ABSTRACT

[A SPATIAL DEVELOPMENT FRAMEWORK IS A CORE SECTOR PLAN OF THE INTEGRATED DEVELOPMENT PLAN]

Amajuba District Municipality
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1. INTRODUCTION

1.1 BACKGROUND

Amajuba District Municipality Spatial Development Framework (SDF) is intended, in part, to comply with Section 26(e) of the Municipal Systems Act, Act No. 32 of 2000), which requires a municipality to prepare and adopt an SDF as a component of its Integrated Development Plan (IDP). Most importantly, the SDF is intended to facilitate development of a spatial structure that promotes integrated development and enables an efficient delivery of services. It will give direction to future planning and development within the District, and provide a framework for the local municipalities' SDFs.

The Constitution of the Republic of South Africa, (Act No. 108 of 1996) confers to municipalities major developmental responsibilities intended to improve quality of life people residing and/or working within a municipality’s area of jurisdiction. An SDF therefore, forms part of the systems and procedures at the disposal of the municipality to perform on its developmental mandate and facilitate removal of spatial remnants of the apartheid past. The main purpose of the SDF is to guide the form and location of future spatial development within Amajuba. It is a legislative requirement and has a legal status. In summary, the SDF has the following benefits:

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

Amajuba is positioned within a region that is rich in terms of natural resources which includes Ncandu and Chelmsford Reserves at the foothills of the Drakensberg. It also comprises of a commercial and industrial centre (Newcastle) which has its main markets within the northern of KZN as well as parts of Free-State and Mpumalanga. The agricultural sector fairly exists mainly in the form of livestock (cattle) farming. None of these have been fully exploited for the material
well-being and development of the local communities in an equitable manner. The area is also characterised by massive poverty, service backlogs and areas with marginal production potential. The latter coincides with areas occupied by the majority and previously disadvantaged rural communities or villages. Some of the villages has benefitted from formal spatial planning processes while others have not and this has a potential to compromise uniformity as advocate by the KwaZulu-Natal Planning and Development Act No. 06 of 2008 (PDA).
1.2 AMAJUBA DISTRICT MUNICIPALITY

Amajuba District Municipality (ADM) is located to the north-western corner of the KwaZulu-Natal Province. It comprises of Newcastle, Emadlangeni and Dannhauser local municipalities. The main transportation routes linking the district to its surroundings, is the N11. This is also an alternative route to Johannesburg from Durban. The R34 bisects the district in an east-west direction and provides a linkage from the port city of Richards Bay to the interior. The district has a total surface area of 6 910 km², it is divided into Newcastle Municipality which occupies 1 855 km², Emadlangeni Municipality which has a surface area of 3 539 km² and Dannhauser Municipality which occupies 1 516 km².

It comprises of a total population which is estimated at 495 117 people who are accommodated on 110 963 households. Newcastle has the highest population which is estimated at 363 236 people (84 272 households) followed by Dannhauser 102 161 people (20 439 households) and Emadlangeni with 34 442 people (6 252 households).
2. APPROACH AND METHODOLOGY

2.1 APPROACH

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

2.1.1 CURRENT SITUATION ANALYSIS

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

- Analysis of the development context.
- Spatial analysis
- Environmental analysis
- Economic analysis

INPUTS

Desk-top review, Stakeholder interviews, GIS

ACTIVITIES

- Developing a contextual framework
- Stakeholder consultation
- Regional context
- Analysis of access to social facilities
- Spatial analysis
- Economic analysis
- Environmental analysis
- Infrastructure analysis
- Development trends & patterns
- Preparation of a current situation report

OBJECTIVES

To assess existing information and identify gaps

PHASES

- Current Situation Analysis
- Strategic Planning
- Implementation Plan

OUTPUT

CURRENT SITUATION REPORT

SPATIAL DEVELOPMENT STRATEGY

CONSOLIDATED SDF

To establish principles and spatial planning approach

To consolidate & develop a land use management framework

- Application of spatial concepts
- Formulation of a spatial objectives
- Formulation of a spatial strategy
- Formulation of a municipal-wide spatial framework
- Sectoral integration
- Alignment of SDF with Neighbouring DM
- Hierarchy of nodes and settlements
- Frameworks for primary and secondary nodes
- Development Corridors
- Environmentally Sensitive Areas
- Land reform implementation framework (spatial)
- Economic development priority areas
- Service delivery spatial framework

- Capital investment framework
- Land Use Management Framework
- Spatial development projects
- Preparation of a consolidated SDF

- Desk-top review
- Stakeholder interviews
- Workshops, GIS

- Economic analysis
Infrastructure

Environmental analysis

Analysis of level of access to social facilities.

Nodal assessment and analysis (primary and secondary)

The end-product of this phase is a current situation report indicating spatial development trends and patterns. The report will be presented to the first stakeholder workshop and form the basis for the formulation of a spatial strategy.

2.1.2 SPATIAL DEVELOPMENT STRATEGY

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

- Identification and analysis of spatial structuring elements.
- Application of spatial concepts.
- Formulation of a spatial development vision.
- Formulation of spatial development objectives in line with the organisational Performance Management System

Translation of SDF concepts and spatial planning principles into practical strategies

2.1.3 CONSOLIDATED SPATIAL DEVELOPMENT FRAMEWORK

The spatial development framework will include the following:

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

2.1.4 SUSTAINABILITY ASSESSMENT

A Sectoral Environmental Assessment includes, for example:

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

A plan for improving environmental management; and

An environmental monitoring plan.

2.2 METHODOLOGY

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

- Desk-top data review.
- Interviews with a range of stakeholders
- Focussed sessions
- Stakeholder workshops

It is important to indicate that stakeholder participation in the form of workshops, project steering committee meetings and interview will unfold throughout the course of the project.

2.2.1 DESK-TOP DATA REVIEW

SDF as a sector plan of the IDP needs to be located firmly within the practice of integrated development planning. This includes ensuring alignment with national, provincial and district strategic plans, and using these to inform approaches to local spatial development challenges. The following is an indication of documents that will be reviewed as part of this process.
Amajuba Municipality IDP and the associated sector Plans. The latter includes LED Plan, Water Services Development Plan, Area Based Plan, Tourism Development Plan, etc.

KwaZulu-Natal strategic spatial plans including the Provincial Growth and Development Strategy and the associated spatial strategy.

Spatial plans and data to be sourced from various sector departments.

Research reports dealing with a range of strategic projects in the area.

Relevant legislation and policy documents produced at both provincial and national government level.

2.2.2 STAKEHOLDER INTERVIEWS

Interviews will be held with a range of stakeholders involved in spatial planning processes within Amajuba District Municipality. These include, but not limited to the following:

- Local Municipality officials responsible for spatial planning.
- Amajuba Municipality officials responsible for district spatial planning.
- Provincial government officials responsible for spatial planning and environmental management.
- Traditional councils/authorities.
2.2.3 FOCUSED SESSIONS
Focused sessions will be held with stakeholders operating in the following key sectors:

- Spatial planning.
- Environmental management.
- Economic development (agriculture, tourism, commerce and industry).

2.2.4 USE OF EXISTING INFORMATION
The team is committed to making optimal use of the existing information so as to avoid re-inventing the wheel. A fair amount of mapped information was collected or generated during the IDP process. Layout plans for various residential areas will be used as base data. New research will be undertaken where necessary.

2.2.5 USE OF GIS
The team will make use of the GIS to overlay information and generate options for land use activities. Ilungelo Lami has access to a recently developed digital criterion for the development of layers and this tool will be used in this regard. However, it will be verified by means of public consultation.

2.2.6 TECHNICAL INVESTIGATIONS
The following technical investigations will be undertaken:

- Spatial Analysis, and
- Environmental Analysis.

2.2.7 WORKSHOPS
Workshops will constitute an important means of harnessing knowledge, sharing information, and building consensus regarding the aims and objectives set out for this planning process. The invitation to these workshops will be extended to a wide range of stakeholders across the board. At this stage it is anticipated that two workshops will be organized during the planning process.

- The first workshop will commence by discussing the findings of the status quo report so that each participating institution or interest group develops an understanding of the existing environment within the municipality. It will also focus on developing and refining spatial strategies for the future development of Amajuba District Municipality area of jurisdiction. Recommendations and input from the workshop will assist in providing essence to the spatial Development Framework.
The last workshop will be held to discuss and streamline relevant implementation guidelines, principles and management criteria for the plan.

Where possible, workshops will be combined with IDP Representative Forum (RF) meetings given the fact that the same stakeholders would be invited to RF meeting.
3. POLICY CONTEXT

Spatial planning in the Amajuba District Municipality occurs within the national and provincial policy directives, and sets the agenda for spatial planning at a local level. The national policy framework includes the Constitution of the Republic of South Africa, various pieces of legislation that gives effect to the intentions of the Constitution in respect of spatial planning, and the associated policies that outlines the spatial transformation and development agenda. Provincial policy occurs in the form of the KwaZulu-Natal Provincial and Growth Development Strategy. Amajuba SDF aligns with these policy directives and enables the municipality to contribute to the attainment of the spatial development targets and objectives outlined in these policies and deals directly with the spatial issues facing the district.

3.1 SPATIAL PLANNING MANDATE

Since the beginning of the new democratic era in South Africa, the notion of spatial planning has become an integral part of the development planning and transformation discourse in South Africa. The Constitution (Schedule 4 Part B) bestows this responsibility to local sphere of government. In the interim, municipalities give effect to this mandate through the Development Facilitation Act, Act No. 67 of 1995 and the Municipal Systems Act, Act No. 32 of 2000. The latter requires a municipality to prepare and adopt and SDF as part of its IDP.

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

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

3.2 NATIONAL SPATIAL PLANNING

The National Planning Commission (NPC) was established in 2009 and tasked *inter alia* with the formulation of a long term strategic plan for the South Africa. In November 2011, NPC had completed the formulation of the National Development Plan ‘vision 2030’ (NDP). The NDP articulates a long term vision for the country and aim at shaping government’s service delivery and development programmes as well as guiding spatial transformation.

In addition to this plan, the national government has adopted various sector based policy frameworks. The majority of these have serious implications for spatial planning at a local level. In view of the scope of work, rural/ peri-urban nature and underdevelopment that characterises Amajuba, only the following are considered:

National Development ‘Vision 2030’;

The New Growth Path;

Comprehensive Rural Development Strategy and the associated programme; and


3.2.1 NATIONAL DEVELOPMENT PLAN

The NDP recalls that the overarching national challenges are that there are too few people who work, poor standard of education for black learners, poorly located infrastructure, spatial pattern that excludes the poor from fruits of development. In addition the economy is overly and unsustainably resource intensive, failing public health system, uneven and often poor quality public service.

It identified strategies for long term (2030) development intervention which covers the following key areas:

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

The NDP does not make any specific reference to Amajuba; however there are two projects that have been proposed within KwaZulu-Natal which has implications for development within Amajuba. These are the development of Durban to Johannesburg Trade Corridor as well as Maputo Corridor (trade route connecting north-eastern South Africa, Swaziland and south-western Mozambique) this is intended to open up markets.

3.2.2 THE NEW GROWTH PATH

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

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

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

3.2.3 COMPREHENSIVE RURAL DEVELOPMENT PROGRAMME

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

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

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

3.2.4 COMPREHENSIVE PLAN FOR THE DEVELOPMENT OF SUSTAINABLE HUMAN SETTLEMENTS

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

✓ progressive informal settlement eradication;
✓ promoting densification and integration in urban centres;
✓ enhancing spatial planning in both urban and rural contexts;
✓ enhancing the quality and location of new housing projects;
✓ supporting urban renewal programmes; and
✓ developing social and economic infrastructure.

3.3 PROVINCIAL SPATIAL PLANNING

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

During the mid-2000s, KwaZulu-Natal developed a Provincial Spatial and Economic Development Strategy (PSEDS) in an effort to create a spatial representation of the old Provincial Growth and Development Strategy (PGDS) which was introduced during the mid-1990s. PSEDS identified development corridors and nodes, and characterises these according to the dominant economic sectors. It also identified agriculture, industry, tourism and service sectors as the main drivers of the provincial economy. It recognizes the strategic location and potential of Amajuba District in terms of all the above-mentioned sectors.

Newcastle is classified as a Secondary Node which is an urban centre with good existing economic development and growth potential, and which services the regional economy. N11 corridor is identified as an existing corridor. PSEDS also identify a secondary corridor (SC12) which runs between three centres, namely Greytown-Msinga-Madadeni. This corridor has potentials for production of labour intensive, mass produced goods which are more dependent on labour costs, and affordable transport linkages (i.e. agriculture and mining), retail and private sector services which are large employers of skilled and semi-skilled workers in advanced economies, tourism which is dependent on tourism attractions and public service and administration.

3.3.2 KWAZULU-NATAL GROWTH AND DEVELOPMENT STRATEGY

The KwaZulu-Natal Province has revised the development vision as outlined in the recently introduced Provincial Growth and Development Strategy (PGDS). The PGDS is a primary

**IMPLICATIONS:**

- a) Agriculture: Amajuba is well known for Beef Production.
- b) Industry: Newcastle is striving in terms of Industrial development.
- c) Tourism: Drakensberg and Battlefield.
- d) Services: Newcastle is currently the main service centre and the IDP has proposed the development of Dannhauser and Utrecht.
strategy for KwaZulu-Natal that drives growth and development in the Province to 2030. It provides the province with a rational strategic framework for accelerated and shared economic growth through catalytic and developmental interventions, within a coherent equitable spatial development architecture, putting people first, particularly the poor and vulnerable, and building sustainable communities, livelihoods and living environments (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. In terms of spatial planning PGDS advocates the following:

✓ Achieve sustainability;
✓ Address climate change;
✓ Ensure place-making;
✓ Ensure environmental protection and enhancement;
✓ Achieve economic development;
✓ Address service delivery – infrastructure, transport, energy, utilities and flood management;
✓ Development of specific Corridor Plans to co-ordinate interventions around provincial corridors;
✓ Continuation of the Small Town Regeneration and Rehabilitation Programme, and
✓ Formalisation of Strategic Rural Nodes.

The KwaZulu-Natal Spatial Development Framework was prepared as part of the new PGDS and it identified most areas within Newcastle Municipality as needing
economic support, while most areas within Dannhauser are identified as areas that need social investments and in Utrecht is considered to be in need of service delivery. The Drakensberg corridor is identified as the biodiversity priority 1.

3.4 DISTRICT SPATIAL PLANNING PERSPECTIVE

Amajuba development vision and programme is outlined in the district IDP and the associated sector plans which include the current SDF. However, the changes in the local dynamics and policy shifts have necessitate a review and rethinking of some of the issues among socio-economic, spatial and physical landscape.

3.4.1 INTEGRATED DEVELOPMENT PLANNING

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

✓ Urbanisation mostly in Newcastle as well as towns of Dannhauser and Utrecht;
✓ huge service and infrastructure backlogs;
✓ Unemployment and poverty remain problematic particularly due to the closure of mines;
✓ Amajuba as a second area with the highest economically active population in KZN while available skills levels do not currently meet the demands of new industrial and business environments
✓ General perception that the Amajuba in not a major investment or tourism destination in KZN; and
✓ Opportunities that can be developed on the sectors such as agriculture and tourism sectors.

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

3.4.2 DISTRICT SPATIAL PLANNING

Spatial planning is a shared function between the district and the local municipalities with the district focusing mainly on cross-border issues, bulk infrastructure and regional economic development. The current Amajuba SDF (developed during the early 2000s) provides an overview of the districts spatial development trends and patterns, and outlines strategies for spatial transformation at a district level. It adopts a service centre
(service node hierarchy) approach and accordingly identifies primary, secondary and tertiary nodes. The district is predominantly rural and dominated by extensive commercial farmlands. Newcastle is the main urban centre and economic hub. Towns such as Dannhauser and Utrecht serve as secondary service centres with limited thresholds. The N11 which runs in a north-south direction linking the KwaZulu-Natal with Mpumalanga province serves as the primary corridor and main access route to the district while P37, P483 and P211 are identified as secondary corridors. In addition, they identify the following key areas for intervention:

✓ Improved access and service delivery to urban and rural areas;
✓ Facilitating efficient agricultural development;
✓ Developing the tourism potential and managing the environmental resources; and
✓ Developing a hierarchy of service nodes.

3.4.3 DISTRICT ENVIRONMENTAL MANAGEMENT

In 2002, Amajuba has developed a Strategic Environmental Management Plan and an Environmental Management Plan was developed in 2010. This was done in fulfilment of the requirements of The National Environmental Management Act of 1998. It was prepared as a means to promote sound environmental management and promote sustainable land use practices within the district. It provides a comprehensive picture of the status of the environment, and outlines a strategic direction for environmentally sustainable development and effective management of the natural resources. It adopts a long-term vision, but also identifies short to medium term actions that need to be addressed as part of an integrated development planning (IDP) process.

✓ Soil erosion in the North Western and Middle Eastern regions of the district;
✓ Intrinsic biodiversity value of areas in high lying and mountainous terrain;
✓ Unprotected environmentally sensitive areas; and
✓ Mining and industrial pollution of rivers.

3.5 IMPLICATIONS FOR THE AMAJUBA SDF

Although the Amajuba is responsible for spatial planning within its area of jurisdiction, the desired or ideal spatial and economic system is achievable if the municipality works in tandem with the relevant organs of state and civil society. 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.
Amajuba is one of the ten (10) district municipalities that make up KwaZulu-Natal. It is located in the north-western corner of KwaZulu-Natal and comprises the three local municipalities of Newcastle (KZ252), Utrecht (KZ253) and Dannhauser (KZ254). The total geographical size of Amajuba is 6910 km². Emadlangeni occupying the largest area of 3 539 km², Newcastle some 1855 km² and Dannhauser some 1 516 km². The main transportation routes linking the District to its surrounds includes the N11, which is the alternative route to Johannesburg from Durban, and the rail line which is the main line from the Durban harbour to Gauteng. The R34 also bisects the district in an east-west direction and provides a linkage from the port city of Richards Bay to the interior.

The geographic location of Amajuba District Municipality along the border of KwaZulu-Natal, Free-State and Mpumalanga Provinces establishes the area as gateway (entry and exit) point to these provinces. The main transportation routes linking the District to its surroundings includes the N11 which is the alternative route to Johannesburg from Durban, and the rail line which is the main line from the Durban harbour to Gauteng. The R34 also bisects the District in an east-west direction and provides a linkage from the port city of Richard Bay to the interior. The P483 provincial road forms the major access road from Newcastle to Madadeni, Osizweni and Utrecht all located to the east of Newcastle.
1: Map Showing Amajuba Locality within KZN
5. DEVELOPMENT CONTEXT

5.1 DEMOGRAPHIC ANALYSIS

Population growth within Amajuba has substantially increased over the years. With reference to the figure (insert), the population grew by 12% from 1996 to 2001 (after 5 years). During a census community survey which was undertaken in 2007, it was noted that the population had grown by 5% from 2001 to 2007 (after 6 years). About a two year ago Statistics South Africa undertook a comprehensive survey and it was noted that the population of Amajuba had grown by 0.4% from 2007 to 2011 (after 4 years). Although the district population is still increasing but the rate at which it is growing is shrinking and this may be a result of many factors including the rise of nuclear families. This may also relate to the high death rate in the district or due to levels of migration to other cities. For Utrecht, this may be due to the fact that up to 2001, the economy was largely dominated by Coal Mining and around 2000 to 2001, a number of these mines closed down. After the mine closures, these skilled and semi-skilled workers may have left the municipality for other coal mines. The district population is unevenly distributed with Newcastle Municipality that accommodate approximately 73% of the people. This is followed by Dannhauser Municipality that accommodate 20% of the population and Emadlangeni has the least population with only 7% of the district population.
2: Map Showing Population Projection to the Year 2020 for the Newcastle LM.
3: Map Showing Population Projection to the Year 2020 for the Dannhauser LM.
4: Map Showing Projection to the Year 2020 for the Utrecht/Emadlangeni LM
5.2 ECONOMIC PRODUCTIVITY

Amajuba District Municipality (ADM) is the fourth District Municipality with highest Gross Domestic Product (GDP) in the province. According to the Global Insight Database, ANDM had a GDP of approximately R12.33 billion in 2011. The dominant economic activities are agglomerated within Newcastle Municipal Area of jurisdiction. Newcastle accounts for more than 88% of the total Gross Value Added (GVA) which amounts to R10.4 billion. Although ADM is well performing within the province of KwaZulu-Natal, a comparative assessment of Amajuba in relation to the districts economies that surrounds it demonstrates that it is significantly small.

Sedibeng District Municipality (Free-State) has GVA of R28.8 billion in 2011, Gert Sibande District Municipality (Mpumalanga) had a recorded GVA of R46.8 billion in 2009 and Nkangala District Municipality (Mpumalanga) has a GVA of R53.9 billion in 2009. The annual growth of GVA in Amajuba District Municipality is also significantly lower compared to other districts. The economy of the Amajuba is largely dominated by the manufacturing sector which accounts for 35% of total Gross Value Added. Other sectors of importance at a district level include the community service sector (22.2% of total Gross Value Added), financial and business services (15.2%) as well as the trade sector (8.6%). The size of the Amajuba District is relatively small in the provincial context and only contributes 3.5% of the province’s GVA. This is due to its relatively small population. The district has the fourth highest Gross Value Added (GVA) capital in the province. The Gross Value Added has been compared to that of the provincial economy, in order to identify the sectoral advantages of a given district:
✓ Manufacturing and Mining have a greater level of importance for the district than they do for the province
✓ Agriculture; Finance, Construction and Transport are relatively less important as compared to the province.

The other key sectors in terms of GVA contribution are the general government sector, wholesale and retail, finance and business services sector. GVA generated through general government services is approximately R1,8 billion, which contributes 17.6% to total GVA. This sector has experienced average annual real growth of 2.6% per annum. Just over 17% of GVA can be attributed to finance (6.9%) and business services (10.2%), which collectively generate R1.8 billion worth of GVA to the Newcastle economy. These have also been the fastest growing subsectors, with finance and insurance services growing at an average rate of almost 9% per annum since 2000, and business services growing at 6.2% over the same period. Wholesale and retail trade contributes R1.4 billion to the local economy, which accounts for almost 14% of total GVA. Wholesale and retail trade have been growing at a modest rate of 2.63% per annum from 2000 – 2010.

5.3 POVERTY ASSESSMENT

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

In South African context, the National government currently considers the households with a monthly household income of less than R1600 as indigents. The percentage of people living in poverty in the Amajuba is estimated to be around 52.2% (260,915 people). A total of 56% households in Newcastle earn less than R800 per month. This clearly shows that Newcastle annual individual income is very low, a clear indication that individual households cannot afford basic necessities such as housing and health services. A total of 18,550 households were registered for indigent support due to high unemployment rate of 54%. Most of the poverty-stricken households of Newcastle are located in the East as well as the Traditional Authority areas. Low household income has led to illegal mining within the local municipality to supplement income for the poor especially in the rural areas thereby putting the environment at risk.
The income levels are very low in Dannhauser. Census 2011 reported that 76.3% of the population in Dannhauser have no monthly income, with a further 15% having monthly income of less than R1,600 per month. The large proportion of the population (51.4%) within Emadlangeni receives no income and the income level of households in Emadlangeni is exceptionally low with just about 87% of households earning less R1,500, which are classified as poor. The municipality has developed an indigent register, although not all people have been captured, efforts are being made to ensure that people do register on the database. This puts a strain on the municipality resources because almost the entire population falls within the indigent bracket. Although people have jobs, the lack of skills prevents them from getting better wages or salaries.
6. SPATIAL ANALYSIS

6.1 REGIONAL CONTEXT

Amajuba is administratively located within KwaZulu-Natal, however it is geographically positioned within space economy of four provinces which are Free-State, Mpumalanga, KwaZulu-Natal and Gauteng. This is due to its proximity in relation to the economic trading hubs of these provinces. The distance from the Amajuba to the major economic hubs within these provinces indicates that it is 144km away from Harrismith (Free-State), 152km from Ermelo (Mpumalanga), 259km from Pietermaritzburg (KwaZulu-Natal), 291km from Johannesburg (Gauteng) and 339km from Durban (KwaZulu-Natal). The position and role of the Amajuba in the regional space economy is tightly interlinked with these four provinces since the area have strong functional linkages. The challenge is to ensure that the area benefit from trading and undertaking commerce activities with these economic hubs as opposed to being a peri-phantal to the economy of these regions.
6.2 STRUCTURING ELEMENTS

6.2.1 THE ROLE OF N11

The N11 runs north to south through the central part of the municipal area. It is the busiest corridor in the province and a major link between the national industrial hubs of Johannesburg and Durban. It can be considered as the primary route within the area. This route is however, largely a movement corridor between the different areas of Amajuba. Due to the high volumes of traffic along this road, and the fact that it is largely being utilised as a main route by trucks and other freight vehicles, many opportunities exist for development that can capitalize on the existence of this route. Due to the limited access nature of this road, opportunity points exist at key intersections or off-ramps along its route.
5. Map Showing Road Network for Amajuba District
6.2.2 INFLUENCE OF MAJOR RIVERS AND BOUNDARY DEMARCATION

The biggest rivers that are found within the within Amajuba are Pongola River, Blood River and Buffalo River. These rivers are the most visible natural structuring elements of the municipal area such that the Municipal Demarcation Board actually used these to demarcate the boundaries between and within Amajuba as follows:

- Pongola River – informed boundary demarcation on a small north portion to Emadlangeni Municipality;
- Blood River – informed boundary demarcation on the eastern portion of Emadlangeni Municipality
- Buffalo River – informed boundary demarcation between Newcastle and Emadlangeni Municipalities. This river stretches all the way down to become a boundary between Dannhauser and Emadlangeni Municipalities.
6.2.3 INFLUENCE OF STEEP TERRAIN AND MOUNTAINOUS AREAS

Slope and terrain are also very strong structuring elements in terms of Amajuba spatial configuration. The eastern part of Dannhauser Municipal Area, northern parts of Emadlangeni and western parts of Newcastle have higher slope inclines, indicating mountainous areas. This steep terrain within the traditional council areas promotes the dispersed settlements structure and creates difficulties in terms of bulk infrastructure provision. In fact most of the settlements within the rural parts of Amajuba have followed this terrain such that the homesteads have tended to locate within the flatter terrain while the steep spaces within and between settlements have remained vacant.
6.2.4 IMPACT OF POST APARTHEID SPATIAL PLANNING LEGACY

The spatial policies of the past had a very strong impact on the structure and functionality of different areas within Amajuba Municipality. The most visible impact is fragmentation of communities as well as marginalisation of economic activities in an effort to undermine their participation in the economy. These policies enforced a system of physically locating people in areas with poor access to urban services and
facilities, and effectively entrenched the philosophy of unequal development. In the context of Newcastle urban complex, spatial fragmentation was implemented to effectively separate Newcastle west and the former dormitory suburbs of Madadeni and Osizweni. These two areas are situated at least between 15km and 35km from Newcastle central business district (CBD) in line with apartheid spatial engineering. Dannhauser and Emadlangeni Municipalities are predominantly rural in character with urban areas limited to the towns (Dannhauser and Utrecht) and surrounding areas that formed part of the coal mining activities.

Given the historical development of Dannhauser, the area does not have an easily discernible structure and settlement pattern. The development in most of the area is scattered with an absence of a strong nodal hierarchy. Uneven topography, membership of the community and traditional land allocation practices are the major factors that shape this settlement pattern. This spatial fragmentation, referring to separate blobs of development with no linkages, has the potential to undermine the role of Amajuba in its regional context and impact negatively on its ability to perform its functions effectively and efficiently.

6.3 SETTLEMENT PATTERN

Amajuba District Municipality is a mixed of rural and urban in its character. This is particularly due to the existence of Newcastle as an urban complex while Dannhauser and Emadlangeni are predominantly rural. The key features of the settlement pattern can be broken down as follows:

- Urban settlements;
- Peri-urban settlements; and
- Rural villages;

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

The CBD is located in Newcastle West on the southern side of the confluence of the Ncandu and Jordan Rivers. Newcastle West is predominantly residential with the northern section being the most affluent. Ribbon development runs south-eastwards from the CBD along the R34 and includes a new shopping centre, restaurants, garage and car showroom, hotels and lodges. The northern portion of Newcastle
West also accommodates the show-grounds, Monte Vista Casino and Conference Centre, a golf course and technical college. Immediately south of the CBD are the original residential areas of the town also laid out in the same gridiron pattern and home to the Newcastle Private Hospital and Newcastle Provincial Hospital, the police station and a number of home offices which have spread outwards from the CBD. South-west of the CBD are further residential suburbs. Newcastle CBD is currently going through a process of spatial transformation. This involves three main processes, namely:

✓ Decentralisation of commercial and office space;
✓ Redevelopment; and
✓ Expansion of town area.

Decentralisation of commercial and office space occurs in the form of nodular development at both eastern and western entrances/gateways into Newcastle CBD. Newcastle west development includes a number of service industries, a community commercial centre, hotels and a number of associated developments. The area is earmarked for further commercial development. Rights have been granted for the development of regional shopping centre next to the new Casino.

A new office complex has also been developed in the area while infrastructure has been laid for mixed land use development. Other developments expected in this node in future include motor-showrooms, restaurants, etc. Redevelopment on the other hand, involves refurbishment of buildings vacant or under-utilised, because of economic downturn and relocation of offices to the new office node. This process also includes intrusion of office use, particularly professional offices, into residential areas that abut into the CBD. A number of dwelling units have been granted office use rights or are being used as offices.

Newcastle Municipality has accordingly developed strategic responses to these trends. These include Newcastle West Precinct Plan, CBD Development Plan and Newcastle South Spatial Development Plan (SDP). The latter provides for a range of residential products, mixed land use and commercial nodes. The net effect of these plans is the extension of the town built-up area, shifting of the urban edge and opening of new interface zones. In view of its strategic location in northern KwaZulu-Natal, Newcastle is likely to remain a regional service centre unchallenged by other nearby town in the foreseeable future. Its market threshold is relatively secure but its economic and social vitality remains
dependent on the state of its regional hinterland. The CBD itself has remained relatively stable.

6.3.1.1.1 CENTRAL INDUSTRIAL AREA

East of the CBD lies large industrial areas, the N11 and Iscor facility as well as an airfield and landfill site. The Amcor Dam and Recreation Area are also located in this area. The area occupies approximately 516ha of land zoned for industrial use, of which only a small portion is developed. While the area accounts for a significant amount of employment opportunities in the NLM, it historically developed as a buffer between the former white only areas in the Newcastle West and the former black only townships of Madadeni and Osizweni.

6.3.1.1.2 MBO COMPLEX

MBO is located along P483 and comprises of the Townships of Madadeni and Osizweni, and the JBC area. Madadeni and Osizweni were laid out in the 1970s on the basis of a Master Plan developed in 1975, and reviewed in June 1985. The plan was based on the dominant planning doctrine and highly influenced by the political regime. It gave rise to a compact linear urban form with rectilinear road network based on 3 to 4 km grid spacing of major arterials.

The JBC area, which joins the Madadeni and Osizweni areas, has a more peri-urban character, consisting mainly of informal settlements. This area developed as a result of “shack farming” thus transforming the area from agriculture into an urban slum, with no formal planning. This has given rise to a complex set of land legal issues including title adjustment, beneficial occupation rights, tenancy and freehold ownership rights. The MBO complex is characterised by poor condition of services and general lack of amenity and pleasant appearance.

This robs the area of private sector investment and perpetuates dependency on Newcastle town. Urban renewal programmes being initiated in the MBO complex will address the upgrade of the public realm and improve the quality of life of the previously disadvantaged. It will also promote both public and private sector investment in the area. Access to public facilities and a safe environment are the other important aspects of quality of life that should be addressed in these areas.

6.3.1.2 DANNHAUSER TOWN

Dannhauser town, encompassing the Emafuisini and Durnacol areas is the seat of Dannhauser Local municipality. It is classified as a town in the SDF and has since become a somewhat dilapidated rural town with aging infrastructure, poorly maintained roads, and
lack of aesthetic appeal. The town consists of one main street, and the main shops are the post office, bank, chemist and some grocery and hardware stores. The residential component of the town has also been subjected to urban decay and the former glory of its beautiful vintage architectural buildings has since been lost.

6.3.1.3 Utrecht Town

Utrecht town is the main administrative centre for Emadlangeni Municipality. It is located at the foothills of Balele Mountains and into was incorporated in the former Colony of Natal. The layout of the town is a simple grid-iron with a commercial centre (CBD) at the centre of it and residential/dwelling uses around it. Similar to Dannhauser, the town is dilapidated with aging infrastructure and lack of aesthetic appeal.

6.3.1.4 Hattingspruit

The settlement of Hattingspruit has also been identified as a town and has also been subjected to urban decay and exists as a small rural town with poorly maintained infrastructure, bad roads and no aesthetic appeal.

6.3.2 Peri-Urban Settlements

6.3.2.1 Kingsley

Kingsley is situated on the R33 road between Bloedrivier and Dundee. It emanated from a land reform project and it is served with social facilities such as the police station, schools, taxi rank, shops and petrol filling station.

6.3.2.2 Groenvlei

Groenvlei is situated halfway between Utrecht and Wakkerstroom. There is a land reform settlement (Nkosi Shabalala) which has strengthens the aspirations of the municipality to develop this area as a node. The area is linked to Paulpietersburg via a gravel road and exists with a variety of facilities have been developed.

6.3.2.3 Amantungwa

Amantungwa is located along the P243 between Utrecht and Madadeni/Osizweni. It is a land reform settlement. The Amantungwa Trust area is strategically located between the Utrecht Municipality and the Dicks Cluster in the Newcastle Municipality which is ensuring integration and densification.

6.3.2.4 Nzima

The Nzima satellite is situated to the far north of the district. Access to the node is via the Wakkerstroom/ Piet Retief road. A total of 300 families are settled here. Due to poor direct access to Utrecht
district, people experience problems regarding the use of social infrastructure. The facilities in this area are limited but will be upgraded with the development of the land reform project.

6.3.2.5 MABASO

The Mabaso satellite occurs around the Pivaanspoort area. Adjacent to this development is the Kempslust mine area and SAPPI Forest development. Both these areas also house large numbers of people.

6.3.2.6 BLUE MOUNTAIN

This satellite is situated at the fork of the district road which connects the R34 with the D543 road which go to Wakkerstroom and Ingogo respectively.

6.3.3 RURAL VILLAGES

6.3.3.1 KWAMDAKANE

Nellie (KwaMdakane) has been identified as a service hub as it provides a higher order and more permanent range of services. It is a highly populated rural settlement that is dynamic and vibrant. The main attraction in KwaMdakane is the MPCC, which provides a number of government and non-government services, including and not limited to, pension pay points, health care, sporting facilities and social welfare services. KwaMdakane is a typical rural settlement characterised by subsistence farming, an array of livestock farming and economic activity in the form of small- medium scale businesses e.g. tuck shops, brickyards, etc. KwaMdakane is identified as a service hub in the SDF because of the MPCC.

6.3.3.2 NYANYADU AND UBULEBOMZINYATHI

The north-eastern portion of the Dannhauser municipal area is largely land under traditional authorities and includes a portion of Ubuhlebomzinyathi Community Authority (that falls within Dannhauser Municipality) covering an area of about 13,395 km2 in extent and Nyanyadu Traditional Council area which accounts for about 1,1190 km2 of the total municipal area. The status of Ubuhlebomzinyathi as a land administration structure, and its responsibility in the allocation of land for different land uses is unclear following the recent transformation of the institution of traditional leadership in the province and the establishment of traditional councils. Due to the increasing settlement pressures, traditional councils are forced to reduce standards, which negatively affect the settlement pattern, as there is an immediate rapid expansion of settlements, which are highly saturated with limited resources. This creates a problem, as the systems in place are not capable of managing urbanising settlements. Land administration and land-use management by traditional authorities in rural areas, needs to be made more transparent and be guided by administrative principles that are consistently applied. This will ensure that it does not become a constraint on economic, spatial and communal development in peri-urban and rural areas (Mathe K: 2010).
6.3.3.3 CHARLESTOWN AND INGOGO

Charlestown and Ingogo are small rural settlements that are established on commercial farmlands. Charlestown provides basic services and functions to the surrounding agricultural areas and is identified as a tertiary node in Newcastle SDF, together with Lennoxtown. Ingogo, on the other hand, is a purely rural settlement based on its low population numbers, and is classified as a rural node, as is Leokop. Other rural settlements are located within Ubuhlebonzinyathi Community Authority area and include settlements that generally fall within the traditional leadership of AmaHlubi in the Drycut area and Khathide along the northern boundary of the Newcastle Municipality.

6.3.3.4 FORMER MINING SETTLEMENTS: KILBARCHAN, INGAGANE AND BALLENGEICH

A number of settlements are also located in the south-eastern portion of Newcastle LM. These settlements are scattered throughout the area and are mainly as a result of mining activity, which is concentrated along a mining belt that runs from the centre of the municipal area towards the south east. The mines have stimulated the development of numerous smaller settlements, such as Kilbarchan, Ingagane and Ballengeich. It has however impacted negatively on the spatial structure of the Municipal area by preventing development of an integrated urban structure. Higher standards of housing and access to infrastructure are found in these formal settlements. The settlement pattern can mainly be ascribed to the mining activities and the Ingagane power station in the area, which caused the discrete pockets of settlements. These are mostly around or close to mining activities. Some of the mining activities have however been downscaled or closed down.

6.3.3.5 NORMANDIEN

The Nomandien Pass is a cross-border settlement that situated within Newcastle and some parts of it overlaps to Dannhauser Local Municipality. According to the Newcastle SDF (2010), Nomandien Pass is relatively isolated from the main arterial routes such as N11. It is accessible by the dirt district road to Free-State. The area is located within the farmlands. It is identified as a Rural Service Centre by Newcastle SDF. It is positioned at the plateau and it overlooks the beautiful valleys of that act as the physical borders of these provinces. There are currently no major activities that have not taken place to impact nor disturb the environment within the node. The vegetation is mostly in pristine condition. There are few facilities which includes a Police Station and a small settlement that mainly accommodates the farming community.

The beautiful country side, imagery and feel of Nomandien Pass is most likely to attract physical development of a tourism nature including holiday homes as well as Hiking & Trails, Bed and Breakfast establishments. The unique location of Nomandien Pass on top of a Plateau plus the secluded and remote bushveld-covered valleys of
the escarpment lend themselves to all manner of development, but specifically the hiking experience. Its remoteness has contributed to a lack of major physical development however it retains its charming quality which gives the countryside its wonderful character.
6.4 URBANISATION AND POPULATION OUT-MIGRATION

A comparative analysis of urbanisation within the district demonstrate that Newcastle Urban Complex with its associated complex of townships known as MBO (i.e. Madadeni, Blaauwbosch and Osizweni Urban Complexes) have experienced a substantial amount of urbanisation. This is evidenced from population growth that the area has experienced. Urbanization can be described as the rapid and massive growth of, and migration to large cities.

<table>
<thead>
<tr>
<th>Urban Settlements</th>
<th>Wards</th>
<th>2001</th>
<th>2011</th>
<th>% of Growth (+) or Decline (-)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Newcastle Urban</td>
<td>2, 3, 4, 5 and 20</td>
<td>40904</td>
<td>52371</td>
<td>6</td>
</tr>
<tr>
<td>Complex</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Madadeni Urban</td>
<td>14, 19, 22, 23, 24, 26, 27, 28 and 29</td>
<td>83910</td>
<td>92362</td>
<td>9</td>
</tr>
<tr>
<td>Complex</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Osizweni Urban</td>
<td>7, 8, 9, 10, 11, 12, 13, 15, 16, 17, 18 and 30</td>
<td>133536</td>
<td>141906</td>
<td>6</td>
</tr>
<tr>
<td>Complex</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dannhauser Town</td>
<td>2</td>
<td>9816</td>
<td>8095</td>
<td>-21</td>
</tr>
<tr>
<td>Utrecht Town</td>
<td>2</td>
<td>5488</td>
<td>5290</td>
<td>-4</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>281524</td>
<td>300024</td>
<td>6</td>
</tr>
</tbody>
</table>

Source: Census 2011

With reference to table above the population that resides within the urban areas (within all towns of the district) have increased by 6%. These urban areas accommodate 60% of the total district population. Madadeni complex had the highest level of urbanisation which caused its population to increase by 9% between 2001 and 2011. This is followed by Newcastle and Osizweni Complexes which had a population growth of 6% each. Both Dannhauser and Utrecht Towns experienced population decline which implies that these areas are experiencing population out-migration. Dannhauser is experiencing a great level of out-migration such that its population declined by 21% while Utrecht’s population declined by 4%.
8: Map Showing an Overview or Urban Edges within the Amajuba DM
9: Map Showing Urban Edges for the Newcastle LM
Map Showing Urban Edges for the Dannhauser LM

INSET A - Dannhauser & Durnacool Urban Edges

INSET B - Hattingspuit Urban Edges

INSET C - Modeloni & Osirwni Urban Edges

Legend
- Urban Edges
- National Routes
- Provincial Roads
- District Roads
- Primary Corridor
- Secondary Corridor
- Tertiary Corridor
- Density Polygons
- Dannhauser LM Boundary

Nodes
- Primary
- Secondary
- Tertiary

Locality of KZ254 within DC25

Map Units
- DMS
- 0 2 4 6 8 10 12 14 16
- 500 1000 1500 2000 2500 3000 3500 4000

Disclaimer
While every effort has been taken to verify information depicted on this map, the Dannhauser LM takes no responsibility for the accuracy, adequacy, and completeness of the information and will not be liable for any damages of any kind incurred in the utilization of the information contained here for purposes other than those stated herein.
11: Map Showing Urban Edges for the Utrecht/Emadlangeni LM
6.5 HOUSING DELIVERY

Amajuba District is in the process to review and update the Housing Sector Plan. The district has a Housing Development Officer who reports to the Manager: Technical Services. According to Census 2011, the type of housing within the district is mainly dominated by Brick Houses (80%), Traditional Houses (9%) and Flats (3%). Based on the Municipality’s housing waiting list the total demand for housing is currently estimated at 10 700 units. This is divided into demand in Urban Areas (8 200) and demand in Rural Areas (2 500).

According to the Housing Chapter (as captured on the 2016/17 IDP), there has been an influx of people from the rural to the urban and the population surroundings Dannhauser (e.g. S'khobharreni) has increased. Reasons for the influx could be attributed to improved work opportunities, saving on transport costs and improved schooling. Unfortunately with the population growth there have been social problems such as increase in crime levels and health problems. Previous planning of the existing towns did not take this urbanization into consideration resulting in bulk services being inadequate. The Local and District Municipalities intervened by installing water stand pipes, refuse removal skips and high mast lighting. The Municipality is looking at the way to formalize Skobhareni Settlement, as this settlement had been formed by migration of people from rural areas to get close to Town for better job opportunities. The current housing projects can be outlined as follows:

<table>
<thead>
<tr>
<th>Project No.</th>
<th>Project Name</th>
<th>Project Value</th>
<th>Project Type</th>
<th>No. of units</th>
<th>Ward No.</th>
<th>Project Status (May 2016)</th>
</tr>
</thead>
<tbody>
<tr>
<td>K19970070</td>
<td>Emafusini Phase I</td>
<td>R4 351 200</td>
<td>Urban</td>
<td>294</td>
<td>2</td>
<td>Project is at the close-out stage, but IA still has to resolve some issues</td>
</tr>
<tr>
<td>K19990037</td>
<td>Emafusini Existing</td>
<td>R3 151 000</td>
<td>Urban</td>
<td>230</td>
<td>2</td>
<td>Project is at the close-out stage</td>
</tr>
<tr>
<td>K20000069</td>
<td>Strijbank</td>
<td>R5 529 418.57</td>
<td>Urban</td>
<td>247</td>
<td>3</td>
<td>Project should be at close-out stage, but Municipality had requested the Assessment on the Structural Integrity of the houses.</td>
</tr>
</tbody>
</table>
The proposed housing projects as captured on the housing sector plan can be outlined as follows:

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Project Type</th>
<th>Project Location</th>
<th>Number of Units</th>
<th>Project Value</th>
<th>Project Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buhlebomzinyathi Rural Housing Project</td>
<td>Rural Housing Project</td>
<td>Ward 9 and Ward 10</td>
<td>2500</td>
<td>R160 000 000</td>
<td>The IA had been appointed in February 2016</td>
</tr>
<tr>
<td>Stan Drive-in Housing Project</td>
<td>Urban</td>
<td>Ward 2</td>
<td>500</td>
<td>R32 000 000</td>
<td>Municipality had appointed a Service Provider to do Feasibility Study on this project to determine whether the land is suitable for housing development</td>
</tr>
<tr>
<td>Flint / Peach Hill Rural Housing Project</td>
<td>Rural Housing Project</td>
<td>Ward 6</td>
<td>500</td>
<td>R32 000 000</td>
<td>Department of Human Settlements Had applied for Pre- Funding For this Project</td>
</tr>
<tr>
<td>Mourn Hilltop Rural Housing Project</td>
<td>Rural Housing Project</td>
<td>Ward 3</td>
<td>500</td>
<td>R32 000 000</td>
<td>Department of Human Settlements Had applied for Pre- Funding For this Project</td>
</tr>
<tr>
<td>Gardens Housing Project</td>
<td>Urban</td>
<td>Ward 1</td>
<td>550</td>
<td>R35 200 000</td>
<td>Department of Human Settlements Had applied for Pre- Funding For this Project</td>
</tr>
</tbody>
</table>

The current housing projects are targeting to deliver 1871 units within the urban areas. On the other hand, the proposed housing projects are targeting to deliver 1050 units in urban areas. The proposed rural housing projects will deliver 3 500 housing units in rural areas. Therefore the yield of these projects will reduce the housing backlog to 4279 units.
6.6 ADMINISTRATIVE STRUCTURE

Most parts of Amajuba District Municipality are farmlands which are managed in terms of the Agricultural Act 70 of 1970. Under the KwaZulu-Natal Planning and Development Act No. 06 of 2008 (PDA), these areas are also subjected to land use controls when the municipalities develop the Wall-to-Wall Land Use Management Schemes. In the case of land that is under Ingonyama Trust there are additional local structures that have the influence in terms of land allocation. These include tribal chief, their headman and sub-headmen. The local municipalities have expressed challenges in terms of managing land allocation within the tribal council areas. There are instances whereby the municipality communicates with the tribal chiefs during the IDP processes with regards to land allocations. This affords the municipality a platform to advice the traditional council if their land allocation issues are not ideal. This may soon be resolved if all the municipality manage to ensure that the recommendation of the PDA (to have wall-to-wall Land Use Management Scheme) is indeed implemented.

6.7 BROAD LAND USE ANALYSIS

6.7.1 LAND USE PATTERN

Current land use pattern has evolved in response to the economic trends, settlement pattern, rural character of the district, applicable planning policies and land use management practices i.e. formal and customary. The broad categories of land uses that exist within Amajuba are:

- **Urban Settlement** – these are the Newcastle urban complex, small towns (within Emadlangeni and Dannhauser) with an agglomeration and variety of social and economic uses;
- **Rural Settlements** – which primarily includes rural villages with social facilities, subsistence agriculture but limited economic uses;
- **Commercial agriculture** – these are mainly the privately owned farms within around the district; and
- **Conservation areas** – which includes the protected nature reserves, wetlands and mountains.
6.8 LAND ISSUES

6.8.1 LAND OWNERSHIP PATTERN

Amajuba is characterised with a very diverse land ownership composition. Most of the land is however privately owned. The broad pattern of this can be divided as follows:

✓ Stateland;
✓ Privately owned land;
✓ Trust owned land;
✓ Land owned by Companies or Close Corporation;
✓ Land owned by Entities;
✓ Ingonyama Trust land; and
✓ There are areas where ownership is unknown at this stage.

<table>
<thead>
<tr>
<th>OWNERSHIP CLASSIFICATION</th>
<th>AREA (Ha)</th>
<th>% of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Association</td>
<td>8609</td>
<td>1%</td>
</tr>
<tr>
<td>Board</td>
<td>123</td>
<td>0%</td>
</tr>
<tr>
<td>Church</td>
<td>308</td>
<td>0%</td>
</tr>
<tr>
<td>Commercial</td>
<td>110882</td>
<td>16%</td>
</tr>
<tr>
<td>Conservation</td>
<td>645</td>
<td>0%</td>
</tr>
<tr>
<td>Education</td>
<td>11237</td>
<td>2%</td>
</tr>
<tr>
<td>Municipal</td>
<td>9448</td>
<td>1%</td>
</tr>
<tr>
<td>Private</td>
<td>349368</td>
<td>51%</td>
</tr>
<tr>
<td>State Land</td>
<td>16610</td>
<td>2%</td>
</tr>
<tr>
<td>Traditional Authority</td>
<td>28953</td>
<td>4%</td>
</tr>
<tr>
<td>TransNet</td>
<td>427</td>
<td>0%</td>
</tr>
<tr>
<td>Trust</td>
<td>121832</td>
<td>18%</td>
</tr>
<tr>
<td>Unknown</td>
<td>33232</td>
<td>5%</td>
</tr>
<tr>
<td>Total</td>
<td>691674</td>
<td>100%</td>
</tr>
</tbody>
</table>
6.8.1.1 PRIVATELY OWNED LAND

The majority of the land is in private ownership. This mostly includes the commercial farms as well as a range of properties within the urban areas.

6.8.1.2 INGONYAMA TRUST LAND

There are two tribal councils within Amajuba which are Ubuhle-Bomzinyathi and Nyanyadu Tribal Council Areas. The day to day management of this land is the responsibility of the traditional council under the leadership of the tribal chiefs concerned, but the administration and long-term leasing of these land parcels is the responsibility of the Ingonyama Trust Board.

6.8.1.3 STATELAND

There are numerous parcels of state land located throughout the district. These include land that is under the ownership of the department of Regional and Land Affairs. This state land includes parcels of land upon which various facilities have been constructed, for example, government and municipal offices, police stations, schools and utilities such as the sewerage works plant.

6.8.2 LAND ADMINISTRATION

6.8.2.1 FORMAL LAND USE MANAGEMENT

Both Newcastle and Dannhauser Municipalities have initiated processes towards the development of the wall-to-wall schemes. Newcastle undertook this as part of a comprehensive review of the existing Newcastle Town Planning Scheme, and a process towards the introduction of land use controls in areas hitherto not covered by the scheme. However, this document has not been implemented as due process is being followed to amend the Newcastle Town Planning Scheme as provided for in the KwaZulu-Natal Planning and Development Act, 2008 (Act No. 6 of 2008).
The Newcastle municipality has taken an incremental approach toward the implementation of the town-planning scheme in all areas, except the agricultural land. At present, Newcastle town is the only area that is covered by a Town Planning Scheme within the municipality. Dannhauser Municipality has encountered delays in the implementation of this policy document due to the introduction of the Planning and Development Act (PDA).

LUMS will be implemented in an incremental manner with the first phase focusing mainly on a comprehensive review of the Dannhauser Town Planning Scheme to bring it in line with the PDA. Subsequent phases will entail the extension of the scheme to other urban nodes such as Durnacol, Emafusini and Hatingspruit towns. Introduction of land use controls in the rural settlements and commercial farmlands will constitute the last phase of this process. Dannhauser Town is the only area within the municipality that is subject to a town-planning scheme. The scheme was developed in terms of the erstwhile Natal Ordinance and is based a restrictive zoning system. As such, the area is characterised by a clear separation of generally compatible land uses.

The CBD is the only area where there is limited mixed use. The Dannhauser Urban scheme is being reviewed. The new scheme will cover the Dannhauser, Hatingspruit and Durnacol. This represents the first phase of a process towards the introduction of a wall-to-wall scheme. Emadlangeni Municipality has an old town planning scheme focussing on the town of Utrecht. The municipality has not initiated a process towards a wall-to-wall scheme; however the district is assisting the municipality to review this old scheme as part of the Nodal Development Study as well as per requirements of the KwaZulu-Natal Planning and Development Act.

6.8.2.2 CUSTOMERY LAND USE PRACTICES AND ALLOCATION

Land use management within Ingonyama Trust land is embedded within the land administration and land tenure systems through which a buddele of rights is allocated to each household. The two main tenure instruments that the Ingonyama Trust Board makes use of are leases and PTOs. Accessing Ingonyama Trust Land is guided by two important policies. The first relates to the distinction between PTOs and leases.

The Board has a rental policy that is market based for commercial land uses. Leases are therefore determined at a market level, while PTOs are fixed at a more nominal amount. The second is that the Ingonyama Trust Board, in general, does not sell land or dispose of it where this is not
deemed to be necessary. In the case of a commercial development, the Ingonyama Trust Board would prefer to enter into a lease at commercial rates than dispose of the land or issue a PTO.

Also important are the ‘informal land rights’ held by members of the community residing within the Ingonyama Trust, these rights and interests in land are protected in terms of the Interim Protection of Informal Land Rights Act of 1996 (Act 31) (IPILRA). The Act provides for the recognition of a beneficial occupier; which is a person in occupation of land as if she or he is the owner, without force, openly and without the permission of the registered owner. The informal land right includes the use of, occupation of or access to land in terms of any tribal, customary or administrative practice and the right or interest in land of a beneficiary under a trust arrangement. The Act does not create any real rights, but merely recognizes existing interests in land. The Act protects existing interests by preventing unlawful deprivation of land rights and by giving the beneficial occupier the right to be compensated in the event of being deprived of his land rights in the property.

6.8.3 LAND TENURE UPGRADING

The need for land tenure upgrading has been identified within Newcastle Municipality. This is said to affect four types of communities such as people who hold Deeds of Grant to land, people who require their title deeds to be adjusted, tenants in the JBC area and Farm dwellers. This affects the following areas:

✓ Madadeni and Osizweni Townships – The title upgrading process undertaken as part of the Extended Discount Benefit Scheme and involving areas where people held their properties through Deeds of Grants (e.g. Madadeni and Osizweni Townships) has virtually been completed.

✓ JBC and Charlestown – Similarly, substantial progress has been made with the title adjustment process involving land owners in the JBC and Charlestown areas. The completion of this exercise is critical to unlocking privately owned land in these areas for the development of sustainable human settlements. In fact, a comprehensive scheme which involved the provincial Department of Human Settlements and the national Department of Rural Development and Land Reform should be initiated as part of the urban Renewal Programme to
deal with the land issues in the JBC and Charlestown areas. This includes people who occupy the area as tenants whose land tenure remains insecure.

✓ Ubuhlebomzinyathi – Communities occupying the area that falls under the jurisdiction of Ubuhlebomzinyathi Community Authority should also be considered for land tenure upgrading. These include Khathide, Dicks, Mndozi, etc. At present, these communities enjoy beneficial occupation rights protected in terms of the Interim protection of Informal Land Rights (I PILRA). These areas require careful management as they are fast deteriorating into urban slums. Densities are increasing and accounts for some of the huge urban service backlogs in the NLM.

✓ AmaHlubi Settlement – The land occupied by AmaHlubi Community in the vicinity of Drycut Cemetery should be investigated as it may fall outside the proclaimed area of Ubuhlebomzinyathi Community Authority. The land has been subject of a court case between Ingonyama Trust and AmaHlubi Traditional Council. Other areas that require attention in terms of tenure security are the settlements located to the north of Osizweni Township and JBC area.

### 6.8.4 LAND REFORM

Despite years of relatively good Integrated Development Planning processes in Amajuba District Municipality, issues of land tenure reform have in the final analysis remained marginal and isolated due to a lack of high-level integration and alignment between land tenure reform and spatial planning within the municipality. Lack of sustained co-ordination between the Department Land Affairs, Commission for Restitution of Lands Rights and municipalities in the District has manifested itself in delays in the delivery of basic services to communities that were assisted to reclaim their land and to gain access to land such as Ndlamlenze, Amantungwa and Thekwane etc.

### 6.8.4.1 LAND RESTITUTION

A total of 210 756ha of land was subjected to the land restitution claims. Only 40 141ha has been settled while 170 615 has been gazetted. The gazetted restitution claims amounts to 832.
6.8.4.2 LAND REDISTRIBUTION

A total of 45960ha of land was subjected to land redistribution. Only 14 320ha has been settled while 31 640ha is still subject to investigations. The settled redistribution amounts to 131 claims.

6.8.4.3 LAND TENURE REFORM

Amajuba is characterised by complex and intricate land tenure reform challenges. These include farm dwellers whose land rights are protected in terms of the Extension of Security of tenure Act. These are households that are established within commercial farms but their members are no longer providing labour to the farm. Although these households may not be evicted unless an ESTA process has been followed, their land tenure remains insecure. 116 907ha of land has been identified for land tenure reform and only 8 628 was prioritized through the Area Based Plan (ABP).
12: Map Showing Land Use Typology for the Amajuba DM
6.9 DISASTER MANAGEMENT AREAS

The management of disasters in Amajuba is mainly the responsibility of the district. As such, the district has prepared a Disaster Management Plan in order to minimize, reduce, and eradicate any risk that the area may face due to disasters. This plan indicates that a disaster can be caused by humans or nature since these are events that are sometimes unpredictable. It also states that disasters and development have both a negative and positive relationship, this relationship needs to be recognized and managed to achieve sustainable development. In a negative sense, disasters can destroy development or uncontrolled, improper development can cause disasters.

In a positive sense, disaster can create an opportunity for more resilient development and proper development can reduce the risk of disasters occurring. The Disaster Management Plan further points out that badly planned development in a floodplain increases disaster risk by making the new community vulnerable to flooding, which would constitute a disaster. The development of well-planned and effective flood defence measures can decrease the vulnerability of the community and thus contribute to disaster risk reduction. Disasters are inevitable although we do not always know when and where they will happen. But their worst effects can be partially or completely prevented by preparation, early warning, and swift and decisive responses.

6.9.1 LIST OF PRIORITY RISKS

According to the Amajuba Disaster Management, Fire and Rescue Sector Plan, the Amajuba District Municipality is mostly threatened by the following hazards:

- Veld fires;
- Structural fires;
- Drought;
- Lightning;
- Strong winds;
- Hailstorm;
- Heavy rain; and
- Floods.

6.9.2 RISKS IN THE NEWCASTLE MUNICIPALITY

**TABLE: DISASTER MANAGEMENT RISKS: NEWCASTLE**

<table>
<thead>
<tr>
<th>HAZARD</th>
<th>Veld Fires</th>
<th>Structural Fires</th>
<th>Drought</th>
<th>Lightning</th>
<th>Strong Winds</th>
<th>Heavy Rains</th>
<th>Floods</th>
</tr>
</thead>
<tbody>
<tr>
<td>WARD 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WARD 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WARD 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WARD 4</td>
<td></td>
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6.9.3 RISKS IN THE EMADLANGENI MUNICIPALITY

**TABLE:** DISASTER MANAGEMENT RISKS: EMADLANGENI

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<tr>
<th>HAZARD</th>
<th>Veld Fires</th>
<th>Structural Fires</th>
<th>Drought</th>
<th>Lightning</th>
<th>Strong Winds</th>
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<th>Floods</th>
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Colour Codes: Red=Very High; Orange=High; Yellow=Medium; Light Green=Low and Green=Very Low
# 6.9.4 Risks in the Dannhauser Municipality

## Table: Disaster Management Risks: Dannhauser

<table>
<thead>
<tr>
<th>HAZARD</th>
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WARD 11

Colour Codes: Red=Very High; Orange=High; Yellow=Medium; Light Green=Low and Green=Very Low
13. DISASTER RISK MAPS VELD FIRES HAZARD MAP
14: STRUCTURAL FIRES HAZARD MAP
15: DROUGHT HAZARD MAP
Amajuba DM - Disaster Risk Assessment - Lightning Hazard Map

Legend
- Very High
- High
- Medium
- Low
- Very Low

Map Units
- Scale Bar
- Scale Bar - NTS

Principal/Ensalangeni Local Municipality
Newton: Local Municipality
Dumiska Local Municipality

Disclaimer
While every effort has been made to verify information displayed on this map, the Amajuba DM takes no responsibility for the correctness, accuracy, and completeness of the information shown and will not be liable for any damages or loss incurred from reliance on the information contained here for whatever purpose to any parties utilizing the information.

16: LIGHTNING HAZARD MAP
17: STRONG WINDS HAZARD MAP
18: HEAVY RAINS
19: FLOODS HAZARD
20: HAIL STORM HAZARD
21: DISASTER MANAGEMENT RISK AREAS
7. INFRASTRUCTURE ASSESSMENT

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

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

The economic infrastructure assessment has utilized different sources of information provided for by the municipality albeit some of it outdated so the review of the sector plans is considered critical. The assessment intends to unpack the spatial distribution of the different economic infrastructure within Amajuba DM as this will be critical in ensuring a commendable Spatial Development Framework.

7.1 ELECTRICITY

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

7.1.1 BULK ELECTRICITY INFRASTRUCTURE

The current reticulation network in Amajuba District Municipality area as indicated in the Map (insert) shows areas already electrified and the location within the district of the bulk electricity infrastructure. It is no surprise that the bulk electricity infrastructure is concentrated in areas that have the highest population densities in areas such as Newcastle, Danhauser, Utrecht, Emadadeni etc. Newcastle Municipality has a superior population size and economy in the Amajuba district and as such has more areas that would require bulk electricity infrastructure. There are 8 sub-stations in the Newcastle Municipality that supply electricity to the areas of Newcastle, Madadeni and Osizweni. The spatial distribution of most sub-stations within Newcastle...
Municipality is predominantly situated along the N11 primary corridor. Newcastle is a growing economy within the district and it will be essential to demonstrate that the current supply is sufficient to meet current and future demands.

Emadlangeni Municipality has 6 sub-stations that service the settlements within the municipality for residential purposes whilst Utrecht would most like be for economic factors albeit a declining economy. Dannhauser Municipality has 3 sub-stations situated within its jurisdiction servicing the settlements of Mdakane and Osizweni. The supply capabilities of the substations and reticulation networks including the projects related to maintaining and upgrading these substations and reticulation networks are contained in Network Development Plans (NDPs) compiled by the Eskom Area Network Planning Division.
7.1.2 LICENSED DISTRIBUTORS

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

The provision of electricity in Newcastle is demand driven. The demand triggers the need to plan for additional capacity of the electricity network distribution. Eskom supplies in the order of 125,000KVA per month with an additional supply of 800 KVA being supplied by IPSA from gas turbines. The electricity networks for the Newcastle West area being the CBD and surrounding suburbs are managed by the municipality whereas the outlying townships and rural areas are supplied by Eskom. The Newcastle Municipality further gives support to Eskom for the surrounding townships and rural areas by implementing capital projects funded by the Department of Energy which upon completion is handed over to Eskom.

7.2 WATER

Newcastle and Amajuba municipalities are both Water Services Authorities with Amajuba serving Emadlangeni and Dannhauser municipal areas and Newcastle being responsible for its own municipal area. Both municipalities make use of uThukela Water as the Water Services Provider.

7.2.1 BULK WATER INFRASTRUCTURE

Bulk water infrastructure plays a pivotal role in not only the provision of water for human consumption but also ensuring supply in the region for economic investment purposes more especially in the sectors of manufacturing and commercial agriculture albeit the latter recently playing a limited role in the economy. In Newcastle Municipality there are six pumping mains supply purified water to two bulk storage reservoirs, the Braakfontein and Hilldrop reservoirs. A combination of a 600mm diameter steel pipe, 375mm diameter asbestos cement pipe and 600 mm diameter GRP pipe supply the 78 Ml Braakfontein reservoirs.

The 29 Ml Hilldrop Reservoirs are supplied through a 700mm steel pipe and 375mm asbestos cement pipe. Water from the Braakfontein reservoirs then feeds the following; Stafford Hill and Madadeni through a combination of various pipe sizes ranging from 800mm diameter to 200mm diameter 6 Ml Blaawbosch reservoir
that in turn feeds Blaawbosch. The Waterval Reservoir and Ngagane Osizweni Township through a 3.85km long 450mm diameter AC pipe.

The pipeline splits into two lines, one serves the 6ML reservoir at Blaawbosch and the other serves the 2ML tower at Osizweni. The Hilldrop reservoirs feed the Newcastle CBD, the suburbs and industrial areas. The JBO Node is fed from the Braakfontein reservoirs. The average consumption for the whole of Newcastle is estimated at 75ML/day. The consumption figures from the Braakfontein reservoirs are about 46 ML/day. The Braakfontein reservoirs therefore have adequate capacity for future expansion. The total unaccounted for water is very high and averages about 36%. Once this is addressed, additional capacity can be realized. The increase in demand for the townships of Madadeni, Osizweni, Stafford Hill and Blaawbosch including the Newcastle West area is necessitating the need for an additional 20ML reservoir

at the Hill drop reservoir site including an additional 45ML reservoir for the Braakfontein reservoir site. The infrastructure in Newcastle East is in a fairly good condition which is more than what can be said about the condition of water infrastructure in the Newcastle West area which is mainly the CBD and surrounding suburbs.

The area has aging asbestos networks which are resulting in high maintenance costs. The estimated capital investment required for this is in the order of R500 million rand. Investigations also need to be carried out in how to improve the pressure management in the Arbour Park, Lennoxton areas where low pressures are being experienced. A new pumping main from Ngagane Plant to Braakfontein Reservoirs is needed. The existing two lines do have sufficient capacity for the medium term but require maintenance and to decommission one line to carryout repairs will result in inadequate supply owing to the insufficient storage capacity at Braakfontein reservoirs.

Access to water is one of the key challenges facing Dannhauser Municipality as a substantial amount of people do not have access to decent water in accordance with the standards as set by the Department of Water Affairs. This is confirmed by the outcome of Census 2011 that indicated that only 19.5% of the population in the municipal area have piped water inside dwelling. Nonetheless, the Amajuba Water Services Development Plan (WSDP) through the drought relief programme has implemented some standpipe projects in the areas of Steildrift (Annievale, Kiel Keel and Nelly valley), Emfundweni, Fairbreeze, Eastbourne Farm Extension and Ubuhlebomzinyathi.

The programme was aimed at giving these communities purified water as a temporary measure and a relief as some of the
boreholes were dry due to drought. These areas are still to be covered for the long-term supply. There are also several boreholes situated in the eastern part of the municipal area. The spread of these boreholes in the Danhauser Municipality is encouraged by the lack of bulk water supply in that part of the municipality. The capacity of the available bulk water infrastructure has not yet been established or the number of water licenses obtained for the extraction of water from the existing boreholes.

Emadlangeni Municipality also faces challenges with bulk water supply. There are several boreholes situated in the eastern part of Dannhauser Municipality some of these are used by the population in Emadlangeni Municipality. The spread of these boreholes in the Danhauser Municipality is encouraged by the lack of bulk water supply in that part of the municipality. The capacity of the available bulk water infrastructure has not yet been established or the number of water licenses obtained for the extraction of water from the existing boreholes or the dams.
22. Map Showing Water Service Level for Amajuba District
23. Map Showing Water Resources for Amajuba District
7.2.2 SURFACE WATER

There are several rivers as well as wetlands within the municipality. In terms of Emadlangeni, there are three significant wetlands, namely Groenvlei, Boschoffvlei and Blood River vlei. There is also the Zaaihoek Dam which is part of the Groenvlei wetland system. According to Begg (1984), in Emadlangeni SDF (2011/12), wetlands are considered one of the most seriously endangered ecosystems in the world and this is no more evident than in KwaZulu-Natal. Wetlands perform very important hydrological functions such as flood attenuation and the maintenance of water quantity and quality of river systems.

These important ecological systems need to be protected and managed as effectively as possible. The Zaaihoek and the Chelnsford dams are the other major sources of water available in the district. The Chelnsford dam borders the Newcastle and Danhauser Municipality whilst the Zaaihoek dam is situated within the jurisdiction of the Emadlangeni Municipality. Chelnsford dam is a major water source within the
district as it provides water for Danhauser and various areas in the Newcastle Municipality. The Buffelsriver boarders between Newcastle and Danhauser municipal boundaries with Emadlangeni Municipality.

This river seems to have been used as the basis for the demarcation of these three municipalities. The Ngagane River runs from the Danhauser Municipality through to the Newcastle Municipality and eventually joins the earlier mentioned Buffelsriver. There are also a number of wetlands within the district, the bulk situated in the Emadlangeni Municipality. The Boschoffsvlei, Groebvlei, Padavlei and Blood River vlei form part of these critical wetlands within the district that require conservation as they form part of the catchments of the major river systems. There are encouraging plans within the DM for Ncandi River Dam and a development of dams along the Buffalo River catchment which is intended to open up large portions of the tribal areas for irrigation.

7.3 LANDFILL SITES

According to the latest available information there are currently only two licensed landfill sites within the Amajuba DM. The landfill sites within the DM are listed below with their current state.

- **NEWCASTLE WEST** - The Newcastle landfill is operating relatively well, but would nonetheless require improvements and upgrading. The identifying of a new landfill is in progress by the Municipality since the existing landfill has a limited remaining life span. An amount of R15m was set aside in the 2010/11 financial year, with a further R60m required in the next two financial years.
  - **NEWCASTLE EAST AND RURAL** - The collection equipment are currently adequate.
  - **UTRECHT** - The equipment would have to be upgraded to improve operation.
  - **WATERVAL PRISON** - Waterval Prison Landfill site requires a permit whether for closure or continued operation in terms of the relevant legislation.
  - **DANNAHAUSER** - Dannhauser Landfill also requires a permit whether for closure or

The distances in kilometres from each town to the various landfill sites are indicated in the table below.

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<thead>
<tr>
<th>Landfill Sites</th>
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<tbody>
<tr>
<td>Town</td>
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<tr>
<td>Newcastle west</td>
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<tr>
<td>Madadeni</td>
</tr>
</tbody>
</table>
Amajuba Integrated Waste Management Master Plan 2003

7.4 SANITATION

Amajuba District Municipality face a number of challenges with regard to sanitation. One of the main problems is the need for a sewer master plan, which will enable the municipality to plan for future developments including addressing the backlogs in basic sanitation services. Other areas of concern are the lack of adequate sewer systems for 13,481 households that do not have waterborne sanitation. This need is especially evident in the MBO area. Similarly the peri-urban and rural areas with the JBC and rural settlements in the Khathide and AmaHlubi communities are characterized by high sanitation backlogs. The JBC node has no sewerage reticulation in place. The residents rely over 15,000 Ventilated Improved Pit (VIP) latrines. Most of the VIP’s are full and the municipality spends about R1.0 Million every month in the desludging the VIP’s. Plans are underway to formalize Blaawbosch and considerable sewage flows are expected.

Funding needs to be sourced for the Osizweni WWTW as this plant is running almost at full capacity. The absence of a Sewer Master Plan needs to be given attention in order to plan for future developments including addressing the backlogs in basic sanitation services. Stormwater infiltration needs to be addressed as the overflowing of manholes, when raining, is evident as well as the increase in flows to the waste water treatment works. Backlogs in basic sanitation services are standing at 35% and needs to be addressed. Roads projects have been favoured over the years resulting in insufficient attention being given to water and sanitation services. The Community Survey (2007) indicates that

<table>
<thead>
<tr>
<th>Town</th>
<th>Newcastle</th>
<th>Utrecht</th>
<th>Waterval Prison</th>
<th>Dannhauser</th>
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</thead>
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<td>Osizweni</td>
<td>17</td>
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<td>58</td>
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69.3% of households have pit latrines, which are down on the 76.1% in 2001. In terms of households with no toilets, there has been an improvement from the 6.5% in 2001 to the 1.7% in 2007, which equates to 308 households. Dannhauser Municipality is not well provided with sanitation facilities. Sanitation backlog is concentrated in the rural settlements in the Buffalo Flats area and the land reform project areas.

Generally, Dannhauser Municipality is poorly provided with sanitation facilities, as approximately 6.6% of its households do not have access to sanitation facilities. Rural settlements (66% of households) use pit latrines for sanitation purposes while most commercial farms have on-site septic tanks. Sewer system is concentrated mainly in town, but the infrastructure in this regard is old and requires upgrading and maintenance.
24. Map Showing Sanitation Service Level for Amajuba District
7.5 ROADS

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

7.5.1 ROAD NETWORK

The road networks within Amajuba Municipality reflect a link of the districts roads (R21 & R32) from Dannhauser and Emadlangeni municipalities with the N11 that traverses Dannhauser and Newcastle municipality respectively. These road networks link the towns of Dannhauser and Utrecht with that of Newcastle.

7.5.2 ROAD CLASSIFICATION

It is important to include the analysis of the above mentioned subject matter as it will provide an indication of the responsible authorities for the different road classes within Amajuba. This overview will in turn afford opportunities to the responsible authorities to plan accordingly in response to the desired spatial outcomes of the Amajuba DM. There are three types of road classes that have been focused on for this report as they have implications on the desired spatial outcomes for the Amajuba DM.

- **National Roads** - These roads denoted with the prefix ‘N’ e.g. N11 and are primarily the responsibility of DOT and are maintained through the South African Roads Agency.

- **Provincial Main Roads** - These are higher order provincial roads all with the prefix ‘P’ e.g. P296. There is a further breakdown of this class into types of main roads, each type meeting certain requirements pertaining to traffic volumes, freight requirements etc and hence not all main roads are surfaced roads.

- **Provincial District Roads** - All these roads are the responsibility of the KZNDOT and the majority of which are not surfaced. Again there is a further breakdown into types of district roads, each allocated different design and maintenance specifications. These roads normal have a prefix ‘D’ e.g. D5241.
7.5.3 ROAD SURFACE

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

8.1 EDUCATION

There are 267 schools within Amajuba District; these include the primary, secondary, combined schools, special needs and independent schools; which are spread among different settlements within the local municipalities. Of these 267 schools 257 of these schools are run by government (including three schools to be registered and one to be confirmed), varying levels of water and sanitation provision occur at these schools. According to the Baseline (2009) Amajuba DM has a backlog of inadequate sanitation and water supply of approximately 0.75% and 1.89% respectively. Table 1 below summarises the educational facilities in Amajuba DM.

Table 1: Educational Facilities at Amajuba DM

<table>
<thead>
<tr>
<th>Educational Facility</th>
<th>Newcastle</th>
<th>Dannhauser</th>
<th>Emadlangeni</th>
<th>Amajuba</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-school</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Primary School</td>
<td>94</td>
<td>48</td>
<td>38</td>
<td>180</td>
</tr>
<tr>
<td>Secondary School</td>
<td>37</td>
<td>16</td>
<td>4</td>
<td>57</td>
</tr>
<tr>
<td>Combined School</td>
<td>4</td>
<td>4</td>
<td>6</td>
<td>14</td>
</tr>
</tbody>
</table>

On average in the ADM the number of educators per school is 16 which is the highest figure amongst the different district municipalities in KwaZulu Natal. The number of educators per school in the ADM with other comparative DM’s is the same as that of Nkangala DM, somewhat higher than Gert Sibande DM (12) and considerably lower than Sedibeng DM (22).

8.2 HEALTH

There are 3 hospitals and 25 clinics that exist within Amajuba District. The Department of Health has managed to address all of its backlogs for water, sanitation, electricity and telephones for all of its health facilities; however clinics are at times without telephone line because of the theft of Telkom cables and poor Telkom network. There is currently 100% compliance with the provision of sanitation, water, electricity and telephones. There is a need to involve clinic committees and community leaders to address the
vandalising of telephone poles; Telephone systems are not always functional at other provincial clinics such as Greenock, Thembaliile and Lady bank and the district does not have a community health care centre. Table 2 below highlights the basic health care facilities in the district.

Table 1: Basic infrastructure services in the district facility network by municipality 2009/10

<table>
<thead>
<tr>
<th>MUNICIPALITIES</th>
<th>Facility Type</th>
<th>No. Facilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dannhauser</td>
<td>District hospital</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Clinics</td>
<td>9</td>
</tr>
<tr>
<td>Newcastle</td>
<td>District hospital</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Clinics</td>
<td>14</td>
</tr>
<tr>
<td>EMadlangeni</td>
<td>District hospital</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Clinics</td>
<td>2</td>
</tr>
<tr>
<td>Amajuba</td>
<td>District hospital</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Clinics</td>
<td>25</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>56</td>
</tr>
</tbody>
</table>

Source: Department of Health, 2010

8.3 POLICE STATIONS

The district municipality has 12 permanent police stations. The most common crimes in the area are stock theft mostly in Emadlangeni and cable theft. The response time by the police tends to take longer due to the poor infrastructure i.e. poor roads and the vast area that needs being covered as there is a shortage of police stations.

<table>
<thead>
<tr>
<th>MUNICIPALITIES</th>
<th>No. of police stations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Newcastle</td>
<td>7</td>
</tr>
<tr>
<td>Emadlangeni</td>
<td>3</td>
</tr>
<tr>
<td>Dannhauser</td>
<td>2</td>
</tr>
<tr>
<td>TOTAL</td>
<td>12</td>
</tr>
</tbody>
</table>

8.4 SPORTS FACILITIES

Amajuba does not appear to be well provided with sports and recreational facilities. The sport facilities are mainly found within the urban centres i.e. Newcastle, Utrecht and Dannhauser Towns. A need exists to ensure that these facilities are rolled out within the rural areas.
Map Showing Sanitation Service Level for Amajuba District
25. Map Showing Demographics- Public Amenities for Amajuba District
9. ECONOMIC ANALYSIS

This section provides an analysis of where population and economic activities and related opportunities are located within the Amajuba District Municipality. It compares the structure of the district economy, with those of other districts’ economic performances within the KwaZulu-Natal Province. The main objective is to identify sectors of the economy with which the Amajuba District has both competitive and comparative advantage in relation to spatial characteristics and economic infrastructure so as to enhance the process of translating beneficial competitive and comparative advantage for the district and province.

9.1 AMAJUBA WITHIN KWAZULU-NATAL

KwaZulu-Natal is South Africa’s second largest provincial economy in South Africa after Gauteng (33%) contributing approximately 17% to the South African economy in 2016. Having two of the busiest high propensity ports, Durban and Richards Bay the economic structure of this province is based largely on the manufacturing sector. The manufacturing sector was the biggest sector in the KZN provincial economy (22%) in 2016. The analysis at provincial level shows that with the exclusion of the eThekwini municipality, there is massive concentration of economic activity in both UMgungundlovu and UThungulu District. In terms of gross value added (GVA) in 2011 the Amajuba DM was ranked third in the province following UMgungundlovu DM and UThungulu DM. The GVA measure in economics is the value of goods and services produced in the area or sector of the economy; it is linked to the gross domestic product (GDP) as both are measured as output. In 2011 GDP for Amajuba DM was ranked fourth in the province just after UGu DM, uMgungundlovu DM and UThungulu DM. The following figures summarises the total GVA for the district municipalities in KwaZulu-Natal.
Within the Amajuba DM, most of the economic activity occurs in the Newcastle Municipality, whereby the GDP of Amajuba is heavily reliant upon the manufacturing sector, which plays a dominant role. With Newcastle being home to some large manufacturing companies such as Iscor and Karbochem, research from the baseline study suggests that Newcastle shows a competitive edge for the manufacturing of:

- Aluminium-based products
- High quality leather goods
- Textiles and textile products
- Clothing
- Automotive components
- Pharmaceuticals
- Metal products and machinery

The Amajuba district is predominantly rural and dominated by extensive commercial farmlands. Newcastle is the main urban centre and economic hub where towns such as Dannhauser and Utrecht serve as secondary service centres with limited thresholds. Thus the district is affected by high unemployment rates, high levels of poverty, lack of skills and is reliant on grants. Table 1 below summarises the GVA per sector for Amajuba and the local municipalities in 2007.

Table 1: Total GVA per sector for Amajuba and local municipalities (Amajuba LED Strategy)

<table>
<thead>
<tr>
<th></th>
<th>Amajuba DC</th>
<th>Newcastle LM</th>
<th>Emadlangeni LM</th>
<th>Dannhauser LM</th>
</tr>
</thead>
</table>

employment in 2007. This figure was found to be the highest amongst all district municipalities within the province in that year. As can be expected the role of the manufacturing sector is most prominent in the Newcastle LM where it accounted for 34.1% of all formal employment in 2007. The comparative figures for the Emadlangeni LM and Dannhauser LM are only 1.6% and 13.1% respectively. Figure 2 summarises the unemployment rate of all the districts municipalities in KwaZulu-Natal.

**Figure 2: Unemployment rate by district municipality- 1996, 2001 and 2011**
The private sector is well developed within eThekwini Metro, which is also supported by the high performance of the secondary sector in the form of manufacturing, with its busiest Durban port accounts for most of the provincial manufacturing output generated in the province. Private sector capacity is poorly developed within the Amajuba DM (more especially the agricultural sector) and for the majority of the district municipalities in the province.

While primary sectors such as agriculture, mining and tourism have been identified to drive the economy, lack of investment hinders economic development in these areas. The biggest challenge facing the provincial government and the district municipalities therefore is how to open up these areas for realistic economic growth and development. This implies that this lack of private sector capacity to drive the primary activities that would provide a base with which a secondary economic sector can develop.
base can be developed. It is important to note that for manufacturing and agricultural investment to take place, investors need to be certain that there is proper infrastructure in place (i.e. proper roads, electricity, access to water) ease of access to the market and raw materials availability. With regards to Amajuba, lack of easy access to the market is one of the hindrance or challenge to investment. Other factors that can impact economic growth and stability in the future include:

✓ high oil price and continued instability in the oil producing countries;
✓ current high commodity prices could skew development towards primary commodities, not value added manufacturing;
✓ lack of electricity generating capacity in South Africa to cater for higher economic growth;
✓ Social and political risks i.e. poverty, unemployment, high incidence of HIV/AIDS, slow pace of land redistribution and restitution.

Many of these risk factors are currently being addressed by national and provincial government, but they remain potential issues of concern for economic stability and growth in the future, and as such, could also impact on the economy of the district municipality.

9.2 ECONOMIC INFRASTRUCTURE

The broader state of infrastructure electricity, bulk water, telecommunication, road networks and banking facilities, amongst others, are discussed elsewhere in this document. However, the provision of electricity, water, telecommunication, road networks and banking facilities have important structuring influence in the decision-making process of locating economic activities, relative to the economic potential of a given locality. While the status and quality of the national and provincial road network is described as relatively good. The road network is not designed to promote effective internal communication within the district.

For example, the manufacturing sector in Dannhauser is relatively small compared to Newcastle municipality. It also does not have the same infrastructure and services available as does its neighbour municipality. Dannhauser has space zoned for industrial development, but the industrial area lacks proper-tarred roads and other infrastructure (e.g. electricity) to effectively promote the development of the manufacturing sector. The current electricity infrastructure in Dannhauser needs to be upgraded to accommodate the expansion of the manufacturing sector.
The owners of the Durnacol mine have made some of the assets that remained after the closure of the mine, including warehouses, offices and workshops, available to the municipality for local economic development. These assets would be ideal for small scale manufacturing or agro-related industries or be used as a business incubator for the district. The Amajuba LED plan has identified a number of agro-processing opportunities that could be easily located in the Dannhauser area, such as Dannhauser Malt, soya-bean processing, tannery and feedlot. The lack of transport infrastructure aimed to promote effective linkage of different areas within the district is impeding investment and growth as it isolates different locations from markets.

9.3 MINING

The mining sector in Amajuba district is relatively low and remains a dominant sector in the Dannhauser economy but its decline over the past few decades has not only contributed to the seeming decline of the town’s population, but has also experienced a declining competitive advantage. The Amajuba LED plan states that there may be some opportunities for small-scale mining, either through coal extracting, clays extraction or reworking coal dumps for coal fines. The decommissioned mines require rehabilitation, as they are no longer suitable for other uses. However, there are legal and environmental obstacles to the further development of this sector.

9.4 AGRICULTURE

The Amajuba District Municipality Integrated Development Plan (2010) and the Newcastle Local Municipality’s IDP Review 2010/11 listed agriculture as one of the three key economic sectors. Although the fact that agriculture accounts for a small percentage in formal employment, it is however expected that there are opportunities that can be developed in the agricultural sector, as it represents an important economic sector that can be developed to bring about further economic development and growth in the District. Part of the approach towards achieving this is through the support of SMMEs and second economy and through the development of infrastructure, training and projects.

The Amajuba DM has a large agricultural area that is concentrated mostly in the Emadlangeni local municipality. In terms of growing the economy the agricultural sector plays a limited role more especially in providing formal employment at district level. It is also important to mention that mechanization, the liberalization of the economy and the lack of subsidies to farmers, have all contributed to the decline in the number of jobs in the agricultural sector. The role of the agricultural sector in providing employment is important
at local municipal level with respect to the Emadlangeni local
municipality. There are a number of factors that challenge the
agricultural sectors role in the economy including:

✓ Limited support structures for small scale and emerging farmers
✓ Unresolved land reform areas
✓ Poor infrastructure and limited private sector investment
✓ Highly extensive agricultural activities in the district
✓ Climate change and high crime

According to the Amajuba Agricultural Development Plan, the agricultural potential of the Amajuba District Municipality revolves around intensive farming, irrigation, dry land farming and stock farming. The Amajuba Agricultural Development Plan (AADP) prioritizes intensive irrigation farming largely because intensive farming could generate the highest income per ha of land. Intensive farming therefore needs to receive first priority not only when allocating land for agricultural use but, also when raising and allocating funds for agricultural development.

9.5 AGRICULTURAL POTENTIAL

9.5.1 BACKGROUND

The Department of Agriculture has developed a classification system for land potentials in the Province as well as land use categories. This section summarises this for the municipalities in the Amajuba family of municipalities.

9.5.2 PRINCIPLES

In approaching the development of agricultural land in the Amajuba Family of municipalities, the following principles are to be adhered to:

• The role of agriculture should form an integral part of any land use planning scheme.
Agricultural land should be acknowledged for its value as an economic and finite natural asset.

High potential agricultural land should be protected and preserved.

Conversion of high potential agricultural land should not be permitted unless there are exceptional circumstances to justify it.

Agricultural units should remain economically viable units.

Non-agricultural uses in agricultural areas should be clustered.

The urban development boundary should be identified.

9.5.3 AGRICULTURAL CATEGORIES

The Department of Agriculture classification process has identified the following land categories throughout the province together with strategies for the use or modification of land uses within these areas.

9.5.3.1 CATEGORY A: IRREPLACEABLE

Land use within these areas will be restricted to those in support of primary agricultural production only. This may include agricultural infrastructure such as storage sheds, silo’s, hay barns, water reservoirs, collection and storage of agricultural waste and on-farm composting facilities on condition that it is placed on the lowest agricultural potential areas within the larger high potential agricultural area.

**Category A** areas within the Amajuba Family of municipalities are identified as follows:

**TABLE : CATEGORY A AREAS**
<table>
<thead>
<tr>
<th>MUNICIPALITY</th>
<th>NEWCASTLE</th>
<th>DANNHAUSER</th>
<th>EMADLANGENI</th>
</tr>
</thead>
<tbody>
<tr>
<td>DESCRIPTION</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• The northern areas to the west of Charlestown as well as the areas adjacent to the R34 towards Memel.</td>
<td>• The lands to the west of the N11 adjacent to the Ntshingwayo dam as well as the high lying areas to the west of the dam.</td>
<td>• The escarpment areas to the north of Utrecht town and surrounding the settlement of Groenvlei.</td>
<td>• The eastern portions of the municipality corresponding with the high-lying areas.</td>
</tr>
<tr>
<td>• The western portions of the municipality corresponding with the higher-lying areas.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• The southern portions of the municipality to the west of the N11 and to the</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
MUNICIPALITY | NEWCASTLE | DANNHAUSER | EMADLANGENI
---|---|---|---
north of the Ntshingwayo dam in the Normandien area. | |

CATEGORY B: THREATENED
Due to the limited amount of Category B land in the province (and in the country), all efforts should be focussed on retaining land within this Category for predominantly agricultural use. Every effort should be made to limit degradation of the natural agricultural resources in accordance with Conservation of Agricultural Resources Act, 1983 (Act 43 of 1983, CARA).

Land uses within these areas may also include Agricultural processing.

CATEGORY C: PRIMARY AGRICULTURAL LAND USE
This category corresponds with land of moderate agricultural potential, on which significant interventions would be required to achieve viable and sustainable food production, although agriculture is still the majority land use in the rural landscape.

Land use within this land Category may include those mentioned for categories A and B as well as storage, packing and processing facilities of farm products, limited-footprint agri-tourism facilities and small education or research structures in support of scientific awareness.

CATEGORY D: SECONDARY AGRICULTURAL LAND USE
This category corresponds with land with of agricultural potential. This land requires significant interventions to enable sustainable agricultural production which could include terracing, contours, high levels of fertility correction, lower stocking rate, supplementary feed, etc. These are areas where agriculture is largely the secondary use.

CATEGORY E: MIXED USE

This category corresponds with land of 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. Every effort should be made to limit degradation of the natural agricultural resources in accordance with CARA.

These areas correspond with areas that have been transformed and where mixed uses occur.

9.6 LINKAGES TO THE WALL-TO-WALL SCHEMES OF MUNICIPALITIES

It is important that these agricultural land use categories find their way in to the wall-to-wall schemes of the three municipalities in accordance with SPLUMA (16 of 2013).

It is noted that the schemes for the three municipalities are at the following stages:

TABLE: WALL-TO-WALL SCHEME PREPARATION PROCESSES
<table>
<thead>
<tr>
<th>MUNICIPALITY</th>
<th>NEWCASTLE</th>
<th>DANNHAUSER</th>
<th>EMADLANGENI</th>
</tr>
</thead>
<tbody>
<tr>
<td>DESCRIPTION</td>
<td>• Newcastle has reviewed its urban scheme and is currently in the process of preparing its rural scheme.</td>
<td>• Dannhauser has prepared its wall-to-wall scheme and involved the Department of Agriculture in its preparation.</td>
<td>• eMadlangeni is commencing with the preparation of the wall-to-wall scheme.</td>
</tr>
<tr>
<td></td>
<td>• The land use classification of agricultural land is to be integrated into the rural scheme as an overlay.</td>
<td>• The land use categories have been integrated into the rural policy.</td>
<td>• The land use categories will be integrated into the rural policy.</td>
</tr>
</tbody>
</table>

9.7 MAPPING OF AGRICULTURAL POTENTIALS

The agricultural classification mapping for the DM and the three LM’s is contained hereafter.
26. The agricultural classification mapping for the DM and the three LM’s is contained hereafter
KwaZulu-Natal is the most popular tourist destination in South Africa, with tourism playing an important role in the economy of KwaZulu-Natal. In the New Growth Path, tourism has been identified as one of the key sectors in the economy, mainly for its employment to investment ratio. South Africa's beauty and sunny climate, cultural diversity and reputation for delivering value for money have made it one of the world's fastest growing leisure and business destinations. Tourism is well developed in the province and very popular with family holidays and beach tourism which is a major part of the tourism sector. The Amajuba District Municipality Integrated Development Plan (IDP) has identified the tourism resources of the Amajuba District as one of the key potentials for economic development in the district, these resources include:

Natural attractions - the Ncandu and Chelmsford Reserves at the foothills of the Drakensberg,

✓ outdoor adventures i.e. 4x4 trails, white water rafting and kayaking, abseiling, gliding and micro-lighting, quad bikes, horse riding,
✓ historical and cultural attractions – battlefields, arts and crafts,
✓ Eco-tourism- birding, hiking, canoeing and other nature-based activities,
✓ Cultural and historical, including the battlefields, arts and crafts,
✓ Specific events such as festivals and sporting competitions; and
✓ Hunting and fishing.

The ATP aims to unlock the tourism potential of the Amajuba District, and contribute to the growth of the local economy. It is believed that tourism initiatives would be, amongst others, a vehicle which is aimed at boosting the economy of the district and creating job opportunities. With its ideal geographic location and long history, the ADM is an ideal tourist destination. In this regards, a number of initiatives have been identified, including:

✓ The development of the Battlefields tourist route, the upgrading of facilities, improved signage and effective promotion;
✓ Promotional support for a number of local private initiatives, such as the Vulintaba Lifestyle Resort; and
✓ Various other tourism promotion initiatives.
Development of the Tourism Sector Strategy will also assist the municipality to ensure that tourism is developed in a coordinated and sustainable manner. This will also assist in ensuring that coordination amongst the three spheres of government is achieved through alignment and integration of strategies, policies, regulations, legislation and activities achieved from the existence of a plan, providing guidance in the implementation of tourism. Tourism also generates the opportunities for informal arts and craft traders to develop their skills, create businesses and generate income. It is therefore important to stimulate the development of tourism industries in the underdeveloped rural areas; however, caution should be taken in order to not raise too many expectations.
27. Tourism Map
9.6 COMMERCE AND TRADE

The Commerce and Trade sector is one of the important economic sectors in the South African economy. It contributed about 18.8% to the country’s GDP in 2008 and made a similarly significant contribution in terms of job creation. In terms of the structure of the South African economy, Commerce and Trade forms part of the Tertiary sector of the economy. For the purposes of this section, Commerce and trade sector is the combination of finance and trade sector.

Table 1 above summarizes the performance of different economic sectors within the Amajuba District Municipality. The analysis shows the Amajuba District Municipality’s economy is dependent on both secondary and tertiary sectors and that within this context, Commerce and Trade is the second biggest contributor to the district economy in terms of contribution to the economic growth as well as in terms of employment.

There is a large concentration of Commerce and Trade economic activities in the Newcastle area such that Newcastle contributed 93.2% and Dannhauser and Emadlangeni contributed 4.7% and 2.1% respectively. Newcastle Local Municipality is the most productive based on table 1.

9.7 MANUFACTURING

Within the Amajuba DM, most of the economic activity occurs in the Newcastle Municipality, whereby the GDP of Amajuba is heavily reliant upon the manufacturing sector, which plays a dominant role. In terms of Gross Value Added (GVA) in 2007, the economy of the Amajuba DM was largely dominated by the manufacturing sector, with Newcastle LM taking up approximately 96% of the manufacturing sector, Dannhauser 4.2% and Emadlangeni 0.8%.

With Newcastle being home to some large manufacturing companies such as Iscor and Karbochem research from the baseline study suggests that Newcastle shows a competitive edge for the manufacturing of:

- Aluminium-based products
- High quality leather goods
- Textiles and textile products
- Clothing
- Automotive components
- Metal products and machinery

The manufacturing sector in Dannhauser is relatively small compared to Newcastle municipality. Dannhauser has space zoned for industrial development, but the industrial area lacks proper infrastructure such as tarred roads, electricity and other infrastructures to effectively promote the development of the
manufacturing sector. The current electricity infrastructure in Dannhauser must be upgraded to accommodate the growth of the manufacturing sector.

The Durnacol mine assets (including warehouses, offices and workshops) that were made available to the municipality for local economic development after the closure of the mine need to be put to use such that these assets would be ideal for small scale manufacturing or agro-related industries or be used as a business incubator for the district. However, there have been a number of disputes that has led to the delayed progress over the use of these facilities.
10. ENVIRONMENTAL ANALYSIS

10.1 TOPOGRAPHY

Topography is relatively flat within Newcastle Municipality especially around the built-up urban areas. Elevation is the lowest in the eastern portion of Newcastle Municipality, with more elevated relief towards the western portion of the municipality. The most urban development and industry are located on relatively flat terrain. This generally refers to the urban complex of Newcastle town and MBO complex and the industrial area located in between. The elevated relief towards the west of Newcastle refers to the Drakensburg range to the west and the Amajuba Mountain to the north. Dannhauser topography varies significantly. The area consists of flatter grounds on the north-eastern segment, from areas around Nyanyadu up to the Klipbank and Inverness areas and on the northern mid-sections around the Chelmsford Dam and areas around Alcockspruit to Milnerdale. The mid-eastern to southern portions consist of areas of moderate slopes consisting of small hills and undulating terrains. The terrain is more severe, on the western ends of the municipal areas and is characterized by mountains with high altitudes and steep slopes. It should be noted that areas that there are restrictions on development of areas that slope sharply. Slopes of 1:3 for instance are not permitted for residential developments. Due to the steepness of the western ends of the area, steep areas should be excluded from development considerations. Emadlangeni elevation ranges from 900m above sea level to 2000m above sea level. Slope of > 5% is defined as gentle, slopes varying between 5% - 12% are defined as moderate and slopes >12% are defined as steep. The majority of Emadlangeni Municipality is characterised by gentle to moderate slopes. The terrain becomes more extreme towards the northern portion of the municipality with altitudes increasing to 1,900m above sea level.

10.2 GEOLOGY AND SOILS

The geology of the area can be described as consisting mainly of shales (with coal in certain instances), mudstones, sandstone and siltstones of the Ecca Group, Karroo Sequence, with intrusive dolerite. In essence this geology has given rise to many of the in situ characteristics of soils that are found in the area. Generally speaking soils derived from shale/mudstone are usually high in clay (>25%) while those derived from the sandstone/siltstone geology are low in clay (<15%). The dolerite derived soils are usually red in colour and have a clay percentage of >30%. The soils of Amajuba are very varied and the soil potentials therefore are also varied. The
basis on which the analysis for Amajuba has been done has been to use the information from the BRP. The base information around which the soils part of the BRP founded relates to the original work done on the Tugela Basin and the land type maps for the area. In terms of Geology, it is noted that the majority of the Emadlangeni Municipality is characterised by Arenite which has low erosion potential. The northern mountainous portion of the municipality is predominately mudstone surrounded by shale.

There is also large scale pockets of dolerite dispersed throughout the municipality especially in the central and eastern portion of the municipality. The geological nature of an area influences the topography, and alignment of river channels. It also has an influence on the type of soil formation prevalent. Soil potential is determined using several factors including soil form, texture, depth, wetness, slope and soil surface characterised by good soil potential. There is a band extending from north western corner of the municipality to the south eastern portion of the municipality with low soil potential.

The central area of the district is underlain by Karoo Sequence sediment with higher-lying areas underlain by a combination of geological formations (see Figure 2-3, (EKZNW, 2009c)). Solid pans and rocky dolerite outcrops are common and soils within these areas are subjected to wind and soil erosion. Three types of soils have been identified within the District; transported soils, colluvial and residual of Pleistocene and Recent origin. Most soils appear to be very clayey and expansive, that is they have shrink and swell properties according to their water content, with this type of soil often associated with wetlands (Amajuba District Municipality, 2012).
GEOLOGY OF AMAJUBA

(Source: EKZN Wildlife, 2014)
In terms of the geology alluded to in the map above, the following is noted:

**Dolerite** is the medium-grained equivalent of a basalt and a basic rock dominated by plagioclase and pyroxene. Dolerite dikes and sills are typically shallow intrusive bodies. The degree and nature of geological time scale weathering of dolerite is intimately associated with the climate and its geographical depth location over time. The weathered form can usually be identified fairly easily in the filed by its orange to brown colour.

**Ecca group arnite** is a group of sedimentary geological formations and a component of the Karoo Supergroup. It consists mainly of shales and sandstones laid down in the sandy shorelines of swamplands during the Permian Period.

**Mudstone** is an extremely fine-grained sedimentary rock consisting of a mixture of clay and silt-sized particles. These tiny particles are deposited in quiet low-energy environments like tidal flats, lakes and the deep sea.

**Natal Granite** is a felsic intrusive igneous rock that is granular and phaneritic in texture.

**Sand** is a naturally occurring granular material composed of finely divided rock and mineral particles. It is defined by size, being finer than gravel and coarser than silt.

**Shale** is a fine-grained, clastic sedimentary rock composed of mud that is a mix of flakes of clay minerals and tiny fragments (silt-sized particles) of other minerals, especially quartz and calcite. Mudstones on the other hand, are similar in composition but do not show the fissility.

**Stormberg Group** is the name given to the sedimentary geological formations of the Late Triassic Period and the Jurassic Period, found in Karoo Basin region of Southern Africa. They are of the Karoo Supergroup, immediately above the Beaufort Group, and consist mainly of sandstones and mudstones. They preserve a record of gradual desertification.

**Tillite** is the name of the type of glacial erratic. The rocks overlaying the Natal Group is a thick unit of tillite that was deposited in a glacial environment by retreating ice sheets around 300 million years ago.

A number of the formations mentioned above require caution or particular foundations/designs when building. Detailed geotechnical studies should be done prior to commencement.
10.3 CLIMATE

Amajuba District Municipality climatic conditions are noticeably between summer and winter months ranging between very cold temperatures during the winter and high summer temperatures. The average temperature for Amajuba is about 17°C. The minimum temperature for Amajuba is below 0°C during winter months and often higher than 30°C in the summer months. The average Annual rainfall for Amajuba is consistent throughout the district with no major difference between the local municipalities. The average rainfall for Amajuba is between 650mm and 1 000mm per year. Annual precipitation ranges from 620 to 1265mm per annum. Rainfall is highest in the eastern escarpment areas of the Drakensberg and generally decreases towards the east. Annual temperatures are higher in the east and temperature decreases towards the higher lying escarpment areas of the Drakensberg.

10.4 BIODIVERSITY

10.4.1 BIODIVERSITY NETWORK / CBAS AND ESAS

To ensure the protection and persistence of biodiversity, biodiversity features cannot be considered in isolation but instead needs to be considered as part of a network with core areas and linkages. In the Ezemvelo KZN CBA map the Critical Biodiversity Areas (CBAs) and Protected Areas, are the core areas, and the Ecological Support Areas (ESAs) provide for linkages/corridors between the core areas, as well as buffering of the core areas.

The spatial footprint of the prioritised biodiversity network is determined by a combination of biological factors which does not necessarily result in alignment with the man-made boundaries such as local or district municipalities or even provinces. As a result, biodiversity both inside and outside the municipality needs to be considered to ensure the viability of the biodiversity network. The Ezemvelo Provincial and District CBA plans (As per the District Biodiversity Sector Plans) provide this bigger picture and need to be utilised to give the framework for this required incorporation of regional, provincial and national biodiversity networks.
• **Critical Biodiversity Areas** (CBA) areas considered critical for meeting biodiversity targets and thresholds, and which are required to ensure the persistence of viable populations of species and the functionality of ecosystems (EKZN Wildlife, 2016).

• **Ecological Support Areas** (ESA) are areas required for the persistence of specific species. Although these areas are frequently modified, a change in current land use, to anything other than rehabilitated land, would most likely result in a loss of that feature from the area identified (EKZN Wildlife, 2016). ESAs are required to support and sustain the ecological functioning of CBAs.

**10.4.2 CORRIDORS**

The maintenance of connectivity is essential to a number of movement-related ecological processes, including species migration, seasonal and altitudinal dispersal, and range displacement in response to climate change. Corridors thus do not relate to specific biodiversity targets, but rather regional connectivity to ensure persistence of ecosystem processes.

Corridor types include:

• **Terrestrial Landscape Corridors** - The landscape corridors are at a provincial scale and were developed as a series of altitudinal and bio-geographic corridors to facilitate evolutionary, ecological and climate change processes and to create a linked landscape for the conservation of species in a fragmented landscape (Jewitt, 2009).

• **Terrestrial Local Corridors** - The local corridors are developed at a district scale to create fine scale links within the landscape that facilitates ecological processes and ensure persistence of critical biodiversity features.

• **Aquatic Landscape Corridors** – are delineated from the KZN Priority/flagship free flowing rivers identified in the KZN province.

• **Critical Linkages** - are areas of the corridor that have been significantly modified such that there is only one option for the corridor and this link is narrow and under threat of further modification, which could result in the link been irretrievably broken.

To incorporate corridor concept into the SDF need to ensure that the corridor linkages remain intact and are not fragmented with non-compatible land uses.
The terrestrial KZN Macro Ecological Corridor (Jewitt, 2009) developed in 2009 was based on 2005 land cover data and significant modification had subsequently occurred within the landscape. During the compilation of district biodiversity sector plans these corridors were amended to take into account this modification of the landscape that had occurred post 2005. The modification to the landscape was identified using 2011 Landcover, 2011 Spot5 Satellite imagery and Google Earth imagery.
28. Map Showing Landscape and Local Corridors for Amajuba District
10.4.3 CRITICAL BIODIVERSITY AREAS (CBA)

Critical Biodiversity areas are natural or near-natural landscapes that include terrestrial and aquatic areas that are considered critical for meeting biodiversity targets and thresholds, and which safeguard areas required to ensure the persistence of viable populations of species, and the functionality of ecosystems and Ecological Infrastructure.

Terrestrial CBAs were compiled through the use of national, provincial and local datasets which identified important/priority biodiversity areas. The data set used included

- Ezemvelo Systematic Conservation Assessment (minset/c-plan)
- National and KZN Threatened Ecosystems
- Local specialist input through workshops

The CBAs are further divided into two categories as follows:

- **Critical Biodiversity Areas: Irreplaceable** - Areas which are required to meet biodiversity conservation targets, and where there are no alternative sites available. (Category driven by species and feature presence)

- **Critical Biodiversity Areas: Optimal** - Areas that are the most optimal solution to meet the required biodiversity conservation targets while avoiding high cost areas as much as possible (Category driven primarily by process)

Both subcategories are required to meet the conservation targets, but are divided into subcategories as CBA: Irreplaceable has no alternative sites to meet the biodiversity target whilst CBA optimal has alternate options available. The CBA: Optimal reflected, however, meet the target using the least amount of land and is thus the most cost effective.
10.4.4 ECOLOGICAL SUPPORT AREA (ESA) MAPS

Ecological support areas are functional but not necessarily entirely natural terrestrial that are largely required to ensure the persistence and maintenance of biodiversity patterns and ecological processes within the Critical Biodiversity Areas.

ESAs include the corridors which are discussed above as well as:

- Species specific habitat requirements;
- Supporting rivers and wetlands and buffering on CBA wetlands and rivers; and
- Buffering of PAs and WHS.

The ‘Terrestrial ESA: Species specific’ subcategory of the ESAs is where land is identified which although modified is providing a support function to a threatened or protected species through the provision of foraging or roosting areas. The intention for this land is to retain the current land use, which is in the majority cultivation.

Buffers are applied to map features identified as CBAs or ESAs and were developed to better reflect the zones of influence associated with each of these respective zones, aiding to protect the ‘core’ areas of concern from edge effects, as well as providing ecological support at the same time.
### TABLE: SUMMARY OF BUFFERS UTILISED IN CBA AND ESA AREA CATEGORIES

<table>
<thead>
<tr>
<th>MAP CATEGORY BUFFER</th>
<th>LAYER</th>
<th>BUFFER</th>
<th>REASONING</th>
</tr>
</thead>
<tbody>
<tr>
<td>CBA: Irreplaceable</td>
<td>FSCA and FEPA Fish Sanctuary (Cr and EN) associated perennial rivers coverage extracted from the 1:50000 topographic river network and buffered</td>
<td>30m</td>
<td>This is based on several papers and regulatory guidelines (EIA Regulations, 2010) and Gauteng Guidelines (within urban edges), this minimum distance seems to best protect aquatic habitat functions (leaf and woody input), aquatic species diversity and water temperature (Bentrup, 2008).</td>
</tr>
<tr>
<td>CBA: Optimal</td>
<td>FSCA and FEPA Fish Sanctuary (Vu and NT) associated perennial rivers coverage extracted from the 1:50000 topographic river network and buffered</td>
<td>30m</td>
<td>This is based on several papers and regulatory guidelines (EIA Regulations, 2010) and Gauteng Guidelines (within urban edges), this minimum distance seems to best protect aquatic habitat functions (leaf and woody input), aquatic species diversity and water temperature (Bentrup, 2008).</td>
</tr>
<tr>
<td>CBA: Irreplaceable</td>
<td>FEPA flagship free flowing rivers, adapted to the perennial rivers coverage extracted from the 1:50000 topographic river network and buffered</td>
<td>30m</td>
<td>This is based on several papers and regulatory guidelines (EIA Regulations, 2010) and Gauteng Guidelines (within urban edges), this minimum distance seems to best protect aquatic habitat functions (leaf and woody input), aquatic species diversity and water temperature (Bentrup, 2008).</td>
</tr>
</tbody>
</table>
The map below summarise the Terrestrial ESA and CBA areas in the ADM.

<table>
<thead>
<tr>
<th>MAP CATEGORY BUFFER</th>
<th>LAYER</th>
<th>BUFFER</th>
<th>REASONING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ecological Support Areas</td>
<td>FSCA &amp; NFEPA (excluding wetland clusters)</td>
<td>100m</td>
<td>NFEPA generic buffer as per the NFEPA guideline for FEPA priority wetland</td>
</tr>
<tr>
<td></td>
<td>KZN 24 priority wetlands</td>
<td>500m</td>
<td>The 24 priority wetlands as identified by Begg (Begg, 1989).received a NFEPA generic buffer as per the NFEPA guideline for FEPA priority wetland clusters</td>
</tr>
<tr>
<td></td>
<td>FEPA priority wetland clusters</td>
<td>500m</td>
<td>This was defined in the NFEPA generic buffer guideline</td>
</tr>
</tbody>
</table>
29. Map Showing Critical Biodiversity Area (CBA) & Ecological Support Areas (ESAs) for Amajuba District
10.5 SENSITIVE ENVIRONMENT

10.5.1 ENVIRONMENTAL CONSIDERATIONS

10.5.1.1 BACKGROUND

This section has been compiled with data received from KZN Wildlife including the following:

- The Amajuba District Municipality Bio-diversity Sector Plan (2014); and
- eZemvelo Spatial Resources Disk (February 2016).

10.5.2 SUMMARY OF BIODIVERSITY ISSUES

10.5.2.1 PROTECTED AREAS

Protected Areas are terrestrial, aquatic or marine areas that are formally protected by law and managed for the purpose of biodiversity conservation. Formal Protected Areas are gazetted in terms of the National Environmental Management: Protected Areas Act, 2003. NEMPAA distinguishes between several categories of Protected Areas: Special Nature Reserves, National Parks, Nature Reserves, and Protected Environments. It also recognises World Heritage Sites declared in terms of the World Heritage Convention Act, 1999 (Act No. 49 of 1999); specially protected Forest Areas declared in terms of the National Forests Act, 1998; and Mountain Catchment Areas declared in terms of the Mountain Catchment Areas Act, 1970. Marine Protected Areas are managed by the Marine Living Resources Act, 1998 (Act 18 of 1998, MLRA).

As noted above Protected Areas are those gazetted in terms of NEMPA, thus the, Natural Heritage Sites, and Sites of Conservation Significance are not Protected Areas. The majority of the Community Conservation Areas are also just agreements with Ezemvelo and not officially gazetted, as is the case in ADM. Stewardship sites are Protected Areas if designated as a Nature Reserve or Protected Environment Stewardship sites under Biodiversity Agreement are not considered Protected Areas – in the case of ADM this would be the Mabaso stewardship site.

The Stewardship focus areas are areas that have been negotiated for stewardship programmes but have no final landowner agreement or gazetting through NEMPA. In the case of ADM these focus areas have subsequently been gazetted and are now the official stewardship sites for ADM.

Protected areas in the ADM include two Provincial Nature Reserves, three Private Game Reserves and two Stewardship Sites.
In addition to the Protected Areas, the ADM also has several Conservation Areas. Conservation Areas are those areas of land not formally protected by law, but where primary land use is conservation. These areas are typically informally protected by the current owners and users, and managed at least partly for biodiversity conservation. They could include areas covered by the Biodiversity Agreements in terms of the National Environmental Management: Biodiversity Act, 2004 (Act No.10 of 2004) (NEMBA), Community Conservation Areas, Municipal Reserves, Commercial Game Parks, as well as non-declared Private Nature Reserves and conservancies.

These are summarised in the table below together with the areas covered by them, and are displayed spatially in the maps that follow.
TABLE: PROTECTED AREAS AND OTHER CONSERVATION AREAS WITHIN THE ADM (SOURCE: EKZN WILDLIFE, 2014)

<table>
<thead>
<tr>
<th>Name</th>
<th>Area (Ha)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Provincial Nature Reserves</strong></td>
<td></td>
</tr>
<tr>
<td>Chelmsford Nature Reserve</td>
<td>6185.667</td>
</tr>
<tr>
<td>Ncandu Forest Reserve</td>
<td>1858.296</td>
</tr>
<tr>
<td><strong>Community Conservation Area</strong></td>
<td></td>
</tr>
<tr>
<td>Charles Town Comm Trust</td>
<td>1432.246</td>
</tr>
<tr>
<td>Private land</td>
<td>756.657</td>
</tr>
<tr>
<td><strong>Private Game Reserves/Game Ranch</strong></td>
<td></td>
</tr>
<tr>
<td>Balele/Enhlanzeni Valley Game Park (Private NR)</td>
<td>3072.716</td>
</tr>
<tr>
<td>Emiwnane Game Park (Private NR)</td>
<td>2578.531</td>
</tr>
<tr>
<td>Utrecht Town Park (Private NR)</td>
<td>1299.697</td>
</tr>
<tr>
<td><strong>Stewardship Sites</strong></td>
<td></td>
</tr>
<tr>
<td>At this time no stewardship sites have been proclaimed with the Amajuba District</td>
<td></td>
</tr>
<tr>
<td><strong>Stewardship Focus Areas</strong></td>
<td></td>
</tr>
<tr>
<td>Ncandu</td>
<td>1390</td>
</tr>
<tr>
<td>Mabaso</td>
<td>125</td>
</tr>
<tr>
<td>Pongolo Bush Expansion</td>
<td>9258</td>
</tr>
<tr>
<td><strong>Natural Heritage Sites</strong></td>
<td></td>
</tr>
<tr>
<td>Luiperdkloof</td>
<td>2510.350</td>
</tr>
<tr>
<td>Retirement</td>
<td>1476.449</td>
</tr>
<tr>
<td>Oshoek</td>
<td>2059.041</td>
</tr>
<tr>
<td>Normandien</td>
<td>414.936</td>
</tr>
<tr>
<td>Jagtpad &amp; Waterhoek</td>
<td>330.590</td>
</tr>
<tr>
<td><strong>Sites of Conservation Significance</strong></td>
<td></td>
</tr>
<tr>
<td>Ravine Forest</td>
<td>178</td>
</tr>
</tbody>
</table>
30. Map Showing Protected Areas (ESAs) for Amajuba District
10.5.3 VEGETATION

The ADM traverses four biomes, and contains 14 vegetation types. The biomes are:

- Forest,
- Savannah,
- Grassland, and
- Wetland.

A list of the vegetation types and their conservation status is set out in the table below, which shows the historical extent of each of the vegetation types and the percentage loss based on the 2008 land cover and modification of the District (EKZNW, 2011a).
<table>
<thead>
<tr>
<th>Vegetation type</th>
<th>Conservation status</th>
<th>Historical Area (Ha)</th>
<th>2008 Area (Ha)</th>
<th>Percentage lost (Ha)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Forest Biome</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eastern Mistbelt Forests</td>
<td>Endangered</td>
<td>5444.14</td>
<td>5289.56</td>
<td>2.84</td>
</tr>
<tr>
<td><strong>Savanna Biome</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KwaZulu-Natal Highland Thornveld</td>
<td>Least Threatened</td>
<td>73206.077</td>
<td>54468.829</td>
<td>25.60</td>
</tr>
<tr>
<td>Thukela Thornveld</td>
<td>Least Threatened</td>
<td>21.38</td>
<td>21.38</td>
<td>0</td>
</tr>
<tr>
<td><strong>Grassland Biome</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wakkerstroom Montane Grassland</td>
<td>Least Threatened</td>
<td>128535.034</td>
<td>116688.917</td>
<td>9.22</td>
</tr>
<tr>
<td>Amersfoort Highveld Clay Grassland</td>
<td>Least Threatened</td>
<td>13214.733</td>
<td>10086.585</td>
<td>23.67</td>
</tr>
<tr>
<td>Eastern Free State Sandy Grassland</td>
<td>Least Threatened</td>
<td>268.915</td>
<td>268.915</td>
<td>0</td>
</tr>
<tr>
<td>Income Sandy Grassland</td>
<td>Vulnerable</td>
<td>149900.447</td>
<td>94194.226</td>
<td>37.10</td>
</tr>
<tr>
<td>Low Escarpment Moist Grassland</td>
<td>Least Threatened</td>
<td>62941.885</td>
<td>56930.63</td>
<td>9.55</td>
</tr>
<tr>
<td>Northern KwaZulu-Natal Moist Grassland</td>
<td>Vulnerable</td>
<td>157172.37</td>
<td>109620.616</td>
<td>30.25</td>
</tr>
<tr>
<td>Paulpietersburg Moist Grassland</td>
<td>Vulnerable</td>
<td>35647.935</td>
<td>23674.717</td>
<td>33.40</td>
</tr>
<tr>
<td>Northern Zululand Mistbelt Grassland</td>
<td>Vulnerable</td>
<td>7007.729</td>
<td>6582.965</td>
<td>6.06</td>
</tr>
<tr>
<td><strong>Wetlands Biomes</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Freshwater Wetlands: Eastern Temperate Wetlands</td>
<td>Vulnerable</td>
<td>24451.388</td>
<td>20335.582</td>
<td>16.92</td>
</tr>
<tr>
<td>Alluvial Wetlands: Temperate Alluvial Vegetation</td>
<td>Vulnerable</td>
<td>32596.645</td>
<td>23114.188</td>
<td>29.95</td>
</tr>
<tr>
<td>Alluvial Wetlands: Temperate Alluvial Vegetation: Midland Floodplain Grasslands</td>
<td>Least threatened</td>
<td>422.644</td>
<td>361.367</td>
<td>14.50</td>
</tr>
</tbody>
</table>
The maps below illustrate the spatial extent and distribution of these vegetation types. Natural, near-natural vegetation and functional habitats or landscapes, which although not classified as an CBAs or ESAs, should be recognised as being important in maintaining ecological processes and ecosystem service delivery, and should also be safe-guarded where possible. Whilst these Natural Areas are sufficiently extensive at this stage that they may withstand some loss through conversion of their natural state and undergo development, it is possible however that these areas could eventually be reclassified as Critical Biodiversity Areas in the future as development pressures increase. (ADM  BSP 2014)

The Conservation Status of the vegetation is determined by comparing the amount of natural habitat remaining in the province with the biodiversity conservation target of the Vegetation types

TABLE : THE CONSERVATION STATUS THRESHOLDS

<table>
<thead>
<tr>
<th>THRESHOLD</th>
<th>CONSERVATION STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remaining natural habitat &lt;= biodiversity target</td>
<td>Critically Endangered</td>
</tr>
<tr>
<td>Remaining natural habitat &lt;= (biodiversity target + 15%)</td>
<td>Endangered</td>
</tr>
<tr>
<td>Remaining natural habitat &lt;= 60% of original area of ecosystem</td>
<td>Vulnerable</td>
</tr>
<tr>
<td>Remaining natural habitat &gt;60% of original area of ecosystem</td>
<td>Least Threatened</td>
</tr>
</tbody>
</table>

From the above it can be seen that ADM has 4 grassland types and two wetland types which have less than 60% of the original area remaining (vulnerable), and 1 one forest type which is endangered (refer to maps for spatial location of vulnerable and endangered vegetation – to be noted that maps show historical extent of vegetation and not the remaining unmodified areas of vegetation).

In addition, over the entire KZN province, these 7 threatened vegetation types only have a low percentage that is under formally protection (see table below).
### TABLE: PROTECTION LEVEL

<table>
<thead>
<tr>
<th>VEGETATION TYPE</th>
<th>CONSERVATION STATUS</th>
<th>% AREA PROTECTED*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eastern Mistbelt Forests</td>
<td>Endangered</td>
<td>14%</td>
</tr>
<tr>
<td>Income Sandy Grassland</td>
<td>Vulnerable</td>
<td>0%</td>
</tr>
<tr>
<td>Northern KwaZulu-Natal Moist Grassland</td>
<td>Vulnerable</td>
<td>1%</td>
</tr>
<tr>
<td>Paulpietersburg Moist Grassland</td>
<td>Vulnerable</td>
<td>0.8%</td>
</tr>
<tr>
<td>Northern Zululand Mistbelt Grassland</td>
<td>Vulnerable</td>
<td>1.8%</td>
</tr>
<tr>
<td>Freshwater Wetlands: Eastern Temperate Wetlands</td>
<td>vulnerable</td>
<td>0.6%</td>
</tr>
<tr>
<td>Alluvial Wetlands: Temperate Alluvial Vegetation</td>
<td>vulnerable</td>
<td>3.4</td>
</tr>
</tbody>
</table>

Calculations based on all gazetted PAs, with stewardships as of October 2010.
31. Map Showing Vegetation for Amajuba District
10.5.4 THREATENED ECOSYSTEMS

The Biodiversity Act (Act 10 of 2004) provides for listing of threatened or protected ecosystems. The purpose of categorising these ecosystems is to prioritise conservation areas, to reduce the rates of ecosystem and species extinction, as well as to prevent further degradation and loss of structure, function and composition of these ecosystems (BGIS).

The National Department of Environmental Affairs (DEA) has published a list of threatened terrestrial ecosystems (DEA, 2011a), which classifies all threatened or protected ecosystems in South Africa in terms of the following categories: Critically Endangered (CR), Endangered (EN) & Vulnerable (VU) or protected.

- **Critically endangered (CR) ecosystems**, being ecosystems that have undergone severe degradation of ecological structure, function or composition as a result of human intervention and are subject to an extremely high risk of irreversible transformation;
- **Endangered (EN) ecosystems**, being ecosystems that have undergone degradation of ecological structure, function or composition as a result of human intervention, although they are not critically endangered ecosystems; **Vulnerable (VU) ecosystems**, being ecosystems that have a high risk of undergoing significant degradation of ecological structure, function or composition as a result of human intervention, although they are not critically endangered ecosystems or endangered ecosystems;
- **Protected ecosystems**, being ecosystems that are of high conservation value or of high national or provincial importance, although they are not listed as critically endangered, endangered or vulnerable

Threatened eco-systems in the ADM are listed in the table below.
### TABLE: THREATENED TERRESTRIAL ECOSYSTEMS WITHIN THE ADM (SOURCE: EKZN WILDLIFE, 2014)

<table>
<thead>
<tr>
<th>ECOSYSTEM</th>
<th>BIOME</th>
<th>PROVINCE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Endangered (EN)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bivane Montane Grassland - KZN 21</td>
<td>Grassland</td>
<td>KwaZulu-Natal</td>
</tr>
<tr>
<td>Walkerstroom/Luneburg Grasslands - MP 11</td>
<td>Grassland</td>
<td>KwaZulu-Natal</td>
</tr>
<tr>
<td>Fort Metcalf Grasslands - KZN 24</td>
<td>Grassland</td>
<td>KwaZulu-Natal</td>
</tr>
<tr>
<td><strong>Vulnerable (VU)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eastern Temperate Freshwater Wetlands - Afz 3</td>
<td>Wetland</td>
<td>KwaZulu-Natal</td>
</tr>
<tr>
<td>Low Escarpment Mistbelt Forest - FOz 114</td>
<td>Forest</td>
<td>KwaZulu-Natal</td>
</tr>
<tr>
<td>Paupietsburg Moist Grassland - Gm 15</td>
<td>Grassland</td>
<td>KwaZulu-Natal</td>
</tr>
<tr>
<td>Uyskop Valley - KZN 82</td>
<td>Grassland</td>
<td>KwaZulu-Natal</td>
</tr>
<tr>
<td>Chelmsford Grasslands - KZN 45</td>
<td>Grassland</td>
<td>KwaZulu-Natal</td>
</tr>
<tr>
<td>Chelmsford North Grasslands - KZN 46</td>
<td>Grassland</td>
<td>KwaZulu-Natal</td>
</tr>
<tr>
<td>Majuba Mistbelt Forest and Moist Grassland - KZN 66</td>
<td>Grassland</td>
<td>KwaZulu-Natal</td>
</tr>
<tr>
<td>Nkunzi/Sundays River Grasslands - KZN 74</td>
<td>Grassland</td>
<td>KwaZulu-Natal</td>
</tr>
</tbody>
</table>
32. Map Showing Threatened Ecosystems for Amajuba District
10.5.5 THREATENED SPECIES

The conservation status of species for all taxa groups is based on categories determined by the International Union for Conservation of Nature (IUCN) (IUCN, 2011), namely:

- **Critically Endangered (CR)** – the species is considered to be facing an extremely high risk of extinction in the wild, based on IUCN criteria.
- **Endangered (EN)** – the species is considered to be facing a very high risk of extinction in the wild, based on IUCN criteria.
- **Vulnerable (VU)** – the species is considered to be facing a high risk of extinction in the wild, based on IUCN criteria.
- **Near Threatened (NT)** – when evaluated against IUCN criteria, does not qualify for a Threatened category but is close to qualifying for or is likely to qualify in one of those categories in the near future.
- **Data Deficient (DD)** – there is inadequate information regarding the species' population size, distribution or threats for an assessment to be made.

This system is designed to determine the relative risk of extinction, with the main purpose being to catalogue and highlight those taxa that are facing a high risk of global extinction. Species listed as Critically Endangered (CR), Endangered (EN) and Vulnerable (VU) collectively are considered as Threatened.

These threatened species are published in ‘Red Lists’ reports, with the aim of identifying and highlighting those species most in need of conservation attention as well as to provide an index of the state of degeneration of biodiversity.

10.5.5.1 FLORA

The recorded flora data for the ADM includes five Vulnerable species, one Near Threatened and one Rare species (See the Table below).

The Nerine Platypetala (Groenvlei Lily) which is one of the recorded Vulnerable species is found mostly in grassland, on the margins of permanently moist vleis and levees of river banks. Its main threat is habitat loss and degradation and its population is decreasing rapidly (Scott-Shaw, 2005).

**TABLE:** SUMMARISED CONSERVATION STATUS OF FLORAL GROUPS WITHIN THE ADM (SOURCE: EKZN WILDLIFE, 2014)

<table>
<thead>
<tr>
<th>CONSERVATION STATUS (EKZNW)</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FAU</td>
</tr>
<tr>
<td>CR</td>
<td>EN</td>
</tr>
<tr>
<td>----</td>
<td>----</td>
</tr>
<tr>
<td></td>
<td>5</td>
</tr>
</tbody>
</table>
33. Map Showing Vegetation Threat Status for Amajuba District
10.5.5.2 Fauna

The recorded faunal data for the Amajuba District includes three (3) Critically Endangered species, four (4) Endangered species, and five (5) Vulnerable species (see the Table below).

The three Critically Endangered species recorded for the district are all bird species, namely *Bugeranus carunculatus* (Wattle crane), *Heteromirafra ruddi* (Rudd’s Lark) and *Hirundo atrocaerulea* (Blue Swallow). The Blue Swallow is a highly specialised bird inhabiting short, undulating, mist-belt grasslands. Declines in their populations are a result of the rapidly disappearing grassland and wetland habitat, which have primarily result from large scale commercial afforestation expansion, mining and disturbance of breeding birds by people (IUCN, 2011).

**TABLE:** SUMMARISED CONSERVATION STATUS OF FAUNAL GROUPS WITHIN THE ADM (SOURCE: EKZN WILDLIFE, 2014)

<table>
<thead>
<tr>
<th>GROUP</th>
<th>CONSERVATION STATUS (EKZNW)</th>
<th>RARE &amp; ENDEMIC</th>
<th>NOT EVALUATED</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CR</td>
<td>EN</td>
<td>VU</td>
<td>NT</td>
</tr>
<tr>
<td>Amphibians</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reptiles</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Birds</td>
<td>3</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mammals</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fish</td>
<td></td>
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<td>1</td>
<td></td>
</tr>
<tr>
<td>Invertebrates</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>1</td>
</tr>
</tbody>
</table>
10.5.6 CATCHMENTS

The District has an extensive system of rivers and tributaries, which falls within two catchments, the Thukela and Phongola. The main Thukela catchment covers the majority of the District and is drained in a southerly direction by the Buffalo River and several tributaries including the Ngogo Ncandu, and Ngagane Rivers to the south and the Slangspruit, Dorpspruit, Doringspruit and Wasbank Rivers to the north. The Phongola catchment predominantly falls within the Zululand District, but also includes the high lying area along the north-western border of Amajuba. The Amajuba section of this catchment is drained by the Bivane River, and forms the headwaters of the uPhongolo River.

The health and functionality of aquatic biodiversity features and water resources are intertwined with that of the land uses and activities within the catchments. Spatial planning as well as controls within land use schemes must facilitate the required integrated land management approach to ensure the protection of these resources. In particular, the desired state of the associated rivers and wetlands within the catchment needs to be considered to form a picture of the sensitivity of the catchment and the ability of the catchment to absorb the impacts of the planned land uses and activities.
34. Map Showing River Catchments for Amajuba District
Indigenous riparian vegetation, along the ADM Rivers, should not be cleared and should be maintained for erosion and sedimentation control as well as to provide a river corridor for movement of wild species.

Riparian areas contain both distinctly different plant species than adjacent areas and species similar to adjacent areas but exhibiting more vigorous or robust growth forms, and may have alluvial soils. These areas may be a few metres wide along streams or more than a kilometre wide in floodplains. Riparian areas can be delineated based on topography (inundation areas and access to groundwater) and vegetation (line of distinct change) and to a certain extent alluvial soils (Department Water and Forestry, A Practical field Guide for Identification and Delineation of Wetlands and Riparian Areas).

Alien invasive vegetation should be removed or cleared from the riparian area, preferably by mechanical means, or if chemicals are utilised, such must have been determined to be non-toxic to aquatic species.

10.5.7 WETLANDS

Four important and sensitive wetlands have been identified in the ADM, namely the Blood River Vlei, Boschoffsvlei, Groenvlei and Padavlei. The wetland area around the Zaaihoek Dam is an important linkage to the Wakkerstroom wetland, which species such as the white wing fluff tail inhabits. The headwaters of the Slang River are regarded as one of the most pristine catchments, but are under threat from afforestation. The extensive wetlands associated with the Ngagane and Ncandu Rivers also supports a wide range of hygrophilous vegetation types (Amajuba District Municipality, 2012).

The delineations were based largely on remotely-sensed imagery and therefore did not include historic wetlands lost through drainage, ploughing and concreting, and do not always include the full extent of the wetland. Irreversible loss of wetlands is expected to be high in some areas, such as urban centres.

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1 Riparian habitat/areas includes the physical structure and associated vegetation of the areas associated with a watercourse which are commonly characterised by alluvial soils, and which are inundated or flooded to an extent and with a frequency sufficient to support vegetation of species with a composition and physical structure distinct from those of adjacent land areas (definition in NWA).
The maps below illustrate the wetlands in the ADM.

A wetland is defined as land which is transitional between terrestrial and aquatic systems where the water table is usually at or near the surface, or the land is periodically covered with shallow water, and which land in normal circumstances supports or would support vegetation typically adapted to life in saturated soil (EIA Regulations, 2014, ICMA & NWA). A wetland is made up of several hydrological zones: (i) permanent zone which is permanently waterlogged; (ii) seasonal zone which is seasonally waterlogged; and the (iii) temporary zone which is waterlogged for a short period of the year.

Although all three zones may not occur in all wetlands, the outer boundary of a wetland is always defined as the outer edge of temporary zone, which is determined through a wetland delineation based on flora and hydromorphic soils.

The following applies to all wetlands, even if such is not delineated on the wetland map:

- Modification of the wetland or area adjacent to the wetland may not occur without an Environmental Authorisation and Water Use License; modification includes hardening of surfaces, clearing of indigenous vegetation, dredging, infilling, draining, etc.
- To maintain the ecological and hydrological functioning of the wetland a buffer of vegetated land (preferably natural vegetation) must be maintained around the wetland. Although a standard wetland buffer width of 30 metres or 32 metres has been applied to wetlands in the province, this is not considered best practise as such does not take into account site specific conditions and development type. Wherever possible, instead of the standard buffer, a site specific buffer should be determined and implemented, which maximises the functioning of the wetland and the corresponding ecosystem services.
- Stormwater runoff should not be discharged directly into the wetland system but at a minimum should filter through the vegetated buffer.
- Alien invasive vegetation should be removed or cleared from the wetland and buffer. Preferably by appropriate manual or low impact mechanical means, or if chemicals are utilised, such must have been determined to be non-toxic to aquatic species.
35. Map Showing Wetlands and Wetlands Ecosystem Types for Amajuba District
10.5.7 RIVER FRESHWATER ECOSYSTEM PRIORITY AREAS (FEPA)

Water affects every activity and aspiration of human society and sustains all ecosystems. Water is also one of South Africa’s most limited resources, constraining our future social and economic development. Its wise use is critical to the sustainable development of our emerging economy and the well-being of all our citizens. Protection and utilisation of natural resources therefore need to work hand-in-hand to achieve sustainable development. In the context of water resource management, this means that catchments can be designed to support multiple levels of use, with natural rivers and wetlands that are minimally-used supporting the sustainability of hard-working rivers that often form the economic hub of the catchment. Keeping some rivers and wetlands in the catchment in a natural or good condition thus serves a dual purpose of conserving South Africa’s freshwater biodiversity, while promoting the sustainable use of water resources in the catchment. (Driver, A et al., 2011 Implementation Manual for Freshwater Ecosystem Priority Areas, WRC Report No. 1801/1/11)

The NFEPA project set out to identify these strategic Freshwater Ecosystem Priority Areas (rivers and wetlands) for promoting sustainable water resource use and achieving the freshwater ecosystem goals of the country.

River FEPAs achieve biodiversity targets for river ecosystems and fish species, and are identified in rivers that are currently in a good condition (A or B ecological category). FEPA maps show rivers, wetlands and estuaries that need to stay in a good condition in order to conserve freshwater ecosystems and protect water resources for human use. River FEPAs are often tributaries that support hard-working mainstream rivers, and are an essential part of an equitable and sustainable water resource strategy. This does not mean that FEPAs need to be fenced off from human use, but rather that they should be supported by good planning, decision-making and management to ensure that human use does not impact on the condition of the ecosystem. Their FEPA status indicates that they should remain in a good condition in order to contribute to national biodiversity goals and support sustainable use of water resources.

River status is divided into four categories with three of these occurring in the ADM, namely:

- Endangered;
- Vulnerable; and
- Least Threatened.

No critically endangered rivers occur in the ADM.
In terms of Water Management Areas, the National Water Act (Act 36 of 1998) requires that water will be managed at regional or catchment level within defined Water Management Areas (WMAs). A WMA is an area established as a management unit in the National Water Resource Strategy within which a catchment management agency will conduct the protection, use, development, conservation, management and control of the country's water resources. The boundaries of WMAs are broadly based on different levels of drainage region boundaries, but also include some administrative demarcations. KZN has three WMA, Mvoti to Umzimkhulu; Thukela; and Usutu to Mhlatuze.
Map Showing Freshwater Ecosystem Priority Area (FEPA) in relation to Water Management Area (WMA) for Amajuba District.
3. Map Showing River Ecosystem Threat Status for Amajuba District
### 11. LAND USE MANAGEMENT OBJECTIVES

**TABLE: LAND USE MANAGEMENT OBJECTIVES**

<table>
<thead>
<tr>
<th>Map Category</th>
<th>Guiding description of categories</th>
<th>Terrestrial Ecological Support Areas (ESAs)</th>
<th>ESA: World Heritage Site Buffer</th>
<th>Unless otherwise stated, this represents an area extending 10km from the Pa or where applicable PA specific delineated buffers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protected Areas (PAs)</td>
<td>Protected areas as declaration under NEMPA</td>
<td>Maintain in a natural state with limited to no biodiversity loss</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Critical Biodiversity Areas (CBAs)</td>
<td>Natural or near-natural landscapes that include terrestrial and aquatic areas that are considered critical for meeting biodiversity targets and thresholds and are required to meet biodiversity conservation targets, and where there are no alternative sites available. (Category driven by species specific targets)</td>
<td>Maintain in a natural state with limited to no biodiversity loss</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Critical Biodiversity Areas: Optimal</td>
<td>Areas which are the most optimal solution to meet the required biodiversity conservation targets while avoiding high cost areas as much as possible (Category driven primarily by process)</td>
<td>Maintain in a natural state with limited to no biodiversity loss</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ESA: Buffers</td>
<td>Areas identified as influencing land-use management priorities alone, but also address other legislation / agreements mandated to address, e.g. WHS Convention, triggers for EIA, etc.</td>
<td>Natural Biodiversity Areas</td>
<td>Maintain or improve ecological and tourism functions and PA areas under PA specific delineated buffers</td>
<td></td>
</tr>
<tr>
<td>• ESA: Protected Area Buffer</td>
<td>Unless otherwise stated, this represents an area extending 5km from the PAs or where applicable PA specific delineated buffers</td>
<td>Modified</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
11.1 LAND USE MANAGEMENT PRACTICES AND CONTROLS

In the preparation and review of the municipal schemes in the ADM, particular focus should be given to:

- Ensuring compatible land uses;
- Protecting corridors;
- Minimising fragmentation of corridors; and
- Ensuring CBAs remain in a natural state.
12. CROSS-BORDER ALIGNMENT

Amajuba District is one of the cross-border municipalities within the province. It shares its boundaries with two provinces and three district municipalities within KwaZulu-Natal. This chapter is intended to establish the spheres of influence (socio-economic and spatial) that impact on Amajuba District given its strategic position around this cross-provincial spatial economy. It is also intended to ensure that there is no disharmony between proposals that are suggested by Amajuba SDF and its neighbouring areas. It is presented in the form of an analysis of alignment issues between Amajuba and the neighbouring districts and local municipalities within different provinces.

12.1 OVERARCHING ALIGNMENT ISSUES BETWEEN MPUMALANGA PROVINCE AND AMAJUBA DISTRICT (KWAZULU-NATAL)

12.1.1 COAL MINING

According to a study undertaken by KwaZulu-Natal Trade and Industry (TIKZN), KZN has mined coal for over one hundred years. However since 1982, the province’s production has steadily decreased from 20Mt to 2.5Mt in 2005. This was primarily due to difficult mining conditions as a result of narrow seams, large topographic differences, highly faulted ground conditions and numerous occurrences of dolerite dykes. This resulted in low extraction rates and tonnages, high mining costs and few opportunities for opencast mining, the abolition of the coal marketing controls took place in the early 1990’s.

These controls had prevented the sale of coal produced within a province from being sold outside of that particular province. This abolition resulted in the cheap coal produced in Mpumalanga being sold into the KwaZulu-Natal market. Although the Mpumalanga coals had to further travel to reach the KwaZulu-Natal market, the combined mining and transportation costs for this coal were still significantly less than the high cost coal produced within KwaZulu-Natal.

12.1.2 BIRDING ROUTES

Amajuba Birding Meander lies along Amajuba District and Mpumalanga Province and offers a wide range of activities for birding enthusiasts, particularly for species where 'grassveld meets the berg'. A whole range of species normally associated with grassveld, bushveld and mountain habitats are found in the Meander which is well known for its water birds. Significant birdwatching destinations include Seekoeivlei at Memel, a Ramsar site, The Wakkerstroom district, Moorfield and the Vangervlei (an IBA and Natural Heritage site), Bushveld habitats around Utrecht and Rorke’s Drift, High-altitude habitats through Normandien, Muller’s and Botha’s passes and The Chelmsford Dam.
12.2 MPUMALANGA PROVINCE: GERT SIBANDE DISTRICT

Gert Sibande is one of the three districts located within Mpumalanga province. It has a population catchment of 1,043,194 people which accounts for 25% of the district population. Gert Sibande is regarded as an economic hub for mining, agriculture and tourism which is similar to the economic features of Amajuba. It is also a home for major industrial complexes associated with the petro-chemical industries such as Sasol, Eskom, Mondi, gold and coal mines. The town of Secunda is the dominant urban centre, followed by Ermelo and Piet Retief. These centres are important at a district level due to the fact that these features high levels of economic diversification and value-adding activities. Outside of the main urban centres, the district is predominantly rural in nature, comprising extensive farming, forestry, nature reserves and mining areas. The most important roads that this district shares with Amajuba include:

- The R23 Corridor represents the old route between the Gauteng Province and Durban/eThekwini in KwaZulu-Natal, linking prominent towns and settlements such as Balfour, Standerton and Volksrust to one another. This route virtually runs parallel and to the north of the N3 freeway, which is the main link between Gauteng and KwaZulu-Natal.
- The N11 National Corridor extends from the Limpopo Province in the vicinity of Mookgophong, southwards past Middelburg/Steve Tshwete, and through the Gert Sibande District where it links Ermelo to Volksrust before extending further southwards into KwaZulu-Natal. This is the main road link between the Limpopo Province through Mpumalanga and into KwaZulu-Natal.
The R33 Corridor which extends along the eastern border of the study area where it runs parallel to the border with Swaziland, and where it links the towns of Carolina, Warburton, Amsterdam and Piet Retief to one another.

At a district level, there limited interdependence between Gert Sibande and Amajuba at a regional level such that both district are the competent economically functional regions in their own right. However the situation is completely different at the local municipal level. The only local municipality that shares the boundaries with Amajuba is Pixley Ka Seme. The issues regarding dependencies, influences and trends between this local municipality and Amajuba are reflected on the following sub heading.

12.2.1 PIXLEY KA SEME LOCAL MUNICIPALITY

Pixley Ka Isaka Seme Local Municipality is situated in the southern part of the Gert Sibande District Municipality and borders KwaZulu-Natal and the Free State provinces. According to census 2011 and municipal demarcation board, this municipality has a total surface area of approximately 5227, 98 km² and a population catchment of 83 235 people. According to the municipality’s Spatial Development Framework the highest order of towns (centres) are Volkrust, Amersfoort, Perdekop, Daggakraal and Wakkerstroom. This municipality is mainly dependant on Newcastle for commercial and trade services. The communities that resides within Volkrust, Vukuzake, Wakkerstroom and Martinus Wessel Stroom make use of Newcastle town for major services since these are not found within these small towns. Volkrust is slightly bigger than Dannhauser and Utrecht and it is about 50km away from Newcastle, while it is 100km away from Ermelo. Wakkerstroom is 81km away from Newcastle and 87km away from Piet Retief, so it implies that people that stay in Wakkerstroom Town may partially use Newcastle or Piet Retief.

However the Spatial Framework for Emadlangeni also indicated that there are communities within its area of jurisdiction who travel to the urban centres of Pixley Ka Seme Local Municipality for services. These include the rural communities that reside within Nzima
settlement (in Emadlangeni) as well as communities to the north of Groenvlei who make use of the services and facilities in Wakkerstroom which is in Pixley Ka Seme Local Municipality (Mpumalanga Province). This is due to the restrictive road access to the town of Utrecht that the Nzima community has stronger linkages with the Wakkerstroom community than with the urban areas in Emadlangeni. The expansion opportunities for Esizameleni which is located in Pixley Ka Seme Municipality in Mpumalanga are limited due to the wetlands and tributaries present in the town. The only option for expansion is towards Groenvlei in a south easterly direction.

Further densification is not possible in Esizameleni due to the high density of stands in the area; therefore expansion towards the south-east is the only option for future residential development. In terms of linkages between Pixley Ka Seme and Emadlangeni these include (i) the birding linkages between Wakkerstroom and the northern portions of the Utrecht Municipality, particularly around Groenvlei and the Zaaihoek Dam; (ii) The trout fishing linkages between Wakkerstroom and (iii) the northern portions of the Utrecht Municipality.

12.3 FREE-STATE PROVINCE: THABO MOFUTSANYANA DISTRICT SDF

Thabo Mofutsanyana is one of the five (5) districts that exist within the administrative boundaries of Free State province. It has a total population of 736 238 people and a land surface area of 33 269 km². The municipality is primarily agricultural in nature and most households are found in the rural areas. The mountainous Eastern Free State with the Drakensberg and Maluti Mountains bordering Lesotho, KwaZulu-Natal and the Eastern Cape, also offer some of the most scenic and attractive tourism attractions in the region. The district is the second smallest contributor to the Free State’s GDP with Community Services, financial services and wholesale, retail and trade being the main contributing sectors. The district furthermore, has the second smallest annual importing and exporting value for the five districts.

The export trend of the district has however been increasing gradually since 2004/05. The dominant exporting sector is the manufacturing sector followed by the agricultural sector. The main commodities are ‘other chemicals’, and man-made fibres, followed by basic chemicals. Due to its regional characteristics, the approach to the Eastern Free State is two-pronged: on the one hand agri-beneficiation and, on the other hand, tourism development. As a result of its strong contribution to the country’s total field crop harvest, the Free State is often labelled as the bread basket of SA.

The production of wheat and grain sorghum, sunflower seeds, maize, wool, mohair, milk, cream and vegetables, is complimented by major investments in livestock production. Free State farmers also account for large percentages of beef and mutton production. The main centres in the district are Harrismith, Puthaditjhaba, Bethlehem,
Ficksburg, Senekal, Reitz and Warden. The most densely populated local municipality is Maluti-a-Phofung which contains 55.5% of the district's total population. The Municipality is located within a rural area in the eastern Free State and also includes the former homeland of Qwa-Qwa. It was also declared a Presidential Node in the early 2000s. Thabo Mofutsanyane has the third largest population of all District Municipalities in the Free State, contributing 26.45% to the total population of Free-State Province.

12.3.1 PHUMELELA LOCAL MUNICIPALITY

It is one of the five local municipalities within Thabo Mofutsanyana District Municipality. This municipality is 7531 km² in extent and has a population catchment of 47,772 people who are unevenly distributed amongst eight (8) wards. According to the Spatial Development Framework (SDF) of the municipality the main urban centres include Vrede, Warden and Memel. Agriculture is the main economic activity in the town. Others dominating sectors of the economy are private households, wholesale, retail and community and social services.

If these statistics are analyzed, it is clear that, additional to agriculture, the only meaningful job opportunities in the area are provided by private households (for domestic workers) and by the shops and other businesses in the main towns. The ability of the Phumelela Municipality to create additional employment opportunities is also limited. No major industrial developments are taking place in Phumelela. The promotion of agri-processing plants and other value adding industries should be encouraged in order to diversify the economy of the area. Warden is thought to be an ideal area to stimulate most of these investments, because of its warehousing facilities and larger and better-managed truck stops.

One of Memel's largest industrial assets is the knitting factory situated to the north of Memel. Other industrial activities include a woodwork factory, transporters and steel works; all of which is aimed at satisfying local market needs. There are parts of this municipality which are heavily dependent on Newcastle for commercial and social services. These mainly include the people that reside within Memel town and adjacent Zamani Township. Memel is 50km away from Newcastle while Vrede is 56km way from Memel so it is more convenient for the population to travel to Newcastle for some of the services that cannot be found within Memel.

12.4 KWAZULU-NATAL PROVINCE

12.4.1 UTHUKELA DISTRICT SDF

The Uthukela District comprises of five local municipalities which are Imbabazane, Umtshezi, Okhahlamba, Emnambithi/ Ladysmith and Indaka Local Municipalities. The size of the Municipality is
approximately 11,500km² and is located along the western boundary of KwaZulu-Natal. It is predominately rural, with three of the five Local Municipalities, being rural in nature. The Municipality is characterised by socio-economic challenges such as a low revenue base, poorly maintained infrastructure and limited access to social and other services. High levels of poverty, unemployment, skills shortage, a lack of resources and low levels of education is also prevalent. The settlement patterns are disbursed, which resulted in underdeveloped land and settlement patterns that make it challenging and expensive to deliver effective services.

The District is well endowed with water, pockets of good soils and the natural beauty of the Drakensberg. Two national roads, the N3 and N11 transcend the District, which has a potential for economic development. Ladysmith and Estcourt 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 and Ekuvukeni, which lacks a strong commercial presence. Large areas of traditional land are located within uThukela, with about 35% of land classified as either “tribal” or peri-urban. A spatial analysis revealed that a large portion of degraded land is located in traditional areas. The key economic activities that are found within Uthukela are similar to those found in Amajuba. However Uthukela enjoys much stronger competitive advantages in terms of regional economy with the N3 and N11 traversing within it as well as a larger part of the Drakensberg Heritage Site. Emnambithi/Ladysmith is the only municipality within Uthukela that shares the boundaries with Amajuba.
The ELM is also well located in relation to at least two of the major tourism destinations in KwaZulu-Natal. In fact, it serves as a base for the exploration of the Battlefields to the north and Ukhahlamba-Drakensburg Park to the south. The latter is a World Heritage Site and a world acclaimed tourist destination. This park is 243 000ha in extent and it is located along uThukela District administrative boundary. There are a number of natural and cultural attractions that exists within Ukhahlamba-Drakensberg destination. The natural attractions include the Drakensberg Mountain, Archaeological sites, nature reserves (game viewing and bird watching), uThukela Biosphere Reserve, Tugela Catchments and Tugela River, Natural Bush, Forests and the climate is...
mostly comfortable. The cultural attractions include the certain parts of the Battlefields and Memorial, Museums, Monuments, Rock Art, Crafts, Recreation (Horse Riding) and tourism routes. The Battlefields Route provides a structured journey around the sites of various battles, skirmishes and sieges which are situated in a broad belt running through the central core of the region, from Esctourt in the south, through Ladysmith, Dundee and Newcastle, to Charlestown in the north.

This presents the area with a unique ‘tourism triangle’ character, consisting of three of the five B’s branding of provincial tourism – Berg, Bush and Battlefields. In addition to its three main destinations, there is a diversity of related attractions and accommodation facilities. This rich diversity allows tourists to experience a wide range of activities and scenes within a relatively small area, and is used as an important marketing element in the regional tourism industry.

The ELM is located in an region with a rich heritage and military history ranging from the Mfecane period (early 1800s) to the turn of the century when the Boers tried to stem the tide of British imperialism. It includes Shaka’s predatory campaigns, the arrival of the Voortrekkers, the Anglo-Zulu War and the Anglo-Boer Wars.

Ladysmith provides higher order goods to the whole district and houses most of the major industrial activities. Manufacturing activity is primarily concentrated in the Ladysmith-Ezakheni cluster, and is dominated by the textile and clothing sub-sector. The Emnambithi Local Municipality contains approximately half of the district’s economic activity, particularly concentrated in the Ladysmith CBD and Ezakheni area. The Emnambithi town also contains the majority of the government service sectors that plays a meaningful role to the economy of the uThukela/ Emnambithi sub-region through various logistics.

12.4.2 UMZINYATHI DISTRICT SDF

The UMzinyathi District covers an area of approximately 8 079.68 km². Msinga Municipality is the largest municipality and Ndumeni Municipality the smallest. The highest concentration of people lives in Msinga who reside within traditional council areas. The Umzinyathi District Municipality economy is the third smallest district economy in the province of KwaZulu-Natal. The district is characterized by large infrastructure backlogs, particularly in respect of water and sanitation and mainly in the rural areas. Dundee is the tertiary node in the district with Greytown, Nquthu and Tugela Ferry serving as quaternary nodes. Even though Pietermaritzburg, Newcastle and Vryheid are centres that fall
outside the district they are considered as important as they serve a large portion of the district. The key routes that link Amajuba and Umzinyathi are R33 that is considered as a secondary corridor by Umzinyathi SDF and a Tertiary Corridor linking with Flint.

12.4.2.1 ENDUMENI LOCAL MUNICIPALITY

Endumeni is considered to be the main economic hub of Umzinyathi District Municipality. It has a well-defined functional structure with the majority of the transport routes leading to Endumeni (Dundee) Town. The existence of a number of small emerging centers presents an opportunity for the decentralization of service delivery and access to social and other services. Dundee is the main urban settlement and is the primary commercial, administrative and service centre of the Municipality.

Offices of departments such as the Departments of Education, Agriculture Environmental Affairs, Works, Health, Justice and Welfare, Transport and Safety and Security are located at Dundee. There are other small secondary nodes to the east of to the south of Endumeni. Some settlements exhibit poor soil management conditions due to poor planning and population density but generally settlements are on flat land adjacent to access routes and fairly good agricultural land potential. Amajuba could utilise specialised services within Endumeni such as NatalAgri which is based in Dundee.
12.4.3 ZULULAND DISTRICT SDF

The Zululand District is located on the northern regions of the KwaZulu-Natal Province and it covers an area of approximately 14,810 km². Approximately half of the area is under the jurisdiction of traditional authorities while the remainder is divided between commercially owned farms and conservation areas. The District comprises the following five local municipalities: eDumbe, uPhongolo, Abaqulusi, Nongoma and Ulundi. The two main towns in the Zululand District are Vryheid and Ulundi. E Mondlo is another significant urban area. It is primarily a residential area with limited services and facilities and few employment opportunities. Pongola and Paulpietersburg are small towns, which act as service centres, while Nongoma fulfils the same role, but with far fewer and lower order services. There are two municipalities that shares boundaries with Amajuba and these are Abaqulusi and Edumbe. Zululand SDF identifies Vryheid as a major town and acknowledges the regional significance of Abaqulusi as the economic powerhouse of the district. It also acknowledges that the influence of the town goes beyond the district boundaries to include portions of Amajuba and Umzinyathi Districts.
12.4.3.1 ABAQULUSI LOCAL MUNICIPALITY

The municipal area is approximately 4185km² in extent and it is relatively isolated from the national transportation and trade routes compared to Amajuba. It is located in a generally agricultural region dominated by crop production, livestock farming, and other agricultural activities. The area also has a history of coal mining and related settlements still exists. The SDF for Abaqulusi deals with the internal issues facing the area and its people, and seeks to position the municipality to seize opportunities presented by the external environment.

Vryheid is the main primary centre with a sphere of influence that goes beyond the municipal borders. It is identified as a tertiary node at a provincial level, and a regional centre at a district level. It is the largest town within Zululand District, and is surrounded by expansive agricultural farms and defunct coal mining areas. It also services some rural parts Emadlangeni which find commuting to Vryheid more convenient than Newcastle Town.
12.4.3.2 EDUMBE LOCAL MUNICIPALITY

The north-eastern portions of Emadlangeni Municipality have strong linkages with the eDumbe Municipality. The linkage is particularly with regards to timber farming and this linkage is highlighted in the PSEDS. Many farmers own farms in both municipalities and many of the residents in the north-eastern portion of the municipality shop in the Paulpietersburg. The potential tarring of the road from Utrecht to Groenvlei and northwards, will have economic spin-offs for Emadlangeni.

12.5 INTER-SPHERE ALIGNMENT ISSUES

This chapter is intended to explore the spatial role of each individual municipality within Amajuba District Municipality. This is undertaken through an assessment of the Local Municipalities Spatial Development Frameworks and the proposal thereof. Particular emphasis will also be paid on internal alignment issues amongst the local municipalities.
The identification of Newcastle as an important secondary investment node with potential for industry, agriculture and tourism, indicates its importance on a regional and provincial scale. Newcastle is strategically located halfway between Johannesburg and the harbours of Durban and Richards Bay, and is well connected to these centres by means of both rail and road infrastructure. The N11, P612 and the P483 are some of the roads running through the Newcastle LM serving a national, provincial and regional function.

The town serves as an administrative and economic hub for the north-western part of KwaZulu-Natal. This includes the whole of Amajuba District and some of the surrounding areas in Mpumalanga Province and Umzinyathi District. This raises a key question whether the town is developed with sufficient infrastructure and has enough capacity to play its role as a sub-regional economic hub. Some of the critical infrastructure includes tertiary education and health facilities, regional government offices and sports facilities. Equally important is the ability to create employment opportunities and absorb the urbanising labour force. Therefore, planning for the future development of the NLM should go beyond a narrow focus on local issues and incorporate regional social and economic issues.
12.5.2 DANNHAUSER LOCAL SDF

Dannhauser Municipal area as an economic sub-region has developed as a peripheral economy in the provincial context. This is due to its poor location in relation to major markets such as Durban, Pietermaritzburg, and Gauteng. However, at a regional level, the area enjoys relatively good strategic linkages with the economic regions/sub-regions of Amajuba District Municipality, Greater Newcastle Economic Functional Region, Battlefields Route and Coal Mining Area.
12.5.3 EMADLANGENI LOCAL SDF

Emadlangeni SDF adopts a service centre approach. It identified the town of Utrecht serves as the primary node and a road that link Utrecht with Newcastle as a primary corridor. It further acknowledges that although Newcastle-Madadeni-Osizweni complex is not located in Emadlangeni, its size in terms of it population and economic significance, as well as its accessibility makes it the District Centre. Furthermore, in terms of its administrative functioning, the complex accommodates numerous government departments and parastatals.
13. SPATIAL FRAMEWORK
Amajuba District Spatial Development Framework provides guidelines and directives for development in respect of the following key concerns:

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

13.1 SPATIAL RESTRUCTURING

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

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

13.1.1 SYSTEM OF ACTIVITY NODES

The main issues facing Amajuba Municipality is a poor settlement pattern, which manifests in the form of the dominance of small towns as a regional service centres and economic hubs, as well as the expansive farming areas and a general rural character of the area. The net effect of this is the inability to decentralise and coordinate service delivery at a localised level. As a means to address this, there is a need to facilitate the evolution of a system of nodes incorporating primary, secondary, tertiary/incipient and rural service nodes. An activity node is a place of high accessibility onto which both public and private investments tend to concentrate.

An activity node offers the opportunity to locate a range of activities, from small to large enterprises, often associated with mixed-use development. They are generally located along or at the cross-section of development corridors. Activity nodes have the potential to be an important sub-regional structuring device. They serve as points in the spatial structure where potentially access to a range of opportunities is greatest, where networks of association create diversity and where people are able to satisfy the broadest range of their day to day needs.

Being points of maximum economic, social and infrastructure investment, as well as representing established patterns of settlement and accessibility, these nodes must be regarded as primary devices on which to anchor the structure of the sub-regional
spatial system. Application of a system of development nodes in Amajuba District is indicated on map below.

13.1.1.1 REGIONAL ECONOMIC CENTRE: NEWCASTLE (PRIMARY NODE)

The town of Newcastle (incorporating the CBD, associated surrounding suburbs, JBC and MBO) has developed, positioned and proven itself as an important regional economic hub for Amajuba District and surrounding areas including small towns and townships in Free-State and Mpumalanga. Unlike the surrounding Dannhauser and Utrecht, Newcastle is not highly affected by population out-migration purely because it is not reliant on the mining sector or agricultural sector.

It has a much diversified economy that is mainly driven by the manufacturing which is value adding and creates a lot of jobs. This regional economic centre still boost with a lot of potential for investment and further growth. It forms part of the provincial spatial systems and is identified in the PSEDS as one of the economic hubs. As a regional node, the following activities should be strengthened in Newcastle Town:

- Provision of advanced transportation infrastructure by upgrading the existing industrial landing strip into a Commuter and Cargo Airport. This will position Newcastle as a City that provide new and existing companies with advanced infrastructure and a competent entrepreneurial spaces with strong global orientations.

- Enhancing growth of town through proper urban management (Precinct Plans and Planning Schemes). The tendency by municipalities to control development through planning schemes rather promote development through precinct plans has proven to be limiting for the growing the towns that are as dynamic as Newcastle. The municipality should pro-actively assists the developers and investors in terms of identifying business and economic opportunities that will aid the growth of the town as opposed to focussing on what may not be allowed in terms of planning controls.

- Ensuring that the bulk infrastructure such as Waste Water Treatment Works, Water Purification Plants, Electricity Substation and Electricity Network is well maintained. If the capacity of the existing bulk infrastructure is unable to absorb new investments, then the new infrastructure will need to be developed.

13.1.1.2 MINING HUB: DANNHAUSER (SECONDARY NODE)

Dannhauser functions as a small rural service centre providing commercial and service facilities; it is within Amajuba District Municipality and is identified as secondary node. It is an appealing town that serves the mining economy of Amajuba. It has a good potential as a secondary node for investment promotion and centre of supply of services in the district. It forms part of the provincial
spatial systems and is identified in the SDF as the mining hub. However the mining sector is undergoing the movement from large scale operation to smaller operation.

The town has since become a somewhat ramshackle rural town with aging infrastructure, poorly maintained roads, and lack of aesthetic appeal. It consists of one main street, and the main shops are the post office, bank, chemist and some grocery and hardware stores. The residential component of the town has also been subjected to urban decay and the former glory of its beautiful vintage architectural buildings has since been lost dilapidated. This node is currently functions as the rural centre to the community it serve. As a secondary node the following development activities should be strengthened in Dannhauser:

- Upgrading of the town infrastructure
- Urban renewal and regeneration plan
- Establishment of small-scale mining of coal, clays or reworking coal dumps, prospecting for other minerals.
- Maximising the infrastructure left by vacating mines would be of value.

13.1.1.3 AGRICULTURAL HUB: UTRECHT (TERTIARY NODE)

Utrecht town is the main administrative centre for Emadlangeni Municipality and is identified as a tertiary node as an Agricultural Hub. It has a good potential as a tertiary node for investment promotion and centre of supply of services in the district. It forms part of the provincial spatial systems and is identified in the SDF as the Agricultural Hub. Utrecht has a good potential for agriculture, which can enhance the growth of the town and boost the economy of Emadlangeni.

The skills base available for economic development in the municipality is limited. Effort should be made to ensure that new opportunities are created in agricultural sector to ensure future sustainable employment for workers related to this sector, and the identification of focus areas for economic development should consider the training requirements to ensure that an appropriate skills base is developed. A range of funding, as well as extensive economic development expertise, is available for income generation and job creation activities in Utrecht.

The layout of the town is a simple grid-iron with a commercial centre (CBD) at the centre of it and residential/ dwelling uses around it. Similar to Dannhauser, the town is dilapidated with aging infrastructure and lack of aesthetic appeal. The development activities that should to be taken in consideration are as follows:

- Upgrading of town infrastructure
- Urban renewal and regeneration plan.
- Agri-processing Industries should be developed and positioned around Utrecht focussing mainly on Meat-processing, Dairy Farming, Game Farming and Organic Farming.
13.1.1.4 RURAL SERVICE NODES: RURAL SETTLEMENT CLUSTERS

Supplemental extension 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 development character. The scattered rural settlements generates enormous movement across vast areas which is both time consuming and costly thereby entrenching a system unequal access to economic and social resources, therefore they should be gathered together using Planning Standards. The vision for the future spatial development of Amajuba District Municipality should make provision for the development of community centres within a cluster of settlements. These small centres will serve as location points for community facilities serving the local community such as:

- Community Commercial Centre
- Multi-purpose Centre
- Community Hall
- Police Station and
- Sport field

The possible service centres have been identified as follows:

- Groenvlei
- Swartkop
- Kingsley and
- Normandien

13.1.1.5 CREATION OF SUSTAINABLE RURAL SETTLEMENTS

Although it has become a trend in planning practice to identify nodes and order them in a hierarchical format, it is noted that Amajuba has a growing rural in character. As such, exclusive use of development nodes as key spatial structuring elements has potential to undermine the significance of rural parts of the municipal area and relegate rural settlements into sub-sets of mostly urban nodes. One of the key focus areas of the SDF is to facilitate the evolution of a settlement pattern that reflects strong functional linkages between rural and urban, and the continuum of settlements ranging from deep rural to formal urban settlements into sustainable human settlements. This pattern has a number of benefits, including:

- Maximizing choice in terms of lifestyle and where people want to live.
- Provides a good framework for the delivery of services and application of service standards based on character of the area.
- Unlocks economic development potential at different scales thus providing remote rural areas to realize their agricultural economic development potential.
- Improves economic performance of the region.

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

13.1.1.5.1 PERI-URBAN SETTLEMENTS

Urbanization processes between Madadeni, Osizweni and Dannhauser has resulted in the blurring of boundaries between rural and urban thus creating clusters of peri-urban settlements. Some of these settlements have benefited from formal planning in past through the Less Formal Township Establishment (LEFTE) and this is clearly visible from a clear grid pattern structure but others have not. Efficient land management in peri-urban areas is critical to deal with challenges of socio-economic change successfully. These areas act as an interface between rural, often customary tenure rights and institutions of enforcement on the one hand, and formal urban-based and mostly statutory law processes.

They are a valve for intensifying urban land tenure problems through planned urban expansion and relocation that, in turn, create severe disputes over land in the ‘urban frontier’. Spatial planning interventions in these areas should focus on the formalization of these settlements through land tenure upgrading, provision of services, development of a range of housing products and improving access to public facilities.

13.1.1.5.2 RURAL SETTLEMENT PLANS

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.

Rural housing delivery provides an opportunity for the preparation of settlements plans at a local spatial planning unit (settlement or cluster of settlements). The plans should serve as a guide for the development and future allocation of land for different land uses. As such, it is recommended that future settlement plans should be prepared for each settlement and provides for the following:

- Areas where settlement may or may not occur. This will be derived from an overlay of a series of environmental information such as flood lines, slope, wetlands, etc.
- Land reserved for the future location of public facilities such as schools, clinics, etc.
- Vacant sites land within the settlement area where residential sites may still be allocated. This is critically important as it provides for the consolidation of settlements.
- Establishment and application of standards such as minimum lot size so as to promote equity and facilitate effective use of land.
- Roads with a particular focus on bus routes and local access roads. However, not all households enjoy road access.
- Agricultural land, which includes both arable and grazing land.
- Settlement plans should be prepared with full involvement of local communities and traditional councils. They should be simple and easy to follow, and should provide guidance to traditional councils for the allocation of land for different uses.

13.1.1.5.3 LAND REFORM SETTLEMENTS

The notion that land is an infinite resource is myth. One of the common scenarios that have characterized the negative output of a land reform programme is a situation whereby the agricultural productive land is miss-used or is transformed into settlements. The outcome of this process has serious spatial implications including emergence of small isolated settlements in the middle of commercial agricultural land. The pressure to expand the existing settlement in order to accommodate future increase of local population should not and must not risk the loss of agricultural land within the commercial farms. The main purpose of the farm is agricultural productivity and the settlement should only be an ancillary use within a particular commercial farm. This needs to be adopted as a golden rule with the trust and it should be agreed that there will be no additional homesteads that will be built within the farms. However the existing settlements will need to be acknowledged and the settlement plans will have to be prepared. The main idea is to transform the existing under-serviced farm settlement into a sustainable human settlement with basic rudimentary services and top-structures that can be provided through farmworker housing subsidies.
Development corridors in Amajuba District Municipality occur at different scales depending on function and categorization of the transportation route that forms the basis of the corridor. They carry the flows of people and trade between two points (origin and destination) and encourages nodal development at strategic point. Corridor development as a spatial structuring element, and a tool for economic growth, seeks to create functional linkages between areas of higher thresholds (levels of support) and economic potential, with those that have insufficient thresholds. This will enable areas that are poorly serviced to be linked to areas of opportunity and benefit with higher thresholds. Corridors constitute an effective form of decentralization and enables larger and smaller activities to form a relationship. Linear systems can handle growth and change well. They are an effective means for breaking down fragmentation and increasing integration and spatial transformation. System of development corridors in Amajuba has been developed on the basis of the levels of mobility and access routes, intensity of use and role in the regional spatial economy. Figure above summarizes the relationship between these two concepts and provides a framework for the three levels of corridors in the Amajuba District Municipality. Upgrade and road maintenance projects on corridors that leads to development opportunity areas such as rural service centres, high potential agricultural land and tourism nodes should be prioritized as this will encourage investment, improve accessibility and enhance mobility. This principle supports the phased approach to development, targeting areas of greatest potential first. Development corridors are effective in linking infrastructure and economic development as towns and structures connect to each other in a functionally effective manner.

### 13.1.2 HIERARCHY OF DEVELOPMENT CORRIDORS

**Primary Movement**
- Located along regional routes linking major towns in and beyond the area

**Secondary**
- Located along regional and district arterial routes linking towns in the area

**Tertiary**
- Located along district and local access routes linking different parts of the area

The N11 runs north to south through the central part of the municipal area. It is the busiest corridor in the province and a major link between the national industrial hubs of Johannesburg and Durban. It is considered as the primary route within the area. This route is however, largely a movement corridor between the different areas of Amajuba. Due to the high volumes of traffic along this road, and the fact that it is largely being utilised as a main route by trucks and other freight vehicles, many opportunities exist for
development that can capitalize on the existence of this route. Due to the limited access nature of this road, opportunity points exist at key intersections or off-ramps along its route. The N11 route has been acknowledged by national government for its tremendous role in linking Amajuba District to exporting destination, and it’s been upgraded; it has opened trade opportunity that helps the economy of Amajuba District. It is a mobility route and an economic corridor it should remain protected. It is a trade route linking ADM to exporting destination (i.e. Richards Bay Port). The development along this route should be approved by South African National Road Agency (SANRAL) it should occur as follows:

- Facilitate the establishment of mixed land use activity nodes at the key intersections or off-ramps along this route. Activities that may locate in these areas include logistics, warehousing, light industry and commercial facilities.
- In the short to medium term, high value agricultural land located along the corridor should be protected, but in the long term, strategically located areas abutting onto the mixed land use nodes should be opened for development as mixed land use precincts.
- Compliance with the policies and regulations introduced by the South African National Roads Agency (SANRAL).

The R34 route bisects the Amajuba District in an east-west direction and forms the primary linkage between Richards Bay and Newcastle, and Gauteng and the Free State. This route plays a role on exporting outputs from mines and it links Amajuba District to exporting destinations, due to carrying heavier volumes of traffic and coal trucks which are resulting in bad rutting, potholes and poor driving conditions. This route should be number one priority for upgrading in line with PGDS as it plays an enormous role as a secondary corridor that leads to development opportunity such as exporting goods.it should be prioritized as this will encourage investment, improve accessibility and enhance mobility. Development corridors are effective in linking infrastructure and economic development as towns and structures connect to each other in a functionally effective manner. R34 is a trade route linking ADM to exporting destination (i.e. Richards Bay Trade Port). The development along this route should follow the following guidelines:

- Compliance with the policies and regulations introduced by the South African National Roads Agency (SANRAL).
- Compliance with White Paper on Spatial Planning and Land Use Management.

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<th>13.1.2.2 SECONDARY CORRIDOR: R34-ECONOMIC EXPORT CORRIDOR</th>
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Secondary corridors provide vital linkages to service satellites in the district and ensure connectivity with service delivery in the
communities. The secondary corridor is the R621 main road. It links the town of Dannhauser and the Hatingspruit satellite to the N11 (and onto Newcastle) to the north and to Dundee and Glencoe (and on to the R33 main road) to the south. R34 is considered as a secondary corridor that is a direct link between Newcastle town and Memel. P207 and 209 is an alternative link road to Memel in Free State.

13.1.2.4 TERTIARY CORRIDORS

Tertiary corridors link service satellites in the sub-district and provide access to public and commercial facilities at a community level. There are three tertiary corridors, which are as follows:

- Road 272, which runs south from Main Road 483 (which links Madadeni and Osizweni in the adjacent Newcastle municipal area. Down to Road 38 and on to Dannhauser to the south west or alternatively on to Dundee (in the adjacent Endumeni Municipality) to the southeast.
- Road 296 which runs south-east from Osizweni and on to road 38 to Dannhauser (linking the satellites of Naasfarm, Thirst and Kilkeel to Dannhauser) or alternatively on to Flint, Road 240 and then Road 272 to Dundee to the south; and
- Road 205-2, which runs from the N11 in a westerly direction and links through to Road 39 to the north of the municipal area.

The P483 road (Mixed Activity Corridor) linking Madadeni-Osizweni-Emadlangeni

The P290 road linking Emadlangeni to Groenvlei and Wakkerstroom.

The Volksrust Road (P215) entering Newcastle from the north east boundary of the municipal area.

P205, P39 and P213 that leads to the farming areas in FS.

P332 which links Amajuba with the town of Piet Retief.

The Madadeni road linking Newcastle West to Madadeni, Osizweni and Emadlangeni has been identified as a mixed activity corridor. Mixed-use development allows for the development of parcels of land as different land uses on adjoining sites. Nodal points of activity will be develop along this corridor thereby providing points of opportunity for the provision of services as well as economic activities.

13.1.2.5 COMMODITY RAILWAY LINE TO RICHARDS BAY

A commodity railway line that can run between Amajuba and Richards Bay is proposed. This is considered important for the export opportunities between these two areas. The main targets would be agricultural and mining output that are found within this area.
13.2 ERADICATING APARTHEID SPATIAL FOOTPRINTS

13.2.1 NEWCASTLE SPATIAL PLANNING MANDATE

Newcastle Local Municipality recognized the inefficient and ineffective structure created by the past apartheid spatial planning legacy. A need to restructure the urban areas has always been considered important and this has given rise to the preparation of a number of detailed plans. These include the following:

- Newcastle Central Business District Development plan.
- Newcastle South Spatial Development Framework.
- Newcastle West Urban Development Framework.
- Madadeni CBD Central Business District Urban Design Framework.
- Osizweni CBD Central Business District Urban Design Framework.
- Kilbarchan Ngagane and Ballengeich Spatial Development Framework.
- Blaauwbosch Central Business District Urban Design Framework.
- Charlestown Local Area Development Plan.

13.2.1.1 NEWCASTLE CENTRAL BUSINESS DISTRICT DEVELOPMENT PLAN

The Newcastle CBD Masterplan was completed in January 2007 and aims to provide a spatial direction for the development and revitalisation of the CBD. Specific proposals include broad land use zones and suggestions towards improved vehicle and pedestrian circulation. Although the CBD Masterplan does not directly cover the project area, it does is adjoining and does indicate certain linkages and principles to consider as part of this study. Allen Street is considered a key public transport and taxi route and transverses both the study area as well as the CBD. It will be important to ensure the functioning of this route as city wide distribution route.

The masterplan proposals for recreational uses along water runoff and floodline areas should be continued within the study area. The
higher density residential proposals along certain riverine areas should however only be encouraged within high activity mixed use nodes and corridors. The Development Plan aims to regenerate the economy of the Newcastle CBD in specific and the wider municipal area in general by achieving:

- improved functionality;
- a more attractive urban environment;
- environmental improvement;
- efficient public transport;
- better urban management;
- improved safety and security;
- the creation of new investment opportunities; and
- Protection from competing developments in out-of-town locations.

The Development Plan proposes a framework for the Newcastle CBD that offers:

- retail, commercial, and manufacturing opportunities;
- supporting social, recreational and administrative facilities;
- good regional and local linkages and good public transport;
- an attractive public environment;
- good service infrastructure;
- a residential component; and
- 24-hour activity.
final position, but a summary of initial issues as part of a spatial development planning process. The framework has broadly designated the area for mixed use development in the form of commercial development, offices and high density residential development and ancillary uses. This piece of land lies in a prime area which of late has become a major focal area for development. Newcastle Rock Casino is immediately to the east while Newcastle regional Mall, a 37 000m2 shopping mall, is under construction.

13.2.1.3 NEWCASTLE WEST URBAN DEVELOPMENT FRAMEWORK

In October 2011, the KwaZulu-Natal Department of Co-Operative Governance and Traditional Affairs (KZN-COGTA) sent out an invitation to prospective service providers to submit quotations for the “Appointment of a service provider to develop an Urban Development Framework for Newcastle West (excluding the CBD). The main objectives of this project are to:

- Prepare an Urban Development Framework for Newcastle West.
- Identify the needs, desires and aspirations of the Newcastle west community.
- Assess the key structuring elements which influence the spatial economy.
- Assess infrastructural requirements.
- Provide a useful framework to guide investment by the public and private sectors.

The Draft Newcastle West UDF has been finalized and will be submitted to Council for approval.
13.2.1.4 MADADENI CBD CENTRAL BUSINESS DISTRICT URBAN DESIGN FRAMEWORK

The Madadeni CBD Landscape Architectural Design and Implementation project involves the regeneration of the CBD and revitalization of its operational functionality, attractiveness and competitiveness. It is anticipated that the regeneration of the node will make it more attractive to the private sector and its investment, attract additional shoppers, thereby increasing the viability of the node. The regeneration of the CBD will entail the following:

- Improving internal accessibility and circulation;
- The upgrading and surfacing of roads;
- The paving of walkways;
- Landscaping;
- The installation of street furniture;
- The development of public areas;
- Public lighting;
- Security installations; and the design and provision of decent informal sector trading areas.
13.2.1.5 OSIZWENI CBD CENTRAL BUSINESS DISTRICT URBAN DESIGN FRAMEWORK

The Osizweni CBD Landscape Architectural design and implementation project involves the regeneration of the CBD and revitalization of its operational functionality, attractiveness and competitiveness. It is anticipated that the regeneration of the node will make it more attractive to the private sector, and its investment attract additional shoppers, thereby increasing the viability of the node. The regeneration of the CBD will entail the following:

- Improving internal accessibility and circulation;
- The upgrading and surfacing of roads;
- The paving of walkways;
- Landscaping;
- The installation of street furniture;
- The development of public areas;
- Public lighting;
- Security installations; and the design and provision of decent informal sector trading areas and the design and provision of decent informal trading areas.
13.2.1.6 KILBARCHAN NGAGANE AND BALLENGEICH SPATIAL DEVELOPMENT FRAMEWORK

Newcastle Municipality identifies Kilbarchan, Ingagane and Ballengeich (KIB) area as one of the critical areas in the spatial reengineering of the municipality and a strategic area for future development. This recognises the strategic location, development potential and the role this area has played in the historical development of Newcastle. The primary aim of the framework is to provide a detailed Spatial Development Framework for KIB area within the context of Newcastle Municipality spatial development imperatives. Its specific objectives are as follows:

- To analyse the current spatial reality of the area and identify opportunities, constraints and threats;
- To determine growth directions and device strategies to direct development accordingly;
- To align local development imperatives with the national strategic spatial development agenda;
- To give spatial interpretation to the strategies outlined in the IDP and indicates the location of catalytic and strategic projects;
- To provide a framework for the development of detailed Land Use Management System (LUMS).

The nature of the Framework, its significance as a tool for spatial transformation and local governance, and the spatial challenges facing Newcastle Municipality requires that the preparation of the SDF for KIB area be undertaken from a strategic perspective with a particular focus on the identification of intervention areas that will have a catalytic effect.
The Blaauwbosch area is made up of various farms that remained in the ownership of Black African people after the 1913 Land Act and the subsequent land related segregationist and apartheid laws. These farms remained in Black African ownership in view of the marginal production potential. Blaauwbosch has developed into a large peri-urban settlement joining the two townships namely, Ozisweni and Madadeni. These areas combined are commonly referred to Madadeni, Blaauwbosch and Osizweni (MBO) complex. As indicated on the map below, Blaauwbosch is situated at least 15km and 35km from Newcastle central business district (CBD) in line with apartheid spatial engineering. It is mainly accessed off P483 linking Newcastle and Utrecht through the project area. The regeneration of the JBC Node will entail the following:

- Improving internal accessibility and circulation;
- The upgrading and surfacing of roads, including paving of walkways;
- Landscaping & installation of street furniture;
- The development of public areas;
- Public lighting;
- Security installations; and
- The design and provision of decent informal sector trading areas.
### 13.2.1.8 CHARLESTOWN LOCAL AREA DEVELOPMENT PLAN

Newcastle Municipality is in the process of compiling the Charlestown LADP for the purpose of establishing a rural node. The intention is to finalize the plan towards the end of June 2012. The Local Area Development Plan is to cover a 5 -10 year period spanning between 2010 and 2020. It will provide policy and spatial development guidance for this settlement for the present and the future. This development plan is expected to provide a framework for renewal initiatives in the area. The final draft Charlestown LADP will be included within the next SDF review.

### 13.2.2 SMALL TOWN REHABILITATION PROGRAMME: DANNHAUSER AND UTRECHT

Utrecht and Dannhauser are on the provincial programme of Small Town Rehabilitation which is championed by the Department of Co-operative Government and Traditional Affairs. The focus should be on urban regeneration as opposed to renewal. Urban Regeneration can be defined in various ways. Widely accepted definitions almost always include the following main conceptual areas:

- The concept of land redevelopment in areas of moderate to high density urban land use,
- Emphasis of attempts to reinvigorate run-down or neglected urban areas,
- The regeneration of cities and early/inner ring suburbs which have been facing periods of decline due to compounding and intersecting pressures of various kinds (economic, political, social, environmental), and
- Potential for the relocation of businesses, the demolition of structures, the planned and thoughtful relocation of willing citizens under appropriate circumstances (for example, moving

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<td>Economic</td>
</tr>
<tr>
<td>Environmental</td>
</tr>
<tr>
<td>Physical</td>
</tr>
<tr>
<td>Social</td>
</tr>
</tbody>
</table>

**Economic**
- Economic return
- Initial project cost
- Recurrent cost
- Job creation

**Environmental**
- Creation of public spaces
- Traffic impacts
- Construction and demolition wastes
- Impacts on visual quality and micro-climate

**Physical**
- Amenities
- Accessibility
- Structural conditions
- Architectural merit

**Social**
- Preservation of historical and cultural integrity
- Social disturbance
- Welfare and community facilities
- Elimination of unwelcome uses
away from harmful areas such as bordering on a landfill), and the use of eminent domain (government purchase of property for public purpose) where necessary.

As visible from these various definitions, two key facts must be true in order for a development to be considered an urban regeneration (renewal) project:

- The project must be undertaken within an urban (city) built-up area
- The project must involve improvements, alterations, repairs or upgrades to an existing infrastructure in an area experiencing decline or neglect.

For urban regeneration to be carried out successfully, several factors must be carefully evaluated during the planning stage of the project. Most importantly, careful consideration must be given to the issue of sustainability. It is of crucial importance that once the renewal project has been carried out, members of the community and local leaders to whom the new infrastructure is turned over have the skills, abilities and potential to maintain the status quo, or ideally even continue on a path of improvement. Failing this, the area will eventually experience another cycle of decline and disrepair, requiring further investment.
13.3 TRANSPORT INFRASTRUCTURE RESTRUCTURING

13.3.1 PROPOSED COMMUTER AIRPORT: NEWCASTLE

Given the role of Newcastle as a manufacturing and a notable business centre within Amajuba and beyond, it is considered important to upgrade the existing landing strip into an Airport. Having the airports can also help in retaining existing companies in the area whether they had previously been inward investors or indigenous operations this can also promote the export success of companies located in the area by the provision of passenger and freight links to key markets. According to ACSA, there is no specific population threshold that should be met in order to have an airport as the flights and size of the airports can be scheduled or determined around the existing population hence local or small town airports are not so busy compared to international airports however a master plan should be considered which will constitute future expansion of the airports should a need arise.

Airports provides essential infrastructure to support regional economic growth as well as being commercial entities in their own right, capable of generating returns on investment to the benefit of their shareholders, other stakeholders and to society as a whole. It is also difficult to conceive of vigorous economic growth which can create jobs and wealth without an efficient system that allows full advantage to be taken of the internal market and globalised trade. The overall economic impact of an airport can be considered:

- **Direct** – employment and income that is wholly or largely related to the operation of an airport.
- **Indirect** – employment and income generated in the economy of the study area in the chain of suppliers of goods and services.
- **Induced** – employment and income generated in the economy of the study area by the spending of incomes by the direct and indirect employees.
- **Catalytic** – employment and income generated in the economy of the study area by the wider role of the airport in improving the productivity of businesses and in attracting economic activities such as inward investment and inbound tourism.

The technical design can include the following components:

- **Airside** - consist of runways and landing strips etc. All landing strips for aircraft or heliports shall be so designed and the runways facilities so oriented that the incidence of aircraft passing directly over dwellings during their landing or take off patterns is minimized. They shall be located so that traffic shall not constitute a nuisance to neighboring uses. The proponents shall show that adequate controls or measures will be taken to prevent offensive noise, vibration, dust, or bright lights. New landing strips and heliports shall not be construed to be permitted in any district unless until a conditional use permit shall first have been secured.
Landside – will include public parking, car rentals and staff offices etc. The actual runway length to be provided for a primary runway should be adequate to meet the operational requirements of the aeroplanes for which the runway is intended and should be not less than the longest length determined by applying corrections for local conditions to the operational and performance characteristics of the relevant aeroplane.

Passenger Terminal – this will constitute of ticket sales departures, arrivals and restaurants etc.

Understanding the legal framework and regulation/standardisation of ground transportation - It is critical that a person managing the Landside environment understands the legal framework within which the ground transportation operates. Having gained such an understanding, this portfolio is expected to work and lobby with the National Department of Gauteng and its relevant divisions (e.g. Gauteng Operators Licensing Board). Such legal framework is premised on pieces of legislation such as the Road Traffic Act, National Land Transport Transition Act of 2000 etc.

13.3.2 PROPOSED LANDSTRIPS: UTRECHT AND DANNHAUSER

The standard landing strips are proposed for the towns of Dannhauser and Utrecht. These play a role in Medical emergencies and in cases of disasters (i.e. veld fires). There is a need to further explore the potential of utilizing the proposed landing strip for agricultural purposes i.e. spraying (pesticides and insects) and could in turn have potential to generate revenue for the Local Municipality. A need exists to revive these facilities for serving medical and agricultural purposes.

13.3.3 PROPOSED COMMODITY RAILWAY: MINING AND AGRICULTURAL EXPORT

A need exists to explore possibility of commodity rail from Amajuba to Richards Bay Port. This is considered important for the distribution of mining raw materials from the mines to the airport for international markets.

13.4 BULK INFRASTRUCTURE DEVELOPMENT

There are two key issues that emerge with respect to infrastructure development that is; public infrastructure to support people in their social and work life and infrastructure to support the development of the economy. With that said there are two matters of concern that arise that is; ensuring the maintenance of existing infrastructure and more importantly, the development of new infrastructure through a wide range of infrastructure elements such as road, rail, water supply, sanitation, electricity, transport nodes and information technology Infrastructure planning. The provision of proper infrastructure has a direct impact on quality of household and community life, as well as impacting on how proficiently the
economy functions and on the operation of a district’s potential. For example, improvements in service delivery infrastructure (i.e. water, sanitation, electricity) could lead to greater economic activities in rural areas.

The provision of bulk services is very important for the sustainability of settlements and economic growth, such that economic development is heavily reliant upon the accessibility of proper infrastructure. It is Local government has a responsibility to ensure that communities have access to basic services making bulk infrastructure delivery rather a legal mandate as well as an economic tool to unleash growth in that area. The Water Services Development Plan and Integrated Development Plan have been prepared to address the delivery of these basic services. It was therefore essential that the municipal strategies are aligned to this SDF.

13.4.1 SANITATION

Amajuba District Municipality faces a number of challenges with regard to sanitation. One of the main problems is the need for a sewer master plan, which will enable the municipality to plan for future developments including addressing the backlogs in basic sanitation services. The Water Services Development Plans indicated that there is a huge sanitation backlog within Amajuba, with 13 481 households lacking adequate sewer systems that do not have waterborne sanitation. This need is especially evident in the MBO area. Therefore it is recommended that the dense peri-urban settlements (that use VIP) be mapped and that they utilize waterborne sewage. Sanitation programs should be based on settlement clusters and be integrated with the drive towards the transformation of rural villages into sustainable human settlements. The following spatial planning standards should be applied in all sanitation projects:

- Giving priority to settlements located within priority environmental areas.
- Providing settlements located within a 100m of wetlands with lined ventilated pit latrines at the minimum.
- Providing urban and other peri-urban settlements with water borne sewerage.

13.4.2 WATER

Bulk water infrastructure plays a fundamental role in not only the provision of water for human consumption but also ensuring supply in the region for economic investment purposes more especially in the sectors of manufacturing and commercial agriculture even though the latter recently playing a limited role in the economy. Like many areas in KZN and South Africa as a whole, the Amajuba District Municipality area has inherited the historical legacy of a large backlog of water and sanitation service infrastructure.

The efficient and adequate supply of water services for domestic consumption and for economic development is one of the key
challenges facing Amajuba District Municipality, in its capacity as the Water Services Authority for the two local municipalities (Emadlangeni and Dannhauser) dependent on it. There are encouraging plans within the DM for Ncandi River Dam and the development of dams along the Buffalo River catchment which is intended to open up large portions of the tribal areas for irrigation. The following spatial planning standards should be implemented in all water supply schemes: Urban settlements should be supplied with water within the house.

- Peri-urban settlements should ideally be supplied with water on location or at least within 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, and source water from the rivers and where possible boreholes.

13.5 IMPROVING ACCESS TO SOCIAL FACILITIES

In terms of social service delivery different communities have different priorities and therefore different types of facilities will work efficiently for different communities. For example a large facility such as a district hospital may not be located in a small poorly accessible settlement. The key thing is not to determine the form of all facilities, but rather the positioning of social facilities valued by the community.

The precise nature and form of many of these facilities can be determined over time by the community itself. Community services are important and thus dependent upon the support of the public to promote integration among communities. These services should therefore be located in places where they are easily accessible and to enable accessibility to the local and surrounding communities. In this way, they bring together people from a number of local areas and thus not limited to the dynamics of any one community.

13.5.1 HEALTH

The general definition of health needs to be more inclusive with attention paid to the accessibility of services for a wide variety of susceptibilities. Health concerns must inform all scopes of settlement-making and design and needs to be accessible and integrated with public transportation. For this to be achieved health facilities need to be located close by activity areas and regular places of gathering.

The location of proactively positioned health facilities, such as clinics, in association with pre-primary and primary schools is of advantage. In cases of outbreaks preventative measures such as immunization/vaccinations and nutritional programmes can best be delivered through schools. And in the case where a multipurpose hall serves a number of schools, a clinic may be beneficially located within or next to the hall.
13.5.2 BASIC EDUCATIONAL FACILITIES

The formation of settings which promote learning forms a fundamental part of the settlement-making process. Learning can be viewed in two dimensions: one being formal learning which relates to schooling and the other being informal learning relating to 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 attained by locating schools, colleges, technikons, and adult education centres close to places of concentrated urban activities. Schools should accommodate the schooling population during the day and, where possible, adult education during the evenings so that they are resources serving both pupils and the broader community. Likewise, halls and libraries can serve the school population during the day and the broader community during the evening, ensuring maximum usage of facilities.

The National Planning Commission Diagnostic Overview Report paints a bleak picture of the education system in South Africa presenting a serious and devastating problem. There are a number of serious shortcomings in the provision of post-school and post-matric skills programmes for the youth.

In terms of location, schools should be part of an accessible, settlement-wide system of education facilities. Consequently, 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 vulnerable to fluctuations in the local population.

13.5.3 TERTIARY EDUCATIONAL FACILITIES: EMADLANGENI AGRICULTURAL COLLEGE

The tertiary facility at present within the ADM is the Amajuba FET College which is located within Newcastle. There is a need to further enhance and develop skills to try alleviating poverty in the district and therefore it is recommended that tertiary facility such as a college of Agriculture within Emadlangeni be created to promote and create skilled jobs in the agricultural sector (more especially in Emadlangeni and Dannhauser).

13.5.4 MEETING SPACES

Open public spaces and enclosed spaces such as community halls, sportsfields, cemeteries, etc., are important parts of social infrastructure. Halls should be located in relation with public spaces as this will enable events to have spill over effects, or provide alternatives in case of natural disasters (i.e., extreme 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 is sensible to focus these facilities to create a limited number of distinct places, which become the memorable parts of the settlement.

13.5.5 MOVEMENT NETWORK AND PUBLIC TRANSPORT

Movement should not be perceived as a distinct component but as an activity which occurs within the social space. The degree to which it dominates space differs considerably depending on the type of settlement. In urban settlements, 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.

The Rural Transport Strategy should be raised as an area of concern to address the poor and deteriorating condition of rural access roads, and to address the lack of maintenance of the secondary road network. Public transport is crucial in areas that are characterised by low levels of car ownership such as rural areas and thus transformation of rural settlement into sustainable human settlements should support public transport.

Well positioned and highly accessible settlements should be permitted 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 urban areas/towns and townships will increase the viability of public transport and should be encouraged along public transport routes. This is of key importance as it promotes focus of activities and gives effect to the concept of nodal development.

Land uses should be able to respond freely to movement patterns as this encourages diversity and a mix of activities and it is therefore necessary to maximise continuities of movement, as this encourages choice and integration.

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<th>Land Management Category</th>
<th>Minimum population catchment (people)</th>
<th>Minimum number of households</th>
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<tbody>
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<td>200</td>
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<tr>
<td>Pre-school</td>
<td>2 000</td>
<td>500</td>
</tr>
<tr>
<td>Primary school</td>
<td>4 000</td>
<td>800</td>
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<tr>
<td>High school</td>
<td>13 000</td>
<td>1200</td>
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<tr>
<td>Clinic</td>
<td>6 000</td>
<td>1000</td>
</tr>
<tr>
<td>Hospital</td>
<td>250 000</td>
<td>50 000</td>
</tr>
<tr>
<td>Police station</td>
<td>30 000</td>
<td>7 500</td>
</tr>
<tr>
<td>Fire station</td>
<td>30 000</td>
<td>7 500</td>
</tr>
<tr>
<td>Community hall</td>
<td>15 000</td>
<td>3 250</td>
</tr>
<tr>
<td>Church</td>
<td>200</td>
<td>50</td>
</tr>
<tr>
<td>Playground</td>
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<tr>
<td>Library</td>
<td>15 000</td>
<td>3 250</td>
</tr>
<tr>
<td>Cemetery</td>
<td>15 000</td>
<td>3 250</td>
</tr>
</tbody>
</table>
13.6 RURAL DEVELOPMENT AND AGRARIAN REFORM

Despite years of somewhat good Integrated Development Planning processes in Amajuba District Municipality, issues of land tenure reform have in the final analysis remained minimal and secluded due to a lack of high-level integration and alignment between land tenure reform and spatial planning within the municipality. Lack of sustained co-ordination between the Department of Land Affairs, Commission for Restitution of Lands Rights and municipalities in the District has manifested itself in delays in the provision of basic services to communities that were assisted to reclaim their land and to gain access to land such as Ndlamlenze, Amantungwa and Thekwane etc. Rural development is intended to create vibrant, equitable and sustainable rural communities. The national government seeks to achieve this through a strategy based on:

- Co-ordinated and integrated broad-based agrarian transformation;
- Strategically increasing rural development; and
- Improved land reform programme.

13.6.1 LAND DEMAND ANALYSIS

The Amajuba district ABP states that demand for agricultural land is tied up in a number of unresolved land claims which have yet to be properly processed and resolved and maintains that once this is completed then the real demand for agricultural land will be clarified. The provincial growth trends assume that the future population will not necessarily translate into demand for agricultural land for housing in designated urban centres where people have access to services. It also states that a significant portion of land in the district is under restitution claim. These claims when settled will contribute significantly to the 30% redistribution target in the district.

The very extensive nature of farming with livestock off natural veld would require considerable capital investment via PLAS and/ or an improved in the LRAD programme to ensure sustainability of operations. Securing of finance sources is of great importance so as to ensure the productive nature of farms that are claimed under restitution, which in turn will ensure that agricultural output is maintained.

13.6.2 AGRARIAN REFORM

The ABP identified a total of six focus areas in pursuit of the achievement of the long term vision for rural development in Amajuba District, and suggests intervention strategies accordingly. The ABP adopted the application of focus area concept in an effort to concentrate service delivery as well as exploiting interactions between land redistribution, agricultural production and agri-business development. These focus areas covers the areas within Emadlangeni, Utrecht and Newcastle Municipal Areas. These plans conclude that there is a need to release land within the municipal
area for agricultural development which includes the resettlement of the emerging farmers and food production; forestry, settlement and environmental management. The following sub-sections are extracted directly from Amajuba ABP.

13.6.2.1 AMAJUBA FOCUS AREA 1: FARMING

This focus area applies to all areas within the district and is therefore relevant to all three local municipalities.

13.6.2.2 AMAJUBA FOCUS AREA 2: LOWER AMAJUBA

This focus area is primarily located within Newcastle but lies on the border with Utrecht and thus influences both municipalities. It is also situated along the primary corridor therefore it is right along the economic trade route. A wide range of agricultural production occurs in this area. This area has a low livestock carrying capacity and has a limited irrigation potential, therefore focus should be on producing vegetable crops under intensive practices with controlled enterprise systems such as poultry and pigs could be considered additional enterprise opportunities.

13.6.2.3 AMAJUBA FOCUS AREA 3: GROENVLEI

Groenvlei is within Utrecht municipality and coincides with an existing node that has been identified within the SDF and is part of the protected area. This area is of high cattle potential to its higher veld carrying capacity but is not suitable for field crop production and has limited potential for commercial vegetable production.

13.6.2.4 AMAJUBA FOCUS AREA 4: FORESTRY AREA (HIGH VALUE AGRICULTURAL LAND MODEL)

This focus area is located on the main Vryheid to Paul Pietersburg road in Utrecht municipality, but also bordering on Zululand District Municipality. It is a high value timber growing area. The high value timber production area is located in a high rainfall area and thus the land is under high pressure for cultivation. It is also suitable for beef veld production system because of its carrying capacity.

13.6.2.5 AMAJUBA FOCUS AREA 5: KINSLEY

Kinsley is located at a railway station on the main line from Dundee to Vryheid. It is therefore within the Utrecht local municipality. This area has very low to uneconomical potential for commercial field crop production.

13.6.2.6 AMAJUBA FOCUS AREA 6: HLUBI-KILBARCHAN-BALLENGEISH

This focus area centres on the N11 corridor (primary corridor development zone) identified in the SDF and on three existing settlements. It falls both between Newcastle and Dannhauser local
municipality and is along the economic trade route (mobility route). It is experiencing high development pressure due to settlement growth and having moderate potential for arable agriculture. A number of commercial production opportunities exist in this area and can be accommodated in the commercial farming option in focus area 1.
13.7 ECONOMIC DEVELOPMENT

Amajuba District Municipality IDP identifies local economic development (LED) as one of the key performance areas (KPAs), and a strategic area of intervention. The IDP further indicates that based on existing economic activity, market opportunities and present resources, assets and skills bases the industries offering the most significant potential include:

- Manufacturing
- Agriculture (Livestock farming, Crop farming, horticulture and Forestry)
- Tourism (Nature based, ecological, adventure and leisure tourism)
- Mining
- Retail/wholesale/Business sector

13.7.1 AGRICULTURE

Agricultural development should be promoted based on the underlying potential, with high production potential land being reserved primarily for agricultural purposes. The following agricultural activities are prevalent in the area:

- Extensive livestock farming should be promoted, particularly in communal areas, but grazing land management programmes should also be introduced to address the increasing problem of soil erosion.
- Intensive farming and irrigation projects need to receive first priority not only when allocating land for agricultural use but, also when raising and allocating funds for agricultural development.
- Crop production (irrigated and dry-land) should be promoted in low lying areas and irrigation along the main river tributaries.
- Timber plantations should be established in areas where impact on the environment could be alleviated; otherwise the area becomes too environmentally sensitive for timber plantations.

Unlocking the potential in the agricultural sector will require:

- A mixture of research and awareness-raising programmes as well as technical inputs (irrigation infrastructure) and support programmes.
Land productivity must be increased by enhancing the development potential of Ingonyama Trust Land and by fast-tracking the resolution of land claims.

- The provision of integrated support to communities on the sites of successful land claims.
- Diversification of agricultural production & markets (niche markets and agri-processing)
- Expansion of irrigation schemes and water-use efficiency
- Strategy for the development of emerging commercial farmers, and
- Protection and rehabilitation of agricultural resources.

The commercial agriculture sector is the major employer in the district municipality (especially in Emadlangeni and Dannhauser) and forms the economic anchor of these municipalities. Subsistence agriculture is by far the most important source of nourishment for rural households. In order to achieve a reduction of unemployment and poverty the challenge is to grow and transform the commercial agricultural sector and improve the links between commercial agriculture and subsistence agriculture in order to develop subsistence agriculture into small scale commercial agriculture.

### 13.7.2 TOURISM

The potential for tourism development is derived from a range of attractive features such as mountainous terrain, distinctive broad wetland systems, attractive botanic features, and rich bio-diversity. Tourism development should be promoted in the following areas:

- There should be a route that will earmark development for Ecological Tourism and conservation corridor. Emphasis should be on enhancing the landscape, character and appearance of the natural environment such that such the developments proposed should be guided by the studies in the Drakensberg, which will include SCAP and Amajuba Development Nodal Study.
- Nature based tourism in Priority Environmental Areas, but must enhance the quality of the natural environment. This includes the foothills of the mountain range (i.e. the Ncandu and Chelmsford Reserves at the foothills of the Drakensberg), wetland areas, etc.
- In and around Utrecht and Newcastle which are identified in this SDF as tourism nodes.
- Agro-tourism on commercial farms subject to impact on agricultural land.
13.7.3 COMMERCE AND INDUSTRY

The nodes should be prioritised for commercial and industrial developments, prioritizing is depended on the size of the threshold, the role of the node in the local and regional space economy, and availability of suitable land plots. Newcastle remains the economical hub, with focus on the commercial and Industrial sectors and covers the Northern of KZN, Mpumalanga and Free State. Newcastle, Dannhauser and Emadlangeni town still have huge unexploited potential given the scope of influence and strategic location in relation to the regional and provincial movement and trade routes. The district has a well-developed physical infrastructure and is endowed with strategically located unoccupied and/or underutilised land for further growth.

The availability of properly zoned and serviced industrial land advocates a need to strengthen functional ties with the rural surroundings. This will establish the urban areas as the agro-processing centres for raw materials produced on local commercial farmlands and the surrounding agricultural regions; such as the development and positioning of agro-processing industries in and around Emadlangeni. The Commerce and Industry sector should be prioritised in terms of expansion more especially the Manufacturing Sector as they can enhance job creation opportunities and bring investment opportunities to town.
13.8 CAPITAL INVESTMENT FRAMEWORK
### Label Guide - KZ252 Capital Investment Framework Projects

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### Opt of Transport - Bridges

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### Opt of Transport - Roads

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# Label Guide - KZ253 Capital Investment Framework Projects

## EPAM - Integrated Incentive Grant Feeding of of Plants

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## EPAP - Integrated Incentive Grant Feeding of Plants

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## Opt Human Settlements

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<th>Project Name</th>
<th>Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>GBI</td>
<td>Not Stipulated</td>
</tr>
</tbody>
</table>

## Opt Transport – Bridges

<table>
<thead>
<tr>
<th>Bridge Name</th>
<th>Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>TB5</td>
<td>R 550 000.00</td>
</tr>
</tbody>
</table>

## Opt Transport – Roads

<table>
<thead>
<tr>
<th>Road Name</th>
<th>Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>TR4</td>
<td>R 3 127 475.00</td>
</tr>
</tbody>
</table>

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**Note:** The table and diagram provide information on various projects and their respective budgets under different categories. The projects include road rehabilitation, water infrastructure, and other human settlements. Each project is described with a label, project name, and budget, ranging from Not Stipulated to specific amounts. The diagram illustrates the geographical distribution and impact of these projects in the KZ253 area.
Amajuba District Municipality
Spatial Development Framework

LEGEND
Information
- Area
  - Map
  - Roads
    - National Routes
    - Provincial Roads
    - Amajuba Local Municipalities_2016
    - Amajuba Boundary_2016
    - ARTFAA_Rivers
- Major Roads
- Nodes
  - Regional Economic Centre Newcastle
  - Mining Hub Dumphries
  - Agriculture Hub Umzinto
  - Rural Service Centre
- Corridors
  - Primary Corridor_M11_Economic_Traffic Route
  - Secondary Corridor_M482_Mixed Activity Corridor
  - Tertiary Corridor_Mixed Activity Corridor
- Landuse Framework
  - Agriculture
  - Bars and Taxi Terminals
  -Ceramic
  - Civic and Social
  - Commercial & Mixed Use
  - Community Facilities
  - Combined Protected Areas
  - CBA_Imposable
  - Educational
  - Game Reserve
  - Health and Welfare
  - Industry
  - Open Space
  - Residential
  - Service Reserve
  - Service Stations
  - Utilities and Services
  - Undetermined
  - Water

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