

UTHUKELA DISTRICT MUNICIPALITY FINAL SPATIAL DEVELOPMENT FRAMEWORK (SDF) FOR 2017/ 2018



SPATIAL DEVELOPMENT FRAMEWORK PREPARED IN TERMS OF THE MUNICIPAL SYSTEMS ACT NO. 32 OF 2000

JUNE 2017

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1. INTRODUCTION

1.1 BACKGROUND

UThukela District Municipality Spatial Development Framework (SDF) aims to comply with Section 12 of the Spatial Land Use Management Act (No.16 of 2013). The SDF also complies with Section 26(e) of the Municipal Systems Act, Act No. 32 of 2000), which requires a municipality to prepare and adopt an SDF as a component of its Integrated Development Plan (IDP). The Spatial Development Framework is a process through which a municipality prepares a strategic spatial development plan for a medium to long term period as a means to facilitate effective implementation of the IDP. It will serve as principal spatial planning instrument which guides and informs all planning, land management, development and spatial decision-making in a municipality. It is a component of UThukela Integrated Development Plan (IDP) and aims to create a spatial interpretation of the strategies and projects already contained within the IDP. It aims to assist in the prioritization of resources towards implementing the IDP.

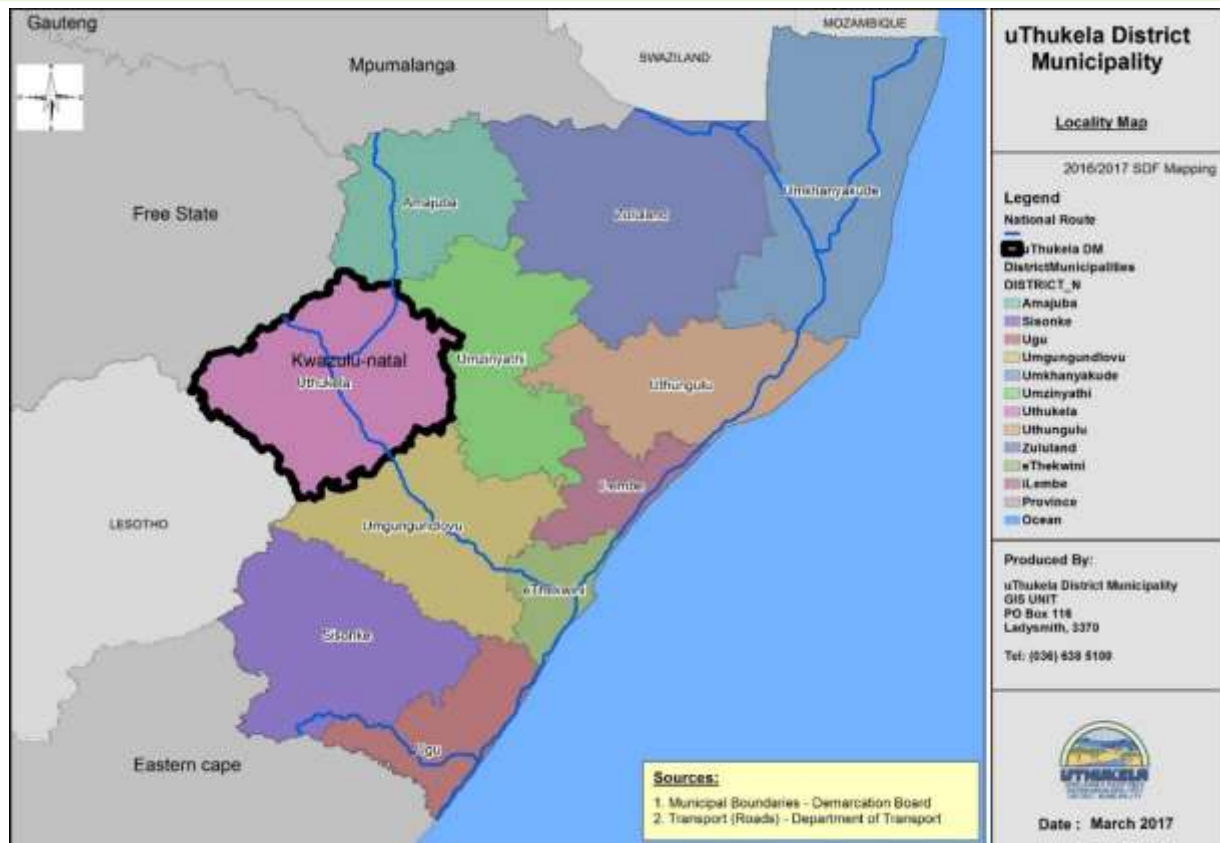
The SDF is intended to facilitate development of a spatial structure that promotes integrated development and enables an efficient delivery of services. It will guide future planning and development within the District, and provide a framework for the local municipalities SDFs. The Constitution of the Republic of South Africa, (Act No. 108 of 1996) confers to municipalities major developmental responsibilities intended to improve quality of life people residing and/or working within a municipality's area of jurisdiction. An SDF therefore, forms part of the systems and procedures at the disposal of the municipality to perform on its developmental mandate and facilitate removal of spatial remnants of the apartheid past. The main purpose of the SDF is to guide the form and location of future spatial development within UThukela. It is a legislative requirement and has a legal status. In summary, the SDF has the following benefits:

- *facilitates decision making with regard to the location of service delivery projects and guides public and private sector investment;*
- *it strengthens democracy and spatial transformation and facilitates effective use of scarce land resources; and*
- *it promotes intergovernmental coordination on spatial issues and serves as a framework for the development of detailed Land Use Management Scheme (LUMS).*

1.2 UTHUKELA DISTRICT MUNICIPALITY

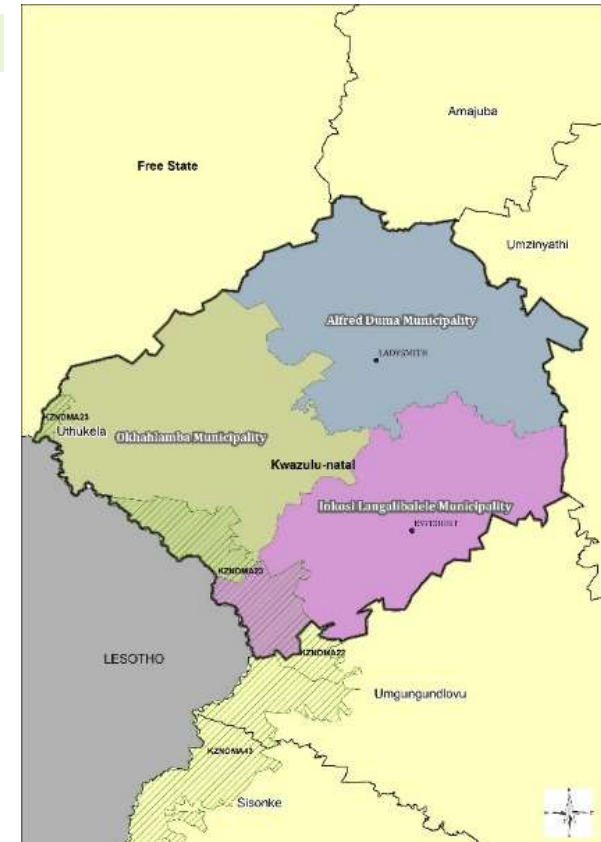
UThukela District Municipality (ADM) is located on the central-western corner of the KwaZulu-Natal Province. It comprises of Okhahlamba, Alfred Duma and Inkosi Langalibalele Local Municipalities. The main transportation routes linking the district to its surroundings, is the N3 and N11.

These routes also connect the area Johannesburg from Durban. The R103 bisects the district in an east-west direction and provides alternative non-toll mobility to various towns within KwaZulu-Natal.



1.3 LOCALITY

UThukela District Municipality (DC23) is one of the ten (10) district Municipalities in the Province of KwaZulu-Natal. It is located to western quadrant of the Province and bounded by the Free State to the north-west, Kingdom of Lesotho to the south-east, Amajuba District to the north, Umzinyathi District to the west and Umgungundlovu District municipality to the south. The municipality is centrally located in relation to the two major economic hubs in South Africa i.e. Durban and Johannesburg. Travel distance between Johannesburg and Ladysmith is approximately 353 km (this translates to the driving time of approximately 3 hours 22 minutes while the flight time is 0.4 hours). Durban on the other hand is approximately 225 km which translates to the driving time of approximately 2 hours. The Municipal Demarcation Act has impacted the change in the municipal boundaries of UThukela district municipality such that the municipality consists of three local municipalities namely Okhahlamba LM, Alfred Duma LM and Inkosi Langalibalele LM.



1.4 DEMOGRAPHICS

According to the 2016 Community Survey, UThukela District Municipality comprises of 706 589 people. This population comprises 47.2% males and 52.8% females. The largest population in the district is found at Alfred Duma local municipality which comprise of 356276 people. The second largest population is found in Inkosi Langalibalele Local Municipality with 255182 people. The least populated municipality within UThukela District Municipality is Okhahlamba Local Municipality which consists of 135132 people. The table below provides a comparison in population growth between 2011 and 2016:

2011			2016		
	Male %	Female %		Male %	Female %
UThukela	46.5	53.5	UThukela	47.2	52.8
Emnambithi/ Ladysmith	47.0	53.0	Alfred Duma	47.2	52.8
Indaka	45.1	54.9			
Umtshezi	46.4	53.6	Inkosi Langalibalele	47.3	52.7
Imbabazane	46.7	53.3			
Okhahlamba	46.7	53.3	Okhahlamba	47.2	52.8

Table indicating the districts population gender distribution

The comparison table above indicates an increased male population in UThukela District Municipality between 2011 and 2016. There's a 0.7% decrease in female population between 2011 and 2016 in the district. The male population has increased by 0.7%, however the female population remains larger than the male population. In 2011 Emnambithi Ladysmith Local Municipality has the largest population comprising of 47% of the district's population. Indaka Local Municipality was the least populated municipality with 45.1% of the districts population.

2. APPROACH AND METHODOLOGY

2.1 APPROACH

The approach complies with the Municipal Planning and Performance Management Regulations of 2001, and has been tailor-made for UThukela District in order to address the very specific spatial issues facing the District Municipal Area. Preparation of a Spatial Development Framework for UThukela District Municipality will unfold in three district but interrelated phases as depicted on Figure 1 below and described below:

2.1.1 SITUATION ANALYSIS

The aim of this phase is to collect and generate necessary base information to inform spatial strategy. It involves collection and analysis of information broadly falling within the following categories:

- *Analysis of the development context.*
- *Spatial analysis. Environmental analysis.*
- *Economic analysis.*
- *Infrastructure.*
- *Environmental analysis.*
- *Analysis of level of access to social facilities.*
- *Nodal assessment and analysis (primary and secondary).*

The end-product of this phase is a situation report indicating spatial development trends and patterns.

2.1.2 SPATIAL DEVELOPMENT STRATEGY

The aim of this phase is to formulate spatial strategy in line with the IDP principles and common spatial planning approaches taking into account that UThukela is a generally a rural district municipality. The following activities will be completed as part of this phase:

- *Identification and analysis of spatial structuring elements.*

- *Application of spatial concepts.*
- *Formulation of a spatial development vision.*
- *Formulation of spatial development objectives in line with the organisational Performance Management System.*
- *Translation of SDF concepts and spatial planning principles into practical strategies.*

2.1.3 CONSOLIDATED SPATIAL DEVELOPMENT FRAMEWORK

The spatial development framework will include the following:

- *Status quo report as discussed above.*
- *Spatial development strategy which includes a vision and development strategies.*
- *An implementation framework which identifies areas that require further detailed planning.*

2.1.4 SUSTAINABILITY ASSESSMENT

A Sectoral Environmental Assessment includes, for example:

- *An analysis of the national environmental policy, legal and administrative framework, as well as the sector specific legal and institutional aspects in the context of UThukela;*
- *A description of the nature of the program, plan or series of projects to which the sectoral issues applies, and of the main environmental issues related to the sector and the relevant plan or program;*
- *A description of the current environmental situation in UThukela;*
- *An environmental impact analysis of the proposed SDF, including the consideration of cumulative effects;*
- *A plan for improving environmental management; and*
- *An environmental monitoring plan.*

2.2 METHODOLOGY

The planning process will involve the use of the following methods to collect, generate and analyse data (refer to the figure below):

- *Desk-top data review.*
- *Interviews with a range of stakeholders.*
- *Focussed sessions.*
- *Stakeholder workshops.*
- *Public Participation through IDP roadshows.*

PUBLIC PARTICIPATION

The public participation for the preparation of the 2017/2018 IDP and SDF Review will be in two folds:

- *The first public participation was the collection of needs (IDP Roadshows) that took place from the 7th to the 9th of February 2017. The aim of this exercise was to collect needs from the community before the preparation of the budget so that it will inform the budget. The approach was that since the municipality is starting its 5-year plan, the community must be afforded a platform to raise their needs for five years but with the annual review in mind. The process were unfolded as follows:*

DATE	TIME	VENUE	MUNICIPALITY	ACTIVITY
07/02/2017	10H00	Emamfemfetheni community hall	Okhahlamba LM	Community Consultation Roadshow
08/02/2017	10H00	Ezakheni B section hall	Alfred Duma LM	Community Consultation Roadshow
09/02/2017	10H00	Emoyeni Community Hall	Inkosi Langalibalele LM	Community Consultation Roadshow

- *The second public participation Was held in the month of April and May 2017 where the will municipality will take both draft IDP and a draft Budget to the community to informing them of what has been budgeted based on the first consultation. Public participation was fulfilled and communication between municipality and the community was strengthened.*

2.2.1 DESK-TOP DATA REVIEW

SDF as a sector plan of the IDP needs to be located firmly within the practice of integrated development planning. This includes ensuring alignment with international, national, provincial, district and local strategic plans, as well as consolidating these to inform approaches to local spatial development challenge and interventions. The following is an indication of documents that have been reviewed as part of this process:

- *UThukela Municipality IDP and the associated sector Plans. The latter includes LED Plan, Water Services Development Plan, Area Based Plan, Tourism Development Plan, and Disaster Management Plan.*
- *KwaZulu-Natal strategic spatial plans including the Provincial Growth and Development Strategy and the associated spatial strategy.*
- *Spatial plans and data to be sourced from various sector departments.*
- *Research reports dealing with a range of strategic projects in the area.*
- *Relevant legislation and policy documents produced at both provincial and national government level.*

2.2.2 STAKEHOLDER INTERVIEWS

Data was collected from a range of sources which include, but not limited to the following:

- *Local Municipality offices responsible for spatial planning and GIS.*
- *UThukela Municipality's GIS, LED, Rural development, Environmental offices.*
- *Provincial government office responsible for spatial planning.*
- *Traditional councils/ authorities.*

2.2.3 USE OF EXISTING INFORMATION

The district was affected by the municipal re-demarcation with the advent of the following municipalities: Alfred Duma Local Municipality and Inkosi Langalibalele Local Municipality. The merger of the aforementioned municipalities requires an update of various information which includes but not limited to the local space economy of the joint municipalities. The existing census data is also not a true reflection of the status of the district as it is outdated.

2.2.4 TECHNICAL INVESTIGATIONS

The following technical investigations will be undertaken:

- *Spatial Analysis, and*
- *Environmental Analysis. Workshops were conducted as an important means of harnessing knowledge, sharing information, and building consensus regarding the aims and objectives set out for this planning process. The invitation to IDP workshops was extended to a wide range of stakeholders across the board.*

3. POLICY CONTEXT

3.1 SUSTAINABLE DEVELOPMENT GOALS

The Millennium Development Goals came to an end and it was replaced by the Sustainable Development Goals 2030. The 17 sustainable development goals aim at transforming the world. On September 25th 2015, countries adopted a set of goals to end poverty, protect the planet, and ensure prosperity for all as part of a new sustainable development agenda. Each goal has specific targets to be achieved over the next 15 years. The 17 Sustainable Development Goals and 169 targets, which were announced on the 25 September 2015, demonstrate the scale and ambition of this new universal Agenda. They seek to build on the Millennium Development Goals and complete what they did not achieve. They seek to realize the human rights of all and to achieve gender equality and the empowerment of all women and girls. They are integrated and indivisible and balance the three dimensions of sustainable development: the economic, social and environmental. The Goals and targets will stimulate action over the next 15 years in areas of critical importance for humanity and the planet. The scope of the Sustainable Development

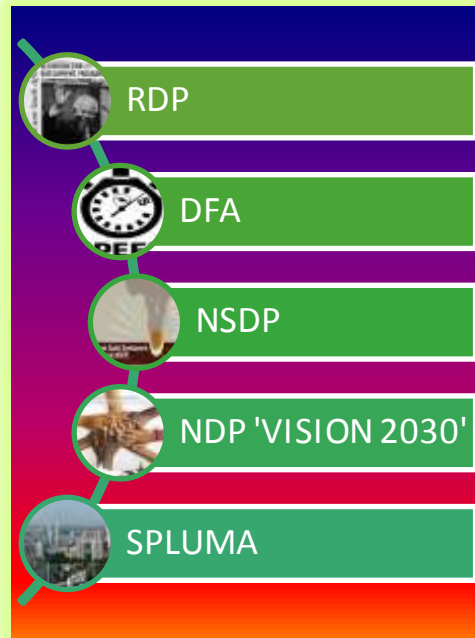
Goals goes far beyond the Millennium Development Goals. Alongside continuing development priorities such as poverty eradication, health, education and food security and nutrition, it sets out a wide range of economic, social and environmental objectives. It also promises more peaceful and inclusive societies. It also, crucially, defines means of implementation. Reflecting the integrated approach that we have decided on, there are deep interconnections and many crosscutting elements across the new Goals and targets.

The 17 Sustainable Goals are as follows:

No.	Objective
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	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

3.2 SPATIAL PLANNING MANDATE



Since the introduction of the democratic dispensation in South Africa, the notion of spatial planning, given effect in the form of spatial development plans and spatial targeting, has gained momentum. This is the case in all spheres of government. At a national level, this focus first emerged within the context of the Reconstruction and Development Programme (RDP) and was given statutory emphasis through the Development Facilitation Act (DFA). Spatial targeting was first built into the Integrated Sustainable Development Strategy (ISRDP) which identified 13 nodal areas. The National Spatial Development Plan (NSDP) was introduced in the early 2000s and has had a profound impact in terms of spatial planning at a national level. It has since been replaced by the National Development Plan 'Vision 2030' (NDP). The NDP is now widely acclaimed as a blue print of the country in terms of development.

On 6 May 2011 the Department of Rural Development and Land Reform published the Draft Spatial Planning and Land Use Management Bill for public comment. This was passed into law and ascended as legislation in August 2013 (Spatial Planning and Land Use Management Act No 16 of 2013 – SPLUMA). It replaced the Development Facilitation Act No 67 of 1995, Removal of Restrictions Act No 84 of 1967, the Physical Planning Act No 88 of 1967 and other laws. SPLUMA provides, inter alia, for a uniform, effective, efficient and integrated regulatory framework for spatial planning, land use and land use management in a manner that promotes the principles of co-operative government and public interest. It provides for and determines development principles, compulsory norms and standards for land use management, promotes sustainable and efficient use of land.

At a provincial level, the Provincial Growth and Development Strategy (PGDS) have been reviewed and had a spatial component on it. More detailed spatial planning guidelines were incorporated into the Rural Development White Paper for KwaZulu-Natal which introduced the Rural Service Centre system (RSC), which is now widely used in the province as an approach to regional spatial planning. The same theme has been carried over to the emerging provincial development policy in the form of Provincial Spatial Economic Development Strategy (PSEDS).

3.3 NATIONAL SPATIAL PLANNING

The National Planning Commission (NPC) was established in 2009 and tasked inter alia with the formulation of a long term strategic plan for the South Africa. In November 2011, NPC had completed the formulation of the National Development Plan 'vision 2030' (NDP). The NDP articulates a long term vision for the country and aim at shaping government's service delivery and development programmes as well as guiding spatial transformation. In addition to this plan, the national government has adopted various sector based policy frameworks. The majority of these have serious implications for spatial planning at a local level. In view of the scope of work, rural/ peri-urban nature and underdevelopment that characterizes UThukela, only the following are considered:

- National Development 'Vision 2030';
- The New Growth Path;
- Comprehensive Rural Development Strategy and the associated programme; and
- The Comprehensive Plan for the Development of Sustainable Human Settlements.

3.3.1 NATIONAL DEVELOPMENT PLAN 'VISION 2030'

The basis for the preparation of this comprehensive national plan is to ensure that the South Africa has clearly positioned itself about what kind of the Country that its citizens live in. This plan recalled nine overarching national challenges are that there are too few people who work, poor standard of education for black learners, poorly located infrastructure (it's also insufficient and under-maintained), spatial pattern that excludes the poor from fruits of development (There are people who live in areas that are still trapped by apartheid legacy), economy is not sustainable because we don't use resources smartly, widespread burden of disease, poor quality of public service and widespread corruption. In addition

the economy is overly and unsustainably resource intensive, failing public health system, uneven and often poor quality public service. It identified strategies for long term (2030) development intervention which covers the following key areas:

- Economy and employment.
- Economic infrastructure.
- Transitioning to a low carbon economy.
- Inclusive rural economy.
- Positioning South Africa in the World.
- Human Settlements.
- Improving education, innovation and training.
- Promoting Health.
- Social Protection.
- Building safer communities.
- Building a capable state.
- Building accountability and fighting corruption.
- Transforming society and uniting the country.

The NDP does not make any specific reference to UThukela; however given the strategic location of the area in relation to Durban and Johannesburg there potential spin offs from the catalytic projects that the area will benefit from. These are Transnet's construction of the main trunk of the new multiproduct pipeline which is now complete, and the Durban and inland terminals which were scheduled for completion in December 2013 (marking the completion of phase 1). These projects will reduce the number of fuel tankers travelling along the Durban/ Gauteng

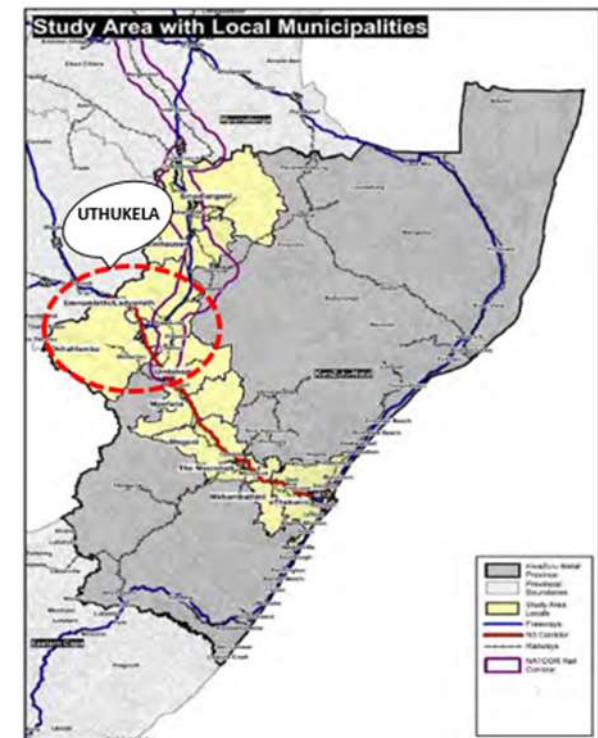
corridor and eliminate the inland fuel supply constraint. Moreover, the pipeline will complement private-sector investments in berths, and allow for investment in handling infrastructure at the port, where bigger pipe racks are being installed to remove bottlenecks.

2.3.2.1 STRATEGIC INFRASTRUCTURE PROJECTS

The country's National Development Plan (NDP): Vision for 2030 supports the need for investment in a “strong network of economic infrastructure designed to support the country's medium and long-term objectives” in order to achieve sustainable and inclusive growth. The New Growth Path (NGP) also identifies infrastructure as one of the key job drivers mainly through four activities, namely; construction of new infrastructure, operation of the new facilities, expanded maintenance and the manufacture of components for the infrastructure programme.

The President of South Africa has recently declared infrastructure development a high priority with the enactment of the National Infrastructure Plan. This plan makes provision for eighteen Strategic Infrastructure Projects or SIP's. The SIP's comprise of 18 Strategic Integrated Projects:

- 5 Geographically-focused SIPs
- 3 Spatial SIPs
- 3 Energy SIPs
- 3 Social Infrastructure SIPs
- 2 Knowledge SIPs
- 1 Regional Integration SIP
- 1 Water and Sanitation SIP



Uthukela District Municipality forms part of the SIP 2: Durban-Free State-Gauteng logistics and industrial corridor. SIP 2 aims to achieve the following objectives:

- *Strengthen the logistics and transport corridor between SA's main industrial hubs.*
- *Improve access to Durban's export and import facilities*
- *Integrate Free State Industrial Strategy activities into the corridor.*

3.3.2 THE NEW GROWTH PATH

The New Growth Path identifies areas where employment creation is possible, both within conventional economic sectors and in cross-cutting activities. It thus identifies “fostering rural development and regional integration” as one of the five key job drivers. The other four are:

- Substantial public investment in infrastructure.
- Targeting more labour-absorbing activities across the main economic sectors - the agricultural and mining value chains, manufacturing and services.
- Taking advantage of new opportunities in the knowledge and green economies.
- Leveraging social capital in the social economy and the public services. A critical element of the New Growth Path is to ensure that the drivers leverage and reinforce each other based on their inter-linkages.

It further notes that while urbanization will continue, a significant share of the population will remain in rural areas, engaged in the rural economy. As such, enhancing rural employment in UThukela requires the preparation of a spatial perspective that sets out the opportunities available and the choices that have potential to form the basis for aligning government spending, infrastructure and housing investment and economic development initiatives.

3.3.3 COMPREHENSIVE RURAL DEVELOPMENT PROGRAMME

The Comprehensive Rural Development Programme (CRDP) acknowledges that the poverty landscape and lack of services in the rural areas of the country has not adequately shifted much since 2001. This is because the areas identified as distressed areas by both ISRDP and other programmes mirror the work done by the Department of Co-operative Government and Traditional Affairs in the State of Local Government Report (2009) and the Municipal Turn Around Strategy. The CRDP is implemented at a national level with the goal to create vibrant, equitable and sustainable rural communities. CRDP seeks to maximize the use and management of natural resources to create vibrant, equitable and sustainable rural communities. This includes:

- contributing to the redistribution of 30% of the country's agricultural land;
- improving food security of the rural poor; and
- Creation of business opportunities, de-congesting and rehabilitation of over-crowded former homeland areas.

In line with the CRDP, UThukela SDF will, in the short to medium term, prioritize the revitalization of rural towns, stimulation of agricultural production with a view to contributing to food security, and aggressive implementation of land and agrarian reform policies. In the long-term, it will provide for the transformation of rural settlements into efficient, generative and sustainable settlements. This includes the protection of natural resources and identification of areas with potential for investment and job creation.

3.3.4 COMPREHENSIVE PLAN FOR THE DEVELOPMENT OF SUSTAINABLE HUMAN SETTLEMENTS

The Comprehensive Plan for the development of Sustainable Human Settlements (August 2004) promotes the achievement of a non-racial, integrated society through the development of sustainable human settlements and quality housing. This program seeks to use housing delivery as a means for the development of sustainable human settlements in support of spatial restructuring. It moves beyond the provision of basic shelter towards achieving the broader vision of integrated, sustainable and economically generative human settlement systems at both local and regional scales. The following are fundamental tenets and underlying principles of this new approach:

- progressive informal settlement eradication;
- promoting densification and integration in urban centres;

- enhancing spatial planning in both urban and rural contexts;
- enhancing the quality and location of new housing projects;
- supporting urban renewal programmes; and
- developing social and economic infrastructure.

3.3.5 SPATIAL PLANNING AND LAND USE MANAGEMENT ACT NO. 16 OF 2013

The role of local government in spatial planning has been re-energized through the introduction of the Spatial Planning and Land Use Management Act No. 16 of 2013 (commonly known as SPLUMA). The intention of this national legislation is to introduce the norms and standards for spatial planning and to specify the relationship between spatial planning and land use management. This is intended to create uniformity and consistency on the manner in which both spatial planning and land use management is practiced within the whole country. Chapter 4 of SPLUMA stipulate the need to prepare Spatial Development Frameworks (SDFs) by all municipalities including the Districts. Part D (19) stipulates that the regional spatial development framework must cover the following minimum issues:

- (a) give effect to the development principles and applicable norms and standards set out in Chapter 2 (see box insert);
- (b) give effect to national and provincial policies, priorities, plans and planning legislation;
- (c) reflect the current state of affairs in that area from a spatial and land use perspective of the region;
- (d) indicate desired patterns of land use in that area;
- (e) provide basic guidelines for spatial planning, land development and land use management in that area;
- (f) propose how the framework is to be implemented and funded; and
- (g) Comply with environmental legislation.

Norms and Standards to reflect

- (a) National policy, priorities, programmes relating to land use management & development
- (b) Social inclusion, spatial equity, desirable settlement patterns, rural revitalisation, urban regeneration & sustainable development.
- (c) Ensure that land development, land use management processes (incl. applications), procedures & timeframes are efficient & effective.
- (d) Include (i) land use pattern analysis, (ii) framework for desired land use pattern, (iii) existing & future land use plans, programmes & projects and (iv) mechanisms for identifying strategically located vacant or under-utilized land and providing access to & use of such land.
- (e) Standardize symbols of all maps & diagrams at an appropriate scale.
- (f) Differentiate between geographic areas, types of land use & development needs; and
- (g) Provide for the effective monitoring and evaluation of compliance with and enforcement of this act

IUDF OBJECTIVE	DISTRICTS INITIATIVE
<p>Policy lever 1: Integrated spatial planning Integrated spatial planning is essential for coherent development. It stimulates a more rational organisation and use of urban spaces, guides investments and encourages prudent use of land and natural resources to build sustainable communities.</p>	<p>Uthukela District Municipality promotes an integrated spatial planning within its family of municipalities through the development of wall to wall schemes. The development of rural and urban schemes and spatial development framework. The wall to wall scheme informs and regulates the land use pattern in the district, whilst the spatial development framework guides and promotes the desired direction of growth.</p>
<p>Policy lever 2: Integrated transport and mobility Integrated transport and mobility is a vital component of South Africa's economic infrastructure investment. It contributes to a denser and more efficient urban form, supports economic and social development, and is crucial for strengthening rural-urban linkages.</p>	<p>In line with this pillar the district municipality as developed an integrated transport plan, which determines the demand for pedestrian safety.</p>
<p>Policy lever 3: Integrated and sustainable human settlements Integrated and sustainable human settlements are key to redressing the prevailing apartheid geography, restructuring cities, shifting ownership profiles and choices, and creating more humane (and environment-friendly), safe living and working conditions.</p>	<p>There are various housing projects taking place in the district. The existing housing policies inform the demand and budget for housing projects.</p>
<p>Policy lever 4: Integrated urban infrastructure An integrated urban infrastructure, which is resource efficient and provides for both universal access and more inclusive economic growth, needs to be extensive and strong enough to meet industrial, commercial and household needs, and should also be planned in a way that supports the development of an efficient and equitable urban form and facilitates access to social and economic opportunities.</p>	<p>UThukela District Municipality has an infrastructure Master plan which was adopted in order to inform the delivery of water infrastructure in the district.</p>
<p>Policy lever 5: Efficient land governance and management Both municipalities and private investors have a vested interest in land value remaining stable and increasing. At the same time, property values reflect apartheid patterns of segregation and mono-functional use, which need to be addressed to promote spatial transformation. Efficient land governance and management will</p>	<p>All local municipalities in the UThukela District Municipality use the land use scheme to regulate land use. The municipalities are currently working towards adopting a wall-to-wall scheme. The municipalities also use the SDF as a strategic document that informs a</p>

contribute to the growth of inclusive and multi-functional urban spaces. 10 Draft Integrated Urban Development Framework	desired spatial pattern one that reflects a democratic landscape.
Policy lever 6: Inclusive economic development The New Growth Path (NGP), which is the backbone of our national economic policy, emphasises the importance of employment creation nationally through specific drivers. These include seizing the potential of new economies through technological innovation, investing in social capital and public services, and focusing on spatial development. Inclusive economic development is essential to creating jobs, generating higher incomes and creating viable communities.	The UThukela family of three local municipalities is guided and informed by LED policies which seek to strengthen the economic muscle of the district. The district is also in a process of reviewing the District Growth and Development Strategy in order to provide an informant on the catalytic projects which aims to bring economic growth in the district.
Policy lever 7: Empowered active communities. Cities cannot succeed without the energy and investment of their citizens. In fact, the very power of cities stems from their unique capacity to bring together a critical mass of social and cultural diversity. This conception of democratic-citizenship is at the core of the 'active citizenship' agenda advocated by the NDP. Empowering communities will transform the quality of urban life. -	The Ingula pumped-storage hydroelectric plant is one if the initiates for improving the supply of electricity in the district. The pumped-storage hydroelectric plant uses water from the upper reservoir to generate electricity during the peak demand periods of the day.

3.4 INTEGRATED URBAN DEVELOPMENT FRAMEWORK

The core elements of the Integrated Urban Development Framework aims to address the development challenges such as urbanisation, unemployment and to improve the quality of life. The vision, mission and strategic goals of the policy are diagrammatically represented below:

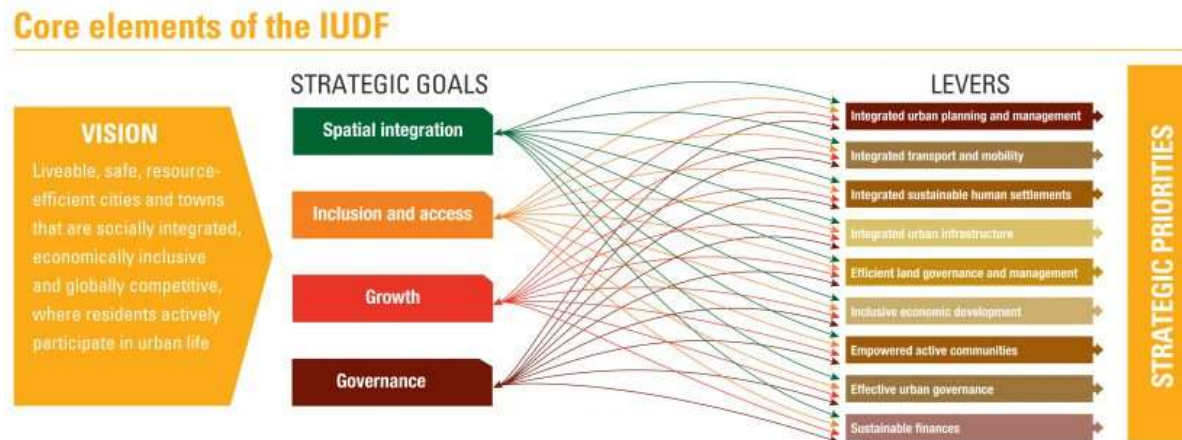


Figure 5

Source: <http://www.cogta.gov.za>

The IUDF also addresses development challenges such as urbanisation, economic development, unemployment and to improve the quality of life.

3.5 PROVINCIAL SPATIAL PLANNING

The spatial economy of KwaZulu-Natal Province is characterized by extreme levels of uneven development and spatially defined dualisms between the three urban commercial industrial manufacturing centres of Durban, Pietermaritzburg, Richards Bay on the one hand, and the poverty stricken and underdeveloped rural hinterland of the former KwaZulu Bantustans (now tribal areas) on the other. As such, the provincial spatial structure is highly inefficient. In response to this, the provincial government introduced the Provincial Spatial Economic Development Perspective (PSEDP) and the newly adopted KwaZulu-Natal Provincial Growth and Development Strategy (PGDS) to guide spatial transformation, growth and development in the short to medium term.

3.5.1 PROVINCIAL SPATIAL DEVELOPMENT VISION

During the mid-2000s, KwaZulu-Natal developed a Provincial Spatial and Economic Development Strategy (PSEDS) in an effort to create a spatial representation of the old Provincial Growth and Development Strategy (PGDS) which was introduced during the mid-1990s. PSEDS identified development corridors and nodes, and characterises these according to the dominant economic sectors. It also identifies agriculture, industry, tourism and service sectors as the main drivers of the provincial economy. It recognizes the strategic location and potential of UThukela District in terms of all the above-mentioned sectors. Ladysmith and Estcourt are classified as Level three (3) Nodes while Bergville is identified as Level 4 node. These are generally acknowledged as the existing formal towns with the requisite infrastructure that was developed to make these service centres or growth points within their local economies. The national routes N3 and N11 are acknowledged as the existing corridors. There is a tourism route proposed along the Ukhahlamba Drakensberg Site, it meanders from Sisonke –Umkungundlovu – UThukela. Another tourism route proposed focusses on heritage tourism hotspots as it meanders from Umtshezi passing Msinga to Nkandla and eventually stops at Mpangeni (i.e. UThukela – Umzinyathi – Uthungulu).

3.5.2 KWAZULU-NATAL GROWTH AND DEVELOPMENT STRATEGY

The KwaZulu Natal Growth and Development Strategy 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.”*

The KwaZulu-Natal Province has revised the development vision as outlined in the recently introduced Provincial Growth and Development Strategy (PGDS). The PGDS is a primary strategy for KwaZulu-Natal that drives growth and development in the Province towards vision 2035. The KZN GDS identifies the following goals:

<i>Goal</i>	<i>Objective</i>
<i>Inclusive Economic Growth</i>	<ul style="list-style-type: none"> • <i>Develop and promote the agricultural potential of KZN</i> • <i>Enhance sectoral development through business retention and through trade and investment</i> • <i>Enhance spatial economic development</i> • <i>Improve the efficiency, innovation and variety of government-led-job creation programmes</i> • <i>Promote SMME and entrepreneurial development</i> • <i>Enhance the Knowledge Economy</i>
<i>Human Resource Development</i>	<ul style="list-style-type: none"> • <i>Improve early childhood development, primary and secondary education</i> • <i>Support skills development to economic growth</i> • <i>Enhance youth and adult skills development and life-long learning</i>
<i>Human and Community Development</i>	<ul style="list-style-type: none"> • <i>Eradicate poverty and improve social welfare services</i> • <i>Enhance health of communities and citizens</i> • <i>Safeguard and enhance sustainable livelihoods and food security</i> • <i>Promote sustainable human settlements</i> <ul style="list-style-type: none"> ○ <i>Enhance safety and security</i> ○ <i>Advance social cohesion and social capital</i> ○ <i>Promote youth, gender and disability advocacy and the advancement of women</i>
<i>Strategic Infrastructure</i>	<ul style="list-style-type: none"> • <i>Development of seaports and airports</i> • <i>Develop road and rail networks</i>

<i>Environmental Sustainability</i>	<ul style="list-style-type: none"> • <i>Develop ICT infrastructure</i> • <i>Ensure availability and sustainable management of water and sanitation for all</i> • <i>Ensure access to affordable, reliable, sustainable and modern energy for all</i> • <i>Enhance KZN waste management capacity</i>
	<ul style="list-style-type: none"> • <i>Enhance resilience of ecosystem services</i> • <i>Unlock the green economy</i> • <i>Adapt and respond to climate change</i>
	<ul style="list-style-type: none"> • <i>Strengthen policy, strategy coordination and IGR</i> • <i>Build government capacity</i> • <i>Eradicate fraud and corruption</i> • <i>Promote participative, facilitative and accountable governance</i>
<i>Spatial Equity</i>	<ul style="list-style-type: none"> • <i>Enhance the resilience of new and existing cities, towns and rural nodes, ensuring equitable access to resources, social and economic opportunities</i> • <i>Ensure integrated land management use across the Province, ensuring equitable access to goods and services, attracting social and financial investment</i>

It provides the province with a rational strategic framework for accelerated and shared economic growth through catalytic and developmental interventions, within a coherent equitable spatial development architecture, putting people first, particularly the poor and vulnerable, and building sustainable communities, livelihoods and living environments. Agricultural Investment Areas mainly around Okhahlamba Municipal Area.

The Department of Cooperative Governance and Traditional Affairs has hosted several workshops in support of the districts initiative to review the current Growth and Development Plan.

3.5.3 KWAZULU-NATAL PLANNING AND DEVELOPMENT ACT NO. 06 OF 2008

The KwaZulu-Natal Planning and Development Act, 2008 (Act No. 6 of 2008) ("the PDA") was introduced by the Planning and Development Commission of KwaZulu-Natal in an effort to have a stronger and legally sound mechanisms to manage development. The PDA directs and regulates planning and development in the Province and ensures that all planning and development decisions occur at municipal level. The PDA replaced previous provincial legislation including the Town Planning Ordinance of 1949, and all its amendments, the Pietermaritzburg Extended Powers Ordinance of 1936, and the Durban Extended Powers Consolidated Ordinance of 1976, the Removal of Restrictions Act of 1967, the Statutory Bodies Period of Office Ordinance of 1985, several proclamations, the KwaZulu-Natal Planning and Development Act of 1998 and its amendments, and the KwaZulu-Natal Rationalization of Planning and Development Laws Act of 2008. Importantly, it also limits the use of the Development Facilitation Act.

While in the past the KwaZulu-Natal Department of Cooperative Governance and Traditional Affairs (previously the Department of Local Government and Traditional Affairs) performed many of the functions emanating from the PDA, these powers are now being transferred to municipalities. Under the PDA, local government is responsible for the day to day operations and management and the primary decision making in relation to the planning function. Only appeals are referred to the Provincial Tribunal. The Province performs a monitoring and support role to municipalities and develops and maintains the planning norms and standards.

This legislation focusses on the development of the wall-to-wall land use management schemes which are guided by the Spatial Development Framework. It also set standards for processing the development applications within the planning scheme and those that are outside of the planning scheme. Although this legislation has limited scope in terms of the SDF, however it is considered to be a very important milestone after the adoption of the said plan. This Act was repealed by the Spatial Land Use Management Act 16 of 2013.

3.6 DISTRICT SPATIAL PLANNING PERSPECTIVE

3.6.1 INTEGRATED DEVELOPMENT PLANNING

UThukela District IDP outlines the development and service delivery programmes within its area of jurisdiction. It acknowledges the diverse character as well as potential of the area, identify key development challenges, and establish programmes to address these issues. The following are some of the distinguishing features of UThukela:

- Urbanisation mostly in Ladysmith as well as towns of Estcourt and Wembezi Township;

- Unemployment and poverty remain problematic particularly due to the closure of mines and stagnant industrial and agricultural sector;
- service and infrastructure backlogs; and
- Opportunities that can be developed on the sectors such as agriculture and tourism sectors.

The district has prepared a number of sector plans in order to respond to the above mentioned challenges and ensuring that the IDP is implementable. These include the Water Service Development Plan, Electricity Services Development Plan, Local Economic Development Strategy, Agricultural Development Strategy, Tourism Development Strategy and Cemetery Plan. The local municipalities have also developed the detailed local plans which include spatial development frameworks and associated plans.

3.6.2 DISTRICT SPATIAL PLANNING

UThukela District Municipality has developed a Spatial Development Framework as an IDP sector plan. Ideally, the district SDF should provide a framework for a desired spatial pattern and the development of local municipality, to address with cross-boundary planning concerns and spatial implications of the exclusive powers and functions of the district municipality. The district SDF adopts a service centre approach and establishes a clear hierarchy of centres with Ladysmith being the primary centre or the hub. Ladysmith is the largest urban centre in the district and it has been growing in importance as the primary economic core. It is characterised by a well-developed and diversified urban economy, comprising most of the industrial activity in the district. As the administrative centre, it provides a range of higher-order services for the whole district.

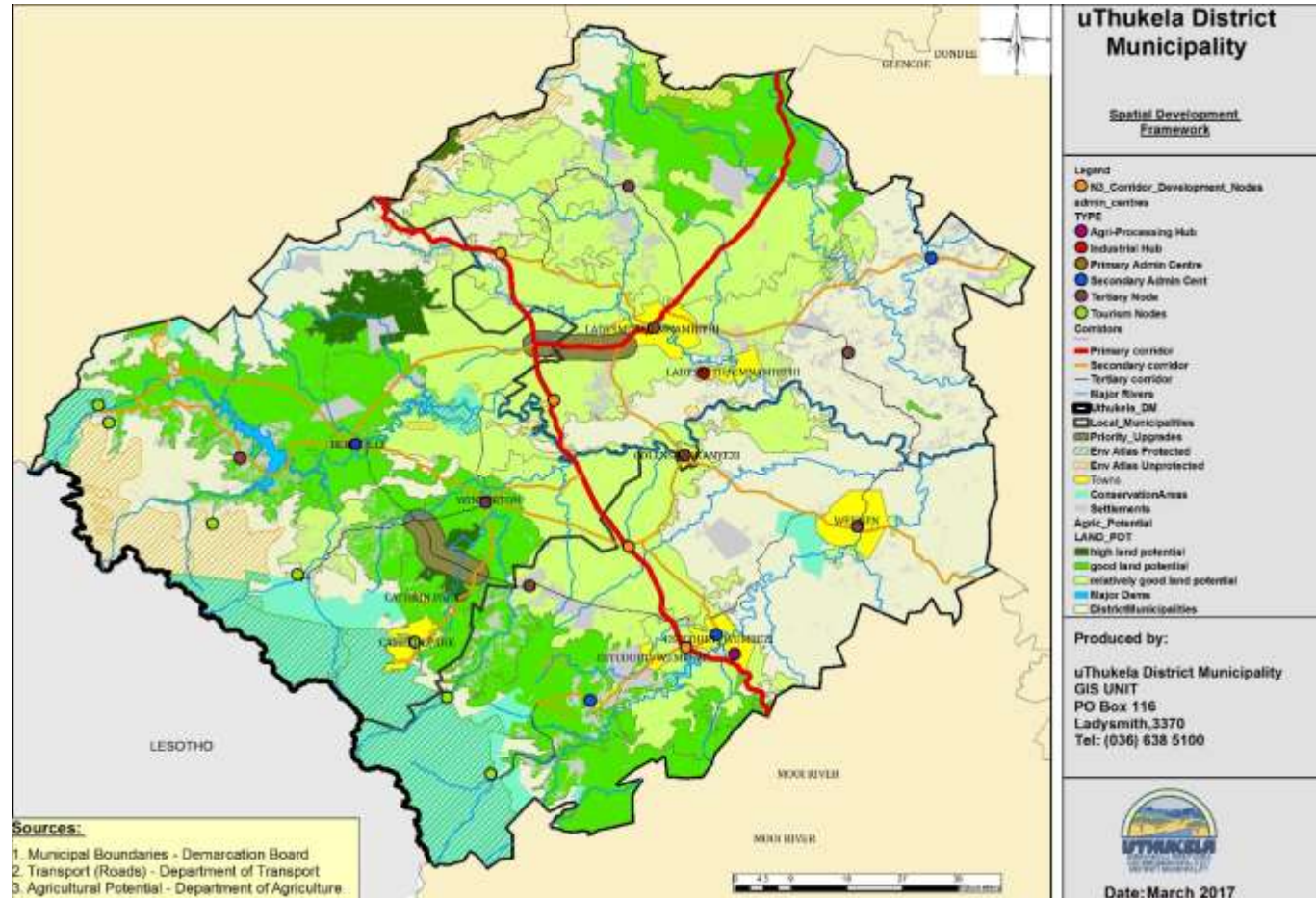
Ladysmith is an important transport hub, as it lies at the intersection of many secondary roads leading to the N3, the Drakensberg as well as destinations beyond the district itself. Most of the secondary and rural settlements in the district have strong functional links with Ladysmith and can, to some extent, be considered dormitory suburbs of the district's economic core. It leads the district with respect to the provision of services, having good roads, a water reticulation network, sewerage system, electricity, recreational facilities and other services.

3.6.3 PLANNERS FORUM

Spatial Planning is a shared function between UThukela District and its family of Local Municipalities. The District Planners Forum has been formulated and currently functions as a body that targets harmonious cooperation between the district and its locals in terms of achieving the development objectives and unlocking bottlenecks in planning within the district. The District Planners Forum provides a platform for Planners to deliberate on development challenges, solutions and opportunity for growth in UThukela District. It also provides a platform for Planners to implement development principles which are cited in the Spatial Land Use Management Act. It also capacitates Planners with development planning skills.

3.6.4 DISTRICT ENVIRONMENTAL MANAGEMENT

UThukela District Municipality had received R 1,5 Million from Department of Agriculture, Environmental Affairs & Rural Development (DAERD) to develop uThukela district Environmental Management Framework (EMF). The service provider has been appointed to develop the plan. An EMF allows environmental opportunities & constraints to be examined at a regional level to influence project specific decisions before they are made. This is done in fulfilment of the requirements of The National Environmental Management Act of 1998.



It is also intended to promote sound environmental management and promote sustainable land use practices within the district. It provides a comprehensive picture of the status of the environment, and outlines a strategic direction for environmentally sustainable development and effective management of the natural resources.

3.6.5 DISTRICT GROWTH AND DEVELOPMENT STRATEGY

UThukela District Municipality has compiled and adopted a District Growth and Development Strategy which aims to unlock the growth potential of the district with specific focus on the districts economic growth. In the 2017 the District aims to amend the DGDS and has collected data from local municipalities within its boundary in order to provide an update on pending projects and new projects within the district. The DGDS will also identify catalytic projects which will have major economic spinoffs in the district. Various stakeholders will be consulted in accordance to the goals that are cited in the PGDS.

3.6.6 DISTRICT TOURISM STRATEGY

UThukela District Municipality is reviewing the district tourism strategy which was last adopted in 2013. The district tourism strategy aims to enhance the tourism industry in order to stimulate the economy of UThukela District municipality. The strategy seeks to identify strategies that will sustain the global position of this district. It also integrates the district tourism programme with that of provincial and national sphere. Overall the strategy intends to unlock latent tourism economy in UThukela District Municipality.

3.6.7 DISTRICT LOCAL ECONOMIC DEVELOPMENT PLAN

The current Local Economic Development (LED) Plan is dated 2013. However, the district is in the process of reviewing the LED plan. The main objective of the LED plan is to unlock the economic potential of the district. The LED plan also seeks to enhance the districts economic contribution in the province, identify core economic contributors in the district and to identify projects and programs which support the resilience of the districts economy.

3.6.8 DISTRICT RURAL DEVELOPMENT STRATEGY

UThukela District Municipality in collaboration with the Department of Rural Development and Land Reforms is currently amending the new Rural Development Strategy. The strategy aims to integrated rural areas in the district to the development agenda and strives to meet a sustainable development of rural areas in order to address social service challenges in rural areas and ultimately to strengthen the role of rural communities in the economic development of the district.

3.7 IMPLICATIONS FOR THE UTHUKELA SDF

The implications for the abovementioned discussion can be drawn as follows:

- The NDP does not identify specific projects for UThukela District, however the area stands to benefit from infrastructure upgrade that is targeted for Durban and Johannesburg. This infrastructure is targeted at improving private sector investment (port infrastructure)
- Uthukela has also been identified for a range of initiatives that emanate from the national and provincial policy directives. These include small town rehabilitation (i.e. Weenen and Ladysmith), National Partnership Development Grant (Weenen) and has benefited from DBSA Developmental Grants (i.e. Ntabamhlophe Commercial Precinct).
- There is a tourism route proposed along the Ukhahlamba Drakensberg Site, it meanders from Sisonke –Umgungundlovu – UThukela. Another tourism route proposed focusses on heritage tourism hotspots as it meanders from Inkosi Langalibalele passing Msinga to Nkandla and eventually stops at Mpangeni (i.e. UThukela – Umzinyathi – Uthungulu).
- The new Provincial Growth and Development Strategy has identified Ladysmith is a Value Adding Area; Bergville, Winterton and surroundings are Economic Support Area; Most areas around Ekuvukeni are considered to be Social Investment Areas; Priority Conservation Areas: including Drakensberg and Nature Reserves in Weenen and Bergville; and Agricultural Investment Areas mainly around Okhahlamba Municipal Area.

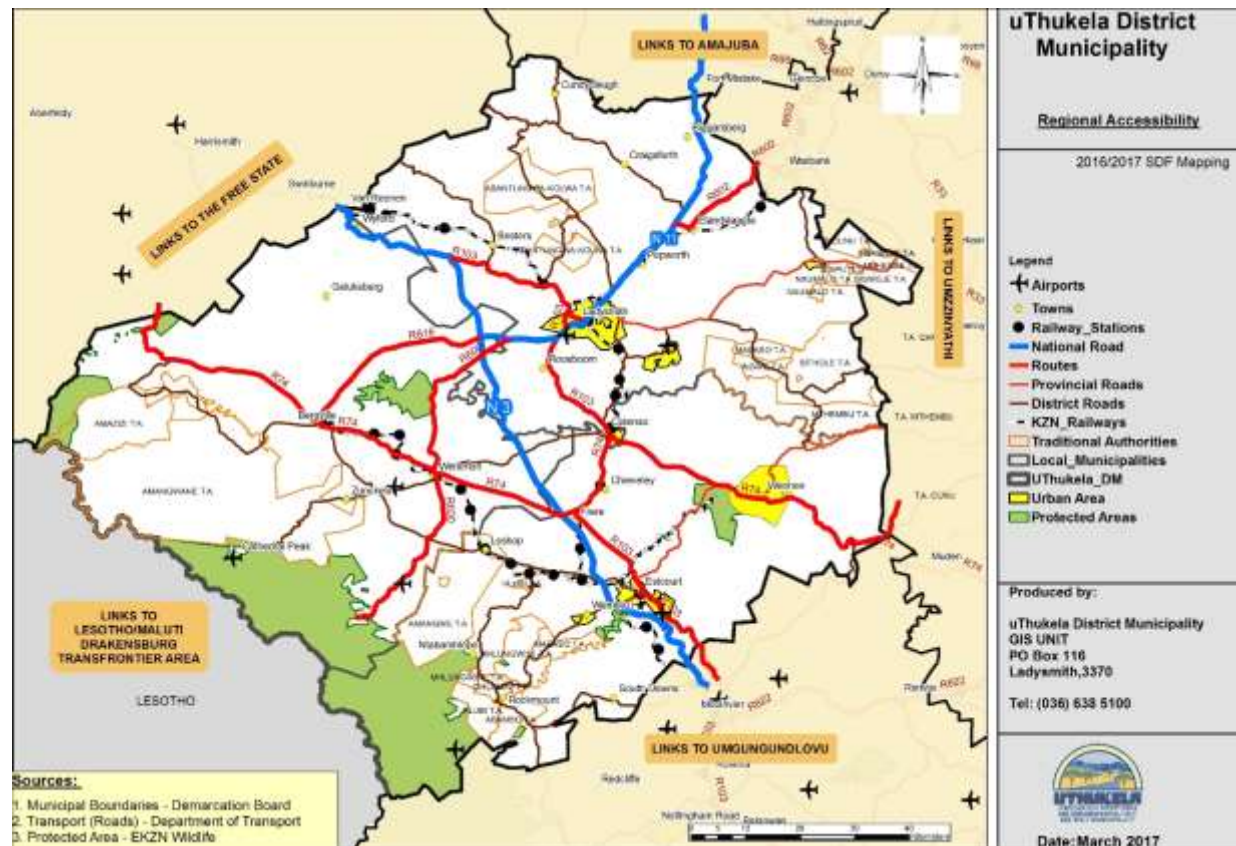
The District Plans have acknowledged that urbanization mostly in Ladysmith as well as towns of Estcourt and Wembezi Township; unemployment and poverty remain problematic particularly due to the closure of mines and stagnant industrial and agricultural sector; drastic service and infrastructure backlogs; and opportunities that can be developed on the sectors such as agriculture and tourism sectors.

4. PROVINCIAL CONTEXT

4.1 REGIONAL ACCESS

The map herein seeks to demonstrate the UThukela District regional linkages and the table below tabulates the strategic importance thereto. These cross boundary linkages and main entry access points into the district indicates the level of accessibility into the district. UThukela is highly accessible and linked to both the Provincial and National economic centres by well-established Provincial and National road networks.

UThukela District Municipality has two major economic corridors, i.e. N3 and N11. The N3 bisect the district from a south-easterly direction from Durban via Umgungundlovu district municipality and exits in a north-westerly direction linking the district via the Free State Province to Johannesburg. The N11 connects Ladysmith to Newcastle in the Amajuba District Municipality and to further areas in the north in Mpumalanga Province.



It is deemed prudent to note that uThukela DM acknowledges the cross border linkages and potential to engage meaningful relationships and actively involving the district in cross boundary agendas for example, the Maloti-Drakensberg Route. A key international linkage to be emphasized is through the Maloti Drakensberg Trans Frontier Conservation Area and Maloti-Drakensberg Route which is of international and national imperative. Other key linkages are to the Battlefields in Amajuba and UMzinyathi DMs, and the Midland Meander in uMgungundlovu DM. Another key cross boundary linkage is to the Free State via the R74 which is a major throughway for tourists coming from Free State and Gauteng.

The corridor from Pomeroy to Majaqula links with Alfred Duma LM from Indaka Town , with areas across UMzinyathi LM and have potential to serve as a major tourist access routes to the Zulu Culture and Heritage Route. Other important roads linking the local municipalities and towns within UThukela such as Estcourt, Winterton, Bergville, Cathkin Park, Weenen, Colenso, and Ladysmith are the R616, R600, R602, R103 and R74. Not only does uThukela have strong inter-regional road linkages, but strong rail linkages as well. As seen from the Map above, there are existing rail lines and networks traversing uThukela. There is the Johannesburg-Durban electrified main railway line passing through UMtsheni, through Alfred Duma LM to the Free State and Amajuba. The railway line also traverses Imbabazane and Okhahlamba Local Municipalities.

STRATEGIC IMPORTANCE	
MAIN ACCESS ROUTES	
N3	<ul style="list-style-type: none"> • Major passenger and freight route linking main economic centres of Gauteng and Durban, • Sustained through traffic, • Linkage to uMgungundlovu DM in the south and Free State to the north of uThukela, • N3 Gateway affiliation and institutional arrangements geared toward tourism. • Key tourism nodes linkage: Midlands Meander in uMgungundlovu DM
N11	<ul style="list-style-type: none"> • Major alternate route to Gauteng through uThukela, • Link from uThukela to Amajuba DM.

R74	<ul style="list-style-type: none"> • Major link to Free State through Okhahlamba LM • Link to Sterkfontein Dam Nature Reserve • Linkage to uMzinyathi DM through Inkosi Langalibalele LM
R103	<ul style="list-style-type: none"> • Link to Midlands Meander Tourism node, • Important inter-district link leading to R74 and joining the N3.
R600	 Inter-district link from N11 through Winterton to Bergview
R616	 Important link from R74 in Okhahlamba to N11 leading to Emnambithi

The table above shows the strategic importance of the main regional access routes.

- **Accessibility:** The region sits strategically as a major intra-national linkage between Gauteng and Durban on the N3 and Newcastle, Ladysmith and Gauteng on the N11. It is also strategically located to link the entire province to the Northern Drakensberg through to the Free State and the Kingdom of Lesotho. On the east the R33 links it to the Battlefields Route.
- UThukela has not benefited from Provincial Priority Corridors since there are existing corridors in the district. These are major transport routes that transverse the district: the N3, the N11 and R74.
- **Durban to Johannesburg:** The N3 is a national road linking Durban and Johannesburg. It cuts through Estcourt and Okhahlamba. The disadvantage is that the N3 does not translate economic benefits to these small towns of the district. For instance there are claims the N3 took away business from Estcourt ever since it was constructed. The N11 route from Ladysmith to Volksrust, the R23 from Volksrust to Heidelberg, the R103 route [the old road] which runs parallel to the N3 for long sections and provides an alternate route.
- **Route to the Berg and the Free State:** The most prominent road is the R74 traversing the municipal area in an east – west alignment, linking the towns of Bergville and Winterton to the N3 and N6 roads. The most important feature of R74 is that it facilitates tourist movement from KZN coastal region, to the Free State and Gauteng. It is important to note that the R74 links Uthukela to Umzinyathi District through R33 via Weenen to Greytown.
- The R33 is a major link of the Battlefield tourism economy in the region. Other prominent roads facilitating traffic movement to tourist destinations within the Drakensberg are the R616 and R600.
- The R616 is the main route from Ladysmith to the Northern Drakensburg, and the R600 links Ladysmith to the Central Drakensburg. Bergville is also connected to Estcourt by rail. The access roads within uThukela are also considered to be of major importance, as community access roads are in poor condition. This limits the level of health and social services that can be delivered to rural communities and this impact on the competitiveness of the district as one of the indices of competitive advantage is high levels of healthcare.
- The other mode of transportation in UThukela region is rail, which serves to connect major national towns from the Port of Durban to Gauteng. Rail provides an alternative passenger and freight service to road transport.
- Public transport is limited mainly to buses and taxis to ferry passengers across the district and beyond.
- No major route as discussed above provides economic relief to the rural settlements. Only the R74 cuts through few rural settlements just after the town of Bergville. This effectively

- *excludes rural settlements from the district and provincial economy. The PSEDs also identifies Ladysmith, Newcastle and Port Shepstone in the south as important secondary nodes of industrial development. The N11 presents an alternative route from the N3 from Ladysmith through to Newcastle to Johannesburg.*

5. CROSS-BORDER ALIGNMENT ISSUES

UThukela District is one of the cross-border municipalities within the province. It shares borders the Kingdom of Lesotho, Free-State Province and three districts within KwaZulu-Natal Province (Amajuba, Umzinyathi and Umgungundlovu District Municipalities). This chapter is intended to establish the spheres of influence (spatial and physical) that impact on UThukela District given its strategic position around this cross-provincial spatial economy. It is also intended to ensure that there is no disharmony between proposals that are suggested by UThukela SDF and its neighbouring areas. It is presented in the form of an analysis of alignment of issues between UThukela and the neighboring areas (country and province) as well as the districts municipalities within KwaZulu-Natal provinces.

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5.1 KINGDOM OF LESOTHO

5.1.1 MOKHOTLONG DISTRICT MUNICIPALITY

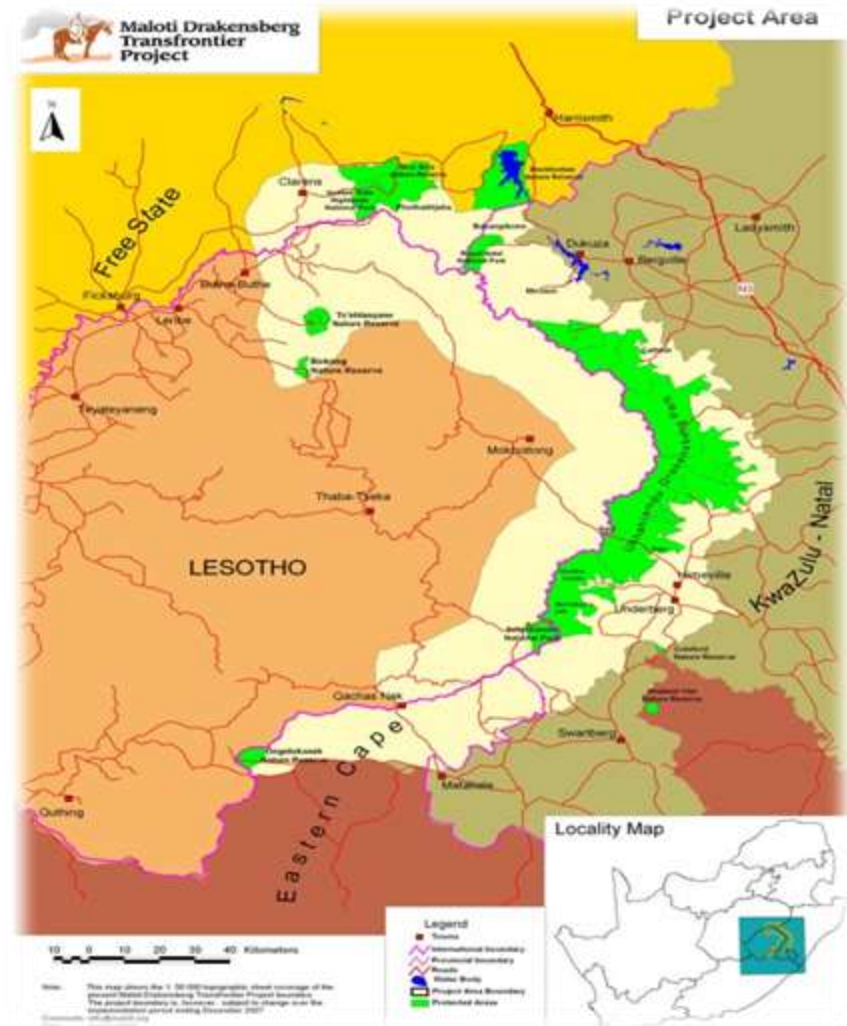
UThukela District Municipality shares borders with Mokhotlong District Municipality in Lesotho. Mokhotlong is approximately 4 075 km² and has a population of 96 340 people. At an economic point of view, it is one of the poorest and most remote areas of Lesotho. It is mostly rural with only one town known as Mokhotlong. The economy of Mokhotlong is constrained by its distance and relative isolation from other economic nodes within Lesotho. Travel and transport costs into and out of Mokhotlong are very high. The reliance in the Mokhotlong District on imported goods from South Africa places great importance on its neighbouring areas such as UThukela.



The central spatial planning initiative between UThukela and Mokhotlong is Maloti-Drakensberg Transfrontier Project and the underlying principle is to protect the integrity of Drakensberg Mountain. The Maloti-Drakensberg Transfrontier Project (MDTP) is a joint initiative between the Kingdom of Lesotho and the Republic of South Africa that seeks to establish institutional linkages in order to enhance the conservation and sustainable development for the natural and cultural resources of the Maloti-Drakensberg mountain bioregion. The project area extends from Clarens in the Free State through to Matatiele in the Eastern Cape and encompasses numerous formally protected areas, including the uKhahlamba Drakensberg Park that is a World Heritage Site. In addition to this, there are extensive tracts of community and privately owned land that give the initiative the distinctive characteristics of a biosphere reserve. The objectives of the project are:

- *Architectural, archaeological and living heritage conservation and preservation;*
- *Historical and cultural research, surveys and mapping;*
- *Development of heritage sites by providing the necessary spatial reference framework to aid decision making;*
- *Biodiversity conservation and eco-tourism development of the Maloti-Drakensberg Transfrontier Project.*

The Maloti-Drakensberg Transfrontier Conservation and Development Area covers 14 740 km² of the mountains that straddle the north-eastern border between Lesotho and South Africa. It comprises of a transboundary World Heritage Site composed of the Sehlathebe National Park in Lesotho and the uKhahlamba Drakensberg National Park in South Africa.



These mountains form the highest peaks in the sub-region, and support unique montane and sub-alpine ecosystems. The area has spectacular scenery and is an important centre of endemism for montane plant species. It is also home to the greatest outdoor gallery of rock art in the world, with thousands of images painted by the San people. The area is furthermore the most important water catchment area for the people of Lesotho and South Africa. Two of the largest civil engineering projects in southern Africa, the Tugela-Vaal Scheme and the Lesotho Highlands Water Project carry water from the mountains to the economic powerhouse of Africa, the province of Gauteng.

The World Heritage Committee of the United Nations Educational, Scientific and Cultural Organization (UNESCO) has inscribed Lesotho's Sehlabathebe National Park as an extension to the uKhahlamba Drakensberg World Heritage Site in South Africa and it will now to be named the Maloti Drakensberg Transboundary World Heritage Site. The 37th session of the UNESCO World Heritage Committee inscribed the Sehlabathebe National Park of Lesotho on the World Heritage List on Saturday, 22 June 2013.

This is Lesotho's first World Heritage Site. Cambodian Deputy Prime Minister Sok An, chairman of the session, extended congratulations to Lesotho on the inscription of the mixed natural and cultural property, which is Sehlabathebe National Park, on the World Heritage List. Sehlabathebe National Park's African Alpine tundra ecosystem, with its 250 endemic plant species, significantly enhances the value of uKhahlamba Drakensberg Park. It also features important rock paintings made by the San people who had been living on the site for 4 000 years. Lesotho nominated the park for the World Heritage List in 2008.

ALIGNMENT	CHALLENGE	SDF INTERVENTION
Drakensberg		
	<p>Serious problems that are currently facing the Drakensberg mountains, include:</p> <ul style="list-style-type: none"> • <i>Overgrazing as a result of poor range management;</i> • <i>Uncontrolled burning;</i> • <i>Encroachment of human settlements;</i> • <i>Accelerated Soil erosion;</i> • <i>Alien and invasive species;</i> • <i>Destruction of Cultural/National heritage sites;</i> • <i>Overexploitation of biological resources and destruction of wetlands;</i> • <i>Cross border stock theft; and</i> • <i>Acute poverty in the rural areas.</i> 	<p>Interventions:</p> <ul style="list-style-type: none"> • <i>Focus future development within nodes not on protected areas.</i> • <i>Protection of cultural heritage and historical sites, and protected areas.</i> • <i>Initiatives to benefit local communities, for example: ecotourism and conservation projects.</i> • <i>Any development or initiative in the Drakensberg must ensure community involvement and capacity building at all levels to ensure sustainability.</i> • <i>The unnatural disturbance of ecosystems and loss of biological diversity are avoided, or , where they cannot be avoided, are mitigated;</i> • <i>Pollution and degradation of the environment are avoided, or, where they cannot be avoided, are mitigated;</i> • <i>The unnatural disturbance of landscapes and sites that constitute the cultural and natural heritage South Africa are avoided, or, where it cannot be avoided, is mitigated, and that the cultural and natural heritage of the country must be enhanced;</i> • <i>Waste is avoided, or where it cannot be avoided, minimized and re-used or recycled where possible and otherwise disposed of in a responsible manner;</i>

		<ul style="list-style-type: none"> • <i>The use and exploitation of non-renewable natural resources is responsible and equitable, and takes into account the consequence of the depletion of the resource;</i> • <i>The development, use and exploitation of renewable resources and the ecosystems of which they are part do not exceed the level beyond which their integrity is jeopardised;</i> • <i>A risk-averse and cautious approach is applied, which takes into account the limits of current knowledge about the consequences of decisions and actions;</i> • <i>Negative impacts on the environment and on the environmental rights of the people must be anticipated and prevented, and where they cannot be prevented, must be mitigated;</i>
Stock Theft	<p>Community livestock farming along the Injisuthi and uThukela river valleys is mixed herds with Bonsmaras and Bonsmara crosses predominating. The closer one comes to the Drakensberg the greater the threat of theft. Some farmers lose up to five head of cattle per year, representing losses of between R 25 000.00 and R 30 000.00 each per annum. Local thieves, working in collaboration with Lesotho rustlers drive the stolen cattle to the foot of the passes, where the rustlers then drive the cattle up the passes into Lesotho.</p>	<p>Tier 1: The erection of security border fences fitted with monitors to detect any efforts to cross the border between South Africa and its neighbouring Lesotho. As a further measure to prevent any border crossing static observation posts will be established on high ground on the borderline between South Africa and Lesotho.</p> <p>Tier 2: It comprises the area from the borderline up to 10 km into South Africa. This serves as the operational zone for the SANDF when fully deployed) and SAPS members on detached duty until replaced by SANDF deployments. The following activities are being increased in this area:</p> <ul style="list-style-type: none"> • Vehicle patrols • Foot Patrols • Road Blocks • Stop and search operations

		<ul style="list-style-type: none"> • Mobile Operations • Joining boarderline operations with Lesotho
Development of a Drakensberg Cable Car	<ul style="list-style-type: none"> • <i>The project will unlock the tourism potential of UKhahlamba-Drakensberg region by extending access to the escarpment to a broader range of tourists and enhance the competitiveness of the province with regard to adventure tourism.</i> • <i>The project will serve as catalytic project to attract more domestic and international visitors to the Drakensberg region. The project will extend across the tourism value chain and the other economic sectors that supply services to the tourism industry to the economic benefit of the province.</i> 	<p>Recommended Road Upgrades for the Cableway</p> <ul style="list-style-type: none"> • <i>R74 from R712 to Bergville</i> • <i>Gravel Road through Busingatha (currently being hard topped)</i> <p>These upgrades deal directly with the requirements for accessing the proposed site from both Gauteng and the Free State or from KwaZulu-Natal.</p> <p>Basic summary of major infrastructural requirements</p> <ul style="list-style-type: none"> • Upgrade of main road linking the Eastern Free State • Tarring of the small dirt road leading to the proposed site • Provision of signage and major intersections • Construction of parking space at the proposed site • Extension of water and electricity supply to the proposed site

5.2 FREE-STATE PROVINCE

5.2.1 THABO MOFUTSANYANA DISTRICT MUNICIPALITY

UThukela District shares administrative boundaries with Thabo Mofutsanyana District Municipality in Free State Province. The process to obtain an SDF from Thabo Mofutsanyana District is still underway. This will assist in terms of assessing cross-border alignment. Thabo Mofutsanyana District is one of the five (5) districts that exist within the administrative boundaries of Free State province. It has a total population of 736 238 people and a land surface area of 33 269 km². The municipality is primarily agricultural in nature and most households are found in the rural areas. The mountainous Eastern Free State with the Drakensberg and Maluti Mountains bordering Lesotho, KwaZulu-Natal and the Eastern Cape, also offer some of the most scenic and attractive tourism attractions in the region. The district is the second smallest contributor to the Free State's GDP with Community Services, financial services and wholesale, retail and trade being the main contributing sectors. The district furthermore, has the second smallest annual importing and exporting value for the five districts. The export trend of the district has however been increasing gradually since 2004/05. The dominant exporting sector is the manufacturing sector followed by the agricultural sector.

The main commodities are 'other chemicals', and man-made fibres, followed by basic chemicals. Due to its regional characteristics, the approach to the Eastern Free State is two-pronged: on the one hand agri-beneficiation and, on the other hand, tourism development. As a result of its strong contribution to the country's total field crop harvest, the Free State is often labelled as the bread basket of SA. The production of wheat and grain sorghum, sunflower seeds, maize, wool, mohair, milk, cream and vegetables, is complimented by major investments in livestock production. Free State farmers also account for large percentages of beef and mutton production.

The main centres in the district are Harrismith, Puthaditjhaba, Bethlehem, Ficksburg, Senekal, Reitz and Warden. The most densely populated local municipality is Maluti-a-Phofung which contains 55,5% of the district's total population. The Municipality is located within a rural area in the eastern Free State and also includes the former homeland of Qwa-Qwa. It was also declared a Presidential Node in the early 2000s. Thabo Mofutsanyane has the third largest population of all District Municipalities in the Free State, contributing 26.45% to the total population of Free-State Province.

5.3 KWAZULU-NATAL PROVINCE

5.3.1 AMAJUBA DISTRICT SDF

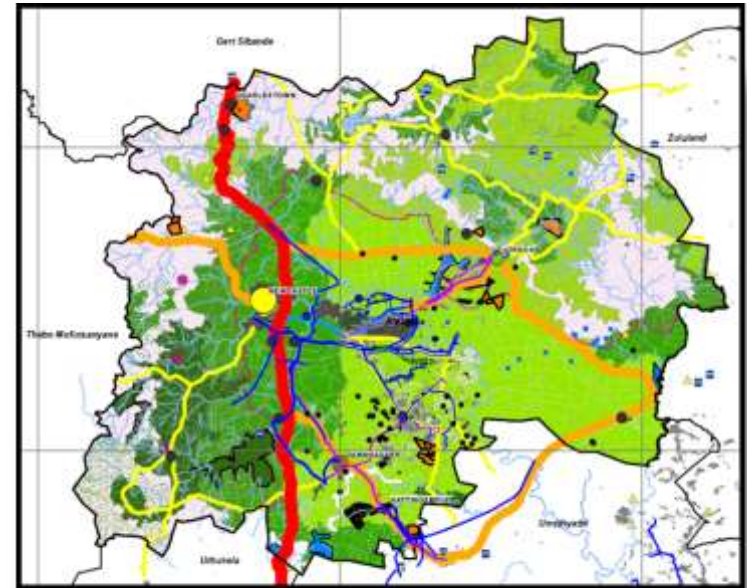
Amajuba District Municipality is located on the north of UThukela. It comprises of Newcastle, Emadlangeni and Dannhauser local municipalities. The main transportation routes linking the district to its surroundings, is the N11. This is also an alternative route to Johannesburg from Durban. The R34 bisects the district in an east-west direction and provides a linkage from the port city of Richards Bay to the interior. The district has a total surface area of 6 910km², it is divided into Newcastle Municipality which occupies 1 855 km², Emadlangeni Municipality which has a surface area of 3539 km² and Dannhauser Municipality which occupies 1516 km².

It comprises of a total population which is estimated at 499 839 people who are accommodated on 110 963 households. Newcastle has the highest population which is estimated at 363 236 people (84 272 households) followed by Dannhauser 102 161 people (20 439 households) and Emadlangeni with 34 442 people (6 252 households).

The key issues of harmonization include the following:

- *N11 – both the SDFs must identify this route as a primary corridor.*
- *Mountain Escarpment Corridor – this will be also acknowledged by UThukela SDF given the importance of maintaining the integrity of Drakensberg Buffer Zone.*
- *High Potential Agricultural Land – The high potential agricultural land along N11 and Amajuba boundary will also need to be promoted on the side of UThukela District Municipality.*

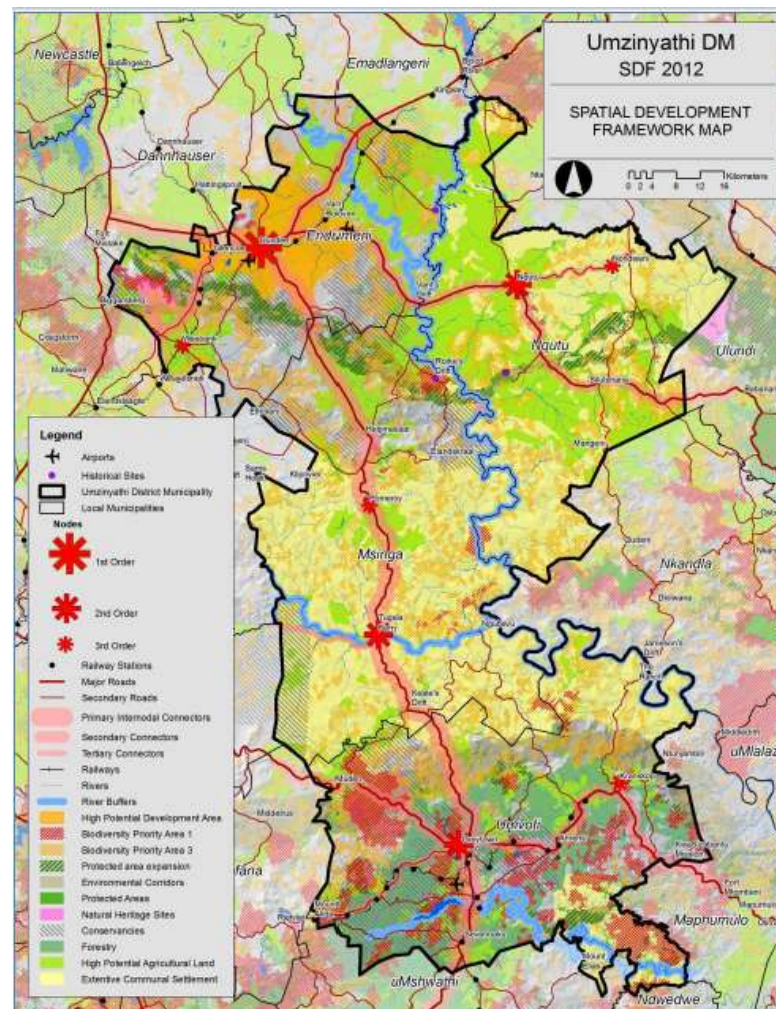
The SDF of Amajuba stated that, the key economic activities that are found within UThukela are similar to those found in Amajuba. However UThukela enjoys much stronger competitive advantages in terms of regional economy with the N3 and N11 traversing within it as well as a larger part of the Drakensberg Heritage Site.



5.3.2 UMZINYATHI DISTRICT SDF

UThukela shares the eastern boundaries with UMzinyathi District Municipality. There are a number of issues that emanated from UMzinyathi SDF which will need to be harmonized with UThukela District SDF. These are:

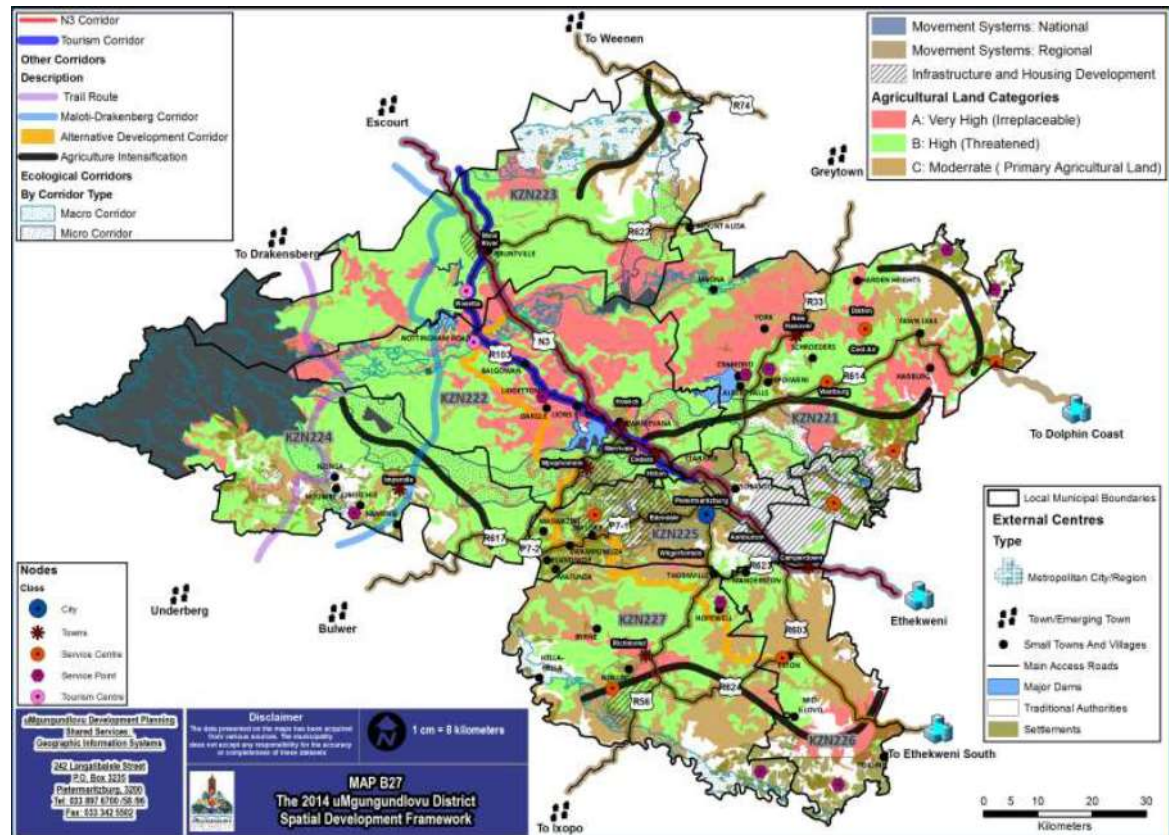
- *Maintenance of Biodiversity 1 – UMzinyathi SDF identified areas of biodiversity 1 along Biggarsberg which extends to Matiwaneskop. The same ecosystem is found in Mount Alida and it extends to Rietvlei. There are currently no formal protected areas in this corridor or any indication that conservation is actively promoted. Areas with a significantly high biodiversity value expressed in the number of species and sensitive environments as identified through extensive research by Ezemvelo KZN Wildlife. These areas are most often located in close proximity to the identified Conservation Corridors and may serve as an additional buffer to these corridors. These areas too are not (at a provincial level) proposed as absolute “no-go” areas, but are identified to indicate areas where extensive densification would be discouraged and sensitive development promoted.*
- *Maintenance of Biodiversity 3 – this is also a cross-border biodiversity which extend from Helpmekaar to Etholeni.*
- *Conservancies – there are a number of conservancy areas towards the west of Tugela Ferry and Keats Drift. These also extends to UThukela. UMzinyathi SDF encourages the promotion of the concept of conservancies created by private landowners. These conservancies are often linked to game farming, lodges, and tourism in general.*
- *Extensive Communal Settlements – these are found on the boundary of Msinga Municipality and are most likely to extend to the Indaka section of Alfred Duma Local Municipality given the similar tenure arrangements that characterizes these two municipalities.*



5.3.3 UMGUNGUNDLOVU DISTRICT SDF

UThukela District shares the southern boundaries with UMgungundlovu District Municipality. Inkosi Langalibalele and Mpofana Local Municipalities are directly affected by this location. These municipalities share the common characteristics in terms of land use and tenure arrangements. The issues that were identified by UMgungundlovu SDF which UThukela should consider as part of alignment include the following:

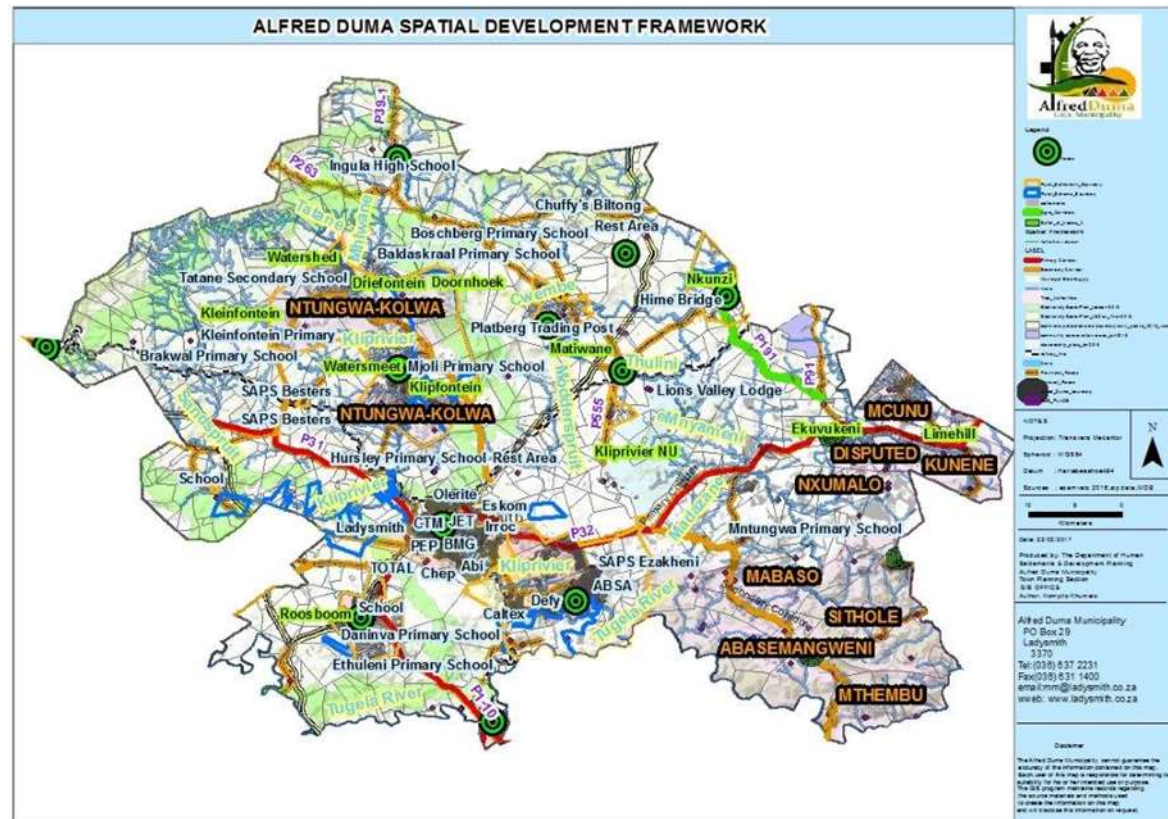
- *N3 as a National Movement System.*
- *R103 as a Tourism Corridor.*
- *R74 as a Regional Movement System*
- *Very agricultural land from the farms located towards the north of Mpofana to the farms located on the south of Umtshezi.*
- *Trail Routes along the Drakensberg.*
- *Maluti – Drakensberg Corridor.*
- *Macro ecological corridors.*



5.4 INTERSPHERE ALIGNMENT ISSUES

5.4.1 ALFRED DUMA LOCAL MUNICIPAL SDF

Alfred Duma LM is a product of the amalgamation between Emnambithi/Ladysmith LM and IndakaLM. Ladysmith town is a primary node of the local municipality. The strategic location of Ladysmith has a strong influence on regional channels of investment, movement and the structuring of the regional spatial framework for growth and development. The area boasts a viable infrastructure necessary for the needs of a diverse range of stakeholders, from government to big business to small enterprises. However, the economic strength of Ladysmith is derived not simple from within the area, but complex interdependencies between the town and its hinterland. Ladysmith town plays a significant role within the municipal area and UThukela District as a whole. It is an administrative, service and main economic center with a threshold that covers the full extent of the district municipality area and beyond. It is a link with other towns within the district as well as the major provincial centers and beyond. As such, the town should be planned as a regional hub and be structured and managed in a manner that enable it to perform its functions efficiently and effectively.



Ladysmith is the commercial center for a large farming district and serves as a major shopping center for towns such as Colenso, Glencoe, Bergville and Dundee. Significant cross-boundary issues between the UThukela District Municipality and the Alfred Duma Local Municipality are as follows:

- Both SDFs identifies Ladysmith town as the primary node or commercial and administrative hub of the region. Initiatives to develop this further should be supported by both institutions with UTDM focusing mainly on infrastructure upgrading while the ELM will focus mainly on forward planning and improving the aesthetic character of the town.
- The significance of the N3 and the N11 as national/provincial corridors that runs through the district and the ELM. The N11 corridor provides huge opportunities for mixed land use development.
- Large and dense rural settlements and peri-urban settlements should be identified in the district SDF as priority areas for infrastructure development and upgrading.
- Agricultural land of varying potential which is under threat from settlement, unsustainable land reform practices, land degradation, etc. Given the scarcity of agricultural land and relative decline of the agricultural sector in the district economy, there is a need for a comprehensive strategy for an effective management of agricultural land.

Ekuvukeni is a secondary node and plays a major role in the regional economy as link points between the Ladysmith and its rural hinterland. They serve as transport interchange areas, service centres and even administrative centres. However, Ladysmith has over the years performed as too inward oriented and internally focused. One of the strongest implications in terms of this amalgamation is that Integrated Development Planning will continue within the affected areas in a manner that has better logic.

Alfred Duma Municipality is currently updating its cadastral data and development of a consolidated base. The motive of the upgrade is to facilitate an effective integration of the existing town planning schemes and introduction of a wall-to-wall land use scheme, as well as effective implementation of the Municipal Property Rates Act.

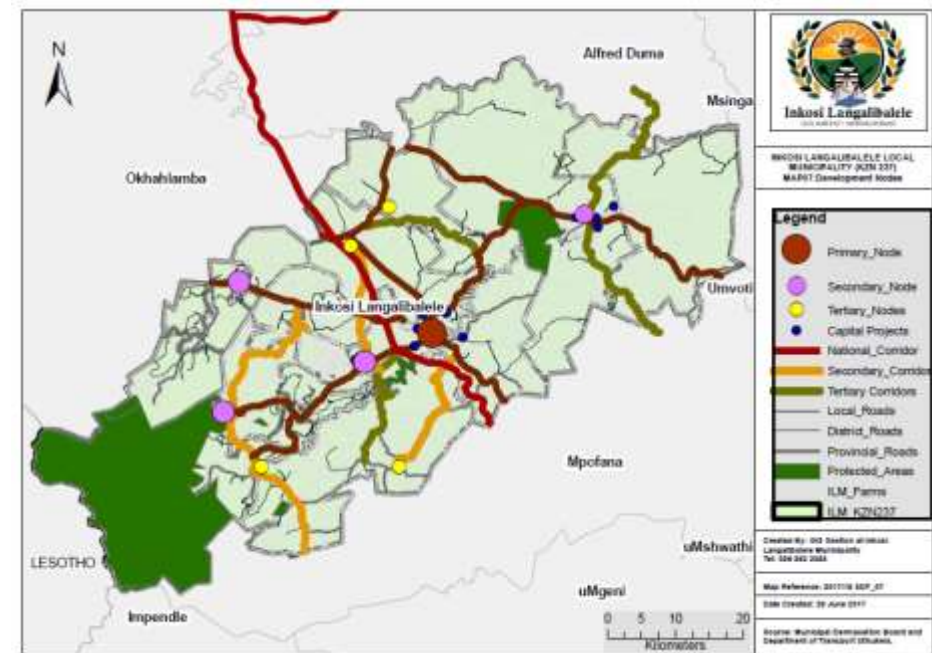
5.4.2 INKOSI LANGALIBALELE LOCAL MUNICIPAL SDF

Inkosi Langalibalele Local Municipality is the amalgamation product of the amalgamated Imbabazane LM and Umtshezi LM. Escort is the main economic hub in Inkosilanga Libalele LM. The spatial integration of Inkosi Langalibalele LM is critical so as to enhance economic efficiency, facilitate the provision of affordable services, reduce the costs households incur through commuting, and enable social development. Spatial integration is also central to nation building, to addressing the locational disadvantages which apartheid imposed on the black population, and to building an integrated society and nation.

The former Imabazane community hardly benefits of this Municipality and it has remained a poverty node within UThukela and a peripheral to the economy of Estcourt and Ladysmith.

The nature of the area a rural spot with the majority of land under Ingonyama Trust has tended to stigmatize its growth such that there is not even a single commercial node that is found within the whole municipal area. The strategic cross-border issues that can be indicated in this case include:

- *Functional linkages between the Ukhahlamba Drakensberg Park in terms of tourism products and activities.*
- *Catchment management with some of the rivers that runs through the Imbabazane rising from the mountains in the Okhahlamba Local Municipality.*
- *P29/ N3 Corridor which links the town of Estcourt and Ntabamhlophe.*
- *The opportunity to develop a propose Inkosi Langalibalele tourist route linking all of the above tourist attractions would be beneficial to the area as a whole, in terms of opening up a 'tourism circuit' as a catalyst for future product development.*



5.4.3 OKHAHLAMBA SDF

The N3 is an important linkage running through the former Umtshezi into Okhahlamba and then continuing through Ladysmith. Its significance will be explored in the SDF. The P11 serves as a major link at a district level knitting together small towns from Bergville through Winterton to Inkosi Langalibalele LM. The whole of the Berg complex is a major tourism area within uThukela District and a significant portion of this is situated in Okhahlamba. This complex is a significant tourist destination at a national and International level. Significant battlefields from the second Anglo-Boer War identified are within Okhahlamba including the battlefields and Vall Krantz. Tourism will focus on the Drakensberg and the Battlefields routes. The SDF needs to ensure the sustainable utilization of environmental, cultural and heritage assets by creating a balance between conserving the resources and utilizing them for tourism purposes. Since the battlefields and cross-cutting issues affecting adjoining countries (Lesotho), Provinces (Free State, Eastern Cape) and Municipalities (Amajuba, UMgungundlovu, Sisonke) an integrated and collective approach to the battlefields must be adopted as significant battlefield sites such as Spioenkop and Vaalkrantz in Okhahlamba originated in the Second Anglo-Boer war related to the Siege of Ladysmith. A Primary Tourism Corridor was identified and runs from Estcourt along the Drakensberg and over Oliviershoek Pass.

6. DEVELOPMENT CONTEXT

6.1 DEMOGRAPHIC ANALYSIS

The population of uThukela District Municipality forms part of the ultimate objective of the development process, as well as being a subject in the process, since the people provide labour and entrepreneurship for production also consume the output of production. Likewise, demographic processes e.g. fertility, mortality and migration determine the demographic outcomes such as size, age-sex structure and spatial distributions of the population which affect the functioning of socioeconomic processes of land use, labour absorption, consumption and expenditure which in turn define the socio-economic outcomes in terms of income, employment, education, health, housing etc. In short, this analysis will shed some light on the dynamics of uThukela District population, which can then be used to develop strategic interventions.

According to Census 2016, the population of UThukela District accounts for 7% of the provincial population. The Census 2011 population estimate for the UThukela is 668 848 people living in 139 639 households. It is noticeable that the population of UThukela has decreased from 714 909

(Community Survey, 2007) to 668 848 as per Census of 2011. The municipalities that experienced the high level of population decrease are Okhahlamba (-13%), Inkosi Langalibalele local municipality (-21%). There are number of factors which contribute to the decrease of population in UThukela District and amongst other things are the impacts of HIV/AIDS- related deaths and migration.

6.2 ECONOMIC PRODUCTIVITY

The total value of goods and services produced in uThukela in 2011 was R13.4 billion, contributing 5% to the provincial economy. The district's GVA contribution grew at an average of 6% per annum between 2001 and 2011 which is above the overall average for KZN of 4%. This is attributed to the high average growth in Okhahlamba, former Indaka, former UMTshezi and former

GVA contribution (in constant prices) Rm

	2001	2006	2011	Average annual growth 2001-2011
KZN	194 419	239 894	277 530	4%
uThukela	7 294	10 110	13 472	6%
Emnambithi	3 993	4 892	5 624	4%
Indaka	244	378	580	9%
UMtshezi	1 206	1 888	2 779	9%
Okhahlamba	1 170	1 982	3 141	10%
Imbabazane	653	938	1 318	7%

Source: Quantec

Imbabazane Municipalities. The table below shows the GVA contribution of KZN, uThukela and its local municipalities in 2001, 2006 and 2011.

The table shows the GVA contribution per sector in constant prices for the district municipality from 2001-2011. The most significant sector in 2011 was manufacturing which contributed 21% to the district's total GVA. This was followed by wholesale and retail trade, catering and accommodation at 17%; and then finance, insurance, real estate and business services at 15%. The least important sector in terms of GVA in 2011 was mining and quarrying at 1%. From a growth perspective, construction grew at an average of 11% per annum between 2001 and 2011, followed by finance, insurance, real estate and business services at 10% per annum. The largest sector, manufacturing, grew at 4% per annum. Mining and quarrying showed a negative average growth rate over the period of 2% per annum. The main source of employment within the district in 2011 was wholesale and retail trade, catering and accommodation at 25%. This was followed by general government at 16% and community, social and personal services at 15%. Employment in the primary sector comprised around 7% of total employment in the district in 2011.

GVA contribution per sector in constant prices (Rm)

	2001	2006	2011	Average annual growth 2001-2011
Agriculture, forestry and fishing	425	619	946	8%
Mining and quarrying	90	75	76	-2%
Manufacturing	1 917	2 389	2 857	4%
Electricity, gas and water	333	378	402	2%
Construction	184	249	394	11%
Wholesale and retail trade, catering and accommodation	1 116	1 688	2 342	8%
Transport, storage and communication	806	1 326	1 873	9%
Finance, insurance, real estate and business services	833	1 433	2 069	10%
Community, social and personal services	475	617	730	4%
General government	1 116	1 334	1 784	5%

Source: Quantec

6.3 POVERTY ASSESSMENT

Poverty is a complex concept to define and measure. Initial measures of poverty are usually based on financial indicators such as the World Bank measure of income less than \$1/day. The World Bank recommends that when monitoring country poverty trends, indicators based on national poverty lines should be used in place of the WB measure. In view of this, the “Minimum Household Living Level (MHLL)” created by the South African Bureau for Market Research can be used as an indication of the prevalence of poverty in the study area. The MHLL states that in March 2004 an average household with 3.7 members living on less than R22,728/year (or R1,894/month) or less will be unable to meet its financial requirements.

In South African context, the National government currently considers the households with a monthly household income of less than R1600 as indigents. The percentage of people living in poverty is estimated at 58% (80 867) since they earn below R 19 200.00 per annum or R 1 600 per month. However the household income categories have increased considerably throughout the years; this can be an indication of improvement in the socio-economic status of the households in the district.

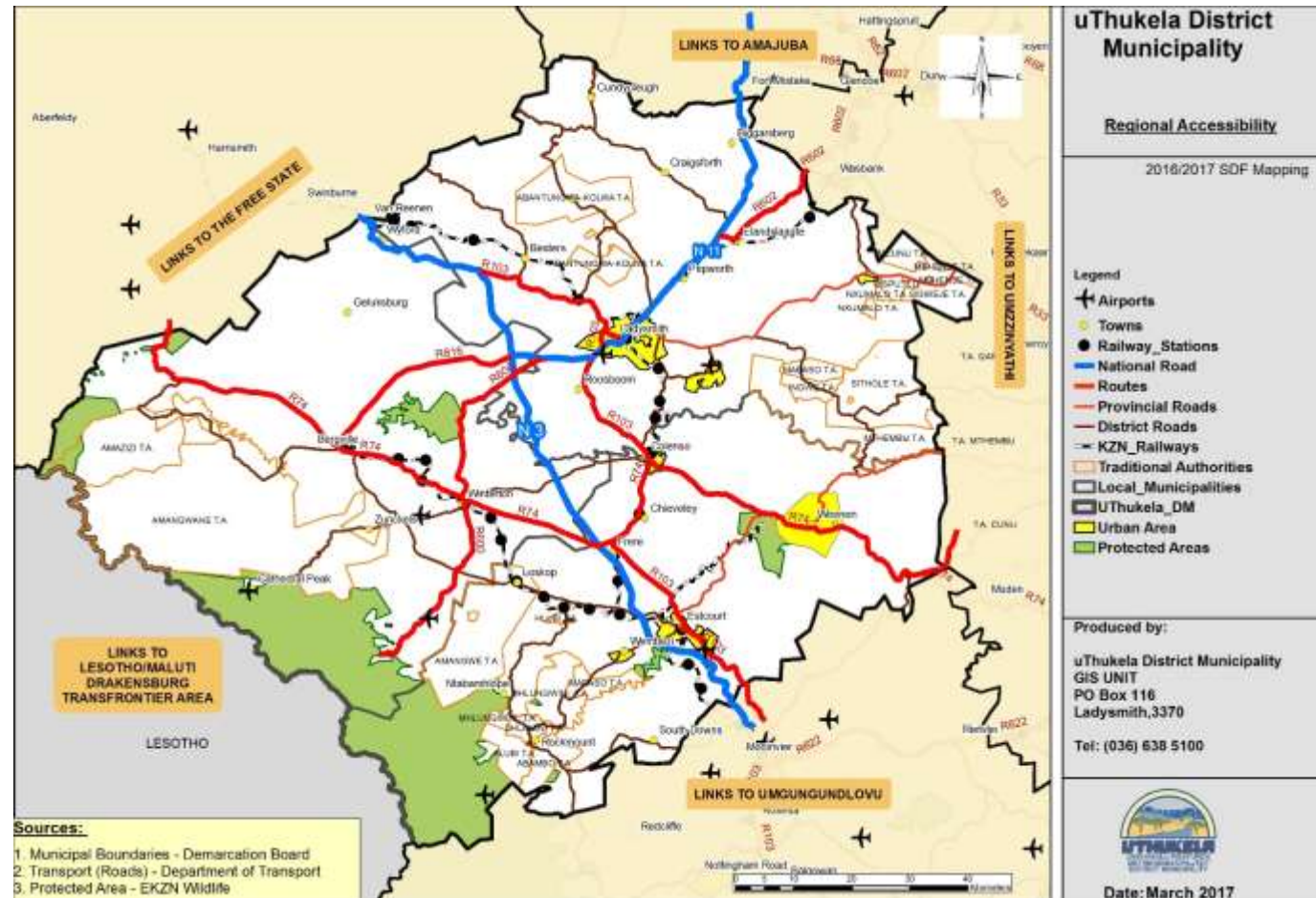
INCOME CATEGORY 2011	KZN 2011	UTHUKELA 2011
No income	387,240	22,150
R 1 - R 4800	125,843	8,876
R 4801 - R 9600	217,220	17,024
R 9601 - R 19 600	494,870	32,817
R 19 601 - R 38 200	500,449	31,121
R 38 201 - R 76 400	300,450	15,365
R 76 401 - R 153 800	210,595	9,339
R 153 801 - R 307 600	158,363	6,174
R 307 601 - R 614 400	98,245	3,271
R 614 001 - R 1 228 800	30,829	638
R 1 228 801 - R 2 457 600	9,291	253
R 2 457 601 or more	6,017	254
Unspecified	107	3
Grand Total	2,539,429	147,286

Source: (Statistics South Africa: Census 2011)

7. SPATIAL ANALYSIS

7.1 REGIONAL CONTEXT

UThukela is located within the middle-west of KwaZulu-Natal Province. It is strategically positioned within the centre of Durban and Johannesburg which are the national hubs within the country in terms of trade of commerce. It also largely comprises of Ukhahlamba Drakensberg Park which is a declared World Heritage Site and this places the area as global interest. The district is anchored around Ladysmith Town which serves as a service and administrative centre, and a commercial hub for UThukela District and beyond. However the role and function of Ladysmith commercial centre cannot be exaggerated a regional scale given the fact that it is a relatively smaller town when a comparison is drawn from the nearest regional centres such as Newcastle and Pietermaritzburg.



Therefore Ladysmith can be classified as a sub-regional centre and not a regional centre that serves as a feeder for smaller towns that are located between 100km to 200km away from it. Although UThukela does not boast with a notable regional centre, it is strategically located at the intersection of two major national and provincial development corridors and trade routes that is:

- *The N11 which runs in a north- south direction linking KwaZulu-Natal with Mpumalanga Province; and*
- *The N3 which runs in an east west direction linking Durban and Johannesburg Metropolitan areas.*

The railway line linking KwaZulu-Natal with Gauteng and Mpumalanga Provinces runs through the UTDM. As such, the UTDM is highly accessible at both regional and national level.

7.1 STRUCTURING ELEMENTS

7.1.1 THE ROLE OF HIGHWAYS (N3 AND N11)

The National Routes (i.e. N3 and N11) runs through the municipal area and these are the most visible man-made structuring elements within the district. N3 runs from south to north and vice versa. It transverses the area centrally and it is the busiest route with limited access points. N11 adjoins N3 via R103 in Ladysmith Urban Centre. This route proceeds to Newcastle and beyond. It is also a busy corridor in the province and a major link between the national industrial hubs of Johannesburg. It can be considered as the primary route within the area. This route is however, largely a movement corridor between the different areas of UThukela.

Due to the high volumes of traffic along this road, and the fact that it is largely being utilised as a main route by trucks and other freight vehicles, many opportunities exist for development that can capitalize on the existence of this route. Due to the limited access nature of this road, opportunity points exist at key intersections or off-ramps along its route.

7.1.2 INFLUENCE OF MAJOR RIVERS AND BOUNDARY DEMARCATION

The biggest rivers that are found within UThukela are Tugela River, Kip River, Ngogo River, Ngwenyana, Sand River, Bosman River, Bloukrans River, Sikhehlenga River and Wasbank River. These rivers are the most visible natural structuring elements of the district area such that the Municipal Demarcation Board used these to demarcate some of the boundaries between the Local Municipal Areas.

7.1.3 INFLUENCE OF UKHAHLAMBA DRAKENSBERG MOUNTAINOUS AREAS

Ukhahlamba Drakensberg as well as mountainous areas on the north presents the very strong natural structuring elements. These areas were used by the Municipal Demarcation Board to demarcate the boundaries for UThukela District Municipality. Ukhahlamba Drakensberg acts as the physical bearer between UThukela District and the Kingdom of Lesotho while the mountainous areas towards the north were used to separate UThukela District Municipality from Thabo Mofutsanyana District Municipality (Free State Province) and Amajuba District Municipality (KwaZulu-Natal Province). The mountainous areas form a “C-shaped” belt that meanders from the south to west and eventually to north of the district municipal area.

7.1.4 INFLUENCE OF EARLY APARTHEID SPATIAL PLANNING LEGACY

The historically spatial planning practices had a profound impact on the spatial structure on UThukela. Apartheid policies gave rise to fragmented communities, marginalised the poor from the economic activities and undermined their participation in the economy. A review of the structure and form of the municipal area reveals a low density urban sprawl that was engineered by segregation policies. Ezakheni/ St Chads are one of the spatial footprints of the apartheid past that will take long to eliminate.

It evolved by crisis search for land by the past authorities for segregation purposes hence the location of Ezakheni some 30km outside of Ladysmith. It presents the municipality with a serious challenge to transform the area from being a dormitory suburb into a functional, integrated and generative spatial system. The other segregated urban settlements include the R293 Townships such as Wembezi and Ekuvukeni. The notion

and location around the introduction of these areas was similar to Ezakheni. Therefore these also became the fragmented urban settlements for both Ladysmith and Estcourt.

7.1.5 IMPACT OF POST APARTHEID SPATIAL PLANNING LEGACY

The end of apartheid marked what was initially perceived as a new chapter for spatial planning. The new spatial planning concepts were recently introduced and these encouraged compact and integrated urban environment. Such an environment is pursued by local planning instruments which are intended to encourage a dignified environment (i.e. sustainable human settlements) for every member of society to reside in. However the concept of sustainable human settlements has not truly materialized. The urban environments within UThukela have not become compact and integrated. In fact what has since transpired is as follows:

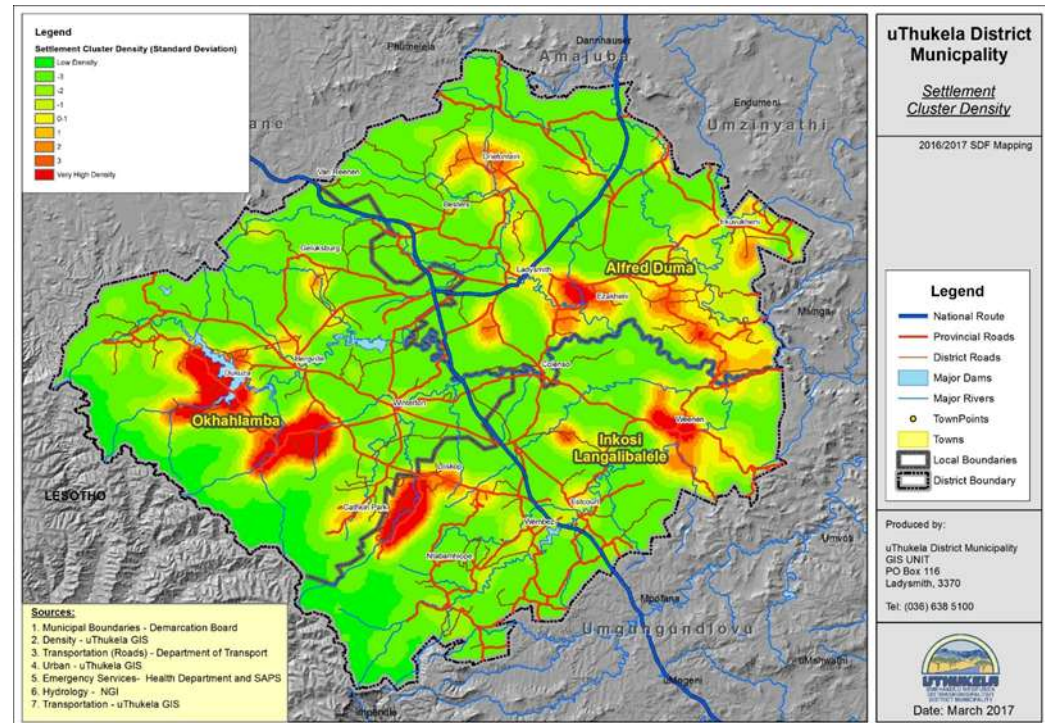
- *The location of new low cost housing projects still took place in peripheral areas away from urban opportunities. The majority of these are found either in Ezakheni/St Chads area or just outside Steadville.*
- *Speculative sprawl has taken place which involves higher income people seeking to privatize amenity. The majority of this occurs just outside Ladysmith, particularly western suburbs.*
- *Urban management approach which promotes anti-city values of suburbia – single storey houses on a large plot of land as a symbol of ‘good’ urban living.*
- *The illegal occupation of land by those who either cannot find space in designated housing development areas or seek locations closer to urban opportunities but want to maintain their rural base (circular migration). In addition, the growth of dislocated settlements (former black spots and land reform settlements) either in peri-urban areas or commercial farmlands.*

7.2 SETTLEMENT PATTERN

UThukela District Municipality is a mixture of rural and urban in its character. This is particularly due to the existence of a number of towns and townships as an urban component while there are also a number of rural villages within Ingonyama Trust Areas. The key features of the settlement pattern can be broken down as follows:

- *Urban settlements;*
- *Peri-urban settlements;*
- *Dense rural villages; and*
- *Small rural villages*

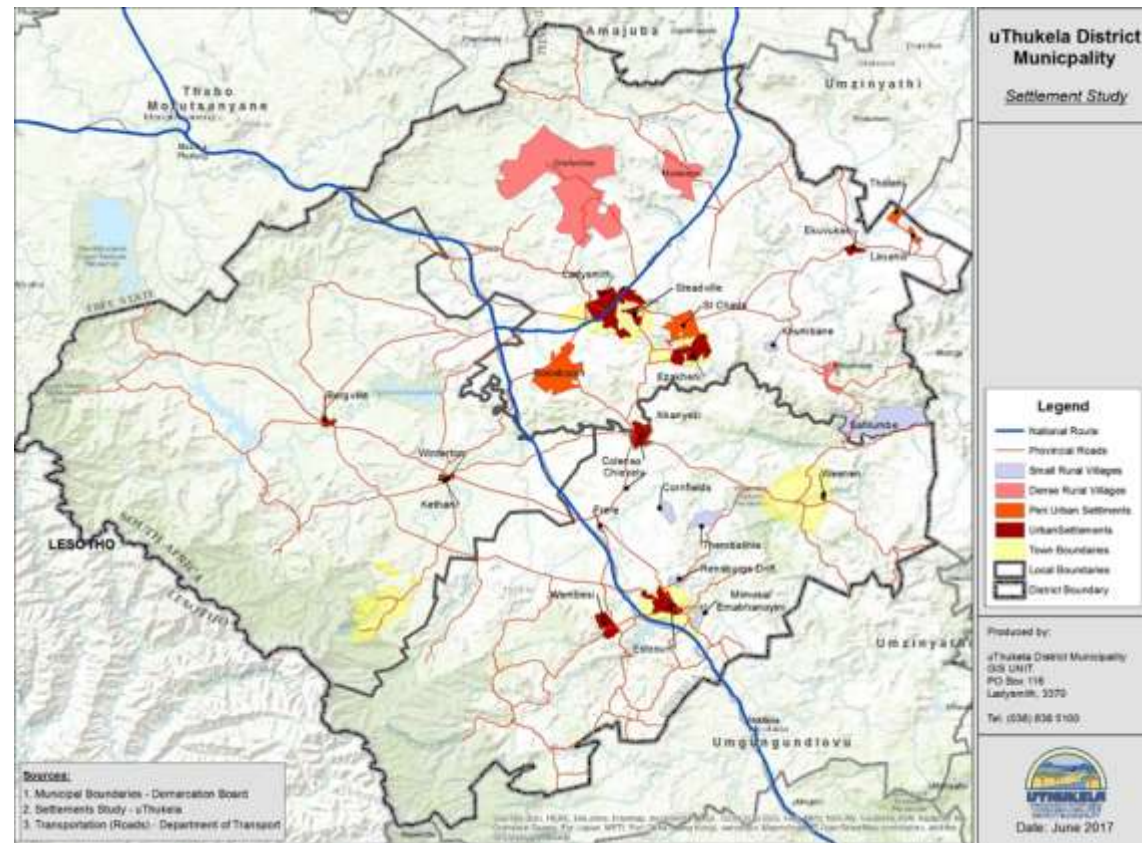
The development in most of the area is scattered with an absence of a strong nodal hierarchy. Uneven topography, membership of the community and traditional land allocation practices are the major factors that shape this settlement pattern.



7.2.1 URBAN SETTLEMENTS

UThukela District Municipality comprises of rural and urban areas. The largest coverage of the municipality is rural. However urban areas are also found as highlighted in the map below. Urban areas comprise of townships, suburbs and central business districts. Urban areas generally

contribute to the economy of municipalities in a form of rates and they are the centre of economic activities. The following map illustrates the urban areas found in UThukela District Municipality.



7.2.1.1 LADYSMITH URBAN COMPLEX

Ladysmith is the main/primary urban area/ town in UThukela. Primary access to the town is achieved via the N11 and R103. The town is located at the intersection of these two routes with the N11 running in a north-south direction which the R103 runs in an east-west direction. With the exception of the Town Planning Scheme, and the CBD Plan developed recently, Ladysmith does not have any strategic framework to guide its future development. Ladysmith is one of the areas that are experiencing net in-migration within the district. Ladysmith is a typical apartheid town characterised by the following:

- *Spatial fragmentation which arises from the apartheid planning system which separated people along racial lines and pushed the poor and townships such as Ezakheni to peripheral locations*
- *Land use separation emanating from a zoning based land use system and suburban view of quality living environments. As such, places of work are separated from residential and public amenities.*
- *Low density urban sprawl which occurs in the form of uncontrolled land development in peripheral areas such as St Chads.*
- *Cellular development occurring in the form of inward oriented neighbourhoods reflecting the impact of phased or adhoc approach to development.*



7.2.1.1.1 CENTRAL BUSINESS DISTRICT

The CBD serves as the nucleus of the town, and all the other land uses are focused towards the centre. Ladysmith CBD is developed with a range of commercial and public facilities serving not only the Alfred Duma Local Municipality, but the district and beyond. The CBD is laid out in a typical gridiron pattern with Murchison and Lyell Streets being the main activity spines. The Klip River separates the CBD from the industrial and residential areas and defines the frame for the CBD. Service industry and public transport facilities are located at the fringes of the CBD. Ladysmith CBD has shown resilience, maturity and strength and remains the core of the town. It does not face the same danger of businesses immigrating to decentralised locations on the same scale as some major urban and comparable centres such as Newcastle further north. Although commercial space within the CBD is limited, developers have tended to adopt redevelopment within the CBD as an investment strategy. As a result, Ladysmith CBD is not being drained from businesses yet despite a relatively high demand for commercial space.

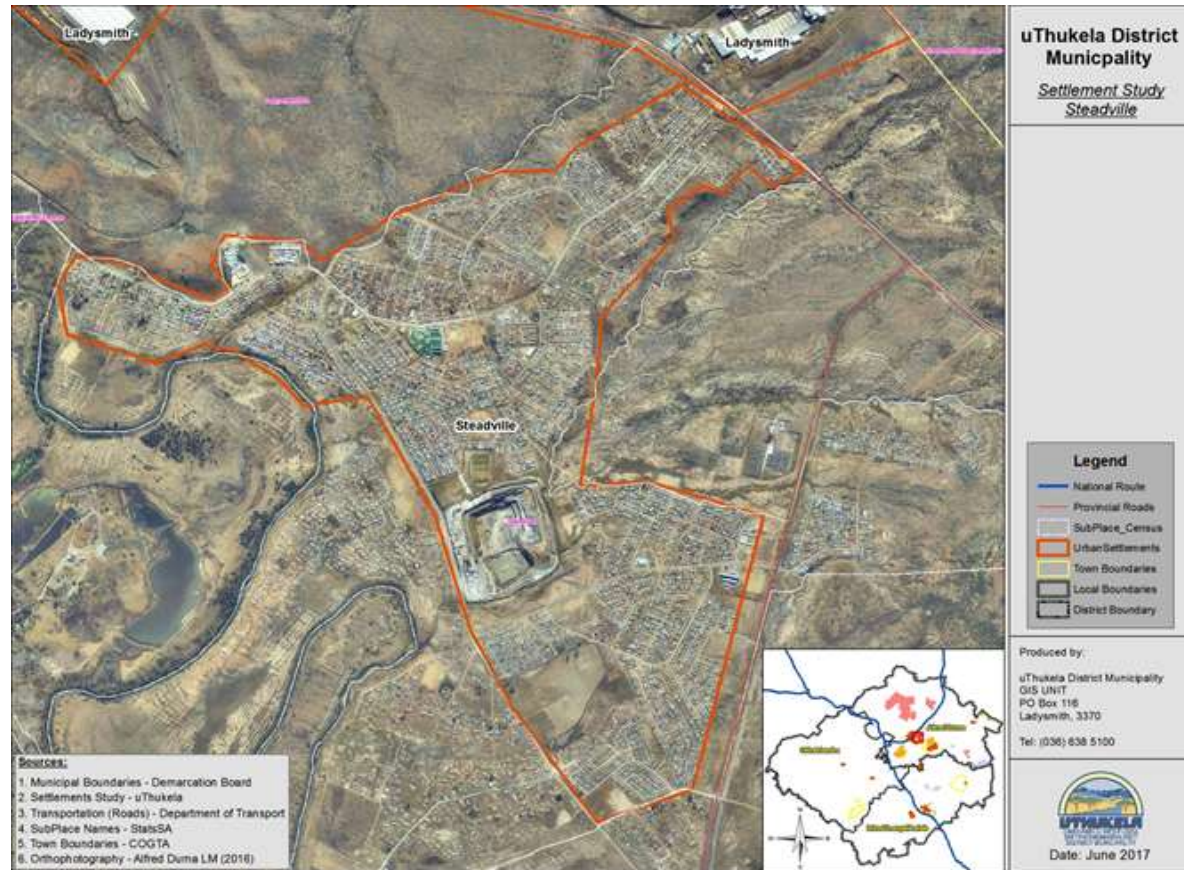
The south-westerly periphery of the CBD over the Klip River is characterised by public open space and recreational areas, including Settlers Park, the Indoor Sports Complex and the Aerodrome. However, the CBD is facing a number of challenges. These are typical urban regeneration challenges and include urban decay, informal trading, parking, conflict between pedestrian and vehicular traffic, etc. The CBD Regeneration Plan completed recently seeks to address these issues and ensures long-term sustainability of the CBD. The Plan will be integrated into the SDF.

A few recreational passive open spaces have been supplied randomly throughout Ladysmith. The town is also surrounded by various ridges, which gives a unique character to the area. The Ladysmith CBD, once considered a floodplain, is no longer regarded as such, due to the newly constructed Qedusizi and Windsor Dams. As a result of this Lyell and Forbes Streets were not considered prime areas for development. This stigma of flooding also led to underutilisation of the river, and is now possible to reconcile the users with the natural environment, i.e. watercourse, by encouraging development along it, as well as the use of it. A small portion of floodplain still exists to the southeast of the CBD. This flooding may be mitigated by widening the river course in this area.

7.2.1.1.2 STEADVILLE TOWNSHIP AND OTHER RESIDENTIAL SUBURBS

As in many typical South African Towns, middle to up-market residential areas surrounds the CBD with the majority of these located to the west of the CBD. They include the residential suburbs such as Egerton, Observation Hill, Reservoir Hill, Hospital Park, Rose Hill, Model Kloof, Van Riebieck Park, etc. These areas have remained relatively static with limited amount of development occurring in areas such as Hyde Park, Observation Hill, Reservoir Hill and Hillside, extending away from the CBD.

Relatively lower middle to low income communities are within Ladysmith Town is found in the east. They include Steadville Township and Leonardsville, Public facilities such as cemeteries and industrial land separates these areas from the CBD in a typical apartheid planning style. As such, both spatial separation and land use fragmentation remain one of the distinctive anomalies that characterises Ladysmith.



While speculative and low density urban sprawl occurs in the middle income and upmarket areas, the majority of urban growth involves low income communities who occupy and develop land informally. The resulting peri-urban settlements are discussed below.

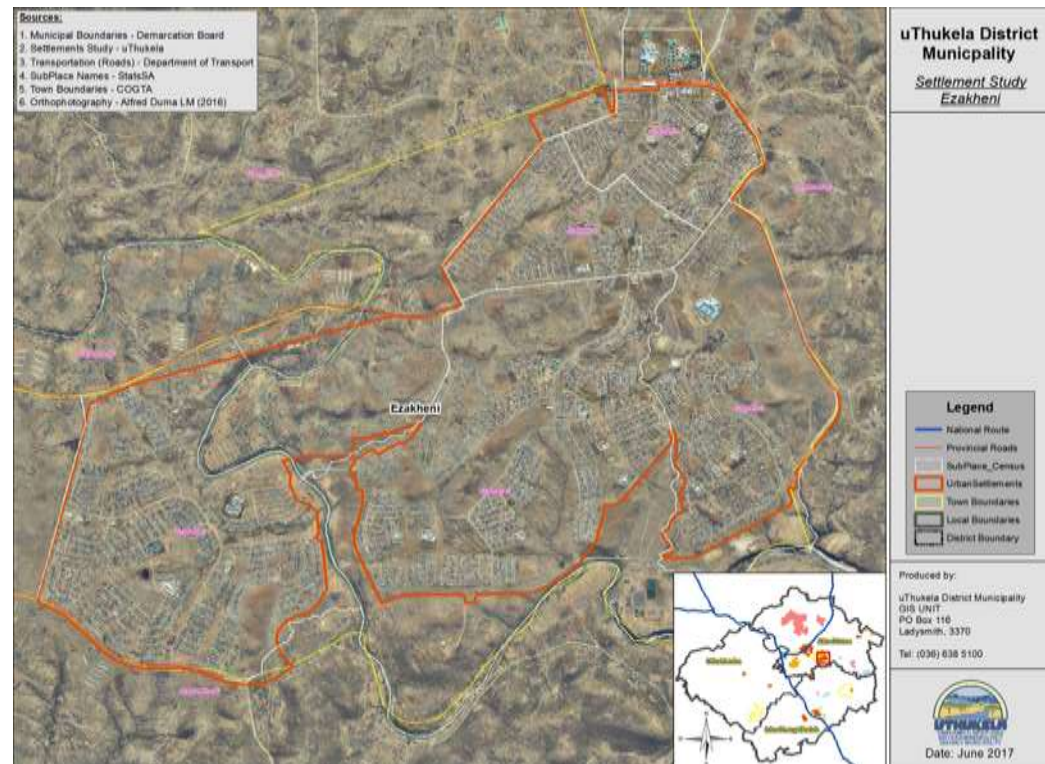
7.2.1.1.3 EZAKHENI TOWNSHIP

Ezakheni Township is one of the oldest townships in the Alfred Duma Municipality, situated about 25 kilometres from the Ladysmith CBD in what was the KwaZulu homeland territory. It was established, in part, as a response to the industrial decentralisation program that led to the establishment of Ezakheni Industrial Township and as a means to meet the housing requirements of people who were coming to work in and around the Ladysmith Area. Ezakheni also housed people that were uprooted from black spots in the district which included Roosboom, Hobsland, Umbulwane, and Cremin. In view of its location in relation to Ladysmith, Ezakheni represents one of the footprints of the apartheid past that will take a while to eliminate.

The township is characterised by low levels of economic activity, high rate of unemployment and poverty, crime and poor physical environment. With the dawn of democracy, a number of housing projects have been implemented in the area as a means to address housing backlog and clear an increasing number of slums.

More recently, a relatively large township has also developed on what was previously church land in St Chads. As in Ezakheni, this area has been subject of land tenure upgrading and housing development. A review of the plans submitted for the formalisation of this area indicates that the housing project unfolded in about seven phases. The residential area of Ezakheni is divided into different sections, as follows:

- *Section A is located in the north east of Ezakheni. The area mainly consists of government cluster offices, old government houses, college of education, petrol filling station, shops, and offices in containers located next to informal taxi rank, as well as residential uses.*



- *Section B, C and D was designed to be the town centre of Ezakheni, but failed to achieve the use it was intended for. Activities in this section include a supermarket, community hall, pension payout point, clinic, businesses, church and post office.*
- *Section E is spatially dislocated (to the southeast), from the rest of Ezakheni with limited economic activity.*

According to the Ezakheni Township Regeneration Strategy (Isibani Consulting, 2009: 2), the Township has suffered a decline in economic fortunes and a rise in social exclusion and deprivation. Occupancy rate in Ezakheni Industrial Estate has declined, partly as a result of the withdrawals of decentralization subsidies and also in response to the liberalization of the South African economy. Ezakheni Industrial Estate is a former 'border' industrial development area, located about 20 km south of Ladysmith and connected to the mainline at Pieter's station. It was developed by the KwaZulu Finance & Development Corporation and rail lines served various factories.

All lines have been uplifted but there is a possibility that such lines may be of use in the future and a thorough evaluation of such a possibility should be investigated as a matter of urgency. Combined, these forces provide a potentially self-perpetuating downward trajectory for the future of Ezakheni Township and highlight the need for regeneration. The current economic performance of Ezakheni Township is somewhat surprising when considered in the context of the undoubted economic potential of the township. Locationally, Ezakheni Township is in a very strong position. It is on the edge of the Greater Ladysmith conurbation, in close proximity to Railway line and within commuting distance of the Ladysmith City Centre. This locational advantage has meant that, although it is facing some deep-rooted economic problems, Ezakheni Township has attracted a degree of inward investment.

The Ezakheni TRS identifies a step-change in the physical structure of the township as one of the pre-conditions for urban renewal. The township's current infrastructure (across transport, employment, land and premises, housing stock and social infrastructure) is poor, outdated and has suffered from lack of sustained investment. Static population growth and relatively slow employment growth has been insufficient to support sustained economic progress and private sector investment. As a consequence the township is in 'investment deficit' with significant areas in simultaneous decline.

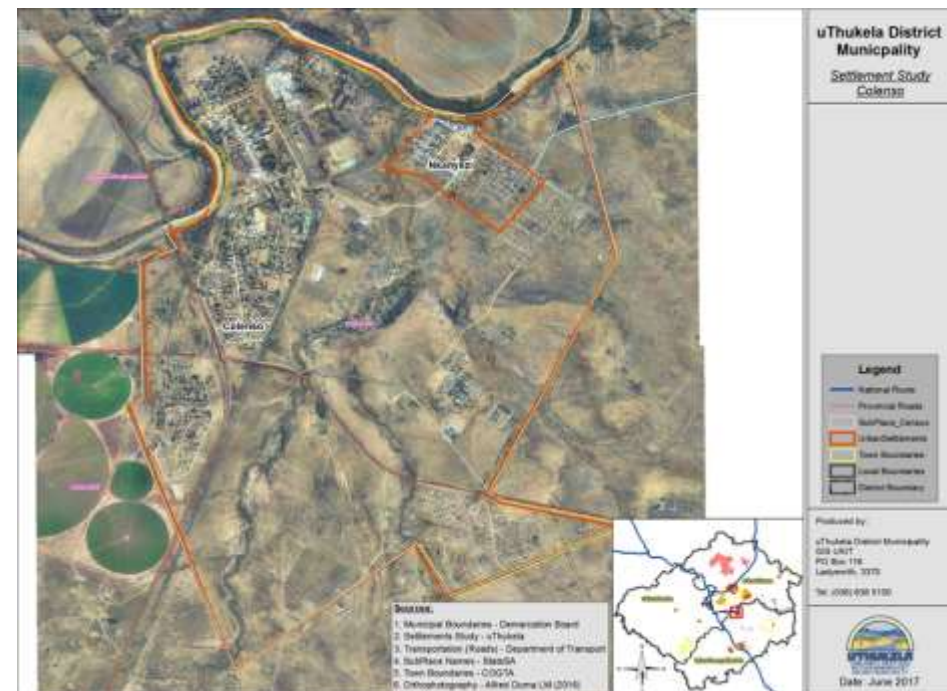
Much of the reason for this is owing to the fact that Ezakheni Township has outgrown its infrastructure (parts of which were never completed according to the requirements of the original plan), but has yet to achieve the critical mass required to generate the necessary private sector investment in renewal and capacity improvements. Furthermore, the declining urban fabric of the township contributes to Ezakheni Township's

negative image. A fundamental change in the physical environment of the township with selective renewal is required to reverse this image and open up the township to private investment.

A flagship project within this will be the development of a shopping mall and regeneration of the local shops/supermarket as a symbol and gateway of the township.

7.2.1.2 COLENZO TOWN

Colenso is located in the southern tip of the Emnambithi Ladysmith Municipality, on the border with the Umtshezi municipality. It developed on the banks of the Tugela River (UThukela) and is accessed from the R103 that links Colenso to Ladysmith in the north and to the N3 in the south. The town was proclaimed in 1926 and gradually developed from a rural village to a municipality in 1958. The area forms part of the famous Battlefields Route and has a rich history and many historic remnants.



The development of the town has however, severely decreased due to the closure of government parastatals such as the Eskom Power Station. The spatial structure of the town indicates six areas with different characters, as follows:

- *Colenso Town contains the Colenso CBD, surrounding formal residential and defunct Power Station Complex.*
- *Nkanyezi Township is a former R293 township. It is characterised by low cost housing, poor infrastructure and community facilities.*
- *Newtown Formal middle-income residential units were historically built to absorb the overspill from Colenso Town.*
- *“Indian Area” is a formal middle-income residential that was historically occupied by the Indian Community.*
- *A Rural Residential area is located in the south. It is rural in nature and characterised by a traditional housing types as well as poor infrastructure and community facilities.*
 - *Colenso Industrial Cluster contains a cluster of industrial units that formed a key part of an LED initiative to attract investment to the area. Only few land parcels within the cluster have been developed.*

Colenso Town faces a number of challenges:

- *Neighbourhood decay and neglect due to a number of reasons such as inadequate infrastructure maintenance; inconsistent service provision; and poor planning.*
- *Infrastructure and service obsolescence resulting from production and market changes that have rendered the built environment non-functional.*
- *At a residential level, poor economic conditions, declining employment opportunities, and the influence of poorly managed industrial areas, have further undermined the quality of life in the area.*
- *There are obvious signs of dilapidated and decaying buildings, roads and pavements breaking up, and illegal dumping of waste; in addition to the increasing difficulty to let buildings, declining rentals, and lower employment densities.*

7.2.1.3 ESTCOURT TOWN

Estcourt is located along the N3 national route linking Durban and Johannesburg in Inkosi Langalibalele Local Municipality. It is approximately 80km from Pietermaritzburg and about 40km from Ladysmith. It is highly accessible both local and regional level, and is strategically located to serve as a launch-pad into the battlefields route, the Drakensburg and the Midlands meander.

The role of Estcourt has changed over a period of time reflecting changes in the regional development trends. The town developed as one of the major settlements along a transport wagon route between Durban and Inland areas and soon grew into a complex urban system with a relatively large catchment and providing a range of functions to its rural hinterland. These include the following:

- *Transport interchange*
- *Main sub-regional economic hub.*
- *Industrial area for the processing of raw materials produced in the region.*
- *Tourism town.*
- *Service centre.*
- *Settlement or residential area.*

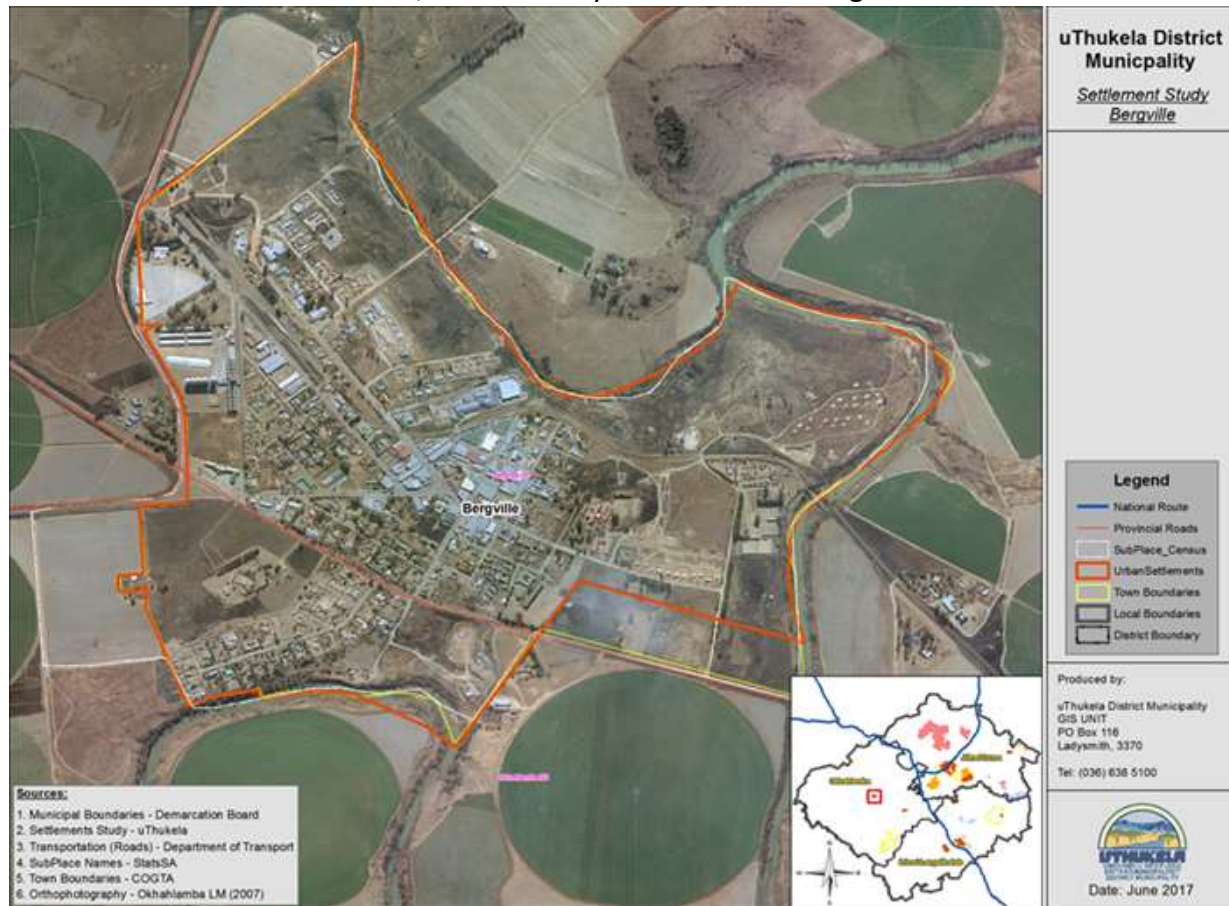
The town has developed in line with a typology common in most towns and cities in South Africa wherein the structure relates to a central core in the central business district (CBD) with several major access and/or exit routes radiating outwards. In Estcourt, these occur in the form of the east-west and north south axis linking different parts of the town through the city centre. Linkage back to the N3 is significant for regional and provincial integration as the N3 is identified in the PSEDS as a development corridor of national and provincial significance. Estcourt is a typical apartheid town characterised by the following spatial patterns:



- *Low density sprawl which is fuelled, among other, values of suburbia which promotes large plots as an image of good urban living.*
 - *It occurs in the form of low density residential suburbs designed in terms of garden city concepts, and entrenched into the Town Planning Scheme through inflexible density controls and scheme clauses such as coverage, minimum site sizes and permissible uses.*
 - *Most residential areas within the town are characterised by low density zoning. The LUMS document noted that there is no intermediate residential area (medium density housing) category in the present TPS and this should be addressed as part of the spatial restructuring of the town.*
 - *Historical separation of land uses, urban elements, races and income groups. A large number of the poor are living on the urban periphery further away from the opportunities and places of work. The current zoning system entrenches this trend.*
 - *Spatial fragmentation with land use pattern resembling a series of relatively homogenous blobs of different uses tied together by high speed transport routes. The separation of places of work and residence is deeply entrenched in the philosophy of urban management.*
 - *Dual character of the CBD with one part being well developed and well maintained while down town is characterised by urban decay, grime and deteriorating quality of infrastructure.*
 - *Fragmented open space system.*
-
- *The combined consequences of these spatial patterns have been phenomenal leaving the town with entrenched inequality and functional inefficiency. It created a distorted, fragmented, incoherent and inefficient functional structure. It also gave rise to spatial, social and economic exclusion of certain race groups to the benefit of others, and created a poorly functioning land and housing market. The existing town planning scheme was developed sometime back and is now outdated. The LUMS process recommended a complete overhaul of the scheme and an introduction of Land Use Scheme that could be applied across the municipal area.*

7.2.1.4 BERGVILLE TOWN

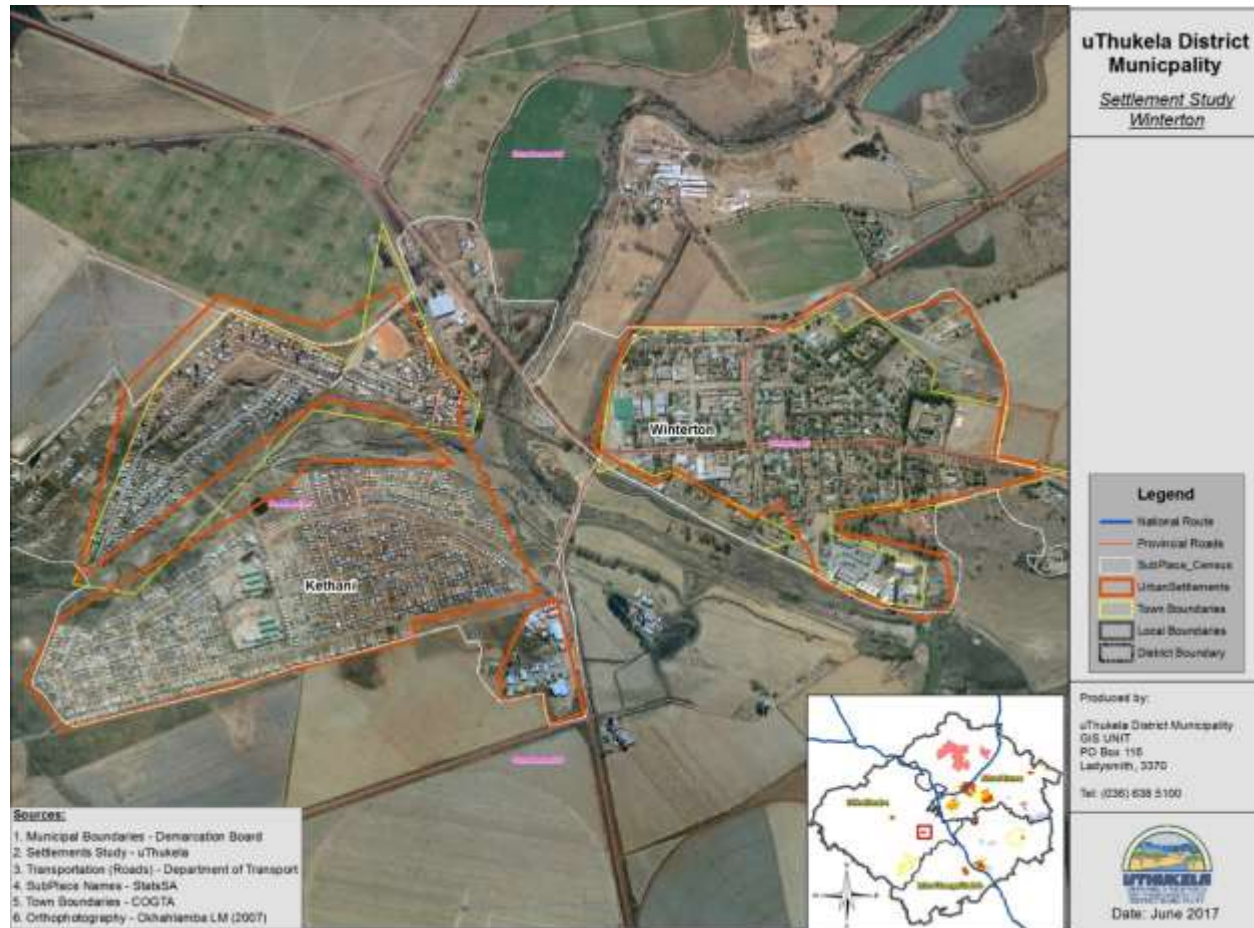
Bergville is a small town situated in the foothills of the Drakensberg Mountains, within Okhahlamba Local Municipality. It was established as Bergville Mountain Village in 1897 and is now the commercial centre for a 2,500 km² dairy and cattle ranching area. A blockhouse was built by the British soldiers in the town during the Second Boer War. Bergville is equidistant from Johannesburg and Durban and is also known as the gateway to the Northern Drakensberg holiday resorts. It lies on Route R74 which is a more scenic alternative to the N3 Toll Road. This route takes one via the Oliviershoek Pass, traditionally used to access the Drakensberg, from Johannesburg. Bergville is easiest reached from Durban by turning off the N3 after Estcourt, joining the R74 through Winterton towards the mountain.



7.2.1.5 WINTERTON TOWN

Winterton is another small town situated within Okhahlamba Local Municipality. It was founded in 1905 as Springfield when the Natal government built a weir across the Little Tugela River. The town later changed its name to Winterton in honour the secretary for agriculture, HD Winter. Winterton is a small town with only a primary school. It is close to the Second Boer War battle sites of Battle of Vaal Krantz and Spioenkop. The town is situated on the R74 between Bergville and the N3, as well as the R600 between Ladysmith and the Central Drakensberg.

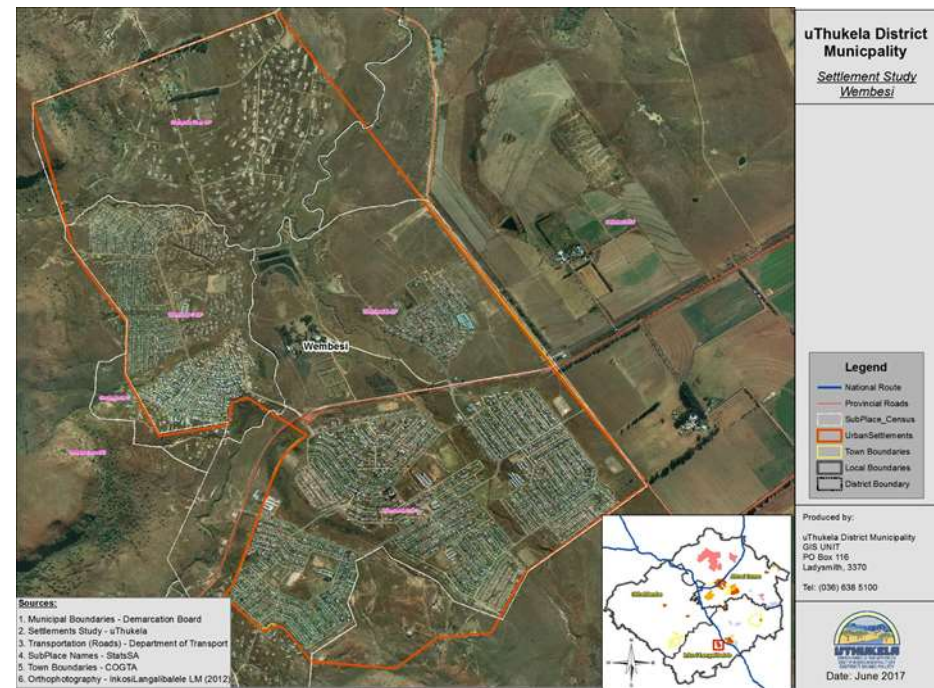
Winterton also serves as an entry point to the Champagne Valley as well as the Cathedral area of the central Drakensberg, boasting well known mountain peaks such as Champagne Castle and Cathedral Peak respectively - these mountains are considered to be among the most spectacular sights in Southern Africa. The world famous Drakensberg Boys' Choir School is outside the town, just about 30 kilometres south-southwest of Winterton.



7.2.1.6 WEMBEZI TOWNSHIP

Wembezi Township is located within the Inkosi Langalibalele Local Municipality. It is accessed off P29 linking Estcourt Town and Giants Castle in Ukhahlamba-Drakensberg Park. Wembezi Township was developed on Ingonyama Trust land (former KwaZulu Government area) to accommodate black people working in Estcourt and forcefully removed from Kwezi Township which was located just outside Estcourt. It is generally well provided with social infrastructure (although most of it requires maintenance and upgrading), and has the basics to become a sustainable human settlement.

With the exception of local convenient shops, the area is poorly developed with commercial facilities, thus forcing local residents to undertake most of their shopping activities in Estcourt. Nevertheless, there are huge opportunities for commercial development given the location of Wembezi in relation to expansive rural settlements that form part of Inkosi Langalibalele Municipality. Wembezi can broadly be divided into four development areas or precincts, namely:



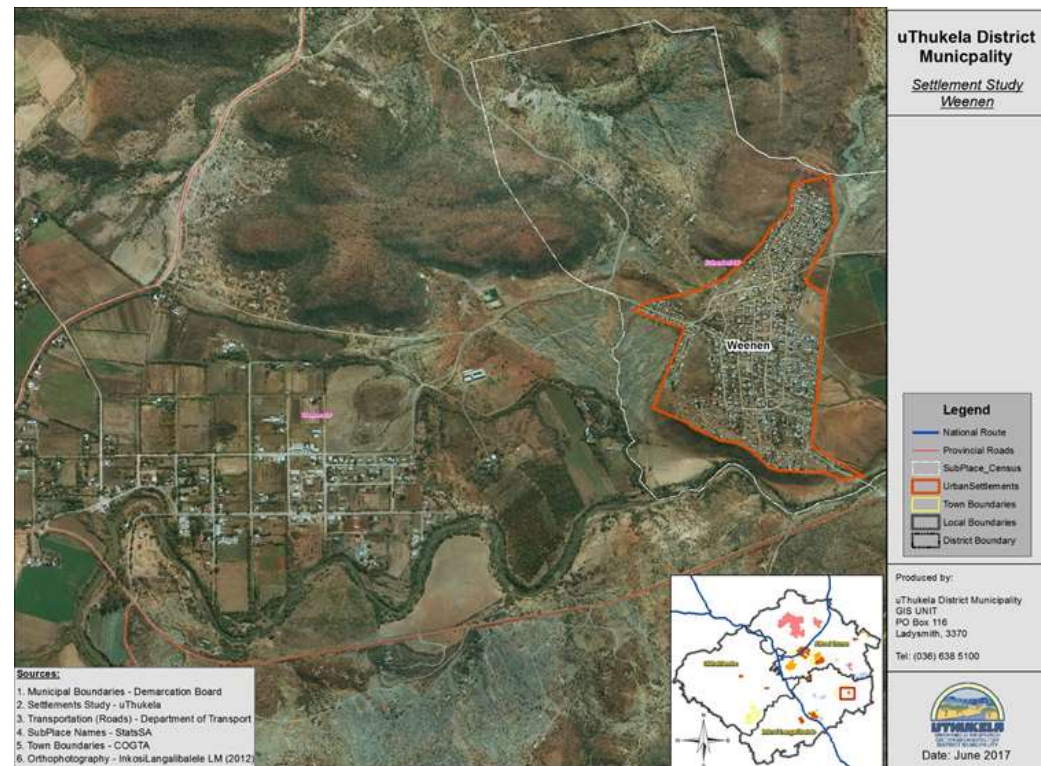
- *The original township area characterised by the four roomed dwelling units developed under apartheid past. Until recently, units were held under a Deed of Grant, but these have since been upgraded to full ownership. This area was badly affected by political violence that engulfed the province in the late 1980s. Most of the community facilities are located in this development area. The latter includes an area that was reserved for a town centre.*
- *Middle income housing area located across the road from the original township. The uptake of the recently sold 35 units being developed as an extension to this area suggests a need for similar housing products in the area. There is scope for further expansion.*
- *Section C which has recently been upgraded in terms of the low housing program of the Department of Housing. It is dominated by gravel roads which require maintenance and upgrading.*
- *Rural settlement located to the west of Section C. A large portion of this area is situated in a wetland.*
- *The sewerage works is situated between two of the settlement areas.*

The key spatial development challenge in Wembezi is to provide land for additional housing, and economic development initiatives. The second issue relates to a need to facilitate spatial integration between Wembezi and Estcourt, and introduction of a land use scheme. Finally, the management of rural/ urban interface, particularly uncontrolled expansion of settlements and loss of agricultural land.

7.2.1.7 WEENEN TOWNSHIP

Weenen is located along R74 approximately 45km north-east of Estcourt and 35km to Greytown. The town straddles the Bushman's River and is surrounded by commercial farmlands, the majority of which is subject to land restitution. Its threshold includes portions of rural settlements in Msinga. Weenen performs a range of functions. It is a residential area to those who live in and around the town, a service centre for those who access a variety of services in the area, and business area to those whose business operations are based in town. Its administrative functions are now limited to a few government departments that still have offices in the area. The area of Weenen could be divided into four main development areas as follows:

- *The village which is the main urban area. It is developed with a range of limited commercial facilities and has a relatively large threshold which includes the communities located around the town. There are approximately 765 residential properties in Weenen of which about 75 are vacant. The average site size is 900m².*
- *KwaNobamba which was established in the 1960s as a temporary emergency camp for people evicted from the neighbouring farms. Initially, it has about 591*



residential sites, but has since been increased to about 1000 as a result of the recently completed low cost housing project. Kwanobamba is located about 10km from Weenen and is poorly integrated into the Weenen space and land use system. The majority of sites in this area are about 200m² in size.

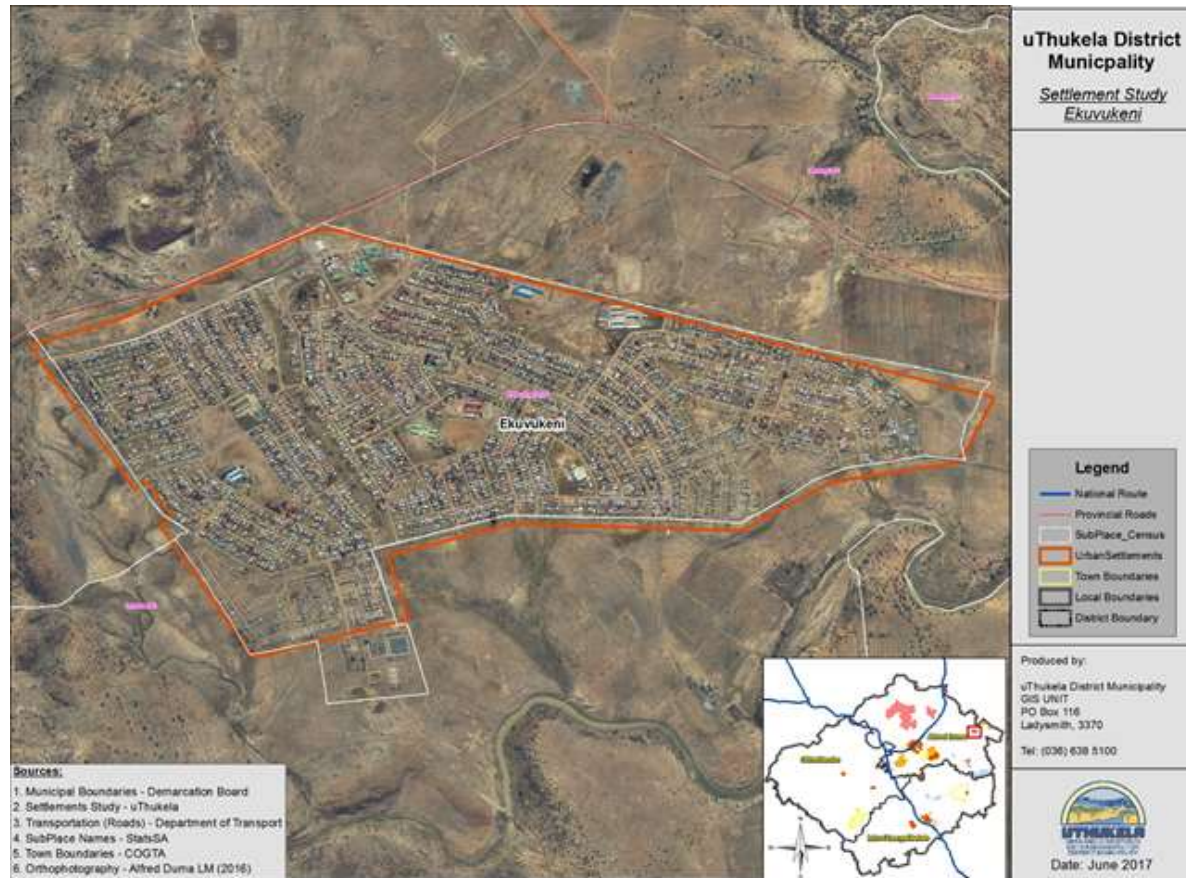
- Weenen town is surrounded by about 200 agricultural properties which is indicative of the importance of agriculture in the local economy. Although some of these sub-divisions are vacant, underutilised and poorly developed, they consist of land with a relatively high agricultural potential. The remainder of residential land consists of large sites located around the commercial area.*
- A small mixed land use node is located to the south of the town centre. Notable land uses in the area include service station, town hall and a market area.*
- Expansive agricultural land with limited potential and located almost around the town. The area forms part of the townlands and establishes Weenen as a town with the most townlands in KwaZulu-Natal. The area is used mainly for extensive farming and grazing purposes.*

The key spatial development challenges facing Weenen include the following:

- Need to contain commercial development to a single area. Existing commercial development not compatible with adjoining uses could be accepted as existing non-compatible uses that may not be expanded.*
- The role of Weenen town in the sub-regional space economy should be redefined to cater for changes that emerge as a result of the land reform program and changes in agricultural land uses.*
- Infrastructure within the town requires substantial upgrading and renewal.*
- Need to provide support to the small holdings around the town and redevelop these as intensive agricultural production units. This may require upgrading of the irrigation infrastructure.*

7.2.1.8 EKUVUKENI TOWNSHIP

Ekuvukeni was developed as a dormitory suburb to accommodate African people evicted from areas set aside for occupation by the white people in terms of the apartheid legislation. It was established as an R293 township, but the underlying title has since been transferred to the Municipality and deeds of grant upgraded to full ownership. Ekuvukeni is situated within Alfred Duma Local Municipality approximately 45km northeast of Ladysmith Town. It is generally well connected to the main provincial and regional transportation routes. It is however isolated from the National Routes and thus poorly positioned to benefit from trade economic networks. This results in the urban facilities and amenities not easily accessible. In addition, due to apparently low levels of car ownership there is a great reliance on public transport, and particularly on the taxi-industry.



A number of regional access roads (P32 and P91) provide the physical transportation linkages between Ekuvukeni and the surrounding areas such as Ladysmith and Dundee/ Glencoe. These routes are in a relatively good condition. P91 links with the National (N11) Route to the west of Indaka is a major link to the region of Indaka to Newcastle and Mpumalanga Province, which is located further north. The N11 also serves as a conduit through which Ladysmith commercial centre is access. P32 joins the N3 towards the west and in turn link the area with the surrounding KwaZulu-Natal inland towns and cities.

Ekuvukeni was developed during the height of the apartheid era to advance the ends of the political regime of the time. As such, it is a residential area that is poorly developed with simple basic services, the community facilities and employment opportunities remained as lacking aspects. As a result, there is significant commuting on a daily basis between Ekuvukeni and Ladysmith. This is costly and grossly inefficient. However, over the years, the role of Ekuvukeni has developed beyond that of a dormitory suburb to include the provision of services to the local community and the expansive surrounding settlements. A number of public services are provided to the rural hinterland from Ekuvukeni. These include the Municipal Offices, Library and a Taxi Rank. The municipality is also intending to develop a commercial centre within the area.

Ekuvukeni was initially laid in a gridiron pattern giving rise to a block structure. A large area towards the top remained vacant and today it is partially occupied by the Library, new municipal offices and a Taxi Rank. It is considered ideal for commercial development – Ekuvukeni CBD. The whole area was developed as a typical township with a four-roomed house on a relatively small site. This has resulted in the development of backyard shacks. Future development of housing in the area should explore a range of housing options in line with the current housing policy. It should also address the housing need expressed in the form of informal settlements that have developed almost around the township. Spatial development issues facing Ekuvukeni Township could be summarized as follows:

- *Future spatial development and planning in Ekuvukeni should focus on transforming the area from being a mere township (low-income dormitory suburb) into a sustainable human settlement provided with a range of social, economic and other forms of development.*
- *Linked to this is a need to improve the quality of life through the introduction of streetlights, pavements, greening projects and upgrading as well as maintenance of roads. Also important is a need to introduce new housing products as a means to address the sterility of the environment.*

The Urban Renewal Program (URP) Implementation Framework has identified three core outcomes/or external objectives that are fundamental to intervention in the URP nodes. These are as follows:-

- *Mixed and Integrated Land Use: social, spatial and economic integration.*
- *Enhancing the autonomy of the areas,*
- *By improving intra-area access to services and infrastructure*
- *Enhancing human and social capital: focusing on crime, violence, education, skills, local economies and capacities of local institutions.*

PERI-URBAN SETTLEMENTS

7.2.1.9 ST CHADS

St Chads is located situated approximately 10km north east of Ladysmith on the Farm Modder Spruit No. 1185. The farm adjoins the northern boundary of Ezakheni Township. It was acquired by the Alfred Duma Local Municipality for the upgrading of St Chads over the last ninety years. According to a Less Formal township Establishment (LFTEA) application, there are approximately 3000 families who are accommodated in informal/semi-formal housing structures. The area is subject to a multi-phased housing project which involves an in-situ upgrade of the existing settlement to provide the existing occupants/beneficiaries with proper sanitation, purified water, access roads and fencing, as well as utilizing the residual subsidy amount for the construction of a 30-40 square metre top structure / starter home or a supply of building material to upgrade the existing structures. Some years ago, electricity was provided to a large part of the settlement by ESKOM.

The area is a natural extension to Ezakheni and can basically be regarded as an 'infill' development which will ultimately serve to integrate the existing town of Ezakheni and Ladysmith. The LFTEA application further states that, over the years, two separate areas of St Chads have evolved with distinctly different settlement patterns and densities as follows:

- *St Chads In-Situ Upgrade (Urban) – East of Modder Spruit*
- *St Chads In-Situ Upgrade (Rural)- west of Modder Spruit*

These distinct areas have emerged and are classified mainly as a result of the density of settlement. The dense patterns of settlement are concentrated closer to the existing tarred main road, resulting in the so called "URBAN "node. The so called "RURAL" node to the west of the Modder Spruit is much less densely settled resembles an 'agric-village' type of settlement. In terms of the Deed of Sale between the Alfred Duma Local Municipality and the Anglican Church, a portion of land of approximately 38 hectares which surrounds the existing St Chads church buildings and property, is to be subdivided and retained by the Anglican Church. This subdivision is registered as Portion 5 of the Farm Modder Spruit No. 1185.

The area is a natural extension to Ezakheni and can basically be regarded as an 'infill' development which will ultimately serve to integrate the existing town of Ezakheni and Ladysmith. St Chads is characterised by a denser settlement pattern (east of the Modder Spruit), concentrated

closer to the existing tarred main road, and a much less densely settled area (west of the Modder Spruit), resembling an 'agric-village' type of settlement.

7.2.1.10 ROOSBOOM

Roosboom is located within the Alfred Duma Local Municipality. Historically, Roosboom was one of a few areas where black people were could purchase and own land in KwaZulu-Natal. However, in the early 1970s, pressure mounted to have the people of Roosboom removed. The presence of the settlement next to the main road to Johannesburg was seen as reflecting poorly on the Klip River District. Much was also made of the danger of increased road accidents in the area. More than 7,000 people were relocated in 1975 and 1976 to the newly-established Ezakheni Township.

Although the land owned by all African landowners at Roosboom was expropriated by the government and reverted to state ownership, removals from Roosboom during 1975-76 did not completely uproot Africans from the land. A few scattered portions of land owned by Indian and coloured landowners were not affected by the removal and several new African families moved into their lands as tenants or simply as squatters. In 1994, Roosboom was selected as one of ten nationwide RDP lead projects on land restitution. This meant that Roosboom land restoration was identified as one of the important projects for the aim of RDP and as such it would receive a special financial support for settlement planning and infrastructure development.

The number of households who had returned to Roosboom by 1992 was 177. It increased to 230 (1,380 people) by mid-1993 and 684 (4,310 people) in 1996. It projected that it would increase up to 1,000 households (6,300 people) by 2000. Today, Roosboom has grown substantially in terms of both population size and extent of the area. In fact, it has become one of the peri-urban settlements in the Alfred Duma Local Municipality. Unless, outward growth and increase in density is managed, the area runs a risk of degenerating into a sprawling peri-urban slum.

7.2.1.11 LIMEHILL/ ETHOLENI COMPLEX

Limehill/ Etholeni Complex emerged as a rural settlement to accommodate households who mostly worked on the commercial farming areas in and around Indaka (within Alfred Duma Local Municipality). However, it has since developed into a relatively dense peri-urban settlement with about 16 027 households. The municipality is intending to upgrade this settlement and deliver low-income housing for the existing population

within the area. The Limehill/ Etholeni Complex is located approximately 2km away from Ekuvukeni. It occupies the north-eastern part of Indaka and comprises of the Limehill and Etholeni as the main settlement areas. Most of the settlements within this complex are adjacent to the Indaka and Msinga Municipality's administrative boundaries.

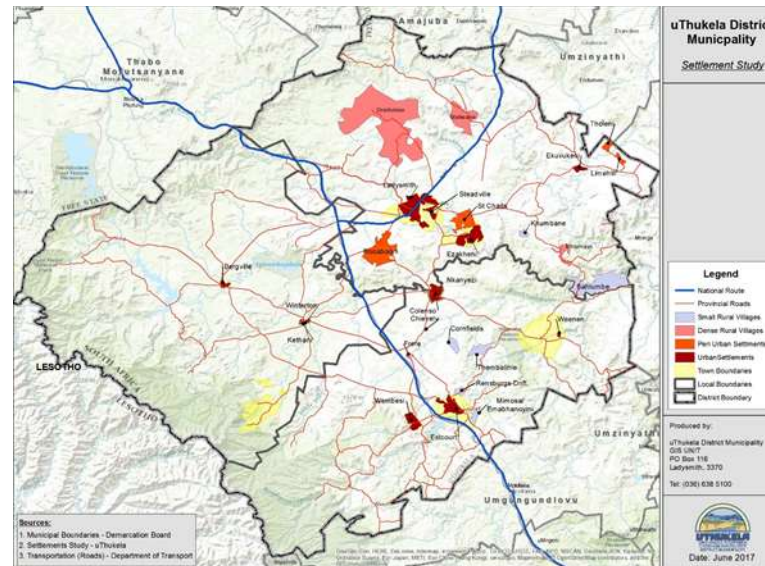
The area is accessible by P 359 which directly link with P 32 leading to Ekuvukeni towards the west and Msinga towards the east. The access road is tarred and it is in a relatively good condition. The majority of the internal local access roads are, however gravel and may need upgrading when the area is formalized. Limehill/ Etholeni Complex serves as a dormitory area for people working in Ladysmith, Dundee/ Glencoe and the surrounding agricultural farms. It has however fairly developed with the commercial centre at the intersection of P 359 and P 32. This centre accommodates a petrol filling station, local convenient shops, doctor's surgery, bus terminal, taxi rank and informal traders. The area is also provided with social facilities such as schools, clinics, community hall, etc.

The area does not have a definite structure since it has not be fitted from any formal spatial planning. However most of the settlements occur in the form of a grid typical of the resettlement areas. A settlement plan for the area is being finalized as part of the rural housing project. Limehill/ Etholeni complex as a peri-urban settlement raises a number of spatial issues, namely:

- *Need to strengthen the spatial structure and functionality of the core commercial centre.*
- *Need to provide social facilities in accordance with the required standards as set by various authorities such as the Department of Education, Department of Health, etc.*
- *Need to create opportunities for SMMEs and job creation given a relatively high level of unemployment and lack investment in the area.*
- *Need to upgrade services such as access roads, water, electricity, sanitation, etc.*
- *Need to manage uncontrolled expansion of the area.*

DENSE RURAL VILLAGES

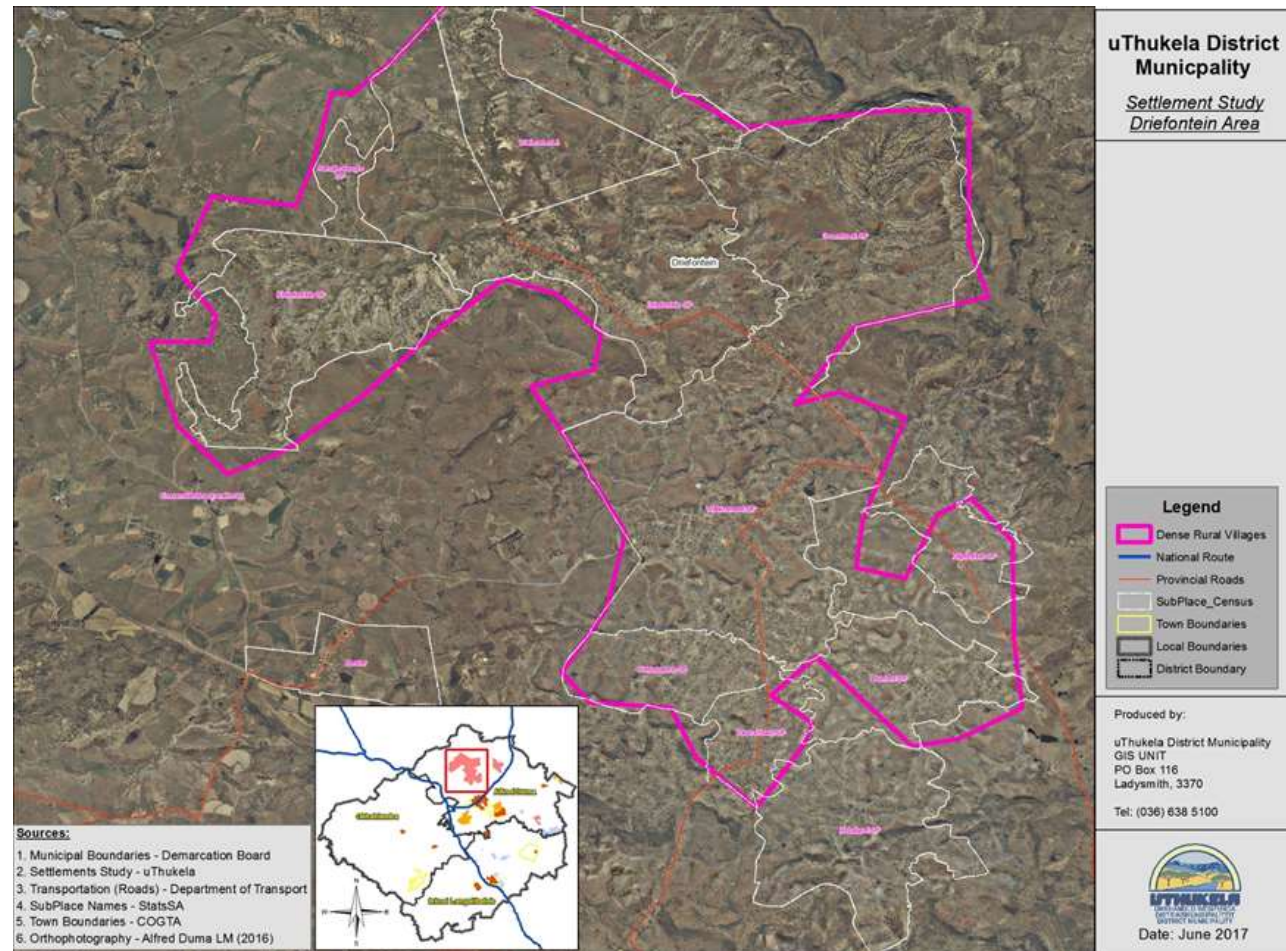
The following map is an illustration of rural settlements which are found in UThukela District Municipality.



7.2.1.12 DRIEFONTEIN

Driefontein is located within the Alfred Duma Local Municipality. Access to Driefontein is obtainable from P189 which is a Provincial Route that adjoins N11 to Newcastle and Ladysmith Town. The second alternative access road is by P208 which adjoins R103 to Ladysmith Town. Driefontein has over the years evolved as peripheral to the economy of Ladysmith Town. The area grew with a number of unplanned settlements in largely undeveloped farms. It is physically linked with the main town of Ladysmith by P189 which adjoins N11. Despite this location, the area remained relatively isolated from the mainstream economy and has grown as a poverty pocket which is just outside of the main town.

The Driefontein Complex consists of thirteen parent farms and is located to the north of Ladysmith CBD. Driefontein complex has a catchment population of 53 581 people. The area was designated as a black spot in 1985 under the consolidation proposals of the 1970s. Over the years, the area expanded and grew but remained undeveloped settlements. The area is administered by the Abantungwa-Kholwa Traditional Authority.



The complex consists of the settlements of Driefontein, Watersmeet, Kirkintulloch and Burford. No formal detailed planning exists for the area, save to mention the Structure Plan that was developed in 1990 and a recently completed Local Area Plan. A number of smaller dispersed rural settlements have also emerged and are spread within various parts of the farms but mostly along the main roads. This unplanned growth rendered a number of challenges including the provision of services and infrastructure. The area has not attracted any major physical development and has remained economically unproductive.

The organs of the state which includes the municipality and government departments have pro-actively embarked on providing certain level of services to the community that reside within the area. The settlement density slightly differs within various parts of the area. Driefontein appears to be the main settlement as such it has the highest density within the study area as it accounts for 3 – 3,9 households per hectare. This is followed by settlements of Peace Town, Kirkintulloch and Kleinfontein which have a density of 2 – 2, 9 households per hectare. The other settlements with the similar density are located next to Driefontein settlement along P189 and D836. The majority of the settlements within the study area have a far lower density of 0 – 1, 9 households per hectare. These include Burford, Watersmeet and settlements along D836. The development challenges that persist within the area include relatively high population density, a lack of social, economic, bulk infrastructure and a poorly developed local economy.

7.2.1.13 MATIWANESKOP, JONONOSKOP AND OTHER NORTHERN SETTLEMENTS

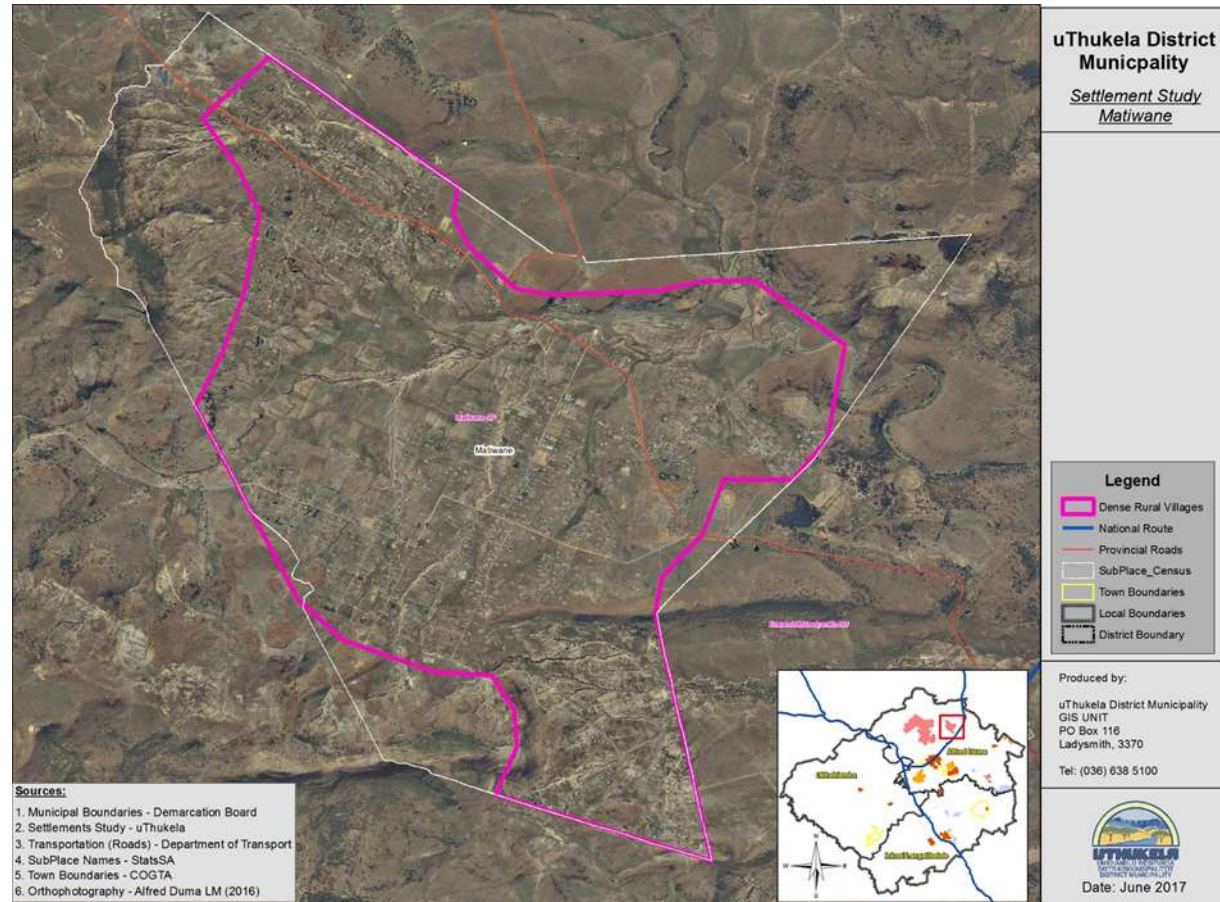
The northern settlements located within the Alfred Duma Local Municipality and covers approximately 99 833 ha of land. The area consists of the following settlement clusters:

- *Matiwane;*
- *Jonono*
- *Lucitania;*
- *Elandslaagte;*
- *Cremin; and*
- *Nkunzi.*

Expansive commercial agricultural farmlands covers the majority of the area, while isolated scattered rural settlements are found mainly in Matiwane, Nkunzi and Cremin on either communal property institution (CPI) or privately owned land. None of these settlements is located on Ingonyama Trust land. These settlements are situated approximately 30km north of Ladysmith, in close proximity to the N11. The local access road (P263) linking Matiwaneskop to the N11, as well as the access road servicing Jonoskop, is gravel. The other access road links Matiwaneskop to Driefontein. The settlements of Matiwane, Jonono, Nkunzi and surrounding farmlands are located as far as 30 – 50km away from the central business district of Ladysmith.

These areas function as the residential areas for the farming community and labour and can be considered as the peripheral to the economy of Alfred Duma Local Municipality. They are made out of ward 23 and 24 of the former Emnambithi/ Ladysmith Municipality and share the administrative boundaries with Endumeni and Dannhauser Local Municipalities.

Over the years, these farms attracted rural settlements with different which are spread within various parts of the farms but mostly along the main roads. This unplanned growth rendered a number of challenges including the provision of services and

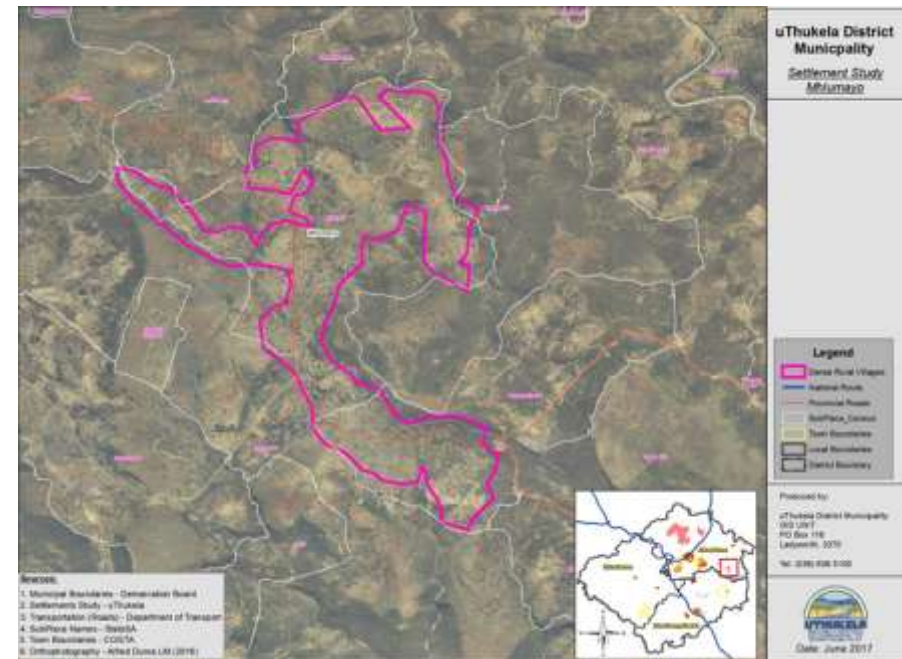


infrastructure. The area has not attracted any major physical development and has remained economically unproductive. This was further exacerbated by the closure of the mining activities within the area.

This area comprises of discrete pocket of settlements that are separated by a group of farms while linked by the main routes to each other. Matiwanoskop, Jononoskop and Lucitania share the same pattern which is a simple grid-iron. This pattern is familiar amongst betterment planning and early township planning approaches. The grid-iron pattern is favourable considered for the delivery of services. However Nkunzi and Cremin settlement areas do not follow this pattern. It appears as if these areas were not subjected to any proper land use allocation as a result these settlements do not have any recognizable structure.

7.2.1.14 MHLUMAYO

Mhlumayo comprises of a number of isolated rural settlements spread unevenly over a large area. It is located on Ingonyama Trust land where the residents enjoy functional tenure. The area falls under the jurisdiction of Sithole Tribal Authority. Umhlumayo is located along P 349 on the southern part of Indaka. It is approximately 43km towards the south of Umkhumbane. Mhlumayo is a mere settlement, which is poorly developed with economic infrastructure. The key challenge is to transform the area into a sustainable human settlement that enables the community to meet its development needs and generates economic development opportunities. This area has not benefitted from any formal spatial planning. The settlements occur in the form of a dispersed pattern and Land allocation decisions are taken in terms of customary law and traditional practices.



SMALL RURAL VILLAGES

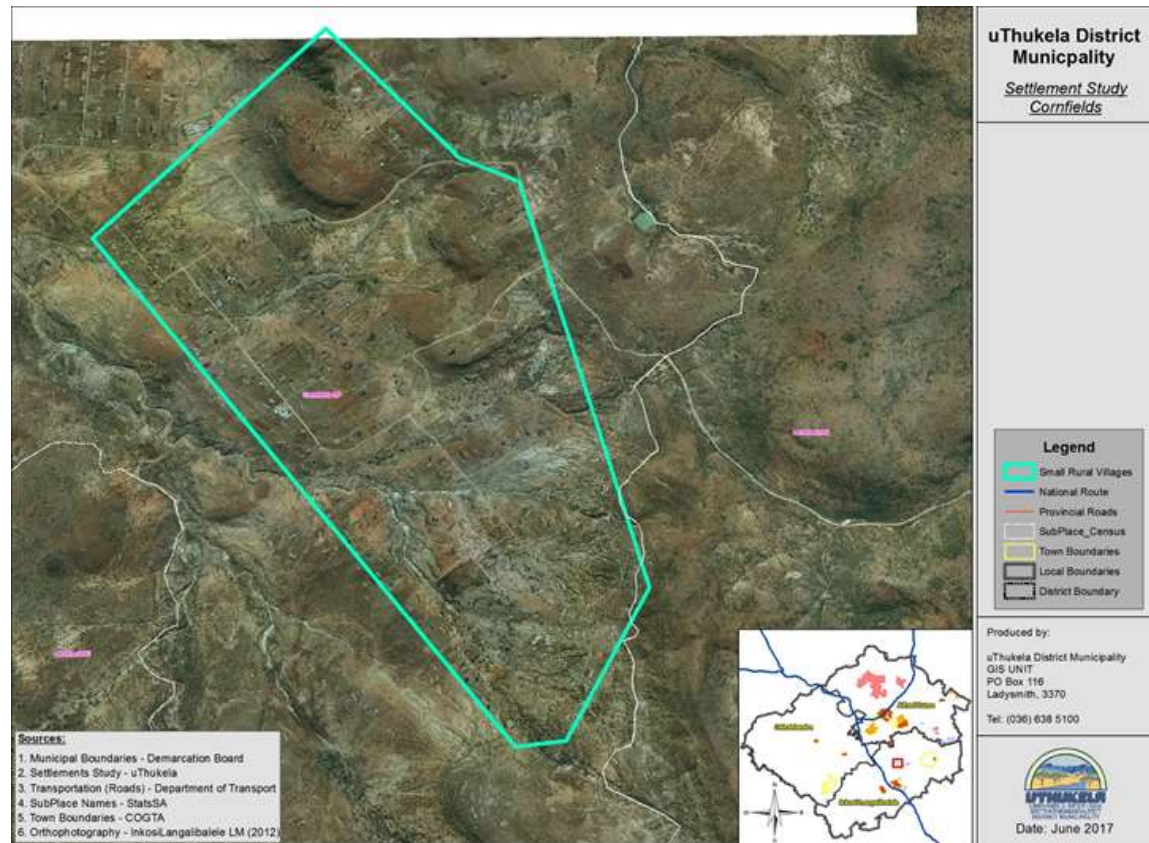
7.2.1.15 CORNFIELDS AND THEMBAlihLE

The communities of Cornfields Thembalihle are one of the very first communities to acquire land in KwaZulu-Natal in terms of the land redistribution program. They acquired 11 farms totalling to about 8531ha. Although both areas were planned as part of the designation process, settlement and general land use seem to have deviated from the approved plans. The latter made provision for the following:

- *Settlement or residential development.*
- *Grazing land.*
- *Crop production areas.*
- *Sites for social facilities.*

Although these areas were each developed for a specified number of households, they have grown beyond the original numbers and threaten to develop into expansive isolated rural settlement. Both areas have a history of being black spots

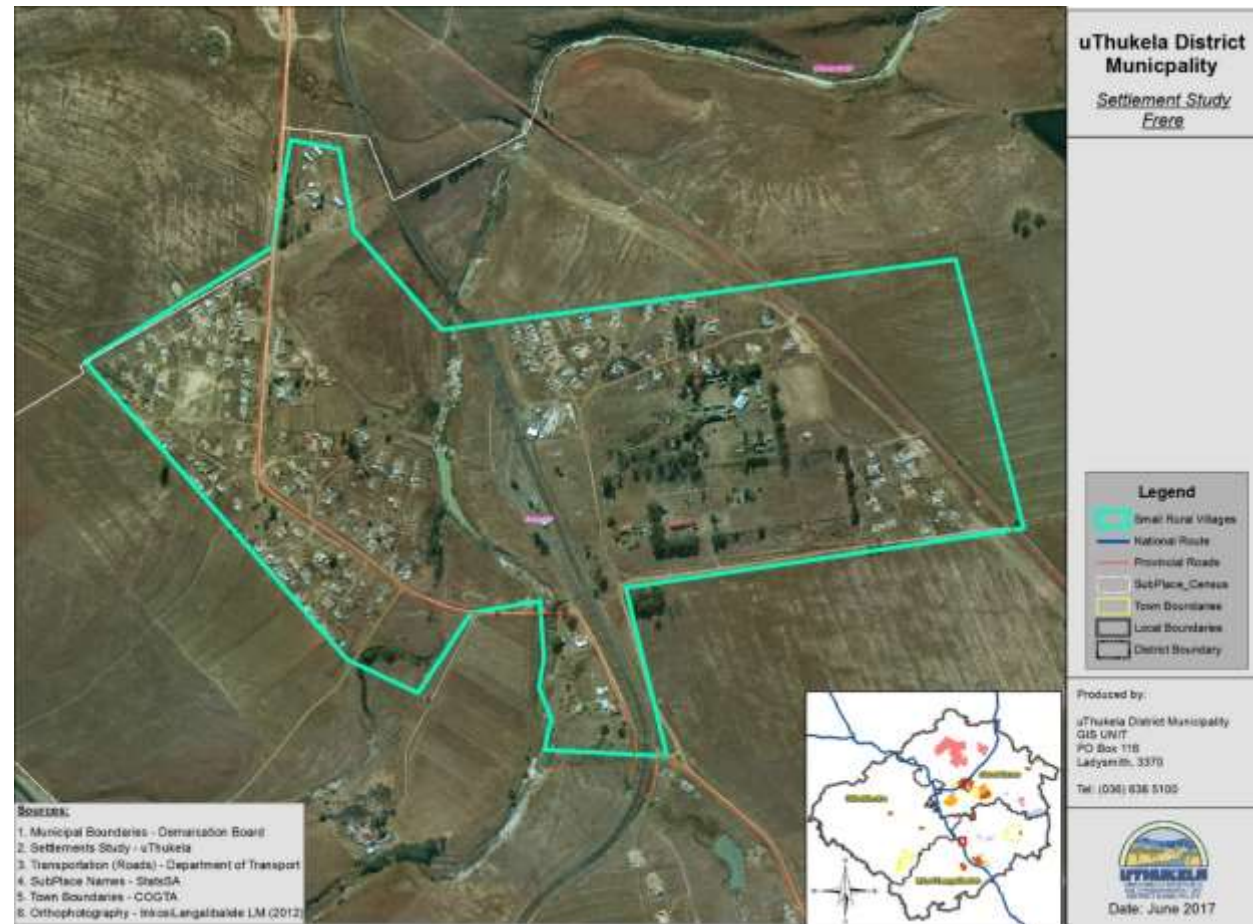
hence location in the middle of agricultural land. Both areas should be considered for development into sustainable human settlements as provided for in the housing policy and the Sustainable Communities Program implemented by the Development Bank of Southern Africa (DBSA).



7.2.1.16 FRERE AND CHEVERLY

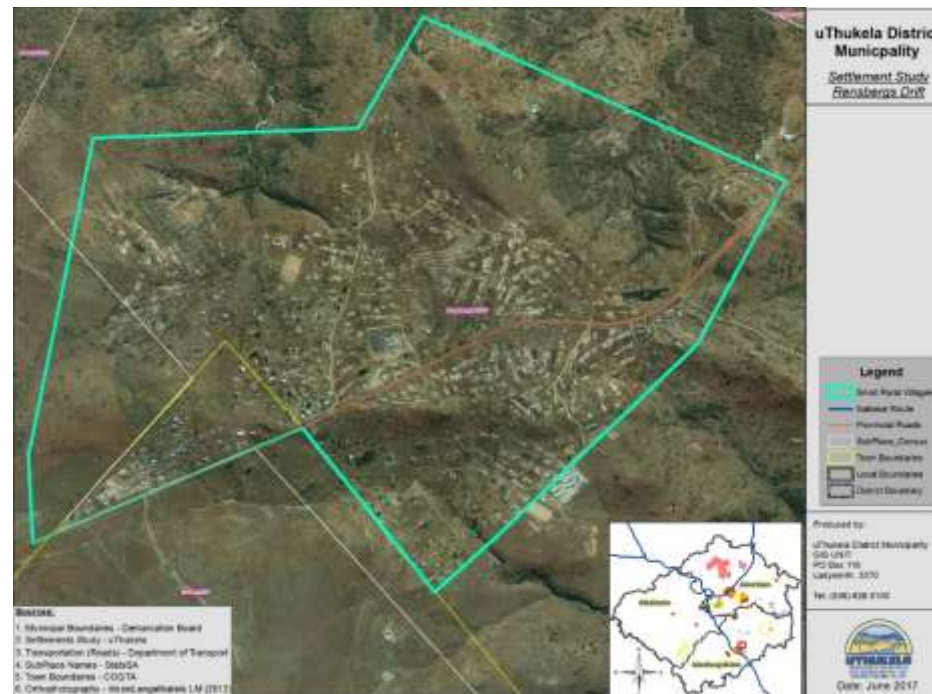
Frere and Chevelry are both small isolated settlements located on privately owned land. Over the last few years, the number of households in both areas has increased enormously, and this trend is poised to continue. These settlements are situated along the main regional access routes, which establish them as ideal centre points for the development of clusters for the benefit of the land reform beneficiaries. Land adjacent to Chevelry is registered in the name of Sibuyile Mawane Community land Trust and was acquired in terms of the land reform program. Spatial development challenges in these areas include the following:

- *Consolidation of the area into a sustainable human rural settlement.*
- *Integration into the surrounding commercial farmlands through the promotion of sustainable agricultural practices.*
- *Integration with the surrounding land reform projects to form a cluster for sustainable land reform implementation.*



7.2.1.17 RENSBURG DRIFT

Rensburg Drift is located on privately owned land along the road to Weenen, approximately 7km outside of Estcourt. Like Emabhalonini, the settlement is expanding at a fast rate. Recently, there was an attempt to invade land which was acquired by some households in terms of the land reform program. The area poses similar spatial planning challenges as Emabhalonini, and its further outward growth should also be managed.

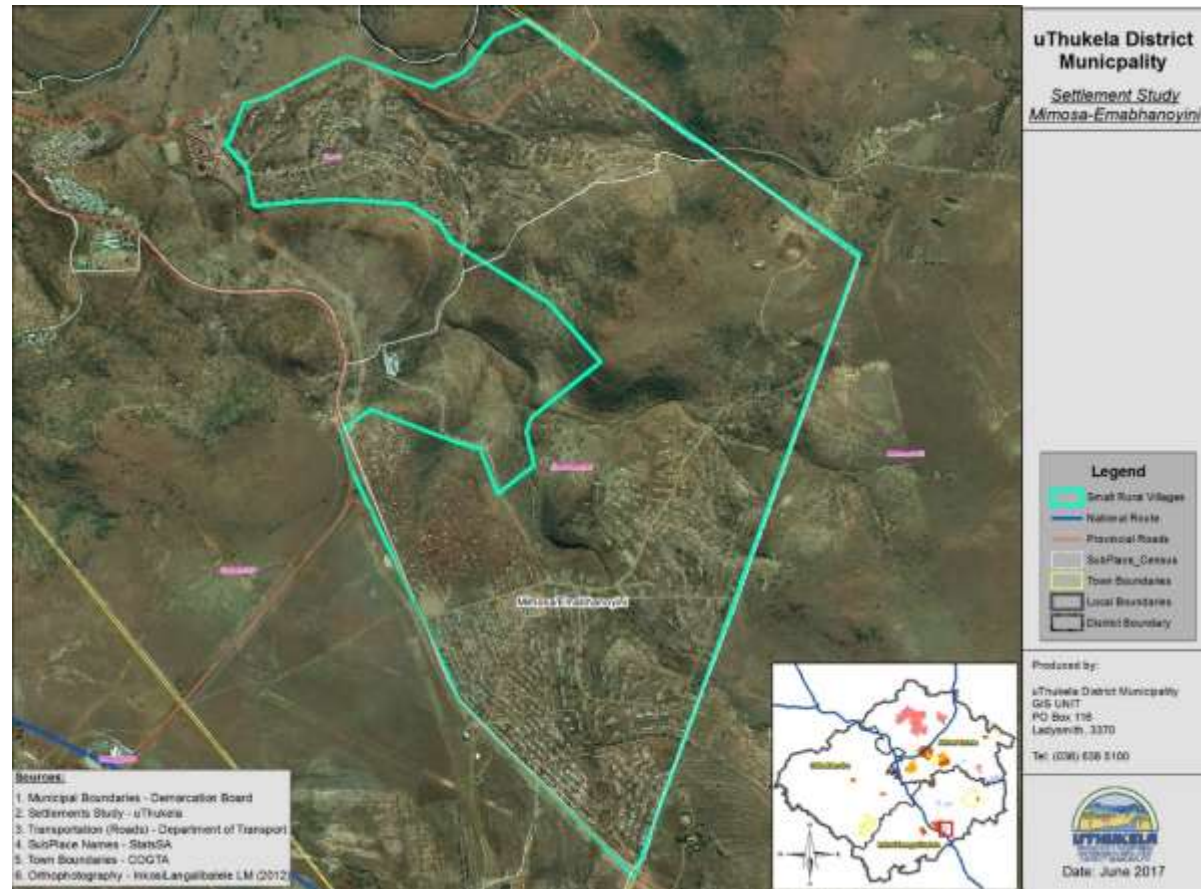


MIMOSA AND EMABHALONINI

Mimosa and Emabhalonini are both located to the east of Estcourt Town and could be described as peri-urban settlements. They are located on Inkosi Langelibalele local municipal land. Mimosa has benefitted from the housing program. As such, it has been planned, laid out properly and provided with rudimentary services.

Its development has led the growth of Emabhalonini as an expansive informal peri-urban settlement. Spatial development challenges in these areas could be summarised as follows:

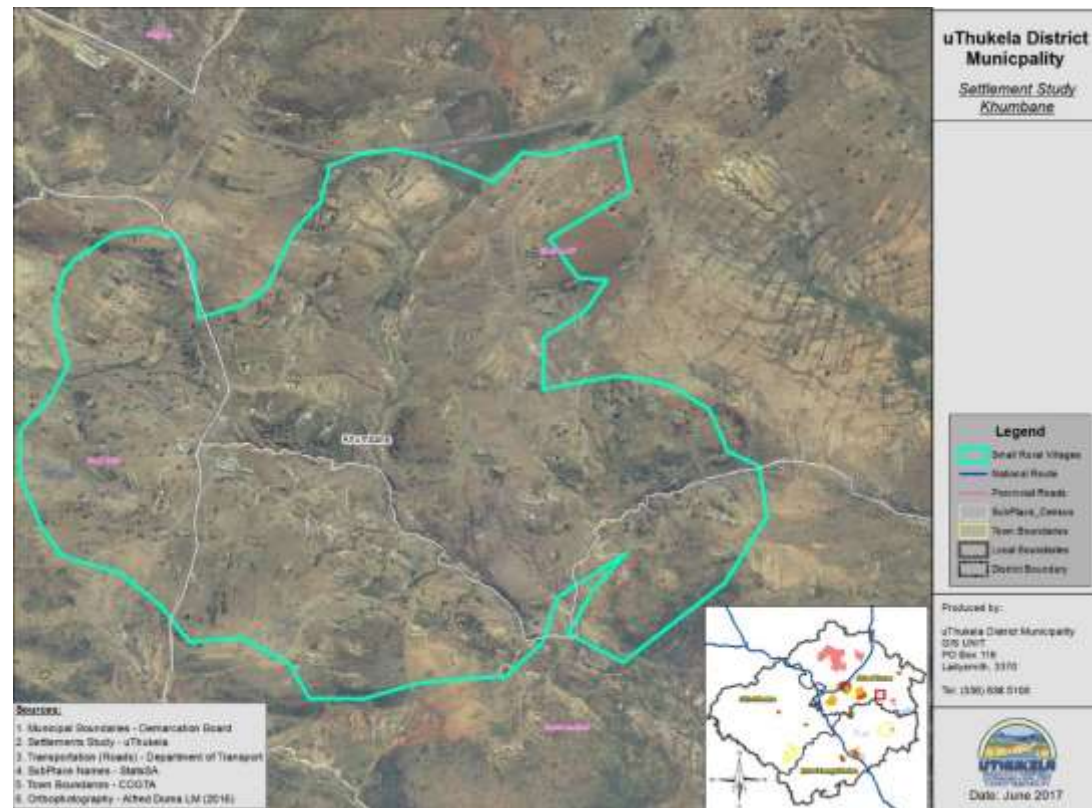
- *Upgrading of Emabhalonini in terms of the sustainable human settlements of the Department of Housing.*
- *Managing further growth of the settlements outwards as this gives rise to the undesirable low density urban sprawl.*
- *Introduction of development and land use management system in the area.*



Location of a dumpsite fairly close to Emabhalonini poses serious environmental and social problems. The municipality must consider relocation of the dumpsite away from the area.

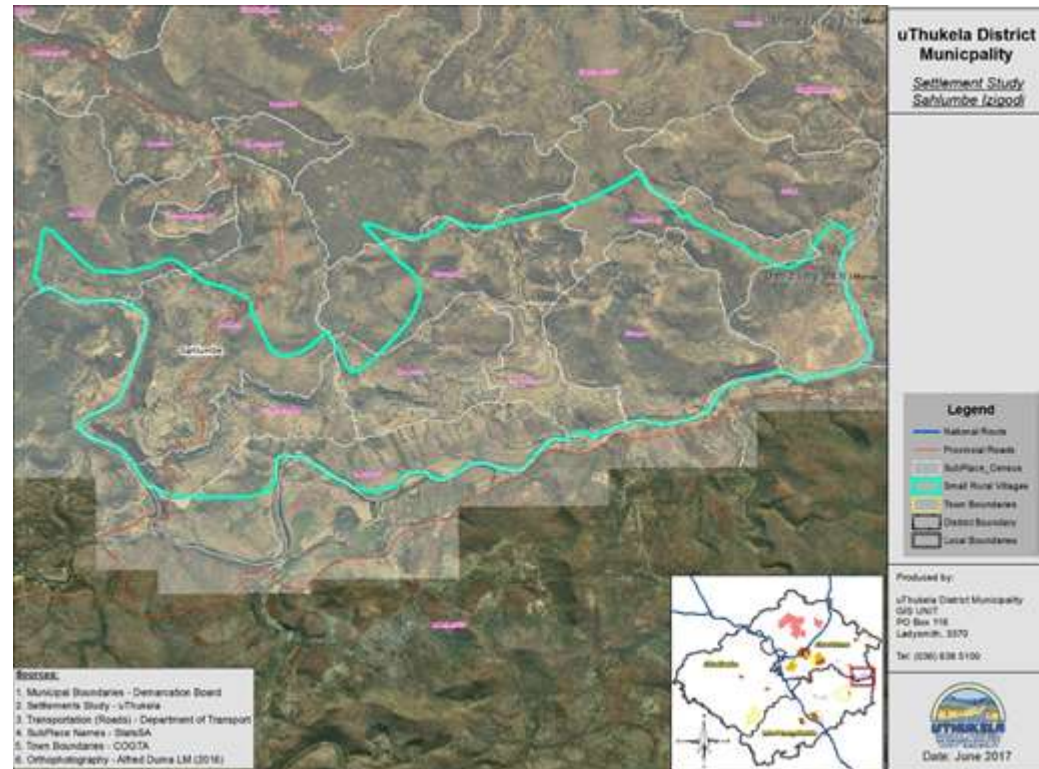
7.2.1.18 UMKHUMBANE

Umkhumbane is a relatively small settlement located in the middle of commercial agricultural land. It is located approximately 38km towards the south-west of Ekuvukeni and it is accessible via P349 which adjoins with P32. Umkhumbane is generally isolated from major settlements and urban opportunity areas. At a regional scale, it is poorly located, as the residents have to incur huge transportation costs to get to areas where they can access some of the social and economic services. Access to the clinic is generally poor. The same could be said about education facilities. Umkhumbane is a rural settlement with a limited role in the regional space economy. Spatial development issues in Khambi relates mainly to the displaced location of the area which renders service delivery difficult and has potential to impact negatively on the agricultural land.

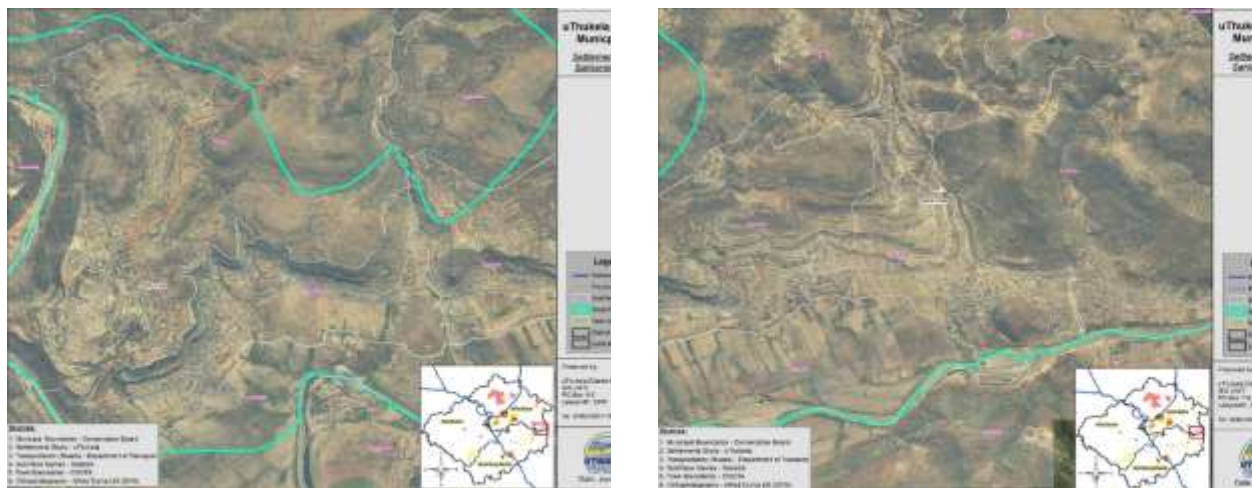


7.2.1.19 SAHLUMBE

Similar to Mhlumayo, Sahlumbe comprises of a number of isolated rural settlements spread unevenly over a large area. It is located on Ingonyama Trust land where the residents enjoy functional tenure. The area falls under the jurisdiction of Mthembu Tribal Authority. Sahlumbe is located along P349 further south of Indaka. It is approximately 10km towards the south of Mhlumayo. Sahlumbe is a mere settlement, which is poorly developed with economic infrastructure. The key challenge is to transform the area into a sustainable human settlement that enables the community to meet its development needs and generates economic development opportunities. This area has not benefitted from any formal spatial planning. The settlement occurs in the form of a dispersed pattern and land allocation decisions are taken in terms of customary law and traditional practices. A need may arise to identifying and developing of a service centre that links settlements together and facilitates efficient delivery of services.



The following maps indicate the west and east portions of Sahlumbe.

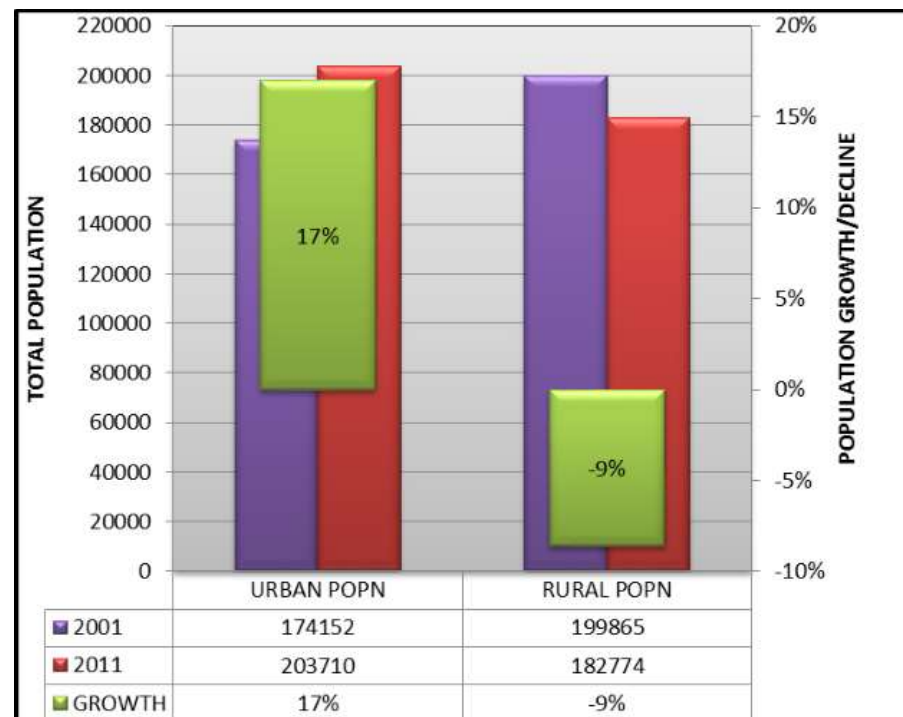


7.3 URBANISATION AND POPULATION OUT-MIGRATION

Urbanization is the increasing number of people that migrate from rural to urban areas and mainly results in the physical growth of urban areas. The comprehensive analysis of the population statistics at ward level for all five municipalities around Uthukela district in the years 2001 to 2011 suggests that overall the urban areas have been growing since the year 2001. This growth can be attributed to the potential employment and economic opportunities available in the urban areas and also to the availability of a range of services and transport infrastructures. The figure above illustrates this growth with the urban areas experiencing a growth of 17 percent and the rural areas experiencing a decline of 9 percent.

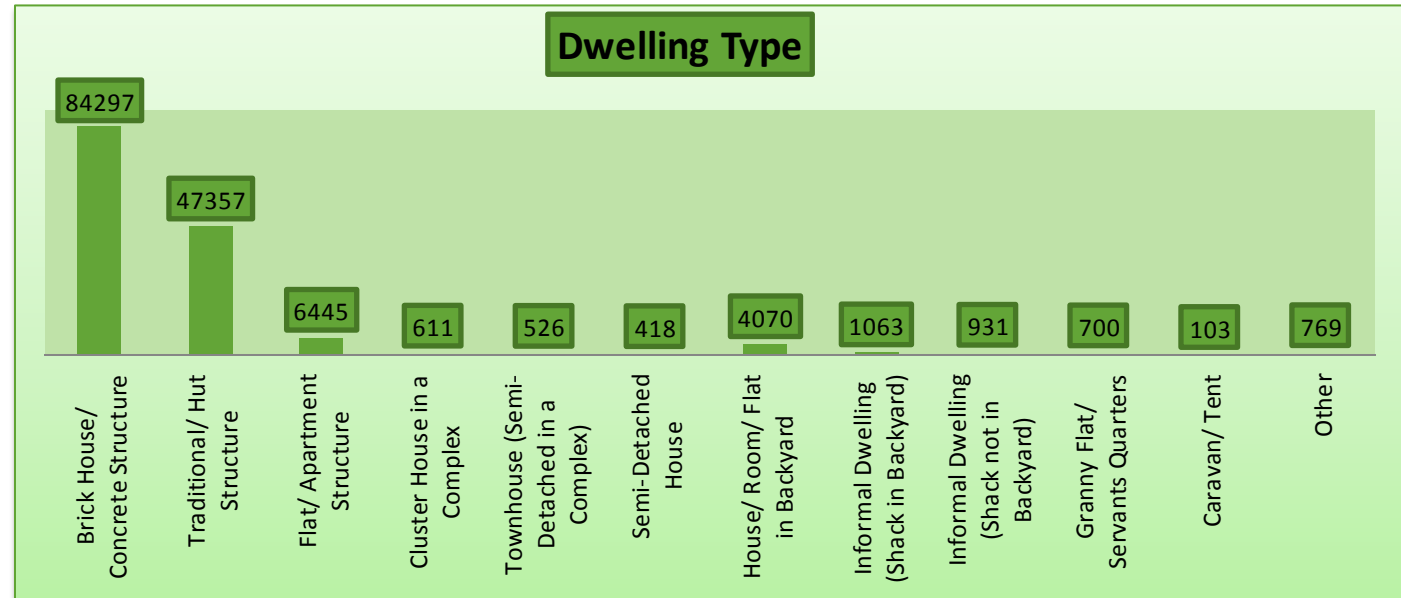
Table 2 above shows that the urban areas of Estcourt (66%), Weenen (56%), Steadville (46%), Ladysmith (24%) and Bergville (36%) have experienced significant growth since 2001. This may be due to the number of well-established industrial, commercial and residential areas in and around those towns and the availability of social infrastructures etc. The rural areas on the other hand such as Matiwaneskop (23%), Giants Castle area (14%), Dukuza (12%) and Frere and Cornfields (10%) have experienced a decline since 2001 as depicted in table 1. However it is worth noting that not all the areas around Uthukela have supported these findings, urban areas such as Winterton town and Ekuvukeni Township have

declined over the past years with 34 and 11 percent respectively whereas the rural area of Zwelisha has experienced a growth of 13 percent as depicted by table 1 & 2 above. This implies that almost all the rural areas of UThukela have been experiencing population outmigration, whereas the urban areas have been experiencing in-migration. This overall results where to be expected for both the urban and rural areas and therefore it is safe to assume that UThukela has been urbanizing since the year 2001.



7.4.1 FUTURE POPULATION GROWTH PROSPECT HOUSING DELIVERY

According to Census 2011, the type of housing within the district is mainly dominated by Brick Houses (57%), Traditional Houses (32%), Flats (4%) and Informal Dwelling (2%). A need to deliver adequate shelter for the needy residents of UThukela is evident from the number of households that reside within the informal settlements as these are estimated at 1994 (of which 1093 reside in shacks backyard and 931 reside in the squatter camps). The number of households that reside in



traditional settlements is also considered to as needy in terms of housing delivery since most of the dwelling structures within these settlements do not meet the standards that warrant suitable human cohabitation. The number of households who reside in traditional structures is estimated at 47 357. This implies that the total backlog is 49 351 households. There are nineteen housing projects that are on the pipeline within UThukela District.

These total threshold of the units that these will deliver when successfully completed is estimated at 12 949. These projects can be listed as follows:

Project Name	Local Municipality	Project Type	No. of units	Project Status (March 2014)
Umbulwane Area H	Alfred Duma LM	Information Settlement Upgrade	500	Planning
Mimosadale Ph 2	Inkosi Langalibalele LM	Integrated Residential Development	1000	Feasibility
Rensburgdrift	Inkosi Langalibalele LM	Slums Clearance	1000	Feasibility
Owl & Elephant	Inkosi Langalibalele LM	Information Settlement Upgrade	500	Identified
Msobotsheni	Inkosi Langalibalele LM	Information Settlement Upgrade	500	Identified
Confield	Inkosi Langalibalele LM	Information Settlement Upgrade	2000	Identified
KwaShuzi	Alfred Duma LM	Information Settlement Upgrade	1000	Identified
Emmaus	Okhahlamba	Information Settlement Upgrade	1000	Identified
Peacetown, Emoba and Kirkintulloch	Alfred Duma LM	Information Settlement Upgrade	500	Feasibility
Burford, KwaGodi, Esidakeni, Shayinduku and Emaromoni	Alfred Duma LM	Information Settlement Upgrade	150	Feasibility
Roosboom, Driefontein, Emadrayini and Baldskraal	Alfred Duma LM	Information Settlement Upgrade	596	Feasibility
Driefontein (134), Matiwanoskop (400) and Jononoskop	Alfred Duma LM	Information Settlement Upgrade	553	Feasibility
Watersmeet (150)	Alfred Duma LM	Information Settlement Upgrade	150	Feasibility
St Chads Extension	Alfred Duma LM	Information Settlement Upgrade	500	Feasibility
Acton Homes	Okhahlamba	SLUMS Clearance	1000	Feasibility
Fitty Park	Alfred Duma LM	Information Settlement Upgrade	1000	Feasibility
VAALKOP	Alfred Duma LM	Information Settlement Upgrade	1000	Feasibility
Ephangweni	Inkosi Langalibalele LM	SLUMS Clearance	To Be Confirmed	Planning
TOTAL			12 949	

Once completed the housing backlog will still remain at 36 402 households. There are ten proposed housing project which are still at an identification stage. The total yield in terms of the number of units is estimated at 9 500 units. This implies that the backlog will be further reduced to 26 902. The proposed projects can be listed as follows:

Project Name	Project Type	Local Municipality	Number of Units	Project Status
Moyeni	Information Settlement Upgrade	Okhahlamba	1000	Identified
Dukuza	Information Settlement Upgrade	Okhahlamba	1000	Identified
Thembalihle	Information Settlement Upgrade	Emnambithi/ Ladysmith	500	Identified
Ngonyameni	Information Settlement Upgrade	Imbabazane	1000	Identified
Mnyangweni	Information Settlement Upgrade	Imbabazane	1000	Identified
Shayamoya	Information Settlement Upgrade	Imbabazane	1000	Identified
Mhlungwini	Information Settlement Upgrade	Imbabazane	1000	Identified
Somshoek	Information Settlement Upgrade	Indaka	1000	Identified
Nazerath	Information Settlement Upgrade	Indaka	1000	Identified
Kwancema	Information Settlement Upgrade	Indaka	1000	Identified
TOTAL			9 500	

7.4 SPATIAL POSSIBILITIES FOR DENSIFICATION

Densification is defined as follows:

The increased use of space, both horizontally and vertically, within existing areas/properties and new developments, accompanied by an increased number of units and/or population threshold

Incremental densification, in turn, denotes the following:

- Small-scale densification that has a relatively low impact on the character of an area, e.g. the subdivision of a residential property or construction of a second dwelling;

- Density is not an end in itself, but a means of improving the sustainability of the city as well as the vitality of urban precincts. It is a relative indicator of the intensity of development and the population thresholds that could support economic activity, public transport services and the like.

7.6.1 MOTIVATION FOR DENSIFICATION

Densification can contribute to the creation of good-quality, efficient and sustainable urban environments in a number of ways, including the following:

- *Densification reduces the consumption of valuable/non-renewable resources*
- *By encouraging development upwards rather than outwards, densification helps reduce the consumption of valuable resources such as agricultural land, areas of mineral potential, aquifer recharge areas and valuable biodiversity areas. It can also reduce the consumption of non-renewable fuels by lessening car dependence.*
- *Densification supports the development of a viable public transport system.*
- *Higher densities, accompanied by increased population thresholds and mixed-use development, support the efficient functioning and viable provision of public transport services, especially on major line-haul routes for mass and rapid transit.*
- *Densification makes the city more equitable*
- *Higher densities in appropriate locations, especially those close to urban opportunities (services, facilities, jobs) and public transport, help rationalize the housing pattern in the city, and improve access to the city's amenities and facilities. They help reduce travel distances and times, as well as the associated costs.*
- *Densification facilitates economic opportunities and supports service provision*
- *Higher densities, accompanied by increased population thresholds, create sufficient consumers to generate the development of economic opportunities, social facilities and services, and enable the cost-effective provision and optimal use of infrastructure; especially where there is excess service capacity or where increased thresholds are required to provide services and infrastructure.*
- *Densification improves housing patterns and choice of house type*
- *A mix of residential densities ensures diversification and choice of housing types and tenure options.*
- *Densification contributes to urban place-making and improves safety*

- *Appropriately designed and located higher densities (in terms of form, scale, height, orientation) can provide an opportunity for place-making and the creation of attractive and safe urban environments, particularly those in proximity to public spaces (both natural and built).*
- *Higher densities are not a guarantee of quality urban environments, appropriate built form or good urban design. However, the extremes of either very high or low densities often result in negative urban environments. Appropriate regulations, local development policies and urban design policies can be used to help prevent negative built environments.*
- *The key elements of densification are the promotion of compact, integrated and efficient urban form. This can be attained by limiting urban sprawl, by promoting higher densities, infill and re-development in and around the urban core and other activity nodes and by the promotion of mixed use activity corridors linking otherwise isolated and nonfunctional areas with a focus of public transport.*
- *Infill refers to development of vacant or under-utilized land within the existing urban areas. In order to promote a more compact urban development, attention should be given to those areas that are not densely developed but are well serviced and centrally located. These gaps within the urban fabric should be identified for priority projects.*
- *Vacant land within the central area provides infill opportunities to make use of existing services and to strengthen internal development. Vacant land beyond the central area provides opportunities for linking and integrating peripheral areas. The different methods for achieving densification can occur through:*
- *Infill development on vacant or underutilized parcels of land at higher densities. A range of infill processes may include transfer of development rights, land exchanges, land consolidation, public housing projects and so forth.*
- *New development on vacant or under-utilized land at higher densities*
- *Cluster development on large parcels of land through a consolidation process*
- *Conversion of existing building (sometimes vacant/derelict) to other uses*
- *Subdivision of large pieces of land to encourage higher densities*
- *Allowing additional units to be developed on a single piece of land*
- *Redevelopment of poorly functional areas to encourage and facilitate infill*

Infill and densification as proposed above are key strategies contributing to the restructuring of urban environment. Other key interventions include but not limited to the following:

- *Promote efficiency by curbing low-density sprawl*
- *Spatial restructuring and promotion of the generation of income-earning opportunities in appropriate places.*

- *Improving basic infrastructure, provision of supporting infrastructure and services including housing opportunities and adequate facilities.*
- *Upgrading of existing informal settlements*
- *Creating of social services, with a clustering of activities in accessible places*
- *Redressing spatial marginalization through improved transport linkages, creation of public transport hubs and enhanced accessibility to centers of employment*
- *Maximizing job opportunities/creation through the promotion of local economic development,*
- *Create appropriate trading areas that are conducive to promoting marketing opportunities for emerging as well as established businesses.*
- *Attract new investment by creating robust and crime controlled environments*
- *Promote urban agriculture as part of land use policy*

7.6.2 TOWARDS A DENSIFICATION STRATEGY FOR THE UTHUKELA DISTRICT MUNICIPALITY

The local municipalities must develop municipal wide densification strategies and seek to shift the growth trajectory of the urban component in a more efficient, equitable and/or sustainable direction. This could be achieved through the development of a specific strategy for the direction and management of one of the most important characteristics that influences the quality and performance of, and the efficiency and sustainability of human settlements i.e. urban and rural settlement density. UThukela District Municipality is faced with having to manage the challenges/ opportunity associated with an abundance of natural/ tourism and historical resources, high population growth and rural to urban migration whilst at the same time, enhancing the sustainability and livability of the area under its jurisdiction. In developing this strategy the focus has to be as follows:

- *Identify and consolidate ideas, concepts and definitions relating to density in a particular municipal area into a widely accepted policy statement and also a management framework for density;*
- *Begin to align key planning and development stakeholders in the public and private sector around these ideas, concepts and definitions and the manner in which it can be effectively implemented;*
- *Understand the contextual and management dynamics that underpin density targets, patterns and trends in the UTDM context;*

- *Identify practical and realistic implementation interventions and tools that can be inserted into the existing (and proposed new) policy, operational and urban management environment of the Municipality so as to unlock impediments to achieving density targets and/or the creation of quality living environments;*
- *Identify areas within the urban environment that are suitable for densification and the appropriate mix of interventions and tools for achieving targets in these areas.*

The strategy should also make use of existing planning and development tools, policies and plans within the Municipality, and should strive to ensure that densification is:

- *Located along Integrated Public Transport Network*
- *Located within identified Nodes and Corridors*
- *Within the Urban/ Rural Development Line (UDL)*
- *Within available services and close to social facilities*
- *In proximity to economic/employment opportunities.*

The strategies for achieving densification can occur in a variety of ways *inter alia*:

- *New development on vacant or under-utilized land at higher densities.*
- *Subdivision of large pieces of land to encourage higher densities*
- *Infill development on vacant or underutilized parcels of land at higher densities. A range of infill processes may include transfer of development rights, land swaps, land consolidation, public housing projects and so forth.*
- *Cluster development on large parcels of land through a consolidation process*
- *Redevelopment of poorly functional and underdeveloped areas to encourage and facilitate infill.*
- *Introduction of a range of housing products/ typologies to meet the densification requirements.*

In view of the foregoing, some innovative thinking will be crucial to the realization of the strategy, and there will need to be a emphasis on Brownfield rather than Greenfield development. Creative land assembly strategies and the rethinking of restrictive housing typologies are critical to the success of sustainable densification. Innovation in design that reduces the environmental impact of densified development (energy efficiency of buildings e.g. building orientation, recycled water systems, solar water heating etc.) and to create integrated, healthy and safe communities is essential.

7.6.2.1 MEASURES OF DENSIFICATION

A range of measures are used to calculate and compare built form and population densities. Some of the commonly used measures are dwelling unit density (gross/net), population density, and gross base density. Table 1 below describes these measures in more detail. This policy makes use of a gross base density at the citywide level, and net du/ha figures when setting density guidelines in specific locations. When planning the provision of social facilities and public open space, or undertaking market analyses, population density is the most appropriate measure of densification. The proposed densification parameters should be used as a guide and not seen as the replacement of the schemes. These are mainly created to set the tone for the areas that the SDF has identified as strategic points within the district. See table below for more details.

MEASURE	DEFINITION
Du/ha	Number of dwelling units per hectare (du/ha).
Population density	Number of people per hectare (calculated by multiplying the number of units by an appropriate average household size).
Building density	Ratio of total building floor area to the corresponding site area.
Gross du/ha	The number of dwelling units per hectare of land calculated in a designated area on the basis of land used for residential purposes and other land uses, such as industry, commerce, education, transport and parks. Excluded are land-extensive uses, such as agricultural land and natural areas/nature reserves/parks.
Net du/ha	The number of dwelling units per hectare of land calculated on the basis of land used for residential purposes, including the garden and off-street parking, if any.
Gross base density	The average number of dwelling units per hectare across the city as a whole or a smaller unit, excluding land-extensive uses, such as agricultural and rural land and large natural areas/nature reserves.

7.6.2.2 SPATIAL LOCATION CRITERIA AND DENSITY PARAMETERS

SPATIAL LOCATION CRITERIA AND DENSITY PARAMETERS			
Targeted Areas	Description of the Spatial Area/Structure	Targeted Locations/Areas	Density Guidelines at the Locations
SPATIAL STRUCTURING ELEMENT			
Regional and Urban Nodes	Urban nodes characterised by a very high/high intensity, mix and clustering of urban activities or land use at points of very high/high accessibility, exposure, convenience and urban opportunity. Examples: Ladysmith	Generally within and abutting the defined node or central business district area. Particularly in the vicinity of public transport routes, interchanges and stations, near civic precincts, public open space and where there is a diverse, concentrated mix of land uses, activities and services	100–375 du/ ha (net) Four to 15 storeys
	District and local urban node Urban nodes characterised by a very medium intensity, mix and clustering of urban activities or land use at points of good accessibility, exposure, convenience and urban opportunity. They tend to serve district or suburb-level needs. Examples: Bergville, Estcourt, Weenen, Ekuvukeni, Ezakheni town centres	Generally within and abutting the node with a focus on public transport routes, interchanges and stations, next to civic precincts, public open space, and where there is a diverse and concentrated mix of land uses, activities and services	75–175 du/ ha (net) Three to seven storeys
INCREMENTAL DENSIFICATION			
DISTRICT WIDE	All single, residential zoned areas	All locations as permitted by the zoning scheme or applications for new rights	Second dwellings as well as other forms of development, provided no external departures are required and the character of the area and rights of surrounding properties are not negatively affected

AFFORDABLE HOUSING AREA			
Specific residential areas	Within areas of focused public-sector investment, e.g. subsidised housing	Informed by spatial structure locations	80-300 du/ha (net) Single to 4storeys, informed by spatial structure
SPATIAL STRUCTURING ELEMENTS			
Development Route	Major district movement routes, including linehaul public transport. Mixed land uses and higher density development tend to be nodal, with access provided at intersections, and generally linked to parallel and connecting side routes. Development routes may include short stretches of 'activity route' -type development. Examples: N11, R74, R33 routes	Particularly near points of direct access, transport intersections and interchanges, places of intense mixed-use and nodal activity ('activity route' character) and next to or part of commercial complexes	75-175 du/ha (net) 3-7 storeys
Activity route	Significant and/or metro-wide to district route, characterised by strip and/or nodal urban development along sections of the route. Activity routes are generally supported by a mix of land uses and higher-density urban development. Activity routes are characterised by direct access and interrupted movement flows, especially at bus and taxi stops and traffic lights.	Generally near the activity route, but particularly near public transport interchanges and stations, mixed-use areas and concentrated activity, business/ commercial nodes, and public institutions and facilities including open space	100-375 du/ha (net) Four to 15 storeys

Activity street	Local routes characterised by continuous development, including mixed land use, linear commercial and business developments, light industry, institutions and social facilities. Activity streets are characterised by direct access and interrupted movement flows, especially at bus and taxi stops and traffic lights.	Generally near the activity street, but particularly near public transport stops, stations and route intersections, in mixed-use areas and concentrated activity, local business/commercial nodes, and at public institutions and facilities including open space	35–100 du/ ha (net) Townhouses – four storeys
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1. Construction of attached / detached second dwellings, including the changing of non-residential buildings, or parts of buildings, to residential buildings (e.g. garages).



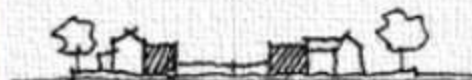
SCHEMATIC CROSS SECTION



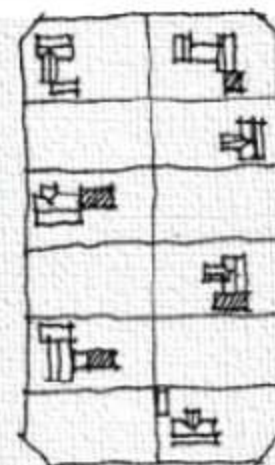
SCHEMATIC BLOCK LAYOUT

□ Existing ■ Second Dwelling

2. The increase of existing bulk rights through the extension of the building or adding-on of floors to accommodate an increased number of units.



SCHEMATIC CROSS SECTION



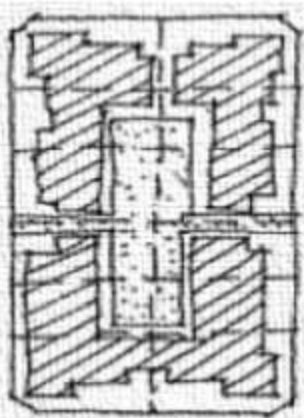
SCHEMATIC BLOCK LAYOUT

□ Dwelling ■ Addition

3. Block consolidation of even with redevelopment at higher densities.



SCHEMATIC ELEVATION



SCHEMATIC BLOCK LAYOUT
(Showing underlying subdivision)

■ New Building □ Court

4. Subdivision of land, and redevelopment at higher densities.



SCHEMATIC CROSS SECTION



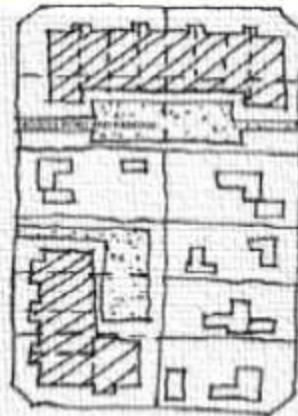
SCHEMATIC BLOCK LAYOUT

- - - New Subdivision ■ New Dwelling

5. Consolidation with redevelopment at higher densities, including the demolition and integration of existing structures.



SCHEMATIC ELEVATION

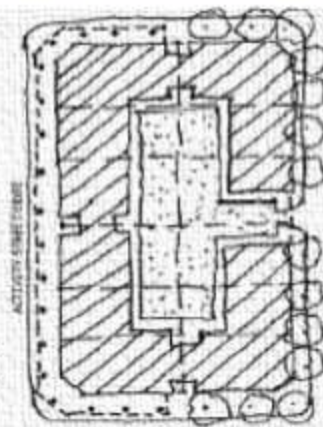


SCHEMATIC BLOCK LAYOUT

Existing New



SCHEMATIC ELEVATION



SCHEMATIC BLOCK LAYOUT
(showing underlying subdivision)

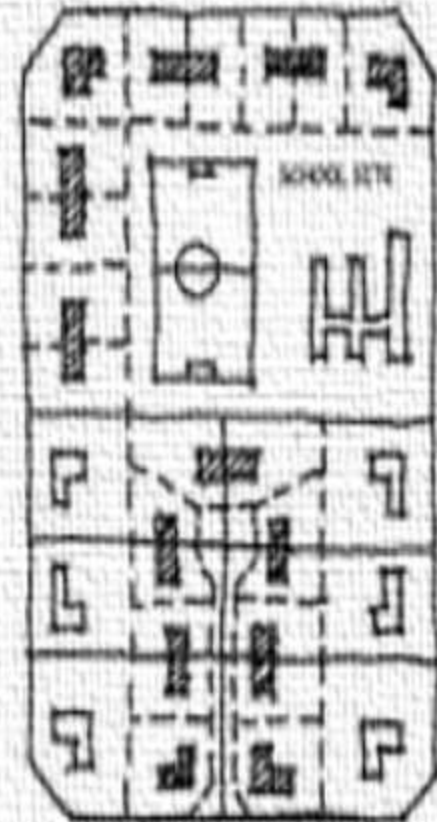
New Development Court

7. Consolidation of sites within a street block to create a single, larger parcel for redevelopment into multi-storey units.

6. Higher-density infill on vacant and underutilised land throughout the built area of the city.



SCHEMATIC CROSS SECTION



SCHEMATIC BLOCK LAYOUT
(with underlying subdivision)

7.6.2.3 GUIDING CONTEXTUAL INFORMANTS

The contextual informants that should guide the evaluation of development applications in their immediate context are outlined in table below:

CONTEXT	INFORMANTS
Surrounding Land Uses	<p>The general land use character of an area is important when considering the suitability of higher-density development. Urban areas (existing or planned) characterised by a diverse land use mix (including different types of residential development) and a fine built grain of development are best suited as locations for higher densities. If an area is solely single-dwelling residential, greater attention needs to be given to the height and form of new developments than where flats and other forms of mixed land use development already exist. Townhouses or low-rise flats can be highly compatible within a single-dwelling residential area. Higher-density residential development is not particularly appropriate in predominantly industrial areas, where amenity and general living are negatively affected.</p>
Built Heritage	<p>Higher-density forms of development need to be carefully evaluated in order to ensure that proposals fit in with the surrounding environment. The form and design of the development must be compatible with the area's built/natural character. If it is not possible to accommodate a compatible built form without negatively altering the existing built context, or compromising the surrounding built environment, the development should not be supported.</p>
Infrastructure	<p>The contextual consideration of applications for higherdensity forms of development entails a number of infrastructural factors:</p> <ul style="list-style-type: none">• The capacity to accommodate larger flows of traffic must be considered in conjunction with planned public transport upgrades. If necessary, transport impact assessment(s) must be undertaken.

CONTEXT	INFORMANTS
	<ul style="list-style-type: none"> • The capacity of the existing/planned bulk infrastructure services (water, wastewater/sewerage, electricity and stormwater) to accommodate increased service demands. Densification should not be supported where water, wastewater and stormwater capacity are reaching points of absolute constraint, and the cost implications of rectifying the situation are too high for the private sector, or are not provided for in the respective municipality's capital budget.
Socio-economic	<p>The affordability of the product and the compatibility of the intended market and/or product with the surrounding local communities require consideration. Consideration should be given to the fact that multistorey developments in low-income areas have not had a good track record, as they have become associated with negative social impacts.</p>
Community Facilities and Open-space provision	<p>The availability and/or provision of open space and community facilities (libraries, clinics, schools, police stations) are important contextual informants in the evaluation of medium to higher-density proposals.</p>
Natural Environment	<p>Higher-density forms of development should not have a negative impact on the landscape and scenic aspects of the surrounding natural environment, or on the operation of natural systems. The location, orientation, scale, height and design of higher-density development in scenic and sensitive landscapes should therefore be carefully considered to ensure that densification-related applications do not have a negative impact on the surrounding natural environment. For example, in locations abutting productive agricultural areas, lower-density forms of development may provide a more appropriate rural-urban interface and may reduce negative impacts such as crime and theft.</p>

7.6.3 THE ASSESSMENT OF APPLICATIONS

Densification decisions should be guided by the density decisionmaking framework and be balanced by resource limitations and infrastructure availability. Figure 6 outlines the components of the framework that should guide decisions regarding the location, form, extent, scale, height and orientation of densification.

Table: Density decision-making framework

STEP 1	STEP 2	STEP 3
Check for appropriate density intensity and form Generic Considerations <ul style="list-style-type: none"> ▶ Access to public transport ▶ Proximity to places of employment, services and facilities ▶ Proximity to open space ▶ Infrastructure capacity 	Consult density guides	Density decisions
	Zoning Scheme	Determine the density (height, form and orientation) appropriate to the location, and prepare conditions of approval (if applicable)
	Local/Density plans	
	Local Municipal SDFs and Spatial Development Plans (SDPS), LSDPS, LAPS etc)	
	Areas targeted for densification, and their associated density parameters	
	Policies (e.g. Parking policy, tall buildings use policy standards and guidelines for the provision of social facilities and public open space, infrastructure master plan)	
	Urban design and architectural policies and guidelines	
	Contextual Informants <ul style="list-style-type: none"> ▶ Natural environment ▶ Land Use, Built and heritage ▶ Infrastructure and Transport Impact Assessment ▶ Social Facilities ▶ Socio-economic 	

7.6.3.1 GENERIC CONSIDERATIONS FOR DENSIFICATION

Particular issues require consideration when identifying and evaluating areas or locations for higher-density forms of development, especially where densities are in excess of 50 du/ha (net) or where erven are smaller than 200 m². These are outlined in table below.

LEVEL OF DENSIFICATION	CONSIDERATION
Medium to High Level of Densification	<p>Access to public transport system (existing or planned)</p> <p>Medium to high levels of densification should be aligned with existing/proposed public transport routes. This is essential for housing development targeted at lower-income earners, who are unable to afford the costs of private transport. It should not be an overriding consideration for middle and upper-income townhouse/ group housing developments, as the residents are likely to make greater use of private transport.</p> <p>Land use integration</p> <p>Preferably medium to high levels of densification should be located near places of employment, social services and community facilities.</p> <p>Access and proximity to public open spaces</p> <p>Medium to high-density development should have access to urban open spaces (such as squares and promenades), recreational green spaces (parks and sports fields) and/or natural open space (nature reserves, beaches) to provide physical and psychological relief from higher-density living environments</p>

LEVEL OF DENSIFICATION	CONSIDERATION
All form of Densification	<p>Infrastructural capacity</p> <p>Densification should not be supported where water, wastewater and stormwater capacity are reaching points of absolute constraint, and the cost implications of rectifying the situation are too high for the private sector, or are not provided for in the respective municipal capital budgets.</p>

7.5 ADMINISTRATIVE STRUCTURE

Most parts of UThukela District Municipality are farmlands which are managed in terms of the Agricultural Act 70 of 1970. Under the KwaZulu-Natal Planning and Development Act No. 06 of 2008 (PDA), these areas are also subjected to land use controls when the municipalities develop the Wall-to-Wall Land Use Management

Schemes. In the case of land that is under Ingonyama Trust there are additional local structures that have the influence in terms of land allocation. These include tribal chief, their headman and sub-headmen.

The local municipalities have expressed challenges in terms of managing land allocation within the tribal council areas. There are instances whereby the municipality communicates with the tribal chiefs during the IDP processes with regards to land allocations. This affords the municipality a platform to advise the traditional council if their land allocation issues are not ideal. This may soon be resolved if all the municipalities manage to ensure that the recommendation of SPLUMA (to have wall-to-wall Land Use Management Scheme) is indeed implemented.

7.6 BROAD LAND USE ANALYSIS

7.6.1 LAND USE PATTERN

The evolution of land use pattern in the district is attributed to development such as the growth of economic opportunities, growth of new settlements, reaction of the natural environment, regional access routes and uniqueness of areas. The following broad land use categories are found in UThukela District Municipality:

- *Urban nodes are Ladysmith, Colenso, Ezakheni, Estcourt, Wembezi, Weenen, Bergville, Winterton and Ekuvukeni. Each of these plays a different role in the space economy. Some of these are the major commercial nodes such as Ladysmith and other smaller towns like Estcourt, Bergville and Winterton. The others are mainly dormitory suburbs.*
- *A sizeable portion of the municipal area comprises commercial agricultural areas. There are extensive and intensive farming activities throughout this area. They include crop production (primarily in irrigated areas), game farming, forestry and livestock farming.*
- *Traditional Authority Areas – there are several tribal areas with dense rural settlement which are mainly located in Inkosi Langalibalele LM and Alfred Duma LM.*
- *Rural settlement areas that are not located within proclaimed tribal areas. They include settlements such as Driefontein, Matiwanoskop, Jononoskop, Lucitania, Nkunzi, Frere, Chiveley, Cornfields and Thembalihle. The management of these areas in terms of land use activities remains a critical challenge.*
- *Conservation areas include Ukhahlamba Drakensberg Park, nature reserves (namely the Weenen, Wagendrift and Moor Park Nature Reserves), game farms and heritage sites.*

7.6.1.1 URBAN AREAS

The urban areas occupy 259 km² of the total surface area within the district and this only accounts for 2,2% of the total district. These are the highest development intensity areas for integrated land use management including the introduction of comprehensive planning schemes.

7.6.1.2 COMMERCIAL AGRICULTURE

The dominant land use within UThukela is commercial agriculture, which covers 6852 km² or 60% of the geographic area of the district municipality. Existing commercial agriculture is represented by commercial crops and commercial forestry which accounts for a smaller fraction of the municipal area. The potential commercial agriculture category refers to grassland which covers most of the municipal area.

7.6.1.3 TRADITIONAL AUTHORITY AREAS

The traditional authority areas account for 18% (2078 km²) of the whole district. These areas comprises of settlements, subsistence agricultural land and limited social and economic activities. The composition of these areas is as follows:

LOCAL MUNICIPALITY	TA Area km ²	% TA Area km ²
Alfred Duma LM	699	33
Okhahlamba Im	931	45
Inkosi Langalibalele LM	448	22
Total	2078	100

7.6.1.4 RURAL SETTLEMENTS

Settlements represent 2% of the land uses in UThukela, which is a small percentage of geographical space. Land uses within the main urban centres include residential, commercial, industrial and a range of other complementary land uses. These areas also provide a high level of social and infrastructural services. Other settlements, which are significant in size but are not formalised urban areas, include Driefontein complex, Matiwane complex and Roosboom. Other smaller settlements are scattered within the municipal landscape and include, Lucitania, Blue Bank Settlement, St. Joseph's Mission, Droogval Settlement, Steincoal Spruit (Nkunzi) and the Van Reenen.

7.6.1.5 ENVIRONMENTAL AREAS

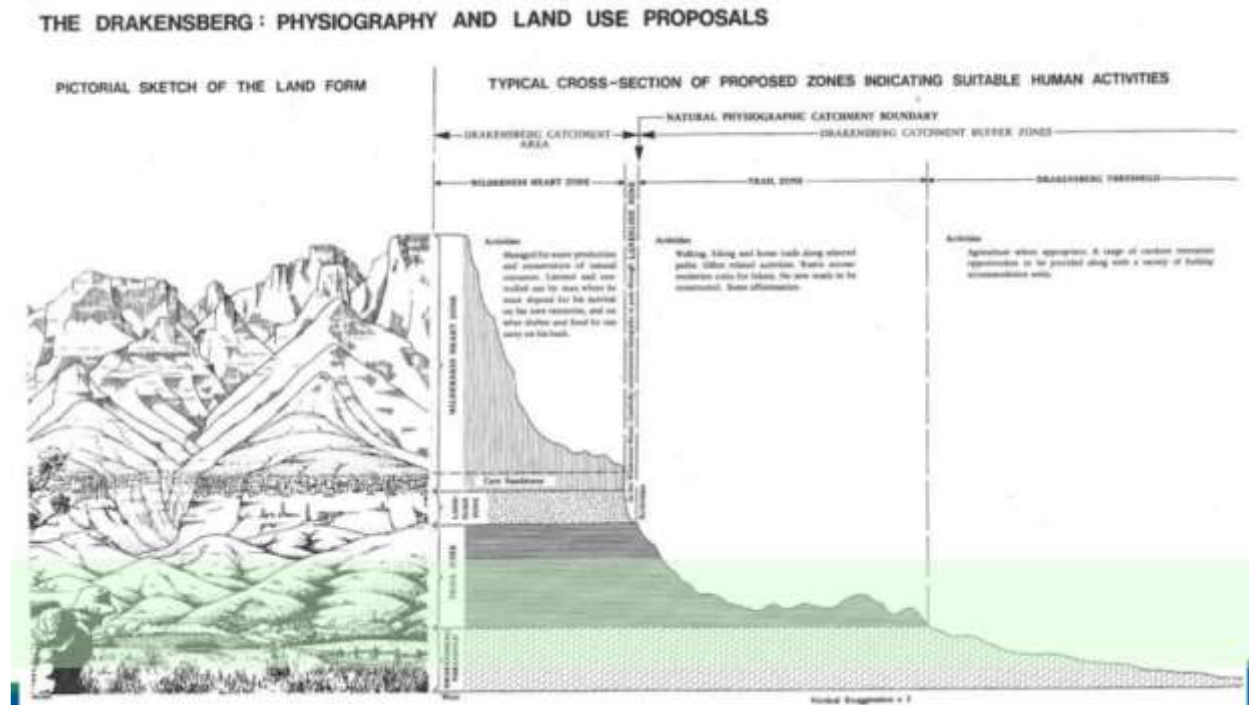
A substantial amount of land within the district is taken up by environmental areas. These consist of Okhahlamba Drakensberg Park which takes up 143 km² while there are also other aspects of sensitive environmental areas i.e. indigenous bush and high biodiversity areas.

7.7 LANDSCAPE CHARACTER AND BUILT-FORM

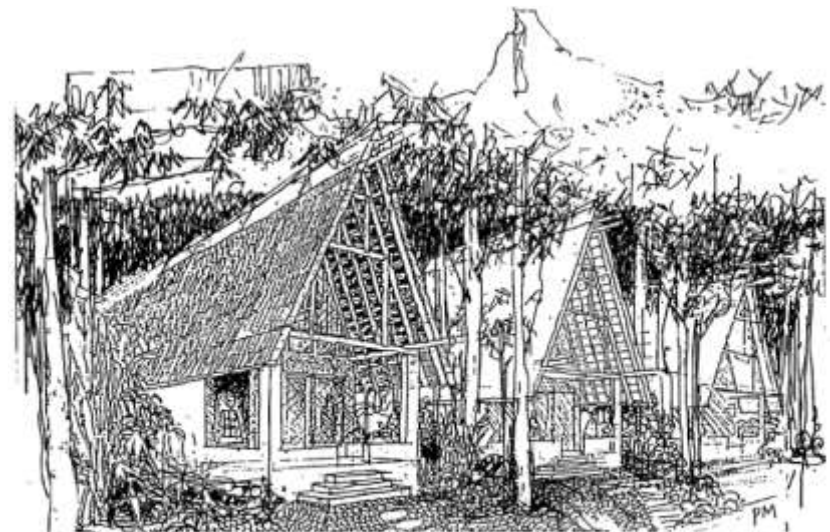
There is a fine line between constructing development and creating destruction. In the past years there has been a lot of debate about the extent at which Okhahlamba Drakensberg Park should be developed in a manner that will not pose destruction on its natural character especially the landscape character. This led to a number of publications, policies and development controls that were introduced to this effect. One of the first efforts which were made by the South African Government to protect the Drakensberg was to draft the policies that would safeguard this asset.

This led to the compilation of the Drakensberg Policy Statement in 1976, the Southern Drakensberg Policy Statement in 1981, the Drakensberg Approaches Policy in 1990 and the Special Case Area Plan (SCAP) for Drakensberg in 2001. In 2010, the Natal Society Foundation produced a publication titled "Of Mountains and Money – Bergwatch and Threat to the Drakensberg". This publication stated that the wild splendour of the Drakensberg is under constant threat from a variety of sources. The primary threats come from two opposite ends of the economic scale -poverty-stricken subsistence farmers attempting to eke out a living on the sparsely vegetated and fragile slopes, and avaricious developers attempting to cater for

ever-growing demands of the national and latterly international tourist trade. Environmental degradation from poor farming methods is far more obvious to the untrained eye than the damage caused by extensive hotel, resort and timeshare development. Scarred mountainsides are often the result of decades of overgrazing, particularly by goats. But poor farming methods are not the only cause of soil erosion. Poor road design and overuse of sensitive areas by hikers, horses or motor vehicles, are also contributory factors. Even the destruction of wetlands by the damming of small mountain streams may lead to excessive run-off and thereby contribute to soil erosion. Resort development inevitably

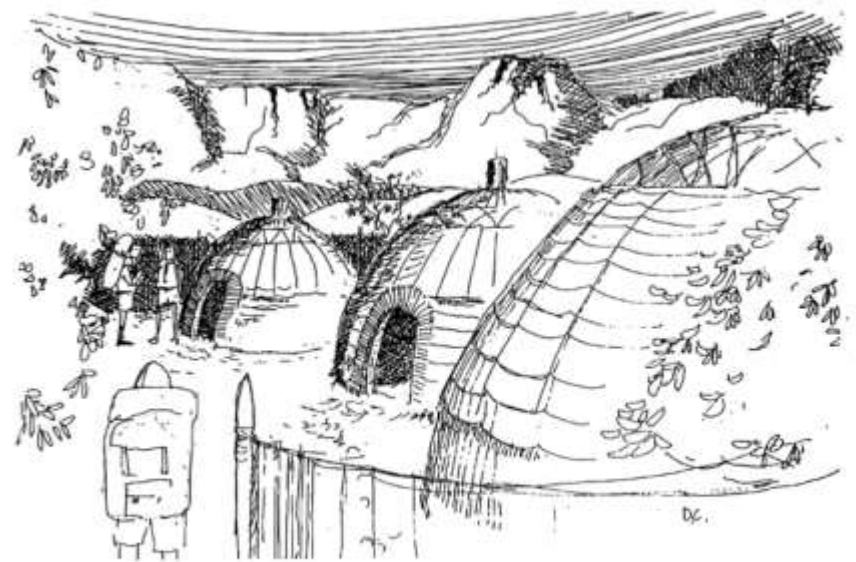


increases pressure on the water resources, firstly by increasing demand and secondly by pollution. It also tends to impair the scenic beauty and to threaten the wilderness nature of the Drakensberg. With all these factors already becoming apparent, a bold policy statement on development in the Drakensberg was published seventeen years ago, aimed at channelling future development to appropriate zones in order to ensure protection of the vital water-producing areas and other valuable natural resources. The Drakensberg Policy Statement divided the Drakensberg into four zones: the Wilderness Heart, the Landslide Zone, the Trail Zone and the Drakensberg Threshold. There is little dispute that the Wilderness Heart and the Landslide Zone should be strictly protected and accommodation limited to caves, tents and mountain huts. The dispute between environmentalists and developers centres on the lower-lying and least ecologically fragile Trail Zone and Drakensberg Threshold, which together are known as the Drakensberg Approaches. According to the 1976 Policy Statement, the approaches to the Drakensberg should be used primarily for agriculture and forestry. The rainfall is high, and this area should also be a source of clean water in the rivers. Recreation should be an important secondary activity where it is compatible with the primary uses. Preservation of the scenic quality of the area should influence the location and appearance of all roads, buildings and other structures. The document recommends that within the Threshold Zone there will be planned recreational development within certain 'pockets'.



Most of the policies and a plan were driven by the Provincial Planning and Development Commission. It is also important to note that these approaches were undertaken before Drakensberg was declared as a World Heritage Site. This therefore accounted as a limitation to some of the recommendations that these studies delivered. KZN Wildlife has initiated a process of establishing the buffer zones (*UDP WHS Buffer Zone, 2007.*) for the protected area in Ukhahlamba Drakensberg World Heritage Site. The outcome of this study will guide the government in terms of the management and protection of the areas within a designated distance from the Drakensberg Site and it will supersede the existing policy guidelines. The draft document was produced following a series of investigations that KZN Wildlife has undertaken and finalized in November 2010. The proposed World Heritage Buffer is demonstrated on the map below. As indicated on the draft UDP WHS document, the purpose of the Buffer Zone is three fold, namely to:-

- *Protect the purpose and values of the Protected Area.*
- *Protect important areas of high value for biodiversity and or to society where these extend beyond the boundary of the Protected Area, and*



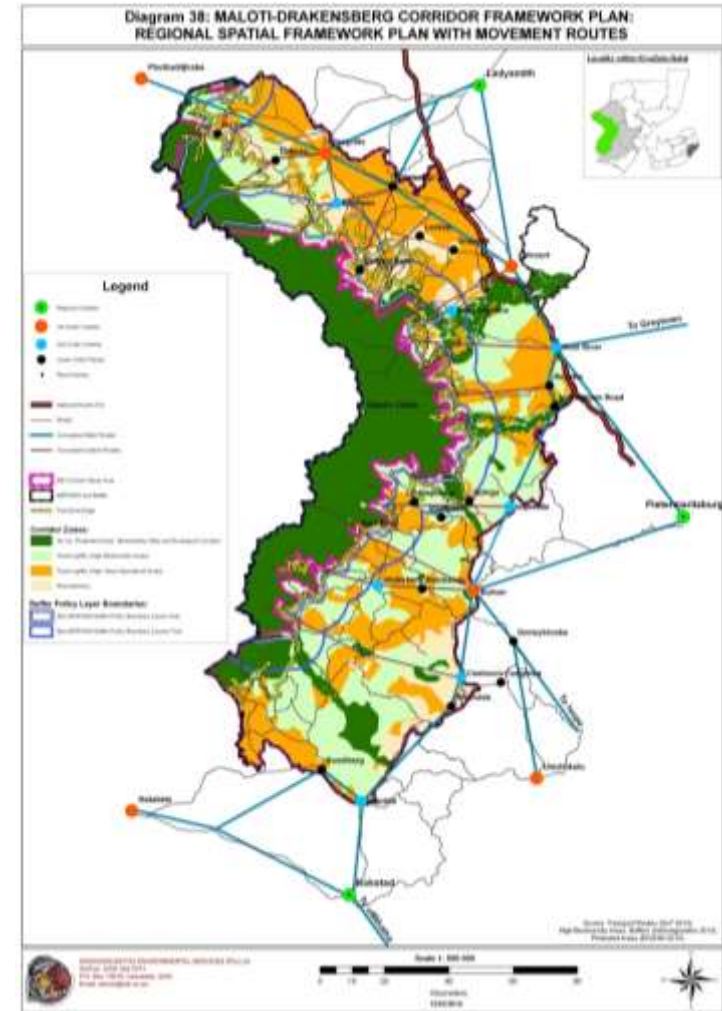
Suggested traditional style accommodation structures.

(Illustration: Bergwatch)

- *Assist adjacent and affected communities to secure appropriate and sustainable benefits from the Protected Area and Buffer Zone Area itself. (Conservation brings intrinsic values and benefits to the broader landscape. Here the objective is to create a mechanism to distribute these mechanisms more broadly and evenly throughout the landscape.)*

It is important for UThukela SDF to be aligned to the recommendations that are made by this process, primarily given the fact that the protection of the World Heritage Site is compulsory from spatial planning and development point of view. The key issue that has come out strongly at this stage with regard to this matter is the impact of the rural settlements within the buffer zone. In the case of UThukela, the main concern that can be noted at this stage includes the following:

- *pollution of the river system due to a lack of waste management system,*
- *the use of pit latrines and pollution factors related to the contamination of this waste with the ground water,*
- *further environmental degradation is being experienced when the settlement expands,*
- *the SCAP (as a predecessor of UDP WHS Buffer Zone) had discourage location of the settlements within the buffer zone, and*
- *The optimum carrying capacity of each 'pocket' for visitors must be determined through further scientific research. The document recommends that any tendency towards the development of further permanent residential townships should be resisted -these belong in the established villages like Bergville, Himeville and Underberg. There were also proposals made by the Bergwatch (Drakensberg Working Group) in terms of built-form to be encourage for the holiday establishments around Drakensberg (see picture insert).*



LAND

7.7.1 LAND OWNERSHIP PATTERN

The pattern of land ownership within UThukela District Municipality demonstrates multiple tenure rights which range from freehold, to communal and state land.

7.7.1.1 PRIVATELY OWNED LAND

The majority of the land in UThukela Municipality is in private ownership. This includes extensive commercial agricultural land and plots developed for a range of land uses. The majority of the farmland with high agricultural potential and strategically located urban areas within the town is in the hands of white people. Farming areas with less potential for agriculture such as Driefontein, Lucitania, etc. as well as economically inactive urban area such as Ezakheni and Steadville townships are in the hands of the black people.

7.7.1.2 INGONYAMA TRUST LAND

There are huge tracks of land that are registered under Ingonyama Trust and these exist within Okhahlamba, Imbabazane and Indaka. This land was previously registered under KwaZulu Government and it is now occupied and controlled by the tribal councillors. Land allocation is therefore not undertaken by the municipalities, but traditional structures.

7.7.1.3 STATELAND

There are a number of land parcels that belong to government within the urban and rural areas. These include the large tracks of land that exists on the outskirts of some of the urban areas including Colenso and Ekuvukeni which belong to the municipality. Ezakheni Township on the other hand is surrounded by large tracks of land which are administered by the Department of Rural Development and Land Reform while some are registered in the name of the municipality. There are fewer properties within the towns which belong to the municipality and government.

7.7.1.4 SERVITUDES

There are few properties which also belong to the parastatals. These include the railway line stations, servitudes and properties that belong to Transnet. There are also a number of electricity servitudes and sub-stations that belong to Eskom while the properties that accommodate the telecommunication infrastructure are under Telkom.

7.7.1.5 SYNDICATE OWNERSHIP

There are large tracks of land that are not vested in an individual but a rather complex web of social group. These include the farms that belong to different trustees. Although a clear set of rules exists to regulate the rights of all members to the land, this is the most diverse and complex form of land ownership. The majority of large settlements, particularly in the Driefontein complex have developed on trust lands and are proving to be difficult to unlock for housing development. In some instances, land ownership overlaps with traditional leadership thus creating confusion in terms of responsibility for land administration. This is the case in areas such as Driefontein complex as well as Matiwanoskop and Jononoskop.

7.7.1.6 COMMUNAL PROPERTY INSTITUTIONS (CPI'S)

The implementation of the land reform programme has resulted in large tracks of land being registered in the name of the communal property institutions (CPIs) representing the beneficiary communities. CPIs occur in the form Communal Property Association (CPA) or land trusts. The key challenge with this form of ownership is that it subjects individuals to the will of the majority, and requires decisions relating to the development of land to be taken communally.

7.7.2 LAND ADMINISTRATION AND WALL-TO-WALL SCHEMES

Land use management in UThukela District Municipality is fragmented reflecting the impact of the apartheid policies. The KwaZulu-Natal Planning and Development Act, (Act No. 6 of 2008) requires the Local Municipalities to introduce a wall-to-wall Land Use Scheme (LUS) within five years from the implementation date of the relevant provisions of the Act. The proposed scheme will replace all the existing land use controls and provide for a uniform approach to land use management.

7.7.2.1 FORMAL LAND USE MANAGEMENT

Urban areas of Ladysmith, Bergville, Winterton, Estcourt, Colenso and Ekuvukeni have approved Town Planning Schemes developed in terms of the repealed Natal Town Planning Ordinance of 1949, and now enforced in terms of the KwaZulu-Natal Planning and Development Act, Act No. 6 of 2008. The schemes are outdated, restrictive and represent the remnants of the apartheid spatial footprint. They promote land use separation, tends to control rather than facilitate development. More facilitative and flexible controls are required to achieve spatial transformation and promote integrated and sustainable development.

7.7.2.2 AREAS OUTSIDE OF THE PLANNING SCHEME

There are a number of isolated townships established either in terms of the Development Facilitation Act or the Less Formal Township Establishment Act with their own area specific controls. Agricultural land is regulated in terms of the Sub-division of Agricultural Land Act, No. 70 of 1970. While these controls remain and are applicable, development applications in these areas are submitted in terms of the Chapter 4 of the PDA which provides for development outside of Town Planning Scheme.

Local municipalities within the district are currently compiling the wall-to-wall schemes as per the requirements of SPLUMA. The process towards achieving a wall-to-wall scheme which includes urban and rural/agricultural land is proving to be a challenge due to the contrast and disparities in land use management or therefore lack of in urban and rural areas. Okhahlamba and Emnambithi/Ladysmith local municipality have a draft urban and rural scheme in place. Umtshezi Local Municipality has adopted a Rural Development Policy which aims to guide and inform rural land use.

7.7.2.3 CUSTOMERY LAND USE PRACTICES AND ALLOCATION

There are no formal land use controls in the form of planning schemes that covers the rural and semi-urban areas. There is also an increasing need for residential land as certain areas experience in-migration and an increase in small and nuclear families. These plans seek to strike a balance between housing need and protection of agricultural land from encroachment of settlement (into high potential agricultural land).

7.7.3 LAND TENURE UPGRADING

Land tenure Upgrading in the UThukela has thus far focussed on the resolution of labour tenant claims which are spread throughout the area. The DRDLR often includes farm dwellers in projects that seek to address labour tenant issues. The program makes provision for two options that is on-farm and off-farm settlement. On-farm settlement which is the common approach in the area results in the proliferation of small isolated settlements which do not create sufficient thresholds for the provision of basic services and community facilities. An area based approach which allows for the clustering of applications and area based planning as opposed to farm based planning should be promoted.

In addition to the resolution of labour tenant claims, there is also a need to initiate title adjustment processes in areas such as Driefontein, Watersmeet, Lucitania, Peacetown and Matiwane where there is evidence of syndicated and privately owned land. In many instances, the original owners of these properties have passed on, and these properties cannot be released for development unless ownership information has been updated.

A large number of people have lived (with or without the concern of the owners) as if they own these areas. As such, they have acquired beneficial occupation rights which are protected in terms of the Extension of Security of tenure Act. These land tenure rights should be confirmed as part of a process towards the development of these areas into sustainable human settlements.

7.7.4 LAND REFORM

An extensive amount of the land within UThukela Municipality is classified as freehold as it belongs to the individuals and farmers. This gears the focus of land reform on two aspects which are land tenure reform and restitution reform. Land tenure reform is mainly pursued to strengthen the security of tenure amongst the farm dwellers that in many instances are the farm labours.

It also recognizing people's right to own land and therefore control it. Land restitution reform acknowledges the black people who were forcefully removed from the land that they owned following the Native Lands Act of 1913. The government takes a leading role in ensuring that the forcefully removed individuals are compensated (monetary) but when this approach proved to be unsuccessful, the policy shifted to redistribution.

The redistribution of land worked on the premise of willing buyer and willing seller. In this instance, the willing buyer is government and the willing seller is the land owner (farmer). The government under the auspices of the Department of Rural Development and Land Reform buys the land for the purpose of distributing it to the individuals who were forcefully removed from it.

7.7.4.1 EVOLUTION OF LAND REFORM WITHIN UTHUKELA

The land reform programme has encountered a number of challenges ever since its inception period. Most of these were acknowledged by the Department of Rural Development and Land Reform as a learning curve. In some instances this called for the amendment or suspension of some of the sub-programmes. These challenges are well captured on the impact of land reform study that was done for UThukela District and can be summarised as follows:

- *Settling too many people in one property – The way in which the policy is structured, enables beneficiaries to access farms/ properties on communal basis. This has led to a number of problems such as the carrying capacity of most farms is generally low when compared to the number of people settled on it. Natural resources are generally stretched to the limit and this contributes to unsustainable use of natural resources. Farms that were once highly productive are unused and are currently lying idle.*
- *Lack of capital - Most land reform projects did not receive adequate financial support required in the past. The balance of Grants left after the farm has been purchased and planning done, was usually insufficient to assist the beneficiaries to realise their vision and aspirations. Strong financial support is needed to purchase equipment or farm implements, which are the key fundamentals for a successful agricultural venture. Without proper financial backing, it became extremely difficult for the beneficiaries to realise their aspirations and arable land lie unused and this had serious implications for food production. However the Department of Rural Development and Land Reform is trying to change this situation through a new programme called Recapitalization and Development Programme (RECAP). This programme aims to fund the unproductive farms based on the requirements of the agricultural business plans as opposed to a fixed grant amount.*
- *Lack of passion for farming amongst beneficiaries - land reform process enabled beneficiaries to consolidate their grants and purchase farms on a shared or communal base. Institutions such as Communal Property Associations (CPA) or Trusts are then established to hold and manage land on behalf of the community or beneficiaries. Business plans are prepared which indicate development potential of the various areas within the farm. Projects are identified together with the beneficiaries and other role players such as Department of Agriculture and Municipalities get involved during the planning process. However, the experience so far has shown that even though projects are identified collectively, not everyone within beneficiaries have the desire or will to farm. Others merely require land for*

security of tenure and for their cattle to graze. Mechanisms need to be devised that seek to differentiate various interests amongst beneficiaries e.g. those who have the will and the desire for farming, plans to assist them should be put in place, and those who do not have the desire for farming and merely require security of tenure should also be catered for accordingly.

- Absence of a mentorship programme - absence or lack of the Mentorship Programme for land reform projects has been also identified as one of the key stumbling block. Most land reform beneficiaries do not receive proper training. On top of that, there is generally no mentor provided to ensure guidance on a variety of farming practices. Land reform projects undertaken by the private sector has in most instances proved to be successful, and one of the key ingredients is the presence of a mentorship programme. Mentors should be available on full time bases, provide necessary technical input, assess and establish linkages with various institutions for the benefit of the beneficiaries. However, thus far most land reform projects have not incorporated this component hence they have yielded less development outcomes.*
- Rights Based Approach: there is a feeling that most land reform projects have been undertaken under the notion of a 'rights based approach'. Applicants submit applications to access land where they were either removed or stripped of their ownership during the past regime. Economic and sustainability part of these projects is not at the forefront and this contributes to allocation of commercially unviable farms to beneficiaries.*
- Management of Beneficiaries on the Ground: beneficiaries on the ground have not been properly managed. There is a lack of guidance and management of beneficiaries by both DRDLR and Dept. of Agriculture and this has led to inefficient utilisation of arable land. Most beneficiaries have never had a responsibility of making decisions (they lack management skills) and through this process are compelled to make decision, which could either have a negative or positive impact.*
- The slow pace of the restitution process – The other issue raised by the farmers' association relates to the amount of land that is currently being claimed. Farmers feel that, their security of tenure is currently under threat and this will have serious detrimental impact in the future. As it is, most properties that have been claimed are currently under-utilised due to uncertainty that exist. There is also a need to ensure that highly arable land is protected and that people with the knowledge of farming do not loose these properties as this will lead to poor levels of production hence the province including the country will suffer. This is a nationwide issue and does not only affect the province of KwaZulu-Natal. The process itself of settling land claims has also received a great deal of criticism from most farmers association. It is regarded as being slow hence strategies need to be put in place that seeks to speed up the process so as to mitigate uncertainty that exists.*
- Settlement Land Acquisition Grant (SLAG) Challenges - Land redistribution forms part of the Government's land reform policy alongside land restitution and land tenure reform. The land redistribution programme underwent a number of changes since 1994. From 1994 to 1999, it was implemented by means of the Settlement and Land Acquisition Grant (SLAG), which provided a modest grant to the rural communities to acquire and develop land. In August 2001, the Government launched a programme known as Land Redistribution*

for Agricultural Development (LRAD) as a flagship programme through which the Government will pursue the objectives of agrarian, as opposed to settlement based, land redistribution. Until the late 1990s, the land redistribution programme was largely based on the Settlement and Land Acquisition Grant (SLAG) – a grant of R16 000 made available to qualifying beneficiaries for the purchase and development of land. The majority of projects under this dispensation involved large groups pooling their grants together to purchase land for settlement and limited commercial activities. Following the national government election in 1998, the Minister of Land Affairs temporarily suspended this programme and instituted a comprehensive review of the land redistribution programme.

- *Land Redistribution and Agricultural Development (LRAD) Challenges – various role-players received this programme differently, with the majority of the Non-Governmental Organizations (NGO) associated with the National Land Committee (NLC) being very critical of this approach. They maintain that LRAD does not address the needs of the rural poor and rural women. Instead, it implies the “use of scarce state resources to benefit a small group of relatively better off people”, and has potential to increase rural class differentiation (Cousins 2000, AFRA 2001, NLC 2001, Kariuki 2000). The Legal Resources Centre (2000) on the other hand, acknowledges that a comprehensive redistribution programme should, in addition to general tenure issues, include a strand, which caters for the needs of the existing and aspirant black commercial farmers as suggested in various rural development policies, including the land policy. LRAD does not constitute the entire land redistribution programme, but complements the existing sub-programme and creates an opportunity for land redistribution with a relatively strong agricultural focus.*
- *Improved Quality of life after acquiring land - The majority (approximately 87%) of land reform beneficiaries in Uthukela indicated that they have not experienced any economic improvement in their lives since acquiring properties or land through various land reform programmes. Only 13% indicated to have had some form of economic improvement. This came after 11 years since land reform programme started within the area. However, the percentage of beneficiaries using land in a productive manner is frightening.*
- *Social improvement – some of the beneficiaries that have accessed land through the land reform programme were separated during the past era and have not been residing together as communities for a long time. Social networks of these communities were destroyed or broken during the draconian times hence it was essential that post 1994 government programmes should encourage social development of communities. In recognising this need, programmes such as the land reform were supposed to promote and bring about social development of rural communities (through encouraging communities to work together and ensuring access to social amenities). However, surveyed communities indicated that they have not experienced social improvement since acquiring properties. Only 15% indicated to have had some form of social improvement. This necessitates the involvement of various government departments to assist beneficiaries with access to necessary social resources and other social development programmes.*
- *Access to infrastructure - for anyone who is an aspirant farmer, one of the pre-requisite is access to at least basic level of farm implements or infrastructure. The study revealed that approximately 69% of the beneficiaries do not have access to farm implements. Only 31% indicated to have received farm implements. Even those with access to implements, still require or need additional*

implements since they only received a small portion of the total required infrastructure. The most common infrastructure afforded to most beneficiaries is in a form of boreholes. Correspondingly, the recently transferred projects such as Bester's Cluster appear to be well organised and have accessed or are in the process of acquiring the required infrastructure. It must also be said quite vigorously that without access to necessary farm implements, the idea of having a successful land reform programme will remain a fantasy that cannot be achieved.

- *Agricultural activities – The majority (approximately 86%) indicated that there is no cultivation-taking place. With only 14% indicated that, some form of cultivation is taking place on the acquired properties. This means that, huge sums of money utilised to purchase farms which amongst other things had to be used for agriculture production has so far been fruitless. Most of the properties even the one's with high arable land are currently lying idle and are used mainly for residential purpose. The consequences attached to this, is the deterioration of precious natural resources (in a form of soil), which cannot be easily replaced.*

7.7.4.2 PROFILE OF LAND CLAIMS: STATUS OF CLAIMS

A total of 205 261 ha of land is under claims within UThukela District Municipality. This involves 176 950 ha which is under restitution claims, 21 000 ha which is under redistribution claims and 7 311 ha which is under tenure reform. The majority of these claims are located within Inkosi Langalibalele LM (143 245 ha) and Alfred Duma LM (62 327ha).

PROGRAMME	Size (Ha)	Settled (Ha)	Pending (Ha)
Restitution	176 950 ha	66 840 ha	110 110 ha
Redistribution	21000 ha	1215 ha	19 785 ha
Tenure Reform	7311 ha	7103ha	208 ha
TOTAL	205 261 ha	75 158 ha	130 103 ha

Only 75 158 ha of land under claims has been transferred which implies that there are still 130 103 ha of land that is under pending claims. This is a strong indication that a lot of work is required in order to settle these outstanding claims.

7.7.4.3 PRIVATELY OWNED LAND

The acquisition of the privately land is in many instances the most convenient transaction because it is depend on the willing buyer and will seller principle. The land purchaser can use the local municipality's valuation roll as a guide in terms of the purchase price that he should pay for such a property.

The purchase of the municipal owned land is managed in the ambit of the Municipality's Supply Chain Management Policy. The generic terms are normally that the municipality would sell that land through the following mechanisms:

- *Competitive Bidding – the municipality can sell the land through a public bid. In a bid (i) the municipality send notice of Bid to applicants to bid for property as resolved, (ii) the Bid Documents are prepared by the municipality, (iii) the bidders are invited submit their written offers which will be opening and read publicly, and adjudicating of Bids and formulating a report for Bid Committee consideration takes place.*
- *Auction – the municipality publish a notice calling all the applicants to attend an Auction at a specific time and venue to verbally bid for the property.*
- *Lease – the municipality can lease the property for specific period as determined by the Council. This requires the municipality to prepare Lease Agreement incorporating conditions of approval and circulate the draft for comments by the relevant departments, call the Lessee to come and pay the necessary payment and sign the Lease Agreement, forward the Lease Agreement for signature to the Municipal Manager, distribute signed Lease Agreement to all relevant departments and the Lessee, for levying of rates, opening relevant accounts and contract management respectively and ensure compliance with all the relevant legislations.*

7.7.4.4 INGONYAMA TRUST LAND

Land allocation is undertaken by traditional leaders. However this allocation is generally driven by indigenous knowledge of their areas with minimally influence and resources to identify development limitations e.g. environmental context, mineral potential and servitudes. Ingonyama Trust Board on the other hand issues a short term lease for up to two years to enable developers to obtain planning and environmental consents and to secure finance for the development. Thereafter a lease for a term of up to forty years with an option to renew for a further forty years is normally granted once the requirements of the short term lease have been met.

According to the board shorter term leases are granted for agricultural uses and for short to medium term developments. Unless there are exceptional cases the Board charges a market related rent and lessees are responsible for all outgoings including assessment rates and other Municipal charges and for obtaining any necessary environmental or development planning consents. However the board follows its own process in the issuing of leases and tenure rights. Applicants for tenure rights on Trust land are required to complete and return a Tenure Option Application Form. It is a requirement of the Ingonyama Trust legislation that the formal consent of the relevant Traditional Council be obtained before a tenure rights application can be processed. The formal consent is only required where the subject site falls within a proclaimed Traditional Council area.

7.8 DISASTER MANAGEMENT AREAS

7.8.1 BACKGROUND

The management of disasters in UThukela District Municipality is mainly the responsibility of the district. As such the district has prepared a Disaster Management Plan which was adopted on 30 November 2015. The purpose of the disaster management plan is to order to minimize, reduce and eradicate any risk that the area may face due to disasters. This plan indicates that a disaster can be caused by humans or nature since these are events that are sometimes unpredictable. The natural disasters include floods and lightning while the human induced disasters may include fires and accidents.

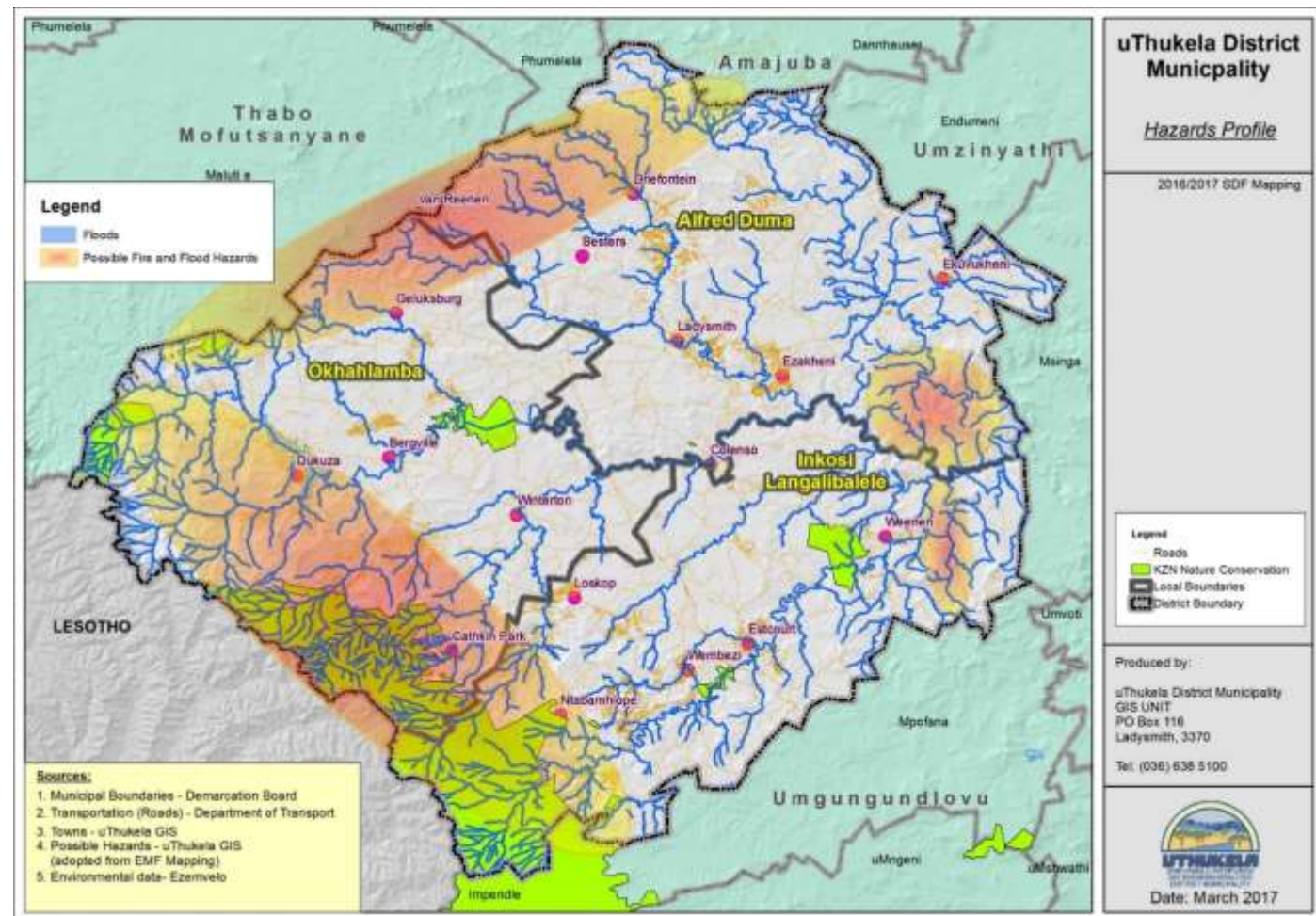
It also states that disasters and development have both a negative and positive relationship, this relationship needs to be recognised and managed to achieve sustainable development. In a negative sense, disasters can destroy development or uncontrolled, improper development can cause disasters. In a positive sense, disaster can create an opportunity for more resilient development and proper development can reduce the risk of disasters occurring.

The Disaster Management Plan further points out that badly planned development in a floodplain increases disaster risk by making the new community vulnerable to flooding, which would constitute a disaster. The development of well-planned and effective flood defence measures can decrease the vulnerability of the community and thus contribute to disaster risk reduction. Disasters are inevitable although we do not

always know when and where they will happen. But their worst effects can be partially or completely prevented by preparation, early warning, swift and decisive responses.

7.8.2 NATURAL HAZARDS

Using the detail disaster hazard, vulnerability and risk assessments of UDM it was possible to compile appropriate GIS profile maps. These GIS-profile maps summarise the disaster hazard, vulnerability and risk analysis of UDM. Hence, these profile maps indicate the risk profile of the UDM area of jurisdiction. When floods and veld fires (which received the highest threshold value during the risk assessment) were combined, it was possible to compile a disaster hazard profile map for UDM. The blue colour indicates the location of possible flooded areas, red indicates the location of possible fire hazard zones, while the yellow colour indicates the combination of both fire and flooded areas in UDM area of jurisdiction.



7.9 PROBLEMS, SYMPTOMS AND CAUSES

PROBLEMS	SYMPTOMS	CAUSES
Rural Economic Exclusion	Only R74 cut across few rural settlements	<ul style="list-style-type: none"> • <i>Apartheid Spatial Planning Legacy and Development Centralization</i>
Degradation of areas within close proximity to Drakensberg Buffer Zone	<ul style="list-style-type: none"> • <i>Soil erosion</i> • <i>Overexploitation of biological resources and destruction of wetlands</i> 	<ul style="list-style-type: none"> • <i>Overgrazing as a result of poor range management</i> • <i>Uncontrolled burning</i> • <i>Encroachment of human settlements</i> • <i>Acute poverty in the rural areas</i>
Population decline	Census recorded that UThukela population declined from 714 909 (Community Survey, 2007) to 668 848 (Census 2011)	<ul style="list-style-type: none"> • <i>Impacts of HIV/AIDS- related deaths and out-migration</i>
Poverty	58% (80 867) earn below R 19 200.00 per annum or R 1 600 per month.	<ul style="list-style-type: none"> • <i>Unemployment</i>
Fragmented communities and the poor are marginalized from the economic activities	The location of Ezakheni, Weenen and Wembezi further away from the mainstream economic activities	<ul style="list-style-type: none"> • <i>Apartheid Spatial Planning Legacy and Development Centralization</i>
Continuation of urban sprawl and anti-city values of suburbia	New housing projects have extended apartheid townships. New development of gated estates outside of the towns	<ul style="list-style-type: none"> • <i>Failure by the post-apartheid spatial planning approaches to implement a compact and integrated sustainable human settlements.</i>

Continuation of unsustainable settlements	Mushrooming of isolated, scattered rural settlements which are badly located in terms of environment and servicing.	<ul style="list-style-type: none"> • <i>Mis-alignment between planning and traditional land allocation.</i>
Unsustainable agrarian economy due to failure of land reform	Increase of unproductive agricultural farms leading to a stage of deterioration.	<ul style="list-style-type: none"> • <i>Settling too many beneficiaries on one farm. Lack of farming passion by beneficiaries. Right based approach which has overshadowed economic and sustainability approach.</i>
Poor road infrastructure within rural areas	Most community access unsurfaced roads are not constructed to proper geometric design standards due to the rough terrain and limited funding available.	<ul style="list-style-type: none"> • <i>Legacy of uneven development and historical neglect of rural areas</i>
Climate Change	Altered weather conditions which in turn, alter crop yield patterns. This change in patterns is expected to put pressure on agriculture and result in food shortages.	<ul style="list-style-type: none"> • <i>Human-induced alterations of the natural world. These include industrial pollution and environmentally toxic development.</i>

8. INFRASTRUCTURE ASSESSMENT

South Africa needs to maintain and expand its electricity, water, transport and telecommunications infrastructure in order to support economic growth and social development goals. (National Development Plan 2030)

The above mentioned statement encapsulates the desired outcomes in the South African context relating to development of infrastructure that will yield positive outcomes for the economy. It is therefore imperative that the UThukela DM economic infrastructure is assessed in context thereof achieving the 2030 National Development Plan objectives. For purposes of this report the landfill sites and sanitation infrastructure have also been assessed within the study area.

8.1 ELECTRICITY

Apart from its social benefits, electricity is also a driving factor in the economy. Schedule 4B of the Constitution lists electricity and gas reticulation as a local government responsibility and as a consequence also plays an important revenue source for local government. For this exercise the spatial location and supply thereof the bulk electricity infrastructure has been assessed.

8.1.1 BULK ELECTRICITY INFRASTRUCTURE

The current reticulation network in UThukela District Municipal area as indicated in the Map (insert) shows areas already electrified and the location within the district of the bulk electricity infrastructure. It is no surprise that the bulk electricity infrastructure is concentrated in areas that have the highest population densities in areas such as Towns and Townships has a relatively high population size and economy in the UThukela District and as such has more areas that would require bulk electricity infrastructure. There are 36 sub-stations located within UThukela District. Most of these are found within Alfred Duma Local Municipality.

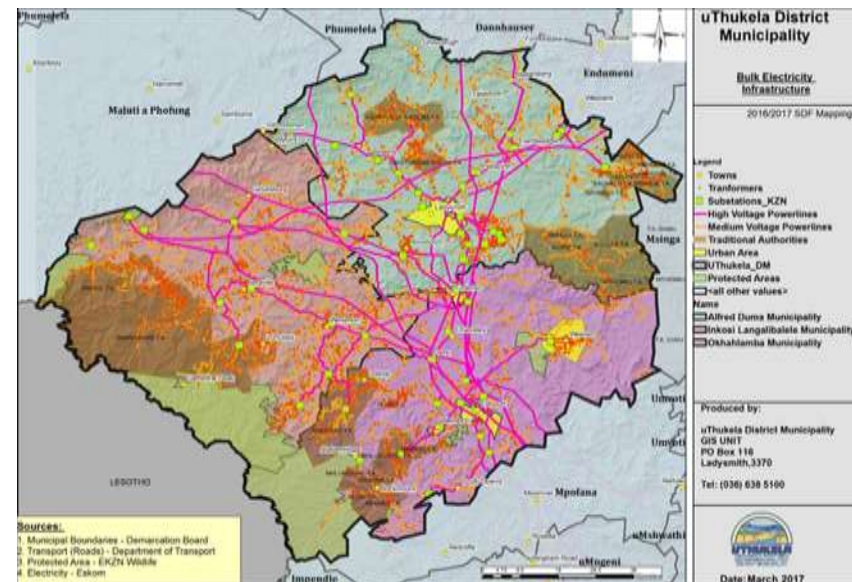
There are also a number of HV and MV cables that originate from these substations which distribute electricity within different parts of the municipal area. This is further supported by the MV stations. The existing sub-stations are nearing capacity and needs to be upgraded. Eskom

has made plans to address this situation. This includes the development of two major sub-stations in Braamhoek and Driefontein (Mathondwane). Each of these sub-stations has a capacity of 22kv and costs approximately R8 billion.

8.1.2 LICENSED DISTRIBUTORS

Eskom generates approximately 95% of the electricity used in South Africa and this association extends to generating, transmitting and distributing electricity to industrial, mining, commercial, agricultural and residential customers and redistributors. In the context of the UThukela DM the above mentioned fact is no different as Eskom is still the main supply of electricity within the district whilst the Alfred Duma LM, Inkosilangalibalele LM and Okhahlamba LM have the license to supply electricity in certain areas within their jurisdiction.

The provision of electricity in UThukela is demand driven. The demand triggers the need to plan for additional capacity of the electricity network distribution. UThukela District Municipality further gives support to Eskom for the surrounding townships and rural areas by implementing capital projects funded by the Department of Energy which upon completion is handed over to Eskom.

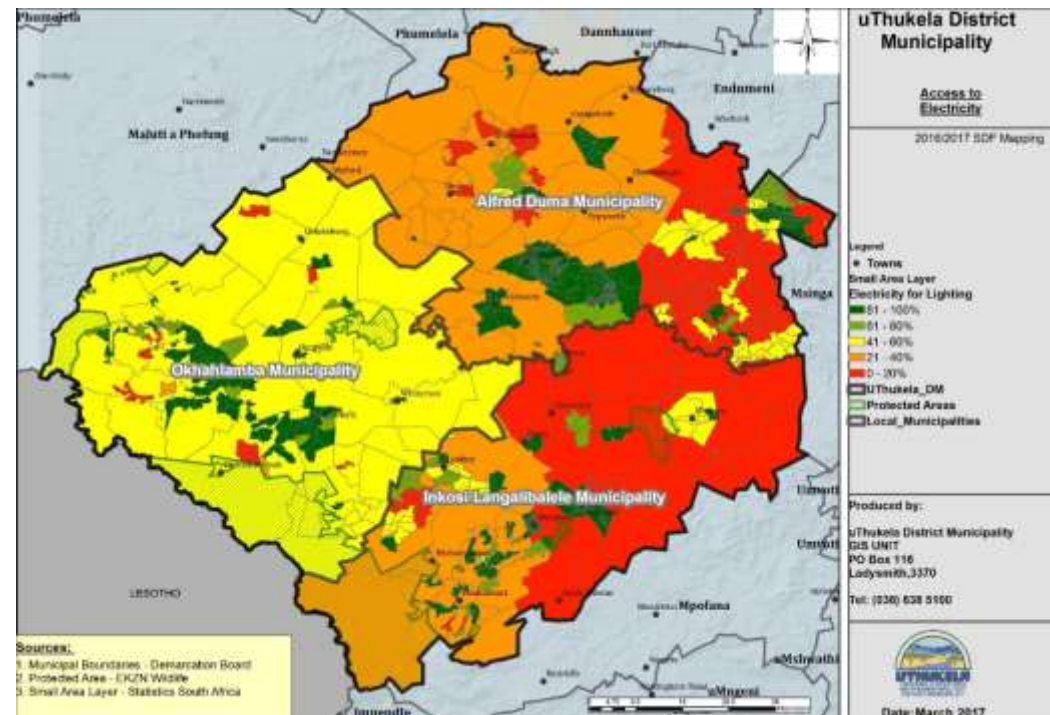


8.1.3 AREAS THAT LACK ACCESS TO ELECTRICITY SERVICES

Although major strides have been made with regards to extending access to energy, however universal access to electricity services has not been achieved. According to the 2011 Census Data the areas that lack access to electricity the most are as follows:

- Mhlumayo and Sahlumbe;
- Frere and Cornsfield; and
- Cathkin Park.

These areas have between 31 – 40 households that do not have access to electricity.



8.2 WATER

8.3 INTRASTRUCTURAL MASTER PLAN

UThukela District Municipality compiled a Master Plan for water infrastructure. The Master Plan covers areas such as Alfred Duma Local Municipality, and Inkosi Langalibalele Local Municipality. The purpose of the Master Plan is to ensure sustainable delivery of clean water in the district.

8.3.1 BULK WATER INFRASTRUCTURE AND CAPACITY

All water supplied by uThukela DM to the community is from sources within the DM's area of jurisdiction. The potential does exist to utilise bulk water supplies from neighbouring municipalities. With a household count of approximately 134,861 the DM requires at least 810,000 kℓ of water per month or 9,720 Mℓ per year to supply the population with basic water services.

This does not account for increased consumption in urban areas or industrial requirements. The uThukela DM falls within the Upper Tugela and Mooi/ Sundays sub-areas of the Thukela River Basin (V), as defined for the Thukela Water Management Area (WMA). The total available water and requirements as at year 2000 based on a 98% assurance of supply within these sub-areas. It is evident that the water from these sub-areas is currently over-utilised and a deficit is created.

However, according to Basson and Rossouw, this deficit is a result of the provision made for future implementation of the Reserve. The Reserve is a legislated requirement of the amount of water required to satisfy the ecological needs of a river system (estimated for the WMA at 20%), as well as the basic human needs (that have been established as 25 litres per person per day).

8.3.2 SURFACE WATER

According to Basson, more than 60% of river-flow in South Africa arises from only 20% of the land area. UThukela District Municipality forms part of this 20% and has a wealth of surface water resources as it forms the southern source of the Thukela River Basin. The primary Thukela Catchment (V) sources in the high lying Drakensberg Mountains in the west and flows into the Indian Ocean in the east. In terms of water

resource management, this entire primary catchment forms the Thukela WMA. The jurisdictional area of uThukela DM encompasses the entire Upper Tugela Basin (V1) and small portions of the secondary catchments of the Sundays River (V6) to the east and the Bushmans River (V7) to the south.

A number of monitoring stations exist within the Thukela Basin to determine meteorological and flow data. The mean annual rainfall within the Thukela WMA ranges between 600mm and 1,500 mm (predominantly falling during the summer period), however the potential evaporation is well in excess of the rainfall over most of the WMA¹⁴ within uThukela DM, the southern and western areas experience rainfall of >800 mm per annum, the central area 700-800 mm per annum, and the south-eastern areas (Estcourt/Weenen) 600-700 mm per annum. Based on these values, the potential evaporation within the central and eastern areas of uThukela DM exceeds the rainfall experienced.

Overall the Thukela catchments have an area of 29,046 km² with a mean annual precipitation (MAP) of 829 mm and a gross mean annual Symons Pan evaporation of 1,407 mm. Factors that may reduce the mean annual runoff (MAR) and yield potential include afforestation and alien vegetation. In the east of South Africa afforestation uses about 8% of water before it reaches the streams¹⁵ and estimates of the runoff reduction caused by alien vegetation within the Thukela Basin are of the order of 55 Million kℓ per annum¹⁶. Overall the naturalised MAR of the Thukela WMA is 3,865 Million kilolitres per annum that has a maximum yield of 2,900 Million kℓ per annum (assuming full development of resources).

This is 7.7% of the total surface runoff in South Africa (50,150 Million kℓ (m³) per annum). The surface water yield within UThukela DM however, amounts to <500 Million kℓ per annum (i.e. <500,000 Mℓ per annum; Table 3.1). Some of the strong flowing tributaries of the Tugela River supplying this water within uThukela DM include the Bushmans, Sundays, Little Tugela and Klip Rivers.

8.3.3 RUDIMENTARY WATER SUPPLY AND IMPACT

In general surface water quality within the Thukela catchments is good, apart from reaches affected by pulp and paper mill discharges, and coal mining in the upper Buffalo. Neither of these factors affects the water quality within uThukela DM, therefore the overall surface water quality is good. However, localised water quality problems and health risks associated with the proximity of settlements to resources and the lack of sanitation facilities does occur within the region and is being addressed through planning to eradicate the water services backlogs. This planning includes an education component that addresses the issues of health, hygiene and water conservation and use.

Table 3.3: Storage of water resources in uThukela District Municipality.

Surface Resource	Situation	Catchment	Owner	Usage	Natural MAR
Spioenkop Dam	Tugela River	V11L	DWAF	Domestic	791.4
Woodstock Dam	Tugela River	V11D & E	DWAF	Domestic	433.2
Kilburn Dam	Mnjaneni River	V11C	DWAF & Eskom		
Driel Barrage	Tugela River	V11J	DWAF	Domestic	710.7
Wagendrift Dam	Bushmans River	V70C	DWAF	Irrigation	233.3
Oliphantskop Dam	Sundays River	V80C	uThukela District Municipality	Domestic	
Windsor Dam	Klip River	V12C	Ladysmith TLC	Silted up: no longer in use	
Quedisizi Dam	Klip River	V12G	DWAF – Emnambithi LM operates	Flood attenuation	
Bell Park Dam	Little Tugela River	V13B	Farmers	Irrigation	75.6
Shamrock		V11F	Farmers	Irrigation	23.5
Weenen Canals		V70G	DWAF	Irrigation	
Clifford Chambers Weir	Tugela River	V11C	DWAF		
Khombe Weir	Khombe River	V11C	DWAF		
Putterill Weir	Putterillspruit	V11C	DWAF		
Jagersrust Dam	Tugela River	V11C	DWAF		

Additional major surface water storage within the Thukela Basin outside uThukela DM includes Chelmsford, Zaaihoek, Tom Worthington and Verdruk (Amajuba DM), Donald McHardy, Preston and Upper & Lower Mpathi (uMzinyathi DM) and Craigie Burn (uMgungungndlovu DM).

Most surface water used for domestic supply within uThukela DM is from rivers, however water from DWAF owned dams is used to supplement this supply. The majority of the urban areas obtain their water from rivers, as the cost of abstraction is lower than from the DWAF owned dams. Surface water is abstracted from the Tugela River or one of its tributaries, such as the Klip, Little Tugela or Bushmans. Urban areas treat this water prior to distribution, with continuous quality testing being conducted at the water treatment works (WTW). Water supply in the rural areas is primarily to the Ingonyama Trust and land reform communities rather than to commercial farmlands.

Approximately 52% of current rural water schemes utilise surface water as a source. Some 79% of these schemes have water treatment facilities such as the Limehill Complex in the northeast of Indaka LM, which relies on the Oliphantskop Dam to supply water to most of its communities. The remaining schemes are treated through manual dosing of chlorine into the reservoirs, however very little monitoring of the water quality is conducted. Although the Oliphantskop Dam (owned by the DM) plays a major role in the supply of water to the communities of Indaka LM, it is prone to silting thereby creating a potential supply problem for this area. In addition, the DWAF rivers data indicates that the western source of the Sundays River above the Oliphantskop Dam experiences non-perennial flow.

If one compares this known domestic (and industrial) water supply requirement within uThukela DM with the overall consumer or system requirements it is evident that the current main local water consumer within uThukela DM is irrigation. The cultivated land that is irrigated appears to be concentrated around Bergville and Winterton in Okhahlamba LM. This region also has the majority of the surface water resources. Domestic use is a fraction of that required for irrigation ($\pm 25\%$) or transfers out of the basin ($\pm 10\%$). The projection of the water requirements from the Thukela Basin for 2025 and 2030 has been conducted through various DWAF funded studies, specifically the TWP and Thukela WMA. It is evident that throughout the Thukela Basin the largest predicted increase in water use requirements between 1996 and 2030 will be from urban and domestic users. However, there is a vast difference in the volumes predicted between the two references used. Nevertheless, agriculture is overall the highest consumptive user within the Thukela Basin, yet it has one of the lowest economic returns. This consumer group should therefore be monitored in terms of conservation and demand management for efficient resource use if the predictions hold true then the available balance in the Thukela WMA in 2030 (prior to interbasin transfers) would be 1,598 Million kℓ per annum. The surface water resources and the known abstraction permitted per source. Apart from Alfred Duma LM, Inkosi Langalibalele LM and Winterton Town, none of the abstractions are metered or the data is unavailable, therefore this table is fairly sparse.

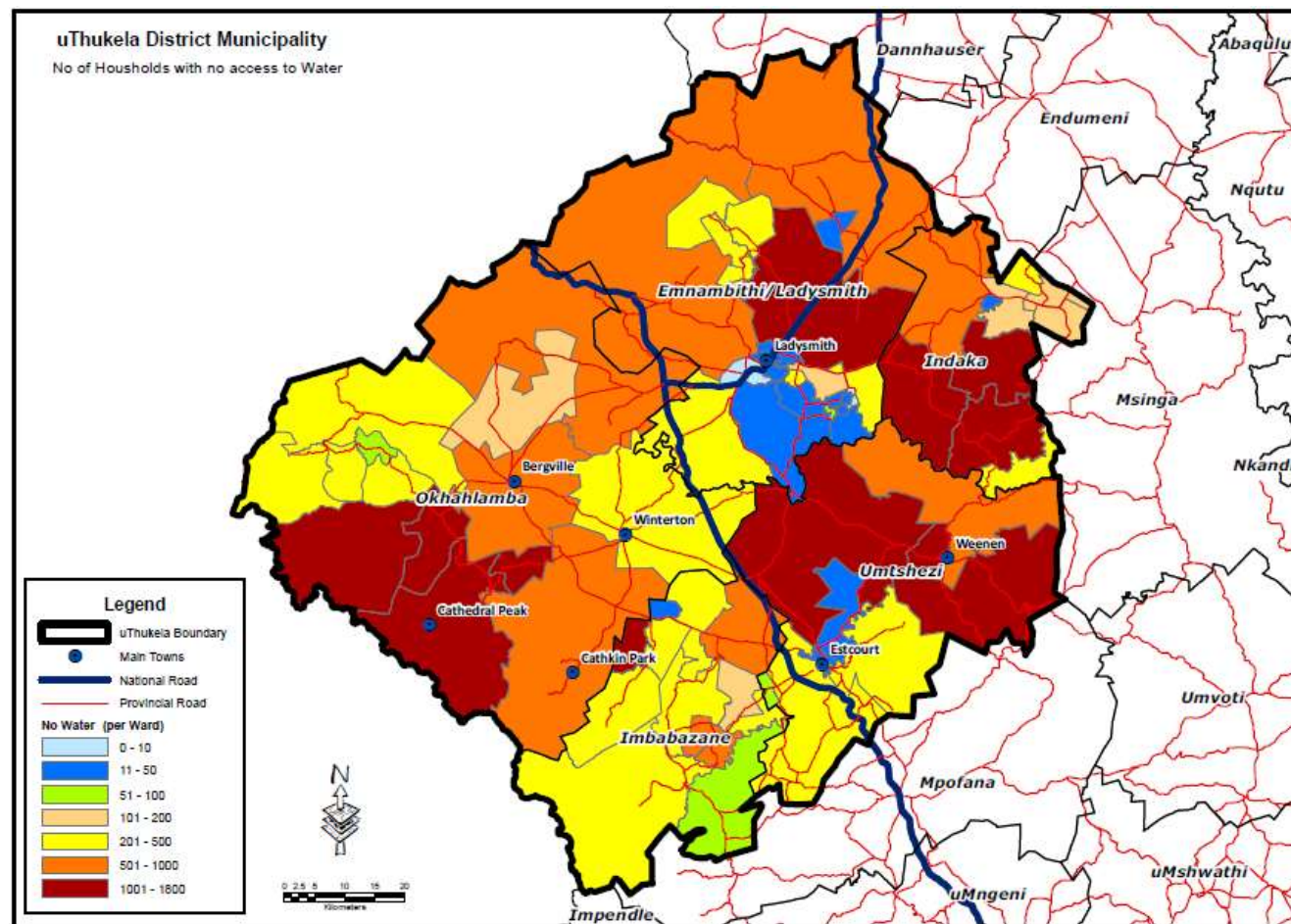
Name	Resource Type	Area	Area Type	Local Municipality	Service Level
Spioenkop	Dam	Ladysmith / Steadville	Urban	Emnambithi	House
Oliphantskop	Dam	Ekuvukeni	Urban	Indaka	House
		Vaalkop	Rural	Indaka	Yard
		Namakazi (Nazareth)	Rural	Indaka	Yard
		Somshoek	Rural	Indaka	Yard
		Hiathi / Kunene	Rural	Indaka	Yard
		Uitval	Rural	Indaka	Yard
		Limehill	Rural	Indaka	Yard
		eTholeni	Rural	Indaka	Yard
		Stanford	Rural	Indaka	Yard
		Waalhoek	Rural	Indaka	Yard
		Mabhekazi	Rural	Indaka	Yard
		Mahlabathini	Rural	Indaka	Communal
		Dival	Rural	Indaka	Communal
		Spandikron	Rural	Indaka	Communal
Wagendrift	Dam	Estcourt / Wembezi	Urban	uMtshezi	House + Communal
		Loch Sloy No. 1	Rural	Imbabazane	Communal
Tugela	River	Ezakeni	Urban	Emnambithi	House
		Coeniso / Inkanyezi	Urban	Emnambithi	House
		St Chads	Rural	Emnambithi	Communal
		Mthandl	Rural	Emnambithi	Communal
		Ezintabeni	Rural	Emnambithi	Communal
		Qinisa	Rural	Emnambithi	Communal
		Tugela Estates	Rural	Indaka	Communal
		Bergville	Urban	Okhahlamba	House
		Woodford	Rural	Okhahlamba	Communal
		Bethany	Rural	Okhahlamba	Yard + Communal
		Rookdale	Rural	Okhahlamba	Yard + Communal
Kilp	River	Langkloof	Rural	Okhahlamba	Communal
		Ladysmith / Steadville	Urban	Emnambithi	House
Bushmans	River	Estcourt / Wembezi	Urban	uMtshezi	House + Communal
		Weenen / Kwanobamba	Urban	uMtshezi	House
		Msootssha	Rural	uMtshezi	Communal
		Thembalithe	Rural	uMtshezi	Communal
		Loch Sloy No. 1	Rural	Imbabazane	Communal
		Masibambisane	Rural	Imbabazane	Communal
Sundays	River	Ngelengedieni	Rural	Indaka	Communal
Little Tugela	River	Winterton / Khethani	Urban	Okhahlamba	House + Communal
		Loskop	Rural	Imbabazane	Communal
		Amangwe	Rural	Imbabazane	Communal
Mnweni	River	Dukuza	Rural	Okhahlamba	Communal
Unknown	River	Emanjokweni	Rural	Imbabazane	Communal + Yard

8.3.4 AREAS WITHOUT WATER SUPPLY

Access to water is considered to be a major challenge within UThukela District Municipality.

Mhlumayo and Sahlumbe;
Pepsworth and Elandslaagte;
Frere and Cornsfield;
Cathedral Peak; and
Loskop.

These areas have between 1001 – 1800 households that lack access to adequate water supply. This is followed by a number of areas that have between 501 – 1000 households that lack access to water. These areas are mainly found around the rural areas that surround Bergville.



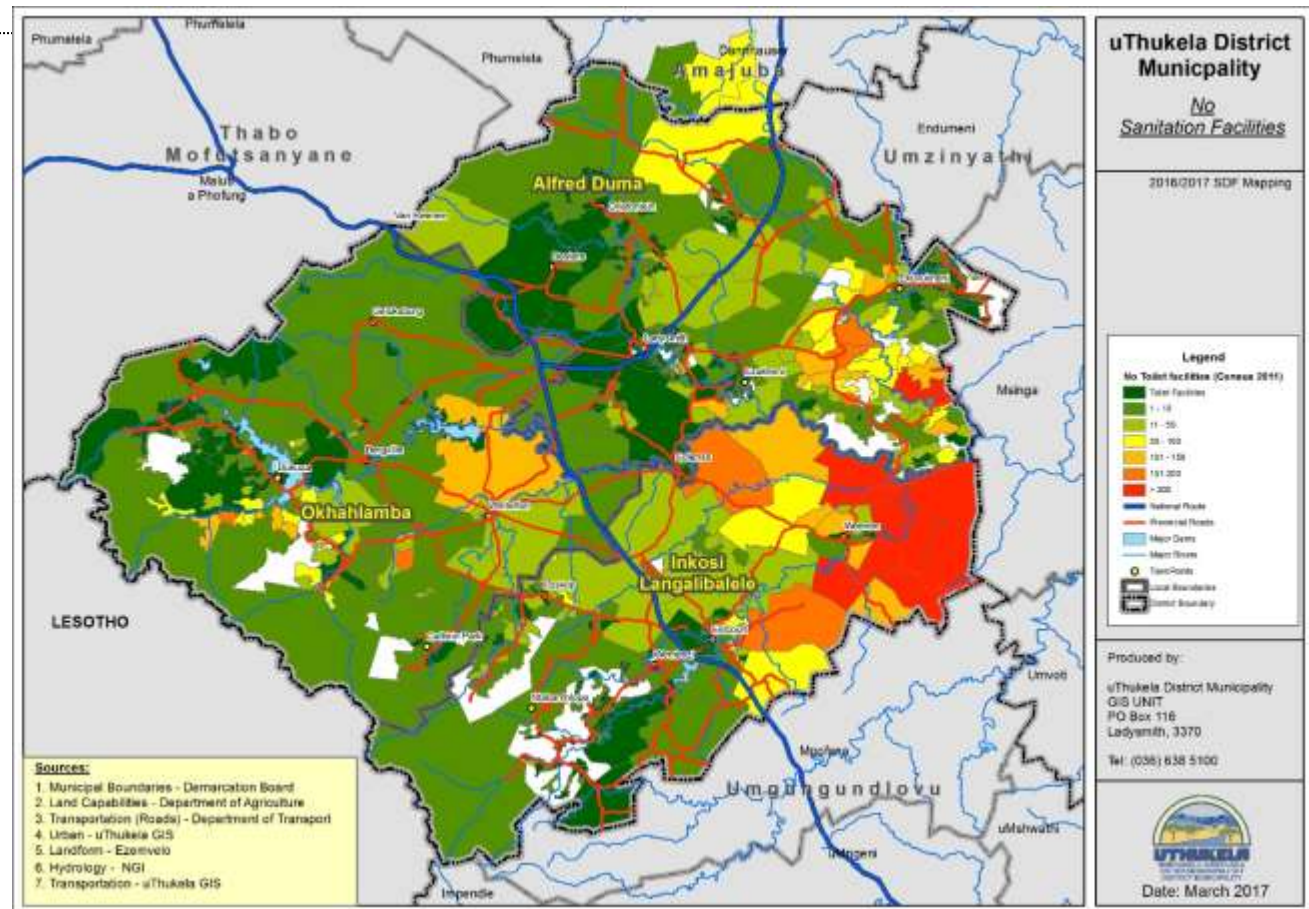
8.4 SANITATION

8.4.1 AREAS WITHOUT PROPER SANITATION SYSTEM

There are a number of rural areas that lack access to appropriate sanitation facilities. The two areas of greatest need within UThukela which are:

Mhlumayo; and Weenen.

Each one of these areas has 1001 – 1300 households that lack access to sanitation facilities. The other areas that experience a level of hardship are Sahlumbe, Frere & Cornsfield and Injisuthi Area. These areas have between 501 – 1000 households without sanitation.



8.4.2 BULK SANITATION INFRASTRUCTURE AND CAPACITY

UThukela District Municipality currently operates 7 waste water treatment namely Ladysmith, Colenso, Estcourt, Bergville, Ekuvukeni, Wembezi and Ezakheni waste water works. UThukela waste water works receive waste water (grey water) from industrial (efficient) and domestic premises. The above waste water works are operated within the guidelines and general standards issued by Department of Water Affairs (DWA).

8.4.3 RUDIMENTARY SANITATION AND IMPACT

The households that fall outside of the urban areas use pit latrines for sanitation purposes. This may be considered as a limiting factor in terms of future development (i.e. large scale commercial or industrial) that may take place within these areas. This is particularly due to the fact that pit latrines and VIP sanitation is unattractive to business zones, bad odour due the nature of the facility, environmental degradation due to contamination with underground water table. The provision of appropriate waterborne sewerage system will be critical for specific development of specific areas.

The other alternative may be the provision of septic tank sewerage system. The Septic Tank System is a small scale (on-site) sewage treatment facility common in areas with no connection to main sewage pipes. The septic tanks infrastructure may not be as expensive as the waterborne sewerage.

8.5 LANDFILL SITES

UThukela District Municipal Area does not have a proper waste treatment facility (e.g. incineration, gasification). Some of the municipalities (Alfred Duma Local Municipality) have closed many small illegally operating landfill sites in order to comply with the standards of the Department of Water Affairs, (DWA). Alfred Duma Local Municipality, Inkosi Langalibalele Local Municipality, and Okhahlamba are currently each operating with one municipal landfill site. However, these sites also do not conform to DWA minimum requirements and its licensing requirements.

However, a site selection phases for establishing a new landfill site has been initiated in Alfred Duma and Inkosi Langalibalele. Once a new site has been selected, licensed and operational, the existing sites will be closed and rehabilitated in accordance with DWA minimum requirements. According to the IDPs, waste collection is undertaken within the urban areas only.

8.6 ROADS

Roads have the potential to not only bridge the geographical divide but to also provide communities with access to better social and economic opportunities. It is therefore important in this regard that roads are assessed in the context of their spatial network, road classification and road surface condition.

8.6.1 ROAD NETWORK

The road hierarchy within the municipal area can be divided in three major categories which can be classified as:

- *National roads;*
- *Provincial roads; and*
- *District and local roads.*

The primary routes include the national routes that exist within the area and few strategic provincial routes. The secondary and tertiary routes are mainly the provincial and district roads that exist within the area. The general quality of these routes is good with exception of the local access routes within the rural areas.

8.6.2 ROAD CLASSIFICATION

It is important to include the analysis of the above mentioned subject matter as it will provide an indication of the responsible authorities for the different road classes within UThukela. This overview will in turn afford opportunities to the responsible authorities to plan accordingly in response to the desired spatial outcomes of the UThukela DM.

There are three types of road classes that have been focused on for this report as they have implications on the desired spatial outcomes for the UThukela DM.

- **National Roads** - These roads denoted with the prefix 'N' e.g. N3 and N11 and are primarily the responsibility of DOT and are maintained through the South African Roads Agency.
- **Provincial Main Roads** - These are higher order provincial roads all with the prefix 'P' e.g. P171. There is a further breakdown of this class into types of main roads, each type meeting certain requirements pertaining to traffic volumes, freight requirements etc. and hence not all main roads are surfaced roads.
- **Provincial District Roads** - All these roads are the responsibility of the KZNDOT and the majority of which are not surfaced. Again there is a further breakdown into types of district roads, each allocated different design and maintenance specifications. These roads normal have a prefix 'D' e.g. D5241.

There is a possibility that the condition or state of the road surfaces might have changed since the development of the PTP but the information contained in the document has been utilised for this exercise and updated information will be obtained from DOT and included in the final report. The national and provincial main roads are mainly surfaced whilst the majority of district and community access roads are not. Most community access unsurfaced roads are not constructed to proper geometric design standards due to the rough terrain and limited funding available. Several of these access roads are used by public transport vehicles, resulting in high maintenance cost of vehicles and unsafe travel conditions for passengers. Unsurfaced roads are often very slippery during the rainy season due to flooding and poor in-situ soil conditions, which results in the rural communities having no vehicle access or an unreliable public transport service.

9. SOCIAL FACILITIES

9.1 EDUCATION

There are 445 public schools and 15 independent schools in uThukela District Municipality. The primary and high schools are fairly adequate in the District and institutions for higher learning are not available. Only one Further Education and Training College that is based in Ladysmith Town is offering education and training to prospective students in the district.

The District Municipality is facing the vandalism of schools buildings especially during the school holidays. The District is also facing the shortage of training institutions. Insufficient funds to eradicate the water and sanitation backlog as of now the water backlog in schools are currently 28% and sanitation is backlog in schools is currently at 40%.

9.2 HEALTH

UThukela District Municipality has 4 Hospitals, 37 Primary Health Care Clinics and 12 Mobile Clinics. The challenge that is facing the District is that not all clinics open 7 days a week as some open 5 days a week only. Emergency Medical and Rescue Services are provided in the District; however Ambulance Services are inadequate to provide an equitable and satisfactory service to all the communities within the District. HIV/AIDS, TB and Children not gaining weight are the leading problematic diseases affecting the majority of uThukela communities.

Poverty is a major factor that predisposes the people of uThukela District to the aforementioned diseases. The reality is that uThukela District does not have sufficient Health Services. The deployment of Health Workers is making a difference especially in rural areas but it needs to be strengthening by deploying more Community Workers.

9.3 POLICE STATIONS

There are fifteen police stations which are located within Alfred Duma LM (6), Inkosi Langalibalele LM (5) and Okhahlamba (4). Although these facilities are servicing the entire district municipal area most of these facilities are located within the urban centres of different municipalities which is sometimes inefficient for the remote rural settlements.

9.4 SPORTS FACILITIES

UThukela does not appear to be well provided with sports and recreational facilities. The sport facilities are mainly found within the urban centres i.e. Ladysmith, Estcourt and Bergville Towns. A need exists to ensure that these facilities are rolled out within the rural areas.

9.5 TRANSPORTATION

9.5.1 PUBLIC TRANSPORT FACILITIES

The information captured in this document for the public transport facilities is based on the UThukela DM Current Public Transport Record. There are a total of 12 public transport facilities within the UThukela area with 1 bus & taxi ranks and 11 taxi ranks. The majority of these facilities are formal and off-street. The status and ownership of the Minibus-taxi facilities is shown in the Table below:

Facility Name	Code	Status	Type	Ownership	On/Off Street	Paving
Alexander Street Taxi Rank	K234TT01	Formal	Taxi Rank	Municipal	Off-Street	Yes
Connor Street Taxi Rank	K234TT02	Formal	Taxi Rank	Municipal	Off-Street	Yes
Weenen Taxi Rank	K234TT03	Formal	Taxi Rank	Municipal	Off-Street	Yes
Hiathikhulu Taxi Rank	K236TT04	Formal	Taxi Rank	Municipal	Off-Street	Yes
Bergville Taxi Rank	K235TT05	Informal	Taxi Rank	Municipal	Off-Street	Yes
Emmaus Taxi Rank	K235TT06	Formal	Taxi Rank	Municipal	Off-Street	Yes
Lylle Street (Municipal) Taxi Rank	K232TT07	Formal	Taxi Rank	Municipal	Off-Street	Yes
Lylle Street (Private) Taxi Rank	K232TT08	Informal	Taxi Rank	Private	Off-Street	Yes
Illing Street Bus & Taxi Rank	K232PT09	Formal Informal	Bus Terminus Taxi Rank	Municipal	Off-Street	Yes
Driefontein Taxi Rank	K232TT10	Formal	Taxi Rank	Municipal	Off-Street	Yes
Ezakheni Taxi Rank	K232TT11	Informal	Taxi Rank	Municipal	Off-Street	Yes
Complex of Limehill (Uitval) Taxi Rank	K233TT12	Formal	Taxi Rank	Municipal	Off-Street	Yes

As evident from the table above all these facilities are paved and in a relatively good condition which is commendable.

9.5.1.1 PUBLIC TRANSPORT ROUTES

The table below lists the main routes in the UThukela DM that relates to distances covered from the various areas of the DM and the number routes available. There are 138PT routes that have been identified within the UThukela DM which allows for access to the different areas of the DM. These routes might be more than the stated figure due to various developments that have occurred within the district. The road distances are significantly lower than the planned distances because the routes might in some instances extend beyond the municipal boundaries. These routes accommodate approximately 267 trips everyday with between 762 to 1655 passengers.

9.5.2 AIRPORTS AND LANDING STRIPS

There is a small aerodrome located at the intersection of the N11 and R103. The aerodrome is poorly developed, and the area does not generate sufficient air traffic. The nearest airport is in Pietermaritzburg approximately 150km from Ladysmith.

9.5.3 RAILWAY LINE

Although the district municipality has one of the best industrially orientated rail systems, currently all rail facilities in the municipality are under-utilised, with approximately 55 trains running through Ladysmith station on a daily basis. Rail passenger services are limited to between 3 - 4 trains operating between Durban and Johannesburg 3 days a week. As a result increased reliance by industry on road transport has placed increased pressure on the road network. The three-way rail junction run along the N11 and the Ladysmith station is located close to the CBD. There are few railway tracks that serve to connect the towns of Bergville, Winterton, Weenen and Van Reenen with the main stations located within Estcourt and Ladysmith. However, the decline in the usage of commodity rail caused this infrastructure to remain redundant and the infrastructure has now been worn out (image insert: depict the condition of the railway line from Ladysmith to Bergville crossing R74 Provincial Road).



9.5.4 RAILWAY STATIONS

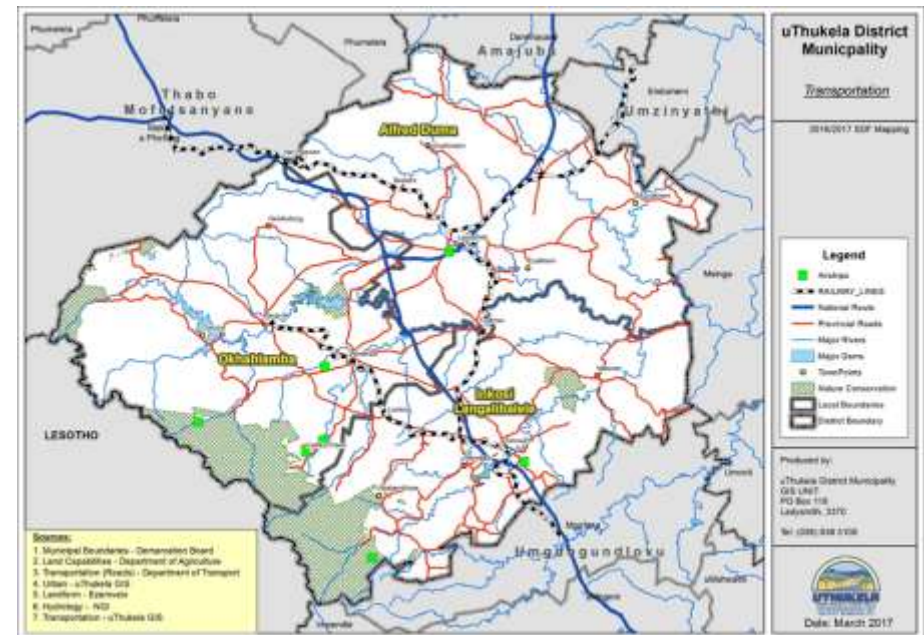
There are two main functional railway stations within UThukela District Municipality. These are located within the towns of Ladysmith and Estcourt. This infrastructure will continue playing a critical role when the railway operations are revamped. The railway stations in other localities of UThukela District Municipality require serious attention. In fact most of the infrastructure is currently at the state of disrepair.



9.5.5 REVAMPING OF THE RAILWAY TRANSPORT MODE

South African government is planning to improve passenger rail services and is intending to embark on one of the world's biggest rail projects to overhaul passenger trains. The refurbishment of the railway is part of the country's huge R4.3 trillion infrastructure investment programme, which the President Zuma himself drives through the Presidential Infrastructure Coordinating Commission. The deal to acquire new passenger trains from French company Alstom was during the South Africa-France Business Forum held in 2013. The contract is worth R51 billion, the biggest infrastructure contract to be awarded in South Africa, for 600 trains and 3 600 wagons over a 10-year period from 2015 to 2025.

Transnet will invest R205-billion in its rail infrastructure, making its freight rail division the fifth-largest in the world. Through these investments it intends to increase freight rail volumes from about 200-million tons to 350-million tons by 2019. The acquisition of the new passenger trains is the first phase in our R123-billion project to revamp our rail network system. It includes the building of 7 224 commuter trains for Gauteng, KwaZulu-Natal, the Western Cape and Eastern Cape. The programme is expected to be of great benefit to UThukela District given a need to revamp the existing railway infrastructure.

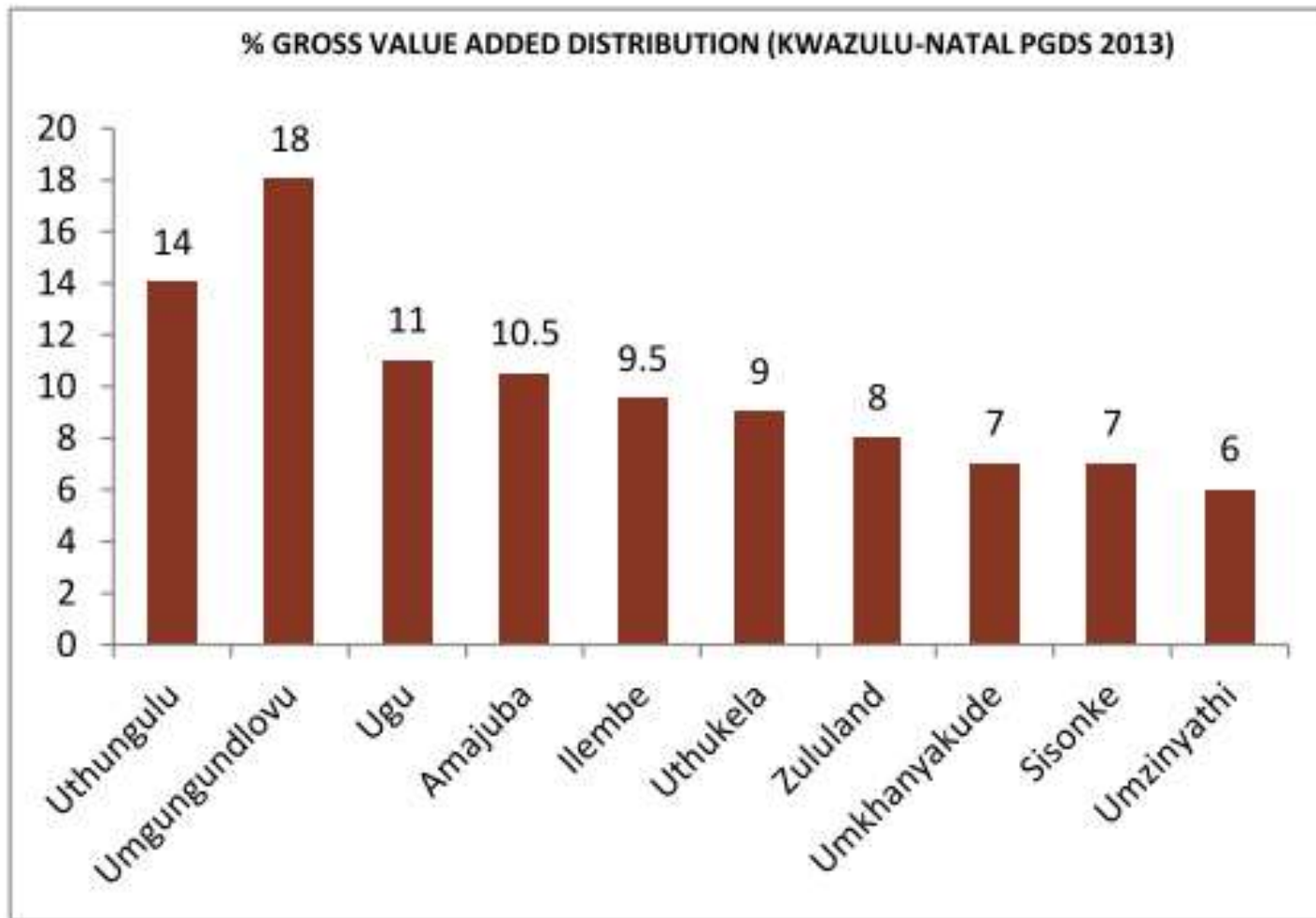


10. ECONOMIC ANALYSIS

Economic analysis assist in identifying where economic activities are taking place within the uThukela District Municipality and which populated areas are the most economically active. Economic analysis makes it possible to identify economic opportunities that are located within the UThukela District Municipality. By comparing the structure of the district economy with those of other districts' economic performance within the KwaZulu-Natal Province, this makes it possible to identify the Districts competitive and comparative advantage in relation to spatial characteristics and economic infrastructure so as to enhance the process of translating beneficial competitive and comparative advantage for the district and province.

10.1 UTHUKELA WITHIN KWAZULU-NATAL

KwaZulu-Natal is South Africa's second largest provincial economy after Gauteng (33%) contributing approximately 17% to the South African economy in 2013. Having two of the busiest high propensity Durban and Richards Bay ports, the economic structure of this province is based largely on the manufacturing sector. The manufacturing sector was the biggest sector in the KZN provincial economy (22%) in 2013. The district's manufacturing sector contributed 5% to total manufacturing GVA of KZN in 2011 up from 4% in 2001, employment in the municipality's manufacturing sector as a proportion of total manufacturing employment in KZN remained stable at 6% between 2001 and 2011. The total value of goods and services produced in uThukela in 2011 was R13.4 billion, contributing 5% to the provincial economy, The most significant sector in 2011 was manufacturing which contributed 21% to the district's total GVA. This was followed by wholesale and retail trade, catering and accommodation at 17%; and then finance, insurance, real estate and business services at 15%. The least important sector in terms of GVA in 2011 was mining and quarrying at less than 1%.



The district's GVA contribution grew at an average of 6% per annum between 2001 and 2011 which is above the overall average for KZN of 4%. This is attributed to the high average growth in Okhahlamba, Alfred Duma and Inkosi Langalibalele LM.

	2001	2006	2011	Average annual growth 2001-2011
KZN	194 419	239 894	277 530	4%
uThukela	7 294	10 110	13 472	6%
Emnambithi	3 993	4 892	5 624	4%
Indaka	244	378	580	9%
Umtshezi	1 206	1 888	2 779	9%
Okhahlamba	1 170	1 982	3 141	10%
Imbabazane	653	938	1 318	7%

Source: Quantec

10.2 ECONOMIC INFRASTRUCTURE

The NDP states that to achieve sustainable growth by 2030 South Africa needs to invest in a strong network of economic infrastructure designed to support the country's medium and long term objectives, the Government is going to spend R860billion developing infrastructure. The provincial strategic goals and objectives emphasise on development of ports and harbours, development of road and rail networks, development of ICT technology, improve water resource management and develop energy production capacity. The provisions of electricity, water, telecommunication, road networks and banking facilities have an important role to play in stimulating economic growth. In the state of the provincial address it was indicated that the establishment of the District Industrial Hubs or Special Economic Zones in all Districts including uThukela district municipality will create new nodes of economic growth and development.

National Key Performance Areas Strategic Infrastructure Development focuses on catalytic projects to stimulate growth and development at national and at a provincial scale such as public and freight transport, ICT, water and electricity. Ladysmith is the economic and regional hub the town is further the industrial hub, with the majority of industries being located around Ladysmith the industrial estate in the district is located a

short distance from Ladysmith, the transportation network in the form of roads and rail infrastructure plays a critical role in determining the structure of the area while creating opportunities for investment. This is due to the transportation network providing linkages between different areas while influencing the level of access to social and economic opportunities whereby the quality of life for individuals can be enhanced, roads have the potential to not only bridge the geographical divide but to also provide communities with access to better social and economic opportunities.

There are two national routes the N3 and N11 traversing the district which forms a critical link between uThukela and provincial, national and international destinations, the N3 traverses uThukela and form the connection between Durban and Gauteng this route carries a vast amount of goods and passengers with only a few filling stations along the route gaining economic benefit, Indaka and Imbabazane municipal areas are relatively isolated from these routes and can only be accessed via the provincial road network. The N11 is an alternative route from Ladysmith to Gauteng and Limpopo and forms an important route between Ladysmith and Newcastle located in the neighbouring Amajuba district municipality currently this route is under construction.

The former Indaka and Imbabazane Local Municipalities were 'young' municipalities without a well-established economic centre. Rural dense villages with a population of over 5,000 people are mostly found within the traditional areas of the Indaka and Imbabazane local municipalities. Both these municipalities are characterised by very steep mountainous areas with limit opportunities for agricultural activities and creating difficulties in the provision of infrastructure. UThukela District is strategically located along the N3 development corridor linking Gauteng with Durban and its export harbour.

The district has a number of strategically located towns along this corridor such as Ladysmith and Estcourt, Ladysmith is also located close to the junction of the N3 and the N11 another important development corridor with the Witwatersrand uThukela has well established industrial areas accommodating firms that produces international and global brands. The N11 is an alternative route from Ladysmith to Gauteng and Limpopo and forms an important route between Ladysmith and Newcastle located in the neighbouring Amajuba District Municipality.

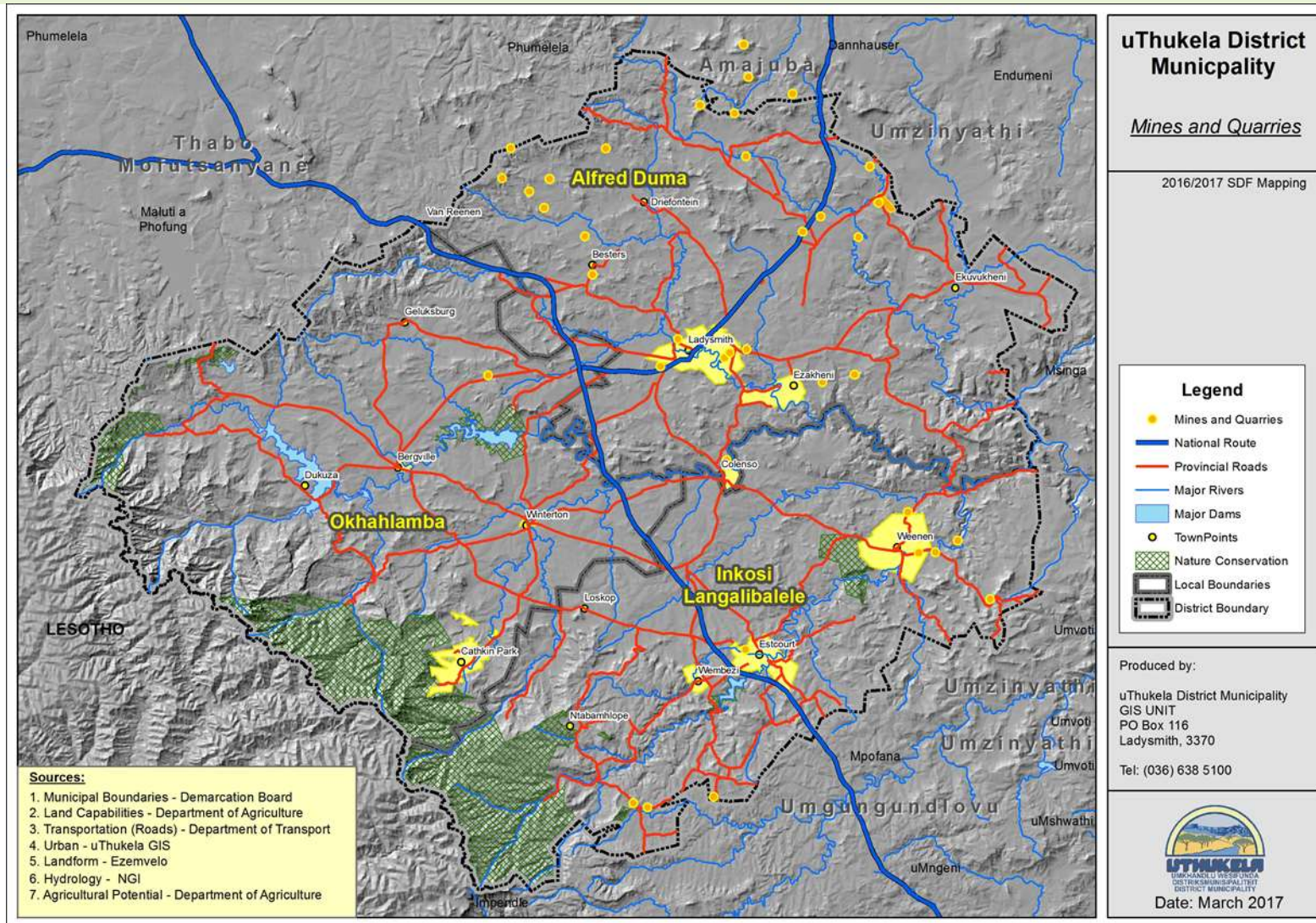
In line with Provincial Guidelines, tourism routes have been identified along the Drakensberg linking areas such as Cathkin Park, Bergville, Winterton and the Northern Berg, this route has been expanded recently to include linkages to tourism nodes within the Drakensberg range, uThukela is mainly served by an East-West and North-South corridor. Of all roads in the uThukela district area 1 410km are surfaced roads and 1 320km are un-surfaced or gravel roads, the majority of the surfaced roads can be found in Alfred Duma Local municipality.

The location of the district along the N3 development corridor and its recognition of its strategic role nationally enables uThukela to actively pursue initiatives that could optimise this opportunity, the transport, storage and communication sector is seen as a growth sector in the district, there is potential for Ladysmith and Estcourt to become regional transport and storage hubs, key industrial areas located in the Ladysmith area (Nambiti, Danskraal and Ezakheni Industrial Estate) accommodates major companies including Apollo Tyres and Defy Appliances.

The core function of uThukela District Municipality is the provision of water and sanitation services and the main objective of the municipality is to ensure the quality of drinking water, as a Water Services Authority, UThukela District Municipality has developed and adopted the Water Services Development Plan (WSDP), this plan was prepared in accordance with the Department of Water Affairs and (DWA) preparation guide. According to the adopted WSDP the DM has a wealth of surface water resources, however much of the dammed water is transferred to Gauteng Province as part of the Tugela-Vaal scheme, most surface water is abstracted from the Tugela River or one of its tributaries, such as the Klip, Little Tugela or Bushmans, uThukela district municipality has developed Water Services By-laws. The challenge that is facing the municipality is that some water infrastructure is dilapidated; the date of construction of some components is unknown.

10.3 MINING

UThukela District Municipal Area is relatively low in terms of mineral occurrences for mining purposes. The mining sector within UThukela has remains stagnant and has declined over the past few decades. This has resulted in the mining sector to only contribute 1% to the GVA. The mining operations that were notable was the coal mine in Nkunzi Settlement (Alfred Duma LM) but it has been since closed. Mining in the district has



shown a negative average growth rate over the period of 2% per annum. There are new mining rights that have been issued by Department of Minerals and Energy within UThukela. However these appear to be on a relatively small scale as well.

The former Indaka Municipality had also stated that there are opportunities for small-scale mining in sand mining and coal mining (Mineral Exploration Potential). Even though there are mining opportunities in Indaka there is little incentive to invest because the area is not an economically functioning region. The area has very few economic activities; this is mainly attributed to the fact that the entire municipality has no formal and/or proclaimed town which can serve as an engine for attracting retail and trade type of investments, as a result the area is unable to attract inward investments that could address economic development challenges due to the above-said point of economic development.

10.4 AGRICULTURE

One of the many PGDS goals and objectives is to unleash agriculture through the development of livestock production including primary animal healthcare, livestock, husbandry practices, grazing and nutrition, livestock and related infrastructure, appropriate technology development and capacity building of farmers, development of crop and horticultural production including soil fertility, mechanisation, enhancement of agricultural value adding and marketing of primary value added produce and products local and international. Expansion of irrigation schemes and water use efficiency and a strategy to development emerging farmers to provide protection as well as the rehabilitation of agricultural resources.

The new growth path seeks to place the economy on a production-led trajectory by developing an agricultural value chain, with a focus on expanding farm-output and employment and increasing the agri-processing sector. The KZN Provincial Spatial Economic Development Strategy (PSEDS) identifies Okhahlamba as one region with massive potential for growth in agriculture and agro processing. It is a competitive sector that could be further developed to exploit economic opportunities presented by its location along the major transport routes and abundant water from the Thukela River (Thukela-Vaal Scheme). The R74 connects Bergville and Winterton to the N3 and N6 roads in the Free State, this presents Okhahlamba with agro processing opportunities that will be supported by road freight infrastructure to major South African cities, i.e. the Durban Harbour in the south and Agriculture contributed R946 million to the district economy in 2011 and employed 7 959 people, the sector contributed 7% to total GVA and employment within the municipality in 2011.

Contribution of uThukela's agriculture sector

	2001	2006	2011
uThukela's agriculture, forestry and fishing GVA contribution (Rm)	425	619	946
Relative contribution to total GVA within uThukela	6%	6%	7%
Relative contribution to total GVA within KZN	4%	6%	7%
uThukela's agriculture, forestry and fishing employment contribution	13 772	16 305	7 959
Relative contribution to total employment within uThukela	14%	15%	7%
Relative contribution to total employment within KZN	4%	6%	8%

Source: Quantec, 2012

The sector had one of the highest average annual growth rates in terms of GVA at 8% for 2001 to 2011, although employment growth was negative at -5% per annum, the municipality's agricultural sector contributed 7% to total agricultural, GVA of KZN in 2011 up from 4% in 2001. Employment in uThukela's agricultural sector as a proportion of total agricultural employment in KZN was 8% in 2011 also up from 4% in 2001. The number of people employed in agriculture, forestry and fishing started decreasing in 2007 which is in line with provincial trends in the sector, commercial farmers from 120 000 in 1994 to 38000 in 2010, it is becoming increasingly difficult for new small scale farmers to enter into the market.

Ladysmith being the economic hub of the district an agro-processing centre must be built for raw materials produced on local commercial farmlands and the surrounding agricultural regions, commercial and industrial developments in areas such as Ezakheni and Colenso should resonate with the role of these areas as secondary centres support in the clusters of settlements in their vicinity. The main crops planted are maize followed by potatoes, with the main areas for cropping being Estcourt and Bergville, In addition, chickens, pigs, cattle and sheep are part of agriculture sector in the district. Beef ranching dominates in Alfred Duma municipality, whilst chickens are the dominant activity in Inkosi Langalibalele municipality, the main area of sheep and pig farming is also in Inkosi Langalibalele municipality.

Large areas agricultural land has been set aside for land reform in UThukela District, these land claims are in various stages with some have been gazetted and others still being processed, this has resulted in the loss of land for agricultural production unless leased back to commercial farmers for production purposes. Since the year 2000 the demand for maize meal has declined by approximately 20 % as a switch to potatoes and rice as the preferred source of carbohydrates across a broad spectrum of the community, thus creating a surplus of milling capacity, established millers thus fiercely protect their markets. During times of surplus maize production local small scale farm mills spring up.

When there are shortages and imports are required the small mills do not have the financial resources to import their own requirements and therefore go out of production. Those that do survive are mostly those that have reached an accommodation by restricting their activities to locally grown product and / or acting as stockists for the larger millers when local supply of milling maize has been exhausted. The soil from uThukela District is fertile for growing many crops and vegetables; this leads the agricultural sector to have a number of opportunities for investment in planting crops related services including the following:



The agricultural sector is well established but is experiencing an uncertain future with a number of structural changes taking place, recent changes that have taken place have been in crop selection (move towards crops such as soya) and a move away from livestock in commercial

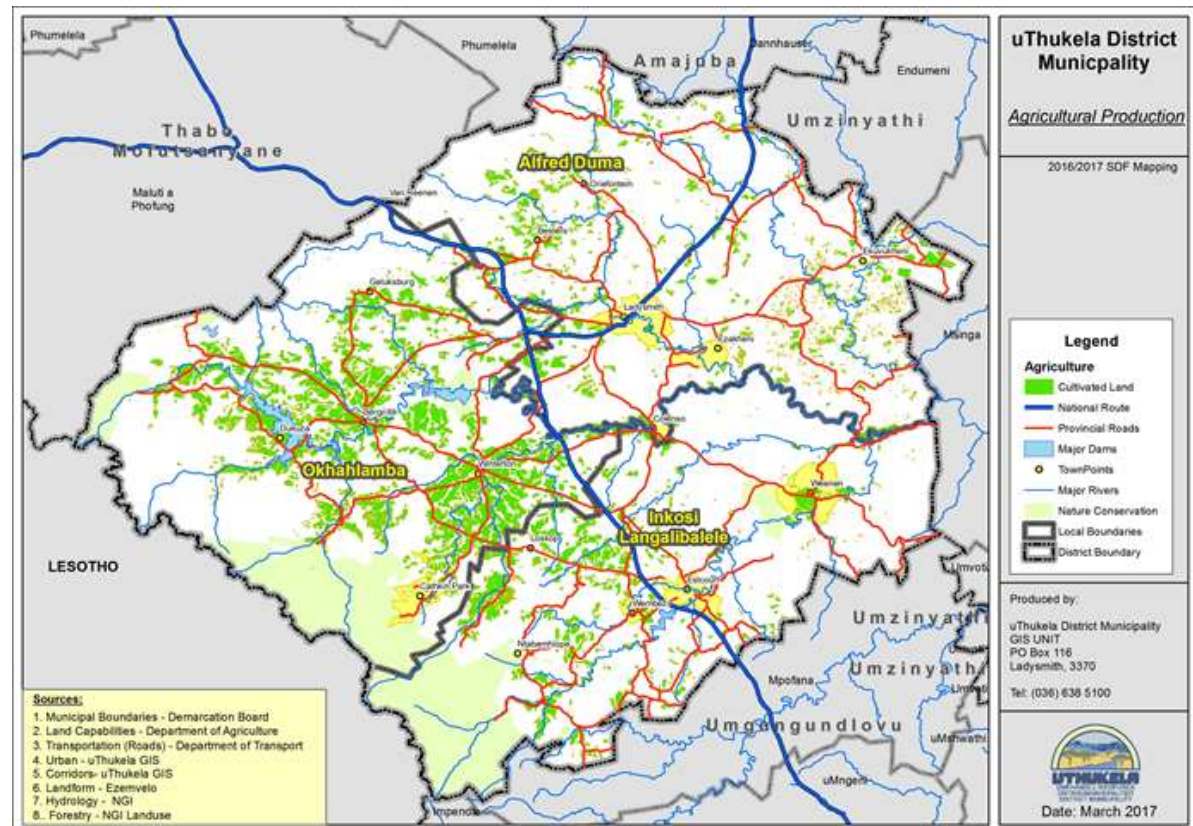
farming (as a result of cattle theft). The main agricultural ventures are forestry, beef production, dairy, maize and vegetables; there is evidence of raw materials leakage from some agriculture products, which get processed outside the municipal area.

This has led to the closure and scaling down of some industries in the district, farmers have resorted to diversification due to the decline in the sector, diversification is mainly into tourism (such as bed and breakfast enterprises), developing a wider product range into milk processing, as well as horticulture experiments.

10.4.1 . COMMERCIAL AGRICULTURE

Commercial farming takes up 56% of the one million one hundred and thirty three thousand ha that makes up the uThukela District, Commercial agriculture occupies a large portion of the municipal land, the agriculture sector is the major employer in the majority of municipalities and forms the economic anchor of these municipalities. The commercial farming sector is dominated by forestry plantations and field crops including maize, dry beans and potatoes, the extensive livestock production focuses primarily on beef, dairy and sheep. The prime crop and milk production

The central and north eastern portions are suited to extensive beef production, the south area is heavily bushed with rough terrain, game farming is probably a better option than beef. Opportunities for real wealth by the development of a vibrant



community of new farmers are presented by fertile lands along the broad and gently sloping river valleys. These could be put under irrigation in a series of new farming hubs based on the Weenen Model, the best soils in the TDM are found around Winterton and Bergville, along the Injisuthi River, around the Woodstock Dam and for 10 km west of Estcourt.

By and large the soils and climate of the rest of the TDM are best suited to beef production, the exception is the Winterton/ Bergville area where the major livestock industry is dairy farming. The primary livestock activity is dairy farming on the basis of 250 veld days supported by maize silage, hay and irrigated pastures, planted specifically for feeding or on a rotation basis with maize. Mixed herds comprised Bonsmara, Brahman and crosses, two stud farms are breeding Brangus (Brahman / Aberdeen Angus cross) and Simbra (Simenthaler / Brahman cross) herds, both of which are beef bloodlines. Another stud farm has specialized in breeding Boran bloodlines introduced from Kenya.

At an auction at Winterton in mid-August in 2012 a prize bull was bought by a Mossel Bay farmer for R 250 000.00 and a cow bought by an Mpumalanga farmer for R 200 000.00, prices of standard bulls ranged from R 24 000.00 to R 54 000.00, several farmers still breed pigs a carryover from the days when the Eskort.

Bacon Factory was a co-op owned by Natal midlands farmers, a few sheep are being kept by some mainly for own use, stock theft has killed commercial sheep farming in many parts of RSA, Poultry farming is an enterprise dear to the Departments of Agriculture, Economic Development and Social Welfare, nestling in the Injisuthi Valley is one of the few mode that has lasted beyond the initial grants.

There are two reasons why this enterprise has flourished for 12 years there are three owners hence the income is meaningful to the owners. Production is limited to the sale of live chickens within the community and to the bakkie trade for table and ritual purposes. Total production costs of R 25.00 to R 30.00 against a selling price of R 45.00 to R 50.00 is good business in any economist's books, sales since the beginning of 2011 have resulted in the sale of 1619 heard of livestock at a total value of R 10.9 million. Below are some of the Agri-businesses in uThukela District Municipality that have been experiencing a lot of problems.

Eskort LTD

- Economies of scale and lack of adequate supplies forced slaughter to be moved to Heidelberg. Transport costs, railway inefficiencies etc forced many of the local farmers to discontinue supply while a few opened up much smaller abattoirs.

Nestle SA Pty(Ltd)

- Economies of scale have forced rationalization in this industry also. The Estcourt plant, located in the heart of the town, and a massive warehouse on the Loskop road now focus exclusively on beverages such as Nescafe and Milo. Condensed milk and chocolate have moved elsewhere in the country, in the latter case to East London.

Masonite (Africa) Limited

- Unfortunately most of the timber grown in uThukela is unsuited to the processes used both here and in their plant at Canelands on the KZN North Coast.

This amounts to an average of R 6 700.00 per beast, what is particularly important is that farmers are starting to realize that a two year old Ox sold for R 6000.00 is worth six twelve year oxen sold at R 6000.00, the farmers have themselves re-invested R 1.2 million of the above income into self-financed improvements. Renovation of 28 dipping tanks and the construction of three new dipping tanks, widespread implementation of vaccination programmes. The main threats to livestock in this area are Blood water Fever and Contagious Abortion There is no doubt that the greatest and quickest opportunity for real wealth creation for new farmers in the uThukela area lies in veld fed beef production. Crop production is largely limited to the Winterton and Bergville LM areas where the focus is on commodity and industrial crops. The valleys in the foothills of

the 'Little Berg' can support a substantial high value deciduous fruit and berry industry that is currently unexploited except for own use. One of the advantages of permanent crops is that they can be planted on slopes that are too steep for annual cultivation. Another benefit is the opportunity for labour intensive value adding such as hot bottling and jam making. There are also good opportunities for high value cash crops to be grown along the river bottoms and foot slopes of the major rivers.

10.4.2 SUBSISTENCE AGRICULTURE

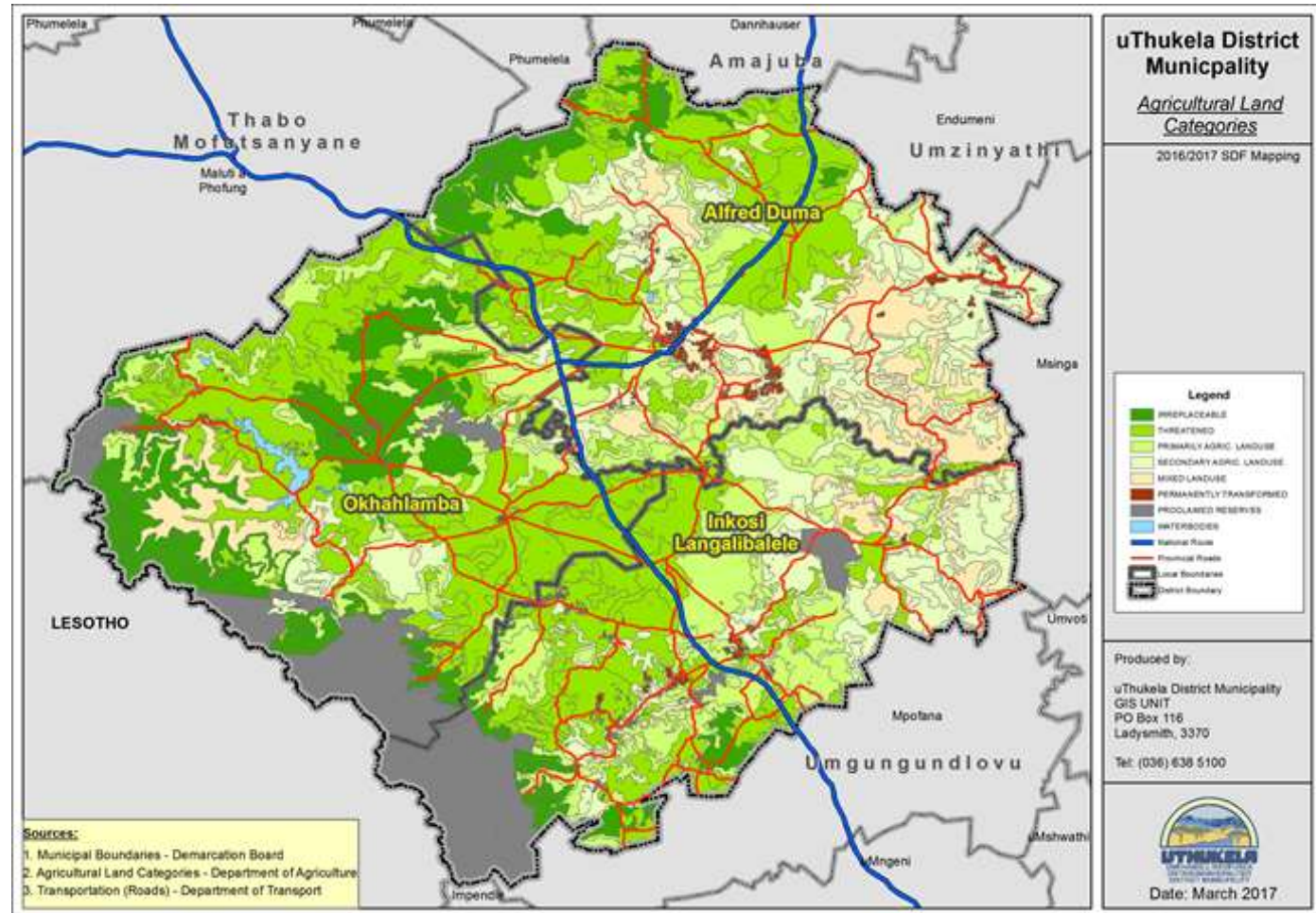
UThukela District Municipality is predominately rural with the five local municipalities being rural in nature; statistics indicate that 75% of the population of uThukela District Municipality live in rural areas. Subsistence farming is the dominant activity in the municipality; subsistence agriculture is by far the most important source of sustenance for rural households.

Agricultural land in the former Imbabazane LM is mainly utilised for subsistence purposes this translates into little economic contribution to the sector from large tracts of land, subsistence farming dominates in former Indaka and Okhahlamba. There has been a steady decline over time in the number of people entering agriculture given the challenges faced by farmers and the attractiveness of other sectors to the younger generations. There seems to be a sense of disillusion from commercial farmers with government and programmes to mentor emerging farmers. There is a need to identify agricultural activities that are labour intensive and develop these to address some of the employment issues that exist. Complex land tenure systems relating to the trust hinder development and slow down processes to commercialize the agriculture in rural based areas.

A number of land reform projects within the district have been unsuccessful and this poses a threat to future agricultural production in the region. Poor soil potential has limiting agricultural economic opportunities in this regard in almost all the local municipalities. According to the 2007 Census of Agriculture, there was approximately 63 000 ha of area planted to crops in the district in 2007, the main crop planted was maize followed by potatoes, with the main areas for cropping being Estcourt and Bergville.

Communally-owned cattle represent a huge proportion of stock in the district if properly managed this could be a great asset to the district if commercialized, a major challenge to commercialising cattle farming is to shift the cultural value placed on cattle by the local people to them being viewed as having an economic value.

Carefully selected portions of Ingonyama Trust land have the potential to support both subsistence and small holder commercial but the concentration of existing subsistence agriculture and settlement activities within inappropriate locations, e.g. wetlands and flood plains have resulted in poor land use practices leading to accelerated soil loss, the spread of alien invasive plants and the loss of natural capital. The overriding cultural significance of the cultural value of livestock which prevents sustainable management thereof with resultant over-grazing and associated impacts.



10.5 TOURISM

The total number of people employed by tourism in the district is estimated at 2 968 direct and 4 544 indirect (Urban Econ Tourism, 2012), this equates to around 3% of provincial employment in tourism (direct). Foreign Tourism: an estimated 162 967 foreign tourists visited the district municipality in 2010. This is based on 126 492 tourists to the Drakensberg and 36 475 tourists to the Battlefields, the main source markets of foreign tourists in the district are the UK, Germany, Netherlands and USA (as reported in the uThukela tourism strategy). The average spend per trip of foreign tourists to the district municipality is reported in the tourism strategy as R7 215, this is equivalent to the average spend per trip reported by TKZN for all foreign tourists to KZN. Domestic Tourism the district received an estimated 349 860 domestic trips in 2010, this is based on 295 148 trips to the Drakensberg and 54 713 trips to the Battlefields, the market share of total trips to the Drakensberg and Battlefields is therefore 26% and 23% respectively.

The average length of stay of domestic tourists to the Drakensberg is reported in the uThukela tourism strategy as 4.5 nights, with the length of stay to the battlefields at 2.0 nights. The main domestic source markets in the district are Gauteng and KZN itself



the average spend per trip of domestic tourists to the district municipality reported in the tourism strategy as R710. Again, this is equivalent to the provincial figures in terms of average spend. It is for these reasons that UThukela District Municipality must invest more

resources into Tourism. The UThukela District Municipality is located in the world heritage site (The Majestic Drakensberg Mountains) and the renowned battle sites offer an out of Africa experience these qualities have created a district that is a tourism magnet in South Africa. In line with Provincial Guidelines tourism routes have been identified along the Drakensberg linking areas such as Cathkin Park, Bergville, Winterton and the Northern Berg. The route has been expanded recently to include linkages to tourism nodes within the Drakensberg range. The tourism sector comprises three main parts: The berg experience with hotels, chalets and camp sites located from Mount Aux Sources in the north through to Giants Castle in the south.

The second major part includes historical tourism involving the battlefields routes through the eastern part of the district. The third part involves game reserves and the wildlife experience in the lower lying bushveld (as opposed to berg) areas of the district in proclaimed and private conservancies. This includes an expanding area devoted to game farming and professional hunting adventure tourism is closely linked to the berg and the bush experience. UThukela has the potential to become the number one destination of choice for tourists to KwaZulu-Natal and South Africa, especially for those tourists who desire the country ambience.

In addition, the municipality has cross-boundary linkages with Lesotho and the Free State (e.g. through the Maloti Drakensberg Transfrontier Project); Amajuba and Umzinyathi Districts (e.g. Battlefields); and the midlands (including the Midlands Meander). Furthermore the warm temperatures, summer rainfall, scenic beauty and environmental significance of the area make the climate excellent for tourism. Apart from other sectoral investment opportunities, tourism can also play a pivotal role in the advancement of communities.

10.6 COMMERCE AND TRADE

The Commerce and Trade sector is one of the important economic sectors in the South African economy; It contributed about 18.8% to the country's GDP in 2008 and made a similarly significant contribution in terms of job creation. In terms of the structure of the South African economy, Commerce and Trade forms part of the Tertiary sector of the economy. As Ladysmith is the economic and regional hub, the banking sector is service industry is prevalent, the town is further the industrial hub with the majority of industries being located around Ladysmith. The

only industrial estate in the District is also located a short distance from Ladysmith. The Finance, insurance, real estate and business services sector has remained fairly strong over this period growing from 11.4% in 2001 to 15.4% in 2011.

The main source of employment within the district in 2011 was wholesale and retail trade, catering and accommodation at 25%. This was followed by general government at 16% and community, social and personal services at 15%. Employment in the primary sector comprised around 7% of total employment in the district in 2011. The main sectors operating in uThukela Municipality include: Agriculture, Tourism, Manufacturing, Transport, Mining, and Retail sector or trade and Commerce (Small Medium and Micro enterprises and Informal Sector). Agriculture contributed R946 million to the district economy in 2011, the sector contributed 7% to total GVA. Manufacturing is among the significant economic sectors to the economy of uThukela in 2011 and employed an estimated 16 082 people, the sector contributed 21% to total GVA and 14% to employment within the district municipality in 2011. The district's manufacturing sector contribute 5% to total manufacturing GVA of KZN in 2011, up from 4% in 2001. The commercial sector contributes substantially to the district GVA with wholesale and retail outlets located in all the centres in the district and certain of the smaller centres located in the Ingonyama Trust Board areas.

Higher order commercial services are provided in Ladysmith, Estcourt, Bergville and the Central business districts at Bergville and Winterton. Generally, the commercial sector in this context is used as a generic term for most businesses included the following sectors (as defined by the Standard Industrial Classification): (1) financial intermediation, insurance, real estate, and business services, (2) wholesale and retail trade (excl. Hotels and restaurants), (3) community, social and personal services. This can be grouped in small, medium and micro enterprises (SMMEs) and informal traders.

Furthermore this sector includes the street trading which is one of the key means of living in the district and makes an important contribution to the economic and social life of the majority of the residents. It absorbs workers who would otherwise be without work or income. Most people enter the informal economy in uThukela not by choice but out of a need to survive especially in circumstances of high unemployment, underemployment and poverty. The Finance, insurance, real estate and business services sector has remained fairly strong over this period growing from 11.4% in 2001 to 15.4% in 2011.

Informal economy has significant job and income generation potential because of the relative ease of entry and low requirements for education, skills, technology and capital, but the jobs thus created often fail to meet the criteria of decent work. There are large areas of displaced urban/rural settlement in the district including Limehill, Loskop, Mazizini, Dukuza, Emaus etc. Each of these areas has access to local spaza shops

and some retail outlets which provide for local needs of the community. The majority of businesses are concentrated in major towns of the district and this makes them the important commercial and service centres for other surrounding areas. Apart from its social benefits, electricity is also a driving factor in the economy.

Schedule 4B of the Constitution lists electricity and gas reticulation as a local government responsibility and as a consequence also plays an important revenue source for local government. The main source of employment within the district in 2011 was wholesale and retail trade, the retail sector is concentrated in major towns of the district. The level of income leakages is estimated to be moderate since the location of uThukela district is not far from major provincial and regional towns such as Pietermaritzburg, Pinetown and Durban.

There are opportunities to construct retail centres in all rural municipalities such as Okhahlamba, Imbabazane and Indaka, There is an opportunity to construct trading markets for SMMEs and informal traders in all nodes around taxi ranks, Sport facilities, warehouses, music academy, recording studio, and property development.

10.7 MANUFACTURING

NDP envisages an economy in 2030 that is nearly three times its current size. This means that the manufacturing sector will be larger in 2030, because a 9.6% share of a larger economy is bigger than a 12% share of a smaller economy. The new growth path seeks to place the economy on a production-led trajectory with growth targeted in ten 'jobs drivers' as a first step, government will focus on unlocking the employment potential in six key sectors and activities, one of those key sectors is manufacturing. Manufacturing has decreased from approximately R4 billion in 2002 to approximately R2.9 billion in 2008, and is a sign of concern given that it is the single largest contributor to the entire Emnambithi local economy.

The district has a strong manufacturing base with the majority of manufacturing companies being based in Ladysmith; manufacturing contributed around 21% to total the district GVA. Manufacturing is among the significant economic sectors to the economy of uThukela in 2011 and employed an estimated 16 082 people, the sector contributed 21% to total GVA and 14% to employment within the district municipality in 2011. UThukela has well established industrial areas accommodating firms that produces international and global brands. The district's manufacturing sector contributed 5% to total manufacturing GVA of KZN in 2011, up from 4% in 2001.

Employment in the municipality's manufacturing sector as a proportion of total manufacturing employment in KZN remained stable at 6% between 2001 and 2011. The dominance of manufacturing in the district has been declining over time, employment in manufacturing has also been decreasing over time. Continued decline in this sector will threaten the economy, sustainability of the local economy and cause further job losses. The main sub-sectors within manufacturing of the district are food, beverages and tobacco; petroleum products, chemicals, rubber and plastic; and then textiles, clothing and leather goods, all of the manufacturing sub-sectors have remained relatively stable in terms of the contribution to the manufacturing sector since 2000.

The dominant manufacturing areas of the district are in Alfred Duma Local municipality and Inkosi Langalibalele local municipalities, with Ezakheni Industrial Estate and Danskraal forming the major industrial areas in Emnambithi Local Municipality. Large manufacturing enterprises are based in both municipalities and include Defy Appliances, Zorbatex, Nestle, Eskort, Apollo Tyres and Clover. Ezakheni was established as an industrial decentralisation point in the late 1960s by the nationalist government and industry locating into the area relied on government subsidies up until the change of government in the early 1990s. This resulted in the removal of the subsidy and the closure of the more marginal companies in the industrial area (around 50% occupancy in the early 2000s).

Since then the numbers of companies operational at Ezakheni has increased owing to the benefits associated with accessibility to land, rail road and utility services. There is a demand for manufactured products in uThukela such as clothing and textile, footwear, furniture, food, beverages and building material. Further, UThukela local economy is dominated by primary sectors, which implies that there is availability of raw material to a certain extent.

However because the manufacturing sector is not developed and all its full potentials are not yet utilised, in most instances raw material is transported to other centres outside the district for processing, the following investment opportunities are available in the manufacturing sector:

- *Electronics*
- *Clothing and Textile*
- *Maize Mill,*
- *Coffee waste transformation into mushroom*
- *Charcoal plant,*
- *Traditional medicine,*
- *Transport and Machinery equipment.*
- *Leather production;*
- *Agro-processing,*

11. ENVIRONMENTAL ANALYSIS

11.1 TOPOGRAPHY

UThukela District is located in the foothills of the Drakensberg Mountains, which form the escarpment. The dominant topographical features of UThukela are valley slopes and undulating hills, but the topography is highly diverse and also includes broad valleys, moderate to steep slopes, rolling hills, flat plains, dolerite koppies and steep ridges. Topography is relatively flat within central part of the district especially around the built-up urban areas.

The western edge of the District comprises of Ukhahlamba Drakensberg Park which is a stretch of steep mountainous area that meanders and becomes the boarder of UThukela with Lesotho and Free-State and Lesotho. The Drakensberg Mountain Range stretches from the Southern Cape to Mpumalanga Province. In KwaZulu-Natal it comprises two primary components, the High or Main Berg, and the Low Berg running through to Northern KwaZulu-Natal. The High Drakensberg area falls into five valleys, beginning with the Injusuthi valley in the south, Champagne Valley in the Central Berg, through the Cathedral Peak and Didima Valley, then the Royal Natal National Park and Amphitheatre Valley, and finally the Middledale Pass Valley in the Northern Berg.

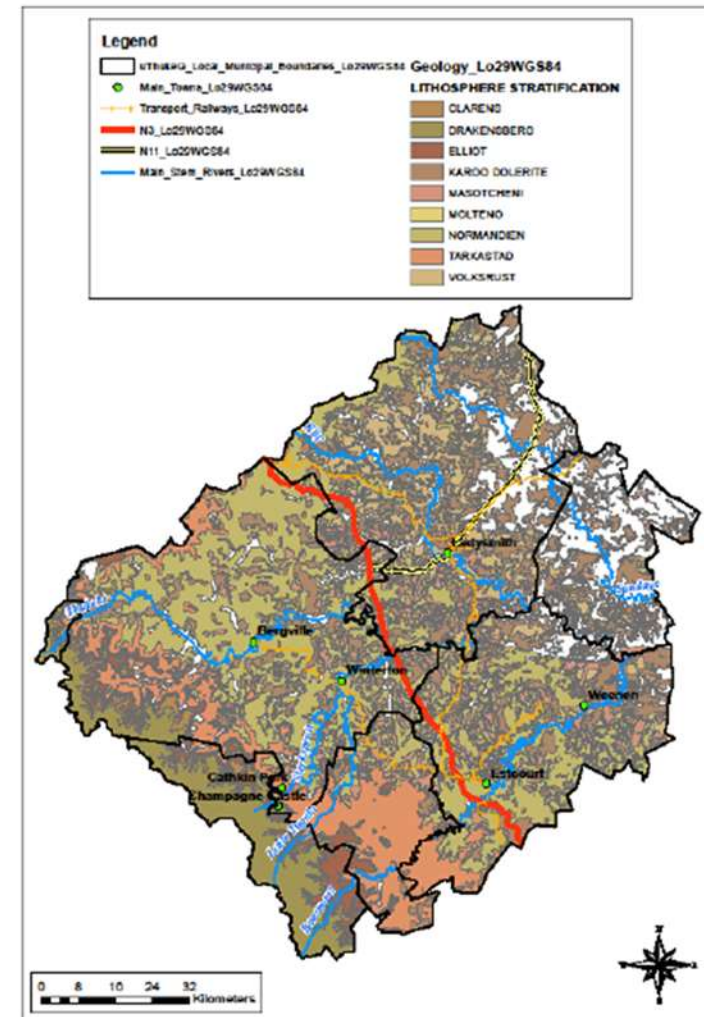
Three fall within the Okhahlamba area. There are few steep and mountainous areas within some parts of the district including within the southern part of Ekuvukeni and the north of Driefontein Complex. It should be noted that areas that there are restrictions on development of areas that slope sharply. Slopes of 1:3 for instance are not permitted for residential developments.

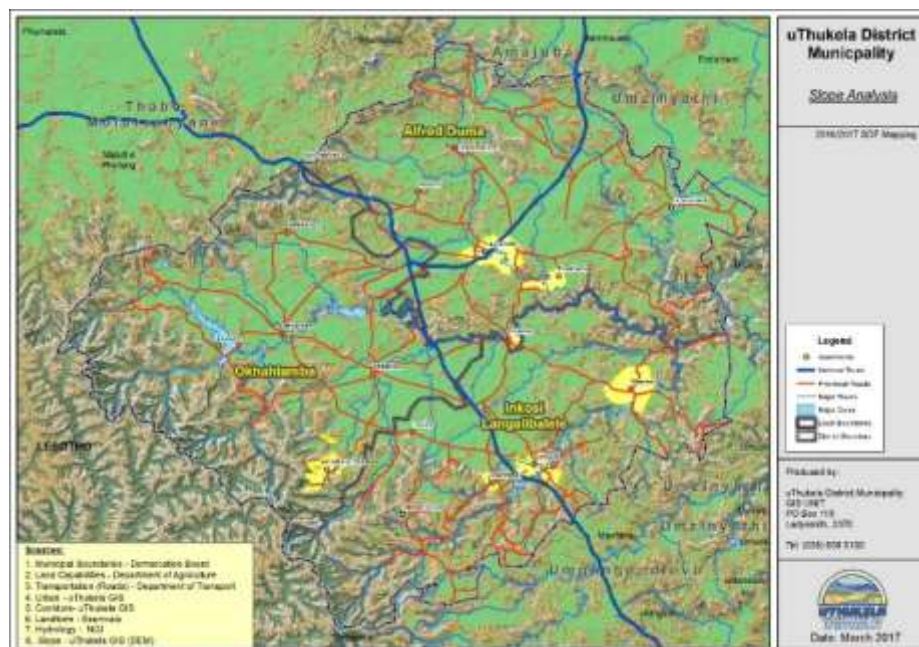
11.2 GEOLOGY AND SOILS

According to the Provincial Spatial Planning Guideline 2, UThukela Municipal Area is characterized by a number of geotechnical risks which may limit development prospects within some parts of the municipal area. Fortunately the main growth centres (towns) and surrounding have a limited risks at a desktop geotechnical point of view. The expected geotechnical hazards are due to areas with basalt and high proportion of dolerite, as well as the major structural geology feature of the Tugela Fault and its immediate surrounds which causes the geotechnical risks to be high.

The areas such as Weenen and Wembezi have a medium risk since these are areas with moderate proportion of dolerite. Although most identified geotechnical hazards can be overcome through engineering solutions, the issue often becomes one of cost. The findings are based on a desktop study of the available information for the development and use of a 'checklist' that can be easily accessed by the relevant decision makers to determine zones of risk.

(Source: 2015 Ezemvelo Biodiversity Sector Plan).

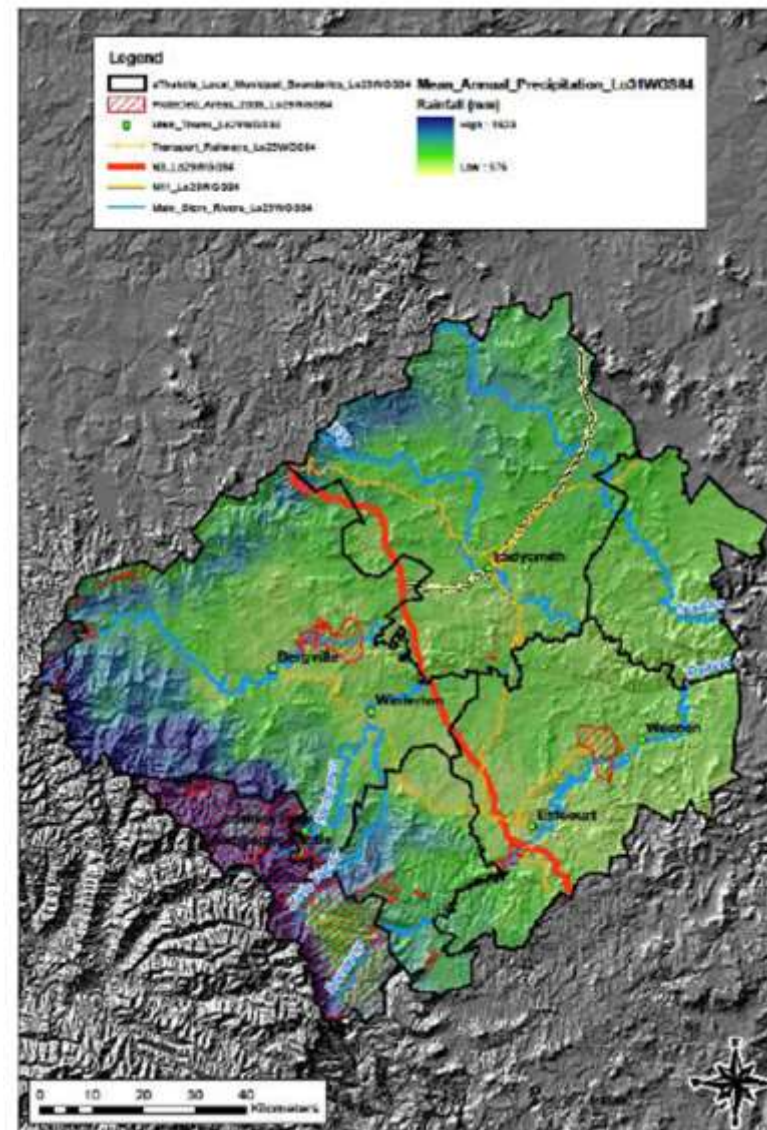




11.3 CLIMATE

UTHukela District Municipality climatic conditions are noticeably summer and winter months ranging between very cold temperatures during the winter and high summer temperatures. temperature for UThukela is about 17°C. The minimum for UThukela is below 0°C during winter months and often higher the summer months. The average Annual rainfall for UThukela is throughout the district with no major difference between the municipalities. The average rainfall for UThukela is between 1 000mm per year. Annual precipitation ranges from 620 to annum. Rainfall is highest in the eastern escarpment areas of the and generally decreases towards the east. Annual temperatures the east and temperature decreases towards the higher lying areas of the Drakensberg.

(Source: 2015 Ezemvelo Biodiversity Sector Plan).



between

The average temperature than 30°C in consistent local 650mm and 1265mm per Drakensberg are higher in escarpment

11.4 BIODIVERSITY

UThukela District Municipality is rich in biodiversity. As can be seen from Map (insert), there are particularly high in species diversity and habitats. The majority of the Municipal area is classified as the grassland biome, but savannah is present in the areas near the south and south-eastern boundaries, extending westwards as far as Ladysmith. The flora can be further subdivided into vegetation types, which can be defined in terms of dominant, common and rare species that may be associated with landscape and physical features such as topography, geology, soils and climate.

This shows the vegetation types found within the ELM and provides an overview of the position each vegetation type occupies and its conservation status. The dominant vegetation types are Northern KwaZulu-Natal Moist Grassland, KwaZulu-Natal Highland Thornveld, Thukela Thornveld and Low Escarpment Moist Grassland, and of these vegetation types, only the Northern KwaZulu-Natal Moist Grassland is considered a threatened ecosystem (listed as Vulnerable). Other vegetation types found within the municipality include Northern KwaZulu-Natal Shrubland, Eastern Free State Sandy Grassland (Endangered), Income Sandy Grassland (Vulnerable), Basotho Montane Shrubland (Vulnerable), Northern Afro temperate Forest, Thukela Valley Bushveld and Eastern Temperate Freshwater Wetland.

According to *Kanz et al.* (2009), the uThukela District Municipality is considered a hotspot for amphibian and bird diversity (although this is primarily in the Drakensberg). Threatened bird species, such as

Cape (*Gyps coprotheres*) and Bearded Vulture (*Gypaetus barbatus*), as well as other raptors including Black Eagles (*Aquila verreauxii*), nest on the cliffs along the escarpment but they forage throughout the District and may require a large area to satisfy their food requirements. It is therefore important that the habitat is protected not only for animals which reside in it, but also for animals which may use it temporarily. Crane critical biodiversity areas were identified within UThukela to the north and southwest of Ladysmith. Oribi critical biodiversity areas identified within the Alfred Duma Local Municipality are located north and northeast of the Ladysmith town.

South Africa has ratified the International Convention on Biological Diversity, which commits the country, including KwaZulu-Natal, to develop and implement a strategy for the conservation, sustainable use and equitable sharing of the benefits of biodiversity. In the Province of KwaZulu-Natal, Ezemvelo KZN Wildlife is the authority responsible for planning and management of biodiversity conservation. As a means of complying

with the requirements of the Convention on Biological Diversity, KZN Wildlife has developed management tools to manage the biodiversity resources in the province.

11.5 SENSITIVE ENVIRONMENT

11.5.1 WATER RESOURCES

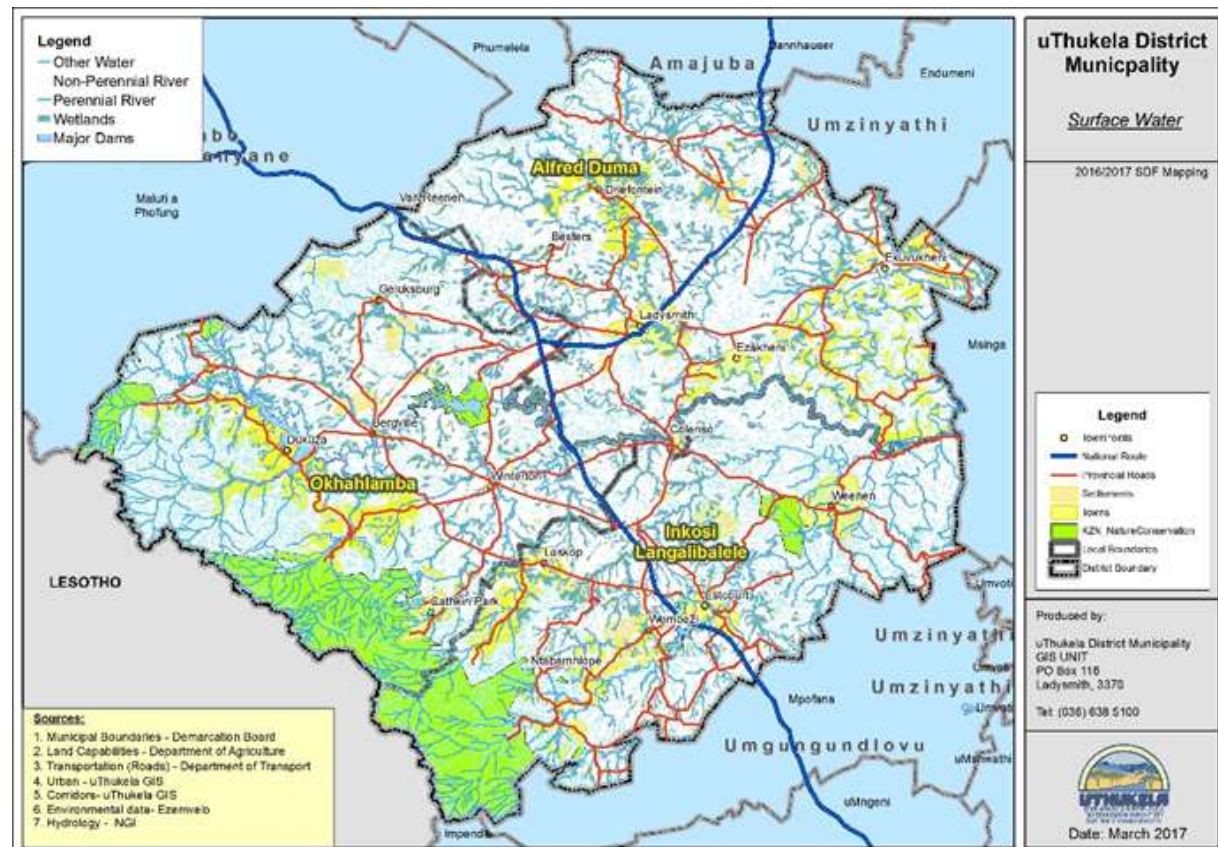
The mountainous character of the district has given rise to a reticulation of deeply incised valleys many of which have rivers and perennial streams. Apart from this network of rivers and streams are areas of vast wetlands which are not associated with any stream or river systems.

11.5.2 RIVERS

The biggest rivers that are found within the within UThukela are Tugela River, Kip River, Ngogo River, Ngwenyana, Sand River, Boesman River, Bloukrans River, Sikhehlenga River and Wasbank River. UThukela is located within the Thukela Water Management Area (WMA), which is characterised by extensive drainage systems. The Thukela catchment experiences relatively high rainfall, which leads to a high Mean Annual Runoff (MAR) of approximately 3,799 million m³/annum. Groundwater quality within the WMA is generally good, and usage only equates to about 100m³/km²/annum, which is only 0.4% of the mean annual recharge over the WMA as a whole.

11.5.3 WETLANDS

The well-developed river systems within UThukela give rise to numerous wetlands throughout the municipality, with the majority concentrated in the areas northeast, north and northwest of Ladysmith. Kanz et al. (2009) state that wetland systems within the uThukela District Municipality are distributed in a complex mosaic, occupying a variety of positions in the landscape across altitudinal gradients, ranging from open water bodies such as mountain tarns, small hanging wetlands, high on valley sides, a variety of vleis and marshes, down to extensive wetlands associated with an intricate network of stream and river courses.



the

Wetlands support high levels of biodiversity due to the variation in abiotic conditions, which gives rise to a diversity of ecotones supporting varied faunal assemblages, and they are therefore of major importance for nature conservation. Wetlands perform various other important functions, including flood attenuation and improvement of water quality due to the retention of sediments, nutrients and pathogens and are therefore critical for the continued provision of ecosystem services. Wetlands also have value as tourist attractions.

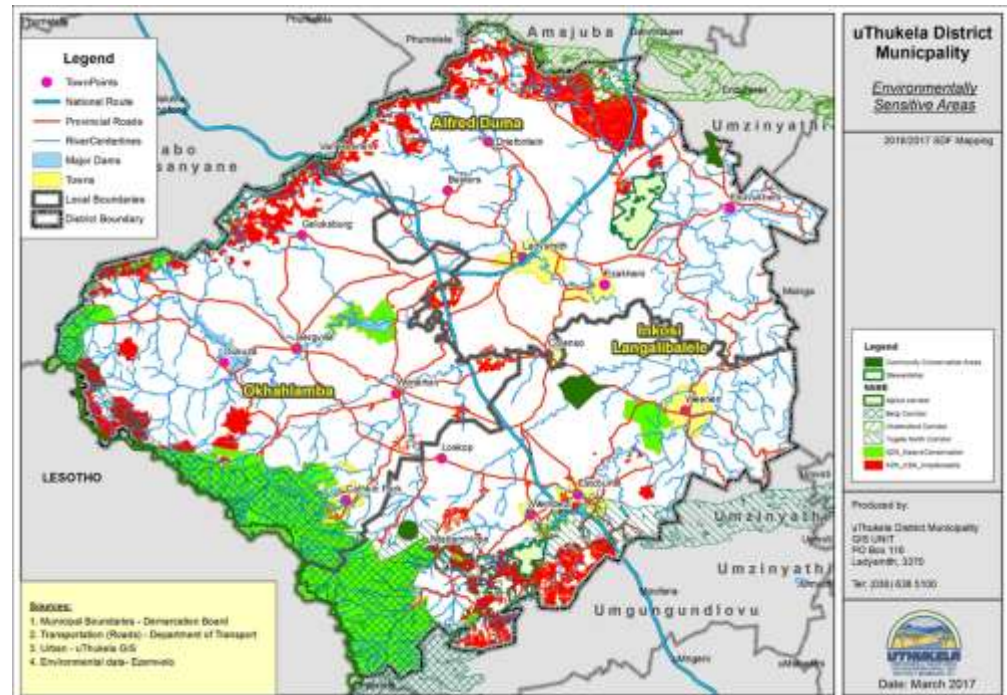
Kanz et al. (2009) used the Ezemvelo KwaZulu-Natal Wildlife systematic aquatic conservation plan when determining the areas of conservation priority for the uThukela District Municipality. The Earmarked Areas are required to be kept in a compatible form of land use so that the biodiversity goals and targets for the Province can be achieved, but many of these areas have already been transformed. Critically important areas in the uThukela were located in a band from northwest to southeast along the western and southern Municipal boundaries, with a small section in the north of the Municipal area, near and along the boundary.

The rivers and associated wetlands within the uThukela District Municipality (particularly the upper catchment wetlands) have been classified by Kanz et al. (2009) as being of 'national importance'. High conservation value and biodiversity sensitivity should be attributed to all wetlands within the District, even if they are degraded (Nemai Consulting, 2010). According to Kanz et al., the sustained provision of clean water is dependent on the wetlands, rivers and grasslands in the uThukela District Municipality. The vegetation needs to be well-managed to maintain the vegetation cover that ensures the protection of the soil during precipitation events, effective absorption of water into the soil and the slow release of the water into the system thereafter.

11.6 PROTECTED AREAS

The formally protected areas are uKhahlamba Drakensberg Park, Weenen Nature Reserve, New Formosa Nature Reserve, Wagendrift Nature Reserve, Thukela Biosphere and Tugela Drift Nature Reserve. The uKhahlamba Drakensberg Park is the largest protected area (World Heritage Site) on the Great Escarpment of the southern Africa. It is located in an inland mountain along the eastern border of Lesotho. It comprises a northern and a significantly larger southern section. The mountainous area between these two sections, known as the Mnweni area, is tribal land. The park can be divided into two distinct physiographic regions: the foothills of the 'Little Berg' are steep-sided spurs, escarpments and valleys occurring below 2 000 m in elevation, whereas the high main escarpment rises to over 3 400 m.

There is considerable variation in topography, including vast basalt and sandstone cliffs, deep valleys, intervening spurs and extensive plateau areas. This topographical variation contributes to the outstanding scenic value. The Drakensberg is one of the best watered, least drought-prone areas of southern Africa, and has particular significance for catchments protection and the provision of high-quality water supplies for surrounding communities. A number of rivers originate from the park. Tugela Drift Nature Reserve situated northwest of Colenso. It has a very small spatial extent but contains Thukela Thornveld and KwaZulu-Natal Highland Thornveld vegetation types. It is managed by Ezemvelo KwaZulu-Natal Wildlife.



11.7 CLIMATE CHANGE

According to the online encyclopaedia (Wikipedia), climate change is a significant and lasting change in the statistical distribution of weather patterns over periods ranging from decades to millions of years. It may be a change in average weather conditions, or in the distribution of weather around the average conditions (i.e. more or fewer extreme weather events). Climate change is caused by factors that include oceanic processes (such as oceanic circulation), biotic processes, variations in solar radiation received by Earth, plate tectonics and volcanic eruptions, and human-induced alterations of the natural world; these latter effects are currently causing global warming, and "climate change" is often used to describe human-specific impacts. (Source: http://en.wikipedia.org/wiki/Climate_change - 19 June 2014)

UThukela District faces a number of threats due to climate change these include the agricultural and forestry sector which is vulnerable to changes in climate. Climate change causes altered weather conditions which in turn, alter crop yield patterns. Sometimes this is in the form of drought, sometimes unseasonal heavy rains. Some areas which have been ideal for growing certain crops may experience climate change and they will no longer be suitable. This change in patterns is expected to put pressure on agriculture and result in food shortages.

If supply does not meet demand, prices go up, so severe shortages result in high increases in prices. Higher temperatures and erratic patterns also added to the challenges faced by farmers. A large number of food products, such as maize, are priced based on international prices. The international market therefore has a direct impact on our local market.

11.8 ENVIRONMENTAL IMPLICATIONS

UThukela District has both national and international recognition in terms of its biodiversity value. Thus all planning processes need to consider biodiversity conservation as an integral component of the planning processes. The following issues need to be considered in the preparation of the SDF:

- *Wetlands – Wetlands are protected areas by law. Buffers of 100m from the edge of the wetland need to be identified and a wetland assessment undertaken should any development within 50m of the buffer be envisaged.*
- *Critically endangered ecosystems – Some parts of the district are described as either critically endangered or endangered ecosystems. The SDF should take into consideration the ecological status of the district as they have both national and international biodiversity conservation implications.*

- *Rivers – The river sources within the district is at a risk of degradation. If deterioration takes place it is likely to result in poor water yield and water quality in the district to the*
- *detriment of development as a whole. Development planning in these areas should consider riparian management requirements and suitable floodlines. It is also recommended that development exclusion zones of 100m from the edge of rivers and streams be maintained in order to protect the catchment within the area.*

12. 1LOCALIZING PROVINCIAL SPATIAL PLANNING GUIDELINES

12.1 PUBLIC CAPITAL INVESTMENT AND SETTLEMENT GROWTH

The first guideline alerts the municipalities to avoid isolating budgeting (capital and operational) with spatial planning. The nature of budgeting that the guideline focusses on is for bulk infrastructure roll out. There are four types of investments that warrant capital infrastructure investment delivery which are (i) productive investments, (ii) remedial investment, (iii) basic need investments and (iv) quick response investment. Productive investment is undertaken when the potential benefit that the investment could bring has been well established while remedial investment is intended to respond to the historical imbalance i.e. if the area was previously stigmatized from benefiting to the fruits of development. Basic need investments is similar to remedial investment but the focus is on the key priorities which include basic services and quick response investment takes place when municipalities have to quickly tap into the infrastructure investment programme that could be emanating from the other structures of government. These guidelines conclude by stipulating pointers in terms of approaching capital infrastructure investment. This is indicated on the graph (insert) and it basically stipulates that the logical approach is to preserve the natural environment as the first layer. This is followed by developing strong movement and linkages throughout the area. The third step is to promote development that enhances the natural resources and conservation. The next step is to roll out capital investments in areas that are identified as focal points in order that these will become nodes. The last stages involve growing these nodes and consolidating these into a city with an urban edge.

PROCESS FOR REGIONAL AND RURAL GROWTH



Secure & conserve the natural assets



Develop a structurally sound movement



Develop & Maintain Green Spaces (eco-tourism & agriculture)



Target focal points for Capital Infrastructure Investments



Manage the growth of nodes sensibly

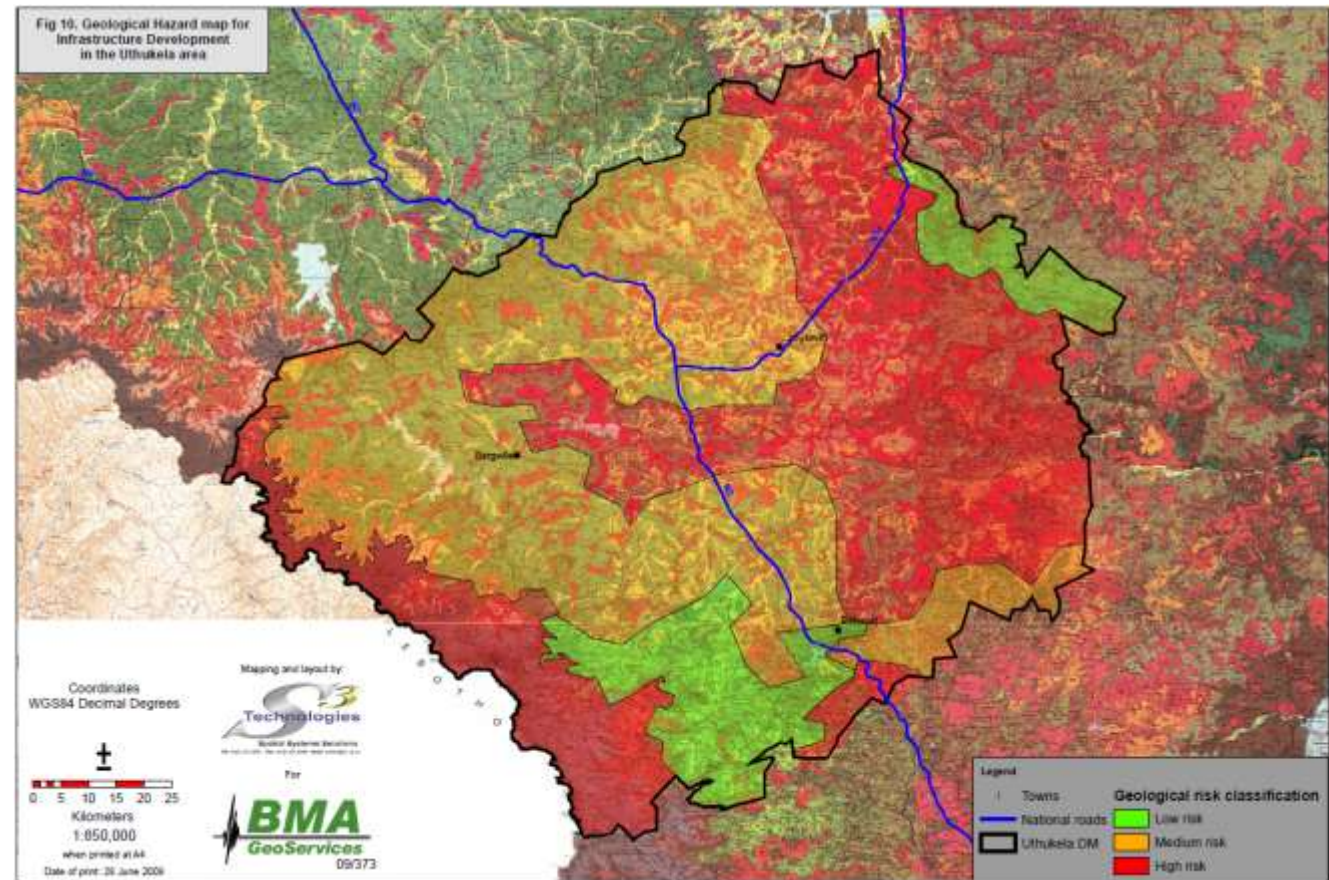


Consolidate Growth: Amalgamation of nodes

12.2 GEOTECHNICAL ANALYSIS

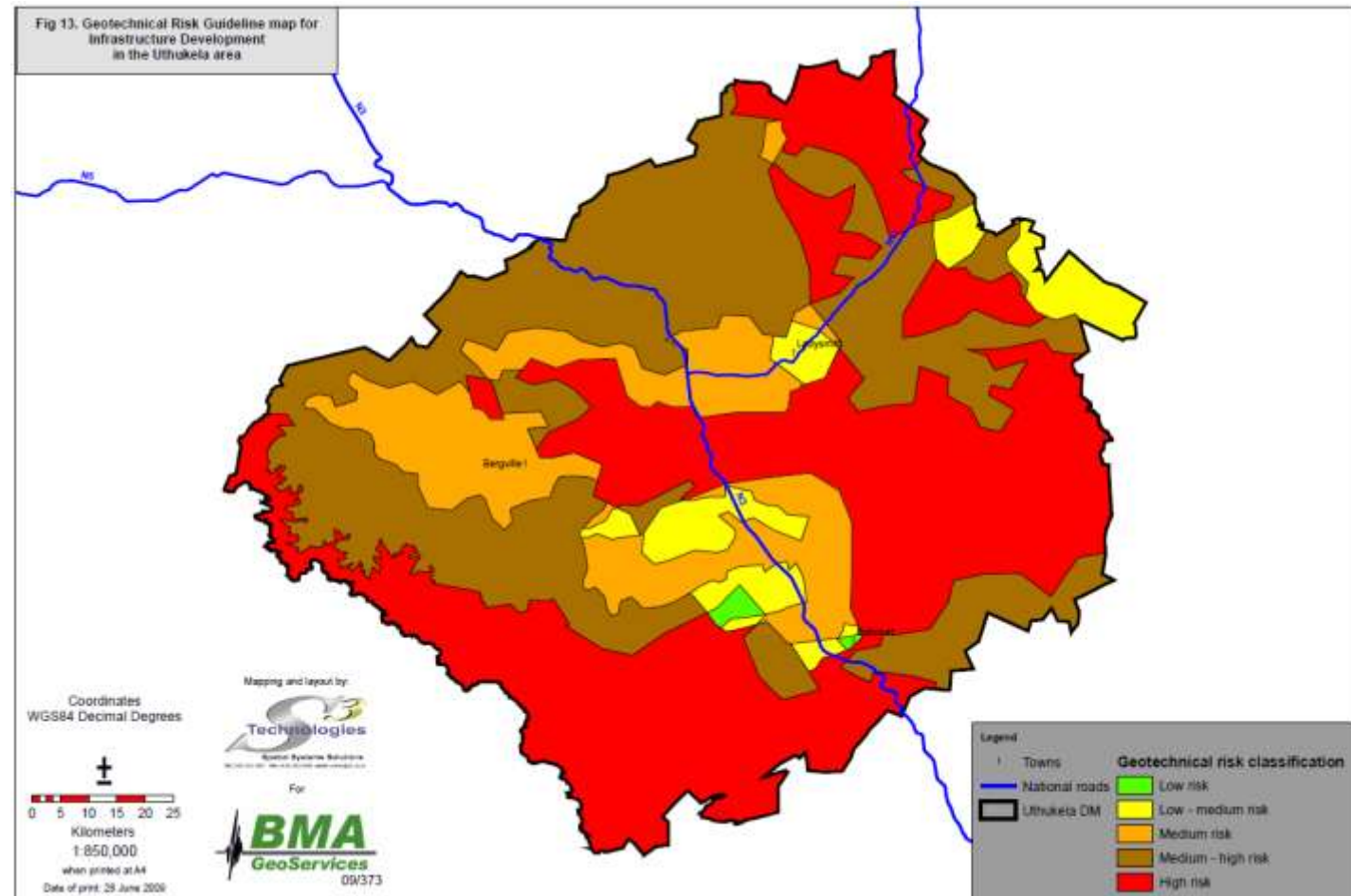
According to the Provincial Spatial Planning Guideline 2, UThukela DM is underlain predominantly by rocks of the Karoo Supergroup, which is a large inland sedimentary basin which developed within the Gondwana Supercontinent between the Late Carboniferous and Middle Jurassic periods (360 to 145 million years ago respectively). The Karoo Super group is a vast accumulation (up to eight kilometres thick), starting with glacial tillites at the bottom, conglomerates, sandstones, siltstones, mudstones, (some coal) and basalts at the top. The massive outpouring of magma at the end of the Karoo era meant that an ever increasing area was covered by basalt

and as the thickness and strength of the basalt eventually prevented extrusion of lava, forcing magma from subsequent magmatic events to intrude dolerite into zones of weakness, mostly near the top of the sedimentary succession. The guidelines noted that it is not possible to classify the area geotechnical at this scale; however the expected geotechnical hazards can be mapped which can pave a way for determining the suitability of land for certain types of development. The desktop geotechnical risks categories that were profiled:



- *High risk – areas with basalt and high proportion of dolerite, as well as the major structural geology feature of the Tugela Fault and its immediate surrounds;*
- *Moderate risk – areas with moderate proportion of dolerite; and*
- *Low risk – areas with low incidence of dolerite.*

Based on the above classification, it is evident that there are high risk areas in the west, along the eastern boundary and in an east-west corridor within the central



area. Two zones of low risk are found in the south and in the northeast. It is important to note that it is highly possible that areas of 'Medium risk' or even 'Low risk' may be found locally within the 'High risk' areas. It is similarly true for the other risk categories. There are no definite "no development areas" within the uThukela area except for low-lying areas adjacent to stream, rivers or within marshes and vleis or areas which have steep slopes. However, large areas of high risk (i.e. unsuited to development and / or high construction costs) are evident.

12.3 ALTERNATIVE TECHNOLOGIES AND POTENTIAL FOR EXPANDING RESOURCE BASE

According to Provincial Spatial Planning Guideline 3, Alternative technologies are technologies which are more environmentally friendly than the functionally equivalent technologies dominant in current practice. They are technologies that offer alternatives to resource-intensive and wasteful industry, which utilize resources more sparingly, with less damage to the environment and at an affordable cost. They are also technologies which achieve better environmental sustainability. Whilst in some cases these technologies come at a higher up front capital investment, when long term costs, including environmental costs, are factored in, they are typically significantly more cost effective.



The inclusion of alternative technology in spatial planning becomes important, given that spatial planning is a key public sector tool for influencing the 'distribution of people and activities in spaces of various scales'. In South Africa, the key spatial planning tool at the

local level (i.e. where implementation occurs) is Municipal IDP's. Such IDP's however often fall short in their ability to address a great diversity of development issues by proactively identifying practical interventions and



responses across a diversity of sectors, representing these spatially, and matching them to the resources and capacity necessary to implement them. Alternative technology is a good example of an element which is typically not featured sufficiently in IDP's and the sector plans which feed into them, and whose prominence should be increased. The following can be considered as important for UThukela Municipality:

- *UThukela District and its local municipality must target the households that do not have electricity supply and provide the*



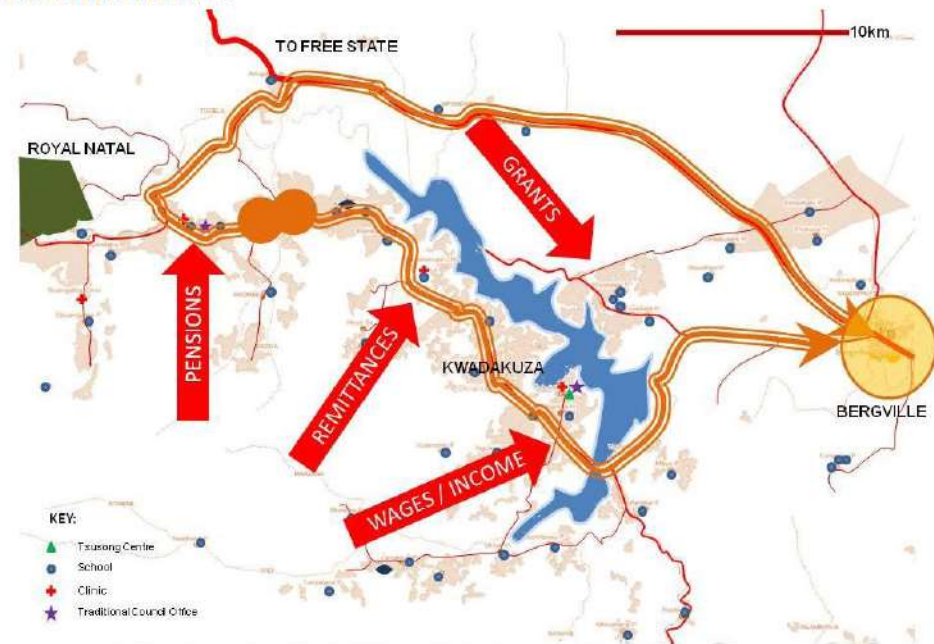
alternative energy which include small photovoltaic systems (e.g. 50w system), gel fuel stoves, solar cookers, hot bags (for cooking), LP gas, small wind turbines, biogas digesters and more efficient and sustainable use of wood-fuel.

- *To maximize the catchment of rainwater through piloting a programme that ensure that all schools have Jojo Tanks which retrieve rainwater and use these for community gardens and cleaning.*
- *Engage with Department of Agriculture, KZN Wildlife and other organizations involved in erosion control work.*
- *The reuse of waste water (grey water), such as from dishwashing or washing machines, for non-potable purposes such as flushing toilets, washing cars or watering gardens, reduces the demand for new, fresh water supplies.*

12.4 LOCAL INCOME CIRCULATION

The majority (481209 or 72%) of the population within UThukela District Municipality reside within rural areas. However, the levels of economic development in these villages are low, with associated low employment and income levels. Most households follow a multiple livelihood approach to survive on government pensions and grants, remittances from urban based jobs and subsistence agriculture being some of the approaches. Provincial Spatial Planning Guideline 4 recalls that current spatial development planning on the Local Municipality level in KwaZulu-Natal is guided primarily by the National Spatial Development Perspective (2006) and the KwaZulu-Natal Provincial Spatial Economic Development Strategy (2006). These strategies focus primarily on “localities of economic growth and/or economic potential” (the former) and development nodes and corridors (the latter). Although this may be useful for policy direction on a national and provincial level, local

FIGURE 5: LOCAL INCOME CIRCULATION: THE CURRENT SITUATION IN THE KWADAKUZA AREA



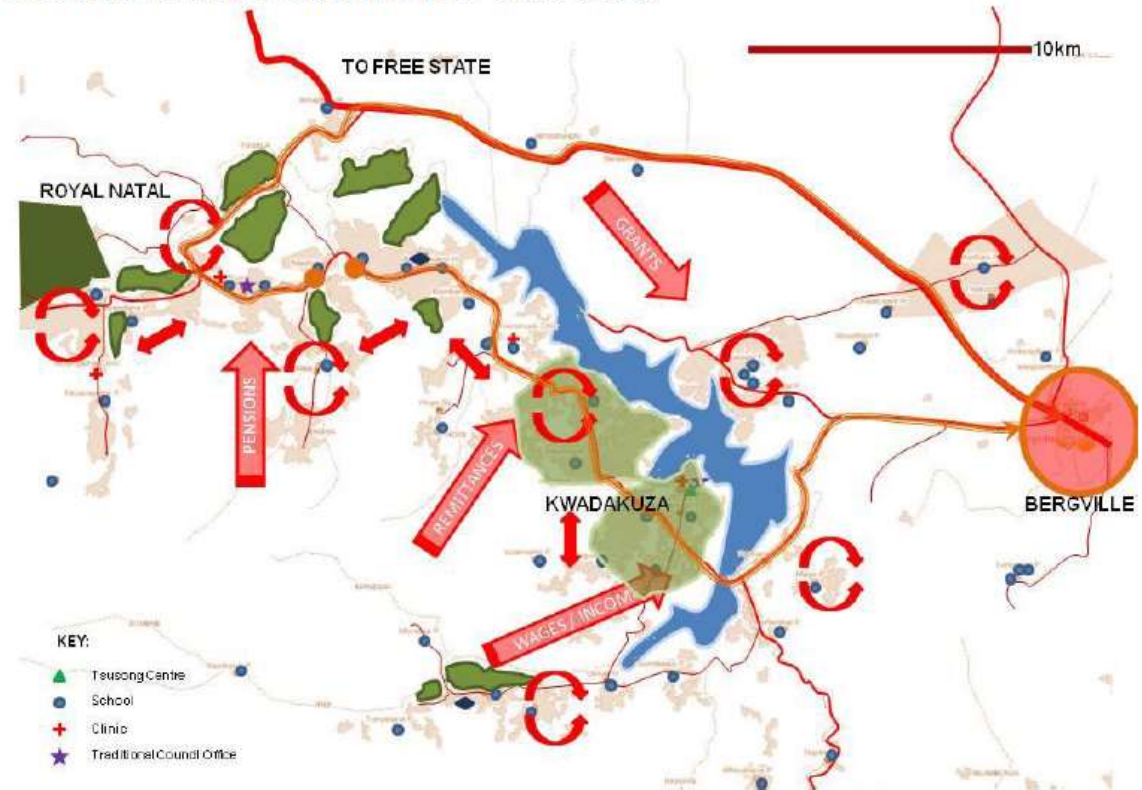
Basemap: Accuglobe Rural Settlements, DLA 2007

government is still faced with the reality of the places where people stay. The continued perceived focus on the provision of only access to basic services in densely populated rural areas is a concern and to some extent enforces and exacerbates the apartheid structure of our rural landscape.

It further distinguishes between the marginalised economy of the countryside and the townships in South Africa where he observes “... there is no cash circulation”. He refers to poor communities as “cash deserts” dependent on economic centres for incomes, goods and services. He continues: “Money does not stay to work. It disappears to circulate and to work in the towns”. Based on the guidelines, the following initiatives will need to be pursued within Umtshezi Municipality:

- *Establishment of Rural Periodic Markets that follows the payment of pensions from place to place”. This should be done on remotely located rural settlements.*
- *Making as wide a range of government services available at specific locations in order to increase the attractiveness of local markets these services include Pension and grant payments, Mobile clinics, Extension services of the Department of Agriculture and Environmental Affairs, Services of the Department of Home Affairs; Postal services; Library services; and Labour market information.*

FIGURE 6: DESIRED SITUATION IN FOCUS AREA



Basemap: Accuglobe Rural Settlements, DLA 2007

- *To prevent the leakage of income from townships and the rural poor to bigger urban centres and corporate traders.*
- *To improve the retention and circulation of money in poorer townships and rural areas.*
- *To forge strong partnerships in developing, planning and implementing trading centres.*

The guidelines suggests that the ring markets that must be developed in UThukela District should be located on Driefontein area in Emnambithi; Ekuvukeni area in Indaka; Mhlumayo area in Indaka; Ntabamhlope area in Imbabazane; Loskop area in Imbabazane; Winterton – Cathedral Peak area in Okhahlamba; and KwaDakuza area in Okhahlamba.

12.5 LIMITS ON SETTLEMENT EXPANSION AND URBAN EDGES

Provincial Spatial Planning Guideline 5, advocates for the delineation of urban edges in order to discourage urban sprawl and promote compact development. The edge is not simply an administrative line. It needs to be designed. There is no 'scientific' way of defining these containment edges: they require strong administrative actions to defend them. A number of factors contribute to the delineation of the line. Firstly, the delineation needs to be informed by important characteristics of the natural environment. A useful tool is 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, since the central purpose of these edges is to compact urban development in order to achieve greater urban efficiencies, to be effective the line should be drawn as close to the edge of the existing built-up area as possible.

A number of points need to be made about the process of delimitation. Firstly, 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. Secondly, 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.

Further, 'leap-frog' sprawl should be discouraged. As far as is possible, new development should be contiguous with the existing built edge. Thirdly, the definition of edges should not follow existing cadastral boundaries. It should form a strong geometric edge. Straight, not wavy, lines

should be encouraged. Fourthly, 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. Fifthly, 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. These principles have been used as a guiding framework to propose the urban edges for the town and settlements within UThukela District Municipality.

12.6 CULTURAL HERITAGE

Provincial Spatial Planning Guideline 6 raises the importance of cultural heritage in the spatial planning process. It also states that heritage often tends to be side-lined or minimised with, at best, only certain classes of heritage resources are being protected and others being made public as part of tourism planning processes. The aim in these guidelines is to find ways of mainstreaming cultural heritage in the planning process by linking it with both the biophysical landscape and local economic development. This includes the following wide range of places and objects:

- *places, buildings, structures and equipment;*
- *places to which oral traditions are attached or which are associated with living heritage;*
- *historical settlements and townscapes;*
- *landscapes and natural features;*
- *geological sites of scientific or cultural importance;*
- *archaeological and palaeontological sites;*
- *graves and burial grounds, including ancestral graves, royal graves and graves of traditional leaders, graves of victims of conflict, graves of important individuals, historical graves and cemeteries older than 60 years;*
- *movable objects, including objects recovered from the soil or waters of South Africa including archaeological and paleontological objects and material, meteorites and rare geological specimens; ethnographic art and objects; military objects; objects of decorative art; objects of fine art; objects of scientific or technological interest; books, records, documents, photographic positives and negatives, graphic, film or video material or sound recordings; and any other prescribed categories, but excluding any object made by a living person;*
- *battlefields;*

- *Ukhahlamba Drakensberg; and*
- *Traditional building techniques.*

The SDF has considered these heritage assets for tourism and conservation purposes. Within the uThukela District Municipality the most known heritage resources are probably the structures, landscapes and battlefields associated with the Anglo Boer War, and the San rock paintings of the uKhahlamba Drakensberg World Heritage Site. However, large sets of heritage resource categories are less well known and are consequently not the focus of current heritage management or heritage tourism initiatives.

12.7 COMMUNICATION AND KNOWLEDGE TRANSFER

Provincial Spatial Planning Guideline 7 establishes the appropriate means of communicating spatial planning and transferring knowledge with the communities on the ground. It is indicated in this guideline that effective communications and knowledge transfer is at the 'root' of identifying and implementing a common system of spatial planning. This guideline focuses on ward committee and local municipal planning as the basis for illustrating the Knowledge Transfer process. Communications about the content of the Spatial Development Framework, as opposed to participation in its development, can be achieved by way of different media.

Perhaps the most effective communications media for spatial planning would be radio 'chat shows' in a variety of languages. This would allow 'phone ins' to a panel of planners who would need to outline the plan verbally and identify implications for each of the areas in the Municipality. The challenge of having to communicate the plan verbally and without pictures on radio would require that it is articulated simply and clearly and without jargon.

The questions that people raise about the plan would ensure planners take a variety of different perspectives into account in developing the plan. The other media routes that could be followed include television, newspapers, public meetings and 'comic strips'. UThukela District Municipality has an effective system of ward committees and these structures are actively used in spatial planning.

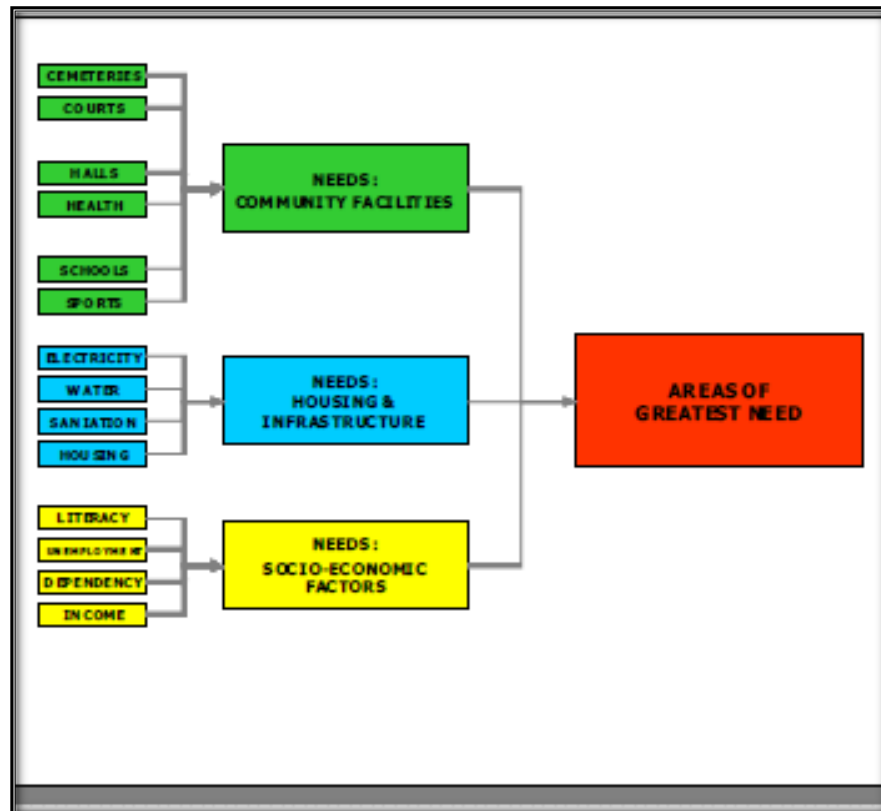
12.8 AGRO-HYDROLOGICAL ISSUES

According to Provincial Spatial Planning Guideline 8, the amount of cultivable land continues to diminish due to other developments. Therefore it is crucial that areas containing land most suited to agricultural production should be identified and provision made to reserve such areas specifically for future agricultural development. However, agricultural development is constrained by numerous factors, principally relating to the availability of water and the presence of suitable soils, but also due to other factors such as topography, which affects light availability as well as the potential for cultivation practices. For example, topography determines the aspect of the land (i.e. the direction a particular slope faces) and thus how much sunlight will be received, whereas slope determines whether it is possible to implement mechanised activities (i.e. steep slopes limit the use of complex irrigation structures, machinery, etc.).

These, therefore, form secondary factors to the soil-water limitations and are important consideration for determining the agricultural potential of the land. Essentially, agriculturally suitable areas may be located according to landscape characteristics, as well as the available hydrology and geology. Future agricultural planning and development is expected to become more important due to population growth and intensifying pressures on the available land. Furthermore it is likely that the ability for land to be productive will become more limited as will the various constraints that typically drive agricultural production (i.e. soil, water, and climate).

Therefore a great need exists for the development of improved procedures for agricultural spatial development planning. However, this presents numerous issues in terms of locating potential agriculture resource areas. A detailed assessment of agricultural opportunities has been undertaken as part of the preparation for this SDF and the protection of such limited land resources will be the crux for the strategy and framework component.

13. DEVELOPMENT PRESSURE POINTS AND SOLUTIONS



UThukela District Municipality's rural areas are highly dependent on the urban centers/ areas for resources and income as they have limited survival strategies and opportunities within them. The maintenance or re-establishment of competitiveness is a major challenge within the rural areas. Most of these rural areas need to develop and improve their socio-economic potential and opportunities. Although the areas have been incorporated into the wall to wall scheme area, a strong traditional authority structure exists. The development pressure points are best analyzed using a need analysis model.

The rationale behind the model is based on the notion that needs are comparatively easy to analyze as they are prescribed by RDP levels. Other considerations that are factored into the model include accessibility, along the lines of travel time and physical distance. Applying this model to the identification process within the UTDM context has allowed for the generation of a "Spatial Footprint" of municipal services and community facilities. The footprint provides insight for municipal strategic processes/

documents, such as the UThukela District Municipality's SDF, to inversely determine:

- Existing backlogs to bulk infrastructure,
- Pressure Points/Areas for Service Delivery and therefore;
- Areas of Greatest Need

The identification of these Areas of Greatest Need and the interrogation of its relationship with municipal population provides a solid foundation from which strategic interventions can be generated within the SDF, which will in turn facilitate:

- *Direct Infrastructure Investment,*
- *Positive Action for Growth*
- *Basic Service Delivery to all.*

In terms of the UTDM Municipality, the UTDM SDF 2014 has generated a footprint for all three needs analysis categories i.e. Socio-Economic Factors, Housing and Infrastructure and Community Facilities:

- *The **Areas of Greatest Need: Socio-Economic factors** footprint occurs at areas away from the main centres of the municipality. This includes the immediate areas surrounding Ezakheni; Estcourt, Wembezi, Matiwane, Driefotein and all the tertiary and rural service /emerging centres;*
- *The **Areas of Greatest Need: Housing and Infrastructure** focuses in the rural entity of the municipality*
- *The **Areas of Greatest Need: Community Facilities** footprint covers a majority of the uThukela District Municipal area.*

Spatial planning in any municipality must strive to facilitate the provision of appropriate services in order to meet basic needs and for social and economic upliftment to be achieved. The key aim of the UTDM Municipality SDF is to adequately display the municipality's "desired spatial form" which is in-line with the IDP and as well as other guiding documents. Thus a need arises for the application of an appropriate model to the development of the SDF. An applicable model should enable the municipality to:

- *realize the vision of the municipality, and the provision of services in an efficient and sustainable manner;*
- *ensure proper investment decisions are made;*
- *ensure that there is a sufficient threshold to support facilities and services;*
- *ensure proper services and facilities are provided in accordance with the need of the community; and*
- *The model applied to the preparation of the UTDM SDF is derived from a range of spatial development policies and principles used particularly in municipalities which have a significantly similar profile to that of the UTDM Municipality:*
- *Dominance of rural landscape,*
- *Significant Agriculture Sector,*
- *Minimum number of urban points with varying infrastructure and services,*
- *Largely undeveloped coastline and significant conservation areas, with strong tourism potential.*

A key directive pointed out by such a model is the Municipal wide application of investment and management policy at three specific levels, in order to achieve significant results:



of effort and investment will attract interest from the private sector to invest; either in joint ventures with Government or independently, in order to develop economic growth opportunities and to realize the potential that already exists.

- **Level 1** - fulfils basic human rights in the provisions of services to both urban and rural areas, at a minimum level in terms of available resources. This would be guided by the incidence of service and infrastructure backlogs, the proximity of existing bulk services and infrastructure backlogs, the proximity of existing bulk services and the priorities identified in terms of District and Local Municipality IDPs.
- **Level 2** – ensures the managed investment of public sector funding in urban and rural areas in order to strengthen local capacity, build on the strengths and opportunities that exist and maximizes the development potential of existing infrastructure and settlement systems. Capacity building must include institution building, training, and skills transfer and community empowerment.
- **Level 3** - Involves the provision of adequate funding to strategically targeted development zones which have development potential. These will represent areas, nodes or areas of opportunity, where a special focus

14. STRENGTH, WEAKNESSES, OPPORTUNITIES AND THREATS (SWOT) ANALYSIS

STRENGTH	WEAKNESSES
<ul style="list-style-type: none"> • UThukela is positioned within a region that is rich in terms of natural resources which includes UKhahlamba Drakensberg Park. • The municipality is centrally located in relation to the two major economic hubs in South Africa i.e. Durban and Johannesburg. • UThukela District Municipality has two major economic corridors, i.e. N3 and N11 • The total value of goods and services produced in uThukela in 2011 was R13.4 billion, contributing 5% to the provincial economy. • In general surface water quality within the Thukela catchments is good. • Most of the sectors of the economy are well developed with the exception of the mining sector. 	<ul style="list-style-type: none"> • The district is drought stricken. • The district is also characterized by poverty, service backlogs and areas with marginal production potential. • The municipalities that experienced the high level of population decrease are Okhahlamba (-13%), Imbabazane (-20%) and Umtshezi (-1%). • The percentage of people living in poverty is estimated at 58% (80 867) since they earn below R 19 200.00 per annum or R 1 600 per month. • The development in most of the area is scattered with an absence of a strong nodal hierarchy. • A total of 205 261 ha of land is under claims within UThukela District Municipality. • The households that fall outside of the urban areas use pit latrines for sanitation purposes. This may be considered as a

<ul style="list-style-type: none"> • There is sufficient evidence to suggest that the key environmental assets are adequately protected. 	<p>limiting factor in terms of future development (i.e. large scale commercial or industrial) that may take place within these areas.</p> <ul style="list-style-type: none"> • UThukela District Municipal Area does not have a proper waste treatment facility (e.g. incineration, gasification). • UThukela does not appear to be well provided with sports and recreational facilities.
OPPORTUNITIES	THREATS
<ul style="list-style-type: none"> • Due to the high volumes of traffic along this road, and the fact that it is largely being utilised as a main route by trucks and other freight vehicles, many opportunities exist for development that can capitalize on the existence of this route. • The existing sub-stations are nearing capacity and needs to be upgraded. Eskom has made plans to address this situation. This includes the development of two major sub-stations in Braamhoek and Driefontein (Mathondwane). 	<ul style="list-style-type: none"> • The urban areas that experienced a great level of outmigration is Winterton whereby the population decreased by 34%. This is followed by Steadville and its surrounding townships which experienced a sharp decline of 27%. • If the service backlogs persist, then this could result in community uproar and service delivery protests. The outcome of such protest may be vandalism of existing community facilities. • The transformation of agricultural land into rural settlements (especially emanating from land reform) will affect the agricultural economy, shed the number of jobs that this sector can create and delay/ hinder future investments on the agricultural sector.

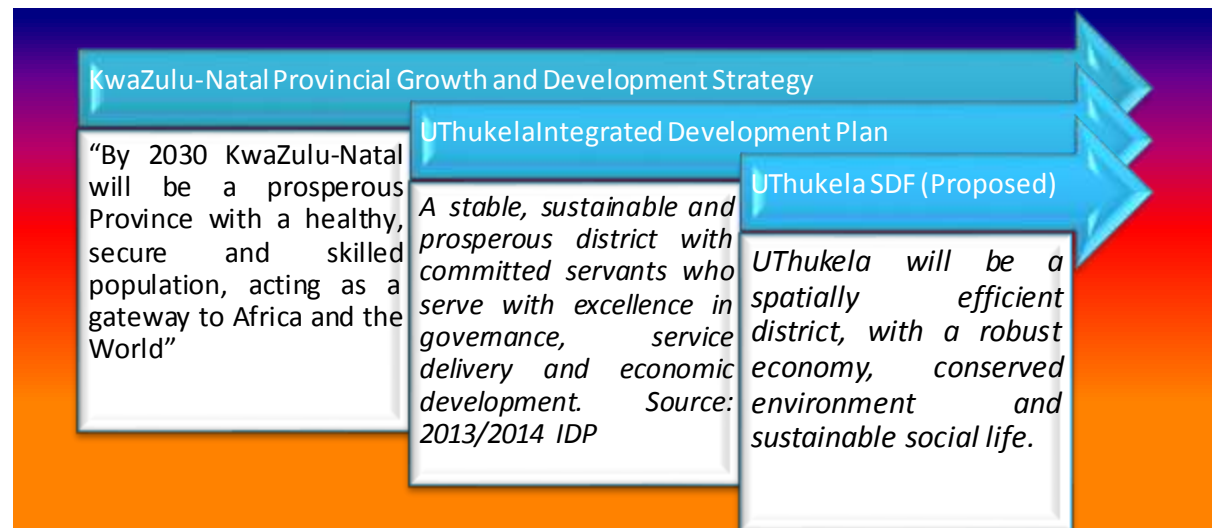
- The surface water (major rivers and wetlands) are at the risk of transformation/ drying up due to non-conservation activities (i.e. mining).

15. SPATIAL DEVELOPMENT STRATEGY

UThukela District Municipality SDF is compiled in support of the long-term strategic intent and a short to medium development program as outlined in the IDP. It is a legal requirement in terms of the Municipal System Act, and one of the key sector plans of the IDP. It will guide as well as inform the local municipality's spatial development frameworks in terms of land development, management and as such it:

- *provide basic guidelines for a Land Use Management System and development of a spatial Capital Investment Framework,*
 - *align the local SDFs;*
 - *introduces guidelines for decision making and alignment of development programs that impacts on the spatial structure and land use pattern in the area;*
 - *provides a spatial representation of the location of the strategic development projects in line with the spatial transformation agenda; and*
 - *provide visual representation of desired spatial form and land use pattern.*
- *gives effect to principles contained in the Development Facilitation Act, Act No. 67 of 1995, NEMA and other relevant policies;*
 - *sets out spatial objectives and provides spatial strategies that indicate desired patterns of land use, address spatial transformation, and provide decision making processes relating to the nature and location of development;*

15.1 VISION 2030



The SPLUMB advocates a development vision statement for the municipal area which indicates the desired spatial growth and development pattern for at least the next 10 to 20

years. The UThukela vision is geared towards a fully developed district which will be achieved through a mixed sustainable economy, social change through the delivery of basic services and cultural diversity.

This vision adopted as part of the municipality's 3rd generation Integrated Development Plan Review has been considered in the development of the overall spatial vision. Over and above the issues captured in the earlier chapters of this document, the IDPs of the local municipalities have for this purpose been the overarching principle documents utilised to influence the spatial system of the municipality.

The realisation of this vision has been aligned towards the NDP and the PGDS which are both national and provincial strategies geared towards 2030. This in-turn will allow the district to have access to the necessary resources required from either national or provincial governments to achieve its vision. In order for the DM to have tangible development outcomes at all levels of society, facilitation of the spatial system must be able to address the following:-

- *provide for an efficient social and economic movement system,*
- *use of scarce resources and decision making processes;*
- *is sustainable from a social, economic, financial, physical and institutional perspective;*
- *promotes integrated development; and*
- *provides for an equitable access to development opportunities.*

15.2 AIMS AND OBJECTIVES

The primary aim of the SDF is to guide the spatial form and location of future developments within the municipal area of jurisdiction. Its objectives are as follows:

- *giving a spatial expression of the development vision and strategy as outlined in the IDP;*
- *Identifying areas where development should or should not go*
- *guiding the municipality in the coordination of development within its area of jurisdiction;*
- *giving spatial effect to multi-sectoral projects identified in the IDP*
- *promoting sustainable utilisation of natural resources.*

More specifically, the SDF seeks to influence directly the substantive outcomes of planning decisions, whether they relate to the refinement of the local municipalities SDF through framework and precinct plans or decisions on land use change or development applications and to achieve planning outcomes that:

- *facilitates restructuring of spatially inefficient settlements;*
- *promote the sustainable use of the land;*
- *channel resources to areas of greatest need and development potential;*
- *redress the inequitable historical treatment of marginalized areas;*
- *take into account the fiscal, institutional and administrative capacities of role players, the needs of communities and the environment;*
- *stimulate economic development opportunities in rural and urban areas; and*
- *support an equitable protection of rights to and in land.*

Over and above the issues outlined above, the UTDM SDF promotes:

- *accountable spatial planning, land use management and land development decision-making by organs of state;*
- *cooperative governance and wider information sharing in plan-making and implementation; and*
- *maximum openness and transparency in decision-making.*

15.3 APPROACH

UTDM spatial system comprises of the following main components:

- *Economic hubs with varying levels of impact and spheres of influence.*
- *Trade routes defined in terms of the associated economic development sectors, land use pattern and role in the sub-regional economy.*
- *Rural service Centres with essential community facilities. These should be guided by development of rural settlement plans*
- *Conservation Tourism*
- *Settlements located in different environments including urban, peri-urban and rural areas.*
- *Agricultural land.*
- *Environmentally sensitive areas.*

These varying components have been advocated due to their important role in the functioning of the spatial system in the district.

15.4 SPATIAL PLANNING PRINCIPLES

UTDM SDF is underpinned by normative principles reflected in various policy documents and pieces of legislation including the Spatial Land Use and Management Act (SPLUMA), Development Facilitation Act (DFA), National Environmental Management Act (NEMA) and Provincial Spatial Development Plan.

The normative principles are focused on and correlated to the field of spatial planning, land use management and land development, but, as is the case with all principles and norms, need further actualization in specific, concrete contexts. Thus, in the practical implementation of the principles spatial planning, land use management and land development in UTDM have been guided by the following SPLUMA principles:

- *The principle of spatial justice, whereby—*

- (i) past spatial and other development imbalances must be redressed through improved access to and 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;

(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 efficiency, whereby—*

(i) land development optimises the use of existing resources and infrastructure;

(ii) decision-making procedures are designed to minimise negative financial, social, economic or environmental impacts; and

(iii) development application procedures are efficient and streamlined and timeframes are adhered to by all parties;

- *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; and*
- *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.

15.4.1 ENVIRONMENTAL MANAGEMENT

The principle of sustainable development seeks to put into operation the provisions of the National Environmental Management Act (NEMA) and Local Agenda 21 (LA 21). It commits the present generation to engage with the natural resource base and meet their development needs in a manner that enables the future generations to meet their development needs as well. Land development within the municipality will be undertaken in an economically, socially and environmentally sustainable manner, and with the following being acknowledged as key interventions for spatial transformation:

- *spatial justice;*
- *protection and enhancement of the environmentally sensitive areas;*
- *protection and optimal utilization of high potential agricultural land;*
- *creation of an integrated open space system in an urban context; and*
- *enhancement of the aesthetic quality of the environment.*

Environmentally sensitive areas provide an opportunity for tourism especially in the areas currently being considered as part of the Nodal Development Study.

15.4.2 REGIONAL ACCESS AND ROAD NETWORK

The road access and road network system can be fully effected with it capability to meet the current and future development needs of both the public and business sector alike. The movement strategy is premised on the provision and maintenance of a highly accessible movement system and network that supports a range of modes of transport (road, public and private) and activities at various levels, intensity and scale. It specifically endorses the promotion of the public transport as the means to increase accessibility of opportunities to all parts of the area.

The efficiency of the region relates directly to the efficiency of its movement system i.e. the ability to move goods and people within and beyond the municipal boundaries. By providing an affordable, area wide network of transport routes that facilitates linkages between places of residence and economic opportunities (nodes) this development strategy will actively support the following development paradigms:

- *proactive absorption of the poor;*
- *balanced and shared growth;*
- *facilitated social mobility; and*
- *settlement restructuring.*

The movement strategy for UTDM is based on the recognition of the role of different movement routes, and a need for the provision and maintenance of a highly accessible movement system and network. It specifically endorses the promotion of the improved accessibility to areas of opportunity as a key to economic development and growth. While this involves reinforcing the role of the existing road networks, it also seeks to open new movement routes and refine the role of some of the existing roads.

15.4.3 SERVICE CENTRE SYSTEM

In order for the UTDM to function effectively in a network of opportunities, the various socio-economic activities must be responding to locational and accessibility aspects. Within the district there are for various historical factors for nodal areas that have benefited from public and private sector investment in services and economic infrastructure more so in Ladysmith, and the surrounding urban areas. In order to sustain the historical development of these areas and accommodate future expansion, proper land use management, maintenance and environmental

sustainability is essential. As for those that have been neglected or left in a state of dilapidation, the municipal IDPs must respond to these effectively and taking this spatial vision into consideration. The following planning areas have been identified as critical in the spatial vision of the UTM which are also seen as both capable of expanding and meeting future development needs with the appropriate measures put in place:

- *District Node – This is the commercial and economic hub of the region which offers investment opportunities in manufacturing and commerce. It should be strategically located within the economic trade route and mixed activity corridor.*
- *Primary Node – this refers to the town that services the Local Municipal Area. It plays a commercial and social role within the sub-region.*
- *Secondary Node – this refers to a key focal point that mainly provides social and limited commercial activities.*
- *Tertiary Node – provides the limited social services and administrative services within the clusters of settlements that surround it.*
- *Rural Node – is the smallest level of the growth points. It mainly provides elementary services within the rural hinterlands.*
-

15.4.4 CLUSTERS OF SUSTAINABLE HUMAN SETTLEMENTS

Achieving sustainable human settlements is one of the main spatial goals within an area such as UThukela District which is characterised by settlement pattern that has encountered a high level of disintegration and fragmentation. An opportunity still exists to turn the situation around through facilitating and promoting the evolution of these discrete pockets of settlements into sustainable, integrated human settlements clusters. This is bearing in mind the fact that settlements are not static, they respond to change and are continuously in the process of transformation. The key challenge is to turn them from being creations and remnants of the apartheid regime into sustainable human settlements.

A sustainable settlement improves the level of choice, encourages creativity and investment while a less sustainable settlement imposes a lifestyle on people and results in unnecessary expenses. It is neither possible nor desirable for settlements to be homogenous hence an emphasis on choice. Therefore the intention is to cluster or group the settlements into a large continuous built form, rather than it occurring in spatially discrete pockets or cells, as is commonly the case in the rural parts of UThukela. This is necessary in order to generate economies of scale. The benefits of these clusters are as follows:

- *It will create an enabling environment for mixed land use precincts to integrate these settlements.*

- *Efficiency in the delivery of bulk infrastructure i.e. water and sanitation.*
- *Greater energy efficiency and more efficient use of space and buildings.*
- *Socially diverse communities.*
- *Improved spatial structure at regional and sub-regional level*
- *More convenient access to facilities.*
- *Increased viability of urban and public facilities and support for small business (such as corner shops).*
- *Travel-to-work congestion is minimised.*
- *Greater opportunities for social interaction.*
- *More consumer choice of lifestyle and location.*

A more vibrant and sustainable spatial structure and form results from blurring the distinction between uses and designing places that make walking to the local centre, and bus stop or taxi rank, as convenient and comfortable as possible.

15.4.5 AGRARIAN REFORM AND RURAL DEVELOPMENT

A sizeable amount of land in UThukela District is generally classified as having good potential for agriculture. It is important to note that high potential agricultural land has become a scarce and an ever-dwindling resource. Its protection is high on the agenda for the Department of Agriculture. Encroachment of development onto agricultural land poses a number of challenges, namely:

- *low density urban sprawl which encourages development of inefficient urban spatial systems;*
- *declining performance and contribution of agriculture into the district and provincial economy;*
- *reduction of land available for food production and against the increasing problem of food shortages and increase in food prices; and*
- *need to target high production potential land for the settlement of small and emerging farmers in terms of the land redistribution program.*

Sub-division and change of land use on agricultural land is governed in terms of the Sub-division of Agricultural Land Act (SALA), Act No. 70 of 1970, and is administered nationally. At present, there is no coherent provincial policy that guides assessment of Act 70 of 70 applications. As

such, it is critically important for UThukela Municipality to develop its own guidelines (as part of the SDF) for managing development on agricultural land.

15.5 SPATIAL DEVELOPMENT OBJECTIVES AND STRATEGIES

15.5.1 OVERARCHING STRATEGY 1: SUSTAINABLE URBAN GROWTH

This strategy is informed by the principle of sustainable environmental planning. The spatial focus of this strategy is protecting and enhancing rural, agricultural and urban built and natural environments. The strategy aims to maximize opportunities for sustainable urban form and promoting sustainable use of resources and protection of the natural environment and agricultural resources. Some examples of Municipality projects that align with this strategy include the formally protected areas i.e. UKhahlamba Drakensberg Park, Weenen Nature Reserve, New Formosa Nature Reserve, Wagendrift Nature Reserve, Thukela Biosphere and Tugela Drift Nature Reserve. The key elements of the strategy include environmental protection and enhancement, climate change, place-making and optimal use of existing infrastructure. Good design, creativity and innovation, are essential to improve the built environment and make better use of land to support sustainable patterns, for example:

- *taking into account the economic, environmental, social and cultural implications of development and spatial investment decisions on communities;*
- *improving the built and natural environment, and conserving the region's heritage;*
- *promoting community safety and security, including flood risk;*
- *ensuring that services are conveniently located, close to the people they serve, and genuinely accessible by public transport;*
- *promoting good quality design in new development*
- *promoting policies relating to green infrastructure and the greening of towns and cities;*
- *maintaining and enhancing the quantity and quality of biodiversity and habitat;*
- *assessment and amelioration of the potential impacts of development (and associated traffic) on air quality, water quality and water levels.*

Strategy 1 is elaborated further in the table below:

Objective	Strategies	Land use management guideline	Alignment with policies
1. Construct and maintain a viable built environment	<p>Promote the optimal use of existing and future infrastructure and resources</p> <p>Promote densification in strategically located and well-serviced areas</p> <p>Encourage mixed land use particularly along transport corridors</p> <p>Identify well located, accessible land for Greenfield development</p> <p>Upgrade informal settlements and under-invested areas.</p> <p>Maintain public investment in existing residential and public environments.</p> <p>Previously disadvantaged areas should be specifically targeted for the identification of open space projects</p>	<p>Promote a variety of housing typologies to maximize efficiency while at the same time promoting culture and heritage.</p> <p>In promoting housing, ensure that there are safe spaces and recreational places for people. Ensure preservation of the natural environment.</p> <p>Rural development should be guided by the Rural Strategy</p>	<p>Ladysmith CBD Regeneration</p> <p>Ntabamhlophe Commercial Precinct</p> <p>Driefontein Local Area Plan</p> <p>Wembezi Township Regeneration Strategy</p> <p>Wembezi Mixed Use Precinct Plan</p> <p>Matiwane-Jonono-Nkunzi Local Area Plan</p>
2. Reduce urban sprawl and promote a compact city development	<p>New developments that promote urban sprawl should ultimately be phased out</p>	<p>In areas where there is sufficient infrastructural capacity, densify</p>	

Objective	Strategies	Land use management guideline	Alignment with policies
	<p>Prioritize infill development in areas that provide opportunities for linking and integrating peripheral areas</p> <p>Ensure clustering of various activities (work, live, play and pray) at appropriate locations.</p> <p>Densification and Infill should be promoted in well serviced and strategically located areas and should contribute to the restructuring of urban environment</p> <p>Densification and Infill should help to create thresholds for public transport and contribute to the more effective utilization of various modes of public transport.</p> <p>Higher residential densities should be promoted around nodes and within corridors</p>	<p>the area by the introduction of vibrant land uses.</p> <p>Support rezoning of land to allow for increase densities in appropriate areas identified for densification</p> <p>Prioritize infill areas for development that provide opportunities for linking and integrating peripheral areas</p> <p>Ensure the pre-conditions to densification such as suitable development controls and building regulations, namely, FAR, coverage, setbacks, minimum lot sizes, zoning, parking regulations, height, restrictive title conditions are addressed and discussed with the applicant.</p>	<p>Maloti-Drakensberg Corridor Framework Plan</p>

Objective	Strategies	Land use management guideline	Alignment with policies
3. Sustain natural environments and resources	<p>Optimize the economic, social, aesthetic and functional value of open space services through the implementation of Open Space System</p> <p>Existing natural environmental resources should be protected and enhanced to ensure that the ecosystem within the open space are able to effectively deliver services</p> <p>Development must be directed away from hazardous areas such as floodplains, unstable soils and steep slopes</p> <p>Protect environmentally sensitive areas, agricultural land and open space</p> <p>Protect river catchments and develop a catchment management plans for river systems where rapid development will occur</p> <p>Create a network of green open spaces and protect important environmental areas</p> <p>Support sustainable catchment management and stormwater practices.</p>	Ensure proposed development does not encroach onto environmentally sensitive land.	

Objective	Strategies	Land use management guideline	Alignment with policies
	Promote the prevention and reduction of pollution.		

15.5.2 OVERARCHING STRATEGY 2: IMPROVE ACCESS AND MOVEMENT

This strategy is informed by the principle of spatial concentration and promotes efficient movement of people and goods, urban infill and densification. The spatial focus of this strategy is to address challenges relating to spatial fragmentation and distorted settlement patterns within UThukela. In relation to movement of people the strategy proposes that development should be located so as to reduce the need to travel, especially by car, and to enable people as far as possible to meet their needs locally.

Safe and sustainable access for all, particularly by public transport, between homes and employment and a range of services and facilities (such as retail, health, education, and leisure) should be promoted. In terms of movement of goods a shift towards a more sustainable mode of transport for freight should be secured, an integrated approach to managing travel demand should be encouraged, and road safety improved. This will be a fairly new mixed use sub-metropolitan node which is located on a major development corridor. The locality of the site suggests that, from a development perspective, the site is accessible to a local and regional commuter and consumer markets. It will serve as the social and commercial center to an area with a large housing population, who at present, have generally poor access to facilities and social services.

Objective	Strategies	Land use management guideline	Alignment with policies
Improve connectivity within the Municipal area.	<p>Strengthen and integrate public transport networks, services and modes to ensure that passengers move optimally from origin to destination in an efficient manner and in the shortest time possible.</p> <p>Investigate and promote public transport links between disadvantaged areas and main economic nodes of the Municipality</p>	Around brown field developments: the strategy to create and introduce a vibrant mix of land uses and higher densities must be considered without impacting on the existing amenity of the area while at the same time supporting a more efficient public transport system.	

Objective	Strategies	Land use management guideline	Alignment with policies
Implement the Housing within the context of a sustainable and integrated development planning framework	<p>Facilitate movement between areas of need and wider metropolitan opportunities</p> <p>Create a safe, efficient and integrated city wide public transport system and use it as a tool to restructure the Municipality and integrate marginalized areas.</p> <p>Include Non-Motorized Transport as essential components of land use and transport planning</p> <p>Investigate new road and rail based network links.</p> <p>Engage with PRASA to explore potential of improving passenger rail service</p>	<p>In green field developments: the opportunity to density along public transport corridors remains prime with densities of varying intensity toward pure residential development.</p>	
	<p>Encourage the implementation of housing as part of a broader strategy to re-structure and transform the present sprawling and inequitable urban form into a more compact, integrated and accessible environment.</p>	<p>When assessing new proposed housing developments the following issues must be considered:</p> <p>Is the proposed development inside the Urban Development Line?</p>	

Objective	Strategies	Land use management guideline	Alignment with policies
Develop an efficient and integrated freight transport system that will ensure regional economic sustainability	<p>Promote the development of well-located areas and optimize the use of existing infrastructure</p> <p>Ensure that movement system directly links with and is supported by strong high intensity nodes and higher density residential development.</p> <p>Integrate land use with economic and transport planning</p> <p>Encourage mixed use environments and non-residential uses in appropriate areas, namely, particularly on identified node and along transport corridors and interchanges.</p>	<p>Is the proposed development in close proximity or within a walking distance to main public transport routes</p> <p>Is the proposed development within walking distance to main nodes and corridors?</p> <p>Does the proposal benefit from good access to economic and social opportunities?</p> <p>Does the layout encourage a grid road structure that provides logical and accessible public transport routes?</p>	
	<p>Investigate the feasibility of dedicated freight routes.</p> <p>Ensure the reservation and availability of land for the development of the freight route.</p> <p>Ensure that support for the freight route is attained with neighboring municipalities and other government spheres.</p>	<p>On brown field developments, the freight route should be assessed against its impact on existing developments, and</p> <p>On greenfield the freight route should be assessed against future spatial role and intentions of the area. Land should</p>	

Objective	Strategies	Land use management guideline	Alignment with policies
		be reserved for the development of the freight route.	

15.5.3 OVERARCHING STRATEGY 3: BUILD AND PROTECT VIBRANT ECONOMIC AREAS

This strategy is informed by the principle of enhancing (or harnessing) economic potential, coordinated planning and implementation. The strategy aims to promote and enhance the economic role of the UTM within the KwaZulu-Natal Province. This could be achieved in several ways including: Revitalization of existing economic areas. Examples include Greater Ladysmith, Estcourt and Bergville CBDs. Developing new economies (e.g. Weenen, Bridge City and Shongweni) and former townships (e.g. Ezakheni, Ekuvukeni, Wembezi and Driefontein). Facilitating emerging and informal economic activity for example Warwick Junction. Identifying industrial and business expansion opportunities in areas such as Ekuvukeni, Ezakheni and Wembezi. Improving freight and passenger linkages (as per the District Public Transportation Network study recommendations).

Objective	Strategies	Land use management guideline	Alignment with policies
Revitalize economic areas of major significance	<p>Encourage economic restructuring and development in existing and prioritized economic nodal areas and corridors.</p> <p>Establish incentive for businesses to locate in established areas to avoid decentralization of businesses and increasing vacancy rates and declining amenity at the Centre</p>	<p>Translation of the Municipality's economic Plan into the Schemes as it relates to market trends.</p> <p>Updating and Review of the Schemes to promote emerging land uses.</p> <p>Ensure quality environments as it relates to built form</p>	

Objective	Strategies	Land use management guideline	Alignment with policies
<i>Develop new economic areas to augment and diversify the economic base of EMA</i>	<p>Enable and encourage the promotion of a wide range of economic sectors to complement each other</p> <p>Focus economic growth and job creation through investment nodes and tourism corridors</p>	All new zoned land to continuously promote a variety of vibrant land uses that will promote the Municipality's vision and quality environments	
<i>Develop spaces to facilitate economic activity which should encompass informal trading economy and SMME's</i>	Focus employment interventions to include the marginalized sectors of the population to support emerging and informal enterprises		
<i>Identify appropriate industrial and business infill and expansion paths to accommodate demand</i>	Protect existing industrial land and identify new opportunities for Industrial development	<p>The Industrial development strategy must be used as a guide in assessing industrial development applications</p> <p>Carefully consider the compatibility of proposed land use when assessing rezoning application especially in predominantly residential areas</p>	

Objective	Strategies	Land use management guideline	Alignment with policies
		Do not support growth of ad hoc industrial areas, use nodal areas and service availability as guidelines	
<i>Address spatial economic imbalance</i>	<p>Ensuring there is spatial integration of investment for local economic development.</p> <p>Development of LED strategies for key nodal and under-invested areas</p> <p>Unlock employment generating opportunities in areas that lack economic opportunities</p> <p>Bring economic opportunities closer to where people live</p> <p>Improve /establish access to facilitate that are of major importance</p> <p>The development of nodes should take into consideration rural-urban linkages</p>	Support development initiatives in locations that are easily accessible especially to areas of need	

15.5.4 OVERARCHING STRATEGY 4: ESTABLISH BETTER KNOWLEDGE OF RURAL AND TRADITIONAL SETTLEMENT AREAS

This strategy is informed by the principle of balanced and sustainable urban and rural development. This strategy provides the basis for integration of the rural areas into the mainstream growth and development of the municipal area. This includes understanding the nature of the space economy and how urban and rural activities support each other (e.g. agriculture and agricultural processing) and adopting policies that could strengthen this relationship (e.g. protect agricultural land from development and diversifying agricultural opportunities).

Objective	Strategies	Land use management guideline	Alignment with policies
Protect and enhance the rural environment	Conserve critical environmental assets Conserve good agricultural potential land for future food security and job creation Prevent unconventional urban development from intruding into the rural environment	Defend rural landscape Support appropriate development and activities in rural areas	UTDM Municipality rural development framework
Promote integrated and appropriate development in the rural periphery	Facilitate sustainable and integrated service delivery, Development of Human Settlements in line with National and Provincial Policies, and Development of rural service nodes and rural corridors	Develop a clear hierarchy of rural service nodes and corridors Promote and support integrated housing development in rural areas	

Objective	Strategies	Land use management guideline	Alignment with policies
Establish appropriate land use planning and management guidelines for rural development	Clear understanding of the nature and role of rural areas within the wider eThekweni Municipal area		

16.6 CLIMATE CHANGE RESPONSE STRATEGY

The UThukela Climate Change Response Strategy was adopted in 31 July 2015. The purpose of this strategy is to curb the impact of human activities on the degradation of the climate and to sustain environmental resistance. The UThukela Climate Change Response Strategy comprises of the following phases with outlined objectives:

- **Phase 1-Change in Climate Variables: Direct & Indirect Impacts (risks, vulnerabilities & opportunities)**

Objective: the tool introduces & makes the links between climate changes, changing environmental conditions & the impacts of this.

- **Phase 2-Sector Climate Change Response Options**

Objective: the tool provides each sector or related departments with an overview of the climate response options that fall within their functional areas.

- **Phase 3: Sector Plans to Climate Change Response**

Objective: the tool direct users to the key climate issues facing their sector and highlights relevant municipal mandates to tackle this. It also helps when sectors or departments are planning & prioritising new, climate responsive, projects, and programmes.

16. SPATIAL FRAMEWORK

UThukela District Spatial Development Framework provides guidelines and directives for development in respect of the following key concerns:

- *Spatial transformation and restructuring;*
- *Environmental management;*
- *Protection of high value agricultural land;*
- *Rural Development and Agrarian Reform;* and
- *Economic development and Land Use Management.*



16.1 SPATIAL RESTRUCTURING

The following are the key elements of a spatial restructuring program for UThukela District Municipality:

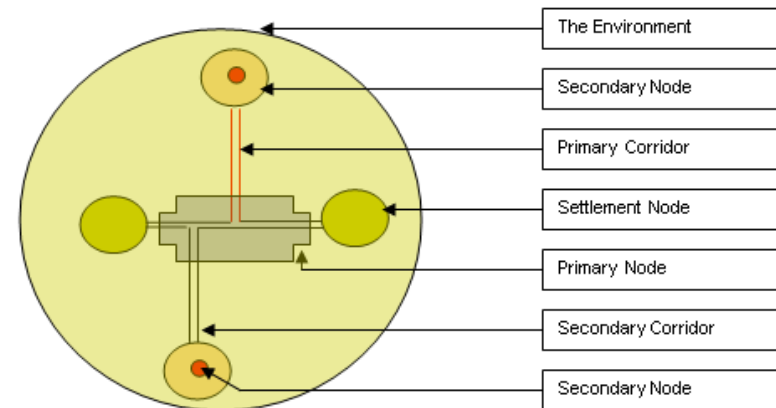
- *Hierarchy of corridors;*
- *Hierarchy of nodes; and*
- *Clusters of Sustainable Human Settlement.*

16.1.1 SYSTEM OF ACTIVITY NODES

The main issues facing UThukela Municipality is a poor settlement pattern, which manifests in the form of the dominance of small towns as a regional service centres and economic hubs, as well as the expansive farming areas and a general rural character of the area. The net effect of this is the inability to decentralise and coordinate service delivery at a localised level. As a means to address this, there is a need to facilitate the

evolution of a system of nodes incorporating primary, secondary, tertiary/ incipient and rural service nodes. An activity node is a place of high accessibility onto which both public and private investments tend to concentrate.

An activity node offers the opportunity to locate a range of activities, from small to large enterprises, often associated with mixed-use development. They are generally located along or at the cross-section of development corridors. Activity nodes have the potential to be an important sub-regional structuring device. They serve as points in the spatial structure where potentially access to a range of opportunities is greatest, where networks of association create diversity and where people are able to satisfy the broadest range of their day to day needs. Being points of maximum economic, social and infrastructure investment, as well as representing established patterns of settlement and accessibility, these nodes must be regarded as primary devices on which to anchor the structure of the sub-regional spatial system. Application of a system of development nodes in UThukela District is indicated on map below.



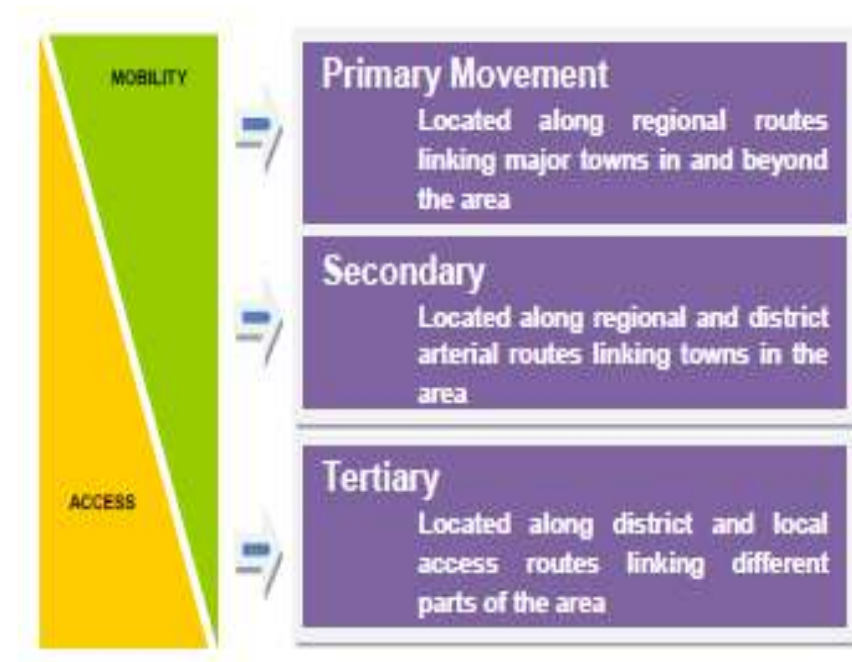
- *Regional/ District Node (Ladysmith) – it has a much diversified economy that is mainly driven by the manufacturing which is value adding and creates a lot of jobs. This regional economic centre still boost with a lot of potential for investment and further growth. It forms part of the provincial spatial systems and is identified in the PSEDs as one of the economic hubs.*
- *Primary Nodes are Estcourt, Bergville and Winterton.*
- *Secondary Nodes are Ekuvukeni, Wembezi, Ezakheni Town Centre and Colenso Town and Sobabili*
- *Tertiary Nodes are Driefontein Node, Matiwane Node, Ezitendeni – Msusumpi Complex, Limehill Complex, Weenen, Zwelisha, Dukuza Complex, Emmaus, Geluksburg and Emahlutshini.*
- *Rural Nodes are Lucitania, Drooval, Steincoal Spruit, Van Reenen, Roosboom, Thembalihle, Cornfields, Frere, Chively, Rensbergdrift, Nhlawe, Amabolwane – Okhalweni Complex, Sahlumbe, Mhlumayo, Bhekuzulu and Emhlabathini.*

- *Tourism Node are Cathkin Park, Babangibone, Giants Castle and Injisuthi.*

TYPE OF PLANNING AREAS		FUNCTIONS	TYPE OF SERVICE
Primary Centre)	(Sub-regional	<ul style="list-style-type: none"> • Distribution and coordination point • Higher order level of goods and services 	Police Station, Clinic, Welfare Office, Schools, Community Hall, Post Office, Bank, Court, Comprehensive sport facility, Developed Economic Centre, Information Service Centre and Emergency Service Centre.
Secondary Centre)	(Community	<ul style="list-style-type: none"> • Lower order level of goods and services as compared to primary node 	Police Satellite Station, 24hr clinic, Weekly Welfare Mobile Services, Schools, MPCC, Weekly Information Mobile Services, Post Net, Mobile Bank Services and Basic Sport Facility
Tertiary Centre)	(Neighbourhood	<ul style="list-style-type: none"> • Serve to provide a convenient service to the village community 	Mobile Clinic, Schools determined by population density, Community Halls determined by population density, Postal Services determined by population density and Basic Sport Facility



16.1.2 HIERARCHY OF DEVELOPMENT CORRIDORS



Development corridors

in UThukela District Municipality occur at different scales depending on function and categorization of the transportation route that forms the basis of the corridor. They carry the flows of people and trade between two points (origin and destination) and encourages nodal development at strategic point. Corridor development as a spatial structuring element, and a tool for economic growth, seeks to create functional linkages between areas of higher thresholds (levels of support) and economic potential, with those that have insufficient thresholds. This will enable areas that are poorly serviced to be linked to areas of opportunity and benefit with higher thresholds.

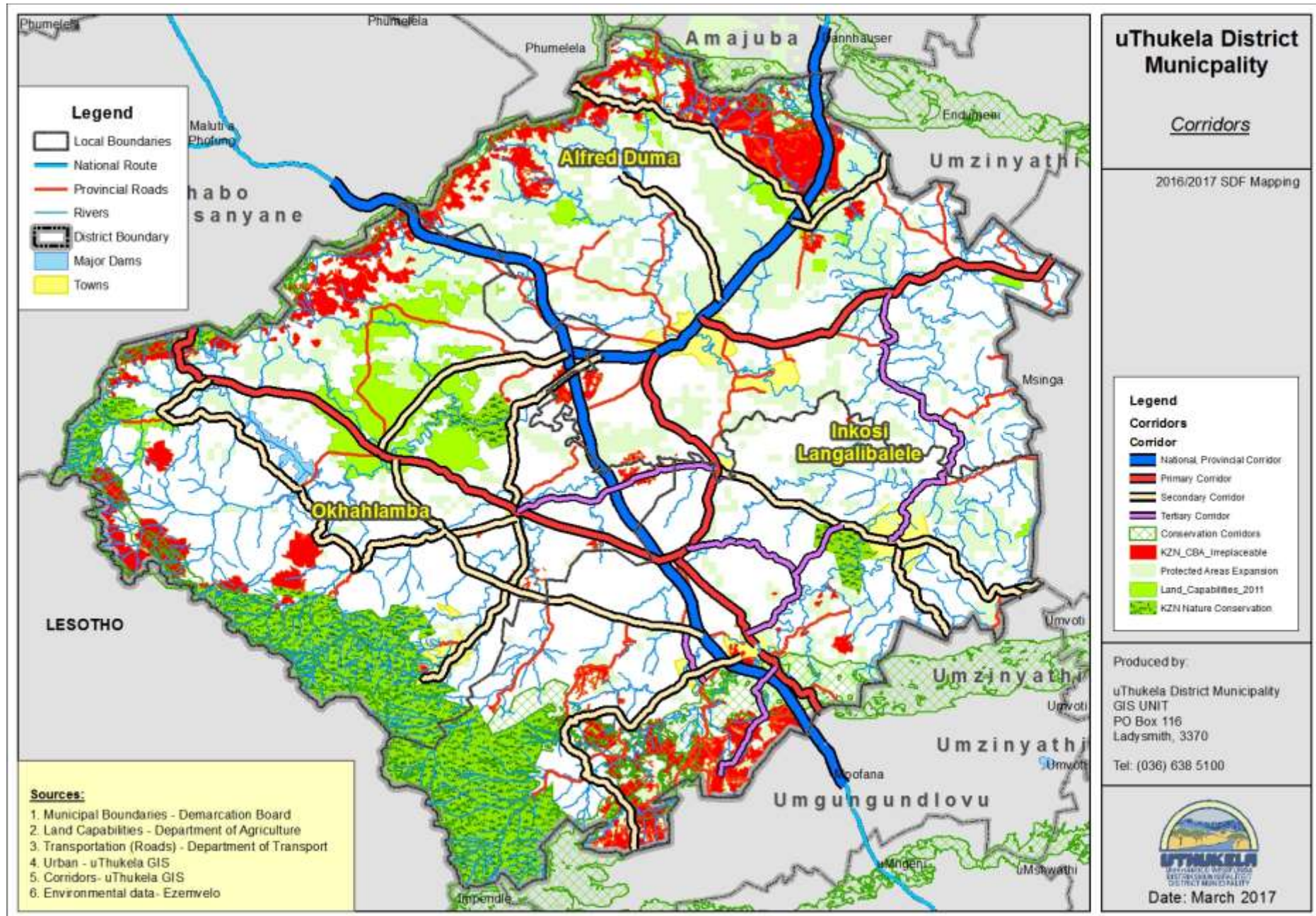
Corridors constitute an effective form of decentralization and enables larger and smaller activities to form a relationship. Linear systems can handle growth and change well. They are an effective means for breaking down fragmentation and increasing integration and spatial transformation. System of development corridors in UThukela has been developed on the basis of the levels of mobility and access routes,

intensity of use and role in the regional spatial economy. Figure above summarizes the relationship between these two concepts and provides a framework for the three levels of corridors in the UThukela District Municipality.

Upgrade and road maintenance projects on corridors that leads to development opportunity areas such as rural service centres, high potential agricultural land and tourism nodes should be prioritized as this will encourage investment, improve accessibility and enhance mobility. This principle supports the phased approach to development, targeting areas of greatest potential first. Development corridors are effective in linking infrastructure and economic development as towns and structures connect to each other in a functionally effective manner. The system of development corridors has been identified as follows:

- *National/ Provincial Corridor – N2 and N11*
- *Primary Corridor – R103, R74 & P32, roads linking Ekuvukeni with Ladysmith*
- *and Dundee/ Glencoe.*

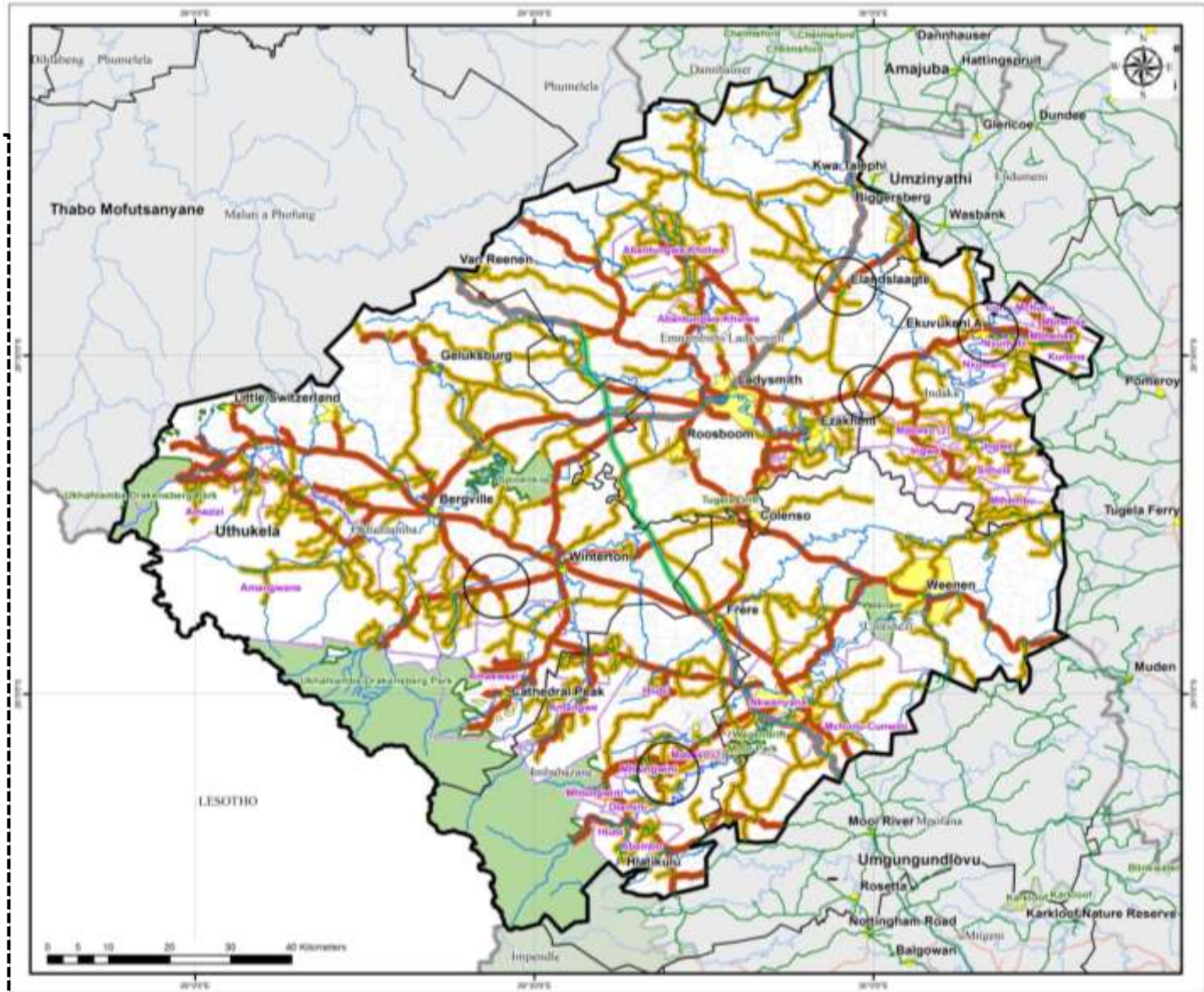
- *Secondary Corridors – P176, R600, R616, P189, P33, P326, P263, Giant Castle to Weenen Nature Reserve Corridor, Regional road from Colenso in the west through Weenen to Greytown and beyond (east-west axis).*
- *Tertiary Corridor – P237, Road from Winterton to Colenso running along the western boundary of Umtshezi Municipality, P170-D385 corridor from Wagendrift dam through Estcourt town to Weenen running along the eastern boundary of the municipal area, D489 – D721 (Cornfields-Thembalihle Corridor), P179 from Loskop road through Wembezi to Wagendrift Dam and the surrounding proposed conservation areas, P179 from Loskop road through Wembezi to Wagendrift Dam, The corridor from Pomeroy to Majaqula attempt to link Indaka with areas across uMzinyathi and The corridor to Dundee through Ebomvini.*



16.1.3 SIGNIFICANT ROUTE INTERSECTIONS: UNEXPLORED POTENTIAL

There are few significant road intersections that have a good potential for the new nodal developments. These include:

- 1) *Elandslaagte (also known as Nkunzi Area) – this intersection involves N11 and P263.*
- 2) *Ekuvukeni – this intersection (P32 and P91) is found within the former R293 Township.*
- 3) *Doornkraal – this intersection involves P32 and P349. It is located between Ezakheni and Ekuvukeni.*
- 4) *Khwela village – This intersection involves R600 and R74.*
- 5) *Ntabamhlophe/ Sobabili – This involves P29 and District Road within Imbabazane Municipality.*



16.2 PROPOSED TOOLS FOR URBANISATION OR MIGRATION

16.2.1 URBAN AND SETTLEMENT EDGES

The unmanaged urbanisation process in many instances cause or perpetuate uncontrolled and undesirable expansion of the urban area. This usually takes the form of small scale incremental development by smaller developers and individual land owners as well as the appearance of informal settlements and low income housing projects in areas that distort the urban structure. The other type of developments and expansion that also distort the structure of the town includes large, private developments which seek to privatize convenience, in a variety of forms for example, golf and polo estates, eco-and other form of resort villages, retirement complexes based on the theme of retreating to the countryside, and so on, which frequently result in ad-hoc sprawl. Introducing an urban edge is one of the first step solutions to these urban management challenges.

The urban edge is a medium-term to long-term edge line (5-20 years) that has been demarcated to limit urban sprawl, or to protect natural resources. The advantages of demarcation of the urban edge are to prevent uncontrolled urban sprawl. Urban sprawl is undesirable since it increases pressures on the limited resource of local government, from public transport to water and sanitation infrastructure provision and impede on valuable agricultural land. An urban edge will protect valuable agricultural land and ecologically sensitive areas from urban encroachment. The disadvantages of an urban edge are that it can restrict the supply of land for urban development, which will inflate land prices within the urban boundary. When demarcating an urban edge, there is a need to ensure that a balance should be reached between providing enough land for urban development and the need for sustainable development. Certain actions that are required to ensure that the urban edge are effective include a clear demarcation of the urban edge, ensure protection of land beyond the urban edge, meeting the demand for growth, strategic densification, urban renewal and infill planning.

16.2.2 DENSIFICATION

Urbanisation requires pro-active measures of creating more residential units for the surplus of new people that has relocated to the urban centres. However, such urban areas are already built-up to larger extent and do not have an abundant vacant land for new dwelling units. Densification of the existing built up areas is normally a good solution towards fulfilling this kind of urbanisation need. Densification is one of the key elements of compact development and a drive towards building an integrated and efficient spatial form. This can be achieved by limiting

outward expansion, by promoting higher densities, infill and re-development activity nodes and by the promotion of mixed use activity corridors linking otherwise isolated and non-functional areas with a focus of public transport.

The densification to be adopted is dependent on the spatial context of development, the site specific characteristics, the capacity of existing infrastructure and what the impact of that the development will have on the environment. The municipality should formulate a densification strategy, in which it is acknowledged that there has to be a balance between compactness and the retention of significant open space to satisfy other social and environmental needs.

The objectives of densification and compaction are as follows:

- *Minimising/ Reducing the Footprint of the built up areas: Settlement (both rural and urban) transform natural land and alter the ecosystems in which they are located in a magnitude of ways. This in itself warrants a concerted effort to limit the impact on the affected area of land, as well as the ecosystems involved.*
- *Preventing the Destruction of Agricultural Land: Outward expansion of settlement occurs at the expense of high-value, very well located agricultural land in close proximity to urban markets. . This resource should be protected from settlement intrusion and should be set aside for productive agriculture.*
- *Improving the Use of Public Transport and Facilitating Pedestrian movement: One of the key means of improving the use of public transport is increasing residential densities in nodes and along public transport corridors, which has major implications for the way in which areas are built and managed. The other is greater integration between the various entities involved in land use and transport planning.*
- *Improving the Efficiency of Urban Areas: More compact settlements increase general accessibility, the level of convenience with which people can conduct their daily lives and reduces costs in terms of time, money and opportunity cost, both for local government as well as for its citizens. More compact settlements in which infrastructure investment is planned are more efficient than those in which this is not the case.*
- *Reducing Inequality: One of the objectives of intervening in the form and density of development of settlements is to ensure greater access of all, especially the poor, to the benefits and opportunities of urban living – something that the current fragmented, separated spatial structure works against.*
- *To adhere to legislative directives: A wide range of acts and policies have been brought forward by national government urging local authorities to address the issue of sprawl and urban form. However, in practice, very little has been done to address these legislative directives.*

16.2.3 DEVELOPING SUSTAINABLE HUMAN SETTLEMENTS

One of the most effect tools to cope with urbanisation is to promote sustainable human settlements within the urban areas. The notion of sustainable human settlement refers to a holistic and integrated approach to housing provision for the residents of UThukela across all income brackets. Sustainable human settlement involves creating the conditions under which people in new and established residential communities can enjoy healthy, productive and well-integrated rural livelihood. At the concept level the requirements of sustainable human settlement are precise and unambiguous in terms of the level in which housing should be provided for the residents.

These state that settlement cannot just house people. It must be ‘sustainable’ in the broad sense of being able to ensure that residents can live in safe, healthy and dignified conditions, with relatively easy access to amenities, the ability to exercise their need for community, and opportunities to realize their future aspirations. The settlements will be created so as to be sustainable i.e. integrated and functionally sustainable, enhanced location of settlements and also moving to a holistic approach to its establishment so as to ensure that the provision of social and economic infrastructure is also taken into account.

Over the years, this concept of human settlements has been developed further into a strategic framework for overall socio-economic development. Human settlements are the spatial dimension as well as the physical expression of economic and social activity. The creation of sustainable human settlements is inevitably an objective for social development as it defines and conditions the relationship between where people live, play and work on the one hand and how this occurs within the confines of the natural environment. It is one of the most visible and quantifiable indicators of the society’s ability to meet one of its basic needs, shelter, and a pre-requisite for sustainable human development and economic growth. Future human settlement projects within UThukela should aim to achieve all of these development goals within the broader national housing delivery policy, planning and service delivery program of the Municipality.

16.2.4 COMPACT AND INTEGRATED DEVELOPMENT

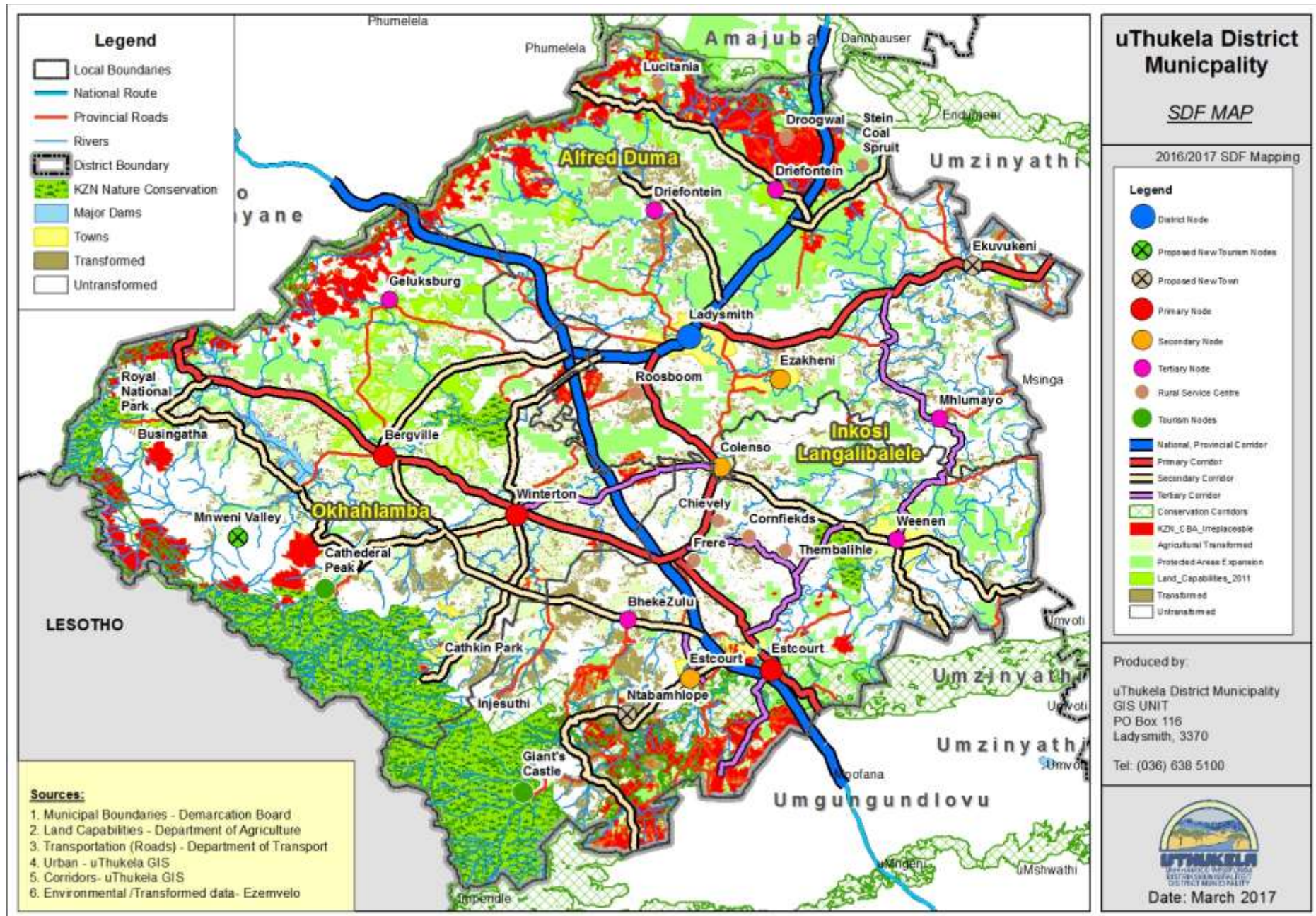
Compact settlements will be achieved through the maintenance of the “edge” as a means to discourage development expanding into prime agricultural land and other natural resource areas. The settlement edge on the other hand will also be used to manage any investments and characteristics of infrastructure levels according to the needs of communities and economic activities. This will encourage efficient use of

underutilised land and resources. This requires detailed planning at a settlement level and could best be sustained through the coding or integration of the existing community rules into a land use management system.

16.3 DESIRED SPATIAL FORM

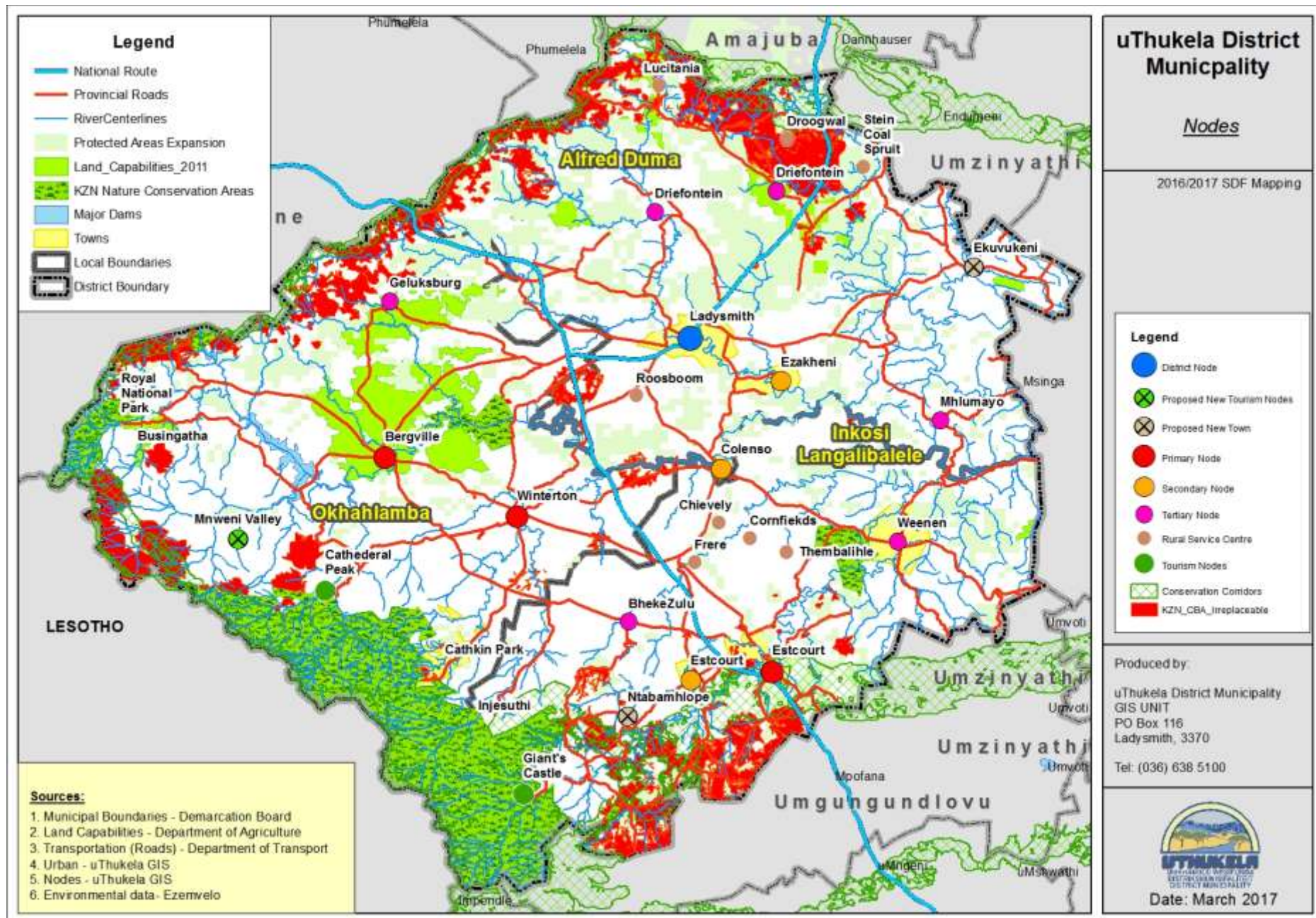
16.3.1 AREAS WHERE DEVELOPMENT INTENSITY SHOULD DECREASE

Development should be discouraged within the UDP WHS since this will compromise the landscape character. Expansion of developments towards UDP Foothills will also be unfavourable. Most of the main towns/ nodes are surrounded by agricultural land. Expansion of nodes to high potential agricultural land would be undesirable.



16.3.2 AREAS WHERE DEVELOPMENT INTENSITY SHOULD INCREASE

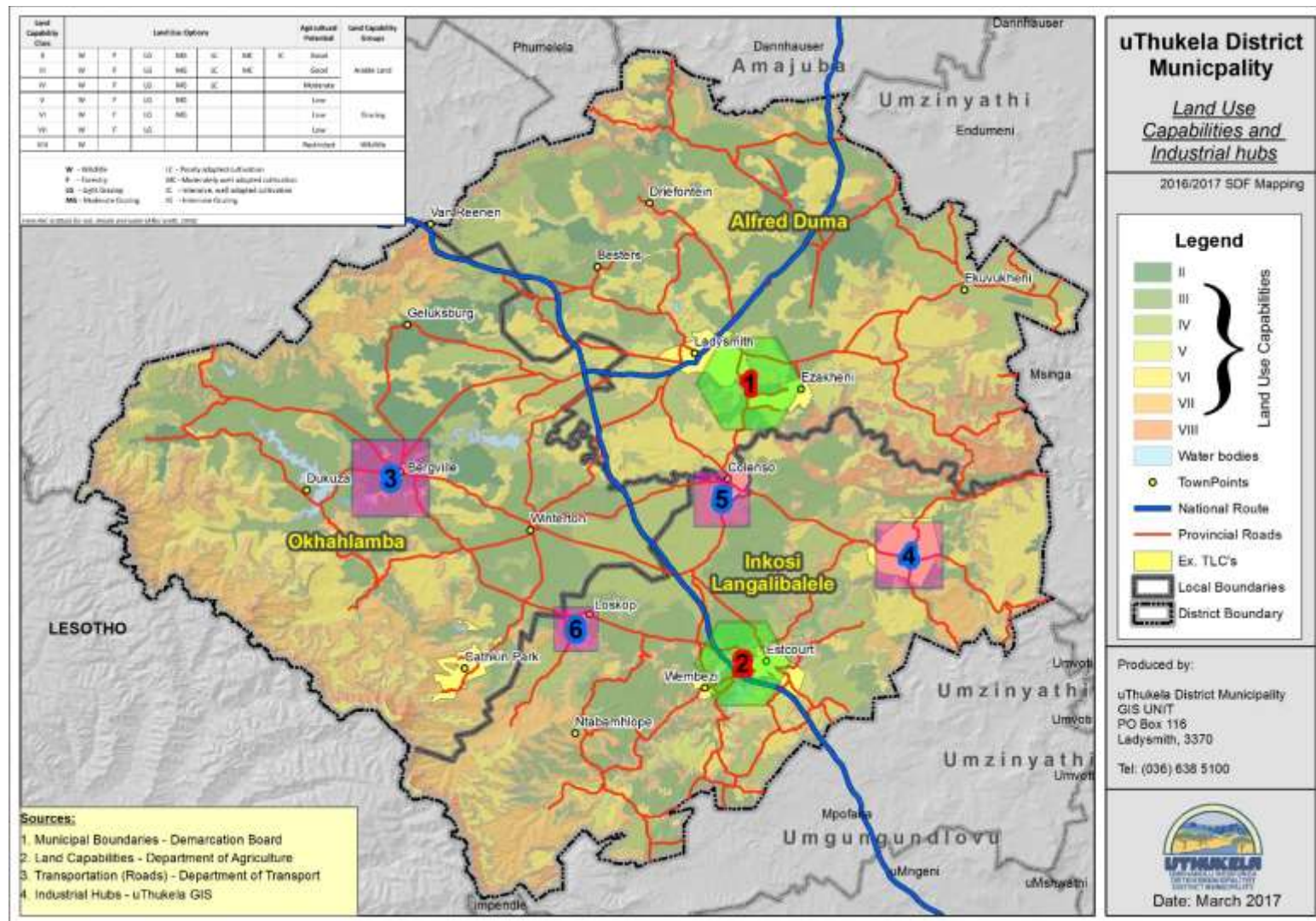
The proposal is to facilitate an expansion of the node to its nearest urban settlement area (i.e. former blacktownship). This creates opportunities for infill and interface development on the one hand and it also dismantles the historical segregation motives. This is proposed for Ladysmith and Ezakheni as well as Estcourt and Wembezi. The proposal is also to facilitate the densification of the existing nodes prior to outward expansion. This is because these areas are still too low in terms of density and urban sprawl may emanate if expansion was to take place at a sizeable now



16.4 PROPOSED INDUSTRIAL DEVELOPMENT

The existing and established industries within UThukela are mainly found in Alfred Duma Local Municipality and Inkosi Langalibalele Local Municipality. Ladysmith is considered to be the Primary Industrial Hub with three main industrial areas which are Danskraal, Nambithi and Ezakheni. Estcourt is considered to be a Primary Agri-processing Hub. According UThukela Investment Promotion and Attraction Strategy, there is still demand for manufactured products in uThukela such as clothing and textile, footwear, furniture, food, beverages and building material. Further, UThukela local economy is dominated by primary sectors, which implies that there is availability of raw material to a certain extent. However, because the manufacturing sector is not developed and all its full potentials are not yet utilised, in most instances raw material is transported to other centres outside the district for processing. The areas that are seen as the potential for further industrial development that is worth exploration are as follows:

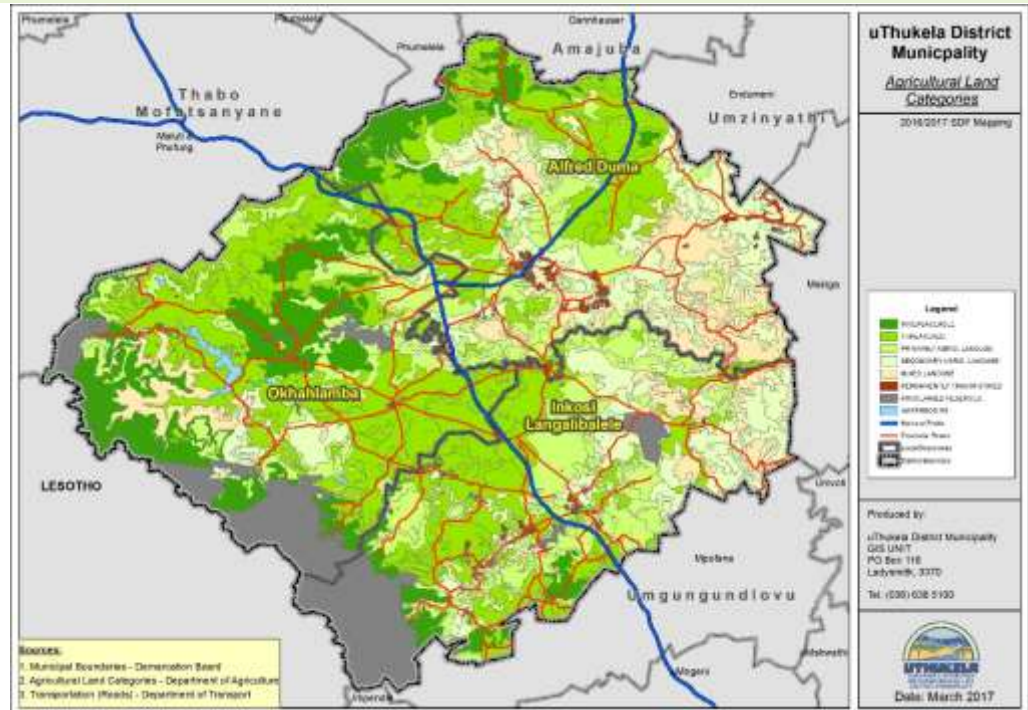
- *Ladysmith and Estcourt – Existing Industrial Hubs;*
- *Bergville – Primary industrial area for maize mill and agro-processing;*
- *Weenen – Agricultural produce packaging and processing;*
- *Loskop – Leather production, clothing, textile; and*
- *Colenso – Charcoal Plant.*



16.5 PROTECTION AND CONSERVATION OF AGRICULTURAL LAND

16.6 The Provincial Department of Agriculture, Environmental Affairs and Rural Development have a responsibility to protect agricultural land from development that leads to its alienation from its primary purpose or to diminished productivity. Poor resource (veld) management such as overstocking, the development of land for settlement (mainly in land reform projects) and other non-agricultural uses has led to the loss of significant areas of good agricultural land. Land degradation is now widely regarded as one of the greatest challenges facing certain parts of UThukela Municipality. Protection of good agricultural land should be based on the following policy principles:

- Any proposal for non-agricultural development on agricultural land is subject to an application made to, and assessed by, the Department of Agriculture in terms of the Sub-division of Agricultural Land Act, (Act No. 70 of 1970).
- The preparation of planning schemes should include an evaluation of alternative forms of development, and significant weight should be given to those strategies which minimise the impacts on good quality agricultural land.
- The Land Use Scheme should aim to minimise cases where incompatible uses are located adjacent to agricultural operations in a manner that inhibits normal farming practice. Where such instances do arise, measures to ameliorate potential conflicts should be devised.
- The land use scheme should provide for a hierarchy of agricultural zones based on the agricultural development potential and impact of



non-agricultural activities on agricultural land. Non-agricultural activities such as agri-tourism, game farms with themed estates or lodges, resort developments, etc. should be located on land with low agricultural potential.

Agricultural potential should be used to establish agricultural zones in terms of the land use scheme, and provide for a continuum of agricultural zones from predominantly agriculture only zones to zones that allows for a mixture of agricultural and non-agricultural uses. The following criteria may be used in this regard:

- *High potential agricultural land should be used for mainly agricultural activities. However, limited non-agricultural uses may be permitted especially along the corridors and within the designated development nodes. Conservation should form part of a drive to protect and enhance the quality of agricultural land. Irrigated land along the river corridors should be protected equally.*
- *Low potential agricultural land should be subjected to tourism and low intensity agricultural uses. Most of it is degraded and prone to soil erosion.*

16.7 INTEGRATED ENVIRONMENTAL MANAGEMENT PLAN

The Integrated Environmental Management Plan for UThukela District Municipality recalled that human life is dependent on a healthy supply of food, water and air. Over the past few years there has been an enormous increase in the human population without a matching increase in the planet's capacity to supply food, water and air. Human activity has damaged or reduced the earth's capacity to supply many essential life-supporting goods through the spread of urban development and the pollution of the earth's atmosphere and water. The extent of productive farmland is rapidly decreasing as land is taken up for human settlement. Climate change and global warming have been ascribed to the effects of pollution.

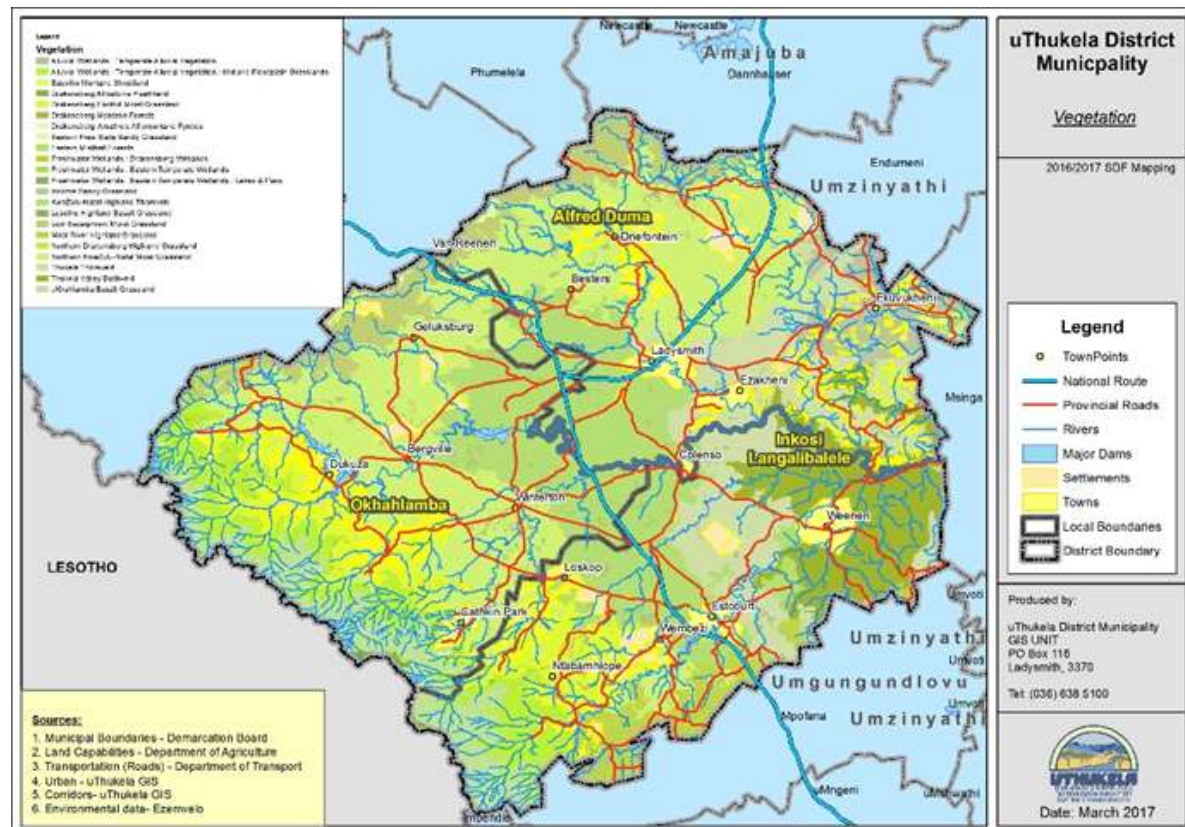
Thus, the earth's capacity to support and sustain human life is under threat. The current rate of consuming resources and discharging wastes cannot be sustained. There is a need to make a transition to ways that are ecologically sustainable, i.e. ways of living that can be sustained on a long-term basis by the environment. The growth in the economy of UThukela and surrounds, just like with all growing economies, invariably contributes to an exponential increase in water use, waste generation and energy use in the residential and commercial sectors.

If not properly managed, the growth can lead to degradation, some of which is not reversible. UThukela Integrated Environmental Management Plan (IEMP) identifies, among others, the following as critical interventions to address the current accelerated rate of resource degradation:

- *Biodiversity Management;*
- *Management of Water Resources;*
- *Waste Management;*
- *Air Quality Management; and*
- *Climate Change.*

16.7.1 BIODIVERSITY MANAGEMENT

The District comprises predominantly endangered and vulnerable vegetation types, and contains exceptionally rich floral and faunal species diversity. At least 180 and 61 Red data plant and animal species are found within the District. Half of the 18 vegetation types in the municipality are classified as Endangered or Vulnerable, respectively comprising 20.5% and 61.4% of the District's land surface area. The uThukela District Municipality therefore contains a disproportionately large percentage of area classified Endangered and Vulnerable (81.9%). The demarcation and appropriate management of the best parcels of land within the uThukela District Municipality is therefore critically important for the conservation of these vegetation types in KZN.



In terms of Flora, only one formally conserved area called the Nambiti Conservancy. The lack of protected areas in the remaining areas of the District prevents the conservation of biodiversity in these areas. Natural vegetation cover is largely impacted by the continued urban sprawl taking place in the rural areas. There is a need for protected areas as the District contains critical vegetation biodiversity areas, including wetlands and grasslands that are a habitat for rare and often endangered plant species. There are four rare priority species were identified, namely *Barleria greeii*, *Barleria argillicola*, *Hemiziga bulosii* and *Calpurnia woodii*.

The fauna that inhabitant the District comprises of various mammals, arachnids, various reptile species, insects species, amphibians and various bird species. Important bird species were identified and their roosting and nesting sites were identified as critical biodiversity area. Crane critical biodiversity areas were identified within the District north and southwest of the Ladysmith Town. The proposed interventions are as follows:

- *Alien plant eradication programmes to be implemented (incl. private and Working for Water).*
- *Wetland rehabilitation programmes to be formulated and implemented (incl. private and Working for Wetlands).*
- *Appropriate burning regimes to be formulated and communities need to be educated in respect to burning of velds (incl. private and Working for Fire).*
- *Appropriate livestock and game stocking densities (adhering to agricultural norms)*
- *Sustainable harvesting of biodiversity resources*
- *Protection of nesting and roosting sites*
- *Vultures: protect nesting and roosting sites from any form of disturbance*
- *Quality control of carcasses offered in vulture restaurants*
- *Environmental education re persecution of Vultures and Ground Hornbill*
- *Expansion of Crane Custodian Programme*
- *Employ recognised procedures as per Crane Foundation and EKZNW*
- *Expansion of Oribi Custodian Programme*

16.7.2 CONSERVATION THROUGH PRODUCTION

There is no ultimate physical variance between the traditional/ communal rural areas in UThukela and the commercial farms. They are both located in the same biophysical area, with the same rainfall, similar soils, and can support similar plant and animal species. However, the major

different is the management style and land tenure system. Breakdown of co-operative communal land management has led to extensive overgrazing by wandering livestock, which has bared much of the soil in the surrounding area.

Biodiversity loss is severe, livestock are often starving during winter and early spring due to insufficient biomass and nutrition, and most wildlife has disappeared as a result of poaching. The EMF advocates for the adoption of the 'conservation through production' concept with its central tenet being increasing agricultural production while reducing the vulnerability of rural livelihoods to drought and soil erosion.

This requires the application of Community Based Natural Resource Management (CBNRM) approach to involve target communities in designing and driving their production. This will strengthen the chances of success, for both productivity and resource conservation and management.

- *Erosion prevention and rehabilitation driven from a point of soil, soil nutrient and water management for improved production.*
- *Indigenous and plantation forest development strategy that takes into account impacts of different species on the environmental resources.*
- *Proper demarcation of land uses based on land quality, potential and available resources.*

16.7.3 WATER RESOURCE MANAGEMENT

UThukela River that rises from the Drakensberg Mountains and supplies water to a large portion of Kwazulu-Natal. Other main rivers include Klip River, Sundays River, Little Tugela, Boesmans River, and Sterkspruit Rivers. The Rivers and associated wetlands with the District, particularly upper catchment wetlands, are of national importance.

One of the central concerns relating to catchment management is that planning between the responsible institutions not co-ordinated leading to the uneven distribution of water resources between urban and rural areas. Water in the streams is becoming increasingly polluted. Water pollution in the District on the rise due to industrial and agricultural activities as well as due to human settlements and coal mining on water resources. Many river systems in the district have, however, suffered environmental degradation due to the continued mismanagement and exploitation of natural resources in their catchment area.

The quality of the streams and rivers is highly affected by silt deposit due to the loss of soil erosion. Wetlands in the district have suffered as a result of degradation by human activities, the degradation is such that they are no longer able to perform their physical and hydrological function of reducing the impacts of flooding. The proposed Interventions are as follows:

- *Use existing planning forums, water/ catchment forums (such as Wasbank. Catchment forum as well as form catchment management forums to manage the river systems and their catchments.*
- *Planning in the District should occur in the context of and in close cooperation the institutions responsible for the management as well as the supply of water facilities to the district communities.*
- *Make use of the existing Thukela water project feasibility study to manage water bodies in the Districts.*
- *Involvement of communities in the management of water resources as well empowering communities with knowledge to be able to reduce the impacts of pollution in the water resources.*

16.7.4 WETLAND MANAGEMENT

Wetlands play a critical role in the ecosystem water management and biodiversity conservation. As such, they deemed to be no-go areas in terms of development on site. In the interim the following will serve as guidelines for an effective management of wetlands:

- *No activity that will result in the transformation of wetlands is recommended. Wetlands should be retained for the ecosystem goods and services they supply, therefore only rehabilitation and conservation activities are proposed within the zone.*
- *In cases where wetland impacts cannot altogether be avoided or acceptably mitigated on-site, consideration must be given to establishing off-site wetland offsets that would result in positive impacts for wetland management in the region.*
- *32m confidence buffer will be established around each wetland as on-site delineation of wetlands has not been undertaken.*

16.7.5 WASTE MANAGEMENT

The biggest challenge in the district is poor waste management in the landfill sites. The permits are there but permit conditions are not adhered to, due to lack of manpower, machinery which takes long to be repaired resulting in backlog on covering and compacting, cover material, lack of required expertise etc. Illegal dumping is a big issue in the district and the LMs are struggling to overcome the matter.

Some municipalities have very old waste by-laws but there is a problem with regards to enforcement. The pressures that UThukela District faces include the fact that waste can affect ecosystems and could change biomes if species are eradicated. Streams situated close to a waste disposal site can be contaminated from leachate generated by the landfill. Ground water can also be contaminated if leachate percolates through the ground and into aquifers.

Emissions releases pollutants into the air from landfills and illegal burning of waste some of these pollutants are volatile organic carbons such as dioxins and furans which could be harmful to health, in addition to being harmful greenhouse gases.

Sterilisation of land occurs when large volumes of waste are disposed of on the land. Hazardous waste poses a health and safety risk to the individuals exposed to it. Pathogens and viruses found in waste can pose a health risk. The disposal of waste both formally and informally changes the natural topography of land.

Litter and illegal dumping is aesthetically unpleasant and releases odours and leads to urban decay. Waste placed in low lying areas could block or impede the flow of water which could result in flooding. The value of properties situated close to the waste disposal sites may decline sharply.

The proposed interventions are as follows:

- *Establish by-laws to implement national and provincial regulations, and review of new legislation;*
- *Collection of information and data for planning and of Provincial/National requirements; Incorporating waste minimization and recycling in municipal waste management activities;*
- *Promote the development of waste minimization and recycling partnerships with the private sector;*
- *Regulate waste management activities undertaken by the Waste*
- *Management utility (collection, disposal, composting initiatives, etc.);*
- *Establish public-private partnerships; Co-ordinate collection contracts for high-density low income areas (i.e. informal settlements);*
- *Review, evaluate and report on the performance of community waste collection services and programmes;*
- *Monitoring progress on implementing waste management plan initiatives;*
- *Developing communication strategies;*
- *Enhance education and awareness on recycling to promote extensive implementation of recycling and composting practices;*
- *Undertake waste minimization, recycling and waste management education, awareness and communication programmes;*
- *Commenting on environmental impact assessment within interacting areas, such as water, air, land-use and traffic;*
- *Revise and update general waste management plans;*

- *Establish and implement waste data collection systems and Setting up pilot projects;*
- *Implement the guidelines for health care waste and hazardous waste collection and transportation;*
- *Co-operation and exchange of experience among stakeholders such as National, Provincial, other Councils and service providers.*

16.7.6 AIR QUALITY MANAGEMENT

According to the State of the UThukela District Report (2007) the major air pollutants within the District are the Dunlop and Lasher Tools companies. The evident pressures that face UThukela District are atmospheric change caused by human activities emits a variety of gases that are harmful not only to the environment, but also to development and development and survival in an area. Sulphur dioxide and nitric oxide together are deposited as acids, which are corrosive to building and harmful to ecosystems as certain plant and animal species are very sensitive to changes in soil and water acidity. Further results of atmospheric changes include climate change seasonal rainfall pattern shifts and deterioration of ground and surface water quality. The Districts has numerous factories, and industries that are major air pollutants. The proposed interventions are as follows:

- *The establishment of national norms and standards,*
- *Setting up a regulatory framework for an air quality management planning;*
- *Setting up a reporting regime and numerous regulatory instruments for the control of air pollution;*
- *Ensuring a comprehensive approach to compliance and enforcement.*
- *Protecting, restoring and enhancing the air quality in the District, having regards to specific ensure sustainable development;*
- *Providing increased opportunities for public involvement and participation in the protection of air quality;*
- *Ensuring that the public has access to relevant and meaningful information about air pollution; and*
- *Reducing risks to human health and prevent the degradation of air quality.*

17.7 SCHEME GUIDELINES

Land Use Management is guided by Chapter 5 of the Spatial Land Use Management Act. No. 16 of 2013 (SPLUMA). The provisions of the Act are as follows: SPLUMA Section 24. (1) Provides that a municipality must, after public consultation, adopt and approve a single land use scheme for its entire area within five years from the commencement of this Act. Chapter Five of SPLUMA further asserts the following provisions:

- *Section 25 Purpose and content of land use scheme.*
- *Section 26 Legal effect of land use scheme.*
- *Section 27 Review and monitoring of land use scheme.*
- *Section 28 Amendment of land use scheme and rezoning.*
- *Section 29 Consultation with other land development authorities.*
- *Section 30 Alignment of authorisations.*
- *Section 31 Record of amendments to land use scheme.*
- *Section 32 Enforcement of the land use scheme.*

The family of UThukela District Municipality is striving towards adopting and implementing a wall-to-wall scheme. Okhahlmba Local Municipality has adopted a wall-to-wall scheme. Alfred Duma has adopted the urban scheme and is currently working on the rural scheme. Inkosi Langalibalele local municipality is expanding the urban scheme, however there is an existing rural policy. The two municipalities which have not yet adopted a wall-to-wall scheme due to challenges with the Act 70 of 2002.

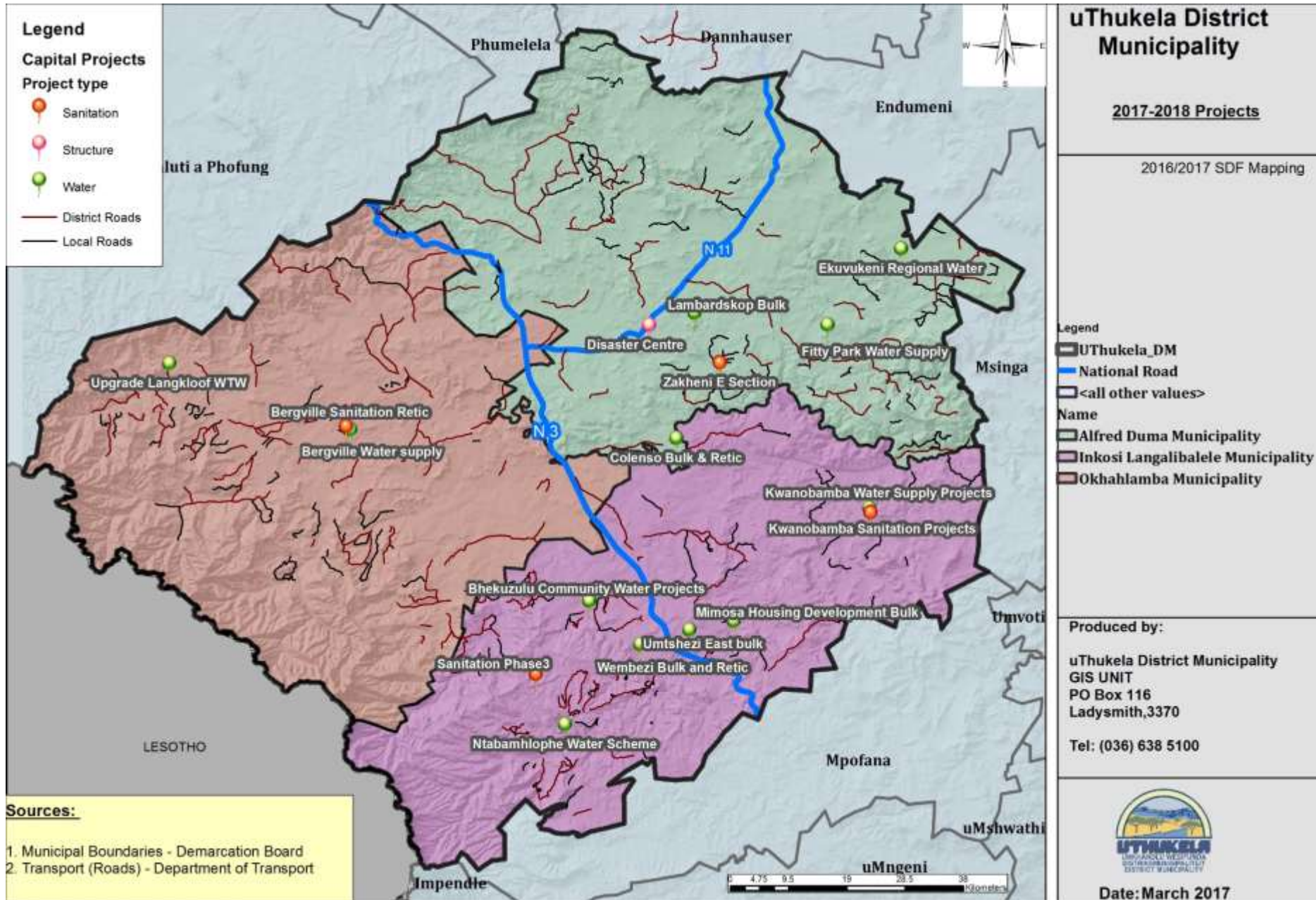
17. IMPLEMENTATION FRAMEWORK

17.1 CAPITAL INVESTMENT FRAMEWORK

A long-term bulk infrastructure investment programme was made by UThukela District Municipality in 2003 through the Water Services Development Plan. This plan was further reviewed and intensified in 2007 with the view to ensure that it gives the district a clear picture about how it is supposed to roll-out water and sanitation infrastructure from 2007 to 2027 (or a 20 year period). Although, this plan is now old, it however still very relevant and aligned to the development trajectory that the SDF has proposed. In a sense that bulk infrastructure is proposed within the areas that are considered to be growth points. The other similarities that are also noted are that the long-term extension of bulk infrastructure is proposed along the same lines as the areas for future growth. The short term proposals are as follows:

The medium term (6 – 10 years) proposals are:

- *A gravity feed pipeline will be constructed from the Aasvoelkop reservoir to the Mthembu West and East communities (Emnambithi/Ladysmith Municipality) with new reticulation networks.*
- *Supply the Waaihoek North area directly from a*



connection on the Oliphantskop rising main. In addition the Ekuvukeni South area will be supplied via pipelines extending from the Rockcliff reservoir. The uMhlumayo East and Tugela Estates areas will be supplied from the previously constructed uMhlumayo bulks, and the existing package treatment works at Tugela Estates can be decommissioned and utilised elsewhere.

- *Supply the community currently settled on the farm “Labuschagnes Kraal” via a connection from the neighbouring Colenso supply. The supply to the community settled on the*
- *“Cromley Bank” farm will be via a connection from the Aasvoelkop reservoir. The reservoir supplying the “Cromley Bank” community will be situated and sized to enable a future gravity connection to the “Ganna Hoek” and “Klip Berg” land reform areas. The Greater Cornfields-Thembalihle area will be supplied with bulk water from the Estcourt WTW. It is anticipated that an upgrade of the WTW will be required to accommodate both this connection and the connection to Ntabamhlope. Water will be pumped from Estcourt to a single reservoir located in the Greater Cornfields-Thembalihle area. The pipeline supplying this area will be sized to accommodate a connection for the supply of Rensburgs Drift and a future connection to Frere.*
- *The WTW at Zwelisha will be upgraded to a capacity of 4Ml/d and the supply area extended to include Okhombe, Obonjani, and the Busingatha communities. Some of these communities also require reticulation development. The WTW will also link into the existing reticulation schemes of Newstand and Langkloof. A large bulk reservoir will be constructed above Langkloof, to supply large areas North of the Woodstock Dam via a gravity pipeline.*
- *The Emmaus area will be supplied via a pumping main from the Bergville WTW to a single bulk reservoir located in Emmaus. The Bergville WTW will require an upgrade to accommodate this additional supply.*
- *Completion of both the Amangwe/ Loskop scheme and the Ntabamhlope North scheme will occur during this period offering a standpipe level of service to a total of approximately 115,000 people.*

The long term (11 – 20 years) proposals are:

- *The current underutilised capacity at the Ladysmith WTW will be used to supply bulk water to the Driefontein block via a rising main and three large bulk reservoirs located north of Burford, Driefontein and Amahuku. This bulk system will connect into the existing reticulations currently in place infrastructure constructed in Phase 2 (6 – 10 Yrs). The boreholes currently supplying these schemes will be decommissioned and where possible pumps will be relocated to outlying stand-alone schemes. The fourth phase of the Driefontein extension will be completed during this period. A gravity pipeline will be constructed from Aasvoelkop reservoir to the Colenso area. This pipeline will connect into the existing bulk infrastructure and the Colenso WTW will be decommissioned. This will improve the quality of service currently experienced in Colenso.*

- *It is planned to supply the Ekuvukeni North area via a pumped pipeline from the existing reservoirs supplying Ekuvukeni. The Waaihoek Extension will be supplied via a pumped pipeline supplying a new reservoir located above Isoye.*
- *It is planned to supply bulk water to Frere during this period and to construct reticulation and bulk supplies to the Wembezi North area. The gravity pipeline from the Cromley Bank reservoir and the reticulation supplying the “Ganna Hoek” land “Klip Berg” land reform areas will be constructed during this period.*
- *Construction of a gravity feed pipeline from the bulk reservoir at Langkloof to the land reform areas of Waterloo and Kameel Draai, with associated reticulation. A gravity connection into the existing Rookdale, Woodford and Bethany schemes will reduce the demand on the Bergville WTW. The excess capacity generated at the WTW will allow water from Bergville to be pumped to Hambrook and the Greenpoint Complex via Acton Homes which will need a reticulation scheme.*
- *The entire Ntabamhlophe South area, except for the Power community, currently has a basic level of service in the form of stand-alone schemes. It is planned to incorporate these schemes into the Ntabamhlophe North bulk supply and reticulate to Power during this period.*

The vision (beyond 20 years) proposals are:

- *A combined gravity pipeline and rising main will connect the Burford North reservoir to a new bulk reservoir above the Matiwanoskop community. This reservoir will supply, via a gravity pipeline, the land reform areas of Driefontein and Steincoalspruit. An alternative supply to Driefontein Farm and Steincoalspruit is from Glencoe and Wasbank.*
- *A pumped bulk supply pipeline from the Ezakheni WTW via Colenso will be constructed to supply Roosboom with a reliable bulk supply.*
- *It is planned to decommission the Oliphantskop WTW during this period by constructing a pipeline from the existing Ezakheni WTW. Once the supply from Ezakheni has been developed the reticulation networks supplying the UMhlumayo North East and North West areas can be completed.*
- *The land reform areas located around the Weenen area will be serviced with bulk water from a new WTW located in Weenen.*
- *Currently independent operators undertake the water service provision in the Cathkin Park area. These independent operators function as Water Service Intermediaries. There are plans to develop a water supply dam, which could be used to develop bulk water supplies to the Cathkin Park area to improve water quality and reliability.*
- *The current stand-alone schemes of Draycott and Ephangweni will be supplied bulk water from Loskop via a pumped pipeline connecting into the existing reticulation.*

17.2 SPATIAL PLANNING PROJECTS

17.2.1 DISTRICT WIDE AREAS OF INTERVENTION

PROJECT NAME	PROJECT DESCRIPTION	TOTAL BUDGET	MEDIUM TERM EXPENDITURE FRAMEWORK		
			2015/ 2016	2016/ 2017	2017/ 2018
Post Land Reform Settlement Plans	To prepare a settlement plan for each farm that has been transferred to the beneficiaries in order to avoid the degradation or transformation of agricultural land into pockets of rural settlements. This should be done in tandem with the Department of Rural Development and Land Reform.	R 1 000 000.00	R 400 000.00	R 400 000.00	R 200 000.00
TOTAL		R 2 000 000.00	R 1 400 000.00	R 400 000.00	R 200 000.00

17.2.2 WATER INFRASTRUCTURE PROJECTS

A total of R267 million will be allocated towards water infrastructure as per the following grant allocations.

A total of R267 million will be allocated towards water infrastructure as per the following grant allocations. GRANTS	2015/2016	2016/2017	2017/18
CAPITAL GRANTS			
MUNICIPAL INFRASTRUCTURE GRANT (MIG)	181 247 000	178 506 000	
RURAL HOUSEHOLD INFRASTRUCTURE GRANT (RHIG)	4 382 000	4 500 000	
RURAL ROAD ASSET MANAGEMENT GRANT (RRAM)	2 311 000	2 378 000	
MUNICIPAL WATER INFRASTRUCTURE GRANT (MWIG)	50 000 000	81 807 000	
TOTAL	237 940 000	267 191 000	

Other grants that are expected to be received but have been excluded from the budget as prescribed by treasury are:

REGIONAL BULK INFRASTRUCTURE GRANT	80 000 000
RURAL HOUSEHOLD INFRASTRUCTURE GRANT (RHIG)	4 500 000
	<u>84 500 000</u>

18.2.3 CAPITAL PROJECTS 2017/18

The following projects are budgeted for in the 2017/18 financial year:

						MSCOA COMPLIANT		
Objectives	Strategies	Outcome 9 out put	Back 2 basics pillar	Project ID and Name	Funder and Budget	Project Segment	Function	Region

To eradicate water services backlogs KPA1- BSD 001	Expand and provision of bulk water infrastructure	Improved access to basic services	Pillar 2 Adequate and community oriented service provision	Bhekuzulu/Ephangweni Community Water Supply Scheme (Phase 5,7,8) - supply water to the community of Inkosi Langalibalele	MIG- R 30 000 000.00	Capital- New Infrastructure water	Water, sanitation and technical services	KZN-UTDM-Inkosi Langalibalele Local Municipality – Ward 12
To eradicate water services backlogs KPA1-BSD 002	Expand and provision of bulk water infrastructure	Improved access to basic services	Pillar 2 Adequate and community oriented service provision	Bhekuzulu/Ephangweni Community Water Supply Scheme (Phase 1 & 2) - supply water to the community of Inkosi Langalibalele	MWIG- R 22 000 000.00	Capital- New Infrastructure water	Water, sanitation and technical services	KZN-UTDM-Inkosi Langalibalele Local Municipality – Ward 12
To eradicate water services backlogs KPA1-BSD 003	Expand and provision of bulk water infrastructure	Improved access to basic services	Pillar 2 Adequate and community oriented service provision	Kwanobamba/Ezitendeni Water Supply Project (Phase 2A,2B,2C) - supply water to the community of Inkosi Langalibalele	MIG- R 18 000 000.00	Capital- New Infrastructure water	Water, sanitation and technical services	KZN-UTDM-Inkosi Langalibalele Local Municipality-Ward 5,8
To eradicate water services backlogs KPA1-BSD004	Expand and provision of bulk water infrastructure	Improved access to basic services	Pillar 2 Adequate and community oriented service provision	Kwanobamba/Ezitendeni Water Supply Project (Phase 1F) - Supply water to the community of Inkosi Langalibalele	WSIG- R 12 000 000.00	Capital- New Infrastructure water	Water, sanitation and technical services	KZN-UTDM-Inkosi Langalibalele Local Municipality-Ward 5,8
To eradicate water services backlogs KPA1-BSD005	Expand and provision of sewer borne system	Improved access to basic services	Pillar 2 Adequate and community oriented service provision	Kwanobamba/Ezitendeni Sanitation Project (Phase 1A) – Provide sewer borne system to the community of Inkosi Langalibalele	MIG R11 000 000.00	Capital- New Infrastructure water	Water, sanitation and technical services	KZN-UTDM-Inkosi Langalibalele Local Municipality – Ward 5,8

To eradicate water services backlogs KPA1-BSD006	Expand and provision of sewer borne system	Improved access to basic services	Pillar 2 Adequate and community oriented service provision	Kwanobamba/Ezitendeni Sanitation Project (WWTW) – Provide Waste Water Treatment Works to the community of Inkosi Langalibalele	MIG R18 000 000.00	Capital- New Infrastructure water	Water, sanitation and technical services	KZN-UTDM-Inkosi Langalibalele Local Municipality – Ward 5,8
To eradicate water services backlogs KPA1-BSD007	Expand and provision of bulk water infrastructure	Improved access to basic services	Pillar 2 Adequate and community oriented service provision	Ntabamhlophe Water Scheme (Phase 11,12,13) – Supply water to the community of Inkosi Langalibalele	MIG R25 500 000.00	Capital- New Infrastructure water	Water, sanitation and technical services	KZN-UTDM-Inkosi Langalibalele Local Municipality – Ward 2
To eradicate water services backlogs KPA1-BSD008	Expand and provision of bulk water infrastructure	Improved access to basic services	Pillar 2 Adequate and community oriented service provision	Wembezi Water Stage 1 (Bulk & Retic)– Supply water to the community of Inkosi Langalibalele	WSIG R14 000 000.00	Capital- New Infrastructure water	Water, sanitation and technical services	KZN-UTDM-Inkosi Langalibalele Local Municipality
To eradicate water services backlogs KPA1-BSD009	Expand and provision of bulk water infrastructure	Improved access to basic services	Pillar 2 Adequate and community oriented service provision	Mimosadale Housing Development Bulk Water Supply– Supply water to the community of Inkosi Langalibalele	WSIG R14 000 000.00	Capital- New Infrastructure water	Water, sanitation and technical services	KZN-UTDM-Inkosi Langalibalele Local Municipality – Ward 23
To eradicate water services backlogs KPA1-BSD0010	Expand and provision of VIP Latrines	Improved access to basic services	Pillar 2 Adequate and community oriented service provision	Inkosi Langalibalele Sanitation Phase 3 – Provide VIP Latrines to the community of Inkosi Langalibalele	WSIG R4 500 000.00	Capital- New Infrastructure water	Water, sanitation and technical services	KZN-UTDM-Inkosi Langalibalele Local Municipality – Ward 7

To eradicate water services backlogs KPA1-BSD0011	Expand and provision of bulk water infrastructure	Improved access to basic services	Pillar2 Adequate and community oriented service provision	Bergville Phase 2 Sewer Retic –provision of the sewer borne system to supply water to the community of Okhahlamba	MIG R12 000 000.00	Capital- New Infrastructure water	Water, sanitation and technical services	KZN-UTDM-Okhahlamba LM-ward12
To expand and maintain road infrastructure in order to improve access and promote LED KPA1-BSD0012	Provision of public transport facilities and infrastructure in the rural areas	Improved access to basic services	Pillar2 Adequate and community oriented service provision	Rural Road Asset Management System assessment of improved Tarred roads , infrastructure and promote development	DOT/RRAMS R2 300 000	Capital-New Infrastructure-Roads	Water, sanitation and technical services.Dep. of Transport	KZN-UTDM-District wide
To eradicate water services backlogs KPA1-BSD0013	Expand and provision of bulk water infrastructure	Improved access to basic services	Pillar2 Adequate and community oriented service provision	Fitty Park Water Supply Project Phase 2 supply scheme - supply water to the community Alfred Duma.	MIG R16 000 000.00	Capital- New Infrastructure water	Water, sanitation and technical services	KZN-UTDM-Alfred Duma-ward 7,28,31
To eradicate water services backlogs KPA1-BSD0014	Expand and provision of bulk water infrastructure	Improved access to basic services	Pillar2 Adequate and community oriented service provision	Ezakheni E Sanitation Infrastructure Upgrade supply scheme - supply water to the community Alfred Duma.	MIG R14 000 000.00	Capital- New Infrastructure water	Water, sanitation and technical services	KZN-UTDM-Alfred Duma-ward 6,8
To eradicate water services backlogs KPA1-BSD0015	Expand and provision of bulk water infrastructure	Improved access to basic services	Pillar2 Adequate and community oriented service provision	Ekuvukeni Regional Water Supply Scheme - supply water to the community Alfred Duma.	MIG R30 000 000.00	Capital- New Infrastructure water	Water, sanitation and technical services	KZN-UTDM-Alfred Duma-ward 33

To eradicate water services backlogs KPA1-BSD0016	Expand and provision of bulk water infrastructure	Improved access to basic services	Pillar 2 Adequate and community oriented service provision	Lombardskop Bulk Water Feeder Main & Appurtenant Works supply water to the community Alfred Duma. (Zoning/Bulk meters)	WSIG R5000 000 .00	Capital- New Infrastructure water	Water, sanitation and technical services	KZN-UTDM- Alfred Duma- all wards
To eradicate water services backlogs KPA1-BSD0017	Expand and provision of bulk water infrastructure	Improved access to basic services	Pillar 2 Adequate and community oriented service provision	Colenso Bulk & Retic supply water to the community Alfred Duma.	Rand Water R30 000 000.00	Capital- New Infrastructure water	Water, sanitation and technical services	KZN-UTDM- Alfred Duma- ward 25
To respond to disasters swiftly KPA1-BSD0018	Emergency Relief	Basic Service Delivery	Pillar 2 Adequate and community oriented service provision	Disaster Centre Phase 2	MIG R10 000 000.00	Capital- New Infrastructure- disaster centre	Water, sanitation and technical services	KZN-UTDM- District wide
To respond to disasters swiftly KPA1-BSD0019	Expand and provision of bulk water infrastructure	Basic Service Delivery	Pillar 2 Adequate and community oriented service provision	Umtshezi East Bulk Water supply scheme - supply water to the community Inkosi Langalibalele	MIG R5 000 000.00	Capital- New Infrastructure water	Water, sanitation and technical services	KZN-UTDM- Inkosi Langalibalele-
To eradicate water services backlogs KPA1-BSD0020	Expand and provision of bulk water infrastructure	Improved access to basic services	Pillar 2 Adequate and community oriented service provision	Bergville Water Supply Project - supply water to the community of Okhahlamba	MIG R3 000 000.00	Capital- New Infrastructure water	Water, sanitation and technical services	KZN-UTDM- Okhahlamba LM- all wards

To eradicate water services backlogs KPA1-BSD0021	Expand and provision of bulk water infrastructure	Improved access to basic services	Pillar2 Adequate and community oriented service provision	Upgrade and refurbishment of Bergville Water Treatment Works & Appurtenant Works supply water to the community	WSIG R10 000 000.00	Capital- Upgrade Infrastructure water	Water, sanitation and technical services	KZN-UTDM-Okhahlamba all wards
To eradicate water services backlogs KPA1-BSD0022	Expand and provision of bulk water infrastructure	Improved access to basic services	Pillar2 Adequate and community oriented service provision	Upgrade and refurbishment of Langkloof Water Treatment Works & Appurtenant Works supply water to the community	WSIG R8 000 000.00	Capital- Upgrade Infrastructure water	Water, sanitation and technical services	KZN-UTDM-Okhahlamba
To eradicate water services backlogs KPA1-BSD0023	Expand and provision of bulk water infrastructure	Improved access to basic services	Pillar2 Adequate and community oriented service provision	Spring Protection & Appurtenant Works supply water to the community	WSIG R3 000 000.00	Capital- Upgrade Infrastructure water	Water, sanitation and technical services	KZN-UTDM-District wide