MAY 2015

OKHAHLAMBA MUNICIPALITY SPATIAL DEVELOPMENT FRAMEWORK

CONSOLIDATED SDF REPORT

FINAL REPORT

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1 INTRODUCTION

1.1 PURPOSE

This document presents a Spatial Development Framework (SDF) for the Okhahlamba Local Municipality. It is a further development of the municipality's Integrated Development Plan (IDP), and a means to fulfil the requirements of the Municipal Systems Act (MSA), Act No. 34 of 2000 hereafter referred to as the MSA. It is prepared in accordance with the MSA regulations, the Planning and Development Act, (Act 6 of 2013) (PDA) with Spatial Planning and Land Use Management Act, (Act 16 of 2013) (SPLUMA) and the Department of Rural Development and Land Reform (DRDLR) guidelines for the formulation of SDFs.

1.2 OKHAHLAMBA MUNICIPALITY

Okhahlamba Local Municipality forms part of the uThukela District Municipality in the KwaZulu-Natal Province. It is located along the western boundary of uThukela District and is bounded by Maluti a Phuphong (Free State province) to the northwest, Afred Duma Local Municipality to the northeast, Nkosi Langalibalele Local Municipality to the south and southeast (refer Map 1). It covers an area of approximately 3541km^2 and has a population of about 135 132 people. The municipal area comprises of privately owned commercial farmland, smallholder settlements, homesteads , urban areas of Bergville, Winterton, Cathkin Park, and Traditional Councils. These include the Amazizi, and Amangwane Traditional Councils.

1.3 DEFINING A SPATIAL DEVELOPMENT FRAMEWORK

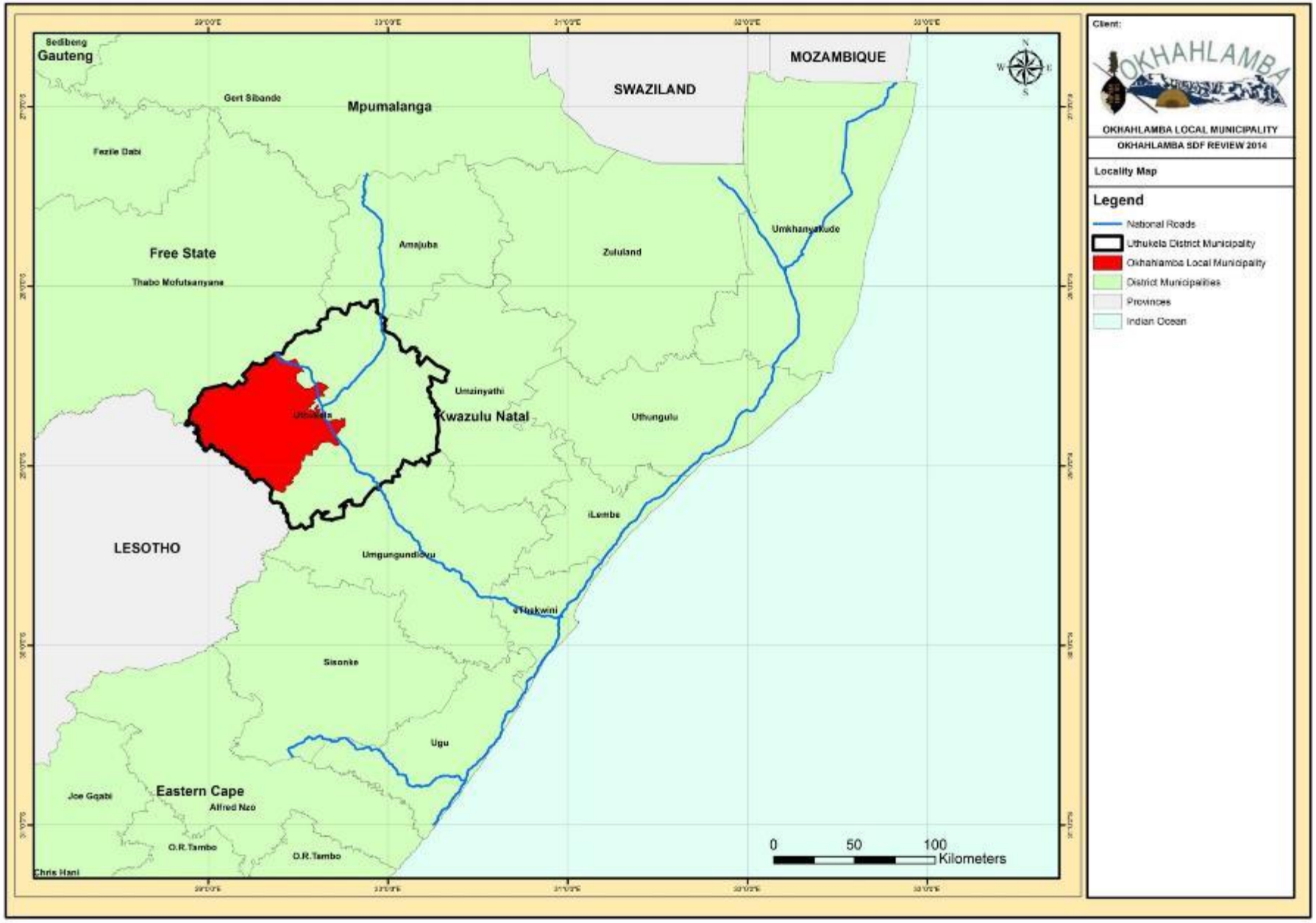
The Spatial Development Framework is a process through which a municipality prepares a medium to long-term strategic spatial development plan for its area of jurisdiction. The SDF will serve as a principal strategic spatial planning instrument, which guides and informs all planning, land management, development and spatial decision-making in a municipality. It is a component of an Integrated Development Plan (IDP) and aims to create a spatial interpretation of the strategies and projects already contained within the IDP.

The SDF is also a transformation tool. It guides the form and location of future spatial development in a manner that addresses the imbalances of the past. It is a legislative requirement and this gives it a legal status, but it should resonate with the national and provincial spatial development priorities. It enables the municipality to manage its land resources in a developmental and sustainable manner. It provides an analysis of the spatial problems and provides strategies and programs to address the challenges. In summary, the SDF has the following benefits:

→ It facilitates effective use of scarce land resources.

→ It facilitates decision making with regard to the location of service delivery projects.

MAP 1: LOCALITY OF OKHAHLAMBA MUNICIPALITY



→ It guides public and private sector investment.

→ It strengthens democracy and spatial transformation.

→ It promotes intergovernmental coordination on spatial issues.

→ It provides a framework for the preparation of more detailed and area specific spatial plans and a wall-to-wall Land Use Scheme (LUS) as envisaged in the KZN Planning and Development Act (PDA), Act No. 06 of 2008 and the Spatial Planning and Land Use Management Act (SPLUMA), Act 16 of 2013.

The SDF defines and facilitates a progressive move towards the attainment of an agreed upon desired spatial structure.

1.4 AIMS AND OBJECTIVES

The main purpose of the SDF is to guide the spatial form and location of future spatial development initiatives within the municipality. Its objectives are as follows:

→ To give effect to the vision, goals and objectives of the municipal IDP, and the national and provincial spatial planning directives.

→ To engage the interested and affected parties in a strategic planning process taking into account their views, concerns and interests.

→ To promote inter-governmental relations by ensuring that all relevant stakeholders are consulted and participate actively in the planning process.

→ To provide for the spatial transformation of the municipal area.

→ To provide for sustainable development in line with the norms and standards for environmental management.

→ To facilitate the development of an efficient and effective spatial structure.

→ To develop a framework for public and private sector investment.

In addition, the SDF completes the toolbox for effective spatial planning and land use management. This includes the generation of GIS data that would enable the municipality to promote environmentally sustainable and harmonious development.

1.5 LIMITATIONS OF THE SDF

This SDF is limited to the area under the jurisdiction of the Okhahlamba Local Municipality. It is prepared in accordance with the MSA regulations, the Planning and Development Act (PDA) with Spatial Planning and Land Use Management Act (SPLUMA) and the Department of Rural Development and Land Reform guidelines for the formulation of SDFs. However, it requires refinement through the preparation of Area Based Plans, Precinct Plans for development nodes and policy framework for the introduction of a wall-to-wall scheme.

The municipality did not undertake a Strategic Environmental Assessment, although the uThukela District has developed an Environmental Management Framework. The EMF reveals where

specific activities may best be undertaken and to offer performance standards for achieving and maintaining the desired state of that area. It also provides an indication of the biophysical and socio-cultural systems of a geographical area. In addition, a Biodiversity Sector Plan was developed on a district level and provide a biodiversity mapping profile that covers the terrestrial and aquatic environs of the district. These documents and datasets have been used to inform the SDF

2 APPROACH AND METHODOLOGY

2.1 APPROACH

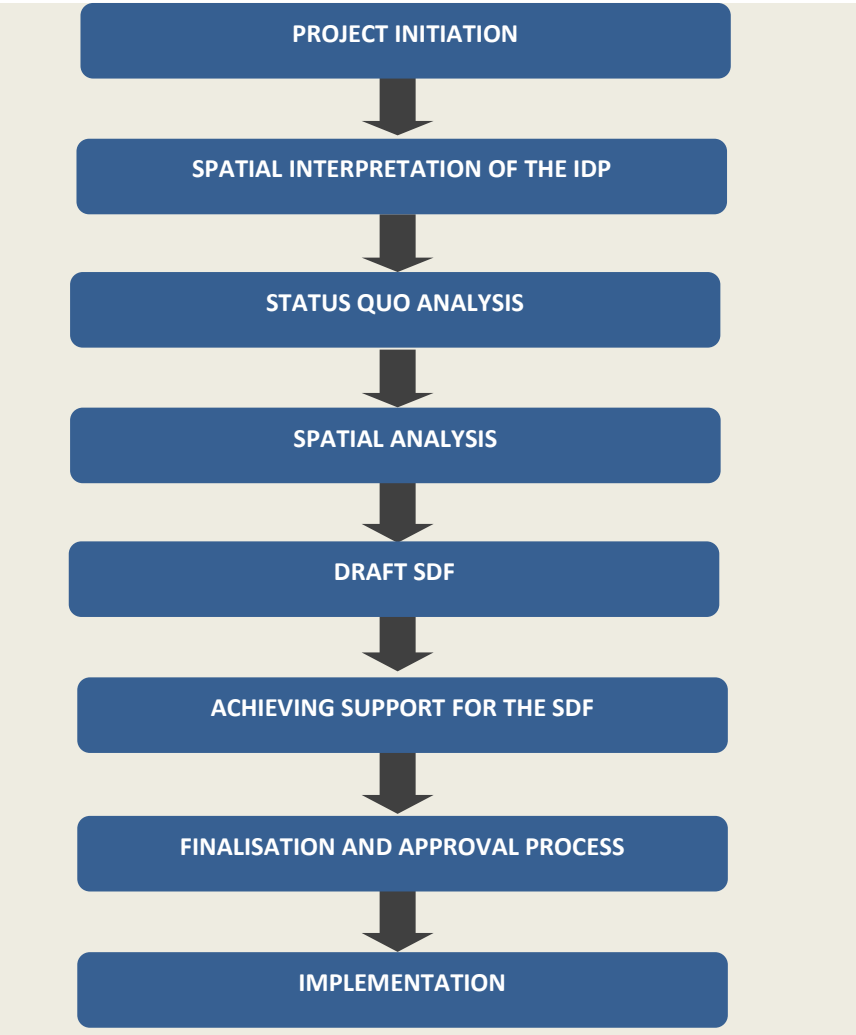
The approach adopted in the preparation of the Okhahlamba SDF was a phased approach. The process is divided into seven distinct but interrelated phases with each linked to the attainment of a specific milestone (refer to Figure 1).

The first phase produced a Project Inception Report, which was used to manage the project and monitor its progress. The second phase focussed on the analysis of the existing spatial situation and resulted in a detailed status quo report.

Strategic analysis of key spatial issues, trends and patterns was based on the Status Quo Report and produced valuable information that served as the basis for a Spatial Development Strategy. The latter provides a spatial translation of the municipal development as outlined in the IDP, and identifies spatial interventions.

The consolidated SDF is based on all the above-mentioned deliverables. It concludes with an Implementation Plan, which includes Land Use Management Framework (LUMF), schedule of spatial projects, and a capital investment framework. The latter serves as a link between the SDF, the IDP and the budget. The SDF was supported fully, it is finalised and approved. This report is the final SDF report to be produced and is to be implemented .

FIGURE 1: PHASES



2.2 METHODOLOGY

2.2.1 DESK-TOP DATA REVIEW

The SDF as a sector plan of the IDP is located firmly within the practice of integrated development planning. It aligns with the national, provincial and district strategic plans, and employs these to inform approaches to local spatial development challenges. Documents that were reviewed as part of this process could be categorised as follows:

→ Key national spatial development policies and programmes, e.g. National Spatial Development Strategy, Breaking New Ground, Comprehensive Rural Development Programme etc.

→ KZN strategic spatial plans including the Provincial Growth and Development Strategy (PGDS), development programmes as implemented by different government departments, etc.

→ Okhahlamba Local Municipality and Uthukela District IDPs, and the associated sector Plans. The latter includes LED Plans, Water Services Development Plan, Housing Sector Plan, Tourism Development Plans, etc.

→ Research reports and papers dealing with spatial planning and environmental management.

→ Spatial plans and data from various sector departments, including the Special Case Area Plan for the Drakensberg (SCAP), Drakensberg Policy Statement, Drakensberg Approaches Policy, Regional Spatial Framework Plan for the Maloti-Drakensberg Corridor, Uthukela Environmental Management Plan, etc.

2.2.2 STAKEHOLDER INTERVIEWS

Interviews were conducted with a range of stakeholders representing various spatial interests in Okhahlamba. The interviews were based on broad '*aide memoires'* as a brief set of prompts to deal with a range of specific issues, and served as the main method to collect tease perceptions, record indigenous knowledge and collect factual data. Interviews included local leadership within private settlements, ratepayers and farmers associations. A schedule of interviews is attached to this report as Annexure A.

2.2.3 CONSULTATION TRADITIONAL LEADERS

Consultation sessions were held with the traditional councils (TC) within Okhahlamba Local Municipality. These included the Amangwane and Amazizi TCs. Issues discussed in these sessions include settlement pattern, allocation of land for different land uses and other areas that require attention in terms of spatial planning.

2.2.4 NODAL LAND USE SURVEYS

Broad land use surveys were undertaken in the rural development nodes (Zwelisha, Dukuza and Emmaus) using aerial photography. The results of the surveys were used to undertake an analysis of the structure, role and character of each node.

2.2.5 USE OF GIS

Geographic Information System (GIS) was used to overlay information and generate options for land use activities. This includes the use of the recently introduced digital criterion for the development of layers. The format used is in line with the requirements of COGTA and the municipality.

3 REGIONAL CONTEXT

The Provincial Growth and Development Strategy identifies both Winterton and Bergville as quaternary nodes providing services to the local economy and community needs. As such, they should be developed with the necessary services required to serve the immediate community. The PGDS also classifies the majority of the municipality as economic support area and service delivery area (see map 2). Attention should be given to the provision of infrastructure and services, restoring the natural resources, public sector leadership, delivery and accountability and ensuring that these changes are responded to with resilience, innovation and adaptability.

3.1 ACCESS

The N3 is the Primary distributor within the uThukela District Municipality. It runs along the eastern boundary of Okhahlamba and is important for providing access to the area. It also has implications in terms of economic and social interaction.

There are three regional distributors within Okhahlamba Local Municipality, namely the R74, R600 and R616. The R74 serves as a Primary Corridors for the municipality providing access to Bergville, Winterton and to the Free State province, and linking on to the N3. The R 616 serves as a Primary Corridor for the municipality connecting to Alfred Duma Local Municipality and linking on to the N3. The R600 provides access to Cathkin Park.

3.2 DISTRICT SPATIAL ECONOMY

uThukela District Municipality contributed approximately 5% to the provincial economy in 2011. Okhahlamba Local Municipality, in turn, contributed 23% to the District's economy, which makes it the second largest contributor to GVA in the district after Alfred Duma Local Municipality. In addition Okhahlamba Local Municipality has been the main source of growth in the district between 2001 and 2011, in terms of its contribution to the district economy.

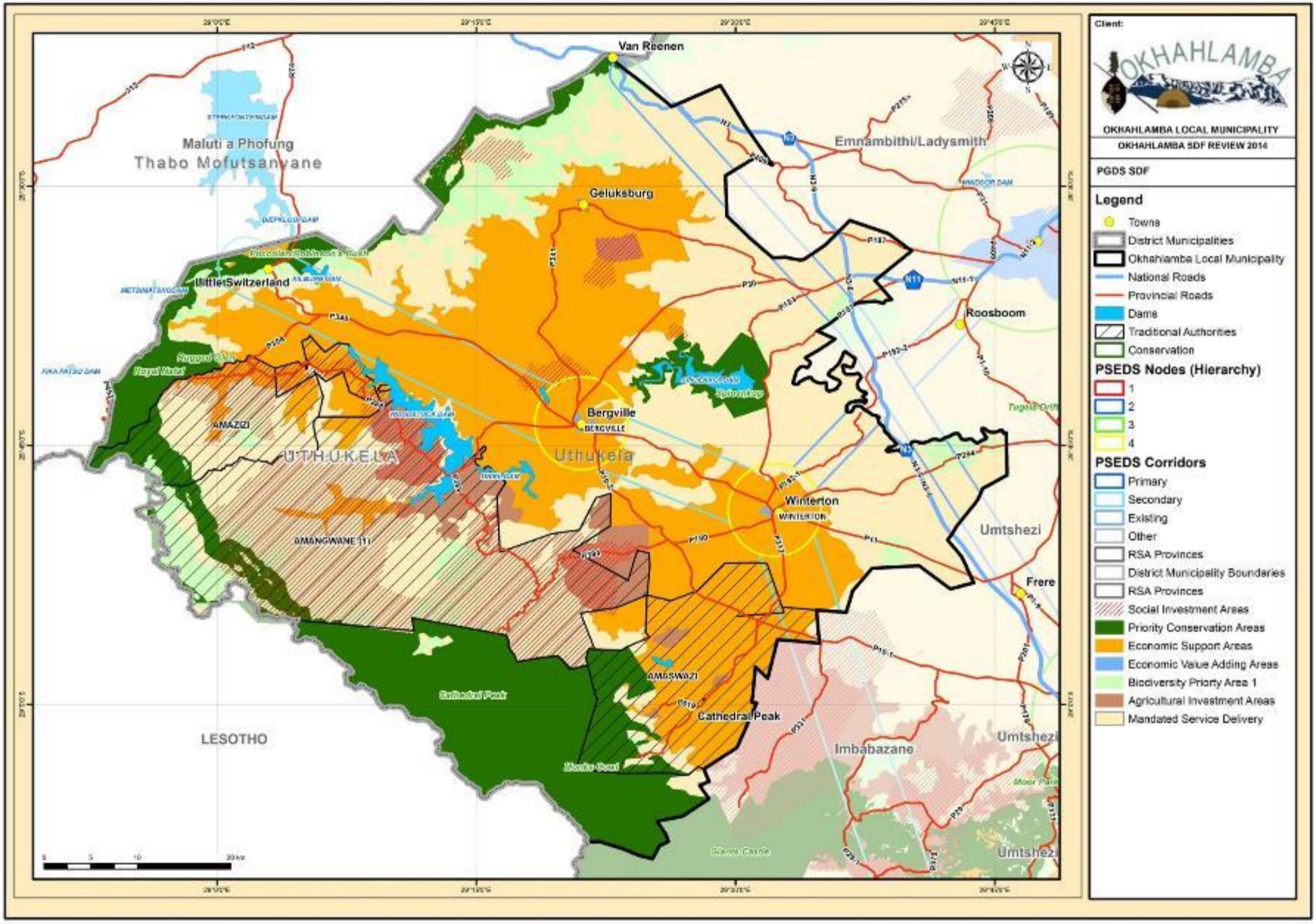
3.3 REGIONAL TOURIST DESTINATIONS

Okhahlamba Local Municipality is characterised by its major spatial feature, the Drakensberg Mountains. These mountains are also known as the 'Barrier of Spears' (uKhahlamba) from which the name Okhahlamba is derived. They serve as a barrier separating KwaZulu-Natal from Lesotho. These mountains are recognised internationally as a heritage site with its wealth of biodiversity and its sheer natural beauty. These attributes have therefore contributed to the nature and character of the whole municipality.

3.4 UTHUKELA CATCHMENT MANAGEMENT AREA

Okhahlamba Local Municipality is located within the Thukela Water Management Area (WMA), which is characterised by extensive drainage systems.

MAP 2: OKHAHLAMBA IN THE CONTEXT OF THE PGDS



It lies within the Thukela Water Management Area (WMA no 7), and is governed by the Thukela Catchment Management Agency (uThukela EMF, 2013). The Thukela catchment experiences relatively high rainfall, which leads to a high Mean Annual Runoff (MAR) of approximately 3,799 million m^3/annum. Groundwater quality within the WMA is generally good, and usage only equates to about 100 m^3/km^2/annum, which is only 0.4% of the mean annual recharge over the WMA as a whole.

3.5 REGIONAL ENVIRONMENTAL MANAGEMENT

An Environmental Management Framework (EMF) for the uThukela District is being finalised in accordance with the NEMA EMF Regulations (2010) and will produce a spatial decision-support tool to help guide environmental decisions in the area. Once completed it must be adopted by the MEC for Environmental Affairs after which the information contained in it must be used to inform local planning and land development and in particular the making of EIA decisions.

3.6 IMPLICATIONS FOR THE SDF

The strategic location of Okhahlamba Local Municipality and its role in the regional space economy has profound implications for the future spatial development of this area. These are summarised as follows:

→ Spatial planning within the municipality should advance the strategic intent of the national and provincial spatial development programmes and initiatives. The SDF should localise these plans and facilitate implementation of projects that contributes to the realisation of the national and provincial spatial development visions.

→ The implications of regional administrative issues are twofold. Firstly, input from district planning process is critical for the coordination of planning processes and the alignment of planning between municipalities. The effective functioning of the district planning forum is also critical to provide technical assistance and horizontal alignment. The continuous involvement of the district in planning processes within the municipality is thus essential and will ensure horizontal and vertical alignment between planning processes. The second important implication of regional administrative influences is the development of the EMF for the district. This spatial decision support tool will be critical in informing local planning and land development and in particular the making of EIA decisions. It will assist decision –making on local level and align different planning and planning processes.

→ The national and provincial development corridors that run through the area provides opportunities for development proposals in line with national programmes such as the National Infrastructure Programme and the associated SIP2 that focus on the N3 corridor.

→ Location within the Drakensberg World Heritage site opens the area up for a range of tourism related developments. Tourism products and activities with a regional significance should be promoted in the area.

→ Land use and settlement pattern within Okhahlamba should take due consideration of the location of the area within the Thukela catchment and the UDP WHS. This includes taking good care of the water resources and ensuring that development does not interfere with the supply of quality water downstream. The protection and management of water resources and natural environmental features unique to this area must be managed properly. Management guidelines must be incorporated into the SDF.

→ Further promotion of tourism, agriculture and other commercial development will benefit the municipality in terms of access to employment opportunities, investment and economic growth generally.

4 POLICY CONTEXT

The Okhahlamba Local Municipality SDF is formulated within the context of various national and provincial spatial planning directives, and is based on the local spatial planning issues as articulated in various sector plans. In part, the SDF contributes to the attainment of the spatial development targets and objectives outlined in these policies, and deals directly with the spatial issues facing the Okhahlamba Municipality. It gives effect to the spatial planning mandate of the municipality.

4.1 SPATIAL PLANNING MANDATE

Since the mid-1990s, the notion of spatial planning has become an integral part of the development planning discourse and practice in South Africa. The Constitution (Schedule 4 Part B) bestows this responsibility to local government, particularly local municipalities. Okhahlamba gives effect to this mandate through a range of empowering legislation and policies including but not limited to the following:

→ The Municipal Systems Act (MSA), Act No. 32 of 2000 is the principal legislation regulating the content and scope of SDFs, and requires that an SDF should be prepared as a component of the IDP.

→ The KwaZulu-Natal Planning and Development Act, Act No. 6 of 2008. The PDA regulates, *inter alia*, the preparation of Land Use Schemes and requires a municipality to develop and adopt a wall-to-wall land use scheme within 5 years from the inception of the Act.

→ National government introduced the Spatial Planning and Land Use Management Act (SPLUMA), Act 16 of 2013 in an attempt to consolidate the spatial planning mandate under a single piece of legislation. SPLUMA is now the overarching spatial planning legislation, and has introduce a uniform spatial planning approach and agenda throughout the country. One of the key innovations of this legislation is the recognition that spatial planning should not only occur at a local level, but at provincial and national levels as well. This will facilitate vertical and horizontal cross-border alignment and land use integration.

In effect, SPLUMA is addressing the following issues:

→ It provides a uniform and coherent framework for spatial planning and land use management;

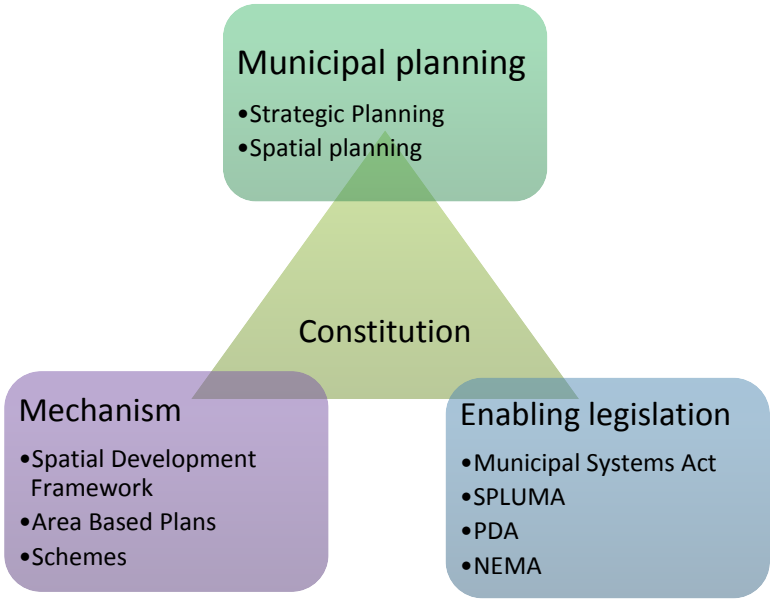
→ It specifies the relationship between the spatial planning and the land use management system;

→ It provides for the inclusive, developmental, equitable and efficient spatial planning at different spheres of government;

→ It will address the legacy of past spatial planning and regulatory imbalances;

→ It will promote greater efficiency, consistency and uniformity in the decision-making by authorities responsible for land development decisions. (SALGA presentation 2014).

FIGURE 2: SPATIAL PLANNING MANDATE



The new law supersedes provincially applicable planning laws, such as the Planning and Development Act (PDA). It will lay down national policy, norms and standards as well as frameworks on land use, and therefore fall within the ambit of section 146 of the Constitution. At a local level, it provides a framework for the preparation of area specific SDFs and Land Use Management System (LUMS).

4.2 NATIONAL SPATIAL PLANNING POLICY

4.2.1 THE NATIONAL DEVELOPMENT PLAN

The National Development Plan (NDP) introduces the long-term vision for the future development of South Africa. It acknowledges the spatial inefficiencies that characterises existing settlements and commits the national government to developing a national Spatial Framework as a policy framework to address these abnormalities. The NDP requires plans such as the SDF to respond directly to the area specific issues, including the following:

→ Population movement patterns including migratory patterns between rural and urban areas.

→ Impact of external factors such as globalisation and climate change on spatial planning and development within Okhahlamba.

→ Public sector investment in economic infrastructure as a means to create a climate conducive to economic growth and development.

→ Creating opportunities for rural communities to participate actively in the economy. This has serious implications for access to productive assets, particularly high potential agricultural land, skills development, etc.

The Okhahlamba Municipality SDF should give effect to the spatial planning principles outlined in the NDP and contribute to an effective implementation of the national spatial development vision. This includes spatial transformation and promoting spatial integration.

4.2.2 MILLENNIUM DEVELOPMENT GOALS

The Millennium Development Goals (MDGs) focus on three main areas of human development i.e. increasing social, economic and political rights, bolstering human capital and the improvement of infrastructure. South Africa as a country is committed to the Millennium development agenda and the Millennium Declaration of 2000. There are eight MDG's and all are embraced in all spheres of government and are reflected in Key Priorities Areas:

→ Combat HIV/AIDS and other diseases;

→ Reduce child mortality;

→ Develop a Global Partnership for Development;

→ Achieve universal primary education;

→ Improve maternal health;

→ Ensure environmental sustainability;

→ Eradicate extreme poverty and hunger;

→ Promote gender equality and empower women.

UNESCO declared the uKhahlamba Drakensberg Park World Heritage Site in 2000. This makes them an interested and affected party to any development, conservation and tourism efforts in areas of close proximity to the Park. From an international conservation perspective, their policies and guidelines must be adhered to and they need to be informed about development taking place along the buffer area in Okhahlamba. This is of specific relevance to the key priority area that relates to environmental sustainability.

4.2.3 NEW GROWTH PATH

The New Growth Path introduces a development package and commits the government to a new and dynamic vision for collectively building a democratic, equitable, cohesive, all-inclusive and sustainable economy. It seeks to promote growth and create employment opportunities. As such, it suggests far reaching structural changes to the economy and identifies five job creation drivers as follows:

→ Infrastructure development.

→ Main economic sectors (agricultural and mining value chains, manufacturing and services).

→ Potential of new economies.

→ Investing in social capital and public services.

→ Spatial development with a particular focus on regional and rural economic development.

The New Growth Path provides the municipality with a framework to set its own targets in terms of poverty alleviation, inequality and employment creation. These targets will be the beginning of a process toward social and economic development and making a meaningful contribution to the improvement of the quality of life for the people living in the municipal area.

4.2.4 COMPREHENSIVE PLAN FOR THE DEVELOPMENT OF SUSTAINABLE HUMAN SETTLEMENTS

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

→ progressive informal settlement eradication;

→ promoting densification and integration in urban centres;

→ enhancing spatial planning in both urban and rural contexts;

→ enhancing the quality and location of new housing projects;

→ supporting urban renewal programmes; and

→ developing social and economic infrastructure.

Okhahlamba embraces the principles of this policy and have to work toward the creation of sustainable human settlements.

4.2.5 COMPREHENSIVE RURAL AND DEVELOPMENT PROGRAMME

The Comprehensive Rural Development Programme (CRDP) seeks to create vibrant, equitable and sustainable rural communities through a three-pronged strategy based on:

→ a coordinated and integrated broad-based agrarian transformation;

→ strategically increasing rural development through social and economic infrastructure; and

→ an improved land reform programme.

Okhahlamba Municipality is very rural in nature. As such, they embrace the principles and seeks to contribute towards the attainment of the CRDP vision as part of their spatial and development planning program. This includes identification of target areas for rural development, agrarian reform and ensuring developmental outcomes of the land reform programme.

4.2.6 NATIONAL INFRASTRUCTURE PLAN

National Government adopted a National Infrastructure plan in 2012. The intention of the plan is to transform the economic landscape of South Africa, while simultaneously creating significant numbers of new jobs, as well as to strengthen the delivery of basic services. The plan identified 18 Strategic Integrated Projects (SIP), which were adopted by Cabinet.

Of specific importance for Okhahlamba is the implementation of the Durban-Free State- Gauteng logistics and industrial corridor (SIP2), which strengthens the logistics and transport corridor between South Africa's industrial hubs. Implications of this SIP, is that a N3 corridor framework plan is developed, identifying potential developments along the corridor that will result in increased densities of industrial and residential development in nodal points. Other SIPs that could be relevant to Okhahlamba, includes the following:

→ SIP 11 is crucial for predominantly rural municipalities and emphasise investment in agricultural and rural infrastructure. This allow for growth in production and employment from both small-scale farming and rural development.

→ SIP 18: Water and Sanitation Infrastructure. SIP 18 is a ten-year plan that seeks to address backlogs in water supply and basic sanitation to households. This will help serve social needs through efficient basic service delivery.

4.2.7 NATIONAL STRATEGY FOR SUSTAINABLE DEVELOPMENT

Government's National Strategy for Sustainable Development and Action Plan (NSSD 1) - which was approved by Cabinet on 23 November 2011 - provides the conceptual framework and the high-level roadmap for strategic sustainable development. Its intention is to provide guidance for long-term planning. It sets out key areas that are in need of attention to ensure that a shift takes place towards a more sustainable development path and identifies the following key elements:

→ Directing the development path towards sustainability;

→ Changing behaviour, values and attitudes; and

→ Restructuring the governance system and building capacity.

The outcome of sustainable development is a state in which interdependent social, economic and ecological systems can be sustained indefinitely (DEAT, 2007).

The vision, principles, strategic priorities and strategic goals of NSSD 1 should inform the development of the SDF, and the municipality should agree to make a contribution to environmental sustainability in its area of jurisdiction. The contribution by the district should include the following:

→ Developing a better understanding of the meaning of sustainability within the context of the municipality;

→ Promoting environmental accountability in decision-making; and

→ Facilitating the identification of development options and alternative proposals, which are more sustainable.

4.3 PROVINCIAL SPATIAL DEVELOPMENT VISION

4.3.1 PROVINCIAL GROWTH AND DEVELOPMENT STRATEGY

The KwaZulu-Natal Province development vision is outlined in the recently introduced Provincial Growth and Development Strategy (PGDS 2011). The PGDS is a primary strategy for KwaZulu-Natal that drives growth and development in the Province to 2030. It provides the province with a strategic framework for accelerated and shared economic growth through catalytic and developmental interventions, within a coherent equitable spatial development architecture, putting people first, particularly the poor and vulnerable, and building sustainable communities, livelihoods and living environments (PGDS, 2011).

Concomitant attention is also given to the provision of infrastructure and services, restoring the natural resources, public sector leadership, delivery and accountability, ensuring that these changes are responded to with resilience, innovation and adaptability.

The strategic goals and the associated vision and objectives are reflected In Figure 3. Goal 7 deals specifically with spatial issues.

The outcome of this goal is Spatial Equity and Integrated Land Use Management that will guide the allocation and utilisation of human and environmental resources towards sustainable growth and development.

FIGURE 3: PGDS STRATEGIC FRAMEWORK

SOURCE: PGDS 2012

In addition, the outcome will focus on the promotion of spatial concentration, the co-ordination of development interventions, the integration of spatial planning initiatives and effective land use management(PGDS 2011: 130).

4.4 DISTRICT CONTEXT

4.4.1 UTHUKELA DISTRICT SDF

Spatial Planning is a shared function between Okhahlamba Local Municipality and Uthukela District. The latter has developed a SDF as part of their IDP. Ideally, the district SDF should provide a framework for the formulation of local municipality, deal with cross-boundary issues and spatial implications of the exclusive powers and functions of the district municipality. As such, any inconsistencies in the spatial planning process between the two entities should be eliminated and a greater coordination should be promoted.

The uThukela SDF identifies Bergville as a Secondary Administrative Centre, Winterton as tertiary node where decentralisation of administrative functions may take place and where economic investment should be targeted. In addition, it identifies tourism nodes, and a primary and secondary tourism corridor along the Drakensberg, as to optimise on the tourism potential of the Drakensberg.

4.4.2 UTHUKELA DISTRICT SECTOR PLANS

Uthukela District Municipality has developed a number of sector plans to guide the implementation of its development programmes.

These include but are not limited to the following:

→ Local Economic Development (LED) Plan.

→ Tourism Development Plan.

→ Water Services Development Plan (WSDP).

→ Public Transport Plan (PTP).

An Environmental Management Framework (EMF) is also being developed for the district. Each of these should be considered and integrated into the SDF.

4.5 OKHAHLAMBA SECTOR PLANS

The Okhahlamba Local Municipality has developed and adopted an IDP as a strategic guide for development and governance within its area of jurisdiction. The IDP articulates the long-term vision and strategic programmes for the municipality. The latter is elucidated in various sector plans that deal with sector specific issues and identify development opportunity and development need areas. These sector plans include the following:

→ The Bergville Urban Design Framework, which is still under review.

→ A Local Economic Development Plan, which establishes an economic development agenda and identifies economic development opportunity areas.

→ Housing Sector Plan, which outlines a housing delivery agenda and a programme for the transformation of the existing settlements into sustainable human settlements.

The SDF gives effect to the intentions of the IDP and provides a framework for the formulation of area and/or site specific land use controls.

4.6 DRAKENSBERG POLICIES AND APPROACHES

4.6.1 UKHAHLAMBA DRAKENSBERG PARK WORLD HERITAGE SITE (UDP WHS)

The Drakensberg region is one of the most important archaeological areas in southern Africa and presents many opportunities for recreation activities, ranging from nature to facility orientated extremes. As such, the need for development control has been identified as a critical element in the future preservation of the natural character of the area. In addition, the United Nations Educational, Scientific and Cultural Organisation (UNESCO) designated the uKhahlamba Drakensberg Park World Heritage Site as a World Heritage Site in November 2000.

The location of the uKhahlamba Drakensberg Park World Heritage Site (UDP WHS/Park) is along the eastern boundary of the Kingdom of Lesotho and the western boundary of KwaZulu Natal province in South Africa. It is bordered by seven local municipalities on the KwaZulu Natal province side, namely the Okhahlamba LM, Imbabazane LM, Mpofana LM, uMngeni LM, Impendle LM, KwaSani LM and Greater Kokstad LM. The park extends for approximately 150 km from the Royal Natal National Park in the north, to Bushman's Neck in the south. The Park is a thin crescent shaped area that is 28 km wide at its widest portion. It consists of 243 000 hectare and significantly meets the criteria for both cultural and natural properties.

In terms of the World Heritage Convention Act No. 49 of 1999, the KwaZulu-Natal Nature Conservation Board was appointed as the Park Authority. The Board's implementing agency is Ezemvelo KZN Wildlife.

The significance of the area relates to three aspects, namely:

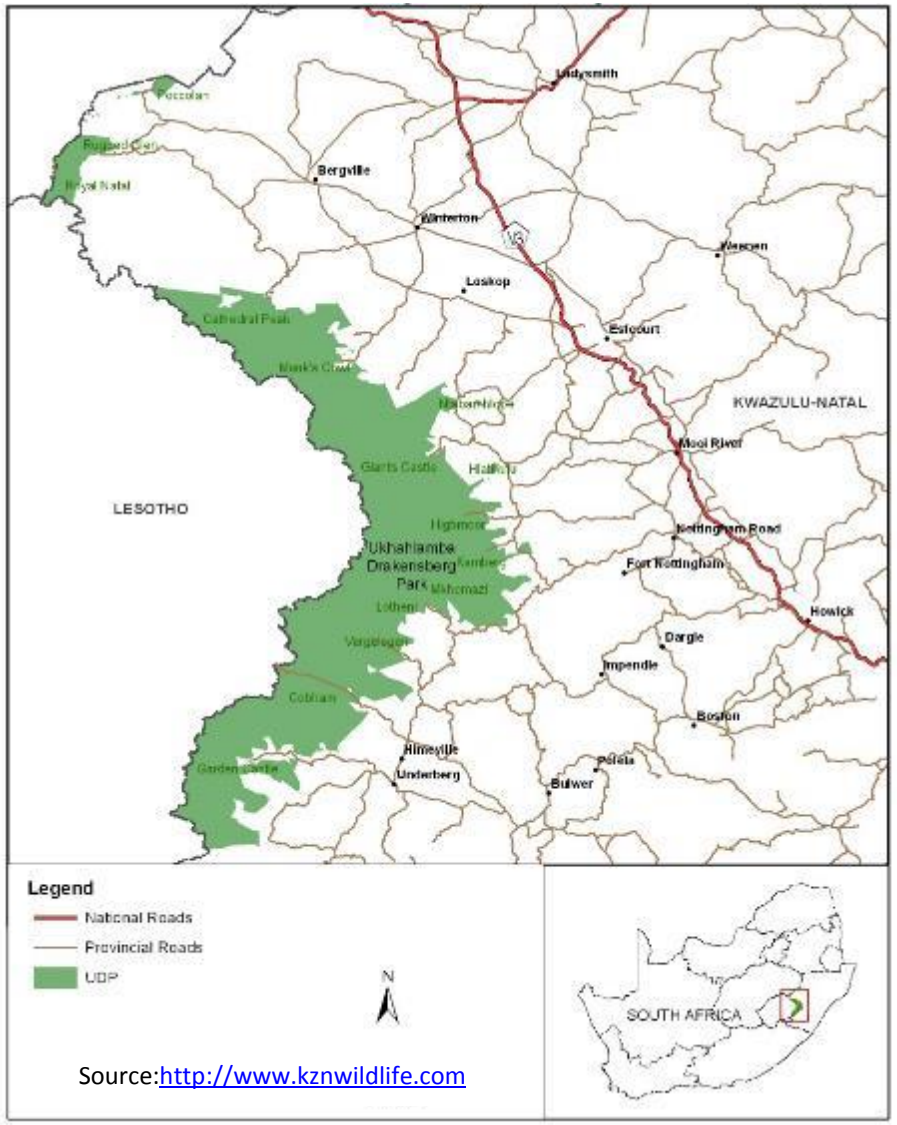
→ The rock art of the Drakensberg is the largest and most concentrated group of rock paintings in Africa south of the Sahara and is outstanding both in quality and diversity of subject.

→ The San people lived in the mountainous Drakensberg area for more than four millennia, leaving behind them a corpus of outstanding rock art which throws much light on their way of life and their beliefs.

→ The site has exceptional natural beauty with soaring basaltic buttresses, incisive dramatic cutbacks and golden sandstone ramparts. Rolling high altitude grasslands, the pristine steep-sided

river valleys and rocky gorges also contribute to the beauty of the site. The site's diversity of habitats protects high level of endemic and globally threatened species, especially of birds and plants.

FIGURE 4: LOCATION OF THE UDP WHS



Source:http://www.kznwildlife.com

As part of the requirements of the declaration of the Park as a world heritage site, a Buffer Zone needed to be established. This was done in accordance to Section 28(2) (a) of the Protected Areas Act 57 of 2003, which makes provision for the establishment of such a Zone.

In the context of the UDP WHS, the Buffer Zone is defined as follows:

> *Buffer Zone: Demarcated areas (i) proximate to the Protected Area, (ii) which are of high biodiversity, cultural heritage, water and landscape importance, (iii) where ownership vests with private bodies or (indirectly) local user communities, (iv) where land management rights vest in parties other than exclusively in conservation specific agencies, and where (iv) land management is approached as a partnership between conservation authorities and those with use rights.*

In the context of the UDP WHS, the Buffer Zone is located outside the conservation (protected) area and the ownership of the land adjacent to the Conservation/ Protected Area, vests in an amalgam of private owners and communal lands falling under the custodianship of the Ingonyama Trust. The owners and current users have rights that must be recognized and worked with, which imply that co-management and partnership in the Buffer Zone is critical. In addition to the guidelines for the Buffer zone, the increasing pressure of development and inappropriate land use adjacent to the Park that could impact negatively on its integrity was recognised by the KZN Planning Commission. They produced a Special Case Area Plan (SCAP), which has not been afforded statutory status. However, a number of its recommendations have been used by some municipalities adjacent to the UDP WHS in their Spatial Development Frameworks.

Previously, planning approaches that was used, similar to the buffer zone concept, included the following:

→ The Drakensberg Policy Statement (TRPC. 1976);

→ The Southern Drakensberg Policy Statement (TRPC. 1981); and

→ The Drakensberg Approaches Policy (TRPC.1990).

4.6.2 GUIDING DOCUMENTS FOR UDP WHS

4.6.2.1 INTEGRATED MANAGEMENT PLAN

Ezemvelo KZN Wildlife is the mandated management entity for the uKhahlamba Drakensberg Park World Heritage Site. The Integrated Management Plan (IMP) for the uKhahlamba Drakensberg Park World Heritage Site is the primary and overarching protected area management document for the Park. The Park is managed within this framework, and it provides guidance to all the other planning components that are developed. This document provides information pertaining to the purpose and significance of the Park, the legislative requirements and framework within which the Park has to operate, as well as management and conservation targets and the zonation of the Park. The policy framework and guiding principles are essential to achieve the desired objectives of the Park. This document also provides

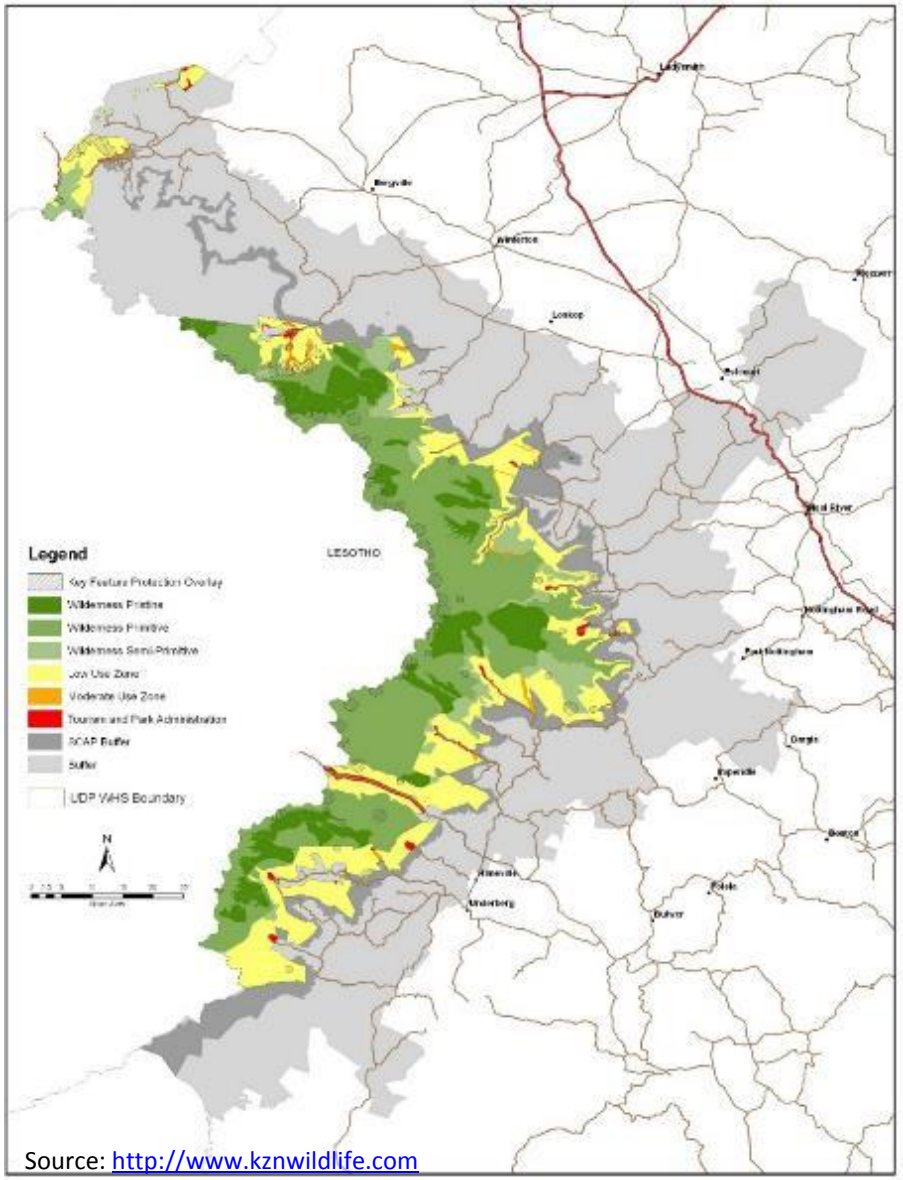
a list of action projects, which is prioritised and relates to the management objectives of the Park.

Within the framework of the IMP is the Conceptual Development Plan (CDP). This document provides strategic guidance to the development and maintenance of conservation management infrastructure and visitor facilities / activities within the Park. Vital information pertaining to existing activities and infrastructure are contained in this document.

4.6.2.2 WILDERNESS AREA MANAGEMENT PLAN

As an integral part of the management objectives of the IMP, a comprehensive plan for the effective management and sustainable use of Wilderness has to be developed. This refers to the Wilderness Area Management Plan as a management strategy. The Park has adopted zonation for implementing management and recreation opportunities, and is an internationally accepted practice. The Park is divided into the Pristine Wilderness, Primitive Wilderness, Semi- Primitive Wilderness, low-use zone, moderate use zone, tourism and park infrastructure, SCAP buffer, WHS Buffer zone. The final management zonation is a composite of ecological zonation (based on natural and cultural resource sensitivity), sense of place, cultural features, patterns of environmental settings, and existing development and use patterns.

FIGURE 5: UDP WHS ZONATION



Source: http://www.kznwildlife.com

4.6.3 MALOTI-DRAKENSBERG TRANSFRONTIER PROJECT

The Park is also a key component of the Maloti-Drakensberg Transfrontier Project, which has been initiated as a collaborative venture by the governments of Lesotho and South Africa. This project is an attempt to secure the future of biodiversity and cultural heritage assets of the Maloti-Drakensberg bioregion. On the South African side, the project area extends from Clarens in the Free State, via the uKhahlamba-Drakensberg Park World Heritage Site and its surrounds through to Ongeluks Nek Nature Reserve in the Eastern Cape. It contains a number of state protected areas, as well as extensive tracts of community and privately owned land.

4.6.4 SPECIAL CASE AREA PLAN FOR THE DRAKENSBERG

The introduction of the "Special Case Area Plan for the Drakensberg" (SCAP) was, however the first approach to use the Buffer Zone designation. This document was produced by the KZN Town and Regional Planning Commission in February 2001. The Special Case Area Plan for the Drakensberg (Metroplan. 2001) was a project commissioned by the then Town and Regional Planning Commission to determine the balance between promoting co-ordinated development and job creation, while at the same time, protecting the unique natural resources of the area. The DAP was subjected to critical assessment and review during the SCAP process. The SCAP identifies the following zones relevant to Okhahlamba:

→ Resource conservation areas;

→ Agricultural areas;

→ Buffer areas;

→ Buffer settlements;

→ Tourism development nodes;

→ Settlement nodes (Okhahlamba IDP 2011/12).

4.6.5 DRAKENSBERG POLICY STATEMENT

The Drakensberg Policy Statement was developed in 1976.

It divided the Drakensberg into four zones, namely, the Wilderness Heart, Landslide Zone, Trail Zone and Drakensberg Threshold.

→ The Wilderness Heart and Landslide Zone are more sensitive and should be strictly protected.

→ The Trail Zone and Drakensberg Threshold are collectively known as the Drakensberg Approaches. The Drakensberg Policy Statement advocated that the Approaches be used primarily for agriculture and forestry. Recreation was seen as a secondary activity where compatible with the primary activities. Planned recreation in the Threshold Zone should be limited to development in designated areas.

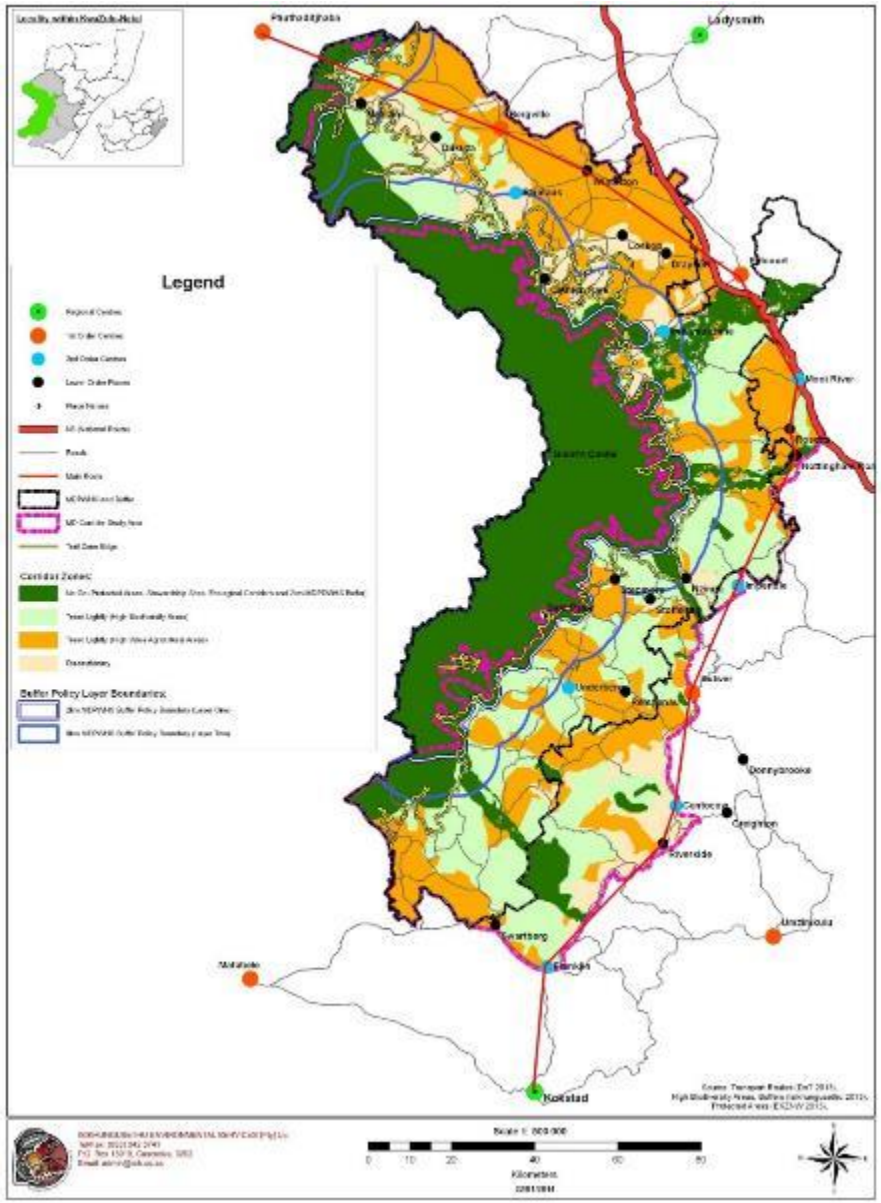
4.6.6 DRAKENSBERG APPROACHES POLICY

It is within this context that the Drakensberg Policy Statement together with the Drakensberg Approaches Policy were developed as the official policy statements for the Drakensberg area. The Approaches Policy describes the recreational development policy for the area adjacent to the Drakensberg, which is to be used to guide the identification of suitable areas for development. The Approaches Policy identified high intensity recreational development nodes, which includes Babangibone (north), Cathkin Park (central) and Garden Castle (south). The intention of these nodes were to direct recreational development to planned "pockets" in order to ensure distribution of recreational development and activities evenly along the Drakensberg, and create a balance between environmental conservation and tourism through the provision of these recreation nodes (SDF, 2013). To this end, a Town Planning Scheme was developed for Cathkin Park, to guide future development within this node. (Drakensberg approaches Policy, 1990).

4.6.7 THE MALOTI-DRAKENSBERG CORRIDOR FRAMEWORK

The Corridor Framework Plan was developed within the context of the need to align overlapping mandates of different spheres of government. This was undertaken with due cognisance of the implications of the uKhahlamba Drakensberg Park World Heritage Site and the World Heritage Convention Act (No. 49 of 1999). The purpose of the Corridor Framework is stated as follows:

MAP 3: CORRIDOR FRAMEWORK PLAN- REGIONAL SPATIAL FRAMEWORK PLAN



"The purpose of the initiative was to facilitate the alignment of planning in the Maloti-Drakensberg region by means of national and/or provincial statutory mechanisms. The anticipated outcome' was to be a plan that aligned the implementation of existing management tools in order to promote sustainable development (Local Government: Municipal Systems Act (No. 32 of 2000) Section 1) in the region."

The framework intends to provide a set of broad spatial zones, concepts and rules, which should guide future development of the region. The Corridor Framework Plan seeks to ensure a healthy balance between development and the environment by promoting sustainable development (including services) in defined locations to enhance the well-being of its inhabitants.

4.7 IMPLICATIONS FOR THE OKHAHLAMBA SDF

National, provincial, district and local spatial planning policies introduce a set of principles that are intended to influence the substantive outcomes of planning decisions. These could relate to spatial development frameworks or decisions on land use change or development applications. The overall aim of these principles is to achieve planning outcomes that:

→ restructure spatially inefficient settlements;

→ promote sustainable development and use of natural resources;

→ channel resources to areas of greatest need and development potential;

→ redress inequitable historical treatment of marginalized areas;

→ stimulate economic development opportunities in rural and urban areas;

→ support an equitable protection of rights to and in land; and

→ comply and integrate with Drakensberg policies and approaches that guides development in the area.

For the desired or ideal spatial and economic system, Okhahlamba Local Municipality needs to work in conjunction with the relevant organs of state and civil society, so to achieve efficient spatial planning within its area of jurisdiction. This emphasises the importance of public participation and cooperative governance. To this end, land development should address the local interests. It should generate a wide range of economic development opportunities and provide a choice of living environments along a continuum from conditions of intense public environments to conditions of great privacy. It enables members of the public to conduct their daily activities quickly, easily and cost effectively while also promoting equitable access to opportunities.

5 SPATIAL ANALYSIS

Okhahlamba LM has a number of challenges to overcome in the promotion of integrated and equitable development. This is despite several attempts and the progressive achievement of this goal through the implementation of the municipality's IDP and sector plans, as well as other development programmes from other spheres of government.

This section presents an assessment of the spatial trends and patterns within the Okhahlamba LM, and provides background information on the spatial strategy.

5.1 SETTLEMENT PATTERN

The Okhahlamba LM is marked by a settlement pattern that predominately runs along the foothills of the Drakensberg mountains. The majority of the settlements are rural in nature and are dispersed in space. The more dense settlements are seen to be strategically located along movement routes and in Traditional Council Areas. The settlements found within Okhahlamba LM can broadly be categorised as follows:

→ Formalised urban settlements in established towns. These include Bergville and Winterton, as well as the formalised area of Khetani, which forms part of Winterton;

→ Rural Settlements located in Traditional Council Areas and on communal land.

→ Rural Settlements located on private land.

→ Tourism Related Settlements/village, such as Cathkin Park.

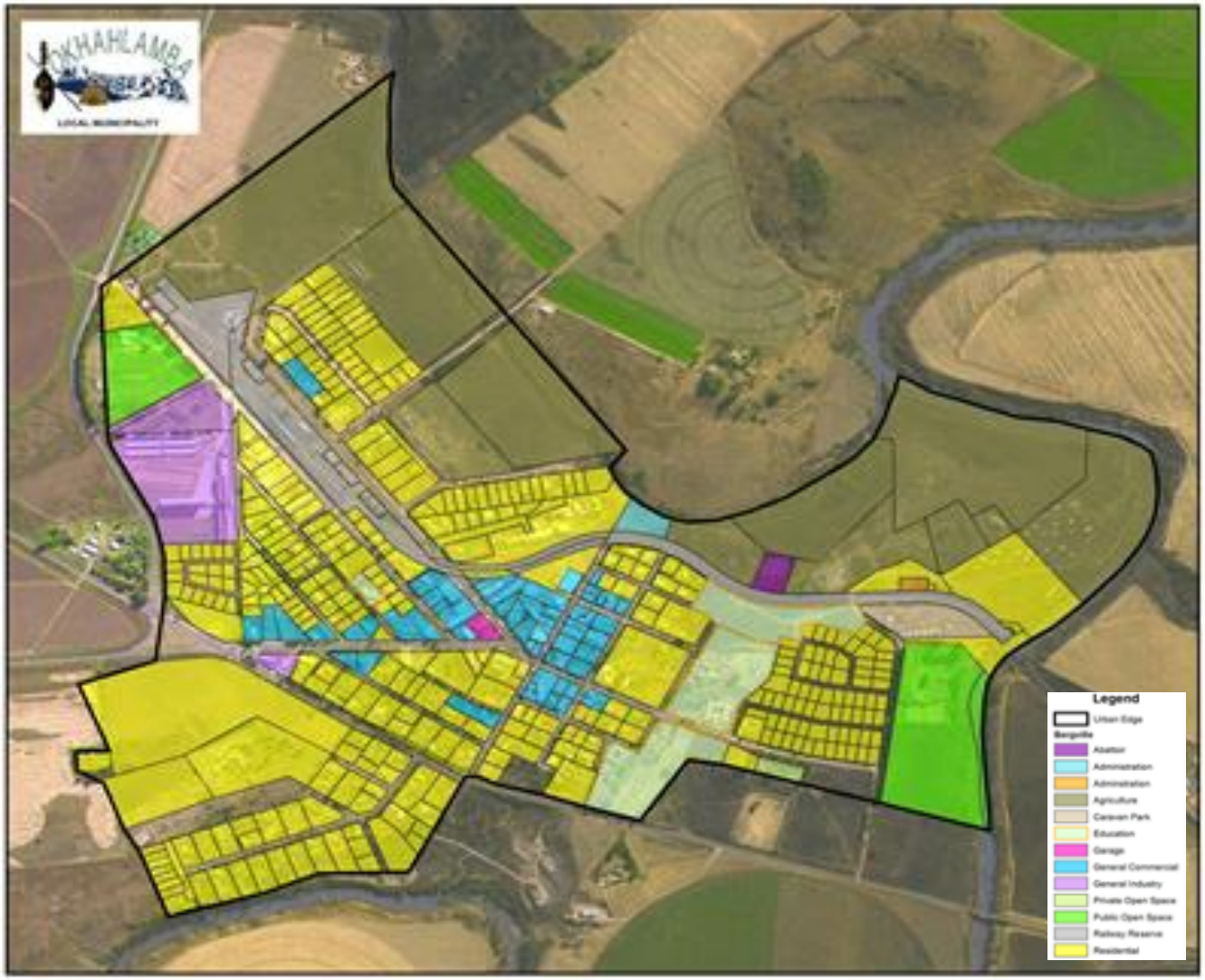
5.1.1 URBAN SETTLEMENTS (SMALL TOWNS)

5.1.1.1 BERGVILLE

The small town of Bergville is located on the foothills of the Drakensberg along the R74, which is accessible from the N3. It is considered to as the gateway to the northern Drakensberg, being located on the more scenic R74 route that traverses the Olifantshoek Pass. The town was established in 1897 and is surrounded by commercial agricultural land. It is the biggest town in the northern Drakensberg area and functions as a tourism centre, as well as a service centre to the surrounding farming community. It is identified as the primary node and commercial and administrative hub of the Municipality. With the exception of the Bergville Town Planning Scheme and the recently completed Urban Design Concept, Bergville does not have any strategic framework to guide its future development.

The town is bounded by the Tugela River in the east, the Sandspruit forming the northern boundary and the R616 forming the western boundary. A portion of the R74 forms the southern boundary, with some development to the south and southwest of the R74.

FIGURE 6: BERGVILLE



The majority of development and the town centre are located to the north of the R74. The town centre, located mainly along South, Tatham and Broadway Streets, forms the nucleus of the town. The town centre is developed with a range of services, municipal offices, provincial government offices, schools, police station, magistrate's court and various stores and shops. Residential development forms the fringes of the town.

The town centre is however facing a number of challenges.

These are typical urban regeneration challenges and include urban decay, informal trading, parking, conflict between pedestrian and vehicular traffic, road maintenance etc.

5.1.1.2 WINTERTON AND KHETANI

FIGURE 7: WINTERTON

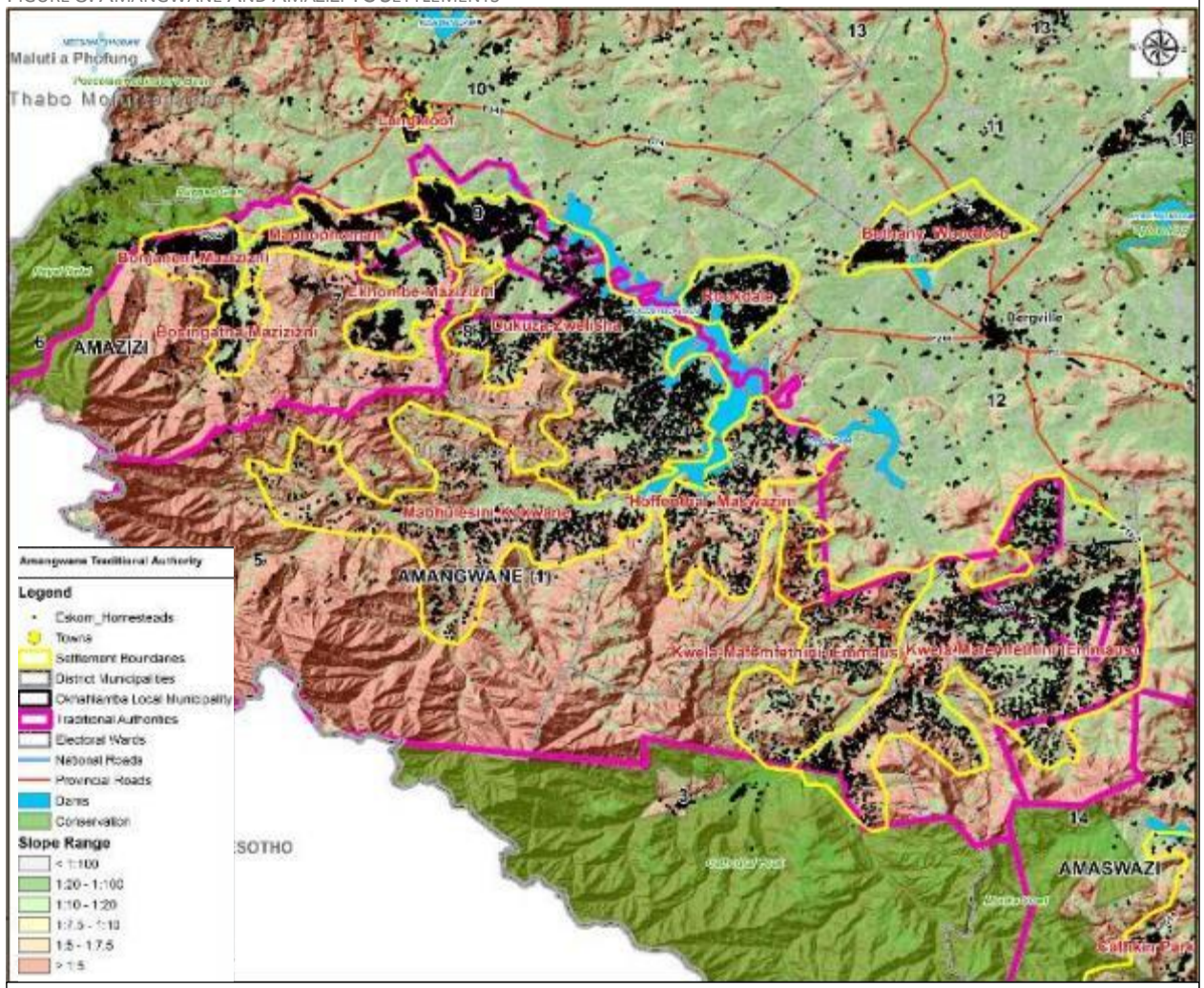
Winterton is considered as a low-key services, housing and administrative centre. It is located along the R74, between the N3 and Bergville and provides access to the central Drakensberg area (Champagne Castle and Cathedral Peak). The R600 links Winterton to the Cathedral Peak area. The R74 traverses the older part of Winterton, established in 1905 and originally known as Springfield. The town has however grown and expanded to the west of the original town.

The Little Tugela River separates this area, known as Khethani, from the older town. This is mainly a residential development, established as part of low-cost housing programme. The town centre of the original town is very small and limited to a few business activities located along the R74.

5.1.2 RURAL SETTLEMENTS

5.1.2.1 RURAL SETTLEMENT ON COMMUNAL LAND

FIGURE 8: AMANGWANE AND AMAZIZI TC SETTLEMENTS



Basic services tend to be concentrated only in some areas of the municipality and bulk infrastructure tends to be located along main roads. As a result, people move closer to the road and locate along the ridgeline and in close proximity to public facilities.

The majority of rural settlements are located within the Traditional Council areas of Amazizi and Amangwane. It is noted that some parts of the Amazizi area were 'betterment planned', but the majority of these two northern traditional areas were not planned. (Maluti Drakensberg Corridor Framework, 2014). As a result, settlement patterns have followed the major transportation routes.

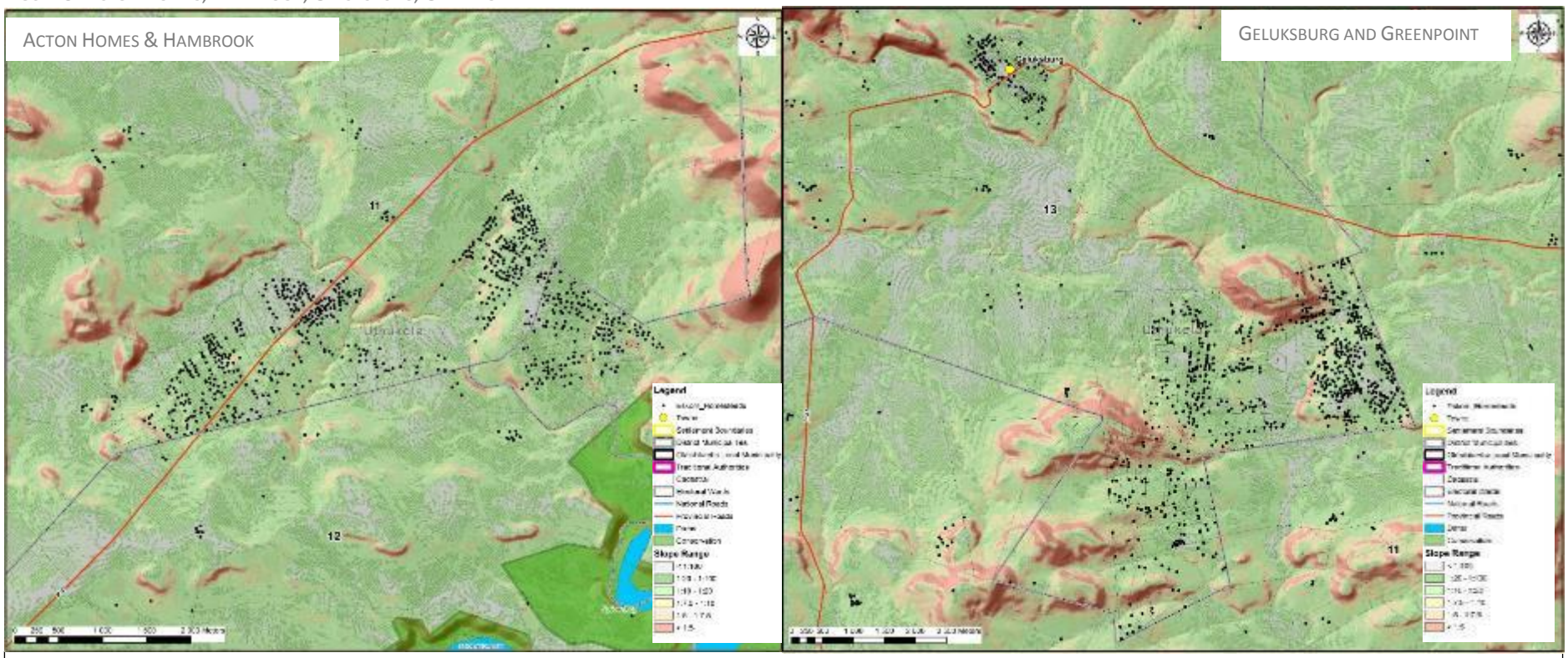
Although some of these settlements can also be categorised as 'dense settlement' they differ in character and structure from the urban areas. The location of homesteads in these areas mirrors the general settlement pattern, and is a result of traditional land allocation practices. It is highly influenced by access routes, rugged terrain (uneven topography) and social structure. Settlements tend to develop or concentrate along ridgelines and create a complex web. This is usually where transport routes run, which provides people with easy access to public transport that links them to areas that provide a range of services and public facilities.

In addition, access to basic services and public facilities (schools, clinics, etc.) are emerging as critical factors in the growth and expansion of rural settlements. People thus tend to locate closer to areas where basic services are available and where a range of public facilities can be accessed.

5.1.2.2 RURAL SETTLEMENT ON PRIVATE LAND

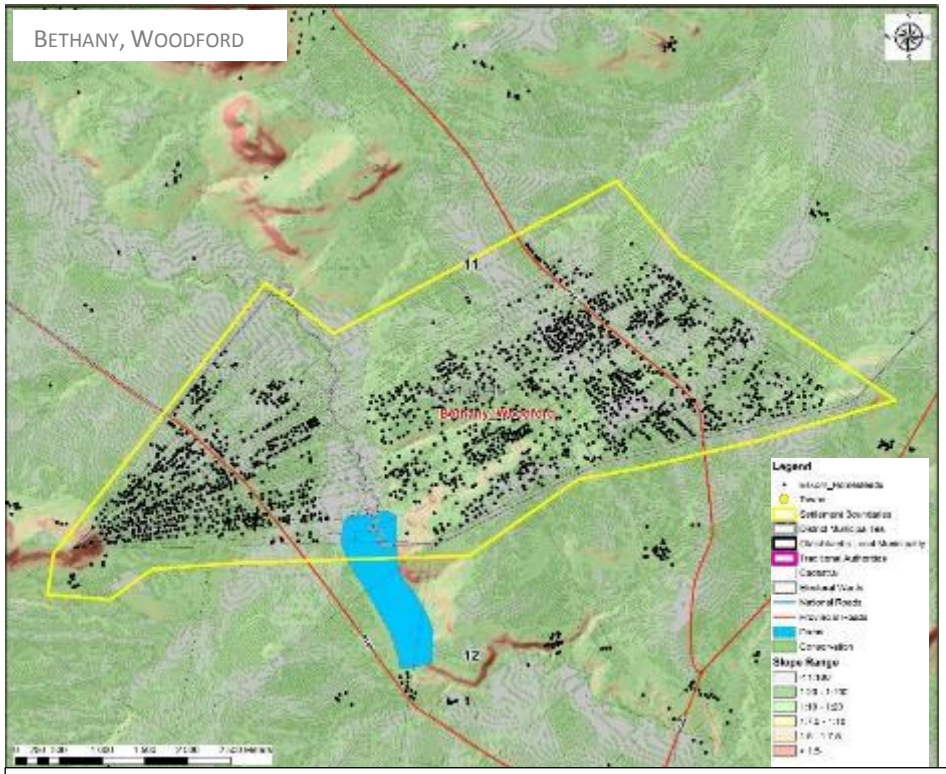
There are also a few rural settlements located on private land. These include Woodford, Bethany, Hambrook, Rookdale and Greenpoint.

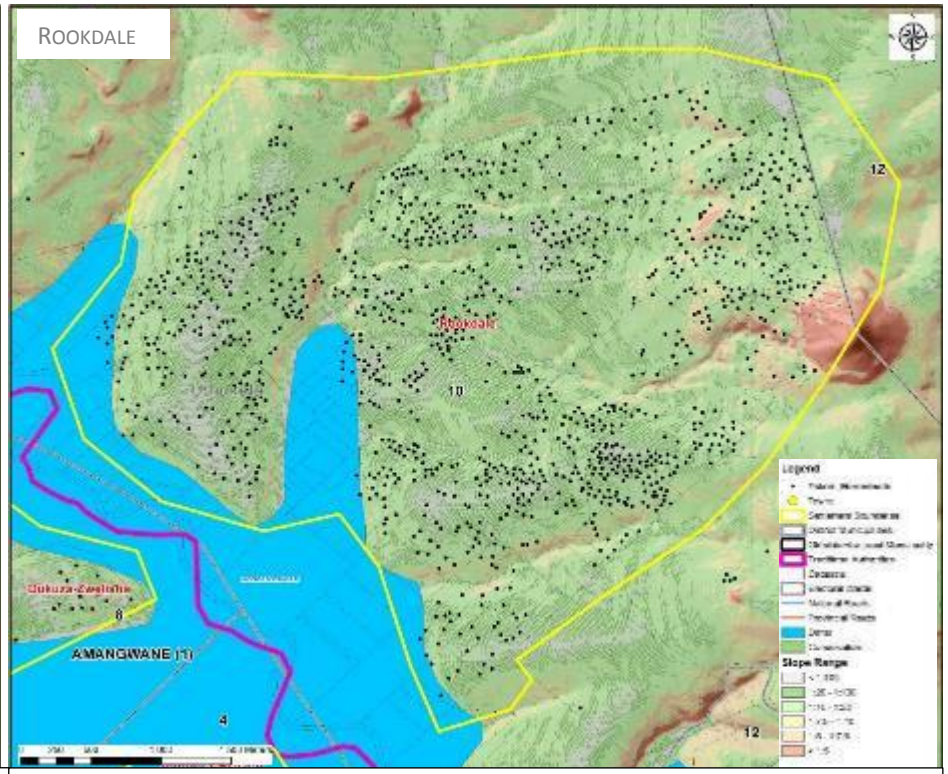
FIGURE 9: ACTON HOMES, HAMBROOK, GELUKSBURG, GREENPOINT



The farmer, known as Peter Greene, whom the settlement is subsequently named after, established the Greenpoint settlement in approximately in 1989 credit to the selling off portions of a farm. Individual landowners with proper title deeds own the land, which they occupy. Settlers that are more recent settled on the land through verbal agreements to occupy the land from the landowner. The individual landowners have formed a communal farm and appointed a board of trustees, who manage the land. If there is a land dispute or discrepancies in the land allocation process, the board of trustees intervenes. The rationale behind the first settlers occupying this land was the location of the area in close proximity to farms, which provided employment and where they could also purchase cattle and products produced by the farmers.

FIGURE 10: BETHANY, WOODFORD AND ROOKDALE





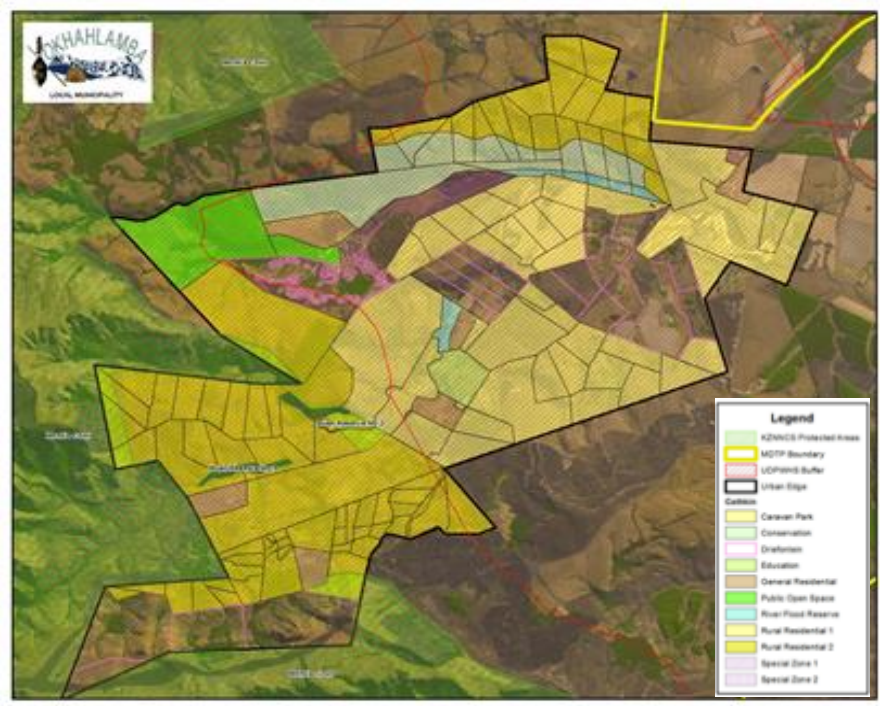
The communities of Bethany and Hambrook reside on privately owned farms. These farms vest in the ownership of black landowners. Most of the landowners obtained this land by maintaining very close relationships with the white farmers and staying loyal to them, hence the farmers ended up subdividing plots of land and donating it to them. Others bought the land from the white farmers. Most of the people who live here came to settle there because they had problems at farms. The people residing on these farms are tenants to these landowners, hence it can be deduced that these communities have rights to occupy the land they occupy. However, challenges are experienced particularly when it comes to obtaining land and securing development rights as most of the land owners live in other cities.

The community of Rookdale resides on privately owned farms. These farms vest in the ownership of black landowners. The people residing on these farms are tenants to these landowners. Hence, it can be deduced that the community has rights to occupy the land they occupy. However, challenges exist, as some of the landowners do not have proof, in the form of title deeds, that they own the land. The landowners also limit the community in terms of built form and the kind of structures they can erect on their properties. The landowner are also reluctant to allow housing developments funded by the Department of Human Settlements on their properties. The landowners have been found to halt development projects numerous times.

5.1.3 TOURISM SETTLEMENTS/VILLAGE

Cathkin Park is located to the southwest of Winterton and is accessed via the R600. The Okhahlamba SDF (2012) and the Drakensberg Approaches Policy identifies Cathkin Park and Babamgibone (in the north) as tourism nodes. Locations of growing significance for tourism also include the Mnweni Valley area. Development in Cathkin Park is controlled through a Town Planning Scheme.

FIGURE 11: CATHKIN PARK



5.1.4 SETTLEMENT DENSITY

The majority of the municipal area is characterised by low-density settlements. Some of the lowest densities are found in rural settlements, as follows:

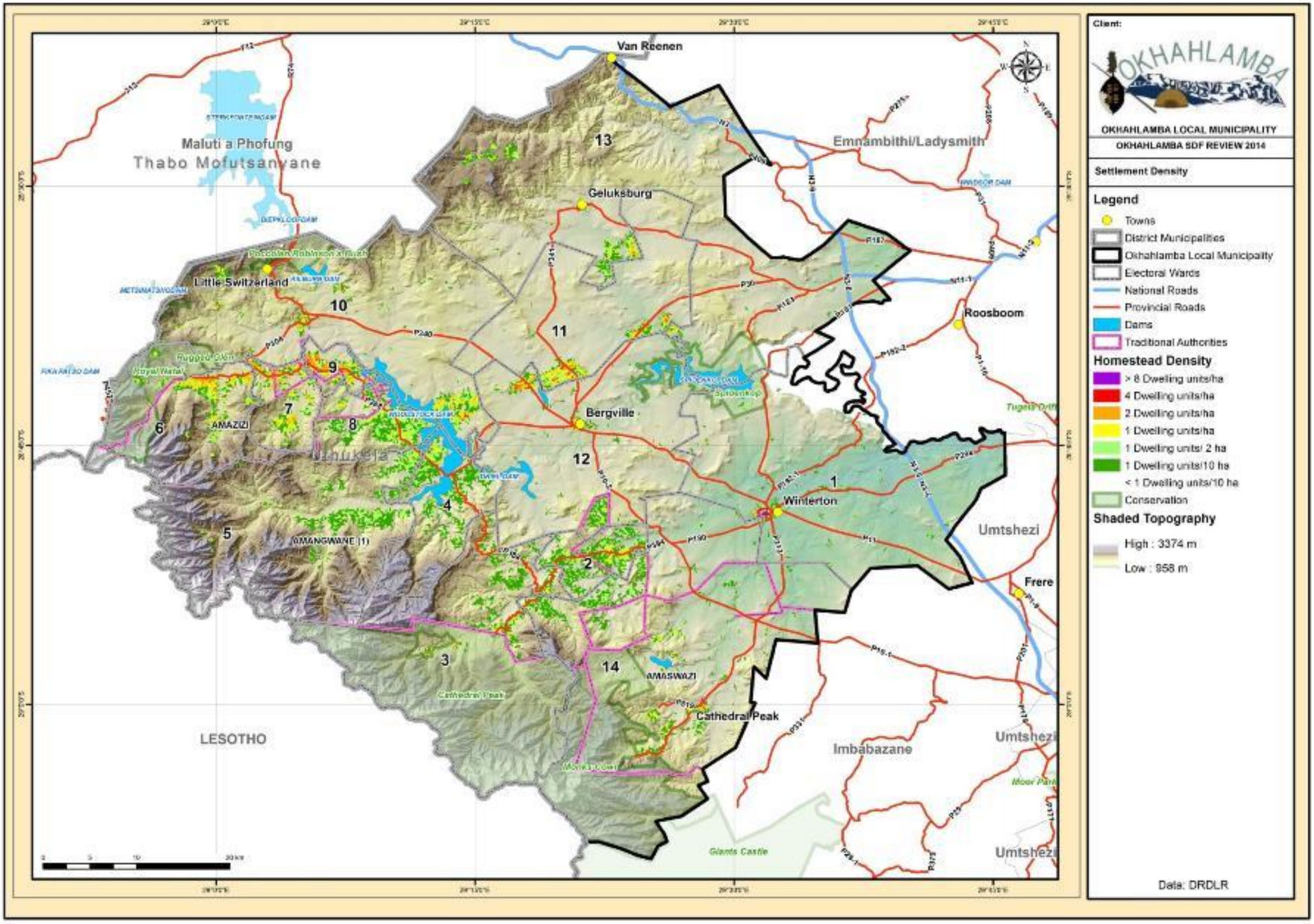
→ Along the R288 in the northern parts of the Amazizi Traditional Council in the Zwelisha area. Here, densities range between 1 to 4 dwellings units per hectare, which can be roughly translated to 2 500 m^2 – 10 000m^2 sites.

→ Another low-density area is in the Woodford / Bethany area (north of Bergville). In Woodford, densities range between 1 to 4 dwellings units per hectare. In Bethany, similar densities are found in certain areas, but even lower densities of 1 dwelling unit per 2 hectares are found in the central part of the settlement.

→ In the Rookdale settlement, densities range between 1 to 4 dwellings units per hectare. Similar densities are found in Hambrook.

→ A general trend in these settlement densities seem to be that the densities around the or furthest away from the transportation routes, tend to have even lower densities of 1 dwelling unit per 2 hectares and 1 dwelling unit per 10 hectares.

MAP 4: SETTLEMENT DENSITY



→ Higher settlement densities are found in Bergville and Winterton, where certain areas in these towns have more than 8 dwelling units per hectare. This can be roughly translated to 1250 m^2 sites. This is especially evident in Khetani (Winterton), where site sizes starts at 300 m^2.

5.2 BROAD LAND USE PATTERN

5.2.1 COMMERCIAL AGRICULTURE

Land occupied by commercial agricultural practices, covers approximately 56448.34ha or 14.2% of the geographic area of Okhahlamba. It extends as a central band from the eastern boundary to the northwest. Subsistence agriculture occurs along the foothills of the Drakensberg in the Traditional Council areas.

Commercial forestry is found to the south of the municipality around Cathkin Park and Emmaus and covers 6320.84ha or 1.6% of the geographic area. Other commercial agriculture is represented by orchards (86ha). The potential commercial agriculture category refers to grassland, covering 230160.36ha or 58% of the municipal area. Clearly, this is the land use presenting significant potential for development.

5.2.2 SETTLEMENTS

Settlements are located primarily within the central band, with a concentration in the south-west along the foothills of the Drakensberg. Settlements are predominantly along transport routes and in the Traditional Council areas.

It has been noted that there has been an accumulation of settlements around Emmaus area and around Woodford Dam.

Settlements cover approximately 29064.60ha or 7.3% of the geographic area and include low density, dense and rural settlements. Rural settlements seem to be the predominant settlement type, representing 4.85% of the settlement category.

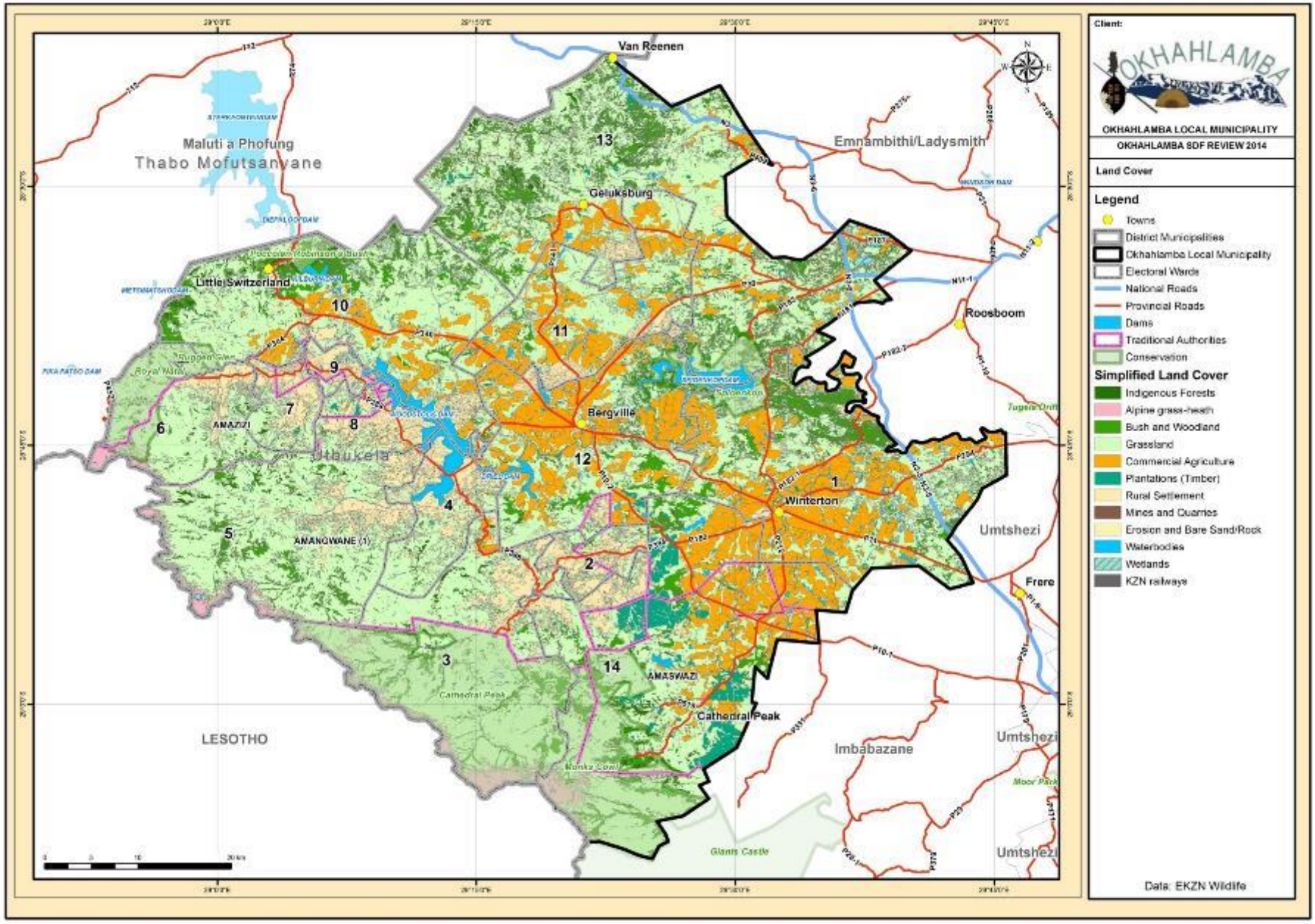
Urban settlements include the areas of Bergville, Winterton, Cathkin Park and Khethani. These settlements are formalised urban areas, being the main economic and administrative centres in Okhahlamba. Land uses within the main urban centres include residential, commercial, industrial and a range of other complementary land uses. These areas provide higher levels of social and infrastructural services.

5.2.3 ENVIRONMENTAL AREAS

Approximately 15.6% of the municipal area's land use is taken up by environmental areas, which includes natural areas, water bodies, dams and wetlands. Bush and woodland covers 41130.63ha (10.35%), forests cover 4470.14ha or 1.13% and water bodies covers 10169.52ha or 2.5% of the geographic area.

The main dams within the municipal area includes the Woodstock dam, the Spioenkop dam, the Driel dam and the Kilburn dam.

MAP 5: LAND COVER



The key river arising in the Okhahlamba area is the Tugela River, which rises in the Drakensberg Mountains near Bergville. There are also a number of wetland systems distributed throughout the municipality. Wetlands are of major importance for nature conservation and protection of the majority of these wetlands is critical.

Conservation and protected areas include formally managed public and private conservation areas and are indicated in the table below.

TABLE 1. CONSERVATION AREAS

Protected Area	Category	Area (ha)
Poccolan Nature Reserve	Provincial Nature Reserve	1 093
Robinson's Bush Nature Reserve	Provincial Nature Reserve	165
Cathedral Peak (UDPWHS)	State Forest1	25 185
Rugged Glen (UDPWHS)	Provincial Nature Reserve	416
Royal Natal (UDPWHS)	Provincial Nature Reserve	6 935
Monks Cowl (UDPWHS)	State Forest	17 803
Spioenkop Nature Reserve	Provincial Nature Reserve	5 439

Source: Uthukela Biodiversity Sector Plan

5.3 SPATIAL ECONOMY

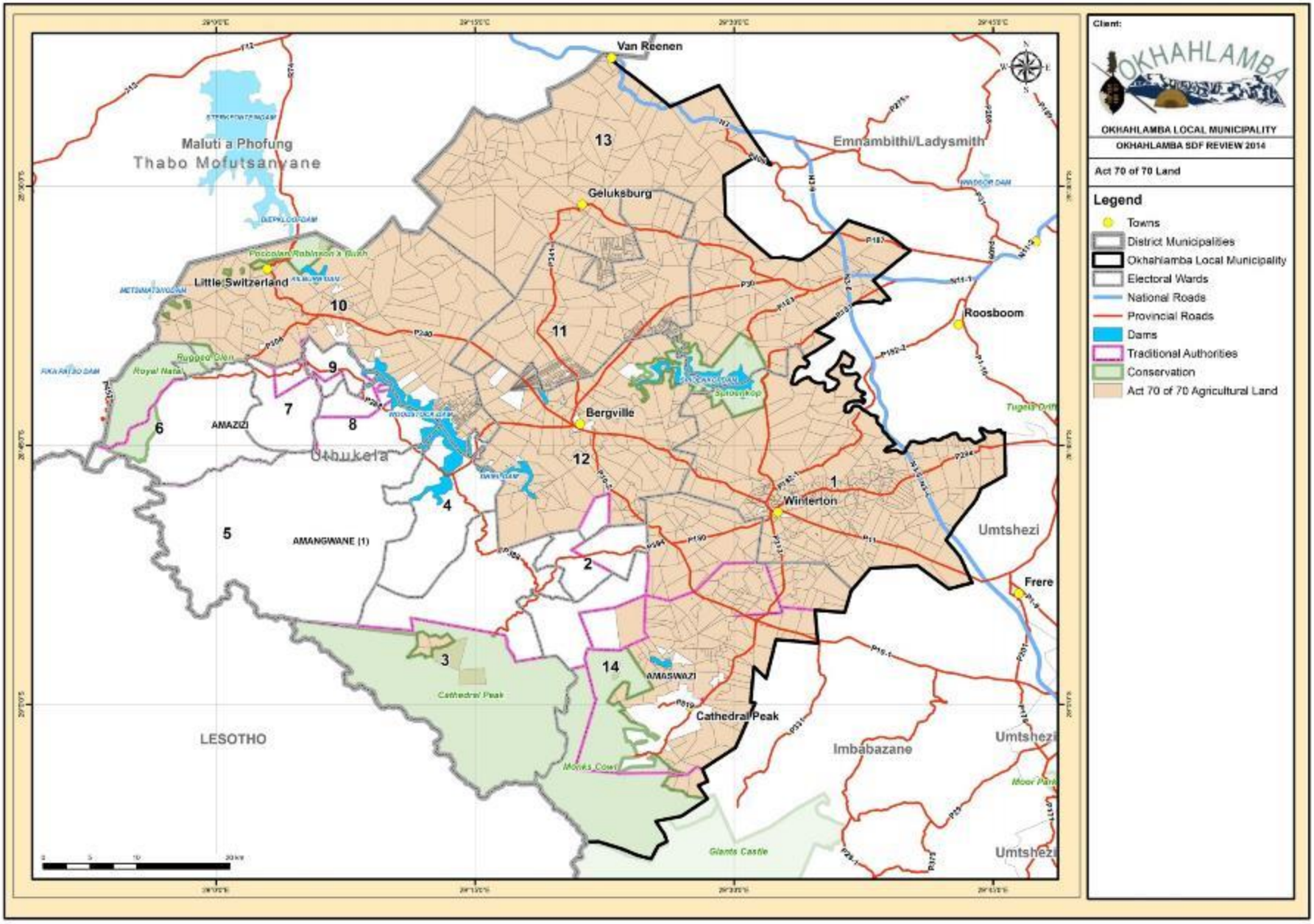
5.3.1 AGRICULTURE

According to the Okhahlamba LED Strategy (2013), agriculture contributed R357 million to the economy of Okhahlamba in 2011 and employed 2 718 people. The sector had an average annual growth rate in GVA of 6% for 2001 to 2011, although employment growth was negative at -8% per annum. The sector contributed 11% to total GVA and 10% to employment within the municipality in 2011. The municipality's agricultural sector contributed 38% to total agricultural GVA of the district in 2011, down from 48% in 2001. Employment in the Okhahlamba agricultural sector as a proportion of total agricultural employment in the district also decreased from 47% in 2001 to 34% in 2011. (Okhahlamba LED Strategy, 2013). Despite negative trends in agriculture, it remains one of the most important economic sectors within Okhahlamba Local Municipality.

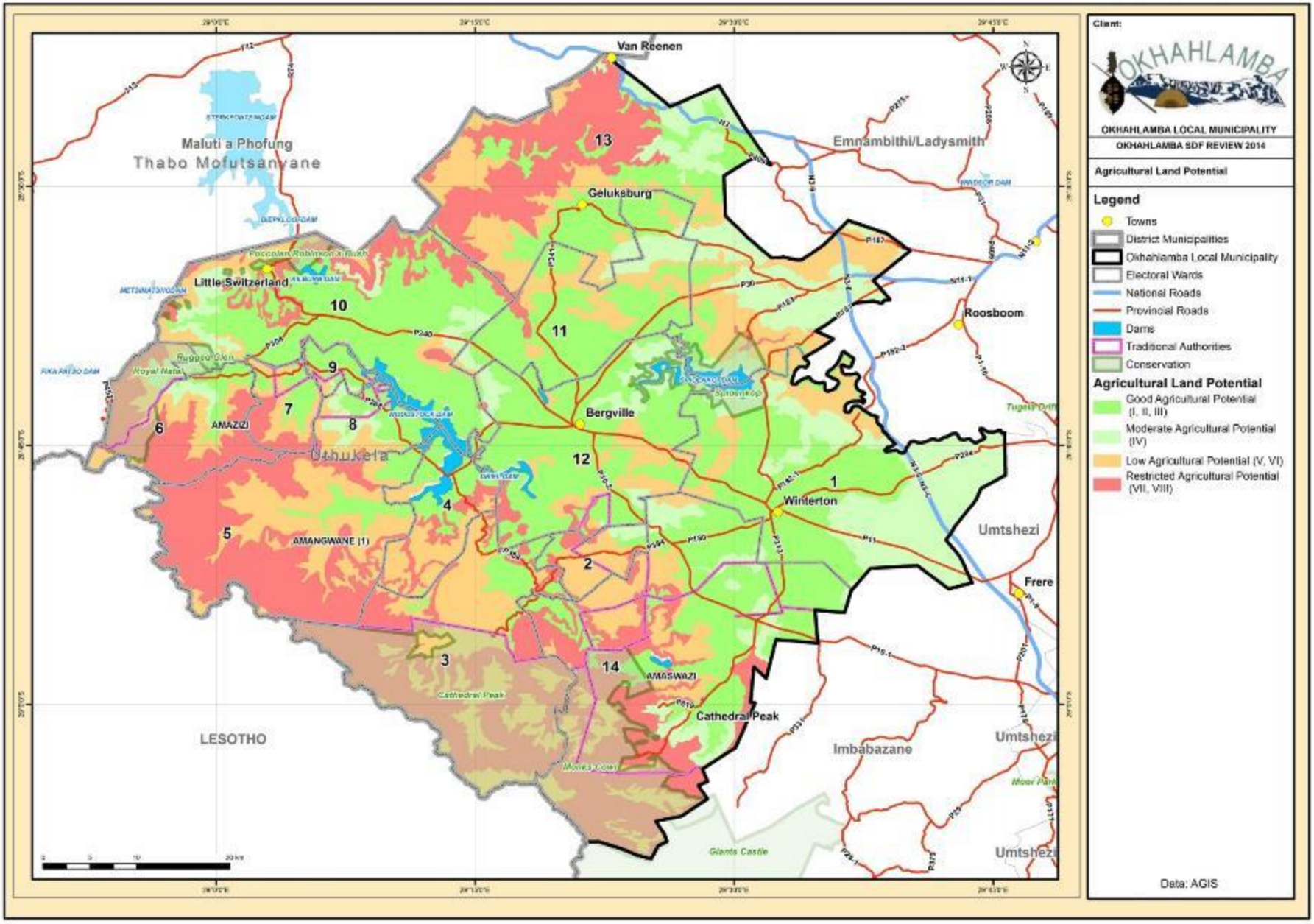
The majority of the municipal area is classified as agricultural land, according to the (map 6). This is according to the National Department of Agriculture's database (Department of Agriculture, Forestry and Fishery's Agis-Agri Data Base) of all land to which Act 70 of 1970 applies. This database provides a clear indication of land that is classified as agriculture and subject to the provision of the Subdivision of Agricultural Land Act, Act 70 of 1970.

According to map 7, the majority of the central part of the municipal area consist of good agricultural potential land. Agricultural potential of areas to the south–west and northeast of the municipality is limited by the topography of steep mountain slopes (Drakensberg) that are only suitable for grazing, forestry and wildlife and have low or restricted agricultural potential. As discussed under land use, commercial agriculture is prevalent within the central band running from north-west to south-east, which is consistent with the good potential agricultural land.

MAP 6: AGRICULTURAL LAND UNDER ACT 70/70



MAP 7: AGRICULTURAL LAND POTENTIAL



→ Commercial forestry (plantations) is found to the south of the municipality around Cathkin Park and Emmaus areas.

→ Subsistence farming is prevalent within the municipality, with the main agricultural activity being traditional ranching of cattle. However, over-grazing and stock theft negatively impact on this type of activity. Smallholder agriculture also consists of maize, dry bean and vegetable production on a small scale and there is potential to produce a surplus for the market. (Okhahlamba LED Strategy, 2013)

5.3.2 INDUSTRY

Industrial land uses are mainly located in the urban areas of Bergville and Winterton and focus mainly on the service industry. Limited general industrial sites are available in Bergville and Winterton. Agricultural industries are located on farms, which allows for the processing of commodities.

5.3.3 TRADE AND COMMERCE

The commercial sector in Okhahlamba can be divided into the formal and informal sector. The formal sector is represented by formal businesses, operating from formal business premises in Bergville and Winterton, which are regulated by the current Bergville and Winterton Town Planning Schemes and by-laws.

The informal sector, on the other hand, operates mainly from temporary structures in areas close to taxi ranks and public facilities, such as clinics in rural areas. A fair amount is also found in traditional authority and communal areas where it occurs in the form of spaza shops, containers and trading stalls.

Wholesale and retail trade was the third largest sector in the municipality in 2011 in terms of GVA contributing R392 million and employing 5 092 people. The sector had an average annual growth rate in GVA of 9% (2001-2011), with employment growth at 4% per annum. (Okhahlamba LED Strategy, 2013)

5.3.4 TOURISM

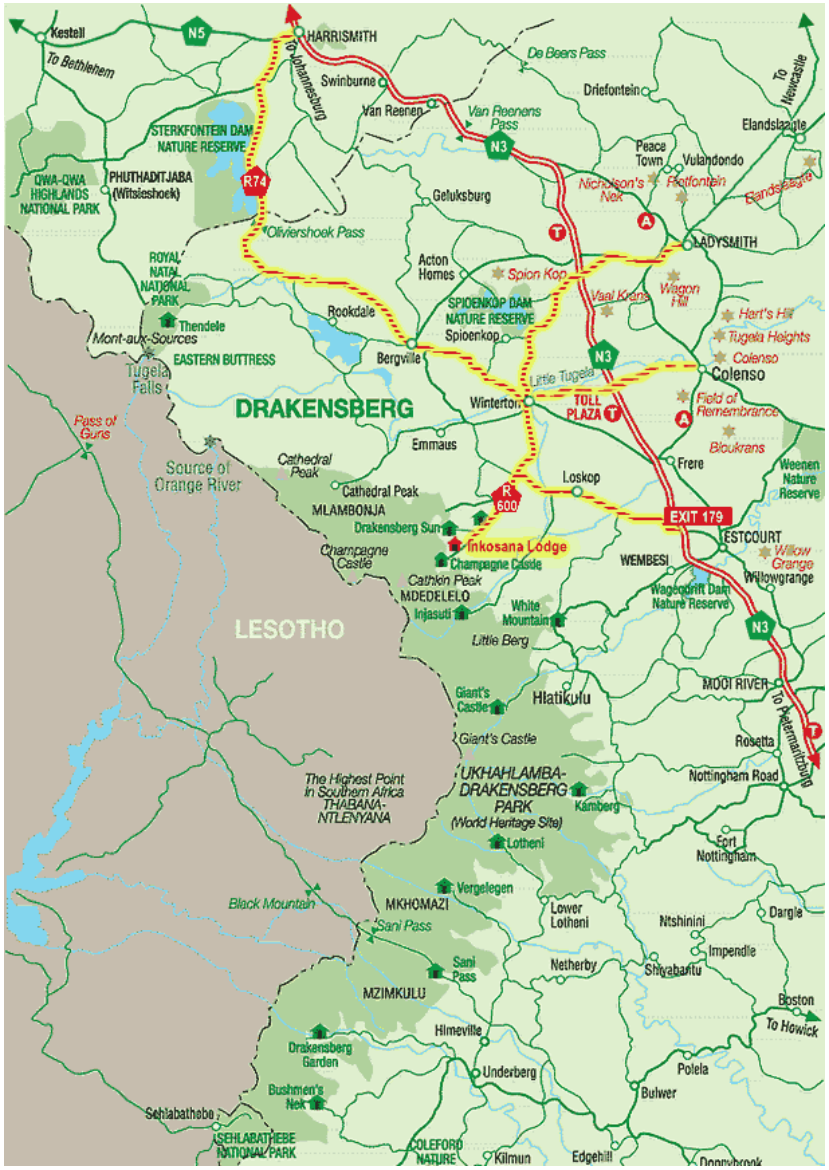
Tourism is increasingly becoming an important key sector within the Okhahlamba Local Municipality. It is playing an important role in the local economy of the entire municipal area, with the wide asset base including a range of accommodation facilities, outdoor sporting and recreational activities. The main tourism destinations in the Okhahlamba region include Cathkin Park, Cathedral Peak, Royal Natal National Park, Spioenkop Dam and the uKhahlamba-Drakensberg Park World Heritage Site (UDPWHS). Locations of growing significance for tourism include the Mnweni Valley area, Okhombe and Busingatha Valley. In addition, the Drakensberg Cableway is envisioned as a world-class tourism attraction in the Busingatha Valley, just south of Royal Natal National Park. The proposed location of the top station is close to

the most visited area of the high Drakensberg World Heritage Site (http://www.drakensbergcablecar.co.za). Overall the Okhahlamba local Municipal area represents (especially in partnership with surrounding areas e.g. Lesotho) one of the primary tourism potentials of South Africa (IDP, 2014/15).

Okhahlamba Local Municipality serves as a base for the exploration of these two tourism destinations and has a geographic advantage in terms of access to some of the most popular destinations within the Drakensberg. The UDPWHS is a World Heritage Site and a world acclaimed tourist destination. It is renowned for the Drakensberg Mountain, Bushman paintings, nature reserves, and a wealth other natural attractions.

Research conducted by Tourism KwaZulu-Natal indicates that 2% of KwaZulu-Natal's foreign tourists visited the Drakensberg in 2013. It is estimated that approximately 16 943 foreign tourists either visited or passed through Okhahlamba in 2013.

FIGURE 12: DRAKENSBERG TOURISM



In terms of the domestic tourism market, it could be estimated that 12% of domestic trips to the Drakensberg (approximately 852 000 domestic tourists) were undertaken in 2013, with an average of 2 trips. (KwaZulu-Natal Tourism Authority, 2014).

5.4 LAND OWNERSHIP PATTERN

The land ownership pattern, demonstrates multiple tenure rights, which range from freehold to communal and state land.

5.4.1 INGONYAMA TRUST LAND

There are two traditional council areas in Okhahlamba where land is administered by the Ingonyama Trust. This accounts for approximately is 91885ha of land. These areas include the Amazizi Traditional Council, located to the west of the municipality at the foothills of the Drakensberg, and the Amangwane, a larger Traditional Council area located from the western boundary towards the eastern boundary along the foothills of the Drakensberg. It incorporates the Mnweni Valley, which is the only area of the Drakensberg that is not under regulation by Ezemvelo KZN Wildlife.

5.4.2 PRIVATELY OWNED LAND

The majority of the land in the Municipality is in private ownership (see map 8). This includes a range of categories, which are in private ownership, such as:

→ Agricultural land and agricultural smallholdings;

→ Residential land uses such as privately developed estates, rural residential, residential smallholdings, residential uses, homesteads;

→ Tourism facilities in the urban and rural context;

→ Business, commercial and industrial uses.

5.4.3 STATE LAND

There are a number of land parcels that belong to government within the urban and rural areas. These include the following:

→ Municipal land;

→ Unregistered and un-surveyed state land like reserves;

→ Province of KZN;

→ KZN Education Department;

→ KZN Department Of Health;

→ Regional and Land Affairs;

→ Department of Transport;

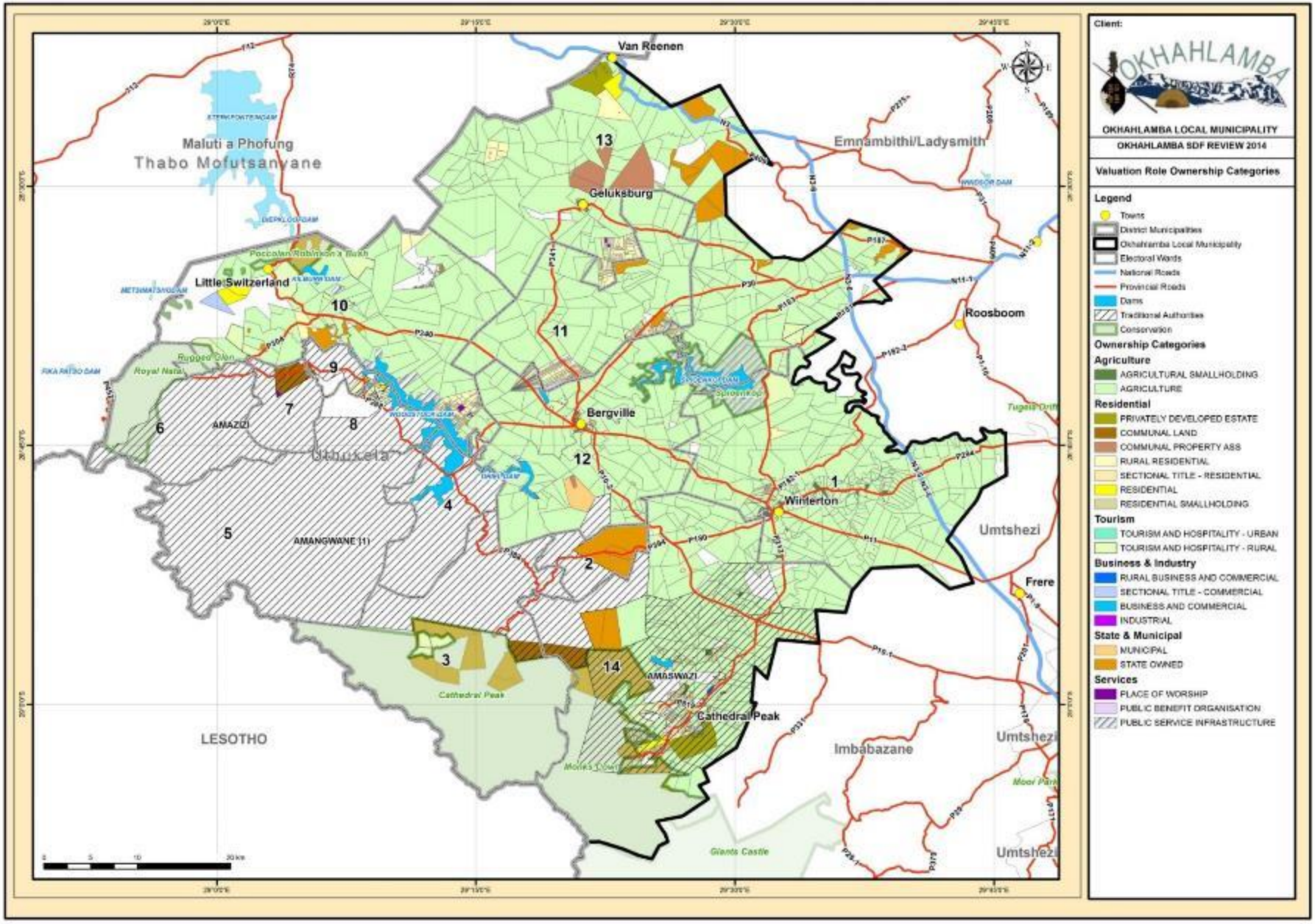
→ Department of Water Affairs.

5.4.4 SERVITUDES

There are properties, which belong to the parastatals. These mostly include public service infrastructure:

→ Railway lines, servitudes and properties that belong to Transnet.

MAP 8: LAND OWNERSHIP



→ There are also a number of electricity servitudes and sub-stations that belong to Eskom.

→ Properties that accommodate the telecommunication infrastructure are under Telkom.

→ Road infrastructure that belong to SANRAL.

5.4.5 COMMUNAL PROPERTY ASSOCIATIONS

The implementation of the land reform programme has resulted in large tracks of and being registered in the name of the communal property associations (CPAs) representing the beneficiary communities. The key challenge with this form of ownership is that it subjects individuals to the will of the majority, and requires decisions relating to the development of land to be taken communally. The following Communal Property Associations are registered as owners in the municipal valuation roll.

→ FelokwakheHlatshwayo Communal Property Association.

→ Maqeleni Communal Property Association.

→ Thembisa Communal Property Association.

→ Vezukukhanya Communal Property Association.

→ Zwelethu Communal Property Association.

5.5 LAND USE MANAGEMENT

The Planning and Development Act, 2008 (Act No. 6 of 2008) read with the Spatial Land Use Management Act, 2013 (Act 16 of 2013) requires the municipality to develop, adopt and implement a wall-to-wall scheme for its area of jurisdiction. The newly adopted wall-to-wall scheme has provided for a uniform approach to land use management with the municipality. The PDA and SPLUMA also replaced various pieces of legislation, amongst others the Natal Town Planning Ordinance of 1949, and all its amendments and the KwaZulu Land Affairs Act of 1992.

5.5.1 TOWN PLANNING SCHEME AREAS

Historically, Town Planning Schemes in KwaZulu-Natal were enacted in terms of Natal Town Planning Ordinance of 1949 and all its amendments thereafter. Okhahlamba Local Municipality has a newly adopted wall-to-wall scheme which is consolidated, this cover the urban areas of Bergville, Winterton and Cathkin Park, and the surrounding farms and rural areas within the Okhahlamba Local Municipality.

The town planning scheme is enforced in terms of the KwaZulu-Natal Planning and Development Act, 2013 (Act No. 6 of 2008) read with Spatial Land Use Management Act, 2013 (Act 16 of 2013).

5.5.2 AREAS OUTSIDE TOWN PLANNING SCHEME

Land use within Okhahlamba is regulated in terms of the KwaZulu Land Affairs Act, but there are no systems and procedures in this regard. Development applications in these areas are submitted in terms of the Chapter 4 of the KwaZulu-Natal Planning and Development Act, 2013 (Act No. 6 of 2008) read with Spatial Land Use Management Act, 2013 (Act 16 of 2013), which provides for development outside of Town Planning Scheme. These areas include the following:

→ Settlements established either in terms of the Development Facilitation Act, or the Less Formal Township Establishment Act with their own area specific controls.

→ Agricultural land is regulated in terms of the Sub-division of Agricultural Land Act, No. 70 of 1970.

→ There are formal land use controls in the form of planning schemes that cover the rural settlement areas since the adoption of the new wall-to-wall scheme. This includes settlements that developed on communal land, state land and/or privately owned land. Within Traditional Council areas land use management is undertaken with the support of the Ingonyama Trust. Traditional land use management practices is implemented and the system is not based on any mapping, but collective memory.

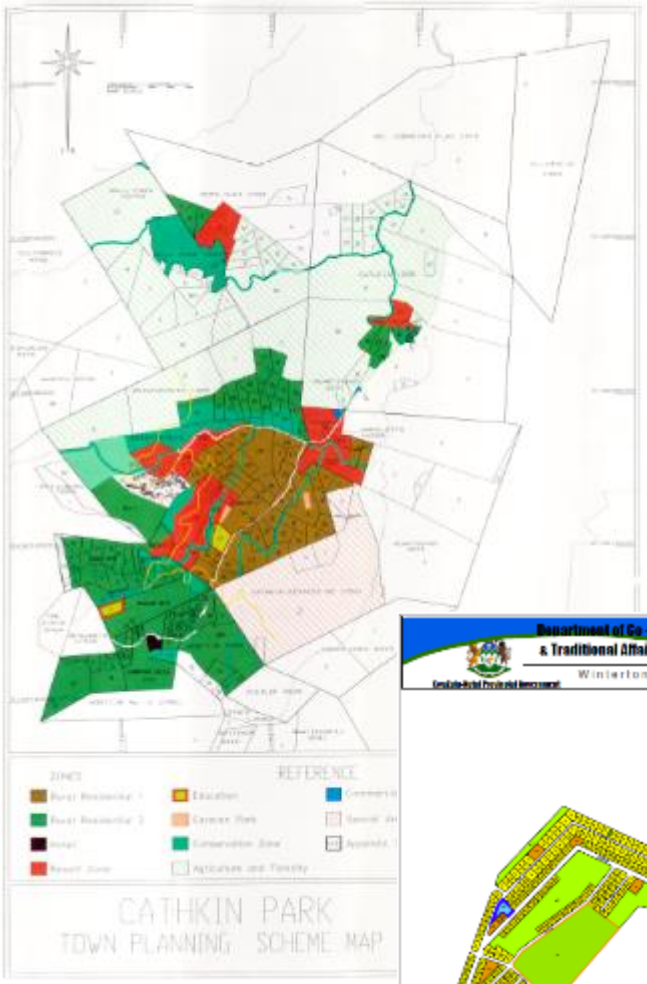
→ Settlement areas are clearly separated from grazing land and sites set-aside for public facilities is well known among community members. Boundaries are also not surveyed, but shared among neighbours.

5.6 LAND REFORM PROGRAMME

The land reform in Okhahlamba includes the land restitution, land redistribution and land tenure reform programmes.

→ The land tenure upgrading program makes provision for on-farm and off-farm settlement. However, on-farm settlement results in the proliferation of small isolated settlements, which do not create sufficient thresholds for the provision of basic services and community facilities.

FIGURE 13: TOWN PLANNING SCHEMES

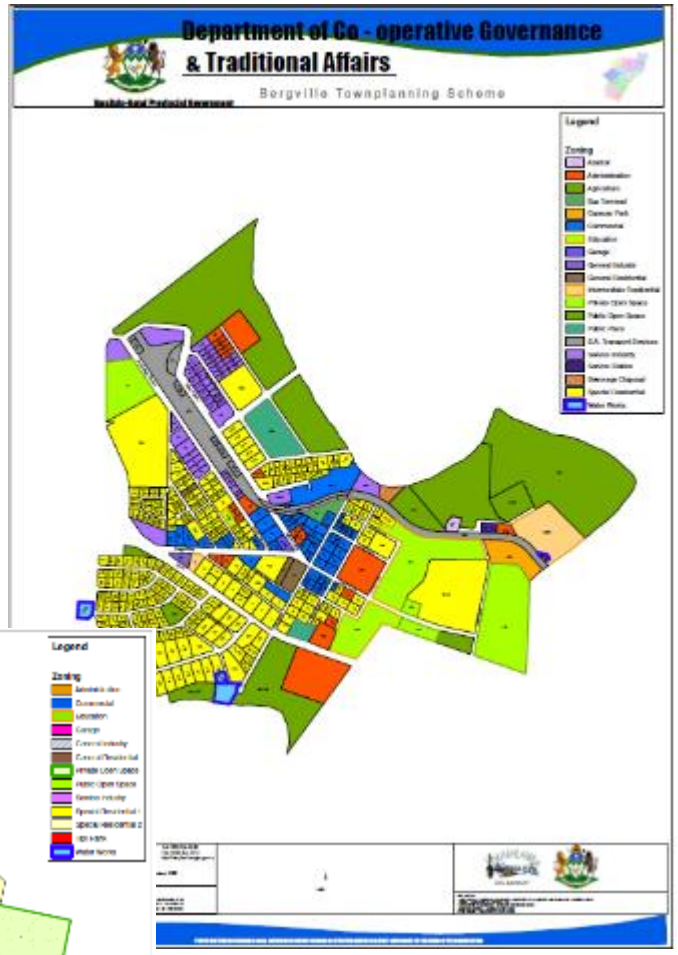


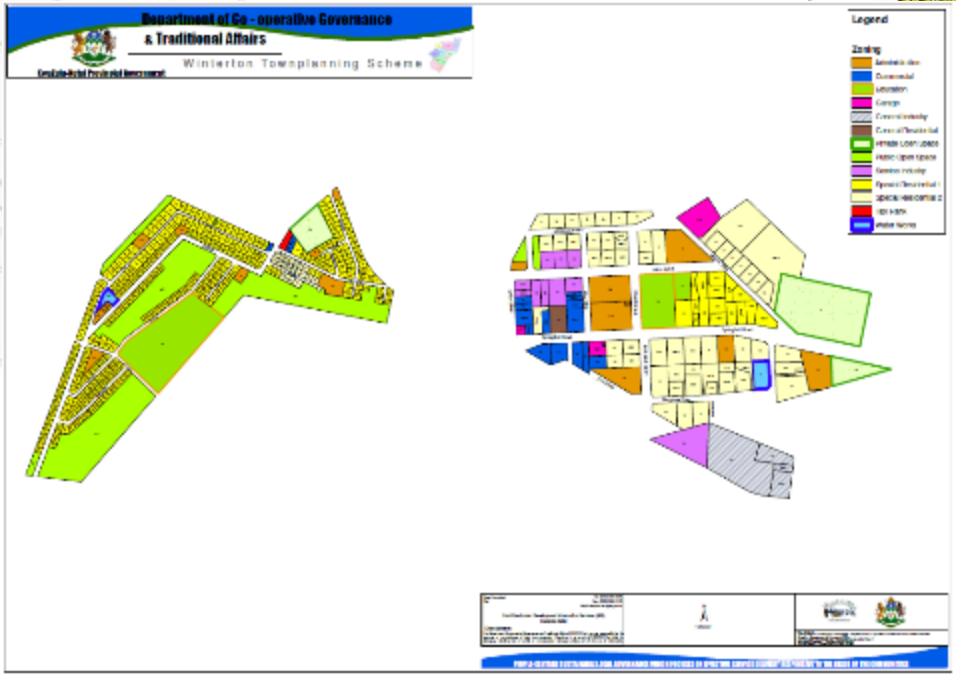
Insert left: Cathkin Park Town Planning Scheme

Insert right: Bergville Town Planning Scheme

Insert below: Winterton Town Planning Scheme

The Town Planning Schemes for Winterton and Bergville have been reviewed by COGTA recently. However, it should be noted that the extension to Khetani (to the south) has not been included in this review process.





→ A substantial amount of land restitution claims were lodged with the Regional Land Claims Commission (RLCC). Map 9 indicates the extent of these claims, which includes gazetted restitution claims, as well as transferred claims.

Information sourced from the Redistribution office indicates that there are 20 cases of transferred redistribution in Okhahlamba:

→ 5% are through the Proactive Land Acquisition Strategy (PLAS) grant. PLAS focuses primarily on the poor, and is based on the State pro-actively purchasing land with high agricultural potential. The department then selects beneficiaries who can lease the land with the option to purchase it.

→ 35% through the Land Distribution for Agricultural Development (LRAD) grant. This programme is a joint venture with the Department of Agriculture, through which qualifying beneficiaries may acquire land for agricultural purposes.

→ 45% through the Settlement Land Acquisition Grant (SLAG). The Settlement Land Acquisition Grant (SLAG) was a cash grant for which poor and landless black South Africans could form a group to apply to buy and develop farmland. The applications took the form of group settlement with some production, cooperative production and /or commonage schemes, or farm settlements of farm workers and farm worker equity.

→ 5% through SPLAG. The Settlement and Production Land Acquisition Grant (SPLAG) is a grant to provide for both the settlement and agricultural production land needs of people living and/or working on rural land. SPLAG caters for both settlement and agricultural production.

→ 5% through the Commonage Grant. The commonage product aims to improve people's access to municipal land for agricultural purposes.

→ 5% is unknown.

TABLE 2: TRANSFERRED REDISTRIBUTION PROJECTS

Grant Type	Legal entity name	Total
Commonage Grant	Okhahlamba Municipality	670.5805
Commonage Grant Total		***670.5805***
LRAD	Klaas Lakaje CPA	268.4352
	Sinethemba Land Trust	250.1182
	Smahla Trust	694.484
	Thuthukani CPA	177.2389
	Ukwanda Farm (Pty) Ltd	81.6807
	Zizamele CPA	606.0576
	Zwelethu CPA	918.3273
LRAD Total		***2996.3419***
PLAS	RSA	1951.9472
PLAS Total		***1951.9472***
SLAG	Amaswazi Land Trust	942.6696
	Felokwakhe Hlatshwayo CPA	50
	Hlanganani CPA	22.2764
	Isibonelo Community Land Trust	118.2164
	Mbulwane Land Trust	705.7724

Grant Type	Legal entity name	Total
	Mount Alice CPA	139.0562
	Mpulo CPA	69.9845
	Rosedale CPA	48.3531
	Vezukukhanya CPA	623.5148
SLAG Total		***2719.8434***
SPLAG	Sokesibone CPA	581.6777
SPLAG Total		***581.6777***
Unknown	Thembisa CPA	5.8327
Unknown Total		***5.8327***
Grand Total		**8926.2234**

Source: Dept. of Rural Development and Land Reform (Land Redistribution office)

5.7 INFRASTRUCTURE ASSESSMENT

5.7.1 WATER AND SANITATION

The uThukela District Municipality is the Water Services Authority for the District and are responsible for the provision of water and sanitation services within the district.

5.7.1.1 WATER

The provision of bulk water infrastructure differs between the urban and rural areas of Okhahlamba. Urban areas, such as Bergville and Winterton are supplied with an advanced level of water infrastructure compared to the other areas.

uThukela district municipality currently operates 7 waste water treatment works, of which one is located in Bergville. The Blue Drop System (BDS) score is currently sitting at 57.39%.

The Green Drop System (GDS) score is currently sitting at 33.9% (Uthukela IDP, 2014/15). These systems provide an indication of the water quality in the District, which are relatively low.

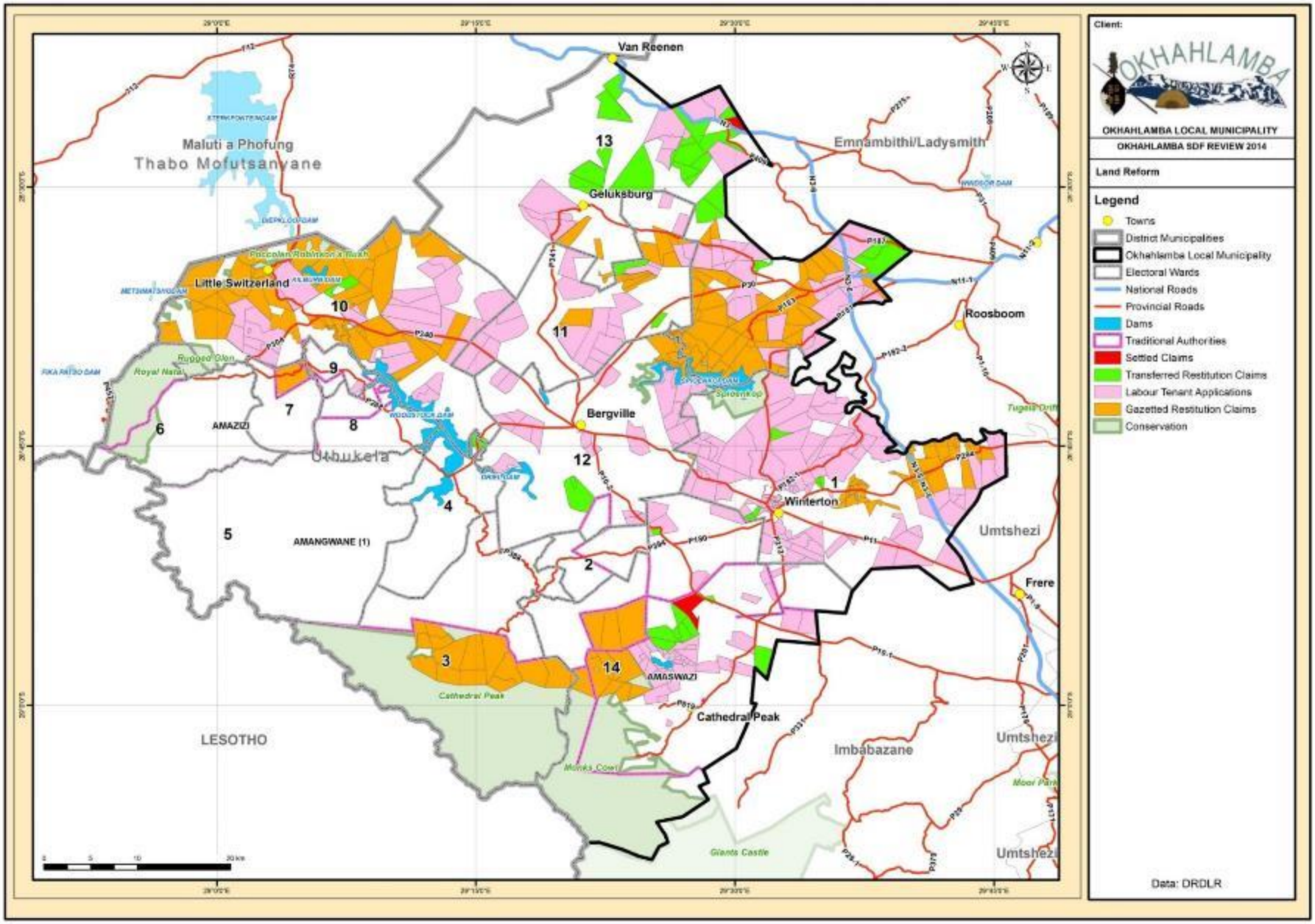
The rural areas do not have the advanced bulk water supply infrastructure such as the Water Treatment Works, Waste Water Treatment Works and water networks. It is normally within these areas where the highest backlogs are located. According to the uThukela IDP (2014/15: 73), Okhahlamba has a 44% water backlog. This amounts to 12 567 households out of 28 508 households without access to water.

High water backlogs also results in the use of springs and boreholes as sources of water supply. As a water source, springs are vulnerable to contamination that could lead to an outbreak of water-borne diseases.

5.7.1.2 SANITATION

The provision of sanitation systems once again differs greatly between the urban and rural areas. While urban areas like Bergville and Winterton have access to waterborne sanitation infrastructure, the households that fall outside of the urban areas mostly use pit latrines for sanitation purposes. One of the challenges facing rural sanitation is how to deal with the emptying of full pits in a hygienic and cost effective manner.

MAP 9: LAND REFORM



Pit latrines and VIPs have further implications for development and investment, since it is associated with a bad odour (nature of the facility) and environmental degradation (contamination with underground water table).

Despite the efforts by uThukela District Municipality to provide with VIP sanitation facilities, a large number of households in Okhahlamba remains without access to basic level sanitation facilities. This has some negative implications on the health and well-being of people within such communities. It also increases the risks of contamination and subsequent diseases. The uThukela DM is responsible for the provision of adequate sanitation facilities, and should therefore ensure sustainable and viable delivery of such facilities in Okhahlamba LM.

Census 2011 data indicates that 30% of households use pit latrines, 32% use VIP (ventilated improved pit latrine), 8% have flush toilets, 12% have chemical toilets. The sanitation backlog in Okhahlamba, according to the uThukela IDP (2014/15) is approximately 22.57% which translates 6 435 households that do not have access to appropriate sanitation facilities.

5.7.2 ELECTRICITY

Eskom supplies electricity to the Okhahlamba municipality. Electrical infrastructure covers the majority of the central parts of the municipal area. There are a number of sub-stations that exists within the municipal area, as well as a number of High Voltage and Medium Voltage cables that originate from these substations. These MV and HV cables distribute electricity within different parts of the municipal area. The majority of High Voltage cables runs in an east-west direction in the more northern part of the municipality.

The IDP (2014/15: 88) indicates that Eskom have foreseen electricity supply to become constrained in the following areas and has put measures (project) in place to deal with these constrains:

→ Overloading of Driel-Bergville 33kV line, overloading of existing Bergville 2x33/11kV 5MVA TRFRS and under-voltages at Bergville 33kV busbar.

→ Overloading of existing Cathkin 2x33/11kV 2.5MVA TRFRS.

→ Overloading of existing Buffelshoek 1x132/33kV 20MVA TRFRS.

The Electricity Service Delivery Plan (ESDP, 2013) states that according to the actual household count using the latest Eskom database and others the status quo regarding electrification in the municipality is as follows (Okhahlamba Housing Sector Plan, 2014):

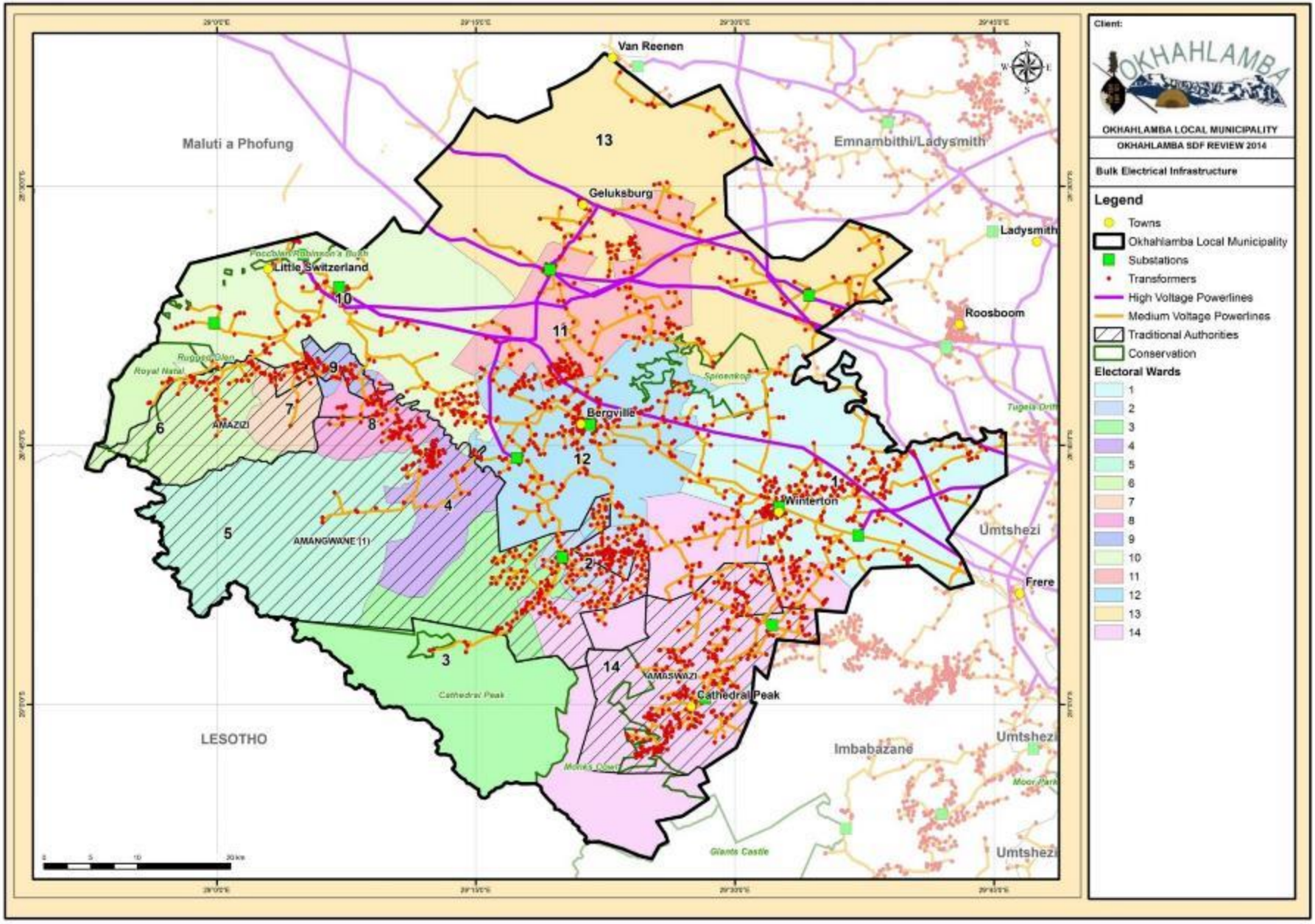
→ Total number of households including farm worker houses on farms - 19 323.

→ Farming, all inclusive ± 4070 connections, assumed to be electrified.

→ Total number of households with electricity supply 17260 (89%).

→ Total number of households without electricity supply 2066 (11%).

MAP 10: ELECTRICAL INFRASTRUCTURE



In terms of access to different sources of energy, Census 2011 data suggests that the majority of households in Okhahlamba utilize wood as a source of energy for heating. This is not necessarily a reflection of the lack of energy supply but could be energy saving strategy that households have adopted. Statistics from Census 2011 draw a relationship between the use of wood and electricity for cooking between 2001 and 2011. The use of wood decreased from 35,6% in 2001, while the use of electricity increased to 48% in 2011 and replaced wood as the predominant source of energy utilized for cooking. This indicates improvements made in electrification programmes in the municipality. Candles and electricity however, remain the predominant sources of energy for lighting.

5.8 ROAD NETWORK

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

→ National roads;

→ Provincial roads; and

→ District and local roads.

TABLE 3: ROAD LENGTH AND CLASSIFICATION

Legend	*Length (km)*	*%*
National Roads	56.2	1.0
Provincial Roads	441.7	7.8
Provincial Right of Way	7.2	0.1
District Roads	368.5	6.5
Local Roads	198.0	3.5
Local Access/Tracks	4603.8	81.1
On/Off Ramps	4.6	0.1
Total	**5679.9**	**100**

Some of the main issues pertaining to the conditions of roads, as reflected in the IDP (2014/15) includes the following:

→ Most of the roads in OLM are gravel,

→ Some are dilapidated with potholes and storm water is also an issue.

→ There are only few pedestrian crossing facilities are available and non-motorized transport facilities are non-existing.

→ Some of the bridges are washed away due to flooding.

→ Access management is a problem.

→ Road safety is a problem.

5.8.1 NATIONAL ROADS

The primary route include the national routes that exist within the area. These are maintained through the South African National Roads Agency. Within the Municipality, the N3 is the only primary route, which runs along the eastern boundary of the Municipality (see Map 11) exiting at Van Reenen. This is also the primary and the main route

between Durban and Gauteng. However, the length of the N3 through the municipal area is only 56km in length.

5.8.2 PROVINCIAL ROADS

The secondary and tertiary routes are mainly the provincial and district roads that exist within the area. Provincial roads account for 7.8% of roads within the municipality. The general quality of these routes are good with exception of some provincial roads and local access routes within the rural areas. The following provides an indication of the road condition:

→ The R74 (P11 and P340) is a blacktop road.

→ The R616 (P30) is a blacktop road linking Bergville to the N3 and N11 to Ladysmith.

→ The P180 and P181, P294, P10-2 are all blacktop roads.

→ The P212 between Winterton and Cathedral Peak is a blacktop road.

→ There are several other provincial roads that are still gravel, such as the P341, P388, P198, P182-1.

The R74, which runs from the N3, through Winterton and Bergville and exits the Municipality at Oliviershoek Pass is also an important transportation route through the municipality, providing access to the Drakensberg and serving as an alternate route to the Free State.

5.8.3 DISTRICT AND LOCAL ROADS

These are the lower order of the movement routes that serves to connect different settlements and provide access to public facilities. It includes the following:

→ District roads accounts for 6.5% of roads;

→ Local roads accounts for 3.5% of roads and provide access to settlements.

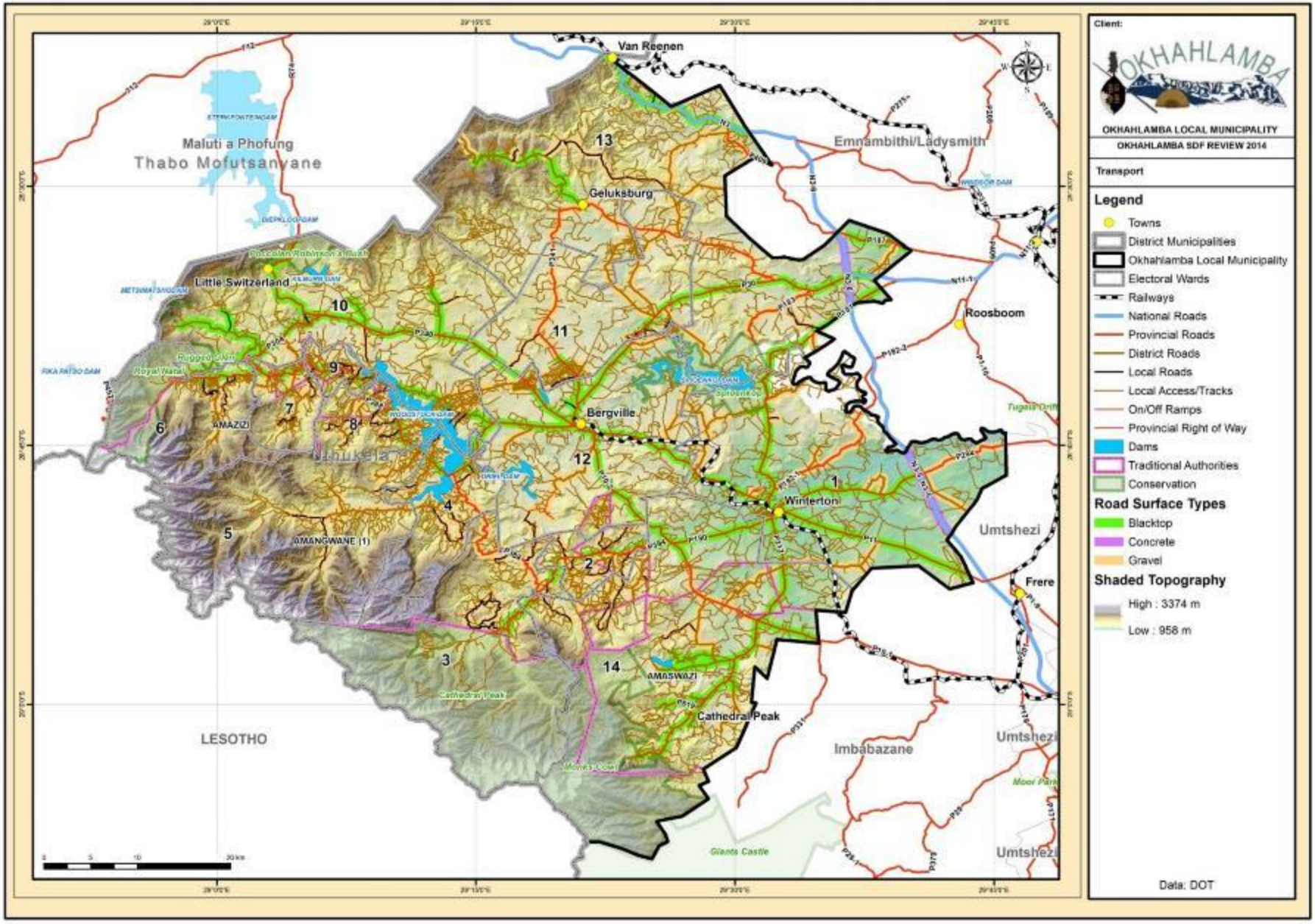
Local access roads / tracks provide access within settlements. It accounts for 81% of roads, with a total length of 4 603.8km. These are clearly of the most important roads within the municipality, which provides access to and within all rural settlements.

5.9 TRANSPORTATION INFRASTRUCTURE

Okhahlamba Municipality has a well-established road network servicing all settlements (see map 11). The N3 runs along the eastern boundary of the municipality and provides linkages between Durban and Johannesburg. There are also a number of key provincial roads, which service the area.

The R74 is the main road providing linkages to Pietermaritzburg and the Free State and R616 provides linkages to Ladysmith, the N3 and the N11. The R600 links Cathkin Park to Winterton and the N3. The P10 creates a loop around the R74 providing access to areas such as Cathkin Park.

MAP 11: ROAD NETWORK



The main roads within Okhahlamba, as mentioned above are surfaced, however there are many unsurfaced roads running throughout the municipality. (UThukela Public Transport Plan, 2012).

The Okhahlamba Road Master Plan (2012) points out that daily volumes on almost all of the roads (except the N3), are less than 2500 vehicles per day. Rural roads carry volumes of less than 700 vehicles per day. This information indicates that more than half of the population do not use or do not have any form of transportation, and another 39% travel on foot to work or school.

5.9.1 RAIL

Map 11 illustrates that there is a railway line that runs through the municipality. It links Winterton to Bergville and runs towards Bergville from the eastern edge of the municipality.

5.9.2 PUBLIC TRANSPORT

Public transport facilities within the municipality are limited to taxi routes operating mostly on the provincial roads between the larger towns. Public transport is essential in providing mobility and accessibility of these communities to socio-economic facilities, since many community members do not have motor vehicles. Categories of transport include public transport (taxis), private transport (passenger vehicles and trucks).

There are two public transport facilities catering for minibus taxis within Okhahlamba located in Bergville and Emmaus. There are no facilities for buses, with the nearest bus rank being located in Ladysmith. The uThukela Public Transport Plan (2005 – 2010) identifies that investigations are required with regard to the upgrading of existing minibus-taxi facilities in Bergville and Emmaus.

5.10 SOCIAL FACILITIES

The access to public facilities is a priority issue for Okhahlamba LM. It is considered an influential constraint to economic growth. There is limited access to health and education facilities, particularly in the rural settlements. This is related to the lack of access to services such as electricity and lack of access to road infrastructure. The urban areas do have such facilities, however they are defined by poor infrastructure i.e. sanitation and portable water infrastructure.

5.10.1 HEALTH FACILITIES

Okhahlamba has one hospital situated 15 km from Winterton, namely the Emmaus Provincial Hospital. The Emmaus Hospital is the primary health facility within the municipal area. There are 6 permanent clinics and 3 mobile clinics. Primary health care is provided through public clinics strategically located to serve the existing settlements. Some of the areas receive health services by means of mobile clinics supported by the Provincial Hospital. The mobile clinic points are located in areas

that have all weather roads and accessible by a car. The following are the clinics within OLM:

→ Mazizini Provincial Clinic;

→ Busingatha Provincial Clinic

→ Oliviershoek Provincial Clinic;

→ Bergville Provincial Mobile Clinic;

→ Okhahlamba Health Ward Provincial Mobile Clinic;

→ Bergville Local Authority Clinic.

These are distributed across Dukuza, Bergville, Oliviershoek, Woodstock Dam area and Cathin Park.

5.10.2 EDUCATION FACILITIES

The municipal area is generally well provided with educational facilities with approximately 75 primary schools, 26 secondary schools and 6 combined schools. There are however no higher education institutions. Map 12 illustrates the distribution pattern of primary schools in Okhahlamba Municipality. According the IDP 2016/17 the municipal area in well serviced with primary schools. Nearly all settlement has a primary school situated within a 5 km radius. This includes key settlements areas such as Woodford and Emmaus.

The distribution pattern of secondary schools is similar to that of primary schools. Majority of the settlements and towns within the municipal area have access to a secondary within a 5 km radius. However this does not include Bergville. The feasibility of developing a secondary school in Bergville town is currently being investigated. Secondary schools are identified crucial to the development of the local youth, which represents the majority of the population within Okhahlamba.

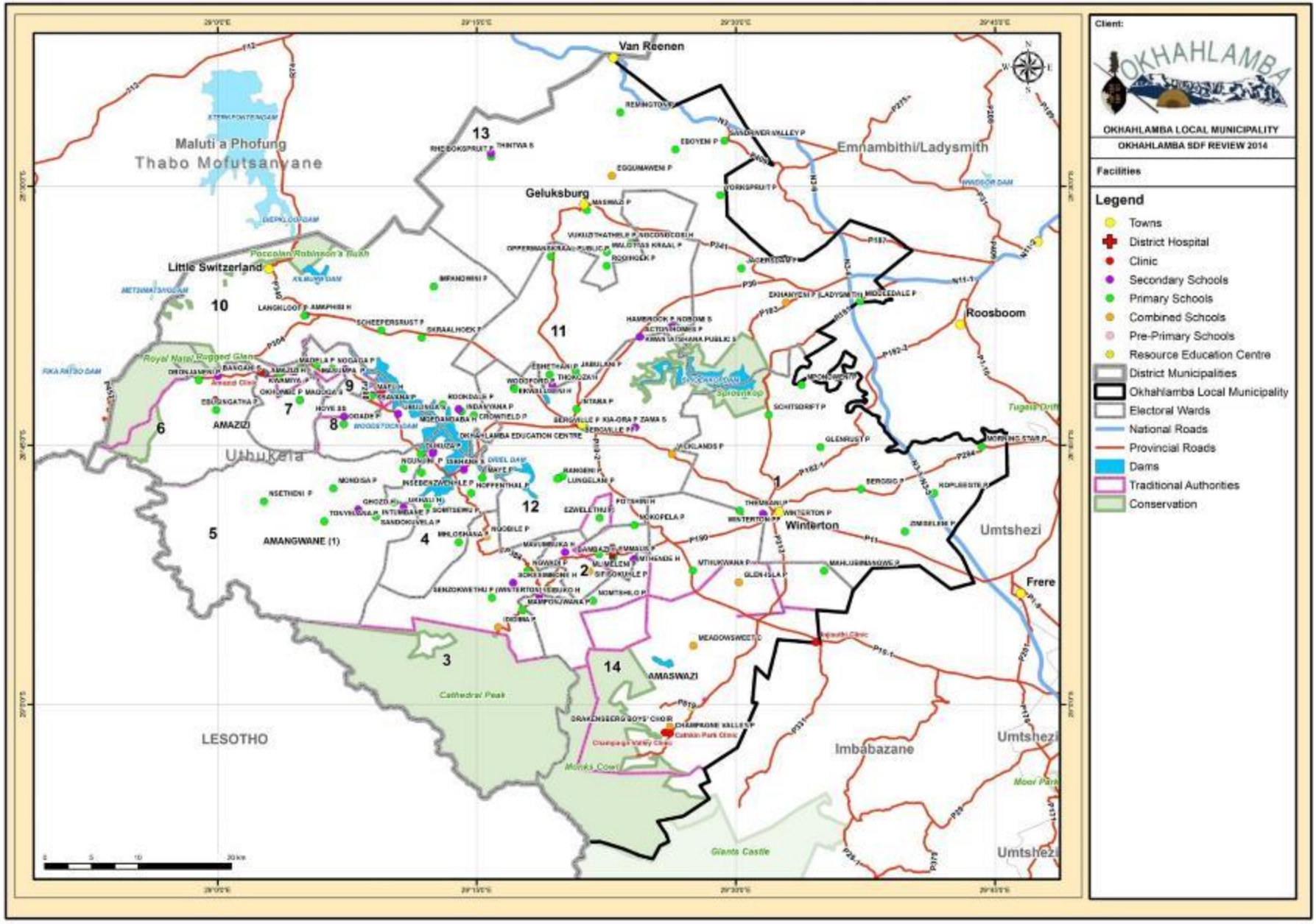
5.10.3 POLICE STATIONS

Police stations are located in Winterton, Upper Tugela, Oliviershoek and Bergville. In addition, Community Policing Forums are established to function under the jurisdiction of the police stations. This aims to enhance security services within the local municipality to curb crime.

5.10.4 LANDFILL SITE

According to the 2016/17 IDP the District municipality has finalised the Integrated Waste Management Plan and is providing strategies in addressing the backlogs in refuse collection, both at district and local levels. Less capacitated local municipalities are expected to initiate a community based refuse collection service in order to address this challenge. The municipality is also implementing the free basic solid waste for the indigent. The municipality's landfill site is situated in Bergville and covers Bergville and Winterton. It was established in 1975, but has no permit and is thus illegal. The municipality also operates a Waste Treatment Site situated in Cathkin Park.

MAP 12: PUBLIC FACILITIES



The waste is collected, transported to the site and is then burnt. This site was constructed in 2001 and is operational for eight hours of the day.

FIGURE 14: WASTE QUANTITIES AND CHARACTERISTICS

WASTE SOURCES	Domestic	Business	Industrial	Medical	Mining
WASTE QUANTITIES					
Generated	624	5 748	None	26	None
Collected	624	5 748	None	26	None
Stored	None	None	None	None	None
Recycled	None	None	None	None	None
Treated	312	1 817	None	26	None
Disposed	312	3 931	None	26	None

Source: Okhahlamba IWMP

Waste quantities indicated in the IWMP indicates that the majority of waste generated is by business, followed by domestic waste.

5.10.5 POST OFFICE

Three post offices are located in the municipality. There are post offices in Winterton, Bergville and at Jagers Rust in the north-west, which service the entire municipal area.

5.11 SUSTAINABLE HUMAN SETTLEMENTS

Human settlements are the spatial dimension and the physical expression of economic and social activity. The creation of sustainable human settlements is inevitably an objective for social development as it defines and conditions the relationship between where people live, play and work and how this occurs within the confines of the natural environment. It is one of the most visible and quantifiable indicators of the society's ability to meet one of its basic needs and a pre-requisite for sustainable human development and economic growth.

5.11.1 HOUSING DELIVERY

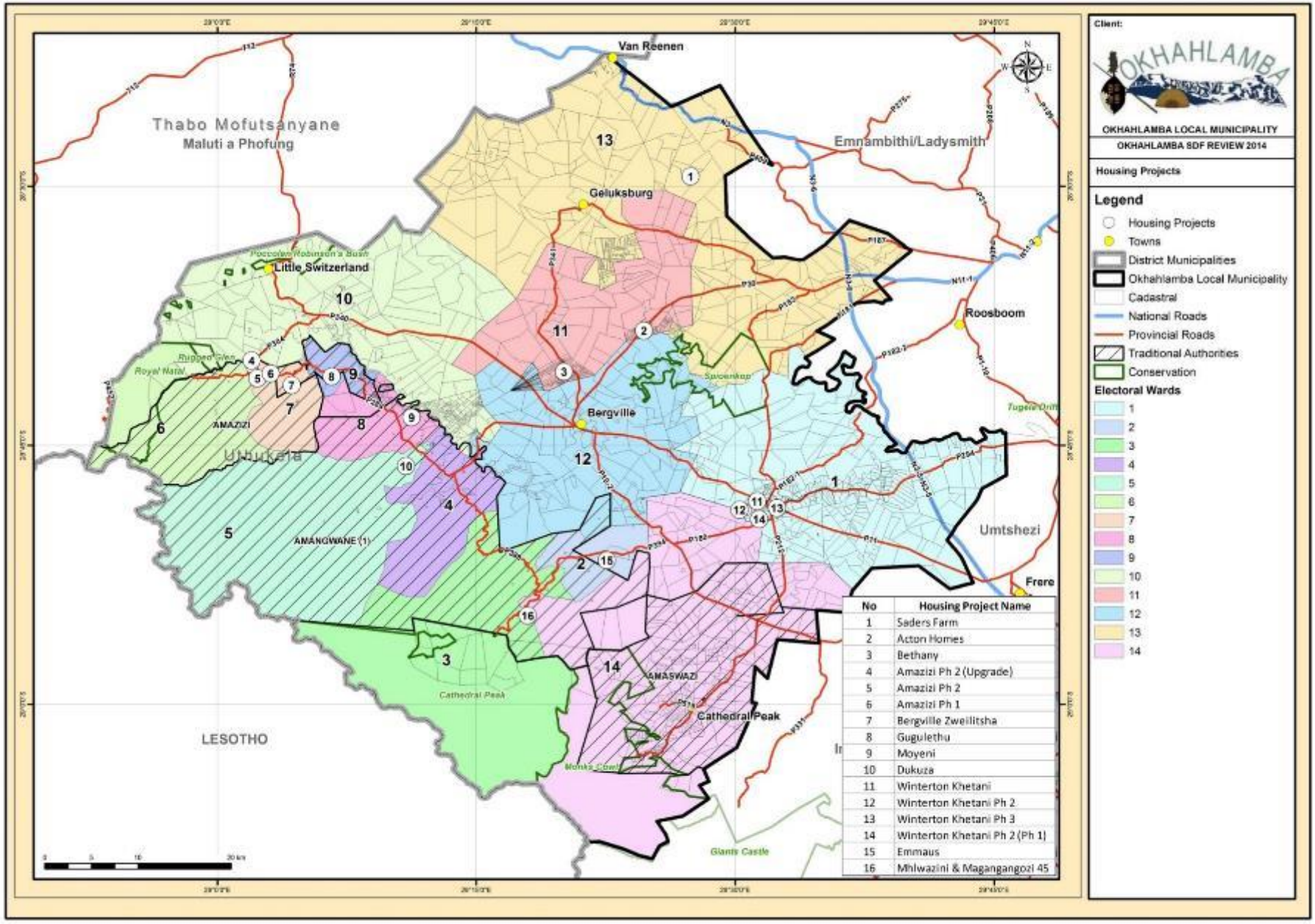
Housing delivery is considered one of the most crucial mandates of government. A Housing sector plan for the municipality was developed and approved. It follows a strategic plan in terms of how the delivery process will be followed. Various methodologies have been utilized in identifying the housing demand and need for the municipality.

Okhahlamba Local Municipality developed its Housing Sector Plan in June 2014. According to the HSP (2014) there is an absence of a waiting list, the housing need is therefore assessed in the light of the current status quo in terms of population, settlements patterns, housing typologies, tenure status, income levels and other factors. According to the Housing Sector Plan (2014) the housing backlog is estimated at 15 649. The housing need per ward indicates that the largest need is in the rural areas. Housing projects under construction includes:

→ Gugulethu Housing Project (500 units); and

→ Nhlanhleni Housing Project (283 units).

MAP 13: HOUSING PROJECTS (AS PER HOUSING SECTOR PLAN)



→ There are also a number of projects in the pipeline and planning phase. Emmaus (1000 units in ward 2) and Acton Homes (1000 units in ward 11) are currently under planning. (Okhahlamba Housing Sector Plan, 2014)

5.11.2 RURAL HOUSING

The intention of this Rural subsidy is to promote equity between rural and urban areas in terms of housing. Previously, the institutional mechanism was utilized to deliver housing in rural areas. As a result of complexities in KZN relating to the role of traditional leader's vs municipalities, a comprehensive KZN rural policy was finalized and it paves the way for effective housing delivery for rural housing and provides a more flexible and appropriate contract documentation.

The Government's rural housing assistance programme has been designed to facilitate the transformation of rural settlements into sustainable human settlement. The Okhahlamba Housing Sector Plan 2014 identifies a number of rural housing projects, and indicates progress with the practical implementation of each of these projects. Some originate from the land restitution programme and are intended to link land reform and housing development, while other target areas such as, Amazizi, Dukuza, Moyeni, Okhombe, Hoffental and many other areas.

5.12 THE GEOPHYSICAL ENVIRONMENT

5.12.1 CLIMATE

Rainfall varies within the Okhahlamba municipality, with precipitation being higher along the mountainous area and lower toward the lower-lying areas. Okhahlamba is a summer rainfall area, with rainfall concentrated between October and March.

The north-western and south-western boundaries which are part of the Drakensberg are characterised by relatively good climate. There are also large areas of good climate along the foothills of the Drakensberg.

Good Climate is prevalent in particular around Geluksburg in Ward 13, around Mont-Aux-Sources in the north-west and an area stretching from the south-east boundary towards Ward 12, including the Cathkin Park area. There is a very large area which has moderately good climate which extends over the central band from the south-west to the north-eastern boundary. This includes the towns of Bergville, Winterton and Khethani. (Okhahlamba SDF, 2012)

5.12.2 TOPOGRAPHY

The area of Okhahlamba is predominantly mountainous with undulating terrains. Settlement patterns and land use are greatly influenced by topographical features, such as the Drakensberg Mountains, Tugela River and the transport routes of Van Reenen's Pass and Oliviershoek Pass (map 14).

The morphology of the landscape comprises four terraces ranging from the lowest valley bushveld areas in the east, to the Bergville tableland, which rises to the so-called little berg before finally escalating to the summit.

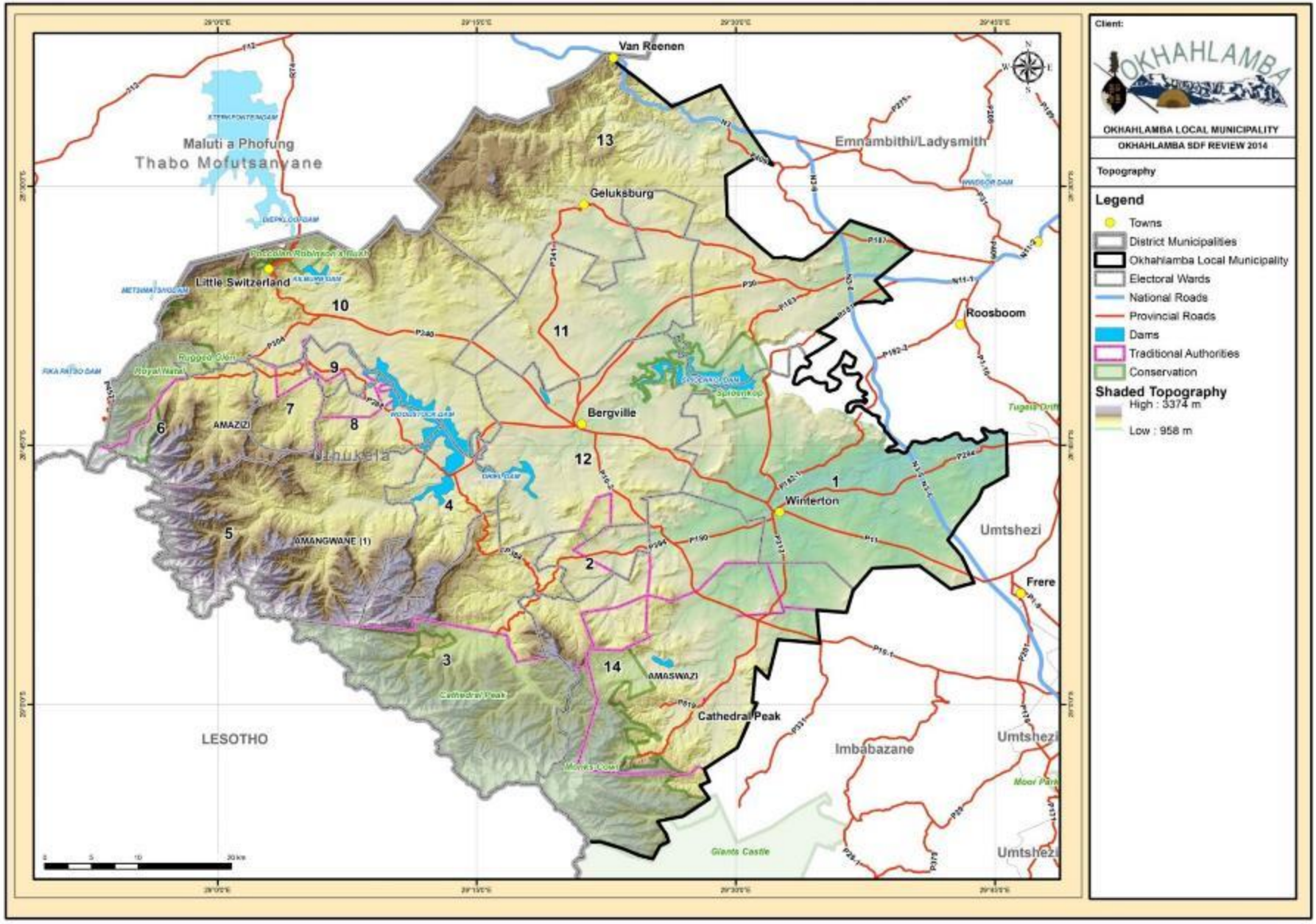
The Drakensberg is the highest lying component, comprising three altitudinal zones extending from approximately 1300m to 3500m above sea level (the Montane zone, the Sub-Alpine zone, and the Alpine Zone), which encompasses the steepest altitudinal gradient in the District. (uThukela EMF, 2013).

→ The 1500m high Drakensberg escarpment can be divided into distinct physiographic regions where the topography and slope characteristics are directly controlled by the underlying geology and erosional processes. The "Little 'Berg" or foothills below 2000m asl lies in the shadow of the towering "Great Escarpment", which rises to 3482m asl in this area.

→ The "Landslide Zone" has been correlated with the outcrop pattern of the alternating sandstone / mudrock units of the Elliot Formation, and the sandstone cliffs formed by the Molteno Formation. The topographic expression of the upper Driekoppen mudstone unit of the Beaufort Group is strongly related to the structural resistance to weathering of the overlying Molteno Formation sandstones. Lower slopes in this "Landslide Zone" are underlain by the less resistant. Apart from numerous shallow-based landslides generated off the steep slopes underlain by red mudrock, the Elliot Formation outcrop is littered with large Clarens Formation sandstone blocks that have toppled/rolled/slid onto the lower slopes. Downslope of Molteno Formation sandstone outcrop forming low cliffs the hillside is typically characterised by tabular blocks deposited by mass movement onto Driekoppen Formation mudrocks.

The "Trail Zone" in the Drakensberg Approaches Policy (DAP) extends down the topography onto slopes underlain by the upper Beaufort Group rocks including the thin Driekoppen Formation unit (Burgersdorp Formation correlative), above the Verkykerskop Formation (Katberg Formation correlative). The lower "Trail Zone" boundary has been delineated as the upper boundary of the "Middle Beaufort", a very outdated or informal classification. The alternation of sandstone and shale units defining this zone are influenced by dolerite sill and faults that displace these units to lower elevations extend the distribution of this planning zonation. This demonstrates that the formal delineation of a regional mapping unit boundary used for planning, based on the combination of specific lithological units within a thicker lithostratigraphic unit, and the generalized topographic expression of this combination of variable lithological units can be subjective given local geological conditions. This can result in subjective interpretation by developers and authorities alike.

MAP 14: TOPOGRAPHY



5.12.3 GEOLOGY AND SOILS

The geological structure of Okhahlamba comprises of the Drakenberg and Lebombo groups (the Stemberg group and Beaufort group. Geological structure has influenced the topography and river channels of the Okhahlamba Municipality.

Deep, rich soils are not found on steep slopes and therefore most of the areas with a higher gradient have shallow soils. Deep soil deposits are found along rivers and streams on level to moderate slopes. Soils in the Drakensberg have low agricultural potential, but the majority of the municipality beyond the Drakensberg has good to high agricultural potential. All soils in the area are sensitive to erosion and degradation unless managed properly.

5.13 AIR QUALITY

The Okhahlamba Local Municipality is situated within a district that is predominately rural in nature and therefore only contributes approximately 3,4% of the total emissions in the KZN Province with the highest being CO. The majority of the emissions are from vehicle emissions with industrial and agricultural sources also contributing to a small percentage. The district does have an Air Quality Management Plan in place and an air quality monitoring station located outside Okhahlamba in Estcourt.

5.14 HYDROLOGY AND WATER RESOURCES

5.14.1 THUKELA WATER MANAGEMENT AREA

The municipality is also located in the Thukela Water Management Area (WMA). The Thukela River forms part of the Thukela River Catchment, which is approximately 30 000 km^2 in extent. The uThukela EMF (2013) notes that the Upper Thukela catchment area is by far the most strategically important catchment area within the UTDM as it is the source of the water for the Thukela-Vaal Transfer Scheme. This Scheme transfers water to the Vaal River system to augment the supply to Gauteng and Free State Provinces. The transfer water represents up to 30% of the total volume of surface water for these areas (DWA, 2004).

The diversity of aquatic and wetland habitat units supports a great diversity of faunal and floral species. This is due to the area incorporating both subtropical and temperate features, which are governed by the dramatic changes in topographical features – from the high-lying mountainous areas in the south-west and south of the Drakensberg Range, to flat areas in the northern and eastern coastal areas. (uThukela EMF, 2013)

5.14.2 WATER SUPPLY

The major watercourse of the Okhahlamba Local Municipality, as well as the UTDM is the Tugela (uThukela or Thukela) River, which rises within the uplands of the Drakensberg and drains northwards and then

eastwards through toward the Indian Ocean on the east coast. Two major impoundments occur along the Thukela River within the western central areas of Okhahlamba, namely Woodstock Dam and Spioenkop Dam. (uThukela EMF, 2013)

The UTDM EMF further notes that the district is rich in wetland habitat, with the catchment area being regarded as a region with a high water supply. Just the UDP area is reported to have a water yield of approximately 7000 m_3/ha/year. The park area has a MAR of approximately 1722 x 10_6 m_3/year (Bainbridge, 1982 as in uThukela EMF, 2013).

There are four inter-basin transfer schemes, which serve as the largest components of existing water development infrastructure and they are namely:

→ The Tugela-Vaal Project through which water is transferred via the Drakensberg Pumped Storage Scheme to Sterkfontein Dam in the Vaal River Catchment;

→ The Zaaihoek Scheme through which water is transferred to Majuba Power Station and the Grootdraai Dam in the Vaal River Catchment;

→ The Thukela-Mhlatuze Scheme through which water is transferred to Goedetrouw Dam near Richards Bay;

→ Braamhoek Pumped Storage Scheme, comprising the Wilge River system in the Free State.

5.14.3 MAJOR RIVERS AND WETLANDS

The following information was extracted from the UTDM EMF (2013), which provides an overview of the major rivers and wetlands in Okhahlamba:

→ Major watercourses draining the Okhahlamba LM include the Sandspruit in the north draining into the Klip River.

→ The Mweni River drains the central areas in a west-east direction to eventually confluence with the Thukela River in the east.

→ The southern areas are drained mostly by the Lindequespruit and Sterkspruit, which both confluence to form the Little Thukela River and drains eastwards to join the Thukela River. This region incorporates the steeper topographical areas of the Drakensberg slopes.

→ Steep mountain streams in the west means that wetland areas are rare.

→ Spioenkop Dam represents a prominent impoundment, which occurs along the Thukela River.

Wetlands throughout the Okhahlamba LM are also largely dominated by naturally-occurring channelled valley-bottom wetlands and hillslope seeps associated with watercourses and the foothills of the steeper

areas of the southern and western regions, with larger wetland units being associated with the Mnweni River (together with some artificial impoundments) within the western central areas.

→ The vast majority of the wetland units are regarded as being in a natural or near-natural state, but a major artificial impoundment (shown in red) does occur along the Thukela River, namely Spioenkop Dam.

→ Natural to Near-natural channelled and un-channelled valley-bottom wetlands dominate the southern eastern areas, which are associated with the Lindequespruit, Sterkspruit, Kaalspruit and Little Tugela River.

→ The first and second order rivers throughout the Okhahlamba Local Municipality are generally within an A or B category (natural to Largely natural), but larger rivers do suffer ecological degradation.

→ The Thukela River suffers a Moderately modified overall ecological integrity near the town of Bergville.

5.14.4 ECOLOGICAL AND WATER QUALITY MONITORING OF THE MAJOR RIVERS

Monitoring of the major watercourses is relatively comprehensive and monitoring points are surveyed routinely. According to the UTDM EMF (2013), there are 28 River Health Programme monitoring sites within Uthukela District. These sites are located along the Thukela, Boesman, buffalo, Slang and Mooi Rivers. The Uthukela River is by far the most monitored and surveyed river.

The quality of the water flowing in the rivers is monitored by the Department of Water Affairs on a routine basis. The last review was undertaken in 2008. It was undertaken along the following rivers:

→ Tugela River

→ Klip River;

→ Thukela River;

→ Boesman River.

A general deterioration in the electro-conductivity levels was identified in all sites. The values did, however, remain within acceptable limits. This is an indication of the total amount of salts contained within the water. Phosphate levels were shown to be unacceptable at all sites. Possible sources of phosphates within the surface waters include soaps and detergents (such as would contaminate the water from the traditional use of rivers for washing clothes), domestic effluents and fertilisers. Another water quality constituent that showed a deteriorating trend is the ammonia levels. Sources of ammonia include fertiliser runoff and organic pollution (treated as well as untreated sewerage).

5.15 HERITAGE AREAS

5.15.1 HERITAGE SITES

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

The uKhahlamba Drakensberg Park is a 243 500 hectare World Heritage Site, stretching from Royal Natal in the north to Garden Castle in the south. It has exceptional natural beauty in its soaring basaltic buttresses, incisive dramatic cutbacks, and golden sandstone ramparts. Its altitudes and undulating terrains contribute to its beauty and uniqueness. This heritage site protects a high level of endemic and globally threatened species of flora and fauna (birds and plants).

The park plays a very significant role not only in economy of the local economy but also on a provincial and national scale. The uKhahlamba Park produces high quality water, which flow from the Drakensberg catchment and also serves as the core destination for the tourism industry. It also forms part of the key component of the Maloti Drakenberg Trandfrontier Project that was initiate as a collaborative project between the government of South Africa and of Lesotho.

5.15.2 ARCHEOLOGICAL SITES

The uKhahlamba Drakensberg Park is one of the most important archaeological areas in southern Africa. It contains many caves and rock-shelters with the largest and most concentrated group of rare paintings in Africa which were made by the San people over a period of 4 000 years.

The rock paintings are outstanding in quality and are culturally informative as they show their depiction of animals and human beings and translate certain aspects of the San culture and beliefs.

5.16 BIOPHYSICAL ENVIRONMENT

5.16.1 VEGETATION

5.16.1.1 FLORA

The Uthukhela District has exceptional heterogeneity in habitat, which translates into rich vegetation diversity. It comprises of low altitude dense bushveld, savannah and grasslands which extend up to high altitude montana and alpine grasslands including significant pockets of indigenous forests. Approximately half of the vegetation types found within the district are classified as being endangered or vulnerable.

5.16.1.2 FAUNA

According to the Uthukela Biodiversity Sector Plan the Drakensburg Region is considered a hotspot for amphibians and bird diversity such as Cape and Beared Vultures as well as Black Eagles which nest on the cliffs along the Drakensburg Escarpment. Invertebrates have not yet been listed. Many of the birds that are found within the Okhahlamba region require large areas of natural habitat so to ensure their viability. Therefore, the protection and management of habitat within the municipality is critical in this regard so to ensure the conservation of the faunal species listed above.

The World Heritage Site is known to protect populations of mammal endangered species such as the Oribi, White Tailed Rat and the Cape Mole Rat; one vulnerable species the Makwassie Musk Shrew and 4 nearly threatened species the Geoffrey Horseshoe Bat, Spotted necked Otter and the Water Rat.

5.16.2 TERRESTRIAL THREATENED ECOSYSTEMS

According to the UTDM EMF 2013, Okhahlamba LM has the following vulnerable ecosystems:

→ The Eastern Temperate Freshwater Wetlands; and

→ Low Escarpment Misbelt.

5.16.3 BIODIVERSITY

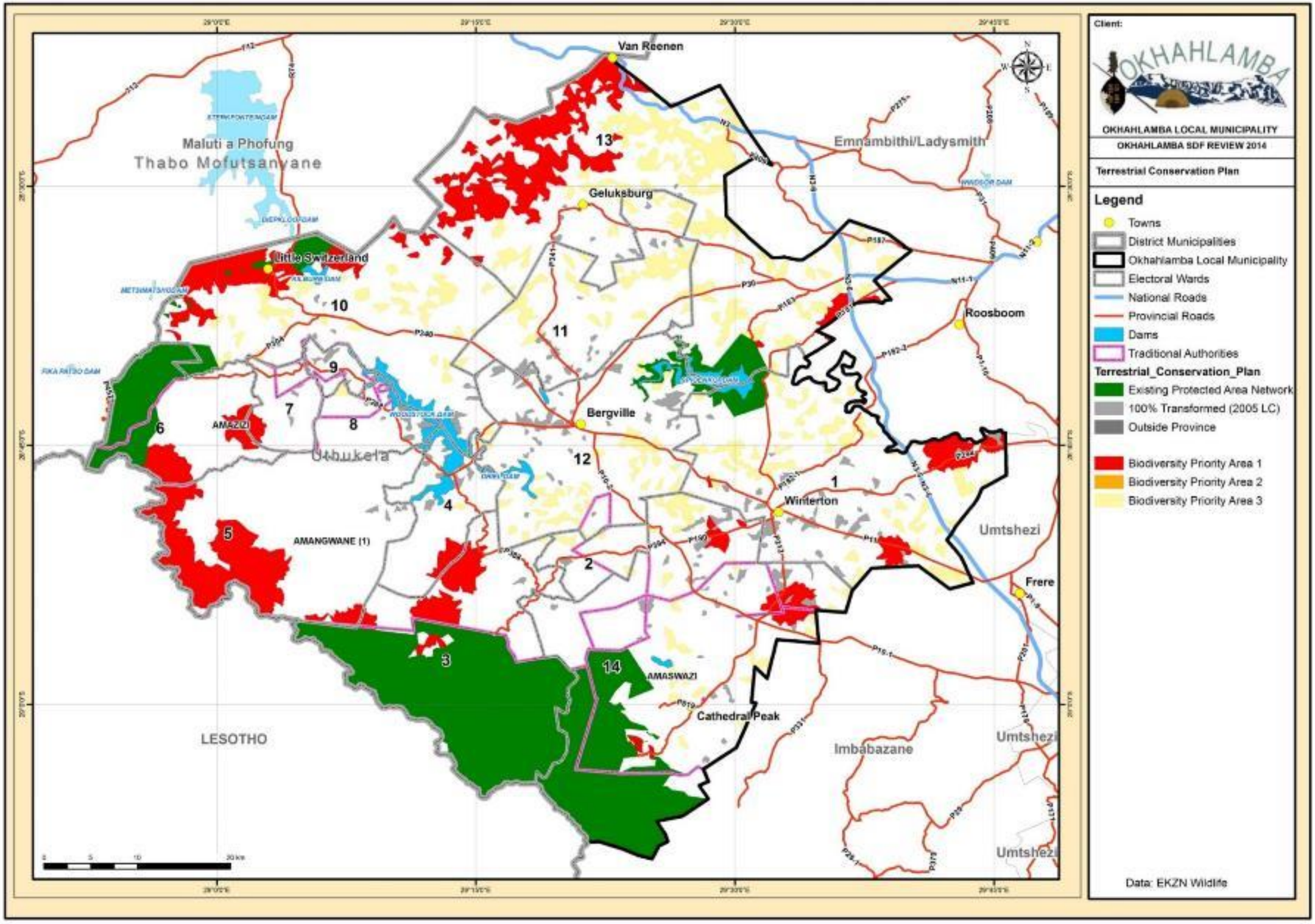
The Drakensberg is characterized by Drakensberg Afro-alpine Heathland on the escarpment, Ukhahlamba Basalt Grassland and Northern Drakensberg Highland Grassland on the slopes and foothills. The central area extending from the foothills of the Drakensberg is primarily Northern KwaZulu-Natal Moist Grassland. The north-eastern area is Thukela Thornveld and the north-western area is Drakensberg Montane Shrubland in the upper reaches and Low Escarpment Moist Grassland on the slopes.

A Biodiversity sector Plan has been developed for the uThukela District, which provides a spatial representation of land area required to ensure the persistence and conservation of biodiversity within KZN Province, reflected as Critical Biodiversity Areas and Ecological Support Area.

The conservation plan is developed using different conservation plans and is used to guide protected area expansion and identification of stewardship sites and to inform other sectors to ensure sustainable development. From the above it can be seen that most of the Okhahlamba area is characterised by grassland although valley bushveld intrudes into the eastern portion of the Thukela Valley.

The Drakensberg has great diversity in plant communities with some species only endemic to the Drakensberg Mountain Range. It comprises predominantly endangered and vulnerable vegetation types, and contains exceptionally rich floral and faunal species diversity.

MAP 15: TERRESTRIAL CONSERVATION PLAN

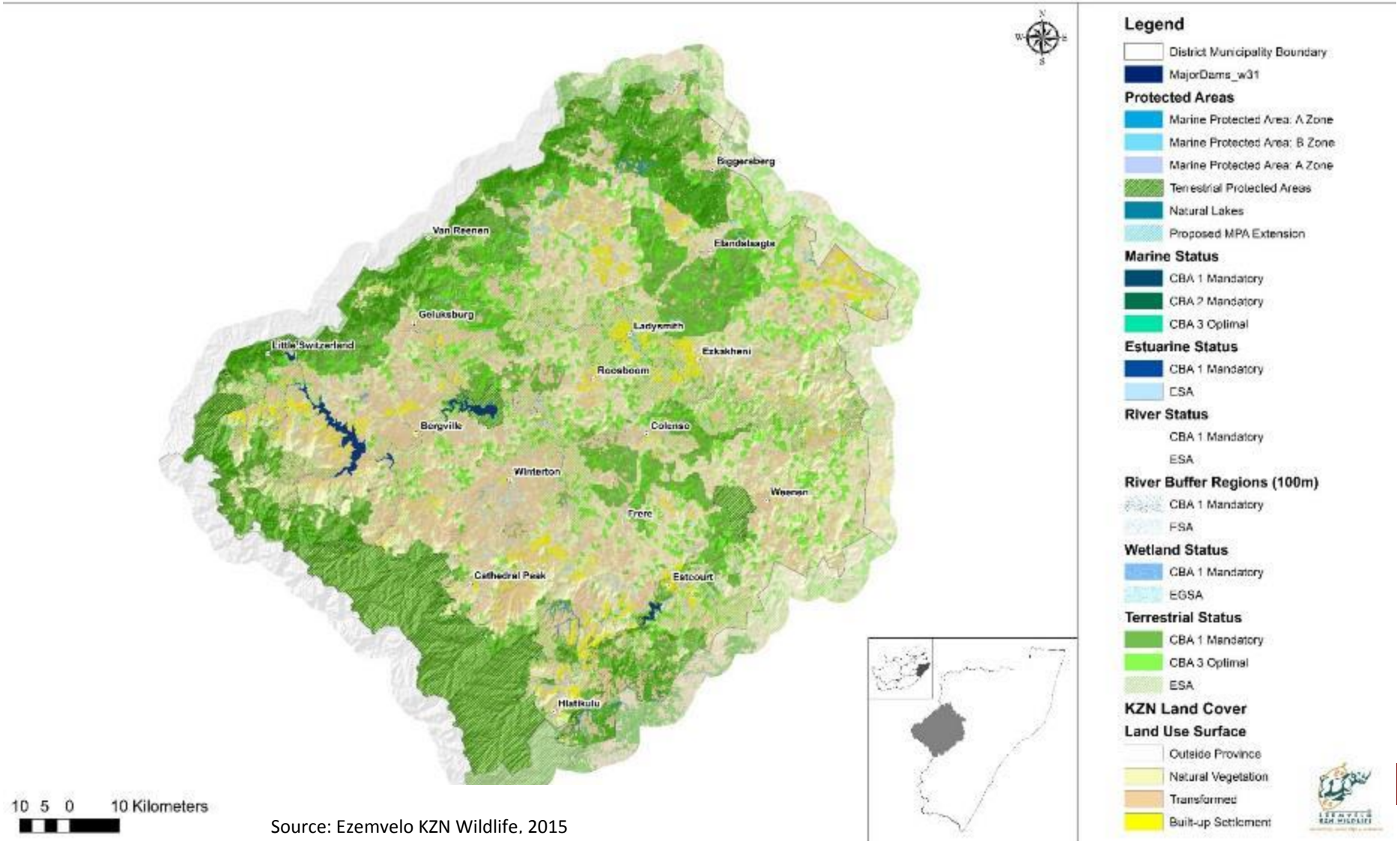


MAP 16: CBA MAP

CRITICAL BIODIVERSITY AND ECOLOGICAL SUPPORT AREAS MAP

Based on the KZN 2005 Land Cover V2.0

uThukela District Municipality



Source: Ezemvelo KZN Wildlife, 2015

The aesthetic appeal of the Drakensberg is an attraction for tourism. A balance needs to be struck between conservation and tourism in order to ensure the ongoing preservation of the sensitive environment and sustainable management of tourism especially in light of the area being a World Heritage Site. (Okhahlamba SDF, 2012)

5.17 PROTECTED AND DEVELOPMENT EXCLUSION AREAS

5.17.1 FORMAL PROTECTED AREAS

The Okhahlamba Local Municipality has a number important (historical) and sensitive natural environments. These areas of environmental and heritage significance include:

→ The Royal National Park and Amphitheatre;

→ Cathedral Peak;

→ Didima Valley;

→ Cathkin Park; and

→ Champagne Valley.

Other areas of importance include the Mnweni Valley Park, the Maloti-Drakensberg Mountain, amongst many. Various types of fauna and flora found in the municipality are of great environmental significance. The largest and most significant protected area within the Okhahlamba Local municipality is the Ukhahlamba Drakensberg Park World Heritage Site.

It forms part of the eastern escarpment or the Southern Africa and is regarded as the most important mountain catchment in South Africa and this is primarily because of it high yield and quality of water. The three largest rivers in KwaZulu-Natal, Tugela, Mkhomazi and Mzimkulu, originate in the Drakensberg.

5.17.2 LANDSCAPE ECOLOGICAL CORRIDORS

According to the UTDM Environmental Management Framework, the Ezemvelo KZN Wildlife (2010) corridor plan identifies corridors as areas of natural to near-natural conditions of vegetation that should ideally be conserved in their natural state in order to maintain linkages within a fragmented landscape. There are a number of corridors that were identified namely:

→ The Maloti Drakensberg Transfrontier Conservation and Development Area: This area contains the highest peaks in the sub-region and is of great biodiversity significance.

→ The Ezemvelo KZN Wildlife Community Conservation Area: This corridor consists of private game reserves, commercial game ranches, community conservation areas such as iSigweje, Kamelkop, Ngelangela and uMsuluzi.

→ Areas under the Biodiversity Stewardship Programme: These areas are those that are outside the existing state-managed protected areas. In Okhahlamba, there is a process unfolding where the Royal Natal Park and Cathedral Peak in the UDP will be linked through the

proclamation of the CCA in the upper portions of the Amazizi and Amangwane Traditional Council areas. This forms part of the Biodiversity Stewardship Programme. The proclamation of this CCA will include a 45 000 ha area as part of the UDP World Heritage Site. The earmarked area is located in the Maloti-Drakensberg Mountain System that is known as the 'Mnweni-Busingatha Gap', which is a particularly vulnerable section of the Drakensberg mountain system since it has no formal conservation status.

→ RAMSAR Site: This site is characterised by high altitude mountain wetlands. These include high altitude tarns, ponds, springs, permanent rivers, marshes and streams. The site protects a high level of endemic and globally threatened species and the northern portion of this site falls within Okhahlamba Municipality.

→ Drakensberg Alpine Centre: This area consists of species that are restricted to this area alone. It is rich with flora and high levels of endemism and includes the majority of UTDM that lies above 1800m.

5.18 SPATIAL PLANNING ISSUES

Based on the ensuing analysis of the current spatial situation within Okhahlamba LM it follows that there is a number of issues that need to be considered in order to formulate a credible and meaningful spatial framework for the area. These can be divided into the following categories:

→ Policy directives.

→ Regional and external influences.

→ Internal spatial dynamics and trends.

5.18.1 POLICY DIRECTIVES

The following policy directives provide a framework for the consideration of area specific spatial issues:

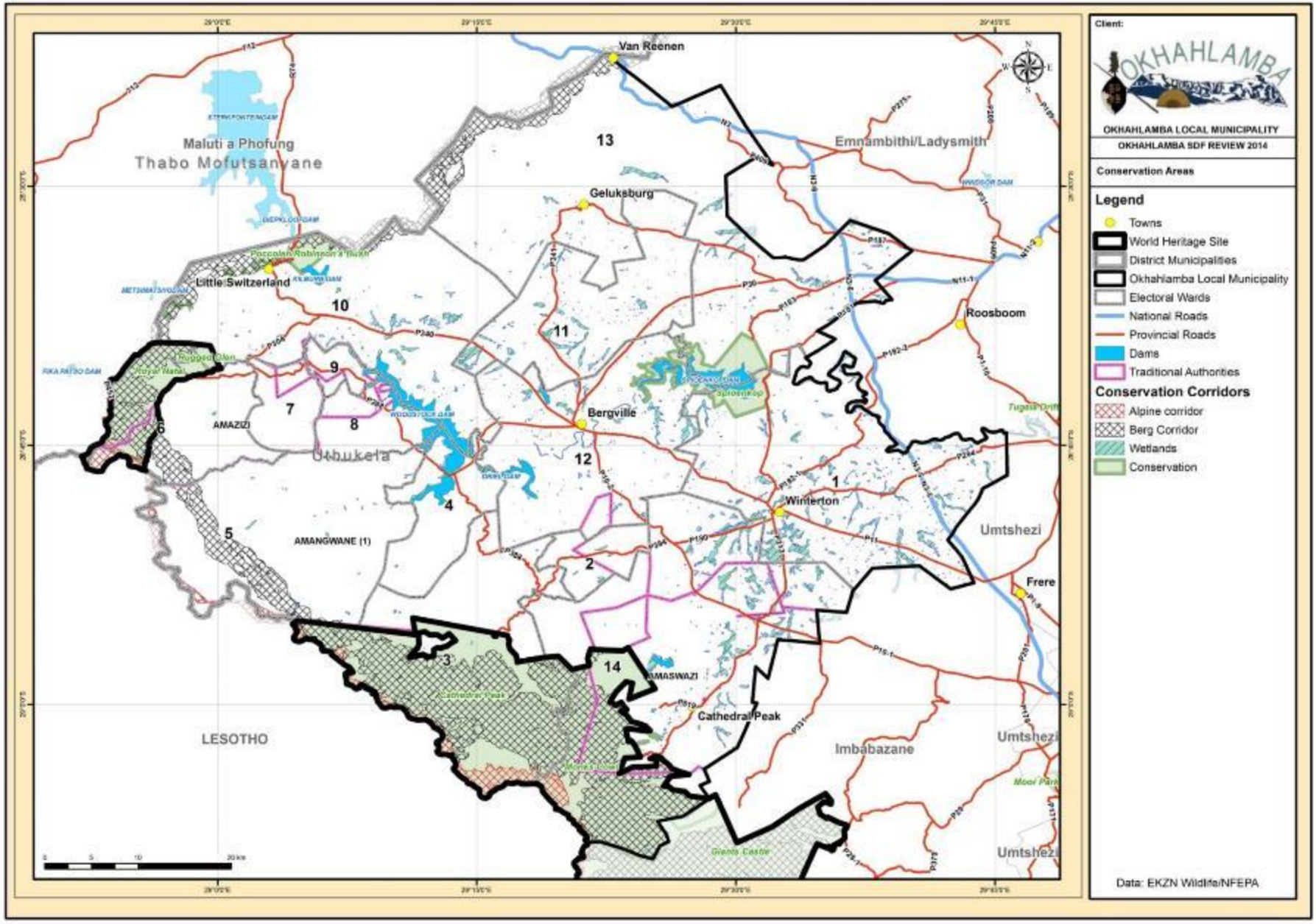
→ In terms of the Constitution and various local government legislation, the municipality has a mandate to undertake wall-to-wall spatial planning.

→ This includes providing guidance to land owners and developers for the location of different uses and direction of growth. This mandate should be undertaken in a fair and impartial manner.

→ Spatial planning should have a clear focus on transformation issues with particular emphasis on undoing the spatial imprints of the apartheid and colonial past. The transformation of existing settlements (both urban and rural) into sustainable human settlements should form the core of this agenda.

→ In addition, execution of this mandate should strengthen the developmental role of Okhahlamba Loca Municipality, and give effect to the spirit of cooperative government. As such, the SDF should reflect a shared vision.

MAP 17: CONSERVATION CORRIDORS



5.18.2 REGIONAL AND EXTERNAL INFLUENCES

Although the Okhahlamba Local Munjicipality is a spatially defined local government structure, it is subject to a range of influences. Some of these relates to the spatial trends and patterns that pertains at a regional level while others are general factors that affects spatial planning at large. These are summarised hereunder as follows:

→ Okhahlamba forms part of uThukela River Catchment and is located at the headwaters of this provincial resource. As such, communities located downstream are dependant, in part, on the good catchment management practices within the municipal area for access to water. As such, the SDF should be formulated within a broader perspective.

→ The N3 serves as a national runs along the north-eastern edge of the municipality. The SDF should aim at transforming the municipality to seize the opportunities associated with these this important transport route and facilitate the attainment of the national and provincial development imperatives.

→ Okhahlamba towns, Bergville and Winterton play important roles as administrative, service and main economic centres with a threshold that covers the full extent of the municipal area and beyond. The towns link with other towns within the district as well as the major provincial centres and beyond. As such, the towns should be planned and be structured and managed to enable it to perform its functions efficiently and effectively.

→ Okhahlamba Local Municipality is strategically positioned to serve as a gateway into the infamous Drakensberg World Heritage site. The SDF should exploit this so to better impact on the local economy and tourism prospects.

5.18.3 INTERNAL SPATIAL DYNAMICS AND TRENDS

Critical internal spatial dynamics and trends include the following:

→ Previous regional spatial plans ignored completely the spatial dynamics of rural settlements. They identified these areas blobs of rural settlements giving an impression that they are all the same and should be treated as such in spatial planning processes. On the contrary, these settlements are dynamic complex spatial systems. As such, an understanding of the factors that shapes these settlements is critical in an SDF.

→ Rural settlements that characterises Okhahlamba Municipality area are spread in space in a manner that follows different logic from the orthodox spatial planning paradigms. Their establishment neither followed legal prescripts nor has land use pattern evolved in line with the dictates of systems and procedures such as Town Planning Schemes. Instead, they have emerged in the context of social identity and livelihood strategies. In modern days, they are highly influenced by access to basic services and public facilities. The

environment within Okhahlamba Municipality provides several opportunities for tourism development provided these would be harnessed appropriately and utilised on a sustainable basis.

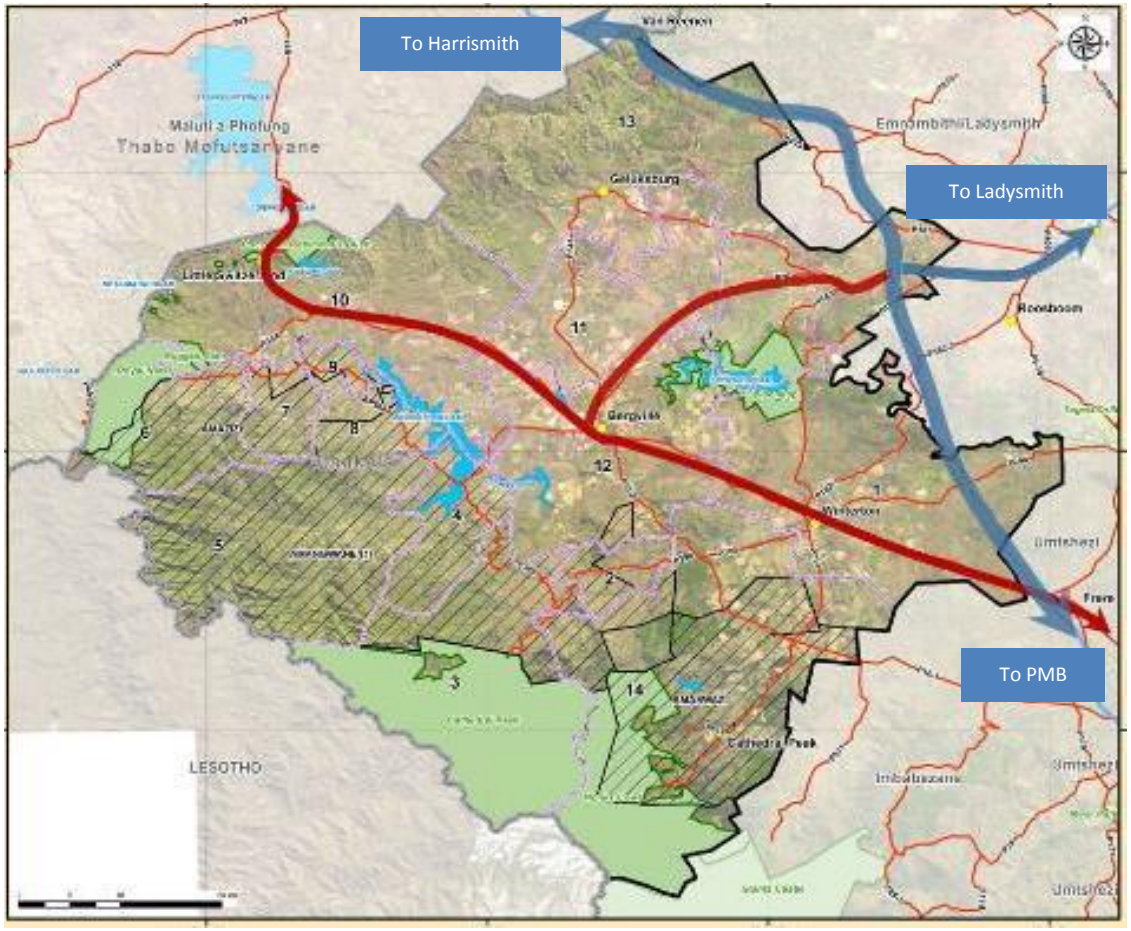
Although there are numerous benefits provided by the environment, there are also several environmental threats and limitations which if not addressed could contribute to decline.

6 STRATEGIC ANALYSIS

6.1 REGIONAL AND EXTERNAL INFLUENCES

6.1.1 NATIONAL AND PROVINCIAL ROAD NETWORK

MAP 18: NATIONAL & PROVINCIAL ROAD NETWORK



The national and provincial road network provides access and mobility within different areas in the municipality, but also connects Okhahlamba to surrounding areas and neighbouring municipalities.

The N3 national road cuts through portions of the eastern part of the municipality in a north-south direction. The N3 serve as both national and provincial corridor and is a limited access national trade route. Similarly, the N11 links to the N3 in the eastern portion of the municipality. It provides an important link to Ladysmith to the east of Okhahlamba and connects a number of towns, both within and outside of the province. It can thus also serve as a regional trade route.

Despite marginal position of the N3 and N11 within Okhahlamba, it still presents a number of opportunities, especially at key road intersections, such as the following:

→ The intersection / off-ramp off the N3 with the R74 (P11) leading to Winterton;

→ The intersection / off-ramp off the N3 with the N11 leading to Ladysmith to the east and Bergville to the west.

The SDF should reposition Okhahlamba to seize the opportunities associated with these corridors and facilitate the attainment of the national and provincial development imperatives.

Local routes of importance, especially from a tourism perspective, are the following:

→ The R600 (P212) linking Winterton to Cathkin Park;

→ The P180 and P394 linking Winterton to the Cathedral Peak area;

→ P340 linking Bergville to the northern Drakensberg tourism areas and the Free State Province beyond.

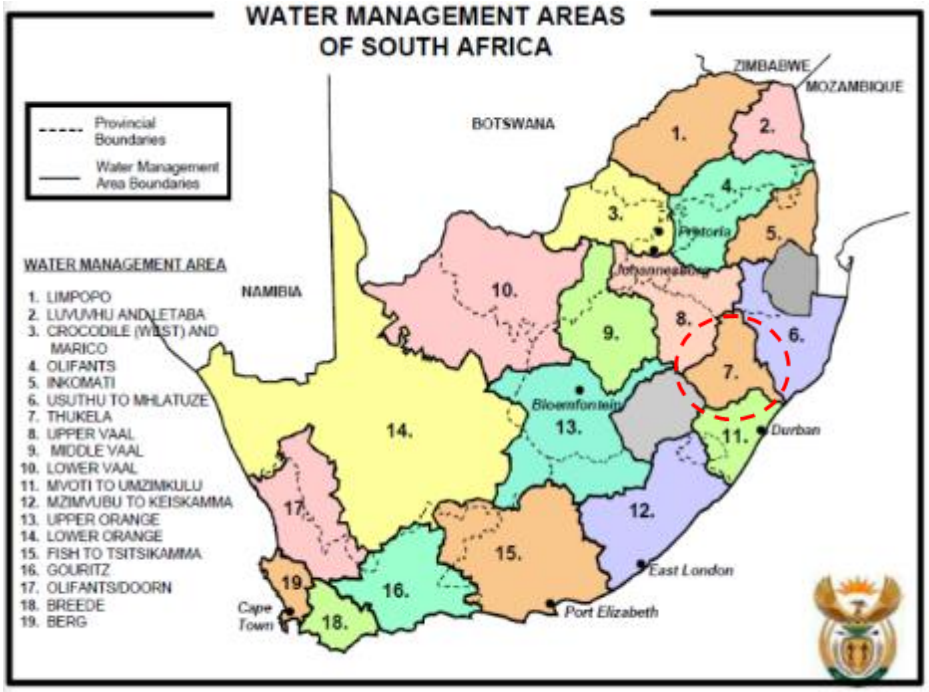
6.1.2 LADYSMITH FUNCTIONAL AREA

Ladysmith is located approximately 48km to the east of Okhahlamba. Ladysmith town plays a significant role within the uThukela District, serving as an administrative, service and main economic centre with a threshold that covers the full extent of the district municipality area and beyond. It is a link with other towns within the district as well as the major provincial centres and beyond. As such, the town should be planned as a regional hub and be structured and managed in a manner that enable it to perform its functions efficiently and effectively. Ladysmith is the commercial centre for a large farming district and serves as a major shopping centre for towns such as Colenso, Glencoe, Bergville and Dundee.

6.1.3 UTHUKELA CATCHMENT MANAGEMENT AREA

Okhahlamba is located within the Thukela Water Management Area (WMA), which is characterised by extensive drainage systems.

MAP 19: WATER MANAGEMENT AREA



It lies within the Thukela Water Management Area (WMA no 7), and is governed by the Thukela Catchment Management Agency (uThukela EMF, 2013).

6.1.4 BIODIVERSITY MANAGEMENT

Okhahlamba is located within the Maputaland-Albany-Pondoland-Albany Hotspot, a globally recognised biogeographic region of significance, which contains unusually high numbers of endemic species, as well as globally unique ecosystem diversity in terrestrial, freshwater and marine systems. At least 70% of the original habitat, which occurred in this hotspot, has already been lost.

Given the above, Okhahlamba is an important role-player in global efforts to influence the world's extinction crisis and to ensure the continued functioning of ecological and evolutionary processes that allow biodiversity to persist over time at a global scale. On a national level the significance of the area has been recognised by the listing[1] of threatened ecosystems that occur within Okhahlamba.

Municipalities are expected to take the need for protection of these listed ecosystems into account. To assist them in this regard a District-level Biodiversity Sector Plan has been finalised (currently under review), which will be translated into and gazetted as a Bioregional Plan, aimed at promoting biodiversity compatible development in spatial areas of priority. Listed ecosystems must influence the Okhahlamba SDF and it must contain restrictive land-use guidelines to ensure that further loss and degradation of natural habitat in these ecosystems is avoided.

Source: Conservational International (www.conservation.org)

6.1.5 GATEWAY INTO THE DRAKENSBERG

Okhahlamba Local Municipality is characterised by its major spatial feature, the Drakensberg Mountains. These mountains are also known as the 'Barrier of Spears' (uKhahlamba) from which the name

[1] National list of ecosystems that are threatened and in need of protection, published in terms of Section 52 of the National Environmental Management: Biodiversity Act, 2004 in December 2011.

Okhahlamba is derived. They serve as a barrier separating KZN from Lesotho province. These mountains have been recognised on an international level as a heritage site with its wealth of biodiversity and its sheer natural beauty. These attributes have therefore contributed to the nature and character of the whole municipality.

6.1.6 REGIONAL ADMINISTRATIVE ISSUES

6.1.6.1 SPATIAL PLANNING

The Uthukela District Municipality is an important role-player in the spatial planning of the district. They have a regional planning role and has the mandate to support local municipalities and undertake a supportive co-ordinating role. Their function in terms of planning is to undertake district-wide planning and development facilitation, which is often referred to as a strategic function. They also have to provide support to and ensure alignment between planning processes of local municipalities. In order to facilitate vertical alignment between the District municipality and the Local Municipalities, a District Planners Forum was established, which consists of all the planners from the local municipalities of the district. It provides relevant technical, sector and financial information regarding each municipality and facilitates horizontal alignment with sector departments and public utilities.

In addition, the Municipality also attends and form part of the Okhahlamba Drakensberg Park World Heritage Site Buffer Zone Technical Committee. This is an integrated governmental structure, which meets once a month to provide strategic and technical advice to Planners / GIS specialists concerning the SDF and statutory applications.

6.1.6.2 REGIONAL ENVIRONMENTAL MANAGEMENT

An Environmental Management Framework (EMF) for the uThukela District is currently being finalised in accordance with the NEMA EMF Regulations (2010) and will produce a spatial decision-support tool to help guide environmental decisions in the area. Once completed it must be adopted by the MEC for Environmental Affairs after which the information contained in it must be used to inform local planning and land development and in particular the making of EIA decisions.

6.2 POLICY DIRECTIVES

6.2.1 SPATIAL PLANNING MANDATE

The Constitution of the Republic of South Africa, Act No.108 of 1996, bestows to the Okhahlamba Local Municipality, among others, the responsibility to undertake wall-to-wall spatial planning for its area of jurisdiction. The White Paper on Local Government locates this function within the developmental role of the municipality, and requires spatial planning to contribute towards social, economic, environmental and institutional development. Although this mandate is allocated to local government, it should be undertaken with full participation of all the interested and affected parties. This includes communities, organised interest groups, organs of state and the private sector. This will ensure that spatial planning articulates the local development aspirations and

spatial transformation needs, and also advance the spatial development agenda of all spheres of government. Therefore, the municipality should guide both public and private sector investment and coordinate development within its area of jurisdiction. This should be undertaken in a fair and impartial manner.

6.2.2 RURAL DEVELOPMENT

The National Development Plan and the Provincial Growth and Development Strategy identify rural development as one of the key and priority focus areas for the government. Given the location of the Okhahlamba within a generally rural region, it follows that spatial planning within the municipality should prioritise programmes that are geared to build rural economies and improve the standard of living for the rural communities. This includes implementing the land reform programme in a manner that generates developmental outcomes, protecting agricultural land with high production potential and improving access to public facilities and basic services. This also includes enhancing the functional linkages between the towns such as Bergville and Winterton and their rural hinterland.

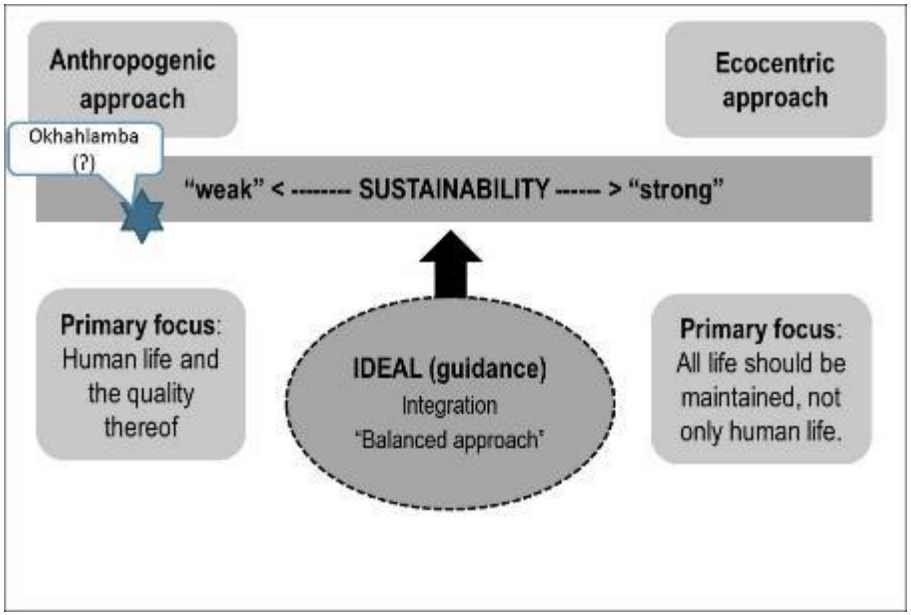
6.2.3 SUSTAINABLE HUMAN SETTLEMENTS

In addition, spatial planning should have a clear focus on the transformation of both urban and rural settlements into sustainable human settlements. In addition to addressing housing backlog, this entails arresting low-density urban sprawl in areas such as Rookdale, Bethany, Woodford, Hambrook and Acton Homes. This phenomenon creates inefficiency in the delivery and use of service infrastructure. It also increases pressure on the natural environment. The primary aim of this directive is to undo the spatial imprints of the apartheid and colonial past, and create settlements that reflects democratic values and facilitates development.

6.2.4 SUSTAINABLE DEVELOPMENT

Development (both social and economic) occurs in a natural environment.

FIGURE 15: SUSTAINABILITY SCALE



As such, the SDF should advance the course of environmental and natural resource management and give effect to the intention of the environmental management agenda of the national government. This agenda is outlined in a number of sector-based policies with the National Environmental Management Act (NEMA) being the most critical. Key to this directive is finding a balance between conservation (keeping the environment as natural as possible) and development (improving the quality of human life). Therefore, spatial planning at a local level should indicate areas where development should not be promoted and priority areas for service delivery and socio-economic development.

6.3 DEMOGRAPHIC AND SOCIAL FACTORS

6.3.1 POPULATION GROWTH

The population of Okhahlamba Local Municipality increased by 1.2 % from 132 068 in 2011 to 135 132 in 2016. This indicates a positive annual growth rate of 1.2% in the population of Okhahlamba and a total of 3064 more people in the municipality.

According to the Community Survey Results 2016 and CSS 2015 data, the number of households slightly increased from 27 576 in 2011 to 29 510 in 2016, marking an increase of 1934 households. This is thus in corresponds with the increase in population numbers.

In 2011, the average household size was 4.6, which has remained at 4.6 in 2016. This suggests that in 2011 there were smaller nuclear family structures within Okhahlamba as opposed to larger extended families. This trend has also been picked up during interviews conducted in the area.

6.3.2 POPULATION STRUCTURE

The age structure of the population reveals a generally young population with a large portion of the population under the age of 35 of which 39.2% is under the age of 15. The needs of this generally young population thus become important and it has implications on the provision of educational facilities, social welfare and the stimulation of the economy to provide job opportunities and economic development.

Although Okhahlamba is generally well provided with educational facilities, there is no tertiary educational facilities, resulting in the trend of young people leaving the area in search of not only educational facilities, but also employment opportunities. Some may find employment opportunities or better educational facilities in nearby centres.

The population is also characterised by a predominant female population, representing 52.8% of the population. This has certain implications on traditional land allocation processes, which might have to be relaxed in order to accommodate women and child headed households, who otherwise might not have access to land. In addition, the large proportion of female headed households may imply low levels of household income due to single parenting and one source of income.

6.3.3 POPULATION MOVEMENT

Population movement refers to internal and external movement of people. Internal movement patterns include children going to school and people visiting clinics and other public facilities and services, as well as people visiting areas of economic activity (shopping trips). These internal movements closely correspond to the spread and location of public facilities in relation to each other. In the traditional rural areas, the location of public facilities is interlinked to traditional land allocation processes. As a result, the distances that people have to walk to these facilities vary and proper planning of these facilities can improve their accessibility.

Another important population movement trend in the rural settlements located on communal (traditional) land is that people and households tend to move closer to transportation routes and areas that have benefitted from service delivery. This trend provides people easier access to services and facilities and is also one of the factors that is contributing to the change in settlement patterns in these areas.

In Okhahlamba, there is also movement of students and scholars to schools outside the municipal area, due to a lack of tertiary facilities.

6.3.4 POPULATION DISTRIBUTION

The distribution of the population mainly follows the continuum of settlements found in Okhahlamba, which ranges from the urban settlements to low density rural settlements in traditional areas. Urban settlements of Bergville and Winterton is characterised by denser development, especially in Khetani (Winterton), while peri-urban settlements include Woodford and Bethany, located to the north of Bergville. Low-density settlements are located on commercial farmlands or in traditional rural areas. Settlements on commercial farmlands include Acton Homes, Hambrook, Malottaskraal, Greenpoint and Rookdale, while the low-density rural settlements located on communal (traditional) land generally include settlements located within the traditional council areas, such as Zwelisha, Dukuza and Emmaus.

Areas that are currently experiencing pressure for development include Woodford, Bethany and Rookdale. These areas are well-located in terms of access to areas of opportunity (especially Bergville) by means of public transport.

6.3.5 EMPLOYMENT AND INCOME

Census 2011 data estimates the unemployment rate in Okhahlamba at 43.4%. A large portion of the population is either unemployed, discouraged work-seekers or economically inactive. This is an indication of a lack in employment opportunities in the area or a lack of the necessary skills and education to participate in the economy.

In addition, 43% of the population does not receive any form of income, whilst 28% earn between R1-R400 per month and 11% earn between

R801-R1600 per month. This indicates that a large portion of the population is living in poverty with low levels of disposable income.

The high dependency ratio of 79 per 100 indicates that there is a great burden on the average adult because the rest of the adult population must meet the needs of the dependents. All the above factors contributes to low affordability levels and high contributions to indigent support from the municipality.

6.3.6 UNEQUAL ACCESS TO BASIC SERVICES

Unequal access to basic services and development remains a challenge in Okhahlamba and is still one of the most visible spatial imprints of the apartheid past. Although the urban areas of Bergville and Winterton and generally well provided with basic services, access and quality of services in other rural areas remain inferior. This includes areas such as Rookdale, Bethany, Woodford, Hambrook etc. These areas are generally characterised by severe backlogs and present themselves as infrastructure investment priority areas.

The minimum requirements for acceptable access to piped water are a clear indication of backlogs and unequal access to services. Only 16% of the population had piped (tap) water inside dwelling/institution in 2011, 9% had piped (tap) water inside their yard, while 29% had piped (tap) water on community stands (distance less than 200m from dwelling/institution). Bulk water for the majority of rural communities, is abstracted from local river systems, boreholes and protected springs. In contrast bulk supplies to main services centres is largely based on abstraction from major rivers (e.g. for Bergville). It should be noted that there is an absence of information on bulk water supply lines and rural water schemes. In terms of sanitation, the minimum requirements for acceptable access to sanitation are:

→ flush toilets (connected to sewerage system) of which only 8% of households have access to;

→ flush toilet (flush toilets with septic tank) of which only 3% of households have access to;

→ only 12% of households have chemical toilets;

→ 32% of households have access to have pit toilet with ventilation (VIP), while 30% have pit toilet without ventilation.

This limited access to minimum standards also reflects the rural nature of the area. The other important basic service is access to electricity. Although it appears that the electrification network is extensive, there are still some areas in need of electrification, such as the Mabhulesini-Kokwane area (see map 20).

6.3.7 ACCESS TO PUBLIC FACILITIES

6.3.7.1 HEALTH FACILITIES

Map 4 and 5 depicts the catchments of the health facilities and the Emmaus hospital in Okhahlamba. The analysis of the catchments indicates that health facilities are located close to major roads, thus

contributing to accessibility. It further indicates that the majority of these facilities covers the central portion of the municipality, although travel distances can reach up to 20km to access a facility. The most northern portions of the municipality is beyond the 20km catchment area, which means that people have to travel more than 25km to access a facility.

The only hospital in Okhahlamba is the Emmaus Provincial Hospital, located on the P394. The catchment analysis indicates that its catchments is much wider than 25 km, and that the majority of the municipal area has to travel more than 25km to access the hospital. This hospital has to serve a population of 132 068 people. Planning standards for hospitals requires a minimum population of between 10 000 – 80 0000 people.

6.3.7.2 POLICE STATIONS

Police stations are located in Winterton, Upper Tugela, Oliviershoek, Van Reenen and Bergville. The catchment analysis indicates that there are some areas further than 25km from a police station (map 8). This is evident in the northern parts of the municipality.

6.3.7.3 EDUCATIONAL FACILITIES

Okhahlamba is generally well provided with educational facilities, except tertiary facilities. Map 23 indicates that almost the entire municipal area falls within a catchment of less than 25km from a primary school and adheres to the suggested planning standards.

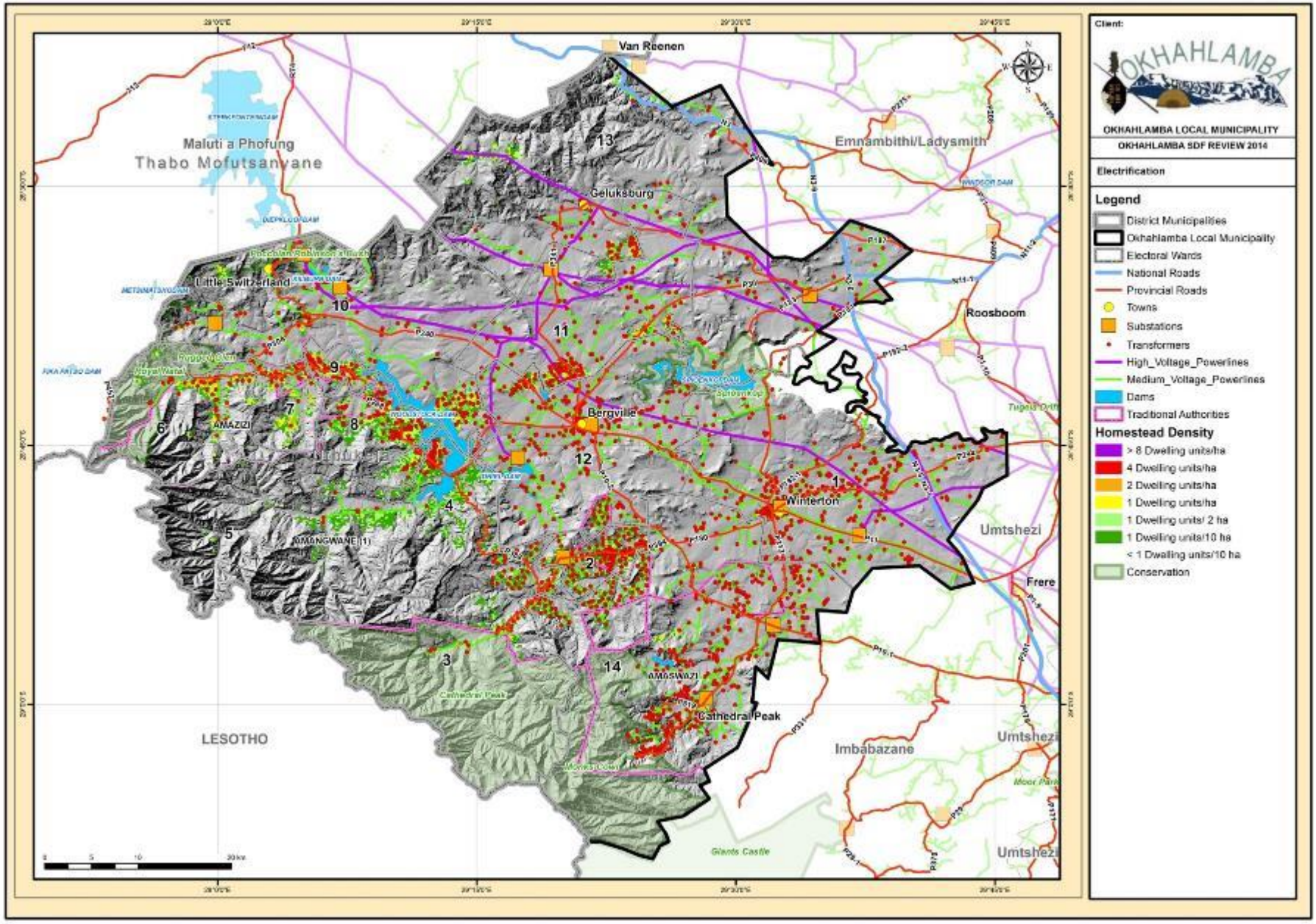
Secondary schools (map 24) are seemingly located along main transport routes, but have wider catchments where travelling distances are further than 10km. It adheres to the suggested catchment population standards.

TABLE 4: PLANNING STANDARDS FOR EDUCATIONAL FACILITIES

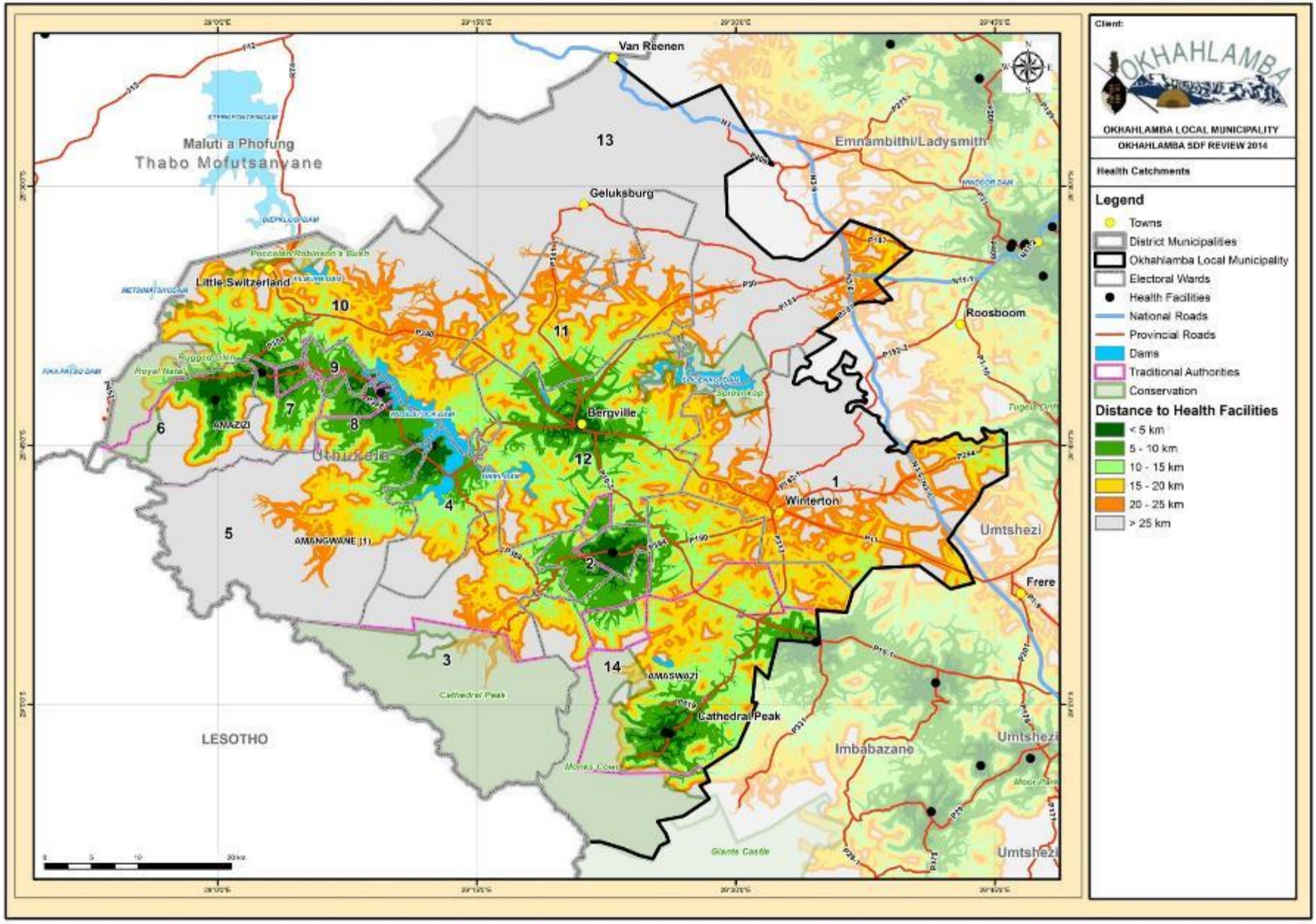
Facility	Catchment population	Distance & Walking time	Location factors	Teacher/children ratio
Primary schools	3 000-4000	1.5km of 30min	Walking distance-1.5km	1:40
Secondary schools	6 000-10 000	5km	Located on public transport route	1:40

Source: Provincial Planning & Development Commission

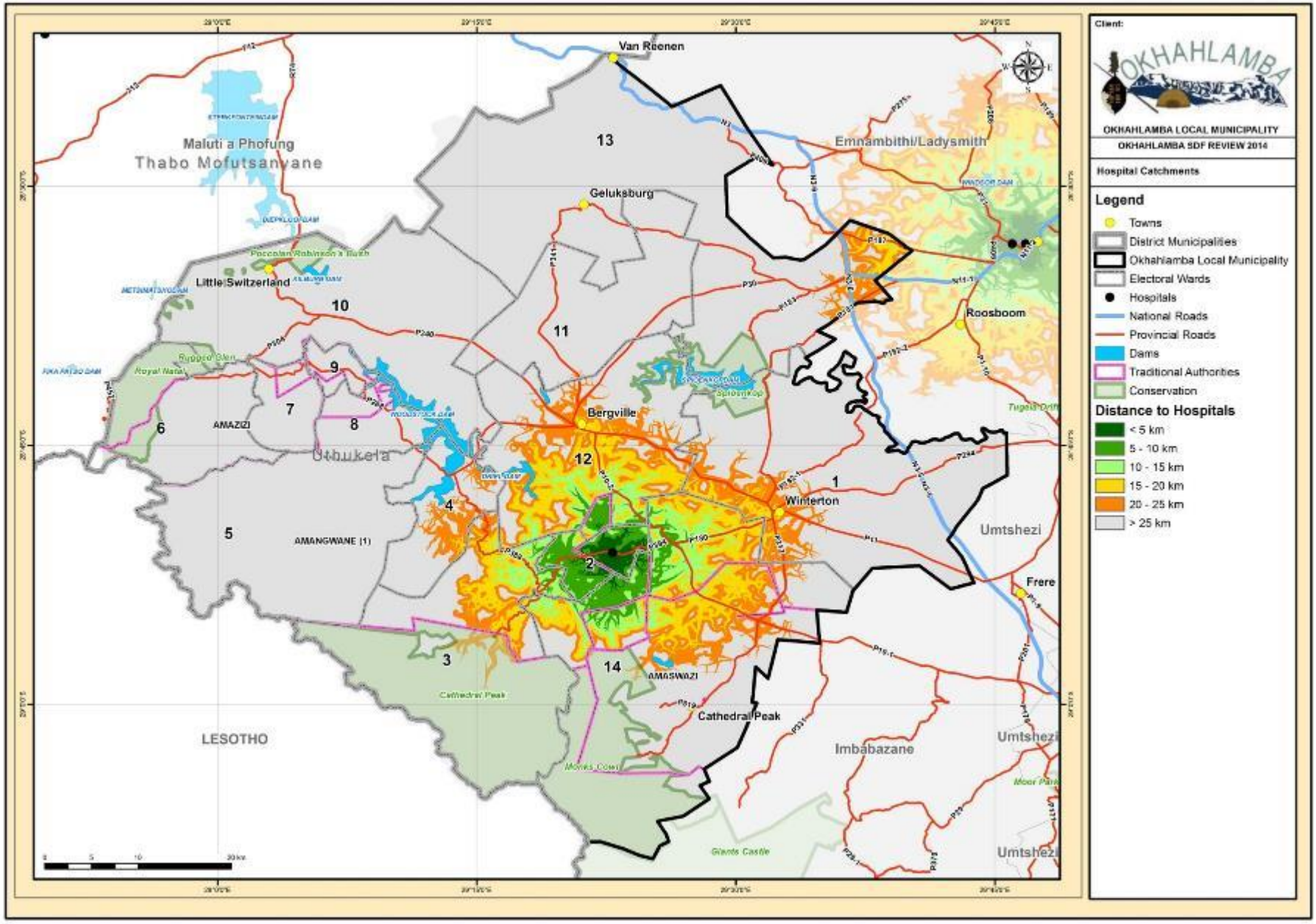
MAP 20: ACCESS TO ELECTRICITY



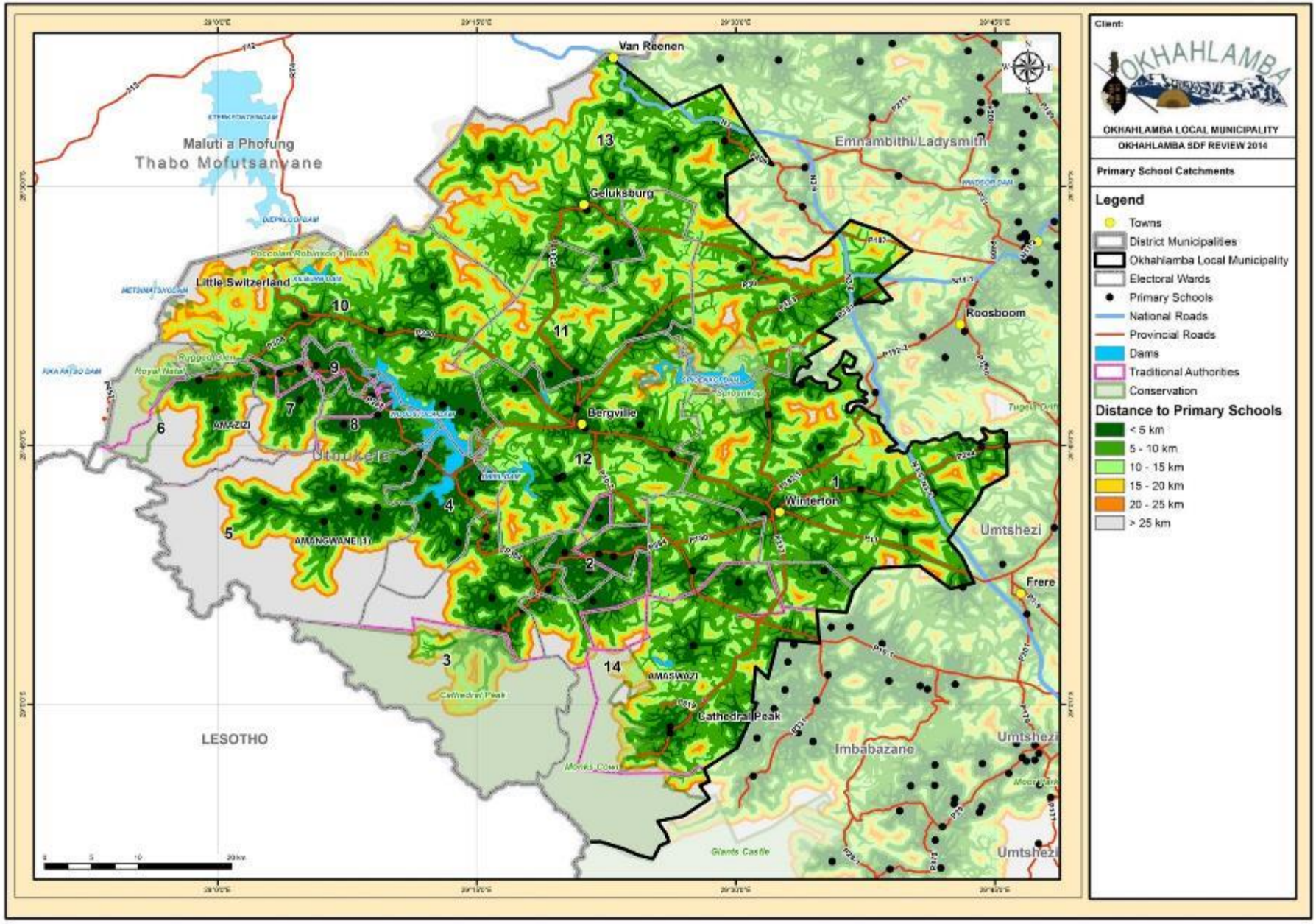
MAP 21: HEALTH FACILITIES CATCHMENTS



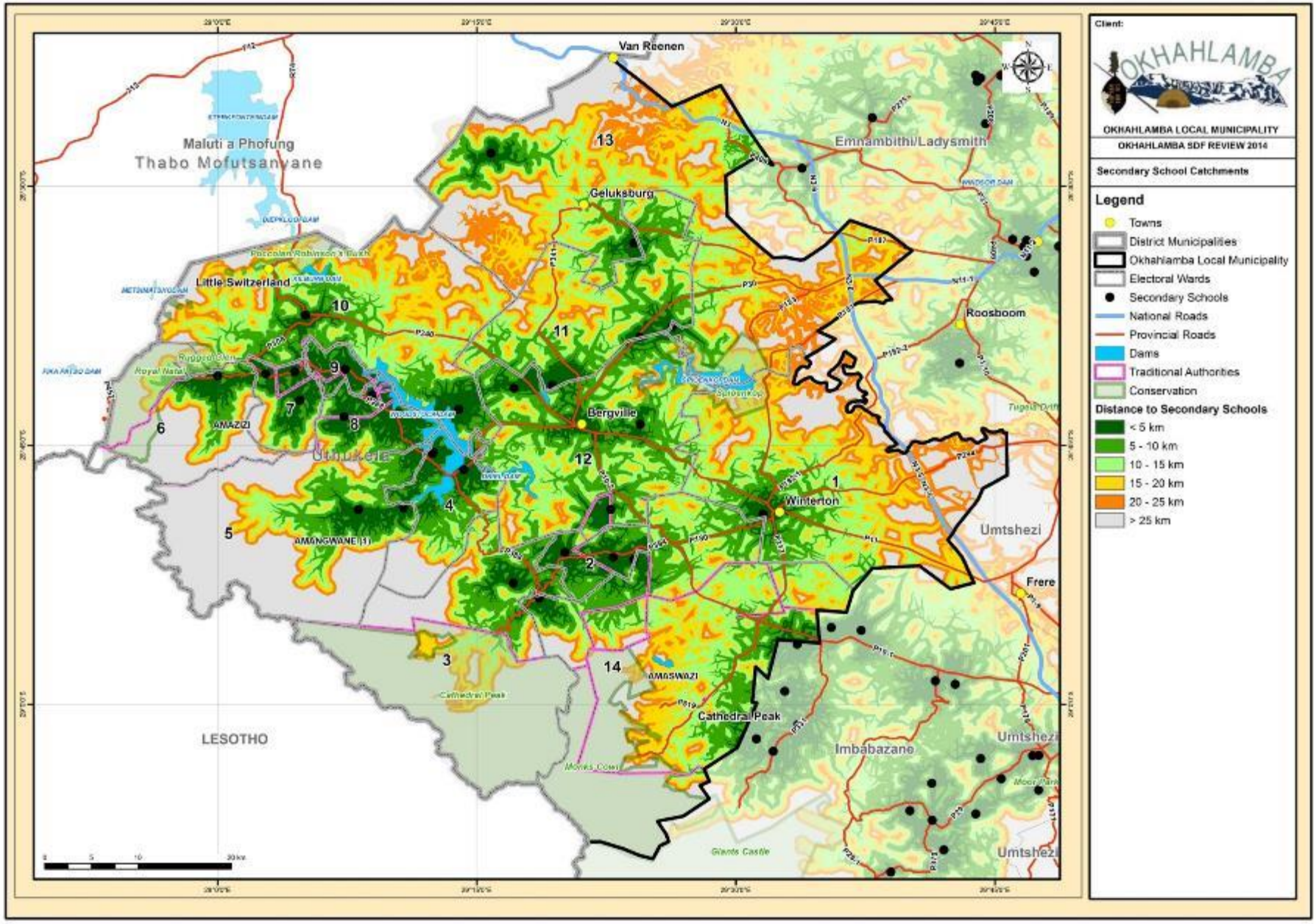
MAP 22: HOSPITAL CATCHMENT



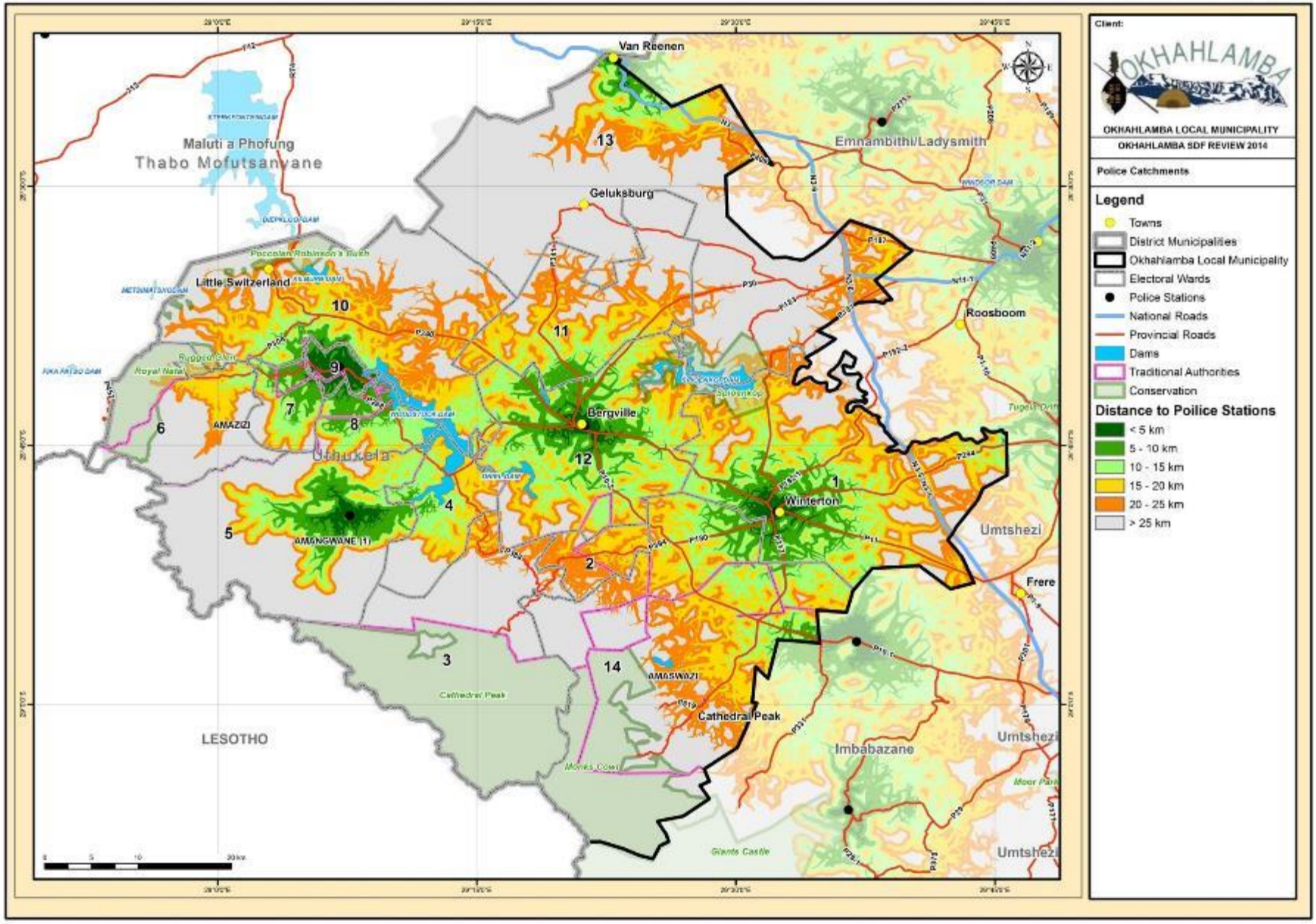
MAP 23: PRIMARY SCHOOL CATCHMENT



MAP 24: SECONDARY SCHOOL CATCHMENT



MAP 25: POLICE STATION CATCHMENT



6.4 SPATIAL TRENDS AND PATTERNS

6.4.1 DISLOCATED SETTLEMENTS

One of the spatial features in Okhahlamba is dislocated settlements, located to the north, north-east and west of Bergville. These include Rookdale, Woodford, Bethany, Hambrook, Acton Homes, Malottaskraal, Greenpoint and Rooihoek. The majority of these settlements have developed on land owned privately by Black African people as a means to accommodate people moving from farms. These settlements have access to basic services, such as electricity and standpipes, according to interviews conducted. However, there is a need for proper access roads. The key challenge is to contain further outward expansion of these settlements and to turn them into sustainable human settlements.

6.4.2 SETTLEMENT GROWTH

Settlement growth in the rural and peri-urban settlements has been confirmed through interviews. It was indicated that there is a general increase in the number of requests for land received by the Traditional Council and private landowners. This has implications for spatial planning and management of these settlements. Proper management of the growth of these settlements becomes important and settlement plans and growth boundaries becomes important issues to address.

6.4.3 SETTLEMENT SPRAWL

Settlements have been grotesquely distorted by the impact of the country's political past, which dictated its urban form. This left us with a legacy of highly fragmented, sprawling and inefficient settlements. This settlement pattern generates enormous movement across vast areas, which is both time consuming and costly thereby entrenching a system of unequal access to economic and social resources. A review of the structure and form of the municipal area reveals a low-density settlement sprawl that takes on the following forms:

→ Large private developer-led projects, many of which seek to privatize amenities. In Okhahlamba, there are a number of resort and recreational villages associated with the tourism industry, as well as the Nondela development (which was intended as a golf estate, but did not take off as planned and is now earmarked for housing development).

→ Large authority-led low-income housing projects drives the search for cheaper land. Examples include the housing projects such as Acton Homes and Bethany, outside Bergville.

→ Traditional settlements, most of which are located under traditional council, on Ingonyama Trust land. These extensive areas of

settlement have evolved in response to different government policies, local cultural practices and land allocation systems.

→ The growth of dislocated settlements; either in peri-urban areas or on commercial farmlands. Examples include settlements such as Rookdale, Woodford, Bethany, Hambrook, Acton Homes, Malottaskraal, Greenpoint and Rooihoek.

These spatial footprints presents the municipality with a serious challenge to transform areas from being a dormitory suburb or rural settlement into a functional, integrated and generative spatial system.

6.4.4 SMALL TOWN REHABILITATION

The towns of Bergville and Winterton plays an important role within the region. However, these towns have suffered over the years from institutional neglect and face several challenges. These are typical urban regeneration challenges and include urban decay, informal trading, parking, conflict between pedestrian and vehicular traffic, road maintenance etc. Although some of the problems are management issues, there are also some serious structural problems. In Bergville, the Urban Design Framework initiative intends to address the poor condition and some of the structural challenges facing the town, as well as building on some of the opportunities presented by the town.

6.4.5 IMPACT OF TRADITIONAL LAND ALLOCATION SYSTEM

A large portion of the population in Okhahlamba resides in areas where there is strong influence of traditional leadership and the associated traditional land allocation practices. These systems have been passed on from generation to generation and adapted in response to social changes. In a context of population growth and in-migration, this system has given rise to settlements that are neither integrated nor sustainable. Homesteads are unsystematically spread in space, which renders infrastructure development inefficient from a cost perspective. Some households have located in areas that are poorly accessible, environmentally sensitive and generally not suitable for settlement purposes. It is expected that the implementation of the scheme in these areas will introduce controls, norms and standards, and facilitate the transformation of rural settlements into sustainable human settlements.

6.4.6 TRADITIONAL LAND USE PRACTICES

One of the traditional land uses associated with the homestead are traditional burial practices that takes place on-site. This is an important cultural tradition, which affects spatial planning in rural areas of Okhahlamba, as well as in the peri-urban settlements like Greenpoint, Hambrook and Bethany. The only settlement that indicated that they do not bury in their yard, was Rookdale.

Burial is a very sensitive cultural issue, and care should be taken when allocating land for cemetery purposes. In addition, the identification of

land for cemeteries will require extensive public participation and specialist investigations.

6.4.7 OUTMIGRATION OF YOUNG PEOPLE

The phenomenon of young people leaving the area after matriculating has been confirmed as a general trend in Okhahlamba. This is attributed to the lack of job opportunities and tertiary institutions within the municipality. This phenomenon has a number of socio-economic consequences, including the following:

→ Changes in the structure of the population: The majority of young people leaving the area are the economic active section of the population. They leave behind the older generation, as well as their children, which becomes the responsibility of the grandparents. As such, emphasis on early childhood development is critical, as well as a focus on services for the elderly.

→ Educational facilities: The decrease in the young population can be attributed to the lack of tertiary educational facilities in the region. There is thus a need to address the lack of tertiary education facilities in closer proximity.

→ Economy of the municipality: The loss of the economic active portion of the population has certain consequences for the municipality. Economic productivity is affected and the future growth of the area is questionable, since it is unclear if these young people will return to the area, or if they will return to retire on their ancestral land. This tendency of young people was confirmed during interviews with traditional and local leadership.

6.4.8 IMPACT OF LAND REFORM

The land reform programme is a Constitutional imperative, and forms one of the cornerstones of the rural development programme of the national government. A large portion of the Okhahlamba municipality is subject to various elements of the land reform including labour tenant applications and land restitution claims (gazetted and transferred). While this will transfer productive assets to the rural poor, it may also have an effect of reducing commercial agricultural land, and create isolated settlements.

Land reform also affects agriculture. Land capability of the Okhahlamba is of high value and must be secured. The majority of the central part of the municipal area consist of good agricultural potential and according to the agricultural land categories, the majority of the municipal area is categorised as threatened and irreplaceable agricultural land. Intensive commercial agriculture would thus seem as a viable land use option for a development programme in most parts of the municipal area. It is thus critically important to protect agricultural land and promote its productive use.

6.4.9 RURAL SETTLEMENT DYNAMICS

Rural settlements are not all the same and these settlements are dynamic complex spatial systems. As such, the understanding of the

factors that shapes these settlements is critical in an SDF and the implications for spatial planning must be clearly understood. The Okhahlamba SDF thus needs to respond to the rural dynamics of the area, in order to make the SDF a functional and useful spatial planning tool.

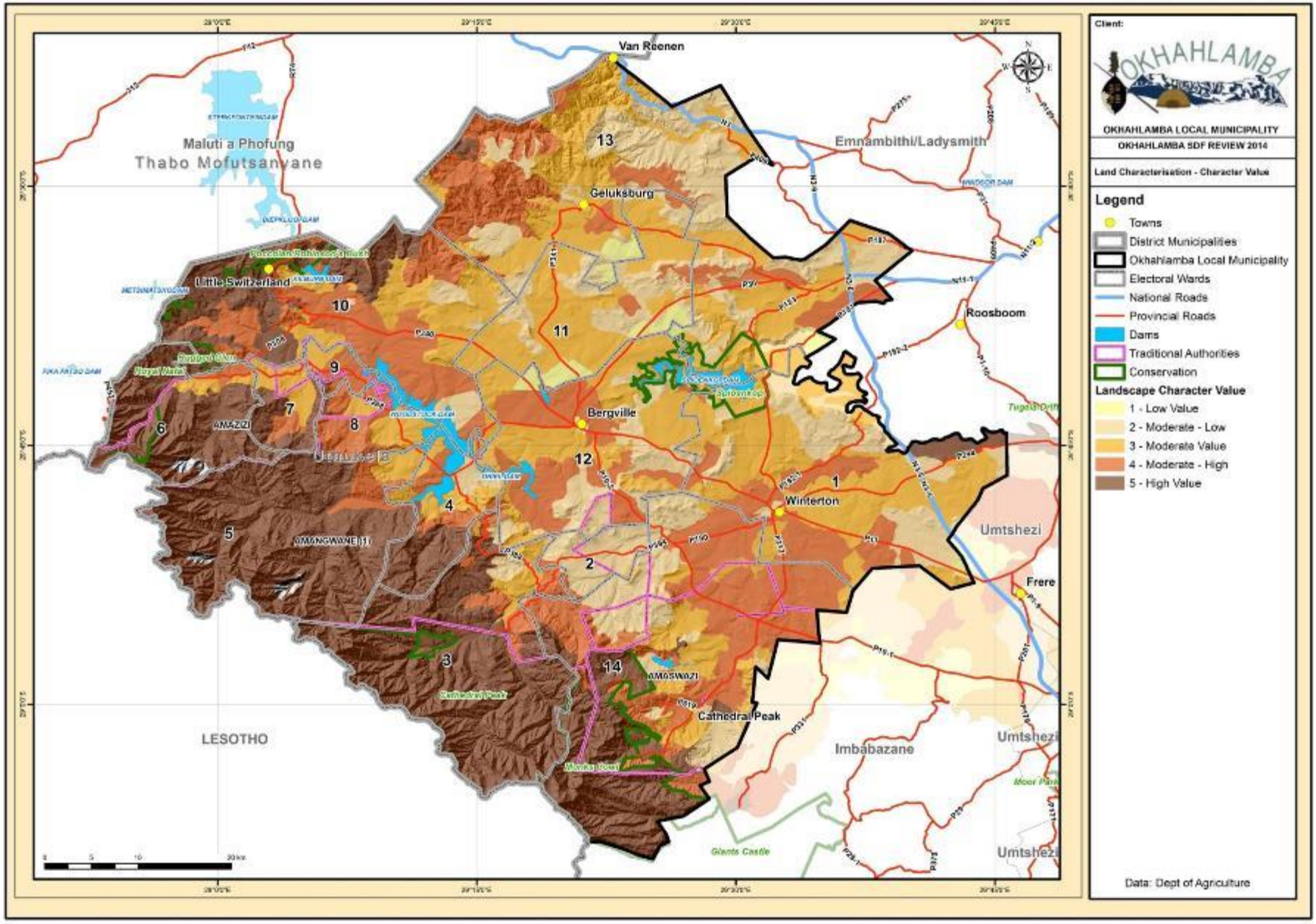
Rural settlements have to respond to a range of factors including topographical features, access to natural resources, livelihood strategies, access to basic services and road infrastructure. With the current national government emphasis on rural development and the mandatory introduction of land use schemes in rural, it has become imperative to base spatial planning in these areas on informed understanding of spatial dynamics, trends and patterns. Also critical is the relationship between these settlements and other key structuring elements. The rural settlements in Okhahlamba neither followed legal prescripts nor has land use pattern evolved in line with the dictates of systems and procedures such as Town Planning Schemes. Instead, they have emerged in the context of land need, forced removals and livelihood strategies. Today, they are highly influenced by access to basic services and public facilities.

6.4.10 LANDSCAPE AND SETTLEMENT

Landscapes are composed of different elements, including landforms such as valleys, ridges, mountains, plains, vegetation and land-use or activities such as agriculture or settlement. It includes landforms such as valleys, ridges, mountains or plains and vegetation, as well as land-use or activities such as agriculture or settlement. A landscape can thus be described as what the viewer perceives when standing in a particular place and is driven by the character of the landscape. However, different landscapes have different capacities to absorb development. For example, steeper areas (unspoilt landscapes) are more sensitive to development as opposed to flatter areas. This requires the direction of development into areas where it is most appropriate, through the identification of landscapes that are more sensitive to development. Landscape should spatially guide development and should protect the intrinsic character of sensitive and valuable landscapes.

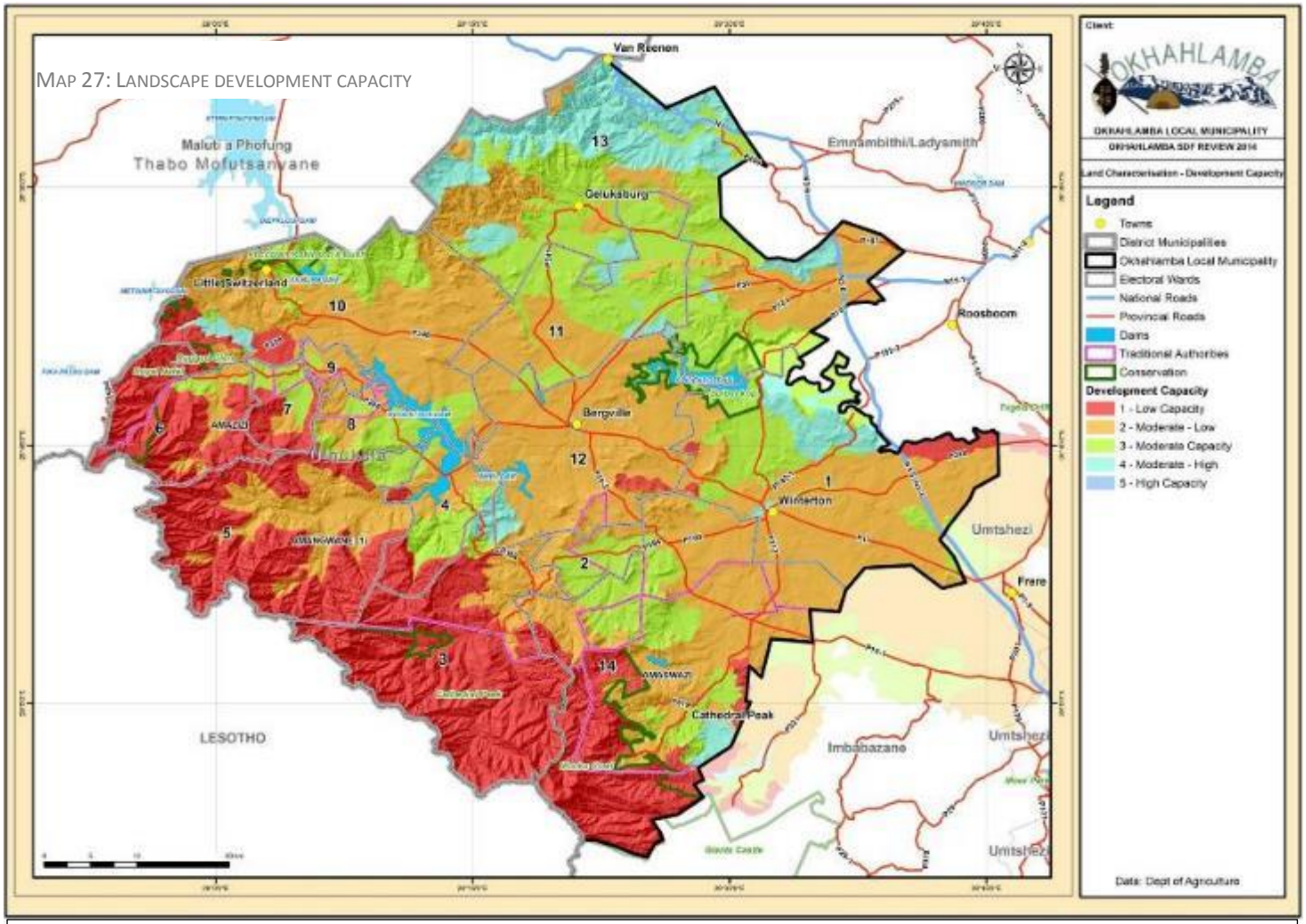
In Okhahlamba, the most sensitive areas to landscape change are the high lying areas of the escarpment, the little berg and the foothills (map 26). The moderate and low sensitivity areas tend to be located in the lower lying areas of the region further away from the highly visible mountainous areas. Taking these trends into consideration, settlement, agriculture and tourism should be confined to the low-lying flatter areas in order to preserve the character of the landscape (map 27). In addition, the intensity of activities that could be sustained in different landscapes, should be defined.

MAP 26: LANDSCAPE CHARACTER VALUE



6.4.11 LANDSCAPE AND TOURISM

MAP 27: LANDSCAPE DEVELOPMENT CAPACITY



However, in the northern parts of Okhahlamba land transformation has taken place in the major valleys in the form of settlement and agriculture. The Corridor Framework Plan suggests that municipalities adopt the tourism typology as captured in landscape characterisation studies, and spatially apply this to the municipal area

Considering the importance of tourism and the potential impact thereof on the landscape, a further investigation into the tourism development capacity of the landscape was undertaken in 2011. This involved tourism typologies being related to tourism potential. It resulted in the formulation of tourism development capacity categories (Maloti-Drakensberg Corridor Framework Plan, 2014).

Forthcoming from this investigation is that the lowest tourism development potential is located in the highest most scenic areas with the lower areas furthest away from the mountains being most suited to tourism development.

6.5 BIOPHYSICAL ISSUES

Environmental sensitivity is a measure of how easy it is to inflict damage on a particular area or produce serious consequences from actions on a limited scale. Sensitivity informs the opportunities and constraints for development, e.g. low sensitivity presents high development potential or high sensitivity presents low development potential. There are a number of environmental sensitivities in Okhahlamba municipality that affects development and spatial planning and that requires appropriate attention.

6.5.1 WATER QUALITY

According to the uThukela EMF (2013), the quality of the water flowing in the rivers is monitored by the Department of Water Affairs on a routine basis. However, of concern is that it indicates that the last review was undertaken in 2008, and that there was a general deterioration in water quality elements. An increase in soil erosion and vegetation degradation contributes to higher sedimentation levels affecting the water quality of water resources. However, the issue of greatest concern relates to human settlements. Dense settlements affect the quality of surface water (rivers, wetlands and dams) and groundwater via contamination with human waste and nutrients. Increased and uncontrolled settlement growth, close to valuable natural assets, are contributing to the declining quality of the water resources. Water pollution is further exacerbated by polluted and increased storm water runoff, failing wastewater treatment works and reticulation systems, and inadequate provision of services

6.5.2 SURFACE WATER AND INLAND AQUATIC ECOSYSTEM PRIORITIES

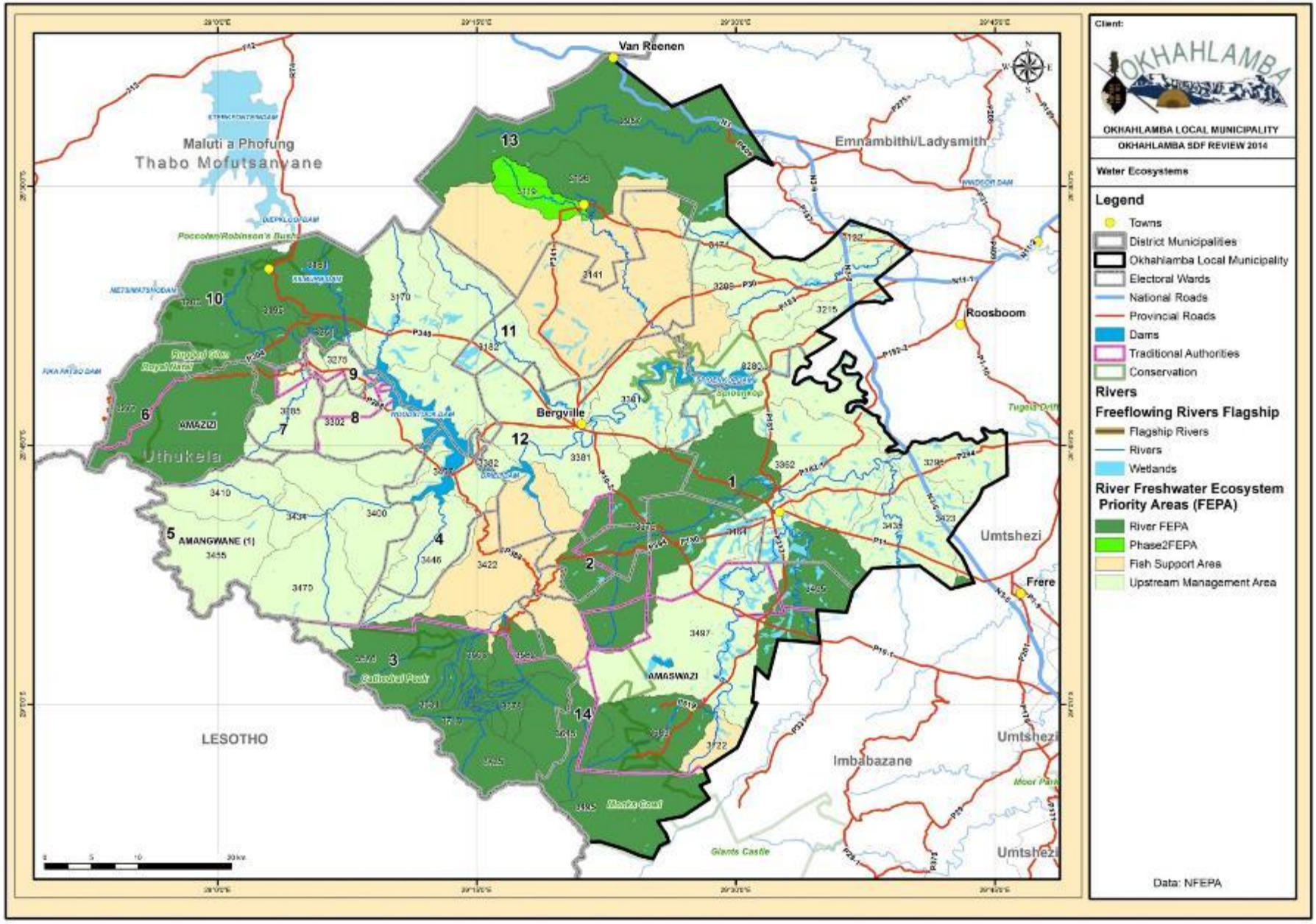
The need to protect critical water resources and ecosystem goods and services that support the livelihoods of people are of critical importance. The National Freshwater Ecosystem Priority Areas (NFEPA) identifies spatial priorities for conserving freshwater ecosystems and supporting the sustainable use of water resources.

Map 28 indicates that there are five FEPAs in Okhahlamba and have certain implications for development. Certain land use objectives and guidelines aimed at safeguarding the water resources in Okhahlamba thus becomes very important.

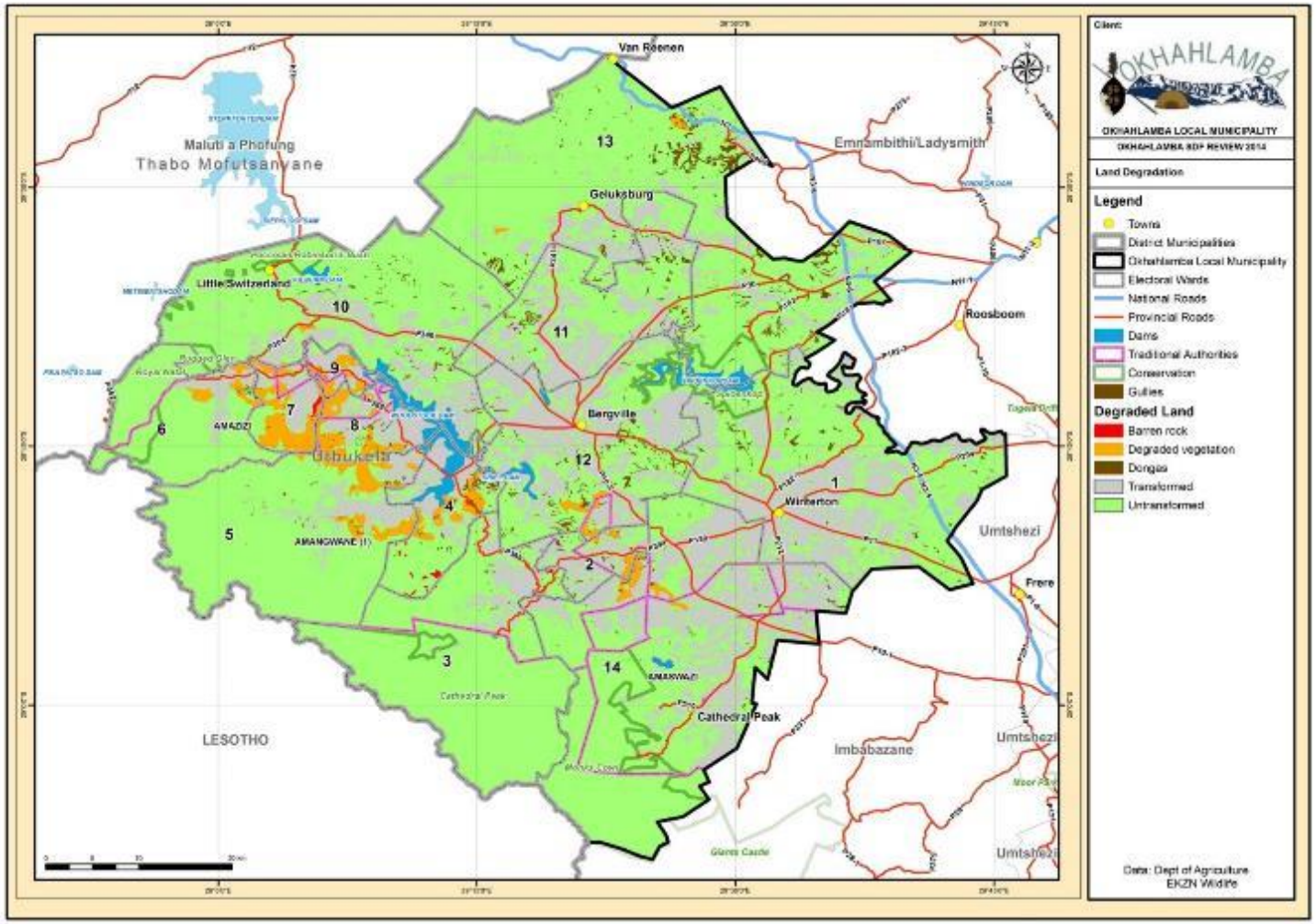
6.5.3 LAND DEGRADATION

The Okhahlamba municipal area provides a range of opportunities for eco-tourism development, but must be harnessed appropriately and utilised on a sustainable basis. Although there are numerous benefits provided by the environment, there are also several environmental threats and limitations, which if not addressed could contribute to decline in importance.

MAP 28: WATER ECOSYSTEMS



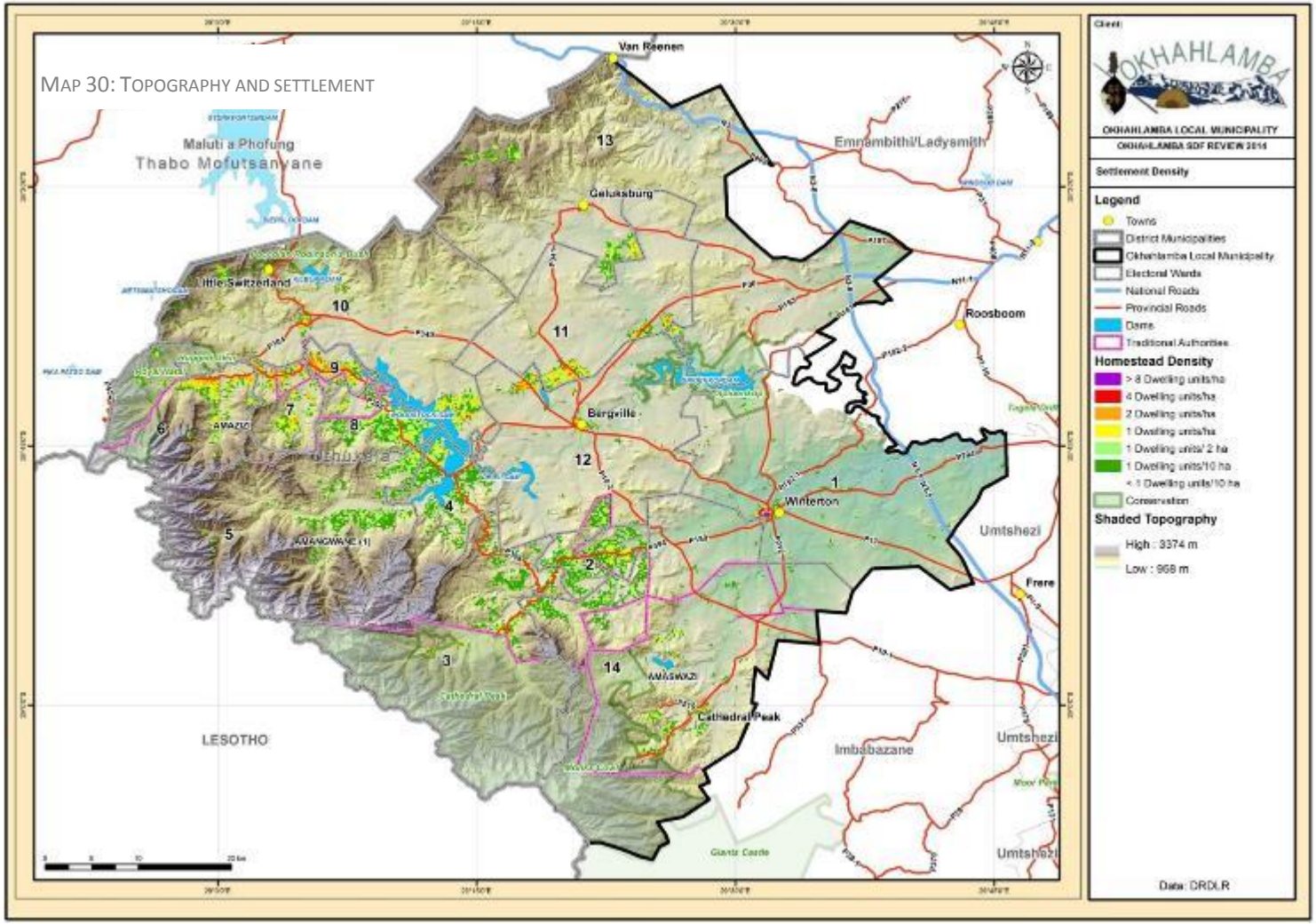
MAP 29: LAND DEGRADATION



Changes in the fertility of arable soils and an increase in soil erosion and vegetation degradation are all contributing factors to the degradation of the environment. The most recent data on the state of soil erosion and vegetation degradation is presented on the map 29. It is clear that although a very large portion of the area is still untransformed, the central areas (where commercial agriculture areas), as well as pockets of land in the Amazizi Traditional Council area, have been transformed.

6.5.4 TOPOGRAPHY AND SETTLEMENT

MAP 30: TOPOGRAPHY AND SETTLEMENT

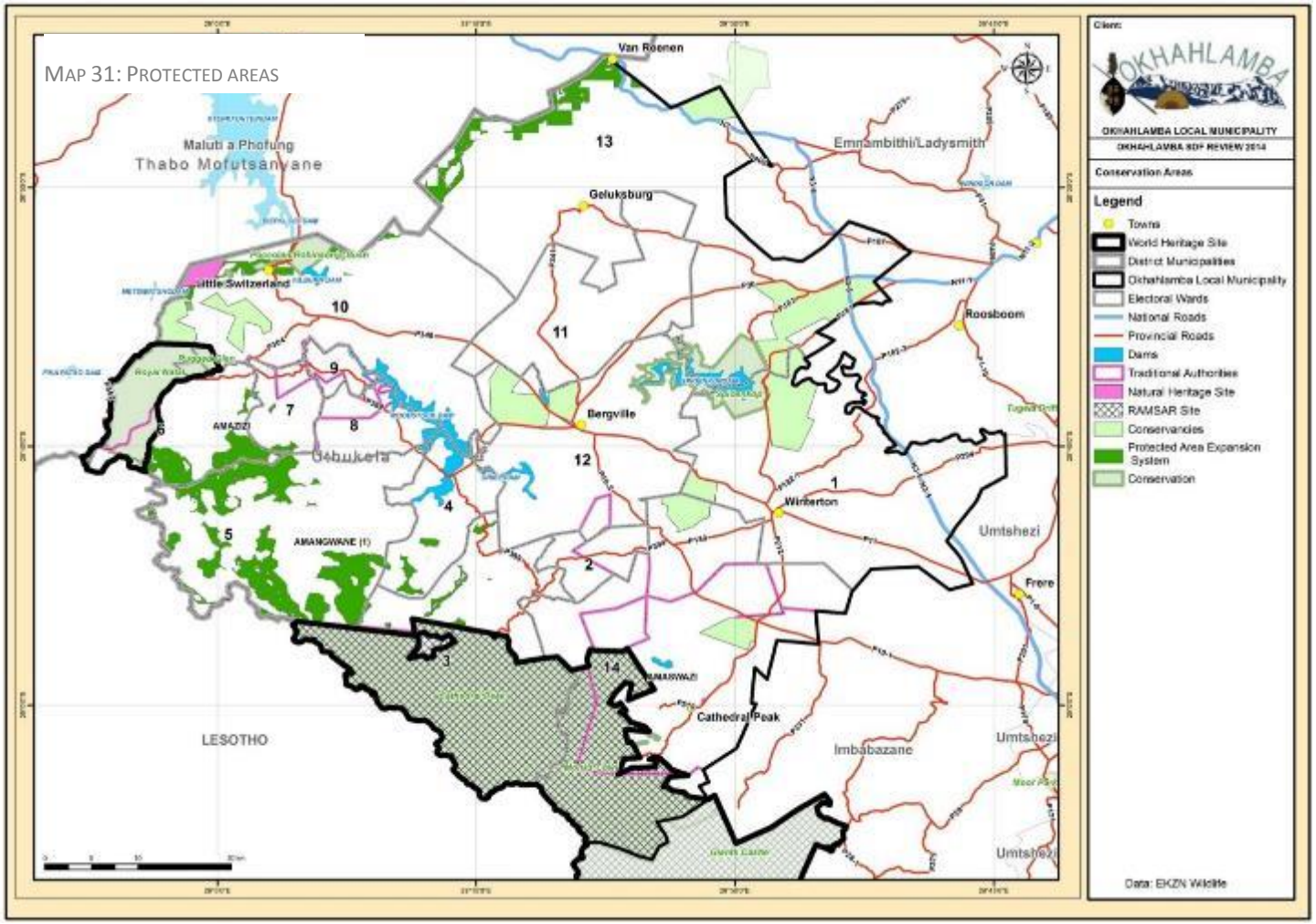


Settlements located in these areas are therefore of key management interest to the municipality and has implications for spatial planning and environmental management. Slope should thus be taken into consideration during land allocation and generally, steep slopes with gradients of 1: 7, 5 to >1: 3 is regarded as being "high risk" with potentially unstable hillsides and is not recommended for development.

The topographical map shows the municipality's terrain elevations above mean sea level (AMSL). Okhahlamba is characterised by mountainous, undulating terrain and lowlands in the east. The terrain influences the drainage trends and patterns in the landscape, which in turn influence settlement patterns. This is evident in the mountainous areas of the municipality, where rural settlements tend to locate along ridgelines on lower elevations. Elevation also influences movement of people and access to land resources. As such, improved road access generally contributes to worsening environmental degradation.

6.5.5 BIODIVERSITY AND PROTECTED AREAS

MAP 31: PROTECTED AREAS



Conservation Areas are those areas of land not formally protected by law, but where primary land use is conservation. These areas are informally protected by the current owners and users, and managed at least partly for biodiversity conservation. There are a number of these conservation areas in Okhahlamba.

Maintaining ecological processes and functions of natural systems are important. Ezemvelo KZN Wildlife has therefore defined critically important biodiversity areas to ensure that terrestrial biodiversity resources remain available to the local inhabitants and future generations. These areas give an idea of the sensitivity of the land and the restrictions biodiversity needs are placing on development.

In addition, Okhahlamba has a number of formally protected areas that are formally protected by law and managed for the purpose of biodiversity conservation. The largest and most significant protected area is the uKhahlamba Drakensberg Park World Heritage Site.

Conservation Corridors facilitate evolutionary, ecological and climate change processes to create a linked landscape for the conservation of species in a fragmented landscape. Their purpose is to promote ecosystem functionality and connectivity in order to contribute to national biodiversity goals. There are a number of corridors in Okhahlamba, mostly running along the Drakensberg mountain range in the north-western and south-western periphery of the municipal area.

Biodiversity conservation is often perceived to conflict with economic and social needs, so it is imperative that this is managed pro-actively to ensure that potential conflicts are minimised.

6.5.6 AGRICULTURAL RESOURCE PROTECTION

The rate at which high value agricultural land is being lost is of great concern. Studies have indicated that between 1994 and 2000, there has been a decline in the area of high potential land under agricultural cultivation. This is mainly due to changes in land use and an increase in productive land that has been transformed permanently.

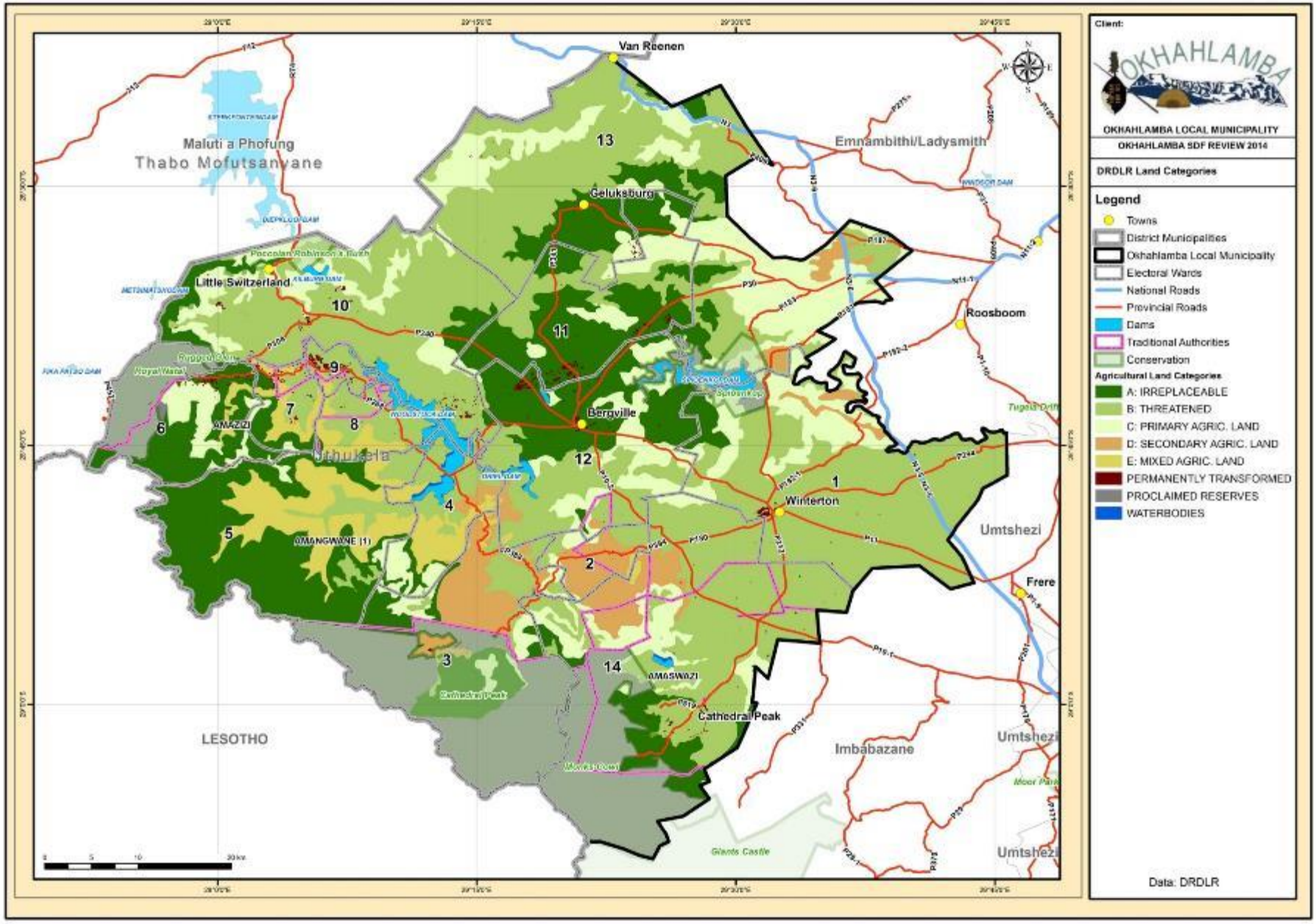
DAFF AND DAEA has recently embarked on a new initiative to develop an Agricultural Land Zoning System for KZN (DAFF & DAEA, 2012). They are attempting to combine available data to classify a region into Agricultural Land Categories, which indicate the ability of an area to produce food under recommended management practices on a sustainable basis. Land with a high agricultural potential is regarded as a scarce non-renewable resource and the relevant authorities are very cautious and sometimes opposed to development of such land for purposes other than agricultural production. As such, land with high potential for agriculture is deemed irreplaceable and must thus be legally protected (DAFF & DAEA, 2012). Map 32 translates the spatial implications of the new policy direction and identifies categories A and B as prohibited (limited use) and Category C is discretionary.

In the context of Okhahlamba, the importance of agriculture cannot be under emphasised and is clearly indicated spatially. Subsistence agriculture is practised mainly in the traditional areas and involves a mix of types of agriculture including smallholder and food security production to livestock and small-scale timber production. While a very large portion of the municipal area are classified as Category B: Threatened, there are several areas within the central / northern portion of the municipality and the western periphery classified as Category A: Irreplaceable. Detailed guidelines are thus critical to guide land use management in these areas, and these have to be included in planning schemes.

6.5.7 CLIMATE CHANGE

Climate change is a worldwide phenomenon, affecting the environment, habitats and eco-systems. It is likely to manifest in a number of different ways according to local conditions. As a direct consequence, extreme weather events have been increasing in scale, frequency and intensity.

MAP 32: AGRICULTURAL LAND CATEGORIES



Climate change in this context refers to changes in the modern climate, including the rise in average temperatures known as global warming, and extreme weather events such as floods and droughts that are likely to become more frequent and intense. The impact of climate change will challenge the adaptive capacity and resilience of settlements, cities and regions especially with respect to infrastructure systems. Climate change in effect, affects settlement patterns and migration. The impact of climate change in rural areas and on agricultural production can lead to increased urbanisation of rural communities in search of employment in larger towns and cities. Other anticipated effects of climate change include:

→ an increase in conditions that promote wildfires (hotter, drier and windier conditions);

→ reduced rainfall resulting to reduction in water supply;

→ decreased soil moisture resulting from less rain and higher temperatures;

→ temperature impacts on agricultural activities; and

→ a possible increase in the presence of disease vectors (such as malaria) in areas that were previously relatively disease-vector-free.

Interviews conducted with stakeholders confirms an increase in more extreme rainfall in recent years. The anticipated effect of climate change means that many areas throughout Okhahlamba may become high flood-risk areas as a result of the increase in intensity of storm surges and river flooding. Inappropriately located development can also result in exposure to flood risks.

6.6 RECOMMENDATIONS

Okhahlamba is unique in the sense that it is subject to a range of factors and influences stemming from its rural nature and the impact and dimension that traditional authorities and their role in land use management and development brings to the area. In addition, the inherent environmental sensitivity and natural features of the area, as well as the location of the UDP WHS, entrenches the need to provide this municipality with the necessary spatial and environmental management tools. As a result of the unique features of the area, the normal spatial planning dogma is not always the most appropriate process to follow and the uniqueness of the area has an important influence on planning and future development.

Preliminary recommendations flowing from this report are discussed broadly below:

→ Resources must be channelled into areas with the greatest need and development potential.

→ Land with agricultural potential need to be clearly demarcated and protected.

→ Traditional authorities should receive training that would capacitate them to make informed decisions when allocating land. This should include map reading skills, computer literacy and GPS training. These skills could improve land allocation processes and keeping record of sites and people moving in and out of the area.

→ Basic guidelines should be developed for land allocation by traditional authorities. This can deal with issues of allocating land on environmental sensitive areas, steep areas, areas with agricultural potential or areas generally not suited for development. It could also provide guidance on the allocation of land for public facilities and services.

→ Special attention should be given to issues of early childhood development and the needs of the elderly and women, due to the tendency of out-migration of the economic active portion of the population.

→ Tourism development should be strengthened and promoted.

→ Tourism on farms and in traditional areas should not affect the agricultural potential of the farm or area.

→ Tourism on farms and traditional areas needs to be informed by a landscape character assessment including landscape sensitivity, value and capacity.

→ The municipality should adopt the tourism typology, as captured in landscape characterisation studies, and spatially apply this to the municipal area.

→ The viability of the provision of conventional basic services in isolated rural areas as opposed to alternative infrastructure options needs to be considered.

→ Settlement growth should be contained through the identification of settlement edges. Urban and rural settlement edges need to be identified to reinforce the character of these areas and to prevent sprawl.

→ There are specific areas of concern where resource sensitivity places constraints on development. The sustainability challenge in such areas is to avoid an extreme anthropocentric approach that will lead to eventual collapse of natural systems over time and to strive towards a more integrated approach to development that recognises the limits beyond which irreversible damage to the environment may occur.

→ Water resources management is a key priority and should have a strong focus on resource-directed measures, such as the control measures proposed by the National Freshwater Ecosystem Priority Area (NFEPA) Project, strategies to rehabilitate and manage wetlands, and water conservation management through strategies to control invasive alien species.

7 SPATIAL DEVELOPMENT CONCEPT AND STRATEGY

Municipality SDF gives effect to the long-term strategic intent and short to medium development program as outlined in the IDP. It presents the desired future spatial situation and outlined strategic interventions for its attainment.

7.1 MUNICIPAL SPATIAL DEVELOPMENT VISION

IDPs are aimed at ensuring that all municipalities fulfil their developmental responsibilities awarded in terms of the Constitution and are accordingly a critical legal requirement in terms of the Act. The municipality's development vision is a core element of the development strategy as outlined in the IDP, which fulfils the requirements of the Municipal Systems Act. The municipality's development trajectory is depicted in figure 16. The vision commits the municipality to development that unlocks opportunities for economic development, enhances the quality and sustainability of the environment, harmonises it with human development, and provides for access to services and development opportunities.

The spatial vision for the municipality should focus on the promotion of spatial transformation and build on social and ecological sustainability to achieve the overall vision of the municipality. Ecological sustainability has to focus on the preservation of ecosystems and natural resources, and activities in the area that must grow the natural capital.

FIGURE 16: VISION FOR OKHAHLAMBA

Social sustainability should facilitate access to key services (health, education, transport, housing, recreation and employment) for the communities that reside in the area, while equity between generations must also be secured. The attainment of this vision requires the municipality to facilitate the development of a spatial system that

promotes social, economic, financial, institutional and environmental sustainability.

7.2 SPATIAL PLANNING AND DEVELOPMENT OBJECTIVES

The primary aim of the SDF is to facilitate the transformation of Okhahlamba Local Municipality into an integrated and sustainable spatial system. The SDF will influence directly the substantive outcomes of planning decisions towards the attainment of the following strategic objectives:

→ To give a spatial expression to the development vision, strategy and multi-sectoral projects as outlined in the IDP.

→ To create a spatial environment that promotes and facilitates economic development and growth.

→ To facilitate the development of sustainable human settlements across the continuum and in line with national policy directives.

→ To promote sustainable development and enhance the quality of the natural environment.

→ To facilitate sustainable and efficient utilisation of land.

→ To guide private and public investment to the most appropriate areas in support of the municipal spatial development vision;

→ To provide a visual representation of the desired spatial form of the municipality.

SDF seeks to influence the substantive outcomes of planning decisions at different levels and to achieve planning outcomes that:

→ facilitates correction of spatial distortions of the apartheid past;

→ channel resources to areas of greatest need and development potential;

→ take into account the fiscal, institutional and administrative capacities of role players, the needs of communities and the environment;

→ stimulate economic development opportunities in rural areas;

→ protects and enhances the quality of both the physical and natural environments; and

→ promote an inherent value of the natural and built environment.

7.3 SPATIAL PLANNING PRINCIPLES

The attainment of this vision requires the municipality to facilitate the development of a spatial system that is underpinned by various normative principles reflected in various policy documents and pieces of legislation including the Spatial Planning and Land Use Management Act (Act 16 of 2013). The guiding principles are as follows:

7.3.1 SPATIAL SUSTAINABILITY

The principle of sustainability requires the sustainable management and use of the resources making up the natural and built environment.

The life cycle costs of land development and its likely side effects on the environment, community, and the economy need to be understood and taken into account to sustain its benefits, while minimizing or mitigating any likely negative impacts. It should ensure that special consideration is given to the protection of prime and unique agricultural land. In addition, the following should be promoted through this principle:

→ uphold consistency of land use measures in accordance with environmental management instruments;

→ promote and stimulate the effective and equitable functioning of land markets;

→ consider all current and future costs to all parties for the provision of infrastructure and social services in land developments;

→ promote land development in locations that are sustainable and limit urban sprawl; and

→ result in communities that are viable.

7.3.2 INTEGRATED DEVELOPMENT

This principle finds particular expression in two areas. Firstly, it requires that the planning process is integrated, taking into account the often disparate sectoral concerns, policies and laws and their requirements, and reaching conclusions that are efficient and sustainable from a management and governance point of view. Secondly it requires an integrated `on the ground' outcome, one that breaks down not only the racial and socio-economic segregation that characterize our country but which also look at spatial integration of different land uses, places of living with places of working and shopping and relaxing.

7.3.3 EQUITABLE DEVELOPMENT

The principle of equitable development requires that everyone affected by planning or development and land development actions or decisions must enjoy equal protection and benefits, and no unfair discrimination should be allowed. It also provides for socio-economic integration, which aims at the eradication of past spatial patterns.

7.3.4 SPATIAL EFFICIENCY

It also advocates an efficient urban structure. Currently settlements are characterized by segregation of land uses, urban sprawl and low-density development that cannot support public transport, or small businesses. This should be addressed through appropriate densification, as well as limiting the growth of settlements through the introduction of an urban edge. Land development must optimise the use of existing resources and infrastructure and decision-making procedures must be designed to minimise negative financial, social, economic or environmental impacts. Spatial efficiency can also be achieved through implementation of development application procedures that are efficient and streamlined and timeframes are adhered to by all parties.

7.3.5 DENSIFICATION

Densification, which essentially refers to developments that promote higher density development within defined spaces including both rural and urban spaces through infill and/or redevelopment.

7.3.6 GOOD ADMINISTRATION

All spheres of government must ensure an integrated approach to land use and land development and all departments must provide their sector inputs and comply with prescribed requirements during the preparation or amendment of the SDF.

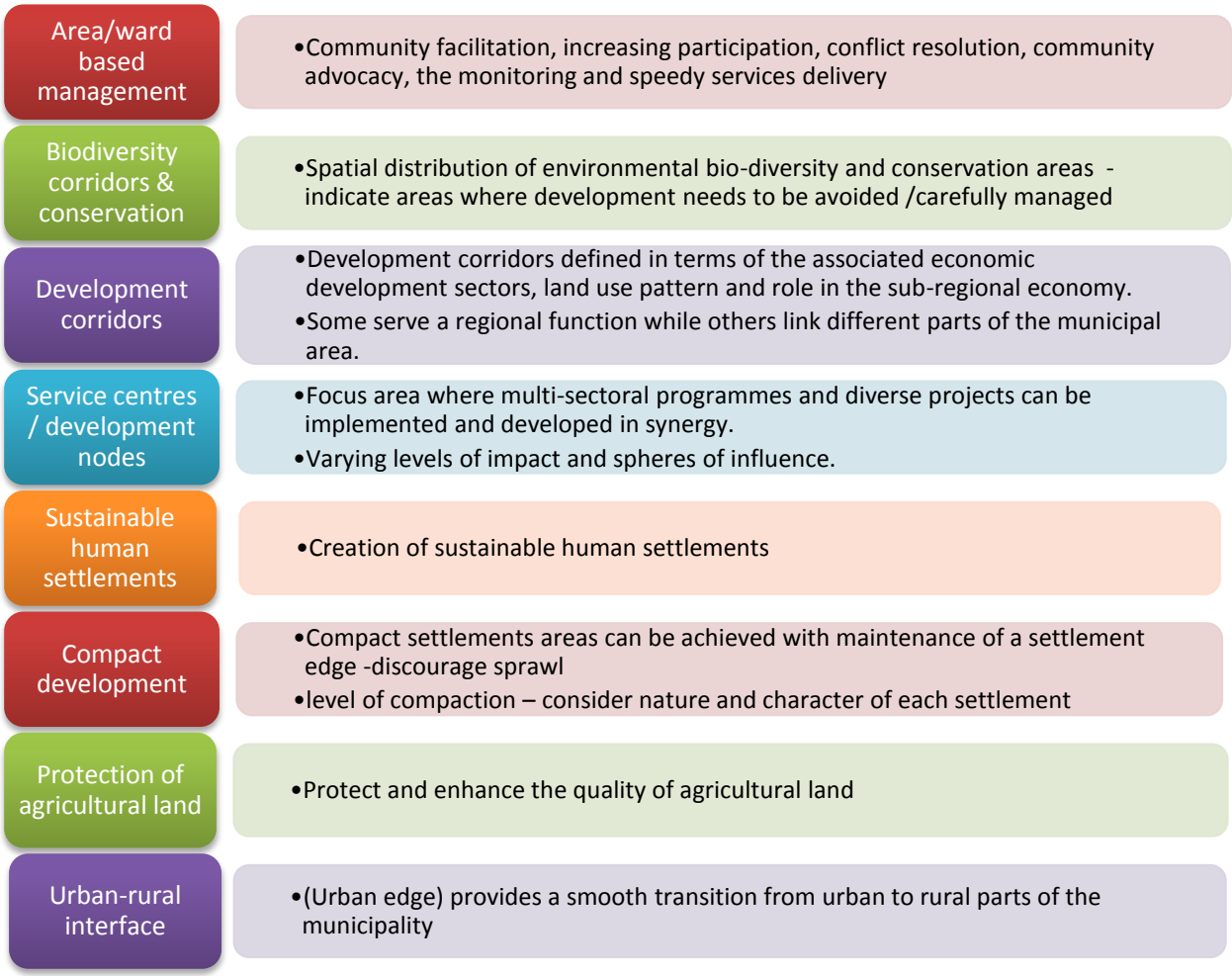
7.3.7 COMPACTION

Okhahlamba Municipality will implement spatial development programmes that discourage outward expansion of residential and associated development.

7.4 SPATIAL PLANNING CONCEPTS

The principles and norms collectively form a vision for land use and planning in Okhahlamba. They constitute a single point of reference, and an overarching coherent set of policy guides to direct and steer land development, planning and decision-making in land use so that outcomes thereof are consistent with the development objectives as outlined in the IDP.

FIGURE 17: SPATIAL PLANNING CONCEPTS



7.4.1 AREA/WARD BASED MANAGEMENT

The Area Based Management approach focuses on community facilitation, increasing participation, conflict resolution, community advocacy, the monitoring and speeding of services delivery. The ABM does not dictate to departments with regard to the implementation of their projects but can advise against fragmented service delivery. It can share information with strategic business units and community at large. It will align stakeholders' plans with those of the council through Community Based Planning methodology and other methodologies. The advantages of the approach are as follows:

→ integrated service delivery and effective coordination of development initiatives;

→ bringing local government even closer to communities and streamlines feed-back to communities;

→ one stop shop to services, payments and enquiries within an easy reach for communities within the cluster;

→ encourages community participation and conflict resolution;

→ equitable delivery of services and application of level of service based on the character of the area; and

→ it is not restricted to particular functions.

7.4.2 BIODIVERSITY CORRIDORS AND CONSERVATION

The spatial distribution of environmental bio-diversity areas of significance is considered vital to provide the spatial framework for future spatial development planning. Those areas where development needs to be avoided or at best, carefully managed, is of particular importance. This spatial structuring principle focuses on conserving the core biodiversity areas (wetlands, flood plains, steep slopes and special sensitive bio-diversity areas) where no development should take place and emphasises the importance of the biodiversity corridors (buffer areas), which should link those core areas together. These assets perform a substantial and significant role in conserving biodiversity as well protecting the quality of life of the residents of Okhahlamba. Biodiversity corridors and conservation is of critical importance in Okhahlamba, considering the UDP WHS and sensitive environments within the area.

7.4.3 DEVELOPMENT CORRIDORS

The logical focus areas of an ordered strategy for rural development is through a system of regional and local transport routes, which link a number of areas. These routes should be seen as activity and investment lines. The structure they give to the area is articulated in the form of movement patterns and systematic distribution of land uses in space.

However, not all regional routes are the same in terms of the intensity of use and ability to attract investment, services, economic activities and settlement. Generally, larger routes linking generators of movement and investment have a greater generative capacity than smaller routes. As such, regional facilities and services should gravitate towards these areas, while smaller facilities requiring smaller thresholds should be located along smaller routes. This has an impact of reducing spatial marginalization, increasing equitable access to all level of services and promoting investment. The location of facilities along major routes recognizes the importance of choice to the rural communities with respect to services such as education, health and welfare facilities.

7.4.4 SUSTAINABLE HUMAN SETTLEMENT AND SETTLEMENT WEBS

The scattered nature of rural settlements within Okhahlamba Local Municipality, which houses the majority of the population, is not sustainable and renders service delivery and development ineffective. The highest settlement densities are found along main transport routes where a web of local access roads and public facilities holds settlements together. At a regional level, they should be knit together by a system of regional access routes. However, settlements are not static and respond to change, thus they are continuously transforming. The key challenge is to turn these settlements into sustainable human settlements, which has certain implications for detailed planning and development of these settlements:

→ Centrally located settlement should provide improved access to higher order public facilities, intensive agriculture and other urban services.

→ They should generate a wide range of opportunities. Sparsely populated settlements are opportunity areas for agricultural development such as crop production and livestock farming.

→ A convenient settlement improves the level of choice, encourages creativity and investment while a less convenient settlement imposes a lifestyle on people and results in unnecessary expenses.

→ Settlements should be equitable in the sense that they should provide a reasonable access to opportunities and facilities to all. It is neither possible nor desirable for settlements to be homogenous hence an emphasis on choice.

7.4.5 SERVICE CENTRES / DEVELOPMENT NODES

The ordering and location of services and facilities, in a manner that promotes accessibility and efficiency in service delivery, is required. This is critical for the performance of the municipal area as a whole and land use integration. As such, the clustering of various activities at appropriate and accessible nodal locations provides the municipality with a network/system of opportunity centres. Some of these nodes

have benefited from public and private sector investment in services and infrastructure, which needs to be managed and maintained. Others are located in previously disadvantaged areas, which have suffered from institutionalised neglect. Although the nodes have contrasting characters, profiles and management issues, they cumulatively accommodate the majority of economic activities, employment prospects, an existing/growing residential stock, and access to community facilities and services. As such, the strength and feasibility of the nodal points is directly linked to the functioning and health of their catchment areas. The concentration of activities in and around these areas will stimulate further development of higher order activities.

7.4.6 COMPACT DEVELOPMENT

More compact settlements areas can be achieved with the maintenance of a settlement edge in order to discourage development sprawling into prime agricultural land and other natural resource areas. The settlement edge can be used to encourage more efficient use of underutilised land existing in a settlement, through development of vacant land or the re-use of 'brownfield' degraded land areas. It can also be used to manage the investment and characteristics of infrastructure levels according to the needs of communities and economic activities located within settlement edges or outside settlement edges. This requires detailed planning at a settlement level and could best be sustained through the coding or integration of the existing community rules into a land use management system. Certainly, the level of compaction will take into account the nature and character of each settlement, as well as the prevailing spatial development trends and patterns.

7.4.7 PROTECTION OF HIGH VALUE AGRICULTURAL LAND

The need to protect high potential agricultural land is a national priority. This is in light of the fact that high potential agricultural land has become a scarce and an ever-dwindling resource. Encroachment of development onto agricultural land poses a number of challenges, namely:

→ low density urban sprawl which encourages development of inefficient urban spatial systems;

→ declining performance and contribution of agriculture into the district and provincial economy;

→ reduction of land available for food production and against the increasing problem of food shortages and increase in food prices; and

→ need to target high production potential land for the settlement of small and emerging farmers in terms of the land redistribution program.

Sub-division and change of land use on agricultural land is governed in terms of the Sub-division of Agricultural Land Act (SALA), Act No. 70 of

1970, and is administered nationally. At present, there is no coherent provincial policy that guides assessment of Act 70 of 70 applications. As such, it is critically important for Municipality to develop its own guidelines (as part of the SDF) for managing development on agricultural land.

7.4.8 URBAN-RURAL INTERFACE

Bergville and Winterton are the only areas considered as urban, although they are located in a generally rural region and form part of a rural economy. It thus becomes important to focus on managing the form and texture of development, in a manner that contributes to the following performance criteria:

→ Creating a more efficient and productive sub-region through the development adoption of policies that seeks to build the competitive advantages, while also unlocking new opportunities.

→ Improving the overall quality of the urban environment by better integrating environmental concerns within development planning and urban management practices.

→ Developing an inclusive spatial system that promotes integration of the previously disparate areas and eliminates the mismatch between where people live and where they work.

→ Creating the base for efficiency in the delivery of services (water, electricity, sanitation, etc.), movement, investment and decision-making.

→ Promoting integrated and coordinated development with all stakeholders working towards a common development vision and agenda.

8 SPATIAL FRAMEWORK

Twelve key spatial strategies have been identified to assist Okhahlamba achieve its spatial vision. These strategies are indicated in the figure below and the intent of each are outlined in the following sections:

8.1 WARD/AREA BASED MANAGEMENT

Area Based Management (ABM) approach involves the clustering of municipal wards. It takes into account development trends and patterns, functional linkages and settlement pattern. Within Okhahlamba, four proposed clusters of municipal wards (ward clusters) have been identified and are discussed in the following sections.

8.1.1 CLUSTER A

Cluster A includes the south-eastern quadrant of the municipality, including wards 1, 2 and 14. This cluster includes the commercial farmlands surrounding Winterton, Cathkin Park area, a portion of the protected area and Emmaus (which falls under the Amangwane TC).

A portion of the primary corridor (P74), secondary corridor (P10-2) and tourism corridor (P212) runs through this area. The tourism corridor links the area to the UDP WHS. Winterton serves as a secondary municipal development node, Cathkin Park as a tourism development node and Emmaus as a satellite municipal development node.

This cluster is further characterised by a large portion of very high potential agricultural land, which is described as “threatened” agricultural land in terms of the Agricultural Land Categories and commercial farmlands. These areas are also subject to land restitution claims.

8.1.2 CLUSTER B

Cluster B comprise wards 11, 12, 13 and 15, which includes Bergville, the Spioenkop dam and several dislocated settlements to the north and east of Bergville. These settlements comprise of Woodford, Bethany, Acton Homes, Hambrook, Green point area and Geluksburg. This cluster is further characterised by large tracts of high potential agricultural land (categorised as "Irreplaceable") and commercial farmlands, as well as some timber plantations. The northern portion of the primary corridor (P74) and 616 (P30), as well as the P341 tertiary route forms part of this cluster. These are important linkages to the northern parts of the Drakensberg and to Ladysmith. Spatial interventions that can be implemented in this cluster includes the following:

→ Preparation of an Area Based Plan (ABP) for the area.

→ Preparation of a settlement plan or detailed layout plans for priority areas to be identified as part of the ABP. This should include areas such as Woodford, Bethany, Acton Homes, Hambrook, Green point.

→ Development of integrated sustainable human settlements.

→ Introduction of a land use scheme to guide development and land allocation in the area.

8.1.3 CLUSTER C

Cluster C is located in the south-western quadrant of the municipal area and comprise of wards 3, 4 and 5. It includes the Cathedral Peak area (part of the UDP WHS) and the Amangwane Traditional Council, which is characterised by scattered low-density settlements. One of the main settlements in this cluster is Dukuza, which is also a proposed satellite municipal development node.

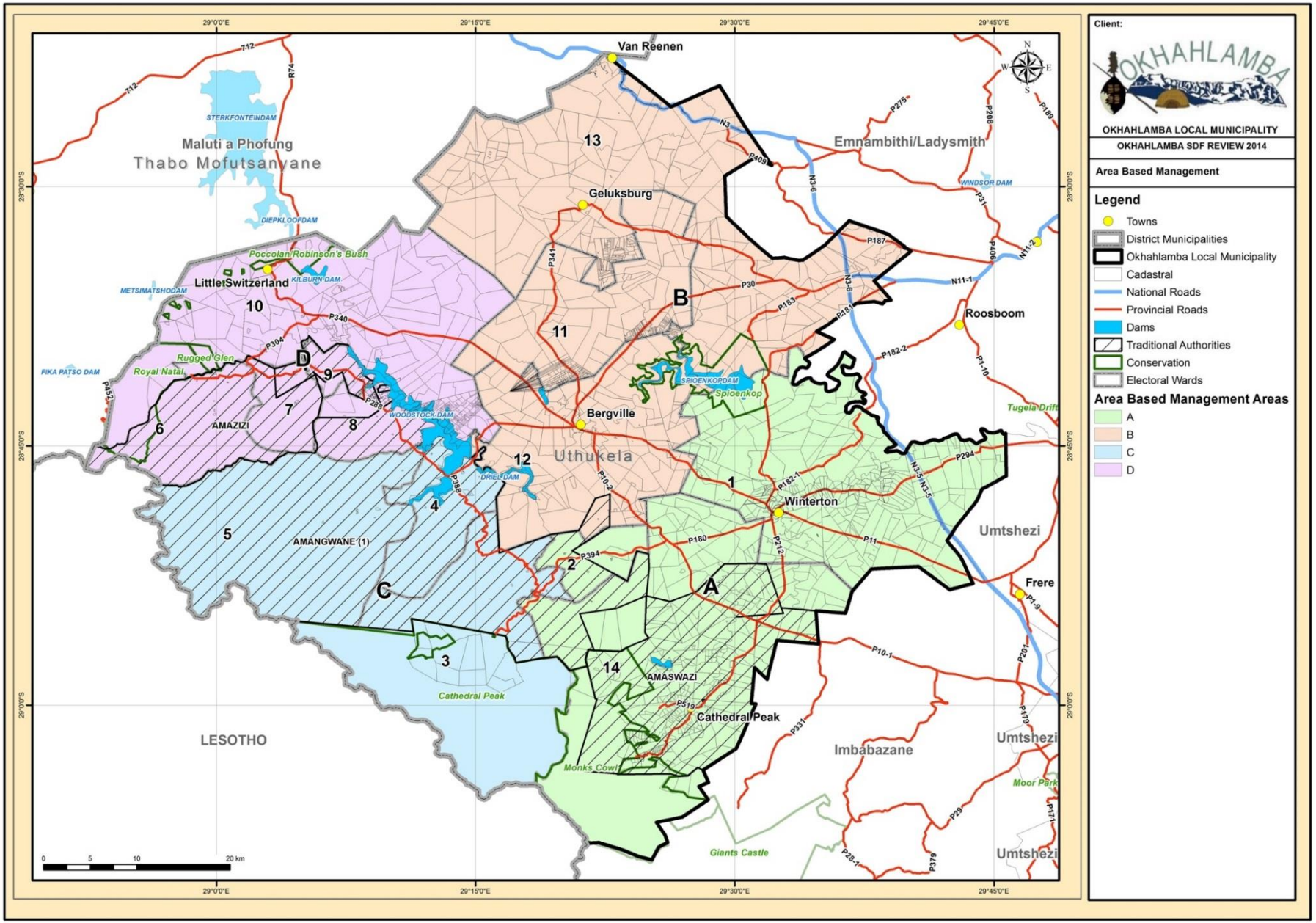
Further spatial planning in this area should be undertaken as part of the spatial planning for the entire cluster and settlement plans focusing mainly in targeted areas, such as Dukuza. Settlements should be discouraged in steep slopes.

8.1.4 CLUSTER D

Cluster D is located in the north-western quadrant of the municipality and includes wards 6, 7, 8, 9 and 10. The Amazizi Traditional Council area, as well as the Rookdale settlement and the Northern Drakensberg Tourism area (Nondela, Royal Natal) are located within this cluster.

A portion of the primary corridor (P74), as well as the P288 tertiary route, along which settlements tend to locate, are located in this cluster. Zwelisha, which is a proposed satellite municipal development node and the Bangibone Tourism Development Node are located in the northern portions. This cluster can benefit from spatial interventions, such as the preparation of a settlement plan or detailed layout plans for areas such as Rookdale and the development of integrated sustainable human settlements. There are also a number of number land restitution claims in the area.

MAP 33: AREA BASED MANAGEMENT AREAS



8.2 IMPROVING ACCESS AND MOVEMENT

Identification and classification of movement routes in Okhahlamba is based on function/role, and intensity of use or development along the route/corridor. Okhahlamba recognises the significance of the N3 as a national/provincial corridor, and the opportunities it creates for the municipality, as well as the significance of the R212 as a potential tourism route. Other corridors include the main arterial roads that define the spatial structure and drives settlement pattern, and the major local link roads between different settlements.

8.2.1 NATIONAL/ PROVINCIAL CORRIDOR

The N3 National Corridor runs along the eastern part of the municipality and is identified in the NDP and the PGDS as a development corridor linking the national economic hubs of Johannesburg and Durban. At a local level, it is however a limited access movement corridor with limited bearing on the local spatial system except at key road intersections. The intersection, which is the closest to the urban core of the municipality, namely the N11 and N3 interchange, falls in the Okhahlamba municipality. It also serves as a provincial access route to tourism destinations such as the Battlefields and the Drakensberg. Development along the N3 and N11 Development Corridors should follow the following guidelines:

→ The N3 is a national limited access and high speed public transport route; as such direct access onto this road is subject to the national road transport regulations.

→ Higher order land uses should be accommodated in the nodes, but lower order land uses could develop in a linear fashion subject to alternative access opportunities; and

→ A 15m buffer should be observed from the boundary of the road reserve. This has implications for settlements that have encroached onto the buffer areas.

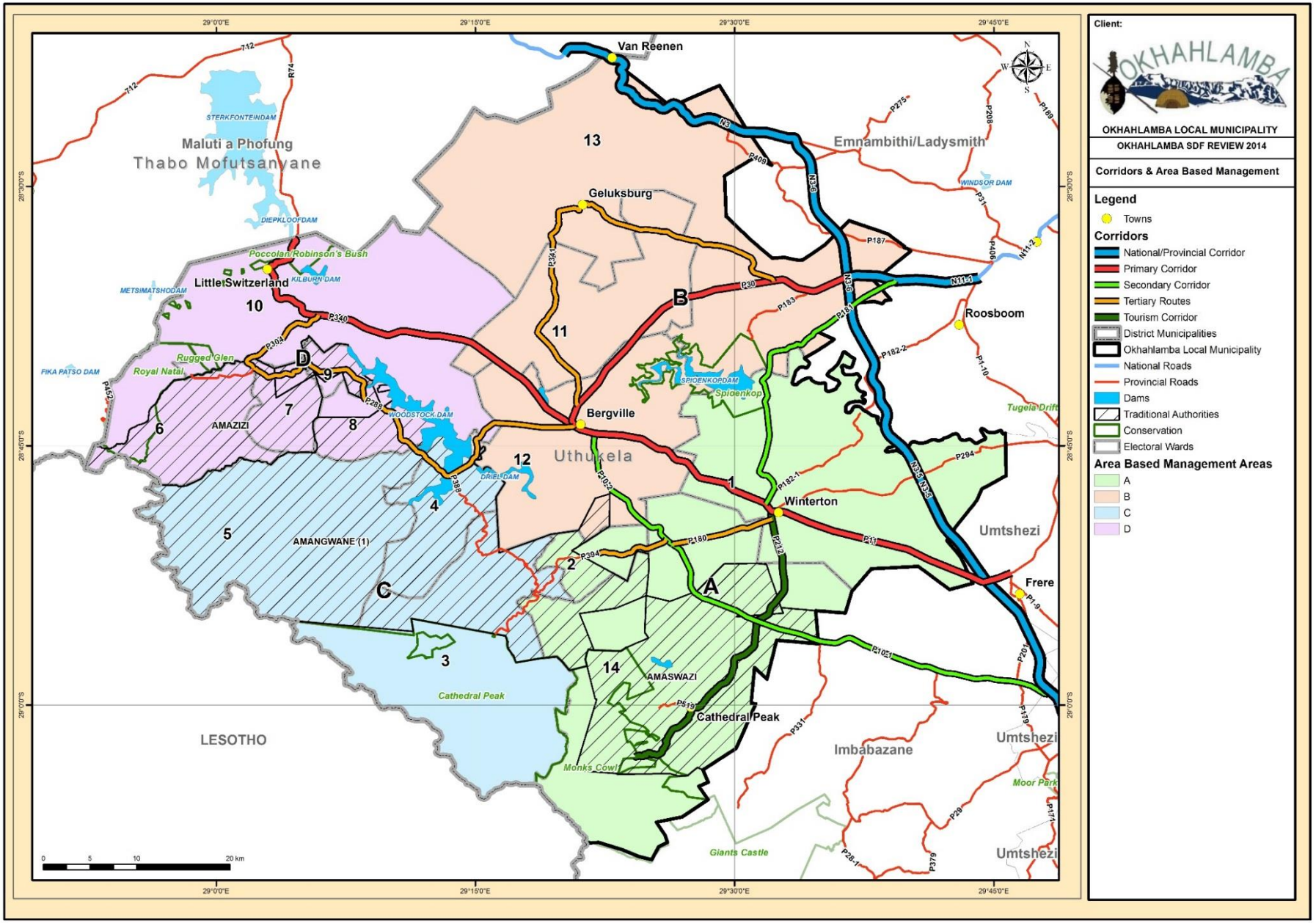
8.2.2 PRIMARY CORRIDOR

There are at least two routes with the potential for primary corridors. These include the following:

→ R74 (P340 & P11-1). The P11 connects Winterton to the N3, while the P340 links Bergville to the northern Drakensberg tourism areas and the Free State Province beyond. The P74 is of strategic importance, as it provides access to routes that lead to the Drakensberg and thus connects tourists to the tourism destinations along the Drakensberg.

→ The R616 (P30) forms an important link between Bergville and Ladysmith. The P30 also forms part of the N11 before the interchange with the N3. It also provides access to some of the settlements outside Bergville, such as Hambrook and Acton Homes.

MAP 34: ACCESS AND MOVEMENT



8.2.3 SECONDARY CORRIDOR

Important secondary routes provide access to areas outside the municipal area and includes the following:

→ The P181, which connects Winterton to the N11 and Ladysmith outside of the municipal area.

→ P10-2, which connects Bergville to Emmaus and Estcourt outside of the municipal area.

8.2.4 TOURISM CORRIDOR

The main route with the most potential to develop as a tourism corridor, is the P212. This route provides a direct linkage between Winterton to the Cathkin Park area, which is a renowned tourism area along the Drakensberg.

8.2.5 TERTIARY ROUTES (LOCAL ACCESS ROADS)

Tertiary routes links potential proposed satellite municipal development nodes and provides access to public and commercial facilities at a community level. Tertiary routes are as follows:

→ P304 linking Zwelisha to the R74 (P340) and thus to Bergville and the northern Drakensberg.

→ P288 forming a link between Zwelisha and Dukuza and linking back to Bergville.

→ P180 that provides a link between Winterton and the Emmaus area.

→ P341 that links Bergville to Geluksburg and Greenpoint to the north, and connects back to the P30 to Ladysmith.

→ P388 which connects to the P288.

8.3 CLUSTERING PUBLIC FACILITIES AND ECONOMIC ACTIVITIES IN DEVELOPMENT NODES

Okhahlamba will facilitate and promote the clustering of a range of social services and economic opportunities at central locations as means to improve access and restructure the existing spatial pattern. The establishment of a hierarchy will assist in allocating facilities of various types to their most appropriate locations, based on the facility threshold and the appropriate number of people required within the catchment of that facility. Clustering will create opportunities for facility multi-use, sharing and land savings, cooperation and joint financial planning between the departments and the private sector. If this is achieved within nodes, it can contribute positively to service delivery, spatial restructuring and financial sustainability.

Activity nodes serve as points in the spatial system where potential access to a range of opportunities is greatest, where networks of association create diversity and where people are able to satisfy the broadest range of their day-to-day needs. Being points of maximum economic, social and infrastructure investment, as well as representing established patterns of settlement and accessibility, these nodes must

be regarded as primary devices on which to anchor the structure of the sub-regional spatial system.

TABLE 5: NODES, FUNCTIONS AND TYPES OF SERVICES

Type of Planning Areas	Functions	Type of Service
Primary (Sub-regional Centre)	Distribution and coordination point Higher order level of goods and services	Police Station, Hospital, Welfare Office, Schools, Community Hall, Post Office, Bank, Court, Comprehensive sport facility, Developed Economic Centre, Information Service Centre, Emergency Service Centre,
Secondary (Community Centre)	Lower order level of goods and services as compared to primary node	Police Satellite Station, 24hr clinic, Weekly Welfare Mobile Services, Schools, MPCC, Weekly Information Mobile Services, Post Net, Mobile Bank Services, Tribal Court, Basic Sport Facility
Tertiary (Neighbourhood Centre)	Serve to provide a convenient service to the village community	Mobile Clinic, Schools determined by population density, Community Halls determined by population density, Postal Services determined by population density, Basic Sport Facility

8.3.1 MUNICIPAL DEVELOPMENT NODE

Bergville is the main sub-regional centre that services the entire municipal area. The town is highly accessible, being located on the primary corridor [R74 (P340)] and at the intersection of the R74 (P340) and R616 (P30). It is a small but significant service centre, identified as a quaternary node in the Provincial Growth and Development Strategy. In terms of its role and function within its sub-region, it provides financial, agricultural, social, educational and marketing goods and services to the surrounding commercial farming area. In addition, it is also and important exchange centre for a large rural population and serves as a transportation interchange. From a tourism perspective, it is an important tourist gateway into the uKhahlamba-Drakensberg Park World Heritage Site and located on the Maloti-Drakensberg route. Considering the important role and function of this node, it should be classified as the main focus area for municipal and government services and the main economic hub within the municipality. As a sub-regional node, the following activities should enhance the town:

→ Development of commercial activities serving the entire municipal area and the surrounding areas (sub-region).

→ Location of sub-district offices of various government departments and serve delivery agencies.

→ Location of facilities and services for an effective administration and local governance.

→ Implementation of the Bergville Urban Design Framework.

8.3.2 SECONDARY MUNICIPAL DEVELOPMENT NODE

Winterton has the potential to serve as a secondary municipal development node. It has a limited range of services and facilities, and provides lower order goods and services. It is located on the R74 (P340) to Bergville and the P212 (R600) to Cathkin Park. As such, it provides services to surrounding farming community and serves as a tourism gateway to the Drakensberg.

8.3.3 SATELLITE MUNICIPAL DEVELOPMENT NODES

The vision for the future spatial development of Okhahlamba Municipality makes provision for the development of satellite municipal development nodes within a cluster of settlements. These small centres will serve as location points for community facilities serving the local community such as:

→ Primary and secondary schools.

→ Clinics including mobile clinics.

→ Pension pay points.

→ Community halls and other community facilities.

→ SMME trading facilities.

Although the confirmation of these nodes will be undertaken with the participation of the affected communities, the following proposed satellite municipal development nodes have been identified:

→ Zwelisha (Mazanini) is located in Cluster D, within the Amazizi Traditional Council area. This proposed node will serve the surrounding settlements.

→ Dukuza is located Cluster C in the Amangwane Traditional Council area and will serve the settlements surrounding it.

→ Emmaus is located Cluster A and will serve the settlements. The only hospital within Okhahlamba is located in Emmaus.

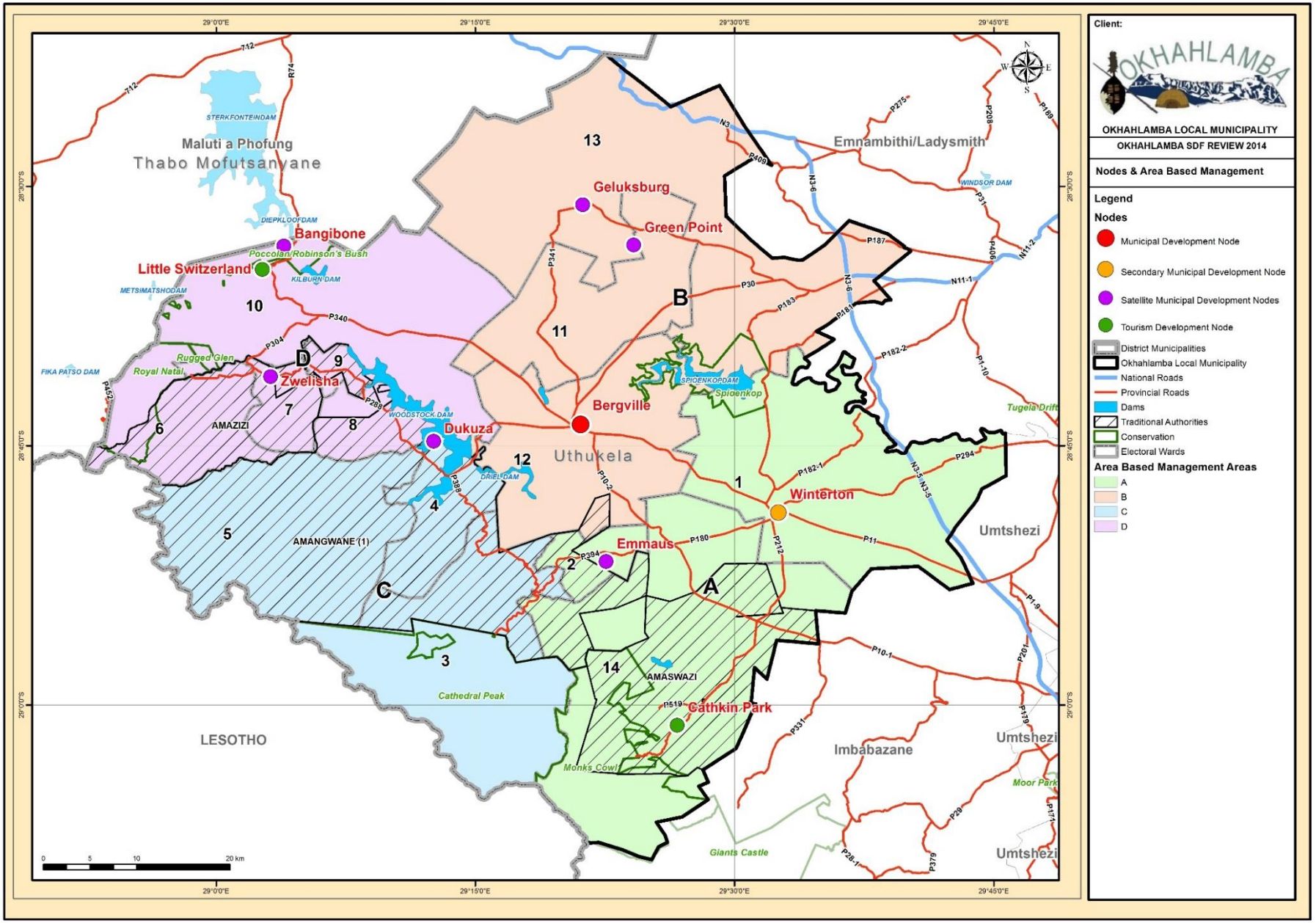
→ Geluksburg and Greenpoint is located Cluster B, to the north of Bergville;

→ Van Reenen is located Cluster B on the border with the Free State.

8.3.4 TOURISM DEVELOPMENT NODE

The Drakensberg Approaches Policy identified both Cathkin Park (central) and Bangibone (north) as tourism nodes within Okhahlamba. The intention of these nodes were to direct recreational development to planned “pockets” in order to ensure distribution of recreational development and activities evenly along the Drakensberg, and create a balance between environmental conservation and tourism through the provision of these recreation nodes. A Town Planning Scheme has been developed for Cathkin Park to guide land use management.

MAP 35: DEVELOPMENT NODES



8.4 CONTINUUM OF HUMAN SETTLEMENTS

The SDF will facilitate the evolution of a settlement pattern that reflects strong functional linkages between rural and urban, and the continuum of settlements ranging from rural to formal urban settlements. This pattern has a number of benefits, including:

→ Maximizing lifestyle choice and where people want to live, and attracting middle to higher income earners into the area.

→ Providing an effective framework for the service delivery and application of service standards based on character of the area.

→ Unlocking economic development potential at different scales thus enabling remote rural areas to realize their agricultural economic development potential.

→ Improving economic performance of the region.

A convenient settlement improves the level of choice, encourages creativity and investment while a less convenient settlement imposes a lifestyle on people and results in unnecessary expenses. Settlements should be equitable in the sense that they should provide a reasonable access to opportunities and facilities to all. It is neither possible nor desirable for settlements to be homogenous hence an emphasis on choice. Settlements should be located along the main transportation routes and held together by a web of local access roads and public facilities. At a regional level, they should be knit together by a system of regional access routes.

8.4.1 URBAN SETTLEMENT

There are two formal urban settlements within Okhahlamba, namely Bergville and Winterton. Bergville is planned and developed as a formal settlement and an agenda for the future planning and development of this town is encapsulated in the Bergville Urban Design Framework. This framework identifies interventions that can be implemented immediately, while others are dependent upon the removal of the rail infrastructure and the relocation of the prison.

Winterton and Khetani, on the other hand, lacks any mangement agenda. This town needs to contain low density urban sprawl and must be transformed into an efficient and integrated urban system. Additional tourism facilities could enhance its role as one of the gateways into the Drakensberg, and implementation of urban design measures could enhance the town.

8.4.2 PERI-URBAN SETTLEMENTS

Per-urban settlements include Rookdale, Woodford, Bethany, Hambrook, Acton Homes, Malottaskraal, Greenpoint and Rooihoek. The majority of these settlements have developed on land owned privately by Black African people as a means to accommodate people moving from farms. These settlements have access to basic services,

such as electricity and standpipes, but have developed organically without any formal planning.

Efficient land management in in these areas is critical to deal with challenges of socio-economic change. These areas act as an interface between rural, often informal tenure rights and institutions of enforcement on the one hand, and formal urban-based and mostly statutory law processes. Spatial planning interventions in these areas should focus on:

→ Formalization of these settlements through land tenure upgrading.

→ Provision of services.

→ Development of a range of housing products.

→ Improving access to public facilities.

8.4.3 RURAL SETTLEMENTS

Dense rural settlements in traditional /communal land have emerged because of the breakdown in land administration system in the rural villages, and movement of households from remote areas to well located settlements along the main transport routes. These areas should be prioritised for settlement planning, and this should entail the following:

→ Mobilization of traditional councils in support of settlement planning initiative.

→ Formalization of institutional arrangements and clarification of roles and responsibilities and cooperation between the municipality and institutions of traditional leadership in respect of land allocation and land use management.

→ Preparation of settlements plans indicating spaces where different land uses may be located and areas where settlement should be discouraged.

→ Delineation of settlement edge indicating the land required to accommodate further expansion and social development needs over a defined period of time (five to ten years). The edge will also be used to promote compaction.

→ Introduction and application of planning standards including average site size.

Dense rural settlements should be located within a 5km radius from a service centre or development node, and development corridors as identified in this SDF. Densification should be undertaken as part of settlement planning and development. These settlements should be prioritized for rural housing development in line with the provincial rural densification policy.

8.4.4 SCATTERED RURAL SETTLEMENTS

Further expansion of small-scattered rural settlements should be discouraged in the short to medium term with an intention to enable

them to develop into settlements with a strong agricultural character. Spatial planning interventions in respect of these settlements should focus on the following:

→ Agricultural development particularly protection of agricultural land from settlement.

→ Management of grazing land including introduction of strategies such as rotational grazing.

→ Consolidation of settlements as a means to create service thresholds.

Remote scattered rural settlements should occur beyond a ten (10) km radius from the existing nodes and development corridors as identified in this SDF.

8.5 PROMOTING COMPACT DEVELOPMENT

The promotion of compact development will mitigate the negative impact of sprawling settlements by encouraging the planning of co-ordinated, harmonious, sustainable and compact settlements. Growth in peripheral areas is an inevitable process, and needs to be managed in order to facilitate the establishment of planned settlements and to promote sustainable development. Compact development will further contribute to the protection of sensitive environmental and agricultural areas and will ensure effective and efficient social, engineering and other services.

The municipality is seeking to create housing opportunities for the poor in areas that improve access to urban opportunities including employment, access to basic services, etc. This includes the development of sustainable human settlements and ensuring that people live in harmony with the environment. The municipality will to achieve this by:

→ Limiting and containing the urban development footprint within the Urban Development Line (urban edge / growth boundary). The application of growth boundaries and other growth management techniques should take due cognisance of the adequacy of supply of land.

→ Promoting higher “net” residential densities in strategically located areas within core areas, new growth areas and areas prioritised for infrastructure development.

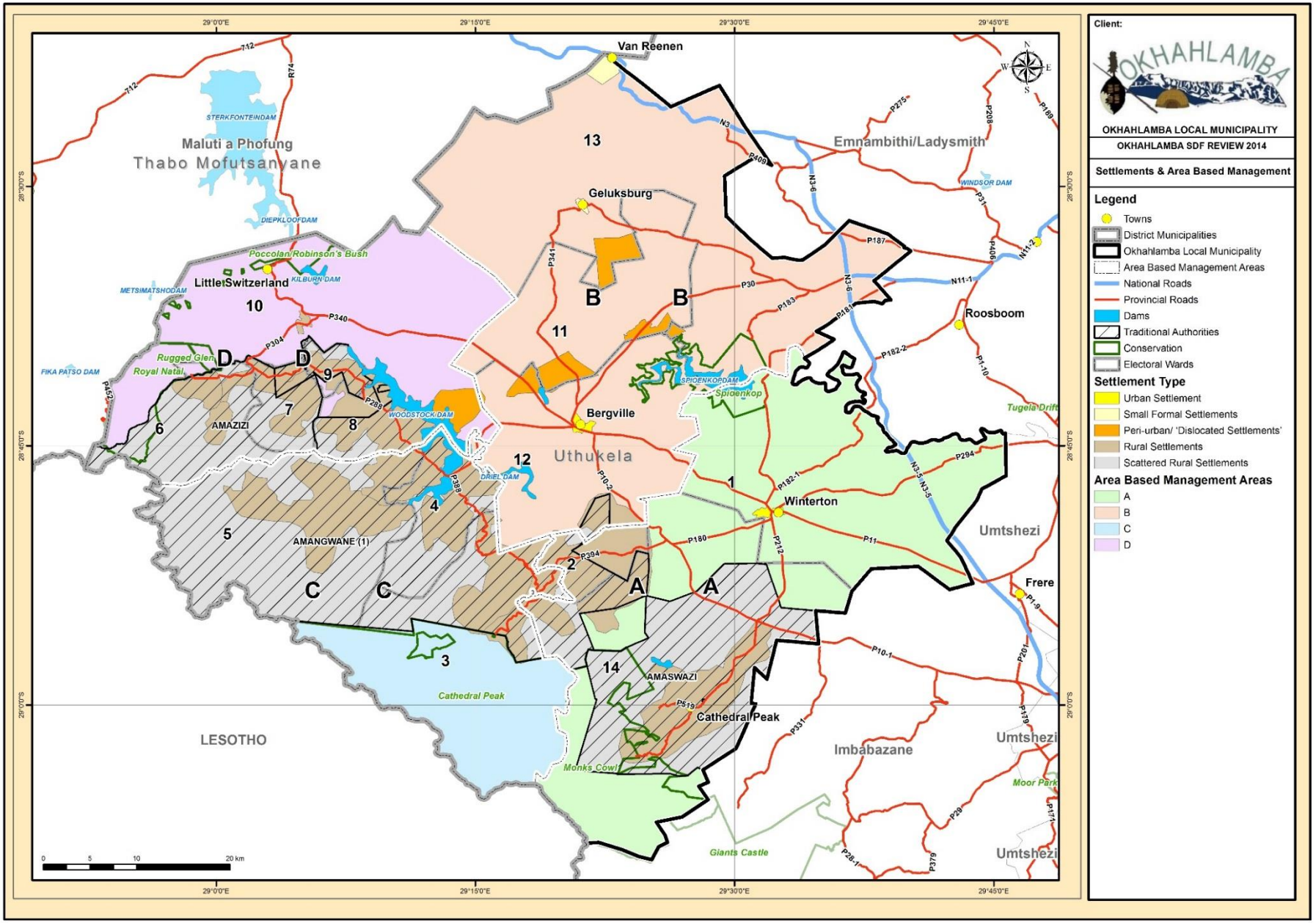
→ Creating new residential development opportunities that connect fragmented areas and consolidate urban form around high accessibility routes and nodes.

→ Provide clear guidance on directions for future settlement growth and proposed release of land for development.

8.5.1 URBAN EDGE

Okhahlamba is a predominant rural municipality, and essentially, only Bergville and Winterton are classified as urban areas.

MAP 36: SUSTAINABLE HUMAN SETTLEMENT DEVELOPMENT



These two areas have existing Town Planning Scheme boundaries, which demarcates existing development and covers areas where an urban service standard is applied or maintained. Cathkin Park is also subject to its own Town Planning Scheme, which demarcates its outer boundaries along cadastral boundaries. Currently, the Town Planning Scheme boundaries define the urban growth boundaries of these areas.

An urban edge is essentially a geographically-based line on a map indicating the edge between land available for urban development (infill and redevelopment) and land that is to remain part of the rural landscape and natural environment. Infill and redevelopment of lands in existing centres reduces the costs associated with infrastructure investments and servicing. It also revitalizes existing commercial centres, creates densities that support transit and neighbourhood shops, and supports economic development by creating clusters of businesses in close proximity. The more that compact settlements can result from containing development within settlement boundaries, the more communities will become transit friendly, walkable and support viable commercial centres and nodes.

Hard edges should be created around Bergville and Winterton to prevent sprawl into high agricultural potential land around these towns, especially in the case of Bergville. These towns should thus be encourage to take the form of a small compact town, with agriculture pushing hard against the town edge.

8.5.2 SETTLEMENT EDGE

The outwards expansion of rural and isolated settlements is of great concern. The government will continue to battle to provide services efficiently and effectively in these areas, unless this situation is halted. It will also be difficult to turn these areas into sustainable human settlements. The municipality therefore have to work with the landowners, traditional leaders and other relevant authorities to contain further outward expansion of these areas. In particular, the following activities will be undertaken in this regard:

→ Delineation of settlement edges (outer boundary) beyond which residential and other physical development will be discouraged. Each boundary will be negotiated with relevant stakeholders.

→ Working with those responsible for land allocation to formulate standards, develop settlement plans and identify potential sites for future residential use, public facilities, etc.

→ Clear identification of land reserved for agricultural purposes, public facilities, public open spaces (active and passive) and other state domestic uses.

The level of service will depend on the density of each settlement and whether it is earmarked for densification or not. Dense rural settlements will be prioritised for upgrading, delivery of bulk services and provision of public facilities.

8.5.3 DENSIFICATION

Densification is one of the key elements of compact development and a drive towards building an integrated and efficient spatial form. This can be achieved by limiting urban sprawl, by promoting higher densities, infill and re-development in and around the urban areas and other activity nodes and by the promotion of mixed use activity corridors linking otherwise isolated and non-functional areas with a focus of public transport.

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

The objectives of densification and compaction in Okhahlamba are as follows:

→ Minimising/Reducing the Footprint of the built up areas: Settlement (both rural and urban) transform natural land and alter the ecosystems in which they are located in a magnitude of ways. This in itself warrants a concerted effort to limit the impact on the affected area of land, as well as the ecosystems involved.

→ Preventing the Destruction of Agricultural Land: Outward expansion of settlement occurs at the expense of high-value, very well located agricultural land, in close proximity to urban markets. This resource should be protected from settlement intrusion.

→ Improving the Use of Public Transport and Facilitating Pedestrianisation: One of the key means of improving the use of public transport is increasing residential densities in nodes and along public transport corridors, which has major implications for the way in which areas are built and managed. The other is greater integration between the various entities involved in land use and transport planning.

→ Improving the Efficiency of Urban Areas: More compact settlements increase general accessibility, the level of convenience with which people can conduct their daily lives and reduces costs in terms of time, money and opportunity cost, both for local government as well as for its citizens. More compact settlements in which infrastructure investment is planned are more efficient than those in which this is not the case.

→ Reducing Inequality: One of the objectives of intervening in the form and density of development of settlements is to ensure greater access of all (especially the poor) to the benefits and opportunities of urban living.

→ Increasing the marketability of the town: The physical urban environment of Bergville and Winterton, including the quality and liveability, plays a major role in its competitiveness. In addition to

this, the message that potential investors get from a town that seems under control and functions well is that it is well planned and managed in an integrated way. The aim is to ensure a density of development that can facilitate sustainable economic development, job growth and income generation.

→ To adhere to legislative directives: A wide range of acts and policies have been brought forward by national government urging local authorities to address the issue of sprawl and urban form. However, in practice, very little has been done to address these legislative directives.

8.5.4 DENSIFICATION STRATEGIES

The different methods for achieving densification can occur through:

→ New development on vacant or under-utilized land at higher densities.

→ Subdivision of large pieces of land to encourage higher densities.

→ Infill development on vacant or underutilized parcels of land at higher densities. A range of infill processes may include transfer of development rights, land swops, land consolidation, public housing projects and so forth.

→ Cluster development on large parcels of land through a consolidation process.

→ Conversion of existing building (sometimes vacant/derelict) to other uses.

→ Allowing additional units to be developed on a single piece of land.

→ Redevelopment of poorly functional and underdeveloped areas to encourage and facilitate infill.

→ Introduction of a range of housing products/typologies to meet the densification requirements.

8.6 DEVELOPING SUSTAINABLE HUMAN SETTLEMENTS

The 1976 Vancouver Declaration defined human settlement as:

> *...the totality of the human community - whether city, town or village - with all the social, material, organizational, spiritual and cultural elements that sustain it. The fabric of human settlements consists of physical elements and services to which these elements provide the material support.*

The concept of human settlements has been developed further into a strategic framework for overall socio-economic development. Human settlements are the spatial dimension as well as the physical expression of economic and social activity. The creation of sustainable human settlements is inevitably an objective for social development as it defines and determines the relationship between where people live, play and work on the one hand and how this occurs within the confines of the natural environment. It is one of the most visible and quantifiable

indicators of the society's ability to meet one of its basic needs - shelter, and a pre-requisite for sustainable human development and economic growth.

8.6.1 LAND RELEASE

Land identification exercise should be undertaken to identify, map and assess all strategically located land that is suitable for housing development. This is in addition to the land that is subject of the current and planned housing projects. The exercise should be based on the following criteria:

→ Ownership of land.

→ Restrictive conditions of title and other encumbrances.

→ Current land use and existing zoning.

→ Size and potential yield for different housing products.

→ Availability of services.

→ Location in relation to employment and other urban opportunities.

→ Market value of the land as determined by the municipality for rating purposes.

→ Geotechnical, topographical and other environmental conditions.

→ The use of the land for housing purposes should be in accordance with IDP and the associated sector plans.

This exercise should be supported by a land release policy clearly stating the manner in which the municipality will acquire, allocate land and release it for development. In some instances, this may include entering into collaborative initiatives with the private sector (e.g. private public partnerships).

8.6.2 HOUSING DELIVERY

A differential strategy should be followed in the development of human settlements. Particular focus in the urban areas should be paid to the eradication of informal settlements and release of land for the establishment of new settlements and delivery of a range of housing products within the urban edge. Dense peri-urban and rural settlements will be prioritised for the development of human settlements through the rural housing subsidy scheme.

8.6.3 SLUMS CLEARANCE

The following spatial planning directives will be applied in the implementation of slums clearance projects:

→ Identify all informal settlements and quantify housing need.

→ Mapping and assessment of informal settlements to establish whether they can be upgraded *insitu* or requires relocation.

→ Develop and introduce a land invasion policy as a means to prevent development of new and expansion of the existing informal settlements.

8.6.4 RURAL HOUSING

The Government's rural housing assistance programme has been designed to complement the realisation of the objectives of the Integrated and Sustainable Human Settlements. It focuses on areas outside formalised townships where tenure options are not registered in the Deeds Office but rather protected in terms of land rights legislation - Interim Protection of Informal Land Rights Act, 1996 (Act No. 31 of 1996). As opposed to registered individual ownership in formal towns, rural households enjoy protected informal tenure rights and/or rental or permission to occupy. The rural housing assistance programme is needs or demand based and designed to provide housing and infrastructure assistance within the specific circumstances. Dense rural settlements will be for prioritized rural housing.

8.6.5 BREAKING NEW GROUND PROJECTS

Okhahlamba Municipality has developed a Housing Sector Plan, which estimates the current housing backlog at 15 649 units calculated on the basis of census data, informal settlements and backyard shacks. The majority of the housing backlog is estimated to fall under the traditional dwelling/hut/structure made of traditional materials. Naturally, since the municipality is mainly rural and has a high percentage of unemployment, the greater percentage of the housing need is for affordable housing units in rural areas. Assuming an average density of 25 dwelling units per hectare (including roads), it follows that nearly 626ha of land is required in order to address the housing backlog.

8.6.6 MIDDLE INCOME AND UPMARKET HOUSING

Middle income and up market housing is undertaken by the private sector in response to an expressed need. However, the municipality can facilitate the delivery of this form of housing through the incorporation of appropriately located land into the town planning scheme area and introduction of appropriate zoning. Middle and up-market housing development can also be delivered through infill, redevelopment of derelict sites and as part of the densification programme of the municipality. The scheme will also identify areas for medium density housing.

8.6.7 SOCIAL HOUSING

The Okhahlamba Housing Sector Plan identifies the need to investigate the need to provide rental housing, that would benefit municipal and government officials. The first phase should focus on the identification of areas that meet the following criteria:

→ Availability of state or municipal owned land large enough to enable delivery at scale.

→ Availability of bulk infrastructure.

→ Limited potential for conflict arising from what others may see as intrusion into their neighbourhoods.

8.7 SUSTAINABLE USE OF NATURAL RESOURCE BASE

The protection of natural systems from disturbance and displacement by future urban development is of critical importance. The spatial distribution of environmental biodiversity areas of significance is considered vital to provide the spatial framework for future development planning, particularly indicating those areas where development needs to be avoided or carefully managed. As such, areas where no or limited development should take place must focus on the conservation of the core biodiversity areas in Okhahlamba. These include protected and conservation areas, wetlands, flood plains, steep slopes and special sensitive biodiversity areas. These assets perform a substantial and significant role in conserving biodiversity as well protecting the quality of life of the residents of Okhahlamba.

The importance of conservation in Okhahlamba municipality in the context of the environmental significance / status of the Drakensberg and the World Heritage Site must be acknowledged. Conservation areas within Okhahlamba has special environmental status and economic value. This can be attributed to its function in providing an environmental service, which contributes to the overall open space system through watercourses, wetlands, grasslands, open spaces and other natural habitats.

8.7.1 FORMALLY PROTECTED AREAS

8.7.1.1 UKHAHLAMBA DRAKENSBERG PARK WORLD HERITAGE SITE

The UDP WHS is governed by its own legal framework, and any planning in the park needs to conform to these statutory requirements, which is set out in the uKhahlamba Drakensberg Park (UDP) World Heritage Site (WHS) Integrated Management Plan (IMP). The IMP is a strategic document that provide the direction for the development and operation of protected areas. It includes a set of zones, indicating what activities may take place and the conservation objectives for the different zones. The purpose of zonation within a protected area is to identify types and levels of usage that are acceptable based on an area's sensitivity and resilience, and to manage visitor experience and inter-user conflict. Zonation is used to identify areas in which infrastructure or activities may be located. Protected Areas that fall within the UDPWHS includes Cathedral Peak, Rugged Glen, Royal Natal and Monks Cowl.

Threats to biodiversity and ecosystem in the WHS generally caused by crime from adjacent areas, illegal grazing and harvesting of natural resources, tourism development pressures and lack of funding for the proper management. Critical to address these challenges and threats is the need to:

→ Implement the existing management plans for the WHS.

→ Education and awareness.

→ Improve law enforcement and building better relationships with neighbouring communities.

→ Coordination of different stakeholders / agencies for funding.

8.7.1.2 OTHER PROTECTED AREAS OUTSIDE THE WHS

There are also a number of formally protected areas in Okhahlamba, designated as protected areas under the National Environmental Management Protected Area Act No 57 of 2003, which falls outside the WHS. These include the Poccolan Nature Reserve, Robinson's Bush Nature Reserve and Spioenkop Nature Reserve. Each protected area is to be managed in accordance with its Integrated Management Plan (IMP), as well as the management guidelines provided in the uThukela Environmental Management Framework (EMF).

The municipality will address land use and development surrounding a Protected Areas and buffers around Protected Areas in terms of the relevant guidelines developed by Ezemvelo KZN Wildlife. To this effect, Ezemvelo KZN Wildlife developed Protected Area Management Plans for these areas, which are high-level, strategic documents that provides the direction for the development and operation of protected areas. Development and land use around the Protected Areas needs to be compatible with the values of the protected areas, with a gradient of development/land use density and scale, as well as type, occurring from the edge of protected area to the outer edge of the buffer. To enable this gradient the control measures are split into distance subsections with the controls on activities that would result in noise, light, visual, pollution and animal conflict impacts being highest at the edge of the Protected Area and reducing towards the outer edge of the buffer.

8.7.2 THE WHS BUFFER AREA

The Buffer constitutes an area outside the boundary of the protected area where actions are taken and agreements are made to protect the integrity of the protected area. Proper environmental management in the Buffer zone is thus critical to the health and protection of the WHS. In the context of the Buffer, the following are suggested:

→ Alien plant control measures are required in some areas where illegal water abstraction is problematic.

→ Soil conservation techniques can improve soil erosion.

→ Water quality can be improved through invasive plant control measures and eradication of alien invasive plants.

→ Proper water abstraction permits.

→ Improved grazing management and rehabilitation will contribute to the threats of soil erosion and wetland degradation.

→ Improved service provision can reduce the threats of deteriorating water quality from detergents and pollution.

→ Rainwater harvesting in communal areas can contribute to the uncontrolled and random construction of weirs and pipelines to meet domestic and agricultural water needs.

8.7.3 CRITICAL AREAS OF BIODIVERSITY

Maintaining ecological processes and functions of natural systems are important and critically important biodiversity areas have therefore been defined by Ezemvelo KZN Wildlife to ensure that terrestrial biodiversity resources remain available to the local inhabitants and future generations. As a measure to protect these areas, EKZN Wildlife has started to develop control measures that will be included in the Okhahlamba scheme and rural land use management policy. These include the following:

→ Expansion of agriculture (crop & intensive animal production, excluding grazing of natural veld) and development footprint requires a biodiversity assessment and may not occur without authorisation from agriculture and permission from Ezemvelo KZN Wildlife.

→ Expansion of development footprint in other development zones requires a biodiversity assessment and may not occur without permission from Ezemvelo KZN Wildlife.

Biodiversity management in Okhahlamba should further seek to achieve the following outcomes:

→ Reduction in the rate of ecosystem and species extinction.

→ Biodiversity assets are protected to secure a sustained supply of ecosystem goods and services over time.

→ The ability to secure the ecosystem goods and services upon which future communities must build their livelihoods will require short-term responses. This is challenging in a "pro-poor" policy environment where an eco-centric approach to development is neither applicable nor achievable.

There are limits to change and the reality is that Okhahlamba contains areas of critically endangered, endangered and vulnerable ecosystems, which need some level of protection. These areas represent the key strategic development conflict of the SDF and it will require responses to satisfy national policy priorities. The following activities should be strengthened:

→ Participation in the National Protected Area Expansion Strategy with a focus on the Mnweni Valley area.

→ More detailed spatial linkage plans for core areas where critical biodiversity areas occur.

→ Applying appropriately restrictive zoning categories for ecologically important areas.

→ Adhering to regulatory requirements for development that is proposed within critical biodiversity areas.

Examples of opportunities that the municipality can harness for local economic development, presented by threatened ecosystems, include the following:

→ Accessing national and provincial intervention programmes to implement IDP projects with biodiversity benefits, linked to management of threatened ecosystems (such as clearing of invasive aliens through Working for Water, or other forms of rehabilitation e.g. through Working for Wetlands, Land Care, etc.).

Development within the identified CBA areas needs to accommodate and support the biodiversity network, and the municipality will adopt the following development control measures as per the CBA map category:

River CBA

→ A minimum buffer of 30m of natural vegetation must be maintained from the edge of the riparian vegetation, or where such does not occur 50m from the bank of the watercourse.

→ A minimum buffer of 100m must be maintained between hard surfaces and the riparian vegetation or where such does not occur the bank of the watercourse, where such buffer is maintained as undisturbed soil.

→ Indigenous riparian vegetation may not be cleared.

→ Storm water runoff may not be discharged directly into the river system.

Wetland CBA

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

→ No activity that will result in the transformation of wetlands is recommended. Wetlands should be retained for the ecosystem goods and services they supply, therefore only rehabilitation and conservation activities are proposed within the zone.

→ Modification of the wetland (determined as being to the outer temporary zone) may not occur without an Environmental Authorisation and water use license. Where modification includes hardening of surfaces, clearing of indigenous vegetation, dredging, infilling, draining, etc.

→ A minimum buffer of 30m of natural vegetation must be maintained around the wetland (determined as the outer temporary zone).

→ A minimum buffer of 100m should be maintained between hard surfaces and the outer temporary zone of the wetland, where such buffer is maintained as undisturbed soil.

→ New land uses within 50m of a wetland (determined as being to the outer temporary zone) must undertake an assessment to determine an appropriate buffer.

→ Storm water runoff may not be discharged directly into river systems.

River Ecological Support Areas (ESA)

→ Indigenous riparian vegetation may not be cleared.

→ Storm water runoff may not be discharge directly into the river system.

→ A minimum buffer of 20m must be maintained between hard surfaces and the riverine vegetation or where such does not occur the bank of the watercourse, where such buffer is maintained as undisturbed soil.

→ Storm water runoff may not be discharge directly into the river system.

Ecological Support Areas (ESA) -Species specific

→ Hardening of surfaces requires a biodiversity assessment and may not occur without authorisation from agriculture and permission from Ezemvelo KZN Wildlife.

FEPA fish sanctuaries

→ Indigenous riverine vegetation may not be cleared.

→ No introduction of exotic, extra-limital or invasive species into the river.

→ A minimum buffer of 100m must be maintained between hard surfaces and the riverine vegetation or where such does not occur the bank of the watercourse, where such buffer is maintained as undisturbed soil.

→ Storm water runoff may not be discharged directly into the river system.

8.7.4 WATER RESOURCE MANAGEMENT

Water resource management must seek to achieve the protection of water resource assets to secure a sustained supply of water and ecosystem goods and services over time and to reduce vulnerability to the effects of climate change. Securing a sustained supply of water requires the management of natural assets (water resources management) and the introduction of new infrastructure (water services management). Water management requires that investment into water services and sanitation infrastructure alone will not secure water for growth, and that much more attention must be afforded to the impact of current and proposed development activities on the water resources of the region. This will require short-term investment into the protection, rehabilitation and management of assets that store water (such as wetlands, floodplains, maintenance of land cover) and the management of

activities that degrade or pollute water resources. The following activities should be strengthened:

→ Flood risk areas must be delineated as "no-go" areas.

→ Wetlands and riparian zones must be rehabilitated and protected from future development.

→ Land use practices must conform to the National Freshwater Ecosystem Priority Area Guidelines.

→ Improving sanitation and waste management infrastructure and services in nodal areas.

→ The uThukela District to facilitate and assist in establishing effective water quality monitoring programme, as well as the gathering and storage of all information available regarding water quality.

8.7.5 CATCHMENT MANAGEMENT

The Upper Thukela catchment area is identified as the most strategically important catchment area within the uThukela District. This catchment provides water for the Thukela-Vaal Transfer Scheme, which transfers water to the Vaal River system to augment the supply to Gauteng and Free State Provinces. As such, good resource management is critical for the integrity and functioning of the upper catchments and well managed catchments can perform their important ecological services in a far more effective and resilient manner than those which are under stress from development pressures. The uThukela District should also facilitate the establishment of formal Catchment Management Forums in association with Water Affairs.

8.7.6 CULTURAL HERITAGE

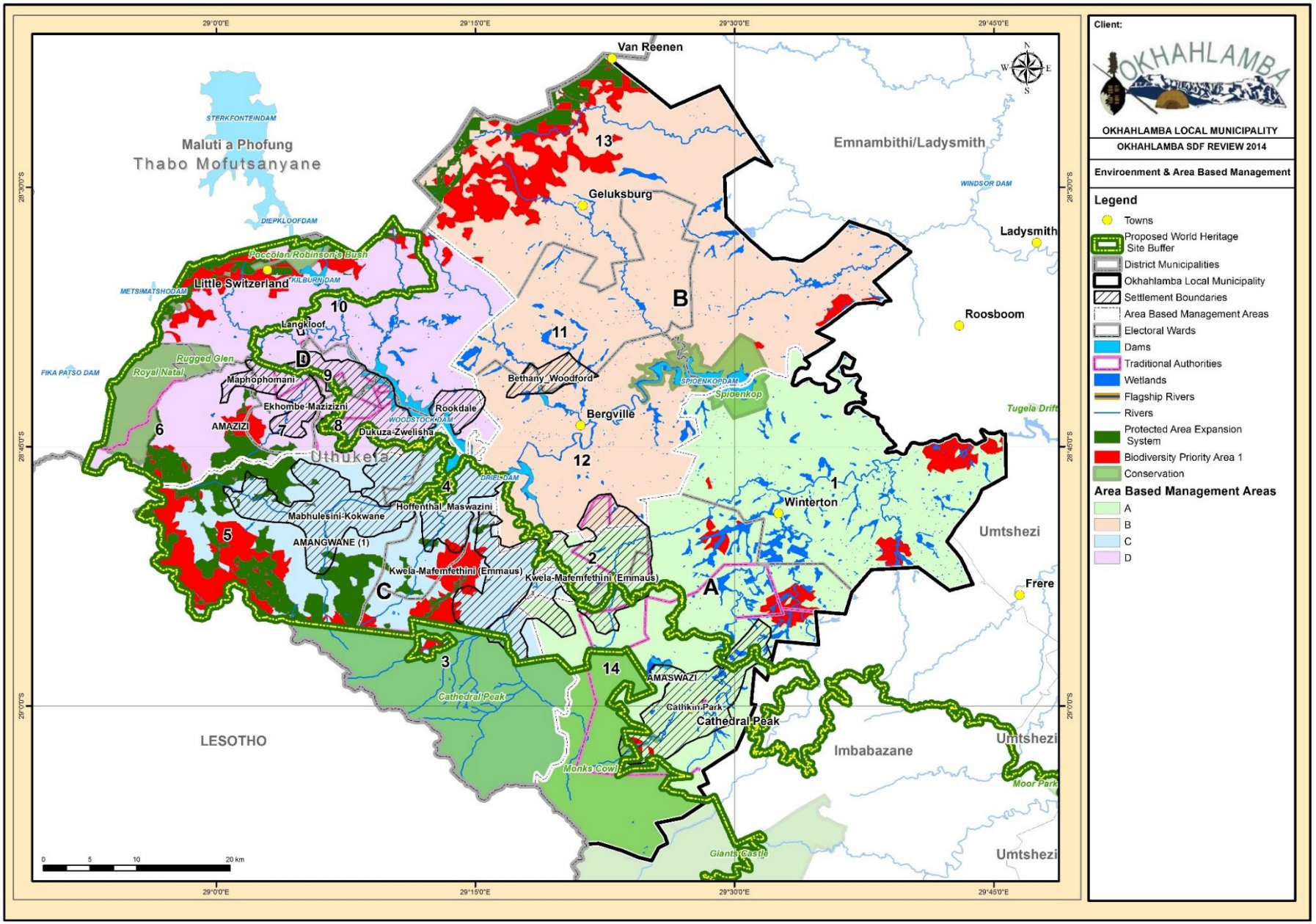
Considering the location and history of the area, cultural heritage sites in Okhahlamba municipality and the adjoining WHS is of international importance. Cultural heritage sites require intensive management to avoid all types of destruction, such as vandalism and development. Some of the cultural heritage features in the area includes the Spioenkop battlefield, archaeological sites (rock art and artefacts) and Anglo-Boer War Blockhouse in Bergville, amongst others. Heritage areas should thus be afforded the necessary importance and protected within the area:

→ Cultural resources, such as rock art, museums, archaeological sites, historical buildings and material must be protected and managed to avoid destruction due to inappropriate forms of development, as well as activities undertaken that are associated with these resources (e.g. tours).

→ Cultural heritage sites can be used as an income generating resource, which could be used to protect and manage the resources of the region.

→ Education in culture and history must be supported and encouraged in order to enhance knowledge, protection and full economic use of these assets.

MAP 37: ENVIRONMENTAL FRAMEWORK



8.8 PROTECTION AND MANAGEMENT OF AGRICULTURAL LAND

Agriculture and farmland are an integral part of the economy, environment, and overall quality of life. Appropriately, managed agricultural lands can provide groundwater recharge, wastewater infiltration, flood prevention, and habitat protection. While some conversion is inevitable, communities can manage the impact of conversion by implementing one or more regulatory and incentive based farmland protection strategies.

8.8.1 IDENTIFICATION AND MAPPING OF AGRICULTURAL LAND

The national Department of Agriculture, Forestry and Fisheries (DAFF) as well as the provincial Department of Agriculture and Environmental Affairs (KZN DAEA) has responded to their mandate to ensure long-term food production, by developing an agricultural land categorisation. These categories focus on mitigating and limiting the impact of any proposed change of land use on agricultural production and to protect agricultural land (specifically high potential and unique agricultural land). The following categories have been included in the KZN Agricultural Land Categories (DAFF & DAEA, 2013):

→ Category A land is regarded as very high potential agricultural land that should be retained exclusively for agricultural use. This category is scarce and all efforts should be focussed on retaining land within this Category exclusively for agricultural production. It includes identified grazing land that has a very high production value for sustained livestock production and has no or very few limitations to agricultural production and can support intensive arable cropping systems. Any change in land use will require detailed natural resources/agricultural study with sufficient motivation to propose a change of land use. Land use will be restricted to those in support of primary agricultural production only.

→ Category B is regarded as high potential agricultural land and has few limitations to agricultural production. Limited change of land use may be supported but only if in direct support to primary agricultural production practices or systems and then these developments must be located on the lowest potential areas within the higher potential zone. A detailed natural resources study must be conducted with sufficient motivation to propose a change of land use in this category. The protection of areas with high biodiversity value in areas with high agricultural potential should be promoted.

→ Category C is regarded as land with moderate agricultural potential, on which significant interventions would be required to achieve viable and sustainable food production, although agriculture is the still the majority land use in the rural landscape. These areas are more suitable for extensive grazing, the production of fodder crops in support of livestock production, and, from a natural rangeland grazing perspective, additional feed may be required during winter months to supplement the seasonal grazing provided by existing

rangeland. It is stated that this Category of land may however, have the potential to act as a buffer for adjacent higher potential agricultural land Categories. Thus, Category C land may be retained so as to act as additional protection for adjacent higher potential land. Change of land use from agricultural land use to non-agricultural land uses which are not necessarily in support of the existing agricultural land use may be considered, but only with the specified motivation and a detailed natural resources study.

→ Category D land is regarded as land with low agricultural potential and requires significant interventions to enable sustainable agricultural production. Extensive areas of land are generally required for viable production (e.g. beef and game farming) although intensive production under controlled environmental conditions (e.g. green housing, poultry, piggeries) is not excluded, nor is intensive production on areas of arable land available e.g. along river systems. Change of land use may be supported, as long as this change does not conflict with the surrounding agricultural activity and the "Right to farm" should in all instances be acknowledged.

→ Category E land is regarded as land with limited to very low potential for agricultural production. Cultivation within this land category is severely limited in both extent and in terms of the natural resources available, and grazing value will be poor with a very low carrying capacity. Land within this Category however may have a high conservation or tourism status, depending on the locality, or may act as a buffer for as higher Category of adjacent land. In addition, these land parcels may be required to support the economic viability of an extensive grazing system on adjoining land parcels e.g. large dairy farming system.

8.8.2 LAND USE REGULATIONS

The alienation of some productive agricultural land will inevitably occur as a consequence of development, but the municipality will not support such alienation when equally viable alternatives exist. When reviewing or amending planning schemes, the municipality will include provisions for protecting good quality agricultural land.

The planning schemes include an evaluation of alternative forms of development, and significant weight should be given to those strategies, which minimise the impacts on good quality agricultural land. Zoning and subdivision regulations are local regulatory tools that can be used to reduce the impact of development on agricultural lands. Okhahlamba Local Municipality has developed the municipal planning scheme which included the proposed agricultural zones and management overlays developed by the KZN Department of Agriculture and Rural Development. These zones have ensured that agricultural land is protected and only certain land uses are allowed per agricultural category. It also specifies the processes that needs to be undertaken to change the use of land within these areas.

8.9 RURAL DEVELOPMENT AND AGRARIAN REFORM

Rural development is intended to create vibrant, equitable and sustainable rural communities. The national government seeks to achieve this through coordinated and integrated broad-based agrarian transformation, strategically increasing rural development, and improving the land reform programme. Okhahlamba has a significant amount of land restitution claims and labour tenant applications. Considering the agricultural potential of the area, large areas of high potential agricultural land are affected by land reform.

Settlement of these land restitution claims should be undertaken in a manner that enhances the productive value of the land and generates economic benefits for the beneficiary communities. In addition, its implementation should be embedded in the notion of sustainable and integrated development.

The following should guide future implementation of the land reform program within the municipality:

→ Clustering projects in a geographic area (across products) to optimise development potential, rationalise support services and promote efficient use of scarce resources. Identification of clusters should be based on access, social identity, development opportunities, land use pattern and social relationships. This will provide a framework for a comprehensive approach to the resolution of labour tenant and land restitution claims.

→ Settlement of the emerging farmers in terms of the Land Redistribution for Agricultural Development (LRAD) or Proactive Land Acquisition Strategy should be located close to transport routes on good agricultural land.

→ Land reform beneficiaries should be provided with agricultural development support including assistance with productive and sustainable land use, infrastructure support, agricultural inputs, and strategic linkages with the markets.

→ There is a need to promote off-farm settlement as a land delivery approach where the main need for land is settlement. Such land should be located in accessible areas, which can be provided with social facilities and basic services in an efficient and effective manner. It may also form part of a cluster of projects. This will also facilitate housing delivery and development of such settlements as sustainable human settlements.

→ Identification of high impact projects and integration into the local value chain or development proposals. These projects should also be integrated into the LED program of the Municipality.

→ Land tenure upgrading should be undertaken for both urban and rural informal settlements as part of a process towards the development of human settlements. Particular focus should be paid to areas such as Rookdale, Woodford, Bethany, Hambrook, Acton Homes and the Greenpoint area.

8.10 INFRASTRUCTURE DEVELOPMENT

Provision of bulk services is the responsibility of uThukela District Municipality. Sector plans have been prepared for some of the services. The recommendations thereof that have implications for Okhahlamba Municipality have been integrated into the SDF for alignment and integration purposes.

8.10.1 SANITATION

The Okhahlamba Local Municipality IDP indicates that the Municipality still faces sanitation backlogs, particularly in the remote rural settlements. Planning and implementation of sanitation projects should be based on settlements clusters and be integrated with the initiative towards the transformation of rural villages into sustainable human settlements. Spatial planning standards that should apply to sanitation projects, include the following:

→ Settlements located within 100m from wetlands or a river should be provided with lined VIPs.

→ Priority should be given to settlements located within priority environmental areas.

→ Urban and peri-urban settlements should be provided with water borne sewer, where possible.

→ Rural settlements should be developed with either lined VIPs or other septic tanks.

→ Alternative forms of sanitation should be investigated.

→ Greater use of alternative and improved waste management (both sewage and solid waste by means of increased recycling, biogas capture and utilization and other responses).

8.10.2 WATER

Efficient and adequate supply of water services for domestic consumption and for economic development is one of the most important challenges facing uThukela District Municipality in its capacity as the Water Services Authority. The District faces serious water delivery problems, such as water schemes that are not working, (either damaged or not fixed) lack of proper institutional arrangements to facilitate water supply and plan for future growth and lack of capacity and skilled people. Another challenge that should be addressed is the upgrading of bulk water supply to rural settlements and maintenance of infrastructure.

The opportunity for rainwater harvesting as a strategy to improve access to water, especially in rural areas and poorer communities, should be investigated. Local communities can be trained in water harvesting and storage, as well as the treatment of water for domestic purposes. Although alternative water sources is not regarded as sustainable alternatives, it does provide additional options to conventional water supply. In this respect, the following opportunities are available:

→ Promoting greater use of rainwater harvesting via rainwater tanks, both at social facilities and at individual households.

→ Recycling of grey water.

→ Optimise the re-use of wastewater.

→ Supporting subsistence and emerging agriculture (e.g. alternative irrigation supply) and promoting more effective soil erosion control. It should be noted that it is not merely 'technologies' which should be applied but also simple and well known methodologies such as composting, mulching, and the efficient use of water etc.

→ Ensuring more effective water demand management (reducing the demand for costly and energy expensive purified water by reducing leakages and promoting more responsible consumer usage by means of mix of penalties and incentives). This is particularly important in the more urban areas.

→ Promoting more energy efficient buildings and industry (by means of a mix of increased standards for compliance on new buildings, incentives such as rates rebates, and education and awareness).

The following spatial planning standards should be implemented in all water supply schemes:

→ Urban settlements should be supplies with water within the house.

→ Peri-urban settlements should ideally be supplied with water on site or at least within a 200m from each household.

→ Dense rural settlements should be provided with water at least within 200m from each household.

→ Scattered rural settlements should be prioritized for spring protection, source water from the rivers and where possible boreholes.

8.10.3 ENERGY

The main source of energy in Okhahlamba Local Municipality is electricity, provided by Eskom. While the majority of rural households have access to pre-paid reticulated electricity (particularly in denser settlements), households in more remote less densely settled areas operate on an off-grid basis and still depend on wood, gas and paraffin for lighting and heating requirements. In light of the energy crisis facing the country, the following alternative sources of energy, which are more environmentally sustainable and which could be considered in the area, are indicated below:

→ Improving household living conditions and livelihoods through the facilitation or provision of a range of alternative forms of energy at the household level, mainly in areas, which are off the main Eskom grid. Amongst the recommended technologies are small photovoltaic systems, small wind turbines, safer and more efficient cookers such as gel fuel, and more efficient and sustainable use of wood fuel.

→ Solar energy for individual household lighting, as well as within social facilities (e.g. schools) and at emerging service nodes.

→ Solar water heating utilising the subsidy provided by government for individual household, as well as within social facilities (e.g. schools) and at emerging service nodes.

→ Wind generated power although the establishment costs are high.

→ Small scale hydro-electric systems although costly for establishment.

→ More effective promotion and incentivisation of Eskom's feed in tariffs (i.e. Eskom purchasing excess electricity produced by consumers or developers using alternative technology at a rate higher than the cost of its own main grid electricity – this includes alternative power generation by wind, solar power, landfill gas or small hydro and which is fed back into the grid).

8.11 IMPROVING ACCESS TO SOCIAL FACILITIES

Different communities have different priorities in terms of social facilities, and different types of facilities will work efficiently in certain communities. Large facilities with a municipal wide threshold such as a district hospital may not be located in a small poorly accessible settlement. The important issue is not to predetermine the form of all facilities, but rather the positioning of social institutions valued by the community. The precise nature and form of many of these facilities can be determined over time by the community itself.

Community facilities are important place-making elements and they should be deliberately used, in combination with public space, to make memorable places. They are dependent upon public support and play an important integrating function in and between communities/settlements. They should therefore be "externalised", by being located in places of high accessibility, and made accessible to the local and surrounding communities. In this way, they bring together people from a number of local areas and are not tied to the dynamics of any one community.

8.11.1 HEALTH

Health considerations must inform all dimensions of settlement-making and design. Health facilities should be accessible and integrated with public transportation. This can be achieved by locating such facilities close to activity areas and regular places of gathering.

The location of preventively orientated health facilities, such as clinics, in association with primary and pre-primary schools, offers advantages. Preventive functions, such as inoculation and nutritional programmes are best delivered through schools. Where a multipurpose hall serves a number of schools, a clinic may be beneficially located within or adjacent to that hall.

In line with the national planning standards for health facilities, a clinic should be developed for every 6000 households or 5km radius where service thresholds allow. Deep rural settlements should be prioritised for mobile clinic services.

While the municipality is serviced by only one hospital, it would seem that there is a case for an additional hospital in the region to service those households, which currently fall into the services gap (e.g. Zwelisha / Mazinini area). However, further investigation into the viability of such a facility will have to be undertaken or alternatives, such as Community Health Centres should be considered.

8.11.2 MEETING SPACES

Both open-air public spaces and enclosed spaces such as community halls are important parts of social infrastructure. Halls should be located in association with public spaces as this will allow for events in one to spill over into the other, or provide alternatives in case of weather changes. Halls should also be associated with other public facilities, such as schools and markets. Given the limited number of public facilities, which can be provided in any one settlement, it make sense to concentrate these to create a limited number of special places, which become the memorable parts of the settlement.

The number and location of meeting places cannot simply be numerically derived. Rather, it is necessary to create “forum” places, places, which over time assume a symbolic significance outstripping their purely functional role.

8.11.3 EDUCATION FACILITIES

The creation of environments, which promote learning, forms an integral part of the settlement-making process. Learning has both formal and informal dimensions. Schooling relates to the formal dimension of education. Informal learning stems from exposing people to experiences outside the formal learning environment, such as experiencing nature, urban activities and social events. In this respect, the informal part of the learning experience can be enhanced by integrating educational facilities with the broader settlement structure. This can be achieved by locating schools, crèches and adult education centres close to places of intensive activity.

The concept of the specialised self-contained school, accommodated on a spatially discrete site and serving only its pupil population, needs a rethink. Schools should be seen as resources serving both pupils and the broader community. In this regard schools can accommodate the school population during the day and, where possible, adult education during the evenings. Similarly, halls and libraries can serve the school population during the day and the broader community during the evening, ensuring 18-hour usage of facilities.

The need for informal school play space can be supplemented by public space adjacent to which the school is located. Formal sports fields can

serve both the school and the broader community. In terms of their location, schools should be part of an accessible, settlement-wide system of education facilities. Accordingly, they should be located close to continuous public transport routes. This will make schools sustainable over a longer period, since they will draw pupils from a larger area, thus becoming less susceptible to fluctuations in the local population.

Provision of education facilities should be based on established planning standards of a primary school for every 600 households and a secondary school for every 1200 households. Future school sites should be located and be integrated into the existing spatial fabric and logic. Secondary facilities could be located in areas where they can be shared between or among settlements thus forming the basis of emerging nodes.

A critical element of investigation in the area is the need for a tertiary education facility. As such, the Department of Education needs to investigate the establishment of a FET facility to enable post-school learners to further their education.

8.11.4 THE MOVEMENT NETWORK AND PUBLIC TRANSPORT

Movement should not be seen as a separate element but as an activity, which occurs within social space. The degree to which it dominates space varies significantly depending on the type of settlement. Equal emphasis should be paid to both spaces, which are entirely pedestrian dominated to spaces, which are entirely vehicle dominated. The situation is completely different in rural villages where pedestrian and public are the dominant modes of transport. Public transport is essential in areas that are characterised by low levels of car ownership such as rural areas of Okhahlamba. As far as possible, transformation of rural settlement into sustainable human settlements should support public transport. Well-located and highly accessible settlements should be allowed to expand and increase in density in order to create sufficient thresholds to support public transport and public facilities.

Higher densities in areas such as Bergville have potential to increase the viability of public transport and should be encouraged along public transport routes. This is critically important as it promotes concentration of activities and gives effect to the notion of nodal development. There is a strong ordering dimension to movement. At all scales, it is necessary to maximise continuities of movement, as this promotes choice and integration. Land uses should be able to respond freely to movement patterns as this encourages diversity and a mix of activities.

8.12 UNLOCK ECONOMIC DEVELOPMENT POTENTIAL

Okhahlamba Municipality IDP identifies local economic development (LED) as one of the key performance areas (KPAs), and a strategic area for intervention. The main economic sectors that could enhance local economic development in the area rests on the tourism and agriculture

sectors. However, growth in these sectors puts pressure on land and natural resources.

8.12.1 TOURISM

There is a wide range of tourism opportunities in the municipality, particularly in the adventure and hospitality sectors, as well as nature-based tourism presented by the UDP WHS. However, a concerning trend in the area is an increase in development applications on agricultural land and in rural areas. Identified tourism nodes in Okhahlamba (Cathkin Park and Bangibone) are no longer the focus areas for tourism development, thus allowing developments to take place in areas that are most sensitive to development and which requires protection (UDP WHS and the Buffer Zone). The continued approval of applications in areas that are not designated for tourism development will result in the loss of natural resources. Clear guidelines as to what is allowed and where is thus critical for the future sustainability of this sector.

The following guidelines should be used when considering tourism or development on commercial farms and in traditional areas (Corridor Framework Plan, 2014):

→ 'On farm' hospitality, as one of the opportunities that is being pursued by farmers to stabilise their income, should be located in the footprint of the existing homestead (cluster form). This will ensure the least development impact and will avoid loss of high quality land, sub-division of agricultural land and sprawl.

→ Greater impact tourism initiatives should be located further from the Drakensberg and not within the Trail Zone.

→ Existing movement infrastructure is to be retained with no additional roads or tracks introduced.

→ The primary use of the land for agriculture must be retained.

→ Any new tourist development within a cluster of buildings should be located at the edge of the flatter land and foothills, not breaking the skyline.

→ The impact of new development on farmland should be minimised.

→ There must be continuities in the regional structure and proximity to the main routes. New development must respond to, and reinforce, the logic of regional and sub-regional infrastructure (i.e. the principle of 'structural reinforcement') and these developments should be within reach of public transport routes.

→ Further sub-division of agricultural land should not be entertained, particularly that relating to tourism (e.g. golfing estates).

→ Housing developments and retirement village types of development should preferably not occur on agricultural land.

→ Landscape character assessments need to be undertaken to ensure proposed developments do not negatively impact on landscape and viewscapes in the region.

Tourism development should be promoted in the following areas:

→ Nature based tourism in areas along the Drakensberg, in the UDP WHS and protected areas.

→ Rural villages where there is an opportunity to celebrate the tradition, culture and rich heritage of the local communities.

→ Agro-tourism on commercial farms subject to impact on agricultural land.

→ Adventure tourism (Hiking and Trails, Hunting, Fishing, River Rafting, Boating, Angling, Skiing, Rock Climbing, 4x4, Mountain Biking) taking advantage of the uneven topographical features in some areas and natural features of the area.

→ Conferencing facilities, tourism accommodation and visitor orientation centres in identified tourism nodal areas.

→ Cultural heritage rail route, as proposed in the Corridor Framework Plan. The concept is to utilise the existing rail network in the region to access cultural heritage sites. However, further investigation is required.

→ The Drakensberg Cable car, which is proposed in the escarpment zone above the Mnweni Valley between the Royal Natal National Park and Cathedral Peak (IDP, 2016/17). Currently the area has one developed tourist node, the Mnweni Cultural and Hiking Centre. The node offers horse riding, bird watching, cultural activities, rock art sites, mountaineering, mountain biking, hikes and swimming.

→ The trekking trail route, which proposes the establishment of an international hiking weaves in and out the UDP WHS and into villages, agricultural areas or cultural heritage sites. This, in turn, should stimulate other tourism opportunities and attract the tourism market, which is particularly sensitive to the landscape and natural resources. The backpacker market should be promoted in the region to enhance local economic activities in traditional areas and communities through tourism opportunities such as hospitality and trail guiding.

8.12.2 AGRICULTURAL DEVELOPMENT

Agricultural development should be promoted based on potential, with high production land being reserved mainly for agricultural purposes. Agricultural potential indicates that the highest potential agricultural land in Okhahlamba is located to the north of Bergville and along the western border (Mnweni valley area) and Cathkin Park area. The majority of the rest of the municipal area is high potential agricultural land.

In addition to the protection of agricultural land, the Municipality will facilitate productive use of agricultural land as follows:

→ Extensive livestock farming should be promoted, particularly in commercial agricultural areas, but grazing land management programmes should also be introduced to address the increasing problem of soil erosion. These should include rotation, camping, burning programmes etc. that will enhance veld condition.

→ Crop production (irrigated and dry land) should be promoted in low lying areas and irrigation along the main rivers.

→ No further sub-division of agricultural land (arable, plantation and grazing) below the minimum size prescribed in the relevant agricultural legislation (Subdivision of Agricultural Land Act (No. 70 of 1970) should be permitted within 2km of the WHS, 'no-go' and 'tread lightly' zones, the Trail Zone and in the remainder of the Corridor outside of defined urban areas and transportation/infrastructure routes.

→ Future agricultural development should focus on establishing viable smallholder production in and around defined regional centres, such as Bergville. Small farmer programmes should be closer to urban markets, in order to sell small, often erratic, surpluses quickly, cheaply and easily. The cost of transporting produce to market is a critical component in small farmer budgets. The development of agri-villages outside Bergville, as proposed in the Bergville Urban Design Framework, should be investigated further.

8.12.3 COMMERCE AND INDUSTRY

The nodal areas should be prioritised for commercial and industrial developments, depending on the size of the threshold, role of the node in the local and regional space economy, and availability of suitable land parcels. Bergville, as the municipal development node, plays a very strategic role in the municipality and provides a central place function. Financial, agricultural, social, educational and marketing goods and services to the surrounding commercial farming area are located in Bergville. The restructuring and urban renewal proposals included in the Urban Design Framework for the town should be pursued and implemented.

Commercial development in areas such as Winterton should resonate with the role of the area as secondary municipal development node, supporting clusters of settlements in its vicinity. Neighbourhood and community centres should be located in nodes that serve a cluster of settlements.

8.13 SUSTAINABLE INTEGRATED SPATIAL PLANNING SYSTEM

With the exception of broad high level spatial planning in the form of Spatial Development Frameworks and an Urban Design Framework for Bergville and Nondela Precinct Plan, Okhahlamba has not benefitted from formal spatial planning processes. Rural settlements have evolved to their current state because of traditional land allocation system. The municipality will develop and implement an integrated sustainable

planning system as a means to introduce formal planning and integrate traditional land allocation processes into the planning system.

8.13.1 HIERARCHY OF PLANS

The SDF outlines the spatial development strategy and introduces principle for the transformation of rural settlements into sustainable human settlements. The SDF will be refined and developed further through the formulation of a series of plans with varying degrees of detail and flexibility.

8.13.1.1 LOCAL AREA PLANS

Local Area Plans (LAPs) will be prepared for each of the ward clusters with the priority being put on areas that are currently experiencing development pressure. A Local Area Plans (LAP) is developed to provide locally focused planning guidance for local areas. Their aim is to achieve the following:

→ establish a shared vision for the local area;

→ address key local planning issues and capitalise on opportunities;

→ establish an integrated approach to local planning; and

→ sensibly manage future development outcomes.

LAPs will deal mainly with the following issues:

→ Land use zoning and density

→ Public open space

→ Private open space

→ Provision of infrastructure

→ Conservation of built heritage

→ Conservation of natural environment

→ Provision of traveller accommodation

→ Community facilities

→ Design and development standards.

The results of local area planning will be integrated and used to refine the SDF. They will also inform the preparation and introduction of a LUS.

8.13.1.2 PRECINCT PLANS

Precinct plans will be prepared for each of the development nodes, with the nodes that are currently facing development pressure being a priority. These plans will establish spatial structure and provide more detail on the land use proposals. Particular attention will be paid on the following:

→ Housing typology and yields;

→ Local transport and movement networks;

→ Open space system;

→ Urban design principles and concepts;

→ Development parameters; and

→ Nature and character of land use.

The precinct plans will be incorporated into the local planning scheme to guide the use and development of land in the precinct over the long term. Precinct plans should:

→ Meet the state and municipal planning policy objectives and resolve competing issues;

→ Create a structure for nodal development that will deliver practical outcomes;

→ Provide the framework for statutory planning controls, including specific implementation provisions; an

→ Give local communities, developers and other investor's greater certainty and confidence about future development in the growth areas.

8.13.1.3 SETTLEMENT PLANS

Fragmented development has high infrastructure costs and should be discouraged. To achieve future environmental, economic and social sustainability settlements should be planned to be able to demonstrate self-reliance and an ability to maximize infrastructure efficiency and service provision. Planning for settlement purposes should identify the constraints and opportunities of the land, and seek to achieve a carefully planned community, enhance the quality of the environmental, and avoid resource and hazard issues. As such:

→ settlements should be located on land that is suitable for this land use and capable of supporting all of its aspects;

→ isolated settlements should not be promoted if residents would dependent heavily upon public transport to access basic social and services infrastructure;

→ development of settlements should avoid areas of natural significance, economic resource, high landscape and areas with cultural heritage value, and potential increased risk associated with impacts of climate change; and

→ development of settlements on areas adjoining land with the above values should incorporate buffers as necessary to help protect those values and to avoid future land use conflict.

8.13.2 INTEGRATION OF TRADITIONAL LAND ALLOCATION PROCESSES WITH MUNICIPAL SPATIAL PLANNING

Traditional leaders are responsible for the allocation of land for different land uses within their areas of jurisdiction. In some instances, these uses compete for the same space. Most common land uses in traditional council areas include settlement (imizi), grazing, limited agriculture, and limited commercial and community facilities. Although this practice has shown resilience and is practised widely through the

Province, it can be improved through strategic integration with municipal spatial planning activities.

8.13.2.1 MAPPING OF IZIGODI

Spatial planning in traditional council areas should start with the recognition of the social and management structure, and the manner in which social groups have organised themselves in space. Each traditional council area is divided into izigodi. The boundaries for izigodi are known to the local communities and traditional leaders, and often run along natural features such as rivers, plateau and hills. Identification and mapping of these areas will help planners to understand the spatial structure of rural areas and the spatial dynamics or functional relationship between and among different izigodi. It will generate new spatial data, improve GIS system and enable the municipality to undertake area based spatial and development planning. This exercise will be undertaken with full participation of the traditional leaders and its results will be ratified by the traditional council concerned.

8.13.2.2 MAPPING OF SETTLEMENTS

Each izigodi is made up of different settlements distributed unevenly in space. Like izigodi, spatial identification of settlements will help planners to understand how rural communities have organised themselves in space, functional relationship and movement patterns between different settlements. It will also provide planners with an opportunity to update the existing settlements data including place names.

8.13.2.3 GUIDELINES FOR LAND ALLOCATION

Allocation of land for different land uses is the function of traditional leaders. The guidelines for the allocation of land are intended to document the factors that should be taken into account in this regard, and direct settlement to areas that suited and earmarked for this use. The guidelines should cover the following:

→ Norms and standards for sites sizes taking into account location and density of settlements.

→ Factors that should be considered when allocating land for different land uses.

→ Spatial identification and coding of rights allocated.

→ Register of land rights holders.

The formulation of the guidelines should be undertaken with full involvement of traditional leaders to ensure by-in acceptance of the guidelines. They should be consistent with the spatial vision as outlined in the SDF.

8.13.2.4 TRAINING AND CAPACITY BUILDING

Traditional leaders require training and capacity building in a number of areas in order to play an active role in the transformation of rural

settlements into sustainable human settlements. Priority in this regard should be given to the following:

→ Map reading skills.

→ Guidelines for allocation of land for different land uses.

→ Assessment of applications for land rights and land development.

→ Land allocation and land development.

In addition, traditional leaders should be provided with computers, access to the internet (Google Maps) and ability to view maps. They should be provided with Geographic Positioning System (GPS) in order to be able to take coordinates for each site and identify it spatially.

8.13.3 INTEGRATION OF THE MALOTI-DRAKENSBERG CORRIDOR FRAMEWORK

The identification of zones at a regional scale can only be used to provide a broad indication of what needs to be taken into account in spatial development frameworks and schemes at a local scale. As such, the proposed zonation proposed by the Regional Spatial Framework Plan for the Maloti-Drakensberg Corridor, needs to be acknowledged in this SDF and must be used to guide and manage development. The zones are discussed below (Maloti-Drakensberg Corridor Framework, 2014):

8.13.3.1 'NO-GO' ZONE

The 'No go 'zone includes Protected areas, proposed conservation areas adjoining the northern and southern boundary of the WHS, the 2km buffer along the boundary of the WHS and high value biodiversity areas outside of the MDPWHS that form part of the Corridor such as Stewardship Sites and ecological corridors.

This zone is set aside for biodiversity conservation and limited light impact activities such as trekking trails and adventure tourism. No form of structural development should be contemplated in this zone. The wilderness /heartland of the zone, located in the WHS is further protected by the management plans and associated rules which are used to manage land use and enhance biodiversity in these areas.

8.13.3.2 'TREAD LIGHTLY' ZONE

This zone includes areas adjoining the 'no-go' area and is sensitive both environmentally and agriculturally. It requires careful management for protection against the loss of these resources.

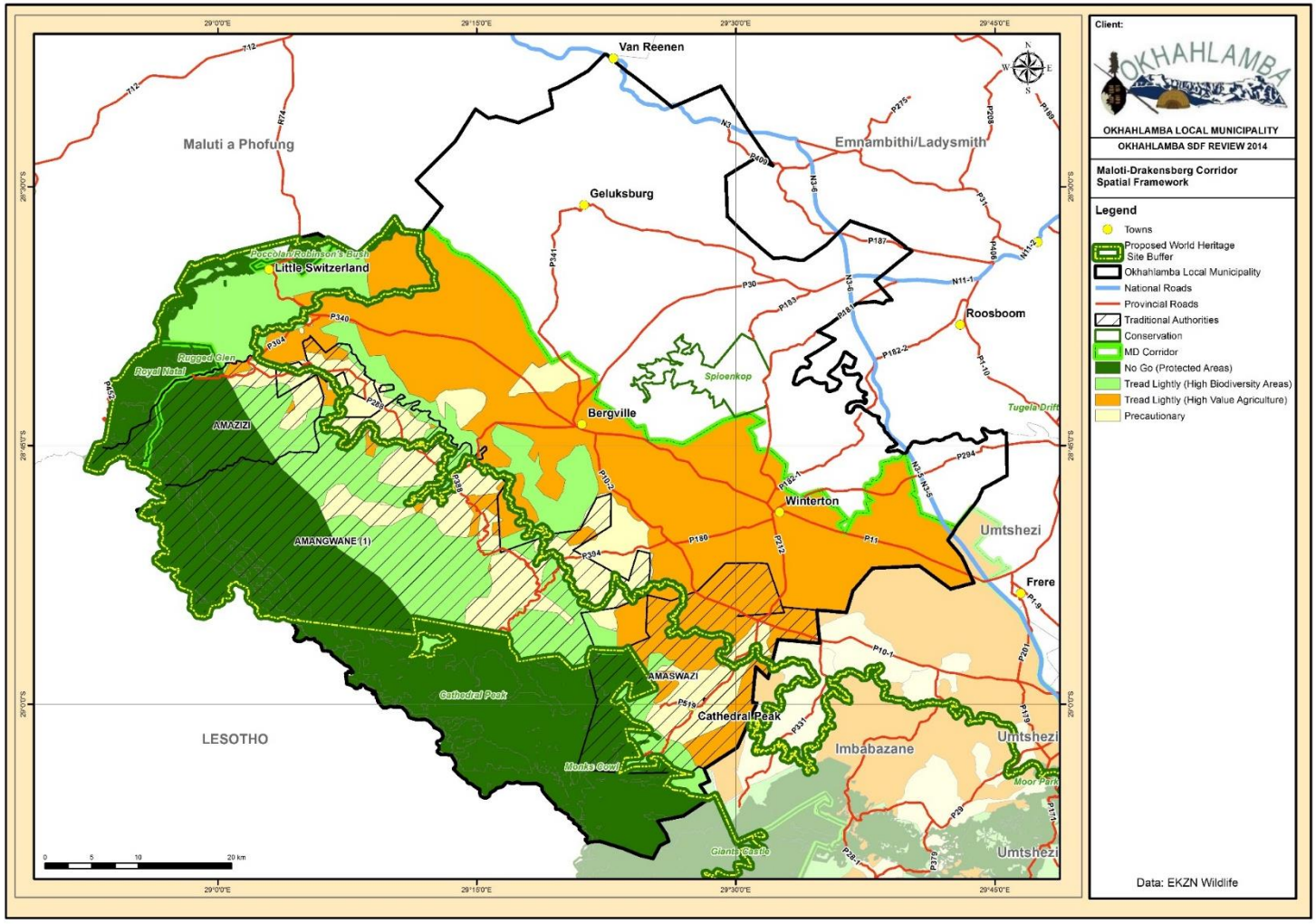
→ The areas encompassing *biodiversity* in this zone include terrestrial and aquatic CBAs, ESAs, EGSAs, EIs and Stewardship Sites and need

to be protected owing to their sensitivity and importance for the continued production of EGSAs.

→ In terms of agriculture, this zone is limited to prime agricultural (mainly arable and grazing) areas, which need to be protected from 'built environment' types of development. Specific reference is made to agriculture in this zone since there are limited opportunities for expansion of arable land into 'no go' areas. Hence, best use needs to be made of limited agricultural resources for sustained long term food production and food security.

→ The opportunities for tourism development in this zone depend upon the location in relation to landscape sensitivity, biodiversity issues and agriculture. The emphasis would

MAP 38: MALOTI-DRAKENSBERG CORRIDOR FRAMEWORK: NORTHERN REGION



need to be on carefully placed small scale and low impact type developments located in excess of 10kms from the WHS boundary and in areas identified as being suitable to different types of tourism activities.

8.13.3.3 'PRECAUTIONARY' ZONE

This zone includes areas that are less sensitive and could be considered for appropriate forms of development. These are located in transformed lands in the region in the lower lying areas and valleys. This zone mainly includes land that is under rural settlement, smallholder subsistence agriculture, formal urban development and differing types of tourism related to hospitality and cultural heritage.

8.14 CONSOLIDATED SDF

The SDF is based on a detailed analysis of the spatial development trends and patterns within the municipality. It also takes into account the national and provincial spatial planning imperatives, and seeks to contribute to spatial transformation within Okhahlamba. It advocates for densification, compaction and transformation of rural and urban settlements into sustainable human settlements and development of Bergville as a municipal development node.

It seeks to achieve this through a number of strategic initiatives, particularly the following:

→ Establishing and developing a system of development corridors operating at different levels but connecting local areas with the centre and integrating the municipality.

→ A system of development nodes providing services and access to facilities at different scales.

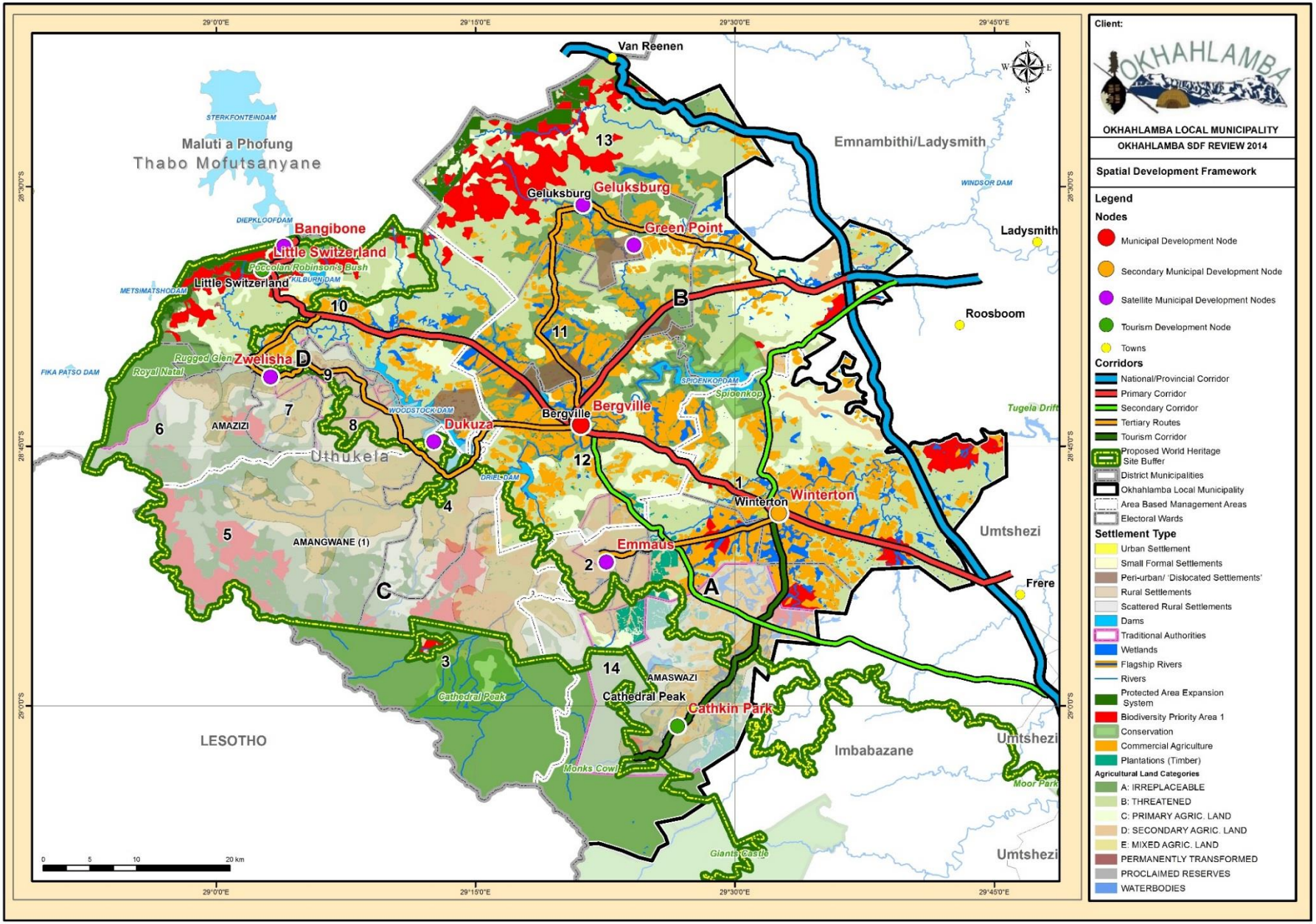
→ Promoting a continuum of settlements ranging from dense urban to scattered sparsely populated rural settlements.

→ Focusing development in strategically located areas as a means to unlock the economic opportunities and facilitate spatial integration.

→ Focusing equally on both rural and urban development as a means to manage rural-urban linkages and promote rural development.

→ Acknowledging the importance of the natural environment and assigning the necessary importance thereto.

MAP 39: CONSOLIDATED SDF

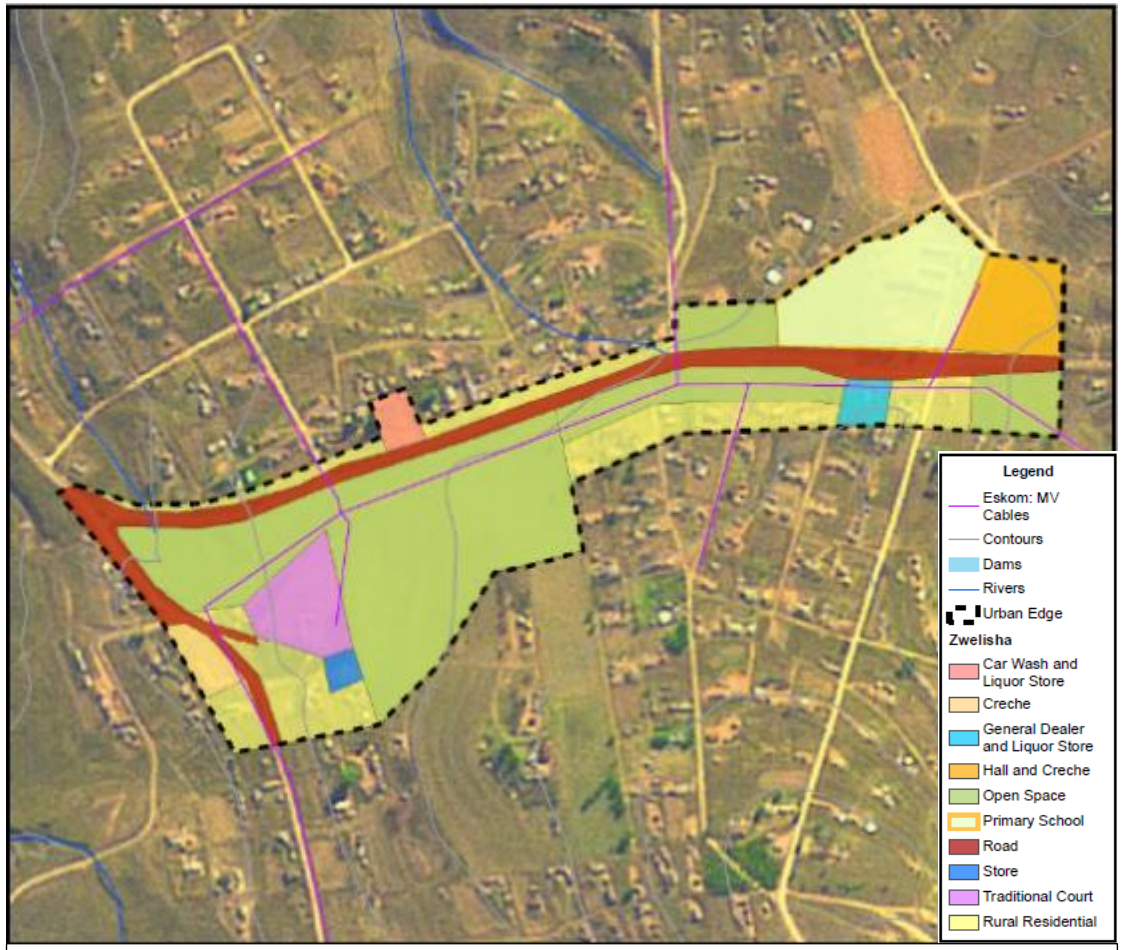


8.15 NODAL DEVELOPMENT POTENTIAL

8.15.1 ZWELISHA NODE

The Zwelisha node falls under the Amazizi traditional council's area of jurisdiction, hence land use within the node is currently regulated by the traditional council through indigenous forms of land use management, best epitomized by the traditional land allocation system. The boundaries indicated on the map are not necessarily an attempt to impose and delineate the boundaries of the nodal area and are subject to redetermination if needs be. They merely provide an approximate edge of a precinct where there is a higher concentration of land uses; hence where greater attention needs to be paid in terms of land use regulation and the location of future non-residential uses.

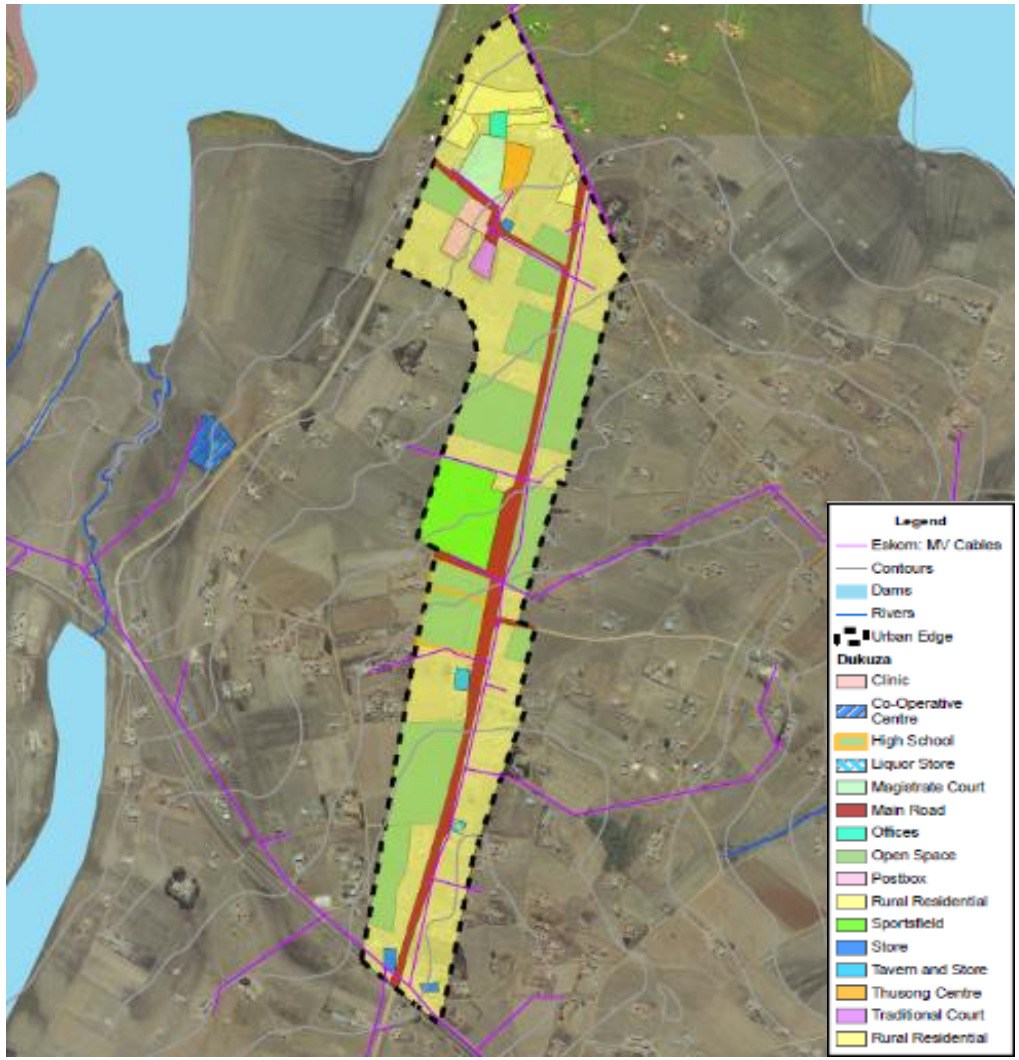
The node is traversed by a provincial road viz. the P288. This road can be seen as a potential activity spine within the node as most of the land uses within the node are located along it. It also fulfils the important function of linking the area with other nodes such as Dukuza. The node is also bordered by a district road viz. the D2403 on the western side. The node enjoys a relatively less degree of land use diversity and intensity.



Electrical infrastructure is available in this node, providing opportunities for future investment in this area.

8.15.2 DUKUZA NODE

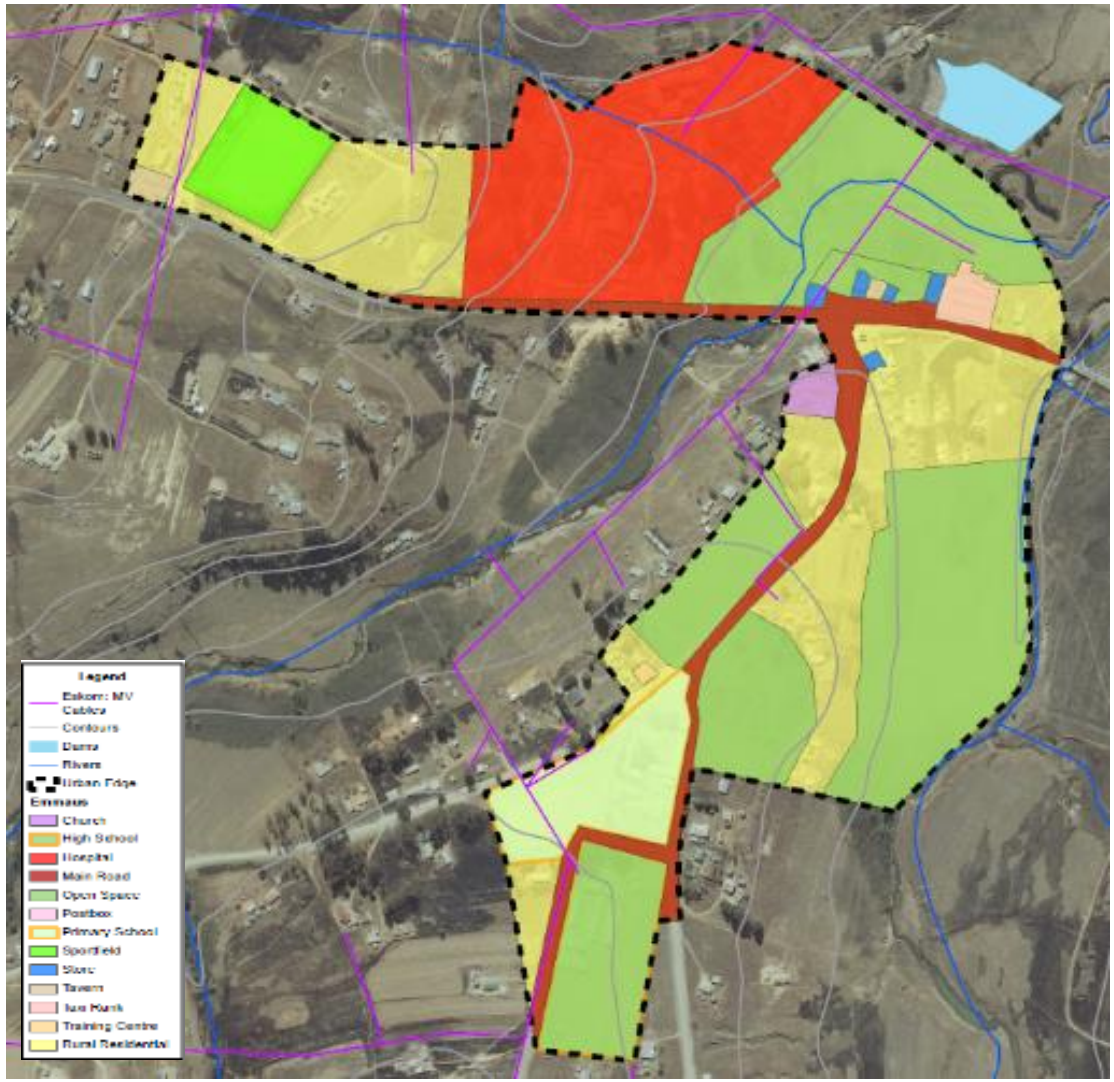
The Dukuza node falls under the Amagwane traditional council's area of jurisdiction, hence land use within the node is currently regulated by the traditional council through indigenous forms of land use management, best epitomized by the traditional land allocation system. The boundaries indicated on the map are not necessarily an attempt to impose and delineate the boundaries of the nodal area and are subject to redetermination if needs be. They merely provide an approximate edge of a precinct where there is a higher concentration of land uses; hence where greater attention needs to be paid in terms of land use regulation and the location of future non-residential uses. The node is relatively busy and enjoys a relatively high degree of land use diversity and intensity. It is located in the midst of, and is functionally linked with, a network of roads. It is bordered by a local road viz. L436 on the north western side and is traversed by a district road viz. D1375 which can be seen as a potential corridor within the node. The D1375 also links the node with a provincial road nearby viz. P288. This is a very important route as it directly links the node with the municipality's primary node viz. Bergville and also other nodes and settlements such as Zwelisha. Electrical infrastructure is available in this node.



8.15.3 EMMAUS NODE

The Emmaus node falls under the Amangwane traditional council's area of jurisdiction, hence land use within the node is currently regulated by the traditional council through indigenous forms of land use management, best epitomized by the traditional land allocation system. The boundaries indicated on the map are not necessarily an attempt to impose and delineate the boundaries of the nodal area and are subject to redetermination if needs be. They merely provide an approximate edge of a precinct where there is a higher concentration of land uses; hence where greater attention needs to be paid in terms of land use regulation and the location of future non-residential uses.

The node is relatively busy and enjoys a relatively high degree of land use diversity and intensity. It is located in the midst of, and is functionally linked with, a network of roads. The node is traversed by provincial road viz. P394. This road links the node with the P10-2, which subsequently links with the R74 and Bergville town. Other routes traversing the node are D1256, D1257 and L1806. Electrical infrastructure is available in this node.



9 SUSTAINABILITY ASSESSMENT

Government's policy on sustainable development is reflected in the National Framework for Sustainable Development (DEAT, 2008). This policy interprets sustainability to imply "ecological sustainability" which recognises that the maintenance of healthy ecosystems and natural resources are preconditions for human wellbeing, and that there are limits to the goods and services, which they can provide. The policy acknowledges that human beings are part of nature and not separate from it, that sustainability (or a sustainable society) is the overall goal of development; and that sustainable development is the process by which we move towards that goal.

Government's National Strategy for Sustainable Development and Action Plan (NSSD 1) provides the conceptual framework and the high-level roadmap for strategic sustainable development. Its intention is to provide guidance for long-term planning. It sets out key areas that are in need of attention to ensure that a shift takes place towards a more sustainable development path and identifies the following key elements:

→ Directing the development path towards sustainability;

→ Changing behaviour, values and attitudes; and

→ Restructuring the governance system and building capacity.

The outcome of sustainable development is a state in which interdependent social, economic and ecological systems can be sustained indefinitely (DEAT, 2007). This concept is entrenched in the Bill of Rights of the Constitution and serves to guide a strategic evaluation of the current sustainability of the SDF.

Strategies were developed in the SDF to assist the municipality achieve its spatial vision. These strategies are linked to the strategic issues and they specify the desired direction of change. The table below shows how they align with and contribute to the sustainability goals and desired outcomes.

TABLE 6: SDF STRATEGIES TO ACHIEVE SUSTAINABILITY GOALS AND OUTCOMES

SUSTAINABILITY GOALS (NSSD 1)	SUSTAINABILITY ISSUES (Okhahlamba)	DESIRED OUTCOMES (Objectives)	SDF STRATEGIES (Okhahlamba)
1. Enhancing governance systems for integrated	(1) Environmental accountability and institutional capacity to promote	• Sustainable development is integrated into the municipality's development vision and strategic planning process. • A monitoring and evaluation system is established to facilitate the on-going assessment of progress towards sustainability.	1. Introduce an area based management system to facilitate community participation, conflict resolution, community advocacy, and the monitoring and speeding up of service delivery.

SUSTAINABILITY GOALS (NSSD 1)	SUSTAINABILITY ISSUES (Okhahlamba)	DESIRED OUTCOMES (Objectives)	SDF STRATEGIES (Okhahlamba)
planning and implementation.	sustainability outcomes	• Effective planning and implementation of sustainable development is ensured. • Effective governance and institutional structures and mechanisms are enhanced to achieve sustainable development. • Capacity to enhance the effectiveness of government agencies to empower communities.	2. Develop and implement an integrated sustainable planning system to introduce formal planning and integrate traditional land allocation processes into the planning system.
2. Sustaining ecosystems and using natural resources efficiently while responding effectively to climate change.	(2) Climate variability, water resource management and future change (3) Unsustainable resource use, land degradation and the loss of agricultural production (4) Loss and degradation of natural habitat in threatened ecosystems	• The use of all resources are managed to ensure their sustainability. • Scarce and degraded natural resources are protected and restored. • Pollution of water and land resources is prevented so that community and ecosystem health is not adversely affected. • The irreversible loss and degradation of biodiversity (marine, terrestrial, aquatic ecosystems) are avoided. • Greenhouse gas emissions are decreased to levels required by science with particular emphasis on the energy sector. • Ecosystem resilience is not disrupted and there is resilience to climate change in communities	1) Implement integrated environmental management to ensure sustainable and integrated growth and development through: a. Water Resource Management b. Acknowledging and implementing the WHS Buffer c. Biodiversity Management d. Catchment Management e. Heritage Management f. Protection of Formally Protected Areas
3. Building sustainable communities and contributing to the green economy.	(5) Social disadvantage, human vulnerability and environmental change	• Enhanced spatial planning, social cohesion and integration between communities and between communities and the environment. • Universal access to basic and community services ensured. • The quality of housing and other structures are improved to optimise resource efficiency (energy, water, building materials, etc.) • Self-sufficiency, food security and equitable access to natural resources that support livelihoods. • Equity, security and social cohesion are improved. • Green economy programmes are implemented. • Skills development in the green economy sectors (green industries) in particular the youth. • Green jobs are created and protected.	1. Facilitate development of a network of investment (private and public) nodes in strategic locations. 2. Facilitate transformation of existing settlement into sustainable human settlements. 3. Focus infrastructure investment in areas with a higher concentration of need and economic opportunity nodes. 4. Protect and enhance the productive value of agricultural land. 5. Unlock local and regional economic development opportunities that lay a foundation for future economic development.

9.1 ASSESSMENT OF THE SDF

The need for considering the potential effect of the SDF on the environment is underlined by the significant impacts it may cause as a framework for future land use management and activities, including the location, size and operating conditions and by allocation resources. As such, the potential impact that the SDF may have on the environment was assessed by giving consideration to the spatial location of strategies, the potential impacts that may be associated with these strategies, and possible risks and consequences.

The assessment of the SDF strategies has revealed that the Okhahlamba SDF does not propose major changes in the structural form of the area and the majority of the SDF strategies are likely to result in positive impacts and contribute significantly to the specified sustainability outcomes.

SDF STRATEGY	ENVIRONMENTAL ASSESSMENT
Ward/area based management system	The introduction of ABM will have a positive impact on environmental governance as it will recognise the key institutions in rural land use management and it will facilitate improved opportunities for community participation in decisions affecting the environment. In addition, it will also facilitate the cooperation of other government sectors. This strategy will therefore promote a whole range of NEMA principles relating to environmental justice and equity; participation empowerment and transparency; and cooperative governance. Efforts to achieve sustainability outcomes in area based management must however recognise the need to integrate sustainability considerations into spatial planning interventions. This means that area based plans must incorporate environmental priorities and funding for development initiatives must also set aside resources to promote compliance with legislated and other requirements for integrated environmental management.
Improving access and movement	An improved access and movement framework will facilitate access to public facilities such as schools, clinics, community centres and places of economic activity. Improved access will enhance opportunities for development and have a positive impact on the desired sustainability outcomes. The environmental consequences of this strategy must be taken into account, especially the erosion risk that is associated with road construction and maintenance and the associated impacts this may have on sediment yield and water quality in

SDF STRATEGY	ENVIRONMENTAL ASSESSMENT
	the catchment. On-going degradation of access routes may also affect the tourism potential of the area as land degradation has a negative impact on landscape character, sense of place and the tourism experience. This will require special attention to the municipality's road maintenance programme.
Clustering Public Facilities and Economic Activities in Development Nodes	The proposal to cluster public facilities and economic activities in a hierarchy of development nodes will enhance opportunities for development and have a positive impact on the desired sustainability outcomes as defined by NSSD 1. It will enhance spatial planning; promote social cohesion and integration between communities. It will also facilitate access to basic infrastructure and social services. The challenge will be to recognise that development nodes are areas of concentrated environmental impact and that an increase of human activities in these nodes will intensify impacts with consequences to the natural environment. Investment in nodal areas must not neglect the need to improve basic water and sanitation in structure as well as waste services in order to avoid, minimise and manage soil and water pollution. This will improve integration between communities and the environment and promote the NEMA principles of sustainable development.
Improving access to Social Facilities	The delivery of social infrastructure such as social facilities, health care services, meeting spaces and education facilities must not only take social needs into account. The location of facilities is also important and should avoid areas with sensitive environmental attributes such as wetlands, drainage lines or critically endangered veld types. The development of such facilities must also consider the management of waste in order to avoid soil and water contamination and health risks to people. The development of unnecessary access roads should be discouraged to avoid habitat fragmentation land degradation
Developing a continuum of sustainable human settlements and the	The proposal to establish a continuum of sustainable human settlements will contribute positively to the sustainability outcomes as defined by NSSD 1. It should be recognised that human settlements are important locations of consumption and production that generate a large amount of movement and all kinds of negative environmental

SDF STRATEGY	ENVIRONMENTAL ASSESSMENT
promotion of compact development	impacts. Human settlements can therefore only be sustainable if there are integration between communities and the environment. The improvement of waste and sanitation infrastructure in settlements will contribute positively to the NEMA principles of sustainable development but significant investment will be required to ensure that soil and water contamination risks are avoided and minimised. In instances where waste cannot be avoided due to the absence of refuse removal services, measures will be needed to minimise, re-use or recycle waste where possible and/or to dispose of waste in a more responsible manner. The implementation of a settlement edge will discourage development sprawling into prime agricultural land and other sensitive natural resource areas, and will minimise the current land degradation impacts and trends. It is also important to recognise the role of the traditional land tenure system in promoting sustainable settlements. Decisions that support expansion of scattered rural settlements should thus be discouraged.
Sustainable natural resource base	The primary purpose of this strategy is to ensure the consideration of environmental attributes in management and decision-making, which may have a significant effect on the environment. It promotes the principles of ecological integrity and sustainable development and provides the basis for linking social and ecological sustainability into all spatial areas.
Protection management of agricultural land	The proposal to protect and manage agriculture and farmland as an integral part of the economy, environment and overall quality of life will have a significant positive impact on the desired sustainability outcomes. This strategy is expected to promote social and ecological resilience. The potential impacts associated with climate change must be recognised and agricultural protection plans must include climate adaptation strategies. To this end, NSSD 1 recommends interventions aimed at diversification of economies to reduce dependence on climate-sensitive sectors. The work undertaken by the Natural Resources Section of the KwaZulu-Natal Department of Agriculture and Environmental Affairs (DAEA) in 2009 to test the vulnerability of

SDF STRATEGY	ENVIRONMENTAL ASSESSMENT
	"food security crops" under conditions of climate change will be valuable in assisting with the development of climate adaptation strategies. Programmes for the preservation of agricultural land must also recognise the potential opportunities for contribution to the green economy. This implies the creation of green jobs through the eradication of invasive alien species in areas with agricultural potential and rehabilitating wetlands and riparian zones.
Rural Development and Agrarian Reform	The proposal on rural development and agrarian reform will be positive for the environment. It suggests that projects be clustered to optimise development potential, rationalise support services and promote efficient use of scarce resources. It also recommends that land reform beneficiaries should be provided with agricultural development support including assistance with productive and sustainable land use, infrastructure support, agricultural inputs, and strategic linkages with the markets. This will promote the efficient use of natural resources and build sustainable communities. This proposal also calls for off-farm settlement that will facilitate housing delivery and development of such settlements as sustainable human settlements. It should once again be noted that human settlements could only be sustainable if there are integration between communities and the environment.
Infrastructure Development	The SDF encourages the planning and implementation of sanitation projects based on the continuum of settlements and integration with the initiative towards the transformation of rural villages into sustainable human settlements. It further encourages sanitation standards that consider the nature and character of each settlement as well as service standards with respect to spatial location of settlements in relation to the landscape and sensitive environmental attributes. These measures will have a positive impact on the environment.

SDF STRATEGY	ENVIRONMENTAL ASSESSMENT
	Access to formal water is also a major sustainability challenge. This is specifically relevant to the scattered rural settlements that may not be able to receive basic access to water in the short-term. This situation underlies the importance of land management and the associated impacts of land use practices on the quality and quantity of local water resources upon which rural settlements rely. The same applies to the energy requirements of households. This situation should also force the municipality and its strategic partners to start thinking about alternative energy options such as solar water heaters and other measures to reduce the dependency on fossil fuels.
Unlock Economic Development Potential	Local economic prosperity is dependent on social well-being and a healthy environment. This strategy is therefore aimed at achieving sustainability outcomes by harnessing the inherent development potential of the area. It recognises the eco-tourism and cultural resource potential as key assets for reducing human vulnerability in the area, and the link between environmental quality and local economic development. The proposal to facilitate agricultural development as the main economic activity and source of livelihood has huge potential to contribute to the sustainability outcomes as defined by NSSD 1.
Sustainable integrated spatial planning system	The introduction of a sustainable integrated spatial planning system will have a positive impact, since areas with sensitive environmental attributes will be integrated into the hierarchy of plans. This will be done by drawing on the spatial information produced by the SDF and taking new data into account such as the information from Ezemvelo KZN Wildlife's District Biodiversity Sector Plan (2012); improving local data such as delineating flood risk areas, wetlands, areas of alien pant infestations, community harvesting areas, and features of cultural heritage; and consulting traditional leaders to ensure that traditional knowledge of the area are recognised and captured.

10 IMPLEMENTATION PLAN

Okhahlamba forms part of a larger system of local governance and regional economy and is influenced and also influences development in the neighbouring areas. Cross-border planning issues have become more prevalent and significant. The focus is on strategic or shared development issues that would benefit from a joint approach, and engaging with the relevant neighbouring authorities to explore joint working potential. This section is thus intended to ensure that there is no disharmony between proposals that are suggested by the Okhahlamba SDF and its neighbouring municipalities.

Neighbouring municipalities include Maluti-a-Phophung (Free State province) to the northwest, Emnambithi/Ladysmith to the northeast, Umtshezi to the southeast and Imbabazane to the south. Lesotho borders the western boundary of Okhahlamba.

10.1.1 UTHUKELA DISTRICT MUNICIPALITY

Cross-boundary issues between the uThukela District Municipality and Okhahlamba are as follows:

→ Uthukela SDF identifies Ladysmith town as the primary administrative centre and industrial hub of the region, while Estcourt is identified as the primary agri-processing h. These are the two major towns and economic hubs within the uThukela District Municipality. Both Ladysmith and Estcourt are commercial centres for surrounding farming areas and serves as shopping centres for towns such as Bergville, which lacks a strong commercial presence. Bergville is identified as a secondary administrative centre, while Winterton is a tertiary node and a place where a decentralization of administrative functions may take place. It will also be targeted for economic investment.

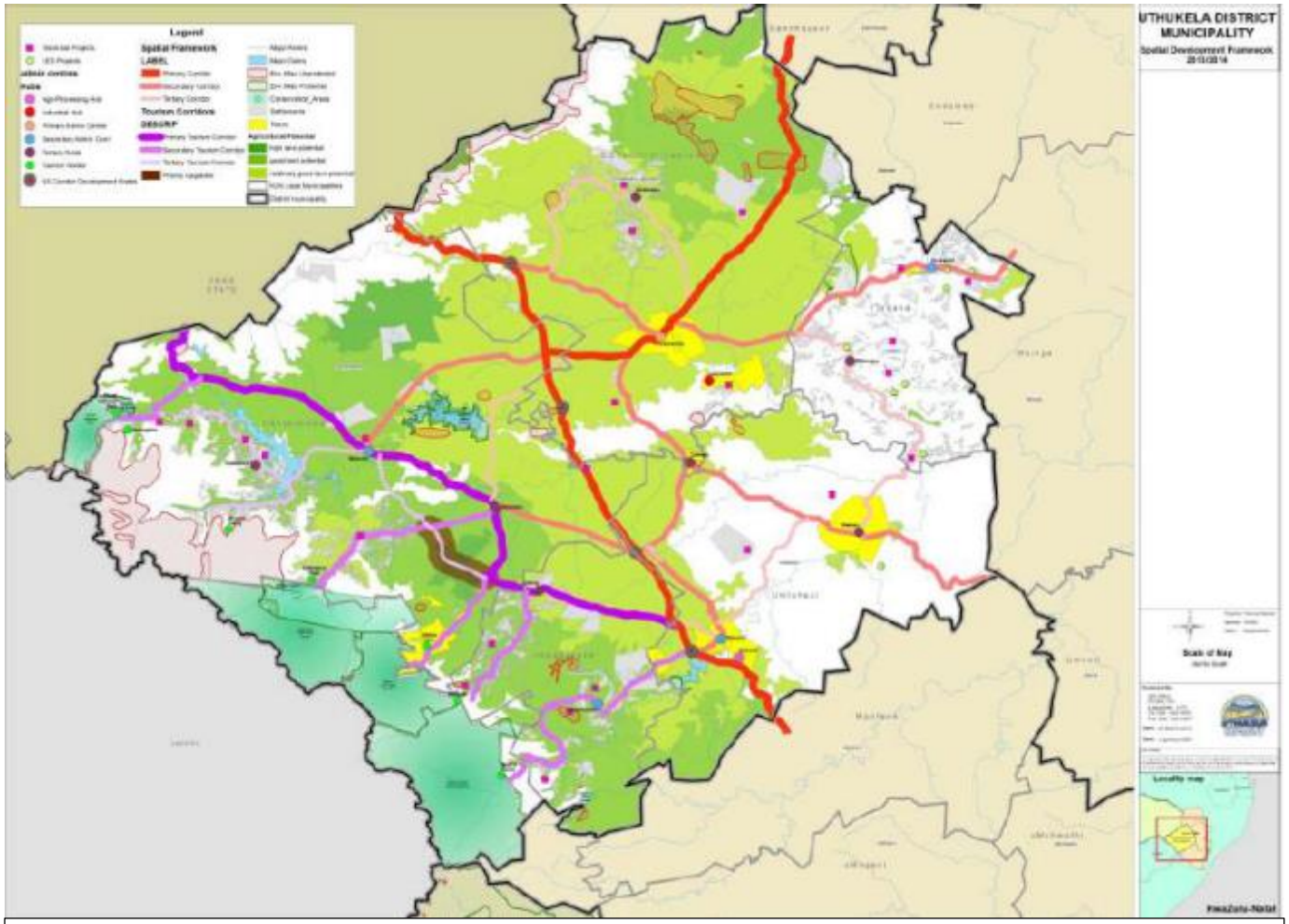
→ Van Reenen is divided between the Free State and both Emnambithi and Okhahlamba in KwaZulu-Natal and requires an integrated and collective approach to service provision in light of the different local and district authorities that it falls under. Alignment is imperative.

→ The significance of tourism nodes along the Drakensberg are acknowledged by both SDFs, as well as tourism corridors that provides access to the Drakensberg area. The whole of the Berg area is a major tourist area within uThukela District and a significant portion of this is situated in Okhahlamba.

→ The significance of the N3 as national/provincial corridor that runs through the district and a portion of Okhahlamba, which provides opportunities for economic development.

→ The access roads within Okhahlamba are of major importance, as community access roads requires attention. This limits the level of health and social service that can be delivered to rural communities.

FIGURE 18: UTHUKELA SDF



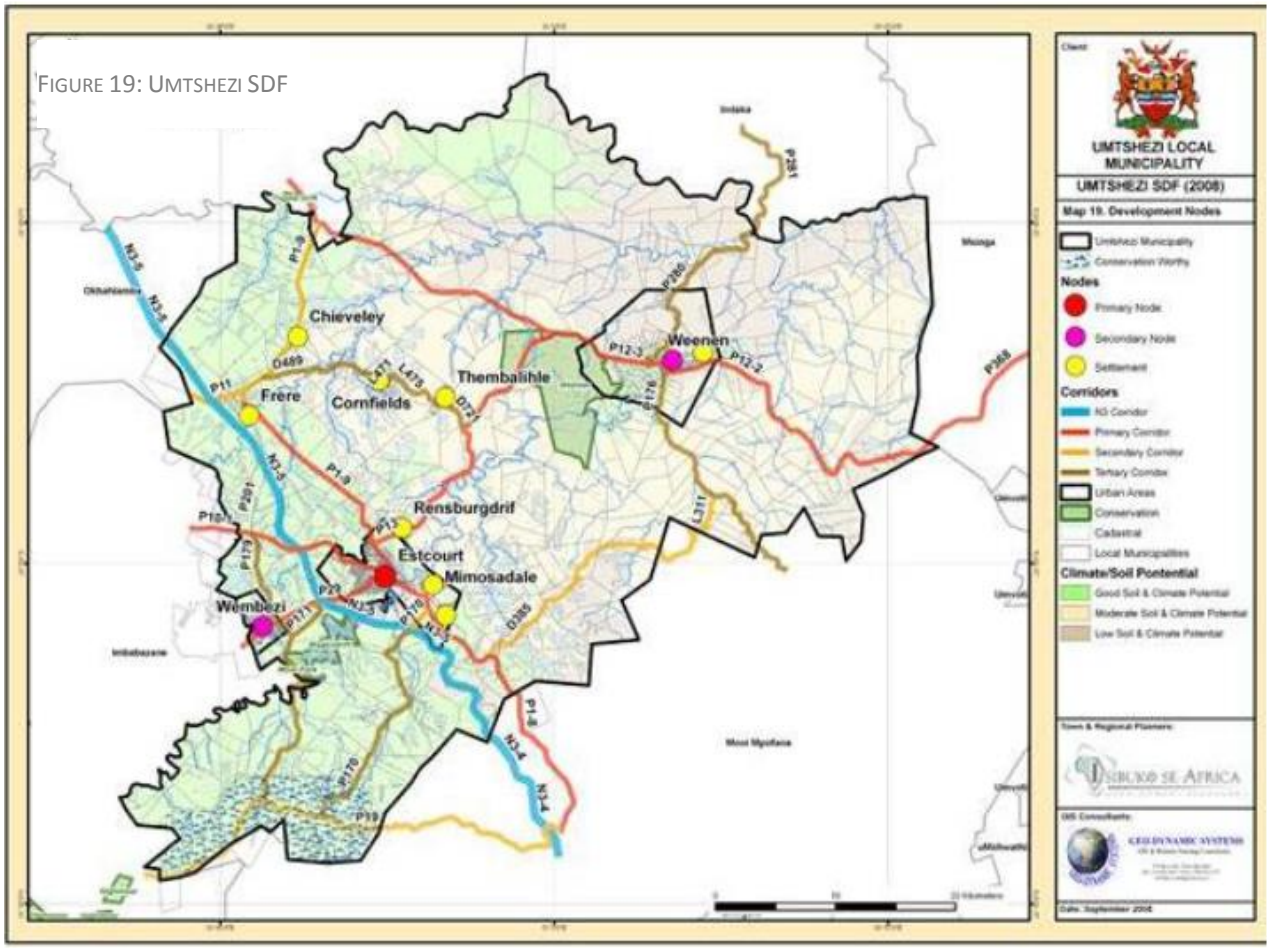
→ The Environmental Management Framework developed for the district provides an overarching framework for effective environmental management, catchment management, green corridors and balance between development and environmental management.

→ Large and dense rural settlements and peri-urban settlements should be identified in the district SDF as priority areas for infrastructure development and upgrading.

→ Agricultural land of varying potential, which is under threat from settlement, unsustainable land reform practices, land degradation, etc. Given the scarcity of agricultural land and relative decline of the agricultural sector in the district economy, there is a need for a comprehensive strategy for effective management of agricultural land

10.1.2 UMTSHEZI LOCAL MUNICIPALITY

FIGURE 19: UMTSHEZI SDF



→ Estcourt (primary node in Umtshezi SDF) is the second largest urban area in the district. Its threshold extends beyond Umtshezi Municipal boundaries to include almost the whole of Imbabazane Municipality and portions of Okhahlamba Municipality.

Umtshezi Municipality is located to the southeast of Okhahlamba. Estcourt is the main economic hub in Umtshezi. Strategic cross-boundary planning issues between Umtshezi and Okhahlamba include the following:

→ The N3 is an important linkage running through Umtshezi into Okhahlamba and then continuing through Emnambithi.

→ The P11 (R74) serves as a major link at a district level knitting together small towns from Bergville through Winterton to Umtshezi Municipality. This route is identified as a primary corridor in the Okhahlamba SDF.

→ Management of agricultural land given the prevalence of game farming and good agricultural land along the boundary between the two municipalities.

10.1.3 IMBABAZANE LOCAL MUNICIPALITY

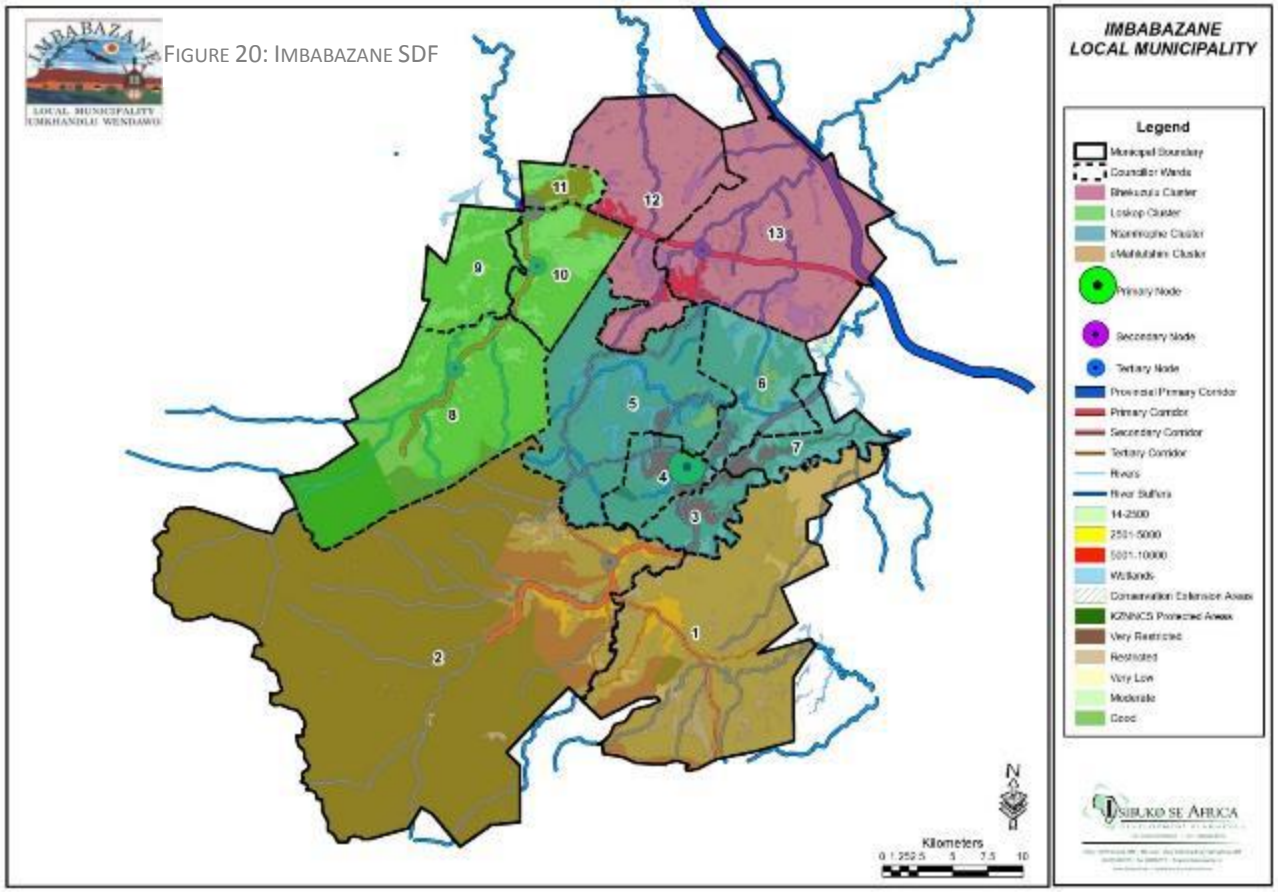


FIGURE 20: IMBABAZANE SDF

Imbabazane is located to the south of Okhahlamba, at the foothills of Drakensberg (World Heritage Site), and is situated between Okhahlamba, Umtshezi and Mpofana Municipalities.

→ An integrated and collective approach to the Drakensberg must be adopted especially in light of the World Heritage status.

→ The Drakensburg Mountains serve as the main tourist attraction site for both Municipalities, from which both municipalities may benefit.

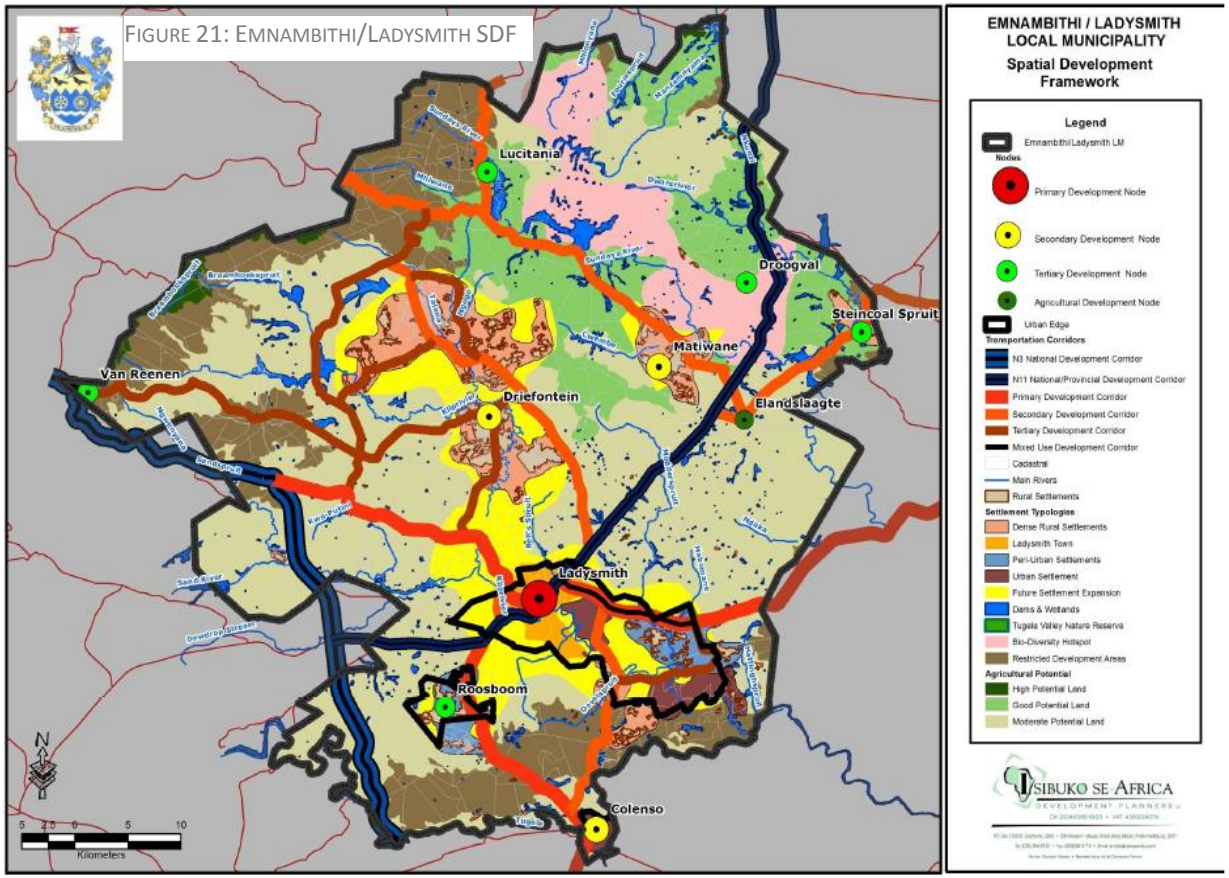
→ The N3 national route, which runs along the eastern part of Okhahlamba boundary and the northeastern part of Imbabazane, is an important linkage between Imbabazane and other centres along this route. It also provides social and economic interaction.

→ The P10-2 connects Bergville to Emmaus and Loskop within Imbabazane and is identified as a secondary corridor in the Okhahlamba SDF.

→ Catchment management is important, as some of the rivers that runs through Imbabazane rises from the mountains in Okhahlamba.

10.1.4 EMNAMBITHI/LADYSMITH LOCAL MUNICIPALITY

FIGURE 21: EMNAMBITHI/LADYSMITH SDF



→ Van Reenen is divided between the Free State and both Emnambithi and Okhahlamba in KwaZulu-Natal and requires an integrated and collective approach to service provision. Emnambithi/Ladysmith SDF identifies it as a tertiary node in light of the different local and district authorities that it falls under.

Emnambithi/Ladysmith Municipality is located to the northeast of Okhahlamba. Strategic cross-boundary spatial planning issues between the OLM and ELM are as follows:

→ Functional linkages between the UDP WHS and battlefields route in terms of tourism products and activities.

→ Catchment management with some of the rivers that runs through Emnambithi/ Ladysmith rising from the mountains in Okhahlamba.

→ R616/N11 (P30) Corridor, which links the towns of Bergville and Ladysmith, and the tourist destinations such as the UDP WHS and the Battlefields Route.

→ N3 Corridor, which almost serves as the boundary between the two municipalities. Opportunities are abound for mixed land use development at key intersections.

10.1.5 MALUTI-A-PHOFUNG LOCAL MUNICIPALITY

The Maluti-a-Phophung Local Municipality is located in the Free State province, to the northwest of Okhahlamba. Strategic cross-boundary spatial planning issues between the Okhahlamba Local Municipality and Maluti-a-Phophung are as follows:

→ Van Reenen is divided between the Free State and both Afred Duma Local Municipality and Okhahlamba Local Municipality in KwaZulu-Natal. An integrated and collective approach to service provision for Van Reenen is essential, especially in light of the different local and district authorities that it falls in. Alignment between the three municipalities is important.

→ Important routes linking Okhahlamba Local Municipality and Maluti-a-Phophung include the N3 and the P74 (P340). Of specific importance are the Van Reenens Pass (on the N3 and straddles the border between the Free State and KwaZulu-Natal in the town of Van Reenen), as well as the Oliviershoek Pass (on the R74 / P340, straddling the border between the Free State and KwaZulu-Natal just a few kilometres to the south of Sterkfontein Dam Nature Reserve. Van Reenens Pass and Oliviershoek Pass are important linkages between the two Provinces. Van Reenens Pass is the route predominantly used, although Oliviershoek Pass is sometimes used as an alternate route between Durban and Johannesburg and is also an important tourism linkage. Interventions to strengthen these linkages need to be investigated.

→ The municipality is an important tourism destination due to the Drakensberg and Maluti mountain ranges, as well as the Golden Gate Highlands National Park. The focus on the development of the Maluti-Drakensberg Transfrontier Park also need to be promoted in order to increase the tourism potential in the QwaQwa National Park, Golden Gate National Park and Sterkfontein Dam.

An integrated and collective approach to the Drakensberg must be adopted especially in light of the World Heritage status and the Maluti-Drakensberg Transfrontier Park.

→ The Tugela-Vaal Water Project was implemented to supply water to Gauteng and as such, two inter-basin water transfer schemes were developed to operate in the Drakensberg region. The Tugela-Vaal Transfer Scheme and the Lesotho Highlands Water Project rely on these upper catchments and the area is South Africa's most important source of water. Linked to the Tugela-Vaal Scheme is the Drakensberg Pumped Storage System, which supplies electricity to Gauteng. An integrated and collective approach to the management of water resources must be adopted.

10.1.6 LESOTHO

Lesotho borders Okhahlamba Local Municipality to the southwest, along the Drakensberg mountains. The key cross-boundary issue is the

Maloti-Drakensberg Transfrontier Conservation and Development Project (MDTP). This is a collaborative initiative between South Africa and the Kingdom of Lesotho to protect the biodiversity of the Drakensberg and Maloti mountains through conservation, sustainable resource use, and land-use and development planning. An integrated and collective approach to the Drakensberg must be adopted especially in light of the World Heritage status and the Maloti-Drakensberg Transfrontier Park.

10.2 LAND USE MANAGEMENT FRAMEWORK

The Planning and Development Act 2008, (Act No. 6 of 2008) read with the Spatial Land Use Management Act 2013, (Act No. 16 of 2013) requires the municipality to develop, adopt and implement a wall-to-wall scheme for its area of jurisdiction. Such a scheme must be in place within five years from the date on which the provisions of the Act that deals with schemes were promulgated. The PDA came into operation in 2010, which means that all municipalities should have a wall-to-wall scheme by 2015. The same requirement has been included in the Spatial Planning and Land Use Management Act, Act No 16 of 2013 (SPLUMA), which requires municipalities to adopt wall-to-wall schemes by 2018.

10.2.1 LAND USE MANAGEMENT SYSTEM

The Land Use Management System (LUMS) refers to all the tools, systems and procedures a municipality requires in order to manage land and its use effectively. The SDF and the scheme are some of the critical components of the LUMS. Other typically elements of a Land Use Management System include*, inter alia* the following:

→ Strategic plans such as sector plans dealing with land development.

→ Valuation and rating system.

→ Property registration (land audit), ownership and tenure.

→ Geographic information systems (GIS).

Therefore, the scheme is not the sum total of LUMS, but just one component of a comprehensive and ideally integrated system. This include zoning regulations, management tools, building plan approval systems, law enforcement, bylaws procedural matters, institutional arrangements, etc. Although capable of serving as standalone tools, different component of the LUMS should function in unison as an integrated system. Both the scheme and the rating system are based on land audit (cadastral base) with zoning being one of the critical factors that determines market value of a property. As such, it underpins the municipal rating system. Therefore, accuracy of the scheme and the rating system hinges substantially on the quality of its cadastral base.

10.2.2 DEFINITION AND PURPOSE OF SCHEME

The KwaZulu-Natal Guidelines for the Preparation of Schemes defines a scheme as:

a tool used by a municipality to guide and manage development according to the vision, strategies and policies of the Integrated Development Plan and Spatial Development Framework, and in the interest of the general public to promote sustainable development and quality of life.

Further to the guidelines, the primary aim of the Okhahlamba Municipality Scheme is to create coordinated, harmonious and sustainable development, in a way that promotes health, safety, order, amenity convenience and general welfare, as well as efficiency and economy in the process of development.

As indicated above, the scheme divides a municipal area into zones and regulates the use of land and buildings on the one hand, and the nature, extent and texture of development on the other. Okhahlamba Municipality scheme will therefore:

→ Indicate what may or may not occur on particular areas of land.

→ Provide land use certainty and boost investor confidence.

→ Promote amenity, efficient land use practice and reserve land for essential services.

→ Resolve conflict between different land uses and control negative externalities.

→ Enable mix of convenient land usage, efficient movement processes and promote economic development.

→ Protect natural and cultural resources and land with high agricultural production potential.

→ Provide for public involvement in land management decision processes.

→ Provide for sound local regulation and enforcement procedures.

→ Accord recognition to indigenous and local spatial knowledge, land use practices land allocation practices.

→ Facilitate social justice and equitable regulation of contested spaces.

→ Reserve land for future uses where the need for location and extent is not certain at present.

The scheme will establish a single regulatory land use management systems that can be applied uniformly throughout the municipality. It will give effect to the spatial development framework and the integrated development plan of a municipality.

10.2.3 LINKAGE BETWEEN THE SPATIAL DEVELOPMENT FRAMEWORK, LAND USE FRAMEWORK AND THE SCHEME

The relationship between broader Strategic Planning (Spatial development frameworks) and the preparation of Schemes is central to ensuring consistent and thorough decision-making around land use management and change. This relationship ensures that land use decisions do not contradict larger policy goals.

Thus, the Scheme is used to enforce the broader policies contained in the municipality's Integrated Development Plan (IDP) and Spatial Development Framework (SDF) at a property level. The IDP and SDF guides development, and thus inform the preparation and management of land use in terms of the Scheme.

The following two points are noted:

→ firstly, capacity to interpret strategic objectives correctly in land use decision-making is essential; and

→ secondly, a spatial planning system that allows for the translation of strategic objectives into land use decision-making is required.

Also important is the development of a spatial planning system that allows for the translation of strategic objectives into land use decision-making tool. However, the scheme is not a master plan. It will change continuously as scheme amendment applications are approved by the municipality. To this end, the scheme will be regarded as a scheme in the course of preparation.

Current and anticipated legislation implies that Schemes can be formulated directly from the SDF prepared as part of an IDP. In practice, however, there is a tendency towards a gap between these two levels of planning, especially in larger municipalities. A set of Linking Elements enabling a smoother transition between the SDF and the Scheme has therefore been proposed, and included in this Guideline.

These elements could form part of the SDF, or stand-alone as a separate plan or set of plans. It is important to note the following concerning the relationship between the Spatial Development Framework, Scheme and Linking Elements:

→ The three components (SDFs, Linking Elements and Schemes) go hand-in-hand, where SDFs give strategic direction; the Linking Elements provide quantification, more detailed spatial plans and operational and institutional guidance; and the Schemes provide the statutory basis for land use decision-making.

→ The relationship between these three components is reciprocal, and not necessarily hierarchical. Implementation of one component is not necessarily dependent upon the completion of another.

→ Together SDFs, Linking Elements and Schemes should provide the holistic means for representative, informative and rational land use decision-making to occur. This system provides an opportunity for sectoral integration at all three levels of planning.

10.2.4 SCHEME APPROACH

Okhahlamba Local Municipality is a complex spatial system with land uses ranging from urban uses through to expansive commercial farmlands and rural settlements. The wall-to-wall scheme covers all these areas, and provide certainty to land users and land development applicants irrespective of location. The municipality has develop a comprehensive scheme with a range of zones, some of which may not

apply in less developed areas. The following broad categories will be used in developing the scheme:

→ Urban which includes all areas that fall within the urban edge as delineated in this SDF.

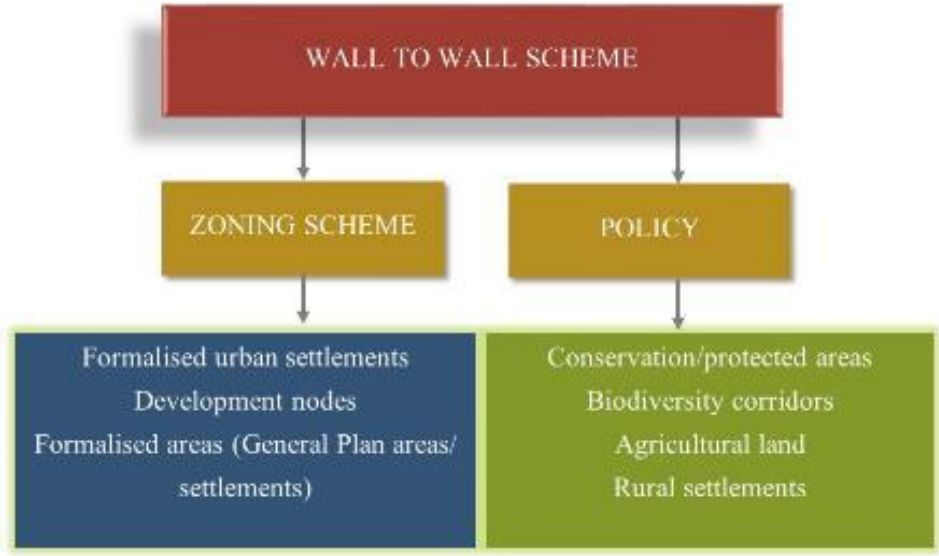
→ Agricultural areas that are subject to the Sub-division of Agricultural Land Act, Act No. 70 of 1970.

→ Rural settlements located on communal land, state land and/or privately owned land.

→ Protected / conservation areas and tourism areas.

Land use policies will be developed to guide land use management on agricultural land, environmental areas and rural settlements.

FIGURE 22: SCHEME APPROACH



10.2.5 LAND USE PROPOSALS AND USE ZONES

Broad land use typologies for the Land Use Framework are suggested in table 1 on the overleaf. It is suggested that a more prescriptive / regulatory approach is required where important resources (e.g. high potential agricultural land and important environmental service areas) need to be protected and where pressure for development is higher. This provides the Municipality with clear regulations to manage this development e.g. a potential urban settlement where there is or may be a demand for commercial and industrial development sites. A policy-

orientated approach would be suitable for areas where there is less pressure for development.

LAND USE TYPE	DESCRIPTION	POTENTIAL ZONES	SPATIAL LOCATION
Industry	This zone will be used to designate and manage a range of industrial activities – from light industrial with limited impact on surrounding land uses to hazardous or noxious industry with high-impact and must be separated from other uses. This set of zones would include agricultural industry.	• Service Industry • Light Industry • General Industry • Abattoir	• Existing industrial areas. • Development nodes • Mixed land use corridors. • Extractive and noxious industries are high impact uses and should be located away from residential and commercial areas
Residential	Used to designate the full spectrum of residential options ranging from areas that are almost entirely residential to areas having a mix of residential and other compatible land uses, yet the predominant land use is residential.	• Residential Only • Intermediate residential (medium density) • General Residential • Rural Residential • Resort (Hotel) • Residential Estate • Retirement Village • Rapid urbanisation management area	• Mixed use such as development nodes and corridors. • Residential areas (Bergville, Winterton etc.) • Mixed use such as development nodes and corridors. • Informally settled areas • Rural settlement areas • Hotel, resort and lodge are associated with tourism and could also be located on agricultural land. Also along the Drakensberg.

LAND USE TYPE	DESCRIPTION	POTENTIAL ZONES	SPATIAL LOCATION
Commercial	This group of zones allows the development of a range of complementary land uses for commercial, business, services, industrial, administrative and residential opportunities, which include informal trading in a single zone to enable a special mixture of development to occur. It seeks to create a balance between the natural and built environment through landscaping and areas of green space. It encourages, where appropriate the use of detailed urban design criteria to achieve specific urban environments and mix of uses.	• Mixed use • Commercial • Office • Service station • Warehousing and logistics	• Central business districts (Bergville & Winterton) • Development nodes.
Civic and Social	This family of zones are intended to accommodate land that is utilized to provide for administrative or government buildings including education, health, pension offices, museums, libraries, community halls, prisons, juvenile facilities, cemeteries and crematoria. Its primary aim is to facilitate the provision of public facilities and delivery of social services. It also seeks to improve access to social and civic facilities in a manner that meets the needs of communities in the fields of health, education social and cultural services.	• Education • Health and Welfare • Institution • Cemetery • Municipal and government • Worship • Bus and taxi rank	• Residential areas. • CBD (Bergville & Winterton) • Nodal areas

LAND USE TYPE	DESCRIPTION	POTENTIAL ZONES	SPATIAL LOCATION
Open Space and environment	Environmental and open space zones are intended to set aside land for important environmental services and recreational activities. It includes parks of differing sizes, green areas for bowling, ball sports, cycling, and green belts for walking and hiking. They provide for an adequate number of appropriately situated sites that are easily accessible for recreational purposes and activities for local and wider communities in accordance with recognized guidelines, appropriate thresholds and the requirements of the broader community and visitors. In addition, it also provides for important environmental areas, such as proclaimed parks, view sheds, open space system (e.g. water courses, wetlands, grasslands, and other natural habitats) and proclaimed conservation areas. It reserves land as part of a sustainable living environment.	• Declared Protected Areas • Active open space • Passive open space • Dams • *Management overlays for additional information*	• Urban and Residential areas. • Vacant and unused land in and around the urban footprint. • Golf courses. • UDP WHS and sensitive environments in the Drakensberg. • Cultural and heritage sites associated with the Drakensberg. • Major dams, e.g. Spioenkop, Driel, Kilburn and Woodford dams.
Utility and services	The zone is intended to ensure that the land required for the necessary services infrastructure is set aside for development. It seeks to ensure that land used for service provision is appropriately located away from residential or other land uses where they detract from levels of amenity or safety. It includes the provision of land for capital works mains, overhead and underground cables, and essential services	• Road reserves. • Railway line • Landing strip • Railway station • Public parking	• Residential areas. • CBD (Bergville & Winterton) • Industrial areas • Rural and urban areas

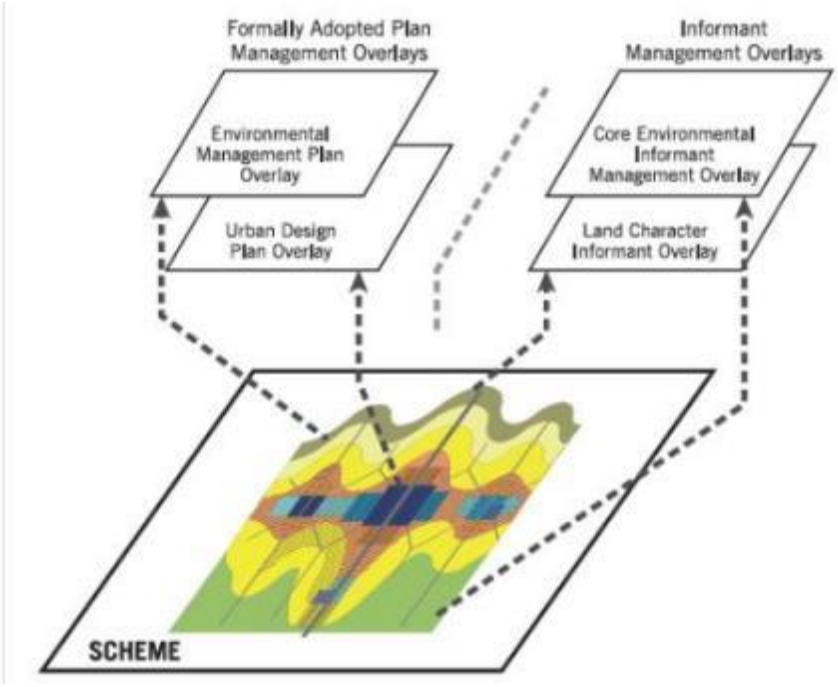
LAND USE TYPE	DESCRIPTION	POTENTIAL ZONES	SPATIAL LOCATION
	required to promote sustainable development in accordance with national laws and provincial and local guidelines.		
Agriculture	Agricultural family of zones are intended to provide land for buildings and uses associated farming practises and specifically with the following activities: - • The production of food and fibre; • The cultivation of crops; • Timber plantations; • The farming of livestock, poultry and bees, • Horticulture and market gardening; • Urban agriculture and settlement; and, • The use of buildings for associated activities including education activities. Its primary aim is to facilitate the protection of agricultural land from non-agricultural uses, and to enhance its production potential. This will facilitate food production and improve contribution of the agricultural sector to the local economy.	• Agriculture 1 • Agriculture 2 (Traditional/ communal) • Agriculture And Forestry • Restricted agriculture (agro-biodiversity zone) • *Management overlays for additional information*	• Rural areas • Urban areas

10.2.6 ZONING AND MANAGEMENT OVERLAYS

Each zoning and Management area is identify by way of a statement of intent the following, in order to ensure that it is linked back to the IDP and spatial development framework:

→ A detailed statement of its intention and even for specified areas;

FIGURE 23: OVERLAYS



Source: KZN Land Use Management Guidelines for the Preparation of Schemes for Municipalities – Update 2011

→ Type and intensity of development that shall be permitted or encouraged, and even for a particular area;

→ Determines how any current or future development shall be phased; and

→ Provides for the inclusion of specific urban design criteria.

Overlays are required in areas where it is necessary to indicate more detail about the way an area needs to be developed. It will facilitate the management of specific uses across several underlying zonings.

The special development requirements are then managed in terms of a detailed Management Plan, and are identified through a Management Overlay on the Scheme map. Management Overlays are thus used to further inform and regulate development and should include the following:

→ Biodiversity management overlay: CBA Map and biodiversity zones (such as river reserves, conservation areas);

→ Biodiversity management overlay: Protected areas and buffers;

→ Sensitive habitat / ecosystem map;

→ Agricultural management zones;

→ Bergville Urban Design Framework;

→ Maloti-Drakensberg Corridor Framework.

10.2.7 DEVELOPMENT PARAMETERS / SCHEME CONTROLS

The Municipality manages development within each zone through a series of development parameters or Scheme controls relating to each zone. Conventionally, development parameters set out the maximum development permitted on a site. However, they are also used to set out the desirable or minimum development allowed. The development parameters set out the uses within each zone that are:

→ Freely permitted: This category includes land uses that are considered compatible with the surrounding land uses and which may be permitted by the municipality. A building plan is often sufficient in this regard.

→ Special Consent Use: This category includes ancillary uses that might have a more intrusive impact and may require special conditions to protect the amenity of the area or mitigate the impact of the proposed use.

→ Prohibited Uses: This category includes land uses which are incompatible with the surrounding land uses, and which a municipality is precluded from considering.

10.3 MONITORING AND EVALUATION FRAMEWORK

10.3.1 SPATIAL MONITORING APPROACH AND PROCESS

Monitoring, evaluation, reporting and adaptive management are widely recognised as fundamental components for effective municipal planning. This often takes the form of a Performance Management System (PMS), and forms an integral part of the IDP. Similarly, monitoring and evaluation of the impact of the SDF should not be considered as a once-off and separate exercise, but a continuous and iterative process that forms part of the overall assessment of the performance of the municipality. It helps to identify aspects or components of the SDF that need to be amended or strengthened, and thus keeps the SDF relevant to the strategic spatial agenda of the municipality.

Monitoring and evaluation is a fundamental management tool to document environmental impacts, both natural and anthropogenic, and assess the effectiveness of management actions.

Evaluating the impact of the SDF seeks to establish whether its operational mechanisms support achievement of the objectives or not and understand why. It will look at activities, outputs, and outcomes, use of resources and causal links. Improve efficiency and efficacy of operational processes. Where possible and necessary, it will measure changes in outcomes (and well being of target population) attributable to a specific intervention. It will inform high-level officials on extent to which intervention should be continued or not, and if any potential modifications needed.

10.3.1.1 INTRODUCE WARD/AREA BASED MANAGEMENT SYSTEM

KEY PERFORMANCE AREAS	KEY PERFORMANCE INDICATORS	SOURCES OF VERIFICATION	ASSUMPTION
Area Based Plans	• Prioritisation of Area Base plans • Number of Area Based Plans developed	Municipal IDP and budget.	The municipality accepts / adopts the cluster approach to planning approach.

10.3.1.2 IMPROVING ACCESS AND MOVEMENT (CORRIDOR DEVELOPMENT)

KEY PERFORMANCE AREAS	KEY PERFORMANCE INDICATORS	SOURCES OF VERIFICATION	ASSUMPTION
N3 and N11 National Development Corridors	• Nodal development at strategic points along each of these corridors. • National/provincial initiatives along the corridors. • National and provincial support to tourism and agriculture.	National and provincial government initiatives, e.g. SIP2	The national and provincial governments will initiate projects that give effect to the corridor concept along the N3 and the N11.
Primary development corridor	• Number, size and character of projects located along the primary development corridor. • New developments along the corridor. • Level of access and ease of movement between Bergville, Winterton and other areas.	Municipal IDP and budget.	The municipality will focus most of the capital expenditure in areas located along the primary corridors.
Secondary development corridors	• Number, size and character of projects located within settlements located along these corridors. • Level of spatial linkage and integration between different settlements. • Number and character of nodes located along these corridors	Municipal IDP and budget.	The municipality will focus most of the capital expenditure in areas located along the primary corridors.
Tertiary corridors	• Access and ease of movement within settlements. • Number and character of nodes located along these corridors	Municipal IDP and budget.	Community development projects will be located along these corridors.

KEY PERFORMANCE AREAS	KEY PERFORMANCE INDICATORS	SOURCES OF VERIFICATION	ASSUMPTION
Tourism corridors	• Tourism corridor development plan.	Municipal IDP and budget.	Tourism initiatives along the P212 between Winterton and Cathkin Park.

10.3.1.3 CLUSTERING PUBLIC FACILITIES AND ECONOMIC ACTIVITIES IN DEVELOPMENT NODES

KEY PERFORMANCE AREAS	KEY PERFORMANCE INDICATORS	SOURCES OF VERIFICATION	ASSUMPTION
Primary node	• Amount of capital spent on Bergville per annum. • Implementation projects for Bergville Urban Design Framework. • CBD regeneration and extension. • Amount of additional land released and developed for industrial and commercial uses per annum (up-take of industrial and commercial space). • Up-take of residential space and number of high density developments per annum. • Number of tourism projects in Bergville. • Number of new government offices in Bergville.	Municipal budget SDBIPs Town Planning Register Buildings Plans	The municipality will facilitate the location of municipal-wide initiatives in Ladysmith.
Secondary nodes	• Regeneration and redevelopment of Winterton. • Number, nature and budgets for municipal projects in the node. • Level of access and location of public facilities serving different communities.	Municipal budget SDBIPs Town Planning Register Buildings Plans	The municipality will facilitate the location of initiatives that benefits a group or cluster of communities in the secondary node.

KEY PERFORMANCE AREAS	KEY PERFORMANCE INDICATORS	SOURCES OF VERIFICATION	ASSUMPTION
Tertiary node	• Establishment of a tertiary node within identified settlements. • Number, nature and budgets for municipal projects in each node. • Level of access and location of low order public facilities in these nodes. • Promoting clusters of public facilities as a means to encourage nodal development.	Municipal budget SDBIPs Town Planning Register Buildings Plans	• The municipality will facilitate the location of projects that benefits a community within tertiary nodes. • Development nodes have potential to improve access to basic and public services.

10.3.1.4 CONTINUUM OF HUMAN SETTLEMENTS

KEY PERFORMANCE AREAS	KEY PERFORMANCE INDICATORS	SOURCES OF VERIFICATION	ASSUMPTION
Urban settlements	• All new developments will occur within the urban edge which will also serve as a service delivery line – urban compaction. • Urban renewal initiatives. • Packaging and implementation of EURP. • Number rand nature of green field development – urban infill.	IDP Budget SDBIP	The municipality will develop systems and procedures for effective urban management.
Peri-urban settlements	• Upgrading and formalization of peri-urban settlements. • Formalisation of peri-urban settlements. • Settlement taking place in an orderly and planned fashion.	IDP Budget SDBIP	The municipality will facilitate upgrading and formalization of peri-urban settlement into urban settlements.
Dense rural settlements	• Release of land for housing development. • Land tenure upgrading. • Settlement plans.	IDP Budget SDBIP	The land owners will release land for housing development and land tenure upgrading.

KEY PERFORMANCE AREAS	KEY PERFORMANCE INDICATORS	SOURCES OF VERIFICATION	ASSUMPTION
	• Containment of outward expansion.		
Scattered rural settlements	• Agricultural development. • Management of grazing land. • Consolidation of settlement into agri-villages. • Structured engagement with DRDLR.	IDP Budget DRDLR Programme of action	Scattered rural settlements will be developed into agri-villages.

10.3.1.5 PROMOTING COMPACT DEVELOPMENT

KEY PERFORMANCE AREAS	KEY PERFORMANCE INDICATORS	SOURCES OF VERIFICATION	ASSUMPTION
Urban edge	• Percentage reduction in urban capital expenditure outside of the urban edge. • Location of new urban settlements within the urban edge. • Upgrading of informal and peri-urban settlements.	IDP HSP SDBIP	The municipality will not approve urban development located outside of the urban edge.
Settlement edge	• Stakeholder agreement on settlement edges. • Percentage reduction in rural capital expenditure outside of the settlement edge. • Development of sustainable human settlements.	IDP HSP SDBIP	The municipality will facilitate mapping of all settlements within its area and delineation of lines beyond which settlements may not expand.
Densification	• Detailed densification strategy. • Review of the scheme to provide for densification. • Number and location of infill developments. • Percentage increase in the number of sub-divisions. • Percentage increase in the number of higher density developments.	IDP HSP SDBIP	The municipality will develop and implement a densification strategy with clear targets for densification.

10.3.1.6 DEVELOPING SUSTAINABLE HUMAN SETTLEMENTS

KEY PERFORMANCE AREAS	KEY PERFORMANCE INDICATORS	SOURCES OF VERIFICATION	ASSUMPTION
Land release	• Size and location of land released for new housing projects. • Land release and acquisition strategy	HSP IDP	The municipality and private sector will release land for housing development.
Slums clearance	• Identification and mapping of informal settlements. • Informal settlement management policy. • Housing budget spent on informal settlement upgrading. • Mixture of housing typologies.	HSP IDP	The municipality would like to eradicate all slums in the area.
Rural housing	• Number and location of new rural housing projects. • Strategic link between settlement planning and rural housing. • Number of people with secured land tenure rights.	HSP IDP	Rural housing will be implemented mainly in dense rural settlements.
BNG Projects	• Location of new low cost housing projects. • Number of new housing opportunities within a walking distance to Bergville and Winterton.	HSP IDP	The municipality will initiate new green field projects to address housing backlog.
Other housing products	• Size and location of land for gap housing. • Size and location of land for social housing. • Number of social and gap housing projects.	HSP IDP	The municipality will investigate and facilitate implementation of gap and social housing.

10.3.1.7 SUSTAINABLE USE OF NATURAL RESOURCE BASE

KEY PERFORMANCE AREAS	KEY PERFORMANCE INDICATORS	SOURCES OF VERIFICATION	ASSUMPTION
Catchment management	• Catchment management programme. • Catchment management agency. • Participation in national catchment management initiatives.	EMF DWAS	The municipality will collaborate with relevant government departments to

KEY PERFORMANCE AREAS	KEY PERFORMANCE INDICATORS	SOURCES OF VERIFICATION	ASSUMPTION
Range management	• Application of carrying capacity standards to grazing land management.	DARD	promote environmental management and sustainable development.
Alien plant management	• Amount of land cleared of alien plants. • Programme to remove alien plants.	EMF DWAS	
Conservation through production	• Initiatives to rehabilitate land affected by soil erosion. • Protection of indigenous forestry.	EMF DARD	
Protected area development	• Proclamation of environmentally sensitive areas that are not currently protected.	EMF DARD	
Wetland management	• Delineation of all major wetlands. • Observation of a 32m buffer from each wetland.	EMF	
Biodiversity zones	• Management of bio-diversity corridors. • Environmental overlays.	EMF	

10.3.1.8 PROTECTION AND MANAGEMENT OF AGRICULTURAL LAND

KEY PERFORMANCE AREAS	KEY PERFORMANCE INDICATORS	SOURCES OF VERIFICATION	ASSUMPTION
High potential agriculture	• Size and use of high potential agricultural land. • Scheme clauses designed to protect high potential agricultural land.	IDP LED Agricultural protection plans	The municipality will not allow non-agricultural uses on high potential agricultural land.

Good agricultural potential agriculture	• Size and use of good potential agricultural land. • Scheme clauses designed to protect good potential agricultural land.	IDP LED	The municipality will allow a limited number of non-agricultural uses on high potential agricultural land.
Low agricultural potential land	• Size and use of low potential agricultural land. • Scheme clauses designed to protect low potential agricultural land.	IDP LED	The municipality will permit non-agricultural uses on low potential agricultural land.

10.3.1.9 RURAL DEVELOPMENT AND AGRARIAN REFORM

KEY PERFORMANCE AREAS	KEY PERFORMANCE INDICATORS	SOURCES OF VERIFICATION	ASSUMPTION
Emerging farmer settlement	• Number and location of LRAD projects • Quality of land for small farmer settlement. • Number and location of PLAS projects. • Number of land reform projects receiving post-settlement support. • Cluster approach to land reform implementation. • Percentage increase in agricultural land registered in the name of black people.	DRDLR DARD	The municipality will support developmental land reform.
Land tenure upgrading	• Number of labour tenants and ESTA cases resolved. • Number and location of new agri-villages. • Number and location of settlements that are receiving land tenure upgrading. • Number of land owners benefiting from title adjustment.	DRDLR	Land tenure upgrading in the rural areas is required in order to unlock land for settlement purposes.

10.3.1.10 BULK INFRASTRUCTURE DEVELOPMENT

KEY PERFORMANCE AREAS	KEY PERFORMANCE INDICATORS	SOURCES OF VERIFICATION	ASSUMPTION
Sanitation	• All settlements within the urban edge have waterborne sewer. • All dense rural settlements are provided with lined pit latrines. • Peri -urban settlements are provided with sanitation systems.	WSDP IDP Budget	The municipality will facilitate provision of sanitation as part of the development of sustainable human settlements.
Water	• All settlements within the urban edge have water on-site. • All dense rural settlements are provided with communal standpipes within 200m. • Upgrading of water infrastructure to accommodate new development.	WSDP IDP Budget	The municipality will facilitate provision of water as part of the development of sustainable human settlements.
Electricity	• Percentage increase in the number of households within the urban edge that are connected to the grid. • Percentage increase in the number of households within the dense rural settlements that are connected to the grid. • Percentage increase in the number of households in scattered rural settlements receiving alternative forms of power.	IDP Budget ESKOM	The municipality will facilitate provision of electricity as part of the development of sustainable human settlements.

10.3.1.11 IMPROVING ACCESS TO SOCIAL FACILITIES

KEY PERFORMANCE AREAS	KEY PERFORMANCE INDICATORS	SOURCES OF VERIFICATION	ASSUMPTION
Health	• All households access a health facility within a 5km radius. • Number and location of new health facilities. • Weakly mobile clinics in tertiary nodes.	Department of Health	Health facilities will be provided in accordance with the relevant planning standards.
Meeting Spaces	• Community hall for each settlement. • Civic centre upgrading	IDP Budget	All communities will have access to a hall.
Education	• Primary school for every 600 households. • Secondary school for every 1200 households. • Primary school within 3km radius from each household. • Secondary school within 5km radius from each household	IDP Budget Department of education	Education facilities will be provided in accordance with the relevant planning standards.
Cemeteries	• All cemetery sites meet the requirements from DWA and the Department of Agriculture, Environmental Affairs and Rural Development. • Closure of all non-compliant cemeteries.	IDP Budget	New cemeteries will be developed in accordance with the relevant regulations.
Waste sites	• Weakly waste collection within the urban edge. • Waste collection centres within each dense rural settlement. • Location and accessibility of a landfill site.	IDP Budget	Waste removal and disposal will be undertaken in accordance with the relevant regulations.

10.3.1.12 UNLOCK ECONOMIC DEVELOPMENT POTENTIAL

KEY PERFORMANCE AREAS	KEY PERFORMANCE INDICATORS	SOURCES OF VERIFICATION	ASSUMPTION
Tourism	• Functional integration with the WHS and Battlefields Route. • Number of new tourism facilities and products.	Tourism statistics	

KEY PERFORMANCE AREAS	KEY PERFORMANCE INDICATORS	SOURCES OF VERIFICATION	ASSUMPTION
	• Number of tourism facilities and products located in previously disadvantaged areas.		
Agriculture	• Location and extent of land reserved for agriculture only. • High impact agriculture in dense rural settlements. • Urban agriculture.		
Commerce and industry	• Percentage increase in industrial land. • Percentage increase in commercial land. • Uptake of commercial land in townships and dense rural settlement. • Regeneration of Bergville and Winterton CBD.	Municipal budget SDBIPs Town Planning Register Buildings Plans	

10.3.1.13 SUSTAINABLE INTEGRATED SPATIAL PLANNING SYSTEM

KEY PERFORMANCE AREAS	KEY PERFORMANCE INDICATORS	SOURCES OF VERIFICATION	ASSUMPTION
Hierarchy of plans	• Development of Local Area Plans for each ward cluster • Development of precinct plans for development nodes • Developing settlement plans	• Number of LAP's prepared • Number of precinct plans developed for nodes experiencing development pressure • Number of approved settlement plans	The municipality will refine the SDF and develop it further through the formulation of a series of plans with varying degrees of detail and flexibility.
	• Mapping of izigodi • Mapping of settlements within each izigodi • Development of Guidelines for land Allocation	• Generation of new spatial data • Improved GIS system and data • Accepted norms and standards for site sizes.	The municipality will work together with Traditional leadership to Integrate Traditional

KEY PERFORMANCE AREAS	KEY PERFORMANCE INDICATORS	SOURCES OF VERIFICATION	ASSUMPTION
	• Training and Capacity Building of Traditional leaders	• Identified factors that should be considered when allocating land for different land uses. • Spatial identification and coding of rights allocated. • Register of land rights holders • Improved capacity and understanding of spatial information by Traditional leadership	Land Allocation Processes with Municipal Spatial Planning

10.4 STRATEGIC SPATIAL PLANNING PROJECTS

PROJECT NAME	PROJECT DESCRIPTION	BUDGET ESTIMATE	MEDIUM TERM EXPENDITURE FRAMEWORK		
			2015/16	2016/17	2017/18
P212 Tourism Corridor Development Framework	Preparation of a framework plan for the development of P212 as a tourism corridor.	R550 000,00			
Winterton Regeneration Plan	Preparation of a Plan to guide urban renewal initiatives in Winterton.	R350 000,00			
Preparation of Area based plans	Prepare area based plans for each of the four cluster, as prioritised by the municipality.	R550 000,00 per ABP			

PROJECT NAME	PROJECT DESCRIPTION	BUDGET ESTIMATE	MEDIUM TERM EXPENDITURE FRAMEWORK		
			2015/16	2016/17	2017/18
New aerial photographs	Taking new aerial photographs for the whole of the Municipality.	R1 500 000,00			
Mapping of settlements	Delineation of settlement boundaries using new aerial photographs.	R400 000,00			
Preparation of settlement plans	Preparation of plans to guide future development and allocation of land within each settlement.	R350 000,00 per settlement plan			
Guidelines for land allocation	The guidelines for the allocation of land are intended to document the factors that should be taken into account, and direct settlement to areas that suited and earmarked for this use.	R 280 000,00			
Training and capacity building of traditional leaders	Traditional leaders require training and capacity building in a number of areas in order to play an active role in the transformation of rural settlements into sustainable human settlements.	R400 000,00			

PROJECT NAME	PROJECT DESCRIPTION	BUDGET ESTIMATE	MEDIUM TERM EXPENDITURE FRAMEWORK		
			2015/16	2016/17	2017/18
Integrate sustainability criteria into the municipality's IDP and PMS					
Capacity Building Programme on Sustainable Development	The municipal officials and councillors should be capacitated in terms of sustainable development and what it encapsulates.	R 380 000,00			
Community environmental awareness programme	Promote environmental awareness through the introduction of programmes in communities.	R 300,000.00			
Strategic Environmental Assessment	Undertake a Strategic Environmental Assessment for the municipality.	R 350 000,00			

*Note: these projects will be included as part of the CIF.

10.5 CAPITAL INVESTMENT FRAMEWORK

The aim of the Capital Investment Plan is to review the projects contained in the IDP taking into account activities, which have already been undertaken by the municipality. The objectives of the Capital Investment Plan can be summarized as follows:

→ To link capital projects with potential sources of funding;

→ To strive to ensure appropriate budget - IDP linkages; and

→ To provide practical and appropriate alignment regarding capital investment.

The projects have also been spatially referenced, where possible, to assist the municipality with the evaluation of where capital expenditure will be focussed in the municipal area. Thus, the intent is capital investment that lays the foundations for sustainable development.

ANNEXURE A: SCHEDULE OF INTERVIEWS

STAKEHOLDER	DATE	INTERVIEWEE
TRADITIONAL COUNCILS		
Amaswazi Traditional Council	14/01/2015	Nkosi Shabalala and Induna
Amangwane Traditional Council	15/01/2015	Ndunankulu, Indunas and members of Traditional Council
Amazizi Traditional Council	22/05/2015	Ndunankulu, Indunas, Councillor ward 6 and members of Traditional Council
SETTLEMENTS ON PRIVATE LAND		
Rookdale (Ward 10)	14/01/2015	Mr M.P. Vilakazi (Councillor Ward 10)
Bhethani/ Hambrook (Ward 11)	14/01/2015	Mr D.T. Sibeko (Councillor Ward 11)
Greenpoint/Rooihoek (Ward 13)	14/01/2015	Mr K. Simelane (Councillor Ward 13)
FARMERS ASSOCIATION		
Winterton Farmers Association	14/01/2015	Terry Muirhead (Chairperson)
RATEPAYERS ASCCOCIATIONS		
Drakensberg Ratepayers Association	15/01/2015	Wendy Goulding (Chairperson)
Winterton Ratepayers Association	14/01/2015	Tony Cole (Chairperson)
Cathkin Ratepayers Association	15/01/2015	Bill Carter (Town Planning Chairperson) and Paul Brogan (Chairman of CDRA)
BUSINESS FORUM		
Business Forum	28/05/2015	Thembi Hlubi (Chairperson)