




MSUNDUZI MUNICIPALITY

REVIEW OF THE MSUNDUZI MUNICIPAL SDF

Consolidated Final Technical Review Report

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MSUNDUZI MUNICIPALITY

**CONSOLIDATED FINAL TECHNICAL REVIEW REPORT OF THE
MSUNDUZI MUNICIPAL SDF**

TABLE OF CONTENTS

1	INTRODUCTION: THE SPATIAL DEVELOPMENT FRAMEWORK (SDF)...	7
1.1	Project Background.....	7
1.2	Project Approach	8
1.3	Role and Purpose of the SDF	9
1.4	Legislative and Policy Context.....	9
1.4.1	International Policy.....	11
1.4.1.1	<i>United Nations Partnerships for Sustainable Development Goals (SDG's) (2015: 1-13)</i>	<i>11</i>
1.4.2	National Legislation and Spatial Planning Policy	14
1.4.2.1	<i>The Municipal Systems Act No 32 of 2000</i>	<i>14</i>
1.4.2.2	<i>Spatial Planning Land Use Management Act No 16 of 2013.....</i>	<i>15</i>
1.4.2.3	<i>Development Facilitation Act (DFA) No 67 1995.....</i>	<i>18</i>
1.4.2.4	<i>The National Spatial Development Perspective (2006: 1-3)</i>	<i>19</i>
1.4.2.5	<i>The National Development Plan (2011: 2-246).....</i>	<i>21</i>
1.4.2.6	<i>The National Infrastructure Plan (2012: 6-25).....</i>	<i>22</i>
1.4.2.7	<i>National Treasury Built Environment Performance Plans Reference Guide Review 2014/15-2016/17 (2014: 1-5).....</i>	<i>25</i>
1.4.3	Provincial Spatial Planning Policy	25
1.4.3.1	<i>Kwa-Zulu Natal (KZN) Provincial Growth Development Plan (PGDP) (2013: 11-153).....</i>	<i>25</i>
1.4.3.2	<i>Kwa-Zulu Natal (KZN) Provincial Growth Development Strategy (PGDS) (2016: 85-176).....</i>	<i>27</i>
1.4.3.3	<i>Kwa-Zulu Natal (KZN) N3 Strategic Corridor Development Plan (2016:23-154).....</i>	<i>30</i>
1.4.3.4	<i>uMgungundlovu DM SDF (2014: 1-60)</i>	<i>32</i>
1.4.4	Noteworthy Municipal Plans	34
1.4.4.1	<i>Msunduzi Integrated Development Plan</i>	<i>34</i>
1.4.4.2	<i>Msunduzi City Development Strategy (CDS) (2015: 5-39)</i>	<i>36</i>
1.4.4.3	<i>Msunduzi Urban Network Strategy.....</i>	<i>39</i>
1.4.4.4	<i>Msunduzi Integrated Environmental Management Policy (IEMP).....</i>	<i>43</i>
1.4.4.5	<i>Msunduzi Environmental Management Framework (EMF) 2010.....</i>	<i>51</i>
1.4.4.6	<i>Msunduzi Climate Change Policy Inclusive of Mitigation and Adaptation Strategies (2014).</i>	<i>55</i>
2	MSUNDUZI GROWTH MODEL 2017-2021	64
2.1	Demographic Element	65
2.2	Economic Element	66
2.3	Overall Population Growth and Development Trends within a 5 Year Period (2017-2021)	68
2.3.1	Spatial Distribution of Population.....	69
2.3.2	Relevant Short Term Catalytic Projects	70

2.3.3	Population Structure	70
2.3.4	Residential Demand.....	71
3	KEY STRUCTURING ELEMENTS, DELINEATION OF THE URBAN EDGE, AREAS OUTSIDE URBAN EDGE IDENTIFIED FOR DEVELOPMENT AND ALIGNMENT THEREOF WITH THE WARD 39 SPATIAL INFORMANTS AND GUIDELINES.....	73
3.1	Spatial Structuring Elements	74
3.1.1	Hubs and Urban Centres	74
3.1.2	Corridors.....	75
3.1.3	Settlement Patterns	76
3.1.4	Restrictive Conditions (Environmental/Topographical/Geotechnical).....	76
3.1.5	Environment/Open Spaces (Active/Passive)	77
3.1.6	Urban Edge	77
3.1.7	Areas outside Urban Edge Identified For Development.....	77
3.1.8	Mixed-Use Developments Aesthetic Environment (Visual Form/Heritage Special Features).....	77
3.2	Delineating the “Urban Edge” for the Msunduzi Municipality	77
3.2.1	Theoretical Framework	77
3.2.2	KZN COGTA Guidelines for the Delineation of Urban Edges (2009: 8-10).....	81
3.2.2.1	<i>Guidelines for defining where development should not go</i>	<i>82</i>
3.2.3	Urban Edge Delineation Informants within the Msunduzi Municipality	83
3.2.3.1	<i>Natural Environment.....</i>	<i>83</i>
3.2.3.2	<i>Cultural Heritage.....</i>	<i>90</i>
3.2.3.3	<i>Bulk Infrastructure</i>	<i>92</i>
3.2.3.4	<i>Higher Order Roads, Access Routes and Transport Infrastructure</i>	<i>95</i>
3.2.3.5	<i>Broad Municipal Land Use</i>	<i>100</i>
3.2.3.6	<i>Housing.....</i>	<i>105</i>
3.2.3.7	<i>Noteworthy Catalytic Projects.....</i>	<i>107</i>
3.2.3.8	<i>Areas outside Urban Edge Identified For Development.....</i>	<i>107</i>
3.3	Demarcation of New Msunduzi Municipal Boundary (2016) and the associated Implications Thereof.....	107
3.3.1	Natural Environment	108
3.3.2	Broad Based Community Needs	109
3.3.3	Housing Projects	110
3.3.4	Nodes	110
3.3.5	Transportation Corridors.....	111
3.4	Implications for the Msunduzi Municipality’s Urban Edge.....	111
3.4.1	Spatial Representation of SDF	112

4	SDF IMPLEMENTATION AND CAPITAL EXPENDITURE FRAMEWORK (CEF).....	114
4.1	Legislative Requirements and Purpose of Capital Investment Framework (CIF) ..	114
4.1.1	Municipal Systems Act (MSA) No 32 of 2000	114
4.1.2	Spatial Planning Land Use Management Act (SPLUMA) No 16 of 2013	115
4.1.3	Purpose of Capital Investment Framework (CIF).....	116
4.1.4	Linking the Town Planning Schemes to the Msunduzi SDF	118
4.2	Spatial Guiding Principles.....	120
4.3	Msunduzi Prioritisation Model.....	121
4.4	Monitoring and Evaluation	122
4.5	Capital Expenditure Framework	124
4.5.1	Historic capital budget allocations and expenditure	124
4.5.1.1	<i>Current and Planned Borrowing</i>	<i>124</i>
4.6	Capital Budget Summary	125
4.6.1	Capital Allocations and Expenditure.....	125
4.6.2	Capital budget sources	126
4.6.3	Service Delivery	127
4.7	Consolidated Budget Overview of the Medium Term Revenue and Expenditure Framework (MTREF)	128
4.7.1	Operation and Maintenance of Infrastructure.....	129
4.7.2	Strategic Priorities for the Msunduzi Municipality.....	130
4.7.3	Medium Term Capital Budget per Vote	136
4.8	Spatial Planning Priorities and Budget Alignment Processes.....	137
4.8.1	Strategic Level Assessment	137
4.8.1.1	<i>Defining the Region</i>	<i>137</i>
4.8.1.2	<i>Analysis of the settlement pattern and broad Categorisation.....</i>	<i>140</i>
4.8.1.3	<i>Servicing Levels through CSIR Guidelines For "Large cities/small metros"</i>	<i>143</i>
4.8.1.4	<i>Educational Facilities.....</i>	<i>145</i>
4.8.1.5	<i>Health Facilities</i>	<i>145</i>
4.8.1.6	<i>Libraries, Police Stations and Community Halls.....</i>	<i>146</i>
3.1.8.6	<i>Overall Analysis of servicing Capacities of the Municipality.....</i>	<i>147</i>
4.8.2	Community Level-Developing and Budgeting	148
4.8.2.1	<i>Broad Municipal Needs Analysis as Per IDP</i>	<i>148</i>
4.8.3	Local Economic Development (LED) Strategy and Priorities	150
4.8.3.1	<i>Goals</i>	<i>150</i>
4.8.3.2	<i>Implementation Plan.....</i>	<i>151</i>
4.8.3.3	<i>Financial Plan</i>	<i>161</i>
4.8.3.4	<i>Institutional Plan</i>	<i>170</i>
4.8.4	Current Projects and Spatial Analysis of the Budget as Per 2017-2022 IDP Review.....	178
4.8.4.1	<i>Transportation, Roads, Bridges and Storm Water Projects</i>	<i>178</i>

4.8.4.2	<i>Water and Sanitation Projects</i>	179
4.8.4.3	<i>Civic and Social Projects</i>	180
4.8.4.4	<i>Integrated Waste Management</i>	181
4.8.5	Analysis of Future Strategic Projects and Budgets Identified as Per LAP's	183
4.8.5.1	<i>Infrastructure</i>	183
4.8.5.2	<i>Transport</i>	184
4.8.5.3	<i>Housing</i>	185
4.8.5.4	<i>Civic and Social/Strategic Projects</i>	186
4.8.6	Location of Public and Private Investment	187
4.8.7	Infrastructural Analysis and Sector Projects	191
4.8.7.1	<i>Human Settlements</i>	191
4.8.7.2	<i>Electricity</i>	196
4.8.7.3	<i>Water</i>	200
4.8.7.4	<i>Sanitation</i>	205
4.8.7.5	<i>Integrated Waste Management (Refuse Removal)</i>	207
4.8.7.6	<i>Roads and Transportation</i>	213
4.8.8	Msunduzi Catalytic Projects	215
4.8.9	Msunduzi Priority Projects	216
4.9	Way forward	216
5	CONCLUSION	217
6	ANNEXURES	218
7	REFERENCES	218
8	LIST OF FIGURES AND TABLES	220
8.1	Figures	220
8.2	Tables	223

MSUNDUZI MUNICIPALITY

CONSOLIDATED FINAL TECHNICAL REVIEW OF REPORT OF THE MSUNDUZI MUNICIPAL SDF

1 INTRODUCTION: THE SPATIAL DEVELOPMENT FRAMEWORK (SDF)

Future orientated planning begins with an understanding of the way things are currently with regard to a place, the people and the social, economic and environmental forces which shape development within each municipality.

Cities are constantly changing and the associated growth thereof, coupled with development pressures is inevitable. Consequently, the Msunduzi Municipality requires a strategic document with forethought which can guide and manage public and private development to ensure the best possible outcome for its inhabitants. Such outcomes include the protection and enhancement of the city's key economic, social and environmental resources and subsequently the extension of these to all citizens.

The overall intention of the Msunduzi Spatial Development Framework (SDF) is to guide and manage urban growth, and to balance competing land use demands, by putting in place long term mechanisms that enable a coherent development trajectory which will inherently shape the spatial form and structure of the municipality as a whole. In the context of the municipality's drive towards attaining metropolitan status coupled with climate change and resource depletion issues, the future growth path needs to underline the importance of sustainable future development. Therefore, the proposed development path must be flexible and adaptive, and cognisant of the unpredictable economic, environmental and social forces which in turn make it difficult to accurately determine how fast the municipality will grow.

1.1 Project Background

The multi-disciplinary project team of SiVEST SA (PTY) LTD was appointed by the Msunduzi Municipality to review the current 2015 SDF pursuant to an evaluation of same carried out by the Kwa-Zulu Natal (KZN) Co-operative Governance and Traditional Affairs (COGTA).

Such an evaluation, based on the pre-determined assessment criteria, revealed the areas where the current SDF required improvement and updating, in accordance with the recommendations provided by COGTA. In light of the Municipality intending to undertake a new SDF process, early in 2018, it intends as part of this review to limit the focus to the following items:-

CONSOLIDATED TECHNICAL SDF REVIEW REPORT FOR THE MSUNDUZI MUNICIPALITY

Project **MSUNDUZI MUNICIPAL SDF REVIEW**

Project No. **14376**

Revision No. **3**

Date: **November 2017**

- Compliance and alignment with the Municipal Systems Act No 32 of 2000 and Spatial Planning and Land Use Management Act No 16 of 2013 alignment;
- The inclusion of Strategic Infrastructural Projects (SIP'S) within the SDF;
- The delineation of the urban edge; and
- Comprehensive capital investment framework.

In having set out the above, at a meeting with COGTA representatives, it was noted that whilst it is the municipality's intention to limit the scope of work to the above listed items, given the integrated nature of the SDF, other sections of the SDF will inadvertently need to be updated, albeit not at the level envisaged for the above listed items. These include for example, GIS mapping, IDP, SDF, CDS, SPLUMA, PGDS alignment, Airport Precinct and IUDF.

The intended goal of the project is to review the SDF in a manner consistent with the requirements and guidelines advanced by COGTA, whilst rationalising and consolidating key areas of concern. Furthermore, the intended outcome is to improve the current score of 68% that the Municipality has attained, with the view of setting the preconditions for the next SDF Review, which is intended to commence in 2018.

1.2 Project Approach

The project approach/methodology responsible for bringing the SDF Review to fruition was established in conjunction with the Msunduzi Municipality and COGTA. The approach was based on adopted processes from COGTA and Rural Development SDF Guidelines whilst bearing in mind the inherent gaps within the current SDF. The approach may be diagrammatically represented as follows:

Figure 1: Project Methodology



CONSOLIDATED TECHNICAL SDF REVIEW REPORT FOR THE MSUNDUZI MUNICIPALITY

Project **MSUNDUZI MUNICIPAL SDF REVIEW**

Project No. **14376**

Revision No. **3**

Date: **November 2017**

1.3 Role and Purpose of the SDF

The SDF is the overarching spatial response to the development context, needs and development vision of the Msunduzi Municipality. The SDF, a legislative requirement, is a key land use management tool at a strategic level that is pivotal in guiding and managing municipal decisions relating to the use, development and planning of land which should ordinarily resonate with the national and provincial spatial development priorities.

The SDF is also a transformation tool, specifically focused on spatial restructuring as it acts as a development framework which guides the location of future development in a manner that addresses the imbalances of the past. Saliently, the SDF plays the following role within the jurisdiction of the municipality, namely:

- a) It provides visual representation of the desired urban form;
- b) It provides strategic guidance on the location and nature of development;
- c) It sets out basic guidelines for land use management;
- d) It intends to discourage low-density urban sprawl;
- e) It facilitates effective use of scarce land resources;
- f) It facilitates decision making with regards to the location of service delivery projects;
- g) It guides public and private sector investment;
- h) It strengthens democracy, inclusivity and spatial transformation;
- i) It promotes intergovernmental coordination on spatial issues;
- j) It serves as a framework for the development of lower order plans and a detailed scheme which is the basis for various Land Use Management Systems;
- k) It guides and informs the spatial location of municipal infrastructure investment and spatial priorities; and
- l) Maximizes resource efficiency by: (1) protecting sensitive environments, (2) protecting productive agricultural land and (3) enhancing the regional identity and character of each municipality.

Ultimately, the SDF and accompanying package of plans, defines and facilitates a progressive move towards the attainment of an agreed upon desired spatial form within the municipality aligned with its intention to acquire Metropolitan Status.

1.4 Legislative and Policy Context

The SDF is guided by, amongst others, the following policies and legislation:

- United Nations Partnerships for Sustainable Development Goals of 2015;

CONSOLIDATED TECHNICAL SDF REVIEW REPORT FOR THE MSUNDUZI MUNICIPALITY

Project MSUNDUZI MUNICIPAL SDF REVIEW

Project No. 14376

Revision No. 3

Date: November 2017

- The regulations promulgated in terms of the Municipal Systems Act (MSA) No 32 of 2000;
- The Spatial Land Use Management Act (SPLUMA) No 16 of 2013;
- The National Spatial Development Perspective (NSDP) of 2006 and the National Development Plan (NDP) of 2011;
- National Infrastructure Plan of 2012;
- The Built Environment Performance Plans (BEPPs) Guidance Note 2015/16-2017/18;
- The Provincial Growth and Development Plan (PGDP) of 2013;
- Provincial Spatial Economic Development Strategy (PSEDS) of 2016;
- Kwa-Zulu Natal N3 Strategic Corridor Development Plan of 2013;
- The uMgungundlovu District SDF of 2014;
- The Msunduzi Integrated Development Plan (IDP) of 2015/2016 and 2017/2022;
- The Msunduzi City Development Strategy (CDS) of 2015;
- The Urban Network Strategy of 2013;
- The Msunduzi Integrated Environmental Management Policy (IEMP);
- The Msunduzi Environmental Management Framework (EMF) of 2010; and
- The Msunduzi Climate Change Policy of 2014.

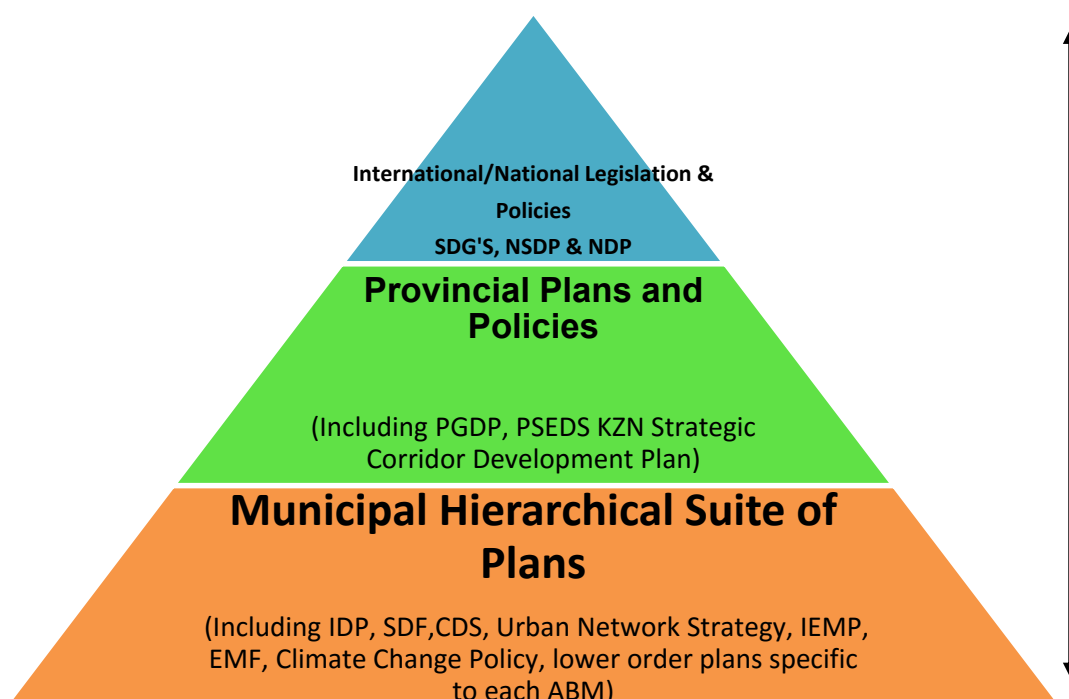
The aforementioned policies and legislative frameworks are hierarchical in nature and govern development on an international, national, provincial and municipal level. The formulation of SDF's is legally prescribed by the Municipal Systems Act No 32 of 2000 and the Spatial Planning and Land Use Management Act No 16 of 2013 which give cause and effect to development proceedings within each municipality.

At an international/national level, the United Nations Partnerships for Sustainable Development Goals, NSDP and the NDP are plans which serve as the overall development frameworks that ultimately act as guidelines to inform development at a provincial and municipal level.

Furthermore, at a provincial level, the PGDP and PSEDS are the overarching development plans within the Kwa-Zulu Natal Province from which the Msunduzi Integrated Development Plan (IDP) draws its development trajectory from. The uMgungundlovu District SDF spatially packages the regional development goals of the PGDP and PSEDS for the uMgungundlovu District Municipality.

Therefore, the Msunduzi SDF is an outcome the aforementioned policies and presents a coherent guiding framework towards resource and investment allocation whilst being cognisant of the Msunduzi Municipality's ambitions towards attaining metro status. Diagrammatically, these hierarchical plans may be illustrated as follows:

Figure 2: Hierarchy of Development Policy and Legislative Framework



The applicable policy and legislative context may be summarised as follows:

1.4.1 **International Policy**

1.4.1.1 **United Nations Partnerships for Sustainable Development Goals (SDG's) (2015: 1-13)**

The United Nations Sustainable Development Summit for the adoption of the Agenda 2030 and the Sustainable Development Goals (SDGs) was held over three days in New York, 25-27 September 2015 (UN 2015: 1).

In anticipation of the Summit, the UN Secretariat, through its Division for Sustainable Development of the Department of Economic and Social Affairs (DESA-DSD), established the Partnerships for SDGs which is an online platform to catalyse partnerships and engagement in support of sustainable development goals (ibid). Currently, such a platform contains some 1800 institutional partnerships and initiatives aligned to the promotion of SDGs through the establishment of over 40 strategies and projects specifically tasked with achieving the outcomes of global sustainable development (ibid).

SDGs, also referred to as "*Global Goals*", build on the bedrock of Millennium Development Goals (MDGs) and are tasked to go further in regards to ending all forms

of poverty. It is noteworthy that SDGs are unique in that they call for action by all countries, poor, rich and middle-income to promote prosperity while protecting the planet over a 15 year time horizon. In this regard, SDGs are cognizant of the fact that ending poverty must go hand-in-hand with strategies that build economic growth and addresses a range of social needs including education, health, social protection, and job opportunities, whilst also addressing the implications of climate change and protecting the environment (UN nd).

Whilst it is noteworthy that SDGs are not legally binding, it is recommended that all governments take ownership and establish national frameworks for the achievement of the 17 Goals emphasized therein (ibid). In this regard the UN (2015: 3-13) saliently captures the 17 Goals as follows:

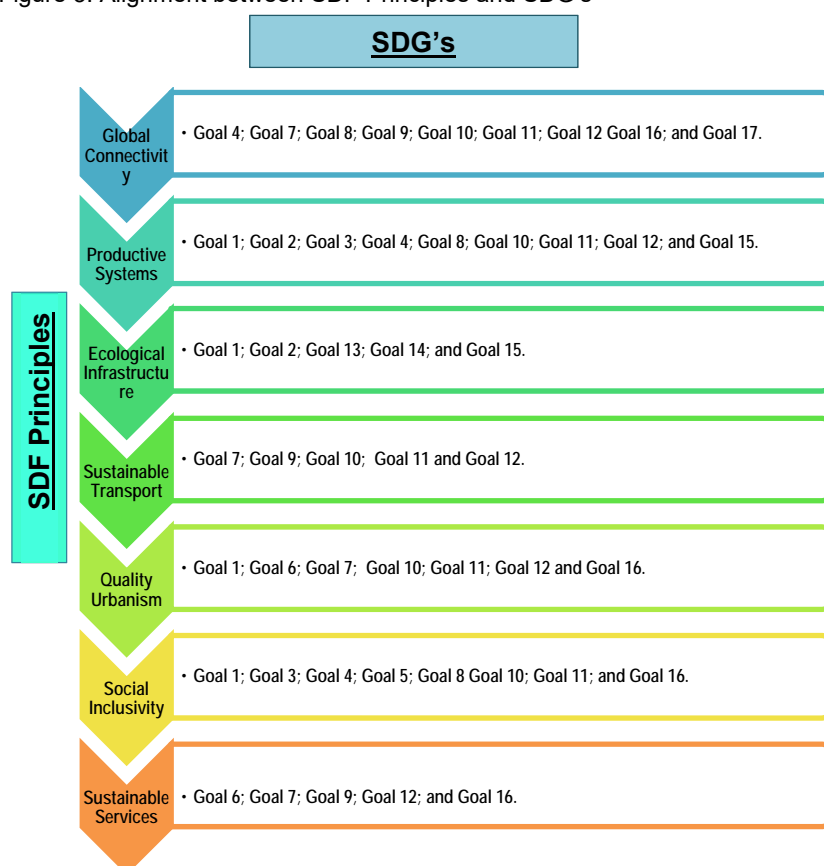
- **Goal 1:** *“End poverty in all its forms everywhere.”*
- **Goal 2:** *“End hunger, achieve food security and improved nutrition and promote sustainable agriculture.”*
- **Goal 3:** *“Ensure healthy lives and promote well-being for all at all ages.”*
- **Goal 4:** *“Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.”*
- **Goal 5:** *“Achieve gender equality and empower all women and girls.”*
- **Goal 6:** *“Ensure availability and sustainable management of water and sanitation for all.”*
- **Goal 7:** *“Ensure access to affordable, reliable, sustainable and modern energy for all.”*
- **Goal 8:** *“Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.”*
- **Goal 9:** *“Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.”*
- **Goal 10:** *“Reduce inequality within and among countries.”*
- **Goal 11:** *“Make cities and human settlements inclusive, safe, resilient and sustainable.”*
- **Goal 12:** *“Ensure sustainable consumption and production patterns.”*
- **Goal 13:** *“Take urgent action to combat climate change and its impacts.”*
- **Goal 14:** *“Conserve and sustainably use the oceans, seas and marine resources for sustainable development.”*
- **Goal 15:** *“Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.”*
- **Goal 16:** *“Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels.”*

- **Goal 17:** “Strengthen the means of implementation and revitalize the global partnership for sustainable development.”

1.4.1.1.1 UN SDG’s Implications for the SDF

- Whilst it is accepted that the SDGs are not a legal requirement for governments and consequently, the Msunduzi Municipality, they provide a useful development framework in so far as the commitment towards tackling key global and municipal specific development issues which may be achieved through the extension of holistic participatory practices comprising of Non-Government Organisations (NGO’s), private sector organisations, marginalised groups and other forms of institutional frameworks; and
- The Msunduzi Municipality’s SDF through its advanced development principles and key structuring elements is also indicative of the municipality’s commitment towards equity development, effective resource allocation and the protection of the natural environmental;
- The Msunduzi Municipal SDF principles are diagrammatically aligned to the SDG’s as follows:

Figure 3: Alignment between SDF Principles and SDG’s



CONSOLIDATED TECHNICAL SDF REVIEW REPORT FOR THE MSUNDUZI MUNICIPALITY

Project MSUNDUZI MUNICIPAL SDF REVIEW

Project No. 14376

Revision No. 3

Date: November 2017

1.4.2 **National Legislation and Spatial Planning Policy**

1.4.2.1 **The Municipal Systems Act No 32 of 2000**

Section 26 of the MSA No 32 of 2000 prescribes that an IDP must reflect:-

- a) the municipal council's vision for the long term development of the municipality with special emphasis on the municipality's most critical development and internal transformation needs;
- b) an assessment of the existing level of development in the municipality, which must include an identification of communities which do not have access to basic municipal services;
- c) the council's development priorities and objectives for its elected term, including its local economic development aims and its internal transformation needs;
- d) the council's development strategies which must be aligned with any national or provincial sectoral plans and planning requirements binding on the municipality in terms of legislation;
- e) a spatial development framework which must include the provision of basic guidelines for a land use management system for the municipality;
- f) the council's operational strategies;
- g) applicable disaster management plans;
- h) a financial plan, which must include a budget projection for at least the next three years; and
- i) the key performance indicators and performance targets determined in terms of Section 41 of this act.

1.4.2.1.1 **MSA Implications for the SDF**

- a) The Msunduzi has duly aligned itself to the legal requirements advanced by the act and has established its IDP which envisions that the municipality by 2030 will be a *"city of choice, second to none"* (Msunduzi Municipal IDP Review 2015/17: 22) thus identifying various spatial and non-spatial mechanisms to bring its vision to fruition;
- b) The IDP acts as an overarching policy framework within the municipality and covers a myriad of elements or developmental informants such as:
 - the municipalities development priorities and objections;
 - analysis of development progress and challenges;
 - disaster risk management plans;
 - financial plan; and a
 - Spatial development framework.

- c) The spatial development framework is a spatial representation of the municipality development vision and is informed by lower order development plans that protect the municipality's environmental elements whilst guiding resource and investment allocation. This assists in stimulating economic productivity and job creation therein.

On the above basis the Municipality is deemed to be aligned the prescribed legal requirements contained within the MSA.

1.4.2.2 **Spatial Planning Land Use Management Act No 16 of 2013**

Section 7 of SPLUMA prescribes the following development principles which apply to spatial planning, land development and land use management:

(a) The principle of **spatial justice**, whereby-

- (i) Past spatial and other development imbalances must be redressed through improved access to use of land;
- (ii) Spatial development frameworks and policies at all spheres of government must address the inclusion of persons and areas that were previously excluded, with an emphasis on informal settlements, former homeland areas and areas characterised by widespread poverty and deprivation;
- (iii) spatial planning mechanisms, including land use schemes, must incorporate provisions that enable redress in access to land by disadvantaged communities and persons;
- (iv) land use management systems must include all areas of a municipality and specifically include provisions that are flexible and appropriate for the management of disadvantaged areas, informal settlements and former homeland areas;
- (v) land development procedures must include provisions that accommodate access to secure tenure and the incremental upgrading of informal areas; and
- (vi) a Municipal Planning Tribunal considering an application before it, may not be impeded or restricted in the exercise of its discretion solely on the ground that the value of land or property is affected by the outcome of the application.

(b) The principle of **spatial sustainability** whereby spatial planning and land use management systems must-

- (i) promote land development that is within the fiscal, institutional and administrative means of the Republic;

CONSOLIDATED TECHNICAL SDF REVIEW REPORT FOR THE MSUNDUZI MUNICIPALITY

Project MSUNDUZI MUNICIPAL SDF REVIEW

Project No. 14376

Revision No. 3

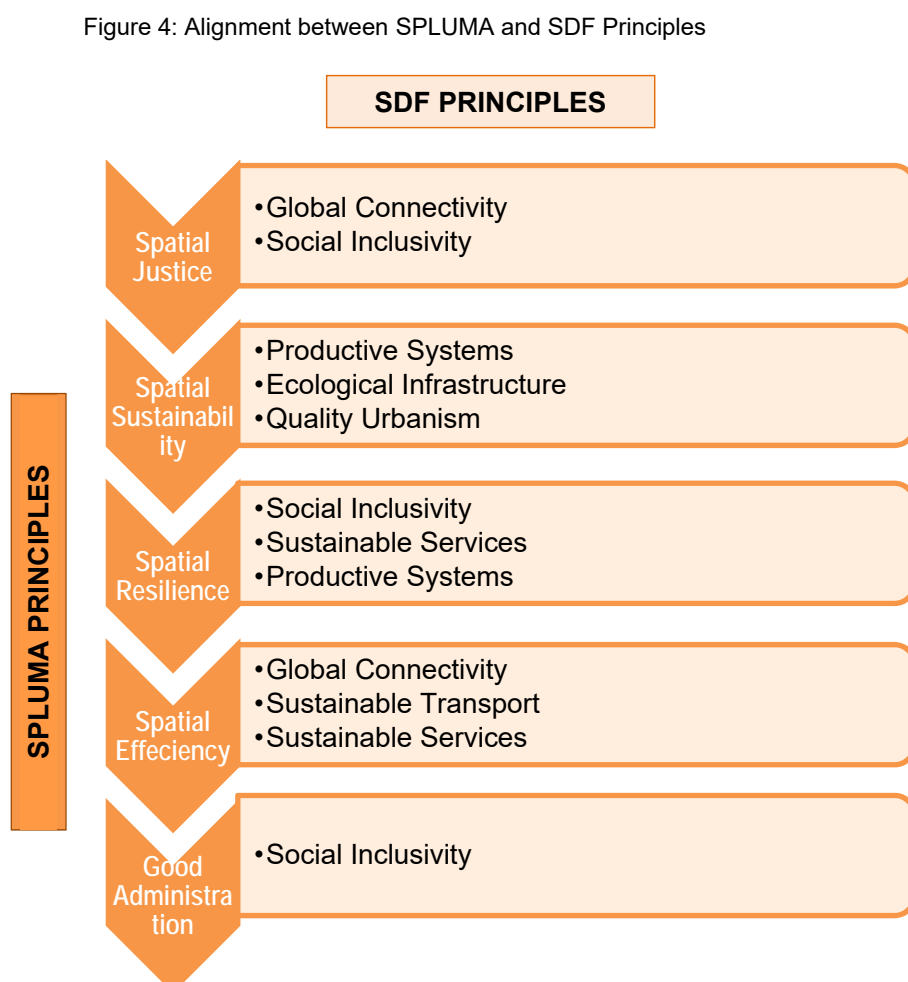
Date: November 2017

- (ii) ensure that special consideration is given to the protection of prime and unique agricultural land;
 - (iii) uphold consistency of land use measures in accordance with environmental management instruments;
 - (iv) promote and stimulate the effective and equitable functioning of land markets;
 - (v) consider all current and future costs to all parties for the provision of infrastructure and social services in land developments;
 - (vi) promote land development in locations that are sustainable and limit urban sprawl; and
 - (vii) Result in communities that are viable.
- (c) the principle of **spatial resilience**, whereby flexibility in spatial plans, policies and land use management systems are accommodated to ensure sustainable livelihoods in communities most likely to suffer the impacts of economic and environmental shocks.
- (d) The principles of **spatial efficiency** whereby land development optimises the use of existing resources and infrastructure; decision-making procedures are designed to minimise negative financial, social, economic or environmental impacts; and development application procedures are efficient and streamlined and timeframes are adhered to by all parties.
- (e) the principle of **good administration**, whereby-
 - (i) all spheres of government ensure an integrated approach to land use and land development that is guided by the spatial planning and land use management systems as embodied in this Act;
 - (ii) all government departments must provide their sector inputs and comply with any other prescribed requirements during the preparation or amendment of spatial development frameworks;
 - (iii) the requirements of any law relating to land development and land use are met timeously;
 - (iv) the preparation and amendment of spatial plans, policies, land use schemes as well as procedures for development applications, include transparent processes of public participation that afford all parties the opportunity to provide inputs on matters affecting them; and
 - (v) Policies, legislation and procedures must be clearly set in order to inform and empower members of the public.

Furthermore, it is noteworthy that Section 21 of SPLUMA also prescribes that a municipal SDF must:-

- (a) Give effect to the development principles and applicable norms and standards set out in Chapter 2, i.e. Development Principles and Norms and Standards;
- (b) Include a written and spatial representation of a five-year spatial development plan for the spatial form of the municipality;
- (c) Include a longer term spatial development vision statement for the municipal area which indicates a desired spatial growth and development pattern for the next 10 to 20 years;
- (d) Identify current and future significant structuring and restructuring elements of the spatial form of the municipality, including development corridors, activity spines and economic nodes where public and private investments will be prioritised and facilitated; and
- (e) Include population growth estimates for the next five years.

The following diagram illustrates the alignment of the Principles of SPLUMA and the guiding principles of the SDF:-



1.4.2.2.1 **SPLUMA Implications for the SDF**

The Msunduzi Municipal SDF needs to:-

- Give effect to the development principles and applicable norms and standards set out in Chapter 2 of the Act;
- Reflect the current state of affairs within the municipality from a spatial and land use perspective in order to ensure the sustainable use of resources;
- Set out basic guidelines for a land use management system in the municipality which encompass key development areas in the form of the Greater Edendale, Greater Imbali, CBD, Ashburton and Eastern Areas; and
- Provide basic guidelines for spatial planning, land development and land use management in the municipality.

In addition thereto, the Msunduzi Municipality needs to establish the following to ultimately align itself with the requirements of SPLUMA which will guide development here onwards:

- A wall-wall land use scheme for the entire municipal area thus establishing in greater detail the complexities which lie within the municipality from a development pressures and land use perspective.

1.4.2.3 **Development Facilitation Act (DFA) No 67 1995**

The DFA contains general principles relating to land development. Some of these principles, as contained in section 3 of the Act, are summarized as follows:-

- (a) Provision should be made for urban and rural land development – including the development of formal and informal, existing and new settlements.
- (b) The illegal occupation of land should be discouraged, with due recognition of informal land development processes.
- (c) Land development should take place effectively and in an integrated manner by:-
 - (i) Integrating social, economic, institutional and physical aspects of land development;
 - (ii) Integrating land development in rural and urban areas in support of each other;
 - (iii) Providing residential and employment opportunities in close proximity to or integrated with each other;

- (iv) Optimising the use of existing resources including such resources relating to agriculture, land, minerals, bulk infrastructure, roads, transportation and social facilities;
 - (v) Promoting a diverse combination of land uses.
 - (vi) Encouraging more compact towns and cities in order to discourage “urban sprawl”.
 - (vii) Encouraging environmentally sustainable land development practices and processes.
- (d) Promote conditions under which economic activities can flourish
 - (e) Development within an area should take place within the limited resources, financial, institutional and physical of the area in order to create a viable community and to protect the natural environment to enable economic growth.
 - (f) Land development should result in security of tenure, provide for the widest possible range of tenure alternatives.

1.4.2.3.1 DFA Implications for the SDF

- (a) Whilst it is acknowledged that the DFA has been repealed, the Msunduzi Municipal SDF needs to give effect to the principles outlined in Chapter 1 of the Act as prescribed in SPLUMA. Such alignment needs to be cognisant of DFA intentions in regards to spatial, economical, and social integration amongst other things, is achieved. In this regard the municipality comprises of various key development areas which lend themselves useful to the establishment of a strong economic output and job opportunities within areas such as the Edendale and Imbali area which were areas of previous neglect. Furthermore, the municipality has a package of environmental plans in the form of the SEA and SEMP which guide the protection of natural environments therein of which the SDF duly acknowledges.

1.4.2.4 The National Spatial Development Perspective (2006: 1-3)

The NSDP provides a framework for a far more focused intervention by the State in equitable and sustainable development. It represents a key instrument in the State’s drive towards ensuring greater economic growth, buoyant and sustained job creation and the eradication of poverty (NSDP 2006: 1).

The ultimate purpose of the NSDP in the South African setting is to fundamentally reconfigure apartheid spatial relations and to implement spatial priorities that meet the constitutional imperative of providing basic services to all and alleviating poverty and inequality (NSDP 2006: 2).

To bring its associated objectives to fruition, the NSDP (2006: 3) advances the following key development principles:

- a) **Principle 1:** Rapid economic growth that is sustained and inclusive is a pre-requisite for the achievement of other policy objectives, among which poverty alleviation.
- b) **Principle 2:** Government has a constitutional obligation to provide basic services to all citizens (e.g. water, energy, health and educational facilities) wherever they reside.
- c) **Principle 3:** Beyond the constitutional obligation identified in above, government spending on fixed investment should be focused on localities of economic growth and/or economic potential in order to gear up private-sector investment, to stimulate sustainable economic activities and to create long-term employment opportunities.
- d) **Principle 4:** Efforts to address past and current social inequalities should focus on people, not places. In localities where there are both high levels of poverty and demonstrated economic potential, this could include fixed capital investment beyond basic services to exploit the potential of those localities. In localities with low demonstrated economic potential, government should, beyond the provision of basic services, concentrate primarily on human capital development by providing education and training, social transfers such as grants and poverty-relief programmes. It should also reduce migration costs by providing labour-market intelligence to give people better information, opportunities and capabilities, to enable them to gravitate - if they choose to - to localities that are more likely to provide sustainable employment and economic opportunities.
- e) **Principle 5:** In order to overcome the spatial distortions of apartheid, future settlement and economic development opportunities should be channelled into activity corridors and nodes that are adjacent to or that link the main growth centres. Infrastructure investment should primarily support localities that will become major growth nodes in South Africa and the SADC region to create regional gateways to the global economy.

1.4.2.4.1 NSDP Implications for the SDF

- a) The Msunduzi Municipality is earmarked as the primary investment node within its regional context, i.e. the uMgungundlovu District Municipality;
- b) Inherently the Msunduzi Municipality is tasked with playing a specialised economic role in so far as offering tourism and manufacturing related uses;

CONSOLIDATED TECHNICAL SDF REVIEW REPORT FOR THE MSUNDUZI MUNICIPALITY

Project MSUNDUZI MUNICIPAL SDF REVIEW

Project No. 14376

Revision No. 3

Date: November 2017

- c) The strategic locality of the Msunduzi Municipality in relation to the N3 and the Durban Harbour lends itself useful to economic productivity through acting as a key catchment area for logistics and manufacturing uses therein;
- d) The economic opportunities that exist within the Municipality add to its attractiveness in regards to capturing of human and social capital;
- e) In addition the Municipality has also developed its own set of localised spatial plans which act as key development and investment informants therein; and
- f) These localised spatial plans further guide development in areas of previous neglect such as Greater Edendale, Greater Imbali and Vulindlela thus assisting in infrastructural and resource allocation along with stimulating economic growth therein.

1.4.2.5 The National Development Plan (2011: 2-246)

The NDP is a long-term national plan aimed at ensuring a decent standard of living for all South Africans through the advocacy of social, economic and spatial strategies geared towards the elimination of poverty and reduction of inequality by 2030. The core elements of a decent standard of living identified in the Plan (2011: 4-6) are:

- Housing, water, electricity and sanitation
- Safe and reliable public transport
- Quality education and skills development
- Safety and security
- Quality health care
- Social protection
- Employment
- Recreation and leisure
- Clean environment
- Adequate nutrition

To this end, the NDP (2011: 246) advances the following set of key normative principles that have the most relevance to spatial development frameworks:

- a) **Spatial Justice**- the historic policy of confining particular groups to limited space (ghettoization and segregation) and the unfair allocation of public resources between areas must be reversed.
- b) **Spatial sustainability**-sustainable patterns of consumption and production should be supported, and ways of living promoted that do not damage the natural environment. Walkable neighbourhoods for example, reduce the need to travel and limit greenhouse gas emissions.
- c) **Spatial resilience**-vulnerability to environmental degradation, resource scarcity and climatic shocks must be reduced. Ecological systems should be protected and replenished.

- d) **Spatial Quality**-the aesthetic and functional features of housing and the built environment need to be improved to create more liveable, vibrant and valued places.
- e) **Spatial efficiency**-productive activity and jobs should be supported, and burdens on business minimised. Efficient commuting patterns and circulation of goods and services should be encouraged, with regulatory procedures that do not impose unnecessary costs on development.

1.4.2.5.1 NDP Implications for the SDF

- a) The Msunduzi Municipality has established a variety of a suite of plans utilised through the establishment of Area Based Management (ABM's) areas which act as strategic and localised spatial informants within areas of previous neglect, namely the Greater Edendale, Greater Imbali, and Vulindlela areas respectively; and
- b) These plans act as key spatial informants in regards to fostering the efficient use of land, strengthening localised economic opportunities, fostering economic productivity and job creation along with layering down the favourable conditions for the preservation of environmental elements (rivers, wetlands and moss areas) therein.

1.4.2.6 The National Infrastructure Plan (2012: 6-25)

The National Infrastructure Plan is based on a spatial analysis of the country and identifies 18 Strategic Integrated Projects (SIPs) therein. The SIPs cover a range of projects earmarked to expand the economic and social infrastructure platform of the country throughout its nine provinces (Presidential Infrastructure Coordinating Report 2012: 6-10).

Inherently, the outcomes of the plan need to be aligned with human settlement planning, and with skills development, as key cross-cutting areas across all municipalities and key government sectors within South Africa (SA) (ibid).

Therefore, it is noteworthy that a number of SIPs may impact on the future spatial and specifically spatial economic development of the UMgungundlovu District Municipality (DM) and the Msunduzi Municipality. These have specific relevance to spatial planning within a regional and municipal scale as highlighted therein the infrastructure plan. According to the Presidential Infrastructure Coordinating Report (2012: 17-25), the applicable SIPs may be summarised as follows:

a) SIP 2: Durban- Free State– Gauteng Logistics and Industrial Corridor

Intendeds to strengthen the logistics and transport corridor between SA's main industrial hubs whilst improving access to Durban's export and import facilities, raising efficiency along the corridor and integrating the Free State Industrial

strategy activities into the corridor. It further intends to integrate the currently disconnected industrial and logistics activities along with marginalised rural production centres surrounding the corridor that are currently isolated from the main logistics system.

b) SIP 7: Integrated Urban Space and Public Transport Programme

Intends to coordinate planning and implementation of public transport, human settlement, economic and social infrastructure and location decisions into sustainable urban settlements connected by densified transport corridors.

c) SIP 11: Agri-logistics and Rural infrastructure

Is earmarked to improve investment in agricultural and rural infrastructure that supports expansion of production and employment, small-scale farming and rural development, including facilities for storage (silos, fresh-produce facilities, packing houses); transport links to main networks (rural roads, branch train-line, ports), fencing of farms, irrigation schemes to poor areas, improved research and development on rural issues (including expansion of agricultural colleges), processing facilities (abattoirs, dairy infrastructure), aquaculture incubation schemes and rural tourism infrastructure.

d) SIP 15: Expanding access to communication technology

Intends to provide for 100% broadband coverage to all households by 2020 through establishing core Points of Presence (POP's) in district municipalities, extend new Infracore fibre networks across provinces linking districts, establish POP's and fibre connectivity at local level, and further penetrate the network into deep rural areas. While the private sector will invest in ICT infrastructure for urban and corporate networks, government will co-invest for township and rural access as well as for e-government, school and health connectivity. The school rollout focus initially on the 125 Dinaledi (science and math focussed) schools and 1 525 district schools. Part of digital access to all South Africans includes TV migration nationally from analogue to digital broadcasting.

e) SIP 18: Water and Sanitation

This SIP focuses on developing a 10-year plan to address the estimated backlog of adequate water supply to 1.4 million households and basic sanitation to 2.1 million households whilst also layering favourable conditions for economic growth through the provision of water and sanitation infrastructure. Projects will include a focus on new infrastructure, rehabilitation, upgrading and the improvement of water infrastructure management.

Ultimately, the potential impact of SIPs must be considered in future spatial planning as they are likely to attract substantial investment from government in the medium to long term and will have specific spatial development implications.

1.4.2.6.1 **SIPS Implications for the SDF**

The most applicable SIP to the Msunduzi Municipality is SIP 2, 7, 15 and 18. These SIPS are applicable to the Msunduzi Municipality for the following reasons:

- **SIP 2-** assists in identifying that the Msunduzi Municipality presents further specialised development opportunities along the N3 corridor which is a resultant of its locational advantage between the Durban Port, Cato Ridge and the N3 corridor that is responsible for linking the Gauteng Province to the Durban Port. In this regard, it useful to point out that the Msunduzi Municipality has duly aligned itself to such a development opportunity through advocating the case for the upgrade of the Msunduzi Airport, establishing a Msunduzi Technology Hub and strengthening accessibility to such facilities through proposed interchange points along the N3;
- **SIP 7-** The Municipality has also in coordination with the Department of Transport established an IRPTN movement system therein which is geared towards facilitating easier mobility and servicing areas that comprise of greater thresholds such as the CBD, Edendale and Imbali areas.
- **SIP 15-** the Municipality has identified areas of key ICT intervention particularly within areas of previous neglect such as Edendale thus assisting in bridging the urban divide within its jurisdiction.
- **SIP 18-** The municipality has established a set of infrastructural management plans in regards to water and sanitation particularly within the Vulindlela, Pietermaritzburg, SEDis, Edendale and the broader Msunduzi Municipality which effectively communicate various key strategies and infrastructural projects therein to assist with layering down the key conditions for economic growth within these areas and ultimately reinforcing their role as economic growth areas, i.e. sustainable urban centres.

Therefore, the Msunduzi SDF needs to be spatially cognisant and representative of these initiatives whilst demonstrating alignment to the overall SIPS.

1.4.2.7 **National Treasury Built Environment Performance Plans Reference Guide Review 2014/15-2016/17 (2014: 1-5)**

BEPPs are reserved for the purpose of accessing the Urban Services Development Grant (USDG) from the National Department of Human Settlements and National Treasury. The USDG is a conditional grant and BEPPs are submitted, complied with the necessary requirements therein (National Treasury 2014: 1).

BEPPs attempt to align the various grant funding streams received from National Treasury which include the Integrated City Development Grant (ICDG), the USDG, the Integrated Housing and Human Settlements Grant (IHHS), the Social Housing Restructuring Grant, Public Transport Infrastructure Support (PTIS), and the Neighbourhood Partnership Development Grant (NPDG) (National Treasury 2014: 1-3).

According to the National Treasury (2014: 4-5) a BEPP is ultimately intended to demonstrate the use of these grants for the purpose of spatial restructuring through targeting the expenditure in areas that will maximise the positive impact on citizens, leverage private sector investment and support growth.

The Msunduzi Municipality therefore requires the establishment of its own BEPPs in line with the Municipality's strides towards achieving metropolitan status, and compliance in respect of the interaction between the Urban Network Strategy, Built Environment Performance Indicator processes and budget alignment.

1.4.2.7.1 **BEPP's Implications for the SDF**

- a) The establishment of BEPP's is essential in the Municipality's drive towards acquiring Metropolitan status and ultimately the sourcing of government funding from the department of national treasury.
- b) Currently, the Msunduzi Municipality is in possession of an Urban Network Report which is focuses on the Greater Edendale and Northern areas as part of the NDPG as advocated within the BEPP's Guide Note.

1.4.3 **Provincial Spatial Planning Policy**

1.4.3.1 **Kwa-Zulu Natal (KZN) Provincial Growth Development Plan (PGDP) (2013: 11-153)**

The KZN PGDP (2013:11) envisions that *"by 2030 KwaZulu-Natal will be a prosperous province with a healthy, secure and skilled population, acting as a gateway to Africa and the world."*

To bring the aforementioned to fruition, the PGDP closely aligns itself with the concept of sustainable development which consists of environmental sensitivity, economic potential, social need and urban accessibility as key supporting pillars. Therefore, the PGDP (2013: 12) advances a set of principles and strategic objectives birthed from the concept of sustainable development which may be summarised as follows:

- a) **Job Creation** intends to unleash the agricultural sector; enhance sectoral development through trade & investment; improve efficiency of government-led job creation programmes; promote SMME & entrepreneurial development; and develop the knowledge base to enhance the Knowledge Economy.
- b) **Human Resource Development** intends to improve early childhood development, primary and secondary education; support skills alignment to economic growth; and enhance youth skills development & life-long learning.
- c) **Human and Community Development focuses on** poverty alleviation & social welfare; enhancing health of communities and citizens; enhance sustainable household food security; sustainable human settlements; safety & security; and social capital.
- d) **Strategic Infrastructure** focuses on the development of harbours; development of airports; development of road & rail networks; development of information, communication and technology infrastructure; improve water resource management and supply; and Improve Energy Production and Supply
- e) **Environmental Sustainability** intends to increase productive use of land; advance alternative energy generation and reduce reliance on fossil fuels; manage pressures on biodiversity; and adapting to climate change.
- f) **Governance and Policy** intends to strengthen policy, strategy co-ordination & intergovernmental relations; building government capacity; and eradicating fraud & corruption; and Promote Participative, Facilitative & Accountable Governance.
- g) **Spatial Equity** intends to actively promote spatial concentration and coordination of development activities; and achieve effective spatial planning and land management systems which may be applied across the province.

The PGDP identifies the Msunduzi Municipality as a major urban centre which makes significant contribution to the overall economy of the KZN Province. It further identifies the Msunduzi Municipality as a “Level 2” priority/intervention area which is characterised by significant urbanisation rates and poverty for its associated inhabitants (PGDP 2013: 21). Furthermore, the PGDP (2013: 100-153) identifies the following noteworthy projects for the Municipality:

- Roll-out of information, communication and technology incubator programme.
- The Vulindlela Housing Project which is intended to be an extensive housing project within the municipality.
- Programme and funding for operations and maintenance which are earmarked to ensure that an appropriate planned maintenance programme is in place and

CONSOLIDATED TECHNICAL SDF REVIEW REPORT FOR THE MSUNDUZI MUNICIPALITY

Project MSUNDUZI MUNICIPAL SDF REVIEW

Project No. 14376

Revision No. 3

Date: November 2017

is funded adequately so that the economic life of the electricity infrastructure in KwaZulu-Natal is optimised. The Approach to Distribution Asset Management (ADAM) Turnaround Programme is a comprehensive, multi-year initiative targeted at addressing maintenance, refurbishment and strengthening shortcomings in key electricity distribution infrastructure throughout South Africa. In KZN, Msunduzi is a currently ADAM pilot and a review of implementation needs to happen to assess the effectiveness of the programme and the possibility to extend this into other Local Municipalities.

1.4.3.1.1 KZN PGDP Implications for the SDF

- (a) The SDF must give effect to the principles of the PGDP and ensure that the municipality aligns its development intentions within the broader provincial intentions. Furthermore, the SDF intends to strengthen and assist in realising the identified provincial projects within the municipality through its identified development principles and resource allocation mechanisms.

1.4.3.2 Kwa-Zulu Natal (KZN) Provincial Growth Development Strategy (PGDS) (2016: 85-176)

Similar to the KZN PGDP, the KZN PGDS envisions that *“by 2035 KwaZulu-Natal will be a prosperous Province with a healthy, secure and skilled population, acting as a gateway to Africa and the World”* (PGDS 2016: 85). Such a vision is further expounded upon by the PGDS (ibid) as follows:

“By 2035, the PROVINCE OF KWAZULU-NATAL should have maximized its position as a GATEWAY to South and Southern Africa, as well as its human and natural resources so creating a safe, healthy and sustainable living environment. Abject poverty, inequality, unemployment and current disease burden should be history, basic services must have reached all its’ people, domestic and foreign investors are attracted by world class infrastructure and a skilled labour force. The people shall have options on where and how they opt to live, work and play, where the principle of putting people first and where leadership, partnership and prosperity in action has become a normal way of life.”

To this end, the PGDS (2016: 89) advances a Strategic Framework to duly assist in achieving the advanced vision. The associated Strategic Framework may be summarised as follows:

Table 1: PGDS Strategic Framework

STRATEGIC GOAL	No	STRATEGIC OBJECTIVE 2016
1 INCLUSIVE ECONOMIC GROWTH	1.1	Develop and promote the agricultural potential of KZN
	1.2	Enhance sectoral development through business retention and through trade and investment
	1.3	Enhance spatial economic development
	1.4	Improve the efficiency, innovation and variety of government-led-job creation programmes
	1.5	Promote SMME and entrepreneurial development
	1.6	Enhance the Knowledge Economy
2 HUMAN RESOURCE DEVELOPMENT	2.1	Improve early childhood development, primary and secondary education
	2.2	Support skills development to economic growth
	2.3	Enhance youth and adult skills development and life-long learning
3 HUMAN AND COMMUNITY DEVELOPMENT	3.1	Eradicate poverty and improve social welfare services
	3.2	Enhance health of communities and citizens
	3.3	Safeguard and enhance sustainable livelihoods and food security
	3.4	Promote sustainable human settlements
	3.5	Enhance safety and security
	3.6	Advance social cohesion and social capital
	3.7	Promote youth, gender and disability advocacy and the advancement of women
4 STRATEGIC INFRASTRUCTURE	4.1	Development of seaports and airports
	4.2	Develop road and rail networks
	4.3	Develop ICT infrastructure
	4.4	Ensure availability and sustainable management of water and sanitation for all
	4.5	Ensure access to affordable, reliable, sustainable and modern energy for all
	4.6	Enhance KZN waste management capacity
5 ENVIRONMENTAL SUSTAINABILITY	5.1	Enhance resilience of ecosystem services
	5.2	Unlock the green economy
	5.3	Adapt and respond to climate change
6 GOVERNANCE AND POLICY	6.1	Strengthen policy, strategy coordination and IGR
	6.2	Build government capacity
	6.3	Eradicate fraud and corruption
	6.4	Promote participative, facilitative and accountable governance
7	7.1	Enhance the resilience of new and existing cities, towns and rural nodes, ensuring equitable access to resources, social and economic opportunities

CONSOLIDATED TECHNICAL SDF REVIEW REPORT FOR THE MSUNDUZI MUNICIPALITY

Project MSUNDUZI MUNICIPAL SDF REVIEW

Project No. 14376

Revision No. 3

Date: November 2017

SPATIAL EQUITY	7.2	Ensure integrated land management use across the Province, ensuring equitable access to goods and services, attracting social and financial investment
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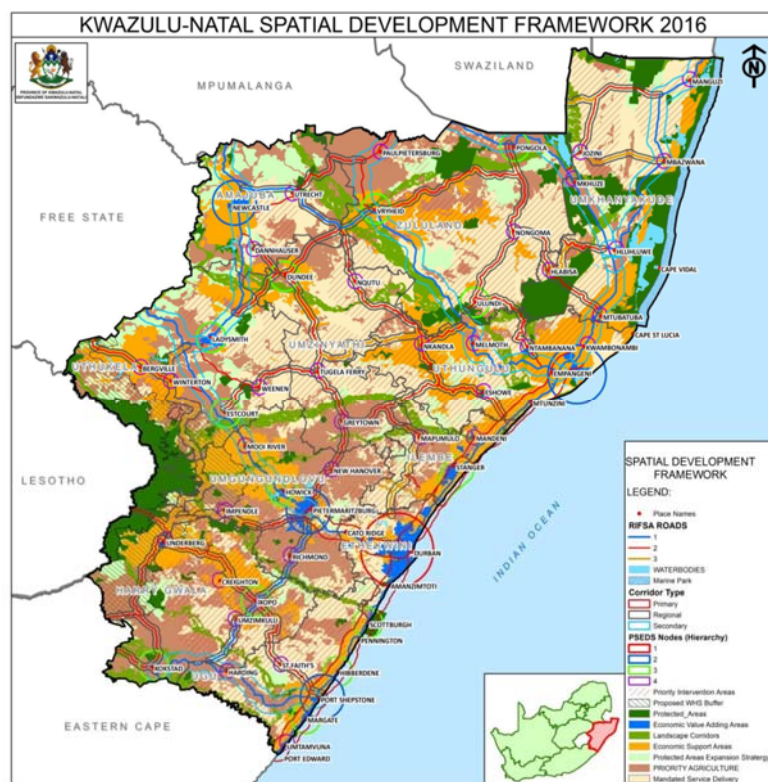
In addition thereto, the associated spatial principles advanced by the PGDS (2016: 167) in regards to achieving its vision may be diagrammatically represented as follows:

Figure 5: PGDS Spatial Principles



Spatially these principles may be represented as follows within the KZN Province:

Figure 6: Spatial Representation of PGDS Principles



CONSOLIDATED TECHNICAL SDF REVIEW REPORT FOR THE MSUNDUZI MUNICIPALITY

Project MSUNDUZI MUNICIPAL SDF REVIEW

Project No. 14376

Revision No. 3

Date: November 2017

Based on the afore going, Msunduzi is identified as a secondary node within the KZN Province which are characterised by good existing economic development and the potential for growth and services to the regional economy (PGDS 2016: 175). In addition thereto, the PGDS (2016: 134 & 174) notes that Msunduzi is currently developing a regional airport worth a capital value of some R2 million which is further indicative of its role as a secondary node within the KZN Province.

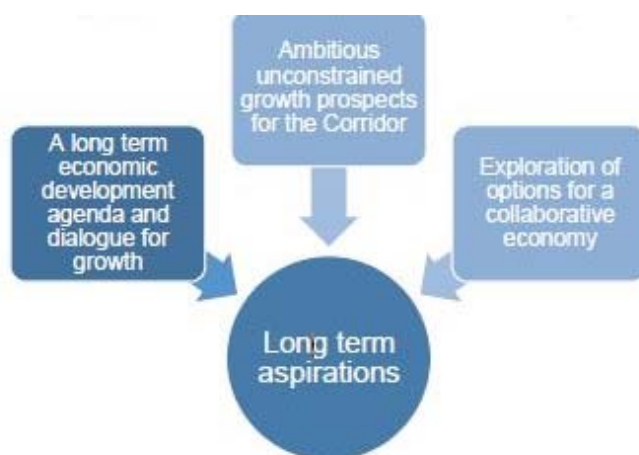
1.4.3.2.1 KZN PGDS Implications for the SDF

- (a) In essence, the SDF must give effect to the spatial principles advanced by the PGDS whilst also reinforcing the broader role of the Msunduzi Municipality in regards to the acting as a secondary city offering economic and social services to the uMgungundlovu District and ultimately the KZN province. In addition thereto, there is a strong need for the SDF to align itself with the broader intentions of the PGDS specifically in relation to the N3 which is an identified Primary Corridor within the PGDS and unlocking economic value adding areas along the route to further catalyse development therein.

1.4.3.3 Kwa-Zulu Natal (KZN) N3 Strategic Corridor Development Plan (2016:23-154)

The Strategic Corridor Development Plan is a plan that acts as a complementary working document for the municipality's suite of plans. The plan intends to provide strategic guidance to opportunities which may exist within a clearly defined corridor which form part of a much larger region connecting several local economies within a province, country, regional cooperation bloc which is the South African Development (KZN N3 Strategic Corridor Development Plan 2016: 23). The overall purpose of the plan may be summarised as follows:

Figure 7: Purpose of the KZN N3 Strategic Corridor Development Plan



The KZN N3 Strategic Corridor Development Plan (2016: 149-190) highlights the following noteworthy projects in regards to the Msunduzi Municipality:

- a) The proposed **SIP 2 Corridor** comprises of a variety of freight flows particularly in regards to the Northbound: Durban-Gauteng Route and the Southbound: Gauteng-Durban. The total freight volume within the SIP-2 Corridor leaving Durban is approximately 31 mtpa whilst the volume leaving KZN to Gauteng is approximately 28 mtpa, i.e. the Northbound Route. In regards to the Southbound, the total freight volume entering KZN from KZN is 18 mtpa whilst the volume entering Durban is 21 mtpa. Predominantly this route comprises of various types of cargo such as fuels and chemicals; agriculture and wheat; food and beverages; containers and automotive products (KZN N3 Strategic Corridor Development Plan 2016: 43).
- b) The ‘**KZN Industrial and Logistics Hub- (PMB – Pinetown Region)**’ which comprises of Pinetown, Hammarsdale, Cato Ridge, Shongweni, Camperdown/Umlaas Road, Mkhondeni and Pietermaritzburg.
- c) **The Msunduzi Technology Hub** which highlights the Msunduzi Municipality’s drive towards the establishment of an aerospace innovation hub which is adjacent to the existing Pietermaritzburg Airport site on the western portion thereof. The proposed site is adjacent to the Oribi Airport and is located approximately 6 km south of the Central Business District of Pietermaritzburg and is 3.5 km from the N3 freeway, 2 km from the R56. The site is bounded by Oribi Road to the west which increases accessibility. The site is within a 3km radius to the University of KwaZulu-Natal, entertainment, recreation, and shopping as well as public transport indicating good access. The land is owned and managed by Msunduzi Local Municipality and forms part of the PMB Airport Site, and is described as ERF B of the Oribi Airport Site. There is a master plan that is currently in the process of being reviewed and amended before adoption. Therefore subdivisions are yet to take place. The site had initially been set aside as service industrial. An Environmental Impact Assessment would need to be undertaken for the site. The land is currently valued at R300/m². Msunduzi LM has a land disposal policy and abides to the land resolution outlined in section 14(2) of the Municipal Finance Management Act. There will be no need for rezoning of the site (Refer to Figure 8: Msunduzi Technology Hub Site Development Plan).

1.4.3.3.1 KZN N3 Strategic Corridor Development Plan Implications for the SDF

- a) The Municipality’s SDF needs to be cognisant of the aforementioned projects and their ultimate regional significance in regards to their potential in strengthening the economic productivity within the Msunduzi Municipality and the broader KZN province.

CONSOLIDATED TECHNICAL SDF REVIEW REPORT FOR THE MSUNDUZI MUNICIPALITY

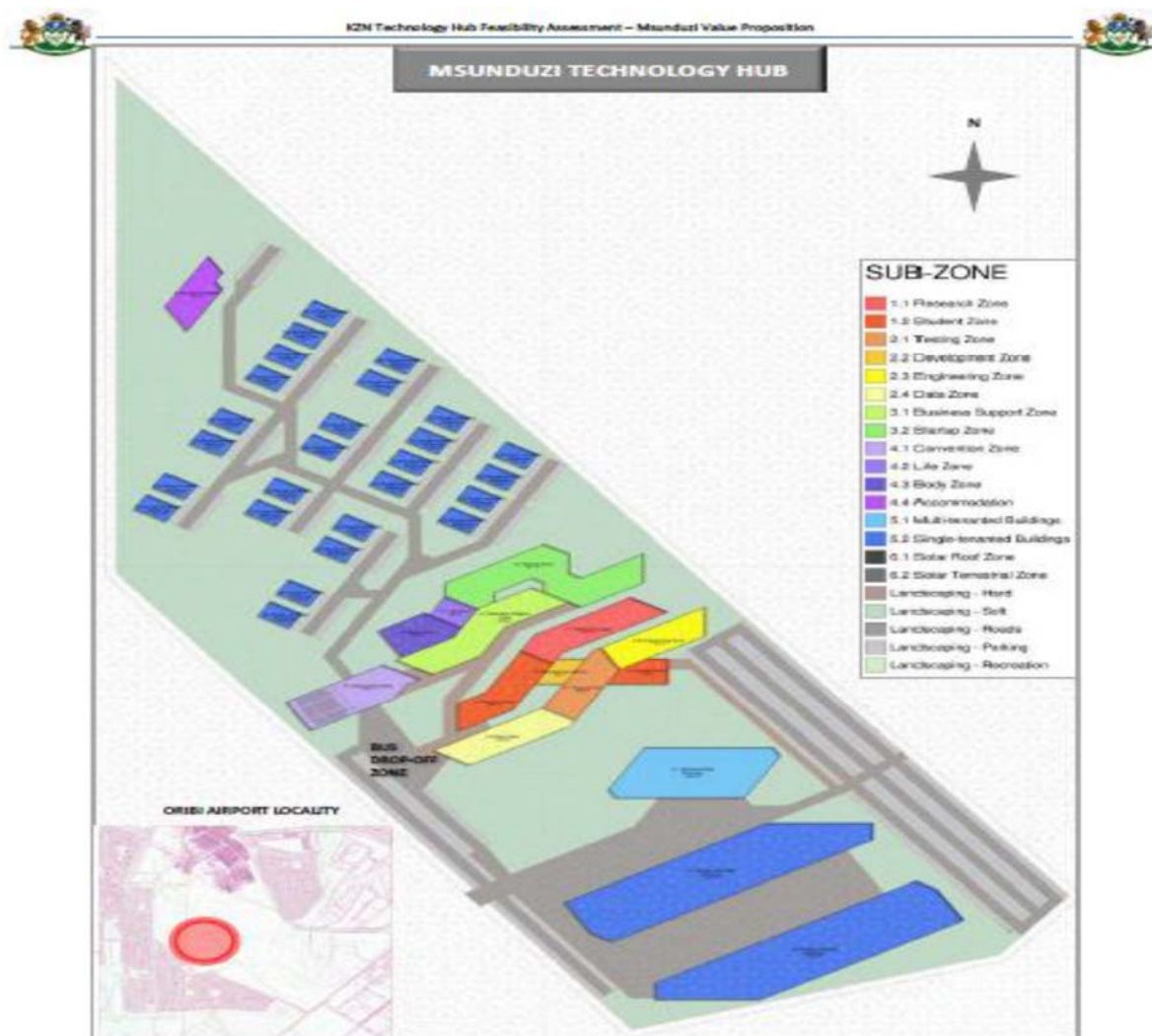
Project MSUNDUZI MUNICIPAL SDF REVIEW

Project No. 14376

Revision No. 3

Date: November 2017

Figure 8: Msunduzi Technology Hub Site Development Plan



1.4.3.4 uMgungundlovu DM SDF (2014: 1-60)

The uMgungundlovu SDF is the overarching regional guiding framework to which all municipalities within the uMgungundlovu Region adhere to. It draws its development trajectory from the PGDP and intends to guide spatial development planning and implementation within the uMgungundlovu Region for the period of 2014 to 2019. The Msunduzi Municipality sits within the uMgungundlovu DM and is identified as a provincial capital city therein (uMgungundlovu SDF 2014: 1).

It intends to provide short term guidance based on longer term spatial development objectives focusing on the year 2030 and beyond. In this way it is ensured that the

focus is not only on the short term, but that longer term development impacts are also considered in short term planning.

The uMgungundlovu SDF already has a longer-term development vision of which the Msunduzi Municipality SDF needs to take cognisance of. The uMgungundlovu SDF (2014: 63) highlights the regional development vision as follows:

*“Through spatial planning and **sustainable development** the uMgungundlovu District Municipality will optimise the economic, **environmental** and social benefits to be derived from being located on a priority national development corridor and **within a strategic environmental and water resource area**. Spatial equity for citizens will be achieved through spatial transformation contributing to improved access to appropriate infrastructure, economic opportunities, job opportunities, as well as commercial, social and **environmental / ecosystem services**.”*

To bring the aforementioned vision to fruition, the uMgungundlovu SDF (2014: 63-64) advances the following set of objectives:

- a) **Objective 1:** Ensuring that uMgungundlovu fulfil its role in, and benefits from, national spatial development strategies.
- b) **Objective 2:** Providing all residents of the District with improved access to commercial and social services, as well as job opportunities.
- c) **Objective 3:** Improving levels of infrastructure and housing available to the people of the District.
- d) **Objective 4:** Identifying land available for the anticipated growth of the District over the next 40 years.
- e) **Objective 5:** Optimise benefit from natural resources while maintaining and restoring the natural resource base.

In this regard the following remain noteworthy within the Msunduzi Municipality as highlighted within the uMgungundlovu SDF (2014: 55-80):

- Pietermaritzburg/Ashburton/Edendale remain the most strategic economic hubs which presents future growth potential within the uMgungundlovu DM;
- The Vulindlela area of the Msunduzi Municipality is also identified as a future growth node;
- The N3 is provincial development corridor to which future development needs to be orientated around thus presenting expansion opportunities in regards to residential, industrial and commercial uses within the Municipality particularly around the Ashburton and New England Road Interchange area;
- The R103 – Msunduzi to Camperdown and R56 and R33 – Eastern Cape to Richmond to Msunduzi to Greytown also enable provincial-municipal linkages

and the associated development thereof needs to be aligned to unlocking greater potential; and

- Ensuring that future development within the municipality in regards to housing and infrastructural development coincides with areas comprising of high poverty rates (i.e. Vulindlela) thus fostering economic growth.

1.4.3.4.1 uMgungundlovu DM SDF Implications for the SDF

- (a) Msunduzi is considered the main economic hub of Umgungundlovu District and therefore the SDF needs to be aligned to the spatial development intentions of the district municipality.
- (b) Furthermore the SDF need to be aligned with the spatial development frameworks reflected in the integrated development plans of neighbouring municipalities in order to create a sense cohesion in the overall development intentions of the district.

1.4.4 **Noteworthy Municipal Plans**

1.4.4.1 **Msunduzi Integrated Development Plan**

The Integrated Development Plan for the Msunduzi Municipality is a document approach to regional development within the boundaries of the Msunduzi Municipality. This document addresses the social, economic, environmental and spatial inequalities. The IDP is a five year plan, which addresses these inequalities whilst at the same time guiding development and growth. Within this plan it is noted that the municipality intends to be a “City of Choice, Second to None, by developing a city where the entire citizenry can:-

- Own a financially viable and well governed city
- Live in peaceably;
- Move about freely and in a cost-effective manner;
- Work to earn a living, thereby reducing unemployment, poverty, and inequality; and
- Play to lead a healthy lifestyle, thus increasing life expectancy.

(The Msunduzi IDP Review 2015/16: 22)

The Msunduzi IDP is underpinned by the following principles:-

- Compaction;
- Encouraging settlement at existing and proposed sustainable urban centres and settlement corridors and promoting densification in order to discourage urban sprawl. Furthermore channelling future settlement and economic development

opportunities into activity corridors and urban centres/hubs that are adjacent to or that link the main growth centre;

- Encouraging new development towards logical infill areas;
- Focusing development/investment on localities with economic growth and/or economic potential;
- Planning and subsequent development must strive to provide the highest level of accessibility to resources, services, and opportunities;
- Balance between urban and rural land development in support of each other;
- Prime and unique agricultural land, the environment, and other protected lands must be protected and land must be safely utilised;
- Providing low- income housing in close proximity to areas of opportunity; and
- Promoting the principle of self-sufficiency by reducing the need to travel and an assessment of each area's unique competencies towards its own self- reliance.

(The Msunduzi IDP Review 2015/16: 46)

In addition to the aforementioned principles the following are spatial guiding principles shaping development within the municipality's investments areas (The Msunduzi IDP Review 2015/16: 229):-

Table 2: SDF Spatial Guiding Principles

Guiding Principle	Application of Principle
Compaction:	<ul style="list-style-type: none"> ○ New and Infill development focused to create coherent system, mainly in SE quadrant
Integration:	<ul style="list-style-type: none"> ○ Shenstone and Ashburton as areas to integrate Low Income residential areas into city. ○ New economic opportunities in growth area and adjacent to major roads ○ New E-W and N-S roads links to major parts of city
Urban Densification:	<ul style="list-style-type: none"> ○ In periphery of CBD ○ Adjacent to major sustainable urban centres
Restructuring of the City:	<ul style="list-style-type: none"> ○ Creating a Polycentric City with new urban centres and new economic opportunity areas ○ Limited mixed-use activity spines between focus points ○ Redressing imbalances with improved infrastructure and new economic opportunities ○ Creating a road system matrix

CONSOLIDATED TECHNICAL SDF REVIEW REPORT FOR THE MSUNDUZI MUNICIPALITY

Project MSUNDUZI MUNICIPAL SDF REVIEW

Project No. 14376

Revision No. 3

Date: November 2017

Meeting Land Use Needs and Identification of areas of economic development potentials:	<ul style="list-style-type: none"> ○ New Residential areas ○ New economic opportunity areas ○ New nodal points ○ Restructure CBD
Sustainability:	<ul style="list-style-type: none"> ○ Protecting environmentally sensitive areas ○ Coherent and reinforcing infrastructure ○ Protecting agriculture potential areas ○ Upgrade residential areas with appropriate infrastructure ○ In situ upgrading of Informal settlements
Creating a quality urban environment:	<ul style="list-style-type: none"> ○ Create a polycentric city ○ Create a mix of housing types in different areas ○ Reinforce public transport system

1.4.4.1.1 Msunduzi IDP Implications for the SDF

- (a) The SDF needs to incorporate the underpinning principles advanced in the IDP, in order address some of the development issues facing the municipality and to also give effect to the proposal advanced in the IDP such as promoting compaction and urban densification this ensures that the available resources are utilised more effectively.
- (b) The SDF needs to give effect to the spatial planning mandate of the municipality and ensure that the spatial guiding principles are filtered through in the SDF as these principles represent the development intentions of the municipality within identified investments areas.

1.4.4.2 Msunduzi City Development Strategy (CDS) (2015: 5-39)

A City Development Strategy (CDS) assists in the establishment of a vision for a city to move towards creating the conditions that increase the likelihood of success in reaching its goal. Whilst it is accepted that all municipalities are required by legislation to produce an IDP for every five years, which is reviewed on an annual basis, the establishment of municipal developmental strategies stand in clear distinction from the IDP (Msunduzi CDS 2015: 5-6).

CDS comprise of a selection of a few strategic or noteworthy catalytic projects which address challenges on a local area scale. CDS's are also not bound by municipal boundaries, but instead may focus on particular areas within a municipality or may consider a wider area beyond the municipal boundaries. Therefore, the Msunduzi CDS should be viewed as a complimentary plan to the IDP as it acts a strategic informant with regards to municipal budgets along with Service Delivery and Budget Implementation Plans (SDBIPs) to implement the proposed strategy (ibid).

CONSOLIDATED TECHNICAL SDF REVIEW REPORT FOR THE MSUNDUZI MUNICIPALITY

Project MSUNDUZI MUNICIPAL SDF REVIEW

Project No. 14376

Revision No. 3

Date: November 2017

It is noteworthy that the CDS aligns itself to the municipal IDP vision of 2030 which is to become a *“City of Choice Second to None, where the entire Citizenry can live peacefully, move about freely and in a cost effective manner, working to earn a living and reducing unemployment, poverty, and inequality, and playing to lead a healthy lifestyle, thus increasing life expectancy.”*

Central to this vision, is the acknowledgement of the challenges that exist within the municipality by the CDS (2015: 11-16) which amongst others include:

- Lack of skilled staff which has inherently left gaps and affects service delivery further;
- Financial and economic issues which has marked the municipality’s need to ensure budgetary alignment whilst ensuring the improvement of an infrastructural base to attract more investment;
- Human settlements and planning settlement densities vary significantly across the city, creating problems for a public transport strategy to easily knit the areas together and overcome apartheid spatial patterns; and
- Aging infrastructure which further thwarts development potential.

In this regard, the CDS (2015: 25-39) advances a set of strategies to address the various challenges within the municipality. These strategies are aligned to both the IDP and PGDS goals. These strategies may be summarised as follows:

- **Strategy 1: Building a capable and developmental municipality**-strategy focuses on establishing a strong and supportive leadership; building competent, focussed and committed senior managers; introducing effective operations around a clear vision and short-term goals amongst others.
- **Strategy 2: Back-to-basics: cleaning, repairing, enforcing, and responding**-strategy focuses on implementing the 80:20 rule to development to where resources and investment are allocated to key development hotspots; strengthening enforcement in regards to municipal planning by-laws and land use schemes; addressing service delivery challenges; addressing inner city decline and maintaining community facilities amongst other things.
- **Strategy 3: Improve infrastructural efficiency – planning, budgeting, spending, implementing, maintaining**-strategy focuses on the establishment of composite municipal infrastructural plans in the form of a *“State of the City’s Infrastructure Report”*; *“Comprehensive Municipal Infrastructure Plan”*; and *“Asset Management System”*.

- **Strategy 4: Financial sustainability**-strategy seeks to strengthen the financial muscle of the city through putting various financial and infrastructural mechanisms to ensure the financial viability of their existing infrastructure.
- **Strategy 5: Growing the regional economy**-strategy seeks to respond to, and engaging, local business and utilising various town planning spatial and development informants within the municipality to catalyse development therein; foster infrastructure repairs and land programs for key development initiatives amongst other things.
- **Strategy 6: Serving as a provincial capital** –proposes the prioritisation of the City-Province task team; alignment of provincial and municipal plans; Using government leases or ownership to leverage change; and catalysing relationships within the private sector to ultimately position the municipality as the KZN provincial capital.
- **Strategy 7: Creating a learning city and city of learning**- intends to revitalise the relationship with the MIDI, focus on the establishment of the Imbali Educational Precinct Initiative and increasing linkages with elite learning institutions for example
- **Strategy 8: Spatial effectiveness and justice: increasing densities and improving mobility**-advocates the for the preparation of anticipated population growth scenarios and managing urban sprawl and densifying the city through the introduction of higher density housing and focused development along or within identified sustainable urban centres/hubs and corridors.

In addition thereto, the CDS (2015: 19) advances the following noteworthy catalytic projects to assist in bringing the municipality's vision to fruition:

- Integrated Rapid Public Transport Network
- Electricity infrastructure outlay
- Heroes Acre Development
- Optic Fibre Cable layout
- Parliamentary Precinct
- 7 Star Hotel and ICC
- Harry Gwala Stadium Phase 2
- Council Civic Centre
- Airport upgrade – international airport status
- Safe City CCTV Network

1.4.4.2.1 CDS Implications for the Municipal SDF

- Highlighting areas which lend themselves useful for future development scenarios within the Municipality such as identified urban centres/hubs (i.e. CBD Node; and the Liberty Mall and surroundings as well as the proposed Shenstone within Edendale for example); corridors (i.e. N3) and planned infrastructural projects;
- Strengthening accessibility along the N3 (i.e. an identified national transportation corridor) to the key projects within the Municipality such as the Msunduzi Airport Upgrade and Technology Hub through proposed interchange points along the N3;
- Establishment of a clear and coherent SDF with readily identifiable elements which assists city officials in making informed decisions with regards to other development initiatives within the municipality.

1.4.4.3 Msunduzi Urban Network Strategy

The Urban Network Report emerged as an initiative to provide management support for the implementation of the Neighbourhood Partnership Grant (NDPG) in the Greater Edendale area for the Msunduzi Municipality.

The primary focus of the NDPG is to “stimulate and accelerate investment in poor, underserved areas by providing technical assistance and capital grant financing for municipal projects that have either a distinct private sector element or an intention to achieve this whilst also laying down the favourable conditions for public investment that can be used to attract private community investment in the key targeted areas, so as to unlock the social and economic potential therein (UNR 2015: 6).

The Greater Edendale Area (2015: 6) was identified as a desirous location for such a development initiative as a result of the following inherent development characteristics:

- a) It has great potential to overcome the deficiencies inherited from Apartheid and become a thriving area within the municipality's jurisdiction.
- b) One of the driving forces behind this optimistic stand-point was the IRPTN project, which is expected to be implemented in the next few years. It is expected that the project will drastically transform the municipality bringing a range of transportation, land use and increased densification opportunities and thus becoming a major structuring device in the Greater Edendale area.
- c) The majority of the initiatives taking place in the municipality are concentrated within the Imbali precinct of which the bulk of the future growth and investment would most likely occur within this Precinct both in the short and medium term.

- d) It was established that the area proposed for the development of an Urban Hub must encompass the Hospital, Shopping Malls and Future Educational precinct in Edendale which presents further development initiatives in regards to maximising the servicing impacts of such facilities.

Based on the foregoing, the UNR (2015: 54) envisions that Greater Edendale area as an “African Urban Centre” or an area potential “Africa Urbanism” of which the associated planning of the area needs to facilitate development of space that is true to the identity of the users context in which it is set. As such planning merely facilitates the development of an environment that will allow this natural growth to take place. Therefore, it is noteworthy that the associated development principles or vision of the area may be summarised as follows:

- Vibrant informal economy.
- A centre of employment.
- A diverse manufacturing sector.
- A place of celebrated quality spaces.
- A place of multiple uses.
- A place of well-connected spaces.
- A place building of the CBD’s energy.
- A place of innovation.

The associated development principles have the following spatial implications in terms of the land use proposals (UNR 2015: 60) for the area:

- There is a desperate need economic development and employment within the Imbali area and the associated proposed land uses need to be duly aligned to layering the favourable conditions to respond to these whilst also establishing an Economic Hub.
- There is a strong need for establishing an integrated economy and development support of the informal economy.
- The Hub accommodates approximately 4 000 sqm of land for the development of a market in the centre of the core area. Within the same area, Business incubator hives/ SMME are also proposed. The location of these activities in the centre of the Hub is ideal as it is anticipated that this area will become an area frequented by the public and as it is within a close proximity to the proposed BRT Station.
- The Public Square space proposed also in the central area of the Hub is aimed at becoming a public area where people are drawn to. The development of the Public Square that is surrounded by a market to the east, business incubator hives to the west and government office to the North will bring about a total transformation of

the Core of the Hub. It is anticipated that the combination of these activities next to each other will make the area vibrant and that this energy will transfer to other areas in the Hub.

In an effort to create more economic development opportunities, the plan also proposes commercial, retail infill on existing sites along Edendale road. Although containing multiple shops, the two shopping centres have been designed in a self-contained manner that sees them isolated from activity along Edendale road. As such the proposal made is for infill development which will see new shops that front Edendale Road being introduced in order to benefit from the passing commuters along the road.

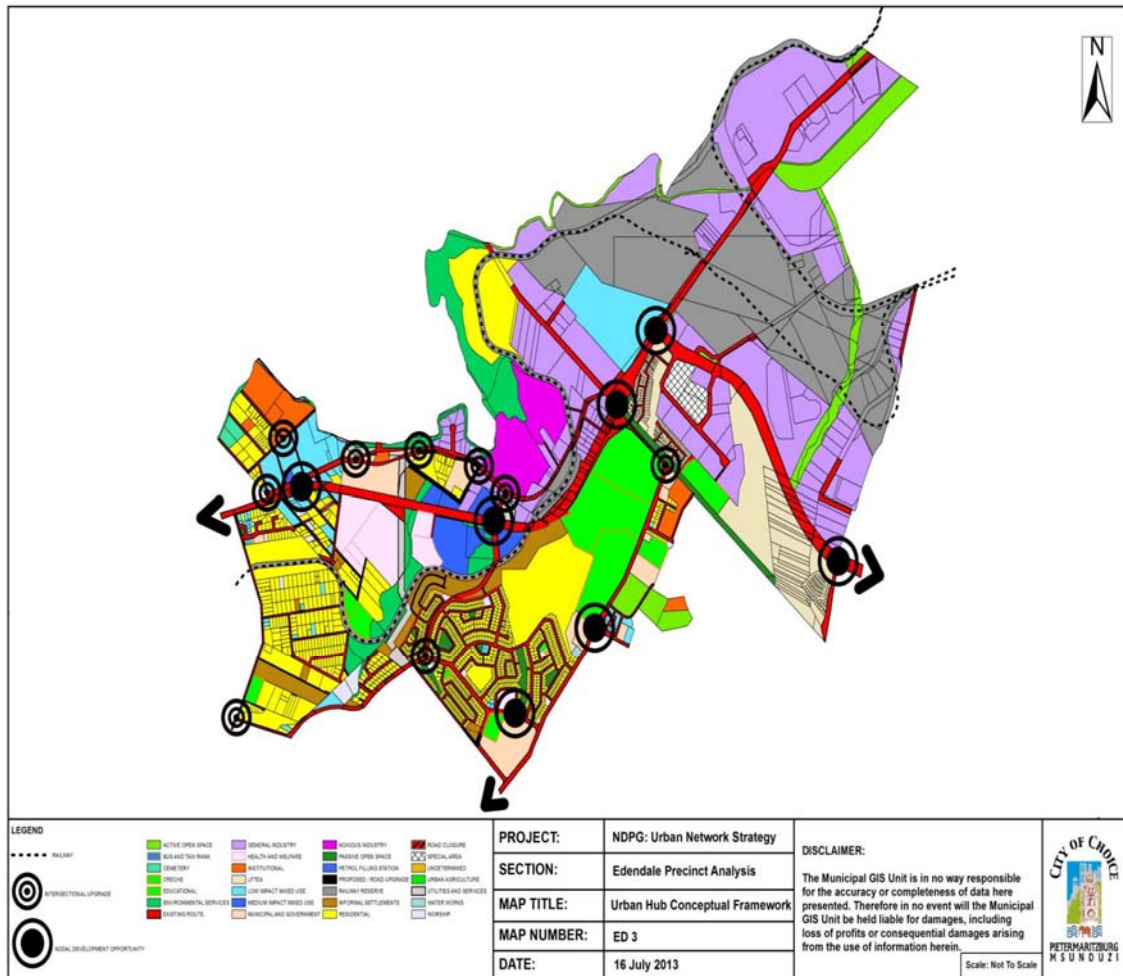
In addition to promoting economic development in the area, the plan also proposes the development of commercial/ service industry sites along Old Edendale road. However the western end of the core reflects a different character to the rest of the site as mixed use (retail/ commercial and residential) has been proposed for the area. The ideal development for the area would comprise of commercial/ retail on the ground floor with residential on the remaining floors. In the early stages of the development, the mixed use sites could be developed exclusively for residential and over-time the ground floors could transform into retail office developments.

Depending on residential demand within the Hub area, it also proposed that the option of accommodating residential space on the upper floors of the shopping centre be explored. However this would require extensive engagement with the owners of the shopping centres as well as revaluation of the present development controls on the sites by the Municipality.

The proposed height restriction for the area is 4 storeys. While it is important for the Hub to be economically vibrant, the social and environmental components cannot be overlooked. Considering this, the plan proposes for the rehabilitation of the green spine and development of a town garden that will serve as both a place of social gathering and environmental preservation.

Spatially, the objectives of the Urban Network Strategy may be represented as follows:

Figure 9: Urban Network Strategy, Edendale Precinct Analysis



(Urban Network Strategy 2013: 83)

1.4.4.3.1 Urban Network Report Implications for the SDF

As previously mentioned, the Urban Network report is an attempt at spatially restructuring an area which was a previous area of neglect under the apartheid area. Such an objective is consistent with the legal outcomes of SPLUMA, MSA and the DFA for example. The development framework advanced therein intends to:

- Stimulate Job Creation.
- Promote sustainable development.
- Support the Informal Economy.
- Promote infill development within existing commercial and retail centres.
- Promote Mixed used development.

Cognisance of these core components must be taken in regards to identifying the Greater Edendale as an area in need of key investment, i.e. an economic growth area.

1.4.4.4 Msunduzi Integrated Environmental Management Policy (IEMP)

Similar to most policy informants within the Msunduzi Municipality, their development trajectory is drawn from the IDP municipal vision, i.e. *“to be the dynamic, caring capital city of choice in KwaZulu-Natal”*. In this regard, the Msunduzi IEMP (nd: 5) aligns itself to such a vision and draws its own environmental vision which may be encapsulated as follows: -

“By 2020 the City will:

- be a safe, clean and hygienic environment with an integrated open space system adding balance to the urban and rural environment.*
- have environmentally responsible citizens that are well informed about the environmental issues and who will be part of an innovative team that contributes to a sustainable living environment.*
- have achieved legislated minimum ambient air quality standards and waste management practices will ensure that the streets, open-spaces, rivers and streams of the City are clean and well maintained.*
- have minimum pollution by industries brought about by the implementation of policies and the practicing of measures that ensure compliance with legislation.*
- have a variety of approaches to ensure environmental sustainability for all citizens to benefit from their natural environment.*
- achieve balance between economic, social and environmental factors and a balance between conservation and the use of natural resources which will protect the environment for future generations.*
- fully develop the City’s tourism potential making Pietermaritzburg the trendsetting City of Choice.”*

Furthermore, the establishment of the Msunduzi IEMP is indicative of the municipality’s intention to align itself with the applicable legislative frameworks that govern and preserve natural/environmental assets. According to the IEMP (nd: 6-7) the applicable legislation in this regard include the following:

- Constitution of the Republic of South Africa Act 108 of 1996 (Section 24)
- Local government is required by the National Environmental Management Act (Act 107 of 1998)
- Municipal Systems Act (Act 32 of 2000)
- The Conservation of Agricultural Resource Act (Act 43 of 1983)
- The National Environmental Management Biodiversity Act (Act 10 of 2004)

CONSOLIDATED TECHNICAL SDF REVIEW REPORT FOR THE MSUNDUZI MUNICIPALITY

Project MSUNDUZI MUNICIPAL SDF REVIEW

Project No. 14376
Revision No. 3

Date: November 2017

- The Water Services Act (Act 108 of 1997)
- The National Water Act (Act 36 of 1998)
- The National Environmental Management: Air Quality Act (Act 39 of 2004)
- The National Forests Act
- The National Veld and Forest Fire Act

In order for the Msunduzi Municipality to achieve its environmental vision and adhere to the applicable legislative framework, there are a variety of general principles the IEMP (nd: 8-9) advances which may be summarised as follows:

- formulating and implementing principles and underlying approaches supporting sustainable development of the Msunduzi Municipal Area.
- annually reviewing, revising and updating the environmental policy.
- ensuring access to natural resources and their sustainable use.
- recognizing, acknowledging and upholding the environmental rights of all Msunduzi residents as enshrined in Section 24 of the Constitution of South Africa.
- formulating approaches to address specific environmental issues in the Msunduzi Area.
- conserving biodiversity.
- prioritizing legal environmental responsibilities and raising awareness within the Municipality as well as NGOs and CBOs of relevant national and international environmental legislation and compliance with such legislation.
- ensuring open and transparent consultation between municipal business units so as to facilitate responsible stewardship of resources within the municipal area.
- recognizing relevant NGOs and CBOs, understanding their functions and roles and building partnerships with them.
- ensuring continual improvement through ongoing monitoring, evaluation and empowerment of all primary growth points.
- identifying and implementing best environmental practices and activities.
- integrating environmental considerations in planning, construction and any other municipal function or activity and making informed decisions about the development of its citizens.
- liaising with the private sector and communities to predict, recognize and mitigate activities that could negatively impact or affect the environment both locally and globally
- ensuring that impact assessments are carried out for developments to reduce, prevent or mitigate environmental and social impacts.
- developing strategies to assist communities in managing resources sustainably.
- identifying and protecting the City's sensitive environments.

CONSOLIDATED TECHNICAL SDF REVIEW REPORT FOR THE MSUNDUZI MUNICIPALITY

Project **MSUNDUZI MUNICIPAL SDF REVIEW**

Project No. **14376**

Revision No. **3**

Date: **November 2017**

- recognizing the importance of and instituting measures to protect cultural heritage.

These policy specifics are ‘principles’ that relate to certain high priority environmental issues. They include goals, objectives and ‘guiding tools’ (as indicated below) which are based on prevailing conditions in terms of both the biophysical (natural) and socioeconomic (man-made / social interaction) factors. The implementation of the policy specifics will be discussed in detail in the EMP. The municipality is committed to provide adequate human and financial resources for the implementation of this policy.

Table 3: Guiding Goals and Objectives of IEMP

<p>Bio-physical Environment</p> <p>Goal: To improve the quality of the environment and the well-being of fauna, flora and humans.</p>
<p>Biodiversity</p> <p>Objective: To preserve the City's biodiversity and minimize the loss of species resulting from the development of the City.</p> <p>To achieve this objective the Municipality shall:</p> <ul style="list-style-type: none"> • identify and protect <i>rare, endangered, insufficiently known</i> and <i>vulnerable</i> species (occurring in the red data categories). • create an open space system representing the full range of habitat types found within the Msunduzi Municipal area. • initiate, develop, manage, promote and support initiatives to eradicate alien invasive species. • protect endemic biodiversity and manage plant and animal populations in a manner that is sustainable. • improve the understanding of and appreciation for biodiversity through environmental education.

Trees and Forests

Objective: To conserve and promote sustainable use of indigenous trees in the City.
To achieve this objective the Municipality shall:

- recognize the role played by trees in the environment
- ensure removal of invasive alien plants on river-banks and floodplains and prevent commercial tree planting within these areas.
- control and monitor the removal and replacement of trees
- ensure compliance with relevant legislation.
- adhere to the Municipal Tree Management Policy.
- ensure compliance with management guidelines for commercial forestry within the Municipal boundaries.
- introduce community awareness programs
- promote greening programs
- introduce adopt a tree programs

Air Quality

Objective: To maintain air quality at levels that is not a threat to the environment and human well-being.
To achieve this objective the Municipality shall:

- effectively monitor air pollution levels
- set appropriate ambient air quality standards
- create an air quality management plan for inclusion in the IDP.
- educate and inform Municipal workers, citizens and industries within the Msunduzi Area about air quality issues.
- put in place a structure with sufficient resources to investigate emissions, monitor compliance and institute corrective actions.
- encourage the use of alternative non-polluting energy sources
- ensure that all quarries and borrow-pits within the municipal area have viable management, closure and rehabilitation plans and are well managed

Water Resources

Objective:

- a) To ensure the quality of water from rivers, streams and wetlands is suitable for the maintenance of biodiversity and the protection of human well-being.
- b) To ensure the quality of potable water meets the minimum legislated standards.

To achieve these objectives the Municipality shall:

- ensure that water is recognized by all relevant stakeholders as a scarce and valuable resource.
- ensure the long-term sustainability of water by managing water demand.
- liaise with relevant Catchment Management Agencies to ensure integrated water resource management.
- form a structure to monitor water quality and deal with related issues.
- identify, map and protect all water resources.
- ensure compliance with and enforcement of the municipal water supply and services bylaws.
- ensure rehabilitation of land susceptible to erosion.
- monitor water quality within Msunduzi riparian areas to meet the minimum standards of freshwater systems.
- improve the efficiency of its water management measures.
- provide adequate resources to effectively manage riparian systems including streams, stream banks, floodplains and wetlands
- implement and provide adequate resources for systems to reduce or prevent pollution of riparian habitats.
- develop measures for and provide adequate resources for the rehabilitation of degraded riparian areas.

Renewable and Nonrenewable Resources

Objective: To plan for and facilitate a shift from the use of non-renewable to renewable resources.

To achieve this objective the Municipality shall:

- embark on and facilitate initiatives to identify alternatives to non-renewable resources.
- educate communities on ways to avoid or limit unsustainable exploitation of non-renewable resources.
- inform communities of the availability of renewable resources and their sustainable use.

Energy

Objective: To accentuate the importance of energy and its role in development and the negative effects that energy production may have on the environment.

To achieve this objective the Municipality shall:

- inform the community about the appropriate use of energy so as to avoid wastage.
- identify energy sources that are efficient and sustainable.
- identify and encourage the use of alternative renewable and sustainable energy sources in new and existing developments.

Landscapes and Townscapes

Objective: To protect the City's landscapes and townscapes.

To achieve this objective the Municipality shall:

- identify activities suitable for each piece of available land based on its geology, soils, topography, aesthetics, biodiversity, ecological corridors, wild life habitat etc. of the land.
- conserve landforms and soils of the Msunduzi Area.
- ensure that new developments are appropriately designed to avoid erosion.
- give support to conservancies
- ensure the maintenance of vacant land

Noise Shock and Vibration

Objective: To ensure that the physiological and psychological effect of noise, shock and vibration levels do not exceed legislated standards.

To achieve this objective the Municipality shall:

- determine acceptable levels of noise, shock and vibration especially around residential areas set minimum noise, shock and vibration standards.
- measure and monitor noise, shock and vibration levels.
- provide resources to monitor compliance and institute correction actions.
- Ensure levels are maintained to protect the Msunduzi residents from excessive levels of noise, shock and vibration.
- ensure compliance of quarries and borrow pits with legislation.
- educate citizens about noise, shock and vibration issues.

Waste

Objective: To provide an effective and efficient waste management system.

To achieve this objective the Municipality shall:

- ensure enforcement of waste management bylaws and other relevant legislation.
- introduce an integrated approach to waste management.
- develop a waste management plan for the Msunduzi area.
- ensure the implementation of policies and strategies that affect waste management.

CONSOLIDATED TECHNICAL SDF REVIEW REPORT FOR THE MSUNDUZI MUNICIPALITY

Project MSUNDUZI MUNICIPAL SDF REVIEW

Project No. 14376

Revision No. 3

Date: November 2017

- initiate, develop and promote recycling projects and programs.
- ensure the efficiency of the waste management business unit by providing adequate resources.
- be responsible for the collection of refuse.
- apply the polluter pays principle.
- educate citizens about waste-related issues.

Socio Economic Environment

Goal: To promote sustainable environmental, social and economic development

Infrastructure, urbanization and housing

Objective: To ensure a balance between the need for development and its effect on the environment.

To achieve this objective the Municipality shall:

- recognize that development is essential, but may have detrimental effects on the environment.
- recognize the threat of uncontrolled urban expansion on the environment and the resulting cost.
- implement and enforce all relevant legislation and bylaws protecting the environment.
- undertake an SEA to establish the environmental status quo and minimum acceptable environmental standards within the Msunduzi municipal area.
- identify, map and if necessary rezone land required for biodiversity conservation and public open space purposes.
- identify land suitable for development purposes and identify most appropriate uses.

Economy

Objective: To emphasize the interdependence between poverty, economic growth and the environment.

To achieve this objective the Municipality shall:

- develop strategies to combat poverty through sustainable use of environmental resources.
- rehabilitate and conserve the City's urban and natural environments.
- recognize the contribution that small and micro business makes towards the City's economy and support and encourage these businesses to use natural resources in a sustainable way.

Environmental Education

Objective: To form and support environmental education initiatives that will enable Msunduzi communities to use resources sustainably.

To achieve this objective the Municipality shall:

- liaise with and support NGOs and CBOs who already have programs to educate communities
- educate communities about the sustainable use of resources
- identify and develop methods of improving communication.
- incorporate environmental issues into induction programs for all councilors and officials.
- communicate all intended environmental activities to affected communities.

Cultural Heritage

Objective: To preserve and improve the cultural heritage of the Msunduzi area.

To achieve this objective the Municipality shall:

- acknowledge and respect diverse cultures and religions represented within the Msunduzi area.
- acknowledge and respect the historical significance of cultural and religious features.
- consider cultural values, sites and landscapes of historic significance, areas of scenic beauty and places of spiritual importance in planning, decision making and development proposals.
- promote and support cultural tourism initiatives by the communities.
- collaborate with Amafa AkwaZulu Natali (KZN Heritage) in identifying cultural and historic sites within the Msunduzi area.
- recognize the status of heritage conservancies (streets/blocks of buildings) and ensure they are clearly marked, signposted and endorsed on title deeds.
- ensure compliance with the National Heritage Act.
- where applicable, refer development applications to Amafa AkwaZulu Natali (KZN Heritage) office.

1.4.4.4.1 IEMP Implications for the SDF

Based on the legislative framework that guides the IEMP, the SDF is a spatial representation of the principles of environmental preservation, sustainability and ensuring the effective use of natural resources to bolster tourism and economic potential.

1.4.4.5 **Msunduzi Environmental Management Framework (EMF) 2010**

The EMF stemmed from the Msunduzi Municipality's recognition to support sustainable social, economic and environmental development therein whilst ensuring the need for adoption and implementation of an appropriate policy to inform development planning and approval (EMF 2010: 1).

The purpose of the greater Msunduzi EMF is to provide for informed decision making framework against which plans, programs and policies can be assessed in terms of future development proceedings within the municipality's area of jurisdiction. In this regard the EMF puts forward the following broad objectives, which are to:

- Identify areas both suitable and unsuitable for development;
- Provide information to assist decision making (such as development applications) and thereby streamline the process;
- Identify environmentally sensitive areas that require protection so as to ensure ecosystem service delivery ; and
- Provide environmental goals and mechanisms to achieve the objectives as stated.

(The Msunduzi EMF 2010:1-2)

In addition to the above the EMF provides the following tools:

- Areas deemed suitable or unsuitable for development;
- Key environmental information to assist decision making on development applications;
- Environmentally sensitive areas requiring protection to ensure ecosystem service delivery; and
- Environmental goals and mechanisms to achieve the above

(IDP 2015/16:76)

In line with the Msunduzi Municipality's SEA's sustainability criteria, the EMF (2010: 17-18) has advanced a set of environmental management priorities which may be summarised as follows:

Table 4: SEA Sustainability Criteria

Objective	Criteria
Efficient and sustainable use of natural resources	Biophysical
	<ul style="list-style-type: none"> • Degraded areas are identified and rehabilitated to limit soil erosion and promote land productivity. • Aquatic ecosystems are in a healthy state to ensure that the resource remains fit for all other uses and minimum water quality targets are maintained. • Areas of high biological diversity, are utilised and managed to promote the ecosystem goods and services they supply • Alien invasive species are controlled and managed to prevent further infestation • Wetland areas, streams and rivers are preserved, rehabilitated and managed to maintain ecological function • Flood prone areas are managed to promote ecosystem goods and services and minimise flood risks and impacts to flood regimes • Areas of geotechnical or geological risk or instability are delineated and are avoided in land development • High potential agricultural land is used (or can potentially be used) for sustainable agricultural production • Compact, human-orientated land development patterns use land efficiently • Minimum air quality standards for the protection of human health and wellbeing and natural systems are maintained • A carbon neutral state is achieved through appropriate greenhouse gas emission reductions, the use of alternative technology and carbon off-setting schemes • The use of renewable resources is promoted and the reliance on non-renewable resources is reduced
Basic human needs must be met to ensure resources necessary for long- term survival are not destroyed for short term gain	Social
	<ul style="list-style-type: none"> • A basic level of water supply is provided to all residents without affecting the integrity of natural ecosystems. • All residents have an income; access to appropriate, secure and affordable housing; and have access to public services to meet basic needs and live with dignity. • Communities vulnerable to environmental risk are identified and strategies are developed to minimise risk and promote human well-being. • The waste stream to landfill has been reduced to a minimum, with recovery, re-use and recycling of materials undertaken as standard practice. • Efficient and effective liquid waste management protects human health and the natural environment. • An efficient, safe, integrated and convenient network of public transport, bicycle routes and pedestrian access is provided. • Services, amenities, buildings, facilities, community parks and open spaces are accessible to all people; and, safe, clean and pleasant environments are provided that protect and enhance human health and wellbeing and improve the overall quality of life. • High quality, affordable formal education is available and accessible to students of all ages.

	<ul style="list-style-type: none"> • Indigenous ecological and cultural knowledge is developed and integrated with planning and management processes. • The city's sense of place and cultural and natural heritage resources are protected and maintained.
Economic	
Socio-economic systems are embedded within, and dependent upon, eco-systems	<ul style="list-style-type: none"> • Development is informed by social needs and the improvement of quality of life and does not compromise the biophysical environment • Alternative sustainable livelihood strategies are promoted. • An equitable and broad range of employment opportunities exist that provide workers with income to support themselves and their families. • Infrastructure and facilities are well-maintained to meet the needs of residents and businesses in ways that reduce environmental impacts. • Most of the daily food needs of Msunduzi are sustainably grown, processed and packaged in urban and rural agricultural schemes in the city and surrounding agricultural areas • Green design principles are used to ensure environmental efficiency and minimise use of resources • Clean, renewable and efficient energy sources; and, transportation options that reduce fossil fuel dependence are promoted, so as to reduce energy costs and produce low greenhouse gas emissions and other air contaminants • City finances are managed responsibly and include full life-cycle cost perspectives, including long- term maintenance, repair and replacement costs. • The cost of ecosystem goods and services are integrated into development planning.
Governance	
An enabling environment for ongoing dialogue between all role-players is created.	<ul style="list-style-type: none"> • Environmental issues are prioritised and the Msunduzi council is committed to achieving environmental sustainability. • Environmental issues and priorities are embedded in the Performance Management System and Key Performance Areas of all components of the municipality; and are integrated with municipal planning. • Decision-making processes are defensible, clear and transparent. • Participation in LA21 is increased and the public is encouraged to participate in municipal planning initiatives. • Capital investment projects undertaken or facilitated by the Municipality adhere to legislated requirements and Integrated Environmental Management principles. • Msunduzi is prepared to respond rapidly and to deal effectively with known hazards and emerging threats, to limit the adverse impacts of events and effectively manage emergencies. • Access to environmental information is facilitated and encouraged • Regular monitoring is undertaken to report on progress towards sustainability so that the city can learn and adapt as needed. • Communities are informed, empowered and involved in the process of democratic governance.

In order to bring the aforementioned objectives to realisation, the Msunduzi EMF (2010: 19-26) advances a set of environmental management zones which act as a development and environmental encumbrance to development and the associated

land uses therein. To this end the EMF advances the following set of environmental management zones which may be summarised as follows:

- **Wetland Conservation and Buffer Zones:** comprises of environmental wetland areas which consist of biodiversity and water conservation properties. A number of potential wetland areas and their associated buffers were identified within the municipality and the buffered areas surrounding these wetlands is deemed to pose a development constraint buffer, where the occurrence of the wetland has not been delineated and thus should be investigated further if development is proposed on site. To this end, the municipality has introduced broad environmental wetland categorisations which include wetland areas, wetland buffer areas and areas off low constraint of which the associated development proposal needs to take cognisance for.
- **Biodiversity Conservation Zones:** comprise of high biodiversity areas which are prized for their intrinsic value and the ecosystem goods and services that they provide. A number of key biodiversity areas that support ecosystem goods and services were identified the municipality. These areas were identified during through the development of a fine resolution Conservation Plan (C-Plan) for the Municipality. Generally, biodiversity conservation zones comprise of High Biodiversity Constraint Areas, Biodiversity Development Constraint Areas and No Biodiversity Constraints Identified of which the associated development proposal needs to take cognisance of.
- **Flood Risk Zone:** These areas were identified through previous flood line studies within the municipality as well as indicative flood zones around the major rivers within the Msunduzi River catchment. Using the 1:100 yr 24 hour rainfall for the Municipality, peak flows for each of the main rivers was calculated, which in turn allowed for an indicative flood zone to be calculated. These flood zones represent the high developmental constraint within a possible flood zone. In cases where the flood zone width was less than the NEMA recommended environmental development buffer of 32m, the 32m buffer were used to establish these zones. Broadly these management zones or categorisations include High Flood Potential and Low Flood Potential.
- **Agricultural Zone:** these include identified areas of potentially high agricultural value due to soil properties, climatic conditions and slopes. The municipality comprises of areas of high productivity for cultivation purposes but has not considered areas for extensive agriculture. These areas offer unique opportunities for cultivation and food security and are non-renewable natural resources which should be duly reserved for agricultural production and food security. To this end the EMF has identified four broad agricultural categorisations which include high

agricultural potential, good agricultural potential, low agricultural potential and agricultural potential lost due to transformation.

- **Slopes:** these comprise of extremely steep, steep, moderate, gentle and unknown slopes which act as key development informants in terms of the associated development proceedings within the municipality's area of jurisdiction. Generally, extremely steep and steep slopes present unfavourable development potential.
- **Air Quality:** comprises of high, medium and low quality constraint areas of which the associated development initiatives should proactively take cognisance of and propose alternate mitigation measures should the need arise (i.e. industrial land uses in high air quality areas).
- **Water Quality:** comprises of high, moderate and low water quality constraints within the jurisdiction of the municipality of which the associated development proposal need to duly take cognisance of and interrogate the associated potential therein.
- **Cultural Heritage Zones:** comprises of areas of Cultural Heritage which aided in their associated categorisation which include, namely the cultural heritage zone and low cultural heritage significance areas.
- **Service Delivery zones:** these include areas comprising of servicing capacity and associated lack thereof in terms of bulk infrastructure including water, sanitation, roads, electricity, waste and storm water. Furthermore these areas also include future infrastructural expansion areas within the municipality. Broadly the municipality categorised these areas as low service delivery zones, medium service delivery zones, high service delivery zones and very high service delivery zones

1.4.4.5.1 Implications for the Msunduzi SDF

The Msunduzi Municipal SDF needs to spatially represent all the applicable areas of environmental (i.e. flood areas, biodiversity areas, wetlands and etc), heritage and agricultural significance to ensure sustainable development practices therein.

1.4.4.6 Msunduzi Climate Change Policy Inclusive of Mitigation and Adaptation Strategies (2014)

According to the IPPC (2007: 23) as cited by the Msunduzi Climate Change Policy (2014: 6), climate change may be defined as *"a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global*

atmosphere and which is in addition to natural climate variability observed over comparable time periods.”

Climate change stems from the general acceptance from scholars, policy leaders and governments alike based on scientific observations regarding global temperature fluctuations, that the earth's temperatures are rising, with the most hottest being recorded over the last few years. Envirokids (2008: 6) (as cited by the Msunduzi Climate Change Policy 2014:6) notes that the increased temperatures in the atmosphere create and contribute to unpredictable weather conditions which inherently gives rise to greater intensities in heat waves, droughts, heavy rainfall periods and strong winds. These extreme weather conditions should be proactively mitigated against.

The Strategic Environmental Assessment (SEA) report for the Msunduzi Municipality provides insight on the conditions of Pietermaritzburg's weather and climatic conditions, stating, *“Msunduzi's weather and climate are largely influenced by its topography. The higher lying areas of the Msunduzi are cooler and receive more rainfall than other parts of the city”* (SRK 2009 as cited by the Msunduzi Climate Change Policy 2014: 7). The average annual temperature varies between 16.3- 17.9 degrees Celsius within the municipality. Msunduzi falls within a predominantly summer rainfall area comprising of dry winters and wet summers along with common summer thunderstorms. Typically, Msunduzi comprises of an average yearly rainfall ranging between 748mm and 1017mm.

The Msunduzi Municipality accepts that there is a strong need to lay down the favourable conditions to address the impacts of climate change through the establishment of various strategies packaged within its own climate change policy. The Msunduzi Climate Change Policy is informed by the National Environmental Management Act (NEMA, 2010) and the National Climate Change Response White Paper amongst others legislations and policies.

The Msunduzi Climate Change Policy (2014: 15) draws its trajectory from the Msunduzi Municipality's Integrated Environmental Management Policy which states that the Municipal vision is *“to be the dynamic, caring capital city of choice in KwaZulu-Natal”*. The Environmental Vision is that by 2020 the city will:

- Be a safe, clean and hygienic environment with an integrated open space system adding balance to the urban and rural environment.
- Have environmentally responsible citizens that are well informed about environmental issues and who will be part of an innovative team that contributes to a sustainable environment.

- Have achieved legislated minimum ambient air quality standards and waste management practices which will ensure that streets, open spaces, rivers and streams of the City are clean and well maintained.
- Develop and implement policies, regulations and measures which will ensure that industries produce minimal pollutants to the environment and ensure that they comply with environmental legislation.
- Have a variety of approaches to ensure environmental sustainability for all citizens and ensure that they benefit from the natural environment.
- Achieve balance between economic, social and environmental factors and a balance between conservation and the use of natural resources which will protect the environment for future generations.
- Fully develop the City's tourism potential, making Pietermaritzburg the trendsetting "*City Of Choice*" whilst ensuring that green economic standards are implemented and followed i.e. tourism hubs should be adapted for changing climatic conditions and be environmentally friendly (green building design, solar heating, rain water harvesting and etc).

The broader intentions of the Msunduzi Climate Change Policy (2014: 18) include but are not limited to the following:

- Ensure council continues to deliver its services effectively to the community in a changing climate.
- Reduce the vulnerability of the Pietermaritzburg community to potential future impacts of climate change.
- Enable legal obligations and expectations on the Council and community arising from extreme weather events, to be met comprehensively.
- Ensure Councils response to climate change is flexible and that processes are in place to respond and adapt rapidly to changing international protocols, technological advancements, community readiness, South African Environmental Policies and Legislative changes, and improved knowledge (technological advancements) etc.
- Equip Council with a robust framework to pro-actively seek opportunities, knowledge and partners to effectively manage the challenges and opportunities of climate change into the future.
- Build capacity and capability of the Msunduzi Municipality to lead communities in responding to the challenges and opportunities presented by climate change.
- Integrate environmental and social considerations into planning, construction and other relevant municipal functions or activities in order to make informed decisions promoting sustainable development.
- Ensure that Msunduzi Municipality offers a safe, clean and hygienic City that manages all aspects of the environment in a safe and responsible manner in order to enhance resilience to climate change.

CONSOLIDATED TECHNICAL SDF REVIEW REPORT FOR THE MSUNDUZI MUNICIPALITY

Project **MSUNDUZI MUNICIPAL SDF REVIEW**

Project No. **14376**

Revision No. **3**

Date: **November 2017**

- Ensure the implementation of strategies which aim at identifying risks and encourage the monitoring of predicted climate change events.
- Ensure the identification, implementation and development of tools to set targets which have been identified. These tools should also be able to ensure that they are measurable.

Broadly, the Msunduzi Climate Change Policy's (2014: 19-41) advances a set of adaptation and mitigation mechanism, with each specifically tasked with responding to elements of climate change (i.e. biodiversity; water resources, food security and agriculture, human health and etc). Such adaptation and mitigation mechanisms fall under the leadership of various municipal line departments tasked with proactively and consistently addressing climate change. Whilst the intention of the following is not meant to be exhaustive, the applicable adaptation and mitigation mechanisms under the Msunduzi Municipality may be summarised as follows:

Table 5: Climate Change Adaptation and Mitigation Strategies

Climate Change Element	Adaptation Measure	Mitigation Measure
Biodiversity	<ul style="list-style-type: none"> • Increase the implementation of "greening" projects/programs (including tree planting strategies in accordance with the <i>Msunduzi Tree Planting/Management Policy</i>) to contribute to increasing biodiversity within the City and surrounding areas. • All new development projects to include and implement environmental landscaping (i.e. landscape plans should ensure that existing indigenous species are retained and the incorporation of additional indigenous species). • Ensure that key areas are zoned as open space/public open spaces/conservation and areas already zoned for this purpose are retained and conserved in order to safe guard species and habitats. • All Municipal owned land is evaluated in terms of species richness (i.e. fauna and flora); areas with high levels of species richness must be conserved in order to safe guard species and habitats. 	<ul style="list-style-type: none"> • Increase the implementation of "greening" projects (including tree planting strategies in accordance with the <i>Msunduzi Tree Planting/Management Policy</i>) to contribute to increasing levels of biodiversity and the sequestering of carbon within the City and surrounding areas. • All new and proposed development projects to implement green landscaping. • Ensure that key areas zoned as open space/public open spaces/conservation are retained and conserved in order to safe guard species and habitats. • State Land Rehabilitation, aims at reducing land degradation, by maintaining and improving ecosystem goods and services in order to create more opportunities for economic and social development. This action plan and task aim at ensuring that biodiversity and areas in need of rehabilitation are maintained and preserved.

	<ul style="list-style-type: none"> • Ensure that developmental activities /proposals incorporate offset areas for rehabilitation. • Msunduzi Municipality adapts a NO NET LOSS of areas <u>zoned</u> open space/public open space/conservation. • Implement and encourage environmental education and awareness programmes. 	<ul style="list-style-type: none"> • Address issues regarding inappropriate land uses and degradation, which contribute to the loss of agriculture and natural resources. Areas with high grazing potential are to be mapped with possible mitigation/adaptation options to ensure that these areas are controlled and maintained.
Water Resources	<ul style="list-style-type: none"> • The Implementation and improvement of storm water capture/retention and improved Storm Water Management Plans throughout the Msunduzi Municipal area. • Create and encourage flood management zones i.e. for water attenuation and retention during periods of excessive rainfall/flooding (Diederichs, Nichols & van Niekerk, 2009). • Improve potable water availability by laying new pipelines in and around the City. • A “future demand” profile prepared for the city in terms of water requirements, which would be evaluated in terms of climate/temperature influenced rainfall. • Extreme precipitation events should be considered when developing improved storm water designs, land use planning and zoning to avoid damage to infrastructure and buildings in flood/ landslide prone areas. • The formulation of flood evacuation information such as inundation and hazard maps should be generated and this information should be made available to people living in high-risk areas. • Improving and sustaining the water quality and quantity within the Msunduzi catchment area to support the biodiversity and 	<ul style="list-style-type: none"> • Develop and implement a Storm Water Management Policy. • Develop and implement Storm Water Management Bylaws and Regulations. • Implement improved storm water capture /retention and improved Storm Water Management Plans throughout the Msunduzi Municipal area. • Prepare a “future demand” profile for the city in terms of water requirements, which would be evaluated in terms of climate/temperature influenced rainfall. • Increase the water absorption capacity of urban landscapes, and ensure areas such as wetlands, river courses, and riparian areas are conserved and these areas are not disturbed in any manner. • Implement and utilize storm water retention/ detention ponds and constructed wetlands, for water storage and to improved water quality.

CONSOLIDATED TECHNICAL SDF REVIEW REPORT FOR THE MSUNDUZI MUNICIPALITY

Project MSUNDUZI MUNICIPAL SDF REVIEW

Project No. 14376

Revision No. 3

Date: November 2017

	associated ecosystem goods and services.	
Food Security and Agriculture	<ul style="list-style-type: none"> • Develop education, training and extension services to prevent land degradation and unsustainable agricultural practices. • Introduce alternative agricultural techniques to small-scale farmers regarding information on climate change impacts and possible responses, to ensure climate change resilience. • Encourage the implementation and utilisation of urban gardens i.e. Green Roofing and Urban Greening Projects. • Encourage communities to create sustainable gardens whereby they can grow their own crops. • Community based adaptation and assistance should be implemented in communities in order to encourage capacity-building initiatives (Allen, 2006). • Identify and where appropriate, make land available for agricultural production. 	<ul style="list-style-type: none"> • Develop education, training and extension services to prevent land degradation and unsustainable agricultural practices. • Introduce alternative agricultural techniques to small-scale farmers regarding information on climate change impacts and possible responses, to ensure climate change resilience. • Encourage the implementation and utilisation of urban gardens i.e. Green Roofing and Urban Greening Projects. • Encourage poor communities to create sustainable gardens whereby they can grow their own crops and food. • Rehabilitation of Land Owned by Msunduzi addresses the concern regarding the loss of agriculturally productive land and natural resources. • Incorporate biodiversity into agricultural policies, guidelines and decision making. This involves the implementation of interventions to mainstream biodiversity into key aspects of land use planning, government and private sector policies, development programs and production standards
Human Health	<ul style="list-style-type: none"> • • Programs and plans should be implemented, which would seek to educate Municipal staff and the public on how to respond to various climate change related health impacts. • Developing and communicating heat emergency plans when temperature levels are excessively high. • Encouraging and motivating for increased street trees along all major roads and intersections 	<ul style="list-style-type: none"> • Encouraging and motivating for increased street trees along all major roads and intersections (relates to Msunduzi Municipality tree planting policy) in order to reduce heat / temperature levels. • Concepts / strategies regarding reducing carbon emissions and improving air quality within the Msunduzi area should be investigated. • Air Quality Management Plans should be undertaken which would identify areas / sectors, which

CONSOLIDATED TECHNICAL SDF REVIEW REPORT FOR THE MSUNDUZI MUNICIPALITY

Project MSUNDUZI MUNICIPAL SDF REVIEW

Project No. 14376

Revision No. 3

Date: November 2017

	<p>(relates to Msunduzi Municipality tree planting policy) in order to reduce heat / temperature levels.</p> <ul style="list-style-type: none"> Disaster Management teams have plans /strategies in place which deal with responding to major outbreaks of severe diseases, conditions pertaining to malnutrition, heat stroke, dehydration etc., and are adequately trained and provides with equipment to deal with these impacts in an effective and efficient manner. Ensure that clinics/ hospitals are provided with information pertaining to impacts of climate change related incidents (i.e. heat stroke/ dehydration/ increased diseases etc.). Concepts/ strategies regarding carbon emission reduction and the improvement of air quality within the Msunduzi area should be investigated. 	<p>produce high emissions, as well as identifying emission reduction plans and mechanisms for reporting high emissions.</p> <ul style="list-style-type: none"> Carbon Emissions Inventory and Offset Programs should be investigated in order to identify the need for the implementation of green technologies, strategies and building design in order to create developments, which are more sustainable and environmentally friendly. Climate Change Risk Assessment and Adaptation which would address risks of climate change and the Potential impacts, which will be placed on ecosystem services delivery. Ensure that water quality testing is conducted regularly – results should be made available to the public. Measures should be identified and implemented should water quality be of poor conditions. Projects which focus on and contribute to reducing carbon emissions through sequestration or carbon sinks must be promoted and encouraged. This would include the reforestation and rehabilitation of forestry areas and areas previously utilised for felling of timber / timber plantations, as forest ecosystems are known to capture and store large amounts /volumes of carbon.
Storm Water	<ul style="list-style-type: none"> Consideration of improved storm drainage where necessary. Develop and implement a Storm Water Management Policy. Develop and implement Storm Water Management Bylaws and Regulations. Implement improved storm water capture / retention and improved Storm Water Management Plans throughout the Msunduzi Municipal area. Treating the discharge of storm water to sewer as an additional service for which the municipality 	<ul style="list-style-type: none"> Improving storm drainage in necessary problem areas Treating the discharge of storm water to sewer as an additional service for which the municipality has the right to charge and has the channel to do so by means of the normal monthly rates and utility statements. Develop and implement a Storm Water Management Policy. Develop and implement Storm Water Management Bylaws and Regulations.

CONSOLIDATED TECHNICAL SDF REVIEW REPORT FOR THE MSUNDUZI MUNICIPALITY

Project MSUNDUZI MUNICIPAL SDF REVIEW

Project No. 14376

Revision No. 3

Date: November 2017

	<p>has the right to charge and has the channel to do so by means of the normal monthly rates and utility statements.</p> <ul style="list-style-type: none"> Accepting liquid wastes according to a costing formula that realistically represents the true cost of additional treatment or requiring a necessary level of pre-treatment trade to be maintained to achieve a standard of effluent that is generally acceptable to the WWTW process. 	<ul style="list-style-type: none"> Implement improved storm water capture / retention and improved Storm Water Management Plans throughout the Msunduzi Municipal area. Ensure that communities receive education with regards to adequate usages of sanitation facilities and infrastructure. Identify pump stations and pipeline routes which are in need of servicing / upgrading.
Waste	<ul style="list-style-type: none"> Increased implementation of recycling initiatives i.e. expansion of the Mondi kerb-side recycling project³⁶ to involve all users and producers of waste coupled with a sustained municipal wide education and awareness campaign. Implement and increase capacity of the Materials Recovery Facility³⁷ (MRF). Increased implementation of composting facilities varying in degree from small scale household facilities to large industrial scale regional facilities. Improved waste collection efficiency by and between the various role players municipal wide, including the private sector. Enforce the Polluter Pays Principle (NEMA, 2010). Enforce Municipal Bylaws and Regulations. Address illegal roadside / community dumping of waste via sustained public awareness campaigning and sustained law enforcement. Creating a Public Awareness Unit within the Waste Management Business Unit: <ul style="list-style-type: none"> This unit should be a focus on addressing issues such 	<ul style="list-style-type: none"> Increase recycling initiatives i.e. expansion of the Mondi kerb-side recycling project to involve all users and producers of waste coupled with a sustained municipal wide education and awareness campaign. Explore options such as: <ol style="list-style-type: none"> Converting waste to energy (biofuels should only be used if they can be produced / generated with; Very little carbon emissions and with sustainable agricultural practices); Landfill gas capture projects / initiatives; Properly facilitate mining of landfill waste Implement and increase capacity of the Materials Recovery Facility (MRF). Increased implementation of composting facilities varying in degree from small scale household facilities to large industrial scale regional facilities. Improved waste collection efficiency by and between the various role players municipal wide, including the private sector. Enforce the Polluter Pays Principle (NEMA, 2010). Enforce Municipal Waste Bylaws and Regulations.

CONSOLIDATED TECHNICAL SDF REVIEW REPORT FOR THE MSUNDUZI MUNICIPALITY

Project MSUNDUZI MUNICIPAL SDF REVIEW

Project No. 14376

Revision No. 3

Date: November 2017

	<p>as illegal dumping and littering; How waste and litter can impact on ecosystems and biodiversity should be highlighted, with information on how to reduce waste and promote recycling.</p> <ul style="list-style-type: none"> • Implementation of the Msunduzi Integrated Waste Management Plan³⁸ which deals with waste reduction and recycling options. 	
Energy Utilisation	<ul style="list-style-type: none"> • Increase community awareness regarding appropriate usages of energy and electricity (if not using an appliance switch it off, benefits of implementing energy saving technologies etc.). • Introduce rebates and incentives to encourage electricity users to implement renewable energy. • Increased utilisation of alternative energy / powered facilities i.e.: Solar powered streetlights, traffic lights; Small-scale solar energy / alternative energy projects; Solar geyser initiatives and • Green Building designs. 	<ul style="list-style-type: none"> • Ensure that all municipal buildings are retrofitted with energy saving technologies • Increase community awareness regarding appropriate usages of energy and electricity (if not using an appliance switch it off). • Introduce rebates and incentives to encourage electricity users to implement renewable energy • Develop and implement bylaws to support and strengthen the building regulations. • Increased utilisation of alternative energy / powered facilities in all new buildings i.e.: Solar powered streetlights, traffic lights; Small-scale solar energy / alternative energy projects; Solar geyser initiatives; and Green Building designs
Transportation	<ul style="list-style-type: none"> • In order to decrease the levels of degradation to road and railway networks (i.e. potholes, cracking of roads etc.), the implementation of improved storm water and drainage systems should be investigated. • Increased and efficient public transportation systems i.e. the IRPTN is in the process of being developed and planned for the Msunduzi area • Transportation systems which will significantly contribute to the upgrading of interchanges and road networks within and around 	<ul style="list-style-type: none"> • Transportation systems which will significantly contribute to the upgrading of interchanges and road networks within and around the CBD as well and contributing to traffic reduction. • Infrastructure Cost Modelling aimed at improving service delivery and providing basic services. • Implement improved and more effective public transportation systems.

CONSOLIDATED TECHNICAL SDF REVIEW REPORT FOR THE MSUNDUZI MUNICIPALITY

Project MSUNDUZI MUNICIPAL SDF REVIEW

Project No. 14376

Revision No. 3

Date: November 2017

	<ul style="list-style-type: none"> the CBD as well as contributing to traffic reduction Infrastructure Cost Modelling aimed at improving service delivery and providing basic services. 	<ul style="list-style-type: none"> Implementation of Non-Motorised Transportation (NMT) routes and infrastructure.
Building Co-Operative Governance & Improved Communication Procedures	<ul style="list-style-type: none"> Environmental Capacity Assessment to ensure that environmental issues are prioritized. Identify existing capacity as well as areas that require further capacity and support within the municipality. LA21 Forum Growth41 focuses on addressing issues around the lack of sufficient resources allocated for environmental functions, it also deals with increasing the use of media and public support in order to ensure participation in decision-making. Sustainable Development Training which aims at improving communication channels and strategies between decision makers and the public sector in order to ensure a holistic approach to decision making. 	<ul style="list-style-type: none"> Environmental Capacity Assessment to ensure that environmental issues are prioritized. Identify existing capacity as well as areas that require further capacity and support within the municipality. In order to ensure that communities are aware of climate change issues it is essential that a <i>Council on Climate Change is established in order to impart practical mitigation and adaptation measures</i> (IDP review for 2013/14-2016-17).

1.4.4.6.1 Climate Change Policy Implications for SDF

The Climate Change Policy provides a useful starting point in the conceptualisation of environmental principles which inherently give cause and effect to sustainable development practices within the Municipality whilst bringing to fruition the objectives of such a policy.

2 MSUNDUZI GROWTH MODEL 2017-2021

The Msunduzi Growth Model which is discussed in greater detail herein Section 2 intends to align the economic and spatial development plans of the municipality with the anticipated population and economic growth trends therein.

Whilst the existing Msunduzi Growth Model is based on a 40 year horizon, similarly to the Msunduzi Economic Development Strategy and Spatial Development Strategy, the purposes of this section is to highlight the anticipated population and economic growth trends within the municipality **over a short term horizon, i.e. 5 years (2017-2021)**, whilst

matching it with the key spatial pressure points from an infrastructural and housing perspective.

The Msunduzi Growth Model is a prescribed requirement in terms of the uMgungundlovu SDF goals or objective, namely Objective 4. Currently the Msunduzi Municipality comprises of the following demographic and economic elements which are noteworthy in determining the manner in which the municipality will grow. These may be summarised as follows:

2.1 Demographic Element

In 2016, Msunduzi Local Municipality had approximately 654 279 people. The Municipality carries approximately 181 594 households with approximately 423 households per square kilometre (hh/km²).

The year-on-year (y/y) average households' growth within the municipality is currently at 1.6%. Msunduzi has a 60,0% labour force participation rate and 41.2% labour absorption rate with 39,9% of the population employed. Each household earns approximately R6 773 per month with 37,6% of households earning low income.

The majority (49.6%) of Msunduzi residents have either grade 12 (39,0%) and higher education (14,7%). The working age population (69,5%) dominates the municipality and is followed by youth at 25,4%. Table 6 herein below provides a consolidated demographic overview of Msunduzi Local Municipality.

Table 6: Msunduzi Local Municipality Demographic Overview

Category		2001	2011	Avg. Growth	2016
Demographic Profile	Population	552 801	618 536	1,1%	657 213
	Household	135 311	164 625	2,0%	181 584
	Average Household Size	4,1	3,8	-0,8%	4
	Household Density (hh/km ²)	213	260	2,0%	286
Education Level	No schooling	5,3%	2,7%	-5,1%	3,8%
	Primary school	10,6%	7,2%	-2,7%	11,3%
	Some secondary	17,5%	16,6%	1,0%	31,2%
	Grade 12	12,1%	17,0%	5,0%	39,0%
	Higher	4,5%	6,4%	5,1%	14,7%
Age Profile	Youth	29,2%	26,6%	0,2%	25,4%
	Working-Age	66,0%	68,4%	1,7%	69,5%
	Elderly	4,8%	5,0%	2,0%	5,1%

CONSOLIDATED TECHNICAL SDF REVIEW REPORT FOR THE MSUNDUZI MUNICIPALITY

Project MSUNDUZI MUNICIPAL SDF REVIEW

Project No. 14376

Revision No. 3

Date: November 2017

Category		2001	2011	Avg. Growth	2016
Employment Profile	Employed	51,8%	60,6%	2,7%	65,8%
	Unemployed	48,2%	39,4%	-3,8%	34,2%
Household Income Profile	No Income	21,1%	15,8%	-0,9%	12,1%
	Low Income	53,8%	44,2%	-0,8%	37,6%
	Low/Middle Income	19,2%	22,8%	3,8%	22,1%
	Middle/High Income	5,2%	14,7%	15,5%	23,7%
	High Income	0,7%	2,5%	13,5%	4,5%

Census (2001 & 2011) and Urban-Econ (2017)

2.2 Economic Element

This section presents an economic overview of Msunduzi Local Municipality using regional and Gross Value Add (GVA) at basic prices by industry at constant 2010 prices for a period of 10 years—between 2001 and 2011. Table 7 presents average growth in different industries within the Municipality.

Table 7: Average Industry Growth within Msunduzi, R millions constant 2010 prices

Industry	2010	2015	Average Growth	2016
Agriculture, forestry and fishing	R807,01	R925,54	3,1%	R954,12
Mining and quarrying	R175,43	R244,73	5,1%	R257,17
Manufacturing	R6 123,49	R7 839,03	0,7%	R7 896,82
Electricity, gas and water	R1 438,42	R2 992,14	-0,5%	R2 976,30
Construction	R1 379,55	R1 938,77	2,0%	R1 978,09
Wholesale and retail trade, catering and accommodation	R4 541,94	R6 457,85	2,4%	R6 611,45
Transport, storage and communication	R3 142,00	R5 161,59	2,5%	R5 290,61
Finance, insurance, real estate and business services	R5 821,21	R8 461,48	2,7%	R8 691,66
General government	R6 618,50	R10 134,64	3,2%	R10 457,19
Community, social and personal service	R2 465, 93	R3 662,96	2,5%	R3 755,37

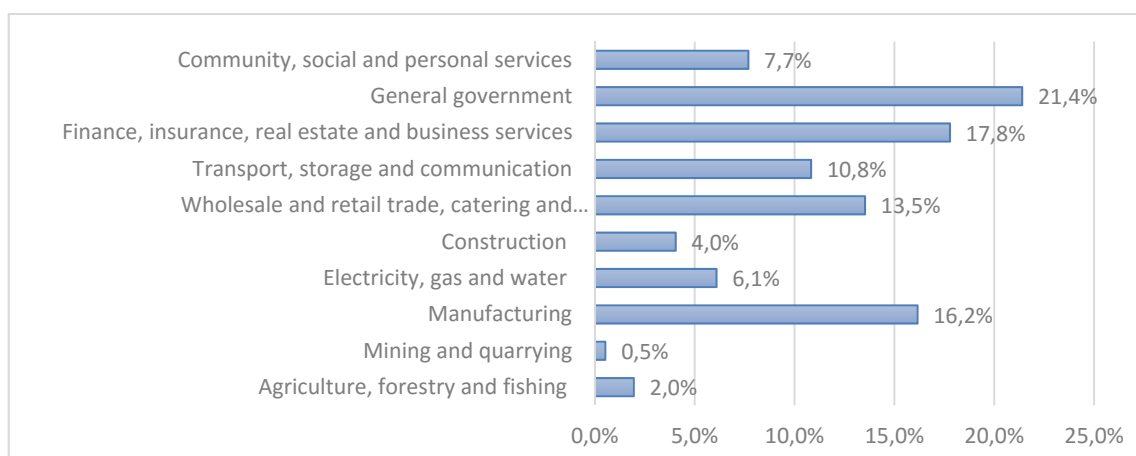
Quantec – Standardized Regional Data & Urban-Econ (2017)

As presented in Table 7, Mining and quarrying (5,1%), General government (3,2%), Construction (4.8%) and Agriculture and forestry (3,1%) **are the fastest growing sectors in Msunduzi Municipality.**

Figure 10 indicates the economic contribution of each sector of the economy in Msunduzi Local Municipality. As shown in Figure 10, General Government (21,4%), Finance, Insurance and Real Estate (17,8%), Manufacturing (16.2%), Wholesale and Retail Trade, Catering and Accommodation (13,5%), and Community, Social and Personal service (13,4%) are the **highest economic contributors** in Msunduzi Municipality.

Although Mining and quarrying is the least contributing sector within the Municipality, it has been the fastest growing sector since 2010 at 5,1%.

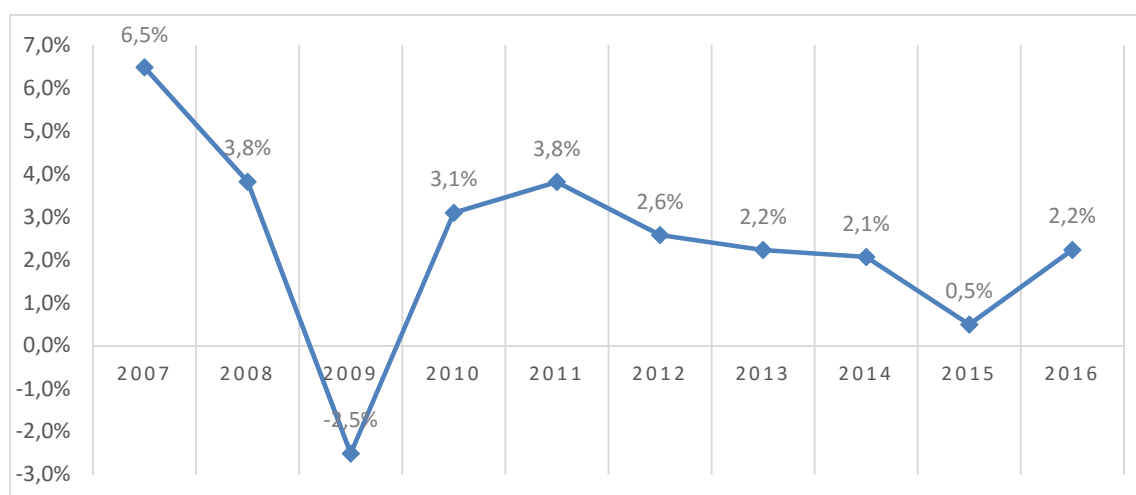
Figure 10: Economic contribution per sector for Msunduzi Local Municipality



Quantec – Standardized Regional Data & Urban-Econ (2017)

Figure 11 gives an indication of the y/y growth in gross domestic product (GDP) as gross value added (GVA) at constant 2010 prices for Msunduzi Local Municipality between 2007 and 2016.

Figure 11: Year-on-year Growth in GDP for eThekweni Municipality, 2007-2016



Quantec – Standardized Regional Data & Urban-Econ (2016)

Msunduzi Municipality's y/y GDP growth rate was 6,5% in 2007 which started declining remarkably through to 2008/2009 recession, however positive growth rates have been experienced from 2010 to date **Msunduzi's GDP growth rate is currently at 3.3%.**

Based on the demographic and economic profile of the municipality, it is worth noting that the municipality is anticipated to experience a level of fair growth rates which present a set of development implications, particularly around key pressure areas, in regards to the implementation of short term development projects.

2.3 Overall Population Growth and Development Trends within a 5 Year Period (2017-2021)

A review of the anticipated growth rates for the next 5 years, 2017 – 2021 is provided below. The basis of these projections is derived from the historical growth rates experienced in the municipality between the 2001 and 2011 Census, which is estimated to be approximately 1.1%. This is higher than both provincial and district average which have been below 1%. In calculating the growth rate, each ward's rate of growth was calculated and applied over the period too and the summation of this is reflected in Table 8. An indication of the medium and high growth rate is also reflected below, but these scenarios are unlikely to be reached in the short term, given that the current growth rate continues to hold around 1%.

Table 8: Growth Rate for The Msunduzi

CONSOLIDATED TECHNICAL SDF REVIEW REPORT FOR THE MSUNDUZI MUNICIPALITY

Project MSUNDUZI MUNICIPAL SDF REVIEW

Project No. 14376

Revision No. 3

Date: November 2017

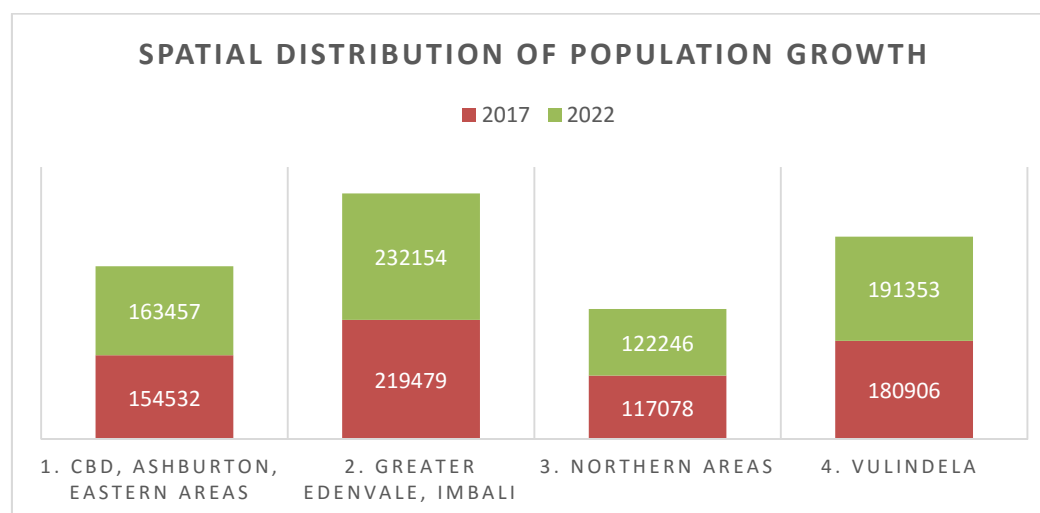
	ANTICIPATED GROWTH RATE 1.1%	MEDIUM GROWTH RATE 2.2%	HIGH GROWTH RATE 3.3%
2017	671,994	704,807	751,565
2018	679,582	720,313	776,367
2019	687,256	736,160	793,447
2020	695,017	752,355	810,903
2021	702,865	768,907	828,743

Urban-Econ Calculations 2017, derived on Census 2001 and 2011 baseline data.

2.3.1 Spatial Distribution of Population

This population growth is anticipated to be distributed throughout The Msunduzi, consideration of the rate of change of individual wards has been used to identify the changes across the four ABM areas of the municipality. Greater Edendale and Imabli, while already very densely settled, will continue to attract new settlement as a result of the low barriers to entry for lower income households. Similarly, Vulindlela is anticipated to experience higher growth as location preference for inward migration. Figure 12, detailed herein below summarises the spatial distribution of population within the municipality.

Figure 12: Spatial Distribution of Population



Urban-Econ Calculations (2017), derived on Census 2001 and 2011 baseline data.

2.3.2 Relevant Short Term Catalytic Projects

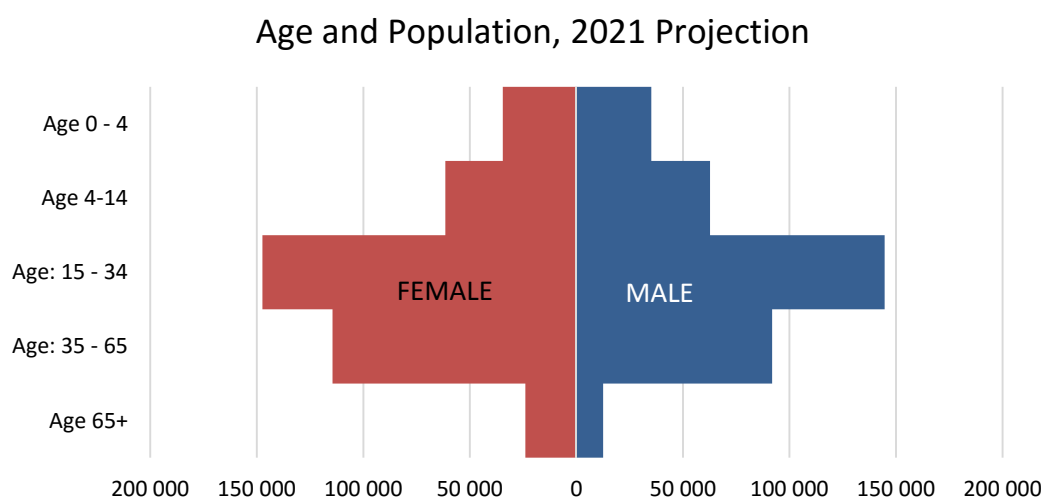
Based on the aforementioned pressure points/areas within the Municipality along with the anticipated population growth therein over a five year period, the Municipal IDP Review (2014/15-2016/17: 30) highlights the following noteworthy catalytic projects in regards to infrastructural development:

- **Pietermaritzburg Airport Upgrade-** is a short- term project that will see the extension of the existing runway, together with the terminal buildings. This will allow for larger aeroplanes to make use of the airport, thereby attracting additional operators and increasing the amount of feet through the airport.
- **Integrated Rapid Public Transport System-** is a short to medium-term project which will see the roll-out of reliable and efficient public transport between key points in the city, thereby reducing resident's commuting times.
- **Electrical Infrastructure Upgrade-** is a short to medium-term project that will see the rehabilitation and upgrading of the Municipality's electrical infrastructure.

2.3.3 Population Structure

The population pyramid projection for 2021 in figure 13 indicates that can be anticipated that the majority of the population in the working age cohort 35 – 65 populous will be female. Youth will remain very evenly distributed between the genders, and there remains indications that a greater number of women will reach retirement age.

Figure 13 Population Pyramid 2021



Urban-Econ Calculations (2017)

CONSOLIDATED TECHNICAL SDF REVIEW REPORT FOR THE MSUNDUZI MUNICIPALITY

Project MSUNDUZI MUNICIPAL SDF REVIEW

Project No. 14376

Revision No. 3

Date: November 2017

The implications for housing densification are reflected in the anticipated densities as reflected in Table

Table 9: Household Densities

	2017	2021
Area (Sq Km)	634	634
Household total	193,426	217,422
Households: Household density (Households per Sq Km)	305	343

Census (2011) data.

Substantial increase in densities from 305 households per square kilometre to 343, this represents an increase of 12% in 5 years. What this means for services like waste removal, is that by 2022 the demand ramps upwards from 103 141 households on a weekly service to 115 937 households in line with these anticipated densities.

Table 10 Impact on Waste Services 2017 and 2021

	2017	2021
Removed by local authority at least once a week	103,141	115,937
Removed by local authority less often	3,028	3,403
Communal refuse dump	2,674	3,006
Own refuse dump	73,295	82,388
No rubbish disposal	8,124	9,132
Other	3,163	3,556
Total	193,426	217,422

Census (2011) data.

2.3.4 Residential Demand

Determining the demand for residential property is a function of available resources, affordability parameters and both natural and induced household growth. Given that this is a high level spatial planning exercise, an approach of considering these inputs in the context of the Msunduzi SDF has been followed.

According to the Quantec Database and Urban-Econ calculations, in 2017 there are approximately 189 428 households within The Msunduzi area. This figure was extrapolated from the 2001 (130 292 households) and 2011 (164 625 households) census figure for The Msunduzi households. This reflects an annual growth rate of 2.4%. Three growth scenarios for the next 5 years (low-growth of 1.5%, the current growth of 2.4%, and high-growth of 3.5%) have been developed to consider the

potential future demand housing unit stock in Msunduzi. It is assumed that in 2017, there is no additional demand for residential property in the Municipality as this would be met by the market's supply. The tables below display the results of the three-scenario demand model calculations.

The first row of each table displays the projected number of households from 2017 – 2022. The next row displays the additional number of units that are required to match the annual growth in households that was projected. The final row displays the effective number of households that will be in demand in The Msunduzi Local Municipality.

Table 11: Effective Demand for Residential Units (Low Growth Scenario:1.5% annual household growth)

Low Growth Scenario (1.5% annual household growth)	2017	2018	2019	2020	2021	2022
Number of Households	180 009	182 709	185 449	188 231	191 054	193 920
Additional Household Units Required per Annum	0	2 700	2 741	2 782	2 823	2 866
Effective Number of Units in Demand	0	2 700	5 441	8 222	11 046	13 912

Quantec Database: Census 2001 and 2011; Urban-Econ Calculations (2017)

Low Growth Scenario: The total number of households is projected to increase from 180 009 in 2017 to 193 920 in 2022. In the next 5 years, the estimated cumulative demand for housing, as per the demand forecast, is 13 912 houses demanded by 2022.

Table 12: Effective Demand for Residential Units (Current Growth Scenario:2.4% annual household growth)

Current Growth Scenario (2.4% annual household growth)	2017	2018	2019	2020	2021	2022
Number of Households	189 428	193 911	198 500	203 197	208 006	212 928
Additional Household Units Required per Annum	0	4 483	4 589	4 697	4 809	4 922
Effective Number of Units in Demand	0	4 483	9 072	13 769	18 578	23 500

Quantec Database: Census 2001 and 2011; Urban-Econ Calculations (2017)

Current Growth Scenario: The total number of households is projected to increase from 189 428 in 2017 to 212 928 in 2022. In the next 5 years, the estimated cumulative demand for housing, as per the demand forecast, is 23500 houses demanded by 2022.

Table 13: Effective Demand for Residential Units (High Growth Scenario:3.5% annual household growth)

High Growth Scenario (3.5% annual household growth)	2017	2018	2019	2020	2021	2022
Number of Households	202 367	209 449	216 780	224 367	232 220	240 348
Additional Household Units Required per Annum	0	7 083	7 331	7 587	7 853	8 128
Effective Number of Units in Demand	0	7 083	14 414	22 001	29 854	37 981

Quantec Database: Census 2001 and 2011; Urban-Econ Calculations (2017)

High Growth Scenario: The total number of households is projected to increase from 202 367 in 2017 to 240 348 in 2022. In the next 5 years, the estimated cumulative demand for housing, as per the demand forecast, is 37 981 houses demanded by 2022.

3 KEY STRUCTURING ELEMENTS, DELINEATION OF THE URBAN EDGE, AREAS OUTSIDE URBAN EDGE IDENTIFIED FOR DEVELOPMENT AND ALIGNMENT THEREOF WITH THE WARD 39 SPATIAL INFORMANTS AND GUIDELINES

Whilst it is understood that in terms of the project scope, the purpose of this section is to delineate and establish an urban edge for the Msunduzi Municipality; there are certain components that need to be expounded upon in order to practically and coherently delineate the urban edge

In this regard, the KZN COGTA Spatial Planning Assessment (2016-2017) highlighted some key observations that the current SDF has not addressed and of which this Review needs to take cognisance of, namely:

- Identifying key structuring elements;
- Delineating the urban edge;
- Interrogating the conservation of the built environment within the municipality;
- Improving the legibility of the current SDF map.

Consequently, this section intends to identify the key structuring elements; provide a guideline to the establishment of urban edges and delineation, whilst also identifying areas for development outside the urban edge. This is to fully ensure the insertion thereof into the current SDF will act as an overall investment and development guiding framework within the Msunduzi Municipality.

Furthermore, this section also intends to capture the salient aspects of a newly absorbed ward within Msunduzi, namely Ward 39, and interrogate the spatial informants therein as advanced by the Nkosazana Dlamini Zuma 2016/17 SDF and their spatial implications for the current SDF.

3.1 Spatial Structuring Elements

Spatial structuring elements include a number of natural and man-made features that have either inadvertently or deliberately shaped or continue to shape development within the Msunduzi Municipality.

These generally act as key development informants within the jurisdiction of the municipality in so far as resource allocation, driving both private and public sector investment and ultimately the preservation of natural and environmental elements therein.

Ordinarily, the utilisation and management of these spatial structuring elements for key development purposes ought to be aligned to the municipal IDP's vision. These may be summarised as follows:

- Hubs and Urban Centres (Concentration of activity);
- Corridors (Main roads/Arterials);
- Settlement Patterns (Formal/Informal/Traditional);
- Restrictive Conditions (Environmental/Topographical/Geotechnical);
- Environment/Open Spaces (Active/Passive);
- Urban Edge;
- Areas outside urban edge identified for development; and
- Mixed-Use Developments Aesthetic Environment (Visual Form/Heritage Special Features)

Each of these structuring elements are saliently discussed hereunder:-

3.1.1 Hubs and Urban Centres

Hubs are areas where a higher intensity or concentration of a wide variety of land uses and activities are supported or promoted. The guiding concepts in the functioning of these includes:

- Effective use of existing resources such as infrastructure and social facilities
- Promoting the concepts of compaction in order to discourage urban sprawl
- Protecting high potential agricultural land
- Providing guidance to investors (both public and private sector)
- Encouraging economic, social and environmental sustainability
- Accommodating reasonable future demand expansion

Msunduzi consists of three types of hubs, namely:-

Table 14: Hubs and Urban Centres Categorisation

Hub Type	Description
CBD	This hub includes the Pietermaritzburg CBD, which contains the full range of uses and services ordinarily associated with a typical CBD.
Urban Hubs	<p>Urban hubs comprise of a variety of services (such as retail, social and industrial) at a localised level within the municipality and these include the:</p> <ul style="list-style-type: none"> • Greater Edendale Area; • Liberty Mall and its immediate surrounds; • Northdale; • Mkhondeni; • Ashburton; Ambleton, Foxhill and Sheston Concentration; • M70 and Sinathinghi Intersection around the Edendale; Umsimangville area; • kwaMbanjwa; and the • Concentration area between the major road network linking the Vulindlela and Tayors Halt areas along with kwaMafunze and the Mafakathini area.
Sustainable Urban Centres	Similar to urban hubs, these focal areas of land use concentration and activity generally sit within a 5km radius to the existing urban hubs.

(Msunduzi SDF 2015)

3.1.2 Corridors

Corridors are links between nodes, along which an increased intensity of development may be encouraged. Msunduzi Municipality consists of 3 types of development corridors, namely:-

Table 15: Corridor Categorisation

Corridor	Description
Provincial Priority Corridor/Limited Access Mobility Roads	This corridor comprises of the N3 which has been identified as a priority development corridor by the Provincial Cabinet. The prime function of the corridor is to serve as a long-distance movement corridor. Linked to this corridor is the identified SIP 2 corridor which has

	been deemed as a priority area for industrial and logistic development.
Activity Spines	Activity spines are usually referred to as development corridors and occur along major arterials leading into or from the CBD Node. This corridor promotes a mix of complementary land uses such as retail, office, entertainment, and residential in specific area.
Arterial Roads and Bypasses	This corridor consists of existing, improved, and proposed roads aimed at improving accessibility, reducing congestion in and around the core, as well as opening up areas previously excluded from the local economy.

(Msunduzi IDP 2015/16: 68-69)

3.1.3 Settlement Patterns

The development of Msunduzi was shaped by colonial and apartheid spatial development policies, with segregated development areas which is one of the most significant characteristics of its inherited spatial economy. In terms of the settlement patterns it is important to note that older areas on either side of Edendale Road comprise a mix of both formal and informal settlement patterns, mostly located on older cadastral layouts. Generally the Greater Edendale ABM area has high density formal housing as well as a high concentration of informal housing. Settlements to the south and east are a mixture of traditional and formal settlements. The residential areas in the central and eastern portions of the municipality are dominated by formal settlement patterns. Undeveloped land, with great potential for development, is located to the east of the ABM and adjacent to the Ashburton ABM (Msunduzi IDP 2015/16: 59).

3.1.4 Restrictive Conditions (Environmental/Topographical/Geotechnical)

Pietermaritzburg is situated in the basin of the Msunduzi River and its tributaries. An escarpment rises approximately 400m above the city to the West and North West. The mountains around the city bowl create a distinction between the urban and rural parts of the Municipality. While this has provided opportunities to manage the urban/rural interface, it has limited the city's potential for expansion.

Approximately 30% of the municipal area consists of topography having a gradient steeper than 1 metre in 3 metres (1:3). More than half of this steep topography is located in the western quadrant of the municipal area particularly within the boundaries of the Greater Edendale-Imbali ABM and the Vulindlela ABM. Flat topography having a gradient flatter than 1 metres in 3 metres (1:3) constitutes approximately 70% of the municipal area (Msunduzi Final Draft SEA 2010:12 & 36).

3.1.5 **Environment/Open Spaces (Active/Passive)**

Msunduzi has a number of open spaces. The Municipality contains 16 Parks and 133 Open Spaces (Msunduzi IDP 2015/16:145). The maintenance of open spaces within the municipality has been problematic. Open spaces are mainly located within the Northern ABM and Vulindlela AMB areas.

3.1.6 **Urban Edge**

An urban edge is a line demarcating the extent to which urban development will be focused within an urban development corridor or urban node. It is a line that will promote efficient, equitable and sustainable settlement form. The line indicates the outer limit of urban development within a corridor, hub or urban centre.

3.1.7 **Areas outside Urban Edge Identified For Development**

These may be described as previous areas of neglect, which by default sit outside the urban edge, but have grown over time in a manner which has created dense settlement patterns within the Municipality. These type of areas are located in proximity to various focal points or hubs (i.e. Tayors Halt, Mafakathini, Tafuleni and Vulindlela) which serve the local service, retail and residential needs therein. These areas present further investment opportunities for the municipality in regards to unlocking and catalysing economic potential.

3.1.8 **Mixed-Use Developments Aesthetic Environment (Visual Form/Heritage Special Features)**

Msunduzi has an extremely rich cultural, architectural, historical, and archaeological resource base that collectively makes up the heritage resources of the area. The Municipality has a total of 646 heritage resource points, and 32 heritage resource zones, which consist of architectural resources, archaeological resources, as well as historical and cultural resources. It then becomes important to protect these resources in order to endorse the rich cultural history of the area. The extent of the Municipality's archaeological resource base is largely unknown, none the less these resources need to be acknowledged and protected.

3.2 **Delineating the "Urban Edge" for the Msunduzi Municipality**

3.2.1 **Theoretical Framework**

The Department of Environmental Affairs and Development Planning of the Western Cape Provincial Government (2005: 8) defines an urban edge as *"a demarcated line around an urban area as a growth boundary, i.e. the outer limit of the urban areas. The urban edge marks the transition between urban and rural land uses, i.e. generally*

CONSOLIDATED TECHNICAL SDF REVIEW REPORT FOR THE MSUNDUZI MUNICIPALITY

Project **MSUNDUZI MUNICIPAL SDF REVIEW**

Project No. **14376**

Revision No. **3**

Date: **November 2017**

between urban areas where full municipal services are provided to land uses other than agriculture and the rural, predominantly agricultural, conservation and nature areas. Urban edges are intended to include an adequate supply of land that can be efficiently provided with urban services (roads, sewers, water, storm water systems and streetlights) to accommodate the expected growth of an urban area for a defined period.”

The Nelson Mandela Bay Municipality (2007:29) identifies two noteworthy functions of an urban edge. Firstly, it may be deemed as a growth management tool used to limit sprawl and outward growth of the urban area in favour of achieving densification and infill development to ensure more efficient utilisation of resources and land within the urban footprint. Secondly, it acts as a management and conservation tool, used to exclude certain elements of the environment from the urban area, for preservation purposes and the management of land use which minimises the impact on the preserved environment in the short to medium term thus promoting sustainable development.

Within the context of the Msunduzi Municipality, there is a need to outline the urban-rural interface whilst defining the nature of development, densities, the service levels and standards that will apply as a way of sustainably managing the transitional peri-urban areas. Accordingly, this process may lead to the refinement of the urban edge on an on-going basis based on the current and future development scenarios therein, i.e. on a five year basis.

There are various factors that assist in the establishment of determining an urban edge within the jurisdiction of the municipality. In this regard, according to the Nelson Mandela Bay Metropolitan Municipality (2007: 30-34), the following noteworthy characteristics may be deemed to be of significance in determining the urban edge:

- a) **Prominent landform & character areas-** an area characterised by undisturbed natural conditions comprising of high conservation value because of their biophysical characteristics and due to their scenic/aesthetic worth.
- b) **Valuable Soils-** Approximately 3% of South Africa soil maybe classified as high-potential agricultural land and the associated protection thereof against any change of land use, is of importance for sustainable agricultural production.
- c) **Hydrology-**Comprises of riparian zones of rivers which are the most important in river conservation. Riparian zones from the part of the catchment that directly affects the river ecosystem and has an effect on the quantity and quality of stream flow. The vegetation in the riparian zone supplies food to the aquatic fauna, controls the drainage of water, nutrients and other minerals to the stream, provides shade to decrease the harmful effects of warm water on the biota and stabilises the stream banks, thereby keeping the water silt-free. Many uses such as agriculture, forestry, urban and tourism development contribute towards disturbance of water bodies and

more specifically rivers and riparian zones. Modifying natural watercourses by the removal or destruction of riparian vegetation can rapidly bring about the collapse of the stream system and reduce it to an unattractive drainage system that merely serves to dispose of polluted water and top-soil into estuaries.

- d) **Ecological Resources (aquatic & terrestrial)**- include water, land, vegetation, wildlife and minerals are the basis of economic activity and often the grounds for the establishment of urban areas. Biological diversity is the collection of all living organisms in the environment and it is of paramount importance that these ecological assets are preserved for future generations. In order to achieve the highest diversity, the largest possible collection of living organisms needs protection and preservation in the environment, as an ecosystem. It is essential to consider the proximity of development to the coast and / or hydrological resources, as mentioned above. Sensitive and rare collections of living organisms should not isolated by development. They should rather form part of a wider biodiversity network where natural migration is not inhibited, which suggest exclusion of such ecosystems from the urban area.
- e) **Protected Areas**- Protected areas proclaimed in terms of various legislation to conserve cultural or ecological resources or biological diversity. They are proclaimed in terms of specific legislation that would determine whether or not a specific area could be included into an urban are or not and in what context.
- f) **Services & Infrastructure (barriers effect)**- development that occurs adjacent to the urban edge should be planned and designed in such way that future development could take place on the outside thereof, unless there are insurmountable obstacles that would prevent development regardless of changes in technology and policy. The internal road network, link and connector services and the service distribution network, should on the one hand ensure that sprawl and incremental growth is not encouraged, but on the other, it should provide sufficient scope for feasible extension of the development.
- g) **Vacant Under Utilised Land**- There is a benefit to the availability of vacant and under-utilised land, as it contributes to the reduction in the cost of land and accommodation in urban areas. Accommodation therefore remains affordable, whereas numerous resources indicate the lack thereof as a significant factor causing high land values and accommodation costs. Infill policies, such as the establishment of urban edges in proximity of the existing urban fringe, attempt to encourage the development of vacant land within urban areas.
- h) **High order roads, access routes and transport infrastructure**- Transport infrastructure is a major contributing factor in urban growth, especially in low density, high income neighbourhoods. Inclusion of the infrastructure theoretically

promotes growth, whereas exclusion leads to a duplication of the infrastructure, i.e. additional cost, as new development and growth is reliant on transport linkages.

- i) **Cadastral boundaries of adjoining land units-** these could be drawn on an existing cadastral boundary, such as nature reserve boundary, whereas in others a feature in the landscape could be used, e.g. a river, or it could also be a definable line between two points.
- j) **Growth Boundaries over the next 10-20 year periods-**One method used in determining urban edges is the calculation of the growth rate of the urban area in relation to the availability of developable land. The growth rate determination includes the calculation of land requirements for supporting infrastructure and facilities, at predetermined development densities.
- k) **Land Use applications for new development-**If the market dictates, then the urban edge would be a flexible line with no real purpose. If forward planning is the determining factor, then an urban edge has real value in achieving the goals set out above. The SDF and the defined demand for housing is a more reliable informant that the market forces.
- l) **Visual Impact-**The value of the environment is often under-estimated from a visual perspective. The diversity of the landscapes makes it essential to consider all developments and more particularly the expansion of urban areas, an issue that requires special consideration. The intension is to manage urban development in such a way that no development would detract from the visual quality of the environment and that all development conform to a characteristic style and urban form that suites the character of the area.
- m) **Cultural & Heritage Resource Areas-**Cultural value means areas, sites or objects which have historical significance. This includes modifications to the natural environment, which are of historical significance as well as natural environments that reflect cultural or historical heritage. This includes areas or sites that are designed as national heritage sites; that are designed as national monuments; that are documented as being of cultural significance by the relevant authority (e.g. South African Heritage Resources Agency); and that have a long-standing tradition of being of cultural importance to a community or that are designated as being sacred sites by spiritual leaders in the community.
- n) **Informal Settlements-** and subsidy housing schemes have traditionally occurred outside of current urban areas as a result of the old segregation policies of the country. This phenomenon has now become an entrenched practice, as the land values, i.e. agricultural land values, outside the urban edge are relatively low and

large areas can be acquired to enable “economies of scale” in subsidy housing development.

Based on the foregoing, it becomes evident that the delineation of urban edges is dependent upon a variety of factors which include the following spatial features amongst other things:

- **The natural environment**-comprising of various elements such as soils, topography, geology, hydrological features, agriculturally significant areas, ecological resources, protected areas and areas of cultural and heritage significance. These may enable the establishment of areas of high environmental and agricultural significance of which urban development ought to preserve and be cognisant of.
- **Bulk Infrastructure**-which includes water, sanitation, electricity and ICT related infrastructure. In this regard, infrastructure is an important factor in the delineation of an urban edge as it highlights the existing and proposed infrastructural points thus enabling the determination of service levels within the municipality.
- **High order roads, access routes and transport infrastructure**- these include major roads of varying scales and land use intensity which lend themselves useful for future development within the municipality. Generally, roads comprising of high level of economic opportunities need to be complimented by the promotion of greater population densities by the municipalities which in effect increase productivity thereon. In addition, these roads may be deemed of regional or provincial significance in so far connecting regional, provincial and national boundaries such as freeways.
- **Land use**-which is indicative of the overall type of development occurring within each specific locality of the municipality and their associated role within the broader region. Areas generally comprising of a specialised land use role within the municipality in so far as hosting residential, commercial, retail (formal and informal) and industrial uses may be deemed to be urban.

Therefore, the delineation of the urban edge within the Msunduzi Municipality needs to be cognisant of these underlying dynamics.

3.2.2 **KZN COGTA Guidelines for the Delineation of Urban Edges (2009: 8-10)**

Whilst it is acknowledged that there is no ‘scientific’ way of defining these urban or containment edges: they require strong administrative actions to defend them. A number of factors contribute to the delineation of the line.

The delineation needs to be cognisant of the natural environment which may be deemed as a useful tool to compile a map identifying composite natural resources and character - contributing elements in the settlement region. Wherever possible, the edge definition should co-inside with natural barriers (water courses, steep slopes, vegetation of significance and so on).

Secondly, as it is noted that the main purpose of urban edges is to compact urban development to achieve greater urban efficiencies, the line should be drawn as close to the edge of the existing built-up area as possible. *“The line should be defensible in terms of the logic of the internal structure of the existing settlement. As a rule of thumb, the line should not be more than 1.5 kilometres – a reasonable walking distance – from the closest point or line of more intensive urban activities (places of work, retailing and community facilities)”* (KZN COGTA Guidelines 2009: 9).

Furthermore, the following noteworthy points according to the KZN COGTA Guidelines (ibid) need to be taken into account in regards the process of urban edge delimitation:

- The defining edge should not be continuous. By omission, it should define paths of future lateral spread which, in turn, allow for a rational pattern of future government spending on utility and social infrastructure. As a general principle new urban development should occur on the worst land in terms of agricultural productivity and amenity: urban development should be used to improve the total landscape.
- Within these paths of future lateral expansion, sprawl should be strongly discouraged. Development should not be suburban but should take more urban, higher density forms.
- The delineation of edges should not follow existing cadastral boundaries. It should form a strong geometric edge.
- The edge should be made physically, not just administratively determined. Buildings should occur hard against the edge and open-ended street networks, which encourage further lateral spread, should be disallowed.
- Wherever appropriate, the edge should be reinforced through the creation of fire-breaks and more intensive forms of agriculture which should be encouraged to occur hard against the edge.

3.2.2.1 Guidelines for defining where development should not go

There are four central principles that should guide this determination:

- Avoid locating new built development on land of medium to high agricultural and amenity value;
- Avoid fragmentation of rural and wilderness landscapes;

- Avoid fragmentation, or a scatter of pockets, of development: ensure that new development responds to, and reinforces, the logic of regional and sub-regional infrastructure (the principle of structural reinforcement);
- Maintain the dominance of agricultural and wilderness landscapes outside of the urban cores.

3.2.3 Urban Edge Delineation Informants within the Msunduzi Municipality

At a broader regional level, the Msunduzi Municipality is deemed to be the most populous city within the uMgungundlovu District hosting some 61% of the total population therein (uMgungundlovu DM 2014: 29). Inherently this suggests that within the municipality, there is a strong need to proactively cater for the allocation of resources and investment which may be enabled through the utilisation of the urban edge.

In this regard, the determination of the urban edge within the Msunduzi Municipality is influenced by a myriad of spatially related elements. These elements include:

- The natural environment;
- Cultural heritage;
- Bulk infrastructure;
- Higher order roads, access routes and transport infrastructure;
- Broad municipal land uses;
- Housing;
- Identified catalytic projects within the municipality;
- Land Use Schemes; and
- Areas Outside Urban Edge Identified For Development.

The aforementioned elements are expounded upon hereunder:-

3.2.3.1 Natural Environment

a) Topography, geology and soil capabilities

Pietermaritzburg is situated in the basin of the Msunduzi River and its tributaries and comprises of escarpment rises of approximately 400m above the city to the West and North-West. Altitude within Msunduzi ranges from 495 to 1795 metres above sea level. The Municipality generally slopes from west to east and the mountains around the city bowl create a distinction between the urban and rural parts within the Municipality (Msunduzi Municipal IDP 2015/17: 74). This has inherently limited the municipality's expansion potential resulting in the establishment of various low order urban centres outside the city centre but also lends itself useful to the determination of the urban edge.

In regards geology, Msunduzi comprises of a diverse set of geotechnical features which coexist with hilly and undulating areas surrounding the Pietermaritzburg Central Business District CBD which results in a complex interplay between slope gradient and potentially unstable transported sediments and soils. Msunduzi predominantly comprises sedimentary rocks of the Ecca Group and Dwyka Formation which belong to the lower Karoo Supergroup (ibid).

From a soils perspective, due to the municipality's inherent variations with topography, rainfall patterns and geological features, the municipality is deemed to have high agricultural potential. However, such potential is thwarted through the development of these areas for other uses such as housing. The remaining areas of highly productive agricultural land occur mainly on communally-owned land in the Vulindlela area, and poor agricultural practices in this area are affecting the productivity thereof.

b) Rivers and Wetlands (Hydrology)

The main river system within the Msunduzi Municipality is the Msunduzi River and its associated tributaries. The municipality broadly comprises of catchments that are either in a fair, poor or seriously modified ecological state. The extent of wetlands has declined significantly particularly within developed areas. This is further exacerbated by self-driven and informal housing initiatives overtime which has generally encroached on wetland areas, particularly within areas such as the Greater Edendale, Greater Imbali and Vulindlela. Whilst there is a lack of ground level information regarding the functionality of most of the wetland habitats within municipality, a total of 1049 wetlands, covering an area of approximately 1001 Ha were identified. Most wetlands within the Municipality are small, with an average wetland size of approximately 1 Ha (Msunduzi Municipal IDP 2015/17: 75-76).

However it is noteworthy that whilst some wetlands have been compromised they assist in offering a variety of services within the municipality such as water provision, recreational use linked with tourism opportunities and natural storm water attenuation.

c) Agricultural Potential

The Msunduzi Municipality according to the Department Agriculture 2015 Shapefile data comprises of predominantly of the following agricultural categories:

- Category A-presents highest agricultural potential
- Category B-presents good agricultural potential
- Category C- presents relatively good agricultural potential
- Category D-presents lowest agricultural potential
- Permanently Transformed Areas
- Proclaimed Reserves

CONSOLIDATED TECHNICAL SDF REVIEW REPORT FOR THE MSUNDUZI MUNICIPALITY

Project MSUNDUZI MUNICIPAL SDF REVIEW

Project No. 14376

Revision No. 3

Date: November 2017

d) Biodiversity

The Msunduzi Municipality comprises of a variety of species consisting of 56 animals, 20 plants, 8 vegetation types and 50 endemics that are of importance (Msunduzi EMF, 2010). There are high numbers of threatened species which occur within the municipality and a few which are thought to be extinct.

The topography, geology, and other land characteristics within Msunduzi give rise to diverse habitats and the establishment of species richness. High levels of transformation and development have, however, resulted in a significant loss of natural habitat and a range of species. A biodiversity specialist study (conducted as part of the Status Quo Phase of the EMF) identified 20, 186 ha (or 31.7% of the municipal area) as having conservation importance. However, only some 853.5 ha (or 1.35% of the Municipality) is formally protected.

According to the Msunduzi Municipal IDP (2015/17: 78) the municipality has an identified natural ecosystem land footprint of 22000 hectares which may be broken into six key areas which include:

- **Key area 1:** Bisley Valley Nature Reserve/ Mpushini Valley – 5 900ha (26.8% of total area);
- **Key area 2:** Ferncliff Nature Reserve/Worlds View are – 2 600ha (11.8% of total area);
- **Key area 3:** Albany Park – 450ha (2.04% of total area);
- **Key area 4:** Heskith Conservation /Sobantu area – 1 480ha (6.7% of total area);
- **Key area 5:** Willowfountain – 1 750ha (8% of total area); and
- **Key area 6:** Greater Edendale area – 9 000ha (40% of total area, incl. key area 5).

e) Vegetation

The SEA Report (2010) as cited by the Msunduzi SED Environment Technical Note (2013: 7) suggests that the Municipality consists of the following vegetation/veld types:

- Eastern Mistbelt Forest
- Drakensberg Foothill Moist Grassland
- Midlands Mistbelt Grassland;
- Dry Ngongoni Veld;
- Moist Ngongoni Veld;
- Eastern Valley Bushveld; and
- KwaZulu Natal Hinterland Thorn Veld.

f) Protected Areas

The municipality has two classification of protected areas i.e. formally protected areas and less formally protected areas. The protected are broken down as follows (Msunduzi SDF 2014/15:70):

- Formally (proclaimed) protected areas
- Queen Elizabeth Park
- Mpushini Protected Environments

Less formally protected areas

- Bisley Valley Nature Reserve
- Ferncliff Nature Reserve
- Worlds View Conservation Area
- Hesketh Conservation Area
- Alexandra Park
- Wylie Park
- Pietermaritzburg National Botanical Gardens
- Polly Shorts Conservation Area

Based on the aforementioned, the outcomes of the natural environment informants within the Msunduzi Municipality may be spatially represented using three distinct categories, namely *environmental elements*; *soil/geology and slopes*; along with *agricultural potential* plans. These may be spatially captured as follows:

Figure 14: Environmental Elements within Msunduzi Municipality

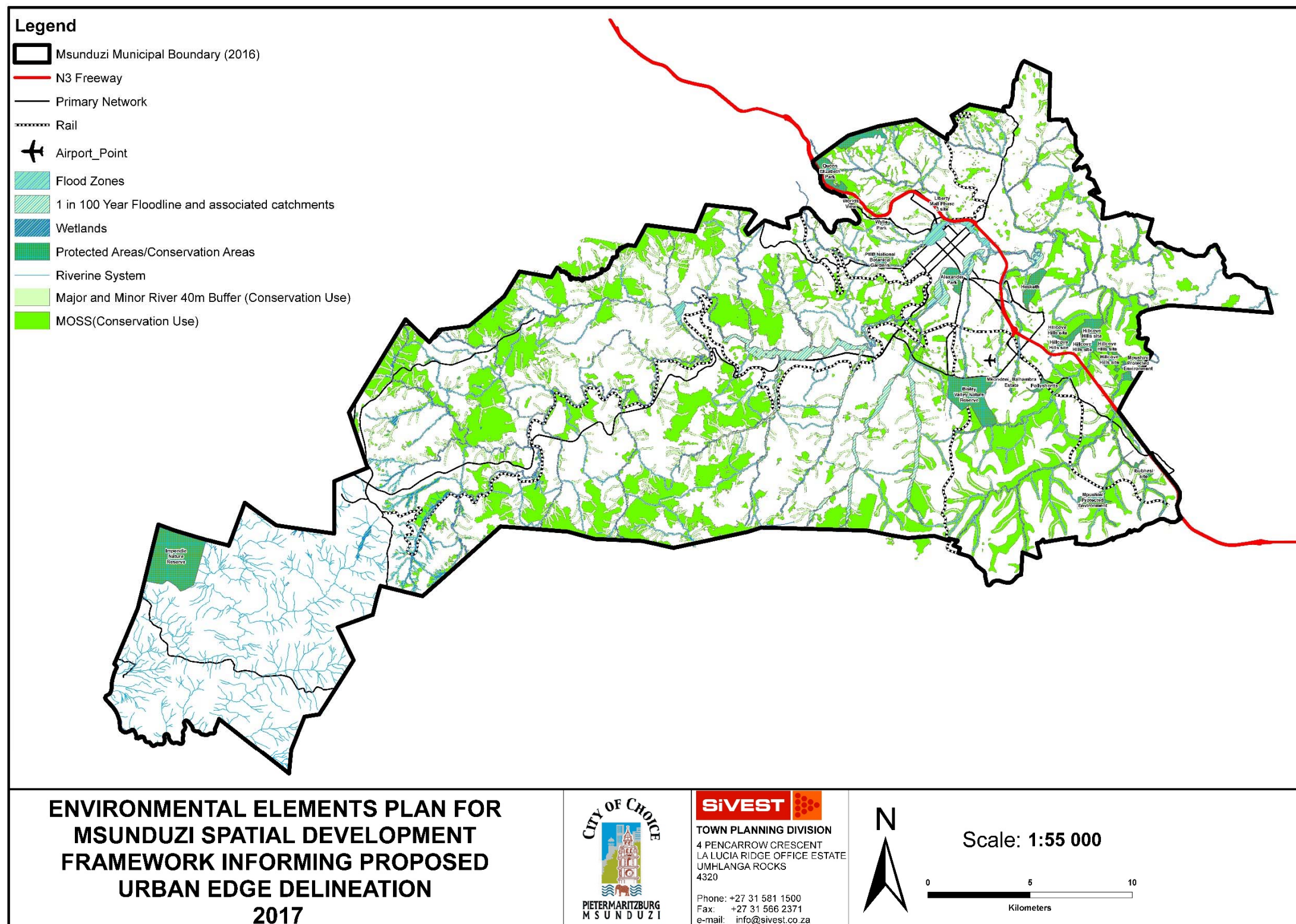


Figure 15: Topographical Features within Msunduzi Municipality

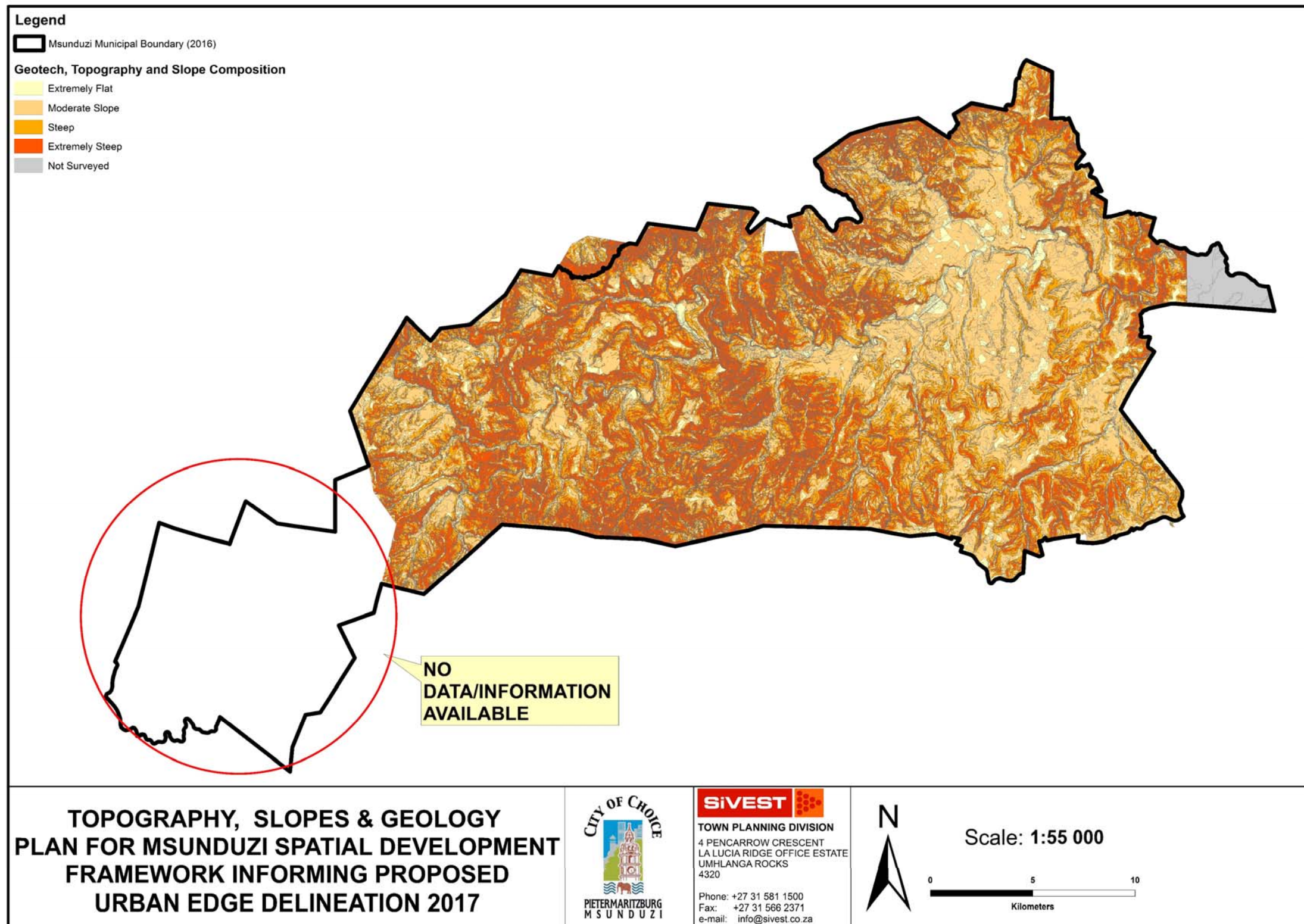
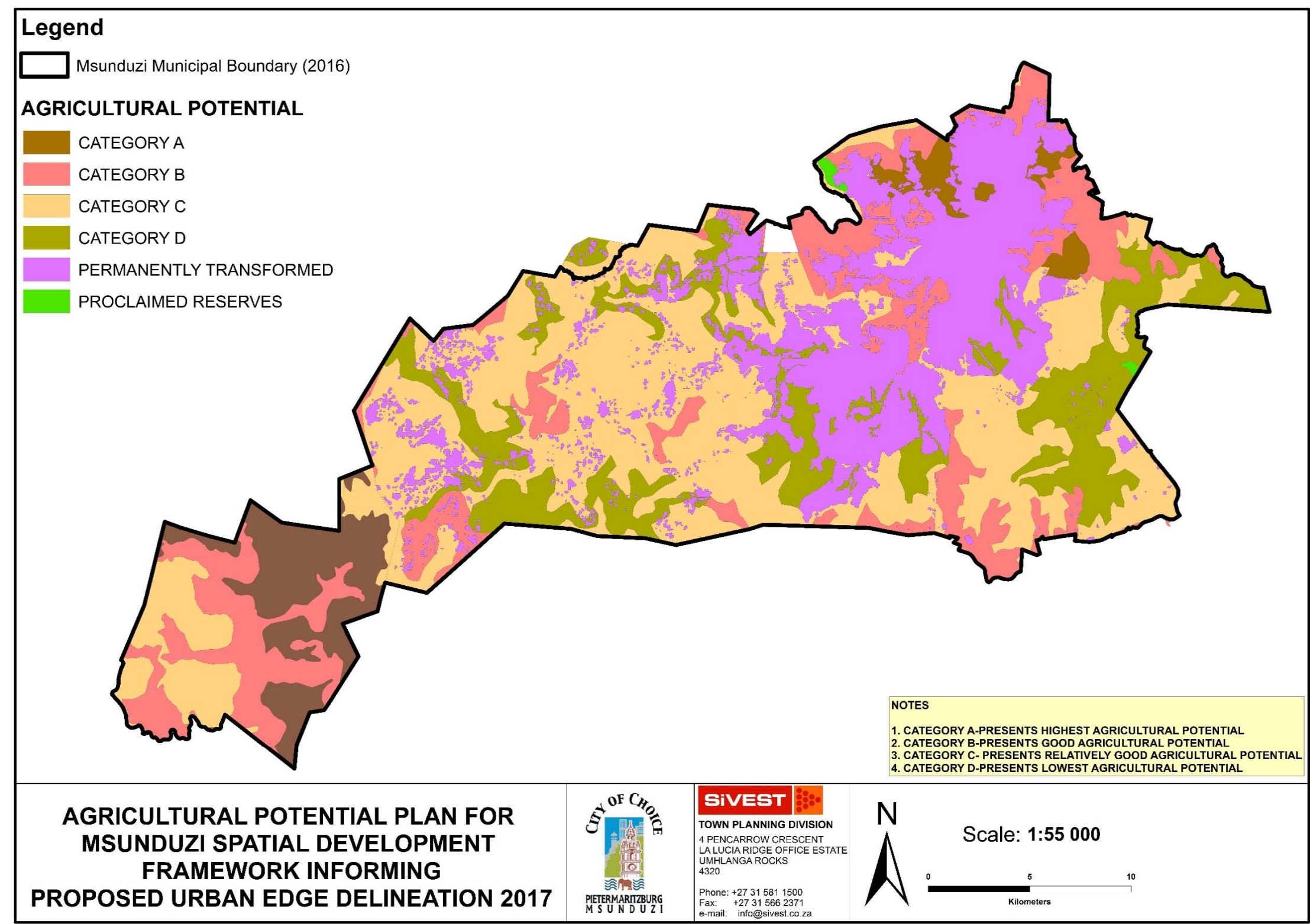


Figure 16: Agricultural Potential within Msunduzi Municipality

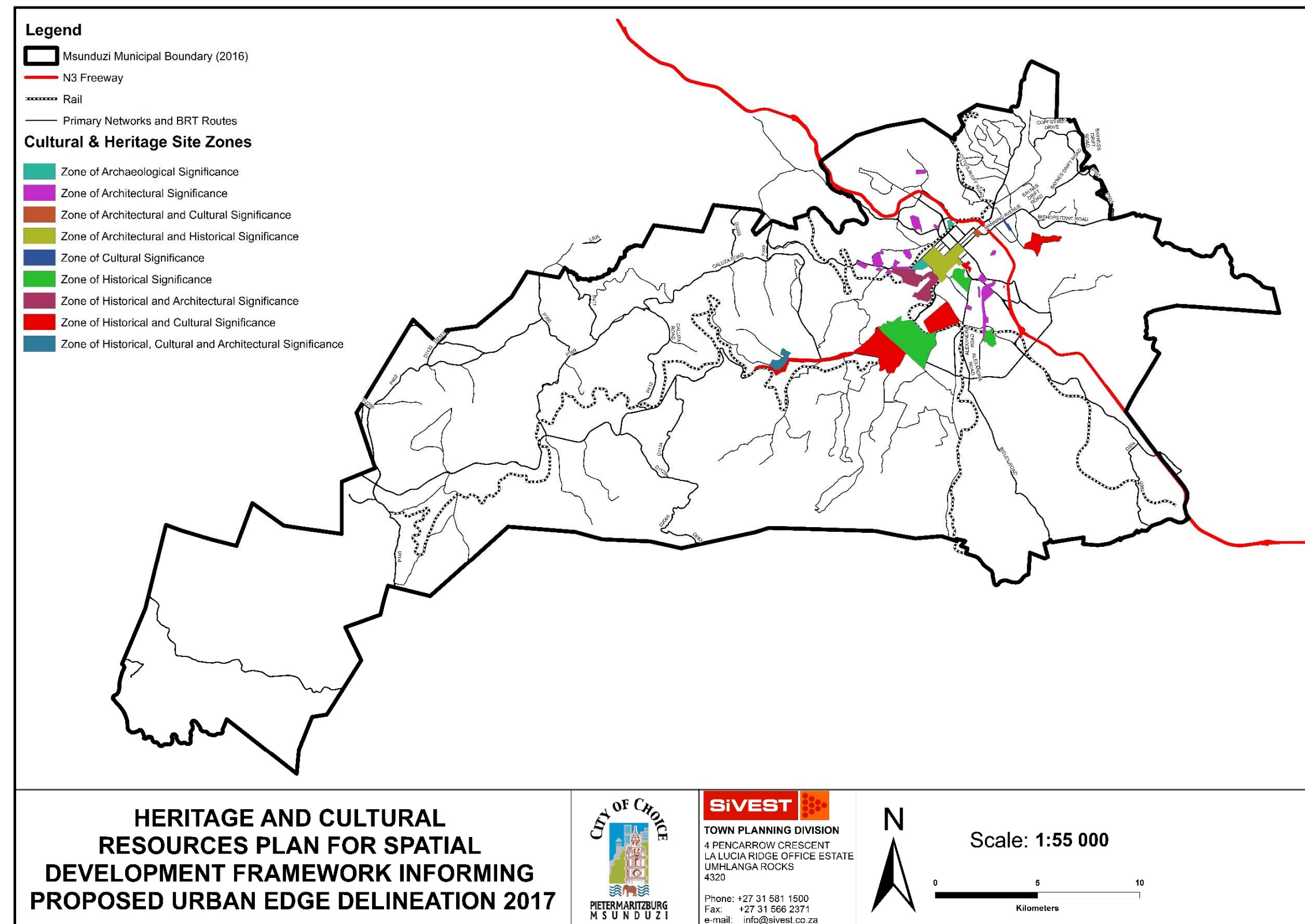


3.2.3.2 Cultural Heritage

The Msunduzi municipality comprises of a variety of cultural, architectural, historical and archaeological features. These features assist in the establishment of a broader heritage fabric which comprises of heritage resources therein (Msunduzi EMF 2010).

There are 646 heritage resources and some 32 heritage zones within the municipal area (Msunduzi SED Environment Technical Note 2013: 15). The significant numbers of the heritage resources are architectural in the form of buildings that are located within the CBD, surrounding suburbs and the Edendale area. Less significant archaeological features are spread within the entire municipality including the Central Area. The historical and cultural features are presented by churches, temples, cemeteries, open spaces and areas of political significance (SEA, 2010). Maintenance of heritage resources within the municipality has not been consistent (Msunduzi EMF, 2010).

Figure 17: Heritage Resources within Msunduzi Municipality



3.2.3.3 Bulk Infrastructure

a) Water

Census (2011) indicates that houses receiving piped water inside their dwelling have increased from 38.3% of households in 2001, to 47.9% of households in 2011. The Census further indicates that only 3.9% of households have no access to piped (tap) water, and only a further 3.9% of households are between 200 – 1 000m from piped (tap) water.

b) Sanitation

In terms of the 2011 Census data households with flush toilets connected to sewerage, have declined from 52.3% in 2001 to 51.6% (84 675 households) in 2011. The data further indicates that only 2% or 3 316 households do not have access to any form of sanitation, and that 34.1% of households have pit latrines, both ventilated and unventilated.

Umgeni Water supplies the city with bulk potable water from Midmar Dam and the city is responsible for the reticulation to individual users.

The majority of households west of the CBD have poor access to acceptable sanitation. On the other-hand, households east of the CBD are well serviced with good access to the acceptable sanitation. Furthermore Peri-urban and rural communities have the lowest levels of flush toilets, with the highest levels of pit latrines.

The municipal sewer system is also aging, and broken pipes and dislodged joints frequently cause sewer blockages, which then impact on river systems and therefore the general health of the population.

(Msunduzi IDP Review 2015/16:110)

c) Electricity

In terms of the 2011 Census data households with electricity for lighting have also improved from 85.8% in 2001 to 91.9% in 2011, which is well above the provincial average of 77.9% of households. 463 households indicated that they did not have access to electricity for lighting.

Eskom is licenced to supply electricity in the Greater Edendale and Vulindlela areas, while the Municipality provides electricity in other areas. The unprecedented economic growth of the city and housing developments has put an added strain on the city's electricity networks which does not seem to have adequate capacity.

The majority of areas in the municipality have access to electricity. The central portion of Vulindlela, Copesville in the north and Amblestone, Shenstone and Willowfontein in the southern portion of Edendale reflected low levels of access to electricity.

The electrical assets in the Municipality are aging, and there are more than 10 transformers that are more than 38 years old, which need replacement and refurbishment. Furthermore, infrastructure is aging and vandalism, tampering, and cable theft are on the increase further putting pressure on the system.

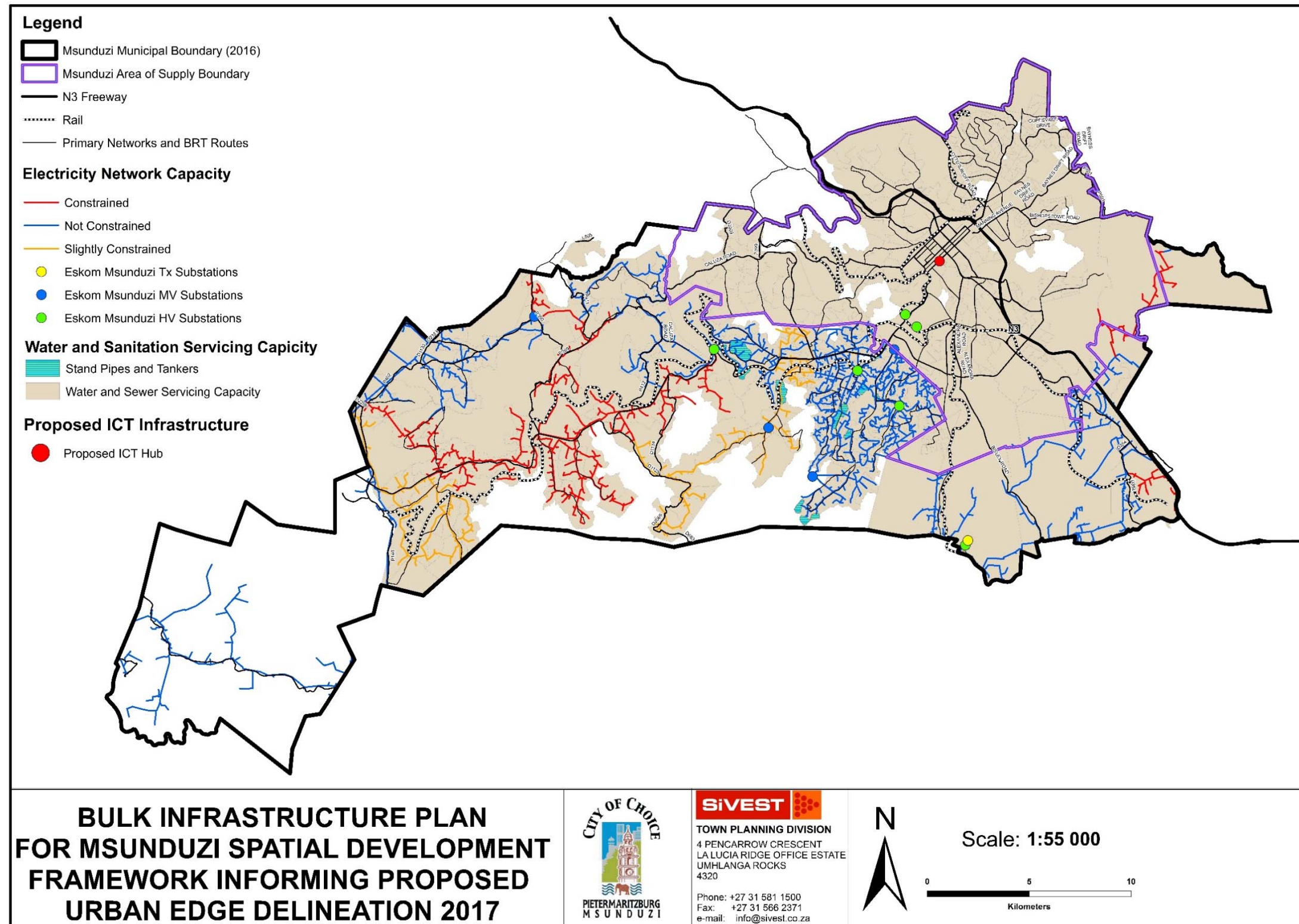
The Municipality is currently implementing the Hilton/Sweetwaters 33 KV line upgrade project, which will stabilise power in these areas. The Municipality is also currently busy with the electrification of Ezinketheni, as well as the provision of high mast lighting in Greater Edendale and Vulindlela.

Moreover the municipality plans are in place in regard to outages, including a 132 KV Upgrade Plan, a Street Lighting Plan, and a Substation Maintenance Plan.

(Msunduzi IDP Review 2015/16:111)

Based on the aforementioned, the Msunduzi Municipality's supply of bulk infrastructural services may be spatially reflected as follows:

Figure 18: Existing Bulk Infrastructural Assets within Msunduzi Municipality



3.2.3.4 Higher Order Roads, Access Routes and Transport Infrastructure

a) Roads

The road hierarchy within the municipality can be divided into three categories as follows:

- Primary Distributor which is the N3;
- Regional Distributor which is the R103, R56, R33, M70/M10 and M80; and
- Local access roads which provides access to houses and other facilities.

The backlog of roads that need upgrading, road safety measures (traffic lights, calming measure, signage enhancement, etc.), road infrastructure rehabilitation, and maintenance continues to be a major challenge for the Municipality.

There are still huge backlogs for construction of new roads and upgrading of gravel roads in the Greater Edendale, Vulindlela, and the North Eastern parts of Msunduzi (i.e. Thembalihle, Tamboville, Copesville, etc.). These areas continue to grow, since there are new low-cost housing programme being provided with sub-standard road services (i.e. gravel and hyson cell concrete roads). Furthermore inadequate funding for bulk services is increasingly becoming a retarding factor for development.

Potholes have increased in number on the city's roads over the last few years because of fatigue to road infrastructure.

MIG is funding 60% of the road upgrading projects in Vulindlela and Edendale. The Municipality funds around 80% of all major road extensions and expansions, with the remaining 20% coming from grant funding from the Provincial and National Departments of Transport. The backlog for the upgrading of gravel roads is so huge that substantial amounts of additional funding is required (Msunduzi IDP Review 2015/16:114).

b) Rail

The main line from Gauteng to Durban runs through the Municipality. A further important rail link runs west from the city to the Eastern Cape. Whilst it is accepted that the proposed high speed rail line linking Gauteng and Durban is at its infancy, there are strategic intentions within the province to ensure that such a plan comes to fruition.

c) Airports

The primary airport within Msunduzi is the Pietermaritzburg Airport of which the associated management is outsourced to the Indiza Airport Management Company. The

airport is currently being upgraded to proactively cater for future capacity expansion needs therein.

d) Integrated Rapid Public Transport System

The Msunduzi Municipality was selected by the National Department of Transport as one of the cities to receive national support and funding for the restructuring of their public transport system in terms of an Integrated Rapid Public Transport Network (IRPTN).

An IRPTN lends itself useful to the integration of various forms of public transportation to realise a more efficient and reliable transport network. In general terms, it is an integrated system of high demand public transport corridors, referred to as trunk routes which are fed by a comprehensive system of feeder routes.

Therefore, the objectives and goals of the Msunduzi IRTPN are identified as follows by the Msunduzi IDP (2015/17: 1151-116):

- Create a Transformed City with a high level of mobility for accessibility to employment, education, hospitals, etc.
- Modernised/ Vibrant Transport System with a high quality priority network, a modern reliable fleet, architecturally pleasing infrastructure, and convenience, safety and efficiency.
- Increased Environmental Responsibility.
- Economic spin-offs such as job creation, investment, and business opportunities.
- Visual awareness of the City's commitment to the poor and marginalised.
- Increased in-house technical skills and capacity.
- State-of-the-art transport modelling tools.

The first phase of the network considers the following types of routes:

- (i) Trunk - the core route with the highest demand using a segregated right of way. One such route has been identified for the initial phase running from Edendale in the west through to Raisethorpe in the east, a distance of some 17km.
- (ii) Complementary - other strategic bus routes branded as "Quality Bus" routes.
- (iii) Feeder - these routes serve more isolated areas, and where the road network may comprise gravel roads. These services link with trunk and complementary routes, and services would typically be provided by 14-seater minibuses.

Based on the foregoing, the following routes within Msunduzi Municipality are currently earmarked to form part and parcel of the IRPTN:

- Chota Motala Road;

- M70;
- Church Street; and
- Moses Mabhida Road/Sutherland/and Sinathing Road.

These routes are all linked and in a linear ribbon like fashion stretching in an east-west direction and comprise of proposed IRTPN Stations which are tasked with servicing the surrounding thresholds and facilitating easier movement within the municipality.

e) **Public Transportation**

The 2001 Census showed that the daily modal split in Msunduzi Municipality was 48% for non-motorised transport (walk and cycle), 27% by public transport (bus, mini-bus taxi and train) and 25% by private vehicle (car and motorcycle).

The high dependency on public transport and the high level of pedestrian activity places a focus on the need for high standard public transport services throughout the Municipality with attention to non-motorised transport (NMT) integrated with the public transport system (Msunduzi Municipal SDF 2014:87).

f) **Non-motorised Transport**

The following pedestrian issues are identified in the IDP as per the Non-motorised Transport Plan for the Msunduzi Municipality (2009):

- A lack of sidewalks in residential areas;
- Intersections where informal trading is taking place;
- A lack of sidewalk maintenance;
- Speed of vehicles approaching pedestrian crossings; and
- Trading activities blocking sidewalks.

A number of problematic areas have been identified which are;

- On several busy roads in the city centre, including Victoria Road, Church Street, Boshoff Street, Pietermaritz Street, Hoosen Haffjee Street, Langalibalele Street and Jabu Ndlovu Street.
- Around Primary Schools in all areas.
- At the Greytown Road Interchange.
- On the route from the CBD to the Liberty Midlands Mall.
- At major hospitals (Edendale, Greys, and Northdale), as well as local clinics.

In terms of cyclists the following roads present challenges;

- Victoria Road;

CONSOLIDATED TECHNICAL SDF REVIEW REPORT FOR THE MSUNDUZI MUNICIPALITY

Project MSUNDUZI MUNICIPAL SDF REVIEW

Project No. 14376

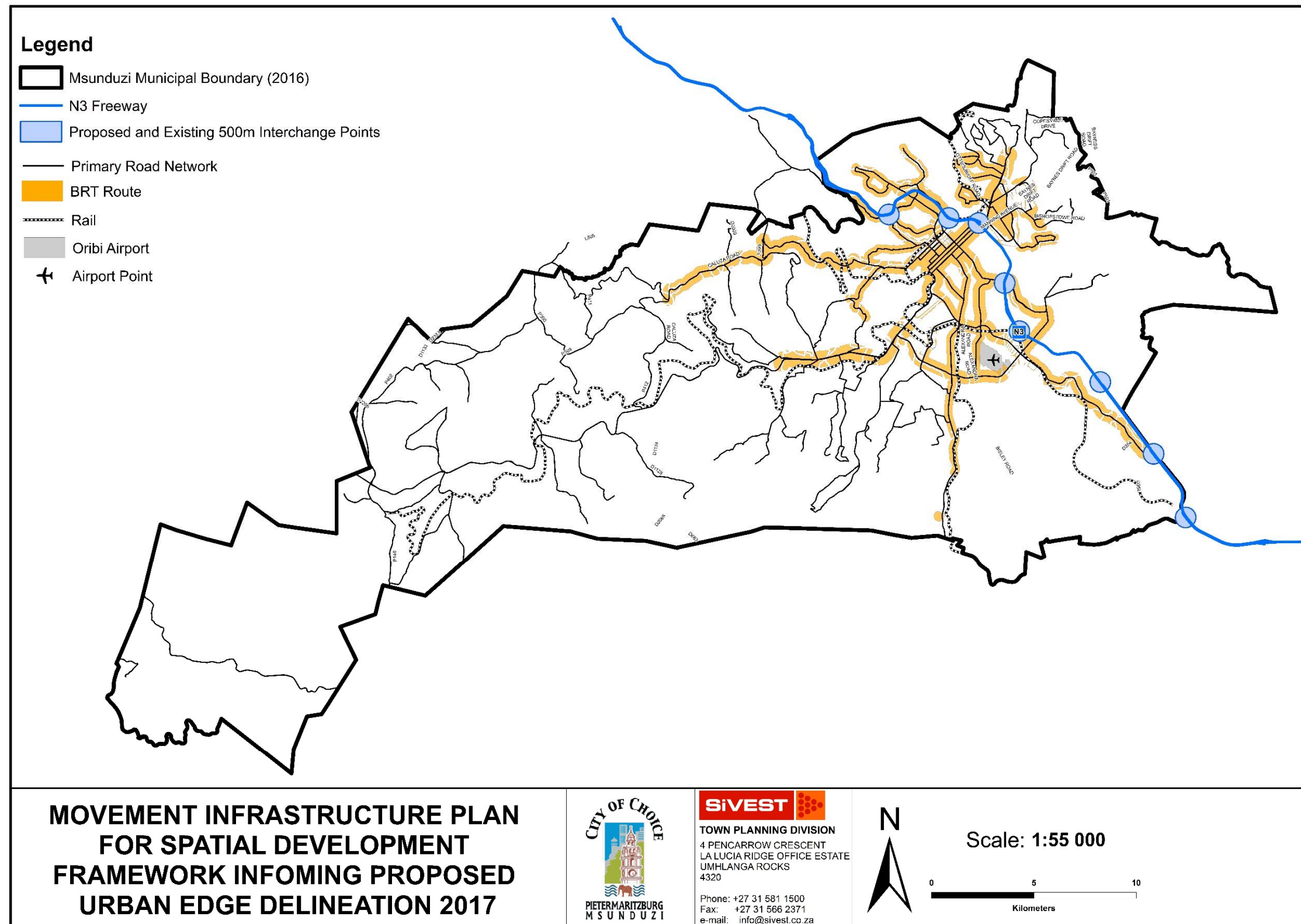
Revision No. 3

Date: November 2017

- Alexandra Road;
- CB Downs Road and the link to Ashburton (R103);
- All major roads where the speed and volume of motorised traffic is high; and
- All roads in industrial areas, because of space sharing with trucks.

(Msunduzi IDP Review 2015/16:115-116)

Figure 19: Transportation Infrastructure within Msunduzi Municipality



MOVEMENT INFRASTRUCTURE PLAN FOR SPATIAL DEVELOPMENT FRAMEWORK INFOMING PROPOSED URBAN EDGE DELINEATION 2017



Scale: 1:55 000



CONSOLIDATED TECHNICAL SDF REVIEW REPORT FOR THE MSUNDUZI MUNICIPALITY

Project MSUNDUZI MUNICIPAL SDF REVIEW
Project No. 14376
Revision No. 3

Date: November 2017

3.2.3.5 Broad Municipal Land Use

The municipality is characterised by predominantly Grasslands which account for about 31.7 of the land within the Municipality, followed by land used for settlement purposes at 29.1%, which includes formal settlements (14.8%), traditional settlements (14.1%), and informal settlements (0.5%) (Municipal IDP 2015/17: 70).

It is important to draw a distinction between the various settlement typologies within the municipality, particularly in regards to the availability of services and the associated capacity constraints.

The broad municipal land uses may be distinguished across four key ABM's, namely CBD, Ashburton and Eastern Areas ABM; Northern Areas ABM; Greater Edendale ABM; and the Vulindlela ABM. According to the Municipal IDP (2015/17: 70-71) the broad land uses within the municipality may be summarised as follows:

Table 16: Broad Municipal Land Uses per ABM

ABM	DESCRIPTION
CBD, ASHBURTON AND EASTERN AREAS ABM	<p>Whilst the predominant land use comes in the form of thornveld and grasslands, the area is generally used for residential purposes. Furthermore, the area is also home to some of the major employers in the city, namely government sector in the central area, and industries in Mkhondeni, Willowton, and Pelham. In this regard, the area is inherently the largest rates contributor of Msunduzi. It is important to mention that this area plays a significant role in terms of transport infrastructure available in the city as;</p> <ul style="list-style-type: none"> • it accommodates the larger part of the N3, a primary movement corridor (also part of the Provincial; and Development Corridors) dissecting the city and the Edendale – Northdale development corridor; and • It is also home to the city's only airport and railway station. <p>A concentration of education facilities is found in this area, the largest of them being the University of KwaZulu-Natal. The north-eastern part (Bellvue/New England) and south-eastern part (Ukulunga/Ashburton) has pockets of cultivated land.</p>
NORTHERN AREAS ABM	<p>This area is predominantly characterised by residential uses manifested in the form of both formal and informal residential, particularly in areas of Claridge and Copesville.</p> <p>In addition, forestry/plantation uses are dominant in areas especially to the west of the area with natural bush in between. The majority of commercial activities are located within the city whilst the industrial pockets are found in other places. There are also pockets of Active/Passive Open Spaces (the</p>

CONSOLIDATED TECHNICAL SDF REVIEW REPORT FOR THE MSUNDUZI MUNICIPALITY

Project MSUNDUZI MUNICIPAL SDF REVIEW

Project No. 14376

Revision No. 3

Date: November 2017

	largest being Queen Elizabeth Park), and Cultivated Land (Copesville/Claridge). It is important to note that the largest health institutions in the city namely Grey's Hospital and Townhill Mental Institution, are within this area. The area is also part of the Edendale – Northdale development corridor and the N3.
GREATER EDENDALE AREA ABM	The area is generally underserved from an infrastructural perspective but comprises of predominantly residential uses therein. The settlement typologies within the area include formal, informal, and traditional settlements. Even though there are industrial activities in the area, the majority of people are unemployed and are relatively poor. This area has been identified as one city's areas of priority spending, with initiatives already underway to support this, namely the Greater Edendale Development Initiative (GEVDI) and the Edendale – Northdale Development Corridor. This area was also home to the Ndumiso Teacher's College, now home to Durban University of Technology (Imbali Campus) and Umgungundlovu FET, the Edendale Hospital, and the railway depot.
VULINDLELA ABM	This area is under traditional authorities, and is predominantly rural with largely traditional settlements. There are, however, pockets of informal settlements. This area is the largest of the ABMs, and houses the majority of the city's population, yet it is highly underdeveloped and under-served. The majority of people are unemployed and dependant on government grants, while some live off the land through subsistence farming. There are also pockets of Active/Passive Open Spaces, Forestry/Plantation, Grasslands, and Natural Bush. The education facilities are scattered around area, and the lack of health facilities is clear.

Whilst it is acknowledged that the municipality is attempting to roll-out a wall-wall scheme for its entire area of jurisdiction in terms of SPLUMA, currently the municipality is in possession of two town planning schemes that administer development proceedings therein. These include:

Table 17: Land Use Schemes within Msunduzi Municipality

Scheme Name	Coverage (ha)
Msunduzi	15,410.75
Ashburton	3,108.88

Furthermore, in regards to areas which lend themselves useful to densification potential, the SDF aims to promote densification along the IRPTN feeder routes reflected on the plan. The base density required to ensure the efficient running of a BRT is a Gross Density of 26 Du/ Ha. It is important to note that densification does not necessarily mean the development of 20 storey buildings, but rather buildings as low as 4 storey walk-ups to achieve these of density levels. Densification along these routes will have multiple benefits for residents, shop owners, and the municipality as a whole, as a higher concentration of people in key areas will help increase the viability of the urban and local centres as well as the public

transport system. The key utilisation of densification within areas of opportunity is aligned to the principle of quality urbanism and cognisance that well located land is finite resource (Msunduzi SDF 2014: 92).

Therefore, based on the foregoing, the existing and proposed land uses inclusive of the applicable land use schemes may be spatially represented as follows:

Figure 20: Existing and Proposed Land Uses

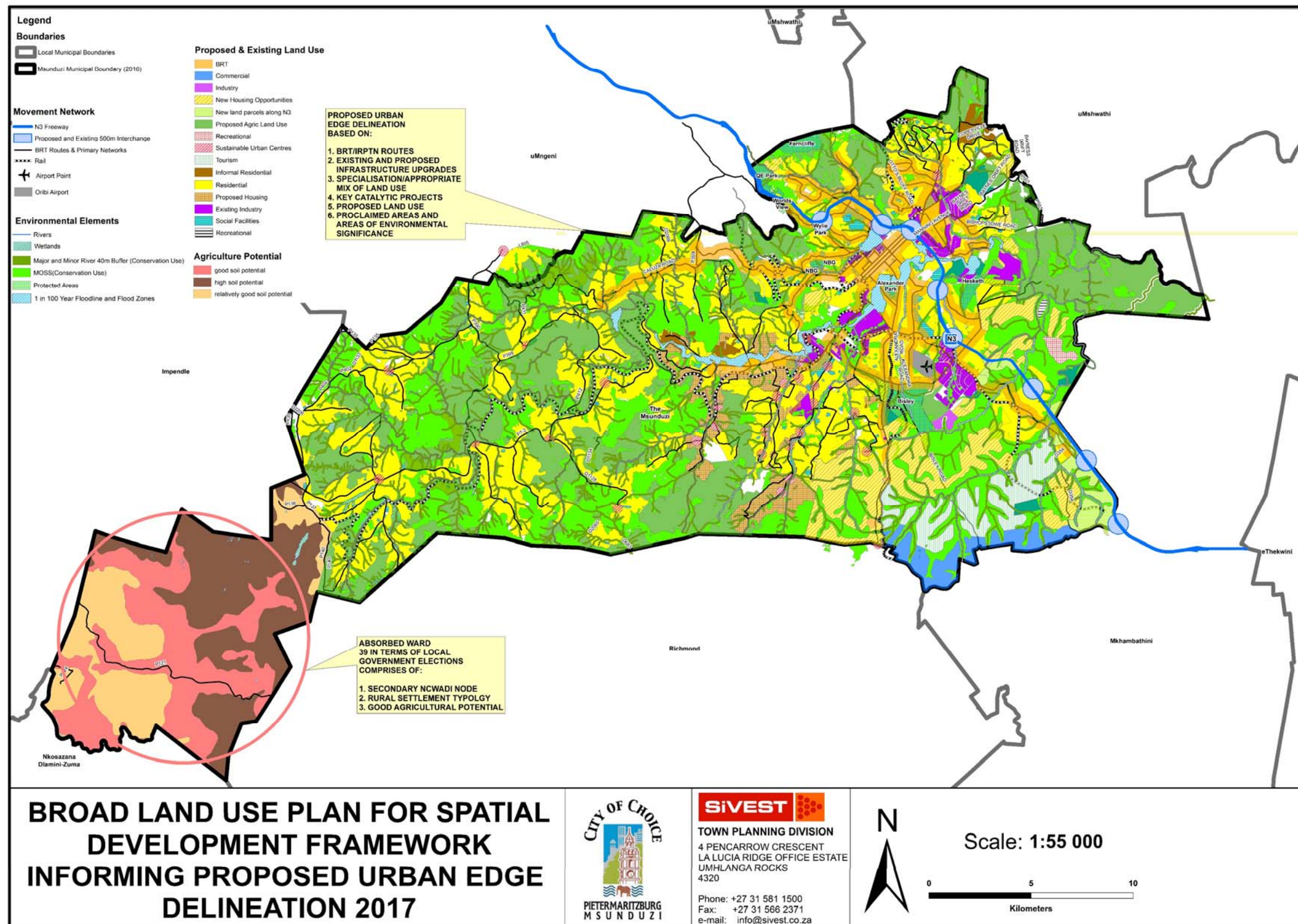
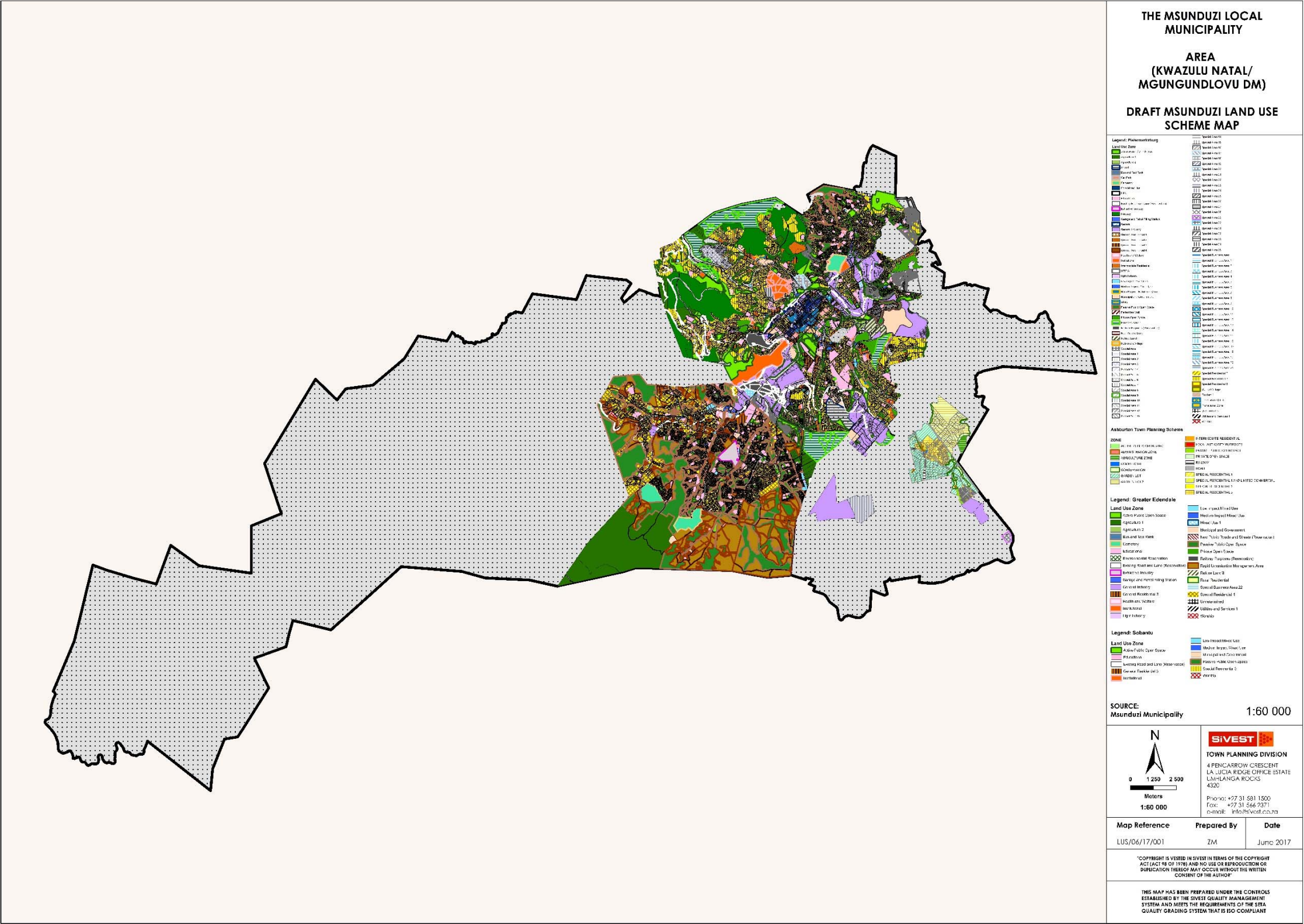


Figure 21: Land Use Scheme Administering Development within Msunduzi Municipality



3.2.3.6 Housing

The roll out of housing provision is generally the responsibility of the National/Provincial Department of Human Settlements with the municipality assisting the department as an implementing agent. On a municipal scale, the Human Settlements Sub-Unit is responsible for housing delivery and was accredited at a Level 1 by the Department of Provincial Human Settlement in August 2012.

The municipality has prepared a Municipal Housing Settlement Plan which was adopted in October 2011. Saliently the plan seeks to address housing delivery within the municipality including rural housing, slum clearance, rental housing and gap housing.

Currently, Msunduzi comprises of some 15817 informal settlements concentrated within the Edendale/Imbali, Northern (i.e. Jika Joe, Swapo C, Swapo B, Swapo A and other areas therein) and the Central (i.e. Hollingwood and Mkhondeni) areas which all require upgrading. In addition thereto the Housing Sector Plan as cited by (Royal Haskoning 2013: 2) highlights the following housing demand across various housing spectrums within the two other noteworthy key pressure points within the municipality, namely the SEDis and CBD areas. The associated demands may be summarised as follows:

Table 17: Housing Demands

Dwelling Type	Amount in 2001	Amount in 2007
Labour tenant applications	-	152
Traditional Dwelling	23 559	26 775
House/flat/room in backyard	5 920	2 532
Informal dwelling/shack in backyard	2 800	543
Informal dwelling/shack not in backyard	13 514	3 328
Total	-	33 330
Total Number of Units Completed 2009/2010	-	26 472
Estimated Backlog (total number of units completed for 2009/2010)	-	6 858

In so far as informal settlements are concerned, the Msunduzi Municipality commissioned the Kayamandi Development Services (Pty) Ltd during the 2013/2014 financial year to develop an Informal Settlement Upgrading Strategy under the National Upgrading Support Programme (NUSP), an initiative of the Department of Human Settlement of which the associated report was released in February 2014.

The NUSP Report enumerated and documented all informall settlements within the jurisdiction of the Msunduzi Local Municipality, profiled and classified them based on severity of informality and perceived urgency of intervention.

The NUSP report broadly categorised informal settlements within the municipality as follows:

Table 18: Informal Settlement Categorisation within the Municipality

Informal Settlement Category	Description	No. of Settlements
A	Full basic services in place, pending full upgrade	2
B1	Only interim services are in place	41
B2	Only emergency services are in place	41
C	No services in place, candidate for immediate relocation	28
Total		70

During the 2015/2016 financial year, the National Department of Human Settlements had appointed Aurecon to provide Participatory Based Planning Support for the Informal Settlement Upgrading in Msunduzi Municipality via the National Upgrading Support Program. The National Upgrading Support Programme and Msunduzi Local Municipality have put in place an agreement to provide technical assistance in developing settlement level upgrading plans, sustainable livelihoods programme and a community capacity programme.

In terms of the distribution of existing housing projects within the municipality, the following remains noteworthy:

- 60% of projects are located in Edendale/Imbali ABM
- 22.5% of projects are located in the Central Areas ABM
- 17.5% of projects are located in the Northern ABM

In terms of proposed housing projects that have been identified by the municipality, these may be summarised as follows:

Table 19: Proposed Housing Projects

Planned Projects	Planned Number of Sites
Edendale (Southern Areas)	8419
Northern Areas	4 100
Vulindlela (Rural Housing)	25 000
Rental Housing	3085 planned units

3.2.3.7 Noteworthy Catalytic Projects

In terms of the Msunduzi Municipality's CDS (2015: 19) there are 10 noteworthy catalytic projects therein. These projects may be saliently described as follows:

- Integrated Rapid Public Transport Network
- Electricity infrastructure outlay
- Heroes Acre Development
- Optic Fibre Cable layout
- Parliamentary Precinct
- 7 Star Hotel and ICC
- Harry Gwala Stadium Phase 2
- Council Civic Centre
- Airport upgrade – international airport status
- Safe City CCTV Network

3.2.3.8 Areas outside Urban Edge Identified For Development

These may be described as previous areas of neglect, which by default sit outside the urban edge and complimentary town planning schemes, but have grown over time in a manner which has created dense settlement patterns within the Municipality. These type of areas are located in proximity to hubs such as Tayors Halt, Mafakathini, Tafuleni and Vulindlela which serve the local service, retail and residential needs therein.

3.3 Demarcation of New Msunduzi Municipal Boundary (2016) and the associated Implications Thereof

The 2016 Local Municipal Elections have resulted in the absorption of Ward 39 which historically fell under the jurisdiction of the Nkosazana Dlamini Zuma Municipality.

In this regard, whilst it is acknowledged that the expansion of the municipality presents favourable future development opportunities, cognisance has to also be taken in regards to inherited areas requiring social and economic investment within the ward as it comprises of a significant area, i.e. 134 85 Ha in extent.

Therefore, it is noteworthy that the areas falling under the Ward 39 demarcation are predominantly rural as they comprise of sparse settlement patterns along the P121 which is a major road that links the Msunduzi Municipality with the Nkosazana Dlamini Zuma Municipality. The main areas falling under Ward 39 include:

- Ncwadi;
- Maqadeni,
- Songizini,
- Sibomvini;

CONSOLIDATED TECHNICAL SDF REVIEW REPORT FOR THE MSUNDUZI MUNICIPALITY

Project MSUNDUZI MUNICIPAL SDF REVIEW

Project No. 14376

Revision No. 3

Date: November 2017

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- Furth

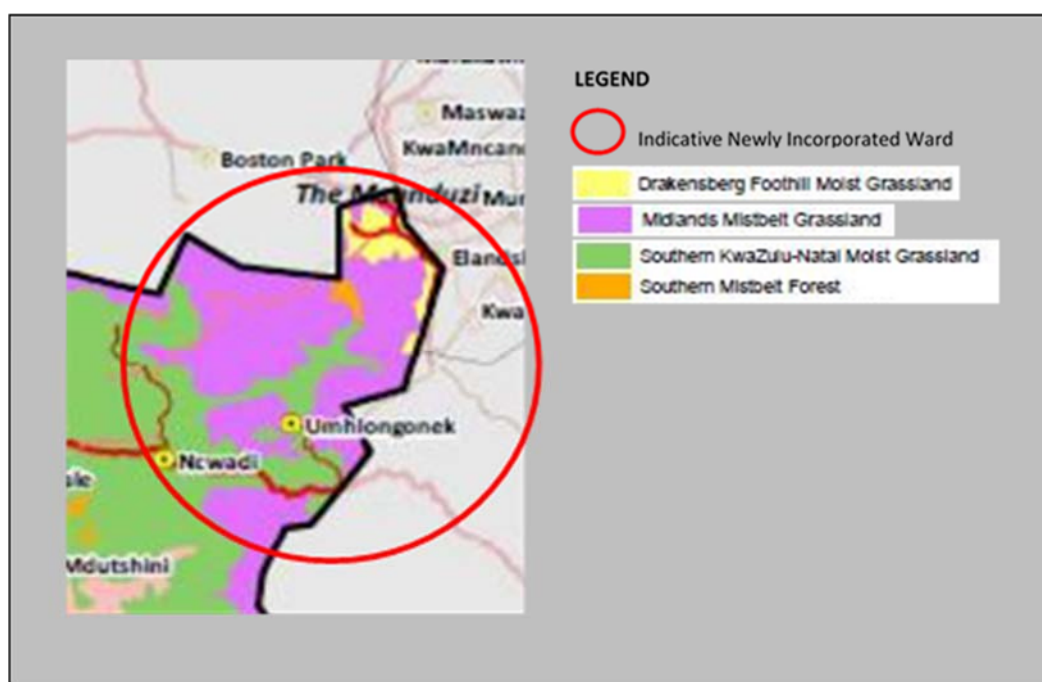
It becomes increasingly important for the Msunduzi SDF to illustrate some form of key spatial informants and interventions applicable to the new delineated area. For completeness sake, these spatial informants and interventions include *the natural environment; broad based community needs; housing projects; urban centres/hubs; and transportation corridors*. These may be summarised as follows:

3.3.1 Natural Environment

The Ward area comprises of a series of natural features. Whilst it is not the intention to go all of these elements, this report will focus on these salient aspects of the Natural environment, namely:

- Agricultural Potential:** The area comprises of a strong categorisation of soil quality which lend themselves useful for agricultural productivity. In this regard these soil categorizations include Category A- "*High Soil Potential*", Category B- "*Good Soil Potential*" and Category C- "*Relatively Good Soil Potential*". These broad categorizations are drawn from the KZN Agricultural Land Categories (DAFF & DAEA, 2013) as cited by the Nkosazana Dlamini Zuma SDF (2016/17: 194).
- Rivers and Wetlands (Hydrology):** through the utilisation of GIS Shapefile data, it was established that the ward area comprises of various water bodies with the most significant being the Elands River which is deemed to be a "Class B-Largely Natural River". The establishment of associated 32m Buffers within this regard is of significance to ensure the retention of the river in its current state.
- Vegetation:** The area is predominantly characterised by Drakensburg Foothill Moist Grassland, Midlands Mistbelt Grassland, Southern Kwa-Zulu Natal Mosit Grassland and Southern Mistbelt Forest, refer to figure 22: Figure Depicting Vegetation Typologies. These broad vegetation typologies were identified by the Nkosazana Dlamini Zuma SDF (2016/17: 130) through the Bio Resource Units GIS data which is available from the KZN Department of Agriculture and Rural Development (KZNDARD).

Figure 22: Vegetation Typologies within Newly Absorbed Ward 39



Nkosazana Dlamini Zuma SDF (2016/17)

- d) **Protected Areas and Conservation:** Whilst the ward area does not comprise of a significant amount of protected areas, it is noteworthy that a portion thereof comprises of the Impendle Nature Reserve (Nkosazana Dlamini Zuma SDF 2016/17: 188). Within this regard, further cognisance must be taken by the Msunduzi SDF as to the preservation mechanisms available therein available to the nature reserve. It is well worth noting that in regards, vegetation, the area also comprises of the Mist belt Forests and Grasslands. These are under threat and need to be preserved to ensure future environmental sustainability.

3.3.2 Broad Based Community Needs

The broad based community needs assessment intends to give an outline of the current development restrictions within newly absorbed areas of the current Msunduzi Municipal boundary. As it currently stands, the areas identified for strong investment therein as identified by the Nkosazana Dlamini Zuma SDF (2016/17: 160-163) include Sibomvini and Gudlintaba which are deemed to require investments in the following areas:

- transportation infrastructure (i.e. access roads, bridges, causeways);
- electricity provision;
- water and sanitation;
- institutions (i.e. crèches and schools); and

CONSOLIDATED TECHNICAL SDF REVIEW REPORT FOR THE MSUNDUZI MUNICIPALITY

Project MSUNDUZI MUNICIPAL SDF REVIEW

Project No. 14376

Revision No. 3

Date: November 2017

- creation of employment opportunities through the advancement of commercial developments and assistance in agricultural production

3.3.3 Housing Projects

There are two noteworthy projects in regards to housing that are spearheaded by the Department of Human Settlements, namely the Impendle Restitution Claim and the Mvutshini Housing Project. The Impendle Restitution Claim is proposed to comprise of some 500 housing units and has a budget allocation of some R1 417 000. In contrast, the Mvutshini Housing Project also comprises of some 500 proposed housing projects but has no budget allocation (Nkosazana Dlamini Zuma SDF 2016/17: 310). These two projects are located in area that is predominantly rural in nature and there are no infrastructural projects currently identified within their historic SDF which indicate the possible extension of water and sanitation services therein.

3.3.4 Nodes

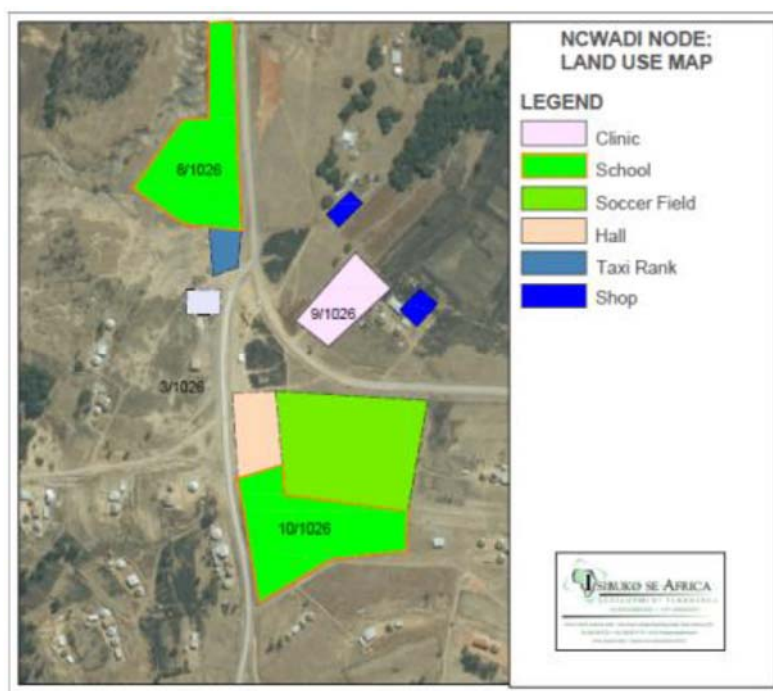
Within the absorbed ward entity, the Nkosazana Dlamini Zuma SDF (2016/17: 105) identifies the Ncwadi area as a secondary node.

In this regard, the Ncwadi area is deemed to have *“great potential to be a thriving rural service centre for the surrounding community. Majority of the land around Ncwadi is currently subject to land restitution and claims”* (ibid). Ncwadi comprises of the following services and facilities:

- a clinic,
- a community hall,
- a soccer field,
- two shops and a crèche,
- a pension pay point
- Primary and secondary schools.

Spatially, the identified land uses within this node are represented as figure 23: Ncwadi Nodal Land Use Plan.

Figure 23: Ncwadi Nodal Land Use Plan.



Nkosazana Dlamini Zuma SDF (2016/17: 224)

The reinforcement of this node remains noteworthy in regards to promoting economic growth, sustainability and viability. However, further cognisance must be taken in regards to infrastructural and environmental constraints. Furthermore the Ncwadi area may be deemed as a “*sustainable urban centre*” in regards to the Msunduzi Municipality’s structuring elements as it lends itself useful to the rural servicing needs therein.

3.3.5 Transportation Corridors

The P121 is identified as a secondary corridor. The road is deemed to play a significant role in regards to linking the Ncwadi Node with the R617 which facilitates access to neighbouring municipalities, i.e. Impendle and Msunduzi (Nkosazana Dlamini Zuma SDF 2016/17: 199).

3.4 Implications for the Msunduzi Municipality’s Urban Edge

As a starting point, it is useful to note that both the SEA (2009: 88) and the SDF (2009) note that there is need “*to discourage urban sprawl*” and establish an “*Urban Growth Boundaryalong the southern and south-western sides of the Municipality.*” In this regard, both documents note that no development entertained in areas outside of the UGB.

Based on the foregoing, coupled with the presented structural elements, theoretical framework, urban edge informants for the Msunduzi Municipality and the implications of

the newly absorbed Ward 39 area therein, the current SDF needs to be cognisant of the following key elements in so far as the delineation of the urban edge is concerned:

- a) The locality of current and proposed infrastructural elements (i.e. sewer water, sanitation, electricity, ICT, roads, IRPTN and etc) ideally give effect to the extent of the urban edge;
- b) The degree of specialisation in regards to an appropriate land use mix and intensity within the area which assists in the establishment of investor confidence and thus layering down the favourable conditions for private sector investment;
- c) Proposed catalytic and housing projects within the municipality tasked with increasing the municipality's tax base; attracting or retaining skills capacity (i.e. the Msunduzi Technology Hub); along with other projects tasked with strategically positioning the municipality within the broader province; and
- d) Areas comprising of naturally and environmentally significant elements such as high agricultural potential; proclaimed and conservation areas; cultural and heritage significance need not to form part of the urban edge as a means to protect their significance and ensure alignment to broader concepts of environmental sustainability.

In this regard, it is well worth noting that the proposed Urban Edge stretches from the Northdale areas towards the Vulindlela area. The urban edge will largely comprise of portions of the following ABM'S within the municipality:

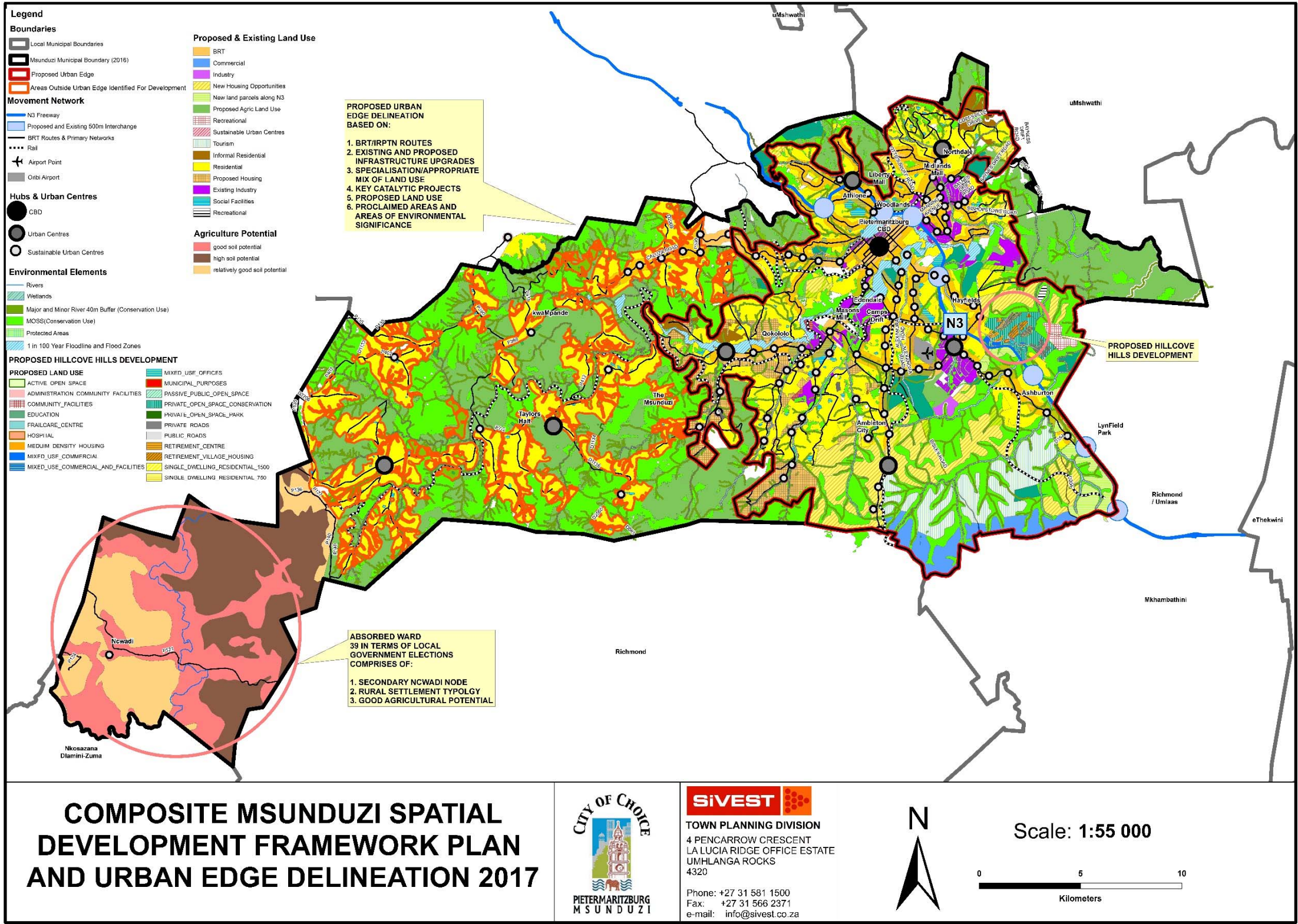
- CBD, Ashburton and Eastern Areas;
- Greater Edendale and Imbali ABM;
- Northern Areas ABM; and
- Vulindlela ABM.

Proclaimed Areas or areas of existing conservancy significance may be deemed to fall outside the proposed urban edge.

3.4.1 Spatial Representation of SDF

Therefore, the delineation of the proposed urban edge is determined by where key development proceedings have been identified and exist within the municipality. These may be spatially represented as follows:

Figure 24: Composite SDF Plan and Urban Edge Delineation.



4 SDF IMPLEMENTATION AND CAPITAL EXPENDITURE FRAMEWORK (CEF)

Through extensive discussions with the Municipality and the provincial department of CoGTA at a meeting held on the 13th October 2017, it was agreed that the SDF Review established a Capital Expenditure Framework (CEF) (i.e. a reflection of the municipality's spatial and infrastructural projects within a short term horizon) as opposed to a CIF which reflects each municipality's long term development trajectory or vision (i.e. 20-25 years) inclusive of its budgetary commitments to same geared towards catalysing the strategic/comparative advantages.

The following section is intended to give an account of the of the municipality's ability to provide a variety of services to its associated citizens. Whilst this section intends to provide a basis for the establishment of a Capital Investment Framework (CIF), it in fact comprises of a CEF which is intended to form the basis of the CIF which will form part of the 2018 SDF Review.

Overall the intention of this section is to identify the following:

- The legislative framework for capital investment framework;
- Spatial Guiding Principles that ordinarily inform investment allocations within the municipality;
- The Msunduzi Prioritisation Model;
- The location of public and private sector investment;
- A salient analysis of servicing levels within the municipality;
- Capital Budget Summary;
- Strategic Priorities within the Municipality;
- Capital Expenditure Projects as per the 2017/2022 IDP Review and their complimentary spatial extents; and
- Further Projects as per the Municipality's LAP's.

4.1 Legislative Requirements and Purpose of Capital Investment Framework (CIF)

Both the MSA and SPLUMA are pieces of legislation that advocate the case for the establishment and inclusion of CIF's within municipal SDF's in order to guide and allocate the provision of municipal services within each municipal jurisdiction. To this end, the case of CIF's is articulated as follows within the municipal SDF's:

4.1.1 Municipal Systems Act (MSA) No 32 of 2000

The MSA sets out the context in which having a well-informed capital expenditure framework that has a short, middle and long term development horizon is of importance to meeting the constitutional imperative of service provision within each municipality. To

CONSOLIDATED TECHNICAL SDF REVIEW REPORT FOR THE MSUNDUZI MUNICIPALITY

Project MSUNDUZI MUNICIPAL SDF REVIEW

Project No. 14376

Revision No. 3

Date: November 2017

this end, the MSA highlights the concept of “**financial sustainability**” which in relation to the provision of a municipal service, “*means the provision of a municipal service in a manner aimed at ensuring that the financing of that service from internal and external sources, including budgeted income, grants and subsidies for the service, is sufficient to cover the costs of:*

- *the initial capital expenditure required for the service;*
- *operating the service; and*
- *maintaining, repairing and replacing physical assets used in the provision of the service” (MSA 2000: 14).*

Furthermore, Section 73 (1) and (2) of Chapter 8 of the MSA sets out the following:

73. (1) A municipality must give effect to the provisions of the Constitution and-

- a) give priority to the basic needs of the local community;
- b) promote the development of the local community; and
- c) ensure that all members of the local community have access to at least the 50 minimum level of basic municipal services.

(2) Municipal services must-

- a) be equitable and accessible:
- b) be provided in a manner that is conducive to-
 - i. the economic, efficient and effective use of available resources ;and
 - ii. the improvement of standards of quality over time;
- c) be financially sustainable;
- d) be environmentally sustainable; and
- e) be regularly reviewed with a view to upgrading, extension and improvement.

4.1.2 Spatial Planning Land Use Management Act (SPLUMA) No 16 of 2013

SPLUMA also speaks to the concept of each municipality detailing their servicing levels or lack thereof through the articulation of CIF’s. Section 21 of SPLUMA sets out that a municipality’s spatial development framework must-

- a) give effect to the development principles and applicable norms and standards set out in Chapter 2;
- b) include a written and spatial representation of a five-year spatial development plan for the spatial form of the municipality;
- c) include a longer term spatial development vision statement for the municipal area which indicates a desired spatial growth and development pattern for the next 10 to 20 years;

- d) identify current and future significant structuring and restructuring elements of the spatial form of the municipality, including development corridors, activity spines and economic nodes where public and private investment will be prioritised and facilitated;
- e) include population growth estimates for the next five years;
- f) include estimates of the demand for housing units across different socioeconomic categories and the planned location and density of future housing developments;
- g) include estimates of economic activity and employment trends and locations in the municipal area for the next five years;
- h) identify, quantify and provide location requirements of engineering infrastructure and services provision for existing and future development needs for the next five years;
- i) identify the designated areas where a national or provincial inclusionary housing policy may be applicable;
- j) include a strategic assessment of the environmental pressures and opportunities within the municipal area, including the spatial location of environmental sensitivities, high potential agricultural land and coastal access strips, where applicable;
- k) identify the designation of areas in the municipality where incremental upgrading approaches to development and regulation will be applicable;
- l) identify the designation of areas in which-
 - i. more detailed local plans must be developed; and
 - ii. shortened land use development procedures may be applicable and land use schemes may be so amended;
- m) provide the spatial expression of the coordination, alignment and integration of sectoral policies of all municipal departments;
- n) determine a capital expenditure framework for the municipality's development programmes, depicted spatially.

4.1.3 Purpose of Capital Investment Framework (CIF)

As previously noted, it is a legal requirement for the municipality in terms of Section 26 (e) of the MSA to compile a SDF as an integral part of their associated IDP's. The MSA further prescribes in terms of Section 2 (4) (e) that *"a spatial development framework reflected in the municipal integrated development plan must set out a capital investment framework for the municipality's development programmes"*.

Sections 21(n) of SPLUMA also prescribe that *"a municipal spatial development framework must determine a capital expenditure framework for the municipality's development programmes, depicted spatially"*.

A Capital Investment Framework (CIF) is a key resource allocation tool which forms part and parcel of the municipal SDF. The CIF ensures that there is efficient, effective and sustainable service delivery. Sustainable service delivery presupposes that provided

services are environmentally sustainable (not harmful to the environment), economically efficient (service provision should be financially sustainable) and socially viable (Service provision should satisfy people's needs) all underpinned by governance (effective management of all services).

Kaganova (2011: 3) (in Guidebook on Capital Investment Planning for Local Governments, World Bank) suggests that a *“capital investment is understood as investment in the acquisition or building of new assets; or major repair and replacement of existing assets that have an economic life longer than one year and a value above a specified threshold”*. Hence Capital investment planning *“includes capital investment by government itself and by its entities, including enterprises established and owned by government for the provision of municipal services (this may also include investment by the private sector through public-private partnerships)”*

Effectively, the purposes of the CIF may be summarised as follows:

- a) improve the coordination and prioritisation of programmes and projects of municipalities, agencies and line departments;
- b) improve service delivery through infrastructure and services;
- c) clearly identify service delivery backlogs within the district and contribute towards their eradication;
- d) provide direction for public and private investment (mapping spatially);
- e) ensure that investments meet the greatest amount of unserved need within the district;
- f) ensure that service provision is feasible and sustainable;
- g) stimulate private sector response;
- h) help redress imbalances by providing services and infrastructure in poor areas;
- i) ensure that programmes and projects proposed in terms of the CIF meet the sustainability requirements;
- j) help conserve the resource base for economic development (or prevent misuse of resources);
- k) promote economic growth through infrastructure investments and provision of services; and
- l) identify strategic locations where investment should be

Simplistically, a CIF intends to outline the capital projects and priorities which the municipality will undertake within a 5 year horizon. The capital projects and priorities are as a consequence of the strategies and goals set by the municipality in order to achieve the desired outcomes and vision.

4.1.4 Linking the Town Planning Schemes to the Msunduzi SDF

The MSA and SPLUMA prescribes that all municipalities are to adopt a wall-wall land use scheme for their entire area of jurisdiction. SDF's provide a representation of the desired spatial form of each Municipality whilst providing a point of convergence with regard to municipal strategies within the realm of economics, transport, environment and society.

The Msunduzi Municipality currently has two land use schemes that are under review, namely the Ashburton and Pietermaritzburg Town Planning Scheme. Furthermore, the municipality is also underway to prepare a Land Use Management Policy for areas situated outside these two schemes, i.e. areas of previous neglect. These two land use schemes and policy are earmarked to form part and parcel of the Msunduzi Municipality's incremental approach towards establishing a wall-wall land use scheme for their entire jurisdiction within the near future in terms of the prescribed legal requirements of the MSA and SPLUMA.

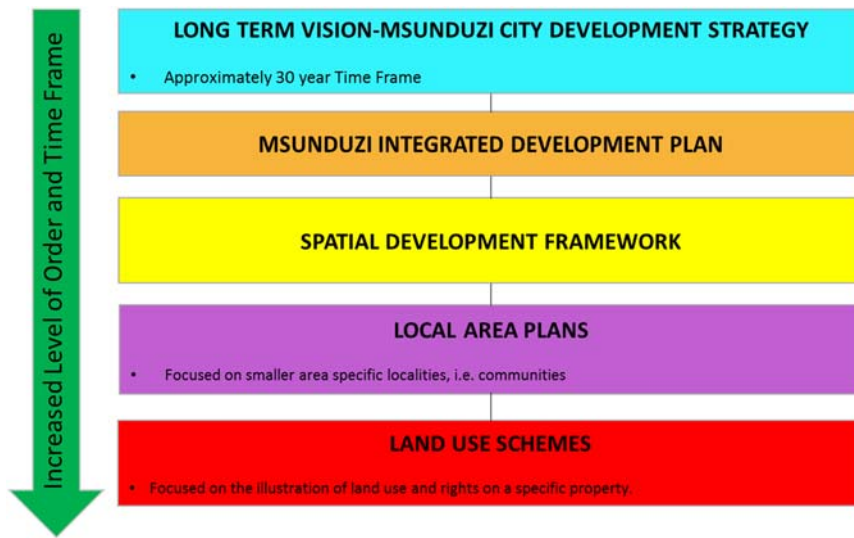
To this end, land use schemes are used to enforce the broader policy objectives contained within the Municipality's IDP and SDF at a more site specific or property level. Ordinarily, the Municipal IDP and SDF guides development and informs the preparation and management of land use schemes through highlighting the broad land use intentions of each area within the municipality. These are generally packaged within a suite of lower order area specific Local Area Plans (LAP's) which give cause and effect to the overall Land Use Management Framework (LUMF).

The LUMF as a spatial tool, is intended to assist in establishing the link between the scheme, IDP and SDF. The LUMF translates the SDF into a more detailed set of broad land uses areas which direct the future development of areas whilst providing the basis for the formulation of the detailed zones, basket of land use rights inclusive of complimentary development controls.

The link between the municipality's land use scheme and SDF through the LUMF ensures the operational the guidance of planners, investors and a variety of stakeholders in so far as the successful implementation of the SDF and Scheme is concerned. Furthermore, it also provides a basis for ensuring institutional guidance and cognisance of various governance structures such as Traditional Authorities and the Ingonyama Trust Board in some areas of land use decision-making.

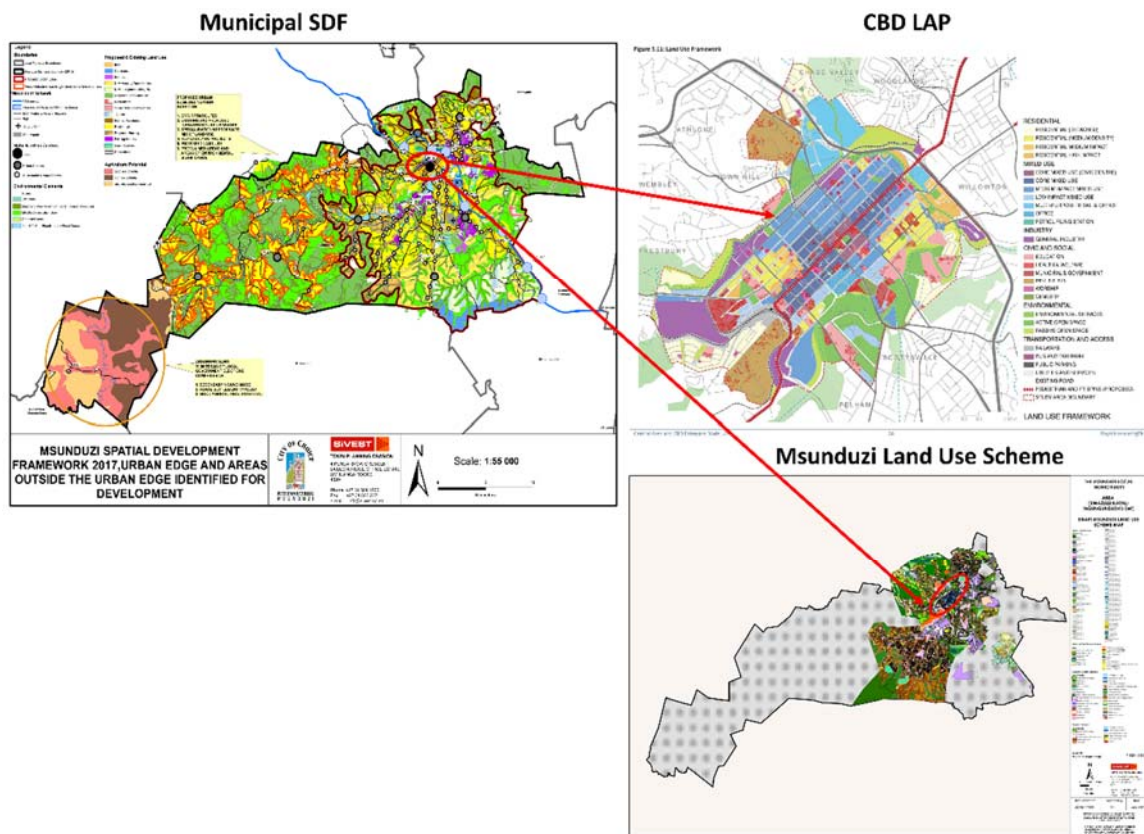
The relationship between the municipality's land use schemes, IDP, SDF and LAP's may be represented as follows:

Figure 25: Relationship between the Municipality's Suite of Plans and the SDF.



The synergy between the municipality's suite of plans may be represented as follows:

Figure 26: Synergy between Municipality's Suite of Plans



CONSOLIDATED TECHNICAL SDF REVIEW REPORT FOR THE MSUNDUZI MUNICIPALITY

Project MSUNDUZI MUNICIPAL SDF REVIEW

Project No. 14376

Revision No. 3

Date: November 2017

4.2 Spatial Guiding Principles

A myriad of spatial planning processes are underway within the Msunduzi Municipality, which are anticipated to give direction to the municipal planning and inform various budgetary allocation proceedings therein. The Municipality has embraced a series of Area Based Management Plans (ABM's) for 2010 which include the Vulindlela, Greater Edendale and Imbali, Northern Areas, CBD, Ashburton, and the Eastern Areas ABM's. The key spatial guiding principles and strategies that are identified to shape current and future spatial proceedings within the municipality include:

Table 19: Guiding Principles and Strategies Applicable to Msunduzi Municipality.

Guiding Principle	Application
Compaction:	<ul style="list-style-type: none"> • New and infill development focused to create coherent system specifically within south eastern quadrant.
Integration:	<ul style="list-style-type: none"> • Shenstone and Ashburton areas anticipated to integrate low income areas within the city of Msunduzi. • Promotion of new economic opportunities in growth area and adjacent to identified major roads. • New east and west and north south road links to major parts of the city of Msunduzi.
Urban Densification:	<ul style="list-style-type: none"> • In the periphery of CBD. • Adjacent to major nodes
Restructuring of the City:	<ul style="list-style-type: none"> • Creating a Polycentric City with new nodes and new economic opportunity areas • Limited mixed use activity spines between focus points • Redressing imbalances with improved infrastructure and new economic opportunities • Creating a Road Matrix System
Meeting land use needs and identification of areas of economic development potentials:	<ul style="list-style-type: none"> • new residential areas • new economic opportunity areas • new nodal points • restructure CBD
Sustainability:	<ul style="list-style-type: none"> • Protecting environmentally sensitive areas. • Coherent and reinforcing infrastructure • Protecting agricultural potential areas • Upgrading residential areas with appropriate infrastructure • In situ upgrading in informal settlements
Creating a quality urban environment:	<ul style="list-style-type: none"> • Create a polycentric city • Create a mix of housing types in different areas • Reinforce public transport system

(Msunduzi IDP 2016/17)

4.3 Msunduzi Prioritisation Model

The prioritisation of investment projects is a key task for all municipalities as part of the IDP and Budget review process. It is clearly not possible to implement all projects simultaneously, and a rational, systematic approach to prioritisation helps to ensure that not only are the legal requirements met as early as possible, but also that the available resources (both human and finance) are used as effectively and efficiently as possible.

The following project prioritisation model has been developed to assist with decision-making in allocating resources. The prioritisation model within the municipality may be summarised as follows:

Table 20: Msunduzi Municipality Prioritisation Model.

Criteria	Description	Scoring
Vision 2030 Impact	Will the project realise the Vision Statements, Goals, Value Statements, and Targets contained in Vision 2030 for the Msunduzi Municipality?	5 – Yes definitely 3 – Partially 1 – Not at all
Project directly relates to the IDP-identified Catalytic projects	Will the project result in the implementation of IDP-identified catalytic projects?	5 – Yes definitely 3 – Partially 1 – Not at all
Community Identification of project	Has the project been identified by a community, through community engagements, Ward Councillor involvement, War Room deliberations, or through a Community Based Plan?	5 – Yes definitely 1 – Not at all
Sector Plan identification of project	Has the project been identified in a sector-specific plan (ie. Water Services Development Plan, Local Economic Development Plan)?	5 – Yes definitely 1 – Not at all
Linkage to the Spatial Development Framework	Has the project been aligned to the SDF? Does the project occur within an SDF-identified Node or Corridor?	5 – Yes definitely 3 – Partially 1 – Not at all
Millennium Development Goals Linkage	Does the project assist the Municipality and its communities to realise the targets set out in the Millennium Development Goals (MDGs)?	5 – Yes definitely 3 – Partially 1 – Not at all

(Msunduzi IDP 2017/2022: 263)

4.4 Monitoring and Evaluation

Monitoring and evaluation (M&E) forms a key component of the successful implementation of the Msunduzi SDF. The Msunduzi SDF as a strategic plan requires to be updated and reviewed the SDF on a regular basis and an M&E is the basic tool through which this will be achieved.

Monitoring and evaluation is a process that helps improving performance and achieving results of which the primary goal is to improve current and future management of outputs, outcomes and impact. It is predominantly used to assess the performance of the SDF, specific projects featuring as part of the SDF and the institutions involved in implementing the SDF. M&E then also establishes the links between the past, present and future actions.

The M&E process of the SDF is intended to refine, review and update key focus areas for the municipality in terms of resource allocation and complimentary institutional systems that are required to bring cause and effect to same whilst establishing new sets of development objectives.

To this end, the White Paper on Local Government (1998), suggests that *“integrated development planning, budgeting, and performance management are powerful tools which can assist municipalities to develop an integrated perspective on the development in their area. It will enable them to focus on priorities within an increasingly complex and diverse set of demands. It will enable them to direct resource allocation and institutional systems to a new set of development objectives”*.

Additionally, the Municipal Finance Management Act of 2003 (MFMA) prescribes that each municipality is to complete and adopt a Service Delivery and Budget Implementation Plan (SDBIP) which should be aligned with the Municipality's IDP in regards to municipal budgets, specific targets and indicators.

Within the Msunduzi Municipality, the process of monitoring, measuring and evaluating performance is a continuous and ongoing process which requires interactive collaboration, consultation with various stakeholders (both internally and externally) and synergy amongst same in regards to the municipality's spatial vision. Furthermore, the monitoring and evaluation process also involves the identification and allocation of roles and responsibilities for different role players while at the same time documenting all the activities that are taking place as part of the SDF review process which is facilitated by the SDBIP Annual Report. The key components of the Msunduzi SDF M & E comprise of: indicators for evaluating overall performance (benchmarks); indicators for monitoring project implementation; institutional structuring for monitoring and evaluation; and Appropriate monitoring and evaluation systems. The Msunduzi M & E overall key performance indicators may be summarised as follows:

CONSOLIDATED TECHNICAL SDF REVIEW REPORT FOR THE MSUNDUZI MUNICIPALITY

Project MSUNDUZI MUNICIPAL SDF REVIEW

Project No. 14376

Revision No. 3

Date: November 2017

Table 21: Msunduzi Municipality M & E Performance Indicators

KPI	Measurement	2030 Measurements/Targets
Global Connectivity		
Promoting Global Connectivity	Distance	Universal Access to ICT and broadband within 15 Minutes Travel
Productive Systems		
A diverse Economy (range of employment opportunities)	GDP	10 to 15 % at least by each of four key economic sectors
Q	Jobs	90 % of the workforce employed (formal and informal sector)
Liveable Household Incomes	Income	95% of households above subsistence levels
Ecological Infrastructure		
Access to Nature	Distance	All households have access to an open space resource (active or passive within a 1km
Green Development	Carbon Footprint	By 2025, all new development and existing structures are 40% less carbon intensive than 2010 footprints and all will be 50% less carbon intensive by 2030
Climate Change and Risk Assessment	A Well informed Government and Local Population	By 2015 all climate change related risks will be identified with clear mitigation and adaptation plans in place
Recycling and Waste Minimisation	Waste to Landfill by 2030	All waste will be recycled and/or biodegradable such that no waste enters landfill sites by 2050.
Sustainable Transport		
Ease of access to amenities	Distance	80% of population within 15 minute walk from range of amenities (permanent or periodic)
Ease of access to work opportunities	Distance	100% of the population will be within an average of 30 minutes travel time to places of employment.
Quality Urbanism		
Choice in activities	Distance	100% of households have access to a full range of amenities within 15 minutes travel
Choice in accommodation	Quality Housing	100% of households appropriately accommodated
Choice in movement	Distance	80% of population within 5 minute walk from a component of an integrated transport system
Social Inclusivity		
Build Human Capital	Distance and Access	All children and young adults have equal access to relevant educational institutions in the District
Promote Social Development	Gini Coefficient	Gini Coefficient of 0.4 (currently South Africa's the highest in the world at 0.7)
Ensure Food Security	Food Secure Households	All households in the Municipality have food security.
Sustainable Services		

 CONSOLIDATED TECHNICAL SDF REVIEW REPORT FOR THE MSUNDUZI MUNICIPALITY

Project MSUNDUZI MUNICIPAL SDF REVIEW

Project No. 14376

Revision No. 3

Date: November 2017

Access to Urban Infrastructure	Infrastructure	100% off households in settlement areas have access to urban infrastructure (grid or off-grid)
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4.5 Capital Expenditure Framework

4.5.1 Historic capital budget allocations and expenditure

The table below indicates the historic capital budget allocations and expenditure of the Msunduzi Municipality for the years 2011-2015. Accordingly, the Msunduzi Municipal IDP (2011: 200) suggests that the capital budget allocations and expenditure for the years 2011-2012 may be summarised as follows:

Table 22: Historic Capital Budget Allocations and Expenditure

Sector	Year			
	2011/2012	2012/2013	2013/2014	2014/2015
Roads and Transportation	126175000,00	176037300,00	205350000,00	181125000,00
Water and Sanitation	106503000,00	131400000,00	91100000,00	72500000,00
Waste Management	6477000,00			
Electricity	82716300,00	10000000,00		266500000,00
Community Services	57820000,00	30480000,00	19350000,00	500000,00
Economic Development	32060000,00	6500000,00	20500000,00	500000,00
Total	411751300,00	354417300,00	336300000,00	521125000,00

The biggest budgets were allocated for the years 2011/2012, with the key sector in terms of budget allocations belong to roads and transportation within the Municipality. Similarly, such a trend is manifested throughout for the years 2012-2015 in regards to roads and transportation, whilst the overall total budgets decreased by 16% from the years 2011-2015.

4.5.1.1 Current and Planned Borrowing

According to the Msunduzi Municipal IDP (2016: 175) the municipality has not taken any new external loans since the year 2010. Currently, the municipality's status of borrowing as of June 2015, sits at a total amount of R543 525 395.00 which is owed to Nedbank and Ekhwelo Business Solutions as external loans. In regards to DBSA, a total of R539 519 432.00 account for long term loans. The table hereunder reflects the status of borrowing within the Municipality.

Table 23: Current and Planned Borrowing

External Loans	Balance
DBSA	R539 519 432 (Long Term Loans)
Nedbank and Ekhwelo Business Solutions	R543 525 395 (External Loans)

4.6 Capital Budget Summary

4.6.1 Capital Allocations and Expenditure

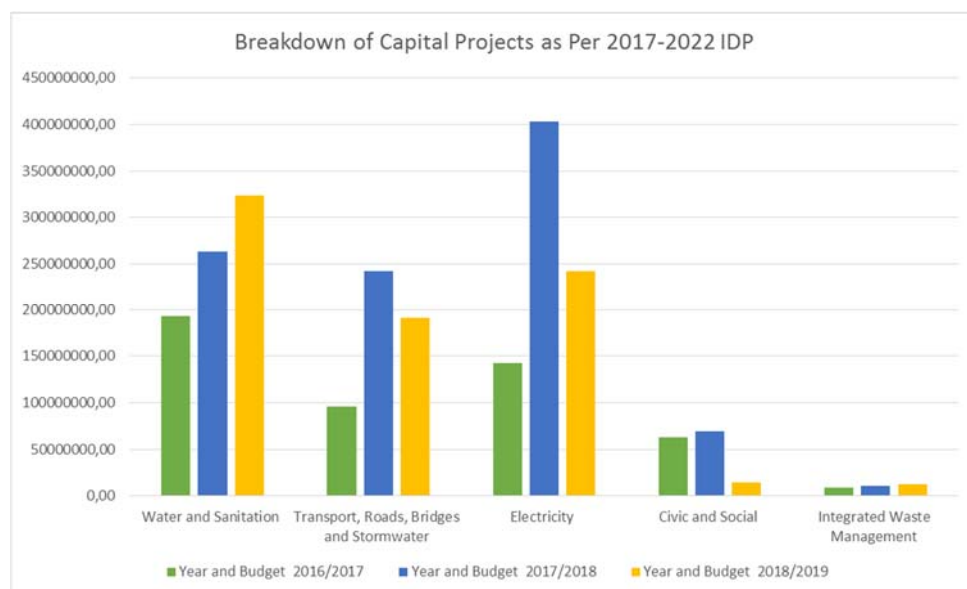
The following table indicates, as extracted from the Msunduzi Municipal IDP (2017-2022: 284-296) the capital spend on basic services and infrastructural delivery items over a 3 year period. These may be summarised as follows:

Table 24: Capital Allocations and Expenditure

Msunduzi Key Capital Projects and Budgets As Extracted In The Municipal IDP (2017/2022: 284-296)			
Infrastructure	Year and Budget (Rands)		
	2016/2017	2017/2018	2018/2019
Water and Sanitation	193016290,00	262991000,00	323300000,00
Transport, Roads, Bridges and Stormwater	95674387,00	242095160,00	191150000,00
Electricity	143000000,00	403282600,00	242119950,00
Civic and Social	62584698,00	69186000,00	14720000,00
Integrated Waste Management	9500000,00	11000000,00	12400000,00
Total	503775375,00	988554760,00	783689950,00

Based on the aforementioned, the biggest allocation for capital expenditure for the year 2017/2018 is allocated to electricity projects, whilst for the previous year, namely 2016/2017 water and sanitation projects were the highest budgeted item. Interestingly, water and sanitation projects are also anticipated to be the biggest budgeted item in the year 2018/2019. These may be diagrammatically represented as follows:

Figure 27: Breakdown of Capital Projects as Per 2017-2022 IDP



CONSOLIDATED TECHNICAL SDF REVIEW REPORT FOR THE MSUNDUZI MUNICIPALITY

Project MSUNDUZI MUNICIPAL SDF REVIEW

Project No. 14376

Revision No. 3

Date: November 2017

4.6.2 Capital budget sources

The table below indicates the capital budget sources over the last 2 years and also includes forecasted budgets for the year 2018. According to the table hereunder, Public Transport and Systems for the year 2015-2017 have been the biggest source of funding whilst the Municipal Infrastructure Grant (MIG) is anticipated to be the highest source of funding for the year 2018. Furthermore, the municipality over 2015-2017 accumulated some R150 million worth of loans. Interestingly there are no anticipated loans for 2018. This could may be attributed to the municipality's approach conservative approach towards the confirmation of same. It is also well worth noting that the anticipated source of funding to the municipality is expected to decrease by 1.04% in 2018 to that of the current year, 2017. The table herein below details the sources of funding as follows:

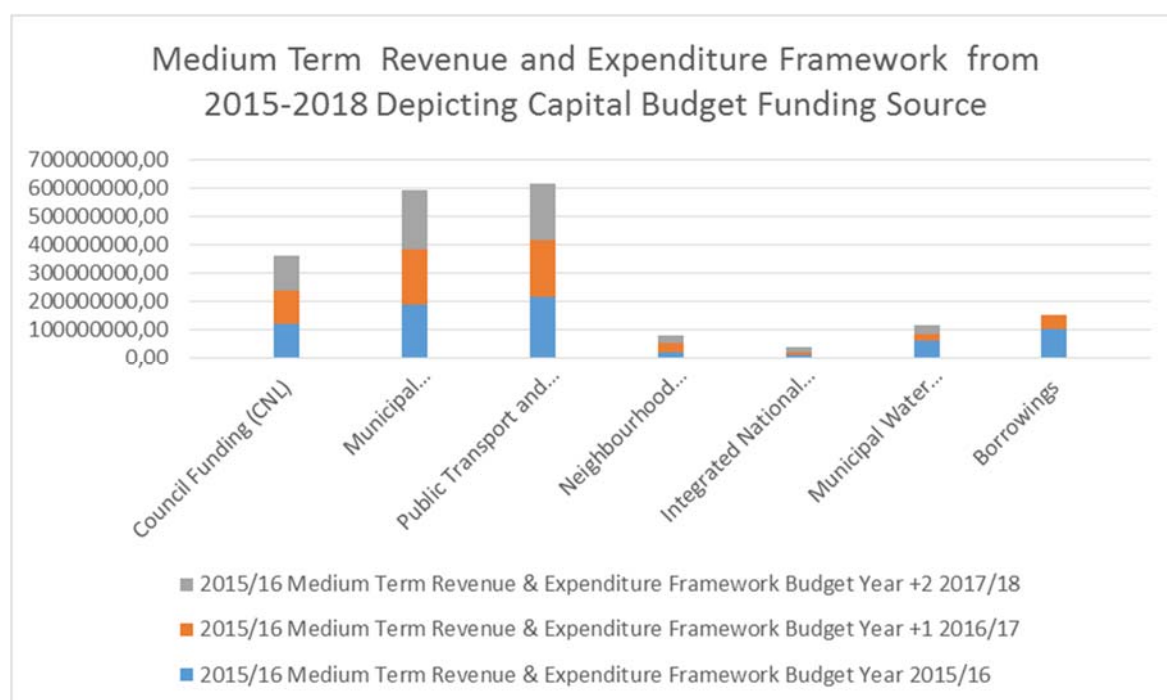
Table 25: Capital Budget Sources

Capital Budget Summary By Funding Source	2015/16 Medium Term Revenue & Expenditure Framework		
	Budget Year 2015/16	Budget Year +1 2016/17	Budget Year +2 2017/18
Council Funding (CNL)	120 000 000	120 000 000	120 000 000
Municipal Infrastructure Grant (MIG)	187 456 000	195 546 000	207 671 000
Public Transport and Systems	213 271 000	203 605 000	199 958 000
Neighbourhood Development Partnership	20 000 000	30 000 000	30 000 000
Integrated National Electrification Program	10 000 000	10 500 000	15 000 000
Municipal Water Infrastructure Grant (MWIG)	58 333 000	26 721 000	28 191 000
Borrowings	100 000 000	50 000 000	0
Total Capital Budget	709 060 000	636 372 000	600 820 000

Source: Msunduzi IDP 2016/17:40

A graph contextually comparing each funding source over the three year horizon is detailed as follows:

Figure 27: MTREF 2015-2018 Capital Budget Funding Source



4.6.3 Service Delivery

The municipality has demonstrated its commitment towards meeting the constitutional imperative of providing infrastructure within its associated area of jurisdiction. To even date, the municipality's service delivery output may be saliently summarised as follows according to Census (2011) data and the Municipal IDP (2016: 113-126):

- Approximately 25 657 houses have been built by the Msunduzi Municipality in relation to insitu-upgrades, green-field developments and slum clearances to even date.
- Approximately 47.9 % of household's within the municipality have access to piped water within their dwelling houses.
- Some 84 675 households within the Msunduzi Municipality's population have access to flush toilets connected to sewerage, whilst approximately 55 777 households have access to pit latrines, both ventilated and unventilated.
- Some 92 % (approximately 150 320 households) have access to electricity for lighting.
- In terms of refuse removal, approximately 84 000 households receive weekly refuse removal services.
- Some 35 779 households have access to landline telephones whilst an additional 146 407 households have access to cell phones.

- A total of 1840.5 kilometres of tar roads have been built and an additional 69.2 kilometres of gravel roads have been upgraded by the municipality for roads the years 2012-2015.

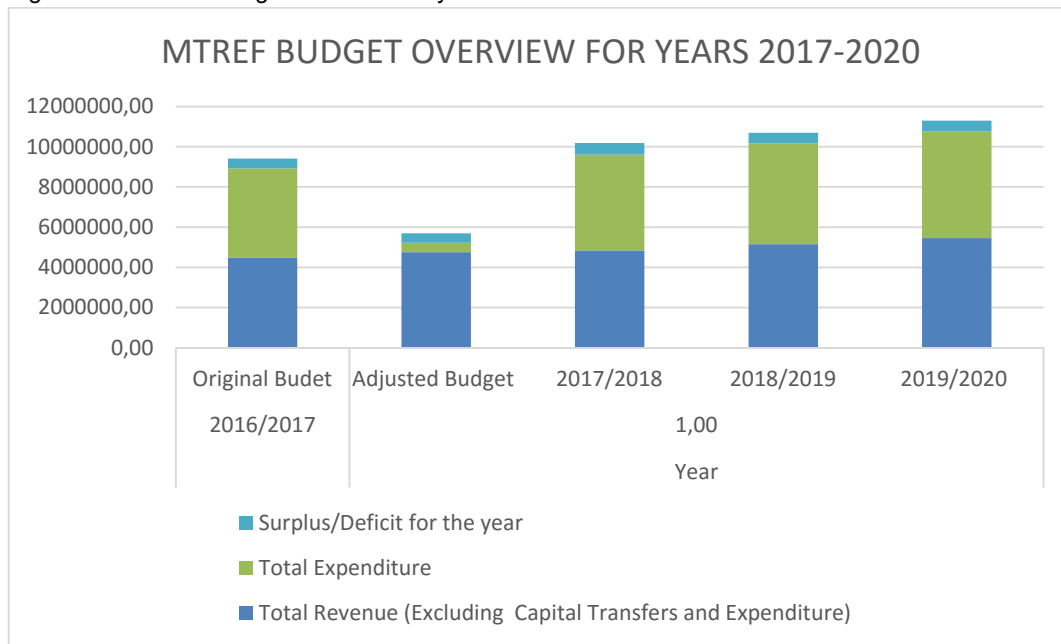
4.7 Consolidated Budget Overview of the Medium Term Revenue and Expenditure Framework (MTREF)

The Msunduzi Annual Budget and MTREF Report (2017/2018: 5-6) has highlighted the following salient points in regards to the MTREF:

- The municipality's operating expenditure has increased by 0.25% to that of the 2016/2017 year and this stems from the municipality's decision to cap operational costs through doing business in cost effective measures.
- The municipality's operational budget surplus has increased from R10.3 million to R116 million resulting to a net cash surplus of R178 million.
- The R178 million cash surplus is based on a conservative assumption of a 90% average debt collection and 100% expenditure for other items except employee related costs in which 90% expenditure is assumed.
- Total operating revenue of R 4.885 billion has grown by 3 per cent or R 131.7 million for the 2017/18 financial year when compared to the 2016/17 Adjustments Budget. For the two outer years, operational revenue will increase by 5.4 per cent (R 265.6 million) and 5.9 per cent (R 305.9 million) respectively, equating to a total revenue growth of R 703.2 million over the MTREF when compared to the revenue budget of 2016/17 financial year.
- Total operating expenditure for the 2017/18 financial year has been appropriated at R4.769 billion and results to a budgeted surplus of R115.9 million. When compared to the 2016/17 Adjustments Budget, operational expenditure has grown overall by 0.55 per cent in the 2017/18 budget and by 5.3 and 5.8 per cent for each of the respective outer years of the MTREF.
- The capital budget of R 651.9 million (R 456.6 million grant funding, R38.8 million borrowings and R156.6 million internal funding) for 2017/18 is R219.7 million less when compared to the 2016/17 Adjustment Budget.

Overall, the outcomes of the MTREF may be summarised as follows:

Figure 28: MTREF Budget Overview for years 2017-2020



4.7.1 Operation and Maintenance of Infrastructure

The Msunduzi Annual Budget and MTREF Report (2017/2018: 21-22) suggests that priority has been given to repairs and maintenance of infrastructure therein. The 2017/2018 budget and MTREF provide an extensive growth in the area of asset maintenance, as informed by the municipality's asset renewal strategy and repairs and maintenance plan. Furthermore, it is useful to note that in terms of the Municipal Budget and Reporting Regulations, operational repairs and maintenance is not considered a direct expenditure driver but an outcome of certain other expenditures, such as remuneration, purchases of materials and contracted services.

The municipality's repairs and maintenance has been continually increasing in the municipality's budget over the past few years. The total allocation for the year 2017/18 equates to approximately R277.9 million which accounts for a 27% increase from 2016/17. In relation to the total operating expenditure, repairs and maintenance comprises of 5.63%, 5.65% and 5.64% for the respective financial years of the MTREF. This is aligned to capital budget of which 85 per cent of the R&M budget is directed towards the upgrade of infrastructure assets which therefore compensates for the lower repairs and maintenance budget (MTREF 2017/2018: 24):

The following table summarises the repairs and maintenance of the municipality per assets class:

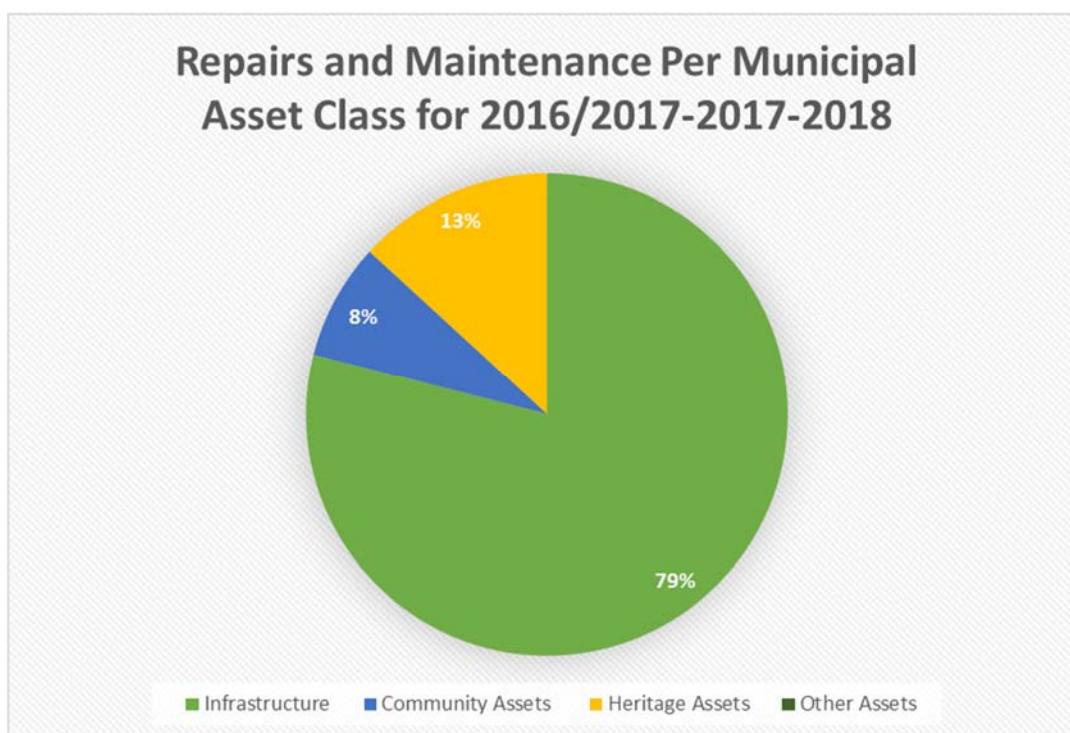
Table 26: O & M Expenditure by Asset Class

Description	2013/2014	2014/2015	2015/2016	Current 2016/2017	Year 2017/2018
Repairs and Maintenance expenditure by Asset Class					
Infrastructure	57,050 000	86,0603 000	127,246 000	135,342 000	207,609 000
Community Assets		24,466 000	17,218 000	13, 455 000	40,806 000
Heritage Assets	46,220 000	38,222 000		22, 547 000	12, 510 000
Other Assets	35, 790 000	44, 586 000	22, 547 000		15,858 000
Total	139,060 000	193,317 000	162, 844 000	171, 344 000	277, 871 000

(Msunduzi Annual Budget and MTREF Report 2017/2018: 24)

In terms of the budgets for the years 2016/2017-2017/2018 allocated for repairs and maintenance for each respective asset class, the following comparisons may be made:

Figure 29: Repairs and Maintenance per Municipal Asset Class for 2016-2018



4.7.2 Strategic Priorities for the Msunduzi Municipality

The Msunduzi Municipality identifies six strategic city-wide outcomes to achieve its vision of being the *“City of Choice, Second to None, where the entire citizenry can: Own a financially viable and well governed city; Live in peacefully; Move about freely and in a*

cost-effective manner; Work to earn a living, thereby reducing unemployment, poverty, and inequality”.

In this regard, the Municipality intends to deliver six strategic city-wide outcomes to achieve this vision as follows:

- A well serviced city;
- An accessible, connected city,
- A clean green city;
- A friendly, safe city and
- An economically prosperous city; and
- A financially viable and well-governed city.

In order to realise the Vision, the Municipality has prioritised thirteen objectives, clustered under each of these six broadly defined outcomes. According to the IDP (2016/2021: 23) these may be summarised as follows:

Table 27: Msunduzi Strategic Priority Areas

Strategic Priority One: A well Serviced City		
Goal	Value Statement	Target
By 2030, Msunduzi is a city serviced with quality water and sanitation reticulation, uninterrupted, adequate energy supply, and regular waste removal - for ALL neighbourhoods, communities, and centres of business.	City-wide infrastructure and service delivery provides a reliable, high quality supply of water, sanitation, energy, and waste services - to all.	100% of all households have a municipal water connection to the yard level. 70% of all households have water-borne sanitation. 30% of all households have the basic minimum of Ventilated Improved Pit-latrines VIPs. To Reduce Non-Revenue Water and Real Water Losses to 20% and 15% respectively. To reduce the amount of water service interruptions from 1684 per annum (2011/2012) by 80% to 336 bursts per annum and respond to 100% of service interruptions within 8 hours. To reduce sanitation service interruptions from 2499(2011-2012) per annum by 80% to 500 per annum and respond to 100% of sanitation blockages within 8 hours.
	City-wide energy infrastructure and service delivery provides a reliable, high quality supply of energy. Energy supply meets the anticipated increased demand for electricity specifically, including peak periods.	Disruption to energy supply is minimised to 6 hours in 100% of incidents. Electricity supply keeps pace with expected growth of 4% per annum. 100% of households have basic electricity supply.
	Energy prices are affordable for residents.	100% of municipal households are fitted with solar water heating geysers.

CONSOLIDATED TECHNICAL SDF REVIEW REPORT FOR THE MSUNDUZI MUNICIPALITY

Project MSUNDUZI MUNICIPAL SDF REVIEW

Project No. 14376

Revision No. 3

Date: November 2017

Strategic Priority One: A well Serviced City		
Goal	Value Statement	Target
	Use of renewable sources of energy is widespread.	100% of street lights and 100% of traffic signals in the CBD are powered by renewable energy.
	Energy production, capacity, storage, management, and distribution rapidly adapts to changing patterns of demand.	Demand management provides a 10% reduction in peak demand.
	City-wide infrastructure and service delivery provides reduced electricity losses.	Reduces electricity losses to below 5% of bulk supply purchases.
	Municipal-wide waste collection and disposal services to domestic households are available to all Msunduzi residents.	100% of households are rendered a waste collection and disposal service once a week.
	Appropriate waste collection and disposal services are provided to support business and industry. Commercial activity derives production inputs from recovered waste material.	100% of businesses are rendered a waste collection and disposal service at least twice a week.
	Implementation of Advanced Waste Management Systems that reflect community values around waste minimisation.	50% recovery rate of recyclable materials through source separation at households and public sector offices, and treatment of organic waste.
	Implementation of annual infrastructure upgrade of the waste disposal site.	Construct waste containment berms, access roads, rehabilitation of perimeter roads, fencing of perimeter of site, construct wet-weather facility, and install stone drainage layers on site, clay-cap side slopes of berms.
	Recovery, re-use and recycling of waste is maximised. The volume of waste disposed to landfill is minimised. Life spans of landfill sites are extended.	25% of household and business waste is sorted on-site.

CONSOLIDATED TECHNICAL SDF REVIEW REPORT FOR THE MSUNDUZI MUNICIPALITY

Project MSUNDUZI MUNICIPAL SDF REVIEW

Project No. 14376

Revision No. 3

Date: November 2017

Strategic Priority Two: An Accessible And Connected City

Goal	Value Statement	Target
<p>By 2030, Msunduzi is a city with sufficient and well-maintained road, rail, and other physical infrastructure serving all residents, whether they use public or private transport modes. It has layers of diverse transport networks inter connecting at centres and internal urban hubs. Human settlement initiatives reduce housing backlogs and eliminate spatial separation by racial categories. Telecommunications and information technology is universally accessible and reliable. Social infrastructure, focussed on educational, health and recreational facilities meets all communities' needs</p>	<p>A diversity of private (cars, bikes, walking) and public (trains, buses, taxis) transport options, using a range of adequate physical infrastructure (roads, rail, and bikeways/walkways) is readily available to all residents.</p>	<p>Road and rail infrastructure backlogs are reduced such that 90% of communities have access to road and rail services.</p> <p>100% compliant with Roads infrastructure management plan.</p> <p>90% of Msunduzi residents can get to work within 45 minutes.</p> <p>Reliable Public transport services are available 24 hours per day, with accessibility every 15 minutes to key activity nodes.</p> <p>90% of travel in morning peak periods comprise walking, cycling or energy efficient public transport.</p>
	<p>People connect virtually through high-speed information and communication technology. Reliable telecommunications networks provide access to learning and information opportunities in homes, schools, and workplaces. Business and industry embrace high-speed broadband networks to become more productive and innovative. Energy efficiency is promoted by telecommuting.</p>	<p>100% eradication of informal settlements.</p> <p>Rural Residential housing infrastructure backlogs are reduced such that less than 10% of households remain without access to formal housing.</p> <p>Zero tolerance for exclusions based on racial, ethnic, religious or other demographic characteristics, is reflected in 100% of new settlement patterns.</p> <p>20% of each new mixed-use development consists of rental stock.</p> <p>30% densification of urban space.</p> <p>Council Rental Stock maintained on a regular and consistent basis to eliminate unsafe structures and to prevent deterioration of Council's assets.</p> <p>Old Rental Stock to be reduced by transferring certain units to qualifying tenants.</p> <p>Allocations of new houses in subsidised housing projects to be 100% compliant with DOHS policies by installation of Housing Needs Register and capture of names.</p>
	<p>Social infrastructure supports healthy lifestyles, learning opportunities, and community unity and social cohesion. Health infrastructure is readily available and meets community needs. Major recreational infrastructure (e.g. sports stadia, cultural facilities, etc.) contribute to the city's economy by allowing for world-class events and tourism. Social infrastructure is delivered with regard to minimising impacts on the environment.</p>	<p>90% of communities have adequate social infrastructure within a 30 minute walk or ride.</p> <p>100% of business centres are supported with appropriate community recreational and meeting facilities including health and educational facilities.</p> <p>100% of social infrastructure delivery complies with national standards regarding minimal environmental impact.</p>

CONSOLIDATED TECHNICAL SDF REVIEW REPORT FOR THE MSUNDUZI MUNICIPALITY

Project MSUNDUZI MUNICIPAL SDF REVIEW

Project No. 14376

Revision No. 3

Date: November 2017

Strategic Priority Two: An Accessible And Connected City		
Goal	Value Statement	Target
Strategic Priority Three: A Clean Green City		
Goal	Value Statement	Target
<p>By 2030, Msunduzi is a city protecting our natural environment, our native plants and animal habitats, limiting pollution, greening the city, and using our natural resources, such as water, wisely. The clean, green city harnesses our renewable energy supply, public open space creation project, and urban renewal and greening programme to these ends.</p> <p>Msunduzi conserves its natural assets while still meeting the demand for more housing, more roads and more services to accommodate our increasing population.</p>	<p>Msunduzi has widespread use for renewable energy supplies, including but not limited to: solar, wind, and hydro power. The city continually increases investment in delivering more sustainable energy technologies. Businesses use energy efficiently prioritising low carbon emission sources.</p>	<p>30% of Msunduzi's electricity demand is met by renewable sources.</p> <p>20% of liquid energy is derived from bio-fuel.</p> <p>50% of new commercial or industrial development incorporates some form of renewable energy technology usage in its design and construction.</p> <p>80% of new human settlement development incorporates some form of renewable energy technology usage in its design and construction.</p> <p>100% of building plans approved have due consideration for energy efficiency.</p>
	<p>Alternative energy sources are mainstreamed in new human settlement development for all communities and energy efficiency required in building plans.</p>	
	<p>Communities benefit from a Linked public open space network, providing for a range of sporting, cultural, and recreational uses.</p>	<p>100% of residents are within a 15 minute walking distance to facilities within the city's public, open, and green space network.</p>
	<p>Urban renewal and greening is recognised by communities and the business fraternity as contributing to environmental and ecological sustainability, as well as supporting future residential, commercial, and industrial development.</p>	<p>100% residential, commercial, and industrial precincts incorporate green spaces.</p> <p>100% of roads in former black townships and major arterial roads in rural areas are tarred.</p> <p>100% compliance with trading bylaws within the CBD.</p> <p>100% compliance with environmental bylaws within the city environs.</p>

Strategic Priority Four: A Friendly, Safe City		
Goal	Value Statement	Target
By 2030, Msunduzi is a city with strong,	The separate development of the past will be forgotten, as the city proactively	Civic engagement increases so that 100% of residents, regardless of racial, class, religious, or political

CONSOLIDATED TECHNICAL SDF REVIEW REPORT FOR THE MSUNDUZI MUNICIPALITY

Project MSUNDUZI MUNICIPAL SDF REVIEW

Project No. 14376

Revision No. 3

Date: November 2017

Strategic Priority Four: A Friendly, Safe City

Goal	Value Statement	Target
welcoming, caring, and diverse communities, living in a variety of friendly, safe neighbourhoods.	promotes and practically engineers social cohesion across all its objectives, geographic spread, racial groupings, class identities, religious formations, and political affiliations.	categories, can enjoy an active role in decisions that affect their city. To ensure the effective management of land uses within the Msunduzi Municipality.
	People will enjoy working together and helping each other in local neighbourhoods and in the broader community. Msunduzi's friendly outdoor life is enlivened by an interesting range of local and regional celebrations.	
	Civil society organisations and community participation are critical elements of Msunduzi's safety and security strategies. Community policing forums are active in community safety centres established across the city.	100% residential, commercial, and industrial precincts incorporate green spaces. 100% of roads in former black townships and major arterial roads in rural areas are tarred. 100% compliance with trading bylaws within the CBD. 100% compliance with environmental bylaws within the city environs.

Strategic Priority Five: An Economically Prosperous City

Goal	Value Statement	Target
By 2030, Msunduzi is a city with a flourishing business environment, with people exercising their entrepreneurship across the full spectrum of commercial, public, scientific, educational, and charitable enterprises.	The city absorbs young people into a job creation social compact between the council, private businesses, and the non-profit sector – with the support of institutions of learning.	Unemployment in the city is reduced to 15%.
	By 2030, Msunduzi will have a strong, diversified, and resilient economy, using its competitive advantages to deliver prosperity, high employment, and quality jobs for all the city's residents.	The Municipality has competitive business incentive packages to attract new businesses and drive expansion. The Municipality attracts annual investment in excess of R 1 billion per annum, reducing unemployment by 5% per annum. Municipality has 100% of skills required for the local economy.

CONSOLIDATED TECHNICAL SDF REVIEW REPORT FOR THE MSUNDUZI MUNICIPALITY

Project MSUNDUZI MUNICIPAL SDF REVIEW

Project No. 14376

Revision No. 3

Date: November 2017

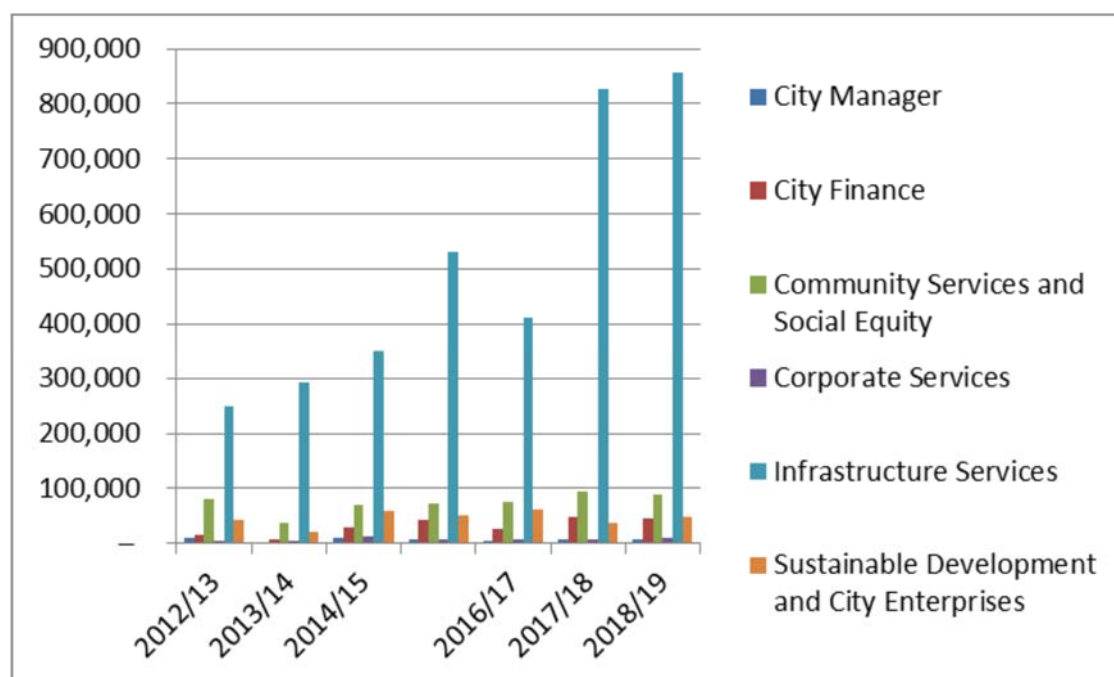
Strategic Priority Five: An Economically Prosperous City		
Goal	Value Statement	Target
		Reduce the percentage of economically inactive youth to 5%.

Strategic Priority Six: A Financially Viable and Well-Governed City		
Goal	Value Statement	Target
By 2030, the Msunduzi Municipality is a financially sound and well governed institution, delivering on its legislative mandates and offering residents of the Municipality value for their rates payments.	By 2030, Msunduzi will be Financially sound through managing its finances efficiently, through effective and realistic budgeting to ensure synergy between the capital and operating budget, as well as through revenue enhancement.	Efficient Budget and Treasury. Optimal Expenditure Management. Improved Revenue Management. Effective Supply Chain Management. Optimal Financial Service. Efficient collection of revenue through Municipal Property Rates.
	By 2030, Msunduzi will have a civil society that actively participates in, and contributes to, sound decision making, ensuring greater accountability of Councillors and Officials.	100% effective administration complying with its legal mandates. Effective fleet management to ensure resource availability for service delivery. To maximize the disaster resilience of Msunduzi through coordination of all pre-disaster risk reduction – as well as post disaster response activities within a framework of sustainable development.

4.7.3 Medium Term Capital Budget per Vote

The total capital budget for 2017/18 is R651.9 million of which 70% (R456.6 million) is funded through conditional grants from national and provincial government, 6% (R38.8 million) funded through borrowings and 24% (R156.6 million) is funded through internal reserves. About 30% (R197 million) of the total capital budget will go towards renewal of existing assets while 55% (R356.6 million) is going to be spent on new assets and 15% (R98.5 million) is going to be spent on upgrading of existing assets (Msunduzi Municipal Budget and MTREF 2017/2018: 26). The following graph provides a breakdown of the capital budget to be spent by vote over the MTREF:

Figure 30: Medium Term Capital Budget per Vote



(Msunduzi Annual Budget and MTREF 2017/2018: 27).

4.8 Spatial Planning Priorities and Budget Alignment Processes

4.8.1 Strategic Level Assessment

4.8.1.1 Defining the Region

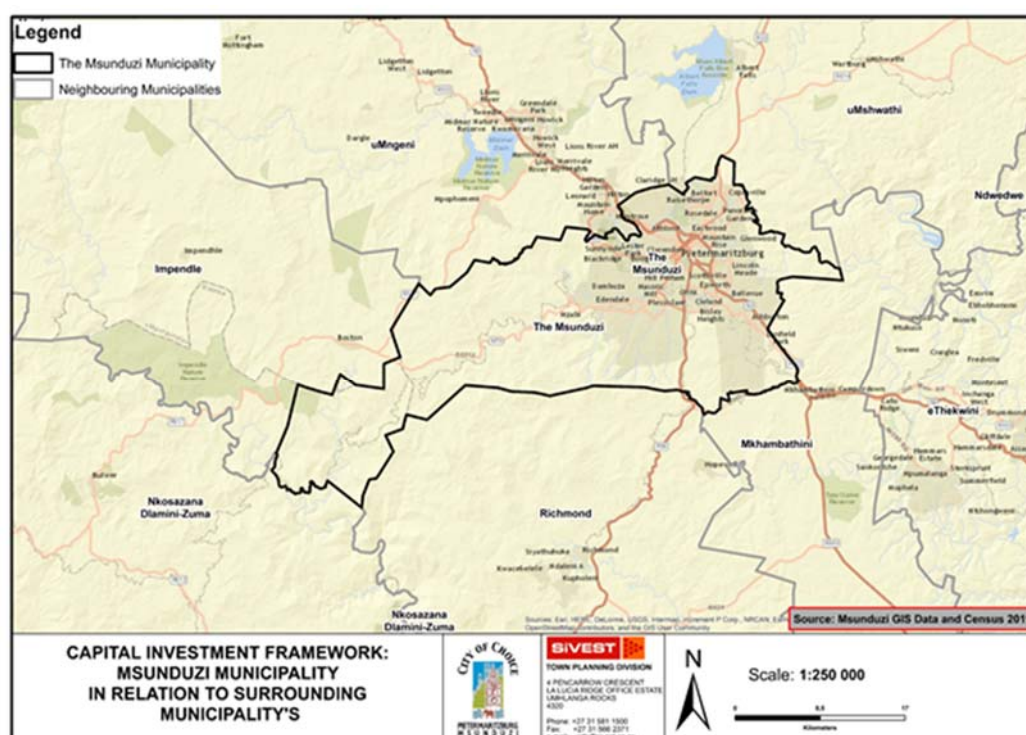
The Msunduzi Municipality is approximately 753.61 km² in extent. Similar to most municipalities within South Africa, the Municipality comprises of urban (e.g. Pietermaritzburg), informal (e.g. Copesville) and non-urban (e.g. Tayors Halt) settlements.

As per the CoGTA Module 3 Guidelines for Spatial Development Framework and Scheme Management of Public Investment (2012), a 40x40km² grid was applied to the entire Municipality. The focal point used for this exercise was centred upon the Pietermaritzburg CBD.

The regions sphere of influence comprises of Umshwati, eThekweni, Mkhambathini, Richmond, Nkosazana Dlamini Zuma and Impendle Municipalities which all lend themselves useful in regards to offering the cross pollination of services and economic opportunities to the Msunduzi Municipality. The Pietermaritzburg CBD is located at the intersections between the M70 and N3 Freeway. The N3 Freeway is responsible for

linking the Msunduzi Municipality with the Durban CBD which is a metropolitan node within the province of Kwa-Zulu Natal.

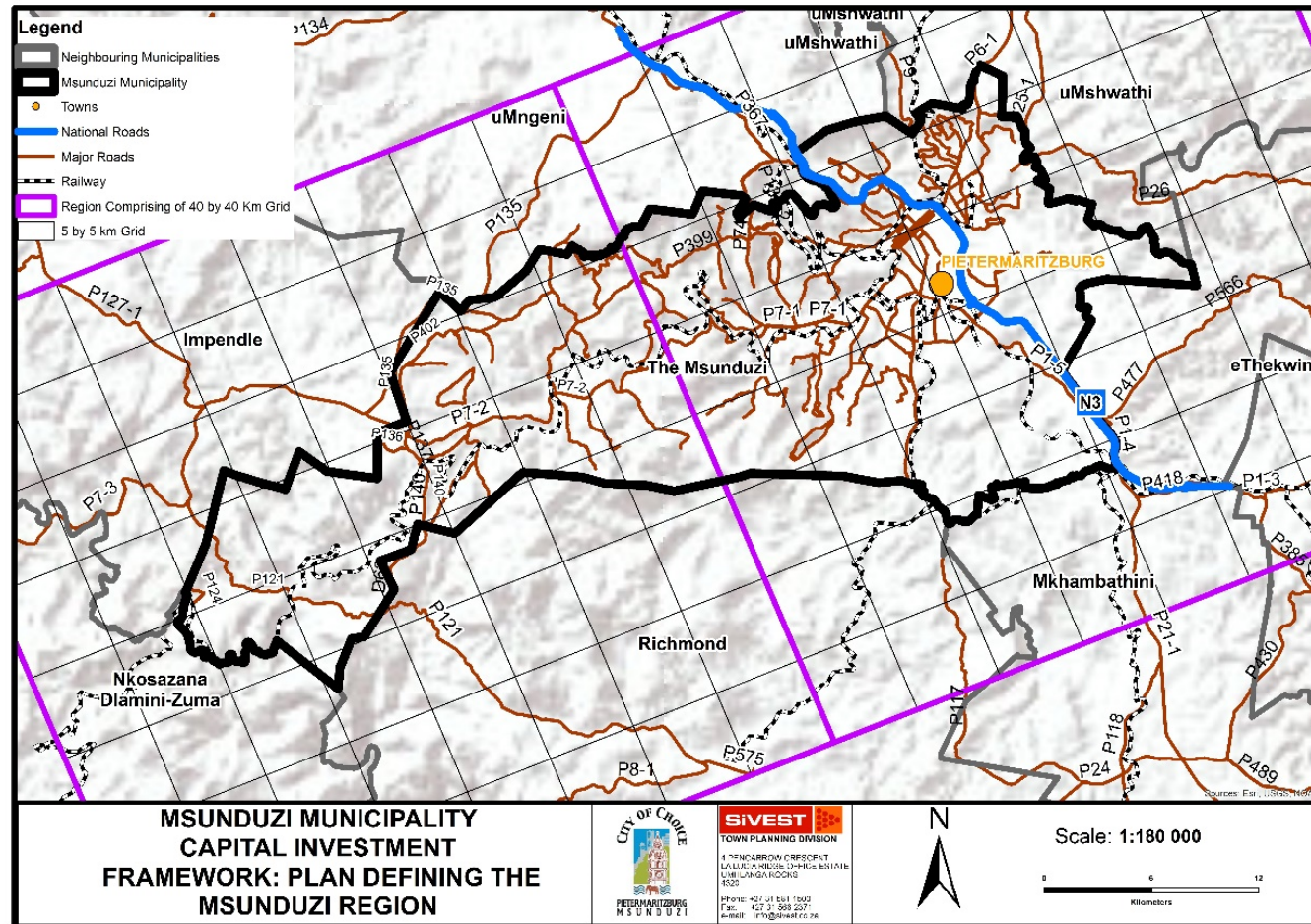
Figure 31: Msunduzi Municipality in relation to surrounding municipality's



As previously noted, the defined region stretches beyond the confinements of the Msunduzi Municipality to other neighbouring municipalities as two 40 by 40 km accessibility grids were utilised in line with the prescribed recommendations advanced by KZN COGTA's Module 3 for Spatial Development Framework and Scheme Management of Public Investment (2012). However, for completeness sake, such a grid was broken down into smaller 5 x 5km accessibility zones that cover the Msunduzi Municipality and its immediate neighbouring municipalities. Each 25 km² block within the municipality represents approximately a 15 minute travel duration by way of taxi.

The figure below illustrates the region and the accessibility grid of the Msunduzi Municipality in relation to its neighbouring municipalities.

Figure 32: Defining the Msunduzi Region



CONSOLIDATED TECHNICAL SDF REVIEW REPORT FOR THE MSUNDUZI MUNICIPALITY

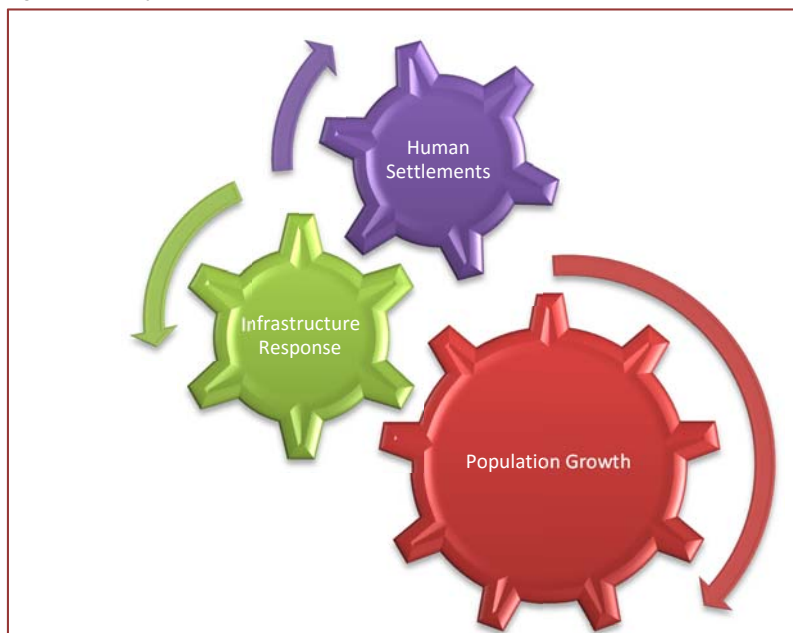
Project MSUNDUZI MUNICIPAL SDF REVIEW
Project No. 14376
Revision No. 3

Date: November 2017

4.8.1.2 Analysis of the settlement pattern and broad Categorisation

The Msunduzi Municipality is anticipated to experience a minimum population growth rate of approximately 1% per annum, as highlighted in the growth model. In light of the Municipality's stride towards acquiring metropolitan status, it is anticipated that it will in all likelihood, experience a fair degree of in-migration which will introduce various dynamics to the underlying settlement typology in the near future.

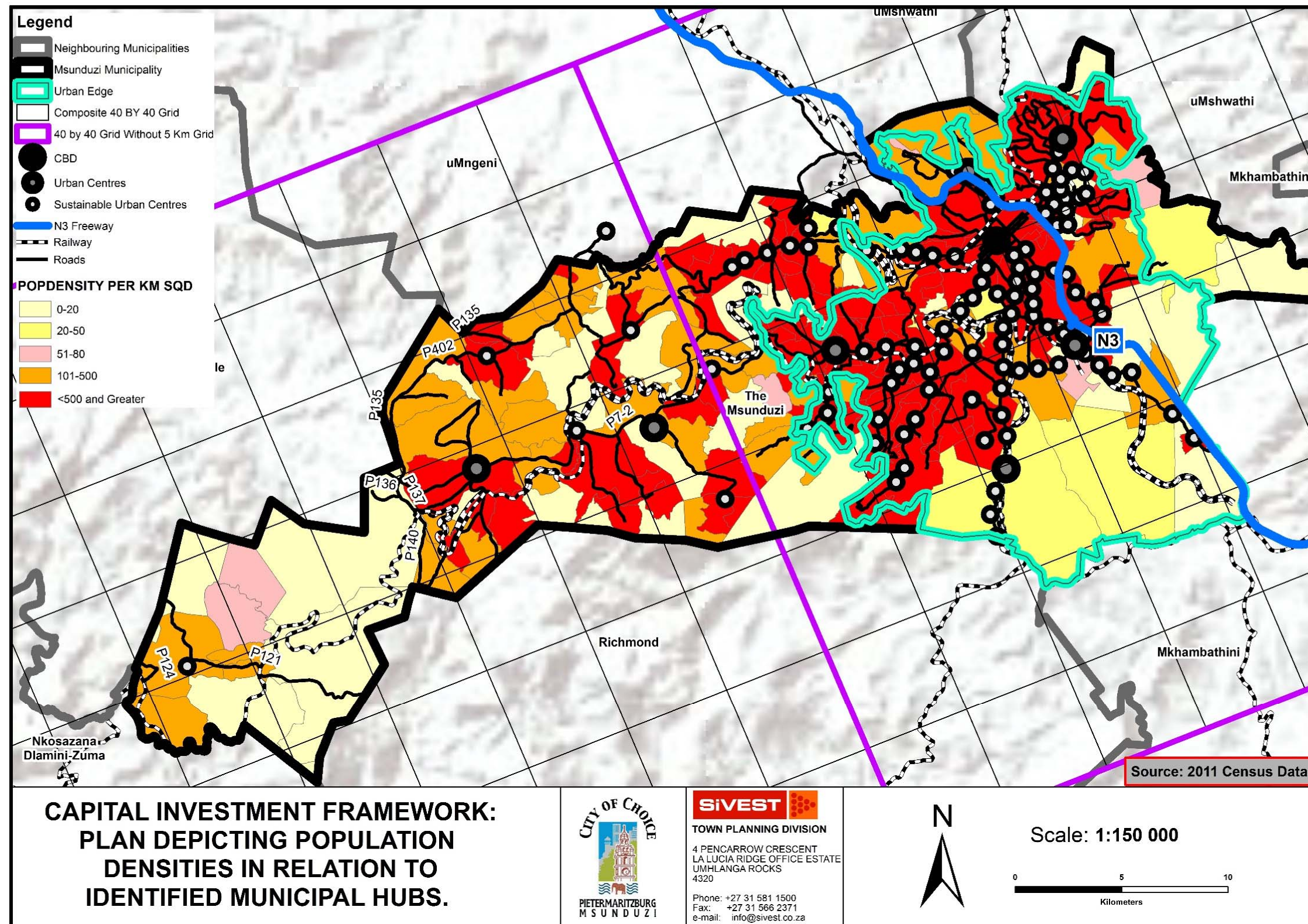
Figure 33: Key Pressure Areas for Population Growth



As it currently stands, the key pressure areas come in the form of the Vulindlela, Greater Edendale /Imbali ABM areas respectively. It is anticipated that the Municipality will need to provide affordable access to housing opportunities in the afore-mentioned areas.

The Edenale, Sinathingi, Ashdown, Masons Mill, Naiperville, Caluza, Wilgerfontein, Tafuleni, Ngubeni and the Northdale Residential area, amongst others, are the most populous within the Municipality as they comprise of more than 500 people per km² (Census Data 2011). The Msunduzi Municipality's settlement pattern is predominantly orientated along major transportation networks, specifically in relation to the N3 Freeway, the R33, R56/Richmond Road, and Moses Mabhida/Sinathingi Road which stretches from the Pietermaritzburg CBD to the Ncwadi Area. In regards the underlying population densities within the municipality, Census 2011 data was utilised to illustrate some of which the spatial outcomes may be summarised as follows:

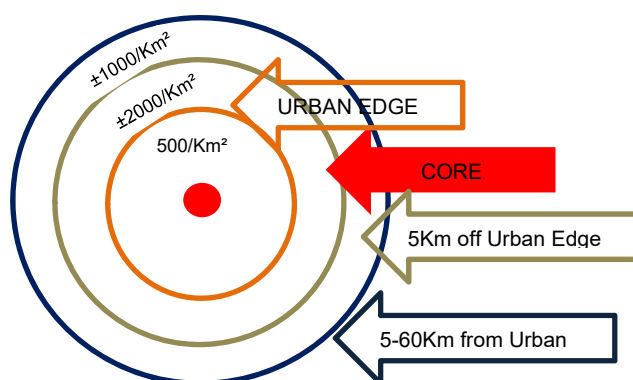
Figure 34: Population Densities in relation to Municipal Hubs



Based on the analysis of the Census 2011 data, the most populous settlement areas are located in a broad “U-Shape” settlement structure along both major routes and the outskirts of the Msunduzi Municipal boundary as a result of the amenities that may sit outside the municipality in the form of social facilities.

These settlements comprise of formal settlements by virtue of falling within the proposed urban edge, i.e. Wilgerfontein, Ezithandeni, Pelham, Pietermaritzburg, Mjwara, Newtown, Nenzokuhle, Caluza, Scottsville amongst others which comprise of an average population size of some 600-13000 per km² within each identified sub area as per Census Data (2011).

Figure 35: Msunduzi Typical Settlement Pattern



The areas of identified urban interface which lie contiguous or in a 5 km travel distance to the proposed urban edge of the Msunduzi Municipality hosts some 600-2000 people therein. These areas lie in the eastern part, contiguous to the uMgeni Municipality and may be redefined as urban hubs as a result of the strategic role they play within and outside of the municipality. These area areas are made up of Sweetwaters, kwaMbanjwa, kwaMtoqotho, Chaewe, Zayeka, Nadi and Mkangala for example. Opportunities are to be explored in so far as how these may be improved from a servicing and functionality perspective.

Areas that sit some 5-60 km away from the proposed urban edge or Pietermaritzburg CBD comprise of formal and non-urban settlement (i.e. characteristics that resemble a traditional settlement structure and may fall within Ingonyama Trust land) may be deemed to be areas outside the urban edge which lend themselves useful to supporting the Msunduzi Polycentric city structure. These areas comprise of approximately 500-1000 people per km² and may play a pivotal role in regards to acting as “peri-urban” or sustainable urban hubs, i.e Xamuxolo, Kanzakana, Songizima, kwaMpande, Mafakathini, eMahashini, Kwaqanda, Tafuleni, Tayors Halt and etc.

Servicing Levels through CSIR Guidelines For “Large cities/small metros”

In terms of the analysis of servicing levels within the municipality, the CSIR (2012: 30) Guidelines for the provision of social facilities were utilised to ascertain the existing levels of services therein. To this end, the following allocation of facilities within “large cities/small metros” was selected from the Guideline to ascertain the existing levels of service. These detail the average travel threshold population in relation to the accepted travel distances methodology:

Table 28: CSIR Guidelines for Social Facility Provision

Broad Category	Facilities	Average Threshold Population	Acceptable Travel Distance (km)	Provision Criteria	Comment
Health and Emergency Services	Regional Hospital	1 770 000	See Comment	Discretionary	May be required in cities with a lower threshold – 900 000+ if access distances are greater than 200 km to a comparable facility elsewhere
	District Hospital	300 000 - 900 000	30 km	Compulsory	Not required if residents can reach (within 30 km) any higher-order hospital that is not overburdened
	Community Health Centre	100 000 - 140 000	90% of population served within 5 km*	Compulsory	National Department of Health target
	Primary Health Clinic	24 000 - 70 000	90% of population served within 5 km*	Compulsory	National Department of Health target
	Facilities	Average Threshold Population	Acceptable Travel Distance (km)	Provision Criteria	Comments
Education	University/University of Technology	1 000 000+	up to 500 km	Discretionary	Historical provision is the most likely determinant at this scale
	Post-matric Skills Training (i.e. nursing teaching, etc)	400 000	20 km	Compulsory	Public transport access required
	ABET/Skills Training	Variable	25 km	Recommended	Variety of institutions mostly with no sports facilities and of limited spatial extent. Centrally located
	Special Education	Still to be determined	20 km	Recommended	Range of alternate types required.

CONSOLIDATED TECHNICAL SDF REVIEW REPORT FOR THE MSUNDUZI MUNICIPALITY

Project MSUNDUZI MUNICIPAL SDF REVIEW

Project No. 14376

Revision No. 3

Date: November 2017

					Special school transport may be necessary	
	Secondary School	12 500	5 km	Compulsory	With or without sports facilities; new schools to use communal sports facilities	
	Primary School	7 000	5 km	Compulsory	With or without sports facilities; new schools to use communal sports facilities	
	Grade R Class at Primary School	1 000	2km (preferred) - 5 km	Compulsory	Linked to Primary School	
	Small Crèche/Early Childhood Development Centre	2 400 - 3 000	2 km	Compulsory	Supports working parents so can be located close to employment centres as well as to residential areas. Location close to parks preferred.	
	ECD Resource Hub and Care Centre	20 000	5 km	Compulsory	Located to support a number of schools; i.e. 1 hub per 6 - 10 crèches	
Facilities	Average Threshold Population	Acceptance Distance	Travel Distance	Provision Criteria	Provision Criteria	Comments
Other	Police Station	60 000-100 000	8 km metro; 15 km peri-urban 24 km other	Compulsory		Central location critical but demand factors and access of population will dictate location and size. SAPS Contact Points are used in areas not warranting a fully-fledged station but which are beyond the SAPS distance criteria of 24 km
	Regional Library	450 000	50 km	Compulsory		N/A
	Local Library	20 000 - 70 000	8 km - 10 km	Compulsory		Discretionary provision if regional library is within 5 km
	Community Hall – medium/small (fringe areas)	10 000 - 15 000	15 km	Discretionary		

CONSOLIDATED TECHNICAL SDF REVIEW REPORT FOR THE MSUNDUZI MUNICIPALITY

Project MSUNDUZI MUNICIPAL SDF REVIEW

Project No. 14376

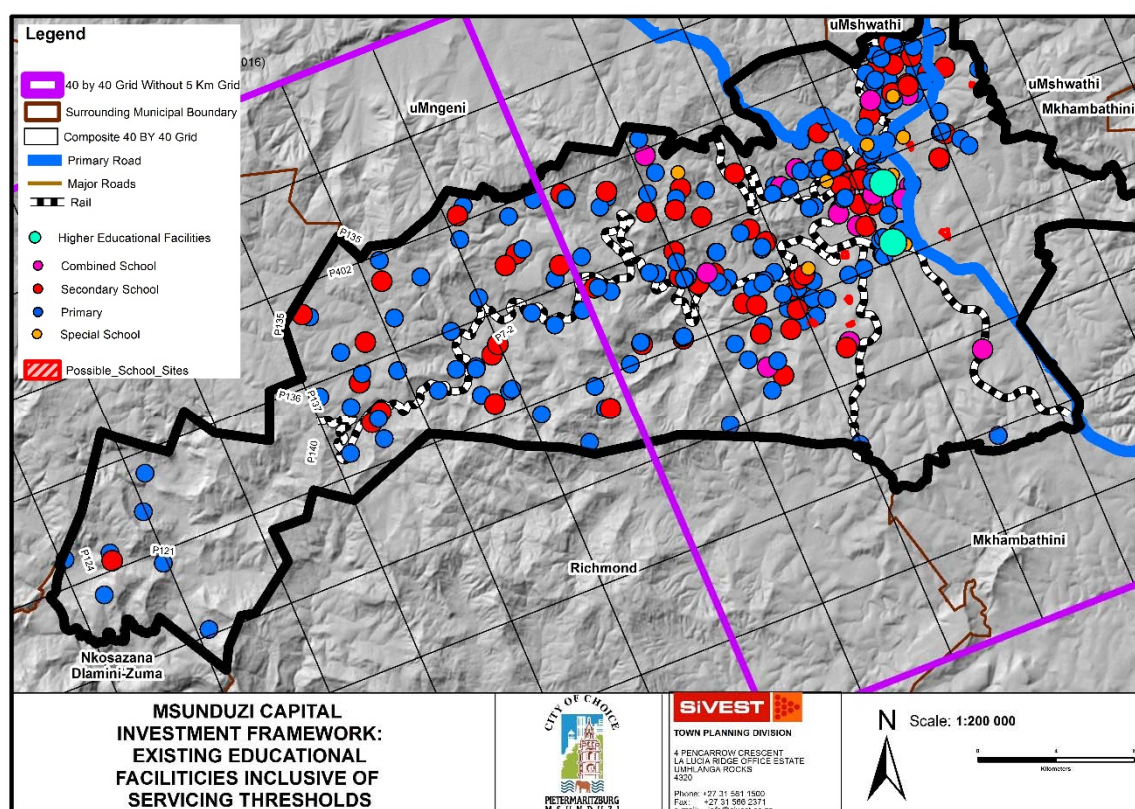
Revision No. 3

Date: November 2017

4.8.1.4 Educational Facilities

Pietermaritzburg comprises a number of institutions of higher education, including the University of KwaZulu-Natal, Technicon's, FET Colleges, and technical colleges. It is also home to a host of both private and government owned institutions of primary and secondary education. Furthermore, within the rural and peri-urban areas of the municipality, most of the schools located therein are situated according to national standards of primary schools within a 2km radius and a secondary school within 5km of all residents. However, the most noteworthy challenge is the standard of school buildings, and accessibility to schools due to physical barriers (i.e. topography, rivers and etc) underlying the settlement patterns of the municipality (Msunduzi Municipal IDP 2016/2017: 151). Spatially, the applicable thresholds and servicing potential may be spatially represented as follows:

Figure 36: Educational Facilities Servicing Potential within Msunduzi



4.8.1.5 Health Facilities

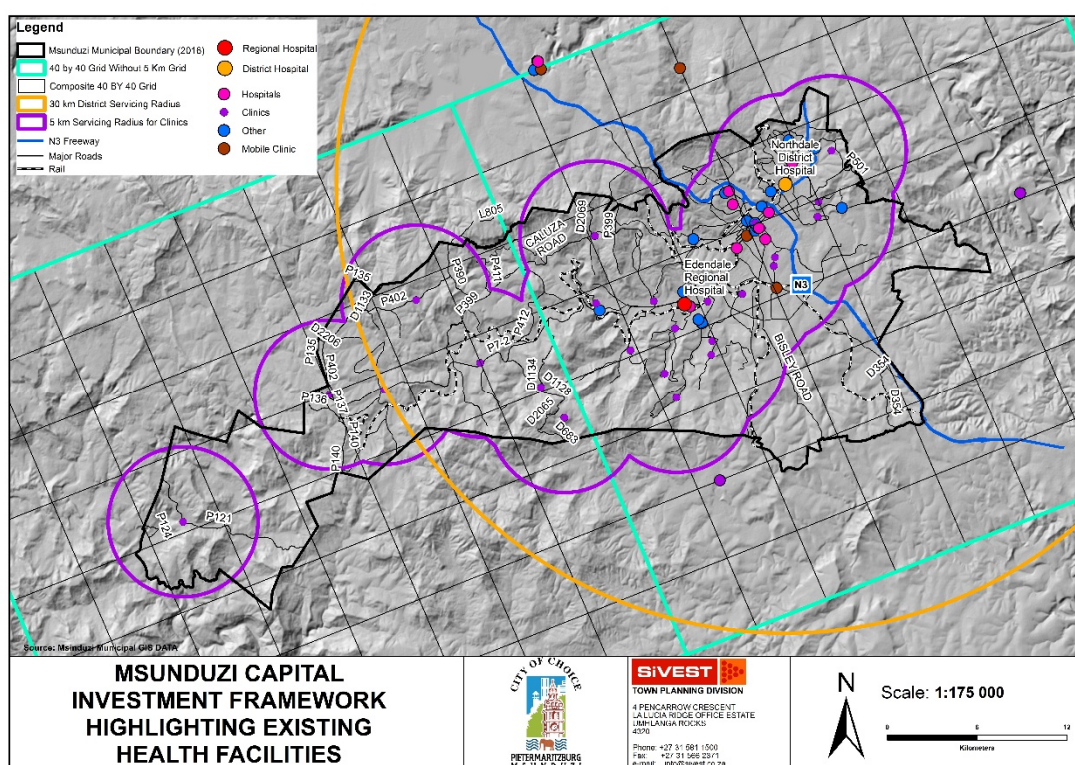
The Msunduzi Municipality is currently in possession of the following noteworthy health facilities:

- Regional Hospital in the form Greater Edendale Regional Hospital;
- District Hospital in the form of the Northdale District Hospital; and
- Some 28 Clinics.

In this regard, the Msunduzi Municipality may be deemed to have good access to health facilities and as it currently stands there are no other planned or budgeted health facilities therein. The Greater Edendale Regional Hospital, Northdale District Hospital and existing clinics, according to the prescribed servicing threshold and acceptable travel distance to such facilities by CSIR, most of the needs of the current and future citizens within the municipality are or will be met.

Spatially, these health facilities may be represented as follows within the Msunduzi Municipality:

Figure 37: Health Facilities Servicing Potential within Msunduzi



4.8.1.6 Libraries, Police Stations and Community Halls

There are some eleven libraries within the Msunduzi Municipality. The main branch is the Bessie Head Library. There are three other large libraries within the municipality which include Northdale, Georgetown and Eastwood. There municipality has five other smaller libraries which include Ashburton, Woodlands, Sobantu, Ashdown and Alexandra Library which offer a smaller range of materials whilst being able to meet the needs of the communities they serve.

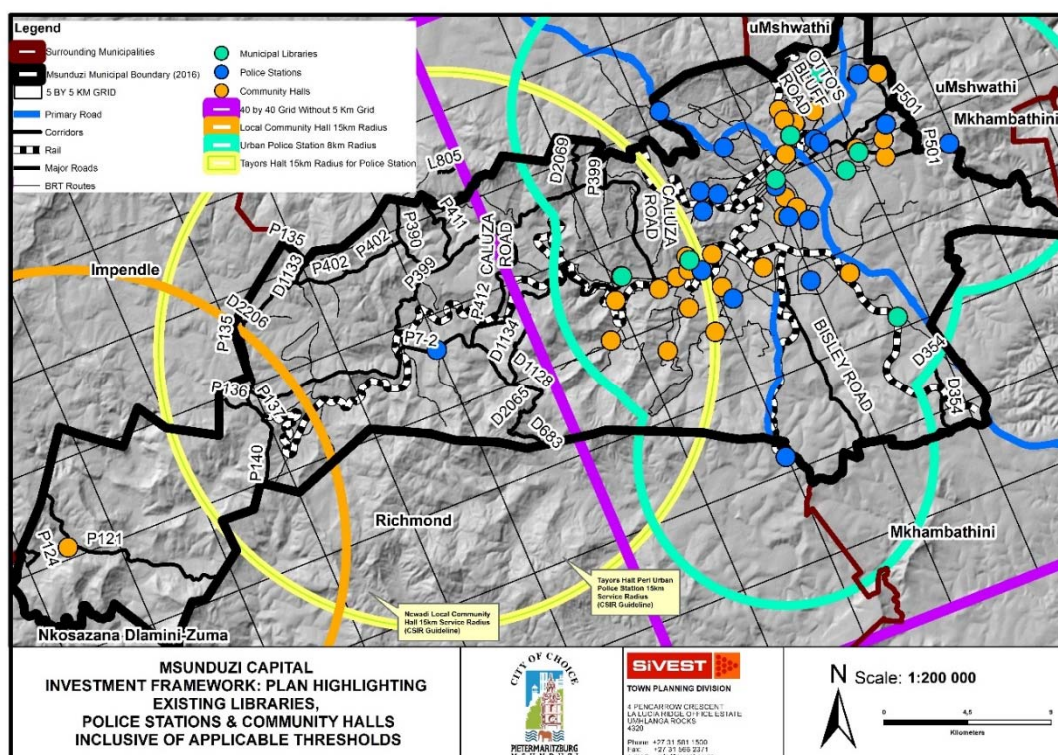
During the 2015/2016 financial year all 11 libraries were maintained every month, 8 Libraries were also renovated & maintained as per approved Maintenance Plan and

16 863 library books were purchased (Msunduzi Financial Annual Report 2015/2016).

In regards to police stations, based on an analysis of the Msunduzi Municipality's GIS shapefile data, the Msunduzi Municipality is currently in possession of some 16 police stations which adequately address the municipality's safety and security issues. However it is recommended that the municipality establishes a rural service station within the Ncwadi area.

Furthermore, based on GIS Shapefile, there are some 32 community halls identified within the municipality. The municipality has a decent amount of community halls therein and these are anticipated to increase over the 2016-2018 financial years as the municipality has identified the establishment of more community halls within same financial year. Spatially, the associated thresholds and servicing levels may be represented as follows:

Figure 38: Libraries, Police Stations and Community Halls Servicing Potential within Msunduzi



3.1.8.6. Overall Analysis of servicing Capacities of the Municipality

It is noteworthy that in terms of the municipality's servicing capacities, with specific reference to social facilities, there is a decent level of social facilities. Any further gaps anticipated to arise from same, may be a resultant of further population growth levels

therein which may be effectively aligned and dealt with upon such a time where the need arises.

4.8.2 Community Level-Developing and Budgeting

4.8.2.1 Broad Municipal Needs Analysis as Per IDP

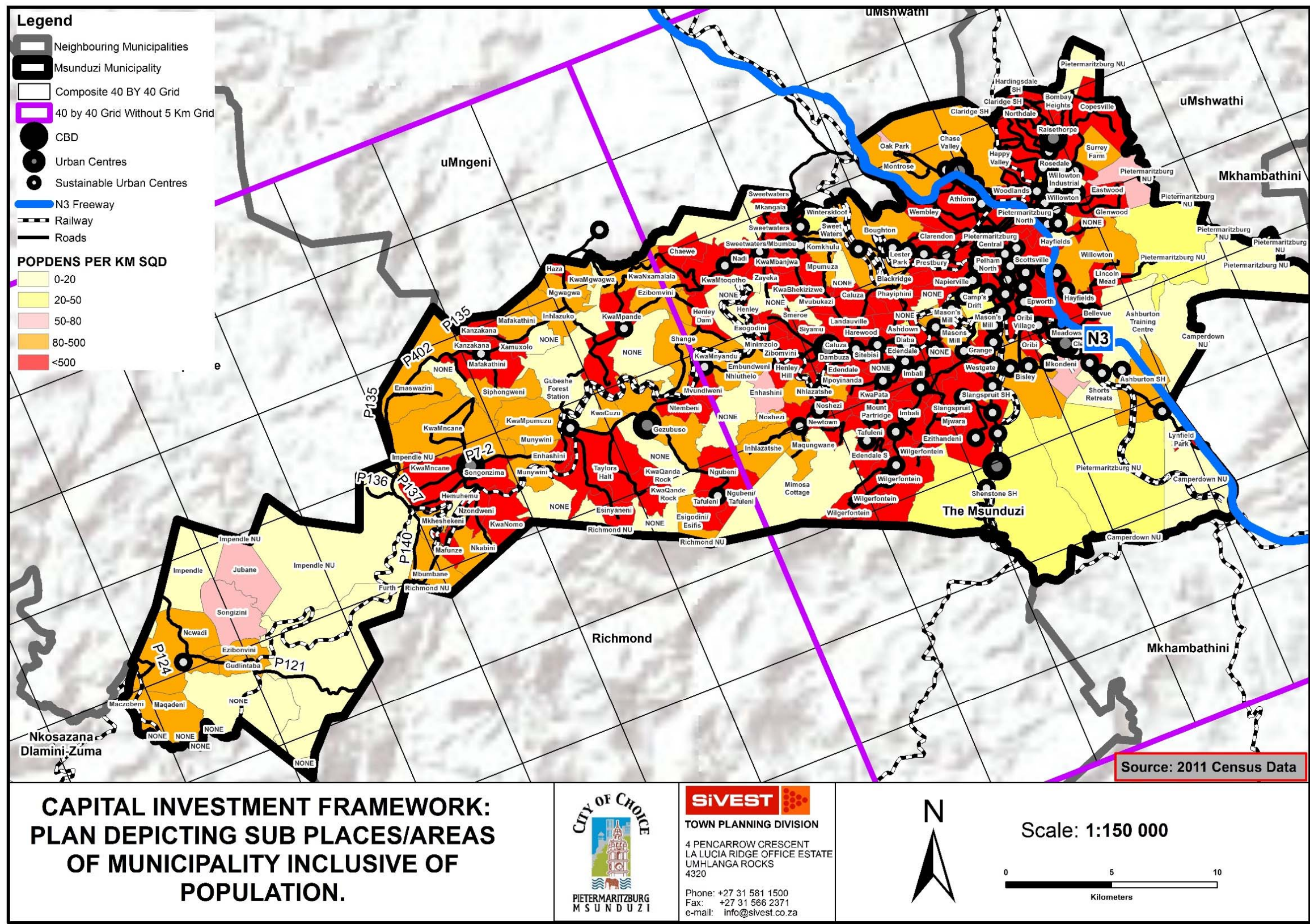
A broad municipal needs analysis was undertaken by the Msunduzi Municipality in terms of the IDP Imbizo of 2014 which identifies five key areas in terms of the key issues facing the municipality at ward level. These may be summarised as follows: -Basic Service Delivery; -Local Economic Development; -Municipal Transformation and Institutional Development; -Good Governance; -Financial Viability and Management; and -Cross Cutting Interventions.

These areas in which the municipality identified the aforementioned areas may be summarised follows:

Table 29: Broad Municipal Needs Analysis as Per IDP

Ward No	Area
1	Mpumaza-Shayamoya, Mpumaza Sweetwaters and Kwampumaza
2	Mpushini-Madwaleni
3	Mgwagwa and Etsheni
4	Ndeleshane and Mzongwana
5	Kwamnyandu, Mzongwane and Mkangala
6	Dindi, Gudlintaba, Tayors Halt, Eskhuliwe Kwamncane, kwaDeda
7	Songonzima, Mafunze-Kambabane and Kwamagwenyane
8	Mancwane, Ekxokhwane, Emaswazini, Khokhwane and zondi Store, Khokhwane, Maswazini, Machobeni
9	Emafakatini, Ngcedomhlophe, Khobongwane, Kwamadolala, Esitaheni, Ekhetini Kwamagwenyane, Phenduka Area, Khobongwaneni and Ndebeqhike
10,11, 12, 13, 14, 15, 16, 17, 18 and 19	
20	Caluza
21, 22 and 23,	
24	Oribi and Grange
25	
26	Napierville, Blackridge, Boughton, Peace Valley 111, Prestbury and Signal Hill
27	Prestbury
28,29,30,31 and 32	
33	Jika-Joe Manor, Lower Down Town, Brookside Mall and Central.
35	
36	Bellevue, Cleland, Hayfields, Meadows, Mkhondeni, Pelham, Scottsville, Epworth and Tamboville

Figure 39: Municipal Areas of Need/Sub Places and Population Densities



4.8.3 Local Economic Development (LED) Strategy and Priorities

The Msunduzi Municipality has developed its Local Economic Development Strategy and Implementation Plan to provide strategic guidance in terms of the longer-term implementation of local economic development and associated projects therein. Such strategic guidance is linked with the future spatial development of the Municipality.

As encapsulated within the Municipality's LED Strategy Review (2017: 6), the LED vision is envisioned as follows:

"The vision of Msunduzi Municipality is of a globally competitive metropolitan city of choice which capitalizes on its strategic location, environment, cultural heritage and educational facilities in creating a choice quality of life for all, whilst actively creating an enabling environment for local economic development directed towards economic growth, prosperity, alleviation of poverty and job creation."

In regards to bringing the aforementioned vision to fruition, the municipality advances a set of **Goals, Strategies, Implementation plan, Financial Plan and an Institutional Plan** which are all aligned to the municipality's economic development trajectory. These may be summarised as follows:

4.8.3.1 Goals

a) Goal 1: To facilitate the development, growth and expansion of key economic sectors identified within the Msunduzi Local Municipality.

The ten strategies applicable to the objectives of Goal 1 which may be summarised as follows:

- Ensure expansion of and investment into the manufacturing sector
- Encourage the development and expansion of the agriculture sector
- To develop, support and market the tourism sector
- To develop, support and market the tourism sector
- Support the diversification of offerings in the wholesale and retail sector
- Support the development of the sports sector
- Support the development of the BPO sector
- Support the development of the green economy sector
- Support the development of the government sector
- Support the development of the ICT sector
- Support the development of the healthcare sector

b) Goal 2: To enhance the effectiveness of LED planning and implementation.

The identified strategies in terms of Goal 2 include:

- Support skills development and training of local government officials.
- Strengthen coordination, communication and collaboration between public and private sector, with particular focus on monitoring and tracking as well as information flow and sharing.

c) Goal 3: To facilitate spatial planning, land identification and premises access for development.

One key strategy was developed to ensure that these constraints are addressed:

- Encourage the strategic release of land and premises for investment and economic development related activities.

d) Goal 4: To support the development of small-enterprises and the Informal Economy

To this end, four key strategies have been developed in order to support the development of small-enterprises and the Informal Economy:

- Encourage greater stakeholder representation and participation in the Informal Chamber
- Support the development of the informal economy
- Market small businesses and facilitate networking initiatives.
- Support skills development and training of SMMEs and cooperatives.

e) Goal 5: To support business development, retention and expansion within the Msunduzi Local Municipality.

The applicable strategies developed is as follows:

- To promote investment and boost the local economy.
- Market local businesses and facilitate networking initiatives.

f) Goal 6: To drive implementation of catalytic projects

The applicable strategy in regards Goal 6 may be summarised as follows:

- To ensure development and support of catalytic projects identified for the Msunduzi Local Municipality.
-

4.8.3.2 Implementation Plan

The LED Implementation Plan provides a time-based perspective of the projects proposed for implementation. The table below displays the project number, the project name, and the proposed start and end date. The LED Implementation Plan starts of within year 2017/2018 and ends in year 2021/2022.

CONSOLIDATED TECHNICAL SDF REVIEW REPORT FOR THE MSUNDUZI MUNICIPALITY

Project MSUNDUZI MUNICIPAL SDF REVIEW

Project No. 14376

Revision No. 3

Date: November 2017

It should be noted that:

- These projects were identified by the municipality in regards to bringing its associated LED vision to fruition;
- Where activities did not have a defined end date, the end of the five-year term was used as the end date i.e. year 2021/2022;
- A number of projects start out in the early parts of the five-year term and the potential for achieving this should be reconsidered based on resources, including human capacity and funds in Msunduzi Local Municipality.

Table 30: Local Economic Development Implementation Plan

Projects	Year				
	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022
1.1.1 Ensure that the manufacturing assessment/audit is applied to all manufacturing businesses within Msunduzi.					
1.1.2 Facilitate the development, adoption and implementation of the Industrial Development Strategy.					
1.1.3 Establish manufacturing hives for emerging and small-scale manufacturers within Msunduzi Local Municipality.					
1.1.4 Identify and promote opportunities for SMMEs in existing manufacturing activities undertaken within the Msunduzi Local Municipality.					
1.1.5 Develop a linkage programme for emerging SMMEs to established businesses seeking new suppliers.					
1.2.1 Ensure the protection of high potential agricultural land within the Vulindlela area.					

Projects	Year				
	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022
1.2.2 Promote and support awareness on sustainable use of natural resources (water, electricity - solar) in areas where agricultural practices are undertaken.					
1.2.3 Ensure good agriculture land is reserved for agriculture production use (i.e. ensure that not for other land uses such as housing or other activities).					
1.2.4 In partnership with the KZN DARD, identify areas where agricultural production can be intensified and identify opportunities for the intensification of agricultural production.					
1.2.5 In partnership with KZN DARD, support subsistence and small-scale farmer development within the Msunduzi Local Municipality.					
1.2.6 Engage with the uMgungundlovu Agri-Park concept and identify initial list of opportunities and projects for local small-scale producers that are located within Msunduzi Local Municipality.					
1.3.1 Establish Tourism Advisory Board					
1.3.2 In line with the Tourism Strategy, support the implementation of key projects identified in the Strategy.					
1.3.3 Identify potential SOMME opportunities in the tourism sector.					
1.3.4 Develop a tourism branding and marketing strategy for the Msunduzi Local Municipality and align to Tourism KZN and South African Tourism brands.					

CONSOLIDATED TECHNICAL SDF REVIEW REPORT FOR THE MSUNDUZI MUNICIPALITY

Project MSUNDUZI MUNICIPAL SDF REVIEW

Project No. 14376

Revision No. 3

Date: November 2017

Projects	Year				
	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022
1.3.5 Establish a Tourism Forum.					
1.3.6 Facilitate and support recreational tourism events (arts and culture, music, sporting)					
1.3.7 Develop a tourism events calendar in conjunction with TKZN to promote local sporting, cultural and other activities					
1.4.1 Undertake a needs survey for wholesale and retail activities within underserved areas and identify and secure land for these activities. This can be undertaken in conjunction with Ithala.					
1.4.2 Investigate and identify potential wholesale buying scheme for SMMEs involved in the wholesale and retail sector.					
1.5.1 Investigate and identify opportunities in developing sports training academies linked to sport facilities located within the Msunduzi Local Municipality.					
1.5.2 Investigate and identify opportunities for skills development and training of sports officials that can be used to train sportsmen and women at sports facilities located within the Msunduzi Local Municipality.					
1.6.1 Develop and implement a BPO Sector Strategy.					
1.6.2 Identify and create a database of existing BPO related companies and BPO activities that are being undertaken within the Msunduzi Local Municipality.					

CONSOLIDATED TECHNICAL SDF REVIEW REPORT FOR THE MSUNDUZI MUNICIPALITY

Project MSUNDUZI MUNICIPAL SDF REVIEW

Project No. 14376

Revision No. 3

Date: November 2017

Projects	Year				
	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022
1.6.3 Identify opportunities for youth, women and the disabled that can be linked to existing and potential BPO sector activities that are undertaken within the Local Municipality.					
1.6.4 Develop a Marketing Strategy for BPO sector that is directed towards attracting both domestic and foreign investors.					
1.6.5 Identify skills development and training opportunities for the BPO sector.					
1.6.6 Encourage private sector participation and involvement in BPO sector					
1.6.7 Jointly develop, with private sector BPO firms, a value offering brochure for local services in Msunduzi to promote the local sector					
1.7.1 Partner with the Environmental Services Unit and undertake the development of Green Economy Guidelines with key focus on: <ul style="list-style-type: none"> • Green energy, • Green industry, • Green property, • Green landscape, • Green agriculture, • Green jobs and • Green skills development 					
1.7.2 Investigate opportunities for biogas green energy initiatives linked to agriculture practices undertaken within and outside the Msunduzi Local Municipality.					

Projects	Year				
	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022
1.8.1 Facilitate and support KZN Department of Treasury in establishing the Government Precinct within the Msunduzi Local Municipality.					
1.8.2 Undertake an economic impact assessment of the proposed Government Precinct to illustrate potential externalities associated.					
1.8.3 In partnership with the Department of Treasury, undertake an Intergovernmental Government Sector Assessment with key focus on a needs assessment of Government Sectors that are located within the Msunduzi Local Municipality.					
1.9.1 Develop an ICT Strategy that will focus on: -ICT Skills development -Coordination of ICT research and development -Creating strategic partnership with other ICT role players and support economic development -To improve internet and technology access, penetration and reduce costs					
1.9.2 Provide ICT Skills development and training for SMMEs and cooperatives.					
1.9.3 Encourage, support and expand the development of broadband connectivity throughout the Central Business District.					
1.10.1 Unlock investment opportunities in the healthcare sector, with specific focus on specialised private healthcare facilities.					

CONSOLIDATED TECHNICAL SDF REVIEW REPORT FOR THE MSUNDUZI MUNICIPALITY

Project MSUNDUZI MUNICIPAL SDF REVIEW

Project No. 14376

Revision No. 3

Date: November 2017

Projects	Year				
	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022
2.1.1 Build Msunduzi capacity to support Informal Economy through skills development and training.					
2.1.2 Build Msunduzi capacity to support Informal Economy through exchange/twinning programmes with other cities inside and outside the country (exposure to different ways in which the informal economy is supported).					
2.1.3 Build Msunduzi capacity to support Informal Economy through networking with other organisations, civil society, religious, sporting and other relevant government bodies.					
2.2.1 Create and regularly update a database of all development and investment projects that are undertaken within municipality.					
2.2.2 Develop a live database that records informal businesses and business/economic activities that happen within the Msunduzi Local Municipality with the use of GPS coordinate tracking devices that automatically sync and track changes on database. This can be done in conjunction with the Town Planning and Licencing Department officials that monitor activities within the municipality.					
2.2.3 Ensure information sharing as well as alignment, coordination of investment promotion, business retention and expansion activities within the Business Services Unit.					

Projects	Year				
	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022
2.2.4 Provide up to date information on investment opportunities via an online information portal on the Msunduzi Local Municipality website.					
3.1.1 Monitor and track the sale / release of municipal land for development					
3.1.2 Monitor implementation of Lease Management Strategy					
3.1.3 Facilitate Disposal of land parcels earmarked for industrial purposes (Mkondeni/Pentrich)					
3.1.4 Based on the Intergovernmental Government Sector Assessment, identify space needs for establishment and expansion of space for government sector activities. (see above)					
3.1.5 Fast track land release for commercial and residential developments in Densification Zones in alignment with current municipal spatial plans.					
3.1.6 Support and facilitate development of the Key IRPTN nodes					
3.1.7 Support and facilitate the implementation of the Dorpspruit Precinct Plan in alignment with current municipal spatial plans.					
3.1.8 Support and facilitate the densification/intensification of the Scottsville / Woodhouse Road Zone area in alignment with current municipal spatial plans.					
3.1.9 Develop the Informal Economy Spatial Plan					

CONSOLIDATED TECHNICAL SDF REVIEW REPORT FOR THE MSUNDUZI MUNICIPALITY

Project MSUNDUZI MUNICIPAL SDF REVIEW

Project No. 14376

Revision No. 3

Date: November 2017

Projects	Year				
	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022
3.1.10 Identify 3 sites and develop feasibility assessments for local manufacturing hives in township areas.					
3.1.11 Identify possible municipal buildings for future BPO activities and develop a business support policy for BPOs established in the CBD					
4.1.1 Facilitate the participation of other informal sector activities into the Informal Chamber to include tuck shop operators, mechanics, home industries, hair dressers, muthi traders, etc. (currently dominated by street traders)					
4.2.1 Review and revise the Informal Economy Strategy to accommodate Radical Economic Transformation objectives.					
4.2.2 Develop and coordinate Business Support Programme for informal economy					
4.3.1 In partnership with the waste management services unit, revise and extend the Waste Management Small Business Development Programme beyond its 2017 deadline.					
4.3.2 Facilitate and attract more collectors to participate as small businesses in the Kerbside Recycling Programme.					
4.3.3 Coordinate an annual Msunduzi SMME Fair.					
4.3.4 Participation of officials and traders in provincial/national/international initiatives that are being held to develop the informal sector.					

CONSOLIDATED TECHNICAL SDF REVIEW REPORT FOR THE MSUNDUZI MUNICIPALITY

Project MSUNDUZI MUNICIPAL SDF REVIEW

Project No. 14376

Revision No. 3

Date: November 2017

Projects	Year				
	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022
4.4.1 Undertake continuous SMME and cooperative training and workshops.					
5.1.1 Implement the Business Retention Programme					
5.1.2 Develop and implement a Business Retention and Expansion Strategy that would be directed towards retaining existing businesses (established for more than 3 years) and supporting business expansion.					
5.1.3 Develop a business aftercare programme for new and existing businesses that have been established for less than 3 years.					
5.1.4 Support the adoption and Implementation of the Msunduzi Municipality's Investment Incentives Policy.					
5.1.5 Support the adoption and Implementation of the Msunduzi Municipality's Technology Hub Incentives Policy.					
5.2.1 Host an annual investment Conference and Business fair.					
6.1.1 Support the implementation of Central Business District Revitalisation project in conjunction with other relevant municipal subunits/structures involved in its development.					
6.1.2 Identify, secure and formalise spaces for informal trading within the Central Business District.					
6.1.3 Support and facilitate the implementation of N3 Corridor Development.					

Projects	Year				
	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022
6.1.4 Identify potential investment opportunities that can be linked to the N3 Corridor Development with focus on the key sectors (agriculture, manufacturing, government, tourism, BPO, the green economy, health services and Wholesale and retail trade)					
6.1.5 Support Cogta in setting up the Msunduzi Leather Hub					
6.1.6 Support and facilitate the development of the Pietermaritzburg Airport Master Plan and Expansion					
6.1.7 Support and facilitate the implementation of the Airport Technology Hub					
6.1.8 Facilitate the development of the Imbali Hub Development (NDPG), which includes the Imbali Education Precinct					
6.1.9 Facilitate and support the development of the Municipal Forestry Strategy					

4.8.3.3 Financial Plan

The Financial Plan reflected in the table below provides an overview of budget requirements per institution or service provider over a certain period. The budgets indicated in the table are indicative only. Detail cost estimates can only be made once feasibility studies for the actions have been undertaken that includes the conceptualisation of the designs of the facilities and actions.

Table 31: Local Economic Development Financial Plan

Projects	Estimated cost
1.1.1 Ensure that the manufacturing assessment/audit is applied to all manufacturing businesses within Msunduzi.	R300 000
1.1.2 Facilitate the development, adoption and implementation of the Industrial Development Strategy.	R400 000
1.1.3 Establish manufacturing hives for emerging and small-scale manufacturers within Msunduzi Local Municipality.	R1 000 000
1.1.4 Identify and promote opportunities for SMMEs in existing manufacturing activities undertaken within the Msunduzi Local Municipality.	R350 000
1.1.5 Develop a linkage programme for emerging SMMEs to established businesses seeking new suppliers.	R200 000
1.2.1 Ensure the protection of high potential agricultural land within the Vulindlela area.	none
1.2.2 Promote and support awareness on sustainable use of natural resources (water, electricity - solar) in areas where agricultural practices are undertaken.	R450 000
1.2.3 Ensure good agriculture land is reserved for agriculture production use (i.e. ensure that not for other land uses such as housing or other activities).	none
1.2.4 In partnership with the KZN DARD, identify areas where agricultural production can be intensified and identify opportunities for the intensification of agricultural production.	none

Projects	Estimated cost
1.2.5 In partnership with KZN DARD, support subsistence and small-scale farmer development within the Msunduzi Local Municipality.	none
1.2.6 Engage with the uMgungundlovu Agri-Park concept and identify initial list of opportunities and projects for local small-scale producers that are located within Msunduzi Local Municipality.	none
1.3.1 Establish Tourism Advisory Board	R60 000
1.3.2 In line with the Tourism Strategy, support the implementation of key projects identified in the Strategy.	None
1.3.3 Identify potential SMME opportunities in the tourism sector.	None
1.3.4 Develop a tourism branding and marketing strategy for the Msunduzi Local Municipality and align to Tourism KZN and South African Tourism brands.	R300 000
1.3.5 Establish a Tourism Forum.	R60 000
1.3.6 Facilitate and support recreational tourism events (arts and culture, music, sporting)	R2 000 000
1.3.7 Develop a tourism events calendar in conjunction with TKZN to promote local sporting, cultural and other activities	None
1.4.1 Undertake a needs survey for wholesale and retail activities within underserved areas and identify and secure land for these activities. This can be undertaken in conjunction with Ithala.	R500 000
1.4.2 Investigate and identify potential wholesale buying scheme for SMMEs involved in the wholesale and retail sector.	R350 000
1.5.1 Investigate and identify opportunities in developing sports training academies linked to sport facilities located within the Msunduzi Local Municipality.	R400 000

CONSOLIDATED TECHNICAL SDF REVIEW REPORT FOR THE MSUNDUZI MUNICIPALITY

Project MSUNDUZI MUNICIPAL SDF REVIEW

Project No. 14376

Revision No. 3

Date: November 2017

Projects	Estimated cost
1.5.2 Investigate and identify opportunities for skills development and training of sports officials that can be used to train sportsmen and women at sports facilities located within the Msunduzi Local Municipality.	R400 000
1.6.1 Develop and implement a BPO Sector Strategy.	R250 000
1.6.2 Identify and create a database of existing BPO related companies and BPO activities that are being undertaken within the Msunduzi Local Municipality.	None
1.6.3 Identify opportunities for youth, women and the disabled that can be linked to existing and potential BPO sector activities that are undertaken within the Local Municipality.	R300 000
1.6.4 Develop a Marketing Strategy for BPO sector that is directed towards attracting both domestic and foreign investors.	R500 000
1.6.5 Identify skills development and training opportunities for the BPO sector.	R250 000
1.6.6 Encourage private sector participation and involvement in BPO sector	none
1.6.7 Jointly develop, with private sector BPO firms, a value offering brochure for local services in Msunduzi to promote the local sector	R300 000
1.7.1 Partner with the Environmental Services Unit and undertake the development of Green Economy Guidelines with key focus on: <ul style="list-style-type: none"> • Green energy, • Green industry, • Green property, • Green landscape, • Green agriculture, • Green jobs and • Green skills development 	R450 000

Projects	Estimated cost
1.7.2 Investigate opportunities for biogas green energy initiatives linked to agriculture practices undertaken within and outside the Msunduzi Local Municipality.	R350 000
1.8.1 Facilitate and support KZN Department of Treasury in establishing the Government Precinct within the Msunduzi Local Municipality.	none
1.8.2 Undertake an economic impact assessment of the proposed Government Precinct in order to illustrate potential externalities associated.	R400 000
1.8.3 In partnership with the Department of Treasury, undertake an Intergovernmental Government Sector Assessment with key focus on a needs assessment of Government Sectors that are located within the Msunduzi Local Municipality.	R600 000
1.9.1 Develop an ICT Strategy that will focus on: -ICT Skills development -Coordination of ICT research and development -Creating strategic partnership with other ICT role players and support economic development -To improve internet and technology access, penetration and reduce costs	R600 000
1.9.2 Provide ICT Skills development and training for SMMEs and cooperatives.	R600 000
1.9.3 Encourage, support and expand the development of broadband connectivity throughout the Central Business District.	R3 000 000
1.10.1 Unlock investment opportunities in the healthcare sector, with specific focus on specialised private healthcare facilities.	R550 000

Projects	Estimated cost
2.1.1 Build Msunduzi capacity to support Informal Economy through skills development and training.	R500 000
2.1.2 Build Msunduzi capacity to support Informal Economy through exchange/twinning programmes with other cities inside and outside the country (exposure to different ways in which the informal economy is supported).	R1 000 000
2.1.3 Build Msunduzi capacity to support Informal Economy through networking with other organisations, civil society, religious, sporting and other relevant government bodies.	R250 000
2.2.1 Create and regularly update a database of all development and investment projects that are undertaken within municipality.	R300 000
2.2.2 Develop a live database that records informal businesses and business/economic activities that happen within the Msunduzi Local Municipality with the use of GPS coordinate tracking devices that automatically sync and track changes on database. This can be done in conjunction with the Town Planning and Licencing Department officials that monitor activities within the municipality.	R1 000 000
2.2.3 Ensure information sharing as well as alignment, coordination of investment promotion, business retention and expansion activities within the Business Services Unit.	R60 000
2.2.4 Provide up to date information on investment opportunities via an online information portal on the Msunduzi Local Municipality website.	R300 000
3.1.1 Monitor and track the sale / release of municipal land for development	None
3.1.2 Monitor implementation of Lease Management Strategy	None

CONSOLIDATED TECHNICAL SDF REVIEW REPORT FOR THE MSUNDUZI MUNICIPALITY

Project MSUNDUZI MUNICIPAL SDF REVIEW

Project No. 14376

Revision No. 3

Date: November 2017

Projects	Estimated cost
3.1.3 Facilitate Disposal of land parcels earmarked for industrial purposes (Mkondeni/Pentrich)	None
3.1.4 Based on the Intergovernmental Government Sector Assessment, identify space needs for establishment and expansion of space for government sector activities. (see above)	None
3.1.5 Fast track land release for commercial and residential developments in Densification Zones in alignment with current municipal spatial plans.	None
3.1.6 Support and facilitate development of the Key IRPTN nodes	None
3.1.7 Support and facilitate the implementation of the Dorpspruit Precinct Plan in alignment with current municipal spatial plans.	None
3.1.8 Support and facilitate the densification/intensification of the Scottsville / Woodhouse Road Zone area in alignment with current municipal spatial plans.	None
3.1.9 Develop the Informal Economy Spatial Plan	None
3.1.10 Identify 3 sites and develop feasibility assessments for local manufacturing hives in township areas.	R600 000
3.1.11 Identify possible municipal buildings for future BPO activities and develop a business support policy for BPOs established in the CBD	R500 000
4.1.1 Facilitate the participation of other informal sector activities into the Informal Chamber to include tuck shop operators, mechanics, home industries, hair dressers, muthi traders, etc. (currently dominated by street traders)	R60 000
4.2.1 Review and revise the Informal Economy Strategy to accommodate Radical Economic Transformation objectives.	R650 000

CONSOLIDATED TECHNICAL SDF REVIEW REPORT FOR THE MSUNDUZI MUNICIPALITY

Project **MSUNDUZI MUNICIPAL SDF REVIEW**

Project No. **14376**

Revision No. **3**

Date: **November 2017**

Projects	Estimated cost
4.2.2 Develop and coordinate Business Support Programme for informal economy	R500 000
4.3.1 In partnership with the waste management services sun unit, revise and extend the Waste Management Small Business Development Programme beyond its 2017 deadline.	None
4.3.2 Facilitate and attract more collectors to participate as small businesses in the Kerbside Recycling Programme.	None
4.3.3 Coordinate an annual Msunduzi SMME Fair.	R3 000 000
4.3.4 Participation of officials and traders in provincial/national/international initiatives that are being held to develop the informal sector.	R500 000
4.4.1 Undertake continuous SMME and cooperative training and workshops.	R500 000
5.1.1 Implement the Business Retention Programme	R600 000
5.1.2 Develop and implement a Business Retention and Expansion Strategy that would be directed towards retaining existing businesses (established for more than 3 years) and supporting business expansion.	R700 000
5.1.3 Develop a business aftercare programme for new and existing businesses that have been established for less than 3 years.	R700 000
5.1.4 Support the adoption and Implementation of the Msunduzi Municipality's Investment Incentives Policy.	none
5.1.5 Support the adoption and Implementation of the Msunduzi Municipality's Technology Hub Incentives Policy.	None

Projects	Estimated cost
5.2.1 Host an annual investment Conference and Business fair.	R2 500 000
6.1.1 Support the implementation of Central Business District Revitalisation project in conjunction with other relevant municipal subunits/structures involved in its development.	R700 000
6.1.2 Identify, secure and formalise spaces for informal trading within the Central Business District.	R1 000 000
6.1.3 Support and facilitate the implementation of N3 Corridor Development.	R800 000
6.1.4 Identify potential investment opportunities that can be linked to the N3 Corridor Development with focus on the key sectors (agriculture, manufacturing, government, tourism, BPO, the green economy, health services and Wholesale and retail trade)	R800 000
6.1.5 Support Cogta in setting up the Msunduzi Leather Hub	None
6.1.6 Support and facilitate the development of the Pietermaritzburg Airport Master Plan and Expansion	R6 000 000
6.1.7 Support and facilitate the implementation of the Airport Technology Hub	R200 000
6.1.8 Facilitate the development of the Imbali Hub Development (NDPG), which includes the Imbali Education Precinct	R700 000
6.1.9 Facilitate and support the development of the Municipal Forestry Strategy	R700 000

4.8.3.4 Institutional Plan

This section examines the institutional arrangements that would best facilitate investment promotion and facilitation within the Msunduzi Municipality. It should be indicated that without a clear institutional framework in place, investment promotion and facilitation projects will be implemented in an uncoordinated fashion that would lead to duplication and a waste of scarce resources. Therefore, the following suggested institutional framework is crucial for an optimal investment promotion and facilitation within the Msunduzi Local Municipality.

Table 32: Local Economic Development Institutional Plan

Projects	Key Champion	Supporting Partners
1.1.1 Ensure that the manufacturing assessment/audit is applied to all manufacturing businesses within Msunduzi.	Business Services Unit	
1.1.2 Facilitate the development, adoption and implementation of the Industrial Development Strategy.	Business Services Unit	
1.1.3 Establish manufacturing hives for emerging and small-scale manufacturers within Msunduzi Local Municipality.	Business Services Unit	
1.1.4 Identify and promote opportunities for SMMEs in existing manufacturing activities undertaken within the Msunduzi Local Municipality.	Business Services Unit	PMB Chamber of Commerce
1.1.5 Develop a linkage programme for emerging SMMEs to established businesses seeking new suppliers.	Business Services Unit	PMB Chamber of Commerce
1.2.1 Ensure the protection of high potential agricultural land within the Vulindlela area.	Planning Unit	Business Services Unit, DARD
1.2.2 Promote and support awareness on sustainable use of natural resources (water, electricity - solar) in areas where agricultural practices are undertaken.	Business Services Unit	Environmental Services Unit, DARD
1.2.3 Ensure good agriculture land is reserved for agriculture production use (i.e. ensure that not for other land uses such as housing or other activities).	Planning Unit	Business Services Unit, DARD

CONSOLIDATED TECHNICAL SDF REVIEW REPORT FOR THE MSUNDUZI MUNICIPALITY

Project MSUNDUZI MUNICIPAL SDF REVIEW

Project No. 14376

Revision No. 3

Date: November 2017

Projects	Key Champion	Supporting Partners
1.2.4 In partnership with the KZN DARD, identify areas where agricultural production can be intensified and identify opportunities for the intensification of agricultural production.	Business Services Unit	Planning Unit, DARD
1.2.5 In partnership with KZN DARD, support subsistence and small-scale farmer development within the Msunduzi Local Municipality.	DARD	Business Services Unit
1.2.6 Engage with the uMgungundlovu Agri-Park concept and identify initial list of opportunities and projects for local small-scale producers that are located within Msunduzi Local Municipality.	DARD, DRDLR	Business Services Unit
1.3.1 Establish Tourism Advisory Board	Tourism Unit	Business Services Unit
1.3.2 In line with the Tourism Strategy, support the implementation of key projects identified in the Strategy.	Tourism Unit	Business Services Unit
1.3.3 Identify potential SMME opportunities in the tourism sector.	Business Services Unit	Tourism Unit
1.3.4 Develop a tourism branding and marketing strategy for the Msunduzi Local Municipality and align to Tourism KZN and South African Tourism brands.	Business Services Unit	Tourism Unit
1.3.5 Establish a Tourism Forum.	Tourism Unit	Business Services Unit, TKZN, CTOs
1.3.6 Facilitate and support recreational tourism events (arts and culture, music, sporting)	Tourism Unit	Business Services Unit, TKZN, CTOs
1.3.7 Develop a tourism events calendar in conjunction with TKZN to promote local sporting, cultural and other activities	Tourism Unit	Business Services Unit, TKZN, CTOs
1.4.1 Undertake a needs survey for wholesale and retail activities within underserved areas and identify and secure land for these activities. This can be undertaken in conjunction with Ithala.	Business Services Unit	Planning Unit, Ithala

CONSOLIDATED TECHNICAL SDF REVIEW REPORT FOR THE MSUNDUZI MUNICIPALITY

Project MSUNDUZI MUNICIPAL SDF REVIEW

Project No. 14376

Revision No. 3

Date: November 2017

Projects	Key Champion	Supporting Partners
1.4.2 Investigate and identify potential wholesale buying scheme for SMMEs involved in the wholesale and retail sector.	Business Services Unit	
1.5.1 Investigate and identify opportunities in developing sports training academies linked to sport facilities located within the Msunduzi Local Municipality.	Business Services Unit	
1.5.2 Investigate and identify opportunities for skills development and training of sports officials that can be used to train sportsmen and women at sports facilities located within the Msunduzi Local Municipality.	Business Services Unit	
1.6.1 Develop and implement a BPO Sector Strategy.	Business Services Unit	
1.6.2 Identify and create a database of existing BPO related companies and BPO activities that are being undertaken within the Msunduzi Local Municipality.	Business Services Unit	
1.6.3 Identify opportunities for youth, women and the disabled that can be linked to existing and potential BPO sector activities that are undertaken within the Local Municipality.	Business Services Unit	
1.6.4 Develop a Marketing Strategy for BPO sector that is directed towards attracting both domestic and foreign investors.	Business Services Unit	
1.6.5 Identify skills development and training opportunities for the BPO sector.	Business Services Unit	
1.6.6 Encourage private sector participation and involvement in BPO sector	Business Services Unit	
1.6.7 Jointly develop, with private sector BPO firms, a value offering brochure for local services in Msunduzi to promote the local sector	Business Services Unit	

Projects	Key Champion	Supporting Partners
<p>1.7.1 Partner with the Environmental Services Unit and undertake the development of Green Economy Guidelines with key focus on:</p> <ul style="list-style-type: none"> • Green energy, • Green industry, • Green property, • Green landscape, • Green agriculture, • Green jobs and • Green skills development 	Business Services Unit	Environmental Services Unit
1.7.2 Investigate opportunities for biogas green energy initiatives linked to agriculture practices undertaken within and outside the Msunduzi Local Municipality.	Business Services Unit	Environmental Services Unit
1.8.1 Facilitate and support KZN Department of Treasury in establishing the Government Precinct within the Msunduzi Local Municipality.	KZN Department of Treasury	Business Services Unit, Planning Unit
1.8.2 Undertake an economic impact assessment of the proposed Government Precinct in order to illustrate potential externalities associated.	Business Services Unit	
1.8.3 In partnership with the Department of Treasury, undertake an Intergovernmental Government Sector Assessment with key focus on a needs assessment of Government Sectors that are located within the Msunduzi Local Municipality.	Business Services Unit	KZN Department of Treasury
<p>1.9.1 Develop an ICT Strategy that will focus on:</p> <ul style="list-style-type: none"> -ICT Skills development -Coordination of ICT research and development -Creating strategic partnership with other ICT role players and support economic development -To improve internet and technology access, penetration and reduce costs 	Business Services Unit	

Projects	Key Champion	Supporting Partners
1.9.2 Provide ICT Skills development and training for SMMEs and cooperatives.	Business Services Unit	
1.9.3 Encourage, support and expand the development of broadband connectivity throughout the Central Business District.	Business Services Unit	
1.10.1 Unlock investment opportunities in the healthcare sector, with specific focus on specialised private healthcare facilities.	Business Services Unit	Private healthcare companies
2.1.1 Build Msunduzi capacity to support Informal Economy through skills development and training.	Business Services Unit	SEDA, Cogta
2.1.2 Build Msunduzi capacity to support Informal Economy through exchange/twinning programmes with other cities inside and outside the country (exposure to different ways in which the informal economy is supported).	Business Services Unit	SEDA, Cogta
2.1.3 Build Msunduzi capacity to support Informal Economy through networking with other organisations, civil society, religious, sporting and other relevant government bodies.	Business Services Unit	
2.2.1 Create and regularly update a database of all development and investment projects that are undertaken within municipality.	Business Services Unit	Planning Unit
2.2.2 Develop a live database that records informal businesses and business/economic activities that happen within the Msunduzi Local Municipality with the use of GPS coordinate tracking devices that automatically sync and track changes on database. This can be done in conjunction with the Town Planning and Licencing Department officials that monitor activities within the municipality.	Business Services Unit	Planning Unit, Licencing Department
2.2.3 Ensure information sharing as well as alignment, coordination of investment promotion, business retention and expansion activities within the Business Services Unit.	Business Services Unit	

CONSOLIDATED TECHNICAL SDF REVIEW REPORT FOR THE MSUNDUZI MUNICIPALITY

Project MSUNDUZI MUNICIPAL SDF REVIEW

Project No. 14376

Revision No. 3

Date: November 2017

Projects	Key Champion	Supporting Partners
2.2.4 Provide up to date information on investment opportunities via an online information portal on the Msunduzi Local Municipality website.	Business Services Unit	ICT Unit
3.1.1 Monitor and track the sale / release of municipal land for development	Planning Unit	Business Services Unit
3.1.2 Monitor implementation of Lease Management Strategy	Planning Unit	Business Services Unit
3.1.3 Facilitate Disposal of land parcels earmarked for industrial purposes (Mkondeni/Pentrich)	Planning Unit	Business Services Unit
3.1.4 Based on the Intergovernmental Government Sector Assessment, identify space needs for establishment and expansion of space for government sector activities. (see above)	Planning Unit	Business Services Unit
3.1.5 Fast track land release for commercial and residential developments in Densification Zones in alignment with current municipal spatial plans.	Planning Unit	Business Services Unit
3.1.6 Support and facilitate development of the Key IRPTN nodes	Planning Unit	Business Services Unit
3.1.7 Support and facilitate the implementation of the Dorpspruit Precinct Plan in alignment with current municipal spatial plans.	Planning Unit	Business Services Unit
3.1.8 Support and facilitate the densification/intensification of the Scottsville / Woodhouse Road Zone area in alignment with current municipal spatial plans.	Planning Unit	Business Services Unit
3.1.9 Develop the Informal Economy Spatial Plan	Planning Unit	Business Services Unit
3.1.10 Identify 3 sites and develop feasibility assessments for local manufacturing hives in township areas.	Planning Unit	Business Services Unit
3.1.11 Identify possible municipal buildings for future BPO activities and develop a business support policy for BPOs established in the CBD	Planning Unit	Business Services Unit

CONSOLIDATED TECHNICAL SDF REVIEW REPORT FOR THE MSUNDUZI MUNICIPALITY

Project MSUNDUZI MUNICIPAL SDF REVIEW

Project No. 14376

Revision No. 3

Date: November 2017

Projects	Key Champion	Supporting Partners
4.1.1 Facilitate the participation of other informal sector activities into the Informal Chamber to include tuck shop operators, mechanics, home industries, hair dressers, muthi traders, etc. (currently dominated by street traders)	Business Services Unit	Informal Chamber
4.2.1 Review and revise the Informal Economy Strategy to accommodate Radical Economic Transformation objectives.	Business Services Unit	
4.2.2 Develop and coordinate Business Support Programme for informal economy	Business Services Unit	
4.3.1 In partnership with the waste management services sun unit, revise and extend the Waste Management Small Business Development Programme beyond its 2017 deadline.	Waste Management Services	Business Services Unit
4.3.2 Facilitate and attract more collectors to participate as small businesses in the Kerbside Recycling Programme.	Waste Management Services	Business Services Unit
4.3.3 Coordinate an annual Msunduzi SMME Fair.	Business Services Unit	
4.3.4 Participation of officials and traders in provincial/national/international initiatives that are being held to develop the informal sector.	Business Services Unit	
4.4.1 Undertake continuous SMME and cooperative training and workshops.	Business Services Unit	Cogta, TIKZN
5.1.1 Implement the Business Retention Programme	Business Services Unit	
5.1.2 Develop and implement a Business Retention and Expansion Strategy that would be directed towards retaining existing businesses (established for more than 3 years) and supporting business expansion.	Business Services Unit	
5.1.3 Develop a business aftercare programme for new and existing businesses that have been established for less than 3 years.	Business Services Unit	

CONSOLIDATED TECHNICAL SDF REVIEW REPORT FOR THE MSUNDUZI MUNICIPALITY

Project MSUNDUZI MUNICIPAL SDF REVIEW

Project No. 14376

Revision No. 3

Date: November 2017

Projects	Key Champion	Supporting Partners
5.1.4 Support the adoption and Implementation of the Msunduzi Municipality's Investment Incentives Policy.	Business Services Unit	
5.1.5 Support the adoption and Implementation of the Msunduzi Municipality's Technology Hub Incentives Policy.	Business Services Unit	
5.2.1 Host an annual investment Conference and Business fair.	Business Services Unit	
6.1.1 Support the implementation of Central Business District Revitalisation project in conjunction with other relevant municipal subunits/structures involved in its development.	City Manager's Office	
6.1.2 Identify, secure and formalise spaces for informal trading within the Central Business District.	Planning Unit	Business Services Unit
6.1.3 Support and facilitate the implementation of N3 Corridor Development.	Business Services Unit	
6.1.4 Identify potential investment opportunities that can be linked to the N3 Corridor Development with focus on the key sectors (agriculture, manufacturing, government, tourism, BPO, the green economy, health services and Wholesale and retail trade)	Business Services Unit	
6.1.5 Support Cogta in setting up the Msunduzi Leather Hub	Business Services Unit	
6.1.6 Support and facilitate the development of the Pietermaritzburg Airport Master Plan and Expansion	Business Services Unit	
6.1.7 Support and facilitate the implementation of the Airport Technology Hub	Business Services Unit	
6.1.8 Facilitate the development of the Imbali Hub Development (NDPG), which includes the Imbali Education Precinct	Planning Unit	Business Services Unit

Projects	Key Champion	Supporting Partners
6.1.9 Facilitate and support the development of the Municipal Forestry Strategy	Business Unit Services	

4.8.4 Current Projects and Spatial Analysis of the Budget as Per 2017-2022 IDP Review

The 2017-2022 IDP Review provided a useful starting point in the identification of the municipality's capital expenditure budgets for the years 2016-2019.

As noted in the previous capital budget summary view an approximate **R988 554 760, 00** is forecasted for the year of 2016-2019 in terms of budget expenditure. Whilst the spatial analysis of such budgets is extracted from the IDP, further refinement is required in regards to the confirmation of same with specific reference to *the spatial extent, the progress in regards to implementation and the exact budgets from the respective municipal sector departments.*

The spatial analysis intends to capture the key budgetary items and spatial extents of items (with an approximate spatial locality) relating to:

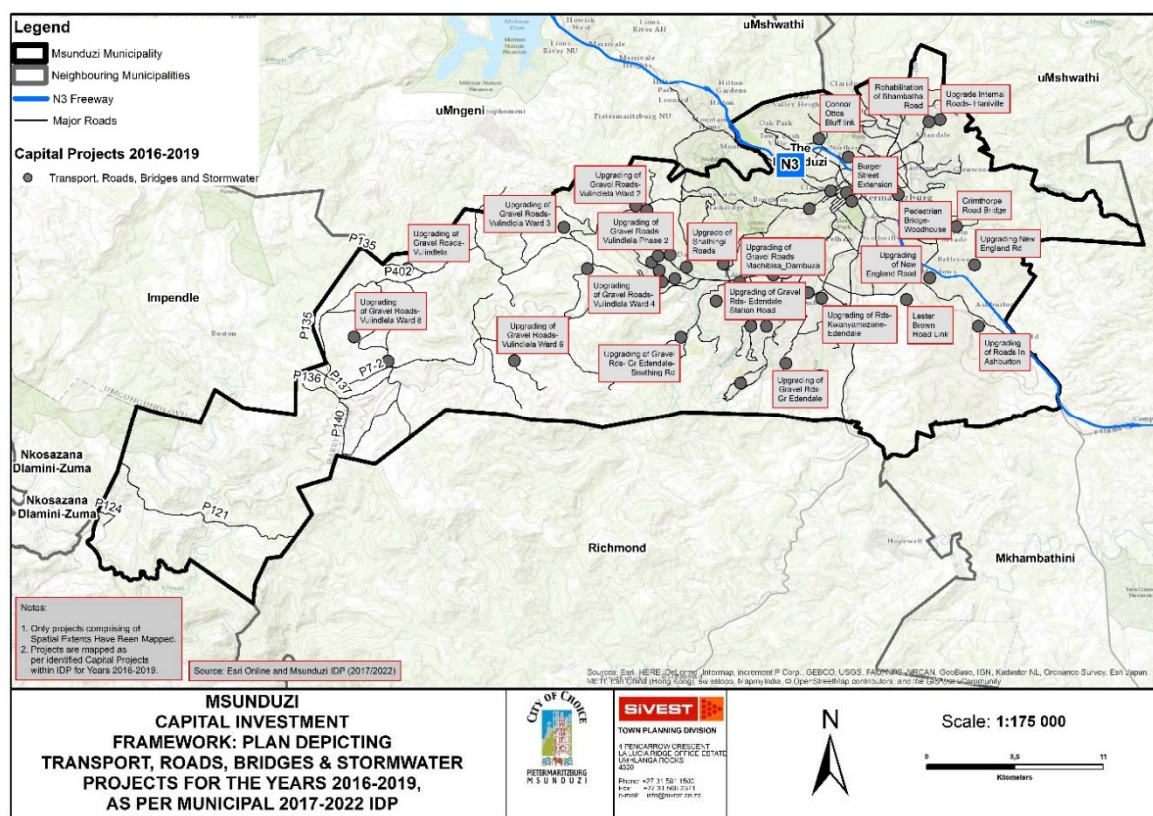
- a) Transportation, Roads, Bridges and Storm Water Projects;
- b) Water and Sanitation Projects;
- c) Civic and Social Projects; and
- d) Integrated Waste Management Projects.

These may be summarised as follows:

4.8.4.1 Transportation, Roads, Bridges and Storm Water Projects

Some 53 projects were spatially mapped and comprise of an overall budget of approximately **R 433 763 001,00**. These projects predominantly relate to promoting efficiency and accessibility within the municipality, particularly for areas located outside the urban edge and identified for development. These projects comprise of road upgrades, bridge projects, storm water culvert upgrades, and the provision of taxi by lanes, rehabilitation projects and road design projects. These projects are predominantly located within the Tayors Halt, kwaMncane, Kanzakana, Shange, kwaNxamalala and the Greater Edendale areas respectively. Some 8 projects are located within and around the Pietermaritzburg CBD area. Spatially, these projects may be represented as follows:

Figure 40: Transportation, Roads, Bridges and Storm water Projects as per IDP 2017/2022



4.8.4.2 Water and Sanitation Projects

There are approximately 8 projects identified within the municipality. Predominantly these fall within the Greater Edendale area and Shenstone areas. These projects comprise the role out of reticulation networks, sewer pipes, sanitation systems and reservoirs amongst others which all account for approximately **R87 250 000** in value. Furthermore, there is also one planned reservoir within the Copesville area. The overall planned water and sanitation projects may be summarised as follows:

Legend

- Msunduzi Municipality
- Neighbouring Municipalities
- N3 Freeway
- Major Roads

Capital Projects 2016-2019

- Water and Sanitation

Notes:

- Only projects comprising of Spatial Extents Have Been Mapped.
- Projects are mapped as per identified Capital Projects within IDP for Years 2016-2019.

Source: Esri Online and Msunduzi IDP (2017/2022)

MSUNDUZI CAPITAL INVESTMENT FRAMEWORK: PLAN DEPICTING WATER AND SANITATION PROJECTS FOR THE YEARS 2016-2019, AS PER MUNICIPAL 2017-2022 IDP

CITY OF JOHANNESBURG

PETERMARITZBURG

4 FENCIBARROW CRESCENT 1111 JARVIS DRIVE, JOHANNESBURG 2001

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Fax: +27 11 561 5371
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BIVEST

TOWN PLANNING DIVISION

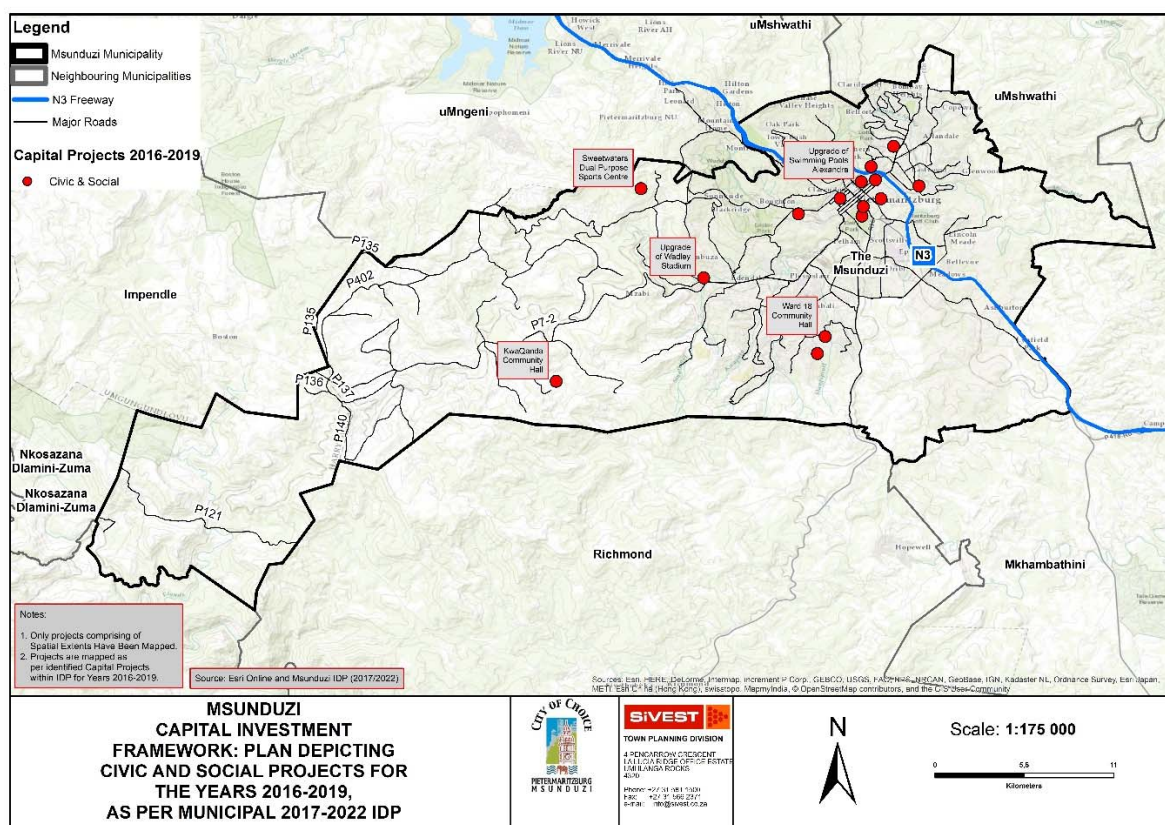
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N

Approximately 16 projects were identified. These comprise of the establishment or refurbishment of 6 community halls predominantly located within the kwaQanda; Ward 15 and 18 areas. In regards to recreational facilities, a dual purpose sports facility is earmarked within the Sweet Waters area, with approximately 3 swimming pool upgrades earmarked within the Pietermaritzburg CBD. Furthermore, in terms of libraries, a library upgrade is earmarked within the Sobantu area. Broadly these projects comprise of a combined value of some **R45 511 698** and may be spatially represented as follows:

Figure 42: Civic and Social Projects as per IDP 2017/2022



4.8.4.4 Integrated Waste Management

There are only 2 projects which have been identified with regard to the municipality's integrated waste management objectives for the years 2016-2019 which have a definite spatial extent, namely the kwaPata Recycling Centre in Imbali and the land fill upgrade located at Wards 33 and 35. Both projects have an approximate project value of **R31 800 000,00**. Spatially these projects may be represented as follows:

CONSOLIDATED TECHNICAL SDF REVIEW REPORT FOR THE MSUNDUZI MUNICIPALITY

Project No. 14376
Revision No. 3

Page 182

4.8.5 Analysis of Future Strategic Projects and Budgets Identified as Per LAP's

The following section intends to highlight for further refinement and budget alignment purposes, the identified strategic projects within the Municipality's LAP's, i.e. Central Area and CBD Extension Node, SEDis and the Vulindlela LAP's.

In addition thereto, the section also incorporates the outcomes of the analysis of the Nkosazana Dlamini Zuma SDF, with specific reference to the newly incorporated Ward 39 area comprising of the Ncwadi Node. Whilst it remains unknown as to when these projects will be incorporated within the municipality's capital expenditure, they remain increasingly important in so far as meeting the service delivery needs of the municipality.

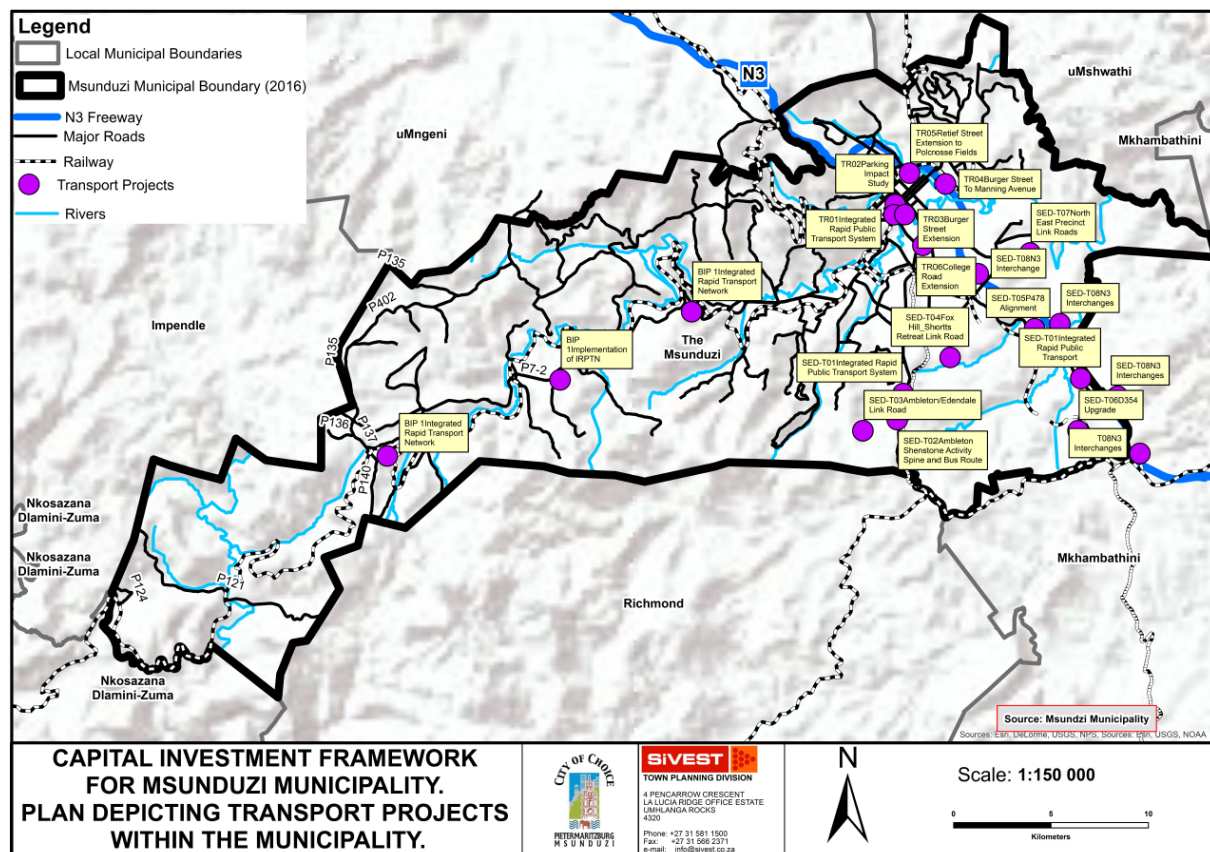
To this end, the broad composition of projects saliently comprise of Infrastructure; Transport; Housing; Agricultural Development; Local Economic Development; Strategic Projects; and Civic and Social Projects. The outcomes of the analysis comprising of strategic projects may be summarised as follows:

4.8.5.1 Infrastructure

Approximately 29 projects were identified ranging from the potential installation of waste water and sewer systems/pipelines, electricity networks and substations, bulk potable water systems, fibre optic communication cable networks and a solid waste sites. Such identified projects are predominantly scattered throughout the municipality and are predominantly located within the kwaMncane, Kanzakana, KwaNomo, Mkangala, KwaMbanjwa, Mpuza, Shenstone, Winterskloof, Wilgerfontein, Pietermaritzburg, Willowfontein, Lynfield Park, Woodlands and the Camperdown areas. The sum project value anticipated project value is anticipated to be some **R2214 000 000, 00**. Spatially, these may be represented bas follows:

Approximately 21 projects were identified. These predominantly are located around or orientated around the N3 Freeway and CBD areas with only 3 which sit across the broader Vulindlela Area, i.e. Zobomvini, Tayors Halt and KwaCuzu, Mkheshakeni. Approximately 12 projects are located just outside the CBD and predominantly sit within the Ambleton and Ashburton area. These transport projects predominantly comprise of generally include road/gravel upgrades; road alignments and expansions; proposed N3 Interchange Points. These projects account for some **R494 600 000,00**. These may be represented as follows:

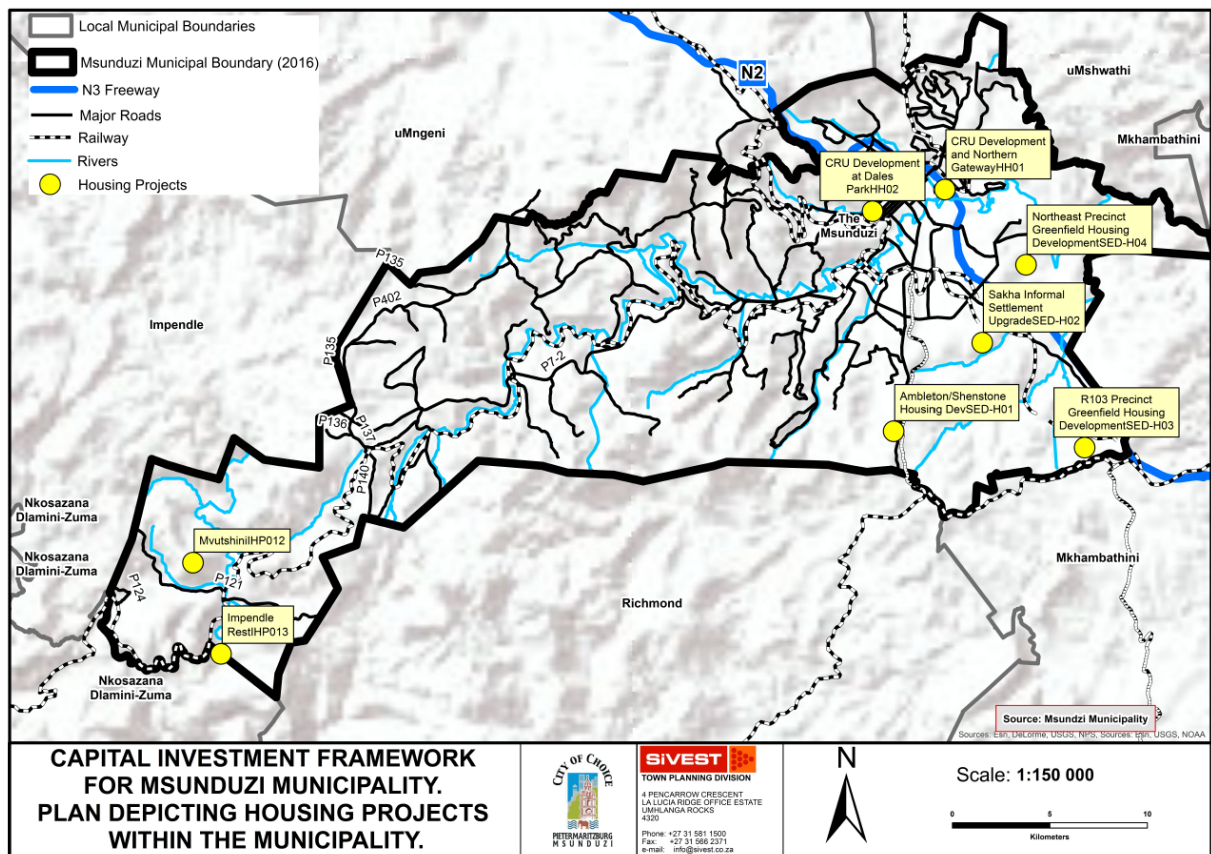
Figure 45: Transport Projects as Identified within Municipal LAP's



4.8.5.3 Housing

Approximately 5 housing projects were identified. These comprise of Northeast Precinct Greenfield Housing Development, CRU Development and Northern Gateway, Sakha Informal Settlement Upgrade, Ambleton/Shenstone Housing Development; R103 Precinct Greenfield Housing Development and Mvutshini and Impendle Restitution projects. The projects comprise of a value of approximately **R1000000** with others still to be determined. These projects may be represented as follows:

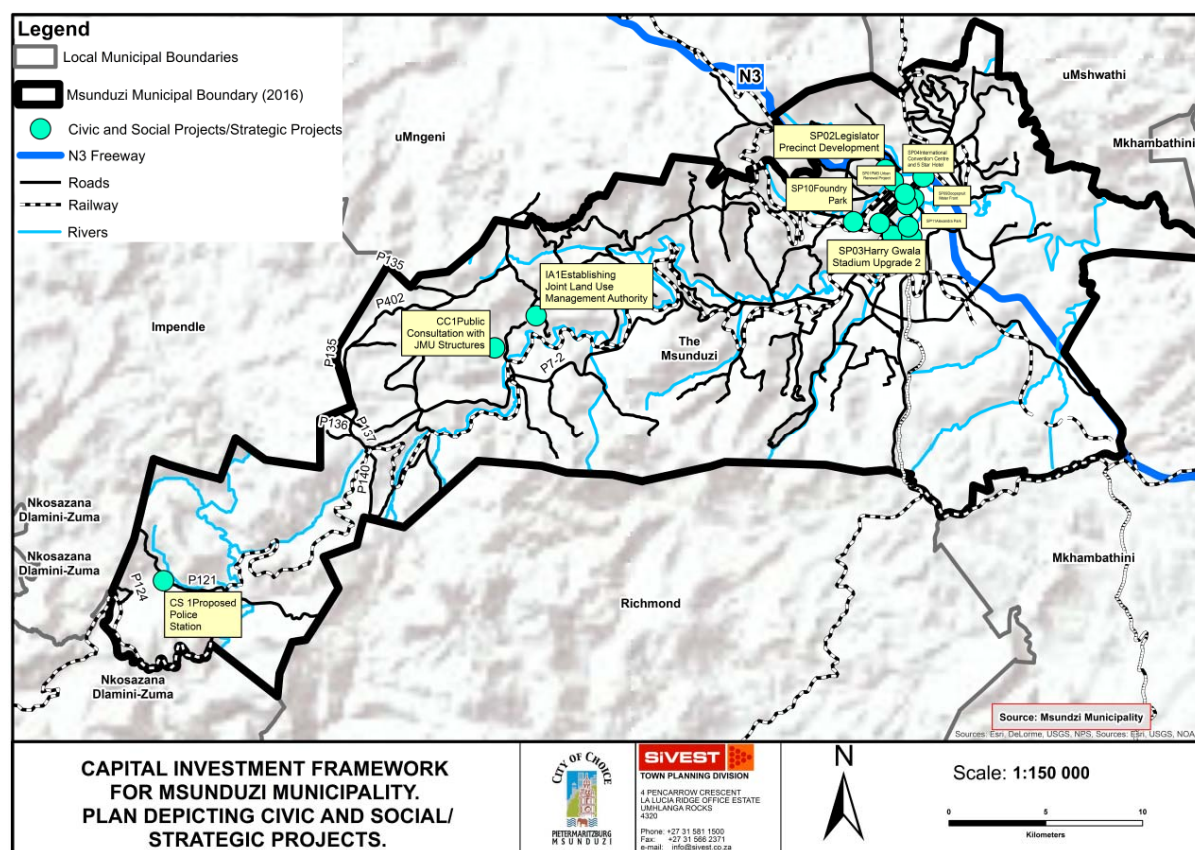
Figure 46: Housing Projects as Identified within Municipal LAP's



4.8.5.4 Civic and Social/Strategic Projects

These projects comprise of approximately 14 projects, 3 of which are identified catalytic projects within the municipality, i.e. the Council Civic Centre, Harry Gwala Stadium Upgrade 2, International and Convention Centre and 5 Star Hotel of which predominantly sit within the Pietermaritzburg CBD. Other noteworthy projects include the Intersite Station Precinct Upgrade and the proposed new Ncwadi Rural Service Station as the Ncwadi area relies on the Tayors Halt Police Station which lies some 15km away. These projects comprise of an approximate budget of some **R3783 550 000,00**. These may be spatially represented as follows:

Figure 47: Civic and Social/Strategic Projects as Identified within Municipal LAP's



4.8.6 Location of Public and Private Investment

There are a variety of proposed developments within the Msunduzi Municipality which have been identified by the Local Economic Development Department (LED) of the Municipality. These proposed developments comprise of a variety of land uses which are scattered throughout the eastern portion of the Msunduzi Municipality including areas such as the *CBD, Ashburton and Eastern Areas ABM; Northern Areas ABM; and Greater Edendale ABM* respectively. Broadly, these land uses are anticipated to offer future development potential to the Msunduzi Municipality within a 5-20 year horizon and include but are not limited to the following:

- Commercial Developments;
- Industrial;
- Mixed land uses;
- Offices;
- Educational;
- Government related uses;
- Hostels and student accommodation;
- Hotel; and

CONSOLIDATED TECHNICAL SDF REVIEW REPORT FOR THE MSUNDUZI MUNICIPALITY

Project MSUNDUZI MUNICIPAL SDF REVIEW

Project No. 14376
Revision No. 3

Date: November 2017

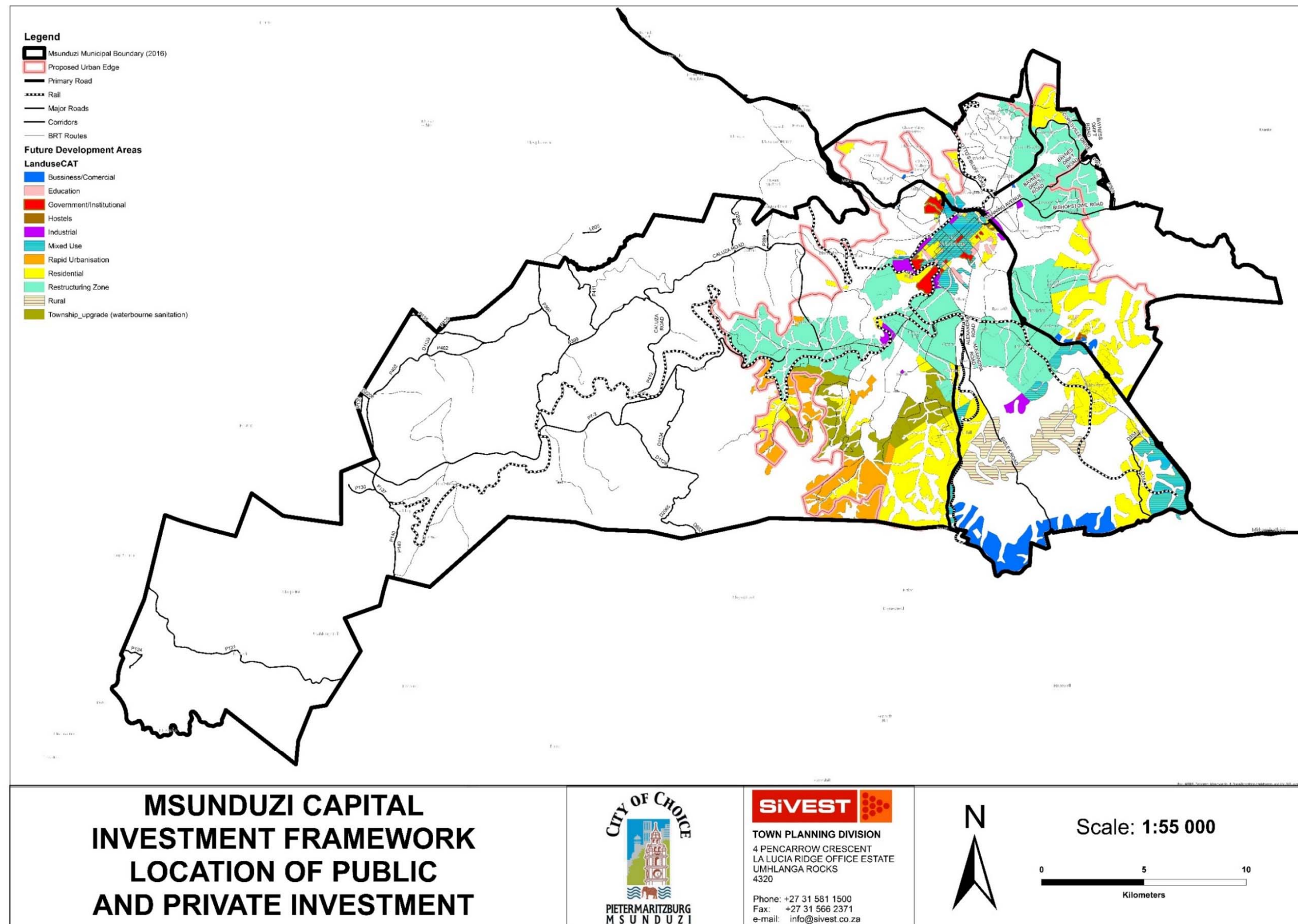
- Waste Treatment Works Upgrades within the previous areas of neglect, i.e. Edendale;

In addition thereto, the Msunduzi Municipality has duly aligned itself to fostering the favourable conditions for economic growth through the proposed land uses by releasing certain land parcels therein. These land parcels are specifically earmarked to cater for future development proceedings within the municipality whilst attracting and retaining private sector development and may be summarised as follows:

Table 33: Summary of properties identified for private and public investment purposes

Land Audit Ref No.	Address	Property Description	Extent (m²)	Zoning	Preferred Land Use	General Value	Environmental Comment
9 H	Mkhondeni	Rem of Erf 10 000 of Murray Road Mkhondeni	102336 m²	General Industrial	Future Economic Activity area	R4 200 000	Suitable for development
9 D	40 Haworth Rd	Erf 188 of Shorts Retreat.	28015 m²	General Industrial	Future Economic Activity area	R4 200 000	Suitable for development
9 C	Bulman Road	Portion 12 of Erf 441 Shorts Retreat	38623 m²	General Industrial	Future Economic Activity area	R3 400 000	Upper portion along road is suitable for development but requires EIA. The watercourse and wetland areas must be retained as open space
Corner FJ Sithole and Thwala Road	Imbali Unit CC	Portion of Erf 23295 Edendale CC		General Business	Petrol Filling Station and Convenient Shop.	R7 700 000	Suitable for development
26 I	1 Ormond Rd - Central City	Portion 7 of Erf 1889 PMB,	16080 m²	Passive Public Open space.	Future Economic Activity area	R2 800 000	Suitable for development but will require an offset for the loss of public open space within the urban centre
Portion of 10 B	Skhumbuzo Ngwenya	Erf 456 portions 1, 2 and 3 PMB	136900 m²	General Industrial	Future Economic Activity area	R350 000 each (Ptn 1,2,3)	Suitable for development but requires EIA. Wetland areas, large indigenous trees to be retained as open space
17B	Chase Valley, Chase Valley road	Rem/ 186/ PMB	191187 m²	Open Space & Residential	The land parcel could be identified for medium to high density housing.	R30 000 000	Suitable for development but requires EIA. Watercourse and wetlands to be retained as open space.
Off Cleland Road (Along N3)	Caravan Park, Hayfields	Rem of Erf 10000	52000 m²	Active Open Space	Commercial Development	R5 460 000	Suitable for development
Polocrosse	Armitage Road	Ptn A & B of Erf 1556	42116 m²	Active Public Open Space	Commercial Development	N/A	Suitable for development
Scottsville	Woodhouse, Scottsville	Portion A of Erf 10000	42000 m²	General Residential	Student Accommodation	R4 100 000	Suitable for development
Scottsville (Bowling Club site)	Crn St. Patricks & New England	Portion A of Erf 1913	5802 m²	Active Public Open Space	Mixed Use Commercial	R7 000 000	Suitable for development
Edendale DD	Cnr FJ Sithole & Mthombathi	Erf 2008 & 2009	573m² & 514 m²	Limited Business	Commercial Development	R154 000 & R172 000	Suitable for development

Figure 48: Areas identified for private and public investment purposes



4.8.7 Infrastructural Analysis and Sector Projects

4.8.7.1 Human Settlements

The Greater Edendale Vulindlela Development Initiative (GEDI) 2020 Business Plan is a documented approach towards tackling housing backlogs and layering down the favourable conditions for catalysing access to places of economic opportunity within previous areas of neglect of the municipality, more specifically the Greater Edendale and Vulindlela areas respectively (GEDI 2020 Business Plan nd: 2).

Amongst other things, the GEDI highlights the preferred development approach shaping development proceedings; land acquisition and land legal strategies; and human settlement projects within the Greater Edendale and Vulindlela areas (ibid).

With reference to human settlements, the Department of Human Settlements and the Msunduzi Municipality are tasked with housing delivery mandates within the municipality's jurisdiction in line with various legislative imperatives and in accordance with the NDPG to ensure that all municipal inhabitants have access to adequate housing and services (GEDI 2020 Business Plan nd: 22).

Municipalities must set housing delivery goals, identify and designate land for development and create and maintain a public environment which is conducive to housing development that is both financially and socially viable. Accordingly, the Municipality has actively and aggressively participated in the National Housing Programme in accordance with the rules applicable by promoting housing development projects, acting as the developer in respect of the planning and execution of housing development along with administering same in its area of jurisdiction (ibid).

The Greater Edendale Area has been identified as a key development pressure point within the jurisdiction of the municipality. There are a variety of projects which have been highlighted as forming part and parcel of the municipality's intention to strategically roll out housing projects and improve the spatial functionality therein.

Projects which have been earmarked to cater for the municipality's strategic intention to roll out housing projects and improve the spatial functionality which include priority housing projects, informal settlements upgrades, infill initiatives, urban renewal initiatives and etc. These may be summarised as and are not limited to the following:

Table 34: Summary of Housing Projects within Msunduzi Municipality

Project Area or Project Type	Historic Housing Projects	Approved Committed Human Settlements Projects	Infill Projects	Informal Settlement Upgrades	Urban Renewal
	Housing Priority Project 1	Bhobhonono/Masomini	Caluza Infill	Edendale BB	Mt Partridge Tehuis
	Housing Priority Project 2	Smero/Caluza	Dambuza Infill	Willowfontein Terminus	Slovo Village
	Housing Priority Project 3	Harewood	George Town Infill	KwaKhuzayo	Bakery
	Housing Priority Project 4	Willowfontein/Bulwer	Remaining Edendale Surrounds & Infill	Panekeni Phase 1 and 2	Ashdown / Nedbank 72 Donated Properties
	Housing Priority Project 5	Khalanyonini PF		Phupha	Seven Ox and Dennis Field
	Housing Priority Project 6	Snathingi Phase 1		Shayamoya	Tehuis
	Housing Priority Project 7	Edendale J2 and Quarry		Nhlazatshe	
	Housing Priority Project 8	Kwa30 PF		Gudlintaba	
	Housing Priority Project 9			Magaba	
	Housing Priority Project 10			One	
	Housing Priority Project 11			Two	
	Housing Priority Project 12			Lay Centre	

Spatially the outcomes of these aforementioned projects may be represented as follows:

Figure 49: Schedule 2, Historic GEVDI Land Acquisition Program and Identified Housing Projects

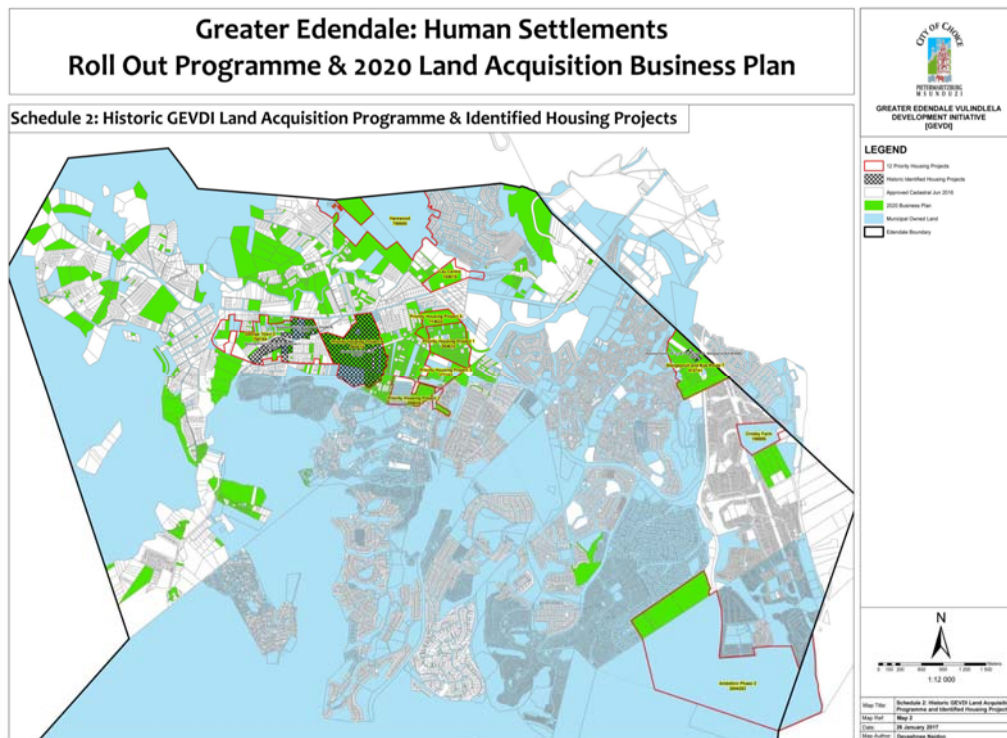
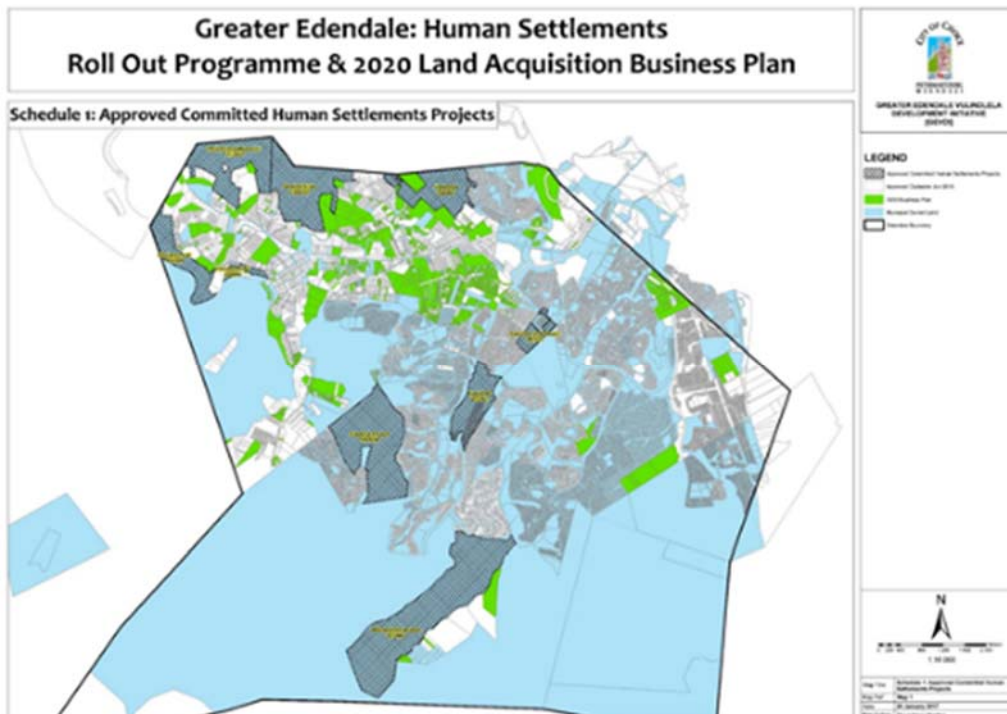


Figure 50: Schedule 1, Approved Committed Human Settlement Projects



CONSOLIDATED TECHNICAL SDF REVIEW REPORT FOR THE MSUNDUZI MUNICIPALITY

Project MSUNDUZI MUNICIPAL SDF REVIEW

Project No. 14376

Revision No. 3

Date: November 2017

Figure 51: Schedule 9, Informal Settlement Strategy

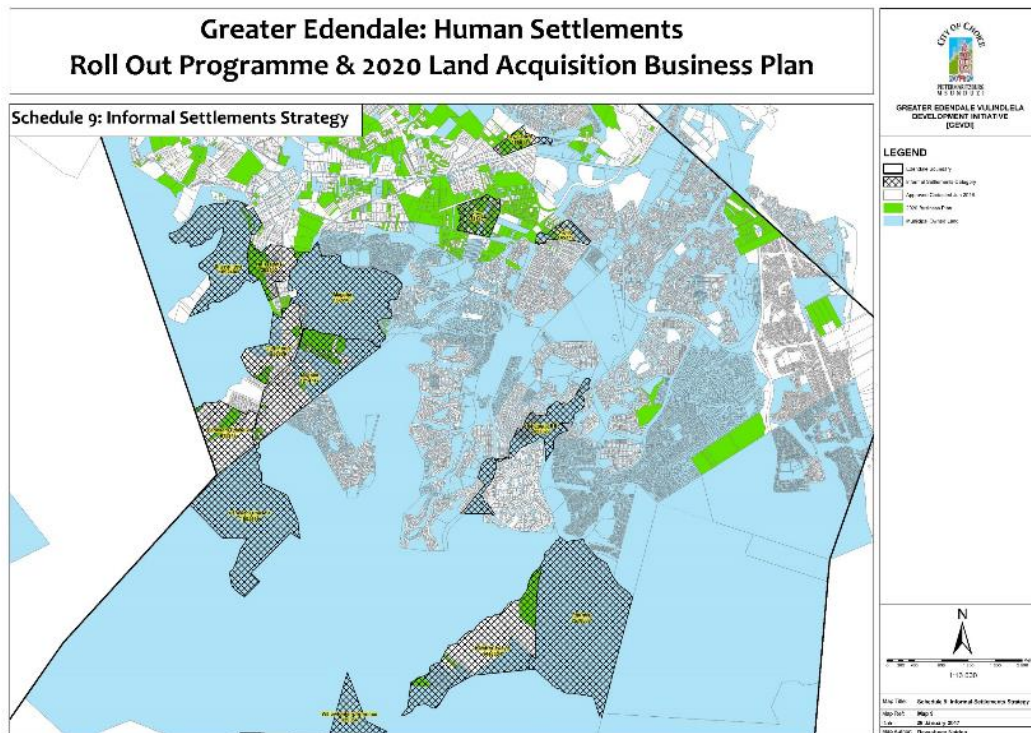


Figure 52: Schedule 3, Edendale Town Centre and Urban Renewal 800m Radius



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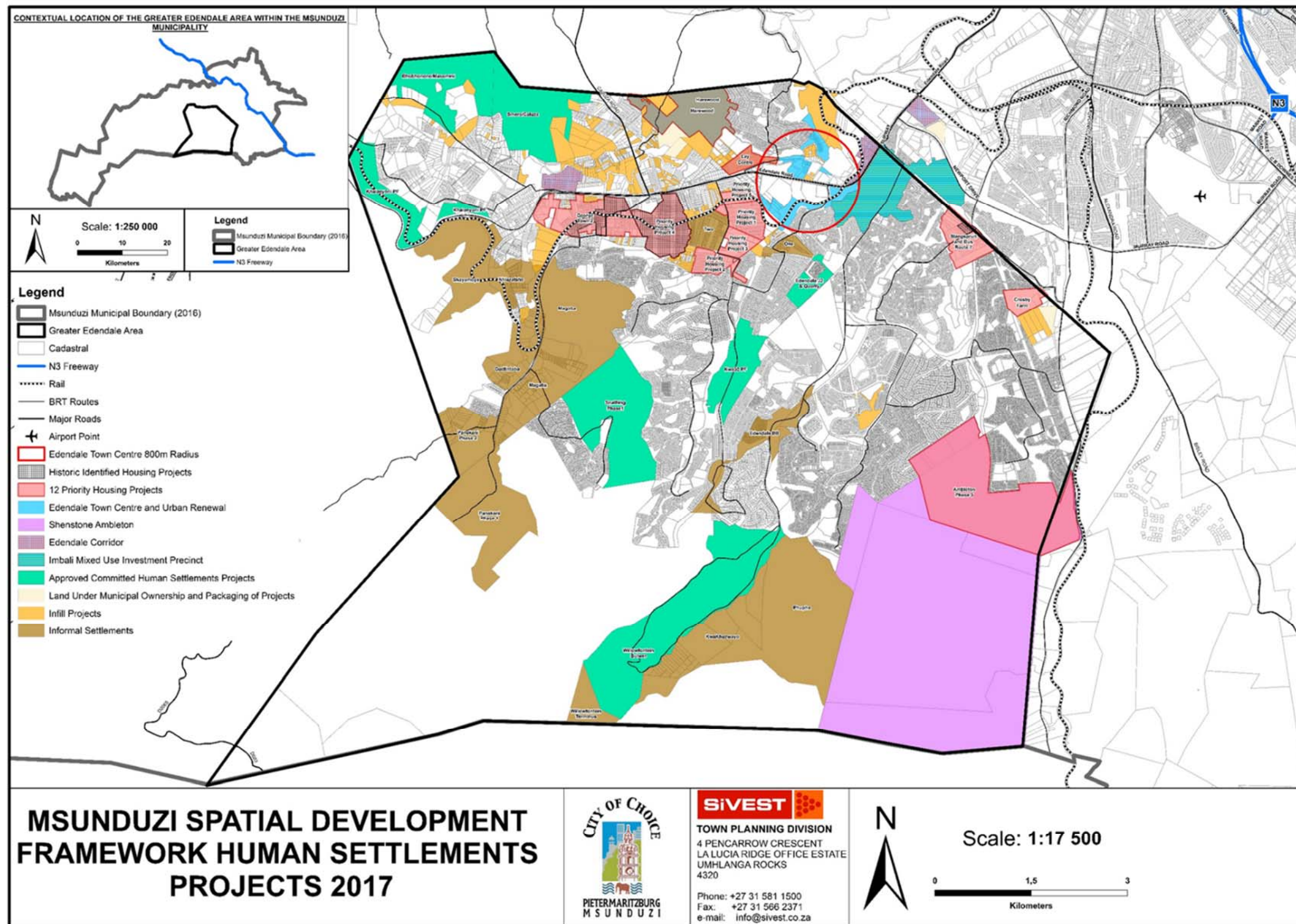
Project MSUNDUZI MUNICIPAL SDF REVIEW

Project No. 14376

Revision No. 3

Date: November 2017

Figure 53: Composite Human Settlement Projects



CONSOLIDATED TECHNICAL SDF REVIEW REPORT FOR THE MSUNDUZI MUNICIPALITY

Project **MSUNDUZI MUNICIPAL SDF REVIEW**
Project No. **14376**
Revision No. **3**

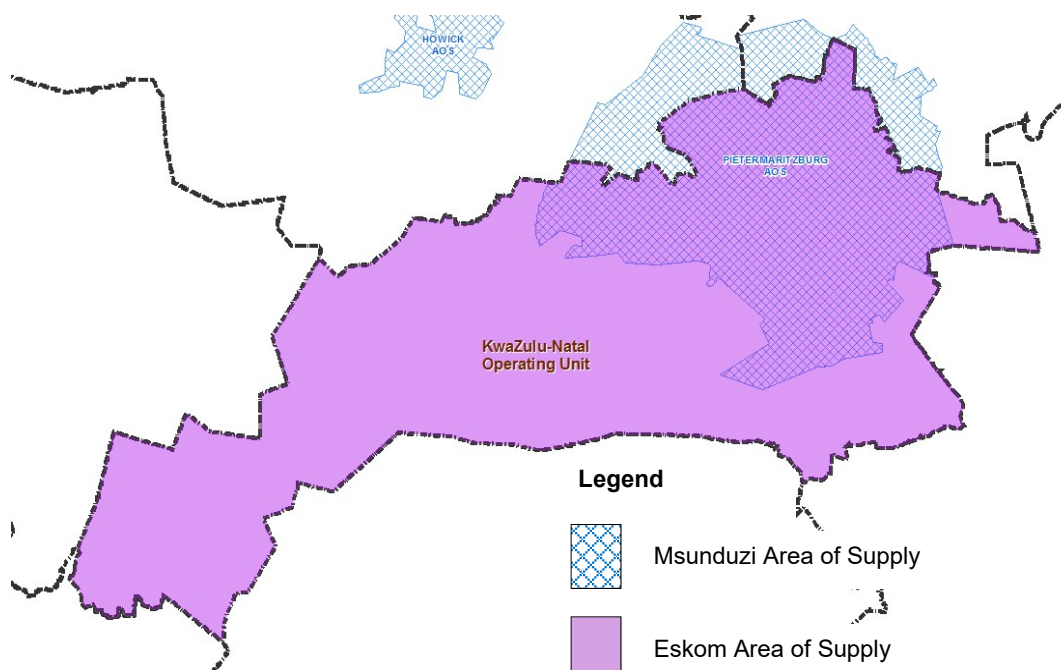
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In addition, further attention is drawn to the newly incorporated Ward 39-Ncwadi area and its inherent housing projects, namely the Impendle Restitution Claim and the Mvutshini Housing Project which both comprise of approximately 500 planned housing units each. Further cognisance in regards to establishing the institutional arrangements between the Msunduzi Municipality and the Department of Human Settlements to effectively bring same to fruition must be established.

4.8.7.2 Electricity

The Msunduzi Municipality is a split area of supply in regards to electricity, i.e. electricity is provided jointly between Eskom and the Msunduzi Municipality. The area of supply between Eskom and the Municipality may be spatially represented as follows:

Figure 54: Differentiation of Eskom and Msunduzi Municipality area of supply



Within its area of supply, Eskom has identified electrical networks which have servicing gaps or constraints. These constrained networks comprise of 3 broad categories, namely, “constrained”, “slightly constrained” and “not constrained”. It is well worth noting that the Vulindlela area is predominantly characterised by constrained networks. Eskom advances the following projects in regards to the Msunduzi Municipality:

Table 35: Eskom Planned Projects within Msunduzi Municipality

ET-STM-1601-3487	ET-STM-1601-3488	ET-STM-1601-3489	ET-STM-1601-3490	ET-STM-1601-3491	ET-STM-1601-3492	ET-STM-1601-3493	ET-STM-1601-3494
ET-STM-1505-3321	Elandskop NB11 & NB12 Split and Partial Conversion	PIETERMAR ITZBURG	HOWICK	ET-STM-1505-3321-00002	Elandskop NB11 & NB12 Split and Partial Conversion	CRA FORM	STRENGTHENING
ET-STM-1604-3616	Edendale NBEM Conductor Upgrade	PIETERMAR ITZBURG	HOWICK	ET-STM-1604-3616-00001	Edendale NBEM Conductor Upgrade	DRA FORM	STRENGTHENING
ET-STM-1609-3781	Hospital NBHF and Dambuza NBDH interconnector	PIETERMAR ITZBURG	EDENDALE	ET-STM-1609-3781-00001	Hospital NBHF and Dambuza NBDH interconnector	CRA FORM	STRENGTHENING
ET-STM-1009-1746	Hospital transformer upgrade	PIETERMAR ITZBURG	EDENDALE	ET-STM-1009-1746-00001	Hospital transformer upgrade	FRA FORM	STRENGTHENING
ET-STM-1609-3806	Hospital NBHG conductor upgrade	PIETERMAR ITZBURG	EDENDALE	ET-STM-1609-3806-00001	Hospital NBHG conductor upgrade	CRA FORM	STRENGTHENING
ET-STM-1611-3879	Dambuza 11kV bus split	PIETERMAR ITZBURG	EDENDALE	ET-STM-1611-3879-00001	Dambuza 11kv bus split	CRA FORM	STRENGTHENING
ET-STM-1611-3877	Myezane 11kV bus split	PIETERMAR ITZBURG	EDENDALE	ET-STM-1611-3877-00001	Myezane 11kV bus split	CRA FORM	STRENGTHENING
	Edendale Elandskop 132kV line					DPA	
	Edendale Azalea 132kV line					DPA	
	Kenterton Ariadne Erps 132kV line					DPA	

Whilst it is acknowledged that it remains unclear when the proposed electrical upgrades by Eskom will be implemented and at what cost, it is noteworthy that these upgrades will be located within the broader Edendale and Howick areas respectively. Further investigations are warranted in regards to the project costs and their site specific localities which will be subject to confirmation from Eskom.

In regards to the municipality's planned electrical upgrades as per the Msunduzi Financial Report (2015/2016: 102-103) the following remains noteworthy for the financial year of 2017:

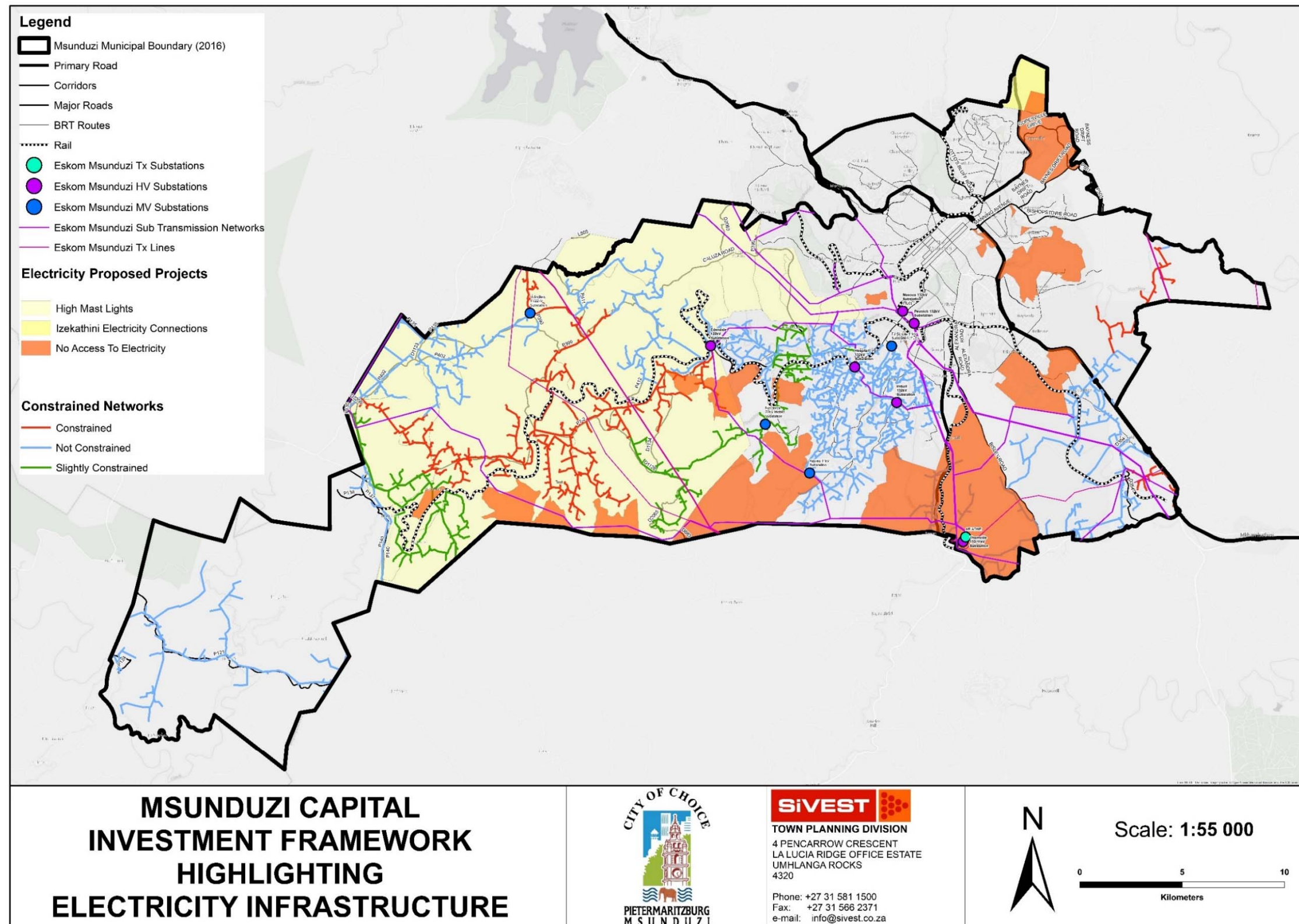
- a) Alterations and upgrading of the substation by installation of the new 132kV GIS to be linked with a new 132kV City Grid Cables was implemented and the commissioning is expected to be done by 30 December 2017. The total cost of the project was approximately R31m. The project is sitting at 98% completion and delays were

experienced due to the malfunctioning of other existing equipment that needs to be repaired.

- b) This is the installation of new 132kV cables in the CBD linking the major substations. The cables are replacing the old oil filled cables that are now an environmental hazard due to their age and starting to leak oil. The project is now 99% complete and also affected by the faulty switchgear that exist on site. The total expenditure on the project was around R76m.
- c) This is the establishment of a totally new substation to supply the Willowtown Industrial areas and the surroundings in order to relive the loads of Northdale and Retief.

Spatially, the outcomes of all existing, constrained electrical infrastructure and proposed upgrades may be spatially represented as follows:

Figure 55: Existing Electrical Infrastructure and Planned Electricity Projects



4.8.7.3 Water

In 2012 the Msunduzi Municipality signed a bulk services agreement with Umgeni Water which is a 10 year agreement which regulates the supply and sale of bulk water from Umgeni Water to the municipality.

According to Thompson (1999) (as cited within the Umgeni Water Infrastructure Master Plan 2016: 12) the urban category of land throughout the province in regards to land use, i.e. *“human activity that is associated with a specific land unit in terms of utilisation, impact or management practice”* such as residential commercial, industrial, administration recreation and etc. Each of these land uses have corresponding water use demands which contribute to the water services agreement in regards to total water consumption. The water use for domestic i.e. residential land use, commercial and industrial is summarised hereunder (ibid):

Table 36: Break Down of Water Demands

WSA	Commercial (%)	Industrial (%)	Domestic (%)
eThekwini	26.9	9.3	63.8
Msunduzi	17.4	23.8	58.8
uMgungundlovu	23.0		77.0
iLembe	20.0	10.0	70.0
Ugu	Unavailable		
Harry Gwala	Unavailable		

The change in the number of people per WSA coupled with the land use composition of each district or water service area for the period 1996 - 2011 suggests that eThekwini and Msunduzi are experiencing positive growth rates. The water sales to Msunduzi Municipality increased by 7.6% from 182 Mℓ/day in the 2013/2014 financial year to 197 Mℓ/day in 2014/2015. The projected demands for 2015/2016 (pre-drought projection) in light of developments for low cost housing which will increase demands within the Vulindlela area (uMgeni Water Infrastructure Plan 2016: 73).

It is worth noting that the roll out of water infrastructural projects within the Msunduzi Municipality to improve access to water services within the municipality are spearheaded by both the uMgeni Water and the Msunduzi Municipality. The uMgeni Water has been an active driver of water infrastructural projects whilst the municipality has established a documented approach towards addressing water services delivery therein through the Vulindlela, Edendale and Pietermaritzburg Water Master Plans. The outcomes of these four plans may be captured herein Section 4.7.3.5.

With regard to water upgrades advanced by Umgeni for the year 2017 for the municipality, there are 4 noteworthy projects which either fall within or outside the municipality's jurisdiction, namely the:

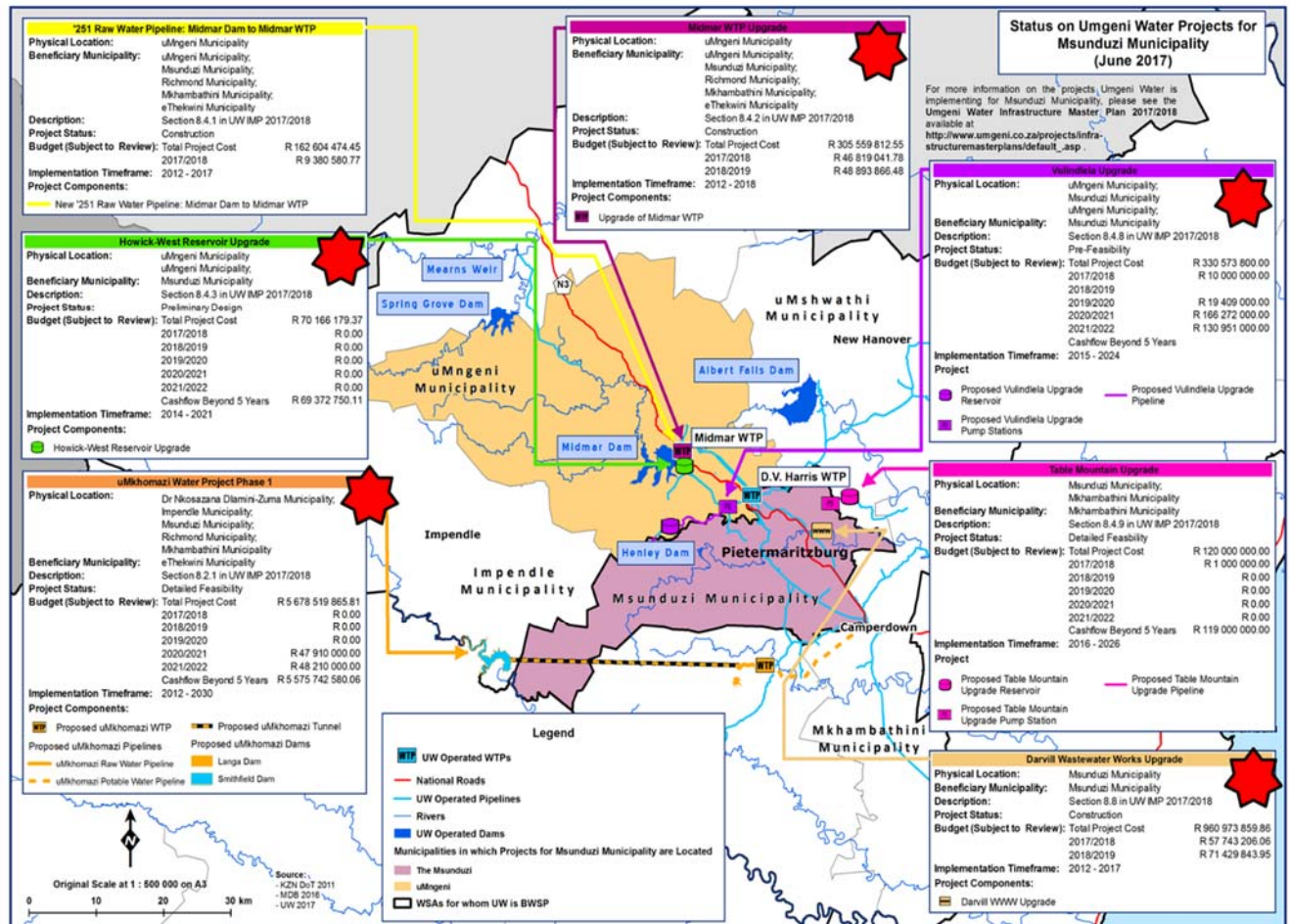
- Midmar WTP Upgrade which is located within the uMgeni Municipality which accounts for a total project cost of R305599812.55. The associated upgrade intends to present further water services to the uMgeni, Msunduzi, eThekwini, Richmond and Mkhambathini Municipalities respectively.
- Vulindlela Upgrade which sits between the Msunduzi and uMgeni Municipalities. The associated upgrade comprises of a proposed pipelines, pump stations and reservoirs at a total project cost of R330573800.00. Such an upgrade is anticipated to only cater for water demands within the Msunduzi Municipality.
- Darvill Waste Water Works Upgrade which sits within the Msunduzi municipality to present further waste water capacity therein. The total project cost is some R 960973859.86.
- Howick-West Reservoir Upgrade is located within the uMgeni Municipality to present further water access opportunities within the Msunduzi Municipality at a project cost of R70166179.37.
- uMkhomazi Water Project Phase 1 which falls between the Dr Nkosazana Dlamini-Zuma; Impendle; Msunduzi; Richmond; and Mkhambathini Municipalities. The project upgrades comprise of a proposed dam, raw water and potable pipelines, uMkhomazi WTP and tunnel. Whilst such a project presents water servicing opportunities to only the eThekwini Municipality at a total cost of approximately R5678519865.81 it does provide useful connectivity potential to the newly delineated Ncwadi or Ward 39 Area.

Based on the aforementioned and liaison with uMgeni Water's IMP Manager, the following remain critical in regards to the implications for the SDF:

- a) "The land required for the sludge disposal from the upgraded Darvill WWW. UW has been negotiating with Msunduzi Municipality for the land adjacent to Darvill but the same land has been identified by Msunduzi's Housing Department for low cost housing. The land is contaminated and is unsafe for human habitation. This issue still has to be resolved. The land in question has been zoned for industrial use. If the land cannot be secured for the sludge disposal, costs of treating wastewater within Msunduzi will increase and will have an economic impact."*
- b) "The illegal invasions of high-income housing on the Henley Dam property. A number of these illegal dwellings are below the 1:100 year flood line and therefore are at risk. Umgeni Water has been attempting to remove all those buildings that are at risk but again, this issue has to be resolved with Msunduzi Municipality. The property is private tenure in a sea of traditional land and the existing SDF identified the use as conservation/green space. Note that this issue has regional implications"*

Spatially the outcomes of these planned projects marked in a red star are represented as follows:

Figure 56: Planned Umgeni Water Projects



CONSOLIDATED TECHNICAL SDF REVIEW REPORT FOR THE MSUNDUZI MUNICIPALITY

Project MSUNDUZI MUNICIPAL SDF REVIEW

Project No. 14376

Revision No. 3

Date: November 2017

The Msunduzi Municipality has further proceeded to establish a package of Water Master Plans as part of the water sector chapter of the IDP which cover the Vulindlela, Edendale and Msunduzi ABM's respectively.

Such plans emerged as a result of the identification of key pressure areas within the jurisdiction of the municipality in regards to the need to upgrade the existing water infrastructure and to proactively cater for future development scenarios therein by way of new or proposed infrastructural networks.

The master plans advance a proposed cost estimate of the existing backlogs; immediate; short; medium and long term water upgrades across the three ABM's. These upgrades or new water infrastructure networks generally include reservoirs; pump stations; FCV; PRV; BPT; peak pressure and velocity upgrade lines for example. For completeness sake, the SDF will highlight the broader costs of each area in regards to water upgrades as the more detailed cost estimates of each upgrade or newly proposed infrastructural points are contained within the respective areas Water Master Plan.

a) **Vulindlela Water Master Plan (2016)**

The Vulindlela Water Master Plan broadly captures the associated water upgrades and infrastructural investments into uMgeni water upgrades; bulk upgrades; future networks; peak pressure upgrades; static pressure upgrades and velocity upgrades whilst also highlighting the intended orderly phasing implementation thereof. These may be saliently captured as follows within the following tables:

Table 37: Cost Estimates for Proposed Water and Upgrades for Existing Water Infrastructure within Vulindlela

Description	Cost (mil R Excl. VAT)*
Umgenei Water Bulk upgrades	134.5
Other Bulk Upgrades	213.0
Future Networks	7.0
Peak Pressure Upgrades	14.9
Static Pressure Upgrades	3.8
Velocity Upgrades	91.1
Zone Changes	20.3
Total	484.6

Table 38: Cost Estimates for Water Demands over 20 year period within Vulindlela

Phasing	Cost (mil R Excl. VAT)*
Immediately (Umgeni Water)**	121.3
Immediately (MLM)	61.8
2019	127.4
2024 (Umgeni Water)	13.1
2024 (MLM)	128.3
2034	32.6
Total	484.6

b) **Edendale Water Master Plan (2016)**

Similar to the Vulindlela Water Master Plan, the proposed water upgrades and infrastructural investment framework within the Edendale area broadly comprises of uMgeni water upgrades; bulk upgrades; future networks; peak pressure upgrades; static pressure upgrades and velocity upgrades which account for approximately R650 million in costs. The orderly phasing or implementation thereof may be represented as follows:

Table 39: Cost Estimates for Water Demands over short to long term periods within Edendale

Phasing	Cost (mil R Excl. VAT)*
Backlog	244
Immediate	7
Short Term Upgrades	175.2
Medium Term Upgrades	122.6
Long Term Upgrades	91.5
Total	640

c) **Msunduzi Water Master Plan (2016)**

The proposed water upgrades and infrastructural investment framework within the Msunduzi/Pietermaritzburg area broadly comprises of uMgeni water upgrades; bulk upgrades; future networks; peak pressure upgrades; static pressure upgrades and

velocity upgrades which account for approximately R500 million in costs. The orderly phasing or implementation thereof may be represented as follows:

Table 40: Cost Estimates for Water Demands over short to long term periods within Msunduzi

Description of Work	Estimated Cost (Rand, 2015/16 value) incl.P&G, Contg.'s - Fees, exc. VAT*
Backlog	R 170 982 980
Immediate Upgrades	R 13 173 720
Short Term Upgrades	R 91 875 700
Medium Term Upgrades	R 182 042 140
Long Term Upgrades	R 39 582 340
Total	R 497 656 880

4.8.7.4 Sanitation

Similarly to the water needs within the jurisdiction of the municipality, the Msunduzi Municipality has proceeded to establish the Msunduzi Sewer Master Plan of 2016. The plan emerged as a result of the identification of key pressure areas within the jurisdiction of the municipality in regards to the need to upgrade the existing sanitation systems and to proactively cater for future development scenarios therein.

In this regard, the master plan advances a proposed cost estimate of the existing backlogs; immediate; short; medium and long term sewer and sanitation upgrades across the Edendale, Pietermaritzburg and SEDis areas respectively. These upgrades include the roll out of proposed schematic reticulation; rising main pipes; outfall/reticulation; future/new outfall; pump stations throughout the jurisdiction of the Edendale, Pietermaritzburg and SEDis areas. For completeness sake, the SDF will highlight the broader costs of each area in regards to the sewer and sanitation upgrades as the more detailed cost estimates of each upgrade or newly proposed infrastructural points are contained within the sewer Msunduzi Sewer Master Plan.

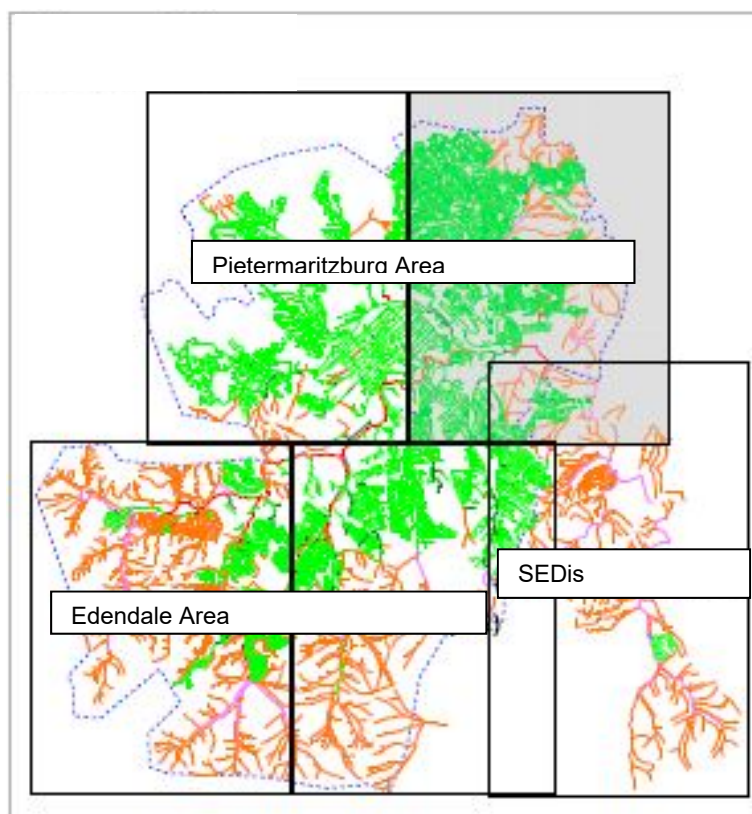
In addition, it is to be acknowledged that these are purely planned projects of which the associated implementation thereof and budgetary alignment need to be confirmed by the Msunduzi Municipality along with the respective authorities. Therefore, the associated cost estimates regarding the sewer upgrades for the Msunduzi Municipality may be summarised as follows:

Table 41: Cost Estimates for Sanitation Demands over short to long term periods within Edendale, Pietermaritzburg and SEDis

Description of Work	Estimated Cost (Rands 2015/2016)		
	Edendale	Pietermaritzburg	SEDis
Backlog	R 5 955 300	R 14 220 100	N/A
Immediate Upgrades	R 93 588 900	R 253 121 600	N/A
Short Term Upgrades	R 84 779 000	R 85 375 800	R 92 360 800.00
Medium Term Upgrades	R 359 000	R 2 528 400	R 9 805 800.00
Long Term Upgrades	R 741 900	N/A	R 2 879 300.00
Total	R 185 424 100	R 355 245 900	R 105 045 900
Grand Total	R 645 715 900		

Within the municipality's jurisdiction, these projects may be spatially represented as follows:

Figure 57: Areas Identified for Sanitation Projects



4.8.7.5 Integrated Waste Management (Refuse Removal)

The waste management business unit in the city falls under the ambit of the Community Services business unit and is responsible for the following functions provided mostly, 364 days per annum:

- Solid waste collection and transportation to the landfill site.
- Management of Garden Sites (Prestbury, Link Road, Grange, Richie Road, Sobantu, South Road, Woodlands, and Eastwood);
- Street Sweeping;
- Maintenance of Public Conveniences (public toilets in the CBD)
- Collection of illegal Dumping
- Education and awareness
- Waste Minimisation and Diversion from the New England Road Landfill Site (a newly formed initiative)

Overarching the above functions are three components to solid waste in the Municipality, namely; Solid Waste Collection and Removal, Solid Waste Disposal and Waste Minimisation.

a) Solid Waste Collection and Removal

- The City's Waste Management business unit supplies services to approximately 120000 of the 163000 households in the city. This means there is a backlog of 43000 or 26%. The city has plans to begin collection service to the rest of the households, made up mostly of Vulindlela, via the implementation of outsourced services in the form of SMME's sometime in the 2017/2018 financial year. The 120000 households receive services (via city entities 85000 and via co-operatives 35000) once per week, door to door.
- In addition there are at least 5581 commercial and schools customers receiving a minimum once per week service.
- Garden refuse sites are placed strategically around the city and manned by the business unit. Residents bring their garden refuse to these sites and offload them into 25m³ containers and the containers are collected and emptied at the landfill site as and when necessary.
- The business unit also provides street sweeping services as and when necessary in the suburbs and daily and nightly in the main central business districts. The streets are swept, and refuse collected, bagged and disposed of at the landfill site.
- As part of its portfolio the business unit provides, mans, cleans, and maintains 29 male and female public toilets in and around the main central business district.
- There is also a unit that monitors, collects and prosecutes illegal dumping

- As part of its responsibilities the business unit provides education and awareness campaigning to schools, businesses, presence at the Garden and Royal Shows and other important and relevant events in the city.

The New England Road Landfill Site is a licensed facility that is managed by the Municipality, and is the largest disposal facility in the KZN Midlands. The Site spans an area of 44 hectares, of which 29 hectares is currently being landfilled. The Site is managed in terms of its permit requirements, and in terms of relevant environmental legislation.

The Landfill is classified as a general, large, leachate bearing site, and does not accept any hazardous waste. The Site is equipped with two weighbridges and a billing system, and users of the site are billed for the disposal of waste as per Council's tariff of charges. Waste disposed of is captured on the waste information system per category and type of waste.

It is a regional facility that accepts waste from some of the local municipalities under the jurisdiction of the uMgungundlovu District. Quarterly monitoring for gas emissions, groundwater and surface water contamination, and leachate disposal is conducted to ensure that the surrounding environment, watercourses, and groundwater are not being contaminated.

The site currently has a lifespan of five years, and feasibility studies into implementing advanced waste management systems aimed at reducing waste to landfill are being considered to extend the lifespan. Some of these initiatives involve recycling at source, implementation of a waste recycling collection system, and the construction of an Integrated Waste Plant (IWP)

b) Solid Waste Disposal

The city has recently adopted a Waste minimisation and diversion strategy in order to extend the lifespan of the landfill site.

The flagship project is an Integrated Waste Plant incorporating recyclable material recovery and sale, organic composting, biogas production, advanced technology conversion of other matter into fuel and or electricity. The IWP processes are designed reduce the normal amount of waste to landfill by about 90%, therefore extending the life span of the landfill site.

Another key initiative is the extension of the current kerbside recycling programme from the current parts of Wards 25, 26, 24, 35, 36, 37 and approximately 12000 households to the rest of the city in the 2017/18 financial year. To this end four brand

new small businesses have been created with a city resolution to create more in this regard.

A facilitator and funder for a decentralised buy back centre has been identified and as soon as suitable land is found construction will begin. Buy back centres add strategic value, as well as reduce costs and increase money value to recyclables. A few well sited buy back centres around the city will help reduce waste to landfill and increase employment as well as having the positive environmental impacts.

The city is revising its bylaws to reflect the waste minimisation and diversion imperatives in terms of practicality, applicability and enforceability.

The Waste Management business unit has established a Waste Minimisation and Diversion office and is now equipping itself with the necessary resources in terms finances, staff, office space, and other necessary equipment in order to maximise efforts to effect climate change in the city.

The city has approved and will be implementing a recycling tariff in order to ensure that it can afford the necessary resources to effect these changes.

c) Waste Minimisation

The city has recently adopted a Waste minimisation and diversion strategy in order to extend the lifespan of the landfill site.

The flagship project is an Integrated Waste Plant incorporating recyclable material recovery and sale, organic composting, biogas production, advanced technology conversion of other matter into fuel and or electricity. The IWP processes are designed reduce the normal amount of waste to landfill by about 90%, therefore extending the life span of the landfill site.

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A facilitator and funder for a decentralised buy back centre has been identified and as soon as suitable land is found construction will begin. Buy back centres add strategic value, as well as reduce costs and increase money value to recyclables. A few well sited buy back centres around the city will help reduce waste to landfill and increase employment as well as having the positive environmental impacts.

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The city has approved and will be implementing a recycling tariff in order to ensure that it can afford the necessary resources to effect these changes.

4.8.7.5.1 Future Plans

The municipality's future plans may be summarised as follows:

- Enhancing collection methods by investigating simpler technologies to collect, and transport refuse.
- Assuming responsibility for and facilitating a new landfill site as a city strategy
- Facilitating the building of the integrated waste plant (IWP) at the landfill site
- Partnering with communities to provide affordable, acceptable and available community cleaning partnerships, ie. SMME's, co-operatives, independent contractor, etc.
- Maximising waste minimisation and diversion efforts as a partnership with communities, individuals and small business.
- Strategic location and facilitation of buy back centres for recyclables
- Innovative use of applicable systems, processes and technology to reduce costs and improve quality and quantity of services.

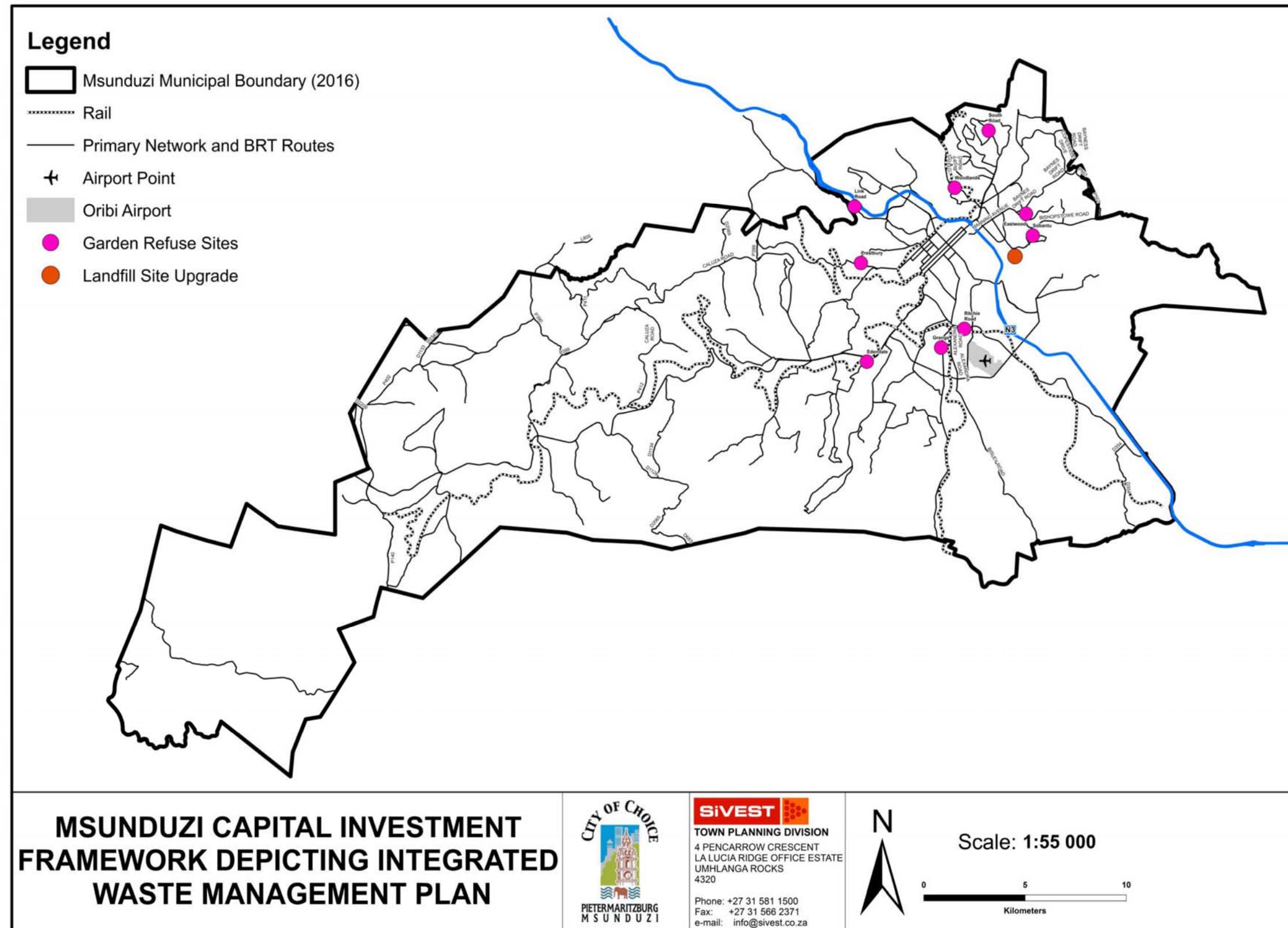
4.8.7.5.2 Planned Integrated Waste Management Projects Planned

With regards to the land fill site, the municipality has no proposed landfill site as the current one is operating at accepted levels. However, there is a proposed upgrade of the existing landfill site within the municipality to cater for future waste disposal needs. Furthermore in regards refuse collection and the associated projects therein, the following budgets lend themselves useful in regards to forecasting the Municipality's servicing potential for the year 2017:

Table 42: Summary of Planned Integrated Waste Management Projects

CAPITAL EXPENDITURE: WASTE MANAGEMENT SERVICES				
R'000				
2015/2016				
	Budget	Adjustment Budget	Actual Expenditure	Variances to Adjusted Budget %
CNL - Supply of 15m3 Refuse containers to businesses	1,500	612	611	-0.2
CNL - Supply of 1.75m3 Bins for paying customers SITE/RECYCLING CENTRED	700	700	700	-0.2
CNL - Kwa-Pata recycling centre – Imbali PRESTBURY G/SITES	1,000	538	538	0
CNL - UPGRADING OF PRESTBURY GURDEN SITE	250	305	302	0
CNL - UPGRADING OF LINK ROAD GARDEN SITE	250	228	228	-1
Total	3,700	2,383	2,379	0

Figure 58: Integrated Waste Management Plan



4.8.7.6 Roads and Transportation

The Roads Department continues to forge ahead in an attempt to upgrade some 20km of gravel road into “all weather” surfacing to render uninterrupted access and safety (i.e. through geometric interventions) on an annual basis. In this regard, the Roads Department has commenced with its 5 year road assessment in order to produce a revised Road Asset Management Plan (RAMP) and a Pavement Management System (PMS) to drive the municipality’s preventative/proactive maintenance for the next 5 years. The overall intention of RAMP is to inform the upgrading of the Gravel Roads programme wherein the gravel and the backlog will be shown up to ward level. A preventative maintenance program had commenced in the 2013/14 financial year. 45000 sqm of resurfacing and resealing was completed in 2015/16 (Msunduzi Municipal Financial Plan 2015/2016: 103). Based on information sourced from the Msunduzi Roads Department, the following projects inclusive of their budgetary allocations are highlighted as key priorities herein below:

Table 43: Summary of Roads and Transport Projects

Standard Classification	Funding	Project Title	Ward	2017/2018	2018/2019	2019/2020
Storm Water Management	Internal Funding	Lester Brown Link Road	37	14 000 000,00		
Roads And Storm Water	MIG	Mabane Bridge Project	02	1 900 000,00	1 995 000,00	2 094 750,00
Roads And Storm Water	MIG	Upgrading Of Gravel Roads- Greater Edendale-Caluza	02	1 300 000,00	1 365 000,00	1 433 250,00
Roads And Storm Water	MIG	Upgrading Of Gravel Roads- Vulindlela D2069	02	8 400 000,00	12 043 413,00	12 645 583,65
Roads And Storm Water	MIG	Upgrading Of Gravel Roads In Vulindlela Ward 3	03	2 000 000,00	2 100 000,00	2 205 000,00
Roads And Storm Water	MIG	Upgrading Of Gravel Roads In Vulindlela Ward 4	04	2 000 000,00	2 100 000,00	2 205 000,00
Roads And Storm Water	MIG	Upgrading Of Gravel Roads In Vulindlela Ward 5	05	4 500 000,00		
Roads And Storm Water	MIG	Upgrading Of Gravel Roads In Vulindlela Ward 6	06	2 000 000,00	2 100 000,00	2 205 000,00
Roads And Storm Water	MIG	Bus Stop Shelters		1 200 000,00	1 260 000,00	1 323 000,00
Roads And Storm Water	MIG	Upgrading Of Gravel Roads In Ward 7	07	2 000 000,00	2 100 000,00	2 205 000,00
Roads And Storm Water	MIG	Upgrading Of Gravel Roads In Ward 8	08	2 000 000,00	2 100 000,00	2 205 000,00
Roads And Storm Water	MIG	Upgrading Of Gravel Roads In Vulindlela Ward 9	09	2 000 000,00	2 100 000,00	2 205 000,00
Roads And Storm Water	MIG	Upgrading of Gravel Roads, Greater Edendale, Sinathing Road	11	2 000 000,00	2 100 000,00	2 205 000,00
Roads And Storm Water	MIG	Mig - Upgrading Of Gravel Roads - Greater Edendale - Ward 17 Roads (Phase 3, Unit 13)	17	900 000,00	945 000,00	992 250,00
Roads And Storm Water	MIG	MIG - Upgrading Of Gravel Roads - Edendale - Roads In Unit 14/Unit P- Design	18	1 900 000,00	1 995 000,00	2 094 750,00
Roads And Storm Water	MIG	MIG - Upgrade Of Bridges - Pedestrian Bridge Over River - Smero/Esigodini	20	2 740 000,00	2 877 000,00	3 020 850,00
Roads And Storm Water	MIG	MIG - Upgrading Of Gravel Roads - Greater Edendale - Harewood Area	20	2 400 000,00	2 520 000,00	2 646 000,00

CONSOLIDATED TECHNICAL SDF REVIEW REPORT FOR THE MSUNDUZI MUNICIPALITY

Project MSUNDUZI MUNICIPAL SDF REVIEW

Project No. 14376

Revision No. 3

Date: November 2017

Standard Classification	Funding	Project Title	Ward	2017/2018	2018/2019	2019/2020
Roads And Storm Water	MIG	MIG - Upgrading Of Gravel Roads - Edendale - Dambuza Main Road Major Swd Upgrade- Ward 21	21	2 900 000,00	3 045 000,00	3 197 250,00
Roads And Storm Water	MIG	MIG - Ashdown Bank Protection Against Collapsing Of Adjacent Houses - P15	22	800 000,00	840 000,00	882 000,00
Roads And Storm Water	MIG	MIG - Rehabilitation Of Roads In Ashdown	23	1 364 373,00	1 432 591,65	1 504 221,23
Roads And Storm Water	MIG	MIG - Woodhouse Pedestrian Bridge	33/35	2 900 000,00	3 045 000,00	3 197 250,00
Roads And Storm Water	MIG	MIG - Upgrading Of Gravel Roads - Greater Edendale - Ward 12	12	1 300 000,00	1 365 000,00	1 433 250,00
Roads And Storm Water	MIG	Upgrade of Gravel Roads in Edendale, Station Road	12	2 900 000,00	3 045 000,00	3 197 250,00
Roads And Storm Water	MIG	Upgrade of Gravel Roads In Willowfontein	14	500 000,00	525 000,00	551 250,00
Roads And Storm Water	MIG	Rehabilitation of Roads In Imbali Unit 18	15	1 400 000,00	1 470 000,00	1 543 500,00
Roads And Storm Water	MIG	Upgrading of Gravel Roads Ward 16	16	300 000,00	315 000,00	330 750,00
Roads And Storm Water	MIG	Upgrading Of Roads In Peace Valley, Plan And Design-10km	23	3 900 000,00	4 095 000,00	7 131 642,00
Roads And Storm Water	MIG	Upgrading Of Gravel Roads In Vulindlela Ward 1	01	3 000 000,00	3 150 000,00	3 307 500,00
Roads & Storm Water	MIG	Non-Motorised Transport		1 400 000,00	1 470 000,00	1 543 500,00
Storm Water Management	Internal Funding	Road Rehab - PMS		750 000,00	4 300 000,00	4 150 000,00
Storm Water Management	Internal Funding	Canaliztn Of Streams-Northdale			5 000 000,00	5 000 000,00
Storm Water Management	Internal Funding	Traffic Calming Measures			300 000,00	
Storm Water Management	Internal Funding	East Ring Road-Detail Des&Const		400 000,00		
Storm Water Management	Internal Funding	Mayors Walk Road Widening		200 000,00	5 000 000,00	5 200 000,00
Storm Water Management	Internal Funding	Z2:Bus Taxi Lay-Byes			400 000,00	350 000,00
Storm Water Management	Internal Funding	New:Machinery & Equipm (Traffic Signals Controllers)		150 000,00	200 000,00	200 000,00
Storm Water Management	Internal Funding	Installation Of New Guard Rails			300 000,00	300 000,00
Storm Water Management	Internal Funding	Rehab Pub Transport Facility(Taxi Ranks)				300 000,00
Total				77 404 373,00	78 998 004,65	85 004 796,88

The priority spending objectives from years 2017 to 2020 are concentrated within Wards 1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 12, 14, 15, 16, 17, 18, 20, 21, 22, 23, 33/35 and 37 of the Municipality. These projects account for approximately R 77 404 373, 00 for the years 2017-2018; R78 998 00, 65 between the years 2018-2019 and R85 004 796, 88 between the years 2019-2020 for the associated road infrastructural projects within the municipality. In regards bridges, the following projects have been identified within Msunduzi Municipality Financial Plan (2015/2016: 462):

- SDBIB Reference “R & T 38 MIG” which intends to upgrade bridges and pedestrian bridges over River - Smero/Esigodini in Ward 20 valued at R 139 100.00

CONSOLIDATED TECHNICAL SDF REVIEW REPORT FOR THE MSUNDUZI MUNICIPALITY

Project MSUNDUZI MUNICIPAL SDF REVIEW

Project No. 14376
Revision No. 3

Date: November 2017

- SDBIB Reference “R & T 39 MIG” which intends to roll out the Wood-House Pedestrian Bridge in Wards 33 and 35 at a value of R 100 000.00

The confirmation of further road and bridge infrastructural projects along with the spatial extent thereof is subject to the respective Road Department.

4.8.8 Msunduzi Catalytic Projects

According to the Municipal IDP (2016/2021) a catalyst is described as something that ‘precipitates an event’ or something that causes change. The Municipality has identified a number of projects that seek to stimulate change and development in the municipal area.

The following catalytic projects are aimed at revitalising the economy and the growth trajectory of the Msunduzi Municipality. It must, however, be noted that some of these projects are being implemented by delivery agents other than the Municipality. According to the Msunduzi ID (2016/2021: 30) these may be summarised as follows:

Table 44: Catalytic Projects

Project	Description	Estimated Budget
Legislative Precinct Development	This is a medium to long-term initiative which will see the development of a new legislative precinct that will better cater for the needs of the legislature and facilitate good governance.	R 2 Billion
Pietermaritzburg Airport Upgrade	This is a short- term project that will see the extension of the existing runway, together with the terminal buildings. This will allow for larger aeroplanes to make use of the airport, thereby attracting additional operators and increasing the amount of feet through the airport.	R0.5 Billion
Harry Gwala Stadium Upgrade Phase 2	This is a medium to long-term project which will see the development of further stands at the stadium. Associated with this project, in the short to medium term, is the further development and upgrading of the Alexander Park Sports Precinct with additional parking.	Private Investment
International Convention Centre and 5 star Hotel	This is a medium to long-term project that will see the development of an international calibre conference centre- which will allow the city to host international-standard conferences. In the short to medium-term, a 5 star hotel associated with this will be developed.	R1.2 Billion
Council Civic Centre	This is a medium- term project and will see the further development of the Council Civic Centre to cater for additional needs and demands.	R3.2 Billion
Integrated Rapid Public Transport System	This project is a short to medium-term project which will see the roll-out of reliable and efficient public transport between key points in the city, thereby reducing resident’s commuting times.	R0.5 Billion
Fibre Optic Cable Network	This is a short to medium-term project that will see the development of a leading-edge technology fibre optic telecommunications network leading to increased connectivity and usage, decreased costs, and stimulating growth and development.	R0.5 Billion

CONSOLIDATED TECHNICAL SDF REVIEW REPORT FOR THE MSUNDUZI MUNICIPALITY

Project MSUNDUZI MUNICIPAL SDF REVIEW

Project No. 14376

Revision No. 3

Date: November 2017

Project	Description	Estimated Budget
Electrical Infrastructure Upgrade	This is a short to medium-term project that will see the rehabilitation and upgrading of the Municipality's electrical infrastructure.	R0.9 Billion
City- wide CCTV System	Camera surveillance of areas within the Msunduzi Municipality so as to encourage a crime-free environment.	R0.5 Billion
Hero's Acre	This project was mentioned by the KZN Premier in the 2013 State of the Province address, and will be a museum commemorating the Heroes of the Struggle. It will include a wall commemorating the "Seven Days War" on the site where the remains of Moses Mabhida and Jonny Makhathini are buried. The proposed development will cover a developed area of at least 102,000 m2.	R 1 Bill
Freeway Node Development	This is a medium-term project that involves the upgrade of key freeway interchanges within the Municipality so as to ensure more efficient movement of traffic, as well as unlocking strategically located adjacent land for the development of commercial, residential, and associated activities.	R 1 Bill
Non- Revenue Water Reduction Project	This is a medium to long-term project that will simultaneously increase revenue and reduce water losses. The reduction of water losses will ultimately reduce the demand on our source (dams), which will have a catalytic benefit to the catchment.	R0.5 Bill

4.8.9 Msunduzi Priority Projects

As part the process that was responsible for developing this SDF Review Document, a meeting was held between the municipality, the Provincial Department of Co-operative Governance and Traditional Affairs (CoGTA) in which extensive discussions were held.

Within this meeting, a set of priority projects were identified by the municipality which are deemed to be additional projects to the municipality's catalytic projects and are intended to assist in the future formulation of the Msunduzi Municipality's CIF. These projects include:

- Edendale Town Centres Urban Network;
- Airport;
- Edendale Corridor Development;
- CBD Urban Renewal;
- Industrial Development Strategy and;
- N3 Corridor Development.

4.9 Way forward

The Municipality has demonstrated commitment towards the constitutional imperative of service provision to people from all walks of life, as echoed within other legislative frameworks such as the MSA and SPLUMA. The establishment of the Prioritisation Model inclusive of the Spatial Guiding Principles and complimentary Strategic Priorities enables the municipality to have an appropriate level resource allocation tool in regards to investment within previous areas of neglect and addressing infrastructural backlogs.

CONSOLIDATED TECHNICAL SDF REVIEW REPORT FOR THE MSUNDUZI MUNICIPALITY

Project MSUNDUZI MUNICIPAL SDF REVIEW

Project No. 14376

Revision No. 3

Date: November 2017

This is essential in improving coordination and building robust infrastructural networks and implementing and managing catalytic projects which are ultimately intended to layer down the favourable conditions for investor confidence. Moreover the CEF (which is intended to form the base for the establishment of CIF in the 2018 SDF Review) is indicative of the municipality's commitment towards attaining metropolitan status and providing the necessary support for spatially aligned Capital and Operating Budgets. It is recommended that the successful implementation of the CIF also requires further departmental cohesion within the municipality.

Furthermore, it is also recommended that the municipality establish a Municipal Infrastructure Framework Plan and Infrastructure Investment Framework (MIIF) and a complimentary Infrastructure Planning Unit to actively drive the infrastructural and resource allocation trajectory of the municipality.

5 CONCLUSION

Based on the foregoing, the following conclusions are made:

- The associated role of the SDF has been incorporated as part of this review;
- The prescribed legislative requirements in regards to demonstrating alignment with the principles and objectives advanced by the MSA and SPLUMA have been included;
- The report has further expounded on the most applicable SIPs to the Msunduzi Municipality (i.e. SIP 2) which illustrates the municipality's intention to align itself with broader national spatial objectives;
- There is a need for the establishment of a BEPP which will in the near future act as a management tool for sourcing government funding whilst also playing an instrumental role in managing the Municipality's ambitions towards acquiring metropolitan status;
- The Msunduzi Growth Model over a five year period has been included and the associated pressure points inclusive of its catalytic/infrastructural projects and residential demand within a similar timeframe have been identified;
- The absorption of Ward 39 into the Msunduzi Municipality presents further agricultural opportunities given that the area, whilst settled in some parts, has a good soil composition which lends itself useful to the establishment of agricultural productivity within the Municipality.
- In addition thereto, it is noteworthy that the Ward 39 area is largely natural and untransformed as it comprises of the Elands River which hosts critical species and significant conservancy areas such as the Impendle Nature Reserve. The Impendle

Nature Reserve generally comprises of red listed species such as critically endangered Blue Swallow and the endangered Ground Hornbill;

- The proposed delineation of the urban edge is underpinned by the areas of key development pressure, infrastructural capacity, specialisation of land use, catalytic projects, identified environmentally sensitive areas and etc which suggests that the overall delineation stretches in an eastern direction and starts from Edendale, Georgetown to Willow Town, Northdale, and Mkhondeni for example;
- The proposed delineated urban edge whilst restricted to the eastern portion of the municipality is anticipated to grow and expand into the Vulindlela area over time as a result of the current development pressures within the municipality;
- The Municipality's CEF has been included. Further investigations are warranted with regard to the Municipality's line department's in so far as availing key information comprising the proposed projects and their associated budgets inclusive of their spatial localities over a five year period.
- It is recommended that the municipality also establishes a MIIF and an Infrastructure Planning Unit for its area of jurisdiction to enable a clearer development trajectory in so far as resource allocation and infrastructural investment.

6 ANNEXURES

Annexure 1: Consolidated Capital Budgets and Expenditure along with Composite Mapping

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CONSOLIDATED TECHNICAL SDF REVIEW REPORT FOR THE MSUNDUZI MUNICIPALITY

Project MSUNDUZI MUNICIPAL SDF REVIEW

Project No. 14376
Revision No. 3

Date: November 2017

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CONSOLIDATED TECHNICAL SDF REVIEW REPORT FOR THE MSUNDUZI MUNICIPALITY

Project MSUNDUZI MUNICIPAL SDF REVIEW

Project No. 14376

Revision No. 3

Date: November 2017

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8 LIST OF FIGURES AND TABLES

8.1 Figures

Figure 1: Project Methodology

Figure 2: Hierarchy of Development Policy and Legislative Framework

Figure 3: Alignment between SDF Principles and SDG's

Figure 4: Alignment between SPLUMA and SDF Principles

Figure 5: PGDS Spatial Principles

Figure 6: Spatial Representation of PGDS Principles

CONSOLIDATED TECHNICAL SDF REVIEW REPORT FOR THE MSUNDUZI MUNICIPALITY

Project **MSUNDUZI MUNICIPAL SDF REVIEW**

Project No. **14376**

Revision No. **3**

Date: **November 2017**

Figure 7: Purpose of the KZN N3 Strategic Corridor Development Plan

Figure 8: Msunduzi Technology Hub Site Development Plan

Figure 9: Urban Network Strategy, Edendale Precinct Analysis

Figure 10: Economic contribution per sector for Msunduzi Local Municipality

Figure 11: Year-on-year Growth in GDP for eThekweni Municipality

Figure 12: Spatial Distribution of Population

Figure 13: Population Pyramid 2021

Figure 14: Environmental Elements within Msunduzi Municipality

Figure 15: Topographical Features within Msunduzi Municipality

Figure 16: Agricultural Potential within Msunduzi Municipality

Figure 17: Heritage Resources within Msunduzi Municipality

Figure 18: Existing Bulk Infrastructural Assets within Msunduzi Municipality

Figure 19: Transportation Infrastructure within Msunduzi Municipality

Figure 20: Existing and Proposed Land Uses

Figure 21: Land Use Scheme Administering Development within Msunduzi Municipality

Figure 22: Vegetation Typologies within Newly Absorbed Ward 39

Figure 23: Ncwadi Nodal Land Use Plan

Figure 24: Composite SDF Plan and Urban Edge Delineation.

Figure 25: Relationship between the Municipality's Suite of Plans and the SDF

Figure 26: Synergy Between Municipality's Suite of Plans

Figure 27: MTREF 2015-2018 Capital Budget Funding Source

Figure 28: MTREF Budget Overview for years 2017-2020

Figure 29: Repairs and Maintenance Per Municipal Asset Class for 2016-2018

Figure 30: Medium Term Capital Budget Per Vote

Figure 31: Msunduzi Municipality in relation to surrounding municipality's

Figure 32: Defining the Msunduzi Region

Figure 33: Key Pressure Areas for Population Growth

Figure 34: Population Densities in relation to Municipal Hubs

Figure 35: Msunduzi Typical Settlement Pattern

Figure 36: Educational Facilities Servicing Potential within Msunduzi

Figure 37: Health Facilities Servicing Potential within Msunduzi

Figure 38: Libraries, Police Stations and Community Halls Servicing Potential within Msunduzi

Figure 39: Municipal Areas of Need/Sub Places and Population Densities

Figure 40: Transportation, Roads, Bridges and Storm water Projects as per IDP 2017/2022

Figure 41: Water and Sanitation Projects as per IDP 2017/2022

Figure 42: Civic and Social Projects as per IDP 2017/2022

Figure 43: Integrated Waste Management Projects as per IDP 2017/2022

Figure 44: Infrastructural Projects as Identified within Municipal LAP's

Figure 45: Transport Projects as Identified within Municipal LAP's

Figure 46: Housing Projects as Identified within Municipal LAP's

Figure 47: Civic and Social/Strategic Projects as Identified within Municipal LAP's

Figure 48: Areas identified for private and public investment purposes

Figure 49: Schedule 2, Historic GEVDI Land Acquisition Program and Identified Housing Projects

Figure 50: Schedule 1, Approved Committed Human Settlement Projects

Figure 51: Schedule 9, Informal Settlement Strategy

Figure 52: Schedule 3, Edendale Town Centre and Urban Renewal 800m Radius

Figure 53: Composite Human Settlement Projects

Figure 54: Differentiation of Eskom and Msunduzi Municipality area of supply

Figure 55: Existing Electrical Infrastructure and Planned Electricity Projects

Figure 56: Planned Umgeni Water Projects

Figure 57: Areas Identified for Sanitation Projects

Figure 58: Integrated Waste Management Plan

8.2 Tables

Table 1: PGDS Strategic Framework

Table 2: SDF Spatial Guiding Principles

Table 3: Guiding Goals and Objectives of IEMP

Table 4: SEA Sustainability Criteria

Table 5: Climate Change Adaptation and Mitigation Strategies

Table 6: Msunduzi Local Municipality Demographic Overview

Table 7: Average Industry Growth within Msunduzi

Table 8: Growth Rate for the Msunduzi

Table 9: Household Densities

Table 10 Impact on Waste Services 2017 and 2021

Table 11: Effective Demand for Residential Units (Low Growth Scenario:1.5% annual household growth)

Table 12: Effective Demand for Residential Units (Current Growth Scenario:2.4% annual household growth)

Table 13: Effective Demand for Residential Units (High Growth Scenario:3.5% annual household growth)

Table 14: Hubs and Urban Centres Categorisation

Table 15: Corridor Categorisation

Table 16: Broad Municipal Land Uses per ABM

Table 17: Housing Demands

Table 18: Informal Settlement Categorisation within the Municipality

Table 19: Guiding Principles and Strategies Applicable to Msunduzi Municipality.

Table 20: Msunduzi Municipality Prioritisation Model.

Table 21: Msunduzi Municipality M & E Performance Indicators

Table 22: Historic Capital Budget Allocations and Expenditure

Table 23: Current and Planned Borrowing

CONSOLIDATED TECHNICAL SDF REVIEW REPORT FOR THE MSUNDUZI MUNICIPALITY

Project **MSUNDUZI MUNICIPAL SDF REVIEW**

Project No. **14376**

Revision No. **3**

Date: **November 2017**

Table 24:	Capital Allocations and Expenditure
Table 25:	Capital Budget Sources
Table 26:	O & M Expenditure by Asset Class
Table 27:	Msunduzi Strategic Priority Areas
Table 28:	CSIR Guidelines for Social Facility Provision
Table 29:	Broad Municipal Needs Analysis as Per IDP
Table 30:	Local Economic Development Implementation Plan
Table 31:	Local Economic Development Financial Plan
Table 32:	Local Economic Development Institutional Plan
Table 33:	Summary of properties identified for private and public investment purposes
Table 34:	Summary of Housing Projects within Msunduzi Municipality
Table 35:	Eskom Planned Projects within Msunduzi Municipality
Table 36:	Break Down of Water Demands
Table 37:	Cost Estimates for Proposed Water and Upgrades for Existing Water Infrastructure within Vulindlela
Table 38:	Cost Estimates for Water Demands over 20 year period within Vulindlela
Table 39:	Cost Estimates for Water Demands over short to long term periods within Edendale
Table 40:	Cost Estimates for Water Demands over short to long term periods within Msunduzi
Table 41:	Cost Estimates for Sanitation Demands over short to long term periods within Edendale, Pietermaritzburg and SEDis
Table 42:	Summary of Planned Integrated Waste Management Projects
Table 43:	Summary of Roads and Transport Projects
Table 44:	Catalytic Projects



Annexure 1:

Consolidated Capital Budgets and Expenditure along with Composite Mapping






Msunduzi Key Capital Projects and Budgets As Extracted In The Municipal IDP (2017/2022: 284-296)

Infrastructure	Project Description	Ward	Fund	Year and Budget		
				2016/2017	2017/2018	2018/2019
Water and Sanitation	Basic Sanitation VIP Toilets	Various	MIG	6500000,00	8900000,00	10200000,00
	Sewer Pipes Azelea-Phase 2	10	MIG	6500000,00	6900000,00	7200000,00
	Sanitation Infrastructure Feasibility Study	10, 12, 13, 15, 1	MIG	3018646,00	7000000,00	8000000,00
	Service Midblock Eradication in Sobantu, Ashdown & Imbali (Water)	14,15, 17, 18, 1	MIG	476644,00	600000,00	1200000,00
	Service Midblock Eradication in Sobantu, Ashdown & Imbali (Sewer)	14,15, 17, 18, 1	MIG	4500000,00	6900000,00	10200000,00
	Sewer Pipes Unit H	16	MIG	6500000,00	5900000,00	6200000,00
	Master Planning Water	Various	MIG	600000,00	0,00	0,00
	Master Planning Sanitation	18	MIG	600000,00	0,00	0,00
	Shenstone Ambleton Sanitation System	18	MIG	600000,00	2900000,00	8200000,00
	Elimination of Water Conservancy Tanks	20/21	MIG	350000,00	600000,00	1200000,00
	Edendale Proper New Mains and Reticulation	20	MIG	2000000,00	2000000,00	4200000,00
	Rehabilitation of Sanitation Infrastructure	25, 30, 31, 33, 3	MIG	6000000,00	6900000,00	7500000,00
	Basic Water Supply	11-Jan	MWIG	16721000,00	17191000,00	33000000,00
	Reduction of Non-Revenue Water	ALL	MWIG	20000000,00	21000000,00	32000000,00
	Reduction of Non-Revenue Water	1-9,11,14	MIG	11000000,00	12000000,00	19000000,00
	Water Service Midblock Eradication in Sobantu, Ashdown and Imbali	14, 15, 17, 18, 2	MIG	500000,00	600000,00	1000000,00
	Rehabilitation of Water Infrastructure		CNL	5400000,00	20000000,00	40000000,00
	Canalisation of Streams In Northdale (Revised Design, EIA, and Construction)	31/33	CNL	550000,00	11000000,00	8000000,00
	Copesville Reservoir	29	MIG	1200000,00	12600000,00	6200000,00
	Metering	1,2,18-37	CNL	100000000,00	120000000,00	120000000,00
Total				193016290,00	262991000,00	323300000,00
	Traffic Calming Measures	Various	CNL	500000,00	2000000,00	2000000,00
	Purchasing of New Traffic Signal Controllers	Various	CNL	150000,00	150000,00	150000,00
	Installation of New Guard Rails	Various	CNL	500000,00	1200000,00	1200000,00
	Thwala Road Public Realm	22	NDPG	2902905,00	0,00	0,00
	Thwala Road Upgrade	22	NDPG	9304996,00	0,00	0,00
	Tourism Information and Signage		CNL	2000000,00	1000000,00	1000000,00
	Upgrading of Gravel Roads-Vulindlela Ward 1 Roads	1	MIG	1906000,00	6800000,00	7500000,00
	Road Rehabilitation-PMS	1-37	CNL	8220000,00	20000000,00	25000000,00
	Installation of New Traffic Signals	Various		450000,00	0,00	0,00
	Mabane Bridge Project	2	MIG	429953,00	0,00	0,00
	Upgrade Design of Gravel Roads Vulindlela	2	MIG	368938,00	2500000,00	2500000,00
	Upgrading off Gravel Roads in Vulindlela, D2069 (Mthalane Road)-Phase 2	2	MIG	9245246,00	11551459,00	0,00
	Upgrading of Gravel Roads in Vulindlela Ward 3 Roads	3	MIG	1906000,00	6800000,00	0,00
	Upgrading of Gravel Roads in Vulindlela Ward 4 Roads	4	MIG	5225008,00	6400000,00	7500000,00
	Upgrading of Gravel Roads in Vulindlela Ward 6 Roads	6	MIG	1906000,00	6800000,00	7500000,00
	Upgrading of Gravel Roads in Vulindlela Ward 7 Roads	7	MIG	1906000,00	6800000,00	7500000,00
	Upgrading of Gravel Roads in Vulindlela Ward 8 Roads, Masoyi Road	8	MIG	5225097,00	6800000,00	7500000,00
	Upgrading of Gravel Roads in Vulindlela Ward 9 Roads	9	MIG	1906000,00	6800000,00	5500000,00
	Ward 10 Roads, Rehabilitation of Roads and Stormwater Upgrade	10	MIG	1383222,00	3400000,00	3500000,00
	Upgrading of Gravel Roads-Edendale Station Road	11 & 12	MIG	6500000,00	1900000,00	2000000,00
	Upgrading of Gravel Roads, Greater Edendale-Snathing Roads	11	MIG	1500000,00	1500000,00	1500000,00
	Upgrading Gravel Roads In Esgodini, Edendale	12	MIG	373021,00	0,00	0,00
	Upgrading of Gravel Roads, Ward 12 of Moscow Area Roads	12	MIG	0,00	393701,00	500000,00
	Upgrading of Gravel Roads in Greater Edendale, Georgetown and Surrounding Area	12	MIG	0,00	1400000,00	1500000,00
	Upgrading of Roads in Edendale, Kwanyamazane Roads	13	MIG	500000,00	2300000,00	3200000,00
	Upgrade of Gravel Roads, Willowfountain Roads	14	MIG	600000,00	3400000,00	3500000,00

Transport, Roads, Bridges and Storm Water	Rehabilitation of Roads in Imbali Unit 18	15	MIG	0,00	1900000,00	2000000,00
	Bus Taxi Lay-Byes	16	CNL	400000,00	2000000,00	2000000,00
	Upgrading of Gravel Roads, Edendale Ward 16	16	MIG	1429933,00	2400000,00	3000000,00
	Upgrading of Gravel Roads-Greater Edendale of Ward 17 (Phase 3, Unit 3)	17	MIG	329933,00	2400000,00	3000000,00
	Upgrading of Gravel Roads, Edendale Roads in Unit 14/Unit P	18	MIG	1500000,00	3400000,00	3500000,00
	Bus Stop Shelters	13-19, 22	MIG	1154233,00	1500000,00	1700000,00
	Non-Motorised Transport Infrastructure	13, 14, 15, 19, 2	CNL	0,00	6000000,00	6000000,00
	Horse Shoe Access Road and Passages in Imbali Stage 1 and 2	15/19	MIG	0,00	2300000,00	3200000,00
	Upgrade Storm Water Drainage system in the Imbali Roads	19	MIG	0,00	7500000,00	10000000,00
	Upgrade of Gravel Roads-Greater Edendale-Snathing Roads	20	MIG	1429000,00	1400000,00	1500000,00
	Upgrade of Bridges –Pedestrian Bridge Over River-Smero/Esigodini	20	MIG	30000,00	1000000,00	0,00
	Upgrading of Gravel Roads-Greater Eendale-Caluza Roads	20	MIG	0,00	1400000,00	1500000,00
	Upgrading of Gravel Roads-Greater Eendale-Harewood Roads	20	MIG	2600000,00	4900000,00	7500000,00
	Upgrading of Gravel Roads, Greater Edendale-Smeroe Roads & SW	20	MIG	1906000,00	4400000,00	5000000,00
	Upgrading of Gravel Roads-Edendale Dambuza Main Road Major Storm Water Drainage Upgrade	21	MIG	30000,00	0,00	0,00
	Upgrading of Gravel Roads -Edendale Machibisa/Dambuza Roads	21	MIG	1599331,00	2400000,00	3000000,00
	Upgrading of Gravel Roads-Edendale -8.4km Roads and Storm Water Drainage Provision	22	MIG	0,00	1000000,00	2500000,00
	Ashdown Bank Protection Against Collapsing of Adjacent Houses-P15	23		153289,00	0,00	0,00
	Rehabilitation of Roads in Ashdown	23	MIG	800000,00	2800000,00	3200000,00
	Upgrading of Roads In Peacevalley (Plan and Design in 2016/2017)-10km	23/26	MIG	200000,00	0,00	0,00
	Connor Otto's Bluff Roads-Link	25/32	CNL	100000,00	11300000,00	10000000,00
	Eastern Ring Road-Detail Design and Construction	25/32	CNL	700000,00	4000000,00	0,00
	Mayors Walk Road Widening	25/32	CNL	700000,00	12000000,00	0,00
	Upgrade Storm Water Drainage System in CBD Roads-Chapel Street Floods etc.	27/33	CNL	0,00	3500000,00	3500000,00
	Rehabilitation of Public Transport Facilities (Taxi Ranks)	27/32	CNL	300000,00	1000000,00	1000000,00
	Upgrade of Internal Roads-Haniville	29	MIG	1906578,00	0,00	0,00
	Rehabilitation of Bhambatha Road (New Greytown Road)-Phase 1	29	CNL		4000000,00	4000000,00
	Woodhouse Pedestrian Bridge	33/35	MIG	3846000,00	0,00	0,00
	Grimthorpe Road Bridge	35	CNL	0,00	15000000,00	5000000,00
	Lester Brown Link Road	36	CNL	6000000,00	10000000,00	
	Upgrading of New England Road	36	CNL	400000,00	150000,00	10000000,00
	Upgrading of Gravel Roads In Vulindlela		MIG	351704,00	2400000,00	2500000,00
	Upgrading of Roads In Ashburton-Design	37	CNL	2500000,00	5000000,00	
	Upgrading of New England Road	37	CNL	400000,00	150000,00	1000000,00
	Burger Street Extension	27	CNL		25000000,00	5000000,00
Total				95674387,00	242095160,00	191150000,00
	High Mast Lights In Vulindlela and Greater Edendale	1-37	MIG	8000000,00	10000000,00	9405350,00
	Network 132 KV Rehabilitation Plan	1,2,18-37	CNL	0,00	100000000,00	100000000,00
	Street Lighting	1,2,18-37	CNL	0,00	8392000,00	10000000,00
	Upgrade of Electricity Control Centre	1,2,18-37	CNL	0,00	7100000,00	10000000,00
	Electrification	ALL	INEP	10000000,00	10500000,00	15000000,00
	Substation Battery Charges	ALL	CNL	0,00	3776400,00	3776400,00
	Upgrade of Retief Primary For Provincial Legislation		CNL	0,00	20000000,00	0,00
	System Reinforcement	ALL	CNL	0,00	11539000,00	15000000,00
	Network Refurbishment	ALL	CNL	0,00	9980000,00	11000000,00
	INEP-Electrification	ALL	INEP	10000000,00	10500000,00	15000000,00
	Network 132 KV Rehabilitation Plan	ALL	CNL	15000000,00	15000000,00	15000000,00
	Network 132 KV Rehabilitation Plan	ALL	DBSA	100000000,00	50000000,00	0,00
	LV Protection Retrofit	ALL	CNL	0,00	1888200,00	1888200,00
	Smart Meters	ALL	CNL	0,00	100000000,00	0,00

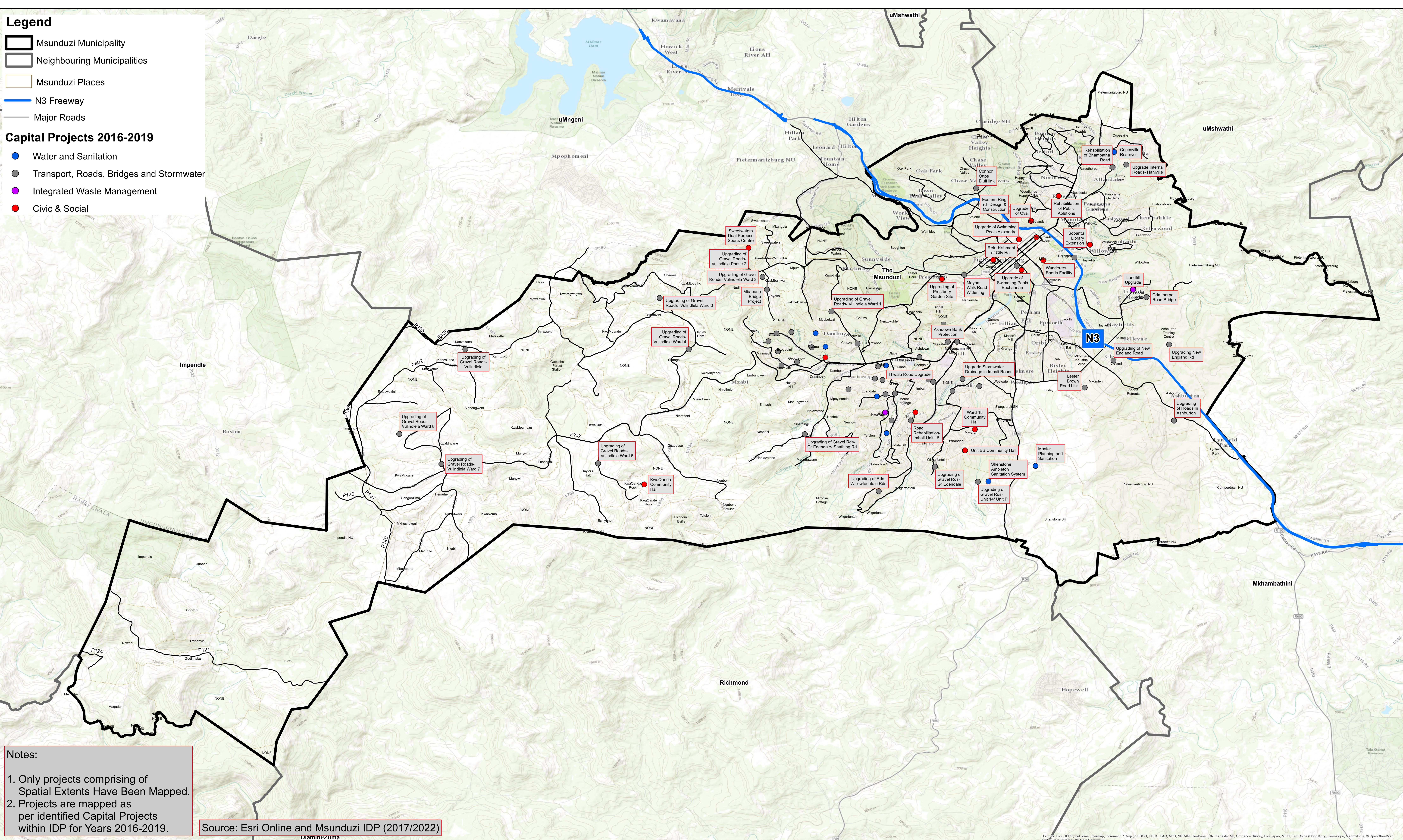
Electricity	Upgrade of Transformers/Capital Equipment	ALL		0,00	29107000,00	30000000,00
	Devcont Transformer/Mini Subs				5500000,00	6050000,00
	DOE Energy Efficiency and Demand Side Management	ALL	DME	0,00	10000000,00	0,00
Total				143000000,00	403282600,00	242119950,00
Civic and Social	KwaQanda Community Hall	6	MIG	4200000,00	0,00	0,00
	Sweetwaters Dual Purpose Sport Centre	2	MIG	7723456,00	1000000,00	1200000,00
	Unit BB Community Hall	18	MIG	4200000,00	0,00	0,00
	Refurbishment of City Hall	27	CNL	2750000,00	100000,00	100000,00
	Wanderers Sports Facility	33		433000,00	5000000,00	20000,00
	New Pools In Edendale, Vulindlela, Imbali and Grange	14,15,17,18,19	CNL	5000000,00	20000000,00	1000000,00
	Ward 15 Community Hall	15	MIG	4200000,00	0,00	0,00
	Ward 18 Community Hall	18	MIG	4200000,00	0,00	0,00
	Regional Athletic Track Sport Complex	27	MIG	9300000,00	0,00	0,00
	Upgrade of Swimming Pools Buchannan	27	CNL	1000000,00	0,00	2000000,00
	Upgrade of Swimming Pools Alexandra	32	CNL	1000000,00	500000,00	0,00
	Upgrade Oval	32	CNL	1000000,00	2000000,00	3500000,00
	Upgrade of Wadley Stadium	12	MIG	750000,00	2000000,00	4000000,00
	Berg Street Swimming Pool Refurbishment	32	ART	68242,00	0,00	0,00
	Bessie Head Library Partitioning Phase 1	Various	ART	2400000,00		
	Georgetown Basement Rennovations Phase 2	Various	ART	1600000,00		
	Installing Generators in Northdale, Georgetown and Eastwood	Various	ART	1960000,00		
	Libraries Rennovation and Refurbishment	Various	ART	0,00	8136000,00	0,00
	Refurbishment of Berg Street Pool Buildings and Changerooms	32/27	CNL	0,00	250000,00	2000000,00
	Woodlands Library	Various		1700000,00		
	Building of Shooting Range	Various	CNL	100000,00	200000,00	400000,00
	Implementation of Master Plan for Halls, Phase 2	Various	CNL	2000000,00	5000000,00	100000,00
	Implementation of Master Plan for Sports Facilities, Phase 1	Various	CNL	2500000,00	10000000,00	0,00
	Revitalisation of Alexandra Park, Phase 1	Various	CNL	1000000,00	2000000,00	250000,00
	Development of New Cemetery When Land Has Been Identified	Various	CNL	2000000,00	10000000,00	0,00
	Upgrading of Prestbury Garden Site	26	CNL	500000,00	3000000,00	150000,00
	Sobantu Library Extension Phase 2	35	ART	1000000,00	0,00	0,00
	Total				62584698,00	69186000,00
Integrated Waste Management	Buildings at Waste Management	Various	CNL	600000,00	500000,00	0,00
	kwaPata Recycling Centre Imbali	22	CNL	400000,00	2000000,00	2000000,00
	Landfill Upgrade	33/35	MIG	8500000,00	8500000,00	10400000,00
Total				9500000,00	11000000,00	12400000,00
Overall Total Expenditure						

Legend

-  Msunduzi Municipality
-  Neighbouring Municipalities
-  Msunduzi Places
-  N3 Freeway
-  Major Roads

Capital Projects 2016-2019

- Water and Sanitation
- Transport, Roads, Bridges and Stormwater
- Integrated Waste Management
- Civic & Social



Notes:

1. Only projects comprising of Spatial Extents Have Been Mapped.
2. Projects are mapped as per identified Capital Projects within IDP for Years 2016-2019.

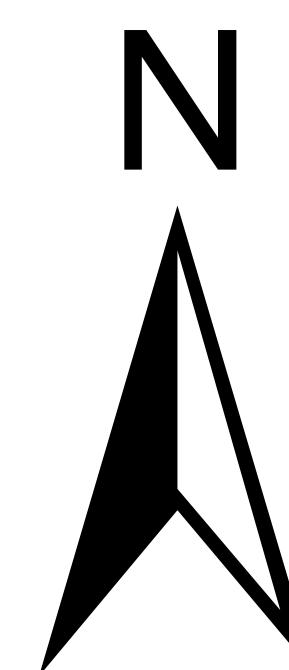
Source: Esri Online and Msunduzi IDP (2017/2022)

**MSUNDUZI
CAPITAL INVESTMENT
FRAMEWORK: PLAN DEPICTING
COMPOSITE CAPITAL PROJECTS FOR
THE YEARS 2016-2019,
AS PER MUNICIPAL 2017-2022 IDP**

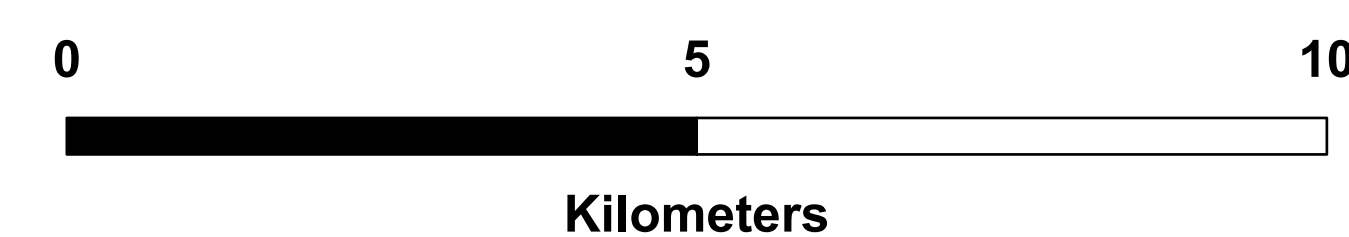


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