



## SPATIAL DEVELOPMENT FRAMEWORK OF THE MKHAMBATHINI LOCAL MUNICIPALITY



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## 1 BACKGROUND & INTRODUCTION

### 1.1 BACKGROUND TO THE STUDY

The 2007 Mkhambathini SDF was prepared, as part of the Mkhambathini Integrated Development Plan and the Municipal Council is required to periodically review it in accordance with the requirements of the Municipal Systems Act.

Section 26 (e) of the Local Government: Municipal Systems Act, No. 32 of 2000 (the “MSA”) requires all municipalities to compile Spatial Development Frameworks (the “SDF”) as a core component of Integrated Development Plans (the “IDP”). Many Municipalities have developed SDFs, either in silos or supported (technically and/or financially) by the Department of Rural Development and Land Reform (DRDLR) or by their respective provinces. Different SDF development approaches were applied depending on who was managing or had been contracted to undertake the project.

Furthermore, the Department of Rural Development and Land Reform has acknowledged that various rural municipalities within South Africa do not enjoy the same level of Spatial Planning as that of the urban areas and have embarked on a process to assist a number of these rural municipalities, including Mkhambathini, with financial contributions towards securing the services of a Professional Service Provider to formulate a rural-based Spatial Development Framework for the municipality.

The Mkhambathini Municipality through the assistance of the Department of Rural Development and Land Reform, enlisted the services of Vuka Planning Africa Inc. to undertake the review of the existing SDF and preparation of a detailed Spatial Development Framework (SDF) for the Mkhambathini Municipal Area.

### 1.2 STUDY OBJECTIVES

The main objective of the project is to review and update the Spatial Development Framework which was last reviewed in 2007 in order to address spatial, environmental and economic issues confronting the Mkhambathini Municipality.

This process will be guided by, and comply with a number of legislative pieces which include the Municipal Systems Act and the Municipal Planning and Performance Management Regulations, 2001, read together with the Spatial Planning and Land Use Management Act, 2013 (Act 16 of 2013). The required SDF must therefore-

- 1) give effect to the principles contained in chapter 1 of the Development Facilitation Act 1995 (Act No. of 67 1995);
- 2) set out objectives that reflect desired- spatial form of the municipality;
- 3) contain strategies, policies and plans which must-
  - Indicate desired patterns of land use within the municipality;
  - Address the spatial reconstruction of the location and nature of development within the municipality; and
  - Provide strategic guidance in respect of the location and nature of development within the municipality;
- 4) set out basic guidelines for land use management system in the municipality;
- 5) contain a strategic assessment of the environmental impact of the SDF;
- 6) identify programs and projects for the development of land within the municipality;
- 7) be aligned with the SDFs reflected in the integrated development plans of neighbouring municipalities; and
- 8) provide a visual representation of the desired spatial form of the municipality, which representation:

- must indicate where public and private land development and infrastructure investment should take place;
- must indicate desired or undesired utilisation of space in a particular area;
- delineate the urban edge;
- must identify areas where strategic intervention is required; and
- must indicate areas where priority spending is required.

### 1.3 STUDY APPROACH

The approach and execution of this study is guided by the following key principles;

1. **Rural specific:** Considering, promoting and developing the rural character of the municipality, while ensuring a co-ordination between the urban-rural continuum and the interdependencies of the rural economies and the urban and peri-urban centres.
2. **Integration:** Using the spatial basis of the study for *a)* the integration of development intention between the municipality and surrounding municipalities including the district municipality, *b)* the physical integration of fragmented areas within the municipality towards improved economic imputes and service delivery and *c)* sectoral integration of various public and private contributors and departments toward co-ordinated development of individual projects.
3. **Strategic Direction:** Providing strategic analysis and direction to the effective utilisation of land within the municipality towards social, economic and environmental development while addressing current and historic deficiencies and providing future spatial direction within the context of the unique spatial structure of the municipality.
4. **Land Use Management:** Ensuring that the SDF serves as an effective intermediate between the development intentions within municipality and the practical and responsible management of land uses. Thus providing sufficient intended land use direction to the further development of the land use management system and future planning schemes within the municipality.

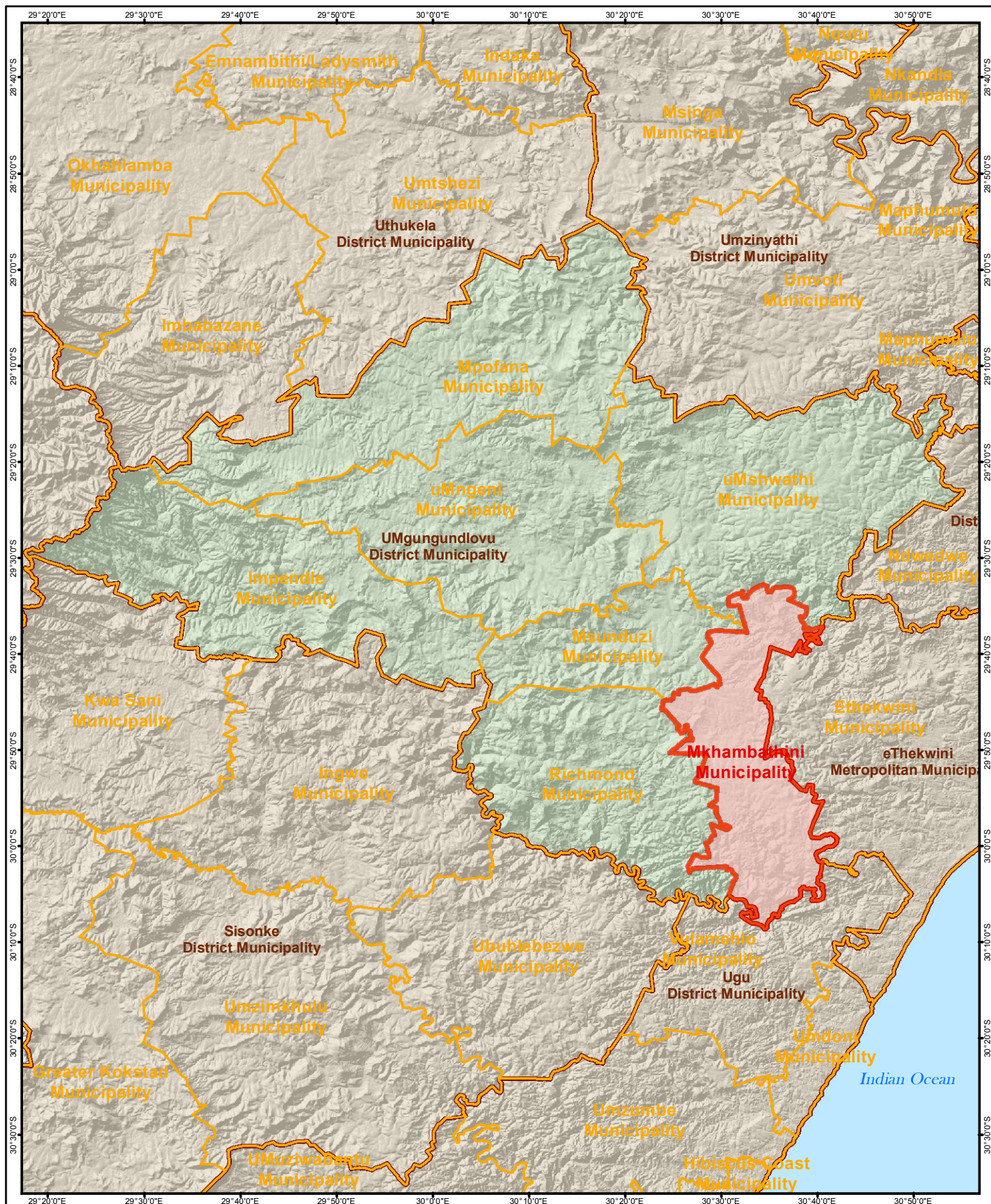
### 1.4 DELINEATION OF STUDY AREA

The Mkhambathini Local Municipality is one of seven Local Authorities within the uMgungundlovu District Municipality, which is situated within south western KwaZulu-Natal.

The Mkhambathini Local Municipality is located on the south eastern boundary of the District Municipality. The Municipal area is approximately 917 km<sup>2</sup> and is the second smallest municipality within uMgungundlovu District Municipality. The Municipality further consists of 7 wards with a large part of the municipality being rural in nature with a underdeveloped infrastructure base to develop the area.

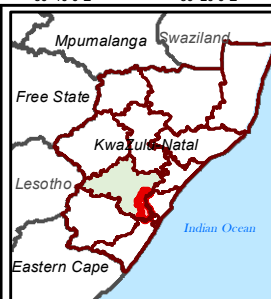
Please refer to Map 1: Regional Location for a depiction of the municipality's locality.





## Legend

- District Municipalities
- Local Municipalities
- Mkhambathini Municipality
- Roads**
- National
- Provincial



## MKHAMBATHINI

SPATIAL DEVELOPMENT FRAMEWORK 2014-2017

### Map 1: Regional Location

Date: 2013-11-27

Projection: Geographic

Datum: WGS84



Kilometers  
0 2.5 5 10 15

Quartex Technologies  
www.quartex.co.za  
Email: info@quartex.co.za

**VUKA**  
AFRICA  
Vuka Planning Africa Inc  
www.vukaplan.co.za  
Email: Risaan@vukaplan.co.za



## 2 POLICY ENVIRONMENT

### 2.1 NATIONAL POLICIES

#### 2.1.1 National Spatial Development Perspective

The National Spatial Development Perspective (NSDP) was an initiative by the National Government to provide direction and guidelines for spatial planning in order to ensure the eradication of the spatially segregated growth pattern that still exists today. The key objectives of the NSDP are to:

- provide a framework within which to discuss the future development of the national space economy by reflecting the localities of severe deprivation and need, of resource potential, of infrastructure endowment and of current and potential economic activity by describing the key social, economic and natural resource trends and issues shaping the national geography.
- act as a common reference point for national, provincial and local governments to analyse and debate the comparative development potentials of localities in the country by providing a coarse-grained national mapping of potential.
- identify key areas of tension and/or priority in achieving positive spatial outcomes with government infrastructure investment and development spending
- provide national government's strategic response to the above for a given time frame.

From the above data certain maps were produced that depicted the above mentioned information. Applicable to the Spatial Development Framework are the maps and information depicted in the diagrams below.

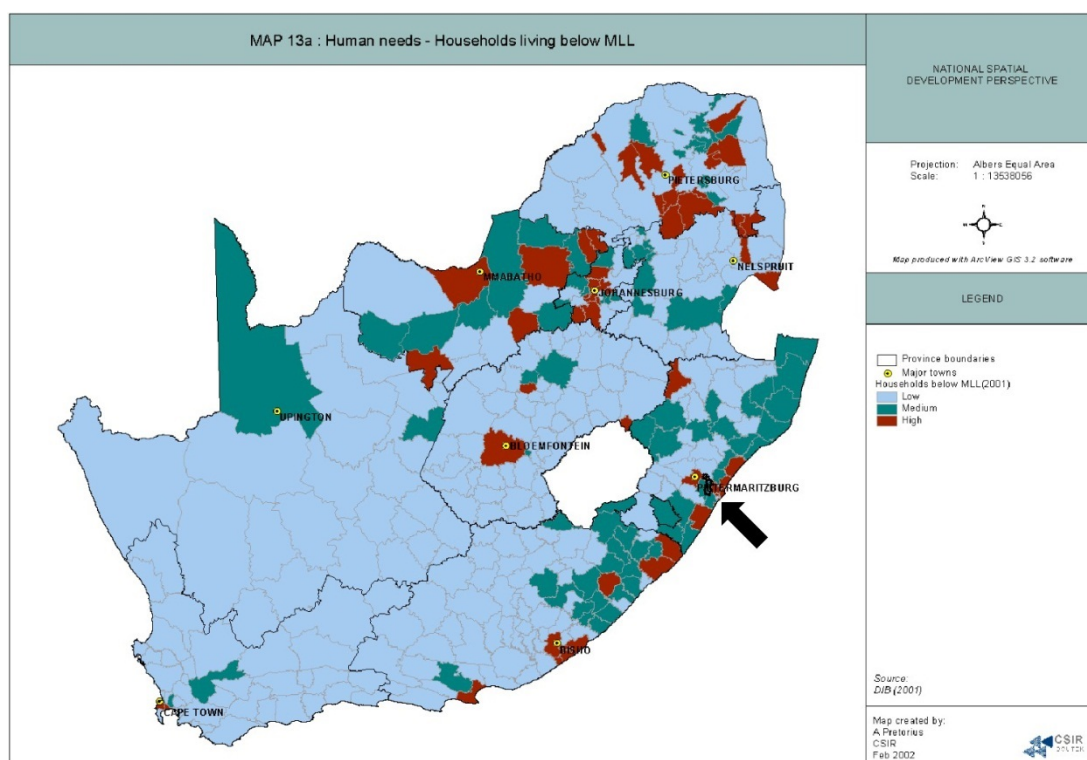
##### 2.1.1.1 MINIMUM LEVEL OF LIVING

The Minimum Living Level indicates those areas where the largest number of people is living below the minimum standard of living. These areas include some rural districts of the former homelands but the highest number of people below the minimum living level is in the large metropolitan areas.

On the map below, Mkhambathini marked by its boundary in black on the map, is classified as an area with a **“low”** and **“medium”** occurrence of people living below the MLL. The document did not specify clearly what the definition of a medium occurrence entails, but we interpret this to indicate that at least 50% of the population is living under the minimum Level of Living. This is quite a significant number of people, and it must be kept in mind that a very large part of the population receives a very low income. This “medium” occurrence is therefore also indicative of a larger problem in the area.



Figure 1: Households Living Below MLL

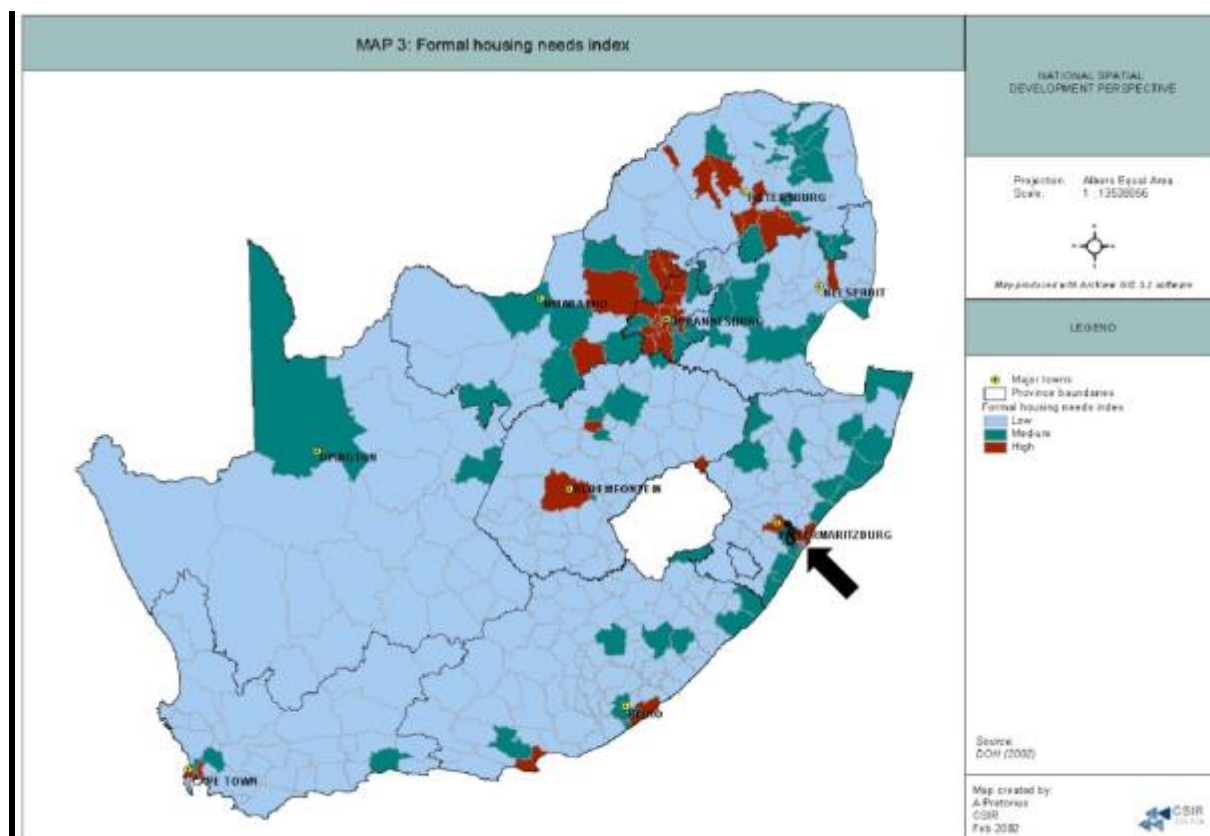


Source: NSDP

#### 2.1.1.2 FORMAL HOUSING NEEDS INDEX

Mkhambathini is depicted as having a low to medium need for formal housing. Unfortunately the NSDP does not qualify what is meant by a medium need for formal housing, apart that we can derive it means that there is a need, but the need is not as great as in other municipalities. This information can be verified through studying the Housing Sector plans of the Municipalities.

Figure 2: Formal Housing Needs Index

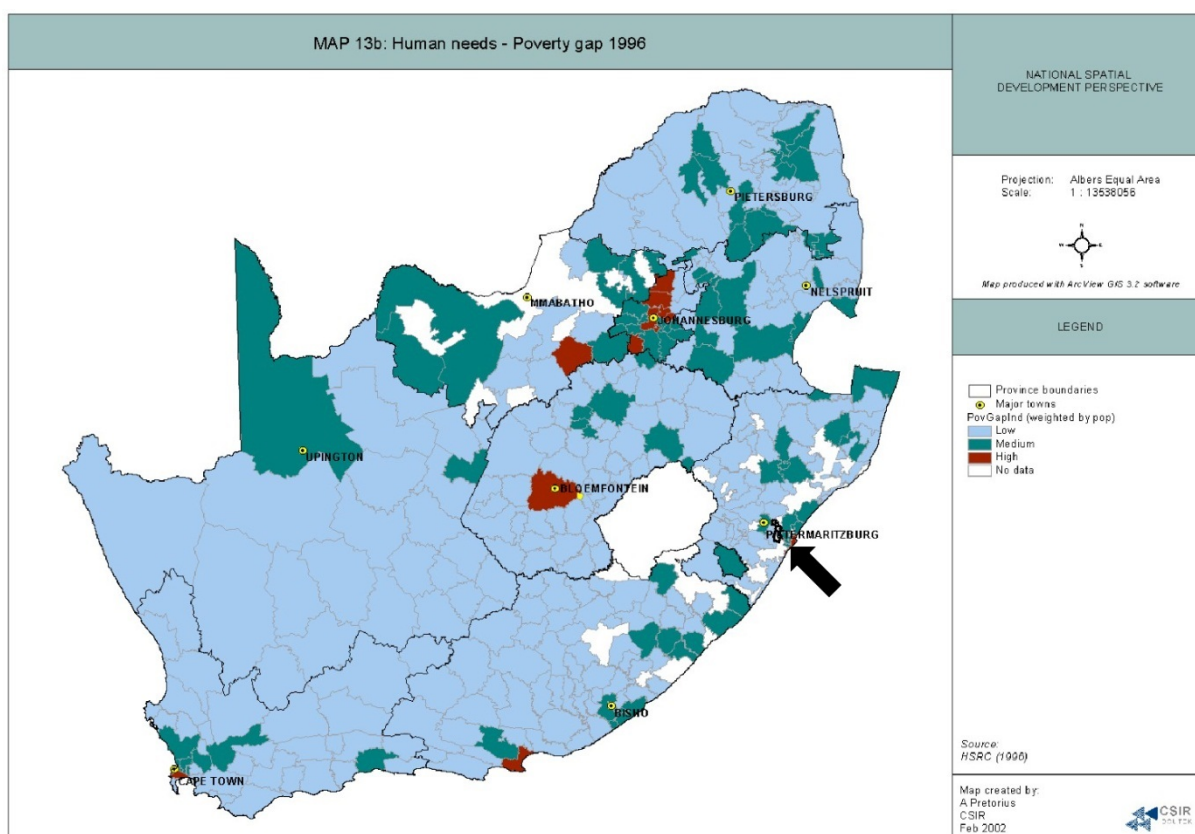


Source: NSDP

### 2.1.1.3 POVERTY GAP INDEX

The poverty gap index indicates the extent of the difference between actual income and income required to sustain a minimum standard of living. Mkhambathini is classified as having a **low** and **medium** poverty gap index. Poverty gap index varies from area to area, and depends on the cost of food, education, shelter etc, within a specific area. A **Low** poverty gap index indicates that the area has relatively low level of living costs, and the earnings of population co-insides with the cost of living. Although it is not cheap to live in this area, it is more affordable to live here, than it is to live in the main centres of the country where living costs are very high.

Figure 3: Poverty Gap



Source: NSDP

### 2.1.2 Comprehensive Rural Development Programme

With this Municipality being a predominantly Rural Municipality, there are various rural policies from the Department of Rural Development & Land Reform to be considered. Overarching to these strategies is the Comprehensive rural Development Programme, which has as its aim the development of rural South Africa, to create Vibrant, sustainable and equitable rural communities. The CRDP is different from past government strategies in rural areas due to its approach which focuses on proactive participatory community-based planning rather than an interventionist approach to rural development.

National government envisages the rural development to be done through agrarian transformation, which implies the rapid and fundamental change in the relations (systems and patterns of ownership and control) of land, livestock, cropping and the communities. The strategic objective of this approach is *“social cohesion and Development”*

The diagram below depicts the relationship between the components of the Comprehensive Rural Development Programme, what aspects needs to be addressed under each component, and how they should interact to reach the strategic goal of Social Cohesion on the Rural Areas.

Figure 4: Strategic Objectives Social Cohesion &amp; Development



It must be noted that this is only a strategy, which differs in its approach from the NSDP in the sense that it does not make reference to specific areas/municipalities, or prescribe what actions need to be taken within specific municipalities. It merely outlines the aspects that must be addressed to ensure the comprehensive development of rural areas.

Not all aspects as listed under the three components (e.g. land redistribution/restitution), are applicable to the development of a Spatial Development Framework, as the SDF is a planning tool that focuses on land use irrespective of the ownership. Redistribution for example is a political aspect/tool which focuses on land ownership, and more specifically the ownership of agricultural land.

The aspects that are applicable to land use, include items such as Economic & Social Infrastructure, Public Amenities and the protection of agricultural land and activities. These aspects will form an integral part of all the phases of this SDF from analysis to project proposals. The Spatial Development Framework will be the tool that ensures the future development of the rural Municipalities by providing direction on the provision of facilities, and identifying economic catalytic projects which will kick-start the development and exponential growth of the rural communities in all areas that is deemed as being part of a vibrant community.

### 2.1.3 Accelerated and Shared Growth Initiative (ASGI-Sa)

The Goals of ASGI-SA is the following:

- Formulate medium-term educational interventions to raise the level of skills in areas needed by the economy as immediate measures to acquire the skills needed for the implementation of ASGI-SA projects.
- Ensure skills transfer to new graduates by deployment of experienced professionals and managers to local governments to improve project development, implementation and maintenance capabilities.
- Leverage the increased levels of public expenditure, especially investment expenditure, to promote small businesses and Broad-Based Black Economic Empowerment.
- Focus on expanding and accelerating access to economic opportunities including skills development and finance for women.
- Leverage through Broad Based Black Economic Empowerment to support shared growth.

Support efforts to establish new venture funds for small, medium and micro enterprises.

The Accelerated and Shared Growth Initiative (ASGI-SA) is aimed at the development of South Africa As a whole, but with the emphasis on development of previously disadvantaged areas. The broader aim is therefore not only to promote economic development, but to empower the communities through active involvement in projects. This empowers communities through skills development to be able to participate in the formal economy and labour market.

This obviously has implications on an institutional as well as physical/spatial level. To have an impact on communities, it is necessary to ensure that public investment expenditure, which are to promote small businesses and Broad-Based Black Economic Empowerment, be implemented in areas with the highest economic need. The occurrence of Economic need should coincide with areas which have the highest physical need as well, translated into the lack of services. The provision of services through a labour intensive, Extended Public Works Program will provide investment in the municipality as well as provide training and skills. Through preferential procurement procedures, emerging contractors/entrepreneurs will be able to participate in the formal economy.

The goal of uplifting poor areas implies that the strategies to be implemented by ASGISA, targets communities within the poorest rural areas of South Africa, where the second economy (which needs to be combatted) functions. The National Spatial Development Perspective indicated that the poverty levels of Mkhambathini are of such significance that it is depicted on national level as one of the poorer areas. The philosophy for implementing projects geared towards ASGI-SA in Mkhambathini is thus obvious.

### 2.1.4 Industrial Policy Action Plan

In January 2007 Cabinet adopted the National Industrial Policy Framework (NIPF) which sets out Government's broad approach to industrialisation with the following core objectives:

- To facilitate diversification beyond our current reliance on traditional commodities and non-tradable services. This requires the promotion of increased value-addition characterised particularly by movement into non-traditional tradable goods and services that compete in export markets as well as against imports.
- The long-term intensification of South Africa's industrialisation process and movement towards a knowledge economy.
- The promotion of a more labour-absorbing industrialisation path with a particular emphasis on tradable labour-absorbing goods and services and economic linkages that catalyse employment creation.
- The promotion of a broader-based industrialisation path characterised by the increased participation of historically disadvantaged people and marginalised regions in the mainstream of the industrial economy.

- Contributing to industrial development on the African continent, with a strong emphasis on building its productive capacity.

Prior to the global economic crisis of 2008, South Africa achieved a relatively high growth rate, which masked a number of structural challenges within the South African Economy.

By further investigating these challenges it became clear that a need exist to develop a comprehensive and integrated response to scale up industrial development.

Important to note is the role of IPAP in relation to other policies, which advances the work of the Economic Sectors and employment clusters in the following ways:

- Rural development through interventions in a range of sectors such as agro processing, bio-fuels, forestry, cultural industries, aquaculture, tourism
- Advanced technological capabilities through interventions in the nuclear, advanced materials, aerospace, and ICT industries
- A serious first step towards the systematic promotion of Green and energy-efficient goods and services.
- Downstream mineral beneficiation
- Strengthened linkages between Tourism and Cultural industries
- Stronger integration between sector strategies, skills development plans and commercialisation of publicly funded innovation.
- Macro-economic stability through:
  - Improvements in the trade balance
  - Lowering of inflationary pressures through increased supply and competition in a range of sectors
  - It has a profound positive net revenue impact
  - It contributes to medium to long-term diversification of the economy and hence risk mitigation.
- A substantial contribution to the creation of decent jobs, both directly and indirectly.

To support IPAP the following policies were developed, and is critical to facilitate the implementation of Industrial Development. These policies include:

1. Stronger articulation between macro and micro economic policies
2. Industrial financing channelled to real economy sectors.
3. Leveraging public and private procurement to raise domestic production and employment in a range of sectors, including alignment of B-BBEE and industrial development objectives, and influence over private procurement.
4. Developmental trade policies which deploy trade measures in a selected and strategic manner, including tariffs, enforcement and SQAM (standards, quality assurance and metrology) measures.
5. Competition and regulation policies that lower costs for productive investments and poor and working class households.
6. Skills and innovation policies that are aligned to sectoral priorities.
7. Deploying these policies in general and in relation to more ambitious sector strategies, building on work already done

Each of the above policies identifies key programmes, including milestones to monitor the progress of implementation of the strategy.

The Industrial Policy Action Plan focuses on three clusters of production sectors to be developed/expanded.

Cluster 1 – Qualitatively new areas of focus

- Realising the potential of the metal fabrication, capital and transport equipment sectors, particularly arising from large public investments;



- 'Green' and energy-saving industries;
- Agro-processing, linked to food security and food pricing imperatives;

Cluster 2 – Scale up and broaden interventions in existing IPAP sectors

- Automotive, components, medium and heavy commercial vehicles
- Plastics, pharmaceuticals and chemicals
- Clothing, textiles, footwear and leather
- Biofuels
- Forestry, paper, pulp and furniture
- Strengthening linkages between cultural industries and tourism
- Business process servicing'

Cluster 3 – Sectors with potential for long-term advanced capabilities

- Nuclear
- Advanced materials
- Aerospace

The realities and impact on local authorities includes the implementation and enforcement of policies:

- Procurement of Industrial Financing
- Development and implementation of a Competition Policy
- Implementation of Developmental Trade Policy
- Public Procurement Policies

#### 2.1.5 New Growth Path

The aim of the New Growth Path for South Africa is to knit together the Industrial Policy Action Plan (IPAP) 2 as well as policies and programmes in rural development, agriculture, science and technology, education and skills development, labour, mining and beneficiation, tourism, social development and other areas.

The strategy followed by the New Growth Path includes:

- Identifying areas where employment creation is possible on a large scale as a result of substantial changes in conditions in South Africa and globally.
- Developing a policy package to facilitate employment creation in these areas, above all through:
  - i. A comprehensive drive to enhance both social equity and competitiveness;
  - ii. Systemic changes to mobilise domestic investment around activities that can create sustainable employment; and
  - iii. Strong social dialogue to focus all stakeholders on encouraging growth in employment-creating activities.

Job Drivers need to facilitate the creation of employment opportunities. It is thus necessary to develop new approaches to strengthen the job drivers which are:

- Job Driver 1: Infrastructure.
  - Maintenance of spending plans
- Job Driver 2: Main economic sectors.
  - Agricultural value chain
  - Mining value chain
  - Manufacturing
  - Tourism & High-level services
- Job Driver 3: Seizing the potential of new economies.
  - The Green Economy



- Growing the Knowledge Economy
- Jobs Driver 4: Investing in social capital and public services.\
  - The Social Economy
  - The Public Sector
- Jobs Driver 5: Spatial development.
  - Rural Development
  - African Regional Development

While urbanisation will continue, a significant share of the population will remain in rural areas, engaged in the rural economy. Government need to step up efforts to provide public infrastructure and housing in rural areas, both to lower the costs of economic activity and to foster sustainable communities.

In order for the job drivers to be successful and accordingly developed three strategies/approaches were developed to support the drivers. These strategies are called development packages, which entails the following:

- **Macro-Economic Package:** Careful balancing of more active monetary policy interventions to achieve growth and job targets.
- **Microeconomic Package:** Targeted measures to control inflationary pressures and support competitiveness and increased equity through ten programmes:
 

1. Active Industrial Policy	6. BBBEE
2. Rural Development Policy	7. Labour Policies
3. Competition Policy	8. Technology Policy
4. Stepping up Education and skills development	9. Developmental Trade Policy
5. Enterprise development	10. Policies for African Development
- Stakeholder commitments: National consensus on wages, prices and savings.

## 2.2 PROVINCIAL POLICIES

### 2.2.1 Provincial Spatial Economic Development Strategy

The KwaZulu-Natal Spatial Economic Development Strategy (PSEDS) was formulated in 2007 as a spatial economic assessment of the areas of need and potential within the province. The PSEDS is intended as a guide to service delivery within the cluster to achieve the goals set in ASGI-SA to halve poverty & unemployment by 2014.

The PSEDS is built on the principles of the National Spatial Development Strategy (NSDP), namely:

**Principle 1:** Rapid **economic growth that is sustained and inclusive** is a prerequisite for the achievement of poverty alleviation

**Principle 2:** **Fixed investment** should be focused in localities of economic growth or economic potential

**Principle 3:** Where low economic potential exists investments should be directed at projects and programmes to **address poverty and the provision of basic services** in order to address past and current social inequalities

**Principle 4:** Future settlement and economic development opportunities should be channelled into **activity corridors and nodes** that are adjacent to or link the main centres

Four key sectors have been identified as drivers of economic growth in the KWAZULU-NATAL, namely:

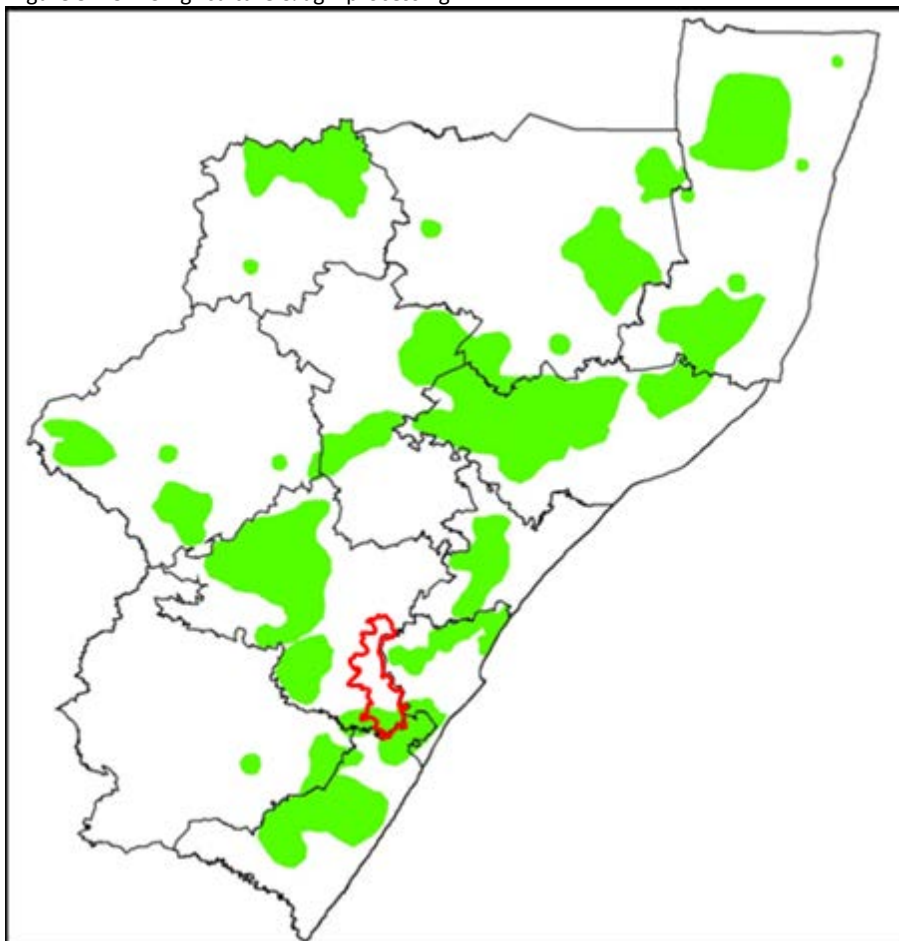
- The **Agricultural sector** (including agri-processing and land reform)
- The **Industrial sector** (Including Manufacturing)
- The **Tourism sector**
- The **Service sector** (including government services)

The logistics and **transport** sector (including rail) in the services sector are important sub-sectors underpinning growth in all four sectors. Sustainable and affordable **water and energy** provision is crucial to the economic growth & development of the province. A classification of potential for the entire province and as it relates to Mkhambathini Municipality is shown in the following discussion and maps.

#### 2.2.1.1 AGRICULTURE & AGRI-PROCESSING

The map below illustrates the area within KwaZulu-Natal identified as areas of highest potential agriculture and agri – processing potential. The Mkhambathini Municipality is also indicated on the map and it is evident that the southern portions of the municipality have been identified as areas which could make a significant contribution towards agricultural production at a provincial scale.

Figure 5: PSEDs Agriculture & agri-processing

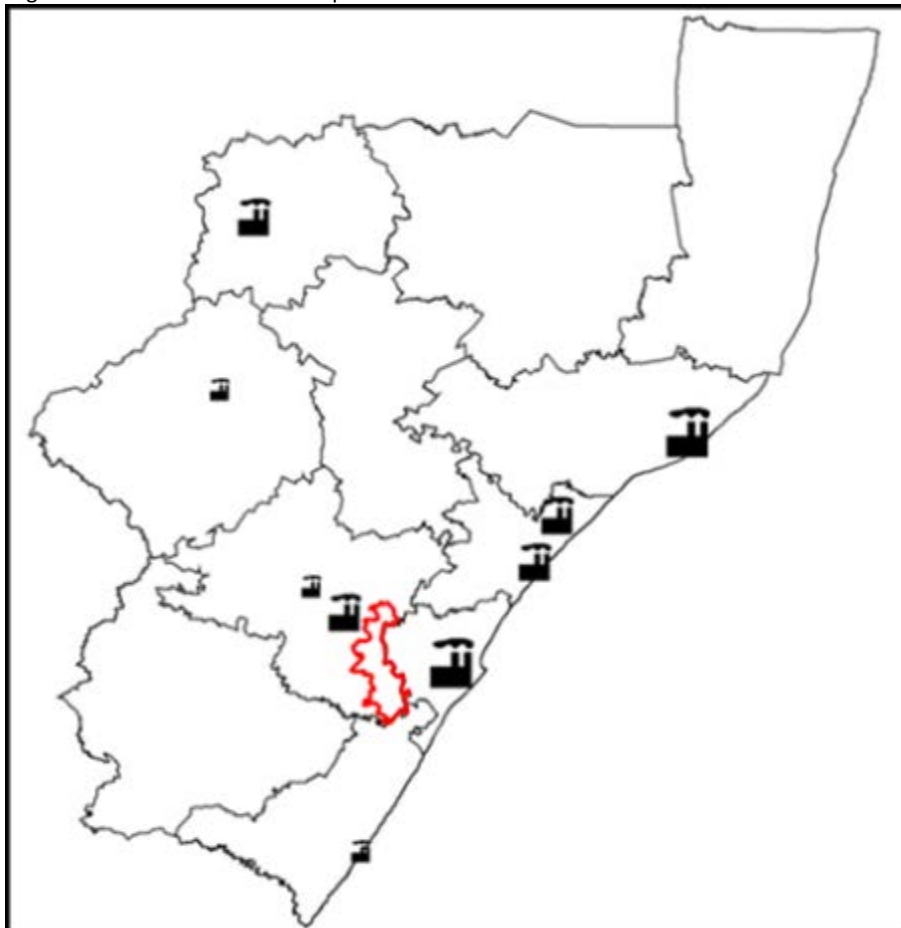


Source: KZN PSEDs

### 2.2.1.2 INDUSTRIAL DEVELOPMENT

The areas of potential industrial development and expansion within KwaZulu-Natal are illustrated by the map below. The Mkhambathini Municipality is not identified as an area which could make a significant contribution to industrial development at a provincial scale.

Figure 6: PSEDs Industrial Development

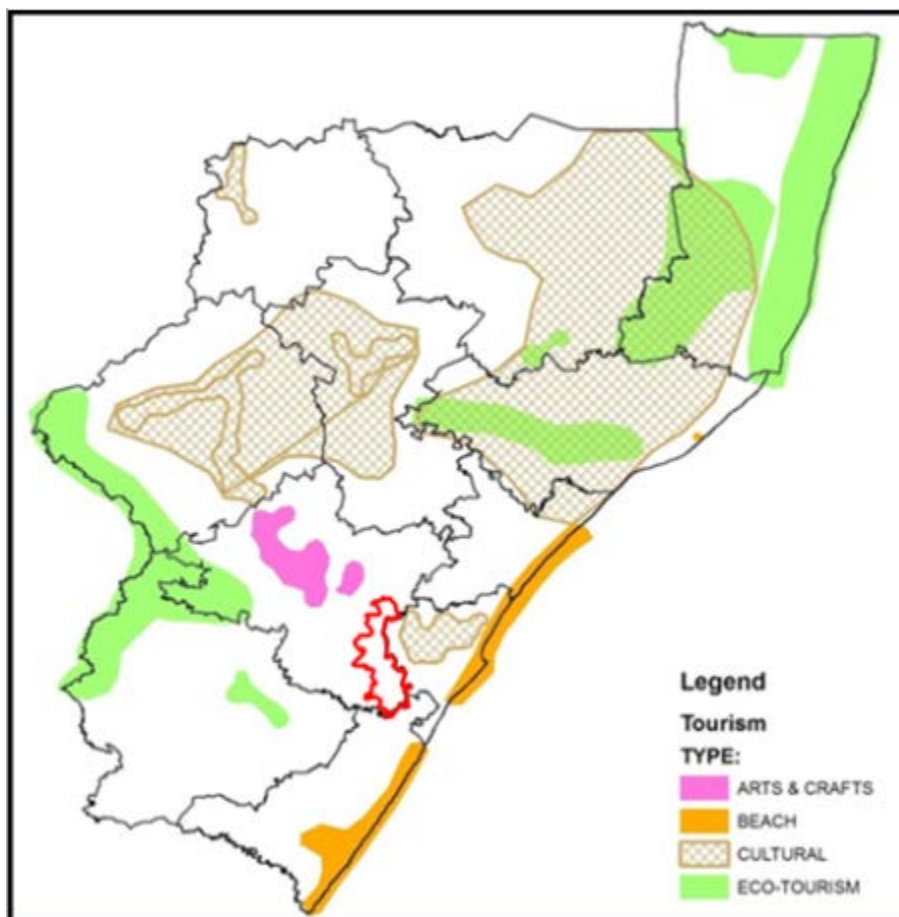


Source: KZN PSEDs

### 2.2.1.3 TOURISM

The map below illustrates the areas within KwaZulu-Natal identified as areas with a variety of large impact tourism opportunity. The Mkhambathini Municipality is indicated on the map and it is evident that there is no area in the municipality which could make a significant contribution towards tourism.

Figure 7: PSEDs Tourism

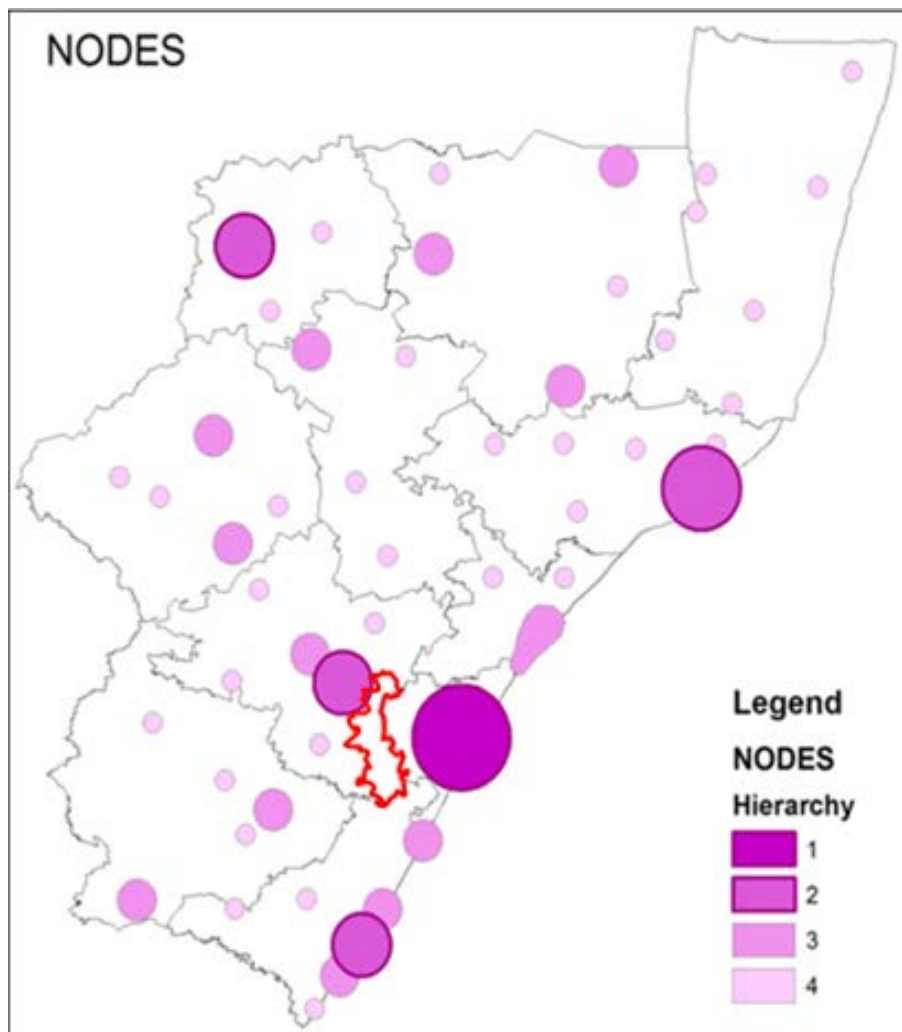


Source: KZN PSEDs

### 2.2.1.4 TERTIARY (SERVICES) SECTOR

The PSEDs resulted in the identification of a series of nodes of different levels which indicate key areas of administrative and commercial centres as illustrated by the map below. Mkhambathini Municipality does not contain any of the identified service nodes but it is anticipated that the northern portion's interaction with Pietermaritzburg will ensure that the area is being served by a regional service node.

Figure 8: PSEDs Tertiary Services Sector

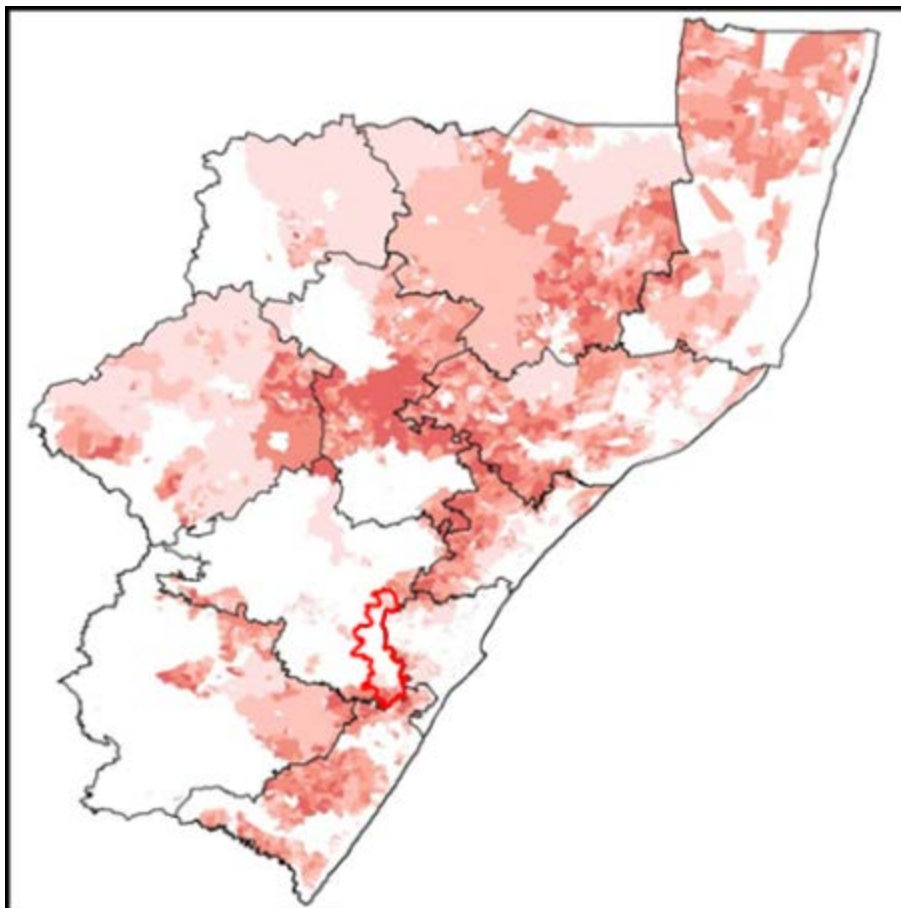


Source: KZN PSEDs

#### 2.2.1.5 CLASSIFICATION OF POVERTY / NEED

The most impoverished areas of economic need on a provincial level were identified within the PSEDs and are illustrated by the map below. It is evident that the southernmost portion of the municipality is characterised by such high poverty levels that it is significantly noticed even at a provincial level.

Figure 9: PSEDs Classification of Poverty



Source: KZN PSEDs

### 2.2.2 Norms & Standards For Provision Of Facilities

The norms and Standards as outlined in the table below were researched from various sources, which are also captured in the table. These standards were utilised in the analysis of service and facility provision, to determine whether services are under provided, and where additional services needs to be installed.

Table 1 : Norms & Standard for Provision of Facilities

Facility	Threshold	Distance Standard	Source
<b>Clinic</b>	12,500 And / or 1 / Neighbourhood	Walking distance of 5km.	CSIR / eThekwini
<b>Hospital</b>	100,000 And / or 1 / town		CSIR / eThekwini
<b>Crèche</b>	5,000	As needed in neighbourhood. On route to public transport facilities	Department of Education HOD: Mr. Bulcock
<b>Primary School</b>	750 households	Walking distance of 5km.	Department of Education HOD: Mr. Bulcock
<b>High School</b>	1,000 to 1,500 households	Walking distance of 5km.	Department of Education HOD: Mr. Bulcock
<b>Municipal Office</b>	5,000 And/or 1/ Precinct or Town		CSIR / eThekwini
<b>Community Hall</b>	3,000 And/or 1/ Precinct or Town	1/ Precinct or Town	CSIR / eThekwini
<b>Cemetery</b>	50,000 And/or 1 per community		CSIR / eThekwini
<b>Parks &amp; Play Lots</b>	1,000	1 / Neighbourhood	CSIR / eThekwini
<b>Fire Station</b>	60,000	13 Min drive to incident	Mr. Adrian Barnes. Chief of Fire Department.
<b>Library</b>	60,000	Walking Distance of 3km	Head of KZN Library Services. Me. Carol Slater.
<b>Police Station</b>	25,000	20Km	Mkhambathini IDP
<b>Worship</b>	3,000 / 1 per 500 erven		CSIR / eThekwini
<b>Post Office</b>	11,000 / 1 per precinct		CSIR / eThekwini

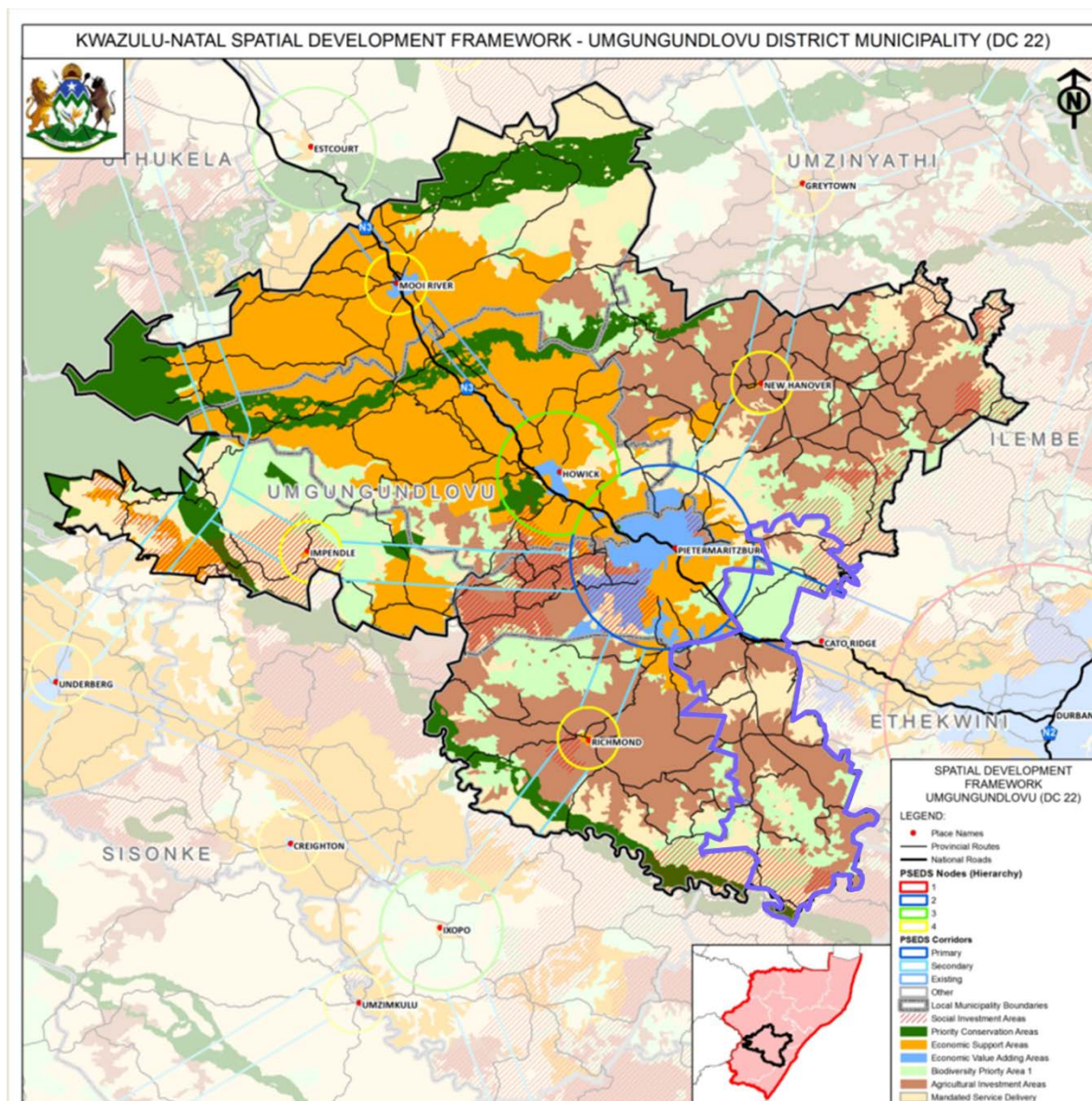
### 2.2.3 Provincial Growth and Development Strategy (2011)

The Provincial Growth and Development Strategy (2011) recognises that environmental vulnerability, social need and economic development are not evenly distributed and spatial disparities will always exist due to the spatial distribution of natural resources, historical imperatives and cultural factors. These spatial disparities have often been aggravated by past spatial planning and have subsequently resulted in a disjuncture between where people live, and where social and economic opportunities are concentrated. This spatial marginalization from economic opportunities of the majority of the population needs to be addressed in order to reduce poverty and inequality and ensure shared growth and the protection of vulnerable bio-resources. The KwaZulu-Natal Provincial Spatial Development Strategy has therefore been developed in order to achieve the goals and objectives of the PGDS in a targeted and spatial co-ordinated manner.

The following nine spatial principles underscores the general spatial intentions of the PGDS and serves as provincial guiding principles which should ideally be pursued within all levels of spatial planning at district and local level in alignment with the Provincial Spatial Development Strategy. Figure 10 shows the intents of the PGDs for uMgungundlovu District Municipality, including that of Mkhambathini.



Figure 10: uMgungundlovu District Municipality – KZN Spatial Development Framework



From Figure 10, it is clear that Mkhambathini Municipality does not have any special significant with regards to designated nodes. However, a number of intervention areas are identified with the municipal boundary. Majority of the land has been identified as part of 'Agricultural Intervention Areas', particularly south of the N3 route. Also identified is the 'Biodiversity Priority Area 1' designation which implies that conservation efforts will need to be promoted in these areas by the Mkhambathini Municipality. To the far north east and south west of municipality are also areas identified as 'Social Investment Areas'. The Mkhambathini Municipality thus has a responsibility to ensure that these areas are prioritised for public investment, as part of its mandate to service delivery.

Figure 11: Spatial Development Principles: KZN SDF



Source: KwaZulu-Natal SDF

### 2.3 DISTRICT SPATIAL RECOMMENDATIONS

Table 2 indicates the uMgungundlovu District Municipality recommendations and spatial implications which will inform spatial issues in the new Mkhambathini SDF.

Table 2: District Spatial Recommendations

DOCUMENT TITLE, DATE & STATUS	MAIN RECOMMENDATIONS	SDF IMPLICATIONS
<b>Cemeteries and Crematoria Plan August 2002 and Adopted</b>	<p><b>Phase 1:</b> The main recommendations of this plan are contained in the proposed project lists. It is proposed that these projects be implemented on a phased basis so as to address the problems in terms of the urgency of community needs.</p> <p><b>Mkhambathini Municipality</b> - Manyavu T/A community (Local Municipal cemetery) – no operational formal/public cemeteries in the Mkhambathini Municipality at present.</p> <p><b>Phase 3:</b> Villages with concentrated urban and rural populations will require the development of localised cemeteries/facilities as availing distances will ultimately contribute to the overall cost of funerals and inconvenience to cemetery visitors.</p> <p><b>Mkhambathini LM-</b> The Mid-Illovu and Eston communities should continue current practices until the Manyavu T/A cemetery is developed;</p>	<p>The main spatial implication associated with the provision of cemeteries is the land that needs to be made available as well as the location of the individual sites. It will be required that on a regional scale a determination of the status of the various cemeteries be undertaken and those found to be of regional significance will have to be provided for in the districts SDF.</p> <p>Spatially it will also be required that the associated infrastructure be planned for. This will include amongst others access to the facility to allow for the successful operation of the facilities.</p>
<b>Integrated Waste Management Plan August 2002 and Adopted</b>	Detailed below are the short, medium and long-term actions plans in summarised format that form the basis of the uMgungundlovu District Municipality's IWMP. Only those that will have a spatial implication have been listed and for the full list reference should be made to the original document.	The same principle which applies to the spatial implications for cemetery sites will apply to the location of waste disposal sites. It is however important that specific attention is paid to the supporting infrastructure i.e. roads for accessibility

DOCUMENT TITLE, DATE & STATUS	MAIN RECOMMENDATIONS	SDF IMPLICATIONS
	<p><b>Short-term Action Plan:</b> (0-5 years) 2002/2003 to 2008</p> <p>Local Municipality Waste Disposal Facility Site Developments</p> <ul style="list-style-type: none"> <li><b>Mkhambathini Municipality:</b> Eston/Camperdown area</li> </ul> <p>Identify and develop strategically located communal waste sites</p> <ul style="list-style-type: none"> <li><b>Mkhambathini Municipality:</b> Mid-Illovo and Eston</li> </ul> <p><b>Medium-term Plan of Actions:</b> (5-10 years) 2008 – 2013</p> <p>Dense Settlements</p> <ul style="list-style-type: none"> <li><b>Mkhambathini Municipality:</b> Embo-Tumini; Isimahla; Maphumulo and Manyavu;</li> </ul> <p><b>Long-term Plan of Actions</b> (10-15 years) – 2013 to 2018</p> <p>Scattered Settlements and Farmlands</p> <ul style="list-style-type: none"> <li><b>Mkhambathini Municipality:</b> Macala T/A and Camperdown F/A;</li> </ul>	<p>A preliminary desktop analysis of the current plan indicates that although it is the intention to provide disposal sites on a local municipal level there is a need to provide some form of regional facility. Spatially this facility should be located in an area that supports the currently identified nodes and corridor concept to further reinforce this proposed settlement pattern.</p> <p>In addition to this the issue of possible waste transfer stations in support of a regional type facility will need to be investigated further, possibly during the review phase of the IWMP, and once the outcome of such an investigation is known the spatial implications thereof will need to be incorporated into the reviewed SDF. This may not be possible for this review cycle but it must be kept in mind for future review processes.</p>
<b>Integrated Electrification Plan December 2002 and Adopted</b>	<p>Recommendations relate mostly to supply issues which is demand driven.</p> <p>There is however some clearly defined areas that will not be receiving a supply of grid electricity but will rather be supplied with a non-grid supply, which is mainly solar based.</p> <p>The implications of this is that care must be taken not to show these areas as having high potential for development but to rather look at alternate land uses which do not require a major supply of electricity.</p>	<p>Very little direct spatial implications as the supply of electricity is normally demand driven.</p> <p>Care must however be taken to ensure that areas proposed for major development are located within supply areas or alternatively those earmarked for future upgrade.</p> <p>It should also be borne in mind that there is a relatively long lead time for the supply of major electrical infrastructure and as such ESKOM should be involved or be provided with an opportunity to comment on the SDF to allow for their agreement and for inclusion into their forward planning.</p>
<b>Public Transport Plan May 2005 and Adopted</b>	<p>The Public Transport Plan for the District relied on the current SDF to identify a hierarchy of development nodes. These nodes are listed as follows: Pietermaritzburg as the District Centre; New Hanover, Howick, Mooi River, Impendle, Camperdown and Richmond the primary nodes; and Middelrus, Rosetta, Boston, Mpophomeni, Taylors Halt, Hilton, Wartburg, Etsheni, Maqongqo, Thornville, Eston, Mid Illovo and Inhlazuka as the secondary nodes.</p>	<p>The location and roles of these nodes and corridors will have a significant impact on the shape of the district transport infrastructure. In terms of additional spatial impacts it is also important that any future major land developments which rely on access to transport is located in such a manner that it will support and enhance these nodes and corridors.</p>
<b>Integrated Environmental Management Plan January 2004 and Adopted</b>	<p>By combining the important landscape and ecosystem that coverage was established to give a view of where priority areas for conservation are located within the UDM. The ranking of biodiversity value from “some” to high” gives an indication of the richness in natural assets for each.</p> <p><b>Mkhambathini LM (KZ 226)</b></p> <p>The Mkhambathini LM has an intermediate to high biodiversity level. The population density of this LM is around 50 people/ m<sup>2</sup>. According to the biodiversity survey undertaken by EKZNW the percentage of transformed land is 43.41% within the LM. Cultivated land covers 16.97% of the</p>	<p>The spatial implications of the issues contained in the Integrated Environmental Management Plan are of such a nature that it does not allow a clear spatial picture to be created in isolation.</p> <p>The correct manner to deal with it will be to ensure that the existing information as well as any other relevant available information is applied to the Reviewed SDF document as a control measure to ensure that any development proposals does not have a negative impact on the</p>

DOCUMENT TITLE, DATE & STATUS	MAIN RECOMMENDATIONS	SDF IMPLICATIONS
	Mkhambathini LM of which 78.13% is under sugar cane. Much of the natural land surrounding the sugar cane is classified as being high in biodiversity as well as unprotected. Cultivated land poses a major threat to high biodiversity areas in this local municipality.	environment. In addition to this approach it will also be required the impact of some of the major environmentally sensitive areas be specifically addressed.

Source: UMDM SDF 2007 Vol 1

## 2.4 MUNICIPAL POLICIES

### 2.4.1 Development Priorities

The Spatial Development framework is a spatial manifestation of the Integrated Development Plan of the Municipality. Subsequently it is necessary to evaluate and consider the development priorities and goals contained within the IDP.

The following long-term development goals have been identified based on the above key performance areas:

- To build an efficient and sustainable local government structure.
- To promote an equitable access to infrastructure and basic services.
- To create a condition conducive to economic development.
- To promote sustainable social and economic development.
- To create a spatial framework that facilitates an equitable, but efficient distribution of development.
- To promote sustainable and integrated land use pattern
- Reduce High levels of poverty through LED initiatives and targeted programmes like Sukumasakhe
- Improve access to potable water and sanitation through negotiations with the District
- Improve access to Electricity/alternative energy through negotiations with the District/ Eskom
- Improve access to Roads through building of new roads and maintenance of existing roads
- Improve access to Public Health Facilities through negotiations with Department of Health
- Improve access to Telecommunication facilities through negotiations with the various service providers
- Improve access to Housing by implementation of the Housing Plan
- Improve access to Educational Facilities through negotiations with Department of Education

## 2.5 LEGISLATIVE COMPLIANCE

The table below outlines the legislative pieces, and their respective areas of influence where they impact on the development of the Spatial Development Framework.

Table 3: Legislation Impacting on Development of Spatial Development Frameworks

### Municipal Systems Act (Act 32 of 2000)

Chapter 5 of this Act provides for the preparation of IDP. S. S26(e) lists an SDF as a core component of an IDP and requires that the SDF provides basic guidelines for a municipal land use management system.

### Local Government: Municipal Planning and Performance Management Regulations (GN R796 of 2001)

S2(4) requires that an SDF should:

- Give effect to the DFA principles;
- Set out objectives that reflect the desired spatial form of the municipality;
- Contain strategies and policies to achieve the objectives and which should indicate desired patterns of land use;



- Address the spatial reconstruction;
- Provide strategic guidance regarding the location and nature of development;
- Set out basic guidelines for a land use management system in the municipality;
- Set out a capital investment framework for the municipality's development programs;
- Contain a strategic assessment of the environmental impact of the SDF;
- Identify programs and projects for the development of land within the municipality;
- Be aligned with the spatial development frameworks reflected in the integrated development plans of neighbouring municipalities;
- And provide a plan of the desired spatial form of the municipality, which should:
  - Indicate where public and private land development and infrastructure investment should take place;
  - Indicate desired or undesired utilisation of space in a particular area;
  - Delineate an urban edge;
  - Identify areas for strategic intervention; and
  - Indicate priority spending areas.

### **Spatial Planning and Land Use Management Act, 2013 (No. 16 of 2013)**

#### **Section 21 of the Act requires municipalities to prepare SDFs with such contents as summarised:**

- Written and spatial representation of a 5-year spatial development plan for the spatial form of the municipality;
- A longer term spatial vision statement which indicates a desired spatial growth and development pattern for the next 10-20 years;
- Identify current and future significant structuring and restructuring elements of the spatial form including development corridors, activity spines and economic nodes where public and private investment will be prioritised and facilitated;
- Identify and quantify locational requirements of engineering infrastructure, and services provision for existing and future developments;
- Designate areas for national and provincial housing;
- Strategic assessment of environmental pressures and opportunities, high agricultural potential land;
- Identify areas where incremental upgrading approaches should occur;
- Areas where detailed planning is required;
- Provide the spatial expression of the coordination, alignment and integration of sectoral policies of all municipal departments;
- A Capital Investment Framework showing where the municipality intends spending its capital budget;
- Guidelines for land use management; and
- An implementation plan

#### **The SDF should:**

- Be a strategic, indicative and flexible forward planning tool to guide planning and decisions on land development.
- develop an argument or approach to the development of the area of jurisdiction which is clear enough to allow decision-makers to deal with the unexpected (for example, applications from the private sector);
- Develop a spatial logic which guides private sector investment. This logic primarily relates to establishing a clear hierarchy of accessibility;
- ensure the social, economic and environmental sustainability of the area;
- establish priorities in terms of public sector development and investment; and
- Identify spatial priorities and places where public-private partnerships are a possibility.

### **Municipal Financial Management Act (56 of 2003)**

To secure sound and sustainable management of Municipal financial affairs, and in particular the management and disposal of public assets, particularly land.

### **Subdivision of Agricultural Land Act 70 of 1970**

Application Regulations regarding the subdivision of agricultural land for development within a municipality:

Subject to the provisions of section 2 a Surveyor-General shall only approve a general plan or diagram relating to a subdivision of agricultural land

—(d) any subdivision of any land in connection with which a surveyor has completed the relevant survey and has submitted the relevant sub-divisional diagram and survey records for examination and approval to the surveyor-general concerned prior to the commencement of this Act.||

, and a Registrar of Deeds shall only register the vesting of an undivided share in agricultural land referred to in section 3 (b), or a part of any such share referred to in section 3 (c), or a lease referred to in section 3 (d) or, if applicable, a right referred to in section 3 (e) in respect of a portion of agricultural land, if the written consent of the Minister in terms of this Act has been submitted to him.

(b) no undivided share in agricultural land not already held by any person, shall vest in any person;

(c) no part of any undivided share in agricultural land shall vest in any person, if such part is not already held by any person;

(d) no lease in respect of a portion of agricultural land of which the period is 10 years or longer, or is the natural life of the lessee or any other person mentioned in the lease, or which is renewable from time to time at the will of the lessee, either by the continuation of the original lease or by entering into a new lease, indefinitely or for periods which together with the first period of the lease amount in all to not less than 10 years, shall be entered into;

(e) (i) no portion of agricultural land, whether surveyed or not, and whether there is any building thereon or not, shall be sold or advertised for sale, except for the purposes of a mine as defined in section 1 of the Mines and Works Act, 1956 (Act 27 of 1956); and

(ii) no right to such portion shall be sold or granted for a period of more than 10 years or for the natural life of any person or to the same person for periods aggregating more than 10 years, or advertised for sale or with a view to any such granting, except for the purposes of a mine as defined in section 1 of the Mines and Works Act, 1956;

[Para. (e) Substituted by s. 2 of Act 12 of 1979 and by s. 2 (1) (a) of Act 33 of 1984.]

### **National Environmental Management Act no.107 of 1998**

The SDF promotes (4) (a) Sustainable development, which requires the consideration of all relevant factors including the following:

- i. That the disturbance of ecosystems and loss of biological diversity are avoided, or, where they cannot be altogether avoided, are minimised and remedied;
  - ii. that pollution and degradation of the environment are avoided, or, where they cannot be altogether avoided, are minimised and remedied;
  - iii. that the disturbance of landscapes and sites that constitute the nation's cultural heritage is avoided, or where it cannot be altogether avoided, is minimised and remedied;
  - iv. that waste is avoided, or where it cannot be altogether avoided, minimised and reused or recycled where possible and otherwise disposed of in a responsible manner;
  - v. that the use and exploitation of non-renewable natural resources is responsible and equitable, and takes into account the consequences of the depletion of the resource;
  - vi. that 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;
  - vii. that a risk averse and cautious approach is applied, which takes into account the limits of current knowledge about the consequences of decisions and actions; and
  - viii. That negative impacts on the environment and on people's environmental rights be anticipated and prevented, and where they cannot be altogether prevented, are minimised and remedied.
- (d) Equitable access to environmental resources, benefits and services to meet basic human needs and ensure human wellbeing must be pursued and special measures may be taken to ensure access thereto by categories of persons disadvantaged by unfair discrimination.
- (f) The participation of all interested and affected parties in environmental governance must be promoted, and all people must have the opportunity to develop the understanding, skills and capacity necessary for achieving equitable and effective participation, and participation by vulnerable and disadvantaged persons must be ensured.
- (g) Decisions must take into account the interests, needs and values of all interested and affected parties, and this includes recognising all forms of knowledge, including traditional and ordinary knowledge.
- (h) Community wellbeing and empowerment must be promoted through environmental education, the raising of environmental awareness, the sharing of knowledge and experience and other appropriate means.
- (p) The costs of remedying pollution, environmental degradation and consequent adverse health effects and of preventing, controlling or minimising further pollution, environmental damage or adverse health effects must be paid for by those responsible for harming the environment.
- (q) The vital role of women and youth in environmental management and development must be recognised and their full participation therein must be promoted.
- (r) Sensitive, vulnerable, highly dynamic or stressed ecosystems, such as coastal shores, estuaries, wetlands, and similar systems require specific attention in management and planning procedures, especially where they are subject to significant human resource usage and development pressure.

### KwaZulu-Natal Planning and Development Act, 2008 (Act 6 of 2008)

Although the KwaZulu-Natal Planning and Development Act, 2008 (Act 6 of 2008) is the main planning tool within the Province, it does not refer to spatial Development Frameworks, and do not give guidelines towards the Development of a SDF.

The PDA does however identify a number of principles that municipalities needs to adhere to when a development application is considered. These principles are fairly standard and are largely repeated in each Chapter of the PDA. Schemes are managed by the PDA, and as a scheme needs to be informed by the Spatial Development Framework, it is clear that these principles should be considered when compiling a Spatial Development Framework as well.

The principles are the following:

- The application contemplated in item 1 (2) of Schedule 1 of the PDA;
- Comments in response to the invitation for public comment on the proposal;
- The registered planner's written Evaluation and recommendation on the proposal and certificate of compliance of the proposal with the Act;
- The potential impact of the proposal on the environment, socio-economic conditions, and cultural heritage;
- the impact of the proposal on existing or proposed developments or land uses in the vicinity, or on existing developmental or mineral rights;
- the provision and standard of engineering services;
- the impact of the proposal on the national, provincial and municipal road networks, public transport, municipal services, sewage, water and electricity supply, waste management and removal, policing and security;
- access to public transport and health and educational facilities;
- The historical effects of past racially discriminatory and segregation legislation on land ownership, land development and access to engineering services and public facilities, and the need to address the historical imbalances;
- the protection or preservation of cultural and natural resources, including agricultural resources, unique areas or features and biodiversity;
- the natural and physical qualities of the land;
- the general principles for land development as stated in section 3 of the Development Facilitation Act, 1995 (Act No. 67 of 1995), other national norms and standards, frameworks and policies contemplated in section 146(2)(b) of the Constitution;
- the provincial planning and development norms and standards;
- the municipality's integrated development plan;
- the municipality's scheme;
- Any local practice or approach to land use management that is consistent with:
  - the laws of the Republic;
  - the provincial planning and development norms and standards;
  - the municipality's integrated development plan; and
  - the scheme;
- Any relevant other information. This is dependent on specific situations.



### 3 SPATIAL INTERPRETATION OF THE IDP

#### 3.1 SPATIAL INTERPRETATION OF THE IDP

##### 3.1.1 Status of the IDP at District and Local Levels

The following strategic documents are used as basis of analysis for the formulation of the Mkhambathini Spatial Development Framework.

Table 4: Sector Plans Adopted

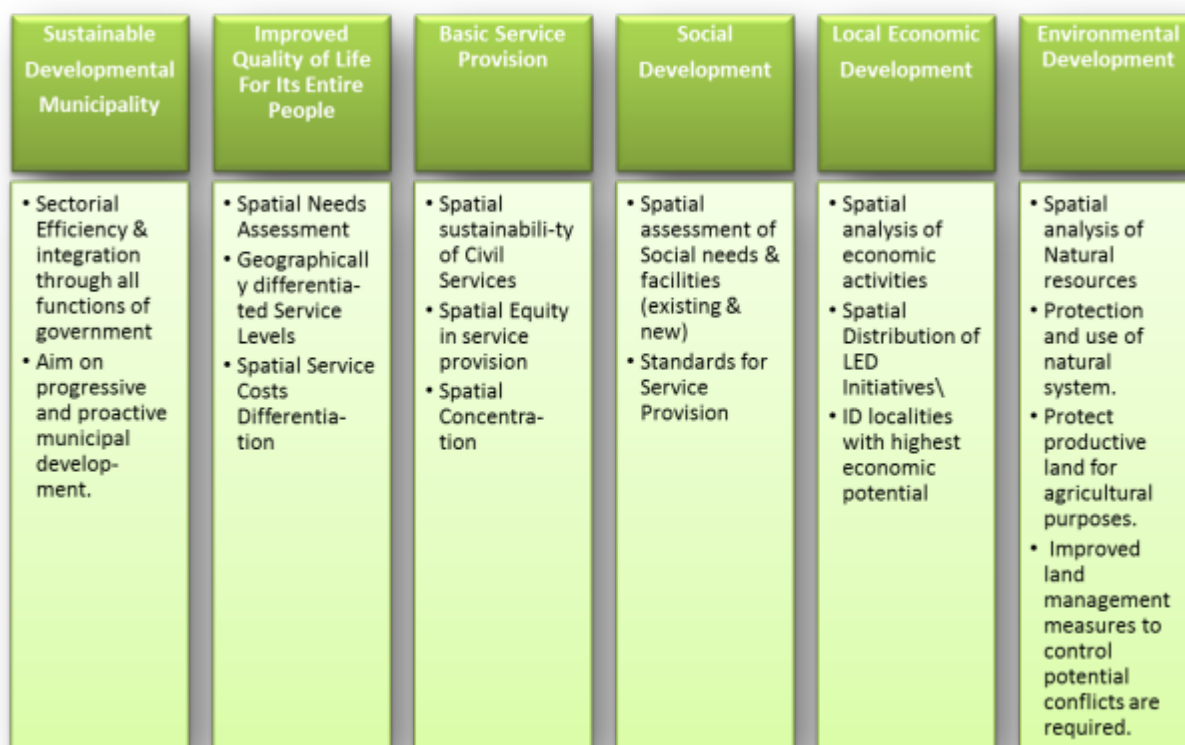
SECTOR PLAN	STATUS
Mkhambathini Municipality IDP 2007/08 to 2011/12	Adopted under the 2011/12 Review
Mkhambathini Municipality IDP Review 2013/2014	Adopted
Mkhambathini Municipality Housing Plan 2008	Adopted
Mkhambathini Municipality SDF 2007	Adopted
Mkhambathini Municipality LED Strategy 2007	None
uMgungundlovu District Municipality IDP 2007/08 to 2011/12	Adopted under the 2011/12 Review
uMgungundlovu District Municipality IDP Review 2013/2014	Adopted
Umgeni Water Infrastructure Master Plan	Adopted
uMgungundlovu District Municipality SEA	Adopted
uMgungundlovu District Spatial Economic Report	Adopted
uMgungundlovu District SDF 2007-2012	Adopted

##### 3.1.2 Spatial Interpretation of the IDP Vision

The purpose of evaluating the Vision and Mission of the Local Authority is to highlight the components of these statements that need to be spatially interpreted. The Municipality needs to be made aware of the implications of the spatial statements to allow them to prepare and evaluate a proper course of action. These spatial implications will be manifested within the Spatial Development Framework being compiled.

The Vision of Mkhambathini Municipality's vision reads as follows:

By the year **2020** Mkhambathini will be a **sustainable developmental** municipality with **improved quality of life** for its entire people in areas of **basic services, social, economic** and **environmental development**.



The two main themes that are apparent from the above vision are:

- Provision of services to all residents of the municipality in a sustainable manner;
- Local Economic Development;

Provision of services relates to community development, which is in the long run interlinked with economic development. Due to the two themes being interrelated, should you achieve economic development, community development should follow automatically. Once economic sustainability is reached, the overall quality of life within the municipality will improve, due to availability of finance to develop the municipality. A rates base will allow for services to be maintained and upgraded, and subsequently higher levels of services can be implemented.

Economic initiatives and products being produced / sold, should have the optimum locality to provide access to the markets they target, and it is necessary to determine what the capabilities within the municipality are with regards to land and resources, and whether the spatial locality of the initiatives provides access to markets or not.

Sustainable development refers to the sustainable provision of services, whether civil or social, and the minimisation of negative impacts on the natural environment. Subsequently spatial distribution of facilities needs to be linked to the spatial distribution of needs, and that facilities which will be provided where the largest concentration of a similar need exist. This will ensure cost effective provision of services.

### 3.1.3 Spatial Alignment between District and Local Government

The uMgungundlovu District Municipality Vision reads as follow:

“uMgungundlovu District Municipality will evolve into a dynamic metropolitan municipality, spreading its vibrant economic benefits to all its citizens and places and will, through concerted integrated development and service delivery, realise improvements in the overall quality of Life”

As a subordinate authority to the District Municipality, development policies of Mkhambathini Local Municipality should be aligned to that of the district to ensure that the goals and development objectives are the same.

The alignment between the Development Vision of the District Municipality and that of Mkhambathini Local Municipality lies in the fact that both aim to develop economically, in order to be able to provide services to its population in a sustainable manner.

### 3.2 MUNICIPAL DEVELOPMENT MISSION

The Mkhambathini development Mission reads as follow:

**“Mkhambathini Local Municipality commits itself to the following mission statement in pursuit of the above - outlined vision and development agenda generally”**

- Upholding our leadership vision,
- Working with integrity in an accountable manner towards the upliftment of the community
- Protecting and enhancing the interests of our clients at all times.
- Consistently performing our functions with transparency, honesty and dedication in dealing with clients,
- Responding promptly to the needs of our clients,
- Subscribing to the Batho Pele

Uphold Leadership Vision	Integrity and Accountability	Protect & Enhance Interest of Clients	Transparency, Honesty, Dedication	Prompt Response	Batho Pele Principles
<ul style="list-style-type: none"> <li>• Ensure alignment of leadership efforts to achieve overall Municipal Development Vision &amp; Goals</li> </ul>	<ul style="list-style-type: none"> <li>• Preserve of honesty through implementation of "ethics infrastructure" to provide "good conduct" guidance for and administratively and legally punishes misconduct</li> </ul>	<ul style="list-style-type: none"> <li>• Ability of the Municipality to satisfy customers needs.</li> <li>• Continuous service delivery throughout all municipal functions</li> </ul>	<ul style="list-style-type: none"> <li>• Working Environment conducive for dedicated and motivated officials to perform tasks.</li> <li>• Linked to Integrity and Accountability.</li> </ul>	<ul style="list-style-type: none"> <li>• Sectorial integration through all functions of government</li> <li>• Facilitate Risk management control</li> </ul>	<ul style="list-style-type: none"> <li>• Regularly consult with customers</li> <li>• Set service standards</li> <li>• Increase access to services</li> <li>• Ensure higher levels of courtesy</li> <li>• Provide more and better information about services</li> <li>• Increase openness and transparency about services</li> <li>• Remedy failures and mistakes</li> <li>• Give the best possible value for money.</li> </ul>

The main theme emanating from the mission of the Municipality is the maintenance of responsible, accountable and honest leadership lead the development process of the municipality. It will therefore be necessary to implement systems to maintain the developmental momentum, and implement systems to reward good work, but also punish misconduct.

The second theme that is highlighted is customer service, and the adherence to Batho Pele Principles. Where it is not possible to provide higher levels of services, it is important that whatever services are provided, it be implemented and provided at the highest level as possible.

Poverty eradication and successful economic initiatives is highly dependent on the successful functioning of the leadership. Subsequently, if the vision is to be realised, it is imperative that the above principle be successfully implemented.

### 3.3 SECTORAL STRATEGIES WITH SPATIAL MANIFESTATION

#### 3.3.1 Development Strategies

The developmental goals of the Mkhambathini Local Municipality include the following:

- To build an efficient and sustainable local government structure.
- To promote an equitable access to infrastructure and basic services.
- To create a condition conducive to economic development.
- To promote sustainable social and economic development.
- To create a spatial framework that facilitates an equitable distribution of development.
- To promote sustainable and integrated land use pattern

In order to ensure the realisation of the vision and Mission Statements, the Mkhambathini Municipality developed certain strategies, which are linked to the five national Key Performance Areas (KPA's) which are:

- Municipal Transformation and Institutional Development;
- Basic Service Delivery; & infrastructure;
- Financial Viability and Financial Management
- Good Governance and Public Participation;
- Local Economic Development (LED);
- Community and Social Development;

These KPA's and their corresponding strategies are outlined in the figures below. Some of the aspects depicted in the figures below, have spatial implications that need to be considered and are briefly discussed with the figures.

Figure 12: KPA's



The Promotion of Institutional Development Transformation and, more specifically, the development of planning capacity and integrated service delivery is essential to serve the communities through provision of successful and effective initiatives to eradicate poverty and boost the economy. By ensuring a functional and operational municipality, all aspects and functions of local government will improve.

Basic Service Provision including the access to water, electricity, sanitation, solid waste and roads, public facilities, and the reduction of deteriorating infrastructure, relates to integrated service provision where services are provided cost effectively, at nodal localities where the highest return on investment (social) can be obtained.

Access to roads will improve mobility, which will open up economic opportunities for the residents who can reach work places easier, due to the presence of public transport. It will also open economic markets that were not accessible, once again due to presence of transport. Provision of housing can be done more cost effectively in remote areas, than sewage systems can be provided for example, but this will create communities which in the long run will need sewerage systems, piped water etc, which are all dependent on high concentrations of population to make provision thereof cost effective. This once again highlights the need to identify nodal areas of investment, and encourage the movement of people to these areas where they can be provided with services.



Despite the fact that financial management is regulated by law, it is imperative for a more successful functioning of the municipality and improved delivery of basic services. This is imperative for the municipality to fulfil its mandate.

The strategies listed for Good Governance will ensure that alignment between national provincial and local government be reached. It will further facilitate buy-in from the public in development strategies and ensure that officials and politicians are responsible and accountable for implementation and usage of public funds.



In order to grow the local economy it is imperative that the comparative advantages be identified and exploited by means of catalytically projects. Agriculture has been identified as a main economic sector, and subsequently industries related to this needs to be expanded.

The development of a community relies heavily on education and social development of the communities. Therefore a balance needs to be reached on the amount of capital spent on service implementation, and the amount of time



and money spent on education. An educated community will through natural processes develop an economy, which will in the long run lead to improved services and quality of life.

According to policy municipal projects will only be funded when they are depicted in the IDP. This indicates that the projects underwent a thorough public participation process, and that it is aligned with the growth direction the municipality wants to take. The chances of lobbying successfully for funds increase exponentially if the local strategic documents are aligned with the **Provincial Growth & Development Strategy**, as well as with the **National Spatial Development Perspective** and municipalities should be able to source funds from provincial as well as national departments. Please refer to the below image depicting an extract from the KwaZulu-Natal **Provincial Spatial Development Strategy**.

### 3.4 EXISTING AREAS OF POTENTIAL INTERVENTION

The 2007 Mkhambathini SDF identified areas of priority spending in terms of nodes and corridors as outlined in this section. These areas as identified will guide the review of the Mkhambathini SDF, and based on current circumstances, would make further proposals to the location of future nodes and corridors.

#### 3.4.1 Nodes

The nodes identified are based on the functions of the centres within the municipality and is classified as such by the Mkhambathini Local Municipality. The municipality differentiates between Primary, Secondary and Tertiary nodes as well as opportunity points.

Table 5: Identified Nodes

Primary Node	Secondary Node	Tertiary Node	Opportunity Point
Camperdown	Opokweni Eston	Maqongqo Mid-Illovo Tilongo Ngilanyoni Ezimwini	

Camperdown is the major residential and commercial centre within the Mkhambathini Municipality. The area has a largely urban setting and incorporates the major economic and administration activities. It accommodates the municipal offices, a school, police station, a hotel, bottle store, legal offices and a variety of commercial and retail outlets. The "village in the country" atmosphere which is evident in some portions of the area is an important attribute which needs to be conserved and enhanced, particularly as new areas are opened up for residential and other development. The node is traversed and separated by the Primary Movement Corridor which is the National Route (N3) and to the West it links onto the Primary Corridor connecting the Municipality to the South Coast (R603) and also the R624 that connects to the Eastern Cape providing a high degree of accessibility to the Camperdown area.

The areas of Opokweni overlapping into eThekweni Municipality, and Eston have been identified as Secondary Nodes or Service Centres. These areas play an important role as service centres to communities and farmers in the northern and central portions of the municipality, providing housing and a smaller range of commercial and social services than what is offered in the Primary Node.

Tertiary nodes have been identified at Maqongqo (north), Mid-Illovo (central), Tilongo, Ngilanyoni and Ezimwini (south).

The Lion Park Interchange was identified as an Opportunity point, as part of capitalising on its relative location to the N3 and interchange infrastructure currently available. The intention is to enable this location to become the gateway to the northern portions of the Municipality, whilst facilitating mixed use developments in the area.

### 3.4.2 Corridors

The R603 is the Primary Corridor which links the Municipality to the South Coast. It is of Provincial and Municipal importance. It serves the commercial agriculture community, rural residential communities and also serves as a tourism link. Development along this corridor should be attractive to enhance tourist appreciation and should not be permitted on an ad hoc basis.

The road from the Lion Park interchange leading to Maphumulo Tribal Area has been upgraded as a secondary transportation route but also provides a main link from the N3 between Pietermaritzburg and Durban to the Maphumulo Tribal Authority area. this corridor has potential as a tourism route.

In order to promote eco-adventure, tourism routes have been identified and are shown linking Eston with the southern areas and ultimately the Umkomaas River towards Vulamehlo Municipality. Table 6 is a summary of a hierarchy of corridors whose potential can be harnessed in Mkhambathini Municipality.

Table 6: Corridors

Primary Corridor	Secondary Corridor	Tourism Corridor
<ul style="list-style-type: none"> <li>The R603 – Linkage between the Municipality (Umlaas Road) and with the western part southern parts of eThekweni Municipality. The Road further extends to Kingsburgh south of eThekweni.</li> </ul>	<ul style="list-style-type: none"> <li>Road from Lion Park Interchange leading to Maphumulo Tribal Area</li> <li>R103 linking Umlaas Road, Camperdown and Cato Ridge</li> <li>P338 Future National Route Linking Umlaas Road and Mkhambathini to the Eastern Cape</li> </ul>	<ul style="list-style-type: none"> <li>The R603 from Eston joining the P118 towards the southern traditional authority areas</li> </ul>

## 3.5 AREAS OF ECONOMIC OPPORTUNITY

### Manufacturing

Manufacturing activity is situated mainly at Umlaas Road and Eston, particularly the Eston Sugar Mill. The manufacturing sector is dominated by agro-processing relating to sugar cane and poultry. Beneficiation and upstream and downstream linkage opportunities exist for these two industries.

Areas such as the Mountain Valley where smaller abattoirs are found and processing plants within the vicinity of Eston and Mid-Illovo have manufacturing opportunities which could be explored.

### Tourism

The municipality has a number of cultural, historical and natural assets, which have begun to form the basis of an emergent tourism industry. The main features of the existing tourism sector are:

**Eco-tourism:** Private Game ranches such as Tala Game Reserve and GwaHumbe Game Reserve, the Wildlife Sanctuaries (African Bird of Prey Centre), the Lion Park and the Natal Zoological Gardens are some of the tourism features in Mkhambathini Municipality.

The Mayibuye Game Reserve, currently in extent of 5000 hectares, is a R2 billion investment to develop a Lifestyle Village, Lodges and accommodating infrastructure. The application phase is underway and undergoing negotiations to

expand to include 2000 hectares is to ultimately accommodate the Big-Five wildlife animals and become a true International Game Reserve.

**Agro-tourism:** The Country Capers Tourism Route comprises several auto routes that meander through the municipality, linking it to areas such as Thornville, Baynesfield, Richmond, Ashburton, and Inchanga. These routes offers, self-catering, bed and breakfast and guest lodge accommodation. An example of such places is the Tala Valley.

**Adventure Tourism:** The area is host to a number of adventure and sporting activities including off-road motorcycle and car races, canoeing events on Nagle Dam, mountain bike races (cycling), micro lighting, skydiving, water-skiing and hiking trails.

**Agriculture:** The Mkhambathini local economy is dependent on the agricultural sector for economic commodities, as most of its industries are also focused around the sugar and poultry industries.

## 4 CURRENT REALITIES

### 4.1 NATURAL RESOURCES

#### 4.1.1 Locality

The locality of the Mkhambathini Municipality is illustrated by **Map 1: Regional Locality**. The Municipality is located in the south-eastern corner of the uMgungundlovu District Municipality and is bordered by; uMshwathi municipality to the north eThekweni Metropolitan Municipality to the east, Vulamehlo municipality to the south and Richmond municipality and Msunduzi municipality to the west. The N3 National Road transverses the municipality linking it to Durban in the east and Pietermaritzburg in the west, as well as Gauteng to the North.

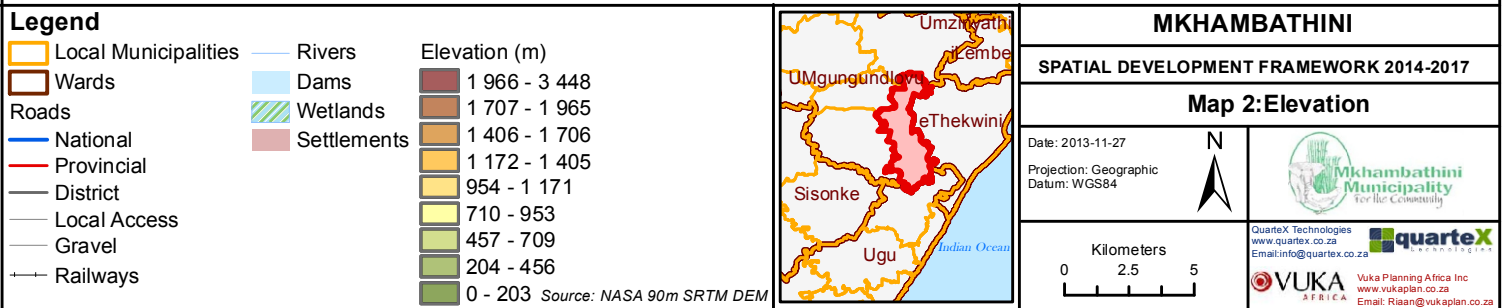
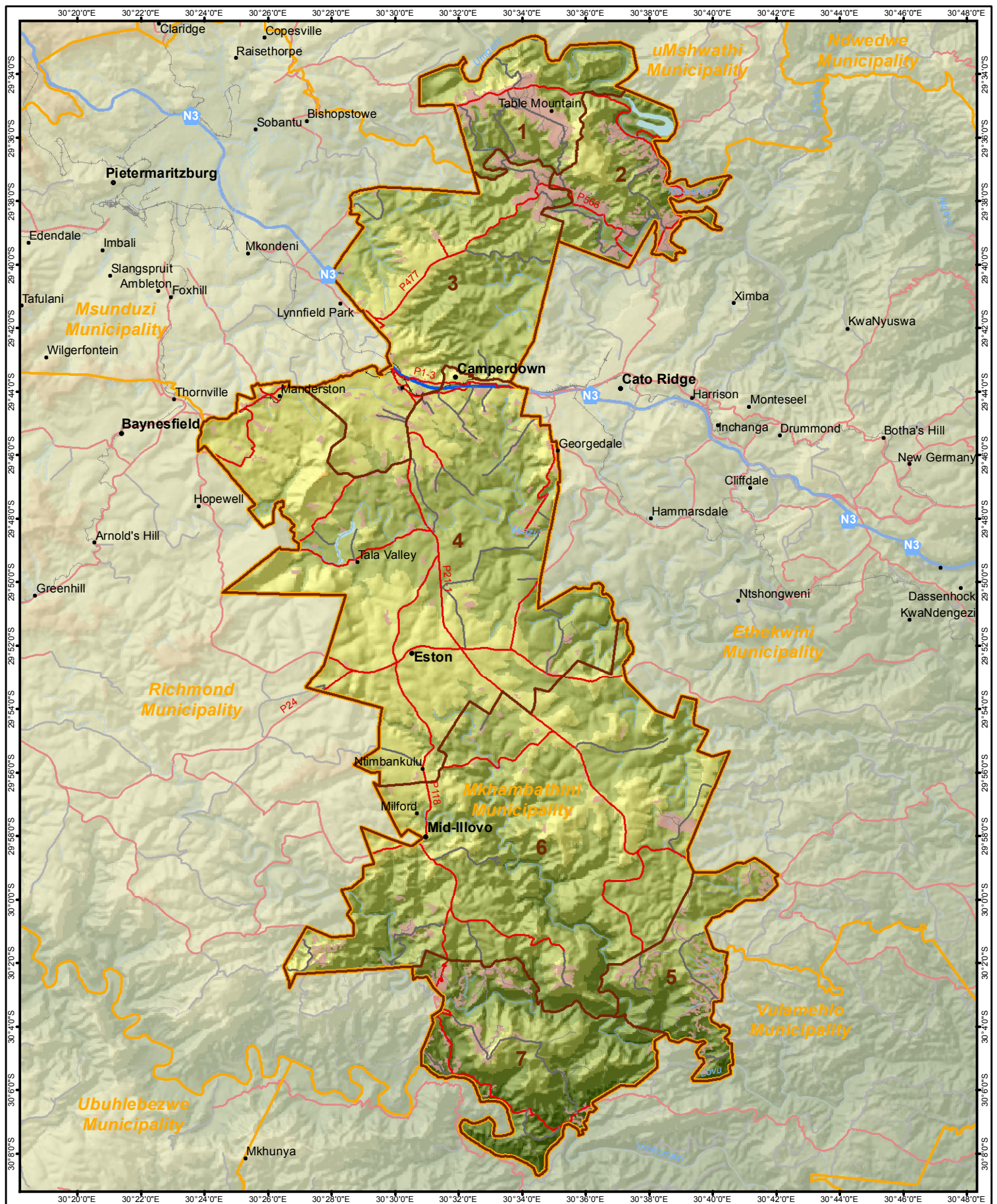
#### 4.1.2 Topography & Runoff

The map “Topography & Run-off” attached as **Map 2: Elevation** depicts the elevation and general characteristics of the land within Mkhambathini municipality. The mean elevation (metres above sea level) is 238m above sea level, with the highest elevation of 953m. The municipality has a distinct variation in topography landscape with the southern and northern parts being more undulating and a relatively high lying, flat plain area in the central part of the municipality. The far southern portion of the municipality includes relatively low lying area, with many of the river valley areas between 180m and 203m above sea level. Much the same pattern is observed in the northern part of the municipality. This fluctuating elevation levels of the municipality impacts on the scattered settlement pattern that can be observed in the northern and southern parts of the municipality.

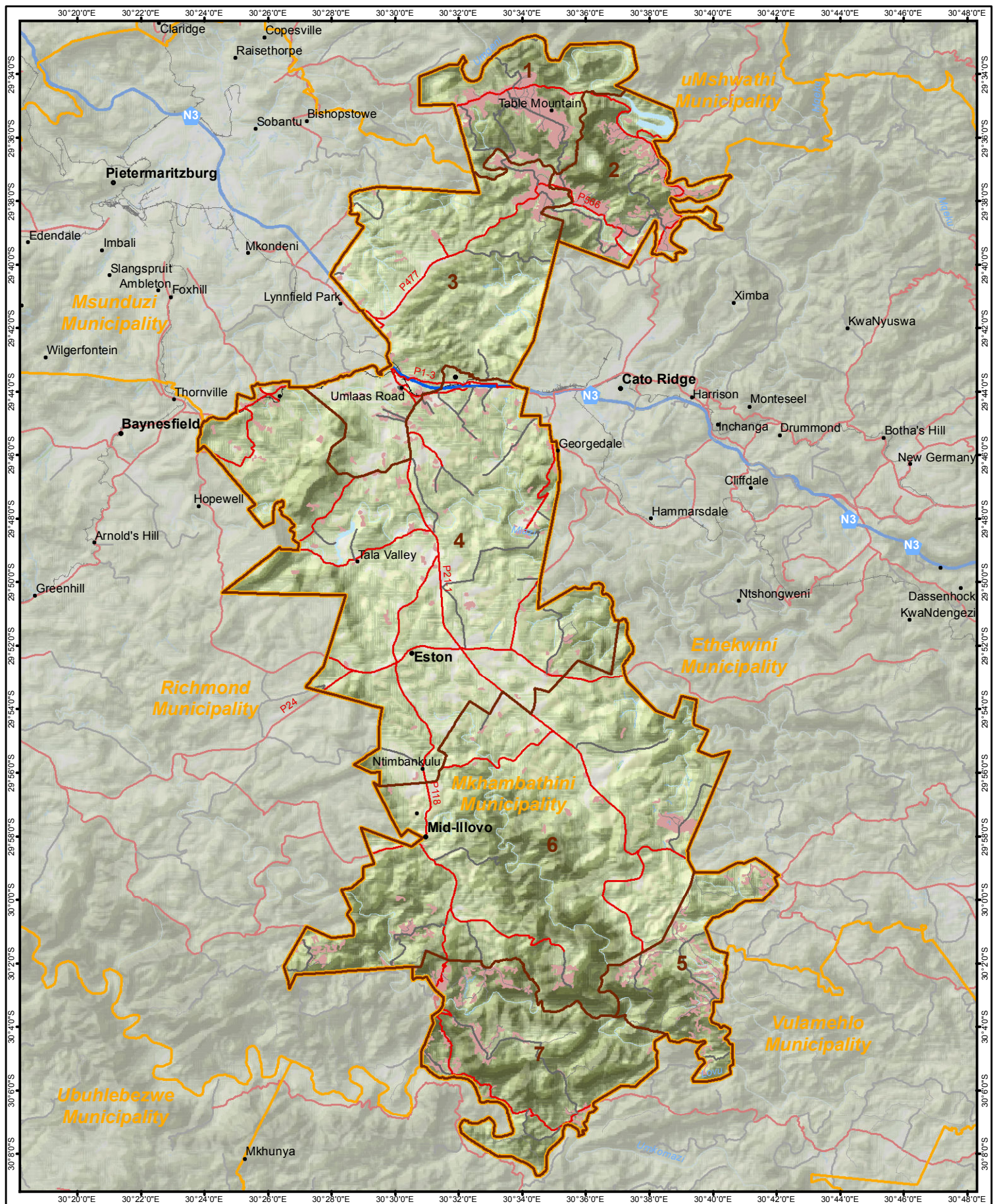
#### 4.1.3 Slope Analysis

As shown in **Map 3: Slope Analysis**, the northern and southern parts of the municipality has steeper slopes, indicating mountainous areas. The central part of the municipality is relatively flat, with slope ranges of 0-8%. The greater the gradient (20-58%), the more difficult and more expensive construction becomes and this should be considered during infrastructure intervention planning. The terrain therefore plays an integral part in determining settlement patterns and road routing which needs to be built cost-effectively. Apart from infrastructure provision and housing, the slope of the land will be a determining factor in potential economic activity especially agricultural product potential. As noted from the topography analysis, the slope map shows that the more even plains are situated in the central part of the Mkhambathini municipality.









### Legend

- |                      |             |   |
|----------------------|-------------|---|
| Local Municipalities | Rivers      | <b>Slope</b><br>20 - 58%<br>14 - 19%<br>9 - 13%<br>5 - 8%<br>0 - 4% |
| Wards                | Dams        |   |
| Roads                | Wetlands    |   |
| National             | Settlements |   |
| Provincial           |             |   |
| District             |             |   |
| Local Access         |             |   |
| Gravel               |             |   |
| Railways             |             |   |

Source: NASA 90m SRTM DEM



### MKHAMBATHINI

SPATIAL DEVELOPMENT FRAMEWORK 2014-2017

### Map 3: Slope Analysis

Date: 2013-11-27

Projection: Geographic  
Datum: WGS84



QuarteX Technologies  
 www.quartex.co.za  
 Email: info@quartex.co.za  
 VUKA Planning Africa Inc  
 www.vukaplanning.co.za  
 Email: Risaan@vukaplanning.co.za

Kilometers  
 0 2.5 5



#### 4.1.4 Water Catchment Areas

A catchment area is an extent or area of land where water from rain drains downhill into a body of water, such as a river, lake or dam. The drainage basin includes both the streams and rivers that convey the water as well as the land surfaces from which water drains into those channels, and is separated from adjacent basins by a catchment divide.

**Map 4: Water Catchment & Precipitation** depicts the catchment areas for Mkhambathini municipality. A total of 10 catchment areas exist within the Local Authority, which is also an indication of the varied topographical changes of the area.

Ecological aspects also need to be taken into account when considering Catchment Areas/Drainage Basins. The water flowing from the catchment areas, flows to a dam which is ultimately used for service provision such as water used for household purposes. It is therefore necessary to consider the impact that settlements have on the quality of water, and where sanitation services are critically needed to prevent cholera for example. The use of pesticides on large scale for agricultural use must be limited where commercial farming can have a negative impact on the quality of water.

The presence of a large number of rivers and high volumes of water implies that safety of communities also needs to be considered by locating them outside possible flood line areas.

#### 4.1.5 Precipitation

According to **Map 4: Water Catchment & Precipitation** the annual average precipitation for the southern half of the municipal area ranges between 913 - 1011mm. The northern half of the municipal area has an average rainfall that is slightly lower, being between 827 and 912mm.

Evaporation in the municipality is relatively low, with virtually the entire municipal area falling in the 0 – 1400mm range. Due to its medium to high rainfall and low evaporation explains why large areas of the municipality are suitable for sugarcane production and has a relatively high agricultural potential. The central parts of the municipality are further given this advantage by the relatively low gradient of slopes.





#### 4.1.6 Land Cover

The broad land cover (2005) found in Mkhambathini municipality, as depicted on **Map 5: Land Cover** consist of:

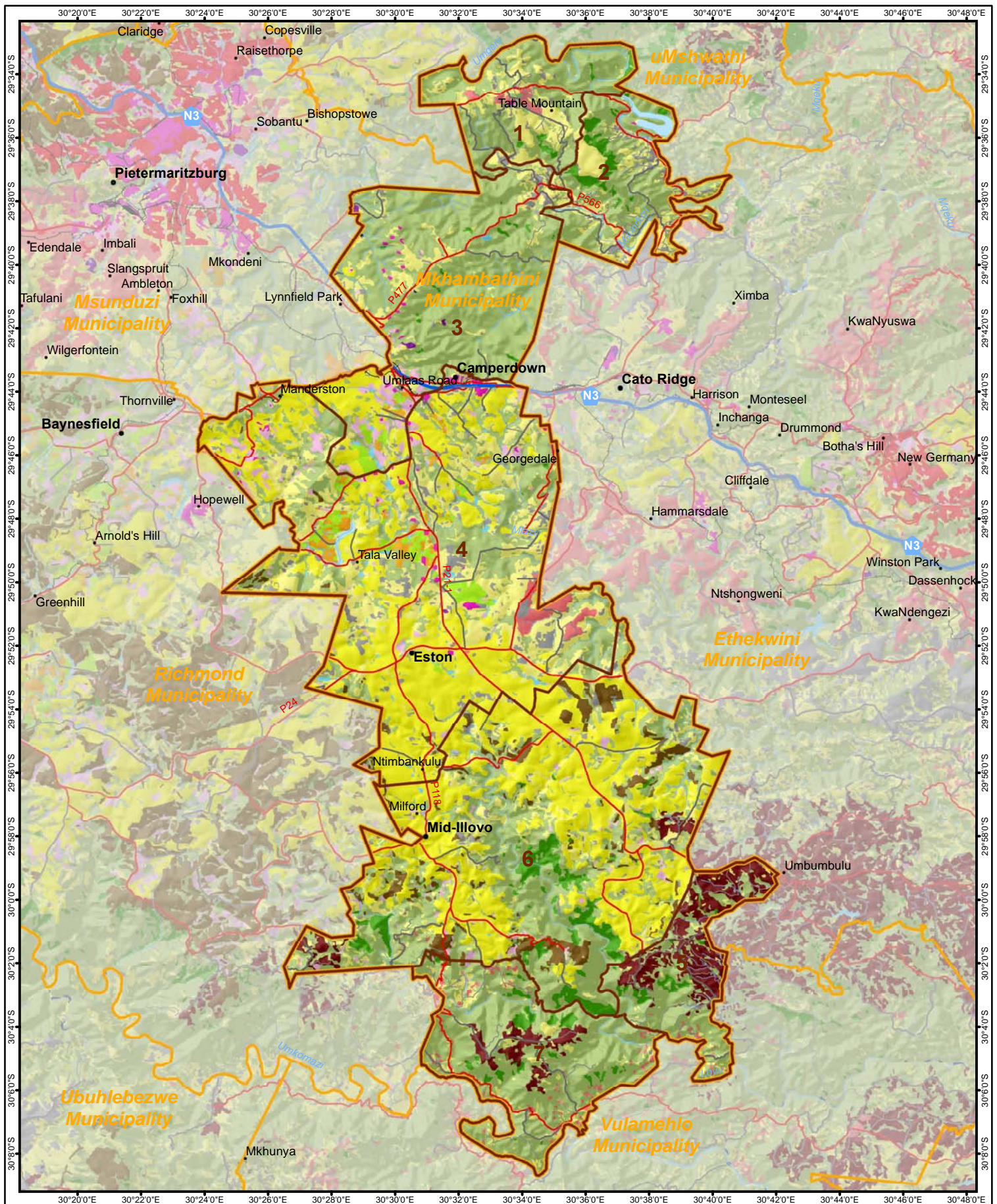
- Built-up (commercial)
- Built-up (residential)
- Built-up (informal)
- Dryland agriculture
- Irrigation agriculture
- Sugarcane
- Subsistence cultivation
- Bare soil (erosion)
- Degraded land
- Forest Plantations
- Improved Grasslands
- Natural
- Bare soil (natural)
- Forest (indigenous)
- Shrubland
- Thicket
- Natural Grassland
- Water bodies
- Wetlands
- Woodland

From the land cover data it is evident that the majority of the central portions of the municipality are cultivated for commercial sugarcane, with especially high occurrence of this around the Eston settlement area. The southern mountainous steep areas are mainly covered with subsistence cultivation and thicket with some scattered forest areas, whilst the northern sloped areas are distinctively covered with thicket and natural grassland and some limited forest areas. Although scattered areas have been indicated as “built-up” in terms of the land cover classification, the majority of settlements are characterised as rural in terms of density and character. These settlements are heavily concentrated within the north central parts of the municipality within the traditional authority areas and occur along national and provincial roads. The main concentration of subsistence farming is found in the south-eastern portions of the municipality. There is a noticeable concentration of commercial built up areas adjacent to the N3. This is expected, as the N3 is a strategic national transport route and the area is located on a stretch between Durban and Pietermaritzburg, with substantial road and rail freight traversing the area.

##### 4.1.6.1 Nodal Specific Land Use.

**Map 6: Camperdown Land Use** illustrates nodal specific land uses in Camperdown being the primary node within Mkhambathini Local Municipality. Camperdown has a large residential component compared to a relatively small business and retail sector due to the surrounding agricultural potential and poultry farming that consist in the area. Camperdown poses a more relaxed lifestyle on a regional scale outside the rushed city life of Durban and Pietermaritzburg.

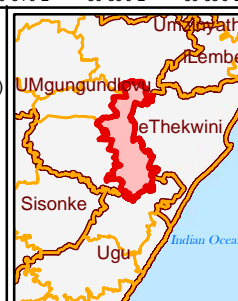




## Legend

Wards	Rivers	Irrigation agriculture	Bare soil (natural)
Local Municipalities	Dams	Sugarcane	Forest (indigenous)
Roads	Wetlands	Subsistence cultivation	Shrubland
National	Land cover (2000)	Bare soil (erosion)	Thicket
Provincial	Man induced impacts	Degraded land	Natural Grassland
District	Mines and quarries	Forest Plantations	Waterbodies
Local Access	Built-up (commercial)	Improved Grassland	Wetlands
Gravel	Built-up (residential)	Natural	Woodland
Railways	Built-up (informal)		
	Dryland agriculture		

Source: CSIR Land Cover 2000



## MKHAMBATHINI

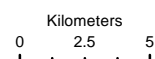
### SPATIAL DEVELOPMENT FRAMEWORK 2014-2017

#### Map 5: Landcover

Date: 2012/03/16

Projection: Geographic

Datum: WGS84





# Camperdown

Mkhambathini SDF 2014 - 2017

## Land Use

### Legend

- Mkhambathini Local Municipality
- Camperdown/Umlaas Urban Edge
- Mkhambathini Wards
- Sewerage Works

### LandUse

- Agricultural Building
- Agricultural Land
- Agriculture
- Commercial
- Dam
- Dwelling House
- Educational Building
- Funeral Parlor
- Garage
- Hotel
- Industrial Building
- Informal Dwelling House
- Medium Density Housing
- Office
- Office Building
- Offices
- Place of Worship
- Police Station / Magistrate's
- Public Office
- Railway Line
- Recreational Building
- Road
- School
- Service Industrial Building
- Sewerage Works
- Shop
- Shopping Centre
- Water Works
- Vacant
- Heritage Sites

### Roads

### Class

- National
- Provincial
- District
- Local Access
- Gravel
- Railways

The GIS material is made available as a public service. Maps and data are to be used for reference purposes only and Mkhambathini municipality is not responsible for any inaccuracies herein contained.

Black Balance Projects (Pty) Limited  
Unit 2 Stadium Building,  
892 Umgeni Road,  
Umgeni, Durban, 4001

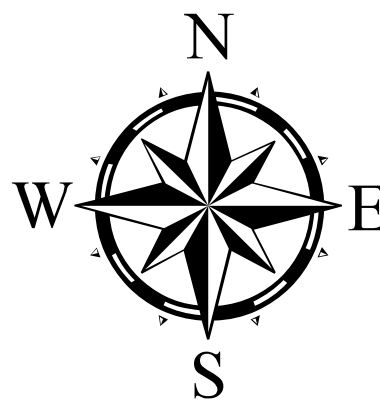
[Black Balance Projects](http://www.blackbalance.co.za)  
[www.blackbalance.co.za](http://www.blackbalance.co.za)



[Quartex technologies](http://www.quartex.co.za)  
[www.quartex.co.za](http://www.quartex.co.za)



Projection: Geographic  
Datum: Hartebeesthoek 1994



Kilometers  
0 0.15 0.3 0.6



#### 4.1.7 Land Capability and Agricultural Potential

Agricultural Potential is derived from the natural state of the environment. It is also an economic resource that needs to be exploited, and although the Potential is discussed under this section, a section is also dedicated to agricultural development under the Economic Resources Section.

The KwaZulu-Natal Agricultural Land Potential Categories Internal Report 2012 has set out a list of Agricultural Land Categories which can be depicted on **Map 7: Agricultural Potential**. Mentioned below is a description of the agricultural land potential categories.

Table 7: Categories of Agricultural Land Capabilities

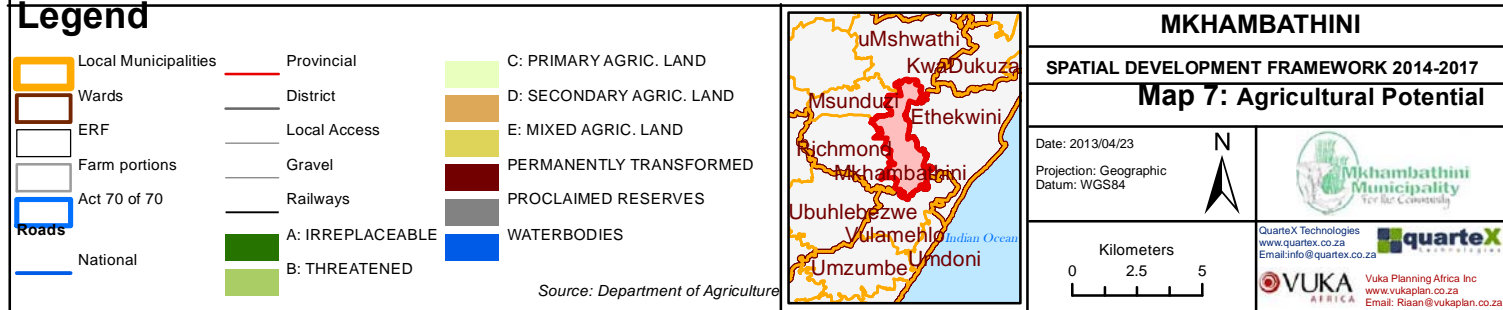
Category	Description	Requirements for Change in Land Use	Allowable Land Uses
A	<ul style="list-style-type: none"> <li>Very high potential agricultural be retained exclusively for agricultural use so as to ensure national food security.</li> <li>Include grazing land with very high production value for sustained livestock production.</li> <li>Very few limitations to Agricultural Production</li> <li>Further Defined as "Unique agricultural land"</li> </ul>	<ul style="list-style-type: none"> <li>Require detailed motivation and will only be considered under extremely special circumstances.</li> <li>Detailed natural resources/agricultural study conducted at a 1: 3 000 scale, if applicant feels sufficient motivation for change in use exist.</li> </ul>	<ul style="list-style-type: none"> <li>Uses in support of primary agricultural production (Agricultural Infrastructure). Storage sheds, silos, hay barns, water reservoirs, collection and storage of agricultural waste, on-farm composting.</li> </ul>
B	<ul style="list-style-type: none"> <li>High potential agricultural land to be retained for predominantly agricultural use.</li> <li>Potential to be used sustainably, with few limitations to agricultural production.</li> <li>No major change of land use will be supported unless in direct support to primary agricultural production practices.</li> </ul>	<ul style="list-style-type: none"> <li>Detailed natural resources/agricultural study conducted at a 1: 5 000 scale, if applicant feels sufficient motivation for change in use exist.</li> </ul>	<ul style="list-style-type: none"> <li>Uses in support of primary agricultural production (Agricultural Infrastructure). Storage sheds, silos, hay barns, water reservoirs, collection and storage of agricultural waste, on-farm composting.</li> <li>Additional consideration may be given to small processing plants e.g. cheese making facilities, value adding food processing facilities, seedling nurseries, and temporary sawmills, small wildlife- / scenery- viewing structures e.g. bird hides and small on-farm farm stalls.</li> <li>Developments must be located on the lowest potential areas.</li> </ul>
C	<ul style="list-style-type: none"> <li>Moderate agricultural potential</li> <li>Significant interventions required to achieve viable and sustainable food production.</li> <li>Agriculture remains the majority land use in the rural</li> </ul>	<ul style="list-style-type: none"> <li>Detailed natural resources/agricultural study conducted at a 1: 5 000 scales, if applicant feels sufficient motivation for change in use exist.</li> </ul>	<ul style="list-style-type: none"> <li>Land Uses from category A &amp; B</li> <li>Storage, packing and processing facilities of farm products, limited-footprint agri-tourism.</li> </ul>

	landscape. <ul style="list-style-type: none"> <li>• Potential to act as a buffer for adjacent higher potential agricultural land Categories.</li> <li>• Limited Arable Potential - more suitable for extensive grazing or fodder production</li> </ul>		<ul style="list-style-type: none"> <li>• Facilities and small education or research structures in support of scientific awareness.</li> </ul>
D	<ul style="list-style-type: none"> <li>• Low agricultural potential.</li> <li>• Requires significant interventions to enable sustainable agricultural production e.g. terracing, contours, high levels of fertility correction, lower stocking rate, and supplementary feed.</li> <li>• Extensive areas required – beef &amp; game farming.</li> <li>• Change of land use may be supported if not in conflict with the surrounding agricultural activity.</li> </ul>	Detailed natural resources study must be conducted at a minimum of 1:10 000 scale	Land uses of Categories A to C  poultry houses, piggeries, feedlots, greenhouses, farm retail sales facilities, wineries, pack houses and processing plants, agri-tourism facilities, sawmills, value adding processing plants, recreation facilities e.g. off road tracks, equestrian facilities, pet breeding and boarding facilities, unpaved airstrips and helipads, small conference and wedding venues, renewable energy farm.
E	<ul style="list-style-type: none"> <li>• Limited to very low potential</li> <li>• Cultivation severely limited in both extent and natural resources availability</li> <li>• Low grazing Capacity</li> <li>• High Conservation / Tourism Potential</li> <li>• May support the economic viability of an extensive grazing system on adjoining land parcels eg large dairy farming system.</li> </ul>	<ul style="list-style-type: none"> <li>• Basic / semi-detailed (1:10 000 to 1:20 000 depending on land parcel size) natural resources survey.</li> </ul>	<ul style="list-style-type: none"> <li>• None</li> </ul>
Water Bodies	<ul style="list-style-type: none"> <li>• No agricultural production allowed</li> </ul>	<ul style="list-style-type: none"> <li>• None</li> </ul>	<ul style="list-style-type: none"> <li>• Consist of water bodies (all dams - natural or man-made) as well as wetlands, pans and estuaries and may not be used for agricultural production purposes,</li> </ul>
Permanently Transformed	<ul style="list-style-type: none"> <li>• Land that has been converted irreversibly to non-agricultural land uses.</li> </ul>	<ul style="list-style-type: none"> <li>• None</li> </ul>	<ul style="list-style-type: none"> <li>• None</li> </ul>

Source: KwaZulu-Natal, Agricultural Land Potential Categories, Internal Report, VERSION 1, 2012

Map 7 clearly depicts the higher potential agricultural land (Classes A, B & C) situated in the centre of the municipal area, with the lower potential land (Classes C, D & E) mostly situated on the northern and southern parts of the municipality, and noticeably, situated on the Ingonyama Trust Land. The lower potential of the land can be acclaimed to the widely dispersed settlement pattern, and the disturbance of land due to the dispersion of settlements.



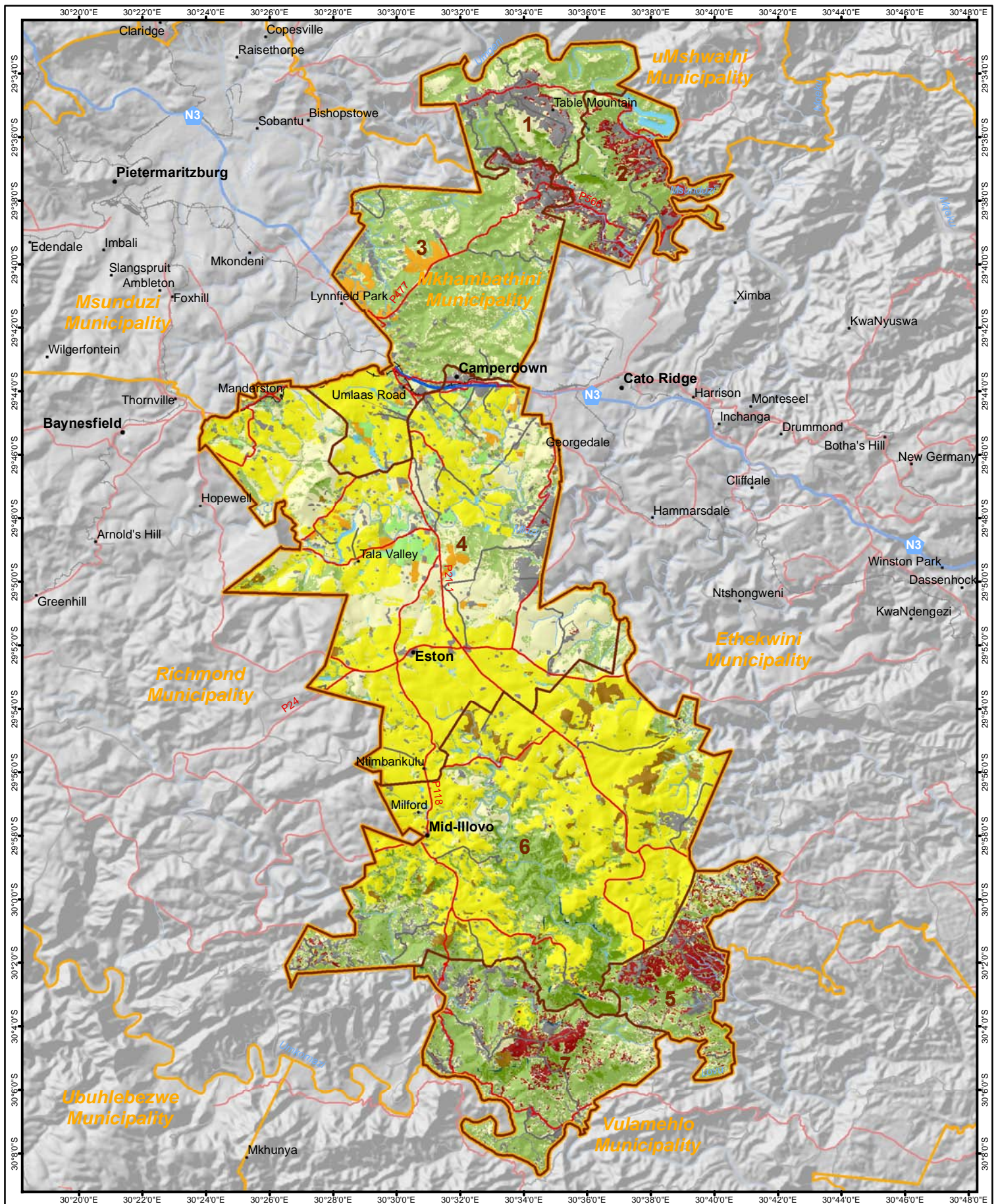


The Soil Depth within the Municipal Area ranges from >750mm to <450mm with relative fields in between. Depicted on the map the northern section together with parts in the east has soil depths between 450mm-750mm indicated in green. The other major visible field is soil less than 450mm in depth located in the mid central areas and towards the southern border of the municipal area indicated in yellow. Soil depth, although not exclusively, has an impact on agricultural activities and disaster management. Areas where soil depths are shallower, normally has lower agricultural potential and flood risks could also be higher, due to the shallow soil's inability to capture absorb and maintain moisture.

The various agricultural land uses in the municipality is indicated on **Map 8: Agricultural Land Uses** and corresponds greatly with **Map 5: Land Cover** referred to under paragraph 4.1.7. This map becomes particularly useful in identifying uncultivated opportunities in the agricultural sector when it is overlaid with the land capabilities in the municipality, with specifically land capability classes I to IV, as indicated on **Map 7: Agricultural Potential**. From this map it is clear that the areas with higher agricultural opportunities (or potential) in the southern parts of the municipality have already been utilised to a great extent for subsistence farming purposes. Many of the areas in the north that are classified as class II are either utilised only as grassland for grazing and the settlements around the Table Mountain area.

The agricultural production in the municipality centres on vegetables growth for local and hinterland fresh produce markets, maize and sugarcane production. The area features the second highest concentration of poultry producers in the world, supported by a network of service suppliers, as well as pig and beef farming.

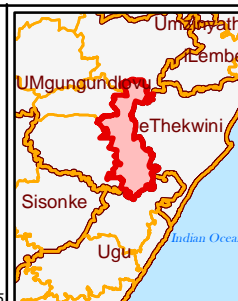




## Legend

Wards	<b>landcover (2005)</b>	<b>Natural</b>
Local Municipalities	Man Induced Impacts	Bare soil
Roads	Dryland agriculture	Forest
National	Irrigation agriculture	Thicket
Provincial	Sugarcane	Natural Grassland
District	Subsistence Farming	Wetlands
Local Access	Bare soil (erosion)	Waterbodies
Gravel	Degraded land	
Railways	Forest Plantation	
Rivers		

Source: CSIR Land Cover 2005



## MKHAMBATHINI

SPATIAL DEVELOPMENT FRAMEWORK 2014-2017

### Map 8 :Agricultural Land Use

Date: 2013/05/02

Projection: Geographic

Datum: WGS84



Kilometers  
0 2.5 5



QuarteX Technologies  
www.quartex.co.za  
Email: info@quartex.co.za

VUKA  
AFRICA  
Vuka Planning Africa Inc  
www.vukaplan.co.za  
Email: Risan@vukaplan.co.za



#### 4.1.8 Protected & Conservation Worthy Areas

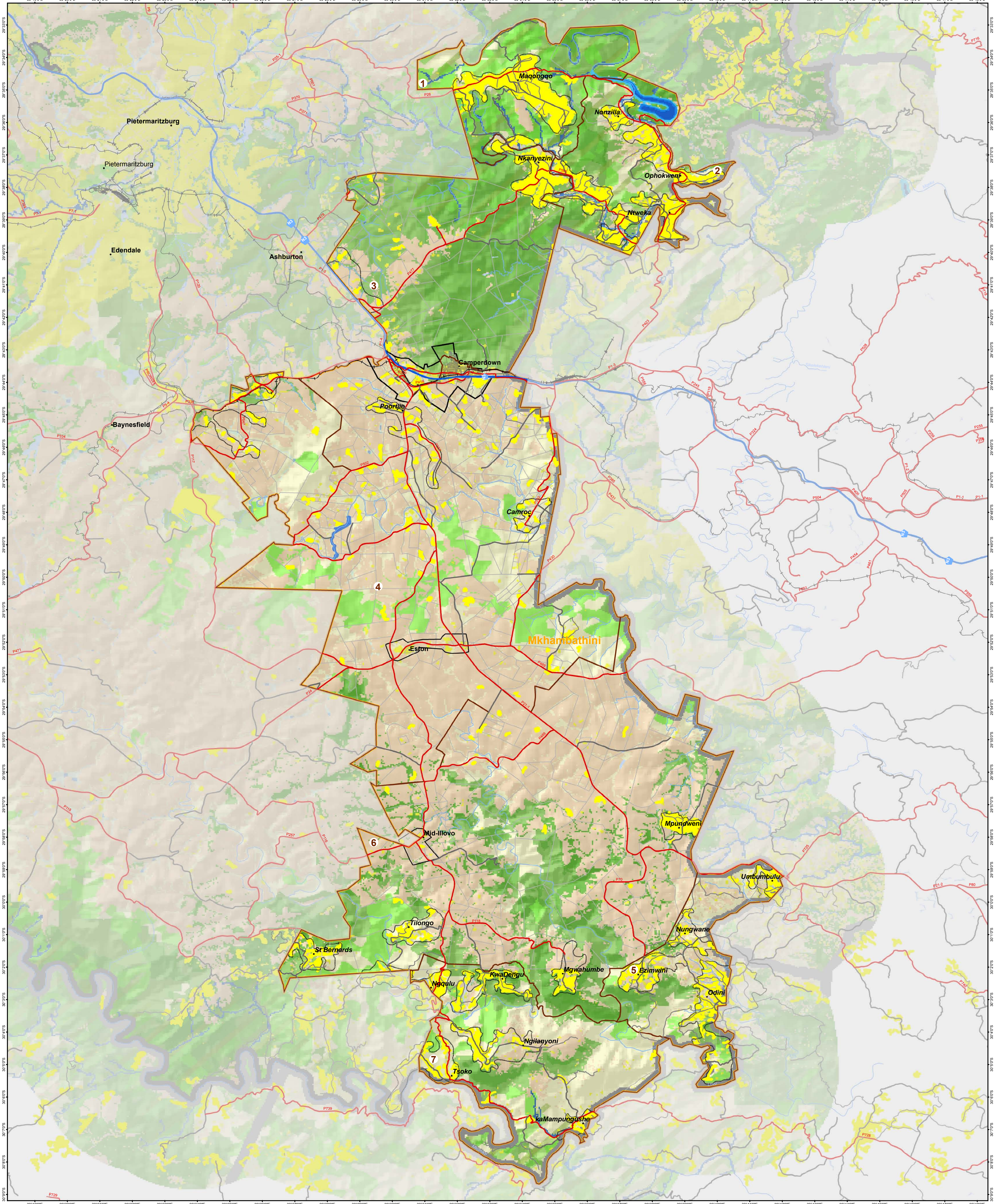
According to the **Map 9: Critical Biodiversity**, Environmental Sensitivity is classified in composite weights ranging from high to low. The composite weighting in Mkhambathini municipality is dominated by the weighting medium to low and low, with some scattered areas to the south and north classified as medium to high. There is a strong correlation between the Environmental Sensitivity and Minset maps as the medium to high composite weighting is also areas with priority considering biodiversity areas.

Ezemvelo Wildlife has embarked on a process, during 2005, whereby it systematically mapped critical biodiversity areas in KwaZulu-Natal with increasing accuracy. This dataset is based on various studies on fauna, flora and water resources, identifying key local biodiversity areas to be considered in spatial planning and this is referred to as Minset.

The Minset for the Mkhambathini municipal area hosts different biodiversity priority areas with the light green areas being biodiversity priority 1 areas where they are depicted towards the north of the N3 and scattered areas towards the south forming a decisive majority. Biodiversity priority 3 areas are found towards the far north and central portions of the municipality with scattered patches towards the south depicted in yellow. Large areas of Transformed land are found in the central areas indicated in red.

Groundwater Vulnerability depicts the vulnerability of groundwater in the Mkhambathini Municipal area, and clearly shows that the vulnerability of the larger area of the municipality is classified as being very low. Only in the southern areas of the municipality is the vulnerability slightly higher, being classified as being medium low. Small, scattered areas around the borders in the central and northern parts of the municipality are also classified as medium to low.





**Legend**

Mkhambathini Local Municipality

Mkhambathini Wards

ERF

Farm Portions

CBD Node (1st Order)

Neighborhood Multi-use Node (2nd Order)

Community Multi-use Node (3rd Order)

Settlements

**Informants**

Water Bodies CBA 1 Mandatory

Terrestrial CBA 1 Mandatory

Terrestrial CBA 3 Optimal

**Surface**

Natural Vegetation

Transformed

Built-up /Settlement

**Roads**

National

Provincial

District

Local Access

Gravel

Railways

Rivers

Dams

Wetlands

**MKHAMBATHINI**

**SPATIAL DEVELOPMENT FRAMEWORK 2014-2017**

**MAP 9 CRITICAL BIODIVERSITY OVERLAY**

Projection: Geographic

Datum: WGS84

0 0.5 1 2 3 4 5 Kilometers

Date: 2012/06/06

QuarteX Technologies

www.quartex.co.za

Email: info@quartex.co.za

Vuka Planning Africa Inc

www.vukaplan.co.za

Email: Riaan@vukaplan.co.za



Ezemvelo KZN Wildlife compiled a map depicting Critical Biodiversity and ecological support areas for the uMgungundlovu Municipality. The image below is an extract from this map depicting the Mkhambathini Municipality.

Figure 13: Land Use and Environmental Sensitivity

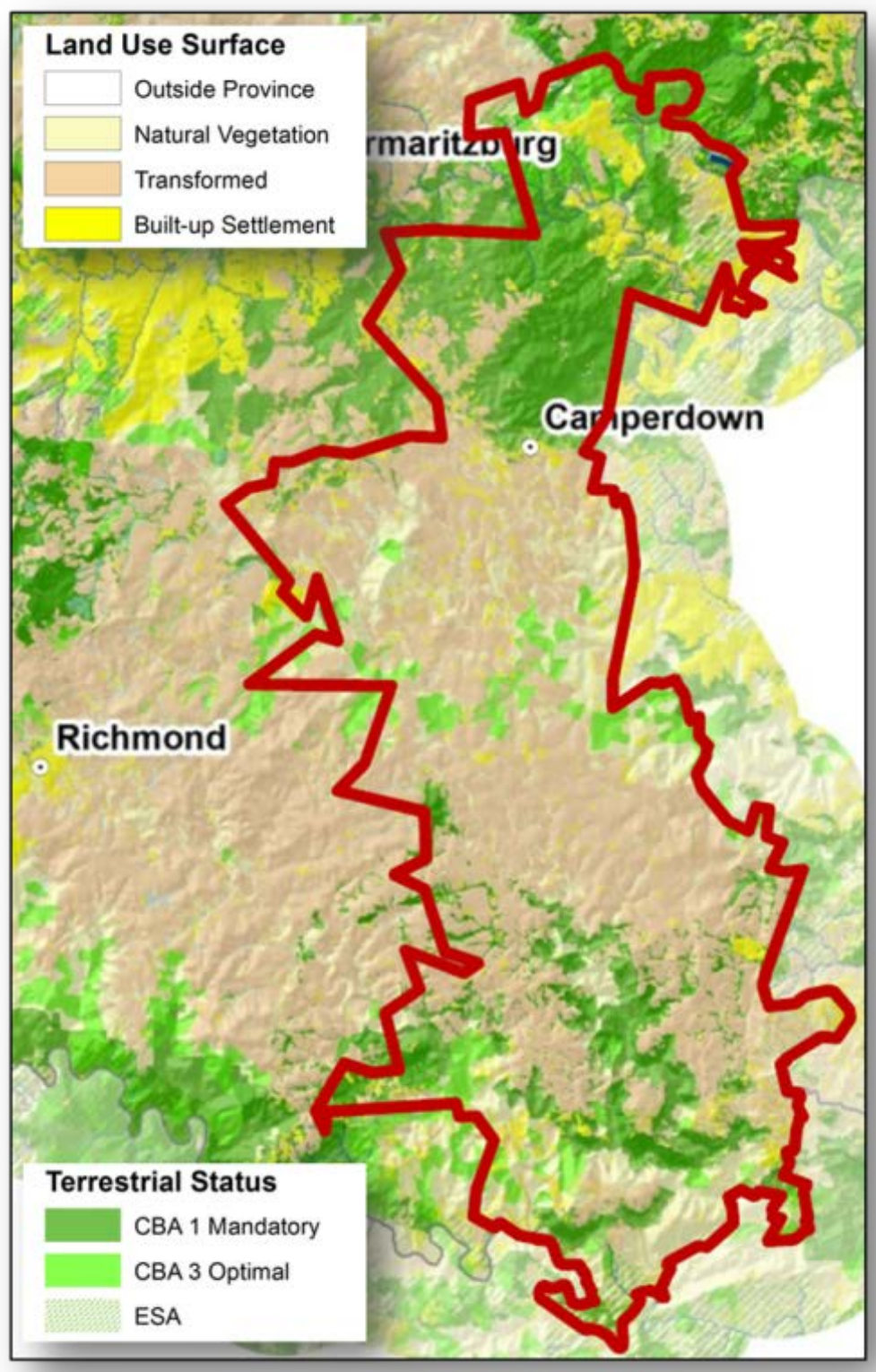


Figure 12 depicts Critical Biodiversity Areas (CBA's) as well as Ecological Support Areas in Mkhambathini Local Municipality. The two environmental areas are defined as follow:

- CBA's depicts landscapes that need to be maintained in a natural or near-natural state in order to ensure the continued existence and functioning of species and ecosystems as well as facilitate the continued delivery of ecosystem services. Maintaining an area in a natural state can include a variety of land uses compatible with the present biodiversity resources.
- Ecological support areas (ESA's) are areas that are not essential for meeting biodiversity representation targets/thresholds but which nevertheless play an important role in supporting the ecological functioning of critical biodiversity areas and/or in delivering ecosystem services that support socio-economic development, such as water provision, flood mitigation or carbon sequestration. The degree of restriction on land use and resource use in these areas may be lower than that recommended for critical biodiversity areas.

The purpose of CBA's is simply to indicate spatially the location of critical or important areas for biodiversity in the landscape. The CBA, through the underlying land management objectives that define the CBA, prescribes the desired ecological state in which we would like to keep this biodiversity. Therefore, the desired ecological state or land management objective determines which land-use activities are compatible with each CBA category based on the perceived impact of each activity on biodiversity pattern and process.

In Figure 12 above, it is clearly seen that the largest part of the municipality is classified as Transformed Land Areas where very little conservation status exist. Through rural residential and subsistence farming activities, the land has been transformed from ecological sensitive, to land uses associated with residential activities.

The area from Camperdown northwards is classified as a Critical Biodiversity Area 1 where Critically Endangered ecosystems are functioning and strict land use management procedures needs to be implemented. A large part of this area is also classified as an ESA area.

The largest settlement area is situated on the northern boundary of the municipal area, and includes the areas of Maqongqo, Nkanyezini and Manyavu situated next to the Nagle Dam.

The outer periphery of Mpumalanga Area, situated directly east of the Central Municipal area is encroaching over the boundary, and growing towards the scattered settlements dispersed between the subsistence agricultural activates (Transformed area).

Other smaller residential groupings are situated on the Southern boundary of the municipal area and consist of the areas of Mampungushe and Songeni.

Critical Biodiversity Area 3 areas are scattered throughout the central part of the municipal area as well as the southern area. The areas adjacent the uMkomaas River is further classified as an ESA area, as it forms part of the green corridors of the province.

The remaining natural vegetated areas are limited to the Southern parts of the Municipality between the uMkomaas River and Songeni.

## 4.2 HUMAN RESOURCES

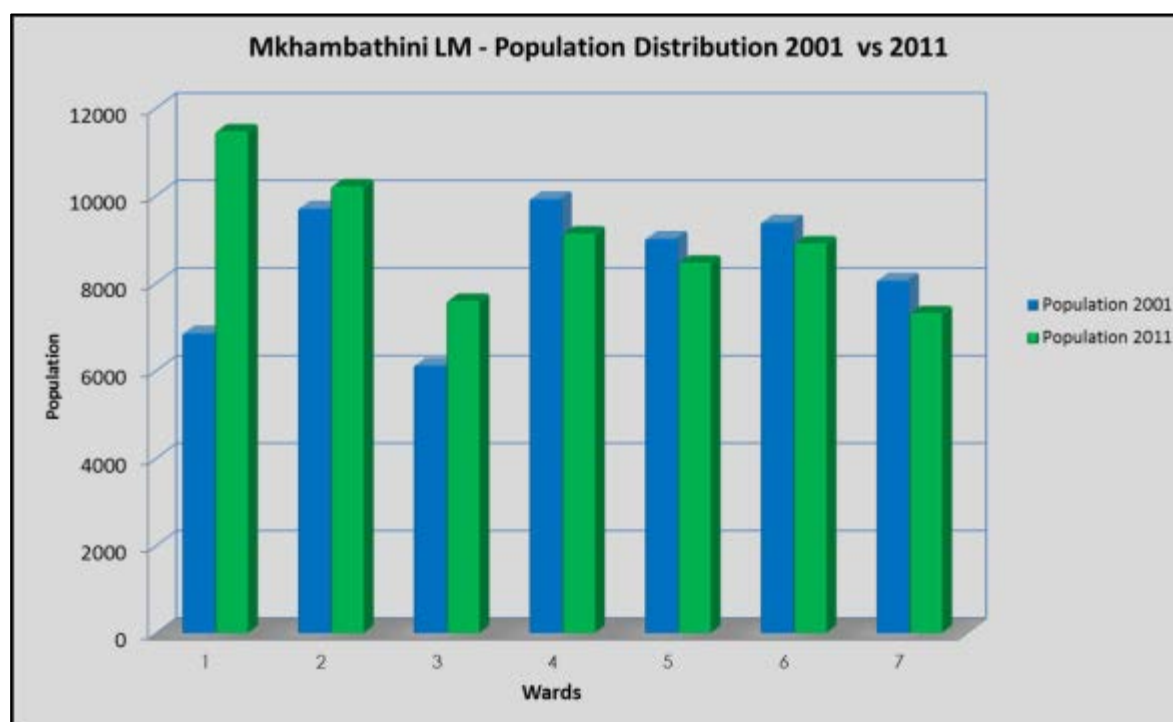
### 4.2.1 Population

Mkhambathini Municipality had a total population of approximately 59 067 in 2001 (Census 2001) and currently shows an increase to approximately 63 026 (Census 2011). The highest number of residents are settled in Ward 1, Ward 2 and Ward 4 with the smallest number of people situated within ward 7. It should be noted that Ward 1 and Ward 2 are the smallest wards in terms of size. Ward 1 and Ward 2 include the dense settlements around the Table Mountain areas. Ward 4 is inclusive of the larger area of the Camperdown village settlement area and the relatively densely settled areas directly to the south of the N3.

According to the Mkhambathini IDP 2011/2012, the municipality has shown a net increase in population between 1996 and 2007. According to the IDP, the 2007 community survey estimated the population at 46 569. This indicates a discrepancy in the numbers as the 2011 figures show a net increase in population within Mkhambathini LM in more recent years. A possibility for discrepancies in numbers could be due to an undercount during the 2007 community survey.

The 2012 to 2017 IDP further includes figures obtained from Global Insight (2010), which estimated the population at 66,643 in 2010.

Graph 1: Population per Ward



Source: Stats SA Census 2001 & 2011

The Mkhambathini IDP states that there is a 70% estimated HIV infection rate in the area, with 65% of children having lost both parents. Table 8 below depicts the increase in population for the various wards, and it is clear that a preferred area to locate is within Ward 1. Normal population growth alone will not result in such a large population increases, and should rather be ascribed to migration, either internal to the municipality, and/or from outside the municipality.



Table 8 depicts the % increase in population for the various wards.

Table 8: % changes in Ward Population

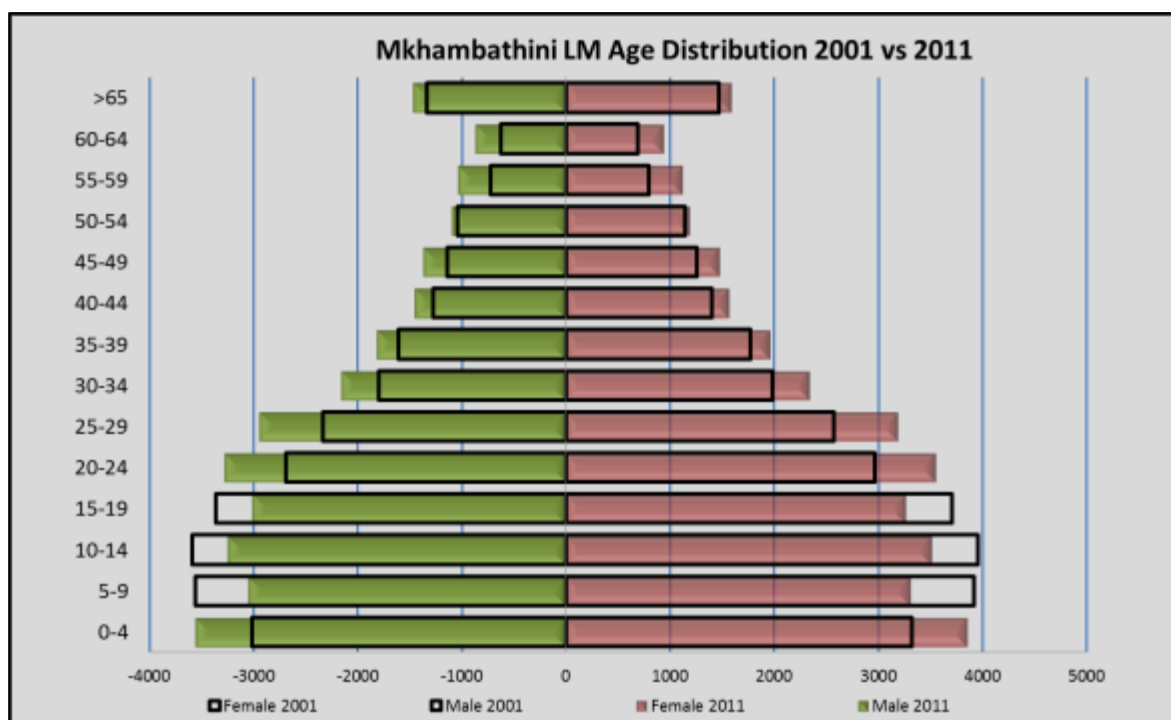
Ward	2001	2011	% Growth
1	6854	11456	5.27
2	9705	10202	0.50
3	6122	7586	2.17
4	9923	9123	-0.84
5	9014	8456	-0.64
6	9389	8899	-0.53
7	8060	7304	-0.98

Source: Vuka Planning Africa Inc.

#### 4.2.2 Age & Gender Distribution

The demographic pyramid is illustrated by the graph below and evidently the current population of working age is far more than the population going to school and retired age groups. Depending on the birth rates during the following years, this pattern should stay very similar in the years to come. The number of men in the municipality is slightly lower than that of women, probably indicating a pattern of male migrant workers, seeking work in larger urban areas and women tending to households needs and practicing subsistence farming in the traditional areas of the municipality, especially those areas in the northern and southern parts of the municipality.

Graph 2: Population Age Distribution



Source: Stats SA Census 2001 & 2011

#### 4.2.3 Household Size

The average household size for Mkhambathini LM was 4, 7 persons per household in 2001 and calculated as 4.2 persons per household in 2011, indicating a slight decrease. Since the majority of the households are located within the rural areas of the municipality, this average will be used for all areas.

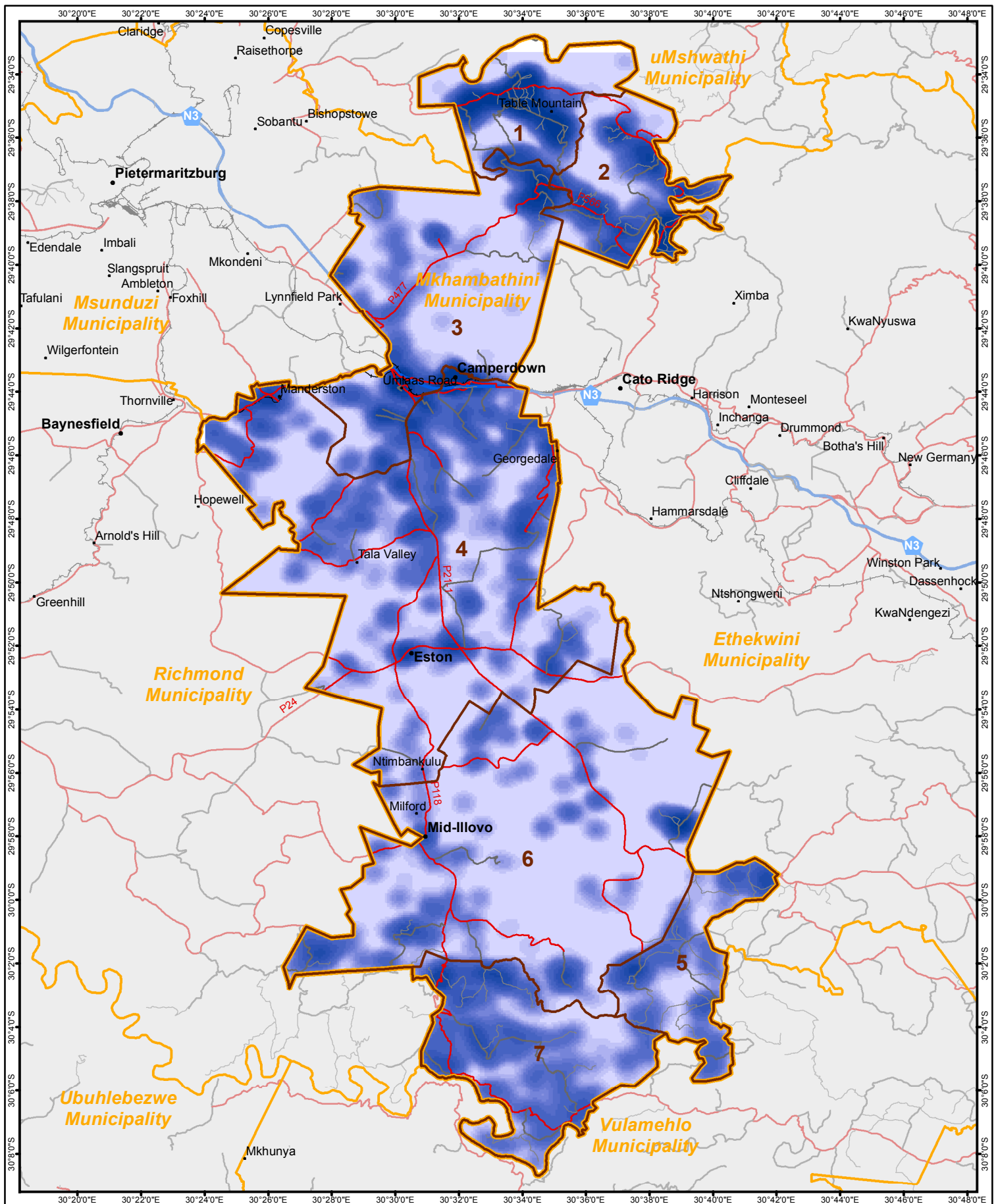
#### 4.2.4 Population Density

The population density within the municipality is illustrated by **Map 10: Population Density (2006)** and **Map 11: Population Density (2008)**. Although small differences, it is clear that the area is densifying in specific localities.

These maps depicts the number of people per square kilometre within the Mkhambathini LM.

It is again clearly visible that a high concentration of population is found within the central area (around the N3, Camperdown and Umlaas Road), the southern parts and northern portions (around the Table Mountain area) of the municipality. This creates many challenges to equal provision of services, as well as the identification of common economic development Initiatives to impact on the livelihoods of all residents in the municipality.

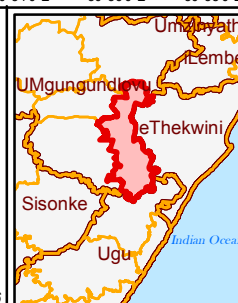
It will be necessary to identify potential areas for densification, where provision of services can be done cost-effectively, and where efficient economic initiatives could be implemented.



### Legend

Wards	Railways	75
Local Municipalities	<b>Population density</b>	100
<b>Roads</b>	<b>No. of people / km<sup>2</sup></b>	150
<b>Class</b>	10	200
National	20	250
Provincial	30	300
District	40	400
Local Access	50	500
Gravel	60	> 500

Source: Eskom Households 2006



### MKHAMBATHINI

SPATIAL DEVELOPMENT FRAMEWORK 2014-2017

### Map 10 Population Density 2006

Date: 2013-10-28

Projection: Geographic  
Datum: WGS84

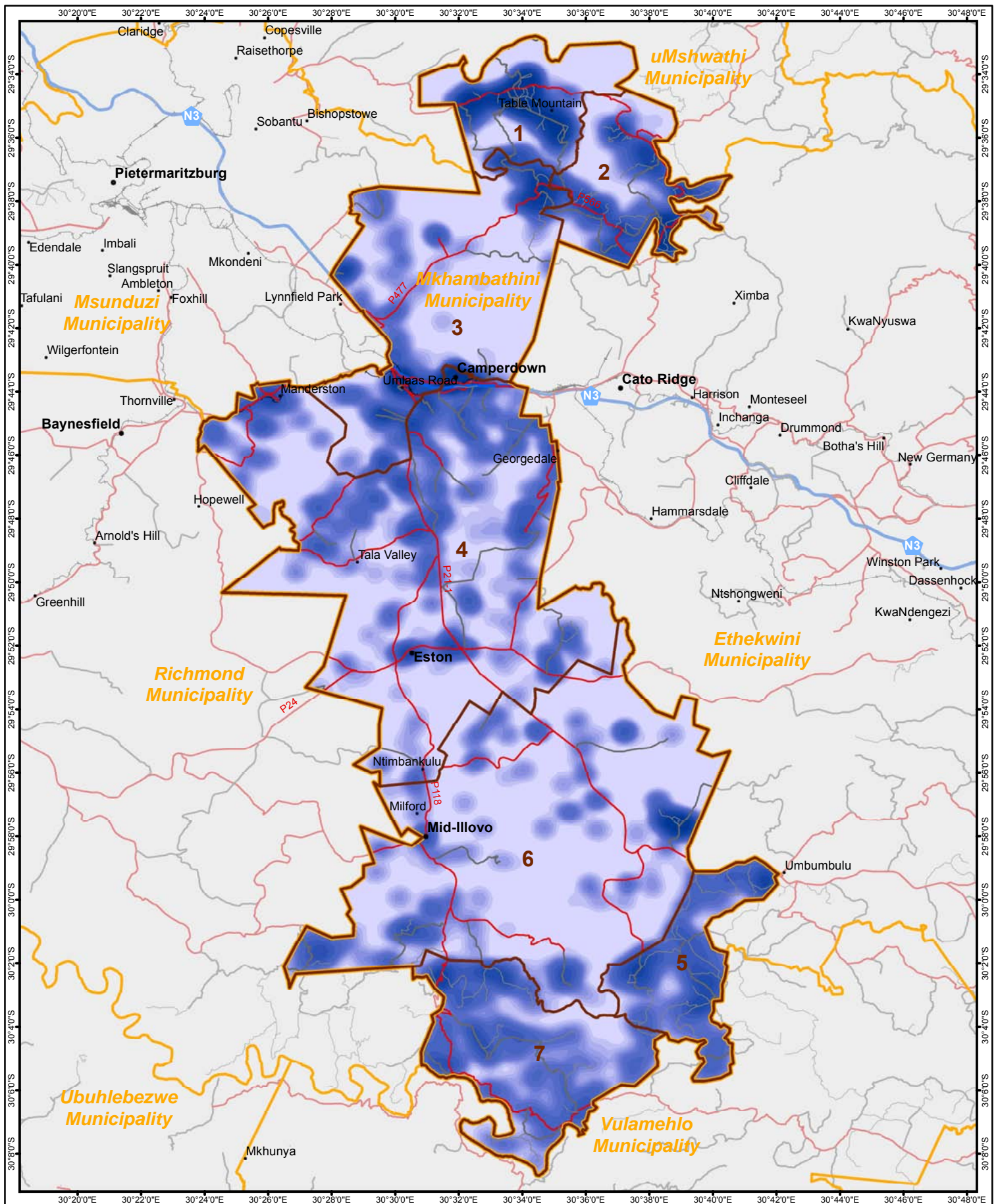


Quartex Technologies  
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Email: info@quartex.co.za

VUKA  
Vuka Planning Africa Inc  
www.vukaplan.co.za  
Email: Rising@vukaplan.co.za

Kilometers  
0 2.5 5

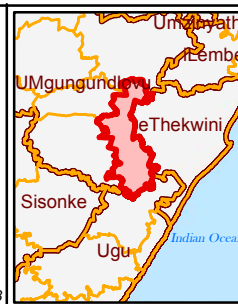




## Legend

<span style="border: 1px solid orange; padding: 2px;"> </span>	Local Municipalities
<span style="border: 1px solid brown; padding: 2px;"> </span>	Wards
<span style="color: blue;">—</span>	National Roads
<span style="color: red;">—</span>	Provincial Roads
<span style="color: grey;">—</span>	District Roads
<span style="color: grey;">—</span>	Local Access
<span style="color: grey;">—</span>	Gravel
<span style="color: black;">—</span>	Railways
Population Density	
No. Of People / km <sup>2</sup>	
<span style="background-color: #e0e0ff; border: 1px solid black; width: 15px; height: 10px;"></span>	10
<span style="background-color: #c0c0ff; border: 1px solid black; width: 15px; height: 10px;"></span>	20
<span style="background-color: #a0a0ff; border: 1px solid black; width: 15px; height: 10px;"></span>	30
<span style="background-color: #8080ff; border: 1px solid black; width: 15px; height: 10px;"></span>	40
<span style="background-color: #6060ff; border: 1px solid black; width: 15px; height: 10px;"></span>	50
<span style="background-color: #4040ff; border: 1px solid black; width: 15px; height: 10px;"></span>	60
<span style="background-color: #2020ff; border: 1px solid black; width: 15px; height: 10px;"></span>	75
<span style="background-color: #0000ff; border: 1px solid black; width: 15px; height: 10px;"></span>	100
<span style="background-color: #0000ff; border: 1px solid black; width: 15px; height: 10px;"></span>	150
<span style="background-color: #0000ff; border: 1px solid black; width: 15px; height: 10px;"></span>	200
<span style="background-color: #0000ff; border: 1px solid black; width: 15px; height: 10px;"></span>	250
<span style="background-color: #0000ff; border: 1px solid black; width: 15px; height: 10px;"></span>	300
<span style="background-color: #0000ff; border: 1px solid black; width: 15px; height: 10px;"></span>	400
<span style="background-color: #0000ff; border: 1px solid black; width: 15px; height: 10px;"></span>	500
<span style="background-color: #0000ff; border: 1px solid black; width: 15px; height: 10px;"></span>	>500

Source: Eskom Households 2008



## MKHAMBATHINI

SPATIAL DEVELOPMENT FRAMEWORK 2014-2017

## Map 11 Population Density 2008

Date: 2012/03/16

Projection: Geographic  
Datum: WGS84



Kilometers  
0 2.5 5





### 4.3 SOCIAL RESOURCES

#### 4.3.1 Land Tenure

**Map 12: Land Ownership** depicts the ownership of the properties within Mkhambathini. The central portion of the municipality is characterised by privately owned farms that consist of private, trust and private business ownership while the far southern and northern portions are mainly Tribal Authority areas held in trust by the Ingonyama Trust. These areas are divided into three separate Traditional Authority Areas.

#### 4.3.2 Settlement Pattern

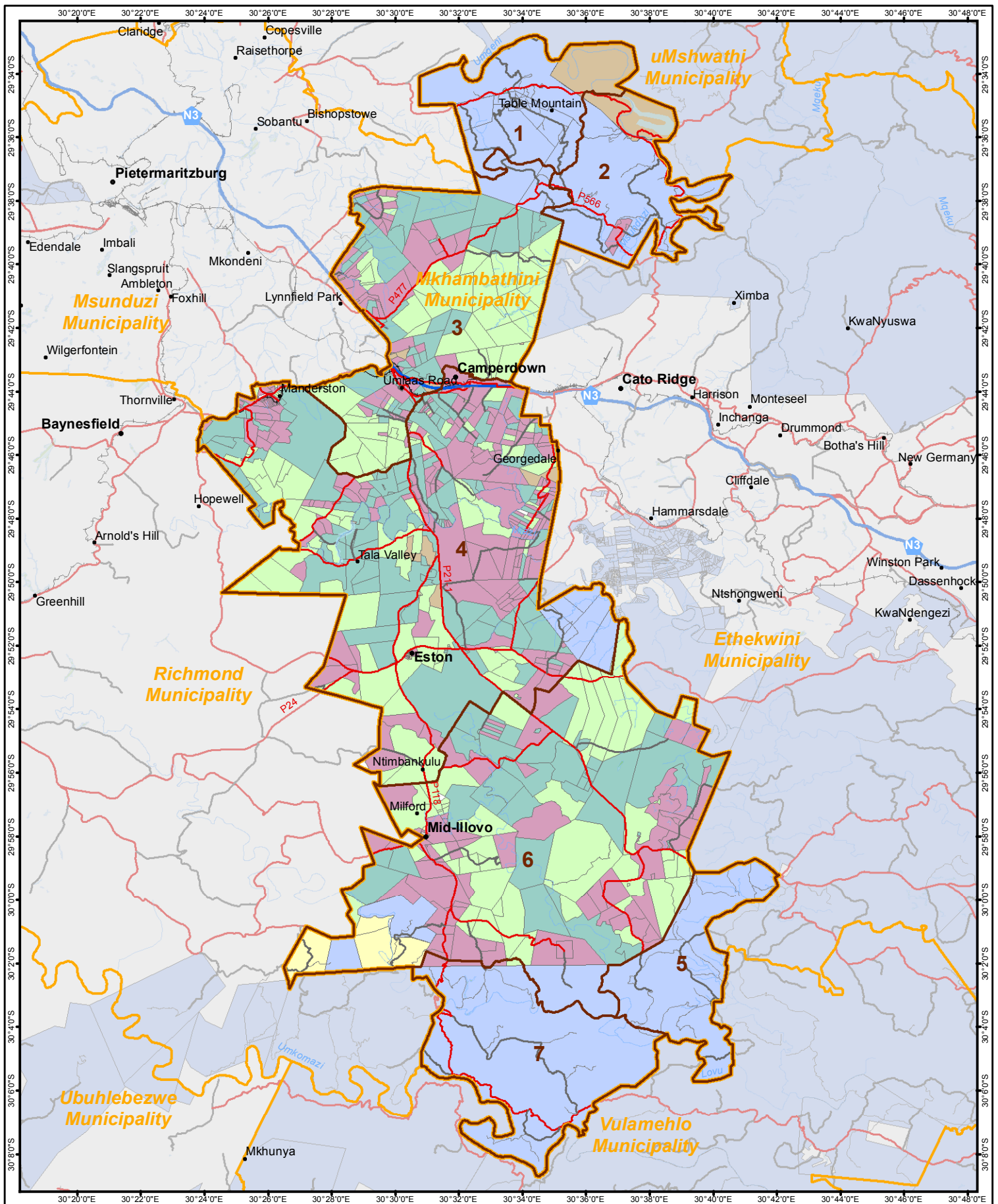
As indicated previously the municipality is characterised by a high concentration of its total population towards the southern and northern parts of the municipality especially on the Traditional Authority land. **Map 13: Settlement Pattern** illustrates the significant concentrations around the southern area. It is important to note that these settlements are not structured in formally established towns and thus the provision of services to these areas without linear patterns and limited servitude reserves are often challenging.

There is also no identifiable hierarchy of service centres and this poses a challenge in the provision of services, and a densification strategy / grouping of people will have to be considered in order to ensure cost-effective provision of services, especially in the scattered rural areas with large numbers of households not living in close proximity and in a serviceable urban formation.

#### 4.3.3 Land Reform

**Map 14** indicates land reform claims differentiated by Transferred Redistribution, Labour Tenants Applications and Gazetted Restitution. From the map it is evident that a large section of the municipality shows areas of different land reform projects and phases. The concern is however the Gazetted Restitution claims located within the Irreplaceable agricultural land towards the east of Mid-Illovo. The municipality should engage in proper management of these land reform processes to ensure food security and protection of very good agricultural land.

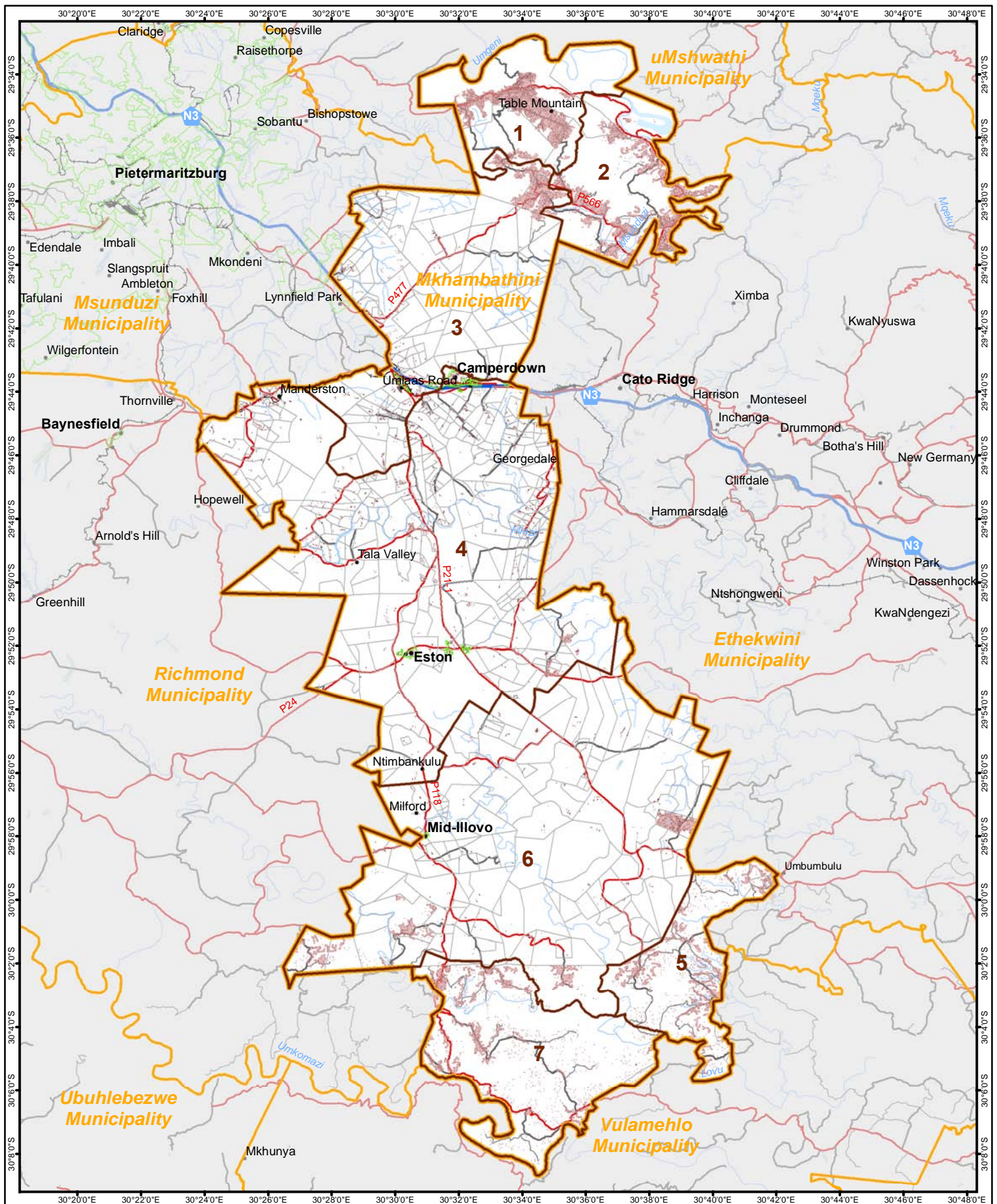
According to the Mkhambathini Housing Sector Plan, Land Reform Initiatives is of great significance as a result of the extent to which land claims have impacted on development throughout the municipality. It is estimated that approximately 80% of the land in Mkhambathini is subject to land claims. This has had negative effects, mainly inhibiting and delaying development, and proposed housing projects being affected the most. Timeous resolution of land restitution and claims is of important to accelerate development in the municipality.



<b>Legend</b> <ul style="list-style-type: none"> <li>Wards</li> <li>Local Municipalities</li> <li>Roads <ul style="list-style-type: none"> <li>National</li> <li>Provincial</li> <li>District</li> <li>Local Access</li> <li>Gravel</li> <li>Railways</li> </ul> </li> <li>Land Ownership <ul style="list-style-type: none"> <li>CC, PTY LTD, LTD</li> <li>State Land</li> <li>Entity</li> <li>Private</li> <li>Trust</li> <li>Ingonyama Trust Land</li> </ul> </li> <li>Rivers</li> <li>Dams</li> <li>Wetlands</li> </ul>		<b>MKHAMBATHINI</b> <b>SPATIAL DEVELOPMENT FRAMEWORK 2014-2017</b> <b>Map 12: Land Ownership</b> Date: 2013-11-27 Projection: Geographic Datum: WGS84      <p>Quartex Technologies www.quartex.co.za Email: info@quartex.co.za</p> <p>Vuka Planning Africa Inc www.vukaplan.co.za Email: Riaan@vukaplan.co.za</p>	
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Source: Land Ownership Deeds

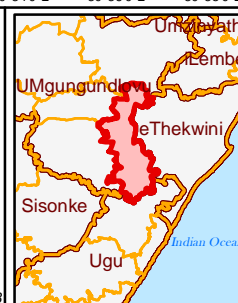




### Legend

- |                      |              |
|----------------------|--------------|
| Wards                | Roads        |
| Local Municipalities | National     |
| Urban Edge 2008      | Provincial   |
| Rivers               | District     |
| Dams                 | Local Access |
| Wetlands             | Gravel       |
| Households           | Railways     |
| Settlements          |              |
| Farm Portions        |              |

Source: Eskom Households 2008



### MKHAMBATHINI

SPATIAL DEVELOPMENT FRAMEWORK 2014-2017

### Map 13 Settlement Pattern

Date: 2013/01/21

Projection: Geographic  
Datum: WGS84



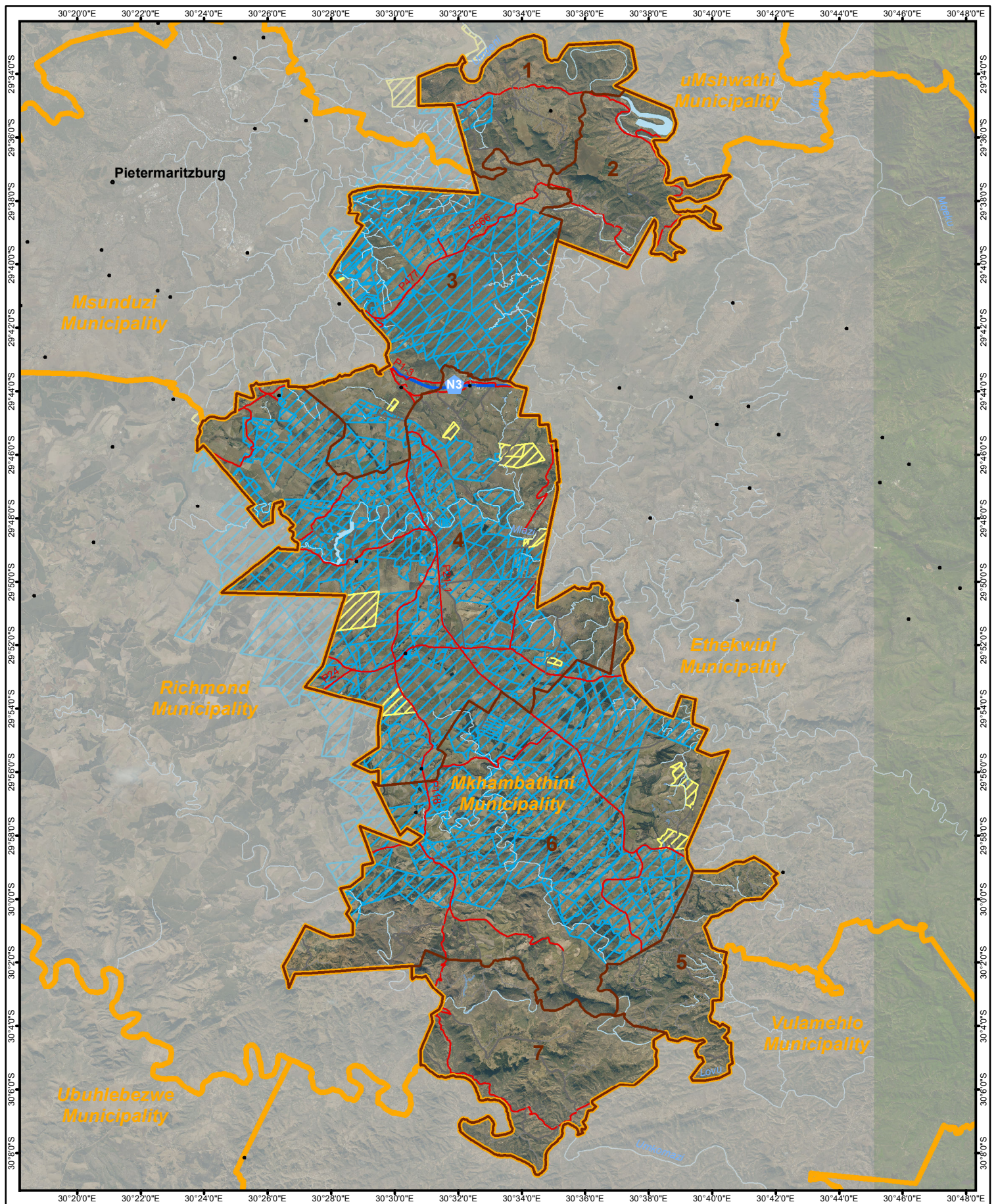
Kilometers  
0 2.5 5



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Email: info@quartex.co.za

**VUKA**  
Africa  
Vuka Planning Africa Inc  
www.vukaplan.co.za  
Email: Risan@vukaplan.co.za

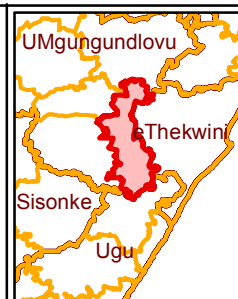




### Legend

- |                      |                             |
|----------------------|-----------------------------|
| Local Municipalities | Rivers                      |
| Wards                | Dams                        |
| Roads                | Gazetted Restitution Claims |
| National             | Transferred Redistribution  |
| Provincial           |                             |
| District             |                             |
| Local Access         |                             |
| Gravel               |                             |

Source: Department of Rural Development and Land Reform



### MKHAMBATHINI

SDF 2014-2017

### Map 14 Land Reform

Date: 2013-08-01

Projection: Geographic  
Datum: WGS84



Kilometers  
0 2,5 5



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#### 4.3.4 Housing

The 2008 Mkhambathini Housing Sector Plan highlights important housing needs as well as planned and anticipated future projects. Table 9 illustrates the project categorisation of different forms of housing provision.

Table 9: Housing Categorisation

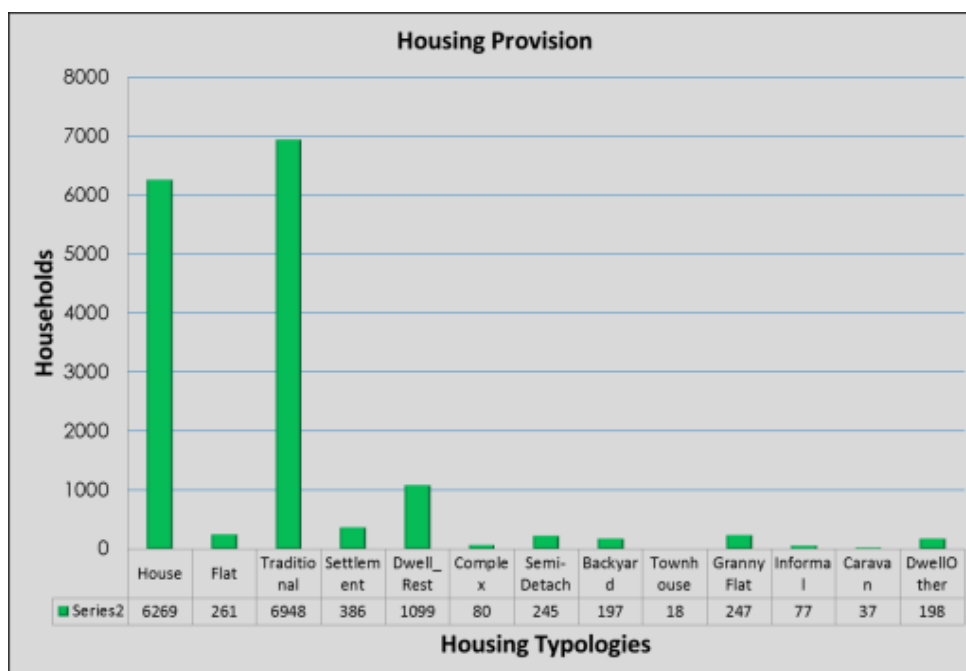
Category	Status
Housing Subsidy Scheme	All of the planned and identified housing projects for Mkhambathini are applicable to the Housing Subsidy Scheme.
Discount Benefit Scheme	The Municipality has not identified any houses to which the Discount Benefit Scheme would apply
Public Sector Hostel Redevelopment Programme	This is not relevant to Mkhambathini as there are hostels within the municipality
Rental/ Social Housing: Construction of Rental Flats	A Rental housing project for the construction of approximately 100 units, targeting the middle-income market, has been identified at Camperdown
Worker Housing	No project has yet been identified for major employers in the municipality
Engagement with Private Sector	Arising out of the Provincial Housing Summit 2006, municipalities are to engage companies in their areas with a view to exploring and ensuring the provision of employee housing and company assisted -housing

Source: Municipal Housing Sector Plan 2008

The Housing Sector Plan utilised the 2007 Household Count to indicate progress with housing provision. Since then the 2011 Census data was released, and provides a more up to date picture of realities in terms of accessibility to housing. The categories utilised within the two sets of data (2001 vs 2011) utilised different housing categories and it is therefore difficult to directly compare these. Subsequently only the 2011 Census Data is portrayed as it provides an overview of the current realities regarding access to housing.

The graph below clearly depicts that the more than 43% of the Population is living in traditional structures, whilst another 13% of the Population is residing in informal structures.

Graph 3: Dwelling Type



Source: Census 2011

Table 10 highlights the housing categories and number of people housed in the various categories. This gives an indication of the housing backlog within the Municipality.

Table 10: Formal and Informal Housing

	Category	Households	Total	%
<b>Formal Housing</b>	House	6269	7120	44%
	Flat	261		
	Complex	80		
	Semi-Detach	245		
	Townhouse	18		
	Granny Flat	247		
<b>Informal housing</b>	Traditional	6948	8942	56%
	Settlement	386		
	Dwell_Rest	1099		
	Backyard	197		
	Informal	77		
	Caravan	37		
	Dwell Other	198		

Source: Census 2011

Table 10 indicates that 56% of the households within Mkhambathini are housed in informal structures, with a shortage of 2150 housing units for every household of 4.2 people. The 2008 Mkhambathini Housing Sector Plan on the other hand indicates that a physical shortage of 7400 units exist, although planned projects will provide an additional 5,000 units, which leaves a need of 2,400 houses. The Housing Sector Plan only considered housing typology of “*Traditional dwelling/hut/structure made of traditional materials*”, and housing required for “*slums clearance*” projects as housing backlogs. Whilst this may not be a true reflection of the housing need, a revision of the Housing sector plan would be able to provide near accurate estimates of the housing backlog and need in the Municipality.

Of the above mentioned projects, Maqongqo is the most advanced of the projects and is currently under construction. Projects are being investigated at Eston crossroads and Killarney in terms of the adopted housing plan.

With the current Umlaas Road expansion, there is a serious need for medium income housing to accommodate the rising demand as against the limited housing opportunities currently being experienced in the region. Contrary to this housing demand, the availability of land remains a challenge particularly due to vast private ownership of land in the Municipality. In order to facilitate housing provision, the need for a strategy to unlock good situated land for public housing will have to be urgently undertaken.

The Mkhambathini Housing Sector plan indicated that the municipality has not as yet identified a significant demand for rental housing. However, one rental initiative has been identified in the Camperdown area.

#### 4.3.5 Health Facilities

The spatial distribution of health facilities is depicted on **Maps 15 and 16 for Clinics and Hospitals**. The standards for provision of and access to Health Facilities are the standards prescribed by the CSIR. The KZN Department of Health is in the process of revising its standards, and the KZN Provincial Planning & Development Commission also published a document with a review and lengthy discussions on the standards. All the standards vary, and through discussions with the Local Authorities a decision must be made with regards to which standards will be implemented.

Table 11: CSIR Standards

The CSIR Standards table which was used for analysis of provision of facilities includes:

Facility	Provision Standard	Access Standard
<b>Clinic</b>	1 Clinic for every 12 500 persons	None prescribed, thus standard of maximum 5 km access distance used
<b>Hospital</b>	1 Hospital for every 100 000 persons	None prescribed, thus standard of maximum 20 km access distance used

Source: CSIR

The calculations to show shortfall or over provision of these facilities are depicted in Table 27: Land Use Budget.

#### Clinics

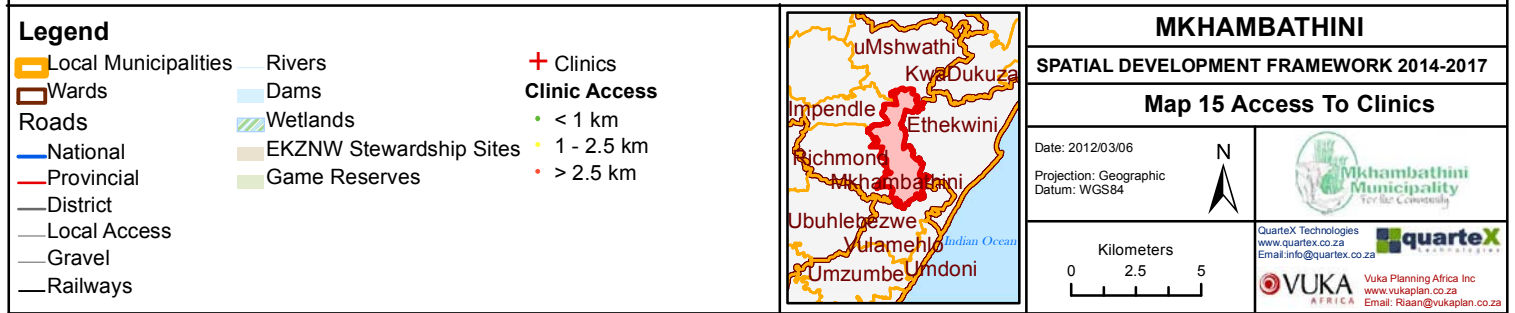
- There are no hospitals within the Municipality; there are 4 fixed clinics and a mobile clinic serving various communities.

**Map 15: Access to Clinics** depicts existing clinics with an optimum walking distance of 1 to 2.5 km and a maximum walking distance of 5km. Access to Clinics in the Mkhambathini municipality indicate that the central portions are predominantly further than 2.5 km from a clinic as opposed to the northern and southern portions, mainly indicating distances of less than 1 km from a clinic. Some of the areas in the municipality are also served by clinics that are located in adjacent municipalities The N3 being a national road should improve the situation for residents in close proximity to it as access to clinics can be obtained from the main route. Due to the lack of sourcing data it must be noted that mobile clinics service most of the Mkhambathini Local Municipality which will tell a different story to the access to clinics map.

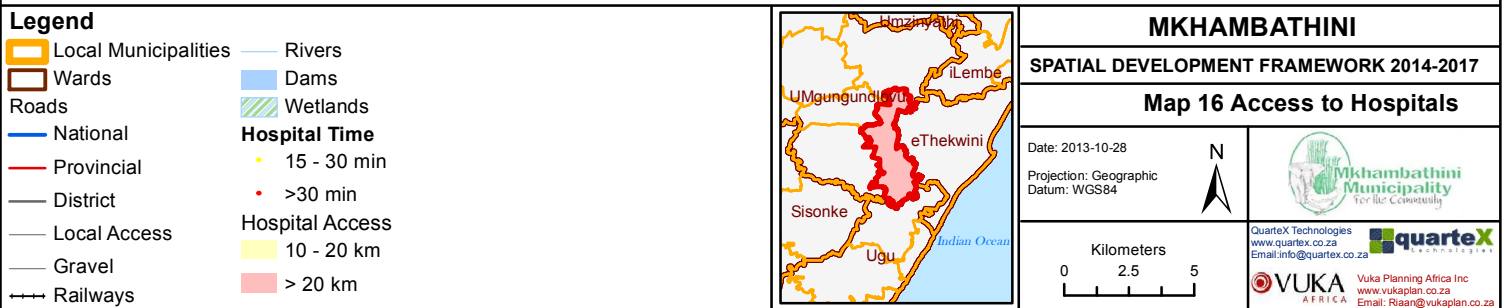
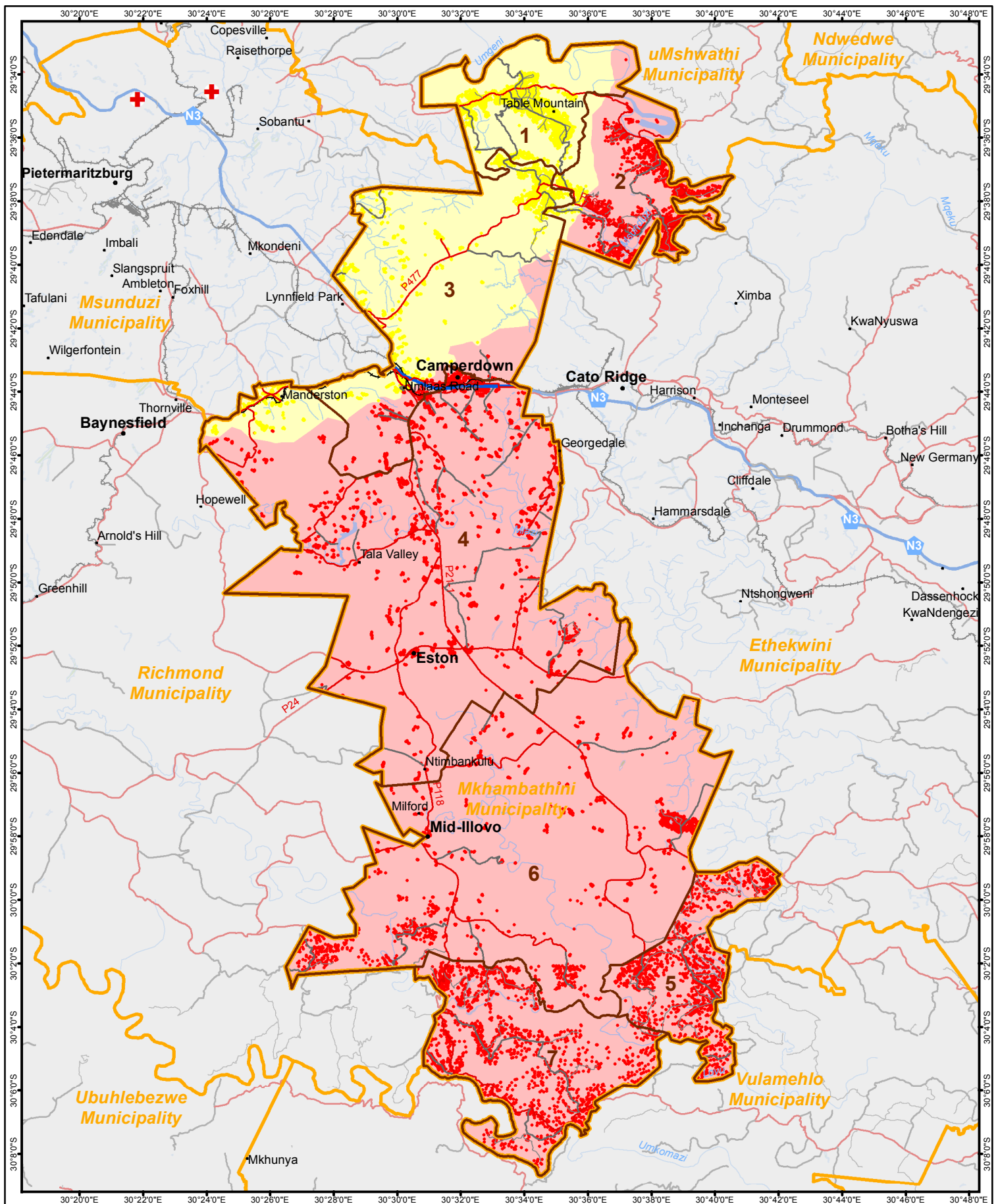
#### Hospitals

The CSIR prescribed the same standards for provision of hospitals as for clinics. However, considering the lack of resources it is necessary to establish a hierarchy of facilities which can service the whole of the community, therefore, a standard of 20km access distance was used.

There is no Hospital within the Mkhambathini Municipality itself, and the nearest facility to access for its residents is the Hospitals Located in Pietermaritzburg in the Msunduzi municipality. According to **Map 16: Access to Hospitals**, large areas of the northern part of the municipality are serviced by these hospitals, including large areas of the Table Mountain settlement area. Although not depicted on the map there are the Hillcrest and Kingsway hospitals to the east of Mkhambathini Municipality. The distances to these hospitals are further than 20 km from any area within Mkhambathini.







## 4.3.6 Education

## 4.3.6.1 EDUCATION FACILITIES

Mkhambathini is served only by primary and secondary education facilities. **Map 17: Primary Schools**, and **Map 18: Secondary Schools**, depict the localities of these educational facilities within the Municipality.

Table 12: Standards for provision of educational facilities, proposed by the KZN Department of Education

Facility	Provision Standard	Access Standard
<b>Primary School</b>	1 Primary School for every 750 Households	Maximum walking distance of 5 km
<b>Secondary School</b>	1 Secondary School for every 1000 to 1500 Households	Maximum walking distance of 5 km

Source: Department of Education

The calculations to show shortfall or over provision of these facilities are depicted in Table 27: Land Use Budget.

Accessibility to education facilities is depicted by means of colour notation depicting distance to the schools. the following colour notations are utilised.

- Green - Areas serviced within 2.5km by a facility
- Yellow - Areas serviced within 2.5km to 5km by a facility
- Red - Areas not serviced within 5km by a facility

The municipality is relatively well serviced in terms of primary schools, as is depicted on **Map 17: Access to Primary Schools**. The largest population densities are situated on the northern most area, around Table Mountain, and the southern parts south of Mid-Illovo. Although the largest portions the population is serviced by the primary schools, there are various households not serviced within 5km traveling distance. This can be ascribed to localised accessibility challenges such as rivers and steep topography, which prevents ease of movement and accessibility. The central part of the municipality, is very scarcely populated, and subsequently it might not be feasible to provide more facilities within this area.

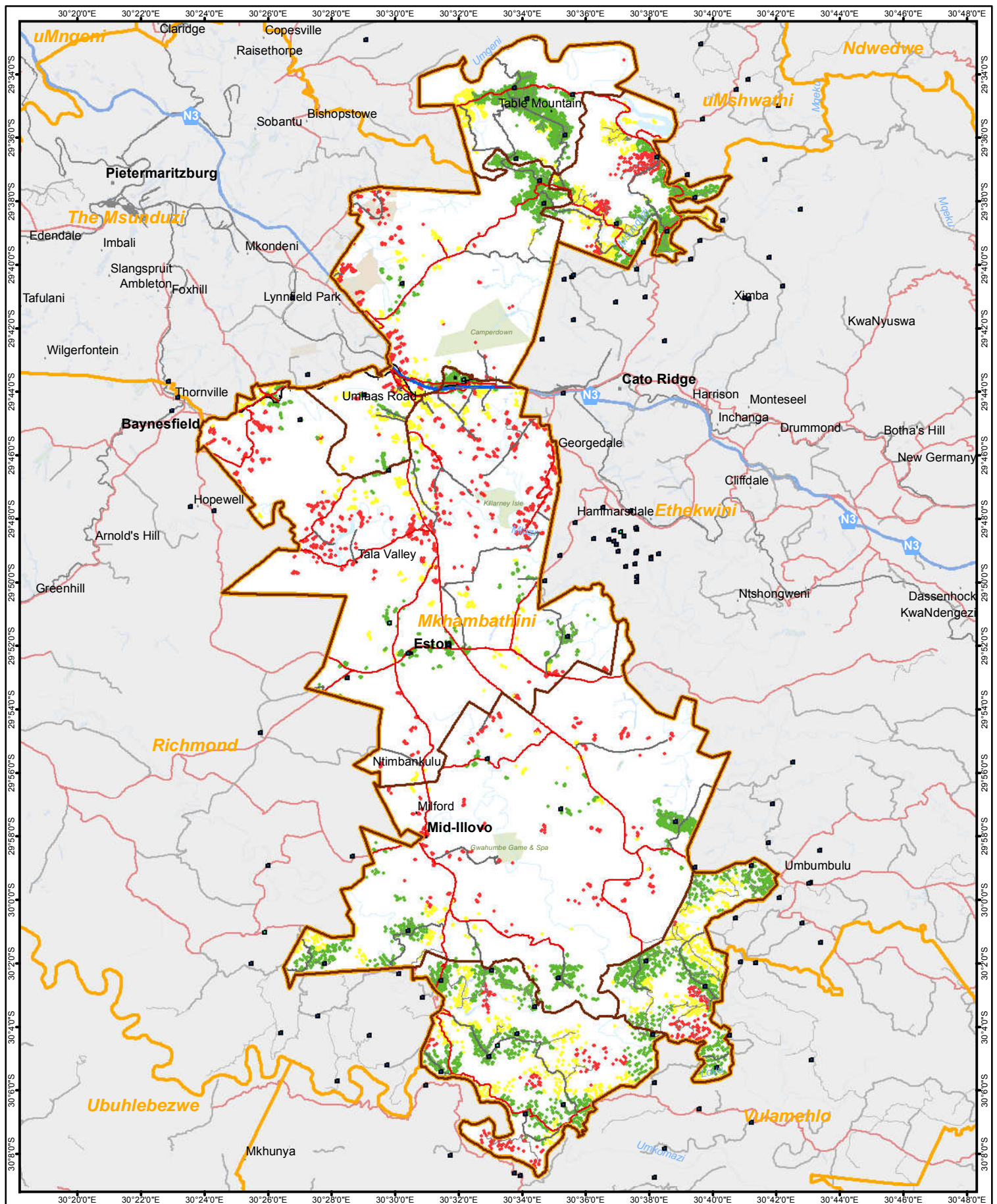
**Map 18: Access to Secondary Schools** portrays a similar situation where most of the facilities are situated in the northern and southern most extremes of the municipality, with the central, less densely populated area, not well serviced at all.

The topography makes it difficult to provide facilities within a reasonable distance, as the settlements follow the top of the ridges.

The population is increasing (albeit at a slow rate) and the necessary densities will eventually be reached to allow for additional facilities to be provided.

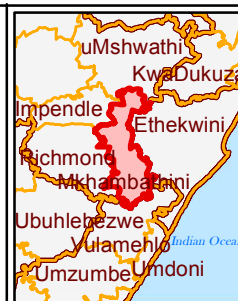
It is clear that schools are located adjacent to roads and therefore settlements serviced by local distributor roads have better access to schools.





## Legend

- |  |  |   |
|--|--|---|
| <ul style="list-style-type: none"> <li>Local Municipalities</li> <li>Wards</li> <li>Roads <ul style="list-style-type: none"> <li>National</li> <li>Provincial</li> <li>District</li> <li>Local Access</li> <li>Gravel</li> <li>Railways</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>Rivers</li> <li>Dams</li> <li>Wetlands</li> <li>Game Reserves</li> <li>EKZNW Stewardship Sites</li> </ul> | <ul style="list-style-type: none"> <li>Primary Schools <ul style="list-style-type: none"> <li>Primary</li> <li>Combined</li> </ul> </li> <li>Primary School Access <ul style="list-style-type: none"> <li>&lt; 2.5 km</li> <li>2.5 - 5 km</li> <li>&gt; 5 km</li> </ul> </li> </ul> |
|--|--|---|



## MKHAMBATHINI

SPATIAL DEVELOPMENT FRAMEWORK 2014-2017

### Map 17 Access To Primary School

Date: 2012/03/06

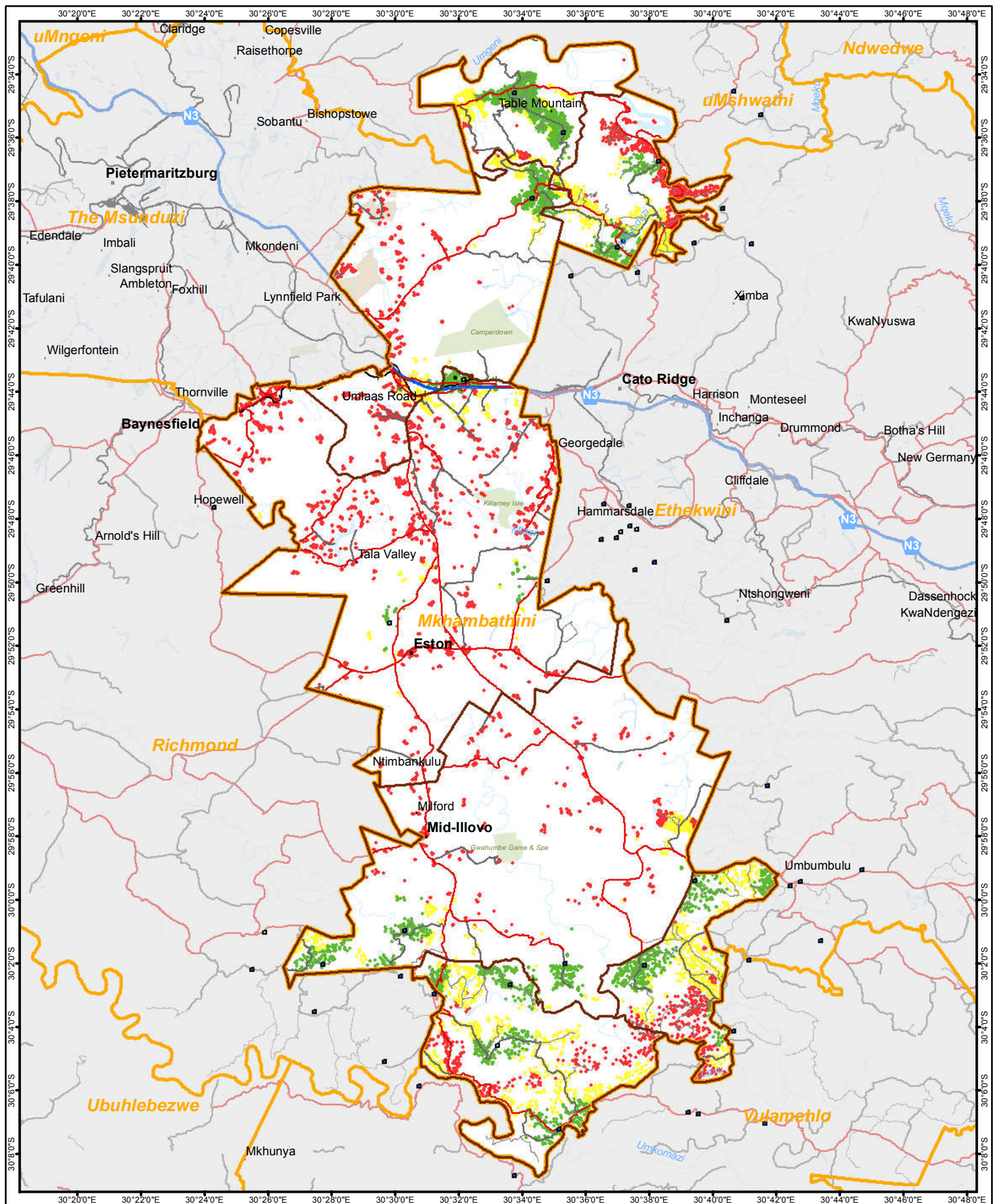
Projection: Geographic  
Datum: WGS84



Kilometers  
0 2.5 5







## Legend

- Local Municipalities
- Wards
- Roads
- National
- Provincial
- District
- Local Access
- Gravel
- Railways
- Rivers
- Dams
- Wetlands
- Game Reserves
- EKZNW Stewardship Sites

## Secondary Schools

- Secondary
- Combined

## Secondary School Access

- < 2.5 km
- 2.5 - 5 km
- > 5 km



## MKHAMBATHINI

SPATIAL DEVELOPMENT FRAMEWORK 2014-2017

## Map 18 Access To Secondary School

Date: 2012/03/06

Projection: Geographic  
Datum: WGS84



Kilometers  
0 2.5 5

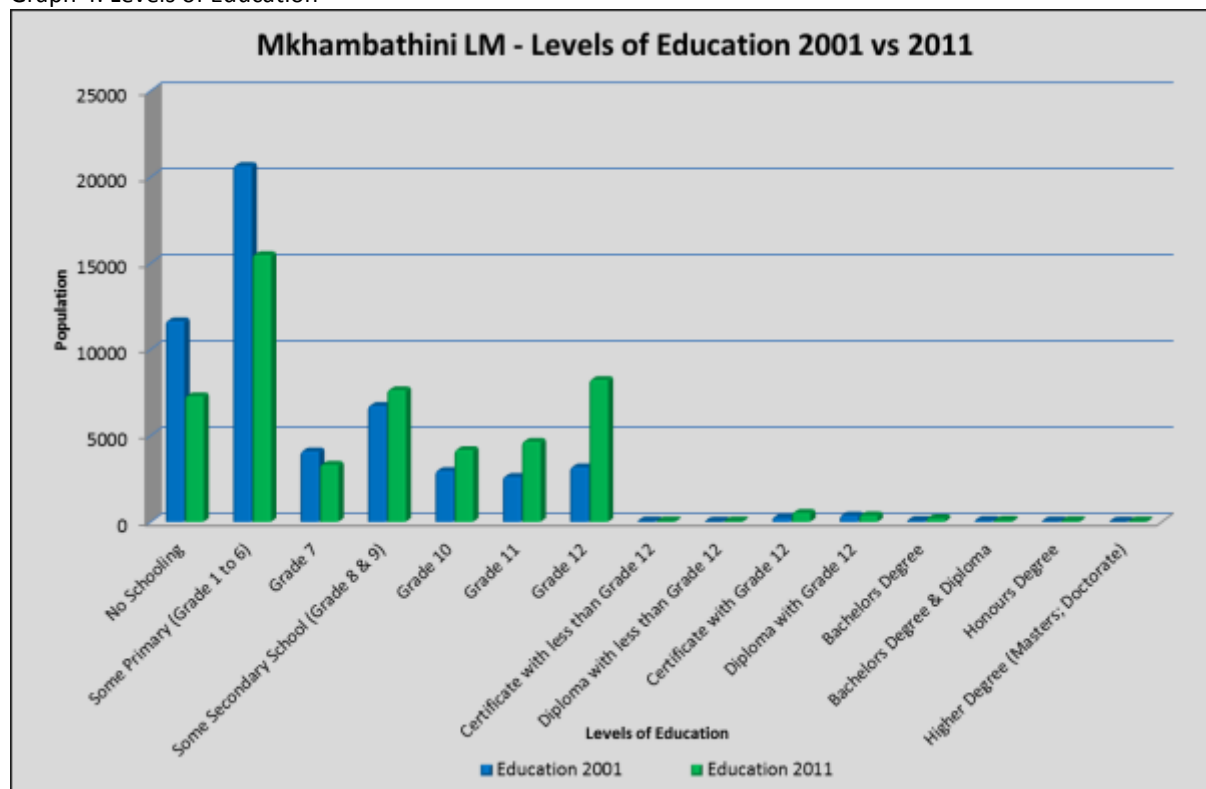




#### 4.3.7 Levels Of Education

The graph below depicts the levels of education for Mkhambathini residents. Almost 11 000 of residents had no formal school education in 2001 compared to almost 7500 in 2011. Approximately 20 000 (30%) of residents had some primary level education in 2001, but decreased to 15 000 in 2011. This could be attributed to majority of the population being under the age of 10 years old. Only 847 (1, 4%) of the population had an education higher than grade 12 in 2001.

Graph 4: Levels of Education

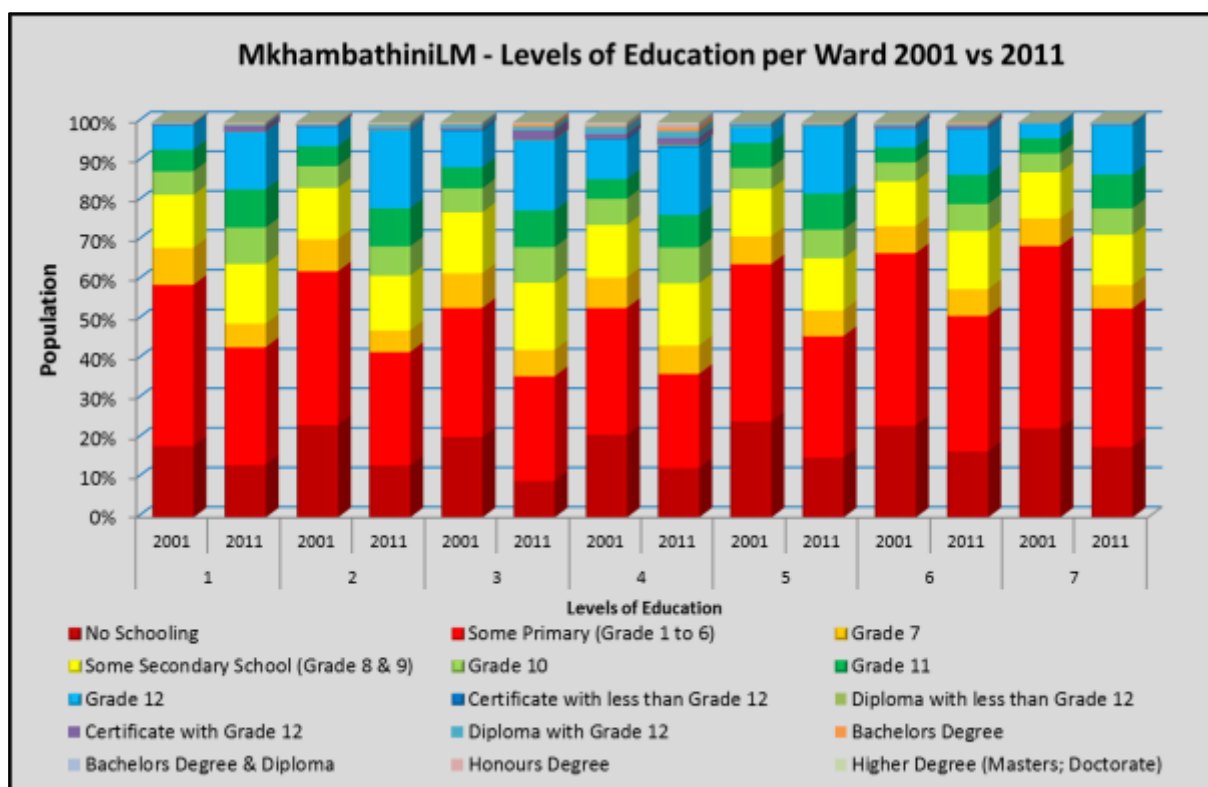


Source: Stats SA Census 2001 & 2011

These levels of education as shown here depict the low level of skills of the labour force. This could impact drastically on the type of work opportunities one can create for the populace. Whilst unskilled & semi-skilled labour can be used for labour intensive projects such as infrastructure implementation, these types of skills only draw in relatively lower incomes. The skills level of the municipality will have to be addressed in order provide better employability of its labour force to benefit from higher income jobs. The opportunity for training and skills development to encourage self-employment opportunities can also be harnessed.

When comparing the education levels within the different wards, it is clear that majority of the population have some primary school education. Those with higher education up to grade 12 actually showed an increase across all wards in 2011 which means an increase in human development in 2011 as compared to 2001. The increase in levels of higher education could impact positively on the skills base of the labour force, and more so on their employability.

Graph 5: Levels of Education per Ward



Source: Stats SA Census 2001 & 2011

#### 4.3.8 Libraries

Table 13: Standards for provision of Libraries

The KZN Librarian services provided the following standards for provision of Libraries:

Facility	Provision Standard	Access Standard
<b>Public Library</b>	1 Public Library for every 60 000 Persons.	Maximum walking distance of 3 km

The calculations to show shortfall or over provision of these facilities are depicted in Table 27: Land Use Budget.

Although this is the official standard, the KZN Librarian Services indicated that these levels of provision are not at all achievable, and not cost effective. In a densely populated city such as Durban this might be achievable, but in rural KZN it is difficult to provide a number of cost-effective libraries within the limited budget. The situation is constantly assessed and libraries are then provided in close proximity to a concentration of schools, urban areas, where the accessibility to the library is the highest, and the largest number of people can be reached. The population is also too scattered to provide facilities to service all households within the access standards as prescribed. It needs to be noted that these standards refers to a large fully fledged municipal library, whilst smaller libraries with specialised learning materials could also be provided at schools and community halls.

Mkhambathini is currently serviced by a single library situated in Library Road, Camperdown.



#### 4.3.9 Police Services

According to **Map 19: Access to Police Stations**, Mkhambathini is serviced by 2 Police Stations. The standards for provision of Police Stations are as follows:

Table 14: Police Stations

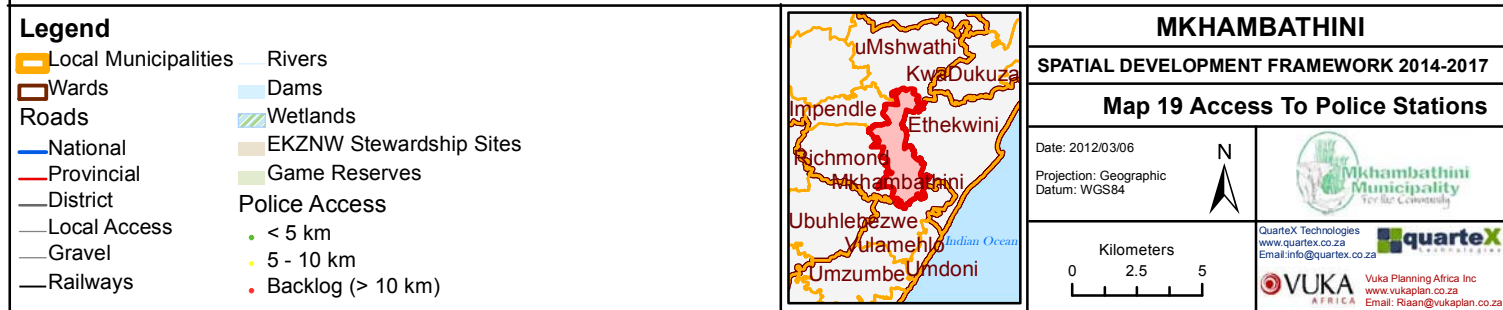
Facility	Provision Standard	Access Standard
<b>Police Station</b>	1 Police Station for every 25 000 households	Accessible within 20 km radius

The calculations to show shortfall or over provision of these facilities are depicted in Table 27: Land Use Budget.

**Map 19** indicates **Access to police stations** according to these standards and illustrates that, in terms of the distance factor; the local authority is serviced, with police stations at the Camperdown and Mid-Illuvo areas respectively. There are at least 4 police stations in close proximity to the municipal borders, which can also serve the municipality in terms of the distance factor. It is clear that areas around Table Mountain in the north as well as dense areas to the south of the municipality are not served according to these standards. The central areas, which are less densely populated are also not served in terms of the distance factor standards.

#### 4.3.10 Community Halls

There are currently two official community halls recorded for Mkhambathini in their Dataset. This creates the opportunity to identify additional Community Halls as public facilities, as Mkhambathini is well established. With the amount of schools, a number of multi-purpose facilities must have been constructed to be utilised by the community and the schools.





## 4.4 PHYSICAL RESOURCES

### 4.4.1 Transportation Network

The primary transport route within the municipality is the **N3 Route** that traverses Mkhambathini and links Durban to the east with Pietermaritzburg and ultimately the Gauteng Highveld to the west and north-west. **Map 22: Access to Roads** shows that the largest majority of households in the Mkhambathini municipality enjoy access to roads at a distance of less than 1km.

There are a number of provincial roads spread throughout the municipal area, contributing to relative accessibility of the majority of settlements and households in the municipality. Many households are also serviced through lower order, district or local, roads. The map does not indicate the condition of the roads in terms of maintenance and quality. The 2012/13 IDP does indicate road lengths within the municipality, which is important to budget for maintenance for these roads. The current road lengths are as follows:

Table 15: Kilometres of roads by Road type: Mkhambathini

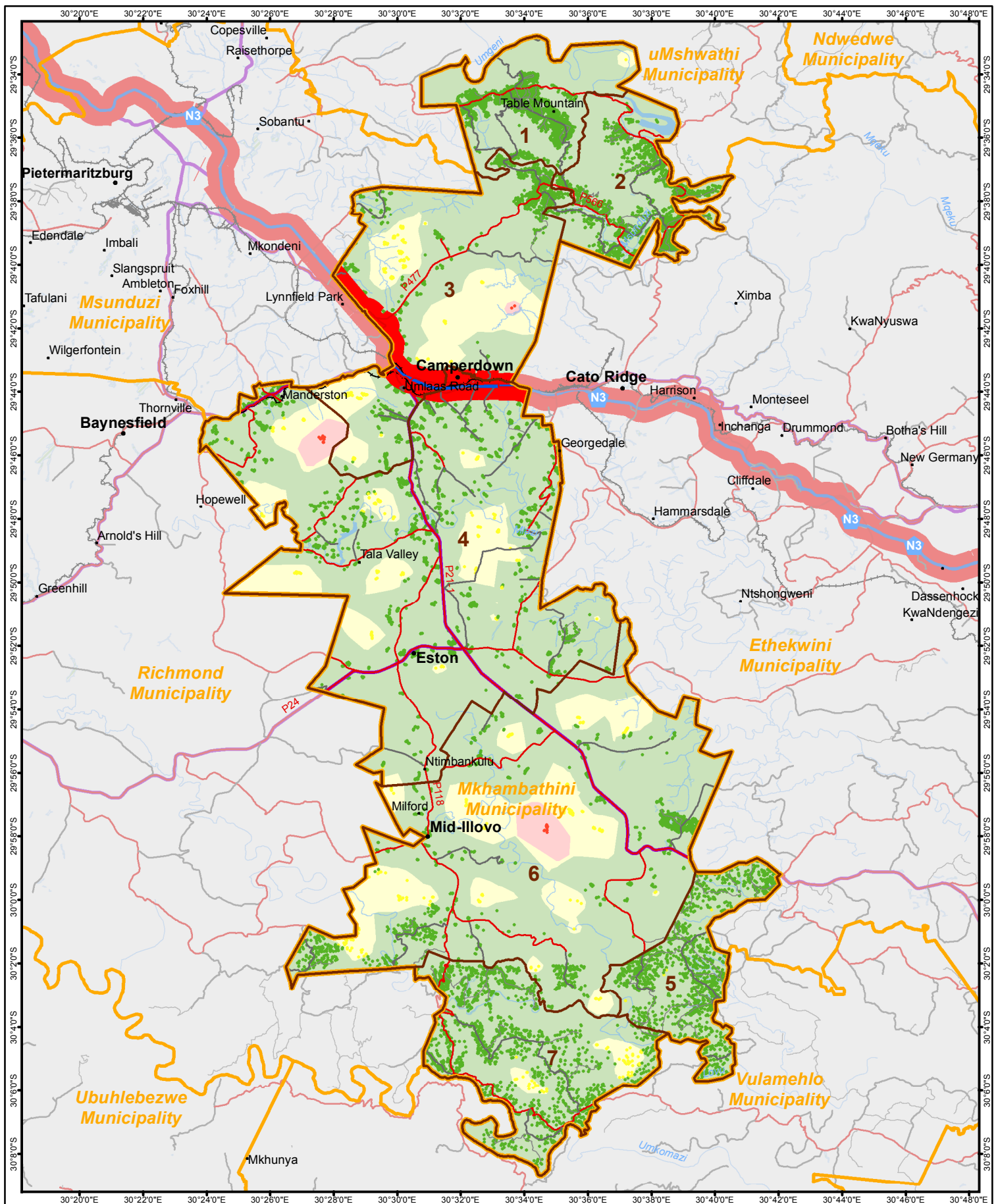
Gravel	Surfaced	Total
367.23	162.24	529.47

Source: Mkhambathini IDP 2012/13

The above table depicts all roads within the Municipality. It is unclear from available information, what percentage of the above roads is assigned to National and Provincial Roads.

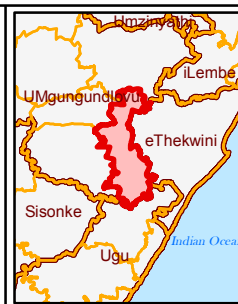
The Road Infrastructure Strategic Framework for South Africa (RIFSA) classifications indicates a major dependency on lower order access roads for most of the residents within Mkhambathini. Due to the remoteness of these roads, as well as the limited funding for infrastructure maintenance, maintenance of these roads might pose a problem in future. To ensure correct future analysis of these roads and the dependency of other aspects' such as economic opportunities, it is suggested that the conditions of all these roads, as well as the condition and localities of transport facilities are further researched.

Road freight volumes in the municipality are indicated by **Map 20: Road Access & Freight Volumes**. As would be expected, the N3 traversing the municipality shows freight volumes of more than 30million tonnes per annum. The N3 serves as a national strategic transport route and its influence on the municipality is limited, as it only serves to channel heavy transport and freight through the municipality to destinations outside of the municipal area. The provincial road running north to south and west of Eston shows slight volumes of road freight (between 100 000 and 1 000 000 per annum). This can be assumed to be because of the road transport activities of the sugarcane farming in the area and the link with the sugar mill at Eston.



# Legend

Local Municipalities	Roads Access < 1 km	Road Freight > 30 MIL tonnes	Dams
Wards	Roads Access 1 - 2.5 km	Road Freight 10-20 MIL tonnes	Wetlands
National Roads	Roads Access > 2.5 km	Road Freight 5-10 MIL tonnes	
Provincial Roads	Road Access < 1 km	Road Freight 1-5 MIL tonnes	
District Roads	Road Access 1 - 2.5 km	Road Freight < 1 MIL tonnes	
Local Access Roads	Road Access > 2.5 km	Road Freight < 100 000 tonnes	
Gravel Roads		Rivers	
Railways			



## MKHAMBATHINI

SPATIAL DEVELOPMENT FRAMEWORK 2014-2017

### Map 20 Roads Access & Freight

Date: 2013-10-28

Projection: Geographic  
Datum: WGS84



Kilometers  
0 2.5 5

Quartex Technologies  
www.quartex.co.za  
Email: info@quartex.co.za

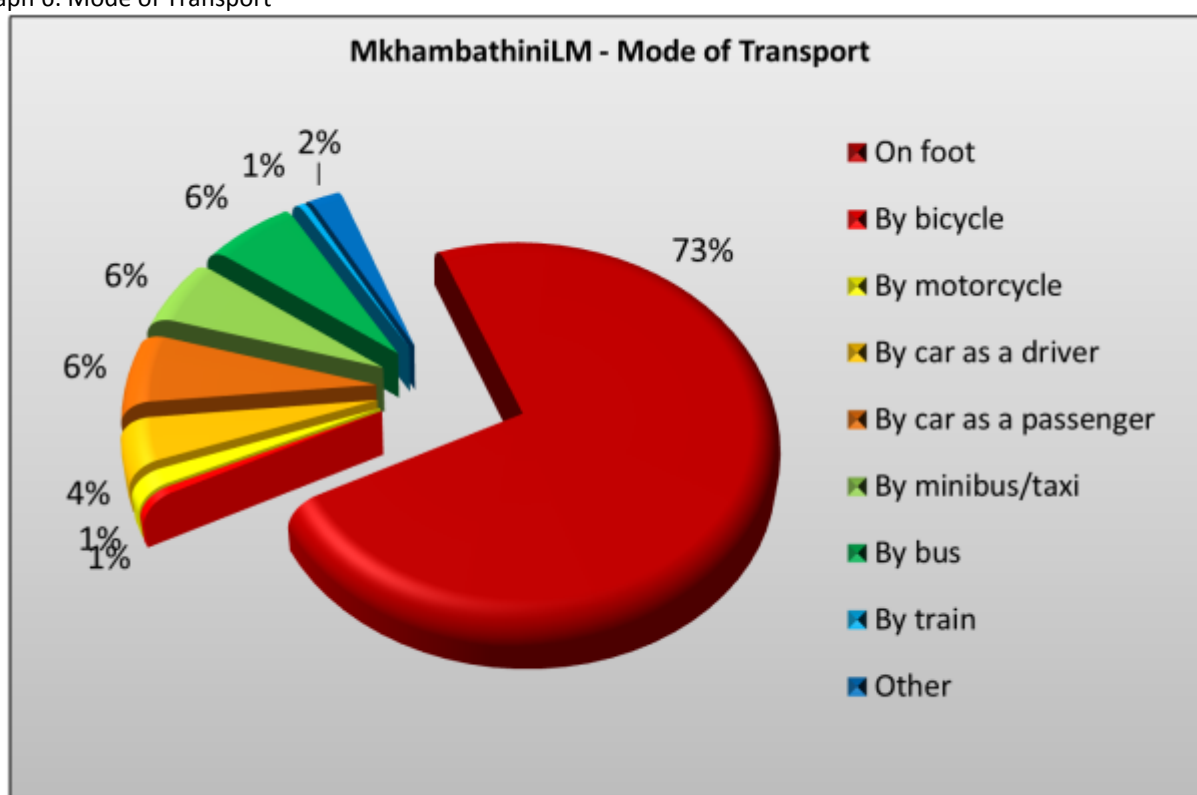
VUKA  
Vuka Planning Africa Inc  
www.vukaplan.co.za  
Email: Rising@vukaplan.co.za



#### 4.4.2 Mode of Transportation

From the statistical distribution of modes of transports mainly utilised by residents it is evident that the largest portion of the Mkhambathini population (73%) are dependent on travelling on foot and thus with no or limited access to affordable public transportation. This implies first of all, the lack of funds to utilise public transport, or the lack of an adequate public transport system. Further to this, transport by bus, by minibus taxi and by car as a passengers is the next most popular mode of transport (at 6%). This also relates to the remoteness of some of the areas, as limited road infrastructure exists precluding taxis or buses to reach these remote areas. The last scenario is the most likely as very few well-maintained lower order roads exist. The three aspects, combined, are an indication of the general poverty levels of this area. With the high dependency on the lower order nodes, it is necessary to ensure that proper transport infrastructure exists, especially with the view of creating economic growth in the municipality, which positively affects everybody.

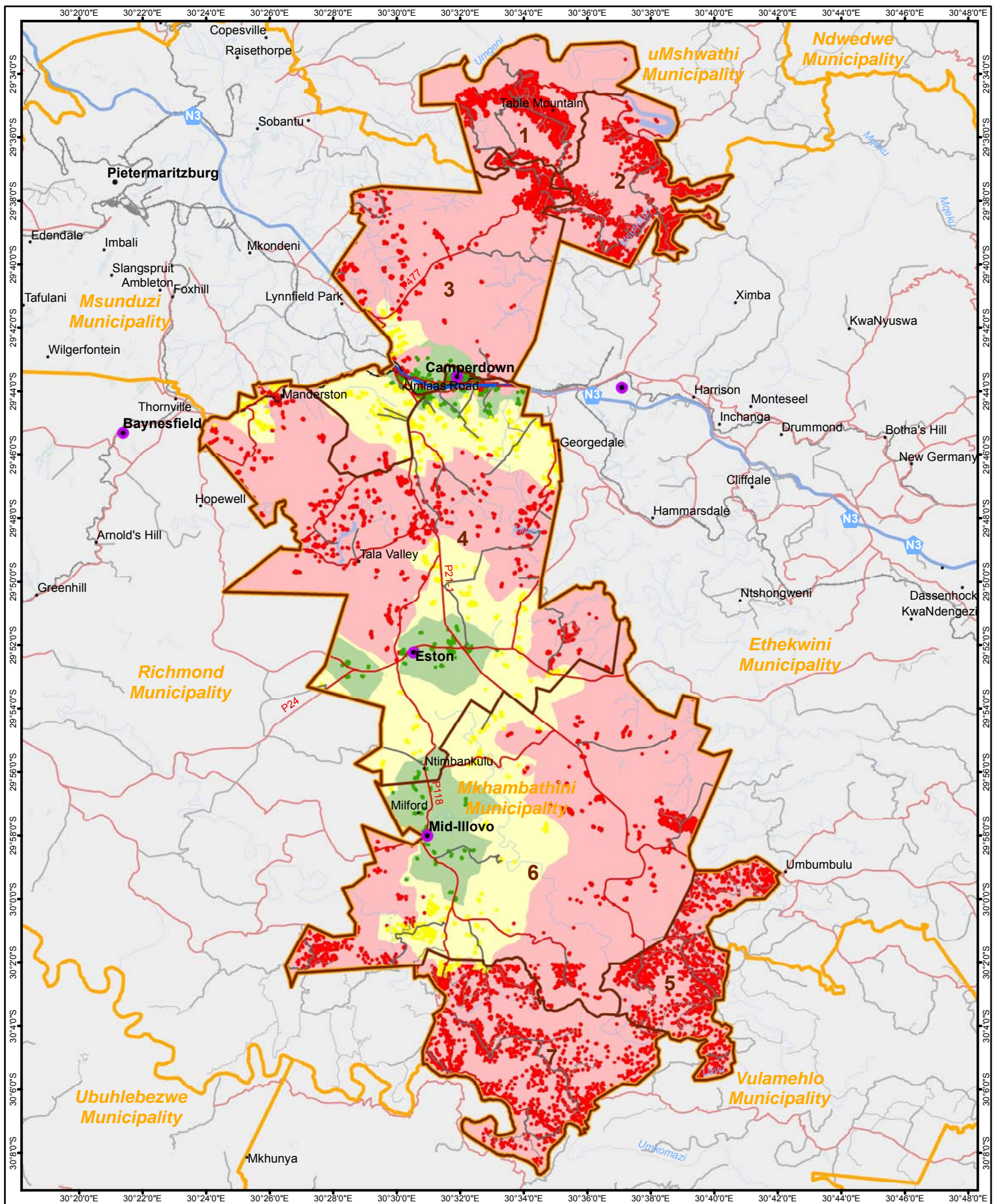
Graph 6: Mode of Transport



Source: Stats SA Census 20011

#### 4.4.3 Services

The **Access to Towns** is illustrated by **Map 21** hence it is evident that the northern and southern portions are located further than 10km away by road from a formalised town. The central portions have 3 formal towns namely Camperdown, Eston and Mid-Illovo, where households within a distance of 5km are shown in green.



<b>Legend</b> Local Municipalities Wards Roads National Provincial District Local Access Gravel Railways Rivers Dams Wetlands <b>Town Access</b> < 5 km 5 - 10 km > 10 km		<b>MKHAMBATHINI</b> <b>SPATIAL DEVELOPMENT FRAMEWORK 2014-2017</b> <b>Map 21 Access To Towns</b> Date: 2012/03/30 Projection: Geographic Datum: WGS84   	
 www.quartex.co.za Email: info@quartex.co.za		 Vuka Planning Africa Inc www.vukaplan.co.za Email: Risan@vukaplan.co.za	



#### 4.4.4 Water Services

Access to water is illustrated by **Map 22: Water Access & Infrastructure** and from the said map it is evident that the greater majority of the dense, scattered settlements around the Table Mountain area, north of the municipality have relatively good water services provision. The areas to the most southern part of the municipality are not well services and the majority of households in this area only have access to water at a distance of more than 1000m.

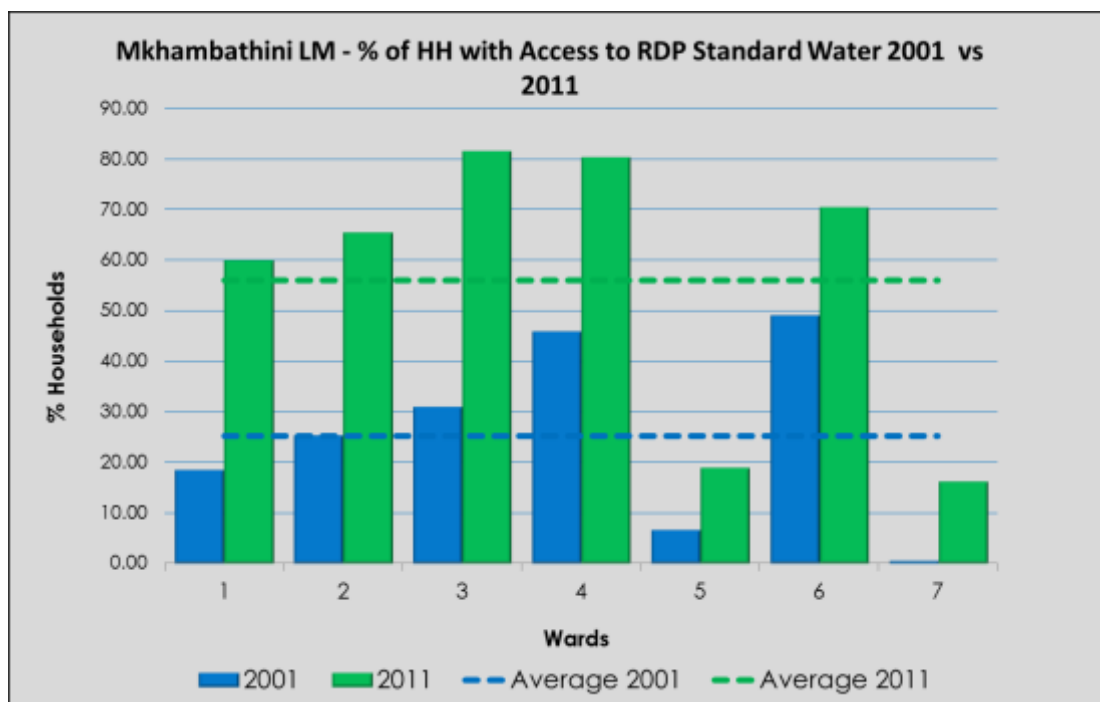
It will be evident that the areas which form part of the commercial agriculture areas, in the central parts of the municipality and the area directly north of the N3, appears to not have sufficient access to water (at a distance of more than 1000m). This is most likely because these household are mostly self-sufficient through boreholes for single or small concentrations of households. It could be assumed that these areas would not be prioritised by the municipality for water service provision, as the households are widely scattered and are most likely already self-sufficient.

**Map 22: Water Access & Infrastructure** shows the existing water infrastructure facilities in the municipal area. There is an obvious correlation between the access to water and the infrastructure, including the availability of reservoirs, boreholes and water pipes. This map will serve to inform the planning for water infrastructure of the municipality, as it already indicates proposed reservoirs. It could be beneficial for the municipality to elaborate on this map by adding all proposed new infrastructure and also attempt to link it in with water services provision needs.

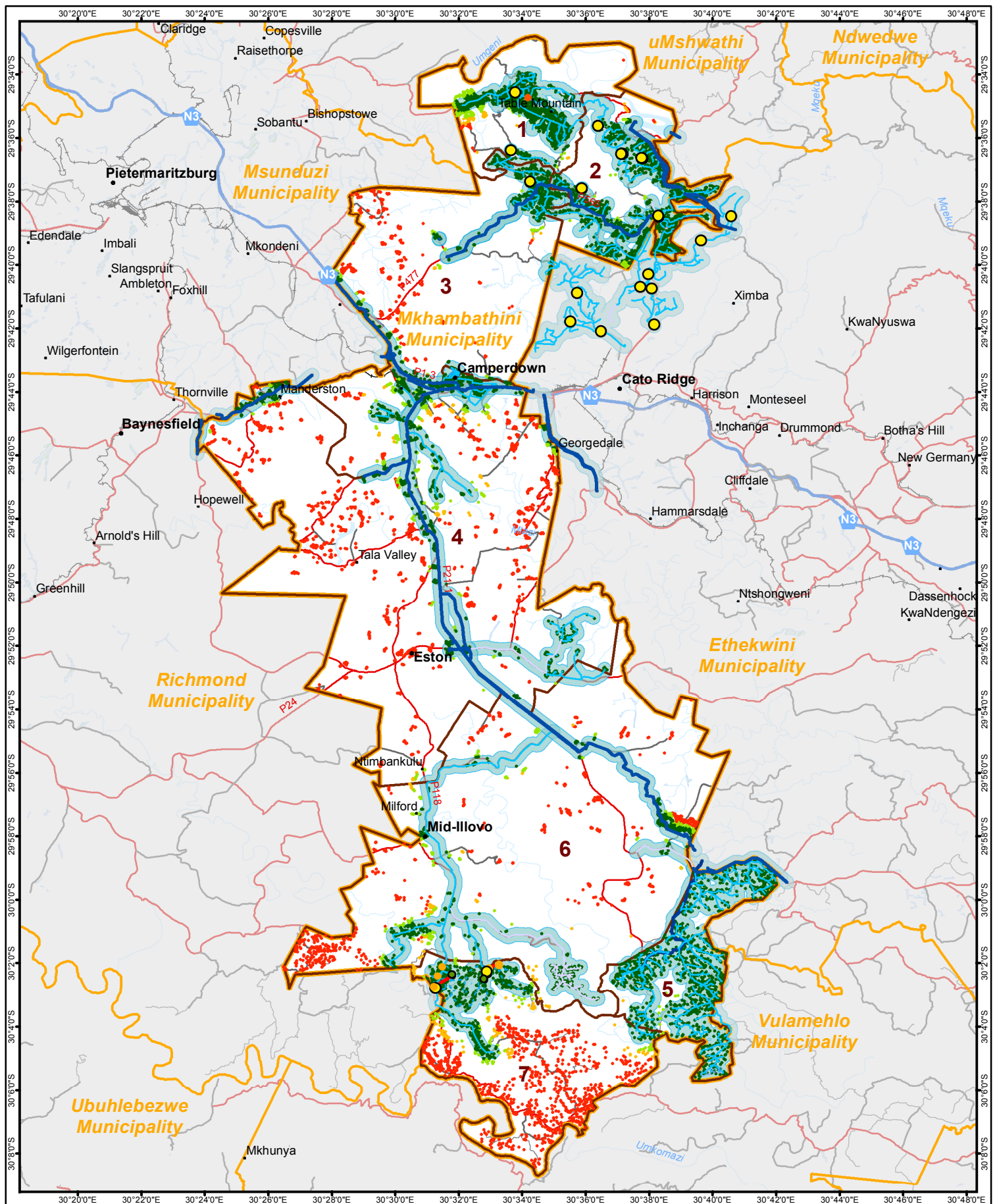
Furthermore, additional information relating to the locality of extraction points, purification works and storage facilities as well as the bulk capacity of these facilities will be essential for the further formulation of the SDF.

Graph 7 below depicts the percentages of households per ward which have access to RDP standard water in 2001 and 2011. The graph shows clear comparisons with **Map 22**, which indicates the very low levels of access to water in wards 5 and 7, south of the municipal area. Access to RDP standard water had an average of 27% with a subsequent increase of 57% in 2011 throughout the municipality.

Graph 7: Access to RDP Standard Water

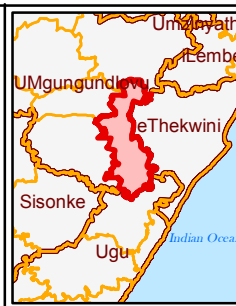


Source: Stats SA Census 2001 & 2011



#### Legend

- |  |   |   |
|--|---|---|
| <ul style="list-style-type: none"> <li>Local Municipalities</li> <li>Wards</li> <li>Roads <ul style="list-style-type: none"> <li>National</li> <li>Provincial</li> <li>District</li> <li>Local Access</li> <li>Gravel</li> <li>Railways</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>Rivers</li> <li>Dams</li> <li>Wetlands</li> <li>Water <ul style="list-style-type: none"> <li>Reservoir</li> <li>Proposed Reservoir</li> <li>Borehole</li> <li>Pump Station</li> <li>Standpipe</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>Water Pipes <ul style="list-style-type: none"> <li>Bulk</li> <li>Rising Main</li> <li>Main</li> <li>Pipe</li> <li>House Conn</li> <li>Unknown type</li> </ul> </li> <li>Water Access <ul style="list-style-type: none"> <li>within 600 m</li> <li>within 1000 m</li> <li>&gt;1000 m</li> <li>within 400 m</li> </ul> </li> </ul> |
|--|---|---|



#### MKHAMBATHINI

SPATIAL DEVELOPMENT FRAMEWORK 2014-2017

#### Map 22 Water Access

Date: 2013-10-25

Projection: Geographic  
Datum: WGS84



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VUKA AFRICA  
Vuka Planning Africa Inc  
www.vukaplan.co.za  
Email: Rising@vukaplan.co.za

Kilometers  
0 2.5 5



Total backlog for water supply provision across the district is at 13% of the households and is 14% for sanitation supply. This is a marked improvement on the back log estimated by both Census information and the DWAF NIS system.

Table 16: Total backlog for water supply provision

LM	No. of households	Houses served with water	Water Backlog
uMshwathi (KZN 221)	21,230	12,053	4,156 (20%)
uMngeni (KZN 222)	24,172	14,921	2,481 (10%)
Mpofana (KZN 223)	9,373	4,426	407 (4%)
Impendle (KZN 224)	6,968	4,366	1,682 (24%)
Mkhambathini (KZN 226)	14,116	5,941	2,561 (18%)
Richmond (KZN 227)	16,445	11,294	830 (5%)
Totals	92,304	53,002	12,118 (13%)

Source: UMDM Draft Water Services Development Plan Backlog Study

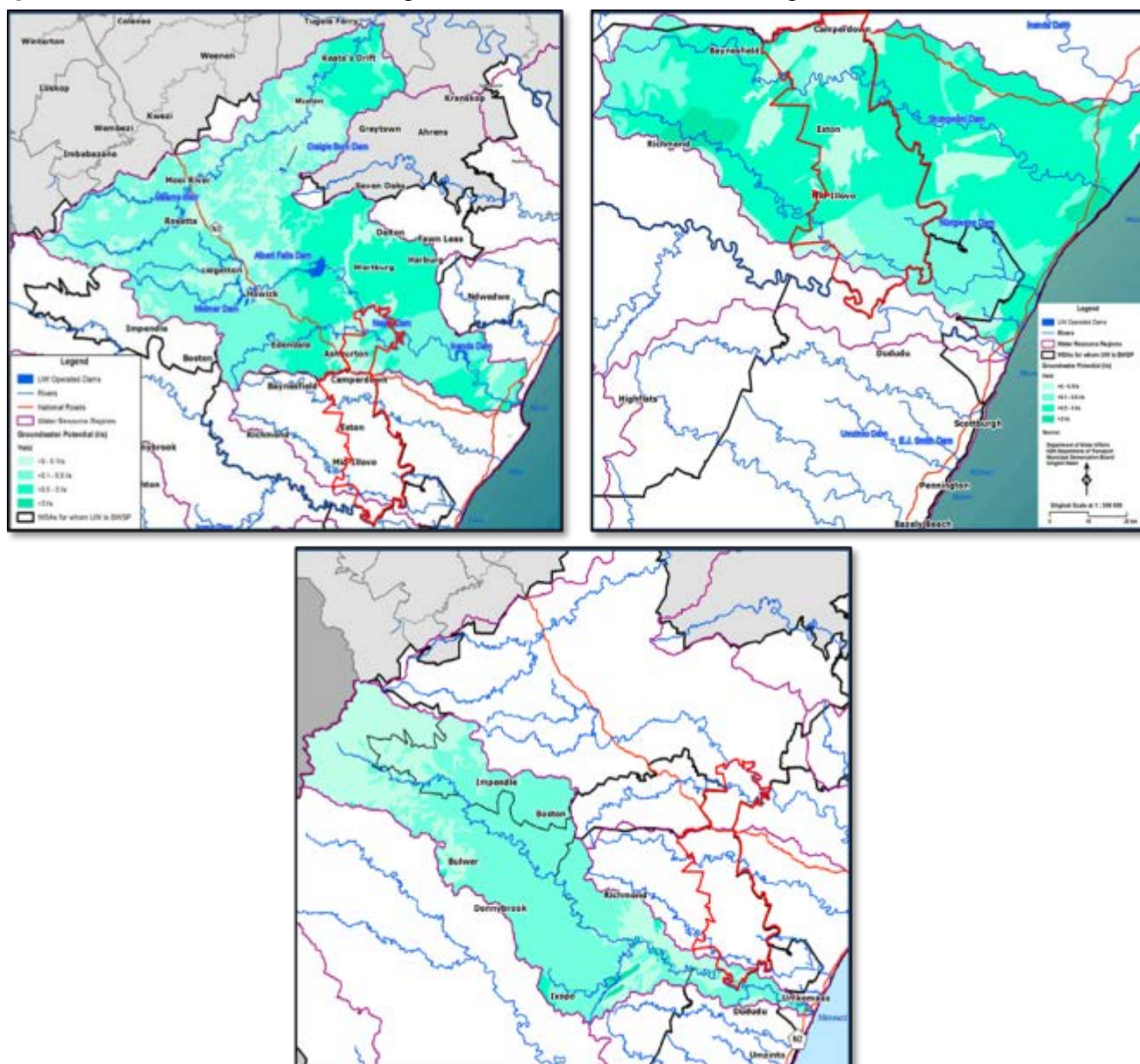
From the table above, it can be deduced that Mkhambathini water services are in place in most of the areas with Mbambangalo and Kwamadleka being the areas where water supply network is being implemented. Water services infrastructure upgrade and development is regarded as the important tool to attract investors and improve economic development in the municipality. The Mkhambathini municipality has a combination of agricultural, domestic and industrial sector uses.

#### 4.4.5 Water Services Authority

The uMgungundlovu District Municipality is the water services authority for the Mkhambathini Municipality which falls within the **Umgeni/Mooi Catchment** of the Umgeni Operational Region, the **Mlazi/Lovu Region** which comprise of two tertiary catchments U60 (Mlazi River) and U70 (Lovu River) and the **Mkomazi Region**. According to the Umgeni Water Infrastructure Master Plan, the demand on the Umgeni catchment currently exceeds the available yield. The risk of water restrictions within the next few years is unacceptably high as a result of the ever increasing demands in the Umgeni system.

Figure 13 illustrates the groundwater potential of the Umgeni/Mooi Region. The central area around Albert Falls Dam indicates a yield of >3 l/s, with the northern section of Mkhambathini Municipality around the Nagel Dam depicting >0-0.1 l/s.

Figure 14: Groundwater Potential of the Umgeni/ Mooi, Mlazi/ Lovu and Mkomazi Regions



Source: Umgeni Water Infrastructure Master Plan 2012

#### 4.4.5.1 Dams Serving Mkhambathini

##### 4.4.5.1.1 NAGLE DAM

Nagle Dam is one of four major dams on the Mgeni River, namely Midmar, Albert Falls, Nagle and Inanda dams. These dams are all used as part of the water supply system. Water is released from Albert Falls Dam to Nagle Dam from where it is supplied under gravity to Durban Heights WTP. The UWIMP 2012 indicates that poor sewage infrastructure in the Mphophomeni area results in incidences of nutrient levels higher than the required limit. If this trend continues it will hold negative environmental and health risks for the people in Mkhambathini Local Municipality.





The table below contains characteristics of Nagle Dam

Table 17: Characteristics of Nagel Dam

Catchment Details	
Incremental Catchment Area:	885 km <sup>2</sup>
Total Catchment Area:	2 539 km <sup>2</sup>
Mean Annual Precipitation:	940 mm
Mean Annual Runoff:	139.7 million m <sup>3</sup>
Annual Evaporation:	1 200 mm
Dam Characteristics	
Gauge Plate Zero:	379.71 mASL
Full Supply Level:	403.81 mASL
Net Full Supply Capacity:	23.237 million m <sup>3</sup>
Dead Storage:	1.366 million m <sup>3</sup>
Total Capacity:	24.6 million m <sup>3</sup>
Surface Area of Dam at Full Supply Level:	1.56 km <sup>2</sup>
Dam Type:	Concrete gravity dam
Crest Length:	Spillway Section: 121 m
Type of Spillway:	Uncontrolled
Capacity of Spillway:	900 m <sup>3</sup> /s

Source: Umgeni Water Infrastructure Master Plan 2012

#### 4.4.5.2 Interventions to address Water Storage (Dams)

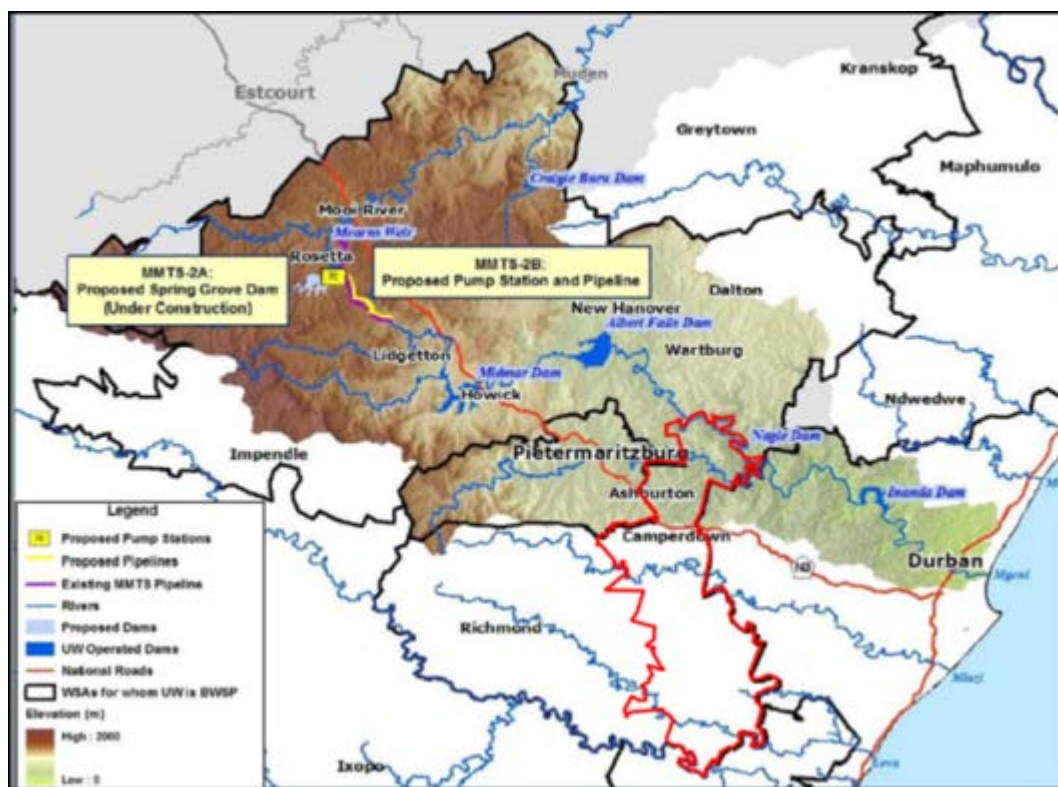
With the knowledge that the current demand exceeds water provision, the following interventions are planned for implementation.

##### Umgeni/ Mooi Catchment

Phase 2 of the Mooi-Mgeni Transfer Scheme is to be implemented, and will consist of two phases.

1. Phase 1: Construction of Spring Grove Dam (MMTS-2A)
2. Phase 2: Construction of a new pumping station at Spring Grove Dam (MMTS-2B) where the bulk of the transfer from the Mooi to the Mgeni River would take place.

Figure 15: Proposed Water Resource Infrastructure in the Umgeni/ Mooi



Source: Umgeni Water Infrastructure Master Plan 2012

#### **Mlazi/Lovu Catchment**

No Significant Infrastructure for this catchment area is planned, mainly to the small volumes of water available within this catchment.

#### **Mkomazi Catchment**

The current water resources of the Mgeni System are insufficient to meet the long-term water demands of its own system. Past investigations have indicated that, possibly, the most suitable long-term solution would be to develop a scheme that transfers raw water from the still undeveloped Mkomazi River to the Mgeni catchment. Water resources development options on the Mkomazi River have already been investigated at a pre-feasibility level of detail with the view to augmenting the supply in the Mgeni catchment through an inter-basin transfer scheme. Various potential sites and transfer options were assessed in this investigation. The recommended scheme, known as the Mkomazi Water Project (MWP) comprised of two phases.

- Phase 1 (MWP-1) consist of a once-off constructed 58 m high (FSL to RBL) Smithfield Dam on the Mkomazi River. Water would be pumped into a 33 km long free surface flow tunnel to deliver raw water to a new water treatment plant at Baynesfield in the Mlazi River catchment. Treatment water would be transferred to an appropriate delivery node within the Mgeni catchment.
- Phase 2 (MWP-2) would comprise of the construction of a large dam at Impendle further upstream on the Mkomazi River. Once in place, water would be released from the Impendle Dam down the Mkomazi River for abstraction and transfer at Smithfield Dam. The MWP-2 would only be implemented at a future date when needed.

In summary, the following projects will be implemented to address the water backlogs in the Mkomazi Catchment Area.



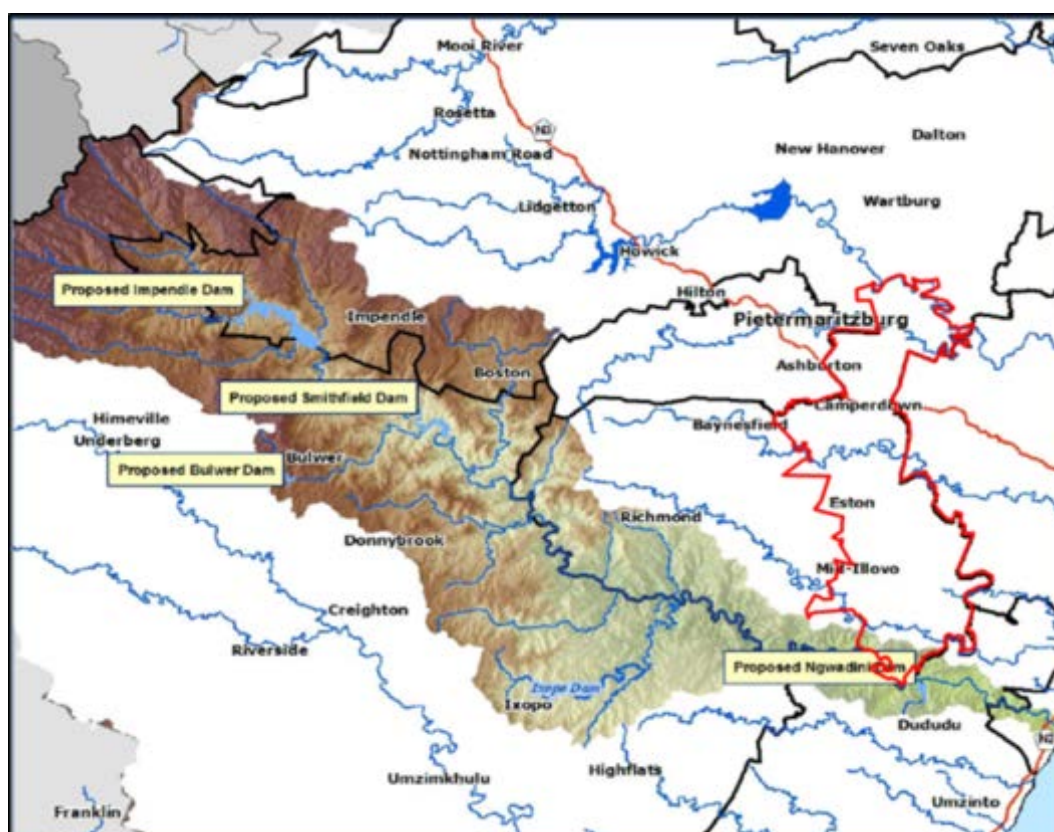
Table 18: Bulk Water Provision Project – Mkomazi Catchment

Impoundment	River	Capacity (million m3)	Yield (million m3/year)	Stochastic Yield (million m3/year)
			Historical	1:100
Smithfield Dam	Mkomazi	137	131 (359 MI/day)	177 (485 MI/day)
Impendle Dam	Mkomazi	270	204 (559 MI/day)	228 (625 MI/day)
Ngwadini Dam	Mkomazi (Off-channel)	10	Not Available	16.4 * (45 MI/day)
Temple Dam	Mkomazi (Off-channel)	6.7	10.5 (29 MI/day)	Not Available
Bulwer Dam	Luhane	9.8	Not Available	3.4 * (9.3 MI/day)

Source: Umgeni Water Infrastructure Master Plan 2012

The Figure below illustrates the proposed water resource infrastructure within the Region.

Figure 16: Proposed Water Resource Infrastructure in the Mkomazi Regions



Source: Umgeni Water Infrastructure Master Plan 2012

#### 4.4.5.3 Existing Water Schemes (Upper Umgeni System)

The Upper Mgeni System currently serves urban, peri-urban and rural settlements within the Umgungundlovu, Msunduzi and eThekweni (Outer West) municipal areas. The system extends from Howick/Mpophomeni/Vulindlela in the west, to Wartburg/New Hanover/Dalton in the east, to Cato Ridge/ Mpumulanga in the south and to Eston/ Umbumbumbu in the south west. The system derives its water resource from the upper Umgeni River, fed from Midmar Dam, with periodic augmentation from the Mooi-Mgeni Transfer Scheme (MMTS).





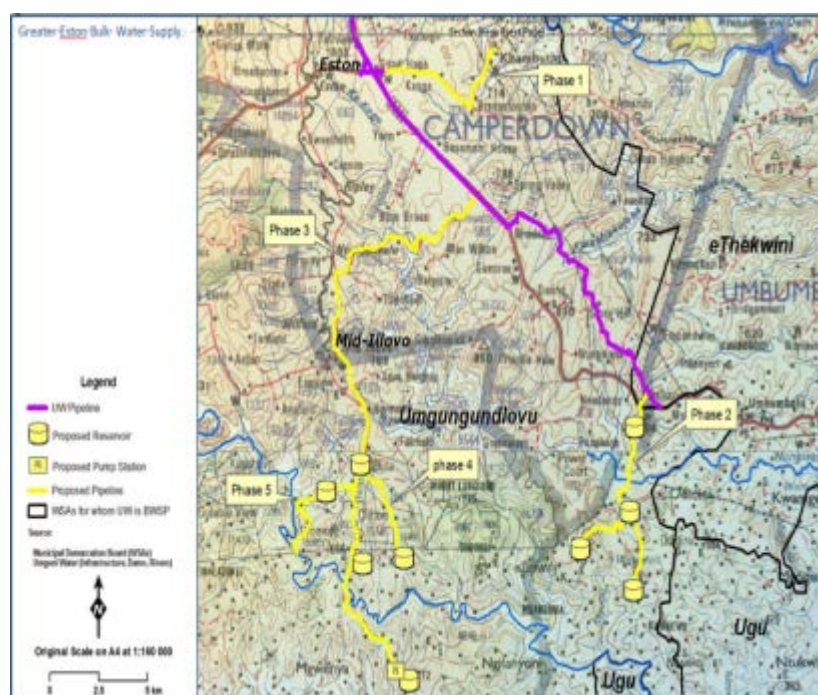
<b>Project Components:</b>	New 45 ML reservoir.
<b>Capacity:</b>	45 ML.

**Source:** Umgeni Water Infrastructure Master Plan 2012

Umgeni Water will build, own, operate and maintain all water supply infrastructures pertaining to this project. The upgrade to the Umlaas Road Reservoir Complex will benefit all consumers downstream of the reservoir. These beneficiaries are primarily the eThekweni Municipality, but also include consumers within the Mkhambathini Local Municipal area. The construction duration of this project is anticipated to be one year with an estimated total cost to be R 75 million. The reservoir upgrade may be required after 2016 to coincide with the Western Aqueduct load transfer.

#### 4.4.5.4.2 GREATER ESTON BULK WATER SUPPLY SCHEME

The Greater Eston area falls within Wards 4, 5, 6 and 7 of the Mkhambathini Local Municipality. The bulk water supply to the Greater Eston area, requires three off-takes on the Eston-Umbumbulu Pipeline. The first off-take will supply the uMacalagwala area. The second off-take will supply the areas of Esigodini/Gulube, Ismont, Mpangisa, Embuthweni, Inhlazuka, Ukhalo. The third off-take will supply the Ogagwini area.



The scheme is jointly funded by DWA, Umgeni Water and Umgungundlovu District Municipality through its MIG allocation. The proposed scheme will be operated and maintained by Umgeni Water from which water will be sold to Umgungundlovu District Municipality under the existing Bulk Supply Agreement.

Table 19: Beneficiaries for the Proposed Greater Eston BWSS.

Area	Current Population
Ward 4 - Mkhambathini	1,544
Ward 5 - Mkhambathini	5,912
Ward 6 - Mkhambathini	7,400
Ward 7 - Mkhambathini	9,448
Ward 5 & 7 - Richmond	16,936
<b>TOTAL</b>	<b>41,240</b>

**Source:** Umgeni Water Infrastructure Master Plan 2012

#### 4.4.5.4.3 LION PARK PIPELINE AUGMENTATION

According to the UWIMP 2012 the Lion Park Pipeline supplies domestic and commercial consumers as well as farmers along the P566 Provincial Road. The new Manyavu pipeline which extends from the Lion Park Pipeline to Manyavu has resulted in additional demand being placed on the Lion Park Pipeline. This has resulted in a need to augment the Lion Park Pipeline to accommodate this additional demand.

<b>Project Components:</b>	200 mm diameter pipeline from Umlaas Road Reservoir extending to the termination point of the existing the Lion Park Pipeline. Length =
<b>Capacity:</b>	5.4 ML/day.



**Source:** Umgeni Water Infrastructure Master Plan 2012

The new pipeline will be owned, operated and maintained by Umgeni Water. The beneficiaries of this project will be the community of Manyavu (current population of approximately 15 000) and users along the P566 Provincial Road. The construction duration of this project is anticipated to be one year with the total cost estimated at R 20 million. This pipeline will be much needed by 2014 with the ever increasing demand.

#### 4.4.6 Impacts of Climate Change On Water Provision

The Umgeni Water Infrastructure Master Plan make reference that that the climate is changing globally and that this will have an amplified impact on water resources and therefore on water security and supply. In South Africa, the Department of Environment Affairs (DEA) is designated to lead the country's climate change agenda, guided by its recently adopted Long Term Mitigation Strategy on Climate Change. Umgeni Water developed a framework to guide its efforts towards quantifying the possible impacts of a changing climate on its business. At the core of the framework is a hydrological model wherein rainfall and temperature are altered to represent possible scenarios of the impact of future climates on runoff in rivers. The most up-to-date science has been used in this assessment but



unfortunately these results are far from conclusive because performing impact studies, such as water resources, based on scenarios of future climates is relatively new and would therefore need data to depict any changes that might occur in the Mkhambathini Municipality.

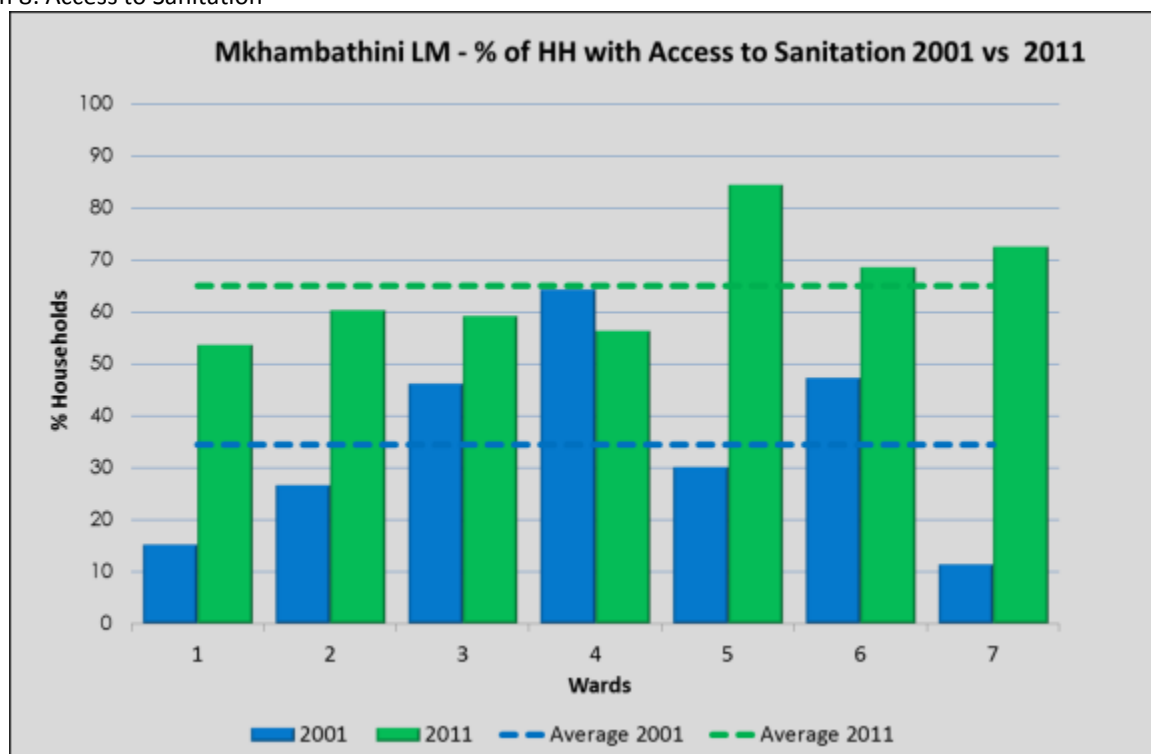
#### 4.4.7 Sanitation Services

Data from Stats SA differentiates between all types of sanitation services provided to the communities:-

- Flush toilet with sewer
- Flush toilet with septic Tank
- Chemical Toilet
- Pit Latrine with Ventilation
- Pit Latrine without Ventilation

The graph below depicts that more than 36% of the residents are serviced below the average service level of the Municipality. Only 66% of the municipality has been serviced with one of the acceptable forms of sanitation in 2011. Wards 1 and 4 require attention with regards to provision of sanitation services.

Graph 8: Access to Sanitation



Source: Stats SA Census 2001 & 2011

According to the Mkhambathini Local Municipality, a new Waste Water Treatment Works of 2ml/day is being developed on Portion 5 of Erf 106, Camperdown. This New Treatment works will service Camperdown and Umlaas Road and will assist with additional supply to the current and future demand of the expansion of Umlaas road and areas within Camperdown. It must be added that the Waste Water Treatment Works is modular and could expand to accommodate future growth.

Table 20 depicts the sanitation backlogs for Mkhambathini as depicted by the uMgungundlovu District Municipality. Mkhambathini has the lowest backlog figures within the District.

Table 20: Total backlog for water supply and sanitation provision

LM	No. of households	Houses served with sanitation	Sanitation Backlog
uMshwathi (KZN 221)	21,230	10,131	5,844 (28%)
uMngeni (KZN 222)	24,172	14,935	2,481 (10%)
Mpofana (KZN 223)	9,373	4,228	614 (7%)
Impendle (KZN 224)	6,968	3,225	2,683 (39%)
Mkhambathini (KZN 226)	14,116	8,204	234 (2%)
Richmond (KZN 227)	16,445	10,583	1,463 (9%)
Totals	92,304	51,306	13,320 (14%)

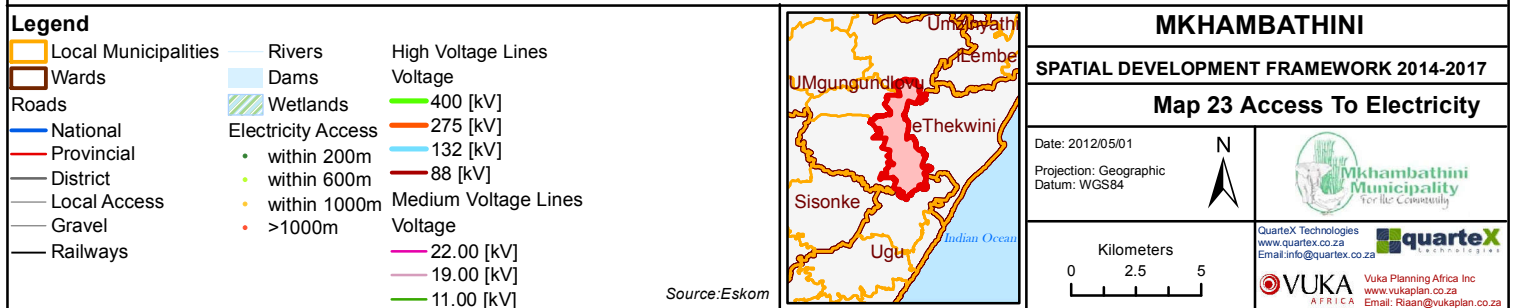
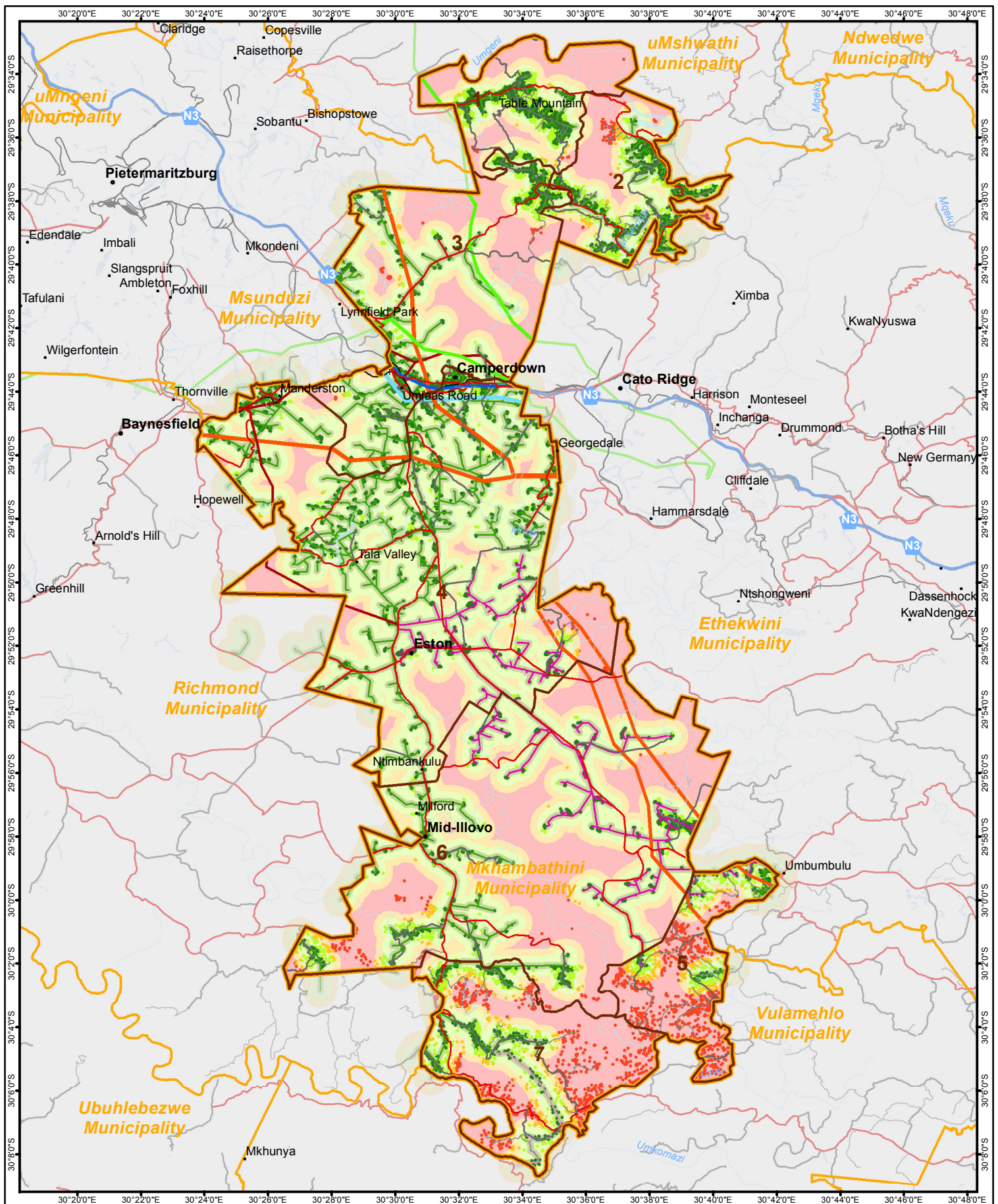
Source: UMDM Draft Water Services Development Plan Backlog Study

#### 4.4.8 Electricity Network

**Map 23: Electrical Infrastructure** depicts the electrical infrastructure within the Local municipality as per the existing power lines and sub stations.

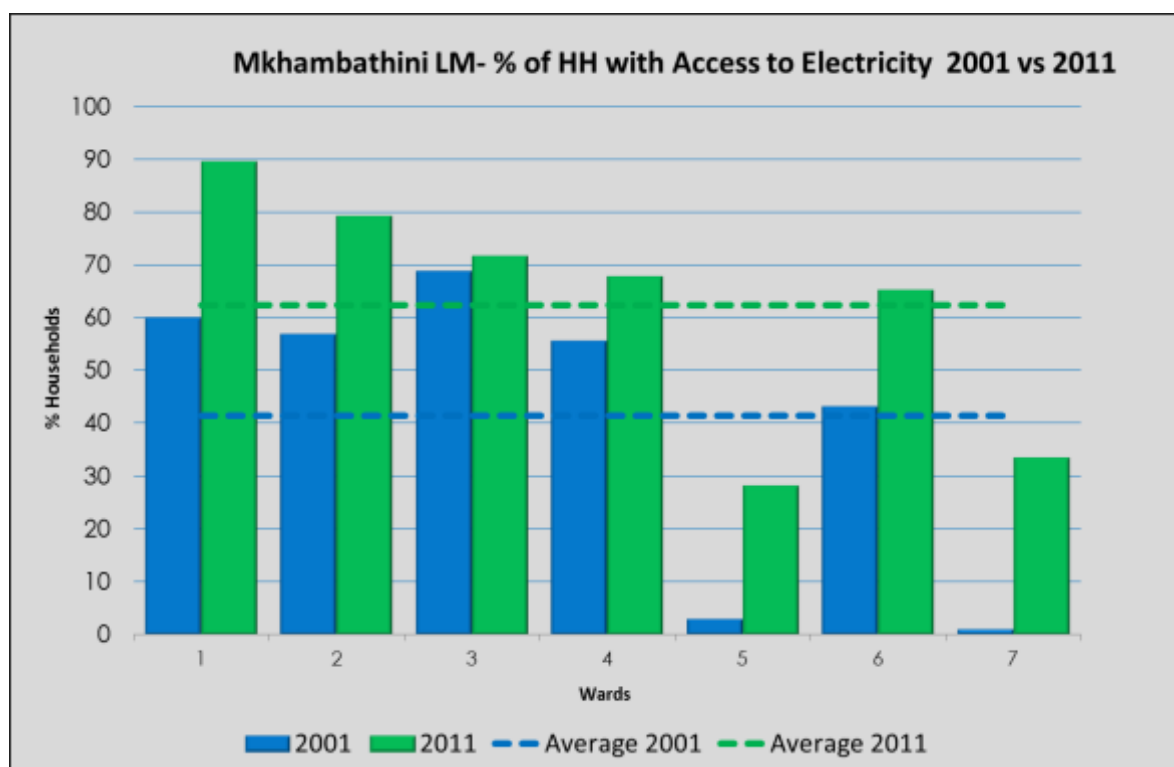
The infrastructure is widely spread throughout the municipality, but still falls short of providing access to the majority of households in the municipality, as will be clear from **Map 23: Access to Electricity**. According to this map, the greatest majority of households in the south of the municipality are located further than 1000m from electricity infrastructure. This can be assumed to be due to the undulating landscape and scattered and relatively remote nature of households in this area combined with anticipated lower affordability levels within these areas.





There is a clear concentration of available electricity networks for commercial farming activities in the central parts of the municipality and a general shortage of infrastructure in the south. The graph below indicates the access to electricity per ward. It is clear that Ward 5 and 7 needs service provision in access to electricity, with Wards 1, 2, 3, 4 and 6 having more than 50% access to electricity.

Graph 9: Access to Electricity



Source: Stats SA Census 2001 & 2011

Statistical Access to electricity was measured according to the energy used for lighting purposes. The reason for this is that lighting is the cheapest and therefore the first item powered by electricity.

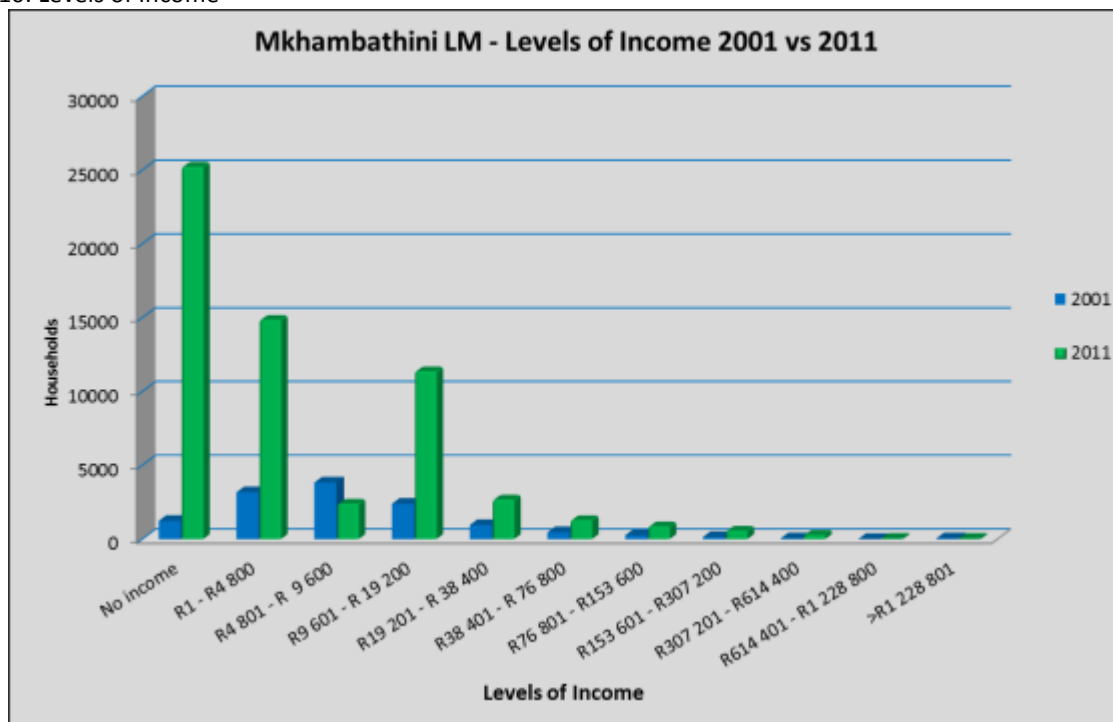
## 4.5 FINANCIAL RESOURCES

### 4.5.1 Income Distribution

Graph 10 depicts the income distribution throughout Mkhambathini Local Municipality. With an overall low income level as is the case in Mkhambathini, it is very difficult for the municipality to build a proper tax base, which can be utilised for provision & Maintenance of services. . The graph also shows that the highest number of households falls within the R1 – R 4800 income bracket, which is typically the income level of a household which receives social grants from government, indicating a high social grant dependency. Only a small portion of the population qualifies for payment of taxes. This leaves a huge burden on the current rate payers, who basically carry the municipality financially.



Graph 10: Levels of Income

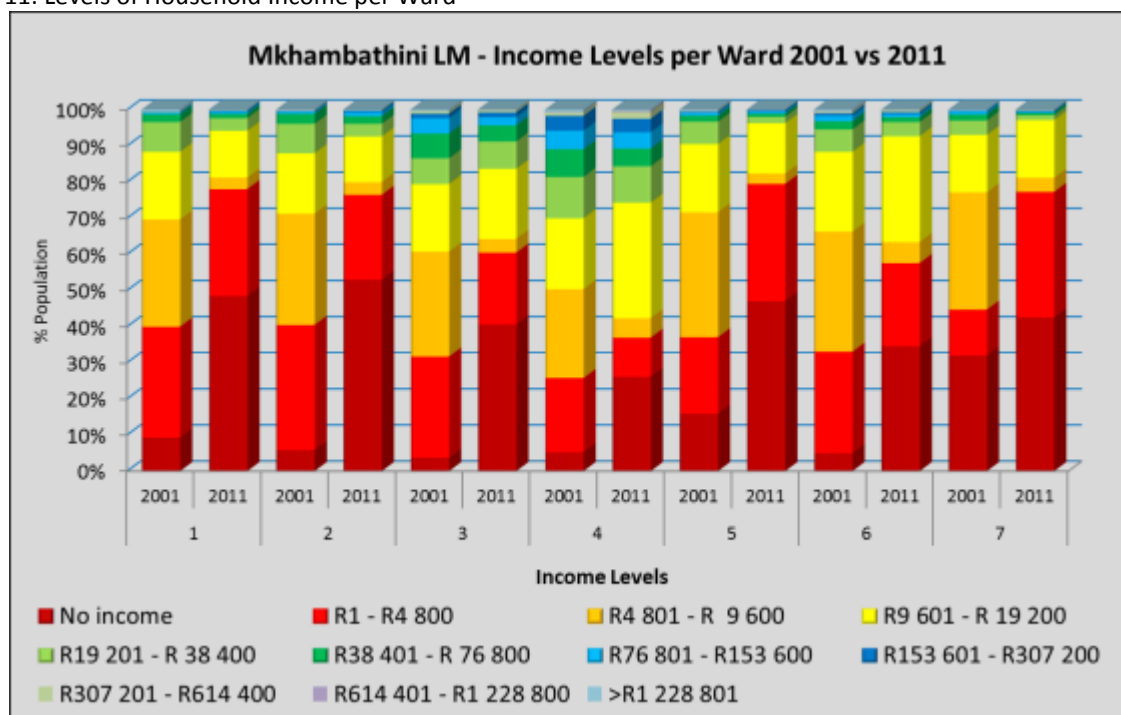


Source: Stats SA Census 2001 &amp; 2011

Without external funding, the municipality will not be able to implement or maintain any new services. It is therefore essential that the municipality implement initiatives to grow its rates base, by implementing successful economic development initiatives.

Graph 11 provides a comparison of the income levels between the various wards. The southern and northern portions of the municipality constituted by ward 5 and 7 and wards 1 and 2 appear to be the areas of lowest income. This shows lack of economic opportunities within these remote areas and will have to be addressed.

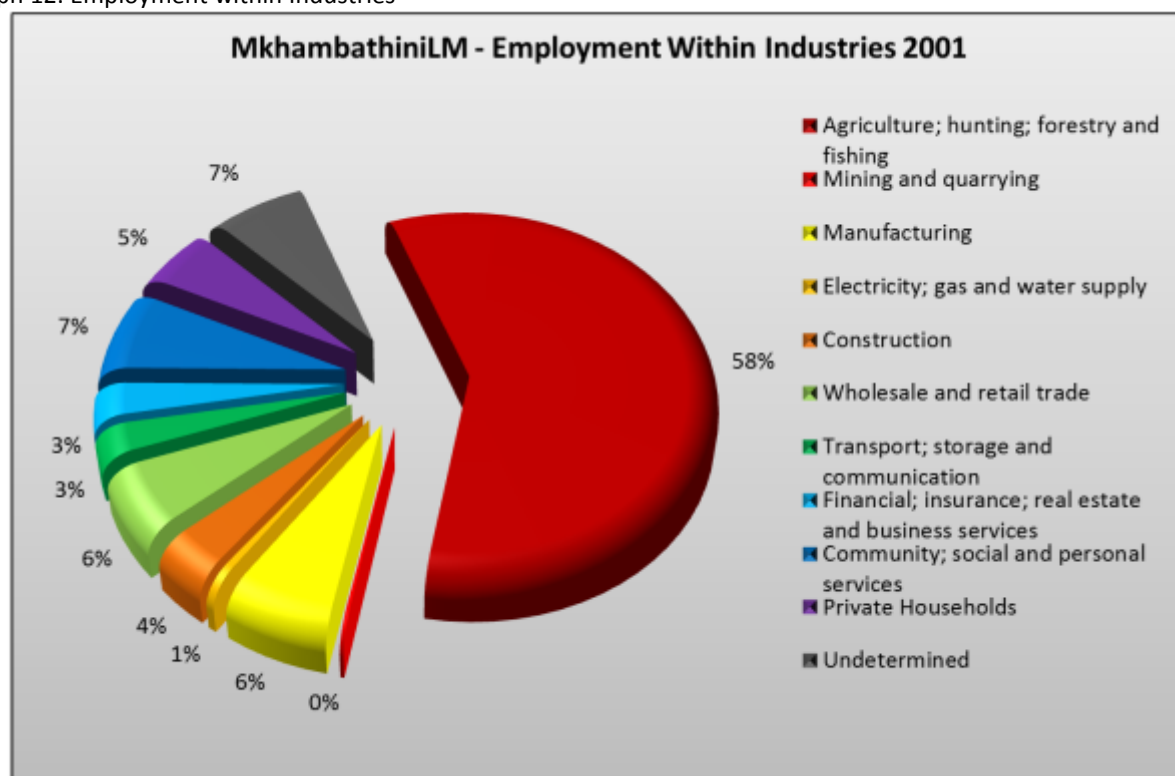
Graph 11: Levels of Household Income per Ward



Source: Stats SA Census 2001 &amp; 2011

As seen in Graph 12, the biggest employment sector in the municipality according to the 2001 census is agriculture; hunting, forestry and fishing sector (58%), indicating the substantial impact that the commercial sugarcane industry has on the local economy of the municipality. The Community sector (7%) is the second highest employment industry in the municipality, together with undetermined industries. Electricity, gas and water supply and wholesale and retail trade are also noticeable contributors to the employment industries in the municipality.

Graph 12: Employment within Industries



Source: Stats SA Census 2001 & 2011

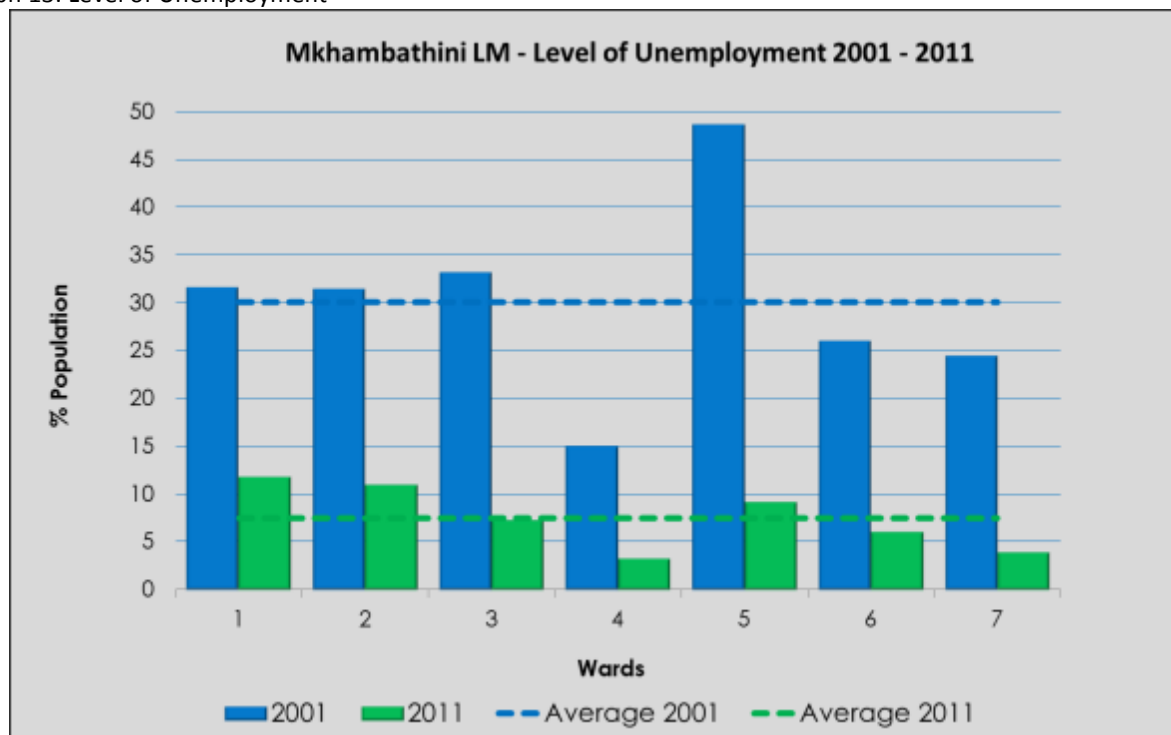
#### 4.5.2 Unemployment Distribution

**Map 24: Unemployment Distribution per Ward** depicts the percentage of population per ward. The highest levels of unemployment are found in the southern parts of the municipality, particularly in ward 5, at approximately 47% in 2001. Graph 13 however indicates a major decrease in unemployment figures with the average of 30% in 2001 decreasing to 8% in 2011. This is an indication of a growing economy and higher levels of employment and work opportunities. Ward 4 has the lowest level of unemployment, which is likely to be due to the employment created by the agricultural sector, also being the industry with the highest percentage of people employed within it.

The Mkhambathini IDP estimates the total workforce at 29,944 (2011 census), of which a mere 8,384 is employed, 14,441 not economically active and 6,403 not employed. These figures indicate a dependency ratio of 3.5, where one person is financially responsible for himself and another 2.5 population.



Graph 13: Level of Unemployment



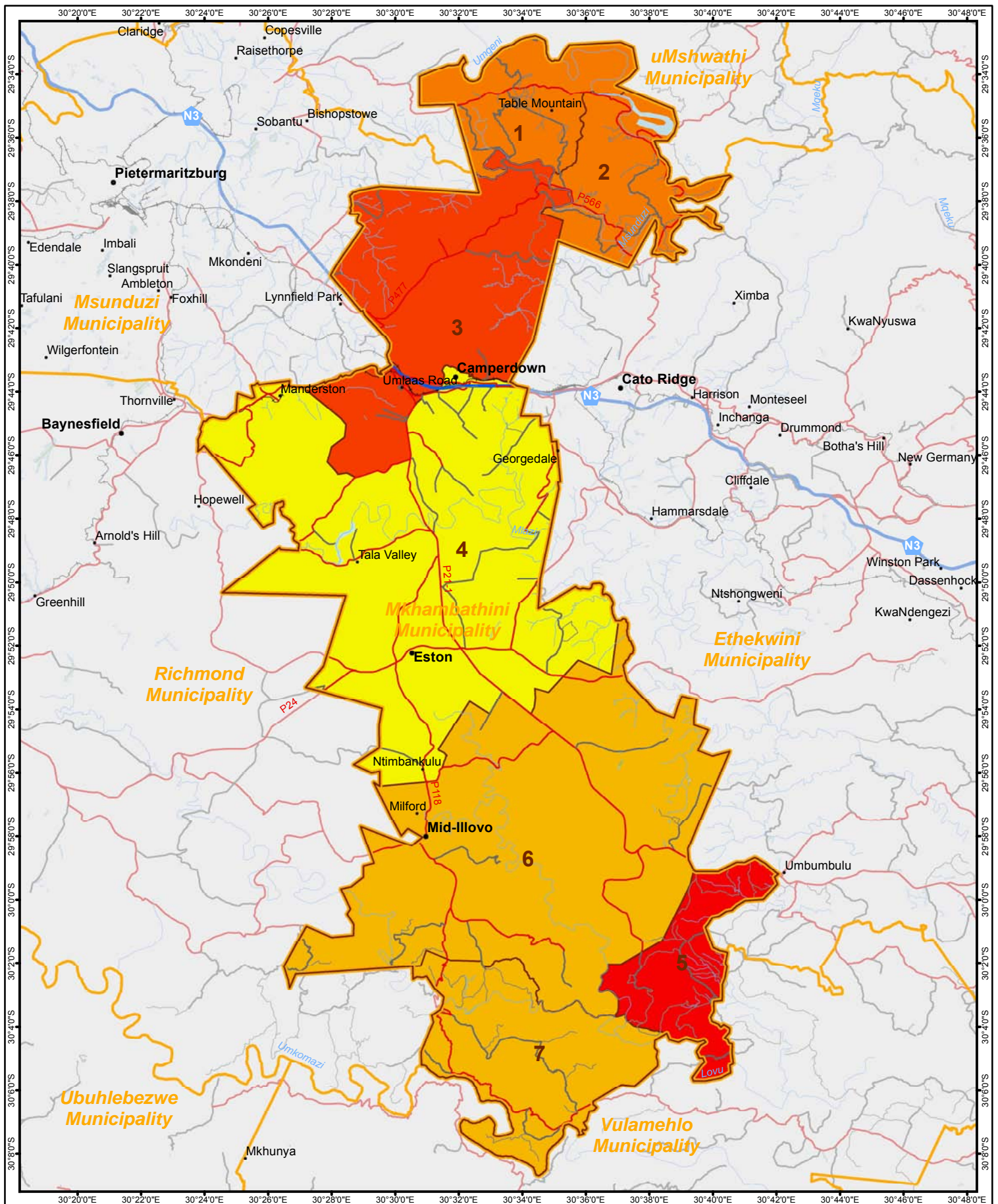
Source: Stats SA Census 2001 &amp; 2011

#### 4.5.3 Poverty Distribution

The occurrence and distribution of poverty can be related to a combination of indicators, including social needs, the Minimum Living Level (MLL) which indicates those areas where the largest number of people is living below the minimum standard of living and the Index of Multiple Deprivation.

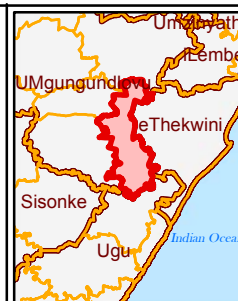
The Index of Multiple Deprivation serves to combine a number of indicators which covers a range of economic, social and housing issues and needs into a single deprivation classification for an area. As per **Map 25: Social Needs** shows that there is a high occurrence of multiple deprivations in the south of the municipality, and more specifically in ward 7. The central parts of the municipality, specifically wards 3 and 4, show a medium to low level of deprivation, with the balance being medium.

Another indicator which informs the occurrence of poverty in the municipality is the Minimum Living Level (MLL). The Minimum Living Level indicates those areas where the largest number of people is living below the minimum standard of living. Population below MLL indicates that the factor of the population living below the MLL for the Municipality is generally low, which means that a relatively small proportion of the population live below the MLL. Most of the population living below the MLL reside in the northern part of the municipality, around the Table Mountain area and the far south eastern area of the municipality.



### Legend

	Local Municipalities		Rivers
	Local Municipalities		Dams
	Roads		Wetlands
	National		Unemployment (%)
	Provincial		15.02
	District		15.03 - 26.03
	Local Access		26.04 - 31.66
	Gravel		31.67 - 33.21
	Railways		33.22 - 48.65



### MKHAMBATHINI

SPATIAL DEVELOPMENT FRAMEWORK 2014-2017

### Map 24 Unemployment Distribution

Date: 2012/03/23

Projection: Geographic  
Datum: WGS84



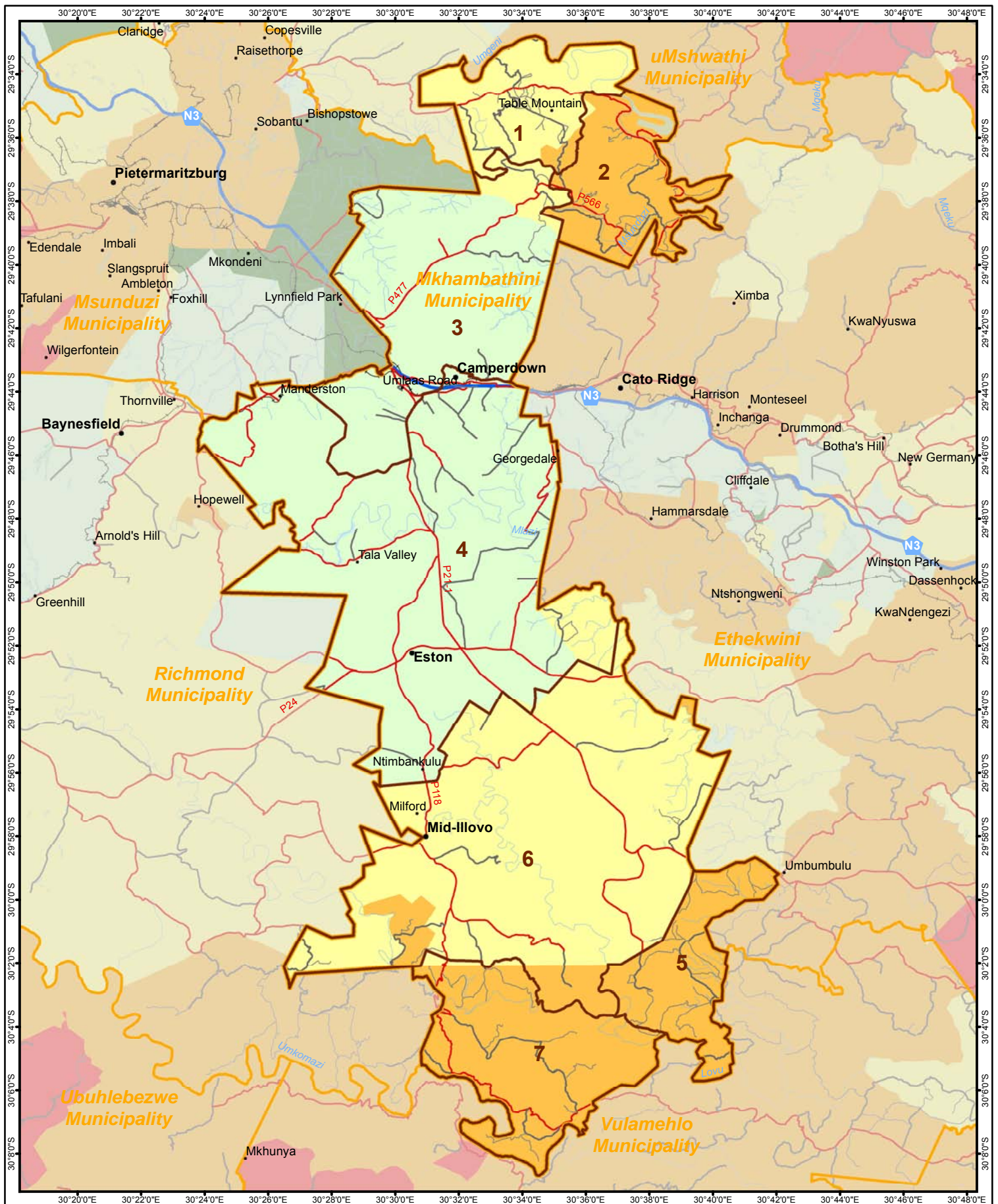
Kilometers  
0 2.5 5



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www.quartex.co.za  
Email: info@quartex.co.za

Vuka Planning Africa Inc  
www.vukaplan.co.za  
Email: Risang@vukaplan.co.za





<b>Legend</b> <ul style="list-style-type: none"> <li>Wards</li> <li>Local Municipalities</li> <li>Roads <ul style="list-style-type: none"> <li>National</li> <li>Provincial</li> <li>District</li> <li>Local Access</li> <li>Gravel</li> <li>Railways</li> </ul> </li> <li>Rivers</li> <li>Dams</li> <li>Wetlands</li> <li>Social Needs <ul style="list-style-type: none"> <li>Low</li> <li>Medium to low</li> <li>Medium</li> <li>Medium to high</li> <li>High</li> </ul> </li> </ul>		<b>MKHAMBATHINI</b> <b>SPATIAL DEVELOPMENT FRAMEWORK 2014-2017</b> <b>Map 25 Social Needs</b> Date: 2012/03/16 Projection: Geographic Datum: WGS84      Source: STATSSA, KZN Provincial Index of Multiple Deprivation 2001 (University of Oxford, HSRC and STATSSA using Census 2001) www.quartex.co.za Email: info@quartex.co.za www.vukaplan.co.za Email: Rising@vukaplan.co.za	
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#### 4.5.4 Tourism Resources

Tourism resources are limited throughout the municipality and **Map 26: Tourism** endeavours to identify points and areas of interest which will contribute to the tourism industry in the municipality. These resources include resources which relate to geographic attributes, cultural interests or natural/ecological sites and attractions. Sites with tourism potential are scattered throughout the municipality and some with particular potential include the game reserves, being Nagel Dam Nature Reserve, GwaHumbe Game Reserve and Spa and Camperdown. Also included are other private game ranches, like Tala Game Reserve, Mayibuye Game Reserve and wild life sanctuaries including the African Bird of Prey Centre, the Lion Park and the Natal Zoological Gardens. There are two heritage sits identified within the borders of the Mkhambathini municipal area, being Mgwahumbe and Hope Valley.

The natural landscape in itself also has eco- and adventure tourism potential, for instance the unique topography of the undulating areas in the north and south of the municipality as well as water bodies like the Nagle Dam. The identified sites and places of tourism interest and possibilities will serve as a good foundation for tourism development in the municipality and need to be explored for further economic benefit to the residents of the municipality. Added to this, there is an active agro-tourism sector within the municipal borders, and linking with neighbouring areas, like the Country Capers Tourism Route. The land cover of the municipality, consisting of 60% natural forest, shrub and bush land, also supports adventure tourism activities, and there is also scope to increase this sector.

#### 4.5.5 Economic Climate

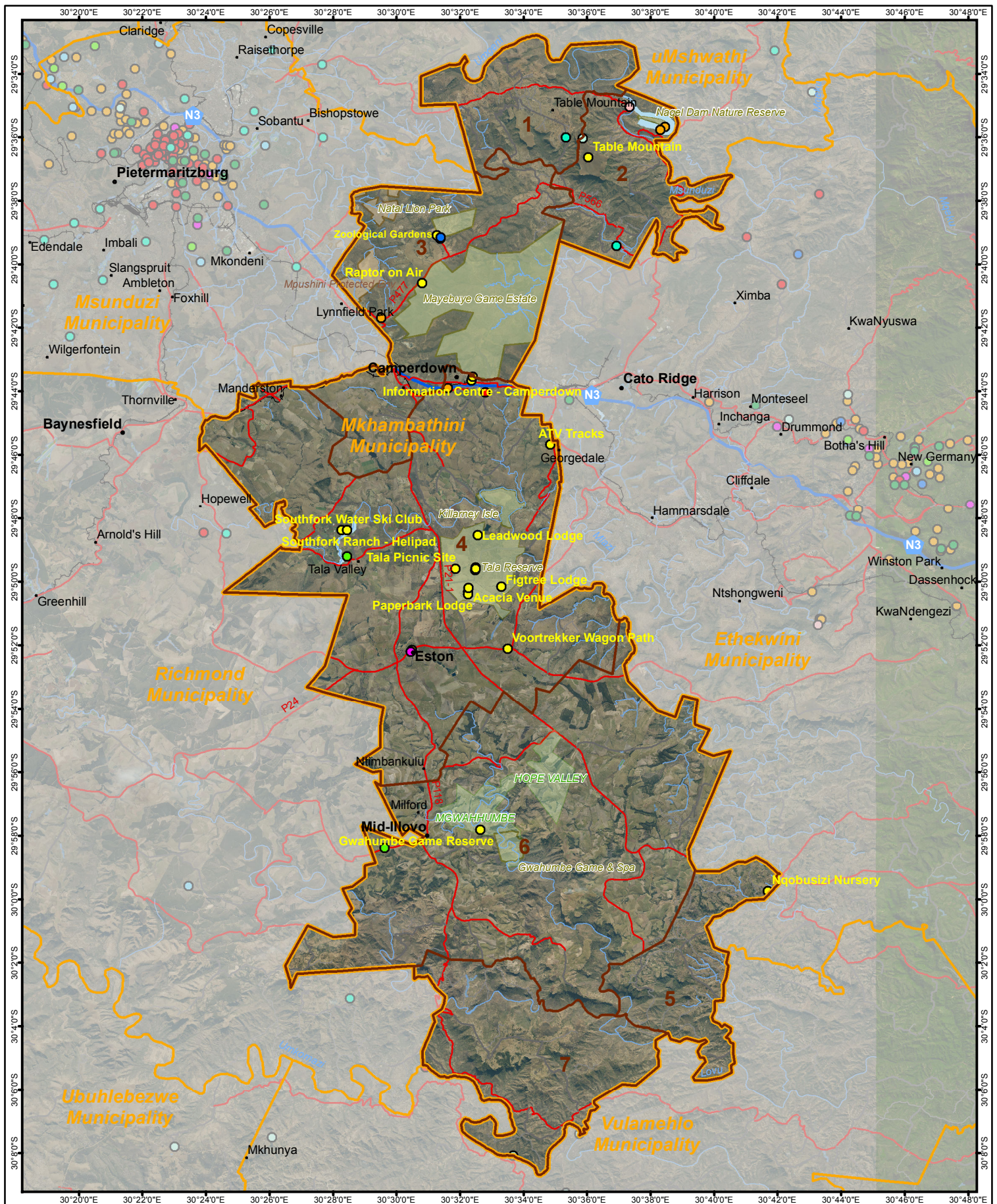
The Mkhambathini Municipality is only 47 minutes from King Shaka International Airport and 30 minutes from Africa's busiest harbour. Agricultural production centres on vegetables grown for local and hinterland fresh produce markets, maize and sugar cane (processed through a mill at Eston). The area features the second highest concentration of poultry producers in the world, supported by a network of service suppliers, as well as pig and beef farming. Tourism is centred on African experiences, with attractions such as the Tala Game Reserve, Nagle Dam and Umgeni Valley.

The current focus of central Government is to grow the economy and to create an environment conducive for further job creation. It has been agreed by Government that skills development is key to the achievement of these objectives. This is relevant to the Mkhambathini Municipality since the majority of the population are classified as youth (being younger than 35).

#### 4.5.6 Local Economic Development

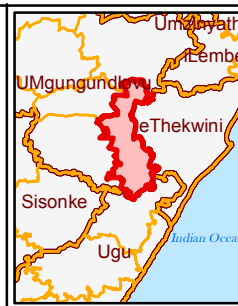
According to the uMgungundlovu Local Economic Development Strategic Plan 2007 development needs to be comprehensive and multi-faceted. It is important to develop and implement strategies to address poverty as well as to stimulate effective commercial growth. Table 21 indicates the Local Economic Development Strategy Thrusts set out in the subsection of the uMgungundlovu District Strategic Plan.





## Legend

- |  |  |  |
|--|--|--|
| <span style="color: brown;">—</span> Wards                 | <span style="color: blue;">—</span> Rivers                   | <span style="color: red;">●</span> Historical Religious Cultural |
| <span style="color: orange;">—</span> Local Municipalities | <span style="color: lightblue;">—</span> Dams                | <span style="color: brown;">●</span> Fishing Hunting             |
| <span style="color: blue;">—</span> Roads                  | <span style="color: green;">—</span> Wetlands                | <span style="color: green;">●</span> Conservation                |
| <span style="color: blue;">—</span> National               | <span style="color: brown;">—</span> EKZNW Stewardship Sites | <span style="color: blue;">●</span> Conservation Facilities      |
| <span style="color: red;">—</span> Provincial              | <span style="color: green;">—</span> Game Reserves           | <span style="color: purple;">●</span> Built Features             |
| <span style="color: grey;">—</span> District               | <span style="color: lightgreen;">—</span> Heritage Sites     | <span style="color: orange;">●</span> Accommodation              |
| <span style="color: grey;">—</span> Local Access           | <span style="color: cyan;">●</span> Community Halls          | <span style="color: yellow;">●</span> Points Of Interest         |
| <span style="color: grey;">—</span> Gravel                 | <span style="color: cyan;">—</span> Trails                   |  |
| <span style="color: grey;">—</span> Railways               | <span style="color: green;">●</span> Sports Facilities       |  |
|  | <span style="color: grey;">○</span> Landforms                |  |



## MKHAMBATHINI

**SPATIAL DEVELOPMENT FRAMEWORK 2014-2017**

### Map 26 Tourism

Date: 2013/06/13

Projection: Geographic  
Datum: WGS84



Kilometers  
0 2.5 5



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Table 21: uMgungundlovu LED Strategic Thrusts applicable to Mkhambathini LM

LED STRATEGY THRUSTS	
Strategy	Description
<b>Implementation Mechanism</b>	There is no institutionalised capacity to implement LED in UMDM at this time. Even in Msunduzi, capacity within the Municipality and within the Chamber itself is limited and neither entity has the resources required to implement LED
<b>Area Targeting/Regeneration Strategies</b>	<ul style="list-style-type: none"> <li>Upgrade of connections between Camperdown and other areas in Mkhambathini to improve road connectivity in the municipality.</li> </ul>
<b>Encouraging Local Business Growth</b>	<p>Mkhambathini is challenged in this regard as the research indicates that businesses do not wish to expand inside the municipality and there is evidence of a culture of violence and assault within the municipality</p> <p><b>Business retention survey:</b> The first survey should be very comprehensive and should investigate the perceptions of Mkhambathini business people further and attempt to find interventions to turn the negative perceptions of business around.</p> <p><b>Technical assistance to business:</b> Mkhambathini should implement a one-stop business service centre linked to a community based business services outlet with internet access.</p> <p><b>Financial advice and assistance:</b> An appropriate financial support program will be able to give advice and training on financial planning,</p> <p><b>Provision of sites and premises:</b> A roster of industrial and commercial land and buildings owned by Mkhambathini should be developed and circulated to be used to encourage business investment and expansion.</p>
<b>Encourage New Enterprise</b>	<p><b>Provision of finance for new businesses:</b> Mkhambathini's role will be to ensure that local business is linked with the institutions identified by UMDM.</p> <p><b>Providing technical advice on business management:</b> Establishing a one stop shop with access to market information will be an essential support mechanism for Mkhambathini businesses.</p> <p><b>Conducting business mentoring programs:</b> Mkhambathini should, with UMDM and in partnership with the Msunduzi Chamber, sponsor district wide but sector focussed informal but organised networking forums</p>
<b>Integrating Low Income Workers into the economy</b>	<p>Integrating disadvantaged groups is important in Mkhambathini and in particular this means rural women and young people.</p> <p><b>Skills training:</b> Skills training should be done using a demand-led approach and businesses need to be involved in articulating the skills needs for Mkhambathini and the DM.</p> <p><b>Raising educational achievement:</b> UMDM and Mkhambathini should initiate a structured retired teacher volunteer programme whereby volunteers assist at under resourced schools.</p> <p><b>Work experience:</b> Mkhambathini should, in partnership with the FET colleges, the SETAs and the private sector, implement a work experience programme for young pre-matriculates.</p>



<b>Investing in Hard Strategic Infrastructure</b>	<p>Investment in hard infrastructure involves investing in improving the physical environment for businesses thereby making it more attractive for business retention, expansion and recruitment.</p> <ul style="list-style-type: none"> <li>• Significant improvement of the public transport facilities between Mkhambathini and Msunduzi and within Mkhambathini</li> <li>• Installation of CCTV in all areas of risk in Mkhambathini and an improvement in business security and visible policing.</li> </ul>
<b>Investment in Soft Infrastructure</b>	<p>Investment in soft infrastructure involves investing in improving the commercial environment for businesses</p> <p><b>Enabling or providing skills training:</b> In all LMs except uMngeni and Msunduzi, as the UKZN research indicates, the development of new enterprise has not been a key priority.</p>
<b>Promoting Inward Investment</b>	<p>The promotion of inward investment means to attract businesses to an area from elsewhere in the country and from other countries.</p> <p>UMDM and Mkhambathini together should develop specific and competitive packages for the target sectors to stimulate investment in the required areas, regions, sites, corridors and nodes.</p>
<b>Sector and Cluster Development</b>	<p>Cluster development means that LED initiatives are concentrated on encouraging and supporting inter-firm collaboration, institutional development and support in targeted industrial sectors.</p> <p><b>Developing cluster-focused public procurement and local purchasing agreements:</b> The public sector is often the largest buyer in a city and as such there are opportunities to enable local businesses to access tender processes more easily.</p> <p><b>Providing cluster specific information:</b> One of the most effective ways of developing a cluster is to gather information about businesses and institutional support systems in the cluster and then produce it so that it can be shared</p> <p><b>Developing cluster related marketing efforts:</b> Once a cluster has been identified and it starts developing, there are opportunities to promote it and attract supporting investment as well as promoting business opportunities externally for cluster members.</p>

Source: uMgungundlovu Local Economic Development Plan 2007

## 5 SPATIAL VISION, OBJECTIVES AND STRATEGIES

To enable the development of a Spatial Development Framework, a set of principles needs to be adhered to during development. This will assist with conflict resolution between the relevance of different land uses and indicate preferred land uses above others. The following sections deal with the principles set out by the Spatial Planning and Land Use Management Act, as well as the principles set out by the KwaZulu-Natal Provincial Growth and Development Strategy and, based on the current situation in Mkhambathini, combine them into a Logical Framework for strategy implementation in the development of Mkhambathini.

### 5.1 LONG TERM SPATIAL DEVELOPMENT VISION

The Long term spatial development Vision for Mkhambathini Municipality, which is based on its development objectives, reads as follows:

*“A municipal spatial structure which promotes the sustainable use of land, biophysical and infrastructural resources for the economic and social growth and development towards the most equitable distribution of local opportunities to various role-players within the municipality”*

### 5.2 SPATIAL PRINCIPLES

#### 5.2.1 Principles from the Spatial Planning Land Use Management Act

The SDF is guided by the following 5 spatial principles which form the foundation of an appropriate SDF. These principles were formulated as part of the Spatial Planning and Land Use Management Act, 2013 (SPLUMA).

Table 22: SPLUMA

<b>Spatial Justice</b>	<ul style="list-style-type: none"> <li>• Past spatial and other development imbalances are redressed through improved access to and use of land;</li> <li>• Spatial Development Frameworks and policies at all spheres of government 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;</li> <li>• Spatial planning mechanisms, including land use schemes, include provisions that enable redress in access to land and property by disadvantaged communities and persons;</li> <li>• Land use management systems are inclusive of 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;</li> <li>• Land development procedures will include provisions that accommodate access to secure tenure and the incremental upgrading of informal areas; and</li> <li>• Where a planning tribunal considers an application before it, the planning tribunal's exercise of discretion may not be impeded or restricted on the ground that the value of land or property is affected by the outcome of the application;</li> </ul>
<b>Spatial Sustainability</b>	<ul style="list-style-type: none"> <li>• Promote land development that is within the fiscal, institutional and administrative means of the country;</li> <li>• Ensure protection of the prime and unique agricultural land, the environment and other protected lands and the safe utilisation of land;</li> <li>• Promote and stimulate the effective and equitable functioning of land markets;</li> <li>• Consider all the current and future costs to all parties for the provision of infrastructure and social services in land developments;</li> <li>• Promote land development in locations that are sustainable and limit urban sprawl;</li> <li>• Result in communities that are viable;</li> </ul>
<b>Spatial Efficiency</b>	<ul style="list-style-type: none"> <li>• Land development optimises the use of existing resources and infrastructure;</li> <li>• Decision-making procedures are designed with a view to minimising negative financial, social, economic or environmental impacts; and</li> </ul>



	<ul style="list-style-type: none"> <li>• Development application procedures are efficient and streamlined and time frames are adhered to by all parties;</li> </ul>
<b>Spatial Resilience</b>	<ul style="list-style-type: none"> <li>• Flexibility in spatial plans, policies and land use management systems is accommodated to ensure sustainable livelihoods in communities most likely to suffer the impacts of economic and environmental shocks;</li> </ul>
<b>Good Administration</b>	<ul style="list-style-type: none"> <li>• 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;</li> <li>• No government department may withhold their sector input or fail to comply with any other prescribed requirements during the preparation or amendment of Spatial Development Frameworks;</li> <li>• The requirements of any law relating to land development and land use are met timeously;</li> <li>• The preparation and amendment of spatial plans, policies, land use schemes as well as procedures for development applications, to include transparent processes of citizen participation and all parties to have the opportunity to provide inputs on matters affecting them; and</li> <li>• Policies, legislation and procedures must be clearly set out and inform and empower citizens.</li> </ul>

Source: Spatial Planning and Land Use Management Act (2013)

### 5.2.2 Principles from the PGDS

In addition to the principles developed by the SPLUMA, the KwaZulu-Natal Provincial Spatial Development Plan further developed nine (9) Principles to guide development in the Province which will enhance the provisions of the SPLUMA. The relationship between the two sets of principles is depicted further in the document. The nine principles of the PGDS are depicted in the diagram below. These principles underscore the general spatial intentions of the PGDS and serve as provincial guiding principles which should ideally be pursued within all levels of spatial planning at district and local level in alignment with the provincial spatial development strategy.

Figure 18: PGDS Spatial Development Principles



Source: KZN PGDS

#### 5.2.2.1 Principle of Sustainable Communities

The Principle of Sustainable Communities promotes the building of places where people want to live and work. Again the sense of Quality of Living refers to the balance between environmental quality, addressing social need and promoting economic activities within communities.

Often communities within the rural context of KwaZulu-Natal are not located in the areas with perceived highest economic potential. Where low economic potential exists planning and investments should be directed at projects and programmes to address poverty and the provision of basic services in order to address past and current social inequalities towards building sustainable communities.

#### **5.2.2.2 Principle of Economic Potential**

The Principle of Economic Potential aims to improving productivity and closing the economic performance gap between the various areas of KwaZulu-Natal towards economic excellence of all areas. Rapid economic growth that is sustained and inclusive is seen as a pre-requisite for the achievement of poverty alleviation.

The principles further promotes the consideration of spatial needs for Economic Competitiveness (Potential) by proposing an asset based spatial approach based on unique advantages and opportunities within various areas. An essential component of this principle is the engagement of the private sector in the refinement and spatial economic needs of any particular zone / area.

#### **5.2.2.3 Principle of Environmental Planning**

The Principle of Environmental Planning (Bioregional Planning) refers to understanding and respecting the environmental character (potential and vulnerability) and distinctiveness of places and landscapes and promoting balanced development in such areas.

The PSDF supports environmental planning as the fundamental methodology on which spatial planning should be based. Thus, rather than being a reactionary barrier to commenced development, the environment is seen as an enabling primary informant to spatial planning and development. Environmental planning can be defined as land-use planning and management that promotes sustainable development. The environmental planning methodology involves the use of Broad Provincial Spatial Planning Categories to reflect desired land use.

#### **5.2.2.4 Principle of Sustainable Rural Livelihoods**

The Principle of Sustainable Rural Livelihoods considers rural areas in a way which is integrated with other decision making associated with the Sustainable Livelihoods framework. This principle requires that spatial planning consider the locality and impact of human, physical, natural, financial and social capitals of an area and spatially structure these in support of each other.

Another aspect of this principle is promoting spatial planning in a continuum where rural areas are not addressed as completely separate entities to urban centres, but rather a gradual change in landscape with the potential progression of rural areas to more closely resemble the service standards and quality of living achieved in some urban contexts.

#### **5.2.2.5 Principle of Spatial Concentration**

The Principle of Spatial Concentration aims to build on existing concentrations of activities and infrastructure towards improved access of communities to social services and economic activities. In practical terms this promotes concentration along nodes and corridors with multi-sectoral investment i.e. roads, facilities, housing etc. This is envisaged to lead to greater co-ordination of both public and private investment and result in higher accessibility of goods and services to communities while ensuring more economic service delivery.

This principle will further assist in overcoming the spatial distortions of the past. Future settlement and economic development opportunities should be channelled into activity corridors and nodes that are adjacent to or link the main growth centres in order for them to become regional gateways.



#### 5.2.2.6 *Principle of Local Self-Sufficiency*

The Principle of Local Self-Sufficiency promotes locating development in a way that reduces the need to travel, especially by car and enables people as far as possible to meet their need locally. Furthermore, the principle is underpinned by an assessment of each area's unique competency towards its own self-reliance and need to consider the environment, human skills, infrastructure and capital available to a specific area and how it could contribute to increase its self-sufficiency.

#### 5.2.2.7 *Principle of Co-ordinated Implementation*

The Principle of Co-ordinated Implementation actually projects beyond spatial planning and promotes the alignment of role-player mandates and resources with integrated spatial planning across sectors and localities. Essentially the principle suggests that planning-implementation becomes a more continuous process and that government spending on fixed investment should be focused on planned key interventions localities.

This principle ultimately also proposes a move towards more developmental mandate definitions of the various departments away, from single mandates to enable the spatial alignment of growth and development investment.

#### 5.2.2.8 *Principle of Accessibility*

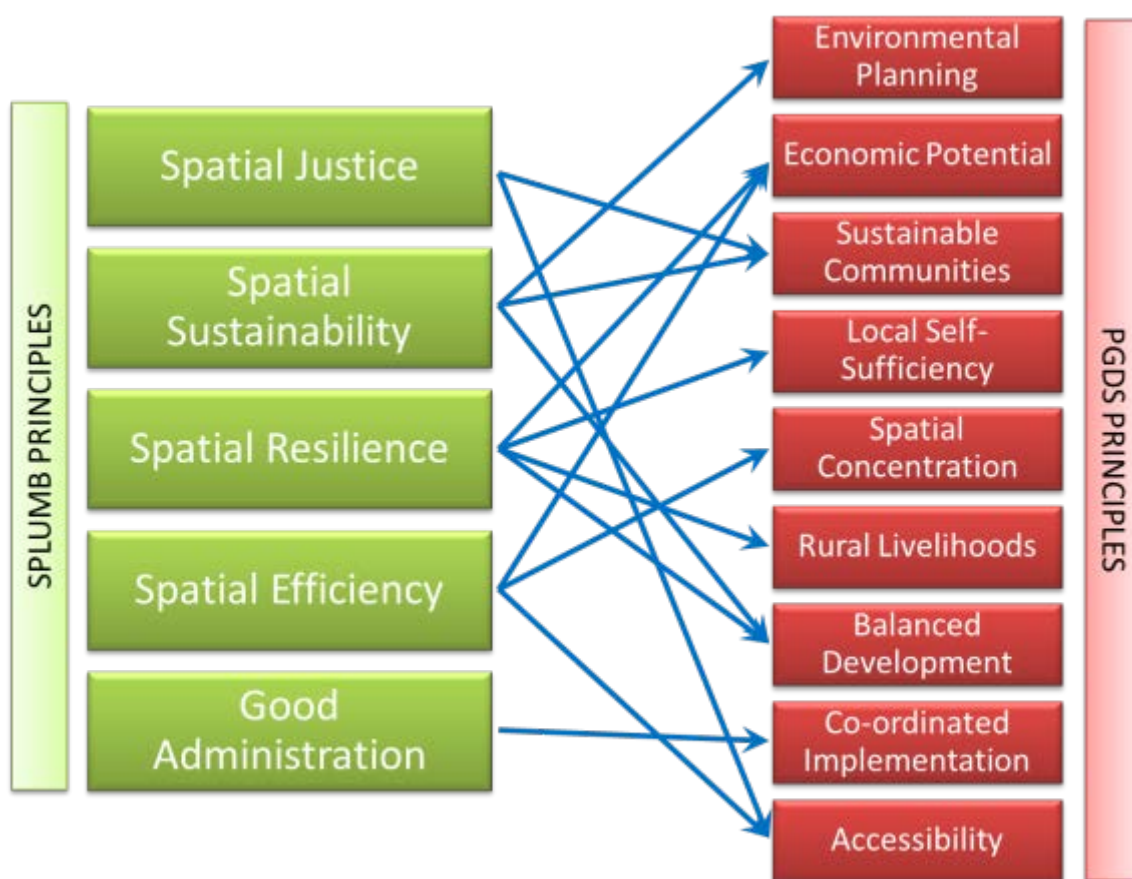
The Principle of Accessibility simply promotes the highest level of accessibility to resources, services, opportunities and other communities. This is intrinsically linked to transportation planning and should consider localised needs for the transportation of people and goods by various modes of transport as guided by the scale and function of a region. At a provincial level there is a strong correlation between the most deprived areas and poor regional accessibility to those areas. In addressing accessibility at provincial and local level, the need for possible new linkages, the upgrade in the capacity of existing linkages and the suitable mix of modes of transport should be considered.

#### 5.2.2.9 *Principle of Balanced Development*

The Principle of Balance Development promotes the linking of areas of economic opportunity with areas in greatest need of economic, social and physical restructuring and regeneration at all spatial scales. In practical terms the principles sought to find a balance between the potentially competing land uses by understanding the relationship and integration between major dimensions within the province and promoting a synergetic mixture of land uses in support of each other at various spatial scales.

Before analysing the spatial realities and the implications of these principles on the Mkhambathini Local Municipality, it is necessary to depict the relationship between the two sets of principles. The PGDS principles incorporate the PGDS principles in the following way:

Figure 19: SPLUMA Principles - Acknowledging PGDS Principles



Source: Vuka Planning Africa

### 5.3 SPATIAL DEVELOPMENT OBJECTIVES AND KEY DEVELOPMENT STRATEGIES

As indicated before, the core spatial challenges of the Spatial Development Framework would be to ensure spatial variety, equity, efficiency and sustainability. However, current practices do not always promote these concepts and it is therefore vital to identify in which manner current trends impact or do not impact on the achievement of these responsibilities and the eventual realization of the Spatial Development Vision.

Table 22 below outlines the logistical framework between the Spatial Development Drivers, the principles that need to be adhered to, and the objectives that need to be reached and the strategies to achieve these development objectives. The section further aims to provide a framework for conflict resolution between various land uses. Subsequently the Spatial Drivers as well as the Spatial principles are presented in order of most important to least important, which will guide decision making when conflict in land use principles presents itself.



Table 23: Spatial Development Objectives

PGDS Goals	PGDS Strategic Objectives	Mkhambathini IDP Objectives	SDF - LAND DEVELOPMENT OBJECTIVES
<b>1. Job Creation</b>	1.1. Unleashing the Agricultural Sector		<ul style="list-style-type: none"> <li>To promote the agricultural development and use of <b>prime agricultural land</b>.</li> </ul>
	1.2. Enhance Industrial Development through Trade, Investment & Exports		<ul style="list-style-type: none"> <li>To promote the development and key potential industrial areas.</li> </ul>
	1.3. Expansion of Government-led job creation programmes		
	1.4. Promoting SMME, Entrepreneurial and Youth Development	a) To create a conducive environment for Local Economic and Rural development	<ul style="list-style-type: none"> <li>Promotion of private sector <b>investment in rural areas within diverse economies</b></li> </ul>
			<ul style="list-style-type: none"> <li>To identify key Economic Investment Nodes and Areas.</li> </ul>
	1.5. Enhance the Knowledge Economy		<ul style="list-style-type: none"> <li>To promote the development of knowledge economy facilities and infrastructure (eg. ICT technology, Research and Education Facilities)</li> </ul>
<b>2. Human Resource Development</b>	2.1. Early Childhood Development, Primary and Secondary Education		<ul style="list-style-type: none"> <li>To promote sufficient distribution of and access to educational facilities.</li> </ul>
	2.2. Skills alignment to Economic Growth		
	2.3. Youth Skills Development & Life-Long Learning		
<b>3. Human &amp; Community Development</b>	3.1. Poverty Alleviation & Social Welfare		<ul style="list-style-type: none"> <li>To spatially target interventions toward key areas of <b>poverty concentration</b>.</li> </ul>
	3.2. Enhancing Health of Communities and Citizens		<ul style="list-style-type: none"> <li>To promote sufficient spatial distribution of and access to health facilities.</li> </ul>
		a) To combat HIV and Aids & manage health issues	
	3.3. Enhance Sustainable Household Food Security		<ul style="list-style-type: none"> <li>To systematically improve access to land and proper land management practices in <b>Traditional Authority areas</b>.</li> </ul>

PGDS Goals	PGDS Strategic Objectives	Mkhambathini IDP Objectives	SDF - LAND DEVELOPMENT OBJECTIVES
	3.4. Promote Sustainable Human Settlements		<ul style="list-style-type: none"> <li>To develop and maintain <b>flexibility in spatial plans, policies and land use management systems</b> to accommodate and ensure sustainable livelihoods in communities most likely to suffer the impacts of economic and environmental shocks</li> <li>To identify key human settlement intervention areas.</li> </ul>
	3.5. Enhance Safety & Security		
	3.6. Advance Social Capital	a) To promote the rights of designated groups	
		b) To promote Sports and Recreation	
<b>4. Strategic Infrastructure</b>	4.1. Development of Harbours		
	4.2. Development of Ports		
	4.3. Development of Road & Rail Networks	To provide municipal and rural roads and storm water drainage	
	4.4. Development of ICT Infrastructure		
	4.5. Improve Water Resource Management & Supply	a) To provide basic infrastructure services to indigent communities	<ul style="list-style-type: none"> <li>To ensure the <b>optimal use of existing resources and infrastructure.</b></li> </ul>
	4.6.	a) To facilitate the provision of electricity	<ul style="list-style-type: none"> <li>To promote the <b>establishment of varied service delivery</b> standards and strategies between various settlement typologies.</li> </ul>
		b)	
	4.7. Develop Energy Production and Supply		
<b>5. Environmental sustainability</b>	1.1. Increase Productive Use of Land		<ul style="list-style-type: none"> <li>To consider <b>environmental, social and economic balance</b> in all land development considerations.</li> </ul>
	1.2. Advance Alternative Energy Generation		
	1.3. Manage pressures on Biodiversity		<ul style="list-style-type: none"> <li>To preserve the municipality's biodiversity and</li> </ul>



PGDS Goals	PGDS Strategic Objectives	Mkhambathini IDP Objectives	SDF - LAND DEVELOPMENT OBJECTIVES
			rehabilitate environmentally sensitive areas.
			<ul style="list-style-type: none"> <li>To ensure that the <b>quality of water</b> from rivers, streams and wetlands is suitable for the maintenance of biodiversity and the protection of human well-being.</li> </ul>
	1.4. Adaptation to Climate Change	c) To provide support on disaster management services	<ul style="list-style-type: none"> <li>To consider the potential impacts of Climate Change on long term spatial structure.</li> </ul>
<b>6. Governance &amp; Policy</b>	1.5. Strengthen Policy and Strategy Co-ordination & IGR	a) To coordinate development in the municipal area	<ul style="list-style-type: none"> <li>To prepare, maintain and adhere to <b>comprehensive municipal spatial planning</b> policies and strategies.</li> </ul>
		b) To ensure that IGR structures function effectively	<ul style="list-style-type: none"> <li>To ensure <b>sectoral and spatial integration</b> in all land improvement and development.</li> </ul>
			<ul style="list-style-type: none"> <li>To ensure <b>full legislative compliance</b> in all aspects of land development.</li> </ul>
	1.6. Building Government Capacity	a) To provide skills development programmes for Staff, Councillors	<ul style="list-style-type: none"> <li>To develop institutional capacity towards effective land management</li> <li>To implement streamlined development application and decision making procedures</li> </ul>
		b) To fill critical posts	
		c) To promote Employee Wellness and Occupational Health & Safety	
		d) To improve the standard of administrative and auxiliary support	
		e) To support and maintain user Departments with ICT requirements	
		f) To promote sound labour relations	

PGDS Goals	PGDS Strategic Objectives	Mkhambathini IDP Objectives	SDF - LAND DEVELOPMENT OBJECTIVES
		g) To provide effective career planning	
		h) To implement a refined organisational structure	
		i) To refine HR Policies	
		j) To improve the procurement system	
		k) To improve the budgeting and reporting processes	
		l) To improve income control	
		m) To ensure that employment equity targets are met	
		n) To improve expenditure control	
		o) To improve the image of the Municipality	
	1.7. Eradicating Fraud & Corruption	To ensure an effective internal audit function and Audit Committee	• Fair and transparent Processes
		To ensure that the Municipality is legally compliant in all its activities	
	1.8. Promote Participative, Facilitative & Accountable Governance	To transform the Municipality into a performance driven organisation	
<b>7. Spatial Equity</b>	5.1. Actively Promoting Spatial Concentration		• To <b>discourage settlement and development sprawl.</b>
	5.2. Facilitate Integrated Land Management & Spatial Planning		• To promote and develop <b>residential &amp; employment opportunities</b> in close proximity to each other.
			• To promote <b>diverse combinations of land uses</b> in support of each other.
			• To ensure that <b>rural and urban development</b> are in support of each other.

Source: Vuka Planning Africa



## 6 SPATIAL DEVELOPMENT FRAMEWORK

### 6.1 INFORMANTS

It is critical for the development of a sustainable Spatial Development Framework to identify environmentally sensitive areas in order to direct and manage intensive development away from such areas. The Mkhambathini Spatial Development Framework considers both formally registered conservation areas as well as additional potential/future conservation worthy areas.

Areas of environmental concern include the following:

- Wetlands and watercourses,
- Areas prone to soil erosion,
- Steep slopes,
- Archaeological sites and
- Tourism assets

Rural Settlement with inadequate water and sanitation remains a challenge. In general the following areas were identified as future conservation areas.

- All formally **registered Nature Reserves**
- MinSet Data as overlaid on the Conservation Criteria Map, Depicting **Mandatory Reserve** Areas.
- All **river and stream areas, wetlands & dams** in excess of **1Ha** and within the 1:100 flood line
- **Riverine buffer areas**. A conceptual buffer of 30m from centreline was utilised.
- Selected slope areas that is intersected by rivers.
- Indigenous forests.

The resulting main conservation areas identified are the following:

- The conservation area around Table Mountain;
- The conservation area around Nagle Dam is also of importance, as this is the main water production area of the Municipality.

A number of areas that requires protection through environmental management has been identified and is concentrated in two distinct areas:

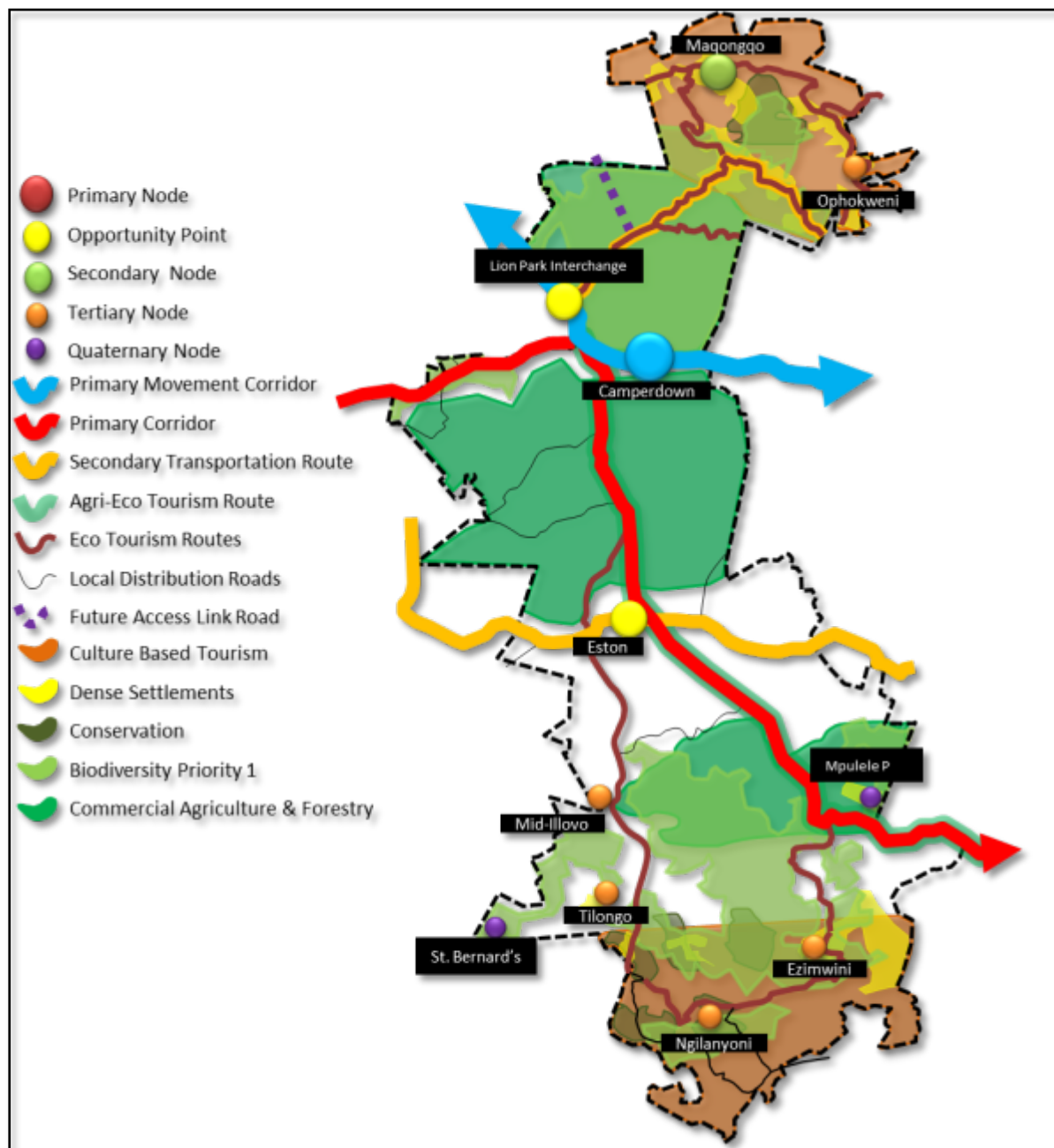
The area north of the N3, and towards Nkanyezini has environmental significance and will be developed as eco-tourism areas with the necessary Environmental Management procedures taken cognisance of.

The areas south of the main Commercial Agricultural Areas is also earmarked as requiring protection and adequate Environmental Management processes should be put in place to manage development in these area.

### 6.2 SPATIAL DEVELOPMENT CONCEPT

Figure 20 depicts the conceptual spatial framework and the relation of the various proposed land uses, nodes, and corridors in relation to each other. These will be discussed in more detail in following sections. The combination of the elements discussed in the sections below results in the Spatial Development Framework, attached as Map 28: SDF.

Figure 20: Conceptual Spatial Development Framework



Source: Vuka Planning Africa

### 6.3 DEVELOPMENT POTENTIAL OF THE N3 CORRIDOR

#### 6.3.1 Significance of the N3 Corridor

The N3 route between Durban and Gauteng is an established national route and especially significant for the logistics and distribution of goods to and from the Port of Durban and the industrial and commercial centres of Gauteng. The strategic importance of this route has been highlighted in a number of industrial strategies at both a national and provincial level. The Provincial Spatial Economic Development Strategy (PSEDS) identified the N3 Corridor as the



Primary Provincial Corridor and this was further strengthened through the significance placed on the corridor within the Provincial Growth and Development Strategy (PGDS) and its associated Provincial Spatial Development Strategy.

Within the uMgungundlovu District the corridor is elevated to one of the most important economic linkages and opportunities within the district. A recent investigation of the spatial economic significance of the corridor to the district stated that “the N3 Corridor is strategically the most significant movement corridor in the country and the Province of KwaZulu-Natal” and could lead to a future of prosperity for the district. Therefore the development around this route would need to further address or should consider the following Goals and Strategic Objectives of the KZN Provincial Growth and Development Strategy:

- Goal 1: Job Creation
  - Strategic Objective 1.2: Enhance Industrial Development through Trade, Investment & Exports
- Goal 4: Strategic Infrastructure
  - Strategic Objective 4.3: Development of Road & Rail Networks

For Mkhambathini Municipality, the potential strategic impact of the corridor is seen as essential for the economic future growth of the municipality. Not only does the N3 route provide access to the only formalized town (Camperdown) within the municipality, but it also plays a significant role in the municipality tourism development potential and continued capacity for agricultural production and distribution.

The mere location of the town along this route and in a strategic position between Durban and Pietermaritzburg has led to increasing interest in logistics and warehousing related industries wanting to position themselves near Umlaas Road. The private market interest in the area is reiterated within national corridor development initiatives such as the Strategic Infrastructure Projects.

### 6.3.2 Establishment of the SIP2 Corridor

The Presidential Infrastructure Coordinating Commission (PICC) with its supporting management structures was established by Cabinet to integrate and coordinate the long term national strategic infrastructure developments.

The PICC aims to assess the infrastructure gaps through spatial mapping which analyses future population growth, projected economic growth and areas of the country which are not served with water, electricity, roads, sanitation and communication. Based on this work, seventeen Strategic Infrastructure Projects (SIPs) have been developed and approved to support economic development and address service delivery in the poorest provinces and regions.

Each SIP comprises a large number of specific infrastructure components and programmes. The N3 corridor between the Port of Durban, traversing a portion of the Free State and ending in Gauteng is identified as the SIP2 initiative in this regard and is more commonly known and referred to as the **“SIP 2: Durban-Free State-Gauteng Logistics and Industrial Corridor”**.

The intentions of this SIP is to strengthen the logistics and transport corridor between SA’s main industrial hubs; improve access to Durban’s export and import facilities, raise efficiency along the corridor and integrate the Free State Industrial Strategy activities into the corridor and integrate the currently disconnected industrial and logistics activities as well as marginalised rural production centres surrounding the corridor that are currently isolated from the main logistics system.

Most of the projects associated with SIP 2 are still in the concept or pre-feasibility stage, but construction has already started on several projects, including:

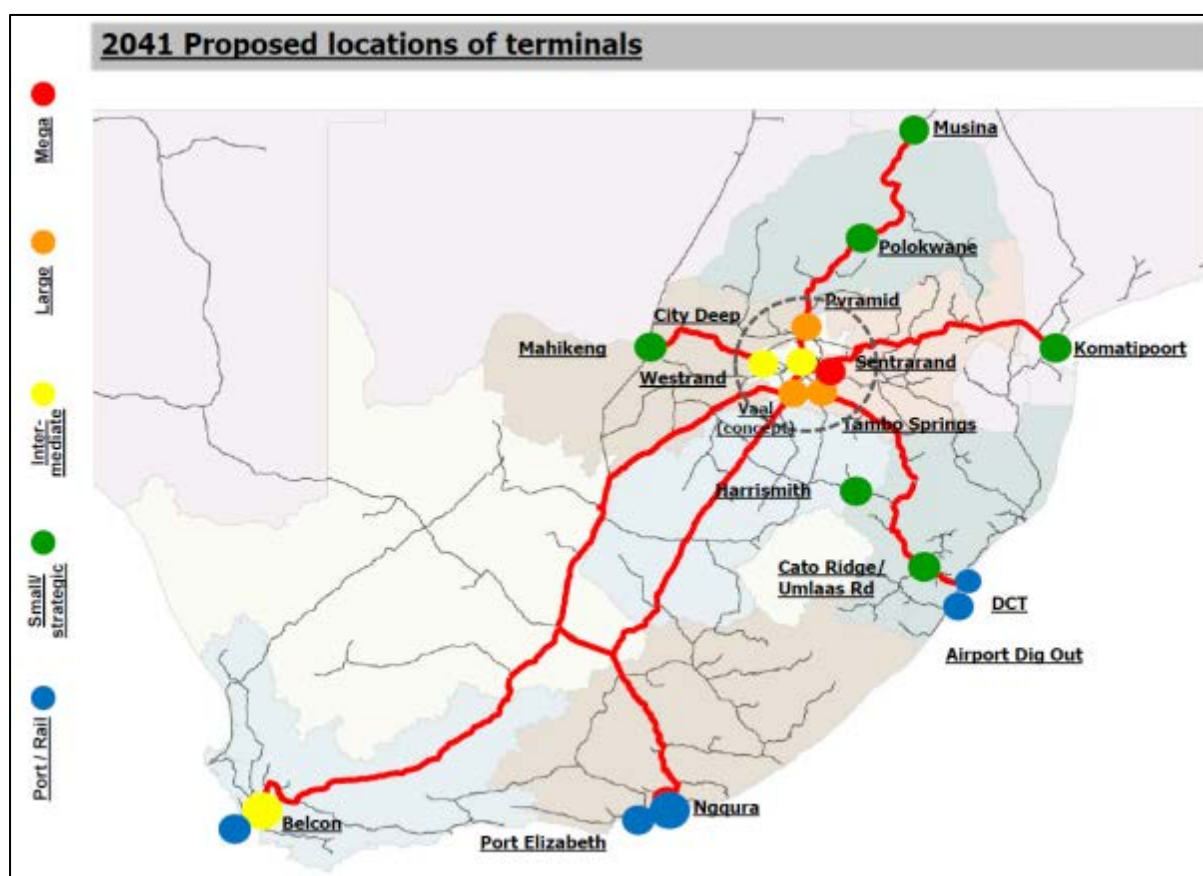
- the building of a R2,3 billion container terminal at City Deep
- a R3,9 billion project to upgrade Pier 2 at the Port of Durban
- R14,9 billion procurement of rolling stock for the rail line which will service the corridor.

Work has also started on the R250 million Harrismith logistics hub development to set up a fuel distribution depot, as well as on phase one of the new multi-product pipeline which will run between Johannesburg and Durban and transport petrol, diesel, jet fuel and gas.

### 6.3.3 Umlaas Road as an Emerging Node

As part of the SIP2 Corridor initiative (as is the case with the other SIPs), a number of terminals is proposed to serve as hubs for industrial and logistics investment and development. The figure below illustrates the locality of these terminals along key routes and corridors. In the case of the SIP2 initiative, the Umlaas Road / Cato Ridge area has been identified as a Small Strategic Terminal area.

Figure 21: 2041 Proposed Locations of Terminals



Due to their close proximity to each other, the dynamic interaction between Umlaas Road and Cato Ridge towards a combined strategic node along the SIP2 Corridor will be crucial for the development of both areas.

Cato Ridge is acknowledged as one of the major strategic investment areas within the eThekweni SDF and the recently completed Cato Ridge Local Area Plan (LAP) has illustrated the strategic significance of the areas on confluence between the NATCOR Rail System and the N3 at Cato Ridge. The LAP however further illustrates that the area will require major infrastructure investments in order to fully unlock the development potential of the node.

The current investigations around and proposal towards potential bypass routes around Pietemartizburg all follow different alignments, but converge at the Umlaas Road Intersection. Umlaas Road also has access to the rail network and recent private sector developments within the area have unlocked service industrial land, immediately available for investment. It is however important to indicate that the success of both these nodes arguably depends on the dynamic balance in the different types of industrial and logistic development within these two areas. Umlaas Road is



envisaged to best cater for packaging, warehousing and logistical operations whilst Cato Ridge could support more manufacturing and engineering related industries.

A number of planned developments within the Umlaas Road and Camperdown area have already illustrated the significant interest in developing the area for warehousing and logistical services, as well as peripheral residential development including the following:

Table 24: Proposed Developments related to SIP 2

Development Name	Development Type	Locality
Acaciadale	8000m2 offices + city lodge	Lion Park Interchange, Ptn 603 Vaalkop & Dadelfontein No. 885
AfroProp	40ha logistics warehousing	Umlaas Road Ptns 111, 112, 114, 191 of Vaalkop & Dadelfontein No. 885
Mustapha Park	Mixed Use Park	Camperdown Erf 9 of 115 Camperdown
Gibbs Steel Park	Mixed Use Park	Camperdown Erf 120 Camperdown
Midway Park	9 logistics warehouse sites	Camperdown Erf 6 of 41 Umlaas Road
De Heus	Doubling of feed mill	Umlaas Road Erf 38 Umlaas Road
Agrivesco	250 residential units + light industry 70ha	Camperdown Ptn 42 Camperdown No. 1330
Collins Group/Rainbow	30ha warehousing sites	Umlaas Road Erf 41 Umlaas Road

In the further development of the Umlaas Road area, the following Spatial Development and Land Use Strategies are proposed:

- Establishing regional linkages to and from Umlaas Road as a fundamental part to movement of industrial goods and services.
- Protecting the Camperdown area from incremental industrial development intrusions which might detract from the functional and attractive residential function of the town.
- Providing improved regional access to and circulation within the Umlaas Road area and making adequate services available to the future development of the area within the context of the SIP2 Corridor.
- Ensuring the investment and promotion of the Umlaas Road Area is based on thorough investigations and logical planning.
- Encouraging and promoting market development to determine the mixture of activities and land uses within the broad guidance of the intended strategic node.
- Promoting an economic development mix which will contribute to the economic and social upliftment of local communities.
- Promoting the efficient economic development of the Umlaas Road area without negative impacts on surrounding high value agricultural land, environmentally sensitive area as well as the eco-tourism potential of the key areas found within especially the northern portions of the municipality.

## 6.4 CORRIDOR DEVELOPMENT

One of the major structuring elements determining the existing and future concentration of development, activity and investment in a municipality is corridors (Developmental and movement oriented) which should provide a mixture and a hierarchy of the mentioned corridors.

In the Status Quo, a number of corridors and movement routes have been highlighted from previous strategic documents. It is proposed that, in addition to these routes, a number of additional routes be targeted for inclusion in the Spatial Development Framework.

The following sections highlight the proposed routes and corridors as well as the interventions to be implemented on the various routes.

#### 6.4.1 Rifsa Classification

Within the rural municipalities, access to communities are more often than not, provided by non-proclaimed, community established gravel roads which do not have a designation or legal status.

The fact that they are informal does not detract from the fact that they provide an essential service without which the communities cannot exist. As a result of this, the National Department of Transport embarked on an exercise to classify roads based on their functionality. This will also impact on the maintenance responsibilities which will be shared between the Province, and Local and District Municipalities.

The revised approach to the classification of roads in South Africa is predicated on the following principles:

- Work from the bottom end of the road hierarchy upwards.
- Base the classification on:
  - The primary function of the road – recognizing the different roles of the road i.e. provision of mobility and/or accessibility or a combination of these factors.
  - Whether the specific road is "intra" or "inter" the administrative area of a specific authority.
- The approach should foster local participation and the delivery mechanism should be at as low a level as practical, i.e. responsibility should be assigned to the lowest level most intimately affected.
- The classification should be attuned to the current realities and needs in the country.

Table 25 : Rifsa Classification

Functional Class	Description
<b>Class 1</b>	Roads, which form the principal avenue of communication: - i. Between and through major regions of South Africa ii. Between provincial capitals and key towns which have significant national economic/social interaction iii. Between South Africa and adjoining countries, and iv. Whose main function is to provide access to major freight terminals, including ports.
<b>Class 2</b>	Roads not being class 1 whose main function is to form an avenue of communication: i. Between important centers and between class 1 roads and key towns within a specific province, on a province -wide basis. ii. Between important centers, within a specific province which have a significant economic, social tourist or recreation role (e.g., tourism and resource development).
<b>Class 3</b>	Roads other than class 1 or 2 roads, whose main function is to provide the principle arteries for intra-metropolitan traffic and freight movements.
<b>Class 4</b>	Roads, which are not class 1, 2 or 3, are roads whose main function is to carry inter-municipality social, commercial and industrial traffic within specific metropolitan and district municipality areas.
<b>Class 5</b>	Roads whose primary function is to collect and distribute all traffic within local municipality areas including developing townships and to provide access to the wider road network, as well as the abutting properties.
<b>Class 6</b>	Roads, often undesignated, whose function is to provide the only access to scattered rural settlements and communities of up to 500 persons and which primarily serve local social services as well as access to markets and generally form the first phase of the journey for commuters and migrant workers. These roads will often form part of a rural



	infrastructure development framework.
<b>Class 7</b>	This category comprises special purpose roads which cannot be assigned to any other class above and which are provided almost exclusively for one specific activity or function such as recreational, forestry, mining, national parks or dam access, for example.

*Source: Road Infrastructure Strategic Framework for South Africa, 2002*

As indicated, the above classifications will have an impact on the maintenance responsibilities and activities associated with a road. These classifications have not yet been made applicable to the roads within the Mkhambathini LM. The current “Classification” of roads is discussed in the sections below.

It is further necessary to distinguish between a movement corridor and a development corridor, as different functions and development approaches are applied to these roads. The term “activity corridor” or “development corridor” is used for short sections of road that:

- exhibit intensity of activity along them;
- are supported by nodes and residential land usage thus providing thresholds of activity to sustain economic and social development;
- are short and compact since a long section of road cannot sustain high order economic and social activity particularly in rural areas.

A movement corridor, on the other hand, provides for high accessibility and constant flow of movement between nodes and areas situated some distance from each other.

#### 6.4.2 Primary Movement Corridor

The Primary Movement Corridor is the following:

- **N3 National Route**

The N3 bisecting Camperdown and passing through the Mkhambathini Municipality is identified as a Primary Movement Corridor, which is of importance at a National and Provincial level.

As the main transportation conduit, it links the Municipality to the Metropolitan area of eThekweni as well as the economic powerhouse of Gauteng. With the Durban Port being an important entrance to the continent, the N3 further links the province to the African Sub-Continent and is central to the development of these areas and to tourism.

Clearly, its function is greater than a Primary Corridor. While it is also an important local corridor its main function needs to be sustained. Development immediately adjoining on either side of this corridor should be a variety of mixed use of low to medium impact and be visually attractive when observed from the N3. It should not be hazardous to corridor users.

Public interventions envisaged in this area relate to:

- a) Constant Inter Governmental communication and co-ordination relating to the development of the major economic corridor and its impact on the Mkhambathini Municipality.
- b) Tarring of roads which will provide transport services access to the remote regions, and open up additional economic opportunity in opening the areas. Accessibility is of key importance.
- c) Developing a localised Corridor Development Strategy, this will focus on spatial structure, infrastructure provision and attracting both public and private sector investment.
- d) Ensure multimodal transport integration occur along these roads at key points.

This route provides development opportunities that must be explored, and development should be encouraged along this primary route.

#### 6.4.3 Primary Development Corridors

The Primary Economic Development Corridor is the following:

- **R603 Regional Route**

The R603 is the Primary Development Corridor which links the Municipality to eThekweni's South Coast at Kingsburgh. It is of Provincial and Municipal importance. It serves the commercial agriculture community, rural residential communities and also serves as a tourism link. Development along this corridor should be attractive to enhance tourist appreciation and should not be permitted on an ad hoc basis.

The KZN DoT Route Designations for this route include the following:

- **P21-1** Leading from Camperdown in a southern direction towards eThekweni LM

Another Primary Development Corridor Identified is the:

- **P338 Regional Route** - The P338 is the primary corridor that links Mkhambathini Local Municipality with the western and southern portions of KwaZulu-Natal and future planning proposals are in place to develop the P338 as a National Route linking Mkhambathini to the Eastern Cape.

#### 6.4.4 Secondary Transportation Route

The Secondary Transportation Routes include the following:

- North of N3 leading from Lion Park Interchange to Maphumulo LM
  - P477 & P566
- South of N3 connecting Eston to Hopewell (Richmond LM) in the west, and eThekweni in the east.
  - R624 consisting of KZN DoT roads P117, P24, P489 & D561

The road from the Lion Park interchange leading to Maphumulo Tribal Area has been upgraded as a secondary transportation route but also provided the main link from the N3 between Pietermaritzburg and Durban to the Maphumulo Tribal Authority area.

A small corridor from the N3 along the proposed secondary transportation route is proposed which should be utilised for low impact residential and commercial centred on the interchange. The length of this corridor would extend approximately 1.5 to 2km from the interchange in addition to the opportunity point identified at this intersection / interchange. Awareness for the Rainbow Chicken farms must be taken into consideration and the irreplaceable vegetation in this locality

Public interventions envisaged in this area relate to:

- a) Developing a localised Corridor Development Strategy which will focus on spatial structure, infrastructure provision and attracting both public and private sector investment.
- b) Ensure multimodal transport integration occur along these roads at key points.
- c) Tarring of roads which will provide transport services access to the remote regions, and open up additional economic opportunity in opening the areas. Accessibility is of key importance.

#### 6.4.5 Agricultural Corridors

The PSEDS does not identify any provincial agricultural corridor for the Mkhambathini LM. The adjacent municipality of Richmond on the other hand, has two agricultural corridors that connect to the Mkhambathini LM near Eston and the Mid-Illovo. The agricultural Production area for Mkhambathini is not situated near these linkages and subsequently these linkages will not be carried forward into Mkhambathini. The Agricultural Corridors proposed for Mkhambathini LM is situated along the Primary Corridor, namely the R603.

Public interventions envisaged in this area relate to:



- a) Establishing / Expanding Agro-Processing facilities:  
Additional income generating opportunities are needed within areas of economic need. Agro processing, especially within an area situated on an agricultural corridor provides the potential for additional income. Agro Processing entails the turning of primary agricultural products into other commodities for market – in other words, beneficiation of primary agricultural commodities.
- b) To involve communities in agro-processing the following option can be considered:  
Establishing small-scale, appropriate and sustainable processing businesses that are flexible require little capital investment and can be carried out in the home without the need for sophisticated or expensive equipment.
- c) Expansion of trade opportunities related to agricultural activities – formal and informal

#### 6.4.6 Tourism Routes

The uMgungundlovu Spatial Development Framework as well as the Mkhambathini IDP identified a number of tourism linkages traversing the Municipality. The routes identified include the following:

The Following Tourism Routes have been identified:

- From the N3 past table Mountain and to the east of the Nagle Dam water production area, as well as to Maqongqo, which also connects to Nagle Dam, as well as Msunduzi Municipality:
  - P477, P566, A3611 P26, L823
- Leading from R603 to Eston, Mid-Illovo and Ngilanyoni. The route then split and links back to the R603, as well as continue to the South Coast through Vulamehlo Municipality.
  - P21-1

Adventure tourism and tourism are important elements in the Mkhambathini area, and as such, the above roads have been recommended for upgrading, linking through from P566 to Maqongqo and then the link from Maqongqo to Nagle Dam forming a loop back to the development node. Another road is recommended as a tourism route and this is the one that links through near the Lion Park through to the Ximba Tribal Area.

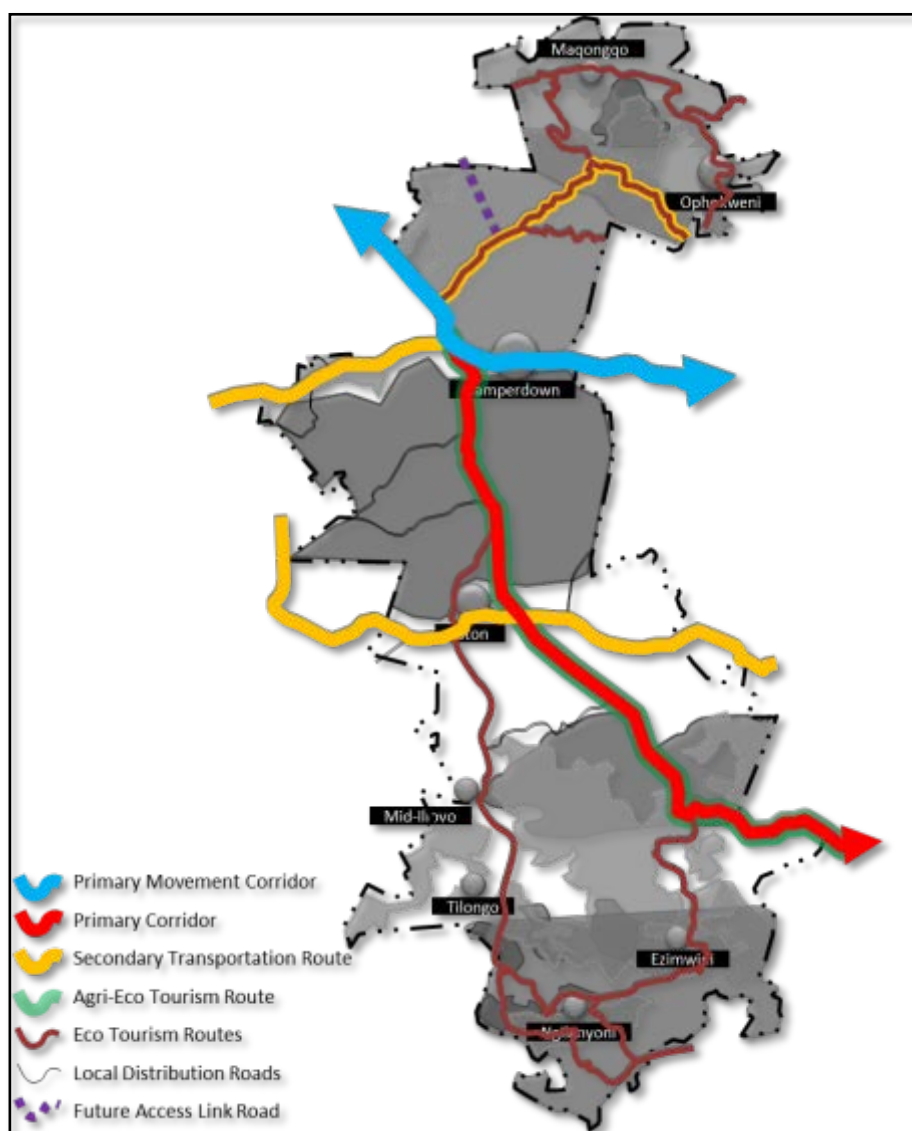
Eco Adventure tourism routes have been identified linking Eston with the tribal areas and ultimately the Umkomaas River and into Vulamehlo Municipality. For the more hardened adventurers and also to create economic opportunities for those living in the area a 4 x 4 link is proposed between Ezimwini and Ngilanyoni, which are divided by extremely rugged terrain. The following interventions are envisaged to be undertaken by both public and private institutions along these tourism routes:-

- Eco-tourism related to natural beauty of the environment.
- Focused public investment to stimulate private sector investment.
- Diversification of products to adventure products (quad biking, rafting etc), craft and culture, and other activities that capitalise on opportunities provided by mobility function of R603.

#### 6.4.7 Lower Distribution Roads

These routes ensure linkages between settlements and serve as strategic areas for the location of public facilities and webs of settlement. They are not demarcated on the maps as there are a large number of such access routes, which do not provide vital strategic information, or require to be strategically evaluated within this spatial development framework.

Figure 22: Mkhambathini SDF –Corridors



Source: Vuka Planning Africa



## 6.5 NODAL DEVELOPMENT

The following hierarchy of nodal areas are proposed and defined for the Mkhambathini Local Municipality:

Primary Node	Serve as administrative and economic centre
Secondary Node	Serves as distribution point
Tertiary Node	Serves as area for delivery of supplementary services
Quaternary Node	Serves as a neighbourhood service centre and for delivery of supplementary services of a lower order
Opportunity Point	Areas with potential for future development

The proposed development nodes for Mkhambathini Municipality are as follows:

Table 26: Proposed Nodes

Primary Node	Secondary Node	Tertiary Node	Quaternary Node	Opportunity Point
Camperdown	Maqongqo	Manderston Mid-Illovo Ophokweni Tilongo Ngilanyoni Ezimwini	Nkanyezini St. Bernard's Ogagwini	Eston Lion Park Interchange

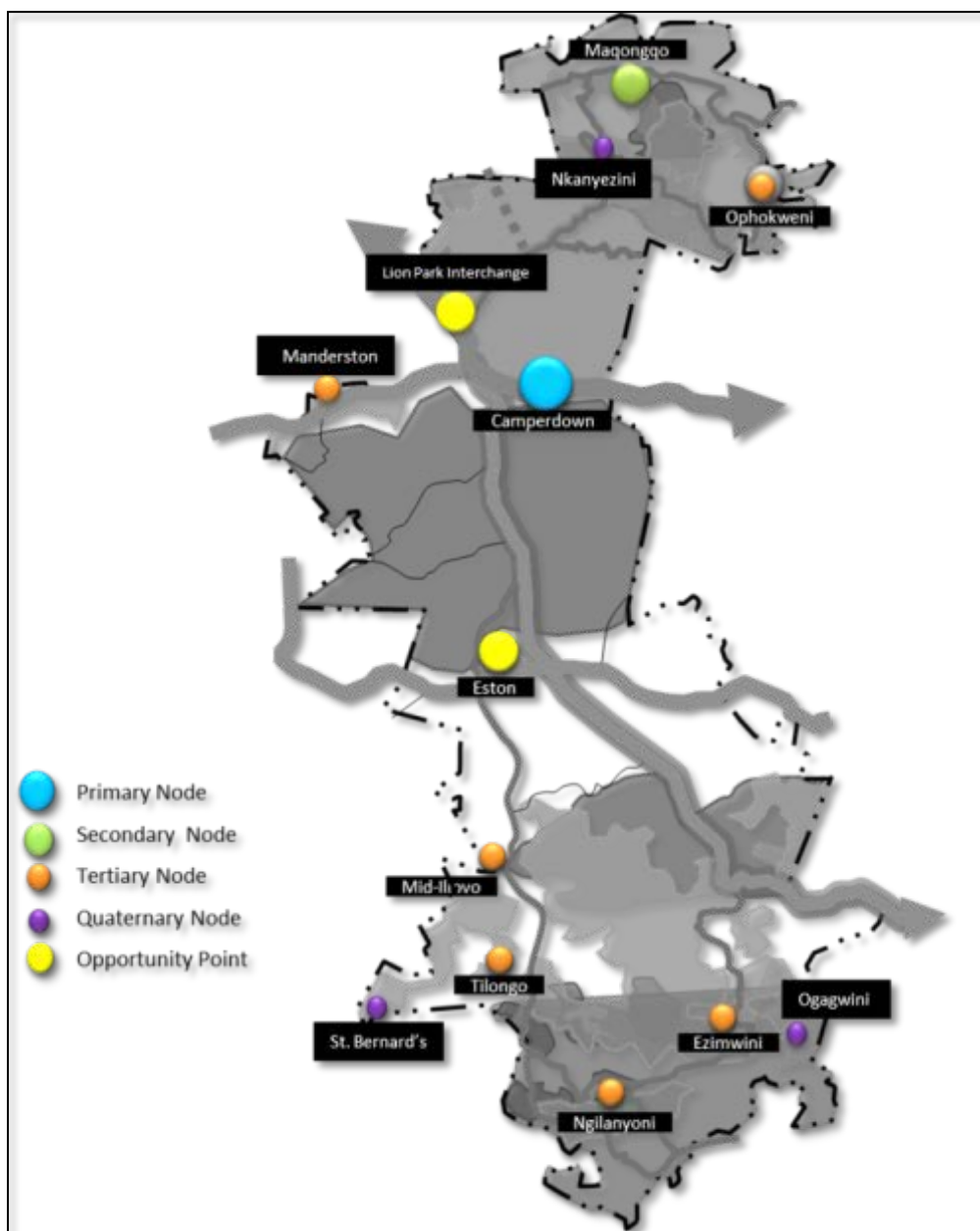
Camperdown is the major residential and commercial centre within the Mkhambathini Municipality. The area has a largely urban setting and incorporates the major economic and administration activities. It accommodates the municipal offices, a school, police station, a hotel, bottle store, legal offices and a variety of commercial and retail outlets. The "village in the country" atmosphere which is evident in some portions of the area is an important attribute which needs to be conserved and enhanced, particularly as new areas are opened up for residential and other development. The node is traversed and separated by the Primary Movement Corridor which is the National Route (N3), and to the West, it links onto the Primary Corridor connecting the Municipality to the South Coast (R603) and also the R624 that connects to the Eastern Cape, providing a high degree of accessibility to the Camperdown area.

Tertiary nodes have been identified at places including Ophokweni (north-west), Mid-Illovo (South west), Tilongo, Ngilanyoni and Ezimwini (south).

Quaternary nodes identified at places including Ophokweni (north-west), Mid-Illovo (South west), Tilongo, Ngilanyoni and Ezimwini (south).

The locality of these nodes is depicted in Figure 23 below:

Figure 23: Locality of Nodes



Source: Vuka Planning Africa

#### 6.5.1 Primary Development Node

Camperdown is the major residential and commercial centre within the Mkhambathini Municipality. Its role is intended to be one which provides essential goods and services to support the growing economy of the Municipality, and through better service provision. Also advantageous to Camperdown is its location at the focal point of traversing road network comprising of the R603, P369, D234, 0409 and D832. To the west of Camperdown is Umlaas Road which represents the industrial hub of the Mkhambathini Municipality and together with Camperdown play a significant role to the growth of the municipal economy.



To distinguish between the roles of Camperdown and Umlaas Road, it must be made clear that Camperdown will serve as a residential and commercial node to serve as the primary node for Mkhambathini. This allows Camperdown and Umlaas Road to serve as separate nodes in term of their land use and purposes but it must function as one node by way of the strong link that the R103 presents to link them together. This will result in the formation of a structured town with functional land use areas that will attract investment and share the existing and proposed service infrastructure.

In terms of the impact of future development of Camperdown on adjacent areas such as the Cato Ridge Industrial expansion, it is expected that Camperdown will play a support role due its locational advantage. Some of the activities envisaged for Camperdown may include financial services, professional services and overnight accommodation. Based on this projected role for the primary node, it is appropriate for the town's commercial sector to grow in the direction of Cato Ridge as part of a locational strategy, taking advantage of this industrial expansion and its needs thereof. For this reason, the following interventions / developments are envisaged within this Node:

- Industrial development based on the agro-economy;
- Commercial Development;
- Decentralization point for local administration of provincial and local government services;
- Higher order social and commercial services;
- Integration with major urban centres;
- Housing development;

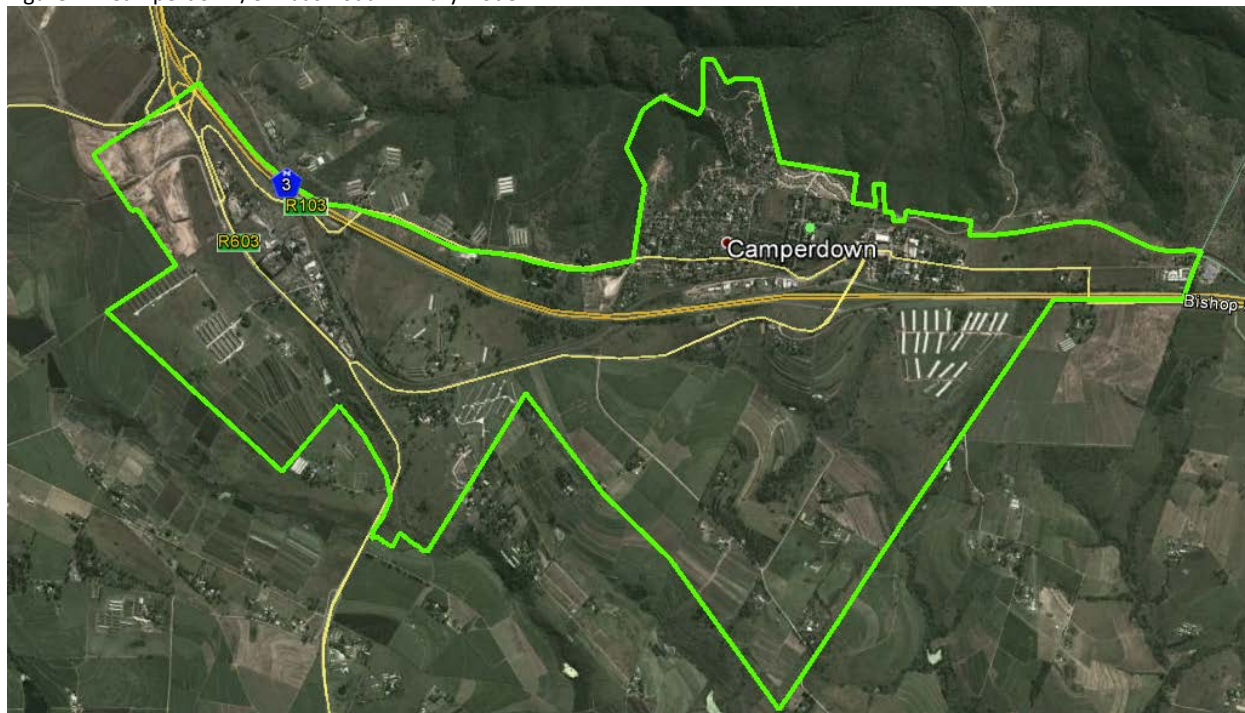
The following facilities are provided within Camperdown:

- Primary School x 2
- Secondary School x 2
- Library x 1
- Police Station x1
- Cemetery x 1
- Civic Centre
- Post Office x 1

According to the Standards for Provision of Services the following additional social amenities and services are to be provided within this Primary Node:-

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>● Church 3</li> <li>● Clinic x 1</li> <li>● Emergency Services</li> <li>● Hospital x 1</li> <li>● Old Age Home &amp; Service Centre</li> <li>● Pension Pay Point</li> </ul> | <ul style="list-style-type: none"> <li>● Police Station</li> <li>● Pre-School/Crèche x 1</li> <li>● Regular Bus Service &amp; Related Facilities</li> <li>● Regular Taxi Service &amp; Related Facilities</li> <li>● Sport Complex (Including Swimming Pool)</li> <li>● Tertiary Training Facility x 1</li> </ul> |
|--|---|

Figure 24: Camperdown/Umlaas Road Primary Node



Source: Vuka Planning Africa

#### 6.5.2 Secondary Development Nodes

Maqongqo, located in the extreme north of the Municipality been identified as a Secondary Node. This area has attracted public investment over the years, providing essential services to the northern communities.

This area play an important role as a service centre as it provides a range of housing options and a lower range of commercial and social services than what is offered in the Primary Node.

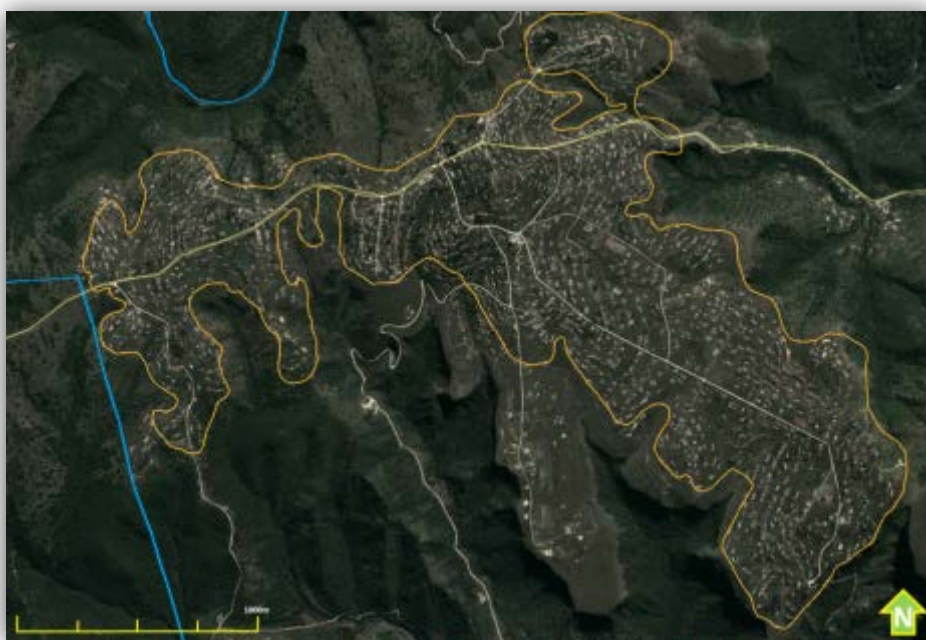
##### 6.5.2.1 Maqongqo Node

Existing facilities within this node Includes:

- Primary Schools
- Secondary School
- Combined School
- Community Hall
- Clinic
- Day Care Facility
- Department of Home Affairs



Figure 25: Maqongqo Secondary Node



Source: Vuka Planning Africa

### 6.5.3 Tertiary Development Nodes

Tertiary nodes are of a lower order which may develop a nucleus and emerge into higher order nodes over time. A range of services for local communities could be concentrated within these nodes in a sustainable way. Tertiary nodes have been identified at places including Ophokweni (north-west), Mid-Illovo (South west), Tilongo, Ngilanyoni and Ezimwini (south). In identifying service satellites a number of factors should be considered to determine the most suitable / optimal locations. These include, amongst other factors:

- Density and distribution of population to be served
- Level of existing economic activity
- Proximity of transport routes and modes of transport
- Topography of locality
- Land Tenure arrangements
- Levels of service infrastructure

#### 6.5.3.1 Ophokweni

**The Ophokweni node:** A tertiary node has been identified as an expansion of the development that has taken place on the Outer West side of the Msunduzi River near Ophokweni. This node could be extended over the Msunduzi River to also service the Maphumulo TA area and make use of the abundant flat land across the river from the development currently taking place. It should not duplicate facilities occurring in the Outer West area but should provide complimentary facilities to serve both Maphumulo TA and Ximba TAs.

Existing facilities within the Ophokweni node include:

- Combined School x1
- Secondary School x 1
- Clinic x 1
- Police Station x1

Figure 26: Ophokweni Tertiary Node



Source: Vuka Planning Africa

According to the Standards for Provision of Services the following additional social amenities and services are to be provided within this tertiary node:

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>• Additional Clinic</li> <li>• Bus Service on Regular Basis x 1</li> <li>• Church x 3</li> <li>• Emergency Service Facilities x 1</li> <li>• Pension Pay Point x 1</li> </ul> | <ul style="list-style-type: none"> <li>• Post Boxes x 1</li> <li>• Post Office x 1</li> <li>• Sports Field x1</li> <li>• Taxi Rank x 1</li> </ul> |
|--|---|

#### 6.5.3.2 Mid-Illovo Node

Existing facilities within this node includes:

- Combined School (Primary and Lower Secondary) x 1
- Secondary School x 1



Figure 27: Mid-Illovo Tertiary Node



Source: Vuka Planning Africa

According to the Standards for Provision of Services the following additional social amenities and services are to be provided within this Secondary Node:

- Bus Service on Regular Basis x 1
- Church x 3
- Clinic x 2
- Pension Pay Point x 1
- Post Office x 1
- Preschool Facilities x 1
- Sports Field x 1
- Taxi Rank x 1

### 6.5.3.3 Manderston Node

Existing facilities within this node includes:

- Primary School x 2

Figure 28: Manderston Tertiary Node



Source: Vuka Planning Africa

### 6.5.3.4 Tilongo Node

Existing facilities within this node includes:

- Primary School x 1
- Secondary School x 1

Figure 29: Tilongo Tertiary Node



Source: Vuka Planning Africa



According to the Standards for Provision of Services the following additional social amenities and services are to be provided within this Secondary Node:

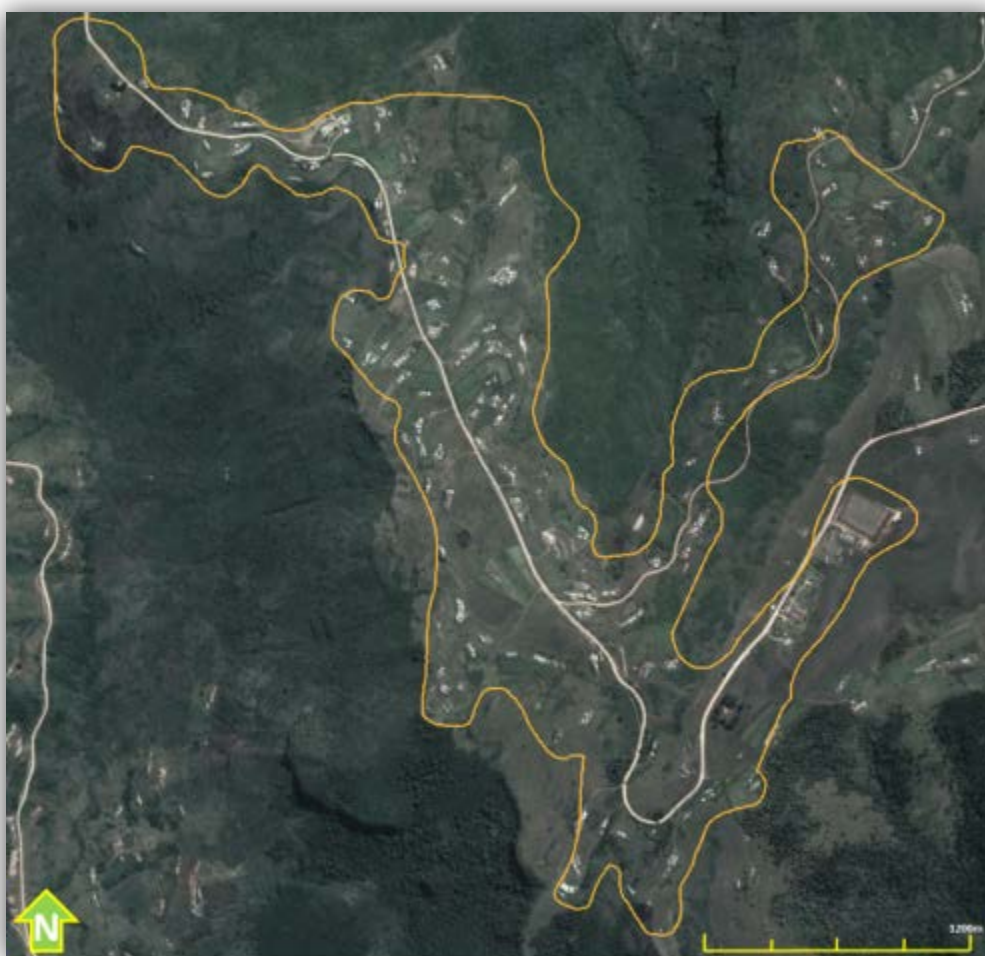
- Preschool Facilities x 1
- Clinic x 2
- Church x 1
- Police Station x 1
- Pension Pay Point x 1
- Bus Service on Regular Basis x 1
- Taxi Rank x 1

#### 6.5.3.5 Ngilanyoni Node

Existing facilities within this node includes:

- Combined School x 1
- Primary School x 1

Figure 30: Ngilanyoni Tertiary Node



Source: Vuka Planning Africa

According to the Standards for Provision of Services the following additional social amenities and services are to be provided within this Secondary Node:

- Preschool Facilities x 1
- Church x 1
- Pension Pay Point x 1
- Post Boxes x 1
- Bus Service on Regular Basis x 1
- Taxi Rank x 1
-

### 6.5.3.6 Ezimwini Node

Existing facilities within this node Includes:

- Primary School x 1
- Combined School x 1

Figure 31: Ezimwini Tertiary Node



Source: Vuka Planning Africa

According to the Standards for Provision of Services the following additional social amenities and services are to be provided within this Secondary Node:

- |                             |                                    |
|-----------------------------|------------------------------------|
| • Preschool Facilities x 1  | • Pension Pay Point x 1            |
| • Clinic x 1                | • Post Office x 1                  |
| • Police Station Mobile x 1 | • Bus Service on Regular Basis x 1 |
| • Church x 1                | • Taxi Rank x 1                    |



#### 6.5.4 Quaternary Nodes

Quaternary nodes, in this context, are the lowest order centres which play a supplementary role to tertiary nodes. Communities would normally benefit from periodic service provision such as mobile clinics and libraries. Areas identified are small neighbourhoods which may grow to a certain extent but are not seen as high priority areas for public investment mostly due to their close proximity to higher order centres and low accessibility to a required threshold population. A range of services for such neighbourhoods could be concentrated within these nodes in a sustainable way. Quaternary nodes have been identified at Nkanyezini in the north, and St Bernard's and Ogagwini in the south.

#### 6.5.5 Opportunity Point

Opportunity points identified include Eston and the Lion Park Interchange where appropriate land uses will be encouraged based on the availability of basic infrastructure and market demand. Currently, Eston provides essential services to its surrounding farmers, and houses the Eston Sugar Mill.

Lion Park Interchange, also identified as an opportunity point, has potential to be the gateway to the northern portions of the Municipality where majority of the land is classified as having greater biodiversity significance. This opportunity point is intended to open up tourism-related investment as part of decentralising investment opportunities in the region.

#### 6.5.6 Land Use Budget per Node

The land use budget below indicates the existing and proposed facilities per node identified. The numbers in brackets show the existing facilities and the additional numbers show the proposed facilities per node as set out by the Provincial Planning & Development Commission in the Assessment of Planning Standards in KwaZulu-Natal 2008. From Table 27, it is clear which facilities are required and the Land Use Budget provides some guidance on the spatial needs of these facilities. The figures depicted in the sections above dealing with the primary, secondary and tertiary nodes indicate their spatial needs as per the Land Use Budget.

Table 27: Mkhambathini Local Municipality Land use Budget per Node

MKHAMBATHINI MUNICIPALITY SPATIAL DEVELOPMENT FRAMEWORK																					
Proposed Facility Provision Standards																					
Population: 87 141 Households: 14 962																					
Facility	Thresholds Standard (1 Facility / X People)	Access Standard	Total Facilities Required	Facilities Provided	Additional Facilities Proposed	Primary Node	Secondary Node	Tertiary Node	Quaternary Node	Camperdown	Maqongqo	Opokweni	Manderston	Mt-Illvo	Tifogo	Nglanyoni	Ezimwini	Ezimwini			
Education *																					
Pre-school (Incl Creche & Day Care)	5 000	Walking Distance	17	0	17	1	2	3	4	1	2	1	(1)	2	2	2	2	2			
		Combined with other Community Facilities																			
Multi skilling / Training Centre / ABET	Need		1	0	1	1	2														
Primary School	3 000	travel 5km Walking Distance	29	42	0	1	2	3	4	(5)	(7)	(5)	2	(6)	(3)	(8)	(3)	(3)			
Secondary School	6 000		15	17	0	1	2	3		(2)	(3)	(3)	(1)	(2)	(1)	(2)	(2)	(2)			
Tertiary Training (Ecl. University)	100 000		1	0	1	1				1											
Library	50 000	Accessible Via Public Transport	2	1	1	1	2	3		(1)											
Health **																					
		Within Nodal Area. Accessible via Public Transport																			
Clinic	5 000		17	3	14	1	2	3		1	1(1)	1(1)		2	2	(1)	2	2			
		Within Nodal Area close to Major Public																			
Hospital	50 000		2	0	2	1				1											
Safety & Security Facilities ***																					
Magistrates Court	1 / Town	Within Primary Nodes	1	1	0	1															
Fire Station	60 000	Routes	1	0	1	1				1											
Emergency Services Facility	25 000	Routes	3	0	3	1	2			1		1									
Community Safety Centre	200 000	Nodal Area	0	0	0		2														
Police Station	50 000	Within Accessible nodal Areas	2	3	0	1	2	3		(1)		(1)		(1)							
Police Station Mobile	25 000		3	0	3		2				1				1			1	1		
Social																					
Cemetery	Need	Need	Need	1	Need	1				(1)											
Orphanage	200 000	Within Accessible nodal Areas	0	0	0	1															
Church	2 500	Near (Not on) Transport Routes	35	0	35	1	2	3	4	2	3	3	3	3	4	3	4	4			
Civic Centre	1		1	1	0	1				(1)											
Multi Purposed Community Centre / Tsusong Centre	1	Within Accessible nodal Areas	1	0	1	1	2														
Community Hall	20 000	Within Accessible nodal Areas	4	2	2		2	3			(1)	(1)									
Old Age Home and Service Centre	1 / Town		1	0	1	1				1											
Pension Pay Point	Need - Min of 1 / Node	30 Min Travel	8	0	8	1	2	3		1	1	1		1	1	1	1	1			
Post Office	11 000	Walking	8	1	7	1				(1)	1	1		1			1	1			
Post Boxes	16 500	500m/10min Walking distance	5	0	5		2	3	4			1	1		1	1	1	1			
Sport & Recreation																					
Pool)	50 000	Nodes	2	0	2	1				1											
Sports Field	12 000	Clustered with schools	7	0	7		2	3			1	1		1			1	1			
Transport																					
Bus Service on Regular Basis	1/Node	Clustered within Nodal Areas	8	0	8	1	2	3		1	1	1		1	1	1	1	1			
Taxi Rank and/or Bus Depot	1/Node	Nodal Areas	8	0	8	1	2		4	1	1	1		1	1	1	1	1			

Source: Black Balance Projects



## 6.6 AREAS OF ECONOMIC OPPORTUNITY

### 6.6.1 Manufacturing

Manufacturing activity is situated predominantly in Umlaas Road. The Manufacturing sector is dominated by agro-processing relating to sugar cane and poultry.

Mountain Valley and other smaller abattoirs and processing plants towards Eston Sugar Mill have manufacturing opportunities which should be explored further.

### 6.6.2 Tourism

The municipality has a number of cultural, historical and natural assets, which have begun to form the basis of an emerging tourism industry. The main features of the existing tourism sector are:

**Eco-tourism:** Private Game ranches such as Tala Game Reserve and GwaHumbe Game Reserve, and the Wildlife Sanctuaries (African Bird of Prey Centre), the Lion Park and the Natal Zoological Gardens are some of the facilities contributing and supporting the eco-tourism industry in Mkhambathini.

The Mayibuye Game Reserve, in extent of 5000Ha, is a R2 billion Investment Plan to develop a Lifestyle Village, three lodges and associated infrastructure. The application phase is underway and undergoing negotiations to expand another 2000 ha to ultimately accommodate the Big 5.

**Agro-tourism:** The Country Capers Tourism Route comprises several auto routes that meander through the municipality, linking it to areas such as Thornville, Baynesfield, Richmond, Ashburton, and Inchanga. These routes offer self-catering, bed and breakfast and guest lodge accommodation.

**Adventure Tourism:** The area is host to a number of adventure and sporting activities including off-road motorcycle and car races, canoeing events on Nagle Dam, mountain bike races (cycling), micro lighting, skydiving, water-skiing and hiking trails.

### 6.6.3 Agriculture

Mkhambathini Municipality is highly dependent on the Agricultural Sector for economic commodities, as most of its industries are also focused around the sugar and poultry industries.

## 6.7 INFRASTRUCTURAL IMPLICATIONS OF THE SPATIAL DEVELOPMENT FRAMEWORK PROPOSALS

For the successful implementation of the SDF's proposals, the Mkhambathini Municipality has to create an enabling developmental environment as part of attracting further investment. This involves adequate capacity of infrastructure to accommodate further development within areas anticipated for growth in the Municipality. Current capacities will have to be measured against anticipated development growth in Mkhambathini Municipality.

Currently, the SDF makes proposals for Opportunity Points where future developments are anticipated. These points, Eston and the Lion Park Interchange, may not have sufficient bulk infrastructure capacity as the extent of development is unknown at this stage. In light of this, future comprehensive infrastructure programme and strategies will have to further calculate bulk requirements in support of future developments. This would apply to all areas, particularly, nodes and corridors where development is expected to occur.

## 7 GUIDELINES FOR LAND USE MANAGEMENT

### 7.1 RELATION BETWEEN SPATIAL DEVELOPMENT FRAMEWORK AND A LAND USE MANAGEMENT SCHEME

A Spatial Development Framework is a major informant to a Land Use Management System, which consist of a number of components which includes the following:

- Spatial Development Framework
- Land Use (Planning) Schemes
- Rates database
- Cadastral and property (registration) database
- Valuation system
- Information regarding the provision of infrastructural services
- Property ownership and tenure
- Environmental management system
- Transportation management system
- Information system GIS

The purpose of the Spatial Development Framework (SDF) is to inform the development of a Land Use Scheme. The SDF provides best-use scenarios for use of land, and it is the function of the Land Use Scheme to regulate these land uses. A SDF therefore does not change the rights of properties but gives guidance and direction for growth of a municipality. It is however necessary to align the Land Use Scheme with the Spatial Development Framework to ensure that the objectives of the SDF are met.

Where the SDF provides direction for expansion of specific land uses or the restriction of development within other areas, the purposes of Land Use Scheme is to manage the use of the land in order to ensure a healthy living environment, where the environment is safe to live in. It is also necessary to provide social amenities (including social facilities, and services) to ensure a convenient living environment. Through evaluation of conservation resources the SDF also addresses the efficient utilisation of scarce natural resources.

A Land Use Scheme should address the following within the document:

1. Land Use Zones (Based on broad land designations identified within the SDF)
2. Statements of Intent for Use Zones
3. Management Areas and Management Plans required for applicable areas of the land use scheme, together with such Land Use Matrices as may be required to identify the land uses permitted or prohibited.
4. Development Control Templates with permissions, conditions, limitations or exemptions, subject to which such developments may be permitted.
5. Definition of Terminology
6. Procedures regarding application, consent, appeal, etc.
7. Land Use Scheme Maps, Management Area Overlays and Management Plans to spatially depict the land use rights.

As the SDF informs the Land Use Scheme, the LUMS again provides input into the aspects of a Land Use Management System as mentioned above.



## 7.2 URBAN GROWTH BOUNDARY

The following growth boundaries as shown in Table 28 have been made applicable to the Mkhambathini Spatial Development Framework to guide the densification and provide direction to the development of specific areas. These designations are intended to guide land use management in Mkhambathini Municipality.

Table 28: Development Growth Boundaries

Development Boundary	Identification	Land Development Guidelines
1. Urban Core	<ul style="list-style-type: none"> <li>Formal town areas.</li> <li>Relatively dense concentration of a variety of land uses and formal residential areas.</li> </ul>	<ul style="list-style-type: none"> <li>Establishment of detailed land use management schemes.</li> <li>Highest densities.</li> <li>Highest level of urban service delivery.</li> </ul>
2. Urban Periphery	<ul style="list-style-type: none"> <li>Lower density residential areas in close proximity to the urban core.</li> <li>Typical small holding and agricultural processing areas.</li> </ul>	<ul style="list-style-type: none"> <li>Bulk Service Delivery Strategies.</li> <li>Economic Diversification Areas.</li> </ul>
3. Intensive Agricultural Areas	<ul style="list-style-type: none"> <li>Current commercial Agricultural land use areas.</li> <li>Identified future commercial and intensive agricultural land uses.</li> </ul>	<ul style="list-style-type: none"> <li>Small, concentrated settlements.</li> <li>Self-sufficient infrastructure services.</li> <li>Local Area Plans.</li> </ul>
4. Rural Core	<ul style="list-style-type: none"> <li>Service Delivery Nodes.</li> <li>Formal / denser settlement patterns.</li> </ul>	<ul style="list-style-type: none"> <li>Areas where service facilities will be concentrated.</li> <li>Areas where public transport facilities will be established.</li> </ul>
5. Rural Periphery	<ul style="list-style-type: none"> <li>Scattered and clustered rural villages.</li> <li>Mostly on communal land.</li> </ul>	<ul style="list-style-type: none"> <li>Settlement Clusters contained within a Settlement Complex Boundary.</li> </ul>
6. Wilderness	<ul style="list-style-type: none"> <li>Prestine / degraded areas identified as optimal biodiversity areas.</li> <li>Undeveloped and barely settled areas.</li> <li>Topographically undevelopable areas.</li> </ul>	<ul style="list-style-type: none"> <li>Minimize settlement sprawl onto these areas.</li> <li>Contain existing settlement.</li> <li>Completely self-sufficient service standards.</li> <li>Only regional access routes.</li> <li>Establishment of continuous wilderness corridors.</li> </ul>
7. Conservation Worthy Areas	<ul style="list-style-type: none"> <li>Mandatory Critical Biodiversity Areas.</li> <li>Current proclaimed conservation areas.</li> <li>Legislatively protected land use areas.</li> </ul>	<ul style="list-style-type: none"> <li>Appropriate development controls to limited development impacts in these areas.</li> <li>Establishment of continuous biodiversity corridors.</li> </ul>

### 7.2.1 Camperdown-Umlaas Road Urban Edge Illustration

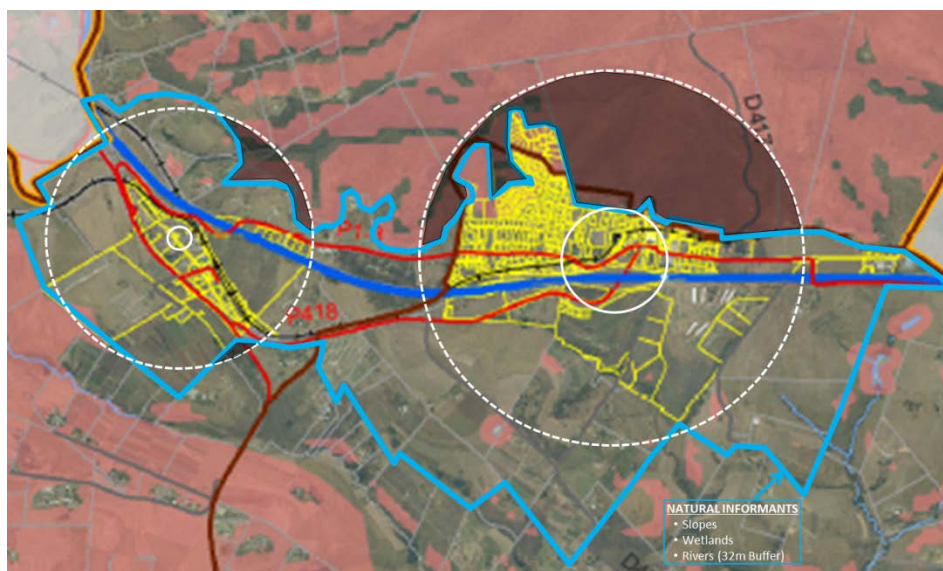
Figures 32 to 36 illustrate the steps taken to determine the Camperdown Umlaas Road urban edge based on the Urban Edge Study from KZN Co-operative Governance and Traditional Affairs.

Figure 32: Urban Edge Determination Step 1. 1.5 km Radius<sup>3</sup>

Source: Vuka Planning Africa

The following steps were applied: Step 1 is to determine a 1.5 km walking distance from the core retail, social and place of employment. Figure 32 illustrates the dual core function of Camperdown and Umlaas Road with the latter having a much smaller core in term of facilities but provides some employment opportunities.

Figure 33: Urban Edge Determination Step 2. Natural Informants

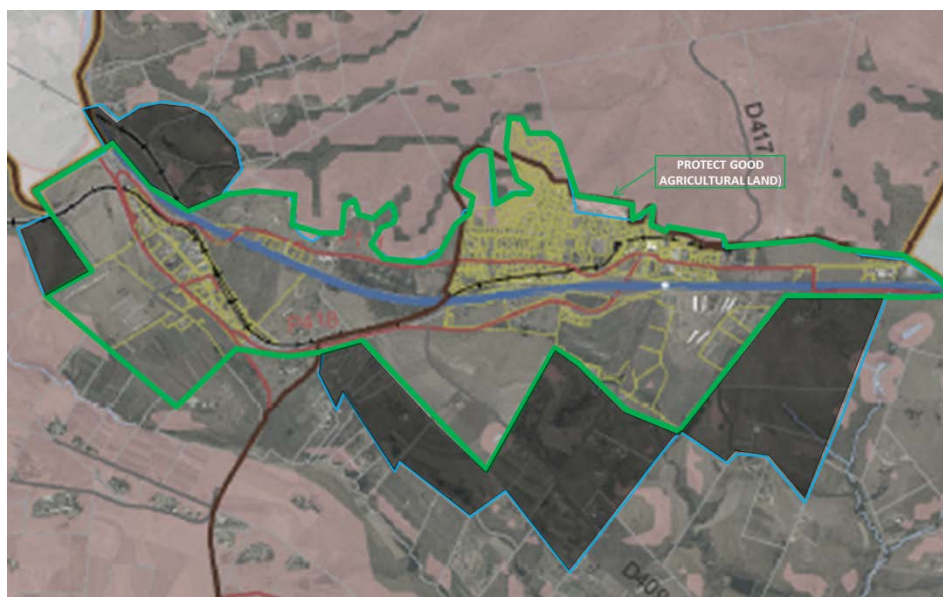


Source: Vuka Planning Africa

Step 2: Natural Informants were taken into consideration; these comprise of Slopes > 33%, Wetlands and Rivers. The light pink areas illustrated on figure 33 show the no-go areas where development should not be encouraged. The blue edge is a conceptual representation of the allowable developable area taking the informants into consideration.



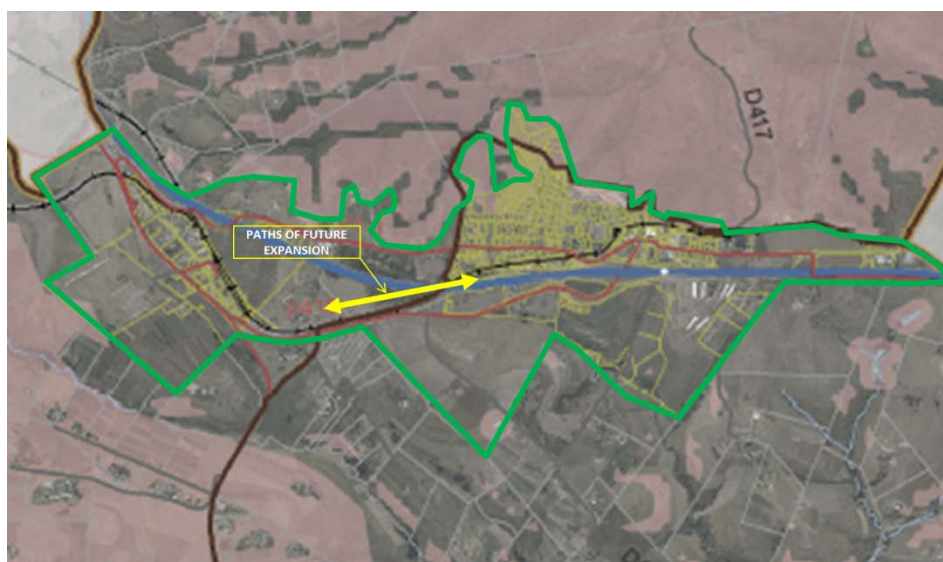
Figure 34: Urban Edge Determination Step 3. Protect Good Agricultural Land



Source: Vuka Planning Africa

Step 3 demonstrates the protection of good agricultural land. Camperdown and its surrounding area have high agricultural value for poultry farming and production and would therefore need to be protected. The green edge illustrates the adjustment to the boundary found in step 2 to indicate the protection of high value agricultural areas. Promote Small-scale agriculture and new urban development should occur in low yield agricultural areas.

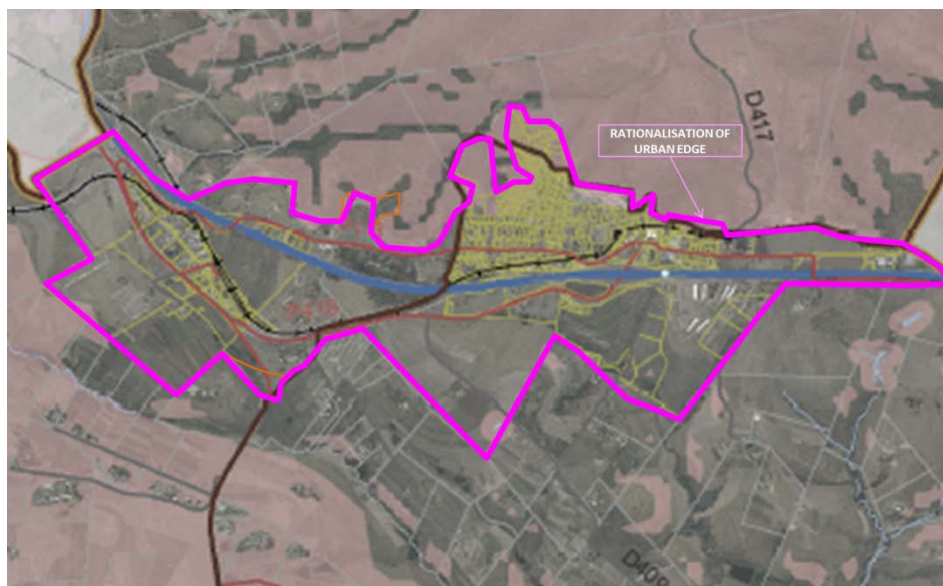
Figure 35: Urban Edge Determination Step 4. Path of Future Expansion



Source: Vuka Planning Africa

Step 4 as shown in Figure 35 is intended to include a path of future expansion. There is a clear path of future expansion between Camperdown and Umlaas Road and this will influence the positioning of the urban edge.

Figure 36: Urban Edge Determination Step 5. Rationalisation of Urban Edge



Source: Vuka Planning Africa

Step 5 rationalises and finalises the urban edge by encouraging a strong geometric urban edge that will guide development. Figure 36 illustrates the final urban edge which has been included in the final SDF map.

### 7.3 INTENDED FUTURE LAND USES

#### 7.3.1 Urban Areas

##### 7.3.1.1 Industrial

The Umlaas Road interchange provides big scale industrial opportunities as it provides accessibility for logistics transport and heavy transport vehicles. This point must be utilized to promote industrial land uses for a strong industrial base which would contribute to reducing the levels of unemployment in the Mkhambathini Municipality.

##### 7.3.1.2 Residential

Residential areas are mainly envisaged within the designated nodal areas of Camperdown, Manderston and Ophokweni. Areas for residential development have been earmarked in the Urban Core as depicted in Table 29.

##### 7.3.1.3 Mixed Use

These areas occur mainly along major transport routes, and proposed development corridors in which a wide range of land uses will be encouraged, namely commercial, office complexes and residential development. These mixed use zones should be limited to the nodal areas. The proposed uses need to complement each other, and comply with environmental requirements. More detailed master planning is therefore required for these areas.

##### 7.3.1.4 Urban Transition

These are the areas which form the interface between the existing built-up urban areas and the surrounding rural area, where development pressures are likely to occur. Accordingly, these areas are included in the primary and secondary nodes to facilitate orderly development. Agriculture, residential estates, tourism and recreation related development is the type of land uses which would be encouraged. Generally, densities would be lower than in the existing built-up areas, and the appropriate density would be determined by an analysis of factors such as accessibility, availability of services, physical features and environmental considerations.



These areas will include the expansion areas around Camperdown, Manderston and Ophokweni.

### 7.3.2 Rural Communities

#### 7.3.2.1 Settlements

Settlement clusters were identified on the basis of densities of rural clusters. The base data from the Department of Rural Development and Land Reform, combined with the Eskom Household Study was utilised for this, and overlaid on aerial photographs (obtained in May 2013) from where settlement clusters were confirmed and demarcated. Within these settlement clusters the following activities and land uses have been identified.

#### 7.3.2.2 Environmental Management Areas

These areas are situated within the Settlement Clusters and consist of riverine areas, water courses and indigenous forests within the settlement clusters. Development and agricultural activities should be prevented within these areas.

#### 7.3.2.3 Subsistence Agriculture

The rural communities are dependent on agriculture as a means to an income and for food production, and their livelihoods are therefore directly linked to the ability to farm. Areas currently being cultivated have been earmarked for agriculture within the settlement boundaries.

#### 7.3.2.4 Residential

Residential areas have been demarcated on the basis of existing residential activities, and the possibility of growth towards residential pockets within the settlement cluster. The Settlement clusters have ample space for residential infill and densification, and roads, and open spaces not utilised for agricultural activities have been included in the residential segment.

### 7.3.3 Agriculture

#### 7.3.3.1 Urban Agriculture

Given the high agricultural production potential of large areas especially inside the primary node, agriculture is seen as an integral part of the urban fabric. Primary land use in these areas could include market gardening, horticulture and plant nurseries.

The main Urban Agricultural areas in Mkhambathini are situated along the N3, and include the Poultry Farms to the east and west of Camperdown. It is envisaged that a Mixed Use area be developed to the south of the N3 and west of Camperdown which will include the poultry farms, thus including them into the Urban Core Primary Node. Urban Agriculture will therefore include prime agricultural land near the primary and secondary nodes.

#### 7.3.3.2 Agricultural Development Only

The intention is to distinguish between cultivated land (commercial and subsistence) as well as high Potential Agricultural Land, in order to inform the identification of future expansion areas for agricultural activities. Most of the Agricultural land in the Municipality is utilized for commercial agriculture, and a significant proportion of the land has a very high production potential.

In general, the subdivision of prime agricultural land is discouraged and the development of this land for non-agricultural purposes should only be allowed if:

- The land has already been subdivided to such an extent that it is no longer agriculturally viable;
- The land has already been developed for non-agricultural purposes;
- The proposed development does not compromise the primary agricultural activity of the property;

- The proposed development comprises a secondary activity to supplement a landowner's income; and
- It will facilitate the implementation of the Land Reform Programme and Labour Tenant Projects.

The agricultural potential areas were identified through a combination of the following criteria:

- High Potential Agricultural Land of areas larger than 20 Ha,
- Good Potential Agricultural Land of areas larger than 20 Ha,
- Intensive and Extensive Agricultural Activities larger than 20 Ha,
- Cultivated land larger than 20 Ha,

The criteria of 20Ha were used, as the Department of Agriculture does not consider anything less than 20 ha as a viable unit. Subdivisions less than 20ha will therefore not be allowed. From this, farm portions to be utilised for agricultural activities has been identified.

The commercial agricultural activities, within the Mkhambathini Municipality are grouped into three distinct geographical areas, although the main grouping of Agricultural Activities is situated between Eston and Camperdown. Other areas of agricultural significance where commercial agriculture should be promoted are situated between Mpundweni and Ezimwini, and also north of KwaDengu. These agricultural activities range from extensive to intensive agriculture. It is envisaged that no tourism developments be situated in these areas.

The arable land identified within the SDF is under severe pressure from settlement densification and expansion. As agriculture should be the foundation for economic development in the Municipality it is essential that sound land management approaches, specifically in relation to scarce arable land, be developed and implemented.

It will be necessary through a participatory process with traditional authorities and communities, to undertake a detailed assessment of arable land within the municipality and agree on measures to be implemented, on the one hand, protect/reserve land, but also on the other, to make it available for intensive agricultural production activities. Such an investigation should also identify opportunities for irrigation, the development of farming infrastructure (e.g. dams, pipelines, fences and the like). The development of these should be prioritised. With regards to cropping there is a range of options to be considered, which is beyond the scope of this spatial framework to identify. The Bio-Resource Unit information of the Department of Agriculture provides guidelines in this regard. Important opportunities relating to agricultural development to be pursued in the arable areas and areas in close proximity include:

- implementation of the massification programme of the Department of Agriculture;
- ensuring easy access to relevant extension services;
- input supply opportunities;
- specialist agricultural support opportunities, e.g. ploughing, harvesting etc; and
- agro-processing opportunities.

Whatever the focus of production activities in the Municipality there should be emphasis on:

- producing firstly for the local market;
- identifying and developing appropriate markets locally; and
- where external markets are to be supplied, established marketing channels must be utilised.

#### **7.3.3.3 Agricultural Tourism**

This zone is characterized by high accessibility and natural features within a rural setting. The main objective in this zone is to maintain and enhance the existing rural tourism character and the full range of rural-based tourism land uses and more intensive agriculture will therefore be encouraged. Land subdivision will not be supported if it will jeopardize the agricultural viability of existing and/or potential future farming operations, and/or if subdivision will negatively impact upon the biodiversity and ecosystem services such as clean water production; and large scale transformation such as exclusive residential estate should not be allowed. However, rural housing projects to accommodate the rural poor will be allowed in appropriate locations. Development footprint in such areas will be kept as low as possible.



#### 7.3.3.4 *Agricultural Limited Tourism*

This zone allows for tourism developments which are largely rural-based, of a small, labour orientated and related to the existing agricultural activities and the natural resources based. It is envisaged that agriculture will be primary land use in this zone, exceeding tourism in importance. Large scale land transformation such as exclusive residential estates and other forms of large scale accommodation should not be allowed. However, rural housing projects to accommodate the rural poor will be allowed in appropriate locations. Land subdivision will not be supported if it will jeopardize the agricultural viability of the existing and/or potential future farming operations; and/or if subdivision will negatively impact upon the biodiversity and ecosystem service such as clean water production. Particular attention should be paid to retention of the integrity of rural landscapes. Development footprint in such areas will be kept as low as possible.

This includes a number of areas within the municipal area that are not linked to conservation or agriculture directly, but to resources that provides for recreational activities. This includes activities such as those of the Southfork Water Ski Club and activities around the Nagel Dam.

### 7.4 MUNICIPAL SCHEME FORMULATION STRATEGY

In adhering to the requirement by the KwaZulu-Natal Planning and Development Act to establish a municipal wide scheme by 2015, the Mkhambathini Municipality has almost completed the preparation of such a scheme.

It should be noted that discussions with the Department of Agriculture is constantly underway to determine the implication of municipal wide schemes to the requirements and restriction of the Subdivision of Agricultural Land Act (Act 70 of 1970). As these discussions are not concluded as yet and might impact on the formulation of the Mkhambathini municipal wide scheme, a general approach followed within the uMgungundlovu Municipality is to formulate and apply a formal scheme on all land which is not subjected to Act 70 of 70, including Ingonyama Trust Land. In the case of Mkhambathini, a rural land use policy is intended to govern land subjected to Act 70 of 70 and trust land held by Ingonyama Trust Board.

Where properties are subjected to Act 70 of 70, the proposed designated land uses and development controls will be formulated, but considered and managed as a policy statement of intended land uses within such areas. It is envisaged that such proposed land uses will eventually be formally adopted as part of the Municipal Wide Scheme.

The only exception to this strategy will be the proposed extension of the Urban Edge to link Camperdown and Umlaas Road as described earlier in this report. Such an urban edge boundary will include land portions currently subjected to Act 70 of 70, and preliminary discussion with Department of Agriculture has already been held to exclude such area from the Act 70 of 70 Register.

## 8 SUSTAINABILITY ASSESSMENT

Table 28 below aligns the Mkhambathini SDF with the Strategic Priorities of the National Strategy for Sustainable Development also used a framework for Sustainability Assessment within the uMgungundlovu Strategic Environmental Assessment.

Table 29: Sustainability Assessment for Mkhambathini SDF

<b>NSSD 1 Strategic Priority 1: Enhancing systems for integrated planning and implementation</b>	
<b>KEY ENVIRONMENTAL ISSUE: LIMITED CAPACITY AND SYSTEMS FOR INTEGRATED PLANNING AND IMPLEMENTATION TO ACHIEVE SUSTAINABLE DEVELOPMENT</b>	<b>INTEGRATION INTO MKHAMBATHINI SDF</b>
Insufficient intergovernmental co-operation and co-ordination for effective environmental governance; Poor monitoring and evaluation systems to assess progress towards sustainability; Insufficient resources and capacity made available for environmental management; Limited integration of sustainability into development planning.	
<b>Sustainability Objective</b>	
Enhanced and effective environmental governance, institutional structures and systems to achieve integrated planning and implementation.	
<b>Sustainability Criteria</b>	
Environmental sustainability criteria are integrated into Policies, Plans, Projects and decision making.	Yes
Co-operative environmental governance structures and mechanisms promote integrated planning and ensure efficient and effective implementation of environmental functions and responsibilities.	Yes
Financial resources and capacity enable the implementation and management of environmental functions and responsibilities.	No
Municipal Capital investment projects comply with relevant environmental legislative requirements.	Yes
Communities are informed, empowered and involved in the process of democratic environmental governance.	Partially
Access to environmental information is facilitated and encouraged.	Yes
Monitoring and evaluation systems assess and report on the progress towards sustainability.	No
<b>NSSD 1 Strategic Priority 2: Sustaining our ecosystems and using natural resources efficiently</b>	
<b>KEY ENVIRONMENTAL ISSUE: THE DEGRADATION OF LAND AND NATURAL RESOURCES</b>	<b>INTEGRATION INTO MKHAMBATHINI SDF</b>
Inappropriate land use and poor land management is resulting in land degradation, the loss of natural resources and reduced potential for the provision of ecosystem goods and life support services. This includes the loss of agriculturally productive land and a decline in biodiversity which has significant social and economic impact.	
<b>Sustainability Objective</b>	
The use of natural capital is compatible with the maintenance of ecosystem functionality and natural resources are protected and restored.	
<b>Sustainability Criteria</b>	
Areas identified as being essential for the persistence of biodiversity and for the provision of ecosystem goods and services are valued, protected and continually enhanced.	Yes
Degraded areas are identified, rehabilitated and managed to promote land productivity	Yes
High potential agricultural land is protected and rehabilitated for sustainable agricultural production.	Yes
Agricultural production is enhanced and increased through environmentally sustainable agricultural practices.	Yes
Areas of geotechnical, geological or instability risks are identified and avoided in land development.	Partially



Compact land development patterns use land efficiently.	Yes
<b>KEY ENVIRONMENTAL ISSUE: EXCESSIVE WATER DEMAND EXCEEDS AVAILABLE SUPPLY</b>	
<b>INTEGRATION INTO MKHABATHINI SDF</b>	
Current water demand from the uMngeni catchment area is exceeding sustainable levels and is stressing the aquatic ecosystems. Rapid urban & industrial expansion and population growth is increasing demands and this is compounded by inefficient water use and wastage. Degraded catchments and aquatic ecosystems diminish the ability of the natural systems to sustainably supply water. Dams and inter basin-transfer schemes increase costs of providing water to the consumers and negatively impact on overall river health and natural systems	
<b>Sustainability Objective</b>	
The ability of aquatic resources to provide water is maintained within the limits of sustainability.	
<b>Sustainability Criteria</b>	
Wetland areas, streams and rivers are protected, rehabilitated and managed to maintain ecological functioning.	Yes
Flood prone areas are managed to promote ecosystem goods and services, to minimise flood risks and impacts.	Yes
Water demand management results in minimised water loss and optimised water conservation.	Partially
Everyone has access to the minimum supplies of potable water needed to maintain their health and well-being.	Yes
Catchment and river management policies and guidelines integrated into land use and development planning.	Yes
Equitable and fair access to water supplies is provided for all water users.	Yes
<b>KEY ENVIRONMENTAL ISSUE: REDUCED WATER QUALITY</b>	
<b>INTEGRATION INTO MKHABATHINI SDF</b>	
Land degradation, Industrial effluent, and, poor sewerage, solid waste and storm-water management are impacting on water and aquatic ecosystem quality. This is resulting in declining social and economic conditions including increased health risks and costs; decreased river health; increased water treatment costs; increased risk of liability to the Municipality; increased water charges; and, decreased investor interest.	
<b>Sustainability Objective</b>	
Water quality in all aquatic ecosystems in the District is significantly improved and maintained.	
<b>Sustainability Criteria</b>	
Bacteria and pathogens in all aquatic systems do not pose a significant risk to health and wellbeing.	No
Nutrient concentrations and loads in all aquatic systems reverse current unacceptable trends of eutrophication.	No
Aquatic ecosystems are in a functional and healthy state.	No
<b>NSSD 1 Strategic Priority 3: Towards a Green Economy</b>	
<b>KEY ENVIRONMENTAL ISSUE: ECONOMIC GROWTH THAT IS NOT LINKED TO SUSTAINABLE RESOURCE USE AND ENVIRONMENTAL IMPACT</b>	
<b>INTEGRATION INTO MKHABATHINI SDF</b>	
Resource and ecosystem degradation due to over-exploitation of natural capital. Persistent poverty, unemployment, social dependency and inequality. An economy that is based on intensive resource consumption is depleting non-renewable and renewable resources beyond sustainable levels.	
<b>Sustainability Objective</b>	
Economic goals based on ecological sustainability and built on a culture that recognises that socio-economic systems are dependent on and embedded in ecosystems.	
<b>Sustainability Criteria</b>	
An environmentally sustainable economy promotes distributional equity, is resource efficient and provides for the rehabilitation and sustainable management of natural capital.	Yes
Absolute poverty is eradicated and the wealth gap is reduced.	Partially
A low-carbon economy that relies on clean, renewable and efficient energy sources and transport options.	No
A resource efficient economy that optimises its use of water while significantly	Partially

reducing waste generation.	
An equitable and broad range of employment opportunities exist that provide people with an income to support themselves and their families.	Partially
<b>NSSD 1 Strategic Priority 4: Building Sustainable Communities</b>	
<b>KEY ENVIRONMENTAL ISSUE: INEFFICIENT SPATIAL PLANNING AND URBAN DESIGN; INADEQUATE PROVISION OF BASIC SERVICES INCLUDING WATER, SANITATION AND WASTE MANAGEMENT; AND, INSUFFICIENT RECOGNITION OF CULTURAL HERITAGE</b>	<b>INTEGRATION INTO MKHABATHINI SDF</b>
<p>Rapid population growth and urbanisation increases pressures on Municipalities to sustainably supply services. A large number of poverty stricken people live in informal settlements which are detrimental to their health and well-being. Safe, clean and pleasant environments are not being provided. Increased demand for development is placing pressure on the optimal use of land and the provision of sustainable services and infrastructure. Urban design does not optimise resources efficiency particularly in relation to electricity usage, water and sewer provision, waste management and accessibility of public transport.</p> <p>The lack of equitable and universal access to basic services such as effective waste removal and the provision of appropriate sanitation and water services impact on human health and well-being and result in a deterioration of the quality of life. Waste recycling initiatives are not easily accessible to the majority of people in the District. Limited recognition of both natural and social heritage resources and of the spiritual, cultural and economic value of cultural heritage sites. Eurocentric biased knowledge of cultural heritage and insufficient data for all elements of cultural heritage undermines social cohesion and understanding.</p>	
<b>Sustainability Objective</b>	
Environmentally sustainable communities are established where development is informed by social needs and the improvement of the quality of life and does not compromise the natural environment and cultural heritage.	
<b>Sustainability Criteria</b>	
Environmental sustainability and ecosystem goods and services are integrated into development planning.	Yes
Sustainable municipal bulk service infrastructure and facilities are available, maintained and managed, to sustainably meet the needs of residents and business.	Partially
All residents have appropriate, secure and affordable housing and access to basic services in order to meet their basic needs and to live with dignity.	Yes
Communities vulnerable to environmental risk are identified and strategies are in place to minimise these risks.	Partially
Environmental justice and equity must be pursued so as to ensure that environmental impacts do not unfairly discriminate against any person or community.	Yes
Community services, facilities, community parks and open spaces are accessible to all people.	Yes
An efficient, safe, integrated and convenient network of public transport, bicycle routes and pedestrian access is provided.	Partially
Safe, clean and pleasant environments are provided to protect and enhance human health and well-being and improve overall quality of life.	Yes
Resources use is minimised through energy efficiency, reduced water demand, efficient waste management and the provision of accessible public transport.	Partially
Cultural and natural resources and sense of place are protected and maintained.	Partially
Indigenous ecological and cultural knowledge is developed and integrated into planning and management processes.	Partially
<b>NSSD 1 Strategic Priority 5: Responding effectively to climate change</b>	
<b>KEY ENVIRONMENTAL ISSUE: LOCALISED POOR AIR QUALITY AND GREENHOUSE GAS EMISSIONS CONTRIBUTING TO CLIMATE CHANGE</b>	<b>INTEGRATION INTO MKHABATHINI SDF</b>
<p>Poor air quality issues localised within the Msunduzi and N3 corridor area is resulting in increased human health and wellbeing risks. Greenhouse gas emissions contribute to global climate change. A decrease in natural capital diminishes the District's ability to sequester carbon and mitigate predicted climate change impacts.</p>	
<b>Sustainability Objective</b>	
Air quality is significantly improved, Greenhouse gas concentrations are reduced and there is resilience to climate change within communities and ecosystems.	
<b>Sustainability Criteria</b>	



Ambient air quality standards for the protection of human health and well-being and natural systems are maintained.	No
A low-carbon economy is achieved through energy efficiency, the use of alternative technology and reducing the dependence on fossil fuels.	No
Greenhouse Gas emissions are reduced to levels in line with Cabinet approved targets.	No
Natural systems are restored and maintained to be suitable for the sequestration of carbon and mitigate for climate change.	No
Climate change adaptation strategies effectively build and sustain social, economic and environmental resilience to climate change.	Partially

## 9 IMPLEMENTATION PLANNING

As part of the Mkhambathini IDP, the SDF and its implementation is crucial to the development of the municipal area and its communities. Though the IDP and SDF will influence budgeting and resource allocation where specific interventions will be measured through the performance management system. Practical implementations of the SDF will be achieved through further detailed planning of special development areas and the formulation of the municipal wide Mkhambathini Scheme.

It is envisaged that the implementation of an SDF will have to address at least the following three aspects:

1. **Alignment of Efforts** – The alignment of spatial intentions and strategies with surrounding municipalities to ensure regional combined effort and co-operation as well as internal alignment of the intentions of the SDF within all the internal departments within the municipality.
2. **Resource Targeting** – The assessment of current capital investment target areas to assess the level of compliance to the findings and intentions of the SDF as well as to identify any gaps or needs for additional expenditure in order to achieve the desire spatial structure.
3. **Further Planning** – The strategic nature of the SDF always identifies key intervention areas which might require more detailed investigation and/ or planning and this should be addressed as a vital part of direct implementation of the SDF. This will also include some guidelines for the municipality's land use management system.

The outcomes of each of these areas of implementation planning then results in an overall systematic implementation strategy with a number of proposed interventions with the short, medium and long term and intends to directly influence the formulation of the Mkhambathini Integrated Development Plan.

### 9.1 ALIGNMENT OF SPATIAL DEVELOPMENT FRAMEWORKS

The Mkhambathini Local Municipality is adjoined by five other municipalities, including:



- Msunduzi Local Municipality,
- Ethekeini Metropolitan Municipality,
- Richmond Local Municipality,
- uMshwathi Local Municipality,
- Vulamehlo Local Municipality.

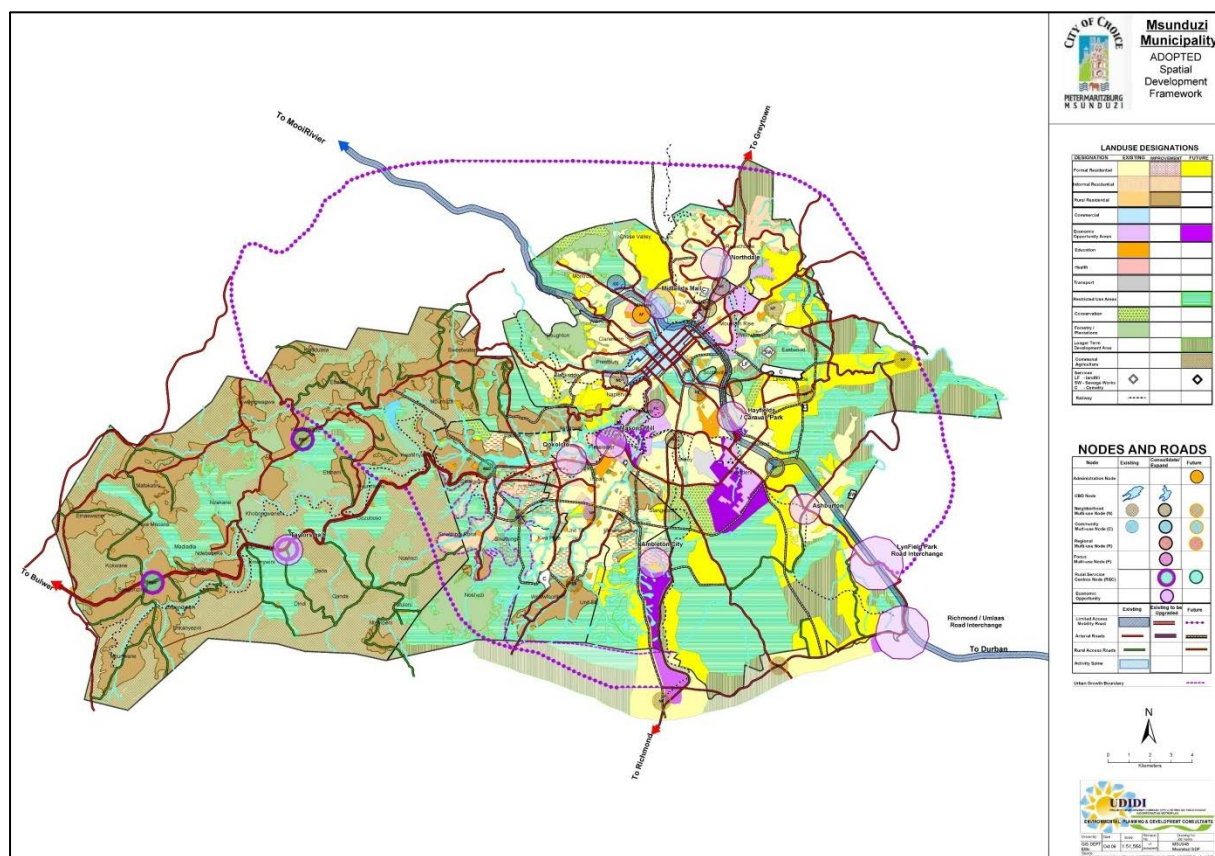
The sections below highlight the conditions within the adjacent local authorities that will have an impact on Mkhambathini and needs to be considered. This might highlight opportunities for co-operation between the municipalities not recognised before.



### 9.1.1 Msunduzi Local Municipality

The figure below illustrated the Msunduzi SDF

Figure 37: Msunduzi Spatial Development Framework



### Msunduzi SDF, 2009

Table 30: Msunduzi LM Alignment Aspects

Area of Alignment	Observations
<b>Development Corridors</b>	The N3 National Route offers major development opportunities for Mkhambathini and Msunduzi. The proposed Umlaas interchange will have a positive effect on development along the R338 route pulling traffic off the N3 to serve other areas of these municipalities with possible investment opportunities.
<b>Cross Boundary Dependencies</b>	Msunduzi offers a much wider range of commercial, social and professional services to the surrounding area of Mkhambathini which is therefore much dependant on the job opportunities that Msunduzi has to offer.
<b>Cross Boundary Co-operation</b>	Co-operation between Msunduzi and Mkhambathini is required to promote proper management of the Umlaas road interchange and the Lion Park turnoff to ensure future economic opportunities will benefit both parties affected.
<b>Potential Contradictions</b>	The Lynnfield park interchange economic expansion node will potentially have a negative effect on the nature and development of the Nature Reserve past the Lion Park. Therefore detailed land use management would need to occur at this point.

Source: Vuka Planning Africa

### 9.1.2 Ethekweni Metropolitan Municipality

The Figure below illustrated the 2013/2014 Ethekweni Spatial Development Framework

Figure 38: Ethekweni Metropolitan Spatial Development Framework

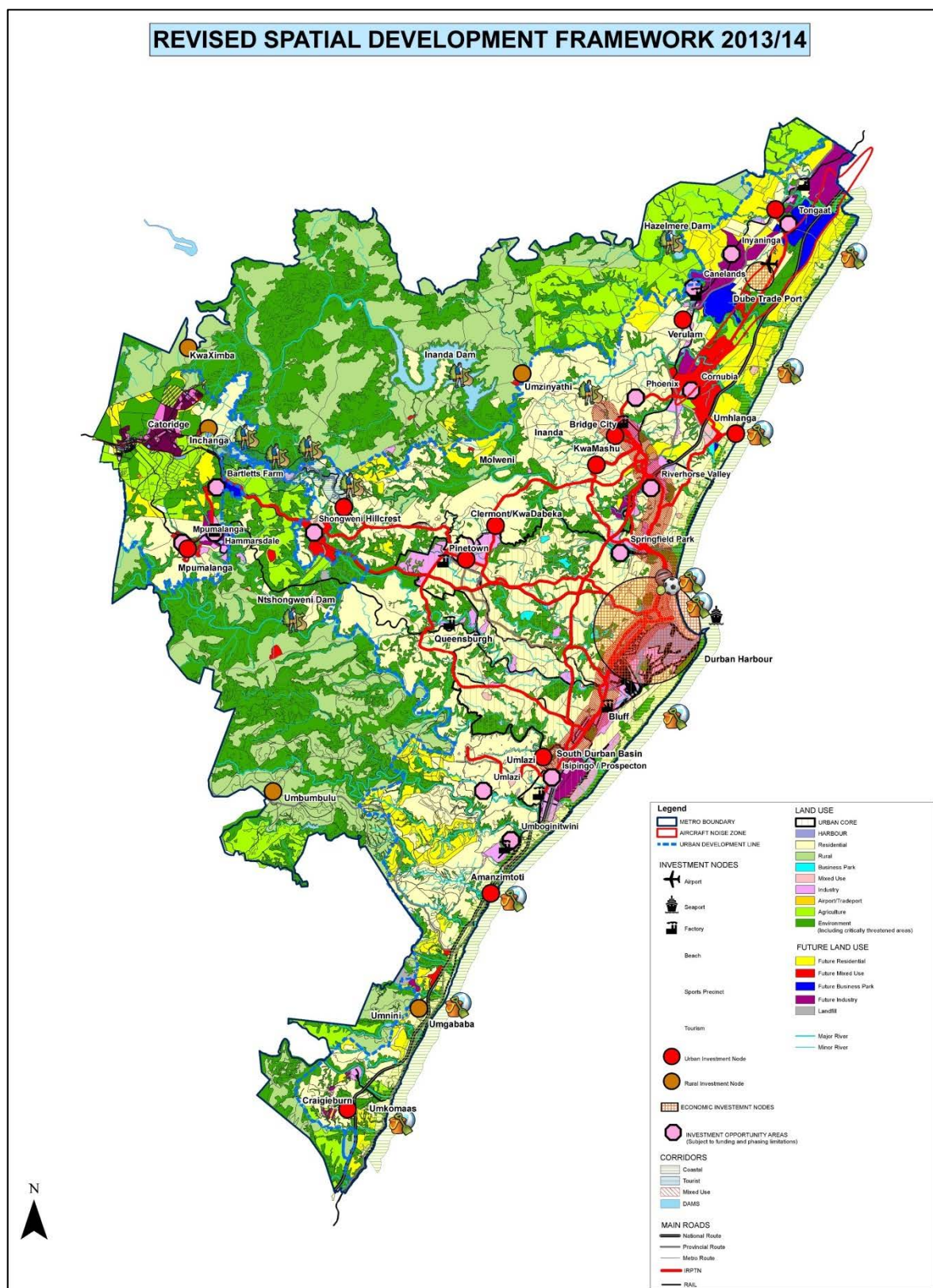




Table 31: Ethekewini Metropolitan Alignment Aspects

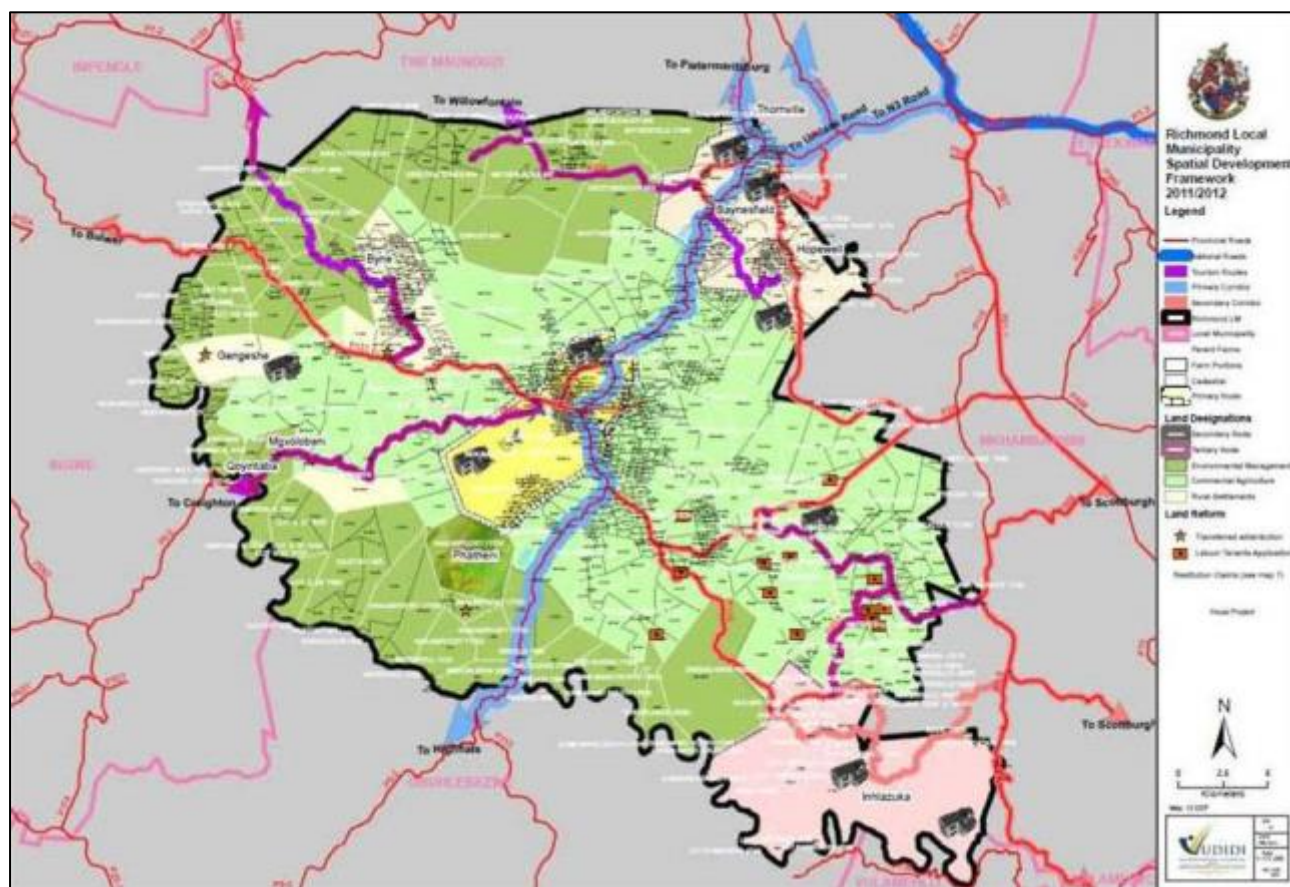
Area of Alignment	Observations
<b>Development Corridors</b>	The N3 National Route offers major development opportunities for Mkhambathini and eThekweni. Both Umlaas Road and Cato Ridge is currently being promoted as logistics hubs which makes management along the N3 very important in terms of land use management and future development interventions.
<b>Cross Boundary Dependencies</b>	eThekweni has much to offer Mkhambathini in terms of specialised services that are typically found in metropolitan areas. Camperdown on the other hand offers urban agriculture opportunities like poultry and chicken production to the western portions of eThekweni Metro.
<b>Cross Boundary Co-operation</b>	Co-operation between eThekweni and Mkhambathini must rely on co-ordination and management of the <ol style="list-style-type: none"> <li>1. Umlaas Road industrial expansion and the Cato Ridge future industrial expansion as both are being promoted as logistics hubs to serve dry port and freight distribution points.</li> <li>2. The Mayibuye game reserve west of KwaXimba and the expansion of the game reserve into eThekweni</li> <li>3. Umbumbulu rural settlement is expanding with the CBD located in eThekweni. Sufficient co-operation in management and service provision would be very important between Mkhambathini and eThekweni.</li> </ol>
<b>Potential Contradictions</b>	Potential contradictions between Mkhambathini and eThekweni would be the expansion and full scale development of Cato Ridge into an industrial area, which will have negative financial implications for the industries situated around Camperdown.

Source: Vuka Planning Africa

### 9.1.3 Richmond Local Municipality

The figure below illustrates the Richmond SDF

Figure 39: Richmond Spatial Development Framework



### Richmond SDF 2012

Table 32: Richmond LM Alignment Aspects

Area of Alignment	Observations
<b>Development Corridors</b>	The Richmond SDF identifies an agricultural/residential secondary corridor towards Eston within the Mkhambathini SDF and an agricultural tertiary corridor towards Mid-Illovo within Mkhambathini.
<b>Cross Boundary Dependencies</b>	No direct cross boundary dependencies are apparent; however Sugar Cane and Agriculture within the Richmond LM can be a valuable source of employment opportunity and provide an offset market to sell agricultural products.
<b>Cross Boundary Co-operation</b>	Apart from regional alignment of strategies, the only cross border co-operation will be the management of agricultural land between these local municipalities.
<b>Potential Contradictions</b>	The Richmond LM SDF identified an area of Manufacturing with economic influence towards the north east which contradicts with the agricultural only zone found on the western side of Camperdown within the Mkhambathini Local Municipality.

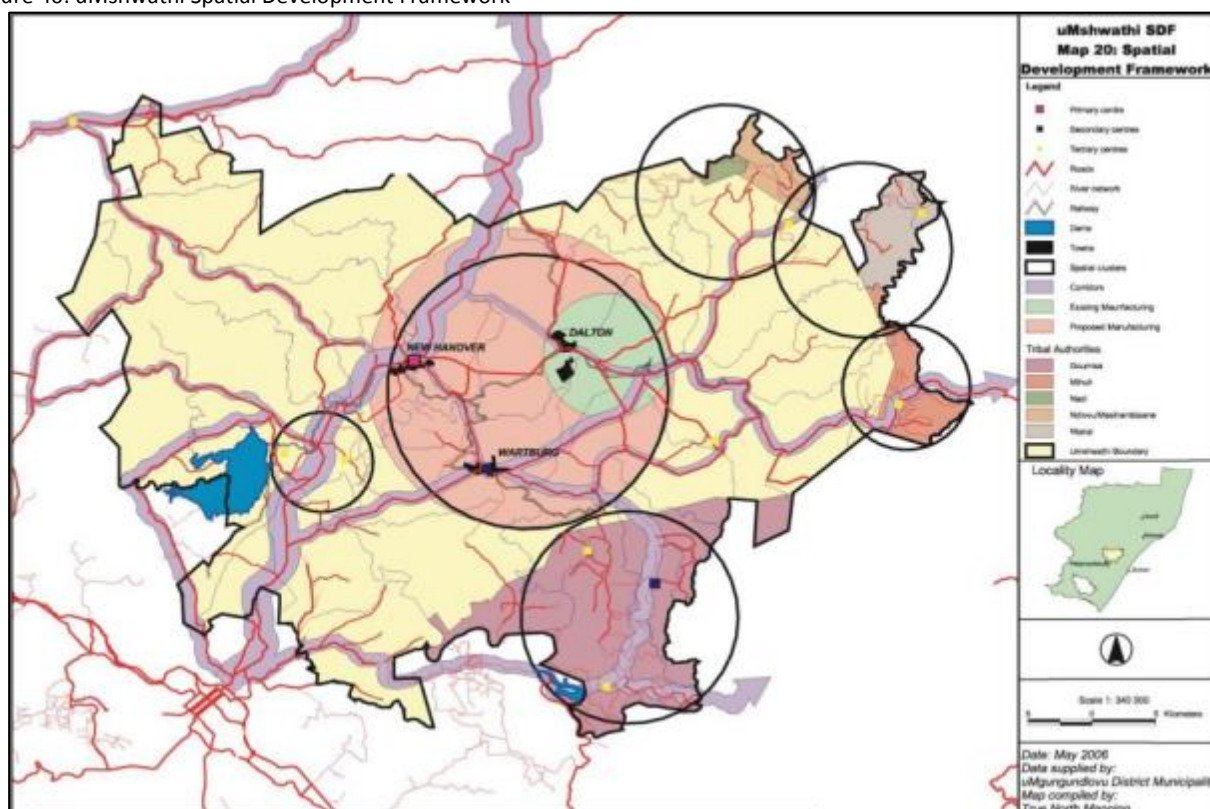
Source: Vuka Planning Africa



### 9.1.4 Umshwathi Local Municipality

The figure below illustrates the uMshwathi SDF

Figure 40: uMshwathi Spatial Development Framework



### uMshwathi SDF 2006

Table 33: uMshwathi LM Alignment Aspects

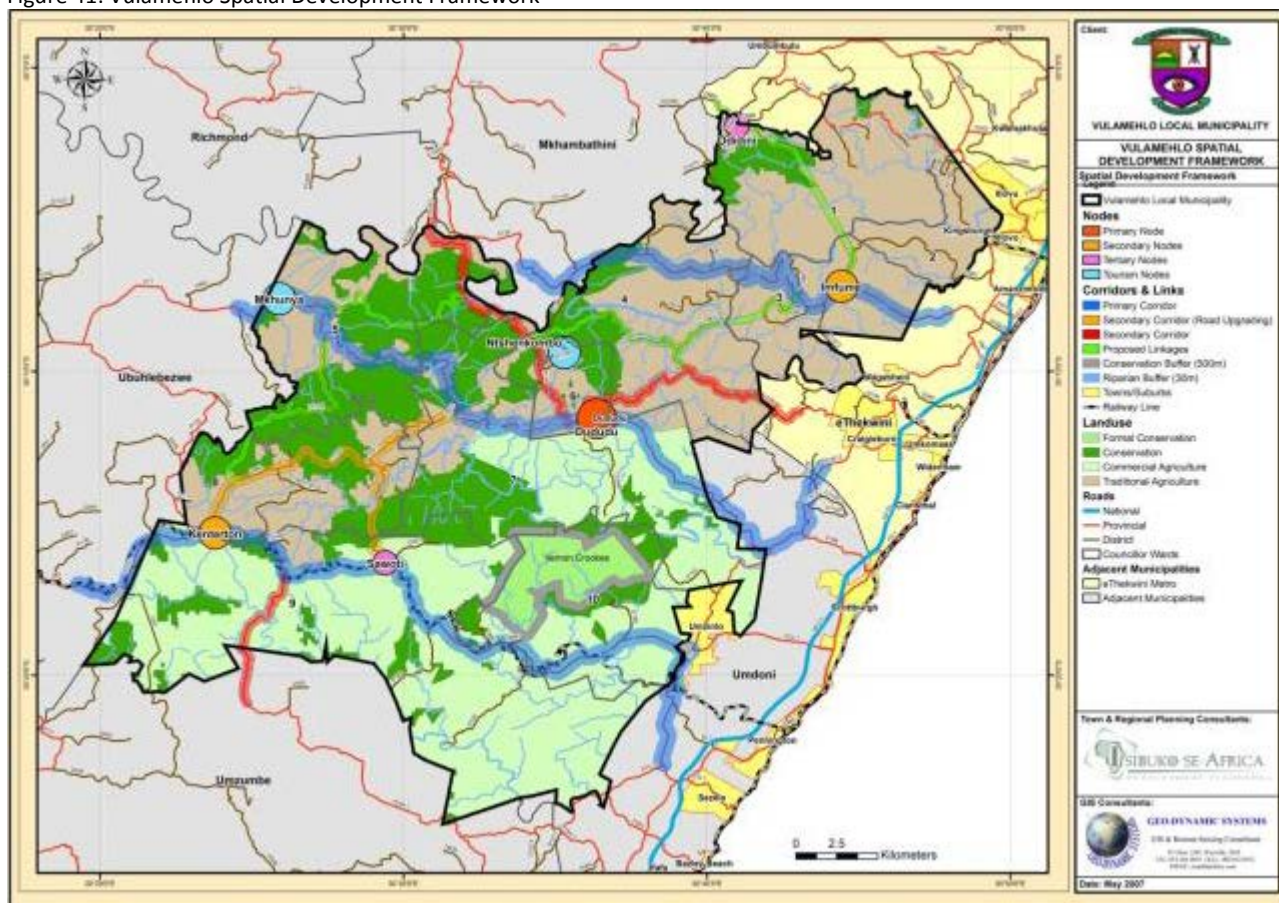
Area of Alignment	Observations
<b>Development Corridors</b>	The P566, identified as a tourism corridor in Mkhambathini, links the municipality to the Goumisa tribal area within the uMshwathi Local Municipality and can be seen as an important development corridor in terms of tourism activities.
<b>Cross Boundary Dependencies</b>	Along the P566 on the border of uMshwathi LM a tertiary centre is identified that might be important for rural areas such as Nonzilla and Ophokweni within the Mkhambathini Municipal Area.
<b>Cross Boundary Co-operation</b>	Other than management of Agricultural Eco Tourism in Mkhambathini and the tribal Area in Umshwathi there seems to be no other cross boundary co-operations.
<b>Potential Contradictions</b>	None apparent.

Source: Vuka Planning Africa

## 9.1.5 Vulamehlo Local Municipality

The figure below illustrates the Vulamehlo SDF

Figure 41: Vulamehlo Spatial Development Framework



### Vulamehlo SDF, 2008

Table 34: Vulamehlo LM Alignment Aspects

Area of Alignment	Observations
<b>Development Corridors</b>	The development intentions of Vulamehlo Municipality and the Mkhambathini Municipality is not aligned, in that Vulamehlo proposes primary and secondary corridors to move into Mkhambathini, whilst the Mkhambathini Municipality does not consider these roads to be of importance.
<b>Cross Boundary Dependencies</b>	The rural nature of the southern portion of Mkhambathini and northern area of Vulamehlo makes cross boundary dependencies important in terms of social facilities that can serve thresholds on both sides of the boundary between these municipalities mentioned above.
<b>Cross Boundary Co-operation</b>	Other than local distribution routes that services the rural areas in Vulamehlo and Mkhambathini there is no clear indication of cross boundary co-operation between them.
<b>Potential Contradictions</b>	None apparent

Source: Vuka Planning Africa



## 9.2 RESOURCE TARGETING

### 9.2.1 Capital Investment Framework

Determining the capital investment framework for a municipality is primarily the function of the IDP and /or associated Financial Plan to be illustrated spatially within the SDF of the municipality. Currently a Capital Investment Framework does not exist within the municipality and in order to determine the spatial distribution of public investment and its alignment to the intentions of the SDF an alternative methodology was followed. A base list of capital and economic investment projects was compiled as part of this study by extracting key capital projects from the municipal IDP, provincial Departmental MTEFs as well as projects identified within the various sector plans of the Mkhambathini Local Municipality and uMgungundlovu District Municipality respectively.

Map 27: Capital Projects indicates the capital projects that have been undertaken in the municipality. Some of the projects on the plan are only within the vicinity, as exact localities could not be determined.

These projects serve to inform the combined service delivery efforts in the municipality in response to the needs of the residents and the capacity of the municipality. It serves to indicate the response of the municipality, based on spatial relation of areas of needs and to inform the future investment in the municipality. Please refer to the attached Annexure A for a full list of Capital Projects depicted on the Map.

Although it is evident that the planned projects are clustered within the most densely populated and needed areas generally in line with the proposed SDF, it is currently not possible to determine the amount of capital required to implement these projects which would ideally assist in determining planned investment per area and/or availability of capital required over specific financial years. However the map does provide an indication of the spatial concentration of the planned capital projects within the various wards and interventions areas.

This furthermore allows for the identification of potential additional planning and capital projects to be identified towards the implementation of future spatial structure of the municipality as listed overleaf:







## 9.3 FURTHER PLANNING

### 9.3.1 Anticipated Development Challenges

In order to realise the spatial development vision proposed within this report, various anticipated development challenges will need to be acknowledged, considered and systematically addressed. These include:

- **Limited frontage onto the N3 growth corridor.** Although the municipality is strategically located along the N3, the national standards firstly allow for limited access point along the national routes and as a result the R103 is frequently congested with traffic accessing Camperdown and the Umlaas Road areas.
- **Lack of Internal Interconnectivity.** Various parts of the Municipality are better accessed through adjoining municipalities and this would need to be addressed where possible. The natural topography and locality of existing rural communities might hamper such intentions.
- **Internal Capacity.** The absence of structures within the Municipality to compile the LED plan which is required to actively market the area could in future hamper its ability to effectively attract and guide potential private sector investors.
- **Land Reform Projects.** With approximately 80% of the area subject to land claims and the land reform program not being completed, various potential investors are likely to be discouraged and find alternative locations to invest. In order to attract further investment, it is expedient that the Mkhambathini Municipality facilitates and monitors progress being made on land claims in conjunction with the Land Claims Commission.

### 9.3.2 Detailed Research & Planning

As mentioned above, certain key areas are vital economic generators and /or social development areas. It is therefore proposed that more detailed planning is undertaken for the following areas illustrated below:

Table 35 : Necessary Further Planning & Research

Detailed Research / Planning	Brief Description
<b>SIP2 Corridor Interventions Planning (Umlaas Road)</b>	More detailed assessment and precinct planning around the emerging Umlaas Road node with particular reference to its role and contribution towards the larger SIP2 Corridor initiative. This will include a detailed regional infrastructure assessment, rail linkage assessment, roads upgrading requirements especially the R103 capacity and the N3 interchanges within the municipal area etc.
<b>Mkhambathini Urban Regeneration Plan</b>	A Mkhambathini Urban Regeneration Plan with specific attention to the potential additional facilities to be incorporated within this node to serve the wider community of the municipality. The residential needs and
<b>Nodal Development Plans</b>	Nodal Development Plan Study with more detailed spatial structure and implementation planning for each of the identified nodes and addressing the land requirements for proposed facilities and services.
<b>Infrastructure Investigation</b>	Identify, quantify and provide location requirements of

<b>and Sector Planning</b>	engineering infrastructure and service provision for existing and future development needs. This will include a quantification of needs and estimated budgets towards a systematic Infrastructure Investment Plan.
<b>Local Economic Development Strategy</b>	Local Economic Development Strategy aimed at firstly defining the potential economic drivers within the municipality as well as to identify potential beneficiation strategies for local communities. This should also include an indication of public investment required to unlock local economic potential.
<b>Land Reform Investigation and Strategy</b>	Conclusion of land reform projects as well as a clear implementation and management plan of settled communities within especially the northern areas of the municipality.
<b>Mayebuye Expansion Assessment</b>	Detailed study into the potential expansion of the Mayebuye Nature Reserve which will include a biodiversity and agricultural assessment, land ownership audit, extensive consultation, management plan and infrastructure requirements towards a comprehensive business plan. This would be a primarily private initiative, but would have significant positive impact on the reserve as well as the tourism economy within the municipality.
<b>Facilities Quality Survey</b>	Survey of the condition and quality of service standards currently experienced within all social facilities within the municipality in order to determine upgrading and non-capital interventions required. This will assist in determining local service standards.
<b>Public Mobile Services Investigation</b>	Investigating the approaches to mobile service provision of various Government Departments as well as the current status and locality and accessibility within the Nkandla Municipality. This will also include, but not be limited to pension payout points and trading activities associated around them and other mobile services towards the circulation of local income as suggested by the KwaZulu-Natal Department of Co-operative Governance and Traditional Affairs' Spatial Planning Guidelines for the Promotion of Local Income Circulation (KZN DCoGTA, July 2009c).

### 9.3.3 COMPONENTS OF THE NEXT SDF REVIEW

It is envisaged that the annual review of the municipal IDP and its related SDF does not prepare an entirely new Spatial Development Framework, but rather build on the base SDF and refine and adjust the implementation direction as circumstances change and new information become available. During the course of preparing this SDF, a number of key elements were identified to be addressed during the next SDF review:

1. **Municipal Demarcation Boundaries** – As indicated before a significant change has occurred in the municipal boundaries for Mkhambathini which will become effective in 2016 as released by the



Demarcation Board. This change in boundaries will impact on the statistical information and planning consultation process of the SDF.

2. **River Flood Line Areas** – The Department of Human Settlements is currently engaged in a project to determine broad river flood lines for all rivers within KwaZulu-Natal based on GIS methodology being piloted. These flood lines will identify all households within the floodplains and engage in projects to educate and relocate such households where needed. It will be important to incorporate this information into the next SDF review as it might impact on the planned future land uses envisaged within the SDF.
3. **Updated Capital Projects** – Update of capital projects in terms of their relevance, budgets, locality and timeframes for implementation toward more accurate indication of a capital investment framework. It is envisaged that this will form a key part of the IDP review of the municipality for 2014/2015.
4. **Cross Border Co-ordination** – Interactive discussions with all the surrounding local municipalities regarding the cross boundary co-ordination of key elements as discussed previously in this section. This should influence the incorporation of key environmental management zones and cross border economic initiative associated with the N3 Corridor within the SDFs of surrounding municipalities, especially Msunduzi and eThekweni.
5. **Incorporation of Additional Studies** – Incorporation of available additional studies, especially the SIP2 Corridor Interventions and the proposed Nodal Development Plans if completed by the time the review or undertaken as part of the review process.

## 10 CONCLUSION

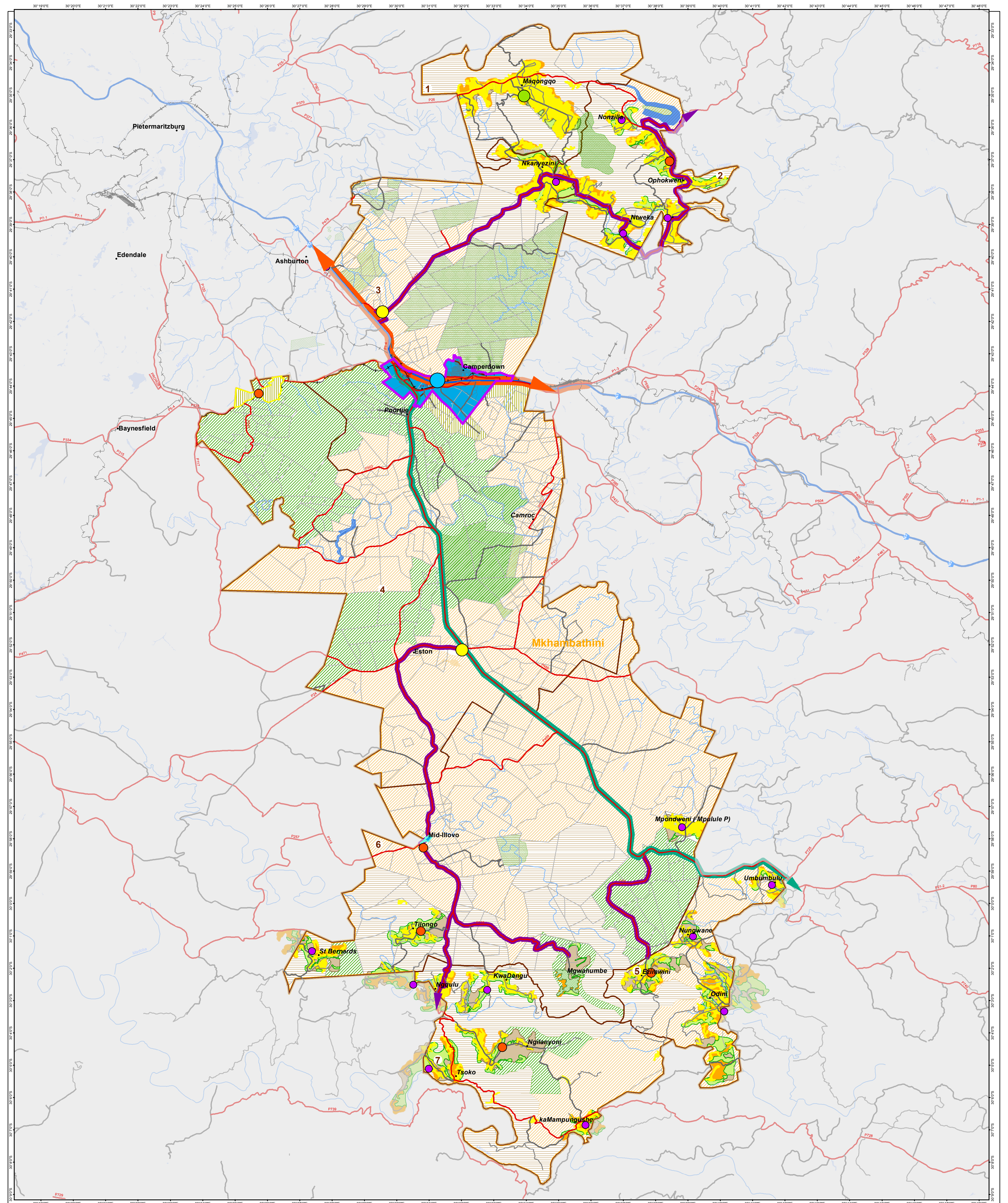
This report contains the Reviewed Spatial Development Framework for Mkhambathini Municipality and is the result of a series of spatial analysis, technical interactions with the Project Steering Committee as well as vital engagements with ward structures and sector specific role-players. The Mkhambathini SDF is intended to serve as vital input the Mkhambathini IDP Review for 2014/2015. As a key component of the Municipal IDP, the Mkhambathini SDF serves as a legal spatial policy to inform planning and public investment within the municipality for the period 2014 to 2017 with annual reviews during that period.

Any person with an interest in or comments to this study may contact the Mkhambathini Municipal Manager at the following address:

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Att: Mr D A PILLAY  
Mkhambathini Local Municipality  
18 Old Main Road  
Camperdown  
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Tel: 031 785 9300  
Fax: 031 785 2121



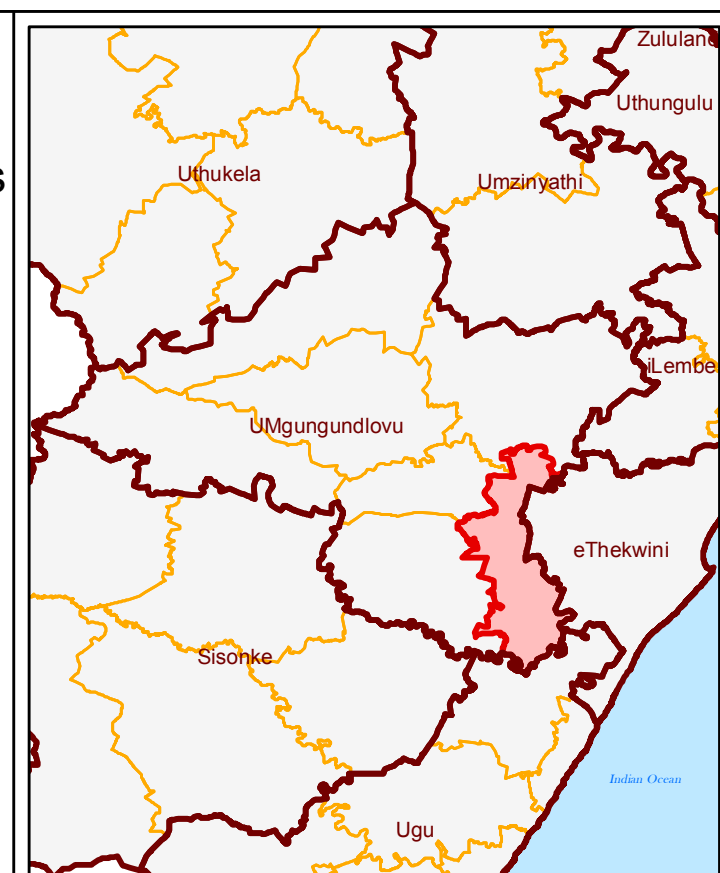


**Legend**

- Mkhambathini Local Municipality
- Mkhambathini Wards
- ERF
- Farm Portions
- Camperdown Urban Edge
- Manderston Urban Edge
- Mid-Ilovo Urban Edge
- Roads**
- National
- Provincial
- District
- Local Access
- Gravel

- Railways
- Rivers
- Dams
- Wetlands
- Formally Conserved Areas
- Provincial Corridor
- Agricultural Corridor
- Tourism Corridor
- Primary Node
- Secondary Node
- Tertiary Node
- Quaternary Node

- Opportunity Point
- Environmental Management Areas
- Subsistence Agriculture
- Residential
- Settlements
- Broad Land Use**
- Urban Agriculture
- Agriculture Only
- Agriculture /Limited Tourism
- Agriculture /Tourism
- Mixed Use



**MKHAMBATHINI**

**MAP 28:SPATIAL DEVELOPMENT FRAMEWORK 2014-2017**

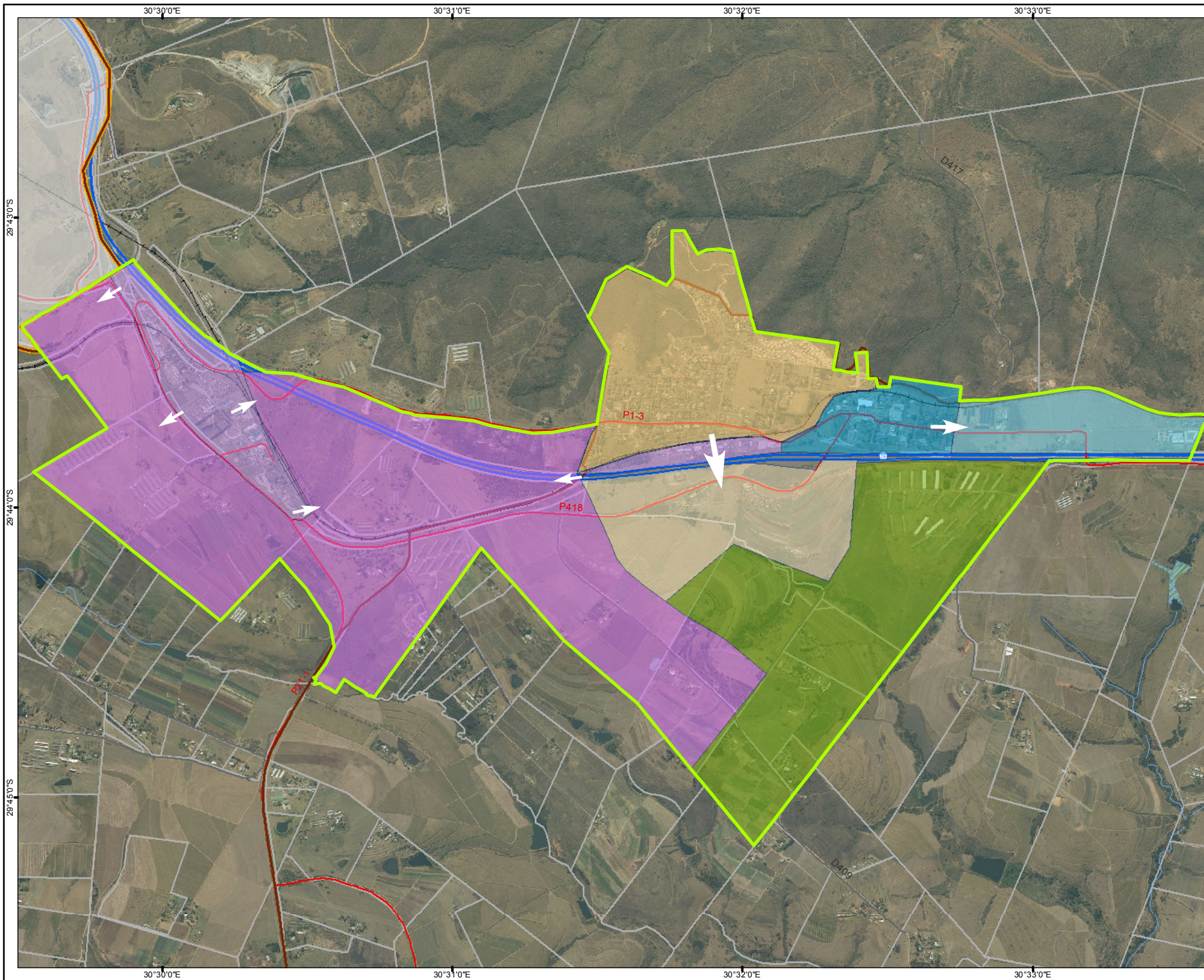
Projection: Geographic  
Datum: WGS84

Kilometers  
0 1 2 3 4 5

Date: 2014-01-17  
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# MKHAMBATHINI

## SPATIAL DEVELOPMENT FRAMEWORK 2014-2017

Map 29: Future Directional Growth of  
Land Use in Primary Node

### Legend

- Local Municipalities
- Wards
- Camperdown Urban Edge
- Farm Portions

### Future Growth

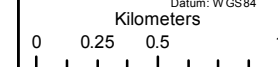
- Existing Commercial
- Existing Industrial
- Existing Residential
- Future Commercial/Mixed Use
- Future Industrial
- Future Residential
- Urban Agriculture

### Roads

- National
- Provincial
- District
- Local Access
- Gravel
- Railways
- Rivers
- Dams
- Wetlands



Date: 2014-01-09 Projection: Geographic  
Datum: WGS84



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