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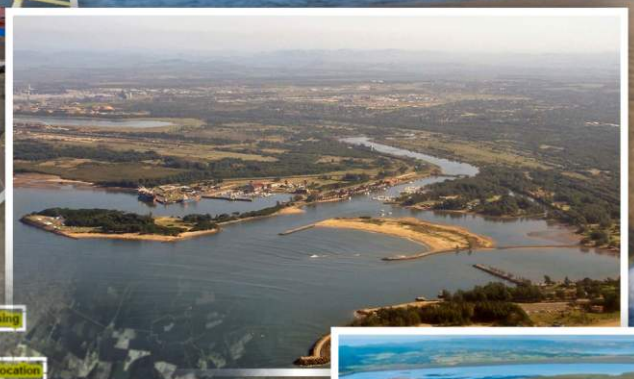
The Implementation and Maintenance of the Water Reconciliation Strategy for Richards Bay and Surrounding Towns

Economic Growth and Demographic Analysis Report



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Department:
Water and Sanitation
REPUBLIC OF SOUTH AFRICA

IMPLEMENTATION AND MAINTENANCE OF THE WATER RECONCILIATION STRATEGY FOR RICHARDS BAY AND SURROUNDING TOWNS

AUGUST 2018

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ECONOMIC GROWTH AND DEMOGRAPHIC ANALYSIS FOR THE RICHARDS BAY RECONCILIATION STRATEGY

FINAL REPORT

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Authors:	**Russell Aird and Nepia Zivanai**
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EXECUTIVE SUMMARY

This Implementation and Maintenance of the Water Reconciliation Strategy for Richards Bay and Surrounding Towns, referred to as this Study hereafter, follows on the study Water Reconciliation Strategy for Richards Bay and Surrounding Towns (DWS, 2016). The overall objective of this Study is to systematically facilitate a process to maintain the relevance of the Reconciliation Strategy for Richards Bay and Surrounding Towns, referred to as the Strategy hereafter, by ensuring the Strategy remains relevant, technically sound, economically viable, and socially acceptable and sustainable.

To assist with this, this Study has been divided into a number of tasks, each focusing on various aspects that will support the updating of the Strategy. The task carried out and reported on in this supporting document focuses on the demographic and economic assessment of the Study Area. The assessment carried out included obtaining updated information of populations and migratory patterns, in order to develop future population projections for the Study Area. These projections will be used as a basis to develop future water requirement growth scenarios for the urban sector.

This Study is focused on the areas of Richards Bay and surrounding towns, situated within the City of uMhlathuze Local Municipality (LM), which previously comprised of the former uMhlathuze and the former Ntambanana LMs. Population and household projections up to 2040, at five (5) year intervals have been determined for each one of the eight (8) Water Supply Schemes (WSSs) within the City of uMhlathuze LM's area of jurisdiction.

In addition to the City of uMhlathuze LM, situated within the King Cetshwayo District Municipality (DM), the Study Area partially also includes areas within the following five (5) LMs areas of jurisdiction: the Mthonjaneni, uMlalazi, uMfolozi, Nkandla and Mandeni LMs. The aforementioned LMs are all located within the King Cetshwayo DM, except for Mandeni LM which is located within the iLembe DM. The population and household projections have therefore been included for the broader Study Area, which also includes ten (10) additional WSSs and five (5) additional small towns, however, at a lower level of confidence.

In order to project population changes, relevant information pertaining to each of the afore-mentioned LMs was sourced from previous studies that were undertaken by the Department of Water and Sanitation (DWS) as well as desktop research. Further information was gathered from individual discussions with relevant Stakeholders and role-players. These one on one engagements were followed up with formal presentations and discussions at both the technical group and Stakeholder meetings. At these meetings, Stakeholders were invited to provide further inputs relating to the process and methodology followed and the results obtained. The Stakeholders approved the methodology used to determine the future growth in population in the study area.

The estimated 2016 base population figure, determined for this Study, is similar to the latest official Statistics South Africa (StatsSA) data from the 2016 Community Survey (which is only available at Municipal level). Discussions with municipal stakeholders revealed that the population size within the Study Area is potentially higher, which informed the need to apply a higher growth scenario to the realistic 2016 base scenario figures.

This Economic Growth and Demographic Analysis Report, referred to as this Report hereafter, 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.

*The resultant projected population for the demographic focus areas within the City of uMhlathuze LM at Water Supply Scheme (WSS) level at five (5) year intervals from 2016 to 2040 for the realistic and high growth scenarios are given in **Table (i)** below.*

Table (i): Projected Five Year Interval Population Growth per Growth Scenario from 2016 to 2040 for the uMhlathuze LM

WSS	Growth Scenario	Population Growth					
		2016	2020	2025	2030	2035	2040
Richards Bay	Realistic	47 940	53 131	60 265	68 230	77 105	86 977
	High	47 940	53 213	60 628	69 076	78 701	89 667
Meer En See	Realistic	9 732	10 038	10 405	10 604	10 604	10 604
	High	9 732	10 046	10 439	10 661	10 729	10 750
Empangeni	Realistic	24 181	26 902	30 638	34 804	39 436	44 574
	High	24 181	26 945	30 829	35 249	40 276	45 990
Felixton	Realistic	1 099	1 155	1 217	1 283	1 352	1 426
	High	1 099	1 164	1 247	1 335	1 430	1 532
Esikhaweni East	Realistic	126 444	134 437	144 814	155 761	167 293	179 424
	High	126 444	134 603	145 547	157 319	169 978	183 585
Esikhaweni West	Realistic	38 119	43 164	49 292	55 558	61 882	68 195
	High	38 119	44 067	52 355	61 676	72 074	83 580
Ngwelezane	Realistic	61 245	66 638	72 919	79 083	85 079	90 868
	High	61 245	67 586	75 981	84 924	94 608	105 058
Nseleni	Realistic	42 500	46 552	51 305	56 002	60 599	65 062
	High	42 500	47 267	53 386	59 683	66 099	72 579

Projections for the other 10 WSSs, outside the demographic focus area, but within the Study Area, are also provided.

The analysis of the latest socio-economic trends highlight the importance of the urban areas, especially the larger urban areas, such as Richards Bay and surrounding towns, in order to accommodate future population growth. The differences in growth between the urban towns, is directly related to people's perceptions of the potential for employment as major drawcards.

Furthermore, some of the smaller towns, which are close to the rural areas, are also utilised by those in search of employment opportunities as stepping stones into a more urban lifestyle. This is why some of these towns have experienced population increases, albeit only temporary in nature, as the population intends to move on to other towns located outside of the Study Area. The long term migration trends relating to this movement, are not yet fully understood and will only be fully understood over time, once more detailed high resolution data (e.g. from the next population StatsSA Census) becomes available.

There is a definite decline in growth rates, compared to the previously high natural population growth rates that occurred within the rural areas. The rural areas also experience large outmigration of people, mainly due to school leavers who leave the rural areas in search for better economic opportunities. However, the tribal rural areas, which are located close to the large towns, remain quite attractive and popular residential areas. This is due to the lower cost of living in these residential areas, availability of land, improved standard of living, and are located close to economic activities offered by the nearby towns. Whereas the less accessible rural areas, which are far away from economic activities have experienced a decline in population growth, and in many instances no growth at all.

Demographic trends, especially relating to urbanisation, could change quite rapidly, and therefore it is recommended that the population projections for the Study Area are regularly

analysed, revised, and updated in order to account for these changing trends as well as new development patterns.

It is further recommended that the population projections determined as part of this task be used as a basis to determine water requirement projections for the urban sector for this study.

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LIST OF ABBREVIATIONS AND ACRONYMS

CBD	Central Business District
DWS	Department of Water and Sanitation
DM	District Municipality
EBSC	Esikhaweni Business Support Centre
EWR	Ecological Water Requirements
GDP	Gross Domestic Product
GDP-R	Gross Domestic Product per Region
GGP	Gross Geographic Product
IDP	Integrated Development Plan
IDZ	Industrial Development Zone
KCDM	King Cetshwayo District Municipality
KZN	KwaZulu-Natal
LED	Local Economic Development
LM	Local Municipality
LoS	Level of Service
PRAC	Provincial Rural Administrative Centre
Process	Demographic Growth and Economic Analysis Process
RDP	Reconstruction and Development Programme
Report	Economic Growth and Demographic Analysis Report (this Report)
RBWSS	Richards Bay Water Supply System
RSC	Rural Service Centre

SBC	Spot Building Counts
SDF	Spatial Development Framework
SDP	Spatial Development Plan
SMME	Small Medium and Micro Enterprise
SSC	Strategy Steering Committee
StatsSA	Statistics South Africa
Task	Economic Growth and Demographic Analysis Task (this Task)
ULM	City of uMhlathuze Local Municipality
WSDP	Water Services Development Plan
WSS	Water Supply Scheme

GLOSSARY OF TERMS

Category B Municipality	A single tier Local Municipality.
Category C Municipality	A District Municipality with municipal executive and legislative authority in an area that includes and shares jurisdiction with more than one LM.
GDP	Represents the total value of sales of goods and services, or the turnover of all economic agents by a country's economy during a specified period of time.
GDP-R	The sum of value added by all resident producer units in a region, within a certain period of time, which is usually one year.
Primary sector	The primary sector involves the extraction of raw materials from the earth and comprises the activities of the agriculture and mining sectors.
Secondary sector	The secondary sector involves the transformation of raw materials into goods and comprises the activities of the manufacturing, utilities, and construction sectors.
Tertiary sector	The tertiary sector involves the supplying of services to consumers and businesses and comprises the activities of retail trade, transport, business services, government services, and social services sectors.
Agriculture	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.
Mining	The mining/quarrying sector involves the extraction, dressing and beneficiation of minerals occurring naturally.
Manufacturing	The manufacturing sector involves the physical or chemical transformation or assembly of materials or compounds into new products.
Utilities	The electricity/gas/water sector involves the production, collection and distribution of electricity, the manufacturing and distribution of gas, the collection, purification and distribution of water.

Construction	The construction sector involves site preparation, demolition, construction of buildings, civil engineering, installation, plumbing, decorating, etc.
Retail trade	The wholesale and retail trade/catering sector involves 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	The transport/communication sector entails 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 Services	The business and financial services entails 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.
Government Services	The activities of central, provincial and local government.
Social Services	The provision of community services, e.g. education, health services, social work, and activities of professional organisations.

LIST OF UNITS

Ha	Hectares
km	Kilometres
km^2	Square Kilometres
%	Percentage
R	Rand (South African)

1 INTRODUCTION

1.1 Background to this Study

The Department of Water and Sanitation (DWS) commissioned a study on the Water Reconciliation Strategy for Richards Bay and Surrounding Towns (2013-2015) to inform the planning and implementation of water resource management interventions necessary to reconcile water available with future water requirements and water use patterns up to a period of thirty years.

For the Reconciliation Strategy for Richards Bay and Surrounding Towns, referred to as the Strategy hereafter, to be implemented, and for the Strategy to remain relevant in order to properly fulfil its purpose into the future it has to be dynamic. Hence, the water balance has to be continuously monitored and the developed Strategy has to be regularly updated and maintained. This would ensure that planned intervention options to be implemented will also consider any changes that may have potential impacts on the projected water balance.

The DWS commissioned the Implementation and Maintenance of the Water Reconciliation Strategy for Richards Bay and Surrounding Towns Study, referred to as this Study hereafter, to facilitate a process to maintain the relevance of the Strategy.

1.2 Objectives of this Study

The overall objective of this Study is to systematically update and improve the Strategy in order for the Strategy to remain technically sound, economically feasible, as well as socially acceptable and sustainable. To assist with this, this Study has been divided into a number of tasks, each focusing on various aspects that will support the updating of the Strategy. The task carried out and reported on in this supporting document focuses on the demographic and economic assessment of the Study Area. The assessment carried out included obtaining updated information of populations and migratory patterns, in order to develop future population projections for the Study Area. These projections will be used as a basis to develop future water requirement growth scenarios for the urban sector. In addition to the footprint of the 2015 Strategy, smaller towns in the neighbouring catchments were also considered at a lower resolution in this Study, and in so doing the Strategy will be extended to cover selected smaller towns also affected by the Strategies recommendations.

1.3 Study Area

The Study Area includes the Mhlathuze River Catchment as well as inter catchment transfers from the Umfolozi River and Thukela River Catchments as illustrated in **Figure 1-1**, and therefore these catchments are also considered as resources contributing to the water available in the Study Area.

The main focus of this Study is, however, on the Richards Bay area within the City of uMhlathuze Local Municipality (LM), presented in **Figure 1-2**, which is entirely located within the Study Area, as well as on the smaller towns surrounding Richards Bay.

The broad Study Area and Municipal boundaries are shown in **Figure 1-3**.

The Water Supply Schemes (WSSs) within the agreed demographic focus area, which is the Richards Bay area within the City of uMhlathuze LM, include: Richards Bay, Meer En See, Nseleni, Esikhaweni West, Esikhaweni East, Felixton, Empangeni, and Ngwelezane.

The Richards Bay Water Supply System (RBWSS) supplies water to the City of uMhlathuze LM, which comprises the towns of Richards Bay, Empangeni, Ngwelezane and Esikhaweni, as well as a number of rural villages. Furthermore the RBWSS also supplies large well-developed industries, commercial areas and business centres within the Study Area. The supply area of the RBWSS's is within the Mhlathuze River Catchment, with major rivers such

as the Mhlathuze and Mfolozi Rivers as the primary water resources. Water is also sourced from various natural lakes within the Mhlathuze River Catchment such, as Lake Nhlabane, Mzingazi and Cubhu. There is also an inter-catchment transfer scheme, the Middledrift Water Scheme, to convey water from the Thukela River into a tributary upstream of Goedertrouw Dam.

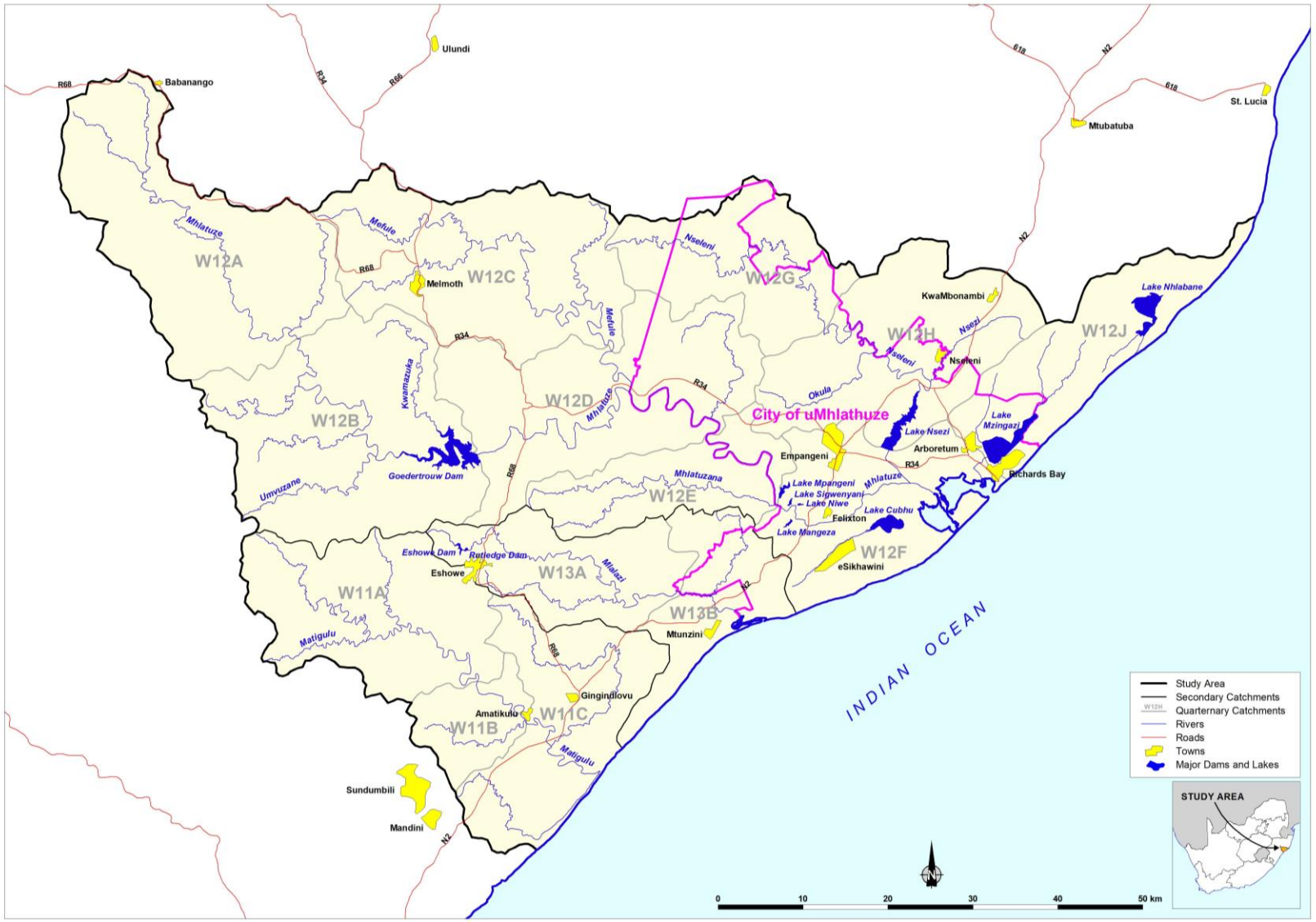

Figure 1-1: Main River Catchments within the Study Area

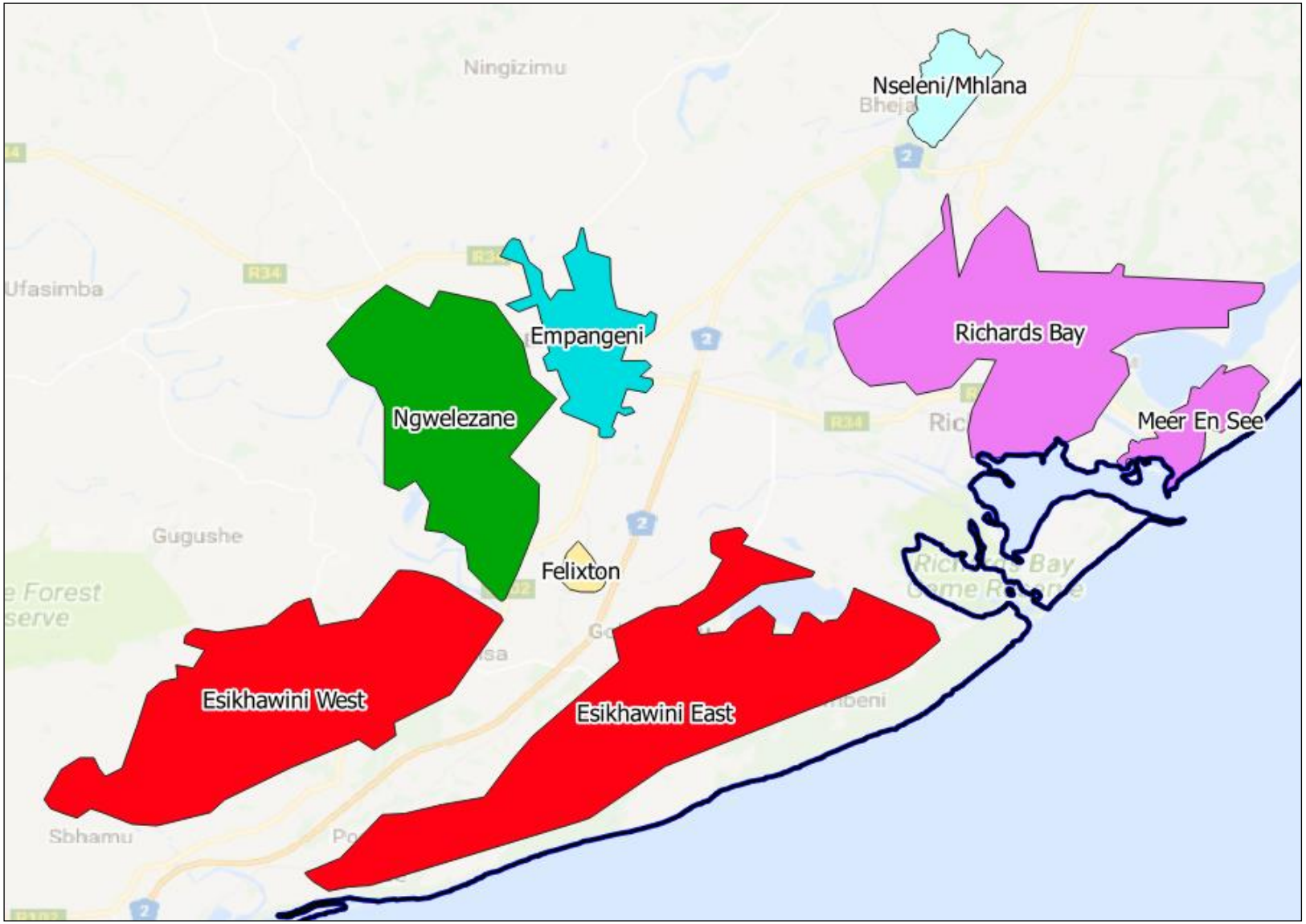

Figure 1-2: Demographic Focus Area for this Study

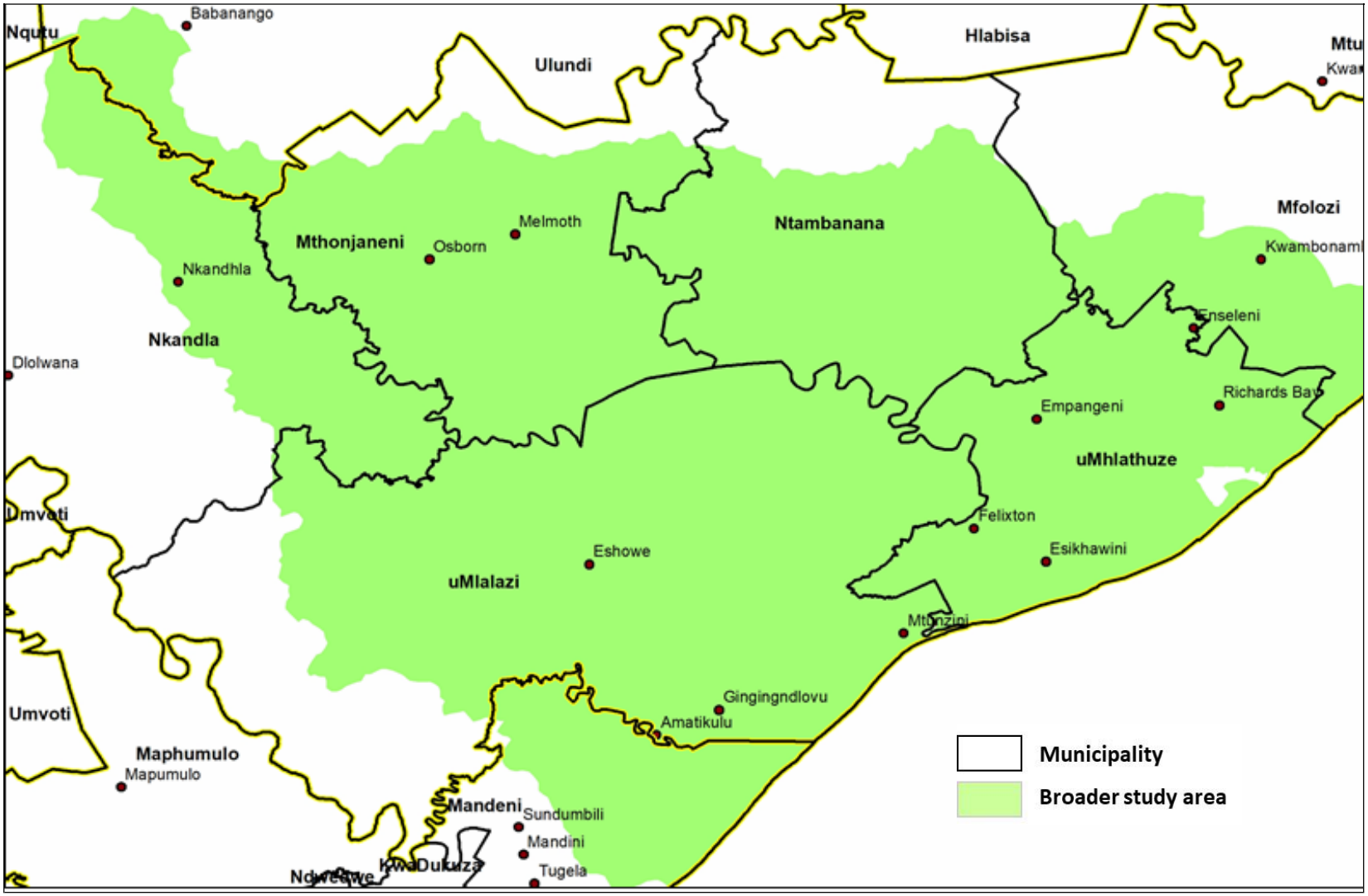

Figure 1-3: Study Area and Municipal Boundaries

The broad Study Area, as shown in **Figure 1-3**, indicates that in addition to the City of uMhlathuze LM, the Study Area also partially covers the following other five (5) LMs: the Mthonjaneni LM, uMlalazi LM, uMfolozi LM, Nkandla LM and Mandeni LM. The other small towns included in the Study Area are: Eshowe, Mtunzini, Amatikulu, Melmoth and Gingindlovu. A more detailed growth analysis has been included for the broader Study Area.

1.4 Purpose, Approach and Structure of this Report

The main objective of the Economic Growth and Demographic Analysis Task, referred to as this Task hereafter, is to produce information that will assist with future water requirement scenarios, which are based on the updated population projections specifically formulated for the Study Area. The water requirement projection scenarios are presented in the Water Requirements and Return Flows Report for this Study.

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

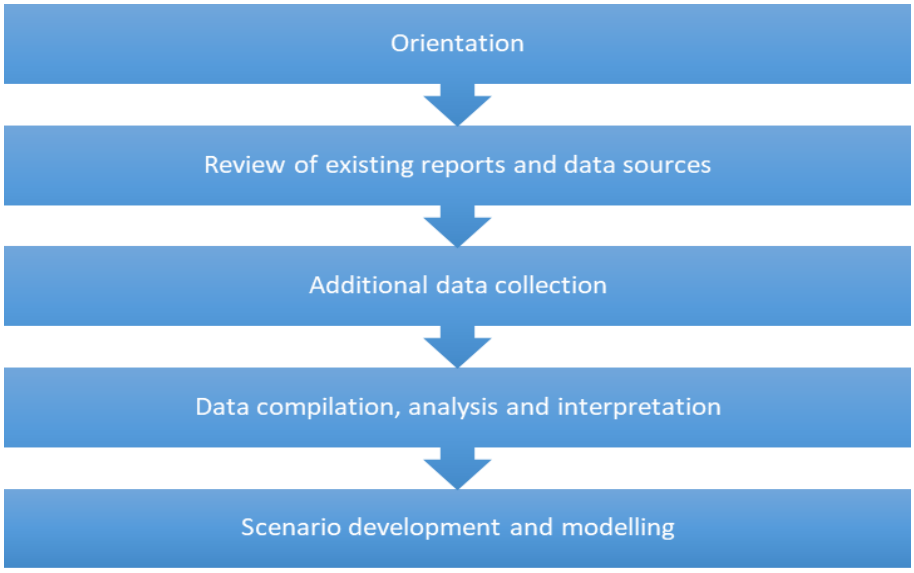

Figure 1-4: Demographic Growth and Economic Analysis Process

1.4.1 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 Reconciliation Strategy for Richards Bay and Surrounding Towns (2016), as well as from other institutions and stakeholders. The intention was to extract all usable data from the past reports and existing databases pertaining especially to the demographic circumstances and forecasted growth patterns.

Additional data collection entailed the undertaking of desktop research, in order to attain additional information crucial to determine the developmental and socio-economic growth potential as well as the current reality status in the Study Area. The Process was initiated by undertaking desktop research, as well as field work in order to attain background information about the municipalities within the Study Area. This provided a good basis from which further information gathering and discussions were facilitated.

1.4.2 Desktop Research

Desktop research was undertaken in order to gain insight into the current reality, as well as to facilitate discussions with the relevant stakeholders and role-players. The desktop research was undertaken through the sourcing of plans and other related information electronically from LM, District Municipality (DM) and Provincial Government Departments' websites.

Important documents obtained included the following:

- City of uMhlathuze LM Integrated Development Plan (IDP), (ULM, 2012).
- King Cetshwayo DM IDP 2017/8 –2021/22, (KCDM, 2017).
- City of uMhlathuze LM SDF, (ULM, 2017).
- City of uMhlathuze LM IDP, (ULM, 2017b).
- Development of the Water Reconciliation strategy for all towns in the Eastern Region 2011 June, (DWS, 2011).
- Statistics SA Mid-year population estimates, 2017 (StatsSA, 2017).

1.4.3 Additional Data Collection

The above-mentioned documents were reviewed to obtain an overview of the municipalities in the Study Area in order to compose the relevant questions and points for discussion. Discussions with the following Departments were held:

- City of uMhlathuze LM Planning and Development;
- City of uMhlathuze LM Integrated Development Planning division;
- City of uMhlathuze LM Local Economic Development;
- City of uMhlathuze LM Land Use Management;
- Richards Bay Industrial Development Zone's Project Management Department
- KwaZulu-Natal (KZN) Provincial Department of Human Settlements (uMhlathuze Office); and
- uMlalazi LM Planning and Development.

Discussions with relevant afore-mentioned 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, as well as proposed future developments.

1.4.4 Data Compilation, Analysis, and Interpretation

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

- Eskom Spot Building Counts (SBCs);
- Previous municipal plans for uMhlathuze, uMlalazi, Mthonjaneni, Nkandla and Ntambanana LMs;
- Demographic information from provincial, district and local documents;
- StatsSA: Census 2001 and Census 2011; as well as
- StatsSA Community Survey 2016.

The above-mentioned information sources were consulted, since no official population figures exist for the Study Area for the required 2016 base year.

Once the base population was determined, an analysis of the socio economic status quo and interpretation of the future growth in the City of uMhlathuze LM, and for the other five (5) afore-mentioned LMs within the broader Study Area (refer to **Section 1.3**), followed.

With demographic statistics taken from StatsSA, and the Eskom SBCs, as well as through discussions with the LMs, it was possible to project expected future growth and development for the LMs within the Study Area.

1.4.5 Growth Scenario Development and Modelling

The 2016 base population data was refined and growth scenarios up to 2040 were developed. A spreadsheet model was developed to project future growth for a realistic and high growth scenarios.

Note that in previously studies, low and high population scenarios have been the norm. However, from past experience it was found that the low population estimates, are seldom used for intervention planning due to the high risk of under provision (liability of uncertain timing of intervention implementation or water requirement amount). The difference between the low and high envelope has mostly been too large to improve the chances of being "correct" (if the future actual population is within the envelope) which creates a false and undesirable sense of certainty in the population and resulting water requirement projection scenarios. As such, realistic and high growth scenarios were formulated instead in this Study. The realistic scenario provides 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.

These growth scenarios are based on detailed local information pertaining 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 WSSs in the Study Area, which are each characterised by unique attributes and circumstances, as it is impossible for all the smaller WSSs to grow at the same rate as larger Water Supply Scheme (WSS). Each WSS can therefore be viewed as an area on its own, which interrelates with the various other regions identified within the Study Area. Each region has a specific growth forecast, based on information obtained from the plans and discussions with the LMs in the Study Area (refer to **Section 1.4.4**). The growth forecast, determines the rate of population growth as well as the development of residential, commercial and industrial developments. The modelling focused on population growth, of individuals and households, as well as the distribution of these individuals within the LMs.

The remainder of this Report is structured as follows:

- **Section 2:** Socio-economic Overview of the Study Area;
- **Section 3:** Historic Growth Perspective and Analysis;
- **Section 4:** Growth Scenarios and Projected Population;
- **Section 5:** Conclusion;
- **Section 6:** Recommendations;
- **Section 7:** References; and
- **Section 8:** Data Sources.

2 SOCIAL ECONOMIC OVERVIEW OF THE STUDY AREA

This section seeks to provide a contextual overview of the City of uMhlathuze LM, as well as the other LMs in the Study Area. This section includes a broad description of the locality of the LMs in relation to South Africa, the KZN Province, and the King Cetshwayo DM (previously known at Uthungulu DM). Furthermore, this section also provides a broad overview of the various development nodes, the current conditions and impact, the directives and objectives of various plans, as well as the future developmental potential within each of the LMs.

2.1 National, Provincial and District Overview

King Cetshwayo DM is a Category C Municipality, a municipality with municipal executive and legislative authority in an area that includes and shares jurisdiction with more than one LM, and is located in the north eastern region of KZN on the eastern seaboard of South Africa. This DM covers an area of approximately 8 213 km², from the agricultural town of Gingindlovu in the south, to the Mfolozi River in the north and inland to the mountainous beauty of rural Nkandla.

The King Cetshwayo DM is home to five (5) LMs:

- City of uMhlathuze LM;
- uMlalazi LM;
- Mthonjaneni LM;
- Nkandla LM; and
- uMfolozi LM.

The King Cetshwayo DM has the third highest population in KZN after the eThekwini Metro (Durban) and the uMgungundlovu DM (Pietermaritzburg and surroundings).

2.2 Overview of the City of uMhlathuze Local Municipality

The City of uMhlathuze LM is a Category B municipality, a single tier LM, within the King Cetshwayo DM on the north eastern coast of KZN. It is the largest LM among the five (5) LMs that makes up the King Cetshwayo DM. Furthermore, the City of uMhlathuze LM is comprised of 34 wards, having the largest number of wards in the King Cetshwayo DM, and is the third largest economic hub in KZN after eThekwini Metro and the Msunduzi LM respectively. The City of uMhlathuze LM is bordered by the uMfolozi and uMlalazi LMs within the King Cetshwayo DM.

Following the Local Government Elections in 2016, the former Ntambanana LM was disestablished and a portion of its former area was incorporated into the City of uMhlathuze LM.

The formal towns within the City of uMhlathuze LM includes Empangeni, Richards Bay, eSikhaweni, Ngwelezane, Nseleni, Vulindlela and Felixton. The rural settlements within the City of uMhlathuze LM includes Buchanana, Luwamba, Makwela, Mambuka, Hluma, Matshana and Mabuyela.

Richards Bay and Empangeni are the most significant economic centres within the City of uMhlathuze LM and in the King Cetshwayo DM. Richards Bay, which is a coastal, harbour and industrial town, attracts people from surrounding towns, rural settlements and from beyond the area. Empangeni is mainly a commercial town and service centre to the settlements of eSikhaweni, Eshowe, Nkandla, Buchanana and other rural settlements. As a result, Empangeni attracts many people due to the range of higher order services available in the town.

The Spatial Development Framework (SDF) of the City of UMhlathuze LM is shown in **Figure 2-1** below.

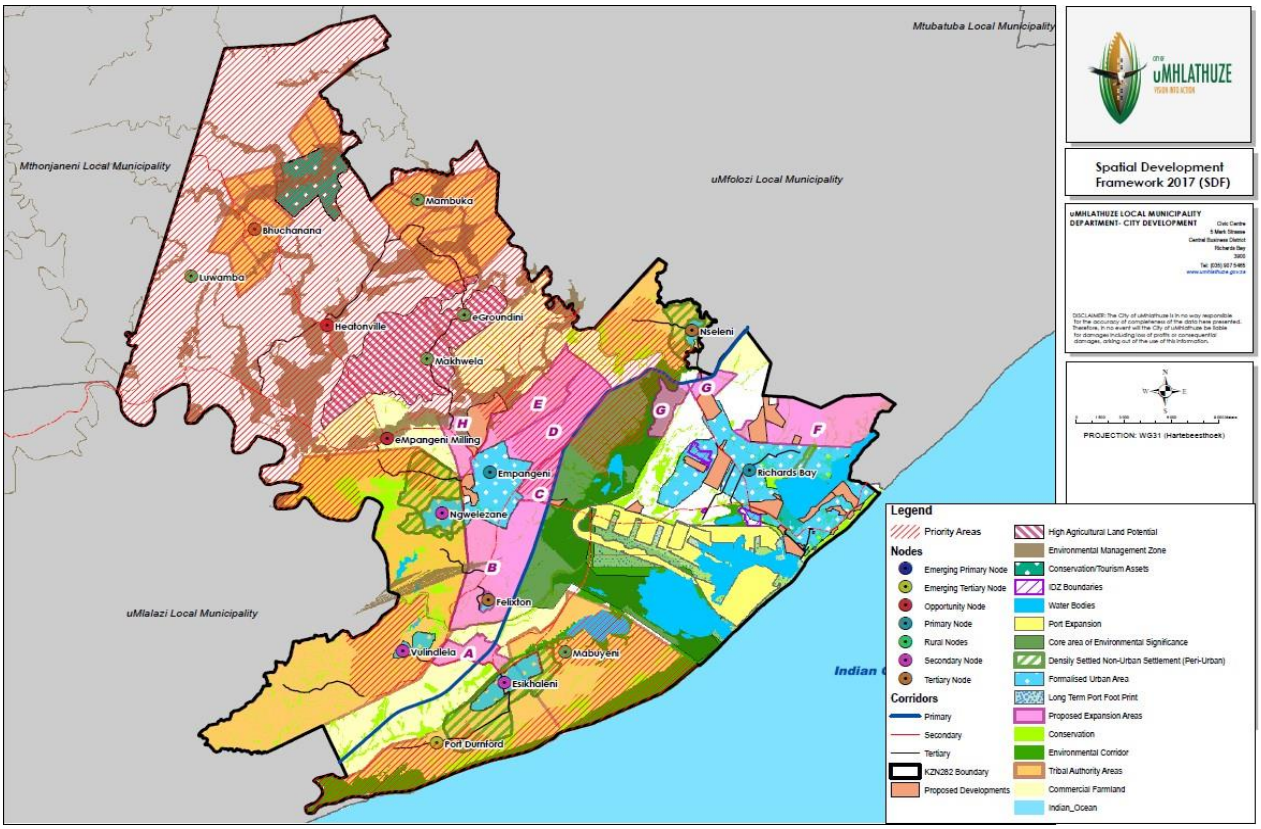

Figure 2-1: Spatial Development Framework for the City of uMhlathuze Local Municipality

According to the City of uMhlathuze LM's SDF (2017/18-2021/22), there are a number of existing natural and man-made phenomenon that have shaped and continue to shape the City of uMhlathuze LM. The spatial landscape reveals that the area to the east of the City of uMhlathuze LM is inundated with a system of wetlands, as well as natural water features such as Lakes Cubhu, Mzingazi, Nsezi and Nhlabane. Major rivers include the Mhlathuze and Nsezi rivers.

The main access into the City of uMhlathuze LM area is via the N2 in a north-south direction, and in an east-west direction via the R34. Other significant roads in the area include the MR431 (that provides a northerly entry into Richards Bay from the N2), as well as the Old Main Road that straddles the N2 on its inland. Railway lines are prevalent in the City of uMhlathuze LM area, but do not provide a passenger service and only provide a commercial/industrial service, namely freight.

There is an airport, the Richards Bay Airport, and a number of landing strips within the City of uMhlathuze LM. According to information obtained during the interviews/discussions with municipal officials, there is a Feasibility Study underway for the relocation of the Richards Bay Airport.

The highest settlement densities are within the formal urban areas, i.e. Empangeni, Richards Bay, eSikhaweni, Ngwelezane, Nseleni, Vulindlela and Felixton. According to the uMhlathuze Land Use Scheme, areas of increasing settlement densification are those in the informally demarcated settlements adjacent to, or near, formal urban centres. Reasons given for this, are that people from low income backgrounds in rural areas would want to benefit from municipal services without paying and would prefer informal settlements in the outskirts. Interviews with the City of uMhlathuze LM's Planning Department also revealed evidence of

ongoing movement of people from the rural areas to settle on the outskirts of Richards Bay and Empangeni. It can also be explained by the fact that secondary sectors outperform primary agriculture as a driver of the economy. People no longer rely on agriculture for subsistence living.

Richards Bay is the industrial and tourism hub and Empangeni the commercial hub. Whereas Esikhaweni, the largest suburb is the home of safari tourism as it hosts the renowned Thula Thula Private Game Reserve.

The City of uMhlathuze LM borders a coastline that spans approximately 45 km, about 180 kms north east of Durban. The N2 Highway traverses the City of uMhlathuze LM in a north eastern direction towards the Swaziland Border and south west towards Durban. Furthermore the N2 Highway also effectively forms a division between Empangeni and Richards Bay. The R34 Provincial Main Road passes through Empangeni towards Melmoth. Other significant roads include Old Main Road 45 km of coastline of which about 80% is still in its natural state.

The Key restructuring zones in the City of uMhlathuze LM are shown in **Figure 2-2** below and **Figure 2-3** shows the location of strategic and catalytic projects.

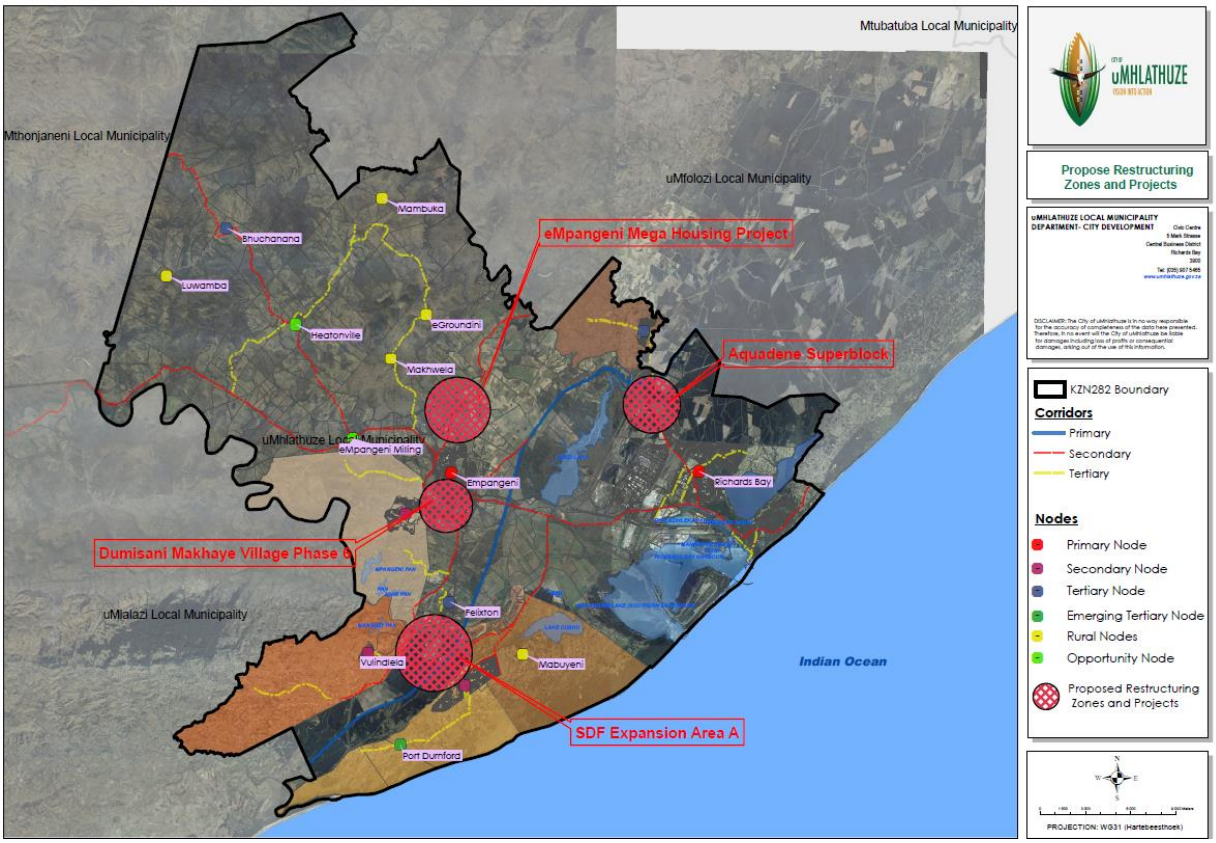

Figure 2-2: Restructuring Zones for the City of uMhlathuze Local Municipality

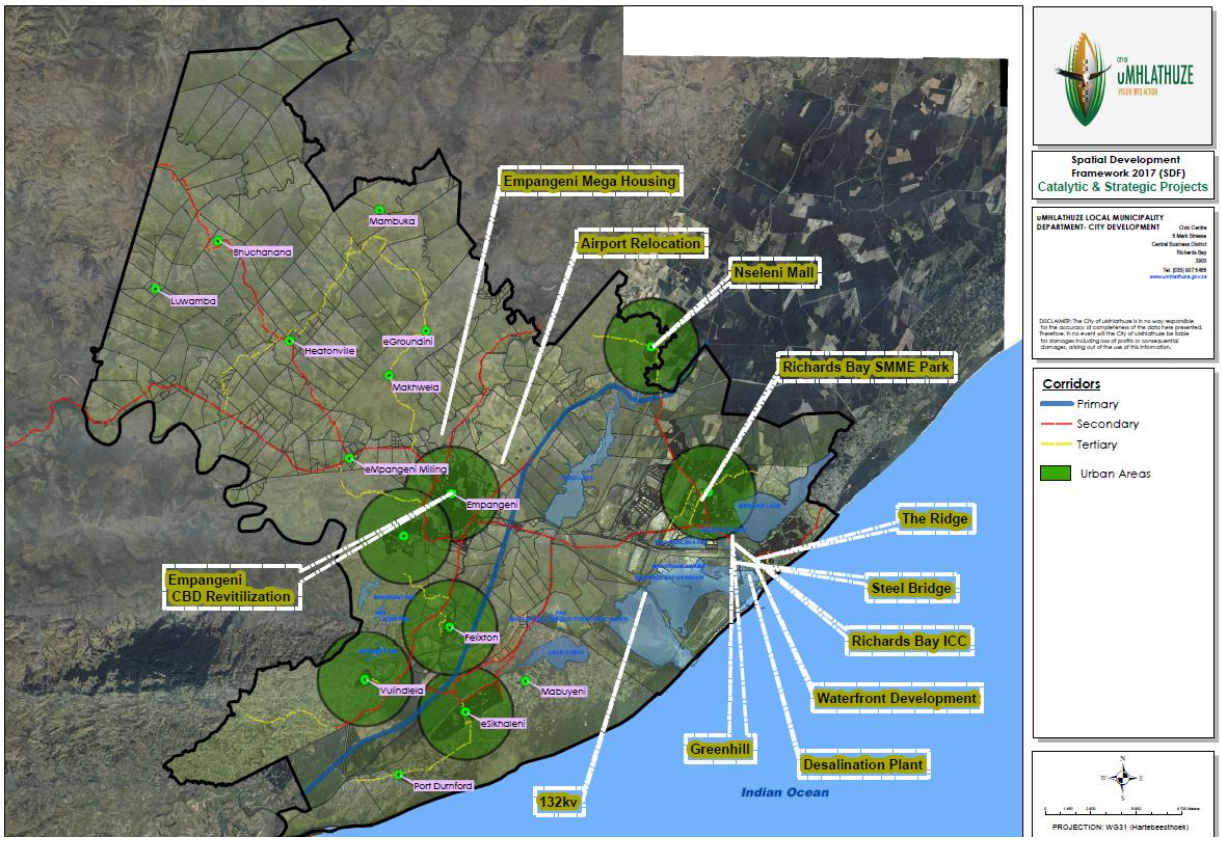

Figure 2-3: Strategic and Catalytic Projects for the City of uMhlathuze Local Municipality

The key industrial/commercial developments in the City of uMhlathuze LM entail the following:

- Relocation of the Richards Bay Airport to the north between Empangeni and Nseleni;
- Empangeni Central Business District (CBD) Revitalisation Programme: Revitalization of Empangeni's CBD;
- Richards Bay Port and container terminal expansion will result in increased investment and employment opportunities;
- Waterfront Development - development of the state of the art world class water front will boost tourism;
- Future developments by the Richards Bay Industrial Development Zone (IDZ), namely:
  - Metals beneficiation;
  - Agro-processing plants to be set up;
  - Techno-Parks – setting up office parks for research; and
  - Investment in renewable energy.
- Nseleni Mall Development - Shopping mall for Nseleni; and
- Richards Bay International Conference Centre with a shopping complex and entertainment amenities.

The major residential developments in the City of uMhlathuze LM include the following:

- Empangeni Mega Housing Programme currently underway: 8 049 Reconstruction and Development Programme (RDP) houses to low-income individuals situated on Wilton Park Farm;
- RDP Projects Phases 6 and 8, as well as the RDP Aquadene project (1 251 housing units to be developed in partnership with Transnet);

- eSikhaweni-Vulindlela Corridor to be developed into a housing scheme of mixed (low income and middle income residential);
- Aquadene Superblock Housing Project and uMhlathuze Village Phase 6;
- Development Port Dunford Rural Settlements;
- Mabuyeni Rural Settlement Plan in Dube Traditional Authority (to be completed in 2021); and
- Dumisani Makhaye Village Phase 6 housing to develop 1 000 housing units.

The proposed basic services interventions areas within the City of uMhlathuze LM are shown in **Figure 2-4** below**.**

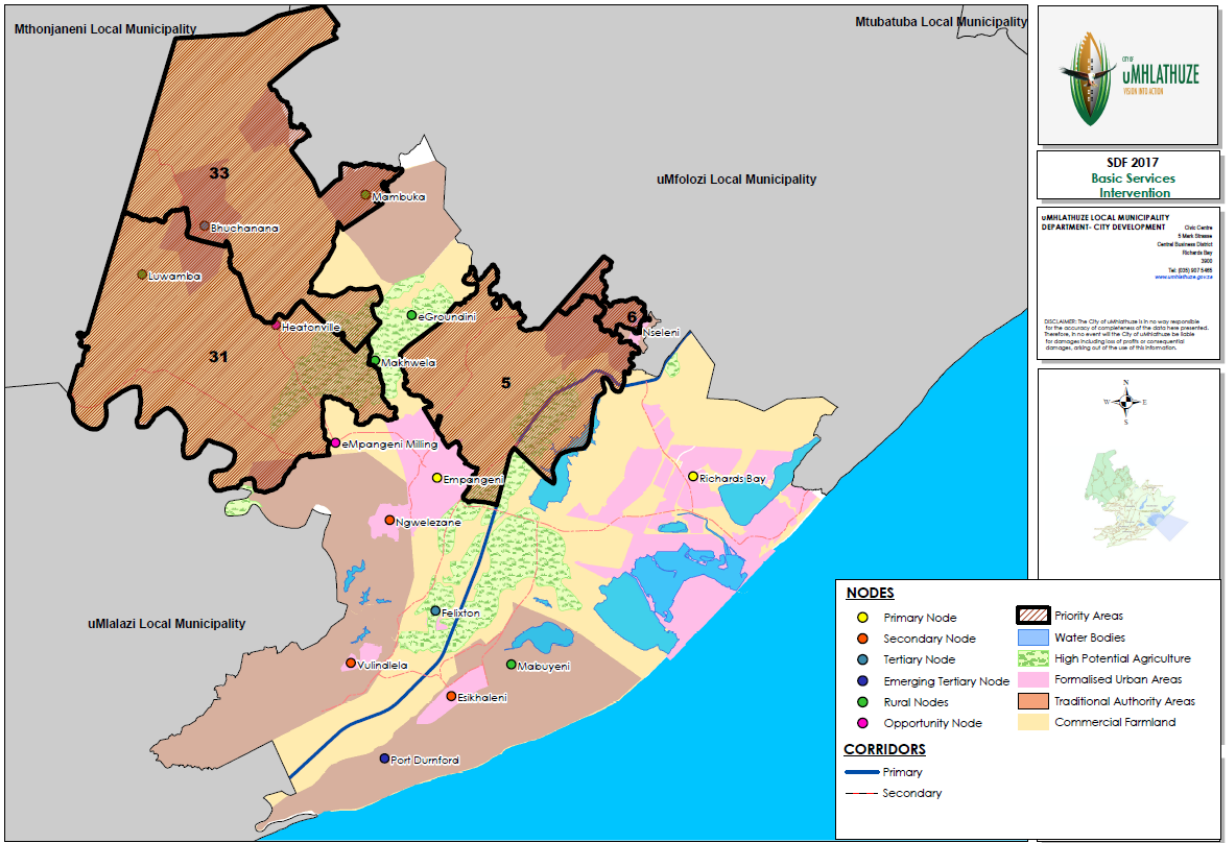

Figure 2-4: Proposed Basic Services for the City of uMhlathuze Local Municipality

The major urban centres within the City of uMhlathuze LM, namely Empangeni, Richards Bay, eSikhaweni, Ngwelezane, and Nseleni, are discussed under **Sections 2.2.1 to 2.2.5** below:

2.2.1 Empangeni

Currently, there is a proposal to develop the Empangeni CBD, through the Empangeni CBD Revitalisation Programme, which has been planned for by the uMhlathuze LM. The Empangeni CBD revitalization, together with the Empangeni Mega Housing Project, would see the city reducing its housing backlog by about 10 000 units.

2.2.2 Richards Bay

Richards Bay, is considered to be the industrial and tourism centre of the area and covers approximately 37% of the City of uMhlathuze LM's total surface area. Richards Bay was a small fishing town and flourished with the development of the Port of Richards Bay. It is now a very well established town with well-developed industrial and business centres. The town

has been earmarked by Government as one of the country's growth and development points. Through the Richards Bay IDZ the town will attract a great deal of investment. Richards Bay is already home to some of the country's most productive and lucrative industries, such as coal mining, manufacturing and service industries.

Industrial development is taking place, and is likely to continue particularly in the industrial zone adjacent to the harbour. Richards Bay is also home to Mondi, one of the largest companies in the packaging industry, who are planning to expand, which will also involve a housing scheme for their employees.

The role players from the Richards Bay IDZ who were interviewed indicated that more developments are lined up to enhance/improve tourism, Small Medium and Micro Enterprise (SMMEs), who will be supported in order for them to grow and create jobs, as well as other commercial developments. According to the Richards Bay IDZ, there are plans to expand the Richards Bay CBD southwards. This CBD expansion is mainly envisaged for commercial and office space on 125 Ha area, of which 39.2 Ha, may be developed, and the remainder needs to remain as open space.

A number of other high impact developments with multiplier effects on population movements have been lined up in Richards Bay, as a result of the town's strategic location and fame as a tourism centre.

2.2.3 Esikhaweni

eSikhaweni is one of the most densely populated towns in the area, surrounded with the low income settlements of eSikhaweni as well as the eSikhaweni H and J Townships. The town is adorned with one of the most pristine features of nature, namely Chubu Lake. The eSikhaweni Business Support Centre (EBSC) is located within the eSikhaweni Township Section 8, to promote the development of SMMEs.

The eSikhaweni-Vulindlela settlement has been identified as the key priority for possible relocation from uMzingwenya Settlement Communities. The City of uMhlathuze LM have planned to formalise and develop the rural settlements of Port Dunford, which are to be completed in 2018. Other residential plans near eSikhaweni include the following:

- Mabuyeni Rural Settlement Plan within Dube Traditional Authority (to be completed in 2021); and
- Vulindlela Rural Settlement.

The town of eSikhaweni has the potential to be upgraded to the status of a formal urban node in the City of uMhlathuze LM according to the LMs SDF (2018), given the town's dominant roles within the commercial, administration, transportation and social services.

An area known as Vulindlela, within the town of eSikhaweni, is home to the University of Zululand. This university is the only comprehensive institution of higher learning north of the Thukela River, with a student enrolment of 17 230 in 2017. The university's presence in the area, will lead to an increase in services demanded by the town. The university is currently also experiencing an increased intake of students from other parts of Africa, especially from Namibia, Nigeria, Kenya, Zimbabwe, Botswana, Lesotho and Swaziland.

2.2.4 Ngwelezane

The town of Ngwelezane is adjacent to Empangeni. Its significance, as a town, in the City of uMhlathuze LM, is that of providing both public and private administration offices, informal trading and social services. Its proximity to Empangeni means that low income dwellers who work in Empangeni can commute daily from the peri-urban settlements of the town of Ngwelezane.

2.2.5 Nseleni

The town of Nseleni is situated in the north eastern part of the City of uMhlathuze LM. There are recent plans, to develop the proposed Nseleni Shopping Mall for Nseleni, which would create additional employment opportunities. The Nseleni Informal Settlement is located towards the north of Nseleni. The clearance of slums in this area is planned by the City of uMhlathuze LM, but in the absence of alternative housing, this is likely to be postponed. The future of this town is mainly in its tourism potential and agricultural development in the form of irrigation, timber plantations and the processing of agricultural produce such as essential oils.

2.3 Overview of the Nkandla Local Municipality

The Nkandla LM is situated towards the west of the King Cetshwayo DM. Furthermore the Nkandla LM is relatively close to the country's two largest ports, namely about 130 km inland from the Port of Richards Bay and about 250 km north of the Port of Durban (commonly called Durban Harbour). The Nkandla LM is surrounded by the Ulundi LM to the north, the Nquthu LM to the north-west, the Msinga LM to the west, the uMvoti LM to the south-west, the Maphumulo LM to the south, the uMlalazi LM to the south east and the Mthonjaneni to the east. Nkandla Town is classified as a both a Rural Service Centre (RSC) and a Provincial Rural Administrative Centre (PRAC). Furthermore, Nkandla Town is the only formalized urban area located within the Nkandla LM, which is situated approximately 50 km south-west of Melmoth and 65 km from Eshowe. Nkandla Town is isolated from the major economic development corridors, and access is via the R68 to Melmoth, and the R66 from Eshowe, Kranskop and Nquthu.

The town of Nkandla serves as a vital function to communities within the entire municipal area. Structured planning and town compaction, given limited land resources, is important for its continued growth and functioning.

The Nkandla LM's rural areas are characterised by tribal lands and state-owned land. The area has a wealth of undisturbed forests, which boast many indigenous species. The major populated area within the rural parts is the rural town of Qudeni while the rest of the area comprises rural villages.

The economy of Nkandla LM is driven by agriculture and tourism, with agriculture being in the fore front, especially pertaining to tea production. Future development potential, lies in the further value-adding and processing of the products into tea and essential oils.

Private sector development interest in the town of Nkandla has grown recently and according to the Nkandla LM's Planning Department, plans are at an advanced stage to build two (2) shopping centres, filling stations and more retail shops.

The Nkandla LM is isolated from national roads, as well as from major economic development corridors and towns. There are, however, plans in place to rehabilitate the Nkandla Town, which includes interventions by the Provincial Department of Transport and the King Cetshwayo DM to beautify the town as well as to demolish/remove illegal structures. The objective is to attract investors, with specified needs to allocate a portion of their capital returns to developments such as capital projects, landscaping, parks, trading space, etc.

The locations of various proposed developments within the Nkandla LM are shown in **Figure 2-5**.

Figure 2-5: Proposed Developments within Nkandla Local Municipality

2.4 Overview of the uMlalazi Local Municipality

uMlalazi LM is located within the King Cetshwayo DM and is bordered by Mandeni LM to the south, Maphumulo LM to the south west, Nkandla LM towards the north west, Mthonjaneni and Ntambanana LMs to the north, and uMhlathuze LM to the east. Eshowe, the administrative centre of uMlalazi LM, is situated along the KZN North Coast about 140 km north east of Durban. The eastern portion of municipal area is located on the N2 National and Provincial Development Corridor linking the two major economic hubs of Richards Bay and Durban. The uMlalazi LM borders on the Indian Ocean on the eastern coastline which stretches approximately 17 km, from the borders of Mandeni LM to uMhlathuze LM. Geographically, the municipal area covers 2 217 km², one of the largest municipal areas in South Africa.

The uMlalazi LM is traversed by a number of important routes, such as the N2 between Durban and Richards Bay, the R34 between Richards Bay/Empangeni and the Nkwaleni Valley north of Eshowe, as well as the R66 from the N2 to Gingindlovu, Eshowe, Melmoth, Ulundi and Vryheid. The famous King Shaka (Zulu) Heritage Route R66 has a lot of historical and cultural significance.

The towns of Eshowe, Mtunzini and Gingindlovu are the three (3) main urban nodes and towns within the uMlalazi LM. The area surrounding the town of Eshowe has a very high population density, with more than 300 persons per km². The Eshowe, Gingindlovu and Mtunzini Triangle also have a relatively high population density, which varies between 200 to 300 persons per km^2.

The towns and settlements within the uMlalazi LM that are situated within the Study Area are Eshowe, Kwamahlokohloko, Gingindlovu and Mtunzini.

The uMlalazi LM's SDF is shown in **Figure 2-6** below.

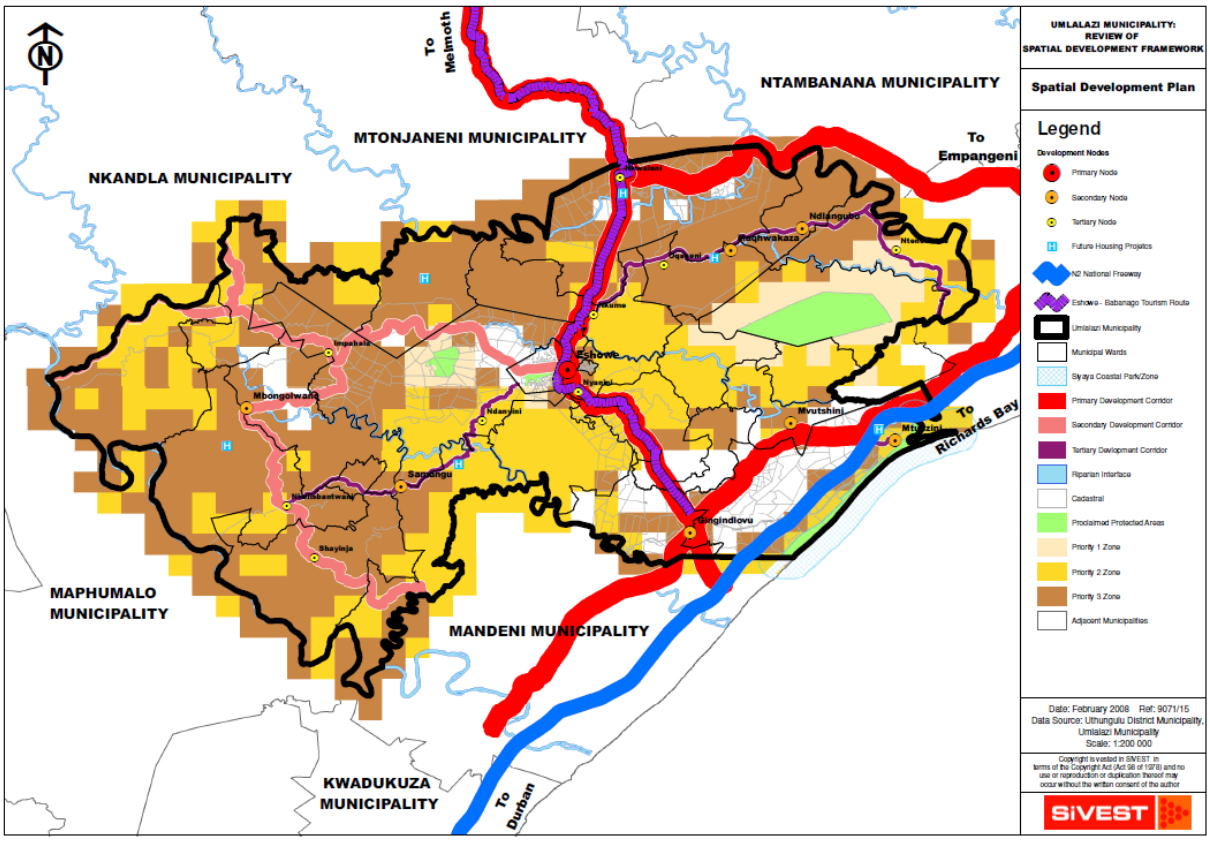

Figure 2-6: Spatial Development Framework of the uMlalazi Local Municipality

The town of Eshowe is of great historical significance in that it is the birthplace of King Cetshwayo, who was King of the Zulu's during the Anglo-Zulu War of 1879. There are several traditional Zulu villages open to tourists within an easy drive of the town. The Dlinza Forest is a beautiful forest, which is also an ideal tourist destination. The town of Eshowe is also considered as the uMlalazi LM's administrative and service centre, which will have a future impact on development of tourism in and around Eshowe.

The coastal town of Mtunzini is a greenbelt that is situated on the KZN North Coast, on the banks of the uMlalazi River, and bordering on the uMlalazi Nature Reserve. The town of Mtunzini offers superb homes in a quiet and relaxed atmosphere, within comfortable driving distance from the N2 Highway and the industrial and commercial growth areas of Richards Bay and Empangeni. Mtunzini has all the basic services, inter alia: shopping facilities, doctors and churches. Furthermore the town of Mtunzini is a quality residential and eco-tourist destination in South Africa.

The town of Mtunzini functions as a dormitory town for the University of Zululand and some of the workforce in Richards Bay/Empangeni also resides in the town. The popularity of the town as a place of residence has been aided by the fact that it is a coastal town. There is also a strong emphasis on conservation among the residents of the town, which is promoted by a number of organizations. The town of Gingindlovu is a much smaller urban node that renders basic services to the immediate population of the area. The town of Eshowe, however, attracts most of the economic activity within the uMlalazi LM.

The agricultural sector dominates the economy of uMlalazi LM, contributing to nearly a third of sectoral production. There is thus high reliance on the agriculture sector for growing the economy. The products that dominate the area are sugar cane, timber production and citrus farming. Most of the high potential agricultural land is privately owned, and is located along the coastal strip between the towns of Mtunzini and Gingindlovu – on the lower lying areas. It is also located in the area surrounding the town of Eshowe and extending to the west thereof. There is also some very high potential agricultural land situated in the north-eastern part of the uMlalazi LM.

2.5 Overview of the Former Ntambanana Local Municipality

The former Ntambanana LM was disestablished in August 2016, and parts thereof were incorporated into the uMhlathuze, uMfolozi and Mthonjaneni LMs. A total of three (3) wards were incorporated into the City of uMhlathuze LM.

The development nodes within the former Ntambanana LM are shown in **Figure 2-7** below.

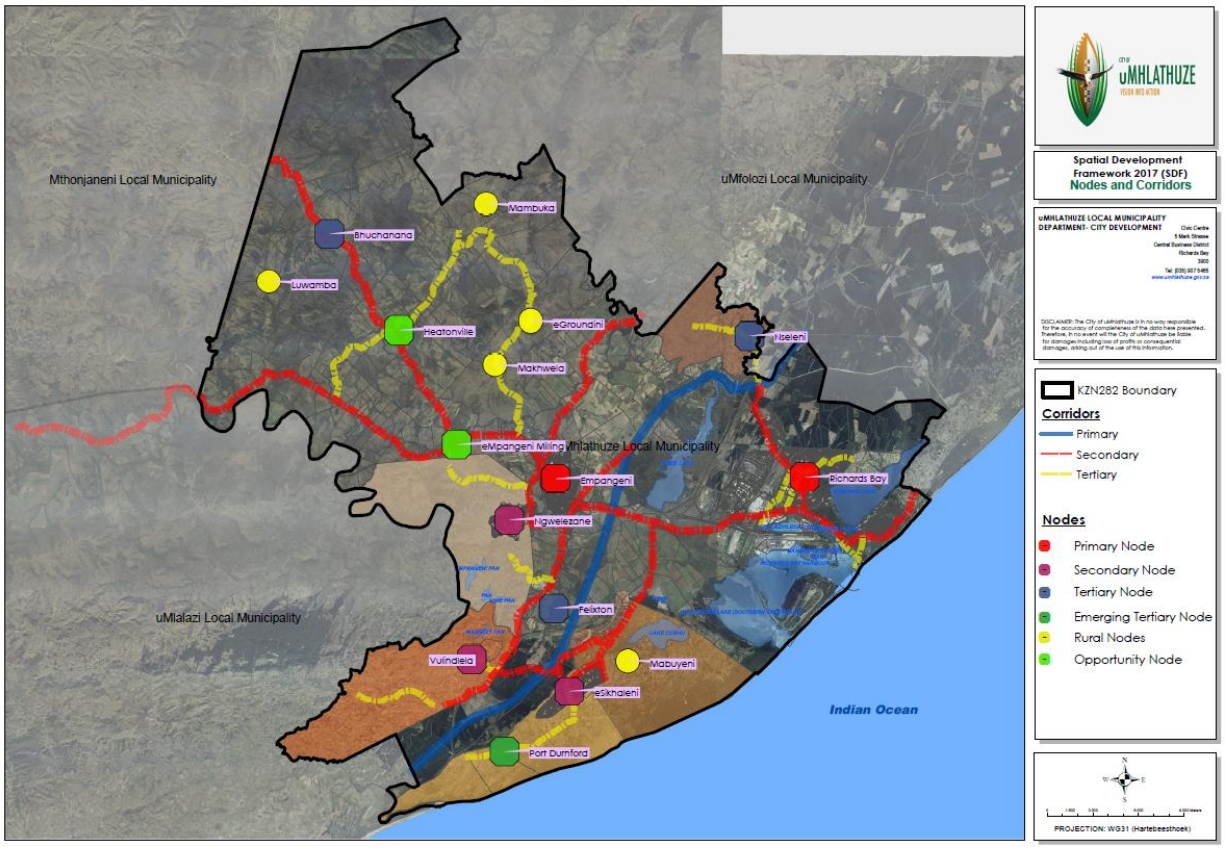

Figure 2-7: Developments Nodes within the Former Ntambanana Local Municipality

The municipality is set among rolling green hills that rise from the coastal plain in the east to the end of the plateau in the west. It is surrounded by meandering valleys that house numerous rivers flowing either towards the Mfolozi River in the north or the Mhlathuze River to the south.

The biggest proportion of land within the Ntambanana municipal area is owned by the tribal authorities. Obuka Tribal Authority covers the largest proportion of this land, followed by Somopho North, Obizo, Mambuka and Somopho South. Large proportions of land in the surrounding areas of Heatonville are owned by private landowners. Ntambanana State Land is situated in the surrounding areas of Buchanana Village and the area further north.

2.6 Water Supply Schemes

The WSSs within the Study Area are shown in **Figure 2-8**.

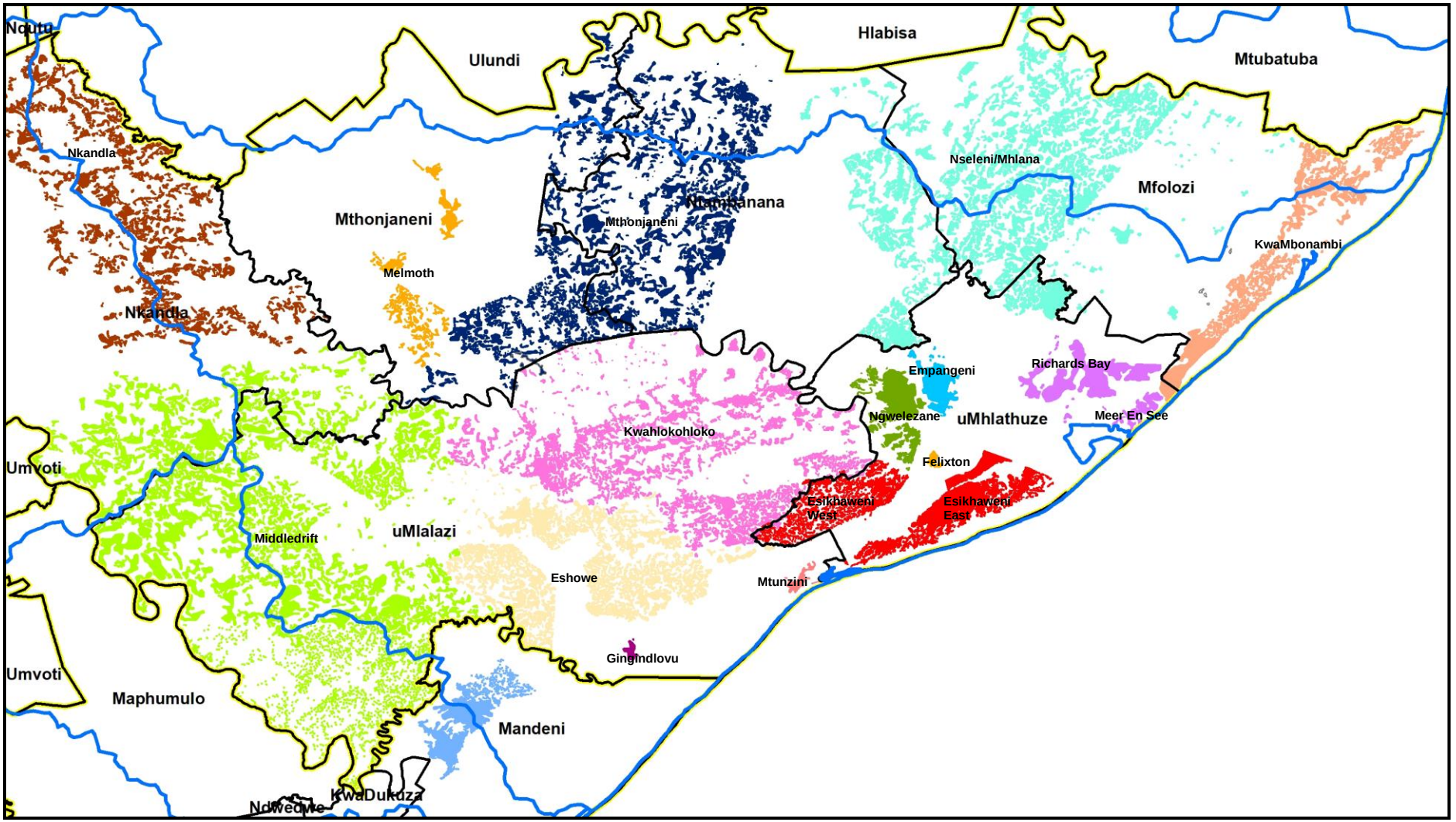

Figure 2-8: Water Supply Schemes within the Study Area

These WSSs also give a good indication of where the population is concentrated within the Study Area. The following WSSs together comprise the broader Study Area:

- WSSs within uMhlathuze LM:
  - Nseleni/Mhlana: Esikhaweni East;
  - Empangeni;
  - Ngwelezane;
  - Felixton;
  - Esikhaweni West;
  - Richards Bay; and
  - Meer En See.
- WSSs within uMlalazi LM:
  - Eshowe;
  - Kwahlokohloko;
  - Gingindlovu;
  - Mtunzini; and
  - Middledrift.
- WSSs within Mthonjaneni LM
  - Melmoth; and
  - Mthonjaneni.
- WSSs within Nkandla LM:
  - Nkandla; and
  - Middledrift.
- WSSs within uMfolozi LM:
  - KwaMbonambi; and
  - eNeseleni/Mhlana.

The following towns are within the WSSs of the demographic focus areas of uMhlathuze LM:

- **Nseleni/Mhlana WSS:**
  - Nseleni,
  - Bhejane;
- **eSikhaweni East WSS:**
  - Port Dunford,
  - Ncombo,
  - Gobandlovu,
  - Mabuyeni and
  - eSikhaweni;
- **Empangeni WSS:**
  - Empangeni,
  - Hillview,
  - Empangeni Central;
- **Ngwelezane WSS:**
  - Eniwe,
  - Dondolo,
  - Ngwelezane;
- **Felixton WSS:**
  - Felixton;
- **Esikhaweni West WSS:**
  - Vulindlela, and
  - Ongoye;
- **Richards Bay WSS:**
  - Richards Bay Central,
  - Birdwood,
  - Aquadene,
  - Arboretum,

    - Brackenham,
    - Veld En Vlei; and
- **Meer En See WSS:**
    - Meer en See.

The small towns within the broader area (and within some of the WSSs referred to above), which are referred to separately throughout the remainder of this Study, are: Eshowe, Gingindlovu, Mtunzini, Amatikulu, and Eshowe.

3 HISTORICAL GROWTH PERSPECTIVE AND ANALYSIS

This section provides an overview of the economic and social composition of the LMs within the Study Area, as well as an analysis of the historical growth in order to give an indication of past distribution and growth trends. This section also provides an indication of how the base population was determined, and applied to determine the future growth scenarios for the LMs. The economic perspective in **Section 3.1** below, and the demographic perspective in **Section 3.2** below that follows jointly paint a holistic picture of the composition, strengths and future possibilities within the LMs.

3.1 Economic Perspective

This Sub-section of the Report deals with the economic components of the City of uMhlathuze LM (the former Ntambanana and uMhlathuze LMs) as well the uMlalazi, uMfolozi, Nkandla and Mthonjaneni LMs within the Study Area. This Sub-section also 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 extraction, 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. This 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.

The tourism sector is, however, not a standalone economic sector, but forms a part of some of the other above-mentioned economic sectors, predominantly the trade, transport and financial services sectors.

3.1.1 Sectoral Gross Domestic Product and Growth

An indication of the GDP of the LMs and their economic sectors for the years 2006 and 2016 is provided in **Table 3-1** below.

The GDP growths per annum, which are given in **Table 3-2**, were derived (calculated) from the GDP figures per sector in **Table 3-1**.

Table 3-1: Gross Domestic Product per Sector (R millions at constant 2010 prices)

Sector	Local Municipalities											
	uMfolozi		Former uMhlathuze		Former Ntambanana		uMlalazi		Mthon-janeni		Nkandla	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
Primary												
Agriculture	385	445	403	521	99	116	539	713	278	342	25	33
Mining	227	187	1 694	1 311	45	34	58	65	13	9	4	3
Secondary												
Manufacturing	426	512	6 577	5 824	111	105	364	478	79	160	29	31
Utilities	34	41	567	512	36	22	96	95	18	18	16	14
Construction	99	193	705	1 160	41	68	99	160	26	56	24	55
Tertiary												
Retail Trade	228	301	2 375	3 377	116	156	405	544	127	171	72	97
Transport	288	348	2 566	3 398	162	173	261	307	65	63	65	86
Business Services	160	286	2 324	3 473	86	151	432	703	47	64	43	78
Government Services	207	337	2 288	2 994	93	150	604	859	174	264	307	471
Social Services	103	138	984	1 260	57	59	268	330	53	63	113	149
Total	**2 158**	**2 788**	**20 483**	**23 831**	**845**	**1 035**	**3 126**	**4 253**	**879**	**1 210**	**698**	**1 017**

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

Table 3-2: Gross Domestic Product Growth Rate per Sector from 2006 to 2016

Sector	Local Municipalities						
	uMfolozi	Former uMhlathuze	Former Ntambanana	uMlalazi	Mthonjaneni	Nkandla	Mandeni
Primary							
Agriculture	1,57%	2,94%	1,79%	3,23%	2,32%	3,36%	4,13%
Mining	-1,76%	-2,26%	-2,40%	1,18%	-3,15%	-3,32%	-1,22%
Secondary							
Manufacturing	2,01%	-1,14%	-0,55%	3,11%	10,26%	0,82%	2,09%
Utilities	2,05%	-0,97%	-3,96%	-0,12%	0,17%	-1,48%	0,60%
Construction	9,39%	6,46%	6,60%	6,13%	11,49%	12,65%	6,49%
Tertiary							
Retail Trade	3,17%	4,22%	3,38%	3,43%	3,48%	3,48%	5,41%
Transport	2,10%	3,24%	0,67%	1,79%	-0,24%	3,25%	0,94%
Business	7,93%	4,95%	7,68%	6,28%	3,44%	8,18%	5,44%
Government	6,27%	3,08%	6,12%	4,21%	5,19%	5,33%	4,99%
Social Services	3,37%	2,81%	0,47%	2,29%	1,93%	3,17%	2,37%
Total	**2,92%**	**1,63%**	**2,24%**	**3,60%**	**3,77%**	**4,56%**	**3,10%**

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

As indicated in **Table 3-2**, the mining sector registered a significant decline in GDP across most of the LMs over the 10-year period from 2006 to 2016. This can be attributed to the reduced demand for coal on the export market. Significant growth was, however, recorded in the construction sector, due to an increase in construction and housing projects.

3.1.2 Employment per Sector

The formal employment figures per sector for 2006 and 2016 for each one of the LMs are given in **Table 3-3** below and **Figure 3-1**.

Table 3-3: Employment per Sector for 2006 and 2016

Sector	Local Municipalities											
	uMfolozi		Former uMhlathuze		Former Ntambanana		uMlalazi		Mthon-janeni		Nkandla	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
Primary												
Agriculture	5 309	3 627	5 769	3 985	1 775	1 160	11 032	7 639	4 377	3 069	355	264
Mining	191	188	791	757	41	37	48	55	9	8	5	4
Secondary												
Manufacturing	1 824	1 671	14 428	12 159	512	432	1 846	1 645	781	976	244	198
Utilities	31	47	325	398	33	27	75	90	11	18	14	14
Construction	1 358	2 040	6 856	8 886	699	999	1 314	1 764	410	702	364	619
Tertiary												
Retail Trade	2 354	3 015	17 387	23 549	1 255	1 670	4 101	5 639	1 353	1 747	596	783
Transport	671	981	4 970	7 321	434	612	661	969	172	212	152	253

Sector	Local Municipalities											
	uMfolozi		Former uMhlathuze		Former Ntambanana		uMlalazi		Mthon-janeni		Nkandla	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
Business	1 720	2 324	12 706	15 324	685	832	2 330	2 936	509	563	555	776
Government	1 222	1 862	10 665	12 873	655	966	3 407	4 403	905	1 247	1 902	2 637
Social	2 316	3 040	12 222	16 369	1 503	1 487	4 587	5 569	966	1 145	1 287	1 735
Total	**16 996**	**18 795**	**86 119**	**101 621**	**7 592**	**8 222**	**29 401**	**30 709**	**9 493**	**9 687**	**5 474**	**7 283**

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

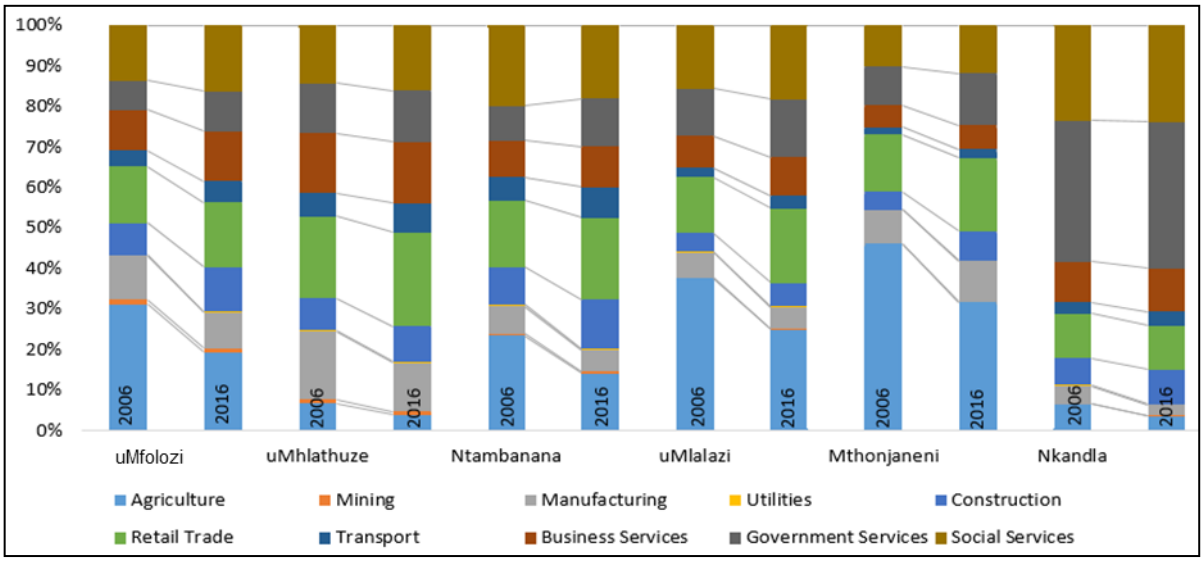

Figure 3-1: Employment Share per Sector for 2006 and 2016

The largest number of jobs are centred around the City uMhlathuze LM, and the sectoral analysis shows that retail and wholesale trade are significant absorbers in terms of employment followed by social services, business services and manufacturing.

Social services, Government (education, health and social work, public administration and defence) and business services are those sectors where the GDP potential per formal employee is substantially lower than those in manufacturing, mining and logistics. The low GDP per formal job opportunity in agriculture is an important reminder that commercial agriculture is not the most profitable undertaking within the enterprise environment. In order to generate profits in the agricultural sector proper knowledge of agriculture, skills and management capacities are required. Apart from the mining activities within the Tribal Authority Areas, as well as public sector investments in schools, clinics, etc. only a small share of the GDP is generated within the Tribal Authority Areas.

The average employment growth rates per annum for each LM are given in **Table 3-4**.

Table 3-4: Average Annual Employment Growth per Sector between 2006 and 2016

Sector	Local Municipalities						
	uMfolozi	Former uMhlathuze	Former Ntambanana	uMlalazi	Mthonjaneni	Nkandla	Mandeni
Primary							
Agriculture	-3,17%	-3,09%	-3,46%	-3,08%	-2,99%	-2,56%	-2,45%
Mining	-0,16%	-0,43%	-0,98%	1,46%	-1,11%	-2,00%	0,67%
Secondary							
Manufacturing	-0,84%	-1,57%	-1,56%	-1,09%	2,50%	-1,89%	-1,55%
Utilities	5,16%	2,25%	-1,82%	2,00%	6,36%	0,00%	3,68%
Construction	5,02%	2,96%	4,29%	3,42%	7,12%	7,01%	3,99%
Tertiary							
Retail Trade	2,81%	3,54%	3,31%	3,75%	2,91%	3,14%	5,38%
Transport	4,62%	4,73%	4,10%	4,66%	2,33%	6,64%	4,11%
Business	3,51%	2,06%	2,15%	2,60%	1,06%	3,98%	2,71%
Government	5,24%	2,07%	4,75%	2,92%	3,78%	3,86%	3,65%
Social	3,13%	3,39%	-0,11%	2,14%	1,85%	3,48%	2,20%
Total	**1,06%**	**1,80%**	**0,83%**	**0,44%**	**0,20%**	**3,30%**	**0,67%**

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

As indicated in **Table 3-4** above, the agricultural sector has continued to decline in employment numbers between 2006 and 2016, mainly due to mechanization and the fact that agriculture is no longer a major source of income for the low income communities. The mining and manufacturing sectors have also recorded negative growth (implying declines) over the ten years (from 2006 to 2016) under review across all the LMs that form part of the Study Area. People migrate to the peri-urban and urban centres in search of employment opportunities within the modern sectors of the economy. The growth rate is significantly higher in government services, construction, transport and communication across all the LMs.

3.2 Demographic Perspective

In order to understand demographics, reference must be made to those demographic factors, which impact on the 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 2011 Census that was conducted prior to the amalgamation of former uMhlathuze and Ntambanana LMs (now City of uMhlathuze LM), and therefore these two former LMs were analysed separately.

3.2.1 Population Size and Growth

By understanding the demographics of any geographical area assist with the analysis of different developmental trends within a geographical area. Furthermore, population figures and growth rates assist to determine the demand for production output as well as the potential growth thereof.

The population figures for the 2001 and 2011 StatsSA Census data, the StatsSA 2016 Community Survey data, as well as the average growth rate per annum are given in **Table 3 -5** and shown in **Figure 3-2** thereafter.

As reflected in **Table 3-5**, the overall population within the former uMhlathuze, uMfolozi, uMlalazi, Mthonjaneni, and Ntambanana LMs increased steadily, from 2011 to 2016. Whereas the overall population within former Nkandla LM declined slightly. This decline can be attributed to a lack of job opportunities, out migration to the City of uMhlathuze LM in search of perceived employment opportunities, and the inability of the LM to provide a range of services and amenities.

Table 3-5: Population Growth within the Study Area for 2001, 2011, and 2016

Municipality	Population Size			Average Growth per Annum
	2001	2011	2016	2011-2016
uMhlathuze LM (former)	288 699	334 459	370 579	2,07%
Ntambanana LM (former)	84 561	74 336	74 792	0,12%
Nkandla LM	133 581	114 416	114 284	-0,02%
uMfolozi LM	107 590	122 889	138 561	2,43%
uMlalazi LM	220 959	213 601	223 140	0.88%
Mthonjaneni LM	50 402	47 818	49 778	0.81%

Source: StatsSA Census 2001, Census 2011, Community Survey 2016, and Kayamandi Calculations

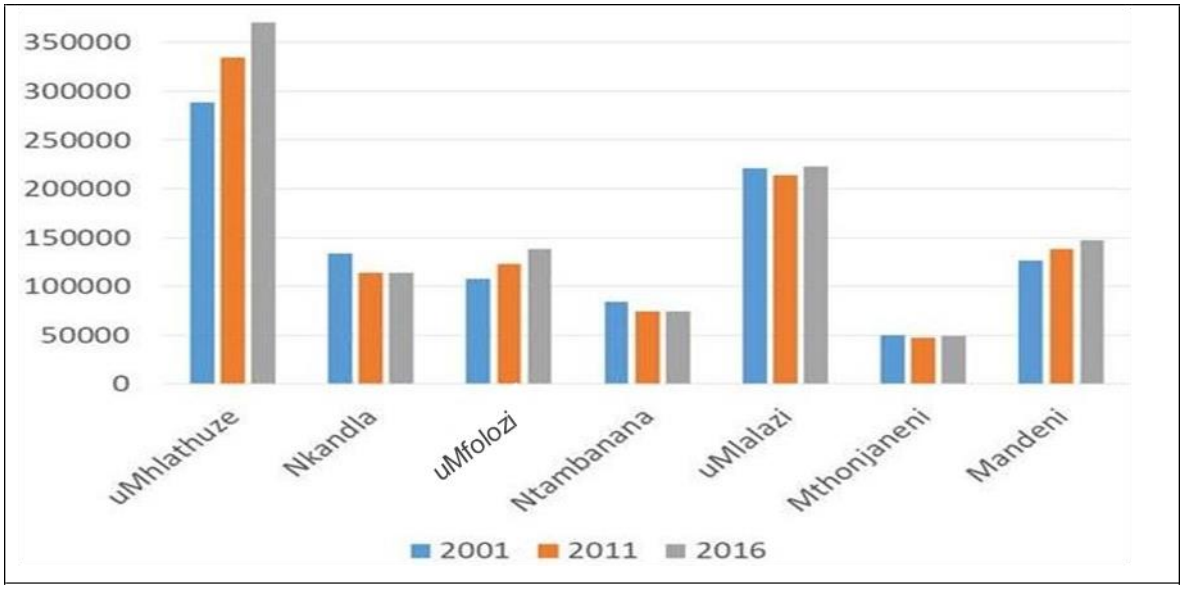

Figure 3-2: Population Growth per Local Municipality for 2001, 2011, and 2016

Recent surveys by the City of uMhlathuze LM's Planning Department indicate that low income earners settle in informal settlements and outskirts of the town where they take advantage of free services. Moderate population growth in the Richards Bay Area is almost a certainty, as a result of migration from rural areas into the urban areas in search of employment opportunities.

3.2.2 Number of Households

The number of households per LM and WSS within the Study Area were compared using the StatsSA Census Data for 2001, 2011 and 2016 Community Survey are shown in **Figure 3-3**.

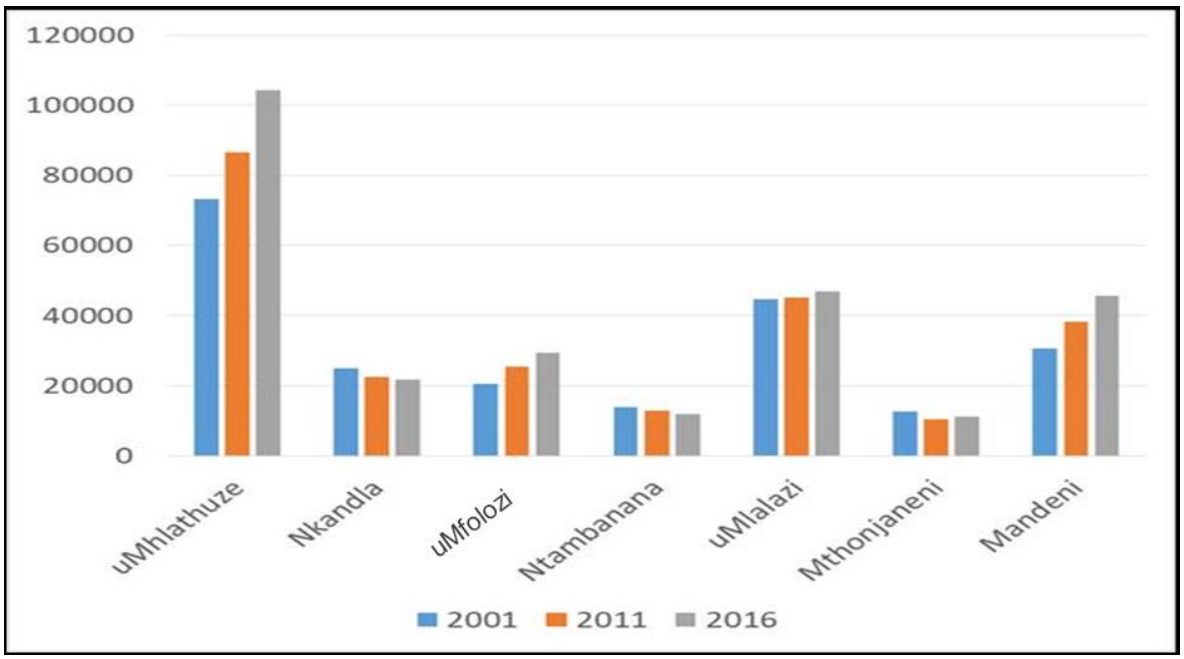

Figure 3-3: Number of Households per Local Municipality for 2001, 2011, and 2016

3.2.3 Household Size

The household size for the StatsSA 2001 and 2011 Census Data and 2016 Community Survey Data from StatsSA, are given in **Table 3-6** below.

Table 3-6: Average Household Size per Local Municipality from 2001 to 2016

Municipality	Average Household Size		
	2001	2011	2016
uMhlathuze LM (former)	3,95	3,86	3,55
Ntambanana LM (former)	5,36	5,09	5,23
Nkandla LM	5,22	4,80	4,71
uMfolozi LM	6,12	5,80	6,23
uMlalazi LM	4,95	4,74	4,75
Mthonjaneni LM	3,98	4,58	4,43

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

As indicated in **Table 3-6** above, it is evident that household sizes within the majority of the LMs have reduced marginally, except for within the Ntambanana and Mthonjaneni LMs where household sizes have increased.

3.2.4 Household Income

An indication of the 2011 average annual household income within each LM is given in **Table 3-7**.

Table 3-7: Average Annual Household Income per Local Municipality in 2011

Average Annual Income	Income category	Local Municipality					
		uMfolozi	uMhlathuze (former)	Ntambanana (former)	uMlalazi	Mthon-janeni	Nkandla
No income	**Low**	14%	15%	10%	12%	12%	10%
R1 – R4 800		5%	4%	6%	5%	4%	6%
R4 801 – R9 600		10%	8%	13%	9%	10%	11%
R9 601 – R19 200		22%	14%	24%	26%	28%	25%
R19 201 – R38 400		24%	16%	28%	24%	24%	27%
R38 401 – R76 800	**Middle**	13%	12%	11%	11%	11%	11%
R76 801 – R153 600		6%	11%	4%	6%	5%	6%
R153 601 and more	**High**	5%	19%	3%	7%	6%	4%
Total		**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

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

It is deduced from **Table 3-7** above, that a larger share of households fall within higher income groups in the former uMhlathuze LM, compared to the other LMs in the Study Area.

3.3 Base Population Determination

A 2016 base population figure was required as the starting point for the demographic modelling, to determine future population projections. The historic population prefigures for each WSS within the City of uMhlathuze LM (2001 and 2011) are presented in **Figure 3-4** below, which clearly shows the WSS with the highest and lowest populations.

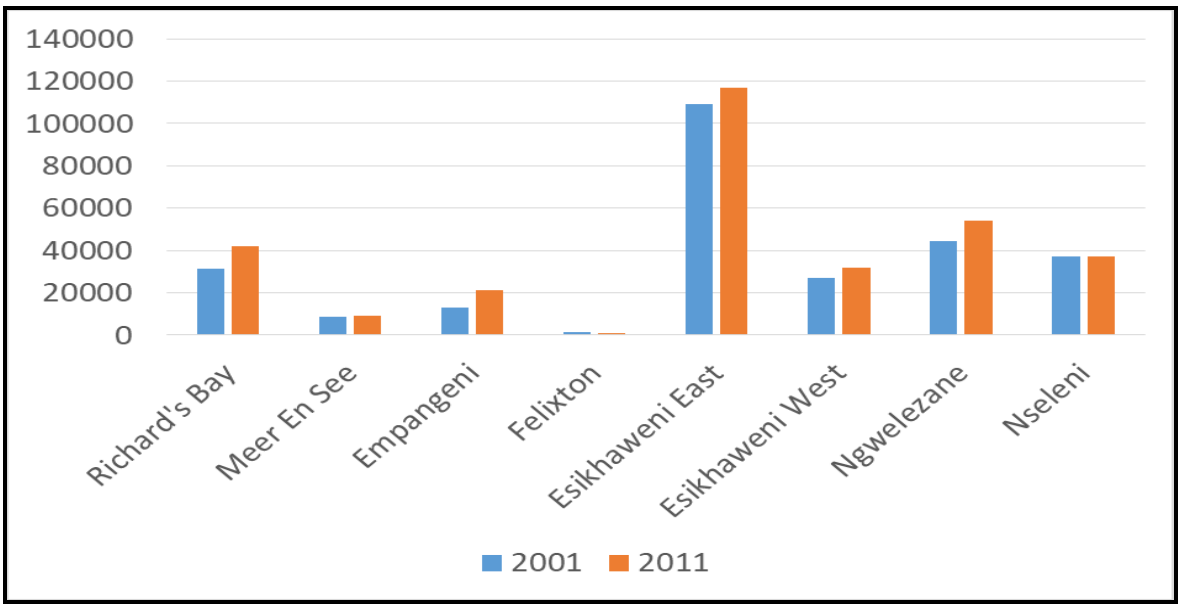

Figure 3-4: Population Figures per Water Supply Scheme in the City of uMhlathuze Local Municipality, 2001 and 2011

The population for each one of the WSSs within the focus area reveals that a higher population is located within the greater Esikhaweni East WSS's supply area, which include eSikhaweni Town and settlements such as eSikhaweni H and J. The higher population in these areas is ascribed to high densities in the formal urban, and surrounding areas (townships), as well as large Tribal Authority Areas.

The latest official StatsSA data from the 2016 Community Survey was used in order to estimate a realistic 2016 base population at municipal level. However, since the StatsSA 2016 Community Survey data is only at municipal level, the distribution of the 2016 municipal population had to be estimated. The population distributions from the StatsSA 2011 Census data was applied to the 2016 total population for each LM in order to estimate the distribution of the 2016 population. The newly estimated (calculated) 2016 population distribution was grouped according to the WSSs within each LM and balanced off against the total population figures from the StatsSA 2016 Community Survey results. Population growth was accounted for by comparing the change in SBC within the supply areas of the WSSs during 2011 and 2016. Changes in the average household sizes were applied to obtain realistic population figures.

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

The resultant base population, and the base household figures, for the City of uMhlathuze LM for both the realistic and high growth scenarios are presented in **Tables 3-8** and **3-9** below.

Table 3-8: Estimated Base Population within the City of uMhlathuze Local Municipality per Water Supply Scheme

Water Supply Scheme	Realistic Growth Scenario			High Growth Scenario		
	2011	2016	2018	2011	2016	2018
Richards Bay	42 077	47 940	50 482	42 077	47 940	50 508
Meer En See	9 353	9 732	9 888	9 353	9 732	9 888
Empangeni	21 121	24 181	25 512	21 121	24 181	25 526
Felixton	1 023	1 099	1 128	1 023	1 099	1 131
Esikhaweni East	116 937	126 444	130 419	116 937	126 444	130 460
Esikhaweni West	31 800	38 119	40 694	31 800	38 119	40 985
Ngwelezane	54 148	61 245	64 025	54 148	61 245	64 338
Nseleni	37 211	42 500	44 585	37 211	42 500	44 820
City of uMhlathuze LM (excl. rural)	**313 670**	**351 260**	**366 733**	**313 670**	**351 260**	**367 656**

Table 3-9: Estimated Base Households within the City of uMhlathuze Local Municipality per Water Supply Scheme

Water Supply Scheme	Realistic Growth Scenario			High Growth Scenario		
	2011	2016	2018	2011	2016	2018
Richards Bay	11 126	12 804	13 551	11 126	12 804	13 558
Meer En See	3 202	3 365	3 436	3 202	3 365	3 436
Empangeni	6 319	7 308	7 749	6 319	7 308	7 753

Water Supply Scheme	Realistic Growth Scenario			High Growth Scenario		
	2011	2016	2018	2011	2016	2018
Felixton	407	442	456	407	442	457
Esikhaweni East	28 104	30 696	31 820	28 104	30 696	31 830
Esikhaweni West	7 941	9 615	10 316	7 941	9 615	10 390
Ngwelezane	14 532	16 603	17 443	14 532	16 603	17 529
Nseleni	10 601	12 230	12 895	10 601	12 230	12 962
City of uMhlathuze LM (excl. rural)	**82 232**	**93 063**	**97 666**	**82 232**	**93 063**	**97 915**

The detailed base population and household estimates for all the small towns and other rural areas within the Broader Study Area are provided in **Tables 3-10** and **3-11** below.

Table 3-10: Estimated Base Populations in Small Towns and Rural Areas

Town/Water Supply Scheme	Realistic Growth Scenario			High Growth Scenario		
	2011	2016	2018	2011	2016	2018
Towns in Broader Study Area						
Eshowe Town	8 888	9 386	9 593	8 888	9 386	9 622
Gingindlovu Town	1 109	1 153	1 171	1 109	1 153	1 172
Mtunzini Town	2 167	2 266	2 307	2 167	2 266	2 325
Melmoth Town	7 814	8 252	8 434	7 814	8 252	8 451
Amatikulu Town	515	536	545	515	536	546
Total Towns	**20 493**	**21 593**	**22 050**	**20 493**	**21 593**	**22 116**
Water Supply Schemes in Broader Study Area						
KwaMbonambi	44 578	47 778	49 094	44 578	47 778	49 121
Nseleni/Mhlana	57 014	60 210	61 538	57 014	60 210	61 664
Mthonjaneni	55 187	56 294	56 743	55 187	56 294	56 802
Middledrift	39 049	39 536	39 733	39 049	39 536	39 774
Eshowe	70 611	73 450	74 618	70 611	73 450	74 857
Kwahlokohloko	70 875	74 479	75 971	70 875	74 479	76 127
Gingindlovu	1 109	1 153	1 171	1 109	1 153	1 172
Mtunzini	2 167	2 266	2 307	2 167	2 266	2 325
Melmoth	15 557	16 408	16 761	15 557	16 408	16 879
Nkandla	41 862	42 174	42 299	41 862	42 174	42 767
Totals Water Supply Schemes	**398 009**	**413 748**	**420 235**	**398 009**	**413 748**	**421 488**

Table 3-11: Estimated Base Households in Small Towns and Rural Areas

Town/Water Supply Scheme	Realistic Growth Scenario			High Growth Scenario		
	2011	2016	2018	2011	2016	2018
Towns in Broader Study Area						
Eshowe town	3 122	3 330	3 421	3 122	3 330	3 431
Gingindlovu town	293	307	314	293	307	314
Mtunzini town	871	920	941	871	920	949
Melmoth town	2 682	2 861	2 939	2 682	2 861	2 945

Town/Water Supply Scheme	Realistic Growth Scenario			High Growth Scenario		
	2011	2016	2018	2011	2016	2018
Amatikulu town	248	261	265	248	261	265
Total Towns	**7 216**	**7 679**	**7 880**	**7 216**	**7 679**	**7 904**
Water Supply Schemes in Broader Study Area						
KwaMbonambi	9 922	10 742	11 093	9 922	10 742	11 099
Nseleni/Mhlana	10 876	11 602	11 977	10 876	11 602	12 124
Mthonjaneni	9 190	9 469	9 641	9 190	9 469	9 749
Middledrift	7 531	7 702	7 819	7 531	7 702	7 906
Eshowe	16 308	17 155	17 523	16 308	17 155	17 795
Kwahlokohloko	12 395	13 157	13 556	12 395	13 157	13 722
Gingindlovu	293	307	314	293	307	314
Mtunzini	871	920	941	871	920	949
Melmoth	4 139	4 411	4 538	4 139	4 411	4 580
Nkandla	8 292	8 438	8 549	8 292	8 438	8 731
Totals Water Supply Schemes	**79 817**	**83 903**	**85 951**	**79 817**	**83 903**	**86 969**

The percentage distribution of residential LoSs per WSS are given in **Table 3-12** below. This information will inform the water requirement scenario projection calculations.

Table 3-12: Percentage Distribution of Household Level of Services per Water Supply Scheme 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	
Esikhaweni East	9	1	4	44	19	11	0	**88**	1	1	10	12	**100**
Esikhaweni West	2	0	9	62	9	4	0	**86**	4	5	5	14	**100**
Richards Bay	13	8	1	18	18	36	1	**95**	1	0	4	5	**100**
Empangeni	16	3	0	17	19	41	2	**98**	0	0	2	2	**100**
Ngwelezane	4	1	1	46	24	12	0	**88**	0	0	12	12	**100**
Nseleni/Mhlana	5	1	6	50	13	3	0	**78**	3	4	15	22	**100**
Meer En See	24	15	0	13	10	34	3	**99**	0	0	1	1	**100**
Felixton	3	3	3	37	19	26	3	**94**	2	0	4	6	**100**
City of uMhlathuze LM	**8**	**2**	**4**	**40**	**17**	**15**	**1**	**87**	**2**	**2**	**9**	**13**	**100**
KwaMbonambi	13	1	4	41	19	4	0	**82**	6	5	7	18	**100**
Nkandla	8	1	5	20	9	3	0	**46**	19	4	31	54	**100**
Melmoth	5	2	2	38	14	7	0	**68**	17	7	8	32	**100**
Mthonjaneni	5	1	16	7	2	0	0	**31**	48	10	11	69	**100**
Eshowe	5	2	8	39	14	7	0	**75**	11	8	6	25	**100**

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	
Gingindlovu	11	6	1	21	40	14	1	**94**	0	2	4	6	**100**
Mtunzini	9	11	2	26	19	22	3	**92**	0	2	6	8	**100**
Kwahlokohloko	8	1	21	26	5	2	0	**63**	22	9	6	37	**100**
Middledrift	3	1	13	14	4	2	0	**37**	41	12	10	63	**100**
Broader Study Area	**6**	**1**	**12**	**27**	**9**	**4**	**0**	**59**	**22**	**8**	**11**	**41**	**100**
TOTAL STUDY AREA	**7**	**2**	**7**	**36**	**14**	**10**	**0**	**76**	**10**	**4**	**10**	**24**	**100**

Source: StatsSA Census 2001, Census 2011, Community Survey 2016, and Kayamand Calculations

4 GROWTH SCENARIOS AND PROJECTED POPULATION

This section 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 WSS within the Study Area, which are characterised by their unique attributes and circumstances. Based on information obtained from the LMs, each WSS have a specific growth forecast, which determines the pace and rate of development as well as the related population growth. The modelling process focused on the growth of population (or individuals), as well as on the growth of households per WSS for both the realistic and high growth scenarios.

4.1 Population Growth Scenarios

Two (2) population growth scenarios were developed, namely a realistic growth and a high growth scenario. Historical evidence shows that the smaller settlements in the surrounding LMs are not growing at the same rate as larger towns such as Richards Bay within the City of uMhlathuze LM. Past Demographic Studies typically required low and high population growth scenarios to be developed. As explained in **Section 1.4.5**, the approach taken in this study was to develop a realistic and a high population projection scenario.

Furthermore, each WSS have various varying factors that affect each WSS's individual characteristics. The following demographic development determinants were taken into account:

- Migration;
- Mortality;
- Fertility, and
- HIV/AIDS.

There are indications that there is significant migration of people from rural communities in search of the perceived job opportunities in urban centres. These people settle within low income settlements in and around these urban centres. This trend is evident in rural Nkandla, Middledrift and Mthonjaneni signalling declines in population growth rates, and in some cases negative growth. A decline in agriculture as a source of living has left many working age-group adults with fewer options in the rural communities, resulting in them choosing to migrate to nearby settlements surrounding major towns such as Esikhaweni east or west. These trends place enormous pressure on the 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 entail for future population distribution and resource requirements (e.g. for water, sanitation, etc.).

The City of uMhlathuze LM is experiencing rapid population growth as a result of migration into the area in search of better a better life and job opportunities. Future population projections should therefore also take internal migration into consideration, which will ultimately influence population figures in the various areas within the LMs due to the local population's inherent internal migration dynamics. 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% amongst 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 and an estimated 18,0% of people aged between 15 to 49 years 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-mentioned demographic trends influencing population growth have been taken into account for both the realistic and high growth scenarios designed for the City of uMhlathuze LM and the other five (5) LMs within the Broader Study Area.

4.2 Projected Population Forecasts

The projected population growth forecasts depicts population growth within each one of the WSSs supply areas, within the Study Area, over a slightly more than 20-year period. This was arrived at after careful consideration of factors listed above (see **Section 4.1**) within each one of the WSSs. The WSSs within the City of uMhlathuze LM are detailed on, followed by the results from the higher level analysis for the other small towns and surrounding rural communities within the Broader Study Area.

4.2.1 Population Projections for the City of uMhlathuze Local Municipality

The projected population figures for each of the WSSs until 2040 for the realistic and high growth scenarios are given respectively in **Tables 4-1** and **4-2** below.

The average growth per five (5) year interval, from 2010 to 2040, for all the WSSs within the City uMhlathuze LM is an approximate 40,000 to 50,000 additional people per five (5) year interval for the realistic and high population growth scenarios respectively. The combined population within all of the WSSs supply areas, within the City of uMhlathuze LM, is projected to increase from a base of 351,260 people in 2016 to 547,130 people for the realistic population growth scenario, and to 592,740 people for the high growth population scenario, in 2040.

Table 4-1: Projected Population Figures for the Water Supply Schemes from 2016 to 2040 for the Realistic Growth Scenario

Water Supply Scheme	Population Figures						
	2016	2018	2020	2025	2030	2035	2040
Richards Bay	47 940	50 482	53 131	60 265	68 230	77 105	86 977
Meer En See	9 732	9 888	10 038	10 405	10 604	10 604	10 604
Empangeni	24 181	25 512	26 902	30 638	34 804	39 436	44 574
Felixton	1 099	1 128	1 155	1 217	1 283	1 352	1 426
Esikhaweni East	126 444	130 419	134 437	144 814	155 761	167 293	179 424
Esikhaweni West	38 119	40 694	43 164	49 292	55 558	61 882	68 195
Ngwelezane	61 245	64 025	66 638	72 919	79 083	85 079	90 868
Nseleni	42 500	44 585	46 552	51 305	56 002	60 599	65 062
Total	**351 260**	**366 734**	**382 017**	**420 856**	**461 323**	**503 350**	**547 130**

Table 4-2: Projected Population Figures for the Water Supply Schemes from 2016 to 2040 for the Higher Growth Scenario

Water Supply Scheme	Population Figures						
	2016	2018	2020	2025	2030	2035	2040
Richards Bay	47 940	50 508	53 213	60 628	69 076	78 701	89 667
Meer En See	9 732	9 888	10 046	10 439	10 661	10 729	10 750
Empangeni	24 181	25 526	26 945	30 829	35 249	40 276	45 990
Felixton	1 099	1 131	1 164	1 247	1 335	1 430	1 532
Esikhaweni East	126 444	130 460	134 603	145 547	157 319	169 978	183 585
Esikhaweni West	38 119	40 985	44 067	52 355	61 676	72 074	83 580
Ngwelezane	61 245	64 338	67 586	75 981	84 924	94 608	105 058
Nseleni	42 500	44 820	47 267	53 386	59 683	66 099	72 579
Total	**351 260**	**367 656**	**384 893**	**430 411**	**479 924**	**533 895**	**592 740**

The projected average population growth within each of the WSSs supply areas for the realistic and high growth scenarios are given in **Tables 4-3** and **4-4** below. The realistic population growth per urban and rural WSS within the City of uMhlathuze LM are shown in **Figures 4-1** and **4-2**.

The realistic population growth scenario assumes the current prevailing economic fundamentals would continue into the medium to long-term, and that there would not be a major shift in the economy of KZN. The decline in agriculture, as a source of subsistence living, is expected to impact on the population growth rate, due to in-migration of low income earners, settling within Esikhaweni East, Ngwelezane as well as on the outskirts of Empangeni.

Table 4-3: Projected Population Growth Rates per Water Supply Scheme from 2016 to 2040 for the Realistic Growth Scenario

Water Supply Scheme	Population Growth Rates						
	2016-2018	2018-2020	2020-2025	2025-2030	2030-2035	2035-2040	2016-2040
Richards Bay	2.62%	2.59%	2.55%	2.51%	2.48%	2.44%	2.51%
Meer En See	0.80%	0.76%	0.72%	0.38%	0.00%	0.00%	0.36%
Empangeni	2.72%	2.69%	2.63%	2.58%	2.53%	2.48%	2.58%
Felixton	1.31%	1.18%	1.06%	1.06%	1.06%	1.06%	1.09%
Esikhaweni East	1.56%	1.53%	1.50%	1.47%	1.44%	1.41%	1.47%
Esikhaweni West	3.32%	2.99%	2.69%	2.42%	2.18%	1.96%	2.45%
Ngwelezane	2.24%	2.02%	1.82%	1.64%	1.47%	1.33%	1.66%
Nseleni	2.42%	2.18%	1.96%	1.77%	1.59%	1.43%	1.79%

Table 4-4: Projected Population Growth Rates per Water Supply Scheme from 2016 to 2040 for the High Growth Scenario

Water Supply Scheme	Population Growth Rates						
	2016-2018	2018-2020	2020-2025	2025-2030	2030-2035	2035-2040	2016-2040
Richards Bay	2.64%	2.64%	2.64%	2.64%	2.64%	2.64%	2.64%
Meer En See	0.80%	0.80%	0.77%	0.42%	0.13%	0.04%	0.42%
Empangeni	2.74%	2.74%	2.73%	2.72%	2.70%	2.69%	2.71%
Felixton	1.45%	1.45%	1.38%	1.38%	1.38%	1.38%	1.39%
Esikhaweni East	1.58%	1.58%	1.58%	1.57%	1.56%	1.55%	1.57%
Esikhaweni West	3.69%	3.69%	3.51%	3.33%	3.16%	3.01%	3.33%
Ngwelezane	2.49%	2.49%	2.37%	2.25%	2.18%	2.12%	2.27%
Nseleni	2.69%	2.69%	2.46%	2.26%	2.06%	1.89%	2.25%

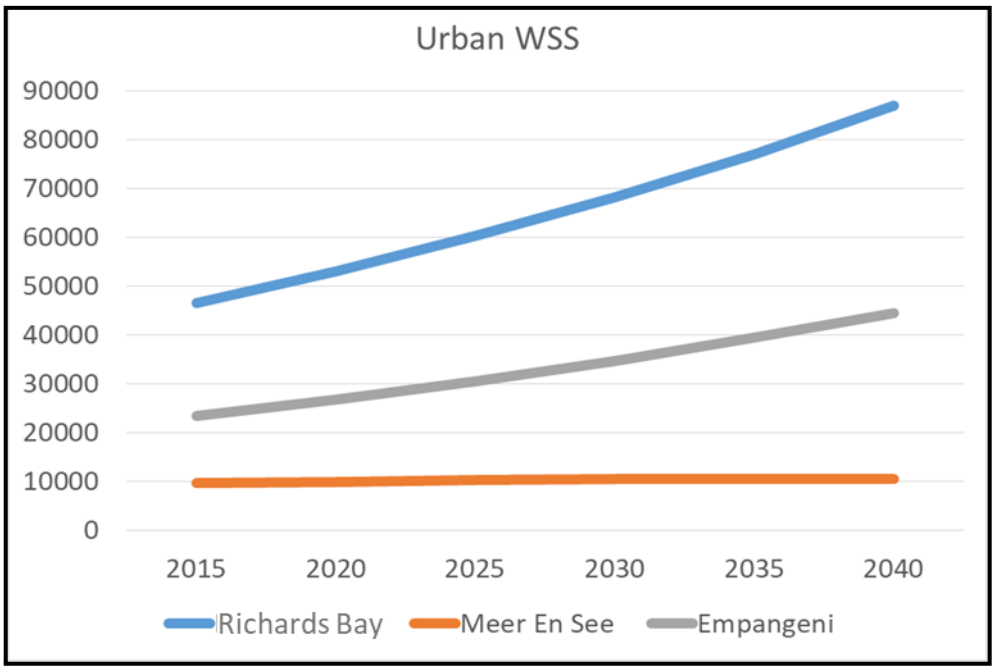

Figure 4-1: Projected Population Growth per Urban WSS within the City of uMhlathuze LM for the Realistic Growth Scenario

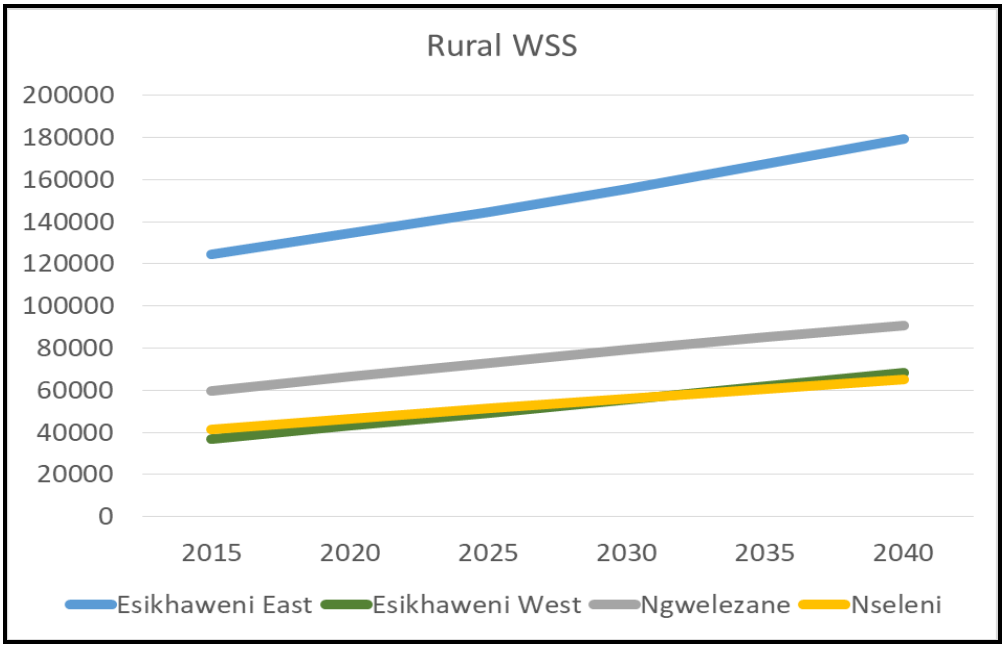

Figure 4-2: Projected Population Growth per Rural WSS within the City of uMhlathuze LM for the Realistic Growth Scenario

4.2.2 Household Projections for the City of uMhlathuze Local Municipality

The projected number of households for the both the realistic and high population growth scenarios for the City of uMhlathuze LM are given in **Tables 4-2** and **4-6** below.

Table 4-5: Projected Number of Households per Water Supply Scheme for the Realistic Population Growth Scenario

Water Supply Scheme	Number of Households						
	2016	2018	2020	2025	2030	2035	2040
Richards Bay	12 804	13 551	14 406	16 506	18 876	21 547	24 551
Meer En See	3 365	3 436	3 506	3 652	3 741	3 760	3 779
Empangeni	7 308	7 749	8 253	9 495	10 894	12 469	14 236
Felixton	442	456	467	492	518	546	576
Esikhaweni East	30 696	31 820	33 300	36 416	39 766	43 360	47 213
Esikhaweni West	9 615	10 316	11 053	12 750	14 515	16 331	18 179
Ngwelezane	16 603	17 443	18 339	20 270	22 205	24 130	26 033
Nseleni	12 230	12 895	13 599	15 139	16 692	18 245	19 786
Total	**93 063**	**97 666**	**102 923**	**114 720**	**127 207**	**140 388**	**154 353**

Table 4-6: Projected Number of Households per Water Supply Scheme for the High Population Growth Scenario

Water Supply Scheme	Number of Households						
	2016	2018	2020	2025	2030	2035	2040
Richards Bay	12 804	13 558	14 428	16 655	19 226	22 194	25 619
Meer En See	3 365	3 436	3 509	3 664	3 761	3 804	3 831
Empangeni	7 308	7 753	8 267	9 554	11 034	12 735	14 688
Felixton	442	457	470	504	540	578	619

Water Supply Scheme	Number of Households						
	2016	2018	2020	2025	2030	2035	2040
Esikhaweni East	30 696	31 830	33 341	36 787	40 574	44 734	49 301
Esikhaweni West	9 615	10 390	11 284	13 583	16 212	19 195	22 552
Ngwelezane	16 603	17 529	18 600	21 121	23 846	26 833	30 098
Nseleni	12 230	12 962	13 808	15 753	17 789	19 901	22 072
Total	**93 063**	**97 915**	**103 707**	**117 621**	**132 982**	**149 974**	**168 780**

4.2.3 Population and Household Estimates for the Broader Study Area

The population projections for the smaller towns and Settlements within their respective WSSs, which are located outside of the City of uMhlathuze LM, are given in **Tables 4-7** and **4-8** below.

Table 4-7: Projected Population Figures for the Realistic Population Growth Scenario within the Broader Study Area

Area/Town	Population Figures						
	2016	2018	2020	2025	2030	2035	2040
Other Towns in the Broader Study Area							
Eshowe Town	9 386	9 593	9 804	10 353	10 933	11 546	12 192
Gingindlovu Town	1 153	1 171	1 189	1 236	1 284	1 335	1 387
Mtunzini Town	2 266	2 307	2 349	2 456	2 568	2 686	2 808
Melmoth Town	8 252	8 434	8 620	9 102	9 612	10 151	10 719
Amatikulu Town	536	545	553	576	600	624	650
Totals Towns	**21 593**	**22 050**	**22 515**	**23 723**	**24 997**	**26 342**	**27 756**
WSS in the Broader Study Area							
KwaMbonambi	47 778	49 094	50 392	53 650	56 976	60 365	63 807
Nseleni/Mhlana	60 210	61 538	62 868	66 249	69 740	73 339	77 047
Mthonjaneni	56 294	56 743	57 186	58 288	59 388	60 486	61 582
Middledrift	39 536	39 733	39 926	40 405	40 879	41 350	41 816
Eshowe	73 450	74 618	75 785	78 736	81 755	84 842	87 998
Kwahlokohloko	74 479	75 971	77 463	81 242	85 126	89 111	93 199
Gingindlovu	1 153	1 171	1 189	1 236	1 284	1 335	1 387
Mtunzini	2 266	2 307	2 349	2 456	2 568	2 686	2 808
Melmoth	16 408	16 761	17 119	18 037	18 996	19 996	21 039
Nkandla	42 174	42 299	42 422	42 726	43 025	43 320	43 612
Totals WSS	**413 748**	**420 235**	**426 699**	**443 025**	**459 737**	**476 830**	**494 295**

Table 4-8: Projected Population Figures for the High Population Growth Scenario within the Broader Study Area

Area/Town	Population Figures						
	2016	2018	2020	2025	2030	2035	2040
Other Towns in the Broader Study Area							
Eshowe town	9 386	9 622	9 864	10 496	11 169	11 885	12 646
Gingindlovu town	1 153	1 172	1 190	1 239	1 289	1 341	1 396
Mtunzini town	2 266	2 325	2 386	2 545	2 715	2 896	3 089
Melmoth town	8 252	8 451	8 655	9 187	9 752	10 351	10 987
Amatikulu	536	546	555	580	607	634	663
Total Towns	**21 593**	**22 116**	**22 650**	**24 047**	**25 532**	**27 107**	**28 781**
WSS in the Broader Study Area							
KwaMbonambi	47 778	49 121	50 502	54 053	57 774	61 671	65 745
Nseleni/Mhlana	60 210	61 664	63 153	67 034	71 153	75 504	80 097
Mthonjaneni	56 294	56 802	57 314	58 609	59 926	61 266	62 629
Middledrift	39 536	39 774	40 013	40 613	41 220	41 833	42 451
Eshowe	73 450	74 857	76 292	79 987	83 846	87 878	92 090
Kwahlokohloko	74 479	76 127	77 811	82 163	86 735	91 538	96 580
Gingindlovu	1 153	1 172	1 190	1 239	1 289	1 341	1 396
Mtunzini	2 266	2 325	2 386	2 545	2 715	2 896	3 089
Melmoth	16 408	16 879	17 363	18 634	19 995	21 455	23 018
Nkandla	42 174	42 767	43 367	44 899	46 476	48 101	49 774
Total WSS	**413 748**	**421 488**	**429 391**	**449 776**	**471 129**	**493 483**	**516 869**

For comparison purposes, the previous Reconciliation Strategy's (2016) population projections for the rural settlements within the broader Study Area, are given in **Table 4-9** below. The previous Reconciliation Strategy (2016) did, however, not include WSSs within the City of uMhlathuze LM, hence comparisons for the WSSs in the City of uMhlathuze LM are therefore not provided.

Table 4-9: Previous Reconciliation Strategy Population Projections

Water Supply Scheme	Population Figures (2016 Estimates)		
	2020	2025	2030
Mthonjaneni	133 530	144 737	155 923
Middledrift	130 249	139 453	148 390
Eshowe	96 274	104 355	112 420
Kwahlokohloko	127 358	138 048	148 717
Gingindlovu	5 958	6 521	6 982
Mtunzini	9 441	10 734	11 997
Melmoth	9 441	10 734	11 997
Nkandla	72 259	77 365	82 323
TOTALS	**584 510**	**631 947**	**678 749**

Source: Richards Bay Reconciliation Strategy June 2011

The household projections for the realistic population growth scenario for the small towns and rural settlements within WSSs that are located outside of the City of uMhlathuze LM are given in **Table 4-10** below.

Table 4-10: Projected Household Figures for the Realistic Population Growth Scenario within the Broader Study Area

Area/Town	Household Figures						
	2016	2018	2020	2025	2030	2035	2040
Other Towns in the Broader Study Area							
Eshowe town	3 330	3 421	3 514	3 729	3 958	4 200	4 458
Gingindlovu town	307	314	322	338	355	372	391
Mtunzini town	920	941	958	1 002	1 048	1 096	1 146
Melmoth town	2 861	2 939	3 003	3 171	3 349	3 537	3 735
Amatikulu	261	265	269	280	292	304	316
Total Towns	**7 679**	**7 880**	**8 066**	**8 520**	**9 002**	**9 509**	**10 046**
WSS in the Broader Study Area							
KwaMbonambi	10 742	11 093	11 560	12 494	13 471	14 490	15 549
Nseleni/Mhlana	11 602	11 977	12 680	13 847	15 105	16 460	17 920
Mthonjaneni	9 469	9 641	10 069	10 635	11 229	11 851	12 503
Middledrift	7 702	7 819	8 142	8 538	8 952	9 383	9 833
Eshowe	17 155	17 523	18 041	19 015	20 030	21 087	22 189
Kwahlokohloko	13 157	13 556	14 323	15 567	16 903	18 336	19 873
Gingindlovu	307	314	322	338	355	372	391
Mtunzini	920	941	958	1 002	1 048	1 096	1 146
Melmoth	4 411	4 538	4 694	5 013	5 354	5 717	6 103
Nkandla	8 438	8 549	8 885	9 273	9 676	10 096	10 532
Total WSS	**83 903**	**85 951**	**89 674**	**95 722**	**102 123**	**108 888**	**116 039**

The household projections for the high growth scenario for the small towns and rural settlements within WSSs that are located outside of the City of uMhlathuze LM are given in **Table 4-11**.

Table 4-11: Projected Household Figures for the High Population Growth Scenario within the Broader Study Area

Area	Household Figures						
	2016	**2018**	**2020**	**2025**	**2030**	**2035**	**2040**
Other Towns in the Broader Study Area							
Eshowe town	3 330	3 431	3 535	3 781	4 043	4 324	4 624
Gingindlovu town	307	314	322	339	356	374	394
Mtunzini town	920	949	974	1 039	1 108	1 182	1 261
Melmoth town	2 861	2 945	3 016	3 201	3 398	3 607	3 828
Amatikulu	261	265	270	282	295	309	323
Total Towns	**7 679**	**7 904**	**8 117**	**8 642**	**9 200**	**9 796**	**10 430**
WSS in the Broader Study Area							
KwaMbonambi	10 742	11 099	11 585	12 652	13 800	15 031	16 351
Nseleni/Mhlana	11 602	12 124	12 934	14 301	15 813	17 479	19 315
Mthonjaneni	9 469	9 749	10 247	10 915	11 626	12 381	13 184
Middledrift	7 702	7 906	8 285	8 760	9 261	9 791	10 350
Eshowe	17 155	17 795	18 771	20 384	22 131	24 025	26 078
Kwahlokohloko	13 157	13 722	14 610	16 070	17 671	19 427	21 351
Gingindlovu	307	314	322	339	356	374	394
Mtunzini	920	949	974	1 039	1 108	1 182	1 261
Melmoth	4 411	4 580	4 775	5 189	5 644	6 143	6 690
Nkandla	8 438	8 731	9 223	9 946	10 725	11 562	12 463
Total WSS	**83 903**	**86 969**	**91 726**	**99 595**	**108 135**	**117 395**	**127 437**

5 CONCLUSION

The Study Area transcends five (5) LMs within the King Cetshwayo DM. Detailed analysis was undertaken for the City of uMhlathuze LM, where Richards Bay and the surrounding towns are located, since this was the agreed upon demographic focus area for this Study. Whilst the population patterns and socio-economic status of the other towns and settlements were analysed on a lower level of detail than that of the areas within the City of uMhlathuze LM, it should nonetheless be noted that any significant future change to population drivers in the region will affect the entire Study Area.

The analysis of the latest socio-economic trends highlight the importance of the urban areas, especially the larger urban areas, such as Richards Bay and surrounding towns, in order to accommodate future population growth. The differences in growth between the urban towns, is directly related to people's perceptions of the potential for employment as major drawcards.

Furthermore, some of the smaller towns, which are close to the rural areas, are also utilised by those in search of employment opportunities as stepping stones into a more urban lifestyle. This is why some of these towns have experienced population increases, albeit only temporary in nature, as the population intends to move on to other towns located outside of the Study Area. The long term migration trends relating to this movement, are not yet fully understood and will only be fully understood over time, once more detailed high resolution data (e.g. from the next population StatsSA Census) becomes available.

There is a definite decline in growth rates, compared to the previously high natural population growth rates that occurred within the rural areas. The rural areas also experience large outmigration of people, mainly due to school leavers who leave the rural areas in search for better economic opportunities. However, the tribal rural areas, which are located close to the large towns, remain quite attractive and popular residential areas. This is due to the lower cost of living in these residential areas, availability of land, improved standard of living, and are located close to economic activities offered by the nearby towns. Whereas the less accessible rural areas, which are far away from economic activities have experienced a decline in population growth, and in many instances no growth at all.

In terms of future water supply, albeit that service backlogs need to be provided within the rural areas, the focus needs to be placed on future water services requirements and water resources development within the urban areas, where the largest increase in, and concentration of, the population is expected to occur.

6 RECOMMENDATIONS

The latest available and official statistics from StatsSA, the latest Eskom SBC as well as consideration of inputs from stakeholders were used for the purposes of this Study. This information was used to estimate the base population and to project future population figures. The population projections, therefore, relate to the best and most accurate estimates at this stage as the estimated projections are based on historical trends, as well as new emerging, or developing, trends that emanate from the afore-mentioned sources.

For past studies, the population projections typically required low and high population growth scenarios to be developed. For planning, however, it is sufficient to make use of a realistic and a high scenario, which have been developed as part of this task. The realistic population growth scenario provides an indication of the most likely population figure that could emerge. On the other hand the high population growth scenario provides the higher upper limit that need to be planned for.

However, demographic trends, especially relating to urbanisation, could change quite dramatically based on external forces. It is thus important that the population projections are regularly analysed, revised, and updated. It is therefore recommended that population estimates and projections are updated every three (3) to five (5) years, in order to account for changing trends, new development patterns, etc. These updates are especially necessary to be undertaken as and when new detailed data becomes available from StatsSA Censuses and other surveys.

7 REFERENCES

CoULM, 2012 City of uMhlathuze Integrated Development Plan (IDP). City of uMhlathuze Local Municipality, 2012.

CoULM, 2017a City of uMhlathuze Revision of Spatial Development Framework (SDF). City of uMhlathuze Local Municipality, 2017.

CoULM, 2017b City of uMhlathuze Draft Integrated Development Plan (IDP). City of uMhlathuze Local Municipality, 2017.

DWS, 2011 Water Requirements and Availability Reconciliation Strategy for the all towns in the Eastern Region. 2011

DWS, 2016 Water Requirements and Availability Reconciliation Strategy for the Richards Bay Reconciliation Strategy. P WMA 06/W100/00/3114/5.

HST, 2017 South African Health Review 20th edition, 2017. Health Systems Trust, 2017.

KCDM, 2017 King Cetshwayo District Municipality Integrated Development Plan (IDP) 2017/8 –2021/22. King Cetshwayo District Municipality, 2017.

NLM, 2017 Nkandla Integrated Development Plan (IDP) 2017-2022. Nkandla Local Municipality, 2017.

STATSA, 2017 Statistics SA Mid-year population estimates, 2017. Statistics South Africa, 2017

ULM, 2017 uMlalazi Integrated Development Plan (IDP) 2017-2021. uMlalazi Local Municipality, 2017.

8 DATA SOURCES AND CONSULTATIONS

8.1 Data Sources

The following data sources were consulted:

- Quantec, 2017. Regional Socio-economic and Demographic Datasets
- Statistics South Africa, 2001. “Census 2001”
- Statistics South Africa, 2011. “Census 2011”
- Statistics South Africa, 2016. “Community Survey 2016”
- Department of Water and Sanitation, 2016. Water Services Development Plan (WSDP) Database
- Department of Water and Sanitation, 2011. Water Requirements and Availability Reconciliation Strategy for the all towns in the Eastern Region
- DWS Report No P WMA 06/W100/00/3114/5, “Richards Bay Reconciliation study”, February 2016. More documents are available on the DWS internet website, with the link http://www.dwa.gov.za/Projects/RichardsBay/.
- Department of Water and Sanitation, 2016. Water Reconciliation Strategy Eshowe and Middledrift Water Supply Schemes

8.2 Municipal Consultations

A summary of the municipal officials consulted is given in **Table 8-1** below.

Table 8-1: Municipal Officials Consulted

Name and Surname	Department
Ms. Zodwa Mdluli	City of uMhlathuze LM Planning Department
Mr. Ntobeko Hlatshwayo	City of uMhlathuze LM Spatial Planning Department
Ms. Sharin Govender	City of uMhlathuze LM Environmental Planning Department
Ms. Brenda Strachan	City of uMhlathuze LM Spatial Planning Department
Ms. Bongiwe Mkhwanazi	City of uMhlathuze LM Local Economic Development

8.3 Departmental Consultations

A summary of the Departments consulted is given in **Table 8-2** below.

Table 8-2: Departments Consulted

Name and Surname	Department
Mr. Thula Biyela	Department of Human Settlements
Mr. Theuns Roux	Richards Bay Industrial Development Zone