AND AVAILABILITY RECONCILIATION STRATEGY FOR THE MBOMBELA MUNICIPAL AREA

ECONOMIC GROWTH AND DEMOGRAPHIC ANALYSIS REPORT

JUNE 2018

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CONTINUATION OF WATER REQUIREMENTS AND AVAILABILITY RECONCILIATION STRATEGY FOR THE MBOMBELA MUNICIPAL AREA

ECONOMIC GROWTH AND DEMOGRAPHIC ANALYSIS REPORT

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List of study reports

Report Name	Report Number	DWS Report Number
Inception	1	P WMA 03/X22/00/6718
Economic Growth and Demographic Analysis	**2**	**P WMA 03/X22/00/6818**
Water Requirements and Return Flows	3	
Water Conservation / Water Demand Management	4	
Water Resources Analysis	5	
Infrastructure and Cost Assessment	6	
Updated Reconciliation Strategy	7	

Title:	**Economic growth and Demographic Analysis Report**
Authors:	**Russel Aird and Nanja Churr**
Project Name:	**Continuation of Water Requirements and Availability Reconciliation Strategy for the Mbombela Municipal Area**
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EXECUTIVE SUMMARY

This Continuation of Water Requirements and Availability Reconciliation Strategy for the Mbombela Municipal Area (this Study) follows on the study *Water Requirements and Availability Reconciliation Strategy for the Mbombela Municipal Area (DWS, 2014)*. The overall objective of this Study is to systematically update, improve, and extend the Water Resource Reconciliation Strategy to cover the entire Crocodile River (East) and Sabie River catchments, in order for it to remain relevant, technically sound, economically viable, and socially acceptable and sustainable.

This Study is focused on the Mbombela Local Municipality (LM) (which previously comprised of the former Mbombela and the former Umjindi LMs) and the Bushbuckridge LM. Population projections up to 2040 at 5 year intervals have been determined for each of the 22 Water Supply Schemes (WSSs) that are located within the aforementioned municipalities.

In order to project population changes relevant information pertaining to the City of Mbombela and Bushbuckridge LMs was gathered from previous studies undertaken by the Department of Water and Sanitation (DWS), desktop research and further information gathering as well as discussions with relevant stakeholders and role-players. This process was undertaken to obtain additional information in determining the socio economic growth and status quo of the City of Mbombela and Bushbuckridge LMs.

The 2016 base population figure determined is similar to the latest official Statistics South Africa (StatsSA) data from the 2016 Community Survey. Discussions with municipal stakeholders revealed that the population size is potentially higher, which informed the need for the application of a higher scenario to the realistic base scenario figures.

The resultant projected population at local municipal level at 5 year intervals from 2010 to 2040 for the realistic and high growth scenarios are given in **Table (i)** below.

Table (i): Municipal projected population per 5 years per growth scenario, 2010 to 2040

Municipality	Scenario	2010	2015	2020	2025	2030	2035	2040
Mbombela LM (former) excl. rural	Realistic	570 446	611 228	647 312	681 604	716 484	750 755	784 628
	High	570 958	625 675	682 826	733 699	783 528	831 715	882 311
Umjindi LM (former) excl. rural	Realistic	62 779	69 517	73 565	77 617	81 866	86 304	90 922
	High	62 778	72 397	79 961	85 420	91 072	96 842	102 925
Bushbuckridge LM excl. rural	Realistic	528 388	538 801	546 244	553 638	561 102	568 632	576 233
	High	528 388	548 854	569 644	590 126	610 294	630 120	649 579

The Economic Growth and Demographic Analysis Report, this Report, gives details on the comparison of the projected results with other relevant data sources, the distribution of the population per WSSs, average annual growth rates, projected number of households, etc.

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LIST OF UNITS AND SYMBOLS

Ha	Hectares
Km	Kilometres
%	Percentage
R	Rand

LIST OF ABBREVIATIONS AND ACRONYMS

CBD	Central Business District
DWS	Department of Water and Sanitation
DM	District Municipality
EWR	Ecological Water Requirements
GDP	Gross Domestic Product
GDP-R	Gross Domestic Product per Region
GGP	Gross Geographic Product
IDP	Integrated Development Plan
KNP	Kruger National Park
KMIA	Kruger Mpumalanga International Airport
LED	Local Economic Development
LM	Local Municipality
LoS	Level of Service
Report	Economic Growth and Demographic Analysis Report (this Report)
SBC	Spot Building Counts
SDF	Spatial Development Framework
SDP	Spatial Development Plan
SSC	Strategy Steering Committee
StatsSA	Statistics South Africa
WSDP	Water Services Development Plan
WSS	Water Supply Scheme

1 INTRODUCTION

1.1 Background to the Project

A Reconciliation Strategy for the Mbombela Municipal Area was developed in 2014, the main objective thereof was to identify steps to be taken to ensure that sufficient water will, in the foreseeable future, be available to meet domestic and industrial water requirements in the Mbombela Municipal Area. The Reconciliation Strategy provided recommendations for the sequence of management and structural interventions required to maintain acceptable assurances of supply to domestic, and industrial water users in the Mbombela Local Municipality (LM). At the same time ensuring that the Ecological Water Requirements (EWR), the Reserve, and agreed international cross-border flows, lawful irrigation as well as that the needs of downstream users are not compromised.

For the Reconciliation Strategy to be implemented, and to remain relevant to properly fulfil its purpose into the future it must be dynamic. Hence the water balance must be continuously monitored and the developed Reconciliation Strategy must be regularly updated and maintained. This ensures that intervention planning can be implemented considering any changes that may have an impact on the projected water balance.

The Department of Water and Sanitation (DWS) commissioned the Continuation of Water Requirements and Availability Reconciliation Strategy for the Mbombela Municipal Area, including the Crocodile (East) and Sabie River Systems to facilitate a process to maintain the relevance of the Reconciliation Strategy.

1.2 Objectives

The overall objective of Continuation of Water Requirements and Availability Reconciliation Strategy for the Mbombela Municipal Area, this Study, is to extend the Water Resource Reconciliation Strategy to cover the entire Crocodile River (East) and Sabie River catchments. As well as to systematically update and improve the Reconciliation Strategy so that it remains technically sound, economically feasible, and socially acceptable and sustainable.

1.3 Study Area

The Study Area for the First Phase Water Requirements and Availability Reconciliation Strategy Study for the Mbombela Municipal Area Study (DWA, 2014) was increased to

include the entire Crocodile River (East) and Sabie River catchments as shown in **Figure 1-1** below.

The main catchment and rivers within the Study Area run along the southern and northern edges of the City of Mbombela LM and Bushbuckridge LM. **Figure 1-2** reveals that the agreed demographic focus area, for this Study, is the City of Mbombela LM (which previously comprised of the former Mbombela and the former Umjindi LMs) and the Bushbuckridge LM. The towns in the agreed demographic focus area include the towns in and around Mbombela (formerly known as Nelspruit), Barberton and the areas in and around Bushbuckridge.

This Study is thus focused on the updating, refining, and reviewing detailed population and growth modelling on the agreed demographic focus area, namely the City of Mbombela LM as well as Bushbuckridge LM as illustrated in **Figure 1-2.**

Higher level growth analysis have also been included for these LMs in the Crocodile River (East) Catchment and the Sabie-Sand Catchment, namely Emakhazeni LM, Nkomazi LM, and Thaba Chweu LM.

Figure 1-4 reveals the broad Study Area, and clearly indicates the Water Supply Schemes (WSSs) within the demographic focus area, as well as the WSSs in the remainder of the broader Study Area. The broad Study Area covers these LMs: City of Mbombela LM, Bushbuckridge LM, Emakhazeni LM, Nkomazi LM, and Thaba Chweu LM.

1.4 Overview of Reconciliation Strategy Phase 1

During the initial Reconciliation Strategy, the current socio-economic context of the Study Area was analysed, followed by the compilation of a status quo (baseline) database founded on information obtained from the following sources:

- Previous studies (including the previous DWS *Water Requirements and Availability Reconciliation Strategy for the Mbombela Municipal Area (DWS, 2014))*;
- Demographic information from provincial, district and local documents;
- Spot Building Counts (SBC); and
- Statistics South Africa (StatsSA) Census 1996 and Census 2001.

Future 2040 population growth forecasts were then projected.

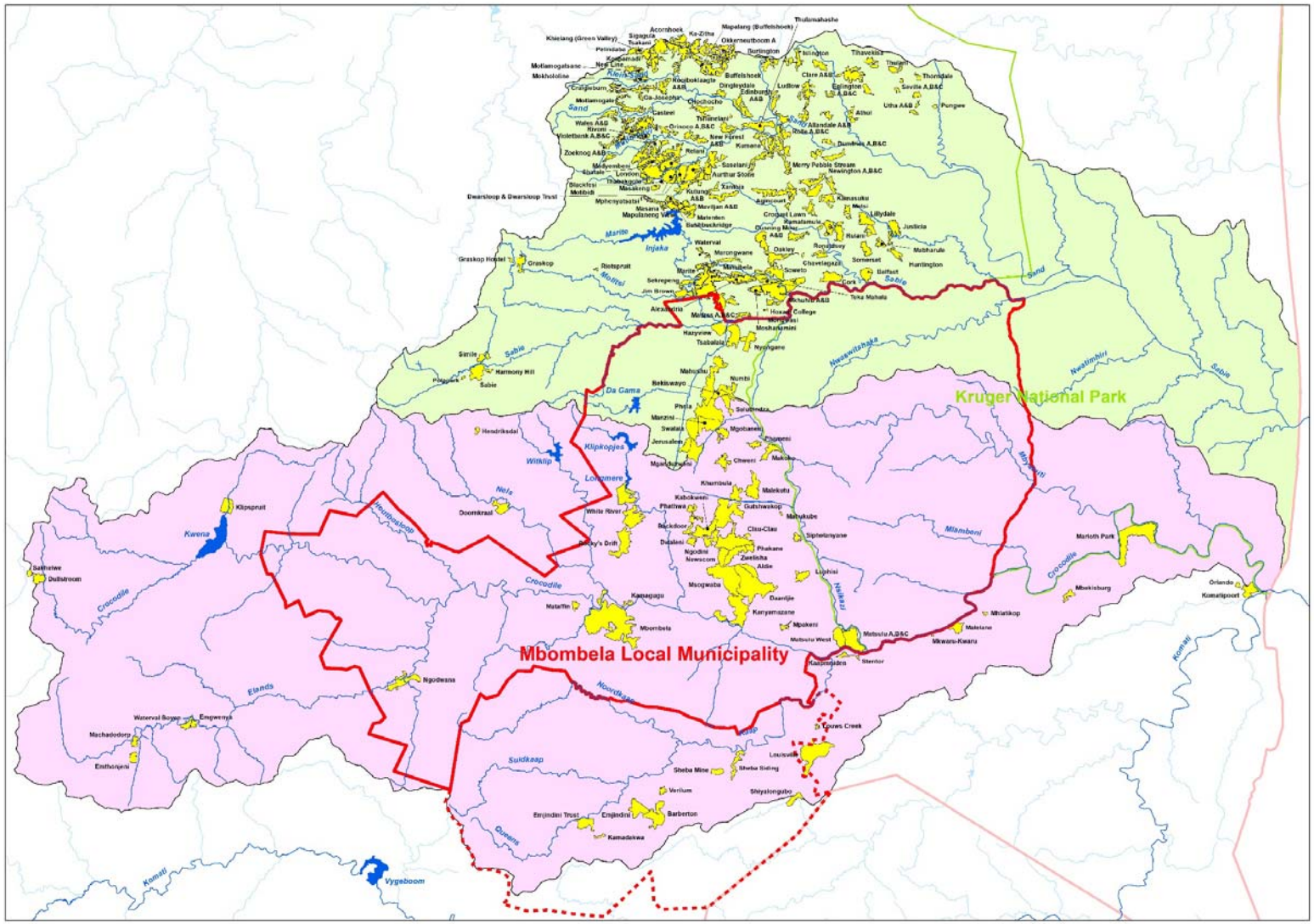

Figure 1-1: Study Area main water catchments and river systems

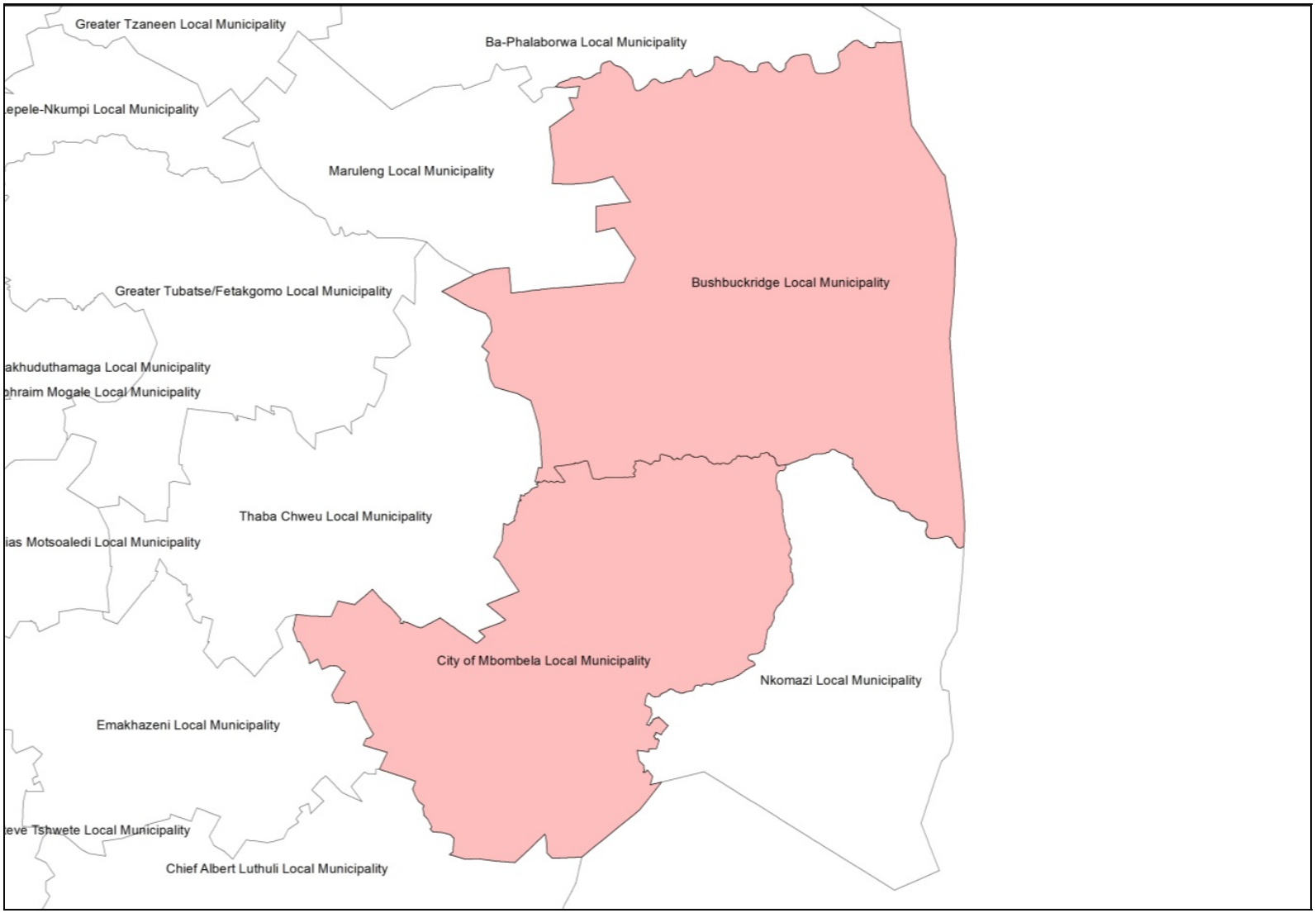

Figure 1-2: Agreed demographic focus area

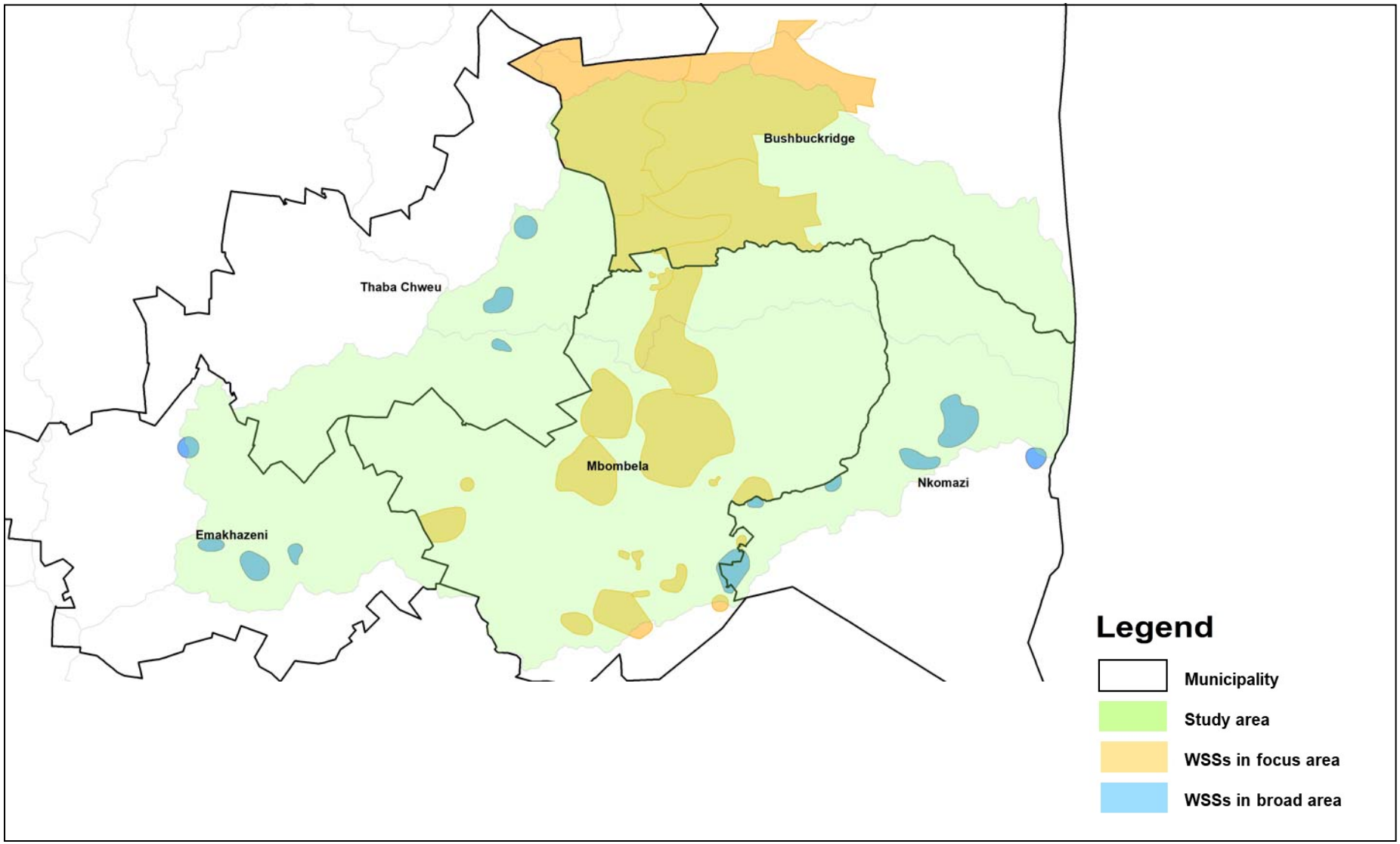

Figure 1-3: Broad Study Area

1.5 Purpose, Approach and Structure of this Report

The main aim of the Economic Growth and Demographic Analysis Task, this Task, is to estimate future water requirements based on updated population projections formulated specifically for the Study Area.

The Demographic Growth and Economic Analysis Process, the Process, is illustrated in **Figure 1-4** below, indicating the various steps involved in the compilation, extraction and analysis of socio-economic data necessary to provide an updated projection of future population projection.

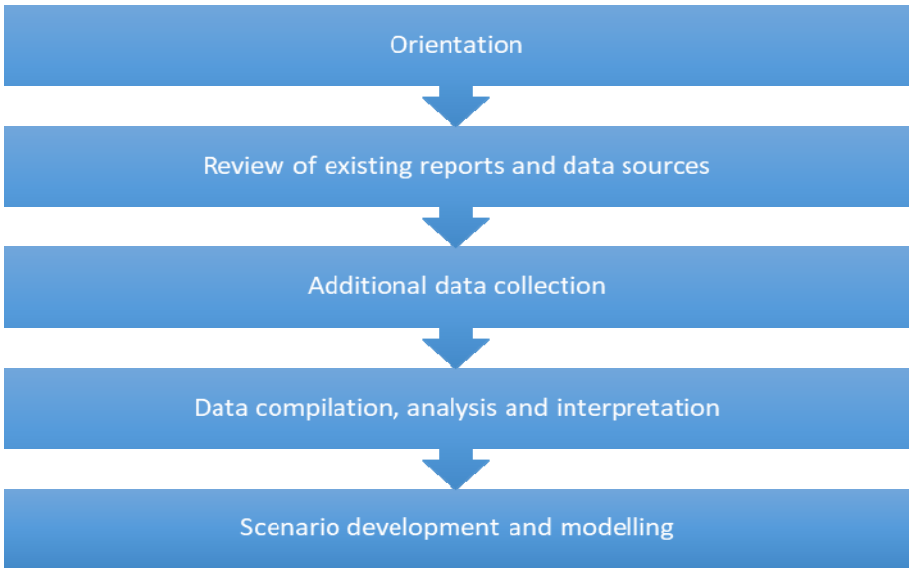

Figure 1-4: Demographic Growth and Economic Analysis Process

1.5.1 Data gathering

The first step in the Process was to gather information relevant to the Study Area from previous studies that have been undertaken by the DWS (including the previous Water Requirements and Availability Reconciliation Strategy for the Mbombela Municipal Area (2014)) and other stakeholders. The intention was to extract all usable data from the reports and existing databases pertaining to especially demographic circumstances and forecasted growth patterns.

Additional data collection entailed the undertaking desktop research, in order to attain additional information crucial to determining the developmental and socio-economic growth potential and current reality status of the affected areas. The Process was initiated by undertaking desktop research, as well as field work in order to attain background information

on the relevant municipalities in the Study Area. This provided a good basis from which further information gathering and discussions were facilitated.

1.5.2 Desktop research

Desktop research was undertaken to gain insight into the current reality, and to facilitate discussions with the relevant stakeholders and role-players. The desktop research was conducted by obtaining plans and/or any other related information electronically from Local, District and Provincial Municipality websites. Major municipal plans that formed part of this research, for each of the municipalities were:

- Bushbuckridge LM Spatial Development Framework (SDF), (BLM, 2017a).
- Bushbuckridge LM Integrated Development Plan (IDP) 2017-2022, (BLM, 2017b).
- Bushbuckridge LM Local Economic Development (LED) Strategy, 2010 – 2014, (BLM, 2010).
- City of Mbombela LM IDP, (CoM, 2016a).
- City of Mbombela LM Draft LED Strategy, (CoM, 2016b).
- Draft Mbombela LM Vision 2030, (CoM, 2017).
- Umjindi LM IDP 2015/2016, (ULM, 2015)
- Ehlanzeni District Municipality IDP Review 2015/2016, (EDM, 2015).
- StatsSA Mid-year population estimates, 2017 (STATSA, 2017).

The above-mentioned documents were reviewed to obtain an overview of the municipalities in order to be able to compose relevant questions and points for discussion. Discussions with these relevant Municipal Departments were held, for each of the following municipalities:

- Mbombela City LM Planning and Development
- Mbombela City LM Strategic Planning
- Mbombela Local Economic Development
- Mbombela City LM City Planning and Development
- Mbombela City LM Land Use Management
- Mbombela City LM Economic Development Partnership
- Mbombela City LM Strategic Planning
- University of Mpumalanga
- Mpumalanga Department of Human Settlements
- Bushbuckridge LM Planning Department
- Bushbuckridge LM Local Economic Development

1.5.3 Additional data collection

Discussions with relevant Municipal Departments revolved around the dynamics and development patterns of the municipalities. These included discussions on municipal plans, current commercial, industrial and residential developments, housing projects, and proposed future developments.

1.5.4 Data compilation, analysis, and interpretation

A 2016 population base figure was compiled from the following information sources:

- Previous municipal plans for Mbombela, Umjindi and Bushbuckridge LMs;
- Demographic information from provincial, district and local documents;
- Spot Building Counts (SBC); and
- StatsSA: Census 2001, Census 2011, as well as Community Survey 2016.

The above information sources were consulted, since no official population figures exist for the Study Area for the required 2016 base year. For ease of reference and comparison to the available secondary data, reference is made throughout the remainder of this Report to the former Umjindi and the former Mbombela LMs, which are currently incorporated into the City of Mbombela LM.

This was followed by analysing the socio-economic status quo and interpreting the future growth of the City of Mbombela LM (previously known as Mbombela and Umjindi LMs) and the Bushbuckridge LM. With demographic statistics taken from StatsSA, Quantec and the Eskom SBCs as well as through discussions with the LMs, it was possible to project future growth and development expectations for the City of Mbombela and Bushbuckridge LMs.

1.5.5 Scenario development and modelling

The base population data was refined and growth scenarios up to 2040 were developed. The model used to project future growth produced realistic and high growth scenario results. These growth scenarios are based on detailed local information relating to structural economic changes, policy changes, income groups, strategic development projects, social dynamics, proposed housing developments, infrastructure developments, urbanisation and migration trends, as well as historical growth patterns.

Modelling was undertaken according to Water Supply Schemes (WSSs), which are each characterised by unique attributes and circumstances. Each individual geographic region or

WSS can be viewed as an area on its own, which interrelates with the various other regions identified within the City of Mbombela and Bushbuckridge LMs. Each region had a specific growth forecast, based on information obtained from the plans and discussions with the LM role-players in the City of Mbombela and Bushbuckridge LMs, which determines the rate of population growth as well as the development of residential, commercial and industrial developments. The modelling process focused on population growth, of individuals (and households) and the distribution of these individuals within the City of Mbombela and Bushbuckridge LMs.

The remainder of this Report is structured as follows:

- **Section 2:** Socio-economic Overview of the City of Mbombela and Bushbuckridge Local Municipalities;
- **Section 3:** Historic Growth Perspective and Analysis;
- **Section 4:** Growth Scenarios and Projected Population;
- **Section 5:** Conclusions; and
- **Section 6:** Recommendations.

2 SOCIO-ECONOMIC OVERVIEW OF THE CITY OF MBOMBELA AND BUSHBUCKRIDGE LOCAL MUNICIPALITIES

This section of the Report, is a contextual overview of the City of Mbombela and Bushbuckridge LMs. This includes a broad comparison of the aforementioned municipalities in relation to South Africa, the Mpumalanga Province, and the neighbouring District Municipalities (DMs). Furthermore, this section of the Report also gives an overview of the various development nodes, the current conditions and impact attributes, the directives and objectives of various plans, as well as the future developmental potential for the City of Mbombela and Bushbuckridge LMs.

2.1 National, Provincial and District Overview

Both the City of Mbombela LM and Bushbuckridge LM are located within the Mpumalanga Province, which is located within the north-eastern region of South Africa. The Mpumalanga Province is bordered by the Limpopo Province to the north, the countries of Mozambique and Swaziland to the east, the KwaZulu-Natal Province to the south as well as the Free State and Gauteng Provinces to the west. These two municipalities are located within the north-eastern part of the Mpumalanga Province.

The City of Mbombela and Bushbuckridge LMs are located within the Ehlanzeni DM, which is one of three DMs within the Mpumalanga Province. The Ehlanzeni DM is bordered by the Limpopo Province to the north, the country of Mozambique to the east, the country of Swaziland to the south and the Nkangala and Gert Sibande DMs to the west.

2.2 Overview of the City of Mbombela Local Municipality

In 2016, the Mbombela LM was amalgamated with the Umjindi LM, which formed the City of Mbombela LM. The City of Mbombela LM thus spans from Swaziland in the south, to Bushbuckridge LM in the North, Nkomazi LM in the east and Thaba Chweu LM in the West. The City of Mbombela LM shares a border with the Kruger National Park (KNP) and Chief Albert Luthuli LM within the Gert Sibande DM.

Part of the Drakensberg Mountain Range is also located within the City of Mbombela LM, and the LM can be divided into three physiographic regions namely, the highveld, the escarpment and the low veld. The City of Mbombela LM extends from mountainous areas in the west to gently sloping areas in the central, northern and eastern parts.

The City of Mbombela LM is the Capital City of the Mpumalanga Province, and the Head Office of the Provincial Government (the Legislature). The location and its status of a Capital City provide the City of Mbombela LM with a competitive advantage as a corridor for growth and development. The City has two airports, Kruger Mpumalanga International Airport (KMIA) to the north east, and the General Aviation Mbombela Airport to the south west. There are scheduled flights to Johannesburg and, less frequently, to Cape Town and other cities from the KMIA.

Furthermore the City of Mbombela LM also a home of the Government Research Institute for Citrus and Subtropical Fruits, and the Lowveld Botanical Gardens. The City of Mbombela LM is a major stopover point for tourists travelling to the KNP and to Mozambique.

The City of Mbombela LM is divided by the N4 highway which runs from west to east, and the R40 which divides the City of Mbombela LM from north to south. The main town of the City of Mbombela LM is Mbombela, formally known as Nelspruit, which functions as the main administrative and service delivery node within the City of Mbombela LM. Mbombela is also the administrative capital of the Mpumalanga Province and houses various provincial departments within its borders. Other nodes of importance are White River, which functions as a secondary node to Mbombela, Rocky Drift which functions as a regional industrial node and Hazyview, which is a local service delivery and tourism node within the City of Mbombela LM.

The City of Mbombela LM has nine (9) Traditional Authorities located along its eastern boundary adjacent to the KNP. Various nodes such as Kanyamazane and Matsulu are within this region, and the majority of the population of the City of Mbombela LM is located within the tribal regions. The majority City of Mbombela LM eastern area is part of the KNP and as such has various linkages to the tourism industry within the City of Mbombela LM.

The City of Mbombela LM has numerous infrastructure components of high quality, which enables linkages to various parts of the country, as well the neighbouring countries of Mozambique and Swaziland. Important infrastructure components include the Kruger Mpumalanga International Airport (KMIA), railway linkages to parts of South Africa, Mozambique and Swaziland, and the N4 Maputo Corridor that links Gauteng and Mbombela to the deep-sea port of Maputo.

The City of Mbombela LM has a wide variety of natural features such as diverse vegetation, varied topography and protected areas, which is in many cases linked to the tourism industry. There are protected across the City of Mbombela LM, which includes the KNP and

various conservation areas, natural heritage sites, as well as private and provincial nature reserves. Biodiversity within the City of Mbombela LM has been classified in accordance to the Mpumalanga Biodiversity Conservation Plan, which has indicated that:

- Irreplaceable areas are found within Crocodile Gorge and the western escarpment;
- Highly significant areas are found within the western regions of the City of Mbombela LM;
- Important and necessary areas are located between Lekgotla and Numbi, areas surrounding Rocky Drift and Mataffin and along the southern boundary of the municipal area; as well as
- Areas of little concern is located within the eastern parts of the City of Mbombela LM.

In addition to tourism, agriculture is a major land user within the City of Mbombela LM. The region, as a result of its sub-tropical climate, is highly suitable for the production of sub-tropical fruits such as bananas, oranges, mangos and avocados. The region also has various attributes related to grazing and game reserves which make it suitable for cattle and game farming. The Municipal SDF indicates that arable land that supports cultivation, grazing and forestry can be found in the central and eastern regions of the municipality. Grazing land is located along the north-south strip stretching from Hazyview to the Crocodile River and the western escarpment and highveld regions. Whereas, wilderness areas are found more in the Crocodile Gorge and southern regions of the City of Mbombela LM.

Furthermore, the land within the City of Mbombela LM is categorised in terms of its suitability and agricultural potential. The following areas of potential can be found in the City of Mbombela LM:

- **Very low potential** within the mountainous regions;
- **Low potential** within the regions of the KNP, Schoemanskloof, Ngodwana, Pienaar, Daantjie and north-east of Legogote;
- The majority of the City of Mbombela LM is considered to be **medium potential** agricultural land; and
- **High potential** within the Kiepersol region as well as along the Crocodile River and its tributary to the west,

There are various mineral deposits within City of Mbombela LM, and these include gold, chrysotile (asbestos) and limestone, which primarily occur along the escarpment within the western regions of the City of Mbombela LM. There are not worthwhile mineral deposits to be exploited within the City of Mbombela LMs central and eastern regions.

The two main identified corridors along which development occur within the City of Mbombela LM are the:

- Nelspruit-White River Development Corridor; and
- Eastern Development Corridor.

The Nelspruit-White River Development Corridor is located along the R40 in a northerly direction from Mbombela through Rocky Drift, White River and Hazyview. This corridor provides for structured urban growth in the towns through which it runs, while the above-mentioned nodes create an organised urban structure. Urban growth within the corridor has shown an expansion along the R40 from Mbombela to White River, which will link these two areas in the future as one continuous urban area.

The Eastern Development Corridor stretches from Hazyview in the north southwards towards Kanyamazane in the south to incorporate the Nsikazi Region. This corridor includes both urban and semi-urban structures and settlements within the Nsikazi Region, and growth within these settlements is sprawled in nature as the settlements are continuously expanding towards one another. Nodal development within this area is limited when considering employment and business and retail facilities, since the majority of such facilities are located within the western regions of the City of Mbombela LM. The uncontrolled growth also places much strain on the provision of services to the corridor area.

The City of Mbombela LM has forty-five (45) wards and four (4) regions. The regions include Central, Eastern, Northern and Southern Regions as presented in **Table 2-1** and **Figure 2-1**: Map of regions within the City of Mbombela Local Municipality

Table 2-1: City of Mbombela Local Municipality Regions

Region	Towns/Settlements
Central	Mbombela, Kanyamazane, Piennaar, Daantjie, Nelsville, Mataffin and Elandshoek
Northern	Hazyview
Eastern	Nsikazi, White River, Kabokweni and Malekutu
Southern	Barberton, Lowscreek and Matsulu

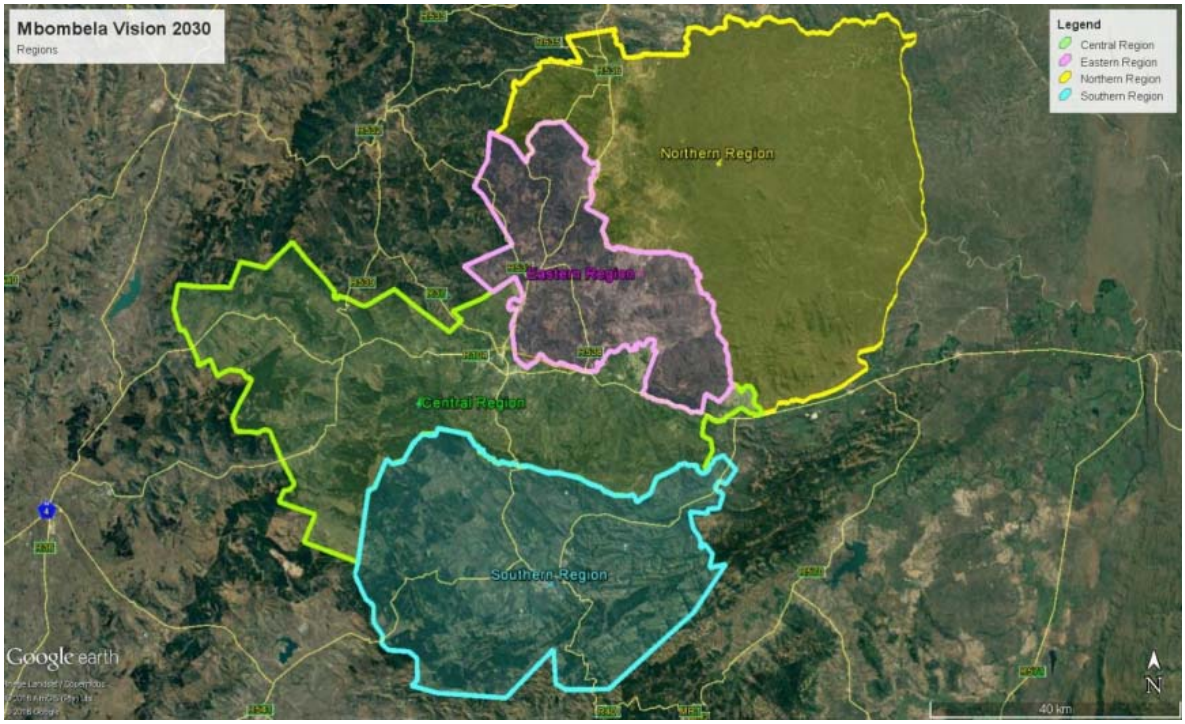

Figure 2-1: Map of regions within the City of Mbombela Local Municipality

An insight into prevailing development trends and patterns in each of the abovementioned regions, as well as future growth and expansion areas for residential, commercial and industrial development is provided in **2.2.1** to **2.2.4** below:

2.2.1 Central Region

The Central Region functions as the main node for the City of Mbombela LM, servicing a broader area, which extends to Mozambique, Swaziland and Limpopo. The majority of development activity within the City of Mbombela LM is concentrated in and around Mbombela.

Mbombela has a large residential component, and residential expansion is evident in especially the northern parts of the town in the Riverside Area, to the east of the town around the Kamagugu Settlement, to the northeast of the town around the Mbombela Stadium, and to the south of the town in the Sonheuwel and Stonehenge areas. Future residential growth areas are located to the north-east of the Daantjie Settlement and east of the Phakane Settlement. Furthermore, there is also another identified growth region to the west of the Msogwaba Settlement. There is limited land for future expansion within the region, due to the typography, although just 22 km north of Mbombela lies Piennaar Settlement, the location of Nkosi City, which is a sprawling village with a mix of palatial, modest and rickety houses.

Nkosi City is also where the new and innovative R6 billion agricity development on 968 Ha of land is located. Furthermore, Nkosi City is proposed to accommodate the rich and poor, as is the case in Pienaar. According to the project developers, Nkosi city is in its initial stage, with the road construction already completed.

The proposed layout of the Nkosi City from the developers is depicted on the map in **Figure 2-2** below, unfortunately the City of Mbombela LM could not provide the approved plans.

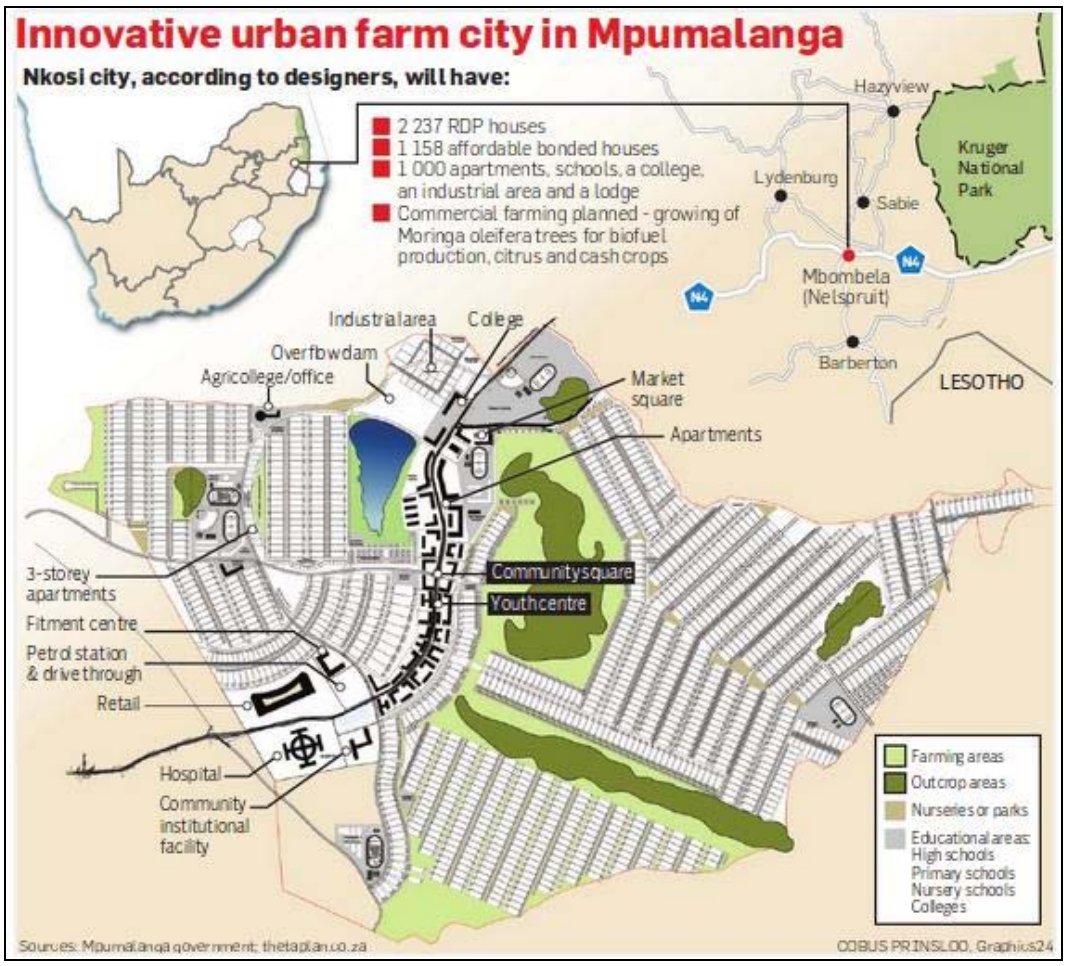

Figure 2-2: Map of the Proposed Nkosi City

Commercial and industrial development is primarily located in the north and northeast of Mbombela within the Riverside and Mataffin nodes, which are located primarily along the major arterials of the N4 Highway and the R40 towards White River. The Riverside Node specifically focuses on commercial and mixed use activities, and provides high quality retail and office components, as well as larger scale retailers and automotive industries. Commercial development in the Mataffin Node was proposed along the N4 Highway and around the Mbombela Stadium, and will allow for mixed use activities specifically focused on retail and office developments.

Elandshoek, which is home to SAPPI Forestry and the Ngodwana Mill are located in the western part of the Central Region. The Ngodwana Mill produces 330,000 tons of paper pulp for own consumption, 210,000 tons of dissolving wood pulp and 380,000 tons of paper (newsprint and kraft linerboard used for packaging) per annum. Approximately 70% of the mill's product is exported and the balance is used locally.

The University of Mpumalanga is also located in the Central Region with the main campus situated at the Lowveld College of Agriculture and it also have two other campuses, namely the Hospitality School in Kanyamazane and the Siyabuswa Education Campus. However, the Education Campus is not located within the City of Mbombela LM's borders. The construction of the University is still in its first phase, the second phase will include onsite residential accommodation. The University of Mpumalanga aims to reach a target of 18,000 to 20,000 students by the year 2025/26.

Lastly, the construction of the proposed Mpumalanga Fresh Produce Market located along the R37 will provide the province's emerging farmers with a market for their produce, either locally or internationally, and give retailers and distributors access to fresh fruit and vegetables at their doorstep. A main feature of the Mpumalanga Fresh Produce Market will be the linking of small-scale producers and cooperatives (through the creation of agri-hubs) with the main market (with associated exposure to local, regional and international consumers) whilst improving the local supply logistics chain.

2.2.2 Northern Region

The town of Hazyview is located at the northern most border of the City of Mbombela LM, and is approximately 75 km from Mbombela and 45 km from White River. The town functions as a sub-regional node servicing the local surrounding communities and the southern parts of the Bushbuckridge LM. Hazyview is functionally a tourism related node due to its proximity to the KNP and various other tourism attractions.

The main retail / commercial areas are located along the R40. No residential uses form part of, or are located next to, the town centre. A new shopping centre has recently been developed at the intersection of the R40 and R536 towards Holiday Town. The main tourism centre is located further to the north at the intersection of the R40 and the R536 towards Sabie.

Residential developments consist of:

- The Hazyview Holiday Town located to the north east of the Central Business District (CBD);
- The rural residential area of Shabalala located to the east of the Sandrivier, with access to Hazyview is via the R536;
- Leisure development located some distance to the north west of the Hazyview (Sabie River Sun), as well as
- Rural residential development to the south west and south east, including Nkambeni.

According to the City of Mbombela LM, development pressure is being experienced in the Northern Region, and to alleviate these various new townships are proposed, including:

- Residential development to the east of the Hazyview CBD up to the Sand River, including various phases of the proposed Hazyview extension 42;
- Retail / commercial, mixed use and industrial development along the R40, including proposed Hazyview extension 45;
- Residential development to the south of the Hazyview CBD, as well as
- Low density rural residential and tourism centred development are foreseen to the north of the Hazyview CBD.

Pressure also exists for the development of subsidised housing, and the official housing waiting list for the Northern Region amounts to 550 units.

2.2.3 Eastern Region

One of the prominent nodes in the Eastern Region is White River, which is located approximately 20 km north of Nelspruit, 45 km south of Hazyview and 15 km west of the KMIA. The importance of White River as a residential node has grown considerably in the recent past, and has sparked the growth and development of residential development in and around the existing town. White River also includes the Casterbridge Tourism Node, which serves a major anchoring role, making it a popular holiday destination not only for locals but also for foreign tourists looking to experience the area scenic places. Furthermore, White River is also located around the R40 and in close proximity to the Panorama and Lowveld Legogote Tourism Routes as well as the KNP.

The areas around the White River CBD mostly consist of medium density residential development and small residential units clustered together. Rural residential developments

are located on the outskirts of the town. Both industrial and tourism opportunities are also evident, specifically towards the south and north-eastern part of White River.

In terms of future demand for land, the following was identified in water master planning in terms of major contributions from future proposed developments:

- **White River:** There is extensive residential development foreseen for this area, since there are many pending township applications. The Casterbridge is a business node with the potential for immediate developments and upgrading.
- **Phumlani:** When water became available, a number of informal settlements were established. Currently there are approximately 3 000 informal dwellings in this area, which are expected to increase to roughly 5 000. However, township layouts and applications were previously submitted for approximately 2 100 low-income housing type units.
- **Rocky Drift:** It is foreseen that the industrial land in Rocky Drift will expand, together with an increase in residential type developments in the area between Rocky Drift/ Phumlani and White River.
- **Hillsview:** A new industrial area south of Hillsview is foreseen, and the expansion of the low cost housing area.

The Eastern Region also includes the Nsikazi Area, which comprise of a number of Traditional Authorities, and this area a mixture of rural, informal and semi-urban settlements. The tribal areas are located along the Nsikazi Activity Corridor, which stretches from Hazyview in the north to Kanyamazane in the south.

Various portions of land have been identified in the Nsikazi Area for future residential growth and expansion, which are mostly distributed along the Nsikazi Activity Corridor at settlements determined to be future nodes. Portions identified for future residential development are located within Tshabalala, north of Nkambeni, within Mahushu, east of Phola, south of Manzini, east and west of Khumbula, and within Ngodini. Additional land for subsidised housing was also identified in the area and is located in the settlements of Tshabalala, Nkambeni, Manzini A, Khumbula and Clau-Clau.

Commercial development is based on nodal development at strategic nodes to encourage commercial densification and intensification. No areas for future commercial growth are identified in the area, and small pockets of land for commercial development have been

identified at the R538/ Numbi Road Intersection at Bhekiswayo, along the R538 west of Lundi and at the D1411/D2970 Intersection at Khumbula.

The City of Mbombela LM's SDF has identified the development of tourism related activities, which include hotels, lodges and recreational and educational tourism. It is foreseen that these developments are to be established at the KNP's Phabeni and Numbi gates.

2.2.4 Southern Region

The Southern Region is characterised by the Barberton Area, formally within the Umjindi LM. The Barberton Mountain Land is the largest Archaean Greenstone Belt in South Africa. The Greenstone Belt contains some of the best-preserved and least altered early Archaean volcanic, sedimentary and igneous rocks on earth. The Greenstone Belt evolved some 3 200 million years ago, making it one of the oldest preserved remnants of continental crust on earth.

Mining has played, and is still playing, a significant role in the development of the Southern Region and provides more than 2 000 jobs. The most prominent mines include the three (3) Barberton Gold Mines, which are situated in Sheba, New Consort, and Fairview. Other mines known in this region include the Makhonjwa Mine and Agnes Mine, which are also gold mines. According to the City of Mbombela LM, Barberton has unique tourism potential that is not fully exploited. If sufficient accommodation facilities are developed then these could be a catalyst for developing other tourist facilities such as restaurant and entertainment developments, attracting more tourists to Barberton and the surrounding area.

The Matsulu area is also located in the Southern Region, between the Mthethomusha Nature Reserve in the north and west, the KNP in the east and the N4 Highway to the south. The Matsulu Area is situated approximately 45 km east of Nelspruit, and primarily functions as a residential area with basic services and economic activities to accommodate the local community.

Future growth regions have been identified within Matsulu C and to the west and south of Matsulu B. Commercial development in the Matsulu Area is focused on intensification of economic activities within the existing commercial nodes.

2.3 Overview of Bushbuckridge Local Municipality

The Bushbuckridge LM is also located in Mpumalanga, within the Ehlanzeni DM. The Bushbuckridge LM borders Mozambique to the east, Ba-Phalaborwa LM to the north, the

Maruleng and Thaba Chweu LMs to the west, as well as the Mbombela and Nkomazi LMs to the south. The towns of Shatale, Dwarsloop, Thulamahashe and Mkhuhlu were established as towns for displaced people, and therefore the majority of the residents are originally from rural areas. The geographical area of Bushbuckridge is predominantly rural, including considerable land under Traditional Authorities. Mkhuhlu, Kildare/Kildare B, Agincourt/Ireagh, Alexandria A and Marite A are identified as rural nodes/service delivery nodes within the Bushbuckridge LM.

Unemployment and poverty are core challenges in the Bushbuckridge LM. Furthermore, the Bushbuckridge LM is characterized with a vast number of protected areas, including the KNP and various nature reserves covering approximately 815 000 Ha, which equates to about 80% of the Bushbuckridge LM's land area.

The Bushbuckridge LM is renowned for its agricultural and tourism attractions. The Bushbuckridge LM Area provides a link to economically viable centres in the Lowveld, particularly Hazyview, Hoedspruit, Pilgrim Rest and Graskop. The R40 provincial road passes through the Bushbuckridge LM starting from Marite to Acornhoek.

The Bushbuckridge LM Area can therefore be regarded as the gateway to the major tourism attractions in Mpumalanga and the south eastern part of the Limpopo Province. Bushbuckridge LM is characterised by high unemployment rate, poverty, unregulated influx by foreign nationals. In the past the Bushbuckridge LM was able to address the issue of social cohesion by ensuring that no placing of people along tribal belonging takes place. Furthermore, the Bushbuckridge LM is currently characterised and dominated by VaTsonga (Shangaans), the Mapulana Tribe (dialect from Sepedi) and Swati speaking people as indigenous inhabitants.

The Bushbuckridge LM is also an entry point to the KNP, Sabie Sands Reserve, Mhalamhala lodge and Timbavati Safari Lodge and has many provincial reserves. The Bushbuckridge LM forms part of the Kruger to Canyons Biosphere Reserve, with the Maputo sub-corridor cutting across the Bushbuckridge LM with a rail network that links Maputo and Johannesburg.

The Bushbuckridge LM is comprised of four (4) urban nodes, which are described in 2.3.1 to 2.3.4 below in terms of their prevailing development trends, development pattern and future growth and expansion areas:

2.3.1 Acornhoek

Acornhoek is recognised as a growth point for industrial, commercial and retail development due to the R40 and the Nelspruit-Phalaborwa Railway Line and Stations which traverses the node. Acornhoek has industrial infrastructure, shopping centres as well as a range of formal and informal trade activities. Acornhoek has had a significant increase in formal and informal development, subsequently a need exists to create order in the node to guide future development over the next two to three decades.

Acornhoek is located on the watershed between the Crocodile (East) and Sabie River Systems. The majority of Acornhoek consist of residential development, with a cluster of business activities in the vicinity of R40 and D4358 Intersection. Future development intervention for the vacant land situated in the node is critical. The Bushbuckridge LM SDF indicates that there are nine (9) land parcels along the D4358 that could be considered for development as part of the Acornhoek Precinct.

Figure 2-3 depicts the spatial representation of a 5 year Spatial Development Pattern (SDP), as well as 10 to 20 years desired spatial growth pattern.

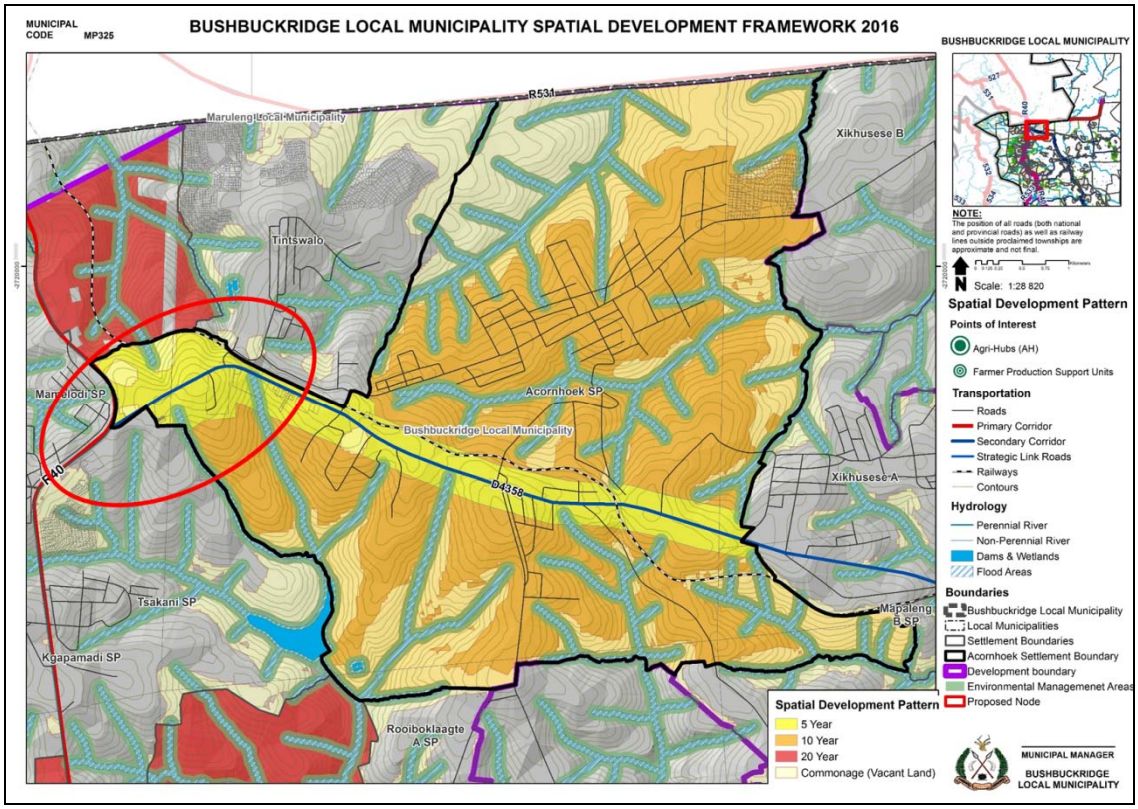

Figure 2-3: Acornhoek Current and Desired Spatial Development Pattern (BLM, 2017a)

The following three (3) corridors traverse the Acornhoek Area:

- The R40 identified as a primary transport corridor;
- The D4358 identified as a secondary transport corridor, and
- The Nelspruit-Phalaborwa Railway Line.

An activity street also runs from the D4358 to the east through the northern part of Acornhoek with linkages to the R531.

An opportunity for future expansion of Acornhoek is located to the west, across, and up along the railway and the R40 corridor. Between the railway and the R40 Corridor there are opportunities for business and commercial activities.

2.3.2 Maviljan

Figure 2-4 below depicts the spatial representation of a 5 year SDP, as well as 10 to 20 years desired spatial growth pattern.

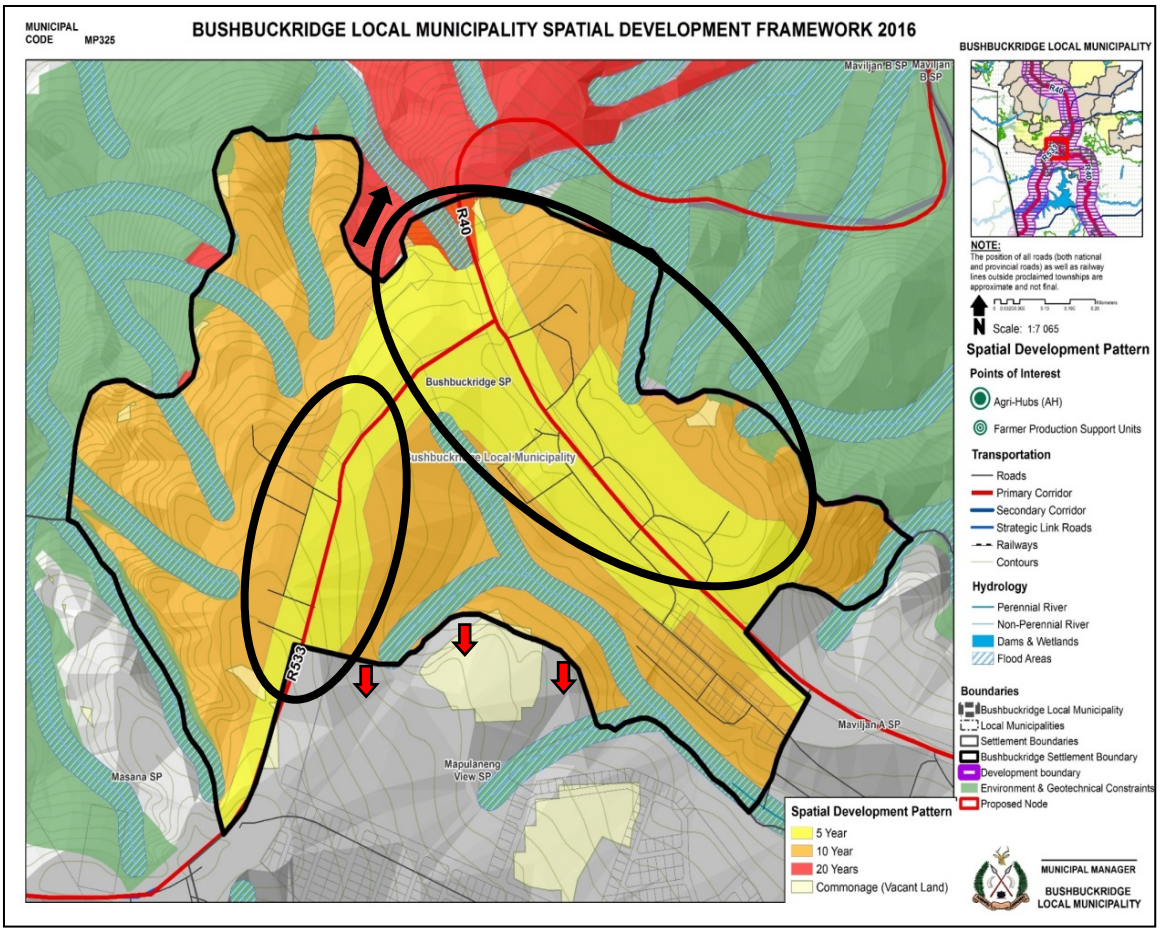

Figure 2-4: Maviljan Current and Desired Spatial Development Pattern (BLM, 2017a)

Maviljan, alike the rest of the Bushbuckridge LM, is a water scarce area with only the Inyaka Dam as the main source of water to the area. Only business and commercial erven have direct water and formal taps, and the rest of the community uses communal taps. The portion of land that is devoted to public open spaces and rivers, helps to promote a pedestrian friendly environment that stimulates green spaces for parks and recreational areas.

Educational facilities, businesses and sport and recreational space co-exist in close proximity with the schools and medium density housing. This creates a precinct that is sustainable and caters for the Maviljan Community, where there is a significant population and potential workforce.

2.3.3 Mkhuhlu

There is significant industrial infrastructure exists in this area, and an industrial hub is proposed to concentrate bulk industrial and agri-processing activities. The Mkhuhlu Area is dominated by residential dwellings; medium density housing and existing residential developments. The Mkuhlu Community has educational and community facilities within its jurisdiction. Along the R536 plans exist for business development as well as a proposed cultural village.

The existing community and trading facilities are in close proximity to the residential dwellings, and therefore the vision for Mkhuhlu is to promote a pedestrian friendly environment, encourage public transport and promote green spaces. The inevitable future population increase will, however, put in the existing open spaces under more pressure and their value as an asset for the Bushbuckridge LM will therefore increase.

On the outskirts, a few uses of agricultural value-adding such as production of fuel, fabrics and other essentials are identified to prosper agricultural development potential for the community.

The Mpumalanga Traffic Training College is also located in this precinct, this R300 million college, has a residence catering for 160 students.

Figure 2-5 depicts the spatial representation of a 5 year SDP, as well as 10 to 20 years desired spatial growth pattern.

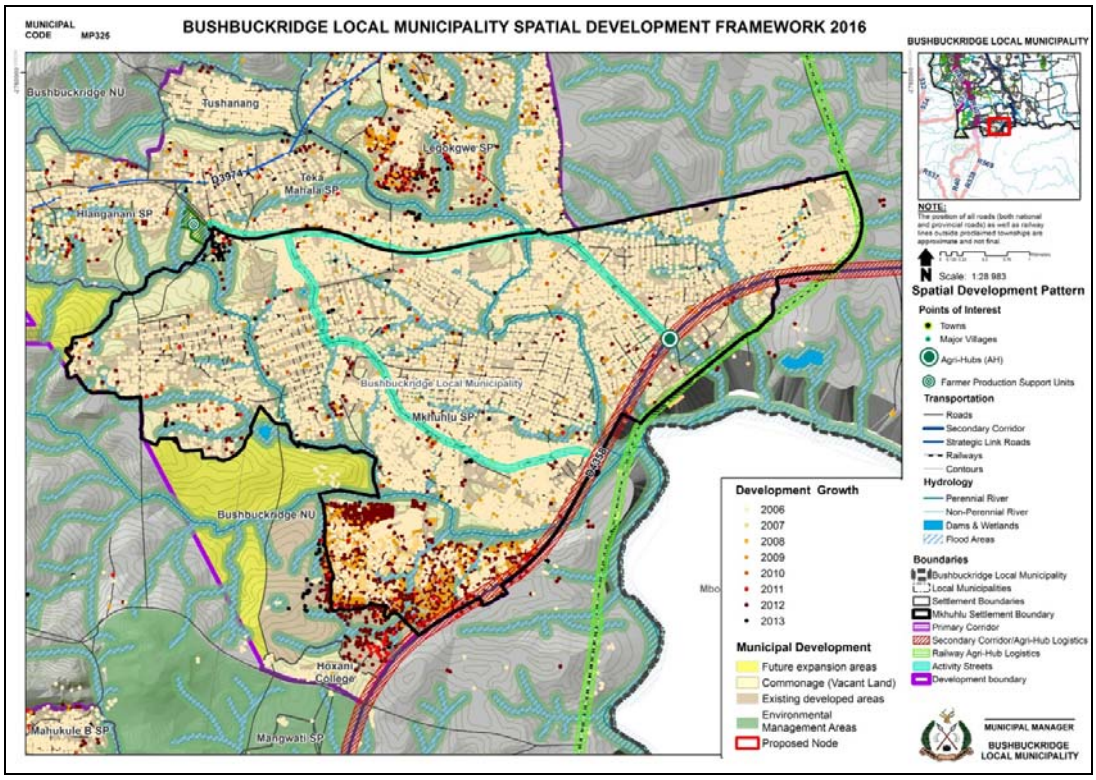

Figure 2-5: Mkhuhlu Current Spatial Development Pattern and Future Expansions (BLM, 2017a)

2.3.4 Thulamahashe

Thulamahashe is identified as an urban node that provides higher order functions to the broader community, and is surrounded by the Sand and Nwandlamuhari rivers flowing from Dumphries, around Thulamahashe and all the way to the east approaching Shatale and Rooiboklaagte. The node is divided by Kumani Road right where business activities, medium density housing and educational facilities are situated.

Business and educational facilities are in close proximity to the residential dwellings for accessibility reasons. The land along the Sand River as well on the outskirts of Thulamahashe is used for agricultural purposes. Densification is a priority in the Thulamahashe Area as all the land uses are compatible and in close proximity to one another.

Government and Municipal buildings are strategically situated along a pedestrianised street, which is meant to promote a pedestrian-friendly environment in order to stimulate green spaces for parks and recreational areas.

Figure 2-6 below depicts the spatial representation of a 5 year SDP, as well as 10 to 20 years desired spatial growth pattern.

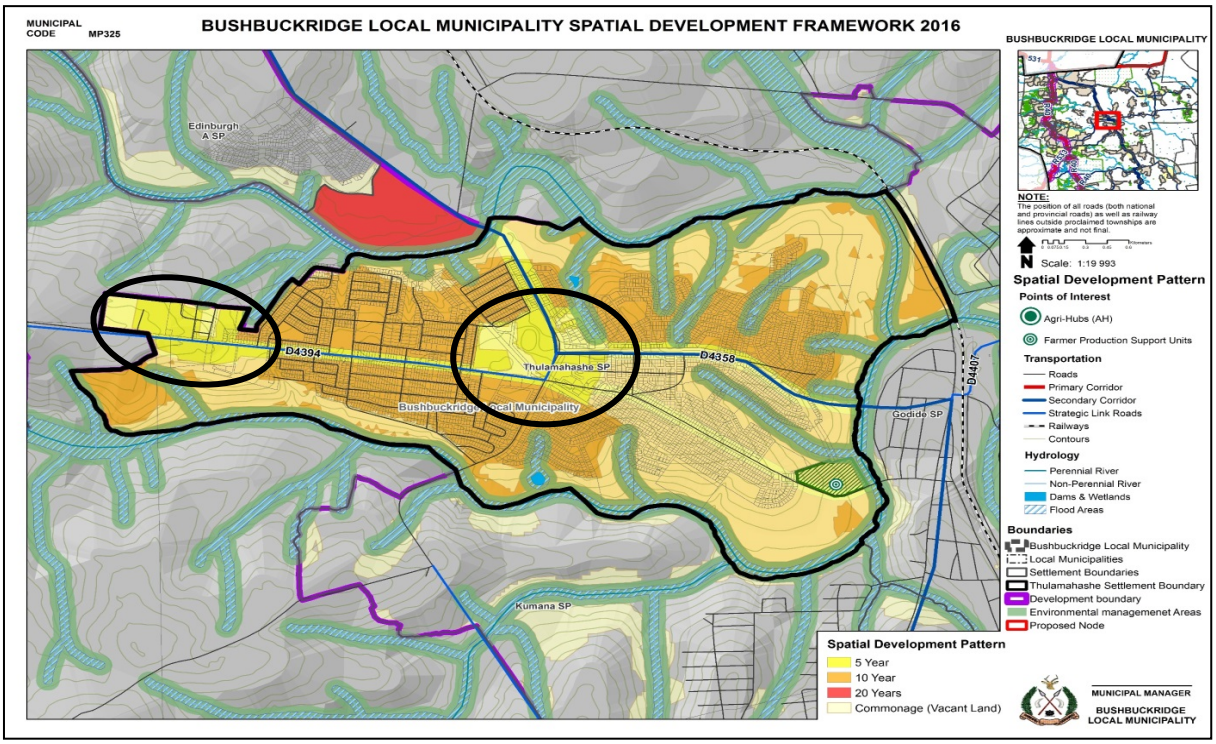

Figure 2-6: Thulamahashe Current and Desired Spatial Development Pattern (BLM, 2017a)

2.4 Water Supply Schemes in City of Mbombela LM and Bushbuckridge Local Municipalities

Figure 2-7 illustrates all the Water Supply Schemes (WSS) in the City of Mbombela LM and the Bushbuckridge LMs. The various WSSs provide a good indication of where population concentrations exist in both of these two municipal areas.

As can be seen in **Figure 2-7** below, the WSSs in Bushbuckridge LM are concentrated in the south west, which is also where the bulk of the population and related water requirements are concentrated. The following four (4) WSSs are located within the Bushbuckridge LM:

- Acornhoek
- Thulamahashe
- Hoxani
- Marite

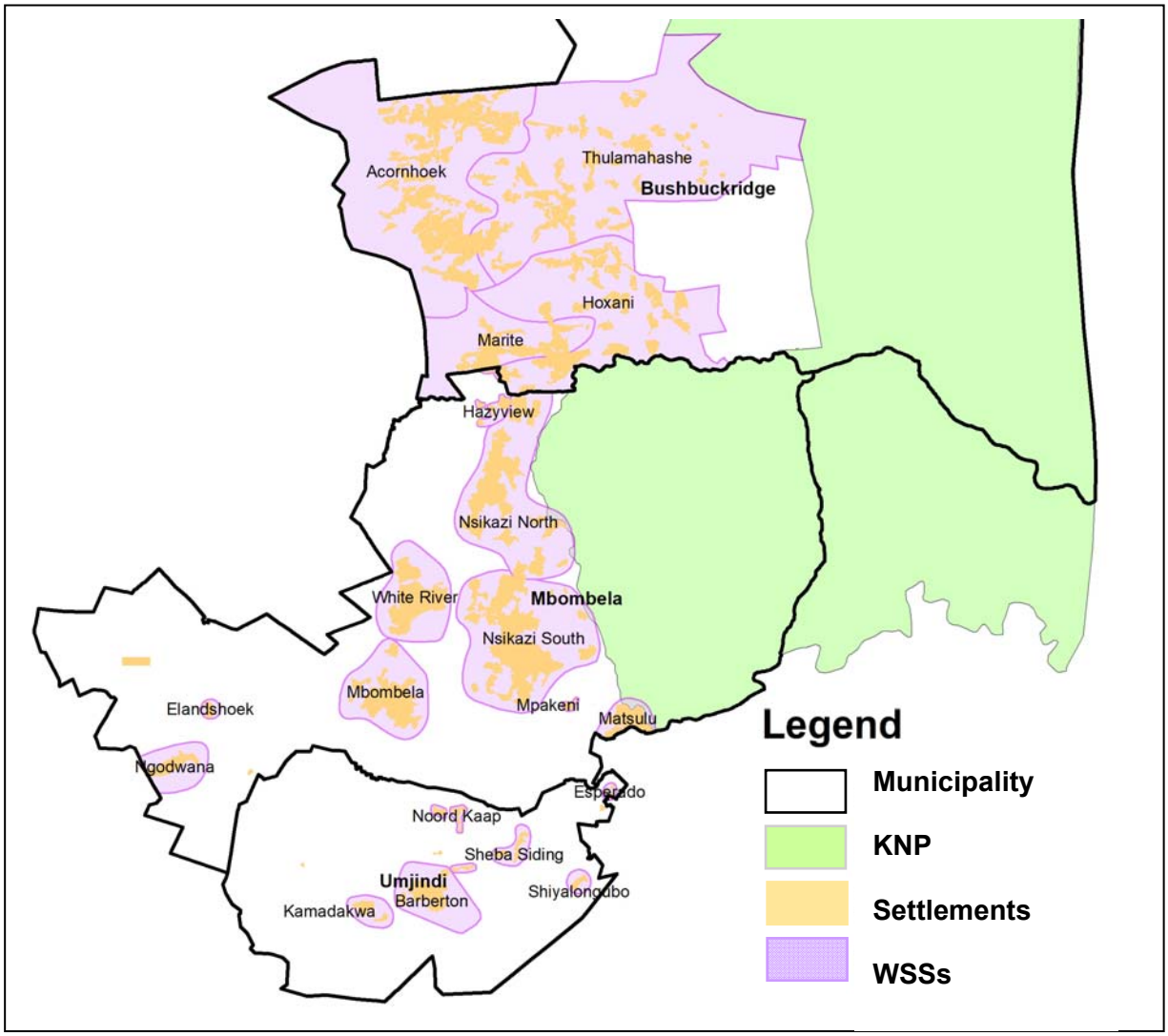

Figure 2-7: WSSs in the demographic focus area

The following eighteen (18) WSSs are located within the City Mbombela LM:

- Former Mbombela LM:
  - Elandshoek

- Hazyview
- Matsulu
- Mbombela
- Mpakeni
- Ngodwana
- Nsikazi North
- Nsikazi South
- White River
- Esperado
- Mandela / Mlambongwane
- Sabie River Eco Estate

- Former Umjindi LM:
  - Barberton
  - Sheba Siding
  - Shiyalongubo
  - Kamadakwa
  - Fairview Mine
  - Noord Kaap

2.5 Water Supply Schemes in the broader study area

The following WSSs surround the WSS located within the demographic focus areas, and together comprise the broader Study Area:

- Emakhazeni LM:
  - Dullstroom
  - Waterval Boven
  - Machadodorp
- Thaba Chweu LM:
  - Hendriksdal
  - Sabie
  - Graskop
- Nkomazi LM:
  - Louieville
  - Komatipoort
  - Marloth Park

- Hectorspruit
- Malelane

As can be seen in **Figure 2-8**, the broader Study Area comprises 3 WSSs in Emakhazeni LM, 4 WSSs in Thaba Chweu LM, and 7 WSSs in Nkomazi LM.

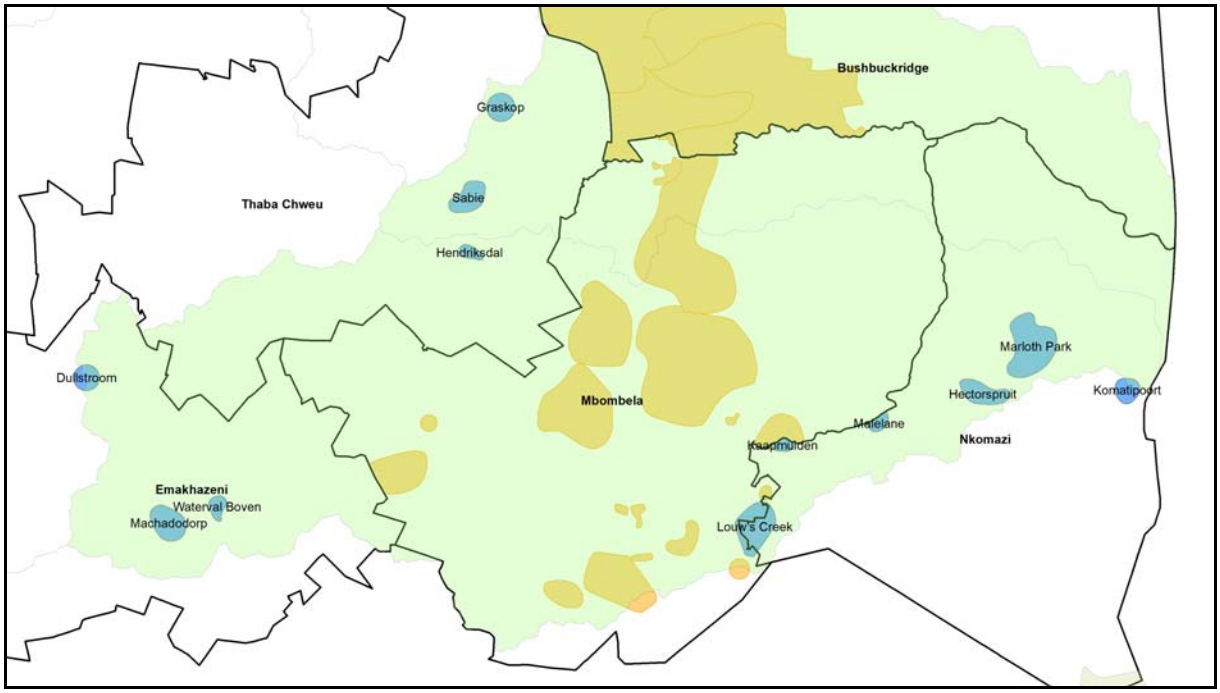

Figure 2-8: WSSs in the broader Study Area

3 HISTORIC GROWTH PERSPECTIVE AND ANALYSIS

This section of the Report deals with the socio-economic components of the City of Mbombela and Bushbuckridge LMs, and seeks to provide an overview of the economic and social composition of the municipalities, as well as to indicate the historical growth in order to give an indication of the past distribution and growth trends. Furthermore, this section of the Report also seeks to provide an indication of how the base population was determined, to enable to be applied into future growth scenarios for the City of Mbombela and Bushbuckridge LMs. The economic perspective in **Section 3.1** and the demographic perspective in **Section 3.2** that follows jointly paint a holistic picture of the composition, strengths and future possibilities within the City of Mbombela and Bushbuckridge LMs.

3.1 Economic Perspective

This Sub-section of the Report deals with the economic components of the City of Mbombela LM (the former Umjindi and Mbombela LMs) and the Bushbuckridge LM, and seeks to provide an overview of the Gross Domestic Product (GDP) growth, the growth and distribution of employment as well as the sectoral share of the economy.

Interpretation of economic drivers requires a sound understanding of the size of the economy and its dynamics in the past. A number of indicators exist that can describe the economy of a region or an area. The most common variables that are used for the economic analysis include production and Gross Domestic Product per Region (GDP-R). Production represents the total value of sales of goods and services, or the turnover of all economic agents in a region; whilst GDP-R, using the output approach, means the sum of value added created by all residents within a certain period of time, which is usually one year. The trend at which the GDP-R has been changing in the past is also referred to as the economic growth indicator. It is a measure of both the performance of an area and the well-being of the citizens of an area. Faster economic growth than population growth is taken as an indicator of a healthy economy and an improvement in citizens' well-being.

Employment, labour and GDP-R statistics provided in this sub-section of the Report can be divided into three (3) main sectors, namely the Primary, Secondary and Tertiary sectors. Each of these main sectors are further subdivided into various economic sectors as outlined below, to which reference is made throughout the remainder of this sub-section:

- **Primary Sector:**

- Agriculture/hunting/forestry/fishing – establishments primarily engaged in farming activities or the rendering of agricultural services. Also included are commercial hunting, game farming, forestry, logging and fishing; and
- Mining/quarrying – the extracting, dressing and beneficiation of minerals occurring naturally.

- **Secondary Sector:**
  - Manufacturing – the physical or chemical transformation or assembly of materials or compounds into new products;
  - Electricity/gas/water – production, collection and distribution of electricity, the manufacturing and distribution of gas, the collection, purification and distribution of water; and
  - Construction – site preparation, demolition, construction of buildings, civil engineering, installation, plumbing, decorating, etc.

- **Tertiary Sector:**
  - Trade/catering – the wholesale or retail resale of new and used goods in stores, stalls, markets, by mail-order or by other means as well as hotels, restaurants, bars and other tourist activities;
  - Transport/communication – the provision of passenger and/or freight transport by rail, road, water or air. Includes cargo handling and storage, postal activities, courier activities and the transmission of sound, images, data or other information;
  - Business and financial services – the activity of obtaining and redistributing funds, financial intermediation, insurance and pension funding. The buying, selling, renting and operating of owned or leased real estate; as well as
  - Government and community services – activities of central, provincial and local government. Provision of community services, e.g. education, health services, social work, and activities of professional organisations.

Note from the above that there are nine economic sectors. The tourism sector is not a standalone economic sector, but forms a part of some of the other economic sectors, predominantly the trade, transport and financial services sectors.

3.1.1 Total GDP and GDP Growth

The total GDP per LM was extracted to indicate the contribution to the national economy. The GDP contribution to the national economy (in R million) from 2006 to 2016 is indicated in **Table 3-1** below.

Table 3-1: Total GDP from 2006 to 2016 (R millions at constant 2010 prices)

Municipality	GDP (in R millions) at constant 2010 prices										
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Former Mbombela LM	24 819	26 135	26 914	26 862	27 435	27 917	28 417	28 988	29 684	30 053	30 137
Former Umjindi LM	3 154	3 182	3 082	2 996	3 001	3 021	2 980	3 077	3 158	3 144	3 167
Bushbuckridge LM	6 961	7 274	7 460	7 516	7 661	7 695	7 822	7 963	8 110	8 115	8 165

Source: Quantec research 2017, Regional Socio-economic and Demographic Dataset

The GDP growth per annum in **Table 3-2** below was calculated using the GDP figures per year as indicated in **Table 3-1** above.

Table 3-2: GDP Growth from 2006 to 2016 (R millions at constant 2010 prices)

Municipality	GDP (in R millions) at constant 2010 prices										
	06-‘07	07-‘08	08-‘09	09-‘10	10-‘11	11-‘12	12-‘13	13-‘14	14-‘15	15-‘16	Total
Former Mbombela LM	5,3%	3,0%	-0,2%	2,1%	1,8%	1,8%	2,0%	2,4%	1,2%	0,3%	**2,0%**
Former Umjindi LM	0,9%	-3,1%	-2,8%	0,2%	0,7%	-1,4%	3,2%	2,6%	-0,4%	0,7%	**0,0%**
Bushbuckridge LM	4,5%	2,6%	0,7%	1,9%	0,4%	1,6%	1,8%	1,8%	0,1%	0,6%	**1,6%**

Source: Quantec research 2017, Regional Socio-economic and Demographic Dataset, Kayamandi calculations

From **Table 3-2** above, it is evident that the former Mbombela LM experienced a positive growth trend over the time period, with a total growth over the time period of 2% per annum. A slight decline in growth of -0.2% is evident during 2008-2009, but the economy recovered with positive growth thereafter. The economy of the former Umjindi LM experienced a significant decline of -3.1% during the 2007-2008 time period, which continued through to 2008-2009. Overall between 2006 and 2016 the economy of the former Umjindi LM experienced no growth and remained at 0% per annum. The Bushbuckridge LM experienced a positive growth trend over the ten year time period from 2006 to 2016, with a 1.6% growth per annum over the period.

3.1.2 Sectoral GDP and GDP Growth

An indication of the GDP of the LMs and their economic sectors for the years 2006 and 2016 is provided in **Table 3-3** below.

Table 3-3: GDP per Sector (R millions at constant 2010 prices)

Sector	Year					
	2006			2016		
	Mbombela (former)	Umjindi (former)	Bushbuck-ridge	Mbombela (former)	Umjindi (former)	Bushbuck-ridge
Agriculture	694	284	183	927	349	235
Mining	508	768	155	641	406	97
Manufacturing	3 906	381	380	3 624	349	363
Utilities	730	29	288	795	26	364
Construction	823	63	208	1 150	92	264
Retail Trade	5 486	480	1 445	6 657	527	1 647
Transport	1 981	120	567	2 647	153	619
Business Services	5 352	353	814	6 652	401	959
Social Services	3 988	533	2 210	5 548	706	2 868
Government Services	1 353	144	711	1 496	156	749
Total	**24 819**	**3 154**	**6 961**	**30 137**	**3 167**	**8 165**

Source: Quantec research 2017, Regional Socio-economic and Demographic Dataset

As can be seen in **Table 3-4** below, between 2006 and 2016 the sectors in the Mbombela LM showed positive average growth rate per annum, except for the manufacturing sector with a decline of -0.7%. The mining, utilities and manufacturing sectors declined the most with -6.2%, -1.1% and -0.8% respectively in the Umjindi LM. The mining sector (-4.6%) experienced the most and significant decline in Bushbuckridge LM followed by the -0.4% decline in the manufacturing sector.

Table 3-4: GDP Growth per Sector (R millions at constant 2010 prices)

Sector	Growth per Sector (2006-2016)		
	Mbombela (former)	Umjindi (former)	Bushbuckridge
Agriculture	2,9%	2,1%	2,5%
Mining	2,4%	-6,2%	-4,6%
Manufacturing	-0,7%	-0,8%	-0,4%
Utilities	0,9%	-1,1%	2,4%
Construction	3,4%	3,9%	2,4%
Retail Trade	2,0%	0,9%	1,3%

Sector	Growth per Sector (2006-2016)		
	Mbombela (former)	Umjindi (former)	Bushbuckridge
Transport	2,9%	2,5%	0,9%
Business Services	2,2%	1,3%	1,7%
Social Services	3,4%	2,9%	2,6%
Government Services	1,0%	0,8%	0,5%
Total	**2,0%**	**0,04%**	**1,6%**

Source: Quantec research 2017, Regional Socio-economic and Demographic Dataset, Kayamandi calculations

The overall economy between 2006 and 2016 in all three of the LMs experienced positive growth. The former Mbombela LM experienced the highest growth of 2% per annum over the aforementioned period.

The contribution per sector to GDP indicates which economic sector carries the largest weight and makes the largest contribution to the local economy. The contributions per sector to the GDP are given **Table 3-5** below.

In 2016 the highest contributing sector to the total GDP in the former Mbombela LM was the retail and the business services sector both contributing 22% of the total GDP. The dominating sector in the former Umjindi LM was the Social Services Sector contributing 22% to the economy, followed by the Retail Trade Sector contributing 17%. The highest contributing sectors in Bushbuckridge LM in 2016, was the Social Services Sector (35%) and the Retail Trade Sector (20%).

Table 3-5: Municipal Economic Sector Contribution to the Total GDP

Sector	2006			2016		
	Mbombela (former)	Umjindi (former)	Bushbuck-ridge	Mbombela (former)	Umjindi (former)	Bushbuck-ridge
Agriculture	3%	9%	3%	3%	11%	3%
Mining	2%	24%	2%	2%	13%	1%
Manufacturing	16%	12%	5%	12%	11%	4%
Utilities	3%	1%	4%	3%	1%	4%
Construction	3%	2%	3%	4%	3%	3%
Retail trade	22%	15%	21%	22%	17%	20%
Transport	8%	4%	8%	9%	5%	8%
Business services	22%	11%	12%	22%	13%	12%
Social services	16%	17%	32%	18%	22%	35%
Government services	5%	5%	10%	5%	5%	9%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Source: Quantec research 2017, Regional Socio-economic and Demographic Dataset, Kayamandi calculations

3.1.3 Employment per Sector

The employment per sector and growth thereof are given in **Table 3-6** below.

Table 3-6: Employment per Sector

Sector	2006			2016		
	Mbombela (former)	Umjindi (former)	Bushbuck-ridge	Mbombela (former)	Umjindi (former)	Bushbuck-ridge
Agriculture	25 170	9 843	5 827	17 673	6 906	4 322
Mining	601	1 284	186	753	1137	191
Manufacturing	18 304	2 899	3 326	15 583	2 175	2 562
Utilities	731	29	393	925	37	459
Construction	16 205	1 394	5 601	20 712	1 950	7 303
Retail Trade	39 720	3 953	13 792	51 779	4 722	17 981
Transport	6 326	396	2 436	10 014	612	3 579
Business Services	20 605	1 952	4 932	26 398	2 196	6 094
Social Services	17 388	2 543	11 526	24 475	3 403	15 167
Government Services	20 554	2 435	9 422	32 481	3 402	15 795
Total	**165 604**	**26 728**	**57 441**	**200 793**	**26 540**	**73 453**

Source: Quantec research 2017, Regional Socio-economic and Demographic Dataset

The annual growth rates per sector between 2006 and 2016 are given in **Table 3-7** below.

Table 3-7: Employment Growth per annum per Sector, 2006-2016

Sector	Growth per Sector (2006-2016)		
	Mbombela (former)	Umjindi (former)	Bushbuckridge
Agriculture	-3,5%	-3,5%	-2,9%
Mining	2,3%	-1,2%	0,3%
Manufacturing	-1,6%	-2,8%	-2,6%
Utilities	2,4%	2,5%	1,6%
Construction	2,5%	3,4%	2,7%
Retail Trade	2,7%	1,8%	2,7%
Transport	4,7%	4,4%	3,9%
Business Services	2,5%	1,2%	2,1%
Social Services	3,5%	3,0%	2,8%
Government Services	4,7%	3,4%	5,3%
Total	**1,9%**	**-0,07%**	**2,5%**

Source: Quantec research 2017, Regional Socio-economic and Demographic Dataset, Kayamandi calculations

Apart from the former Umjindi LM, the average employment growth rate between 2006 and 2016 increased by 1.9% and 2.5% per annum in the former Mbombela and Bushbuckridge

LMs respectively. The Government Services Sector experienced the highest growth rate in all three municipalities. Despite the fact that Mpumalanga was ranked fourth in terms of manufacturing, after Gauteng, Western Cape and KwaZulu Natal, and accounted for 7-10% of South Africa's total manufacturing, the manufacturing sector in all the municipalities, shown above, experienced negative growth rates.

3.2 Demographic Perspective

In order to understand demographics, reference must be made to demographic factors, which impact on the City of Mbombela and Bushbuckridge LMs from a historical perspective. This will assist with providing a picture of trends and impacts that would inform future population growth. For the purposes of this discussion, data from StatsSA have been used. It should be noted that the Census data used in this sub-section of the Report is data from the Census that was conducted prior to the amalgamation of Mbombela LM and Umjindi LM (now City of Mbombela LM), and these two former LMs were analysed separately.

3.2.1 Population Size and Growth

Understanding the demographics of any geographical area helps to analyse different developmental trends. Population figures and population growth rates assist in determining the demand for production output and the potential growth thereof.

The population numbers for the 2001 and 2011 Census data and the 2016 Community Survey data from StatsSA, as well as the average growth per annum are presented in **Table 3-8** below.

Table 3-8: Population Growth and Size from 2001 to 2016

Municipality	Population Size			Average Growth per Annum
	2001	2011	2016	2011-2016
Mbombela LM (former)	477 460	588 794	622 158	1,1%
Umjindi LM (former)	53 913	67 156	71 211	1,2%
Bushbuckridge LM	499 670	541 248	548 760	0,3%

Source: StatsSA Census 2001, Census 2011, Community survey 2016, and Kayamandi calculations

As can be seen in **Table 3-8** above the overall population in all three LMs grew steadily, albeit at slow rates, from 2011 to 2016.

3.2.2 Number of households

The household numbers for the 2001 and 2011 Census data and the 2016 Community Survey data from StatsSA, as well as the average growth per annum are presented in **Table 3-9** below.

Table 3-9: Number of Households per Municipality from 2001 to 2016

Municipality	Number of households			Average Growth per Annum
	2001	2011	2016	2011-2016
Mbombela LM (former)	122 873	161 773	181 794	2,4%
Umjindi LM (former)	15 961	19 561	23 702	3,9%
Bushbuckridge LM	110 560	134 200	137 419	0,5%

Source: StatsSA Census 2001, Census 2011, Community survey 2016, and Kayamandi calculations

From **Table 3-9** above, it is evident that the total number of households has seen a significance growth compared to the population growth. The former Umjindi LM experienced the highest growth of 3.9% per annum during 2011 to 2016. Contributing factors to the positive growth in households might be as a result of the fertility and mortality rates, as well as mass migration influx from neighbouring countries such as Mozambique and Swaziland.

3.2.3 Household Size

The household size for the 2001 and 2011 Census data and the 2016 Community Survey data from StatsSA, are presented in **Table 3-10** below.

Table 3-10: Average Household Size per Municipality from 2001 to 2016

Municipality	Average Household Size		
	2001	2011	2016
Mbombela LM (former)	3.9	3.6	3.4
Umjindi LM (former)	3.4	3.4	3.0
Bushbuckridge LM	4.5	4.0	4.0

Source: StatsSA Census 2001, Census 2011, Community survey 2016, and Kayamandi calculations

From the **Table 3-10** above it is evident that household sizes in the municipalities have reduced slightly.

3.2.4 Household Income

The average annual household income for the 2001 and 2011 Census data from StatsSA, are presented in **Table 3-11** below. The data reflects income differences between 2001 and 2011.

Table 3-11: Average Household Incomes in 2001 and 2011

Annual Income	Income Category	2001			2011		
		Mbombela (former)	Umjindi (former)	Bushbuck-ridge	Mbombela (former)	Umjindi (former)	Bushbuck-ridge
No income	**Low**	15%	11%	39%	13%	11%	17%
R1 – R4 800		14%	13%	12%	5%	4%	9%
R4 801 – R9 600		23%	24%	21%	8%	6%	15%
R9 601 – R19 200		20%	20%	13%	18%	21%	22%
R19 201 – R38 400		13%	14%	8%	21%	22%	19%
R38 401 – R76 800	**Middle**	7%	8%	4%	13%	15%	8%
R76 801 – R153 600		5%	5%	2%	9%	9%	5%
R153 601 and more	**High**	4%	4%	1%	13%	12%	4%
Total		**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Source: StatsSA Census 2001, Census 2011, and Kayamandi calculations

From **Table 3-11** above it is deduced that a clear shift exists in the average annual income of households between 2001 and 2011. A decrease in the number of households that earn less than R9 600 per annum is noted whilst households that fall within the latter income groups earn more.

3.3 Base Population Determination

A 2016 base population figure is needed as the starting point for the demographic modelling to determine future population projections. Various municipal documents and previous studies were consulted for demographic information as summarised in **Table 3-12** below.

Due to the discrepancies as highlighted in **Table 3-12** below between the different sources, and further difficulty to compare data at lower than LM levels, new calculations had to be made to determine the 2016 base population and the distribution thereof.

Table 3-12: Base Population Comparison from Various Data Sources

Data Source	Mbombela LM (former)	Umjindi LM (former)	Bushbuckridge LM
StatsSA Census 2011 (2011)	588 794	67 156	541 248
Water Requirements and Availability Reconciliation Strategy for the Mbombela Municipal Area (DWS, 2014).	619 555	-	613 643
City of Mbombela Vision 2030 (2015)	650 912	78 552	-
DWS Water Services Development Plan (WSDP) Data (2016)	669 000	80 113	788 251
StatsSA Community Survey 2016 (2016)	622 157	71 211	548 760

The latest official StatsSA data from the 2016 Community Survey was used in order to determine a realistic 2016 base population at municipal level. However, since the StatsSA 2016 Community Survey data is only released at municipal level, the distribution of the 2016 municipal population had to be determined. The population distributions from the StatsSA 2011 Census data was applied to the 2016 total LM population to determine the distribution of the 2016 population. The newly calculated 2016 distribution of population was then grouped according to the WSSs within each municipality and balanced off against the total population figures from the StatsSA 2016 Community Survey results. Population growth was also accounted for by comparing the change in SBC in the WSSs during 2011 and 2016. Change in average household size was also applied to obtain realistic population figures.

The most realistic base population for 2016, for the purpose of this Study, directly compares with the urban areas in the StatsSA 2016 Community Survey data. Note, however, whilst the realistic 2016 base figure is directly comparable with the official StatsSA data from the 2016 Community Survey, discussions with relevant municipal stakeholders revealed that the population size is potentially slightly higher, which informed the need for the application of slightly higher scenario to the base population figures.

The resultant base population and base household figures per municipality for the realistic and high growth scenarios are presented in **Table 3-13** and **Table 3-14** below.

Table 3-13: Base Population Determination per Municipality

Municipality	Realistic Growth Scenario			High Growth Scenario		
	2011	2016	2018	2011	2016	2018
Mbombela LM (former) excl. rural	585 037	618 810	633 186	585 037	637 256	660 036
Umjindi LM (former) excl. rural	66 074	70 433	72 014	66 074	74 448	77 383
Bushbuckridge LM excl. rural	532 846	540 306	543 284	532 846	552 974	561 244

Table 3-14: Base Household Determination per Municipality

Municipality	Realist Growth Scenario			High Growth Scenario		
	2011	2016	2018	2011	2016	2018
Mbombela LM (former) excl. rural	160 170	180 516	186 512	160 170	186 145	194 843
Umjindi LM (former) excl. rural	19 048	23 318	23 969	19 048	24 655	25 776
Bushbuckridge LM excl. rural	132 399	135 587	137 710	132 399	138 763	142 257

The resultant distribution per WSS for the 2018 population and household figures per scenario is given in **Table 3-15** below.

Table 3-15: Population and Household Distribution per WSS in 2018

Water Services Area	2018 POPULATION		2018 HOUSEHOLDS	
	REALISTIC SCENARIO	HIGH SCENARIO	REALISTIC SCENARIO	HIGH SCENARIO
Elandshoek	1 494	2 330	531	827
Hazyview	4 657	4 663	1 413	1 415
Matsulu	56 524	56 726	15 793	15 850
Mbombela	78 475	79 057	22 646	22 814
Mpakeni	1 460	1 642	404	454
Ngodwana	3 957	4 661	2 146	2 527
Nsikazi North	173 131	181 793	52 588	55 218
Nsikazi South	279 108	288 705	79 898	82 646
White River	32 969	38 495	10 740	12 541
Esperado	560	934	219	364
Mandela / Mlambongwane	251	430	74	127
Sabie River Eco Estate	600	600	60	60
Mbombela LM (former) excl. rural	**633 186**	**660 036**	**186 512**	**194 843**
Barberton	61 566	62 110	20 433	20 613
Sheba Siding	1 963	2 212	658	741
Shiyalongubo	419	433	124	128
Kamadakwa	6 170	10 110	2 003	3 282
Fairview Mine	599	607	206	209
Noord Kaap	1 297	1 911	545	803
Umjindi LM (old) excl. rural	**72 014**	**77 383**	**23 969**	**25 776**
Acornhoek	214 389	221 898	55 894	57 851
Thulamahashe	142 566	144 939	35 860	36 457
Hoxani	149 990	156 757	36 899	38 564
Marite	36 339	37 650	9 057	9 385
Bushbuckridge LM excl. rural	**543 284**	**561 244**	**137 710**	**142 257**

The percentage distribution of the residential households Level of Service (LoS) are given in **Table 3-16** below.

Table 3-16: Percentage Distribution of Household Level of Services per WSS in 2018

Water Supply Scheme	Formal								Informal				TOTAL
			Single Residential										
	Flats	Clusters	Below RDP Level	Low Income	Medium Income	High Income	Very High Income	Total Formal	Below RDP Level	RDP level	Above RDP Level	Total Informal	
Elandshoek	3	1	0	33	7	1	0	**45**	17	27	11	**55**	**100**
Hazyview	2	2	0	20	20	37	2	**83**	10	5	2	**17**	**100**
Matsulu	1	0	13	47	22	5	0	**88**	7	2	3	**12**	**100**
Mbombela	12	11	0	11	14	37	2	**87**	8	3	2	**13**	**100**
Mpakeni	0	0	31	43	23	1	0	**98**	1	1	0	**2**	**100**
Ngodwana	1	4	0	26	7	15	1	**54**	1	43	2	**46**	**100**
Nsikazi North	2	0	28	44	15	4	0	**93**	4	1	2	**7**	**100**
Nsikazi South	2	0	22	42	21	7	0	**94**	4	1	1	**6**	**100**
White River	7	5	0	21	14	28	2	**77**	13	5	5	**23**	**100**
Esperado	0	0	18	49	33	0	0	**100**	0	0	0	**0**	**100**
Mandela/ Mlambongwane	0	0	17	49	34	0	0	**100**	0	0	0	**0**	**100**
Sabie River Eco Estate	0	0	0	0	0	0	100	**100**	0	0	0	**0**	**100**
Mbombela LM (former) excl. rural	**3**	**2**	**19**	**38**	**18**	**11**	**0**	**91**	**5**	**2**	**2**	**9**	**100**
Barberton	2	1	4	47	22	12	1	**89**	3	5	3	**11**	**100**
Sheba Siding	0	1	14	8	9	4	0	**36**	39	24	1	**64**	**100**
Shiyalongubo	0	0	0	15	14	1	0	**30**	65	5	0	**70**	**100**
Kamadakwa	0	0	18	7	20	4	0	**49**	23	22	6	**51**	**100**
Fairview Mine	6	1	0	7	39	44	2	**99**	0	0	1	**1**	**100**
Noord Kaap	3	0	0	14	43	11	1	**72**	19	8	1	**28**	**100**
Umjindi LM (former) excl. rural	**2**	**1**	**5**	**41**	**22**	**11**	**1**	**84**	**6**	**7**	**3**	**16**	**100**
Acornhoek	0	0	30	34	24	8	0	**96**	2	1	1	**4**	**100**
Thulamahashe	0	0	25	56	11	5	0	**97**	1	1	1	**3**	**100**
Hoxani	1	0	28	50	11	4	0	**94**	3	1	2	**6**	**100**
Marite	0	0	35	30	24	5	0	**94**	3	2	1	**6**	**100**
Bushbuckridge LM excl. rural	**0**	**0**	**28**	**44**	**17**	**6**	**0**	**96**	**2**	**1**	**1**	**4**	**100**
TOTAL	**2**	**1**	**22**	**40**	**18**	**9**	**0**	**92**	**4**	**2**	**2**	**8**	**100**

4 GROWTH SCENARIOS AND PROJECTED POPULATION

This section of the Report deals with the development of growth scenarios until 2040. These scenarios are based on detailed discussions with local stakeholders, municipal documents and historic data relating to structural economic changes, policy changes, income groups, strategic development projects, social dynamics, proposed housing developments, infrastructure developments, urbanisation and migration trends, as well as historical growth patterns. Modelling was done for each one of the WSS, which are characterised by their unique attributes and circumstances. Based on information obtained from the LMs, each WSSs have a specific growth forecast, which determines the pace and rate of development and related population growth. The modelling process focused on the growth of population (or individuals), and on the growth of households per WSS for realistic and high growth scenarios.

4.1 Growth Scenarios

It was necessary to develop two (2) growth scenarios for development, namely a realistic growth and a higher growth scenario, as it is impossible for all the smaller settlements in the City of Mbombela and Bushbuckridge LMs to grow at the same rate as larger nodes such as Hazyview, White River, Nelspruit and Acornhoek.

Note that previously, low and high population scenarios have always been required. However, it is believed that providing a low and high is pointless, since the low population estimates are always pushed down to the lowest limits, but never get used for planning purposes as planning never gets done for the lowest expected population. The difference between the low and high envelope has also always been too large, and creates uncertainty of what size population to plan for within the envelope. As such, realistic and high growth scenarios are used instead. The realistic scenarios provide an indication of the most likely population figure that could emerge. Whereas the high growth scenario provides the higher upper limit, for which planning is required.

Furthermore, each WSS have various varying factors, which affect each WSS according to their individual characteristics. The following demographic development determinants were taken into account:

- Migration;
- Mortality;
- Fertility; and

- HIV/AIDS.

There are indications that the large amounts of immigrants in the City of Mbombela and Bushbuckridge LMs place enormous pressure on already over-extended, and under-supplied social services (e.g. schools, clinics), as well as on the existing infrastructure and services (e.g. water, sanitation, electricity, etc.). Population growth projections therefore need to consider in-migration, and in order to estimate what this could mean for future population distribution and resource requirements (e.g. for water, sanitation, etc.).

The City of Mbombela and Bushbuckridge LMs municipalities have rapid population growth, which is as a result of migration into the area in search of better job opportunities. The majority of these migrants are from the neighbouring countries (Swaziland and Mozambique). Future population projections should also account for internal migration, which will ultimately influence population figures in the various areas within the LMs due to inherent internal migration dynamics of the local population. Very limited information is, however, available pertaining to migration patterns at local level (municipal level). It is, however, also a fact that a lack of sufficient job opportunities to accommodate economically active population, together with past apartheid policies of influx control, has entrenched a migratory labour pattern in the area as is the case in the rest of South Africa.

According to StatsSA, the South African infant mortality rate for 2017 is estimated at 32,8 per 1 000 live births. The estimated overall HIV prevalence rate is approximately 12,6% among the South African population. Furthermore, the total number of people living with HIV in South Africa was estimated to be approximately 7,06 million in 2017. An estimated 18,0% of people aged between 15 to 49 in South Africa are HIV positive.

This health pattern is also very evident from Census information, which indicates a discrepancy in the gender structure. Male absenteeism is higher in many rural areas, but some females also form part of the migrant labour pattern, although substantially less than males. Life expectancy of South Africans at birth for 2017 is estimated at 61,2 years for males and 66,7 years for females.

The above demographic trends influencing population growth have been taken into account for both the growth scenarios designed for the City of Mbombela and Bushbuckridge LMs.

4.2 Projected Population Forecasts for the City of Mbombela and Bushbuckridge Local Municipalities

Population growth depicts the estimated growth of each of the WSS within the City of Mbombela and Bushbuckridge LM, also taking into account in- and out-migration to and from, as well as internal migration.

An analysis of historic growth patterns is required, prior to undertaking future population estimates and/or projections. Mid-year population estimates by StatsSA are one of the information sources that was used to inform future growth scenarios. The estimates on a national and provincial level, reveal overall decline in population growth tendencies.

4.2.1 Population Estimates for City of Mbombela and Bushbuckridge LMs

The projected population figures and the projected population growth per scenario for the City of Mbombela and Bushbuckridge LMs are given in **Table 4-1** and **Table** 4-2 below.

Table 4-1: Five year Interval Population Estimates per Local Municipality from 2010 to 2040

Municipality	Growth Scenario	Population Figures						
		2010	2015	2020	2025	2030	2035	2040
Mbombela LM (former) excl. rural	Realistic	570 446	611 228	647 312	681 604	716 484	750 755	784 628
	High	570 446	625 675	682 826	733 699	783 528	831 715	882 311
Umjindi LM (former) excl. rural	Realistic	62 778	69 517	73 565	77 617	81 866	86 304	90 922
	High	62 778	72 397	79 961	85 420	91 072	96 842	102 925
Bushbuckridge LM excl. rural	Realistic	528 388	538 801	546 244	553 638	561 102	568 632	576 233
	High	528 388	548 854	569 644	590 126	610 294	630 120	649 579

Table 4-2: Five year Interval Population Growth Estimates per Local Municipality from 2010 to 2040

Municipality	Growth Scenario	Population Growth Figures					
		2010-2015	2015-2020	2020-2025	2025-2030	2030-2035	2035-2040
Mbombela LM (former) excl. rural	Realistic	1.4%	1.2%	1.0%	1.0%	0.9%	0.9%
	High	1.8%	1.8%	1.4%	1.3%	1.2%	1.2%
Umjindi LM (former) excl. rural	Realistic	2.1%	1.1%	1.1%	1.1%	1.1%	1.0%
	High	2.9%	2.0%	1.3%	1.3%	1.2%	1.2%
Bushbuckridge LM excl. rural	Realistic	0.4%	0.3%	0.3%	0.3%	0.3%	0.3%
	High	0.8%	0.7%	0.7%	0.7%	0.6%	0.6%

Figure 4-1, **Figure 4-2**, and **Figure 4-3** below reveal the projected population for former Mbombela LM, former Umjindi LM, and Bushbuckridge LMs respectively.

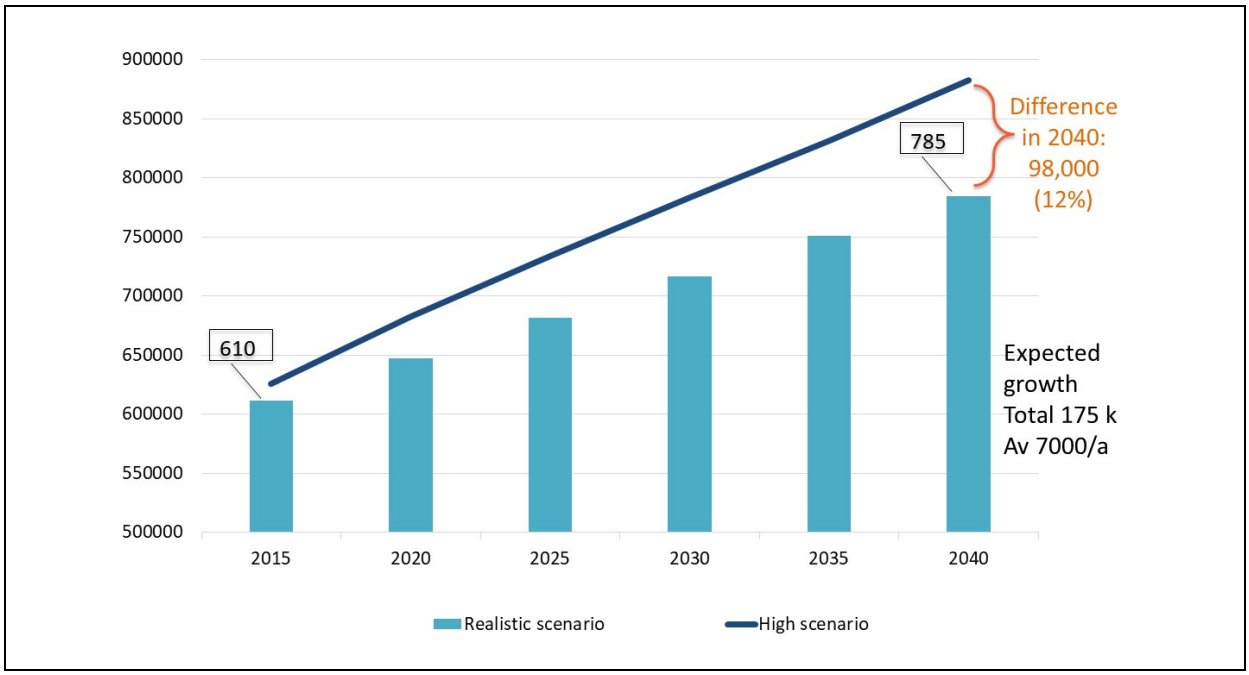

Figure 4-1: Projected Population per 5 year interval for former Mbombela Local Municipality

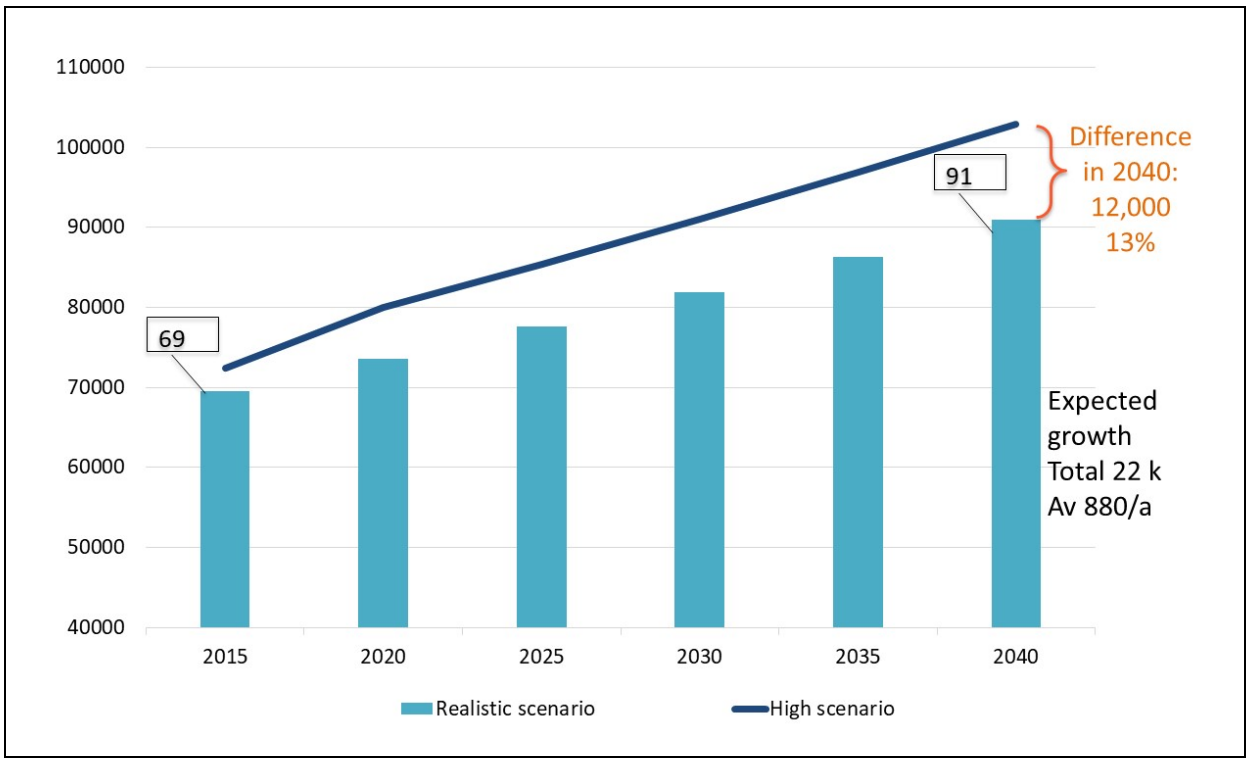

Figure 4-2: Projected Population per 5 year interval for former Umjindi Local Municipality

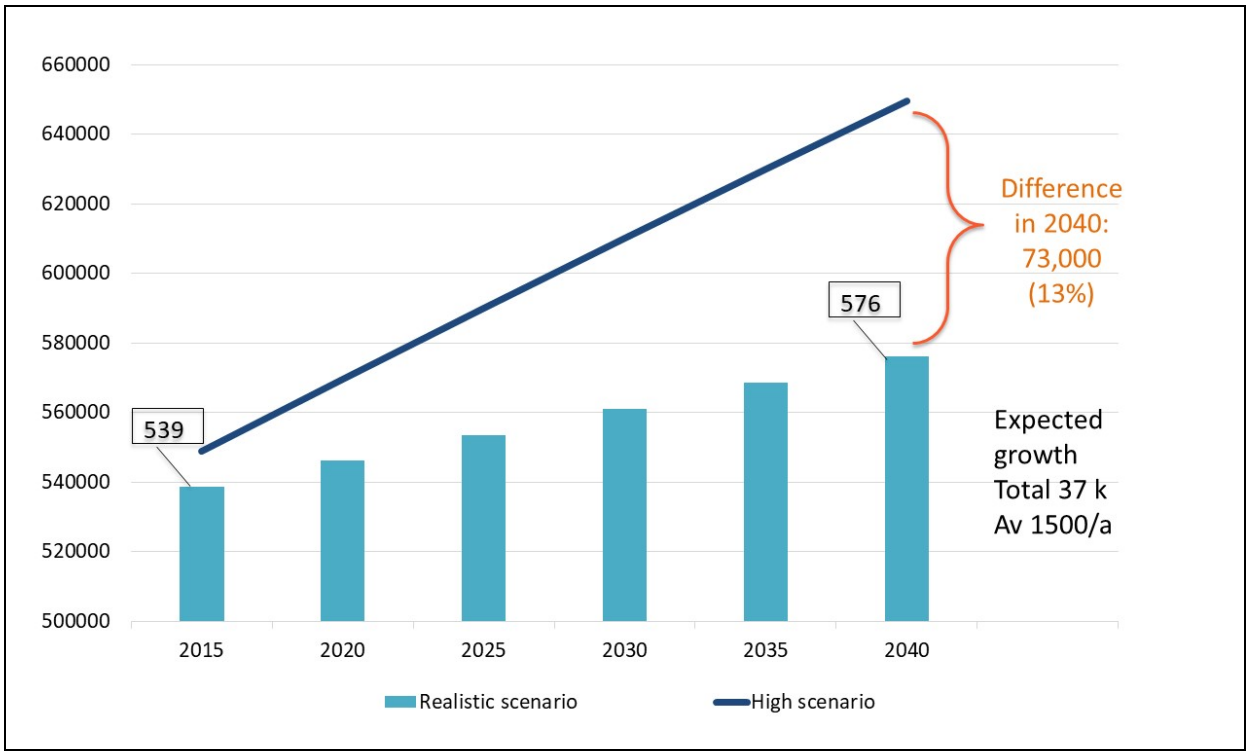

Figure 4-3: Projected Population per 5 year interval for Bushbuckridge Local Municipality

The projected population per LM over the 30 year period from 2010 to 2040 is shown in **Figure 4-4** below.

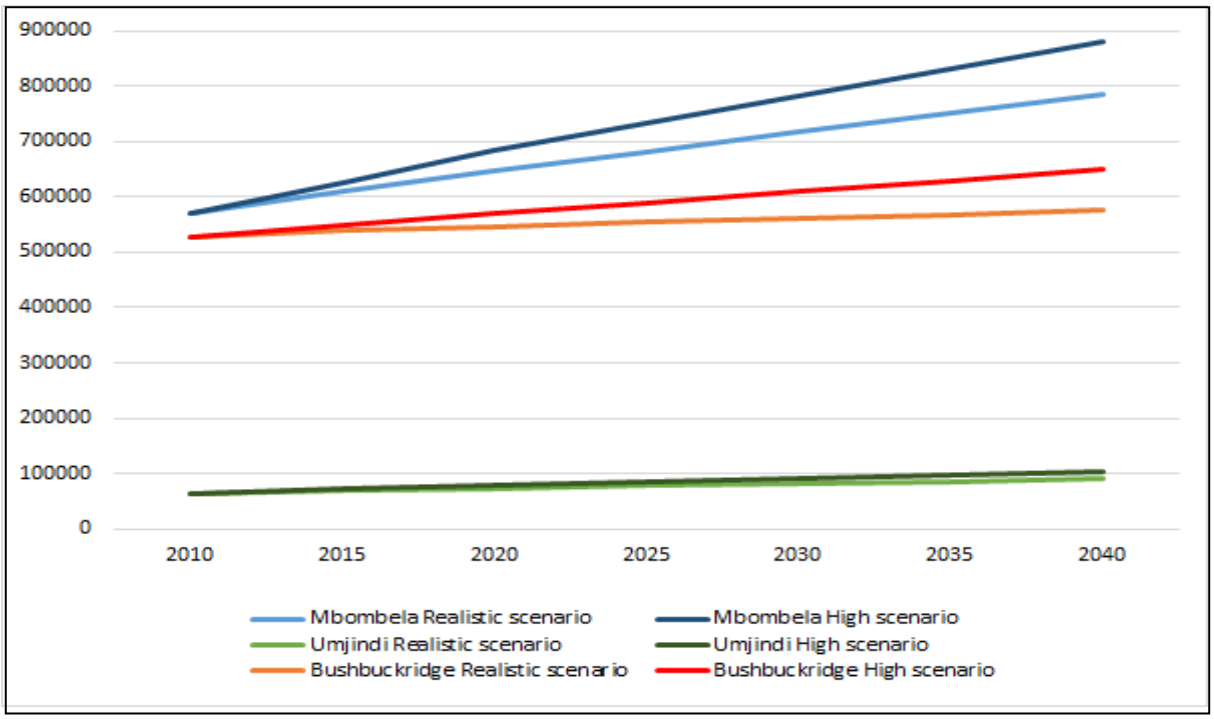

Figure 4-4: Projected Population Growth per Scenario from 2010 to 2040

The projected population, and population, growth per LM from 2010 until 2040, which based on the modelling undertaken, and compared to the projected population from the previous the Mbombela Reconciliation Strategy (2014), and other sources are given in **Table 4-3** and **Table 4-4** below.

Table 4-3: Estimated 5 year interval Population Figures per Local Municipality as per the Various Sources

Municipality	Source	Population Figures						
		2010	2015	2020	2025	2030	2035	2040
Mbombela LM (former)	Current estimates realistic scenario	570 446	611 228	647 312	681 604	716 484	750 755	784 628
	Current estimates high scenario	570 446	625 675	682 826	733 699	783 528	831 715	882 311
	Low Mbombela Reconciliation Strategy (DWS, 2014)	558 277	619 555	659 004	693 642	721 798	--	--
	High Mbombela Reconciliation Strategy (DWS, 2014)	559 654	631 147	685179	735 385	778 321	--	--
	City of Mbombela Vision 2030 (CoM, 2017b)	588 794	650 912	--	--	856 925	--	--
Umjindi LM (former)	Current estimates realistic scenario	62 778	69 517	73 565	77 617	81 866	86 304	90 922
	Current estimates high scenario	62 778	72 397	79 961	85 420	91 072	96 842	102 925
	City of Mbombela Vision 2030 (CoM, 2017b)	69 577	78 552	--	--	108 952	--	--
Bushbuckridge LM	Current estimates realistic scenario	528 388	538 801	546 244	553 638	561 102	568 632	576 233
	Current estimates high scenario	528 388	548 854	569 644	590 126	610 294	630 120	649 579
	DWS Water Reconciliation Strategy Sabie and Sand River System (DWS, 2015) low	--	610 620	641 768	661 253	677 951	686 468	695 091
	DWS Water Reconciliation Strategy Sabie and Sand River System (DWS, 2015) medium	--	613 643	661 068	700 829	739 317	772 233	805 616
	DWS Water Reconciliation Strategy Sabie and Sand River System, (DWS, 2015) high	--	616 666	680 849	742 545	805 860	868 140	932 932

Table 4-4: 5 year interval average annual Population Growth per Local Municipality as per the Various Sources

Municipality	Source	Average Population Growth per annum					
		2010-2015	2015-2020	2020-2025	2025-2030	2030-2035	2035-2040
Mbombela LM (former)	Current estimates realistic scenario	1.4%	1.2%	1.0%	1.0%	0.9%	0.9%
	Current estimates high scenario	1.8%	1.8%	1.4%	1.3%	1.2%	1.2%
	DWS Mbombela Reconciliation Strategy (DWS, 2014) low scenario	2.1%	1.2%	1.0%	0.8%	-	-
	DWS Mbombela Reconciliation Strategy (DWS, 2014) high scenario	2.4%	1.7%	1.4%	1.1%	-	-
	City of Mbombela Vision 2030 (CoM, 2017b)	2.0%	-	-	-	-	-
Umjindi LM (former)	Current estimates realistic scenario	2.1%	1.1%	1.1%	1.1%	1.1%	1.0%
	Current estimates high scenario	2.9%	2.0%	1.3%	1.3%	1.2%	1.2%
	City of Mbombela Vision 2030 (CoM, 2017b)	2.5%	-	-	-	-	-
Bushbuckridge LM	Current estimates realistic scenario	0.4%	0.3%	0.3%	0.3%	0.3%	0.3%
	Current estimates high scenario	0.8%	0.7%	0.7%	0.7%	0.6%	0.6%
	DWS Water Reconciliation Strategy Sabie and Sand River System (DWS, 2015) low scenario		1.0%	0.6%	0.5%	0.3%	0.2%
	DWS Water Reconciliation Strategy Sabie and Sand River System (DWS, 2015) medium scenario		1.5%	1.2%	1.1%	0.9%	0.9%
	DWS Water Reconciliation Strategy Sabie and Sand River System (DWS, 2015) high scenario		2.0%	1.7%	1.6%	1.5%	1.4%

Table 4-3 and **Table 4-4** reveals that the estimated population projections and growth rates are both realistic and comparable to other estimates for the former Umjindi LM. The projections in the City of Mbombela Vision 2030 (CoM, 2017b) is, however, slightly higher than that projected for the former Mbombela LM, as the projected base population figures start off from a higher base than that of this Study and the aligned StatsSA Census figures. Whereas the projections for Bushbuckridge LM are less comparable, since the latest population projections are based on the most recent StatsSA Census figures, which also reveal a close relationship with the latest Eskom SBC. Furthermore, the projections from this study, are based on official figures, and also account for lower growth trends in rural areas and higher urbanisation rates.

The distribution of the projected population per WSS up until 2040 for the realistic and high growth scenarios are given in **Table 4-5** and **Table 4-6** below.

Table 4-5: Realistic Population Growth Scenario per Water Supply Scheme from 2016 to 2040

WSS	REALISTIC SCENARIO: PROJECTED POPULATION FIGURES						
	2016	2018	2020	2025	2030	2035	2040
Elandshoek	1 450	1 494	1 530	1 616	1 707	1 803	1 904
Hazyview	4 537	4 657	4 776	5 079	5 378	5 694	6 029
Matsulu	54 723	56 524	58 197	62 147	65 719	68 918	72 273
Mbombela	73 336	78 475	83 417	94 378	105 227	115 611	125 160
Mpakeni	1 441	1 460	1 479	1 528	1 579	1 632	1 686
Ngodwana	3 875	3 957	4 040	4 257	4 485	4 726	4 979
Nsikazi North	172 509	173 131	173 754	175 403	177 066	178 746	180 442
Nsikazi South	274 968	279 108	283 310	294 478	306 440	318 888	331 842
White River	30 777	32 969	35 079	40 341	45 757	51 258	56 778
Esperado	548	560	573	605	639	676	714
Mandela / Mlambongwane	246	251	257	272	287	303	321
Sabie River Eco Estate	400	600	900	1 500	2 200	2 500	2 500
Mbombela LM (former) excl. rural	**618 810**	**633 186**	**647 312**	**681 604**	**716 484**	**750 755**	**784 628**
Barberton	60 317	61 566	62 841	66 314	69 979	73 808	77 804
Sheba Siding	1 908	1 963	2 007	2 109	2 211	2 318	2 430
Shiyalongubo	395	419	431	456	482	506	532
Kamadakwa	5 977	6 170	6 339	6 695	7 054	7 432	7 811
Fairview Mine	587	599	611	639	668	697	727
Noord Kaap	1 249	1 297	1 336	1 404	1 472	1 543	1 618
Umjindi LM (former) excl. rural	**70 433**	**72 014**	**73 565**	**77 617**	**81 866**	**86 304**	**90 922**

WSS	REALISTIC SCENARIO: PROJECTED POPULATION FIGURES						
	2016	2018	2020	2025	2030	2035	2040
Acornhoek	213 406	214 389	215 376	217 864	220 381	222 927	225 503
Thulamahashe	141 686	142 566	143 451	145 688	147 961	150 268	152 612
Hoxani	149 213	149 990	150 771	152 741	154 737	156 759	158 808
Marite	36 001	36 339	36 646	37 345	38 023	38 678	39 310
Bushbuckridge LM excl. rural	**540 306**	**543 284**	**546 244**	**553 638**	**561 102**	**568 632**	**576 233**

Table 4-6: High Population Growth Scenario per Water Supply Scheme from 2016 to 2040

WSS	HIGH GROWTH SCENARIO: ROJECTED POPULATION FIGURES						
	2016	2018	2020	2025	2030	2035	2040
Elandshoek	2 074	2 330	2 521	2 783	2 998	3 230	3 479
Hazyview	4 537	4 663	4 793	5 120	5 458	5 805	6 161
Matsulu	54 723	56 726	58 802	63 347	68 066	72 955	78 006
Mbombela	73 336	79 057	85 225	98 799	111 782	123 416	136 262
Mpakeni	1 578	1 642	1 708	1 840	1 977	2 119	2 266
Ngodwana	4 351	4 661	4 993	5 895	6 920	8 079	9 382
Nsikazi North	178 919	181 793	184 713	191 270	197 818	204 350	210 858
Nsikazi South	283 016	288 705	294 508	308 994	323 652	338 458	353 390
White River	33 003	38 495	43 253	52 623	61 005	69 022	78 092
Esperado	903	934	965	1 046	1 131	1 219	1 311
Mandela / Mlambongwane	416	430	445	482	521	562	604
Sabie River Eco Estate	400	600	900	1 500	2 200	2 500	2 500
Mbombela LM (former) excl. rural	**637 256**	**660 036**	**682 826**	**733 699**	**783 528**	**831 715**	**882 311**
Barberton	60 706	62 110	63 547	67 286	71 245	75 437	79 875
Sheba Siding	2 093	2 212	2 324	2 591	2 833	3 052	3 279
Shiyalongubo	395	433	460	507	547	587	629
Kamadakwa	8 998	10 110	10 935	12 073	13 200	14 220	15 279
Fairview Mine	587	607	628	681	736	793	853
Noord Kaap	1 669	1 911	2 067	2 282	2 511	2 753	3 010
Umjindi LM (former) excl. rural	**74 448**	**77 383**	**79 961**	**85 420**	**91 072**	**96 842**	**102 925**
Acornhoek	218 719	221 898	225 124	232 976	240 689	248 255	255 664
Thulamahashe	143 367	144 939	146 529	150 376	154 124	157 771	161 317
Hoxani	153 991	156 757	159 572	166 465	173 290	180 034	186 685
Marite	36 897	37 650	38 419	40 309	42 191	44 060	45 913
Bushbuckridge LM excl. rural	**552 974**	**561 244**	**569 644**	**590 126**	**610 294**	**630 120**	**649 579**

The average growth per 5 year interval, over the 30 years (2010 to 2040), for the LMs are:

- Former Mbombela LM entailed an approximate 35,000 additional people per five year interval;
- Former Umjindi LM entailed an approximate additional 4,700 people on average per five year interval; and
- Bushbuckridge LM entailed an approximate additional 8,000 people on average per five year interval.

Indications of the annual population growth per WSS for the realistic scenario are given in **Table 4-7** below.

Table 4-7: Average Annual Population Growth per Water Supply Scheme for the Realistic Scenario

WSS	Population Growth per Five Year Interval						
	2010-15	2015-20	2020-25	2025-30	2030-35	2035-40	2010-40
Elandshoek	9.7%	2.0%	1.1%	1.1%	1.1%	1.1%	**2.6%**
Hazyview	2.6%	1.3%	1.2%	1.2%	1.1%	1.1%	**1.4%**
Matsulu	2.0%	1.6%	1.3%	1.1%	1.0%	1.0%	**1.3%**
Mbombela	4.9%	3.4%	2.5%	2.2%	1.9%	1.6%	**2.8%**
Mpakeni	1.2%	0.6%	0.7%	0.7%	0.7%	0.7%	**0.7%**
Ngodwana	2.5%	1.1%	1.1%	1.0%	1.1%	1.0%	**1.3%**
Nsikazi North	0.1%	0.2%	0.2%	0.2%	0.2%	0.2%	**0.2%**
Nsikazi South	0.7%	0.7%	0.8%	0.8%	0.8%	0.8%	**0.8%**
White River	7.9%	4.3%	2.8%	2.6%	2.3%	2.1%	**3.6%**
Esperado	0.0%	1.1%	1.1%	1.1%	1.1%	1.1%	**0.9%**
Mandela / Mlambongwane	0.0%	1.1%	1.1%	1.1%	1.1%	1.2%	**0.9%**
Sabie River Eco Estate	0.0%	17.6%	10.8%	8.0%	2.6%	0.0%	**6.3%**
Mbombela LM (former) excl. rural	**1.4%**	**1.2%**	**1.0%**	**1.0%**	**0.9%**	**0.9%**	**1.1%**
Barberton	1.1%	1.0%	1.1%	1.1%	1.1%	1.1%	**1.1%**
Sheba Siding	2.2%	1.3%	1.0%	0.9%	0.9%	0.9%	**1.2%**
Shiyalongubo	15.2%	3.0%	1.1%	1.1%	1.0%	1.0%	**3.6%**
Kamadakwa	13.0%	1.8%	1.1%	1.1%	1.0%	1.0%	**3.1%**
Fairview Mine	6.1%	1.2%	0.9%	0.9%	0.9%	0.8%	**1.8%**
Noord Kaap	11.8%	2.1%	1.0%	1.0%	0.9%	1.0%	**2.9%**
Umjindi LM (former) excl. rural	**2.1%**	**1.1%**	**1.1%**	**1.1%**	**1.1%**	**1.0%**	**1.2%**
Acornhoek	0.6%	0.2%	0.2%	0.2%	0.2%	0.2%	**0.3%**
Thulamahashe	-0.2%	0.3%	0.3%	0.3%	0.3%	0.3%	**0.2%**
Hoxani	0.5%	0.3%	0.3%	0.3%	0.3%	0.3%	**0.3%**
Marite	0.8%	0.5%	0.4%	0.4%	0.3%	0.3%	**0.4%**
Bushbuckridge LM excl. rural	**0.4%**	**0.3%**	**0.3%**	**0.3%**	**0.3%**	**0.3%**	**0.3%**

Indications of the annual population growth per WSS for the high growth scenario are given in **Table 4-8** below.

Table 4-8: Average Annual Population Growth per Water Supply Scheme for the High Scenario

WSS	Population Growth per Five Year Interval						
	2010-15	2015-20	2020-25	2025-30	2030-35	2035-40	2010-40
Elandshoek	15.8%	6.7%	2.0%	1.5%	1.5%	1.5%	4.7%
Hazyview	2.6%	1.4%	1.3%	1.3%	1.2%	1.2%	1.5%
Matsulu	2.0%	1.8%	1.5%	1.4%	1.4%	1.3%	1.6%
Mbombela	4.9%	3.9%	3.0%	2.5%	2.0%	2.0%	3.0%
Mpakeni	2.7%	2.1%	1.5%	1.4%	1.4%	1.4%	1.7%
Ngodwana	4.4%	3.5%	3.4%	3.3%	3.1%	3.0%	3.4%
Nsikazi North	0.6%	0.8%	0.7%	0.7%	0.7%	0.6%	0.7%
Nsikazi South	1.2%	1.0%	1.0%	0.9%	0.9%	0.9%	1.0%
White River	9.0%	7.6%	4.0%	3.0%	2.5%	2.5%	4.7%
Esperado	0.0%	1.7%	1.6%	1.6%	1.5%	1.5%	1.3%
Mandela / Mlambongwane	0.0%	1.7%	1.6%	1.6%	1.5%	1.5%	1.3%
Sabie River Eco Estate	0.0%	17.6%	10.8%	8.0%	2.6%	0.0%	6.3%
Mbombela LM (former) excl. rural	**1.8%**	**1.8%**	**1.4%**	**1.3%**	**1.2%**	**1.2%**	**1.5%**
Barberton	1.2%	1.2%	1.2%	1.2%	1.2%	1.1%	1.2%
Sheba Siding	3.7%	2.8%	2.2%	1.8%	1.5%	1.4%	2.2%
Shiyalongubo	15.2%	4.3%	2.0%	1.5%	1.4%	1.4%	4.2%
Kamadakwa	20.3%	6.7%	2.0%	1.8%	1.5%	1.4%	5.4%
Fairview Mine	6.1%	1.7%	1.6%	1.6%	1.5%	1.5%	2.3%
Noord Kaap	16.9%	6.6%	2.0%	1.9%	1.9%	1.8%	5.0%
Umjindi LM (former) excl. rural	**2.9%**	**2.0%**	**1.3%**	**1.3%**	**1.2%**	**1.2%**	**1.7%**
Acornhoek	1.0%	0.7%	0.7%	0.7%	0.6%	0.6%	0.7%
Thulamahashe	0.0%	0.5%	0.5%	0.5%	0.5%	0.4%	0.4%
Hoxani	1.1%	0.9%	0.8%	0.8%	0.8%	0.7%	0.8%
Marite	1.2%	1.0%	1.0%	0.9%	0.9%	0.8%	1.0%
Bushbuckridge LM excl. rural	**0.8%**	**0.7%**	**0.7%**	**0.7%**	**0.6%**	**0.6%**	**0.7%**

4.2.2 Household Projections

The projected number of households for both the realistic and high scenarios for the City of Mbombela and Bushbuckridge LMs are given in **Table 4-9** below.

Table 4-9: Projected Number of Households per 5 year interval from 2010 to 2040

Municipality	Scenario	Number of Households						
		2010	2015	2020	2025	2030	2035	2040
Mbombela LM (former) excl. rural	Realistic	156 104	178 258	192 517	205 593	219 166	232 985	247 092
	High	156 286	182 662	203 647	222 166	240 808	259 514	279 562
Umjindi LM (former) excl. rural	Realistic	18 067	23 014	24 617	26 227	27 934	29 736	31 634
	High	18 067	23 974	26 787	28 896	31 113	33 410	35 859
Bushbuckridge LM excl. rural	Realistic	131 276	135 211	139 857	145 381	151 115	157 065	163 241
	High	131 276	137 731	145 840	154 948	164 342	174 021	183 985

The numbers of households within the WSS from 2016 to 2040 per scenario are presented in **Table 4-10** and **Table 4-11** below. Depending on the scenario, the 2040 projected households for former Mbombela LM is between 247,092 and 279,562 households, for former Umjindi LM between 31,634 and 35,859 households, and for Bushbuckridge LM between 163,241 and 183,985 households.

Table 4-10: Projected Number of Households per Water Supply Scheme for the Realistic Scenario from 2016 to 2040

WSS	REALISTIC SCENARIO: PROJECTED NUMBER OF HOUSEHOLDS						
	2016	2018	2020	2025	2030	2035	2040
Elandshoek	515	531	543	574	606	640	676
Hazyview	1 363	1 413	1 464	1 581	1 699	1 826	1 963
Matsulu	15 137	15 793	16 425	17 807	19 117	20 353	21 669
Mbombela	20 951	22 646	24 315	27 929	31 613	35 262	38 756
Mpakeni	395	404	414	434	455	478	501
Ngodwana	2 102	2 146	2 192	2 309	2 433	2 563	2 701
Nsikazi North	51 875	52 588	53 310	54 636	55 994	57 386	58 812
Nsikazi South	77 926	79 898	81 920	86 446	91 328	96 485	101 933
White River	9 926	10 740	11 543	13 409	15 363	17 383	19 450
Esperado	214	219	224	236	250	264	279
Mandela / Mlambongwane	72	74	77	82	88	95	102
Sabie River Eco Estate	40	60	90	150	220	250	250
Mbombela LM (former) excl. rural	**180 516**	**186 512**	**192 517**	**205 593**	**219 166**	**232 985**	**247 092**
Barberton	19 918	20 433	20 961	22 343	23 816	25 372	27 016
Sheba Siding	636	658	676	717	760	804	852
Shiyalongubo	116	124	129	139	149	159	169

WSS	REALISTIC SCENARIO: PROJECTED NUMBER OF HOUSEHOLDS						
	2016	2018	2020	2025	2030	2035	2040
Kamadakwa	1 921	2 003	2 079	2 218	2 360	2 512	2 667
Fairview Mine	202	206	210	220	230	240	250
Noord Kaap	525	545	562	590	619	649	680
Umjindi LM (former) excl. rural	**23 318**	**23 969**	**24 617**	**26 227**	**27 934**	**29 736**	**31 634**
Acornhoek	55 081	55 894	56 718	58 845	61 051	63 339	65 714
Thulamahashe	35 282	35 860	36 447	37 964	39 545	41 192	42 907
Hoxani	36 341	36 899	37 466	38 929	40 449	42 028	43 669
Marite	8 883	9 057	9 226	9 643	10 070	10 506	10 951
Bushbuckridge LM excl. rural	**135 587**	**137 710**	**139 857**	**145 381**	**151 115**	**157 065**	**163 241**

Table 4-11: Projected Number of Households per Water Supply Scheme for the High Scenario from 2016 to 2040

WSS	HIGH GROWTH SCENARIO: PROJECTED NUMBER OF HOUSEHOLDS						
	2016	2018	2020	2025	2030	2035	2040
Elandshoek	736	827	894	988	1 064	1 146	1 235
Hazyview	1 363	1 415	1 469	1 593	1 724	1 862	2 006
Matsulu	15 137	15 850	16 596	18 150	19 800	21 545	23 387
Mbombela	20 951	22 814	24 842	29 237	33 583	37 643	42 194
Mpakeni	432	454	477	522	569	619	672
Ngodwana	2 359	2 527	2 707	3 196	3 752	4 380	5 087
Nsikazi North	53 802	55 218	56 672	59 577	62 555	65 605	68 725
Nsikazi South	80 207	82 646	85 158	90 708	96 458	102 406	108 553
White River	10 644	12 541	14 233	17 491	20 482	23 408	26 751
Esperado	352	364	376	408	441	475	511
Mandela / Mlambongwane	122	127	133	146	160	175	191
Sabie River Eco Estate	40	60	90	150	220	250	250
Mbombela LM (former) excl. rural	**186 145**	**194 843**	**203 647**	**222 166**	**240 808**	**259 514**	**279 562**
Barberton	20 046	20 613	21 196	22 669	24 246	25 932	27 735
Sheba Siding	698	741	783	882	974	1 059	1 150
Shiyalongubo	116	128	138	154	169	184	200
Kamadakwa	2 892	3 282	3 586	3 999	4 416	4 806	5 216
Fairview Mine	202	209	216	234	253	273	294
Noord Kaap	701	803	868	958	1 055	1 156	1 264
Umjindi LM (former) excl. rural	**24 655**	**25 776**	**26 787**	**28 896**	**31 113**	**33 410**	**35 859**

WSS	HIGH GROWTH SCENARIO: PROJECTED NUMBER OF HOUSEHOLDS						
	2016	2018	2020	2025	2030	2035	2040
Acornhoek	56 452	57 851	59 285	62 926	66 676	70 535	74 503
Thulamahashe	35 701	36 457	37 229	39 186	41 193	43 249	45 355
Hoxani	37 505	38 564	39 653	42 427	45 299	48 268	51 335
Marite	9 105	9 385	9 673	10 409	11 174	11 969	12 792
Bushbuckridge LM excl. rural	**138 763**	**142 257**	**145 840**	**154 948**	**164 342**	**174 021**	**183 985**

4.3 Population estimates for the broader Study Area

4.3.1 Previous Population Estimates

The estimated population per WSS in the surrounding towns located within the broader Study Area, from other sources, are given in **Table 4-12** below. This is provided in order to serve as a comparison to the newly estimated figures for this Study.

Table 4-12: Estimated 5 year interval Population Figures per WSS as per the Various Sources

Municipality and study	WSS	Growth scenario (Data source)	Population Figures				
			2010	2015	2020	2025	2030
Emakhazeni LM Reconciliation Strategy for Dullstroom and Sakhelwe, Machadadorp and Emthonjeni township, and Waterval Boven (DWA, 2011a)	**Dullstroom**	Low Growth (DWA NSI)					11 674
		High Growth (Census 2001)					13 371
	Waterval Boven	Low Growth (Census 2001)	6 980	7 520	8 101	8 27	9 401
		Median Growth (DWAF NSI)	14 481	15 786	17 210	18 762	20 454
		High Growth (Lidwala Report)			20 482		
	Machadodorp	Low Growth (Census 2001)	6 986	7 925	9 003	10 245	11 674
		Median Growth (DWAF NSI)	9 509	10 355	11 276	12 278	13 371
		High Growth (Lidwala Report)	16 641	19 105	21 934	25 181	28 909
Thaba Chweu LM Reconciliation Strategy for Lydenburg, Moremela and surrounding settlements (DWA, 2011b)	**Cluster***	Low Growth Scenario	59 958	60 628	61 000	61 197	61 368
		High Growth Scenario	60 733	62 744	64 461	65 997	67 498

Municipality and study	WSS	Growth scenario (Data source)	Population Figures				
			2010	2015	2020	2025	2030
Nkomazi LM *Reconciliation Strategy for Louiesville (DWA, 2011c), Hectorspruit (DWA, 2011d), Malelane (DWA, 2011e), Marloth Park (DWA, 2011f), Komatipoort (DWA, 2011g) Water Supply Scheme area*	**Louieville**	Low	2 457	2 614	2 680	2 727	2 775
		Median	2 505	2 817	3 069	3 314	3 544
		High	2 554	3 034	3 508	4 018	4 513
	Komatipoort	Low	6 096	6 487	6 651	6 768	6 887
		Median	6 278	7 233	8 065	8 872	9 640
		High	6 462	8 053	9 750	11 580	13 424
	Marloth Park	Low	7 928	8 436	8 649	8 802	8 957
		Median	8 085	9 092	9 904	10 695	11 437
		High	8 244	9 791	11 323	12 968	14 565
	Hectorspruit	Low	645	687	704	716	729
		Median	658	740	806	871	931
		High	671	797	922	1 056	1 186
	Malelane	Low	4 304	4 580	4 696	4 779	4 863
		Median	4 390	4 936	5 377	5 807	6 209
		High	4 476	5 316	6 147	7 040	7 907

*Cluster comprises: **Sabie**, Coromandel, **Graskop**, Pilgrim's Rest, Matibidi, Ponieskrantz, Blyde Forestry Station, Morgenzon Forestry Station, Hebron, Roodewal Sam Mill, Glory Hill, Brodal, Simile, Tweefontein Forestry Station, harmony hill, **Hendriksdaal**, Polapark, Rural Thaba Chweu Ward 10, Rural Thaba Chweu Ward 11, Rural Thaba Chweu Ward 4, Rural Thaba Chweu Ward 5, Draaikraal, Boshoek, Emshinini and Badfontein.

4.3.2 High level Population Estimates

Due to data from the other sources not all being at the same lowest level, new high level population estimates per WSS have been determined.

Note that the demographic analysis for the broader Study Area is not undertaken in the same level of detail as for the WSSs within the demographic focus area, namely within City of Mbombela and Bushbuckridge LMs.

The estimates mainly rely on previous StatsSA Census information and the historic growth rates of the Emakhazeni, Thaba Chweu, and Nkomazi LMs. No detailed demographic analysis, at a lower level of confidence, was undertaken. As a result, only one base projection is provided.

The new high level population estimates per WSS up until 2040 are given in **Table 4-13** below.

Table 4-13: High level Population estimates per Water Supply Scheme from 2011 to 2040

LMs	WSS	PROJECTED POPULATION FIGURES			
		2011	2020	2030	2040
Emakhazeni LM	Dullstroom	5 222	5 694	6 262	6 875
	Waterval Boven	6 185	6 450	6 750	7 052
	Machadodorp	8 941	9 749	10 721	11 771
Thaba Chweu LM	Hendriksdal	303	346	401	464
	Sabie	15 778	17 879	20 511	23 495
	Graskop	4 079	4 663	5 403	6 250
Nkomazi LM	Louieville	2 420	2 708	3 067	3 472
	Komatipoort	4 683	5 575	6 765	8 205
	Marloth Park	1 000	1 099	1 221	1 355
	Hectorspruit	3 096	3 685	4 472	5 424
	Malelane	3 486	4 298	5 424	6 842

5 CONCLUSIONS

The analysis of the latest demographic trends highlights the importance of the urban areas, especially the larger urban areas, in accommodating future population growth. The growth differentials between the urban towns, is directly related to the economic growth of those towns and/or people's perceptions of the economic potential of the towns. The larger towns are also influenced largely by International in migration from both Swaziland and Mozambique into the area. This International in migration into the Study Area, is however a relatively new trend and the in migration is also not all legal. This makes it difficult to determine the long-term permanency of the additional International migrants.

It is also noted, that some of the smaller towns, close to the rural areas, are also utilised as a stepping stones into a more urban lifestyle. Which is why some of these towns have experienced population increases, albeit only temporary in nature, as the population intend to move on to other towns located outside of the Study Area. The long terms trends relating to this movement, are not yet fully understood and will only be fully understood over time, once more detailed lower-level data becomes available.

In regards to the rural areas, a definite decline in growth rates are noted. Previously high natural population growth rates occurred in these rural areas, although recently these natural growth rates have declined. The rural areas also experience large outmigration, mainly due to youth completing school and leaving the rural areas in search for better economic opportunities. However, rural tribal areas, located close to large towns, remain quite attractive and popular residential areas. This is due to the lower cost of living in these residential areas, ease of access and availability of land, offer familiar lifestyles and standard of living, and are located close to economic activities offered by the nearby towns. Whereas the rural areas that are not very accessible and are situated far from economic activities have experienced decline growths, and in many cases no growth.

In terms of future water provision, albeit that service deficits need to be provided in rural areas, focus needs placed on future services development in the urban areas, where the largest increase in population is expected to take place.

6 RECOMMENDATIONS

This Study has been undertaken based on the latest available and official statistics from StatsSA, the latest Eskom SBC, as well as consideration of inputs from stakeholders. The estimated population projections, and distribution therefore is also based on historical trends, as well as new emerging or developing trends that is noted to emanate from the aforementioned data. Consequently, these estimates are as accurate as can be, at this stage, as based on the aforementioned.

However, demographic trends, especially relating to urbanisation and migration, can change quite dramatically based on external forces. It is thus important that the population projections are regularly analysed, revised, and updated. It is recommended that updates be done every 3 to 5 years, in order to account for changing trends and new development patterns, etc. Updates are especially necessary, as and when new detailed data becomes available from StatsSA Census surveys.

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