



**SPATIAL DEVELOPMENT
FRAMEWORK (SDF) REPORT
2014/15 REVIEW**

FINAL REPORT: MAY 2014

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EXECUTIVE SUMMARY

This document represents the revised 2014/15 eThekweni Spatial Development Framework (SDF). A summary of the revised 2014/15 SDF is also included as an annexure in the 2014/15 eThekweni Integrated Development Plan (IDP). The formulation and adoption of this SDF is a legal requirement, and as such fulfills the requirements as set out within the Municipal Systems Act (MSA), No. 32 of 2000. This SDF is an integral component of the Integrated Development Plan (IDP); it translates the IDP spatially and shows how the implementation of the IDP should occur in space. It also guides the overall spatial distribution of current and desirable land uses within a Municipality in order to give effect to the vision, goals and objectives of the Municipality as identified within the Long Term Development Framework (LTDF), Imagine Durban and the Integrated Development Plan (IDP). This SDF is also aligned with other municipal sector plans and strategies as a way of ensuring that the desired spatial form and outcomes of the Municipality are achieved.

The first metropolitan Spatial Development Framework (SDF) report was adopted in 1997. A review of the 1997 SDF report was done in 2002. There has been tremendous change in the Metro since the 2002 SDF both institutionally and sectorally. Institutionally, the year 2000 saw the formation of a single unitary metropolitan local authority (eThekweni). Prior to this the metropolitan area comprised of numerous local authorities each responsible for planning and delivery in their own area of jurisdiction. A new Package of Plans for eThekweni subsequently emerged , with the Long Term Development Framework (setting out the city strategy and long term vision); the IDP (setting out the medium-term city development strategy, vision and goals) and SDF (depicting a spatial translation of the IDP) as the corporate strategy plans; and the Spatial Development Plans (SDPs) (detailed regional plans providing strategic multi-sectoral planning guidance for each region that translates the spatial intentions of the SDF); Local Area Plans (LAPs); Functional Area Plans (FAPs) and Scheme as the policy implementation tools.

The scope of the SDF is by its nature broad and does not provide definitive statements on all aspects of spatial development in the EMA; as such it is advisable that this SDF be read in conjunction with other sector plans and local area planning frameworks. Most importantly the SDF must be read in conjunction with the SDPs which have been developed to bridge the gap between the strategic/conceptual SDF and the detailed land-use schemes referred to in the municipal package of Package of Plans. The SDP's identifies a number of priority projects which are detailed in Local Area Plans (LAPs) and Functional Area Plans. A Package of Plans and spatial policies and the different roles they play are explained in detail in Chapter 1 section 1.4 and Chapter 7 Section 7.2 and Annexure 2 of this report.

The 2014/15 SDF Review Process Approach

The approach that has been used in preparing the eThekweni Municipality SDF Review (2014/15) complies with the Municipal Planning and Performance Management Regulations of 2001. The drafting of this SDF Review also adhered to the Guidelines for the Development of Spatial Development Frameworks, introduced by the Department of Rural Development and Land Reform as well as the COGTA Spatial Planning Guidelines. The approach used in this review was as follows:

Development of a process plan

The purpose of the process plan was to set out in writing the approach of the eThekweni Municipality to the review of IDP for 2014/2015. The preparation of the IDP is based on the IDP Process Plan that was adopted by the eThekweni Municipality in terms of the Municipal Systems Act of 32, of 2000 at the beginning of the review process. The 2014/2015 SDF Review Process Plan was developed in conjunction with the IDP Process Plan. The plan established a firm foundation for the alignment of the IDP, SDF and Budget. As such an all-encompassing process plan was prepared and adopted by the Council to ensure the proper management of the IDP, SDF and Budgeting planning process. In addition, cognisance was taken of the need to have draft SDF ready for submission by end March 2014

Desktop Review

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

- Key national spatial development policies and programmes, e.g. National Development Plan, National Spatial Development Strategy, Breaking New Ground, Comprehensive Rural Development Programme, Integrated Cities Development Grant etc.
- KZN strategic spatial plans including the Provincial Growth and Development Strategy (PGDS), development programmes as implemented by different government departments; etc.
- EThekweni Municipality IDP, SDF 2014-15 and the associated Sector Plans.
- Research reports and papers dealing with spatial planning and environmental management.

Strategic Review of the 2014/15 SDF

This process involved updating and revising the data in the IDP and SDF to reflect the current status of planning in the municipality. A major SDF Review will be undertaken for the 15/16 financial year.

Addressing COGTA/MEC Comments on eThekweni 2013/14 SDF Review:

The eThekweni Municipality acknowledges the comments that the COGTA/MEC made in respect of the 13/14 SDF Review. The Municipality is commended for the improvement relating to the strategic focus, attention to densification and focus on rural development in the SDF Review 13/14. However, the finalization of the cross border planning, the development of the Capital Investment Framework that is informed by the spatial planning conceptual approach and a sound prioritisation process needs to be addressed. COGTA recommends that the Strategic Environmental Assessment be developed in a phased approach and that mapping defects are addressed. Consideration needs to be given to COGTA's 2009 Spatial Planning Guidelines and various other documents for guidance in this regard and that attention should also be given to urban and rural food security in the next SDF review.

In response to the above it should be noted that

- Cross border meetings with neighbouring local and district municipalities are on-going
- The eThekweni Municipality has recently initiated a project to map and analyse in detail the MTEF capital budget including past and future expenditure to further inform budget allocations and align delivery with spatial planning priorities
- The eThekweni has identified Integration Zones to facilitate integrated spatial targeting of municipal budgets in priority areas across the city. These integration zones are illustrated in Chapter 8 of this report.
- The eThekweni Municipality is about to embark on major review of the SDF which will include *inter alia* refinement of the spatial priorities, restructuring of the document and addressing mapping defects.
- The eThekweni Municipality has initiated a 'Safe Operating Space' study for the city in order to better understand the environmental thresholds which define the "safe operating spaces". It is anticipated that the output of the study will be a combination of spatial data and a decision-making framework which together will provide the structure needed to assess the environmental sustainability of the city's spatial plans. The proposed 'Safe Operating Space' study will provide a critical starting point for the municipality to undertake a SEA.

Identification of sector plans to be developed and reviewed

The SDF is revised with the updated information from sector planning departments to reflect the most up to date information. Addressing changes within these plans involved reviewing and updating the status quo as well as proposals as a way of ensuring alignment with the current SDF.

The Use of GIS and mapping improvements

Geographic Information System (GIS) is used to overlay information and generate options for land use activities. The eThekweni Municipality is moving towards further mapping improvements which

includes the use of the recently revised digital criterion developed by the eThekweni Municipality as well as through participation in the provincial norms and standards forum and in consultation with COGTA and neighboring municipalities in order to ensure GIS data is compatible across the municipalities.

The Public Participation Process

Participation is an important component of the IDP and SDF process. The responses and comments raised in the consultation process undertaken in March and April 2014 have been collated and incorporated into this Final SDF 2014/15 and will be submitted to Council in May 2014 and then COGTA in June 2014. The public participation process followed in this SDF Review will be detailed in Annexure 1 of the final report.

The limitations of this SDF are identified as follows:

The Local Government: Municipal Planning and Performance Management Regulations (2001) require that SDF's must contain a strategic assessment of the environmental impact of the spatial development framework. The eThekweni Municipality has initiated a 'Safe Operating Space' study for the city in order to better understand the environmental thresholds which define the "safe operating spaces". It is anticipated that the output of the study will be a combination of spatial data and a decision-making framework which together will provide the structure needed to assess the environmental sustainability of the city's spatial plans. The proposed 'Safe Operating Space' study will provide a critical starting point for the municipality to undertake a SEA. The eThekweni Municipality has also initiated a process to determine sustainability indicators for spatial planning and land use which will complement the work being done on the Safe Operating Spaces Study above.

The SDF presents a long term vision of the desired spatial form of a Municipality, and thus is a critical informant for bulk infrastructure planning which normally has a 5-20 year planning horizon. As such the SDF is indicative of a preferred development scenario against which there is still a need for more detailed investigations of the cost implications and capacity requirements for the provision of bulk infrastructure. To this end the SDF proposals are yet to be integrated into the financial modeling which the Municipality is developing.

The way forward beyond the SDF and towards the 5 year term major review

The Blue Sky Process

The development of a transformative or 'blue sky' plan for eThekweni has been precipitated by the process of engagement on the Urban Settlement Development Grant with the national departments of Treasury and Human Settlement. Current sector plans are incremental or constrained and eThekweni is required to produce a plan that will transform the spatial landscape to overcome the apartheid legacy. This Blue Sky process will produce, inter alia, the following outputs:

Interim Output: A Synthesis of the Existing Sector Plans

Interim Output: A Review of Constraints

Interim Output: Development of Scenario Plans

Interim Output: Built Environment Performance Plan 2013/14

Final Output: A Strategy on the Long-Term Development Path for eThekweni

The development of such a Blue Sky Plan will take 2-3 years to complete but will encompass the resource constraints that the Municipality faces (water, energy etc) as well as the various growth options. The outcome of this process will have impacts on the land uses in the SDPs as well as the strategic focus of the SDF.

Other programmes and work streams that will feed into the SDF going forward include:

a) City Development Strategy and Visioning Process

Following the adoption of the new IDP, a further review of the SDF is anticipated through the City's re-visioning process and refined strategy intended at breaking current barriers to spatial development over a sustained medium to long term timeframe. Early work undertaken indicates that densification, intensification and support for public transport are key criterion that should influence the spatial form of the city along with the identification of projects that satisfy both social and economic imperatives.

b) City Wide Densification Strategy

The city wide densification strategy identifies actions needed to implement the densification strategy for the Municipality. The Strategy guides efficient use of our limited infrastructure, natural resources and urban space, and creates a city that is more efficient, safe and sustainable, and offers high-quality public spaces, and access to good, efficient public transport, services and recreation opportunities, facilitate the agglomeration of economies for business and industry and clearly expresses any budgetary advantages to investing in strategic densification initiatives. Recommendations emerging from this study include a need for densification of the urban core as a priority with a particular spatial focus on densification alongside and within 400m of the Integrated Rapid Public Transport Network (IRPTN), indicating that there is already strong spatial alignment between the study and the SDF. While the outcomes of this study have informed the SDF, Integration Zones and regional SDP reviews, further refinements are ongoing to enable a more detailed and location specific application of the strategy.

c) Economic Development Strategy 2012

A city wide economic development strategy is being reviewed in light of national and provincial economic development strategy revisions with a greater focus on implementation of national and provincial projects within the metropolitan area. The economic strategy will, therefore, provide both strategic direction for the Municipality in achieving a longer term vision as Africa's Southern Gateway to Trade and Travel by 2030 - with greater emphasis on the Port of Durban; KSIA; Dube Trade Port; the road; rail and IT infrastructure connections to Gauteng as well as local empowerment directives at a micro-level which ensures that the needs of our women; youth; vulnerable groups; marginalised communities are appropriately accounted for in every investment decision made in the municipal

region. The strategy will also assist in outlining criteria for prioritization by establishing which sectors of the economy will make the greatest impact on job creation and regional wealth as well as incentives for investments.

d) Managing the urban and rural transition around the Urban Development Line

The Urban Development Line (UDL) line indicates the outer limit to which urban development will be permitted, not all the areas outside the UDL are rural in nature and character. There is a need to outline the urban rural interface and define the type of development, densities and the service levels and standards that will apply as a way of sustainably managing the transitional peri-urban area. This process may lead to the refinement of the UDL and ultimately the review of the SDF. It is anticipated that this review will be undertaken as part of the major review of the SDF in 2015/16

e) Service/Infrastructure Delivery and Phasing Line

In the context of the constrained resources and existing infrastructure capacity limitations it is important to establish upfront the availability of excess infrastructure capacity and the areas in which development opportunities can be provided in the short term while new infrastructure is being built. Infrastructure to new areas will need to be carefully assessed and phased within the context of whether they are cost effective, sustainable, and in the best interest of the Municipality. A study addressing the phasing of services to new areas has been undertaken. The service/infrastructure phasing line will assist in the articulation of a phased development approach for the SDF as well as identification of realistic programmes and prioritise implementation projects.

f) Implementation of the Durban Climate Change Strategy

In acknowledgement of the need for Durban and all of its residents, from big industry to the poorest communities, to prepare for the impacts of climate change, eThekweni Municipality is currently engaging in an inclusive participatory process to develop a combined mitigation and adaptation climate change strategy for Durban. The development of this strategy will have important implications for the SDF, as the latter provides a useful tool for implementation of the strategy.

g) Municipal Adaptation Plans

In order to improve the effectiveness of climate change adaptation planning, sector specific municipal adaptation plans have been developed for three priority high risk sectors: Health, Water and Disaster Management. These plans have been accepted by sector representatives and by the Council. The Water sector, in particular, has engaged enthusiastically with the plans since 2010. The Municipal Adaptation Plans have undergone a Benefit-Cost Analysis by a team of resource economist experts, with the aim of prioritising the Municipality's adaptation options on the basis of economic efficiency and the benefit to people, while being cognisant of governance and capacity issues that might facilitate or hinder the implementation of the interventions. This Benefit-Costs Analysis has resulted in a consolidation of the original 47 Municipal Adaptation Clusters into a reduced set of 16 Municipal Adaptation Clusters, which is greatly easing the implementation and tracking of the interventions.

h) Urban Resilience Strategy

EThekweni's leadership role in the climate change adaptation arena at both a local and global level has also positioned the city well to advance its thinking and action around the increasingly important concept of 'urban resilience'. 'Resilience' is the ability of a system, entity, community or person to withstand shocks while still maintaining its essential functions, and recovering effectively to a state better prepared to cope with both extreme and slow onset events. These shocks and stresses could be environmental (e.g. climate change) or socio-economic (e.g. local and global economic meltdowns, persistent poverty and unemployment etc). Building resilience is therefore about making people, communities, infrastructure and ecosystems better prepared to withstand catastrophic events – both natural and manmade – and about planning in new and innovative ways in order to bounce back more quickly and more strongly. In December 2013, Durban was selected as one of the first cohort of 33 cities to be inaugurated into the Rockefeller Foundation's 100 Resilient Cities Centennial Challenge. This programme aims to build urban resilience in cities around the world by providing relevant technical and financial support for the development of a 'Resilience Strategy' in each of the selected cities. EThekweni's involvement in the 100 Resilient Cities Programme will help to better coordinate resilience-building initiatives across the municipality and to contribute to the resilience agenda at both a local and global level.

The municipality's spatial planning is a critical contributor to the city's resilience and will contribute to, and be influenced by, the Resilience Strategy that is produced as part of this programme.

i) Integrated City Development Grant

The Integrated City Development Grant (ICDG) provides incentives for participating municipalities to identify and establish integration zones within cities, including the establishment of measureable performance objectives, indicators and targets. The objective of the ICDG is to support the development of more inclusive, livable, productive and sustainable urban built environments in metropolitan municipalities. The grant provides a financial incentive for metropolitan municipalities to integrate and focus their use of available infrastructure investment and regulatory instruments to achieve a more compact urban spatial form. The eThekweni Municipality has successfully been nominated as a recipient of the Integrated Cities Development Grant (ICDG) and has identified integration zones across the municipal area within which to spatially target investments. Preliminary work completed recommends that the Urban Development Line also form the outer boundary of the long term Integration Zone. A number of integration areas are identified for shorter term investment and development. Further details regarding the integration zones can be found in Chapter 8 of this report.

DEFINITION OF SPATIAL TOOLS AND CONCEPTS

SPATIAL TERM	DEFINITION
Nodes	Nodes are areas where a higher intensity of land uses and activities are supported and promoted. Typically any given municipal area would accommodate a hierarchy of nodes that indicates the relative intensity of development anticipated for the various nodes, their varying sizes, and their dominant nature.
Corridors	Corridors are links between nodes, along which an increased intensity of development may be encouraged. Corridors provide efficient access to a higher level of economic and social opportunities than would generally be the case in less structured space or where activities are dispersed. They typically include public transport routes.
Densification	Densification refers to an increase in density. Density is defined as the number of units per hectare or number of people per hectare and is achieved through the increased use of space both horizontally and vertically within existing areas / properties and new developments. Densification is a measure of the compactness of cities and is the hallmark of a qualitative urban environment which supports efficient and cost effective service delivery with good access to public transport and social and economic opportunities
Efficiency	Development that maximises development goals such as sustainability, integration, accessibility, affordability, and quality of living, relative to financial, environmental, and social costs, including ongoing and future costs
Infill development	Development of vacant or under-utilised land within existing settlements in order to optimise the use of infrastructure, increase urban densities and promote integration
Integrated development plan	A 5 year strategic municipal development plan, reviewed on an annual basis, required by the MSA (Act 32 of 2000) which guides municipal decisions and budgets
Mobility Routes	These are routes of national significance that connect the Municipality at a national and provincial scale. Examples of these routes include the N2 and N3.
Sector Plans	Sector Plans are municipal plans for different functions such as bio-diversity conservation, housing, transport, local economic development and disaster management. They may also be geographically based, for example a sub-region, settlement within a local Municipality or a component of a settlement
Urban Sprawl	Urban Sprawl is the expansion of urban areas across the landscape and the conversion of forested, wetland and agricultural areas to urban areas. Urban sprawl includes the expansion of major roadways, not just housing and commercial areas. It is usually associated with increased private car usage, water and air pollution, under utilisation of infrastructure and land use segregation.
Urban Core	The urban core consists of the inner core areas of the Municipality including the traditional CBD area and surrounds. The planning within the urban core mainly focuses on redevelopment and regeneration where land uses are unlikely to change significantly but will increase densities and provide more residential opportunities
Urban Development Line (UDL)	The SDF uses the term Urban Development Line and not Urban Edge or Development Edge. The UDL is a line demarcating the extent to which urban development will be permitted to be established within an urban development corridor or urban node. It is a line that will promote efficient, equitable and sustainable settlement form. The line indicates the outer limit of urban development within a corridor or node. The UDL implies that there is a rural hinterland different in character and servicing needs, and which supports different lifestyles and densities.
Development Services Line / Phasing Line	The Development Services Line is a line located within the urban development corridor or node indicating the limit to infrastructure availability and capacity. This line may coincide with the UDL or may fall within the UDL boundary. The metropolitan area may have a number of development services phasing lines related to future servicing capacity and infrastructure indicating where and when future development can be serviced.

ACRONYMS AND ABBREVIATIONS

ABM	: Area Based Management
ASGISA	: Accelerated and Shared Growth Initiative for South Africa
BoP	: Back of Port
CMPR	: Central Municipal Planning Region
CSIR	: Council for Scientific and Industrial Research
CIF	: Capital Investment Framework
DCOGTA	: Department of Cooperative Governance and Traditional Affairs
DFA	: Development Facilitation Act
D'MOSS	: Durban Metropolitan Open Space System
DSW	: Durban Solid Waste
DTP	: Dube Trade Port
DWA	: Department of Water Affairs
EDS	: Economic Development Strategy
EBA	: Ecosystem-based adaptation
EGS	: Ecosystem Goods and Services
EM	: EThekweni Municipality
EMA	: EThekweni Municipal Area
EMF	: Environmental Management Framework
ETA	: EThekweni Transport Authority
EWS	: EThekweni Water Services
FAR	: Floor Area Ratio
HDA	: Housing Development Agency
IRPTN	: Integrated Rapid Public Transport Network
HPPTN	: High Priority Public Transport Network
ICDG	: Integrated Cities Development Grant
ICT	: Information and Communications Technology
IDP	: Integrated Development Plan
INK	: Inanda Ntuzuma KwaMashu
KSIA	: King Shaka International Airport
KZN	: KwaZulu-Natal
KZNPGDS	: KwaZulu-Natal Provincial Growth and Development Strategy
LED	: Local Economic Development
LUF	: Land Use Framework
LUMS	: Land Use Management System
MSA	: Municipal System Act
MCPP	: Municipal Climate Protection Programme
MFMA	: Municipal Financial Management Act
MTREF	: Medium Term Revenue and Expenditure Framework
NDP	: National Development Plan
NEMA	: National Environmental Management Act
NHRA	: National Heritage Resource Act
NMT	: Non-Motorized Transport
NMPR	: Northern Municipal Planning Region
NPC	: National Planning Commission
NSDP	: National Spatial Development Perspective
SOE's	: State Owned Entities
SDF	: Spatial Development Framework
SDP	: Spatial Development Plan
SMME's	: Small, micro and medium enterprises
SMPR	: South Municipal Planning Region
UDL	: Urban Development Line
UE	: Urban Edge
WMPR	: West Municipal Planning Region

CHAPTER 1

INTRODUCTION TO THE SPATIAL DEVELOPMENT FRAMEWORK (SDF)

Synopsis: Chapter 1 of this document outlines the purpose and role of the SDF by linking it to the policy directives that informs the SDF and shows how the SDF responds to these directives. This chapter also introduces our Municipal Spatial Vision and Principles guiding this development framework. These principles inform all deliberations on spatial planning namely, the spatial analysis, proposals, vision statements and strategies as outlined in this SDF. The SDF translates the current Municipal Vision, namely, *“By 2030 eThekweni will be Africa’s most caring and liveable city”*, to have a spatial focus. The envisaged SDF/ Spatial vision is to have *“by 2030 a socially equitable, environmentally sustainable and functionally efficient Municipality that bolsters its status as a gateway to Africa and the world”*. This vision is expanded upon in the development principles (*Mainstreaming and Coordinating Environmental Planning, Promoting Spatial Concentration / Efficiency, Enhancing Economic Potential, Co-ordinated Planning and Implementation, Promoting Balanced and Sustainable Urban and Rural Development*) as discussed in this Chapter. The principles in turn lay the foundation for the SDF proposals and strategies that give direction to a range of spatial outcomes relating to growth and development of the EMA.

1. INTRODUCTION: THE SPATIAL DEVELOPMENT FRAMEWORK (SDF)

The Municipal Systems Act, Act No. 32 of 2000 (MSA) requires that each Municipality prepare an Integrated Development Plan (IDP) to serve as a tool for transforming local governments towards facilitation and management of development within their areas of jurisdiction. The eThekweni Municipality's SDF serves as a strategic spatial framework that directs the implementation of the IDP and guides the overall spatial distribution of current and desirable land uses within a Municipality in order to give effect to the vision, goals and objectives of the municipal IDP. The Municipality's SDF represents a long term (+20 years) plan, and is revised in line with the IDP 5 year cycles.

This report represents a revised SDF for eThekweni Municipality. The information contained in this report is informed by the current realities of the Municipality and is drawn in such a manner that promotes an understanding of the key spatial issues and how they relate to each other. The information presented in this SDF will inform key strategic choices and interventions especially regarding future growth and development of the Municipality.

1.1 Role and Purpose of the SDF

The SDF is a primary spatial response to the development context, needs and development vision of the municipality. It is a key land use management tool at a strategic level that has an important role to play in guiding and managing Municipal decisions relating to the use, development and planning of land.

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

- It facilitates effective use of scarce land resources.
- It facilitates decision making with regard to the location of service delivery projects.
- It guides public and private sector investment.
- It strengthens democracy and spatial transformation.
- It promotes intergovernmental coordination on spatial issues.
- It serves as a framework for the development of a detailed scheme and the basis for various Land Use Management Systems.
- It guides and informs municipal infrastructure investment;
- It guides public investment , namely the provision of community facilities or any other spending of public funds and

- Provides visual representation of the desired spatial form of the municipality.

Ultimately, the SDF defines and facilitates a progressive move towards the attainment of an agreed upon desired spatial structure within the municipality's area of jurisdiction.

1.2 Spatial Planning Mandate

Since the mid-1990s, the notion of spatial planning has become an integral theoretical part of development planning discourse with minimal practical evidence of strategic spatial practice aiming at redressing the imbalances of the past in South Africa. The Constitution (Schedule 4 Part B) bestows this responsibility on local municipalities. The spatial planning mandate comes with an obligation, namely to ensure that spatial planning and associated decisions on land management promote environmental outcomes (NEMA). In the interim, municipalities were supposed to give effect to this mandate through the Municipal Systems Act, Act No. 32 of 2000 and its regulations.

The DFA tried to establish norms and standards for spatial planning which, in theory, informs the eThekweni SDF. The objective of the norms and standards committee driven by COGTA is to guide debate and opinion about spatial development frameworks and/or options and choices on land usage and proposed strategic changes in land usage. The overall aim of the principles and norms is to achieve planning outcomes that redress the imbalances of the past through the following (White Paper on Spatial Planning and Green Paper on Spatial Planning):

- restructure spatially inefficient settlements;
- promote the sustainable use of the land resources;
- channel resources to areas of greatest need and development potential, thereby redressing the inequitable historical treatment of marginalized areas;
- stimulate economic development opportunities in rural and urban areas; and
- support an equitable protection of rights to and in land.

1.2.1 National Spatial Planning Policy

The National Development Plan (NDP) introduces the long-term vision for the future development of South Africa. It acknowledges the spatial inefficiencies that characterizes existing settlements and commits the national government to developing a National Spatial Framework. It also identifies the need to activate rural economies through the stimulation of small-scale agriculture, tourism and mining investments (NDP 2011: 117).

National policy on spatial planning currently focuses on the rationalization of a fragmented system of land use and related laws. The current fragmented spatial pattern of human settlement and the associated urban sprawl is a direct consequence of the skewed and inappropriate planning legislation

of the past. The national government has gazetted the Spatial Planning and Land Use Management Act, 2013 (Act No. 16 of 2013), as a means of providing an enabling law on spatial planning, land use management and land development. The new law will prevail over provincially applicable planning laws. It will lay down national policy, norms and standards as well as frameworks on land use, and therefore fall within the ambit of section 146 of the Constitution. At a local level, it provides a framework for the preparation of area specific SDFs and schemes.

The government has identified 10 priority areas in its programme of action, with an intention to turn around the global economic slowdown, whilst at the same time ensuring that the needs of all its citizens are met. The priority areas developed are intended to do the following:

1. Speed up economic growth and transform the economy to create decent work and sustainable livelihoods;
2. Introduce a massive programme to build economic and social infrastructure;
3. Develop and implement a comprehensive rural development strategy linked to land and agrarian reform and food security;
4. Strengthen the skills and human resource base;
5. Improve the health profile of all South Africans;
6. Intensify the fight against crime and corruption;
7. Build cohesive, caring and sustainable communities;
8. Pursue African advancement and enhanced international cooperation;
9. Ensure sustainable resource management and use;
10. Build a developmental state, improve public service and strengthen democratic institutions.

The national government is now implementing a number of sector based development programmes with serious implications for spatial planning at a local level and this includes the introduction of a Comprehensive Rural Development Programme (CRDP) which seeks to create vibrant, equitable and sustainable rural communities through a three-pronged strategy based on:

- a coordinated and integrated broad-based agrarian transformation;
- strategically increasing rural development; and
- an improved land reform programme.

The eThekweni Municipality embraces the principles of the CRDP and strives towards the attainment of its vision as part of its spatial and development planning program. This includes the identification of target areas for rural development, ensuring that rural areas and peri-urban areas are clearly defined and ensuring developmental outcomes of the rural development programmes. An eThekweni Rural Development Strategy is also underway to *inter alia* help define spatially what is rural in the eThekweni context as well as formulating policies and strategies to protect rural and agricultural land.

1.2.2 Kwazulu-Natal Provincial Growth and Development Strategy (PGDS)

The Provincial Growth and Development Strategy (PGDS) emanates from a Vision for KwaZulu Natal (Vision 2030) which says: “By 2030, the Province of Kwazulu-Natal should have maximized its position as a Gateway to South and Southern Africa, as well as its human and natural resources so creating a safe, healthy and sustainable living environment.”(PGDS 2011) This strategy feeds into the National strategy, and its highlights are economic growth and improvement of the quality of life for citizens of KwaZulu-Natal.

The PGDS responds to and focuses on growth and development, in particular: to create sustainable jobs that will improve the people’s lives and build on growing integration of the economies across the board. It further plans to ensure that the citizens, especially the youth, have education as well as skills to take up job opportunities created for them. It also identifies ways of addressing social ills that will ensure that the quality of life of citizens is improved. Crime, violence and corruption are amongst the causes of social ills which the strategy plans to eradicate.

The strategy should also find means and ways to better utilize the natural resource base and land that is still available to improve agricultural production as well as development, whilst ensuring that sustainable environmental planning principles are applied.

The plan further focuses on improving the way government works so as to ensure integration as well as fighting corruption, maladministration as well as effective and efficient financial management.

Food security programmes should be efficiently managed both in urban and rural areas, and there should be a positive response to climate change including innovative ways that are driven by the needs of sustainability such as production and use of renewable energy.

The strategy further encourages partnerships between the communities, government as well as relevant stakeholders so that strategies to eradicate poverty and inequality should be owned and championed by its own people, and should not merely be seen as government initiatives.

The eThekweni Municipality influences and responds to the Provincial Growth and Developmental Strategy as follows:

- Job creation, through the automotive, tourism, agriculture, chemicals, creative industries, construction, textile, wood, pulp and paper sectors.
- Human resource management, through various skills development programmes. The Municipality’s graduate’s internship programme, as well as skills enhancement programs for councilors and the officials
- Human and Community Development, through the provision of community halls, stadiums, swimming pools, parks, cemeteries, schools and police services (Metro). The Municipality has also provided opportunities through the expanded public works programmes in the form of pipe

renewal, road maintenance, sewer upgrade and other human settlement activities as part of community development programmes

- Strategic infrastructure, such as The Dube Trade Port, ongoing Point precinct development, Cato Ridge industrial development, Bridge City development, Port expansion programme and public road networks.
- Spatial equity through the Municipality's Spatial Development Framework. In terms of our Municipal SDF, spatial equity and integrated Land Use Management guide the allocation and utilisation of human and environmental resources towards sustainable growth and development

1.2.3 Land Use Legislative Framework

The Planning Environment is directed by a plethora of legislation emanating from National, Provincial and Local legislation. The legislative environment is a vibrant one and, decisions and interpretation arising from court rulings and judgments steer the Municipality in new and different directions. While the Constitution (Act 106 of 1996) provided a schedule for Municipal Planning, this too has evolved and continues to evolve due to legal challenges. The Bill of Rights, lays down for all, rights and responsibilities and it is at this stage, that planning takes a lead in delivering sustainable housing, rights to services, quality environments and health etc.

Other National Legislation such as the Municipal Systems Act (Act No 32 of 2000), National Environmental Management Act and the Mineral and Energy Affairs Act, the Seashore Act; etc are used on a daily basis in adjudicating planning applications. However, National Planning legislation has been absent for a long period of time, creating a void for all Provinces and Municipalities in the country. An attempt to close that gap has resulted a recently enacted Spatial Planning and Land Use Management Act, 2013 I (SPLUMA; Act No. 16 of 2013). This legislation will be overarching legislation for the entire country.

The Provincial Planning and Development Act (Act 6 of 2008) came into effect within the Province of KZN in May 2010. At this stage, chapters of the existing Town Planning Ordinance No 27 of 1949 still remained in force and effect and it is the implementation of both pieces of legislation that has left the planning fraternity in a state of flux in the Province. The Planning and Development Act (PDA), itself has had over the past 3 years, over 150 proposed amendments to the Act, leaving Municipalities open to legal challenges on a continuous basis. The act itself has sent all municipalities, including eThekweni Municipality, into a state of illegality, resulting in a city with unsafe and unsustainable land uses, illegal buildings and huge rate deficits. The process and procedures and time delays arising out of the Act's strict timeframes are reasons for such a state. However, for all municipalities, competency remains key. With the emergence of SPLUMA, Provincial Legislation (PDA) will have to be reviewed to align with the same. At present, those alignment issues have been sent through to the Department of Rural Development and Land Reform.

Within eThekweni Municipality itself, the traditional areas were administered by a communal system based on cultural practices, with the Ingonyama Trust Board providing the administrative support to the Amakhosi. Prior to 2010, eThekweni also consisted of seven R293 townships, that were administered by the KwaZulu -Land Affairs Act ; each of these seven areas has its own set of planning conditions which are similar in content and delivery. Within the 5 regions, each of them brought to the Municipality, their own Planning Schemes:- North 11, South-8, Inner West -9 Durban Planning Scheme -1 Consolidated Outer West Town Planning Scheme (COWTPS) -1. Each of these Schemes had different built form directives, resulting in the city being somewhat fragmented. This in itself has been a huge challenge for the eThekweni Municipality.

To date the City's 30 Planning Schemes have been consolidated into five (5) Schemes. The City's three hundred (300) LEFTEA areas as well as BCDA areas are also ready for adoption as part of the 5 Schemes. Work is soon to commence on incorporating the DFA Approvals in the City into the Schemes as well. The city has also prepared the first Primary Scheme which is a consolidation of all the R293 townships into formal Schemes. A Draft Scheme has also been prepared for the Traditional Area of Mnini. This Scheme directs development to safe and sustainable spaces within the area. The annual review and the performance of the North, South, Inner West and South Schemes, is currently being undertaken.

1.2.4 Cross-Municipal Boundary Planning and Alignment

As per the National and Provincial policies and legislation, (MSA-S26 (d), MSA Regs S2 (4) (h), Municipalities are required to provide a clear indication of how the SDF is aligned with the planning of neighbouring municipalities.

The eThekweni Municipality has a mandate to ensure that its IDP is in compliance with the planning legislation and policies to give effect to the development of an SDF as spatial representation of the IDP. The municipal SDF, in turn, directs and guides strategic investments that are developmental and beneficial within eThekweni and across neighbouring municipalities.

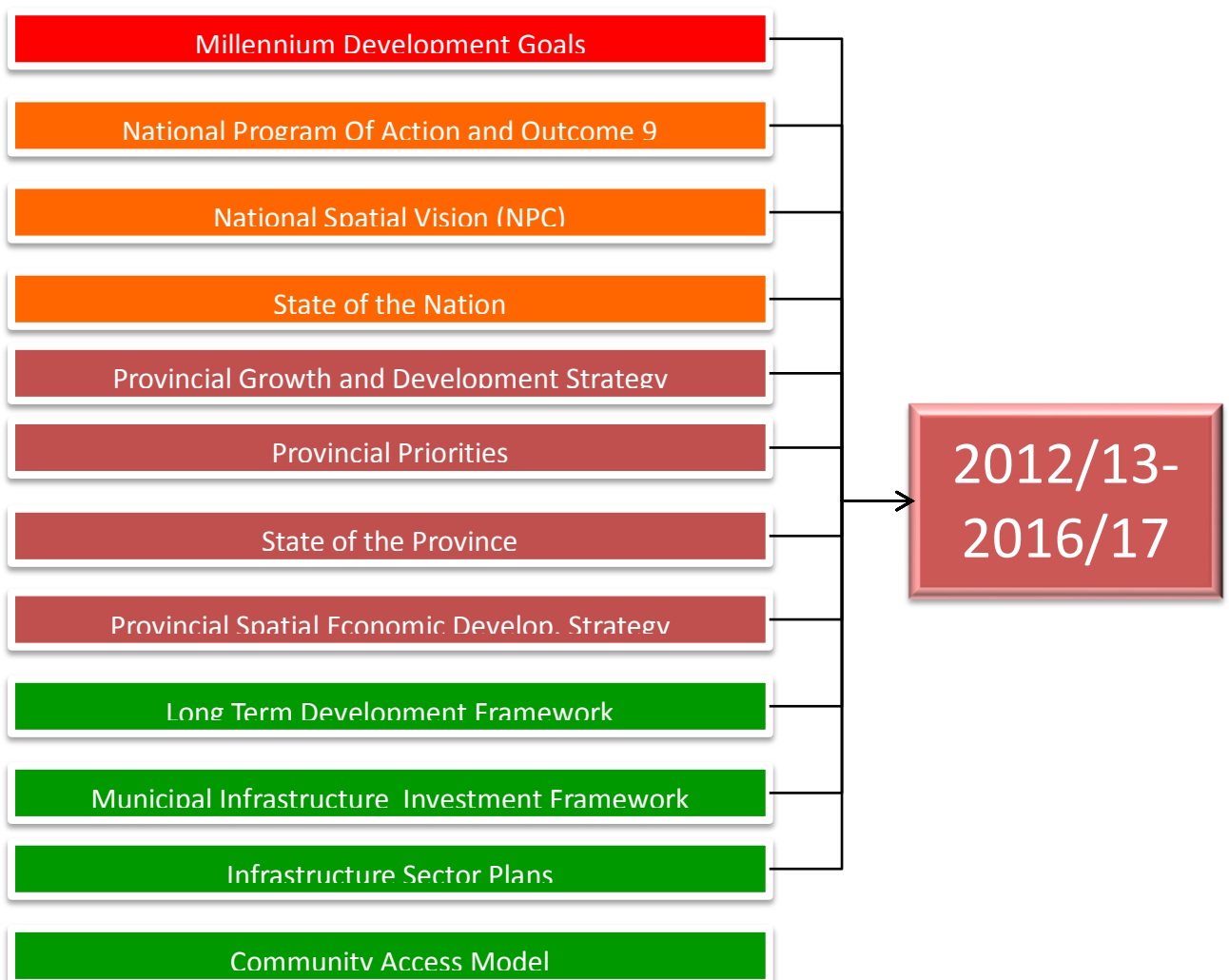
The Department of Co-operative Governance and Traditional Affairs (COGTA) is coordinating and facilitating the cross boundary planning and alignment issues as well as the spatial implications between eThekweni Municipality and the affected neighbouring municipalities.

Various meetings have been held with the neighbouring municipalities to resolve areas of non-alignment. The municipalities have agreed that joint planning and alignment is needed on the following issues: the IDP, SDF, GIS, Development Applications and Proposals, as well as development trends and pressures.

1.3 The Legal and Policy Context of the SDF

Our Municipal IDP is informed by National and Provincial spatial planning policy directives that help provide a policy context for the formulation of the eThekweni SDF. The SDF contributes to the attainment of the spatial development targets and objectives outlined in these policies and also deals with the spatial issues facing the municipal area. The objectives of these policies have influenced the development of the strategic direction that the Municipality has identified.

The diagram below represents the most recent and relevant developmental policies informing the IDP which in turns informs the SDF.



In addition to these planning policy directives, the SDF is also informed by the following national and provincial legislation and policies. A summary of these policies and legislation is given below with detail on how the SDF responds to these policies.

1.3.1 Summary of key national and provincial legislation and policies relevant to the SDF

ACT / POLICY	SUMMARY OF RELEVANT LEGISLATION
<p>National Development Plan : Vision for 2030</p>	<p>The National Planning Commission has developed a National Development Plan which focuses on enabling sustainable and inclusive development. The plan seeks to eliminate poverty and reduce inequality by providing South Africans with a secure foundation from which they can expand their capabilities and improve their life opportunities. Some directives towards achieving this include</p> <ul style="list-style-type: none"> • Developing people’s capabilities to be able to improve their lives through education and skill development, health care, better access to public transport, jobs, social protection, rising incomes, housing and basic services and safe communities. One of the critical actions identified in this plan is the need for “New Spatial norms and standards – densifying cities, improving transport, locating jobs where people live, upgrading informal settlements and fixing housing market gaps. <p>SDF Response: <i>The SDF proposes a compact city in which residential densification is encouraged within the urban core and urban development corridor and in close proximity to public transport routes and social and economic opportunities. The identification of key investment nodes, such as Dube Trade Port, Port and Cato Ridge enhances access to jobs in close proximity to where people currently reside. Emphasis is also placed on protecting land for agricultural development.</i></p>
<p>The Municipal Systems Act (MSA) (Act 32 of 2000)</p>	<p>Chapter 5 of the Municipal Systems Act (Act. No. 32 of 2000) provides for the preparation of SDF’s.</p> <ul style="list-style-type: none"> • In terms of the MSA, the SDF, as part of the IDP, prevails over any other plan as defined in Section 1 of the Physical Planning Act. • The Public Infrastructure Investment Framework (PIIF) is an integral component of the medium-term to long-term City Development Strategy, and together with the SDF informs the preparation of the IDP. The PIIF is regularly reviewed. <p>SDF response: <i>The future land use and development projections contained in the SDF and SDP’s are critical informants of the PIIF Review</i></p>
<p>Municipal Finance management Act (2003)</p>	<p>The objective of this ACT is to secure sound and sustainable management of the financial affairs of municipalities.</p> <p>Section 16. (1) Requires the municipality to approve an annual budget for the municipality and any decision must be accompanied by <i>inter alia</i>, the following documents:</p> <ul style="list-style-type: none"> • 17 (b) measurable performance objectives for revenue from each source and for each vote in the budget, taking into account the municipality’s integrated development plan; • 17(d) any proposed amendments to the municipality’s integrated development plan following the annual review of the integrated development plan in terms of section 34 of the Municipal Systems Act; <p>SDF Response: <i>The SDF indicates budget provisions and spatial priorities in a capital investment framework</i></p>
<p>Local Government Municipal Planning and Performance Management Regulations of 2001</p>	<p>Section 4 of the local government planning and performance management regulations require that an SDF should:</p> <ul style="list-style-type: none"> • Give effect to the DFA principles • Set out objectives that reflect the desired spatial form of the municipality • Contain strategies and policies to achieve the objectives and which should: Indicate desired pattern of land use. • Address the spatial reconstruction and provide strategic guidance regarding the location and nature of development • Set out basic guidelines for a land use management system in the municipality • Set out a capital investment framework for the municipalities development programs • Contain a strategic assessment of the environmental impact of the SDF • Identify programs and projects for the development of land within the municipality • Be aligned with the spatial development frameworks reflected in the integrated development plans of neighboring municipalities • Provide a plan of the desired spatial form of municipality which: should indicate where public and private land development and infrastructure investment should take place, indicate the desired or undesired utilization of space in a particular area, may delineate the urban edge, should identify areas of strategic intervention and should indicate priority spending areas.

	<p>SDF Response: <i>The SDF provides strategic guidance for public and private investment and infrastructure investment, spatial priorities and land use guidelines and identifies programmes and projects for development of land at a broad level in the SDF and in detail within its package of plans.</i></p>
<p>White Paper on Spatial Planning and Land Use Management (2001)</p>	<p>Requires municipalities to prepare an SDF with the following components:</p> <ul style="list-style-type: none"> • Policy for land use and development • Guidelines for land use management • A capital expenditure framework showing where the municipality intends spending its capital budget • A strategic environmental assessment <p>The SDF should also indicate the following:</p> <ul style="list-style-type: none"> • direction of growth, • major movement routes • special development areas for targeted management to redress past imbalances • conservation of both the built and natural environment • areas in which particular types of land use should be encouraged and others discouraged • areas in which the intensity of land development could be either increased or reduced <p>The SDF should:</p> <ul style="list-style-type: none"> • only be a strategic, indicative and flexible forward planning tool to guide planning and decisions on land development • develop a spatial logic which guides private sector investment . This logic primarily relates to establishing a clear hierarchy of accessibility • ensure social, economic and environmental sustainability of the area • establish priorities in terms of public sector development and investment • identify spatial priorities and places where public-private partnerships are a possibility. <p>SDF Response: <i>The SDF provides strategic guidance for public and private investment and infrastructure investment, spatial priorities and land use guidelines and identifies programmes and projects for development of land at a broad level in the SDF and in detail within its package of plans.</i></p>
<p>The National Spatial Development Perspective (NSDP)(2006)</p>	<p>The NSDP represents a key instrument in the states drive towards ensuring greater economic growth and sustained job creation and the eradication of poverty. The implications it has for the SDF is that it requires it to:</p> <ul style="list-style-type: none"> • address spatial restructuring • reflect on service backlogs and present a position on the provision of services, especially in the rural areas • reflect on and make proposals for the spatial implications of social investment <p>SDF Response: <i>The SDF proposes new linkages and a hierarchy of nodes (both economic and social) as well as future land uses aimed at addressing job creation and improved accessibility and facilitating the restructuring of the urban form</i></p>
<p>The National Environmental Management Act (NEMA) (Act 107 of 1998)</p>	<p>The key principles of NEMA that inform the SDF include the following:</p> <ul style="list-style-type: none"> • environmental , social and economic sustainable development; • the protection of natural resource and the maintenance of natural systems; • the provision of access to resources and environmental management that puts people and their needs first. <p>NEMA requires that these principles be applied by municipalities, and used to undertake environmental impact assessments (EIAs) and to prepare EMFs.</p> <p>SDF Response: <i>The SDF takes into consideration D'MOSS and its taking steps towards building a database and benchmarks for informing a strategic environmental assessment</i></p>
<p>National Strategy on Sustainable Development (2010)</p>	<p>The National Strategy on Sustainable Development builds on the National Framework for Sustainable Development and a number of existing initiatives by business, government, NGO's, academia and other key role players to address sustainability issues in South Africa. It is a forward-looking strategy that regards sustainable development as a long-term commitment that combines environmental protection, social equity and economic efficiency.</p>

<p>National Response to Climate Change White Paper (2012)</p>	<p>The National Response to Climate Change White Paper is the South African Government's response to the threat of climate change. It is a document that is intended to provide guidance in terms of policy development and implementation. The document focuses chiefly on mitigation, but does also include a chapter on adaptation</p> <p>SDF Response: <i>The SDF notes that the municipality is working towards various climate changes initiatives, and further highlights the need to protect agricultural land and environmental resources and promote densification within key nodes and along the IRPTN.</i></p>
<p>The National Heritage Resources Act (NHRA) (Act 25 of 1999)</p>	<p>The NHRA and the Provincial Heritage Ordinance promulgated in terms of the NHRA empower local authorities, on certain conditions, to formulate bylaws for managing local heritage resources or other higher-order heritage resources where a responsibility may be delegated.</p>
<p>New Growth Path 2010 (NGP)</p>	<p>The Accelerated and Shared Growth Initiative (ASGISA) has since been replaced by the New Growth Path 2010. The National Government's New Growth Path 2010 aims to grow the economy by 7%, create approximately 37 000 jobs per annum and create 5 million additional jobs by 2020. The New Growth Path (NGP) 2010 has been proposed to respond to the severe impacts of the economic downturn since late 2008 and includes: slow and insufficient job creation; historical trade policies and the impact of traditional partners in the Global North where growth has been slow; slow impact on income growth and poverty. Towards addressing some of these global impacts, the NGP 2010 indicates the following focus areas for economic development:</p> <ul style="list-style-type: none"> • employment creation, viz. jobs drivers • cross-cutting development policy package for growth, decent work and equity, viz. proposals for macro-economic policy, micro-economic policy, and social partner commitments • resources required to support economic development • incorporation of stakeholders in the economy through institutional arrangements <p>SDF Response: <i>The SDF identifies areas for new industrial growth and key investment areas as a catalyst for job creation and poverty alleviation</i></p>
<p>Kwazulu-Natal Provincial Growth and Development Strategy (PGDS) (2011)</p>	<p>The PGDS provides KZN with a strategic framework for accelerated and shared economic growth through catalytic and developmental interventions.</p> <ul style="list-style-type: none"> • It bolsters the Province commitment to achieving the vision of KwaZulu Natal as a "Prosperous Province with a healthy, secure and skilled population, acting as a gateway to Africa and the World". • The PGDS aims to build this by growing the economy for the development and improvement of the quality of life for all people living in the province. • In this strategy EMA is classified as a primary node within the provincial context as an urban centre with very high existing economic growth and the potential for expansion <p>SDF Response: <i>The SDF identifies areas for new industrial growth and key investment areas as a catalyst for job creation and poverty alleviation</i></p>
<p>Spatial Planning and Land Use Management Act (SPLUMA - 2013)</p>	<p>The objectives of the Spatial Planning and Land Use Management Act(SPLUMA) are to:-</p> <ul style="list-style-type: none"> • "Provide for a uniform, effective and comprehensive system of spatial and land use management for the Republic • Ensure that the system of spatial planning and land use management promotes social and economic inclusion • Provide for development principles and norms and standards • Provide for the sustainable and efficient use of land • Provide for cooperative government and inter-government relations amongst the national, provincial and local spheres of government; and • Redress the imbalances of the past and ensure that there is equity in the application of spatial development planning and land use management" <p>SDF Response: <i>The SDF identifies a hierarchy of social and economic nodes in an effort to address social facilities backlogs and economic development, has taken cognizance of national and provincial legislation and policies and is engaging in cross boundary planning in an effort to seek greater sub regional alignment</i></p>

Municipal Finance Management Act (2003)	To secure sound and sustainable management of the financial affairs of municipalities and other institutions in the local sphere of government; to establish treasury norms and standards for the local sphere of government; and to provide for matters connected therewith.
Subdivision of Agricultural Land) Act 70 of 1970)	This act governs the subdivision of agricultural land as defined in terms of the Act and such land may fall within the jurisdiction of a local municipality. Future city growth and conversion of all agricultural land will require prior approval in terms of this Act.
National Housing Act (1997)	The Housing Act of 1997 lays out the principles of the housing policy in the country and defines the roles and responsibilities of all spheres of government.
The Comprehensive Plan for the Development of Human Settlements (2004)	<p>The Comprehensive Plan is informed by international documents such as the Habitat (Istanbul) Declaration of 1996 to which South Africa was a signatory and based on national legislation such as the DFA (1995) and Housing Act (1997). The objectives of the Comprehensive Plan includes:</p> <ul style="list-style-type: none"> • Accelerating the delivery of housing as a key strategy for poverty alleviation • Ensuring property can be accessed by all as assets for wealth creation and empowerment • Leveraging growth in the economy • Combating crime, promoting social cohesion and improving quality of life for the poor • Utilising housing as an instrument for restructuring the spatial legacy of apartheid
Revised National Housing Code (2009)	<p>The code interprets the Housing Act and Comprehensive Plan for the development of human settlements. The revised Code re-emphasises the vision of the National Department of Housing to promote the achievement of a non-racial, integrated society, the development of sustainable human settlements and quality housing. A number of detailed objectives are to:</p> <ul style="list-style-type: none"> • Accelerate the delivery of housing as a key strategy for poverty alleviation • Use provision of housing as a major job creating strategy • Ensure that property can be accessed by all as assets for wealth creation and empowerment • Leveraging growth in the economy • Combat crime, promoting social cohesion and improving quality of life for the poor • Support the functioning of the entire residential property market to reduce duality within the sector, by breaking barriers between the first economy and the second economy • Use housing as an instrument for the development of sustainable human settlements, [and to] support spatial restructuring <p><i>SDF Response: The SDF identifies the preferred location of both rural and urban housing opportunities giving due cognisance to density, service standards and accessibility to social and economic opportunities</i></p>
Public Transport Action Plan (2007)	<p>The strategy is aimed towards the development of a new fully integrated public transport system incorporating all modes within a formal contract based public transport system. Consists of a three phased strategy as follows:</p> <ul style="list-style-type: none"> • Accelerated Recovery and Catalytic Projects (2007-2010) • Promote and Deliver Basic Networks (2010-2014) • Advance and Sustain Accessible Networks (2014-2020) <p>The overall goal of this initiative is to improve the quality of life for the city's residents through the establishment of an integrated rapid public transport network (IRPTN). A wall to wall plan for the project has been completed. The network will comprise an integrated package of rail and rapid bus trunk routes with dedicated right of ways (ROW), feeder and complimentary services for public transport.</p> <p><i>SDF Response: The SDF identifies the preferred location of the trunk routes giving due cognisance to density, and accessibility to social and economic opportunities</i></p>

1.3.2 EThekwini Municipal Sector Plans informing the SDF

In addition to the National and Provincial policies outlined above the eThekwini Municipal SDF is also informed by departmental sector plans. Sector Plans are municipal plans for different functions such as bio-diversity conservation, housing, transport, local economic development and disaster management. They may also be geographically based, for example a sub-region, settlement within a local Municipality or a component of a settlement. The list of eThekwini Sector plans that are informed (and also inform) the SDF are listed in Table 2 below:

Table 2: Summary of eThekwini Sector Plans

Sector Plan	Summary of the plan
Spatial Development Framework	The SDF provides parameters within which initiatives at a sector and local level should translate spatial objectives into tangible and attainable objectives, targets and projects. It provides a better understanding of the ability to translate spatial concepts and highlights the practical implications of meeting spatial challenges relative to current practice and capacity.
Spatial Development Plans	SDP's translate the strategic intentions of the SDF into geographically specific regions, highlighting land use, density, environmental, social, economic and infrastructural directives and priorities.
LTDF- "Imagine Durban"	In essence, the Imagine Durban process involves enabling us to place a long term lens over the existing planning framework to produce a clear and effective long term action plan that outlines the steps to be followed in order to implement and operationalise our vision for the future. More importantly, it is about creating a community-based process to agree on a desired development path and to mobilize resources across the Municipality which will afford an action oriented framework with specific targets, implementable programmes and measurable project outcomes.
eThekwini Industrial Spatial Strategy	The aim of the strategy is to guide the spatial redevelopment of industrial activities within the Municipality. The objective of such redevelopment is to optimize the location benefits for key sectors and to enable them to maximize advantages inherent in clustering. In this manner the Municipality can facilitate a business environment where efficiency and productivity in all spheres is maintained at internationally competitive levels.
Water Conservation Guidelines Green Landscaping Guidelines Energy Efficiency Guidelines and Green Roof Guidelines	These guidelines were prepared through the Greening Durban 2010 Programme and subsequent work, an initiative aimed at ensuring that a positive environment legacy is achieved. The information contained in the water conservation guideline are around daily management of water and ensures that water is used efficiently and effectively. The green Landscaping guidelines provide information which is replicable to any landscaping project thereby creating an aesthetically pleasing, cost effective, functional, low maintenance and environmentally sound landscape. The energy efficiency guidelines provide information which can be used to stimulate wider implementation of intelligent building design thereby becoming more energy and resource efficient. The green roof guidelines provide recommendations on the creation of green roofs (substrates, planting palettes etc.) in Durban and their benefits in terms of addressing climate change and promoting biodiversity
Municipal Adaptation Plan, Health and Water	An increase in global surface temperature leads to changes in atmospheric circulation and sea levels, which in turn alters rainfall patterns and increases the intensity of storms. Durban already faces challenges associated with water availability and storms, but the nature and occurrence of these events is likely to change with altered climates. The impact of these direct, physical, climate risks have multiple, interlinked, secondary and tertiary effects including effects on social and institutional arrangements. Water availability and quality, and health (including food security) have been identified as potentially being critically affected by climate change in Durban. The institutions central to the responses to these challenges within eThekwini Municipality are: <ul style="list-style-type: none"> • Water Sector Water and Sanitation (Coastal, Storm water and Catchment Management and Coastal Policy) • Health Sector Environmental Health (Clinical Health; Social Development (food security); and Communicable Disease Control. In addition to the health and water sectors, the Disaster Management Department is affected

	through the need to respond to emergency situations. Responses by the respective institutions need not be specific to that institution. On the contrary, the best adaptation responses are likely to be shared between institutions and departments and provide solutions to a range of threats.
Energy Strategy of 2008	The Vision Statement of the Energy Strategy reads:: Encourage sustainability in energy sector development and energy use through efficient supply-side and demand-side practices and increased uptake of renewable energy sources. Thereby: Minimising the undesirable impacts of energy use upon human health and the environment, particularly climate change and contributing towards secure and affordable energy for all. The Energy Strategy – in line with national and provincial policies – sets targets for the reduction of Greenhouse Gas emissions in four sectors: residential, transport, municipal operations, and industry/commercial/agricultural. The reductions are to be achieved through energy efficiency and generation of energy from renewable sources.
eThekwini Agricultural Status Guidelines	This status quo report provides an overview of potential to undertake agricultural activities within the EMA. As such it provides an assessment of the natural resources, infrastructure, agricultural activities and products, markets and support mechanism relating to agricultural sector.
Agricultural Policy for eThekwini	This document presents a policy for future agricultural development in the rural areas of the eThekwini Municipality. The intended purpose of the policy is to promote integrated, coordinated and sustainable agricultural development in these areas.
Economic Development Strategy	The strategy provides a framework within which to develop partnerships with business and society to drive economic initiatives, and guidance to maintain high quality core infrastructure that serve key economic nodes in the EMA. The Economic Development Strategy (EDS) seeks to improve the business environment within key economic nodes to encourage growth and further investment, provides a framework for the identification and development of catalytic projects, encourages broad based black economic empowerment (BBBEE) and promotes small, medium and micro-enterprises (SMMEs).
INK Economic Development Profile eThekwini Housing Sector Plan	The aim of this report is to produce user friendly and easily readable information on the economic character of the Inanda, Ntuzuma, and KwaMashu (INK) Integrated Sustainable Urban Development node. The Housing vision visualizes “ The creation of sustainable human settlements in eThekwini Municipality with a view to ensuring that ... all residents will have access to a housing opportunity which includes secure tenure, basic services and support in achieving incremental housing improvements in living environments with requisite social, economic and physical infrastructure.” The Municipality has various housing programmes, some of which overlap but fall under two main groups; individual ownership and rental. Under individual ownership there is Rural Housing, Greenfield, Upgrading and Affordable Housing. Under rental there is Social Housing, Council Rental Stock and Community Residential Units (CRU's). The Informal Settlement Program is the main focus of eThekwini Housing and its principal intention is to upgrade informal settlements wherever possible and only to relocate if upgrading is impossible for health, safety or technical reasons. The Greenfields Program as well as other related individual ownership programs complements the Informal Settlement Upgrading Program and the Rural Program lies outside the Urban Development Line (UDL). The aim of the Rental Program is to provide rental tenure for low income earners who cannot afford units in the Social Housing Program. The SDF addresses housing need and backlog by identifying areas for residential intensification, infill and redevelopment and well as areas for new residential growth that support public transport, increase accessibility to social and economic opportunities.

Integrated Transport Plan	<p>eThekwini Integrated Transport Plan has been prepared in terms of National Land Transport Act, 2009 (Act 5 of 2009) and addresses the period 2010-2015. ETA's (eThekwini Transport Authority) mission statement is "To provide and manage a world-class transport system with a public transport focus, providing high levels of mobility and accessibility for the movement of people and goods in a safe, sustainable and affordable manner".</p> <p>This has been translated into five goals: Effective transport, efficient transport, sustainable transport, safe & secure transport and black economic empowerment. The five primary focus areas in the ITP are: Public transport, Freight, Road Safety, Roads, Traffic management and control. Transport systems and services aim to: improve quality of life for all, support government strategies for economic growth and social development, improve levels of accessibility and mobility, minimise time spent in transit, be economically and environmentally sustainable as well as make provision for community participation</p>
Water Services Development Plan	<p>A Water Services Development Plan is a plan to progressively ensure efficient, affordable, economical, and sustainable provision of water services (i.e. Water and Sanitation services). It deals with socio economic, technical, financial, institutional and environmental issues as they pertain to water services.</p>
eThekwini Disaster Management Framework	<p>In compliance with the Disaster Management Act No. 57 of 2002, the eThekwini Municipality has compiled a Disaster Management Framework. The Framework is based on the nationally accepted four key performance areas (KPA) viz.: Integrated institutional capacity for disaster risk management; Disaster risk assessment; Disaster risk reduction; Response and recovery</p>

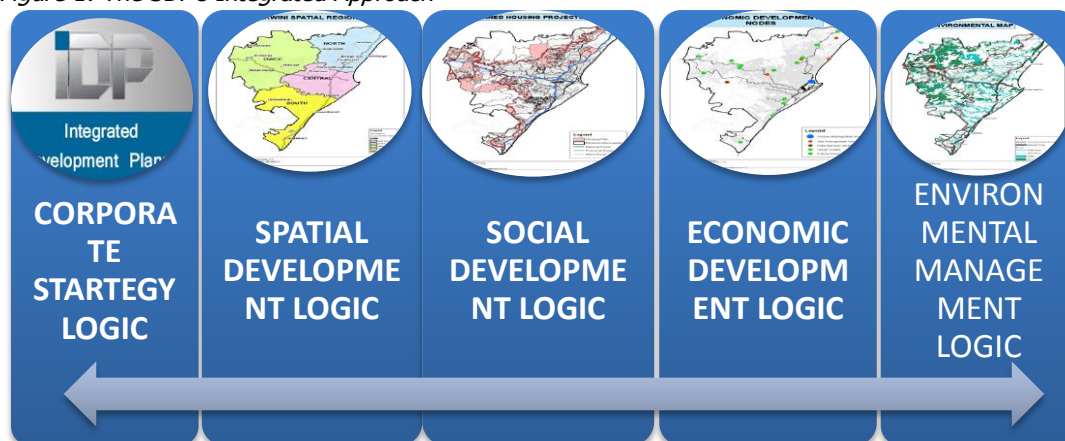
1.3.3 Municipal Horizontal and Vertical alignment

The eThekwini Municipality has used alignment as an instrument to synthesize and integrate the top-down and bottom-up planning process between different spheres of government. There are two types of alignment procedures that eThekwini Municipality has initiated in the planning process i.e. vertical and horizontal alignment.

Vertical alignment is between eThekwini Municipality and neighbouring municipalities as well as other spheres of government (Provincial, National Departments, Private Sector and other stakeholders such as Eskom, Telkom). The aim of this alignment is to ensure that the IDP is in line with National and Provincial policies and strategies so that it is considered for the allocation of departmental budgets and conditional grants. It also guides the private sector in terms of highlighting areas of strategic investment and critical spending.

Horizontal alignment is within municipality sector plans to ensure that the planning process is integrated, issues are co-ordinated and addressed jointly. The following diagram reflects how the SDF approach considers all the relevant municipal plans and promotes integration:

Figure 1: The SDF's Integrated Approach



1.4 Background to the eThekweni Municipal Area's (EMA's) Planning Context

In addition to national, provincial and local policies, our Municipal SDF is also informed by previous planning initiatives of Municipality including initiatives that came about as a result of the local government restructuring process. In December, 2000 a new Council for eThekweni Municipality (Unicity) was established as part of the Developmental Local Government Agenda that required that one local government body be responsible for the overall strategic planning and management of the EMA. The New Council involved the amalgamation of seven councils administered by the old Durban Metropolitan Area, the Umkomaas Traditional Local Council and portions of ILembe and Ndlovu Regional Councils.

Due to the multiplicity of local authorities, institutional fragmentation and poorly coordinated and uneven spatial and economic development pattern the restructured local government provided a window of opportunity to address the historical lack of strategic spatial guidance, as well as a more cooperative approach to manage shared resources and introduce an approach to land use management that is more flexible and responsive to development. This change enabled the eThekweni Municipality to move beyond just the delivery of services and goods administration to strategically turning the Municipality into a globally competitive and attractive Municipality

Out of the restructuring process, eThekweni Municipality embarked on the following initiatives:

1.4.1 The Long Term Development Framework (LTDF)

In 2001 eThekweni Municipality embarked on a process to develop a LTDF and Integrated Development Plan for the eThekweni Municipal Area. The LTDF process was intended to assisting the newly formed eThekweni Municipality to identify challenges that it faced as a result of the

amalgamation that needed to be addressed in both the short and long term. The LTDF mapped out the developmental challenges and strategic vision for the eThekweni Municipality over a period of twenty years and strategic priorities over the first five years. The vision statement as identified in the LTDF was as follows:

“By 2030 the eThekweni Municipality will enjoy the reputation of being Africa’s most caring and livable city, where all citizens live in harmony. This vision will be achieved by growing its economy and meeting people’s needs so that all citizens enjoy a high quality of life with equal opportunities, in a city that they are truly proud of”.

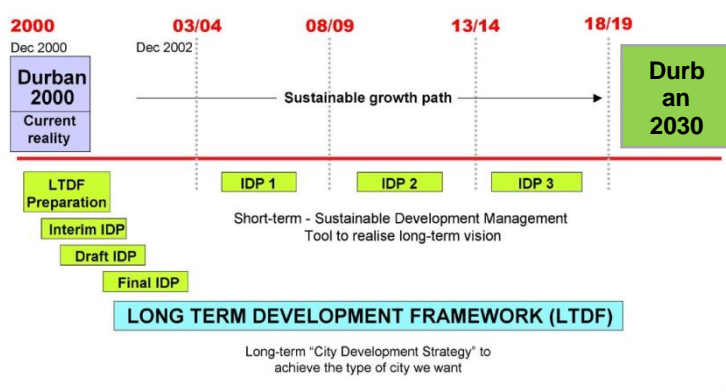
The vision was informed by the development challenges that were identified and needed to be achieved, namely:

- Have ease of movement in the Municipality
- Enjoy a safe environment in all parts of the municipal area
- Afford what the Municipality offers
- Enjoy a clean and green Municipality
- Have access to economic opportunities
- Enjoy homely neighbourhoods
- Have access to services, in particular municipal, health and education services

With delivery of these, the people of eThekweni should be able to:

- Live in harmony
- Be proud of their Municipality
- Feel protected
- Feel their basic needs are being met

The following diagram represents the Municipality’s sustainable growth path as represented in the LTDF.



The IDP had a similar five year timescale with detailed management plans for the Municipality including programmes, projects, budgets and performance indicators.

1.4.2 Imagine Durban Long Term Development Plan (LTDP)

In 2010 the LTDF was revised through the Imagine Durban Long Development Term Plan project. The main purpose of this project was to develop a visionary plan that can inspire citizens, non-governmental organizations, businesses and government to work together to refine the vision statement and key strategies. The revised vision statement as outlined in the Imagine Durban process and as adopted by the 2010 and beyond IDP reads: “By 2020 eThekweni will ***be Africa’s most caring and liveable city***”.

This vision will be achieved by growing its economy and meeting people’s needs so that all citizens enjoy a high quality of life with equal opportunities, in a Municipality that they are truly proud of. The Imagine Durban Long Term Plan outlined the following key strategies through the development framework:

- Creating a Safe Municipality;
- Promoting an Accessible Municipality;
- Creating a Prosperous Municipality where all enjoy Sustainable Livelihoods;
- Celebrating our Cultural Diversity, Arts and Heritage;
- Ensuring a more Environmentally Sustainable Municipality; and
- Fostering a Caring and Empowering Municipality.

1.4.3 The IDP’s Eight Point Plan

In line with the refined long term plan’s vision, strategies and outcomes, the eThekweni Municipality’s IDP’s Eight Point Plan outlined the short term strategies and outcomes intended at addressing the key challenges and achieving the long term vision. The eight point plans are the Municipality’s delivery plan, which despite being separate plans are supportive of each other to ensure effective delivery. The eight plans are:

1. Develop and Sustain our Spatial, Natural and Built Environment.
2. Developing a Prosperous, Diverse Economy and Employment Creation.
3. Creating a Quality Living Environment.
4. Fostering a Socially Equitable Environment.
5. Creating a Platform for Growth, Empowerment and Skills Development
6. Embracing our Cultural Diversity, Arts and Heritage.
7. Good Governance and Responsive Local Government.
8. Financially Accountable and Sustainable Municipality.

Given the fact that the Spatial Development Framework is a spatial translation of the Municipality’s IDP, and hence the eight point plans, the spatial vision, strategies and outcomes are also linked to

both the short and long term strategies as outlined within the IDP and the Long Term Development Plan.

1.4.4 Current Planning Approach in the eThekweni Municipality

The eThekweni Municipality has developed a comprehensive land use management system for the entire Municipal area to give effect to the requirements of Section 26 of the Municipal Systems Act (2000). A key aspect of this system is the preparation of a “Planning and Development Management Toolbox” which will include a Package of Plans.

The establishment of the system includes a range of planning activities all running in parallel with each other with the common purpose of updating, refining and establishing appropriate mechanisms for managing land use and development in the Municipal area.

This Package of Plans is a **cyclic, integrated** and **iterative** process and shows the move from Municipality wide strategic level plans to detailed local level plans and land-use schemes. It is important therefore to consider the entire Package of Plans as part of the IDP / SDF as, together, this communicates the strategic intent through to the detailed land use guidelines as required in terms of the Municipal Systems Act.

The diagram below indicates the package of plans concept while table 3 identifies the purpose and scope of each level of plan:

1.4.4.1 Package of eThekweni Plans

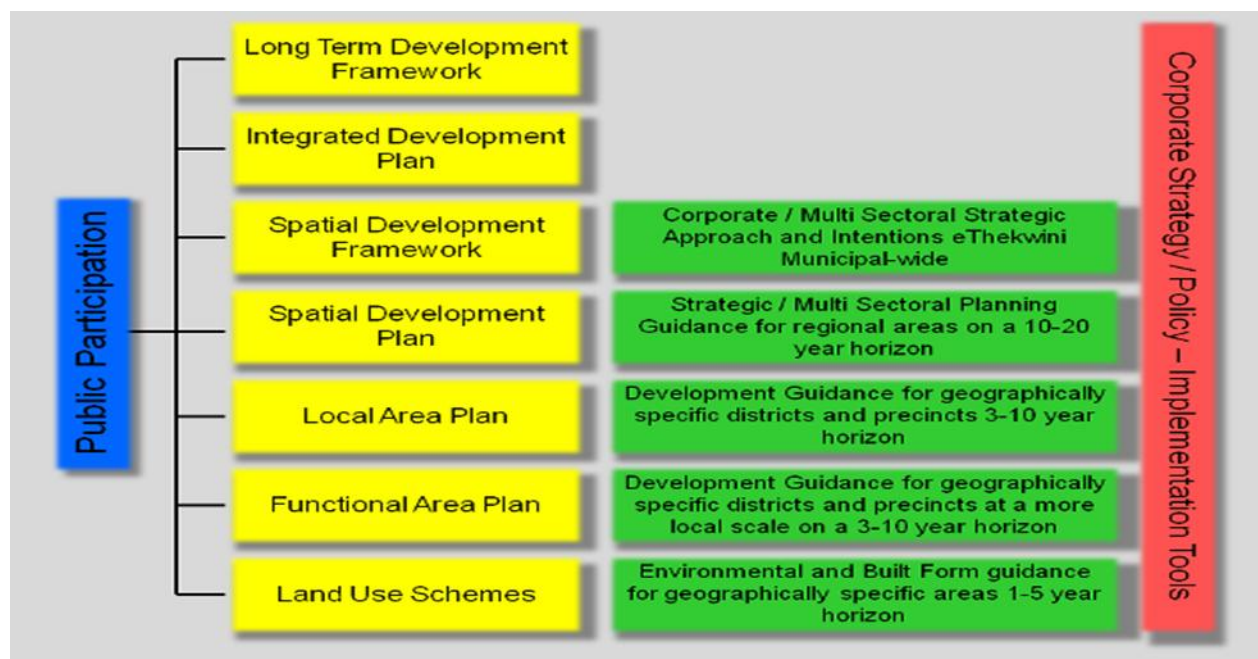
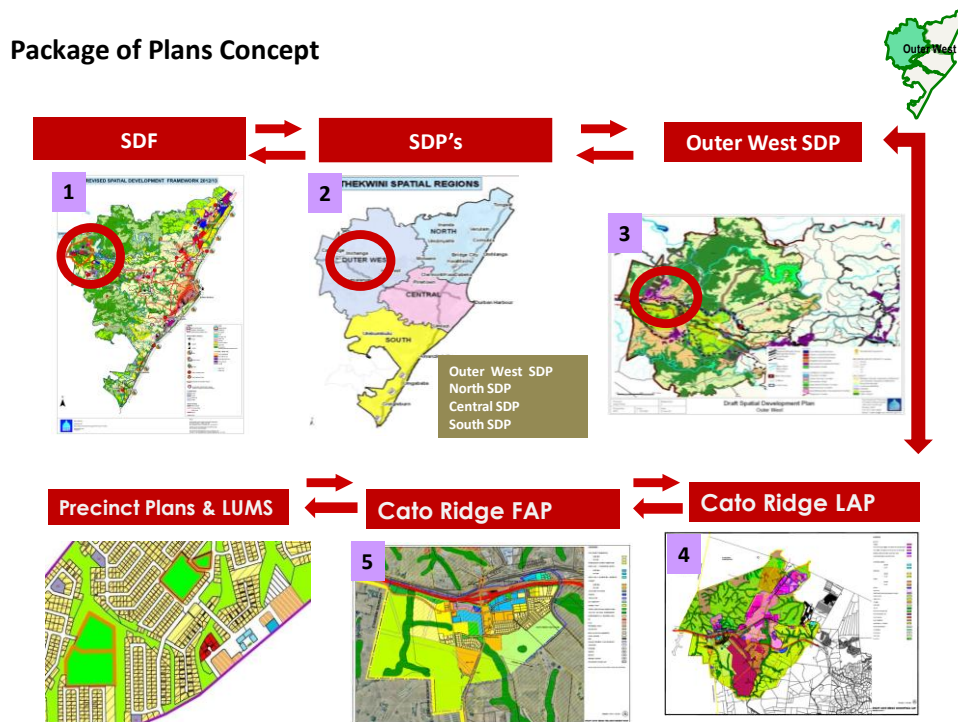


Table 3: Purpose and scope of existing municipal plans

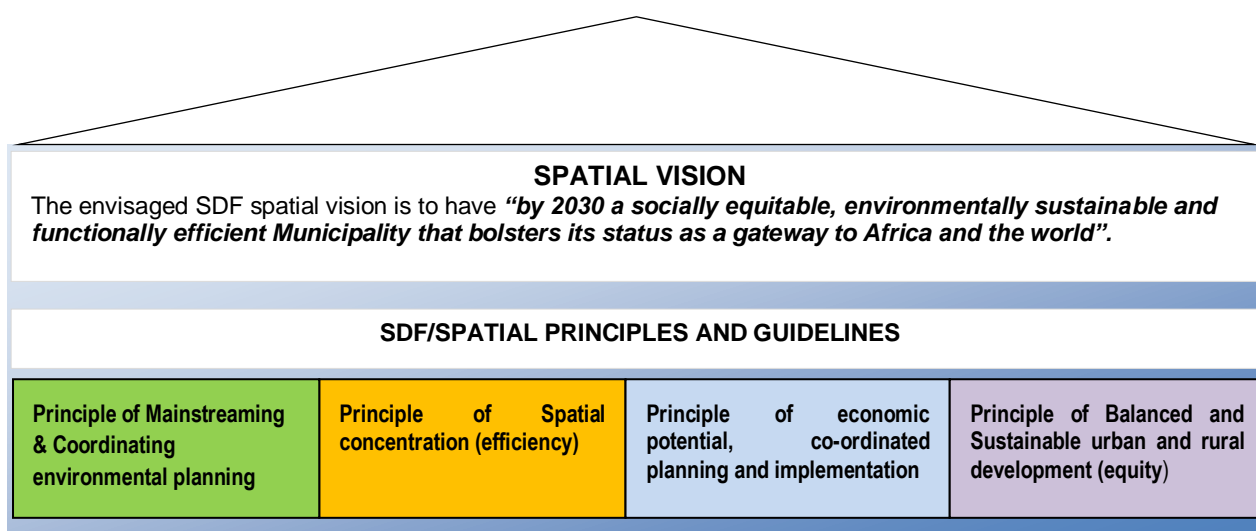
PLAN TYPE	SCOPE	PURPOSE
Long Term Development Framework	Strategic: Economic Social and Environmental Objectives	Strategic Development Direction for the Municipality
IDP	Strategic: Operational Implementation	Strategic Implementation Direction and Imperatives for the Municipality
Spatial Development Framework	Strategic: Spatial Development	Strategic Spatial Development Intentions for the Municipality based on the LTDF, Imagine Durban and IDP
Spatial Development Plan	Strategic: Spatial Development	Translation of Spatial Development Intentions into Land Use, Transport, Environmental, Infrastructure implications Broad based Land Use Directives to guide Local Area Planning and LUMS, Bulk Infrastructure and Transportation Planning Directives for the Municipality
Local Area Plan	Detailed Physical Plan	Detailed Physical Planning Directives for the Municipality - Refining Land Use, Transport, Environment and Infrastructure to a level that informs the preparation of a Land Use Scheme. Also includes Urban Design Directives for Public and Privately owned Land. May include implementation proposals
Functional Area Plan	Detailed Physical Plan for special areas	Detailed Physical Planning Directives for the Municipality for areas with special environmental, economic, heritage etc characteristics. Detailed Urban Design Directives and / or Proposals. May include implementation proposals
Land Use Schemes	Legislative and statutory component that is the implementation.	Drive and direct development The SDF gives effect to the intentions of the IDP and provides a framework for the formulation of an area and even site specific land used controls depending to the size of SDF area. Since eThekweni is a metro, its SDF could not be directly translated into a scheme level.

Below is the typical example of spatial representation of the EThekweni Package of Plans showing how plans are translated from an SDF level to a level of detail.



1.5 Spatial Vision and Principles informing eThekweni Municipal SDF

The principles as discussed below are informed by key national and provincial policies that have a bearing on the SDF and are regarded as fundamentally true planning principles that inform the vision statements, spatial analysis and proposals of this SDF. The spatial principles are introduced as part of the first chapter as they inform all deliberations on spatial planning as will be discussed and proposed in this document.



The SDF translates the current municipal vision, namely, ***“By 2030 eThekweni will be Africa’s most caring and livable city”***, to have a spatial focus. The envisaged SDF spatial vision is to have ***“by 2030 a socially equitable, environmentally sustainable and functionally efficient Municipality that bolsters its status as a gateway to Africa and the world”***. This vision is expanded upon in the development principles discussed below. The SDF spatial vision and principles have been informed by the National Development Plan, Vision for 2030 (National Planning Commission, 2011), the Provincial Growth and Development Strategy (PGDS, 2011) and the IDP. The principles in turn lay the foundation for the SDF proposals and strategies that give direction to a range of spatial outcomes relating to growth and development of the EMA. The underpinning spatial principles are as follows;

1.5.1 Mainstreaming and Coordinating Environmental Planning

The principle of Mainstreaming and Coordinating Environmental Planning is intended to protect and conserve environmentally sensitive areas and prime agricultural land within the Municipality and encompass the integration of social, economic and ecological factors into planning, decision making and implementation in order to:

- reduce greenhouse gas emissions, build resilience to extreme weather events, and enable long term adaptation to climate change;
- promote positive environmental quality and introduce environmentally sensitive management of development;
- promote a spatial form that supports the EMA as a world class/globally competitive region;
- promote an inherent value of the natural and built environment and an understanding of the environment's role in providing natural resources to underpin sustainable socio-economic development;
- alleviate environmental and pollution related health hazards;
- retain and enhance natural qualities and assets of the EMA.
- build urban resilience in response to a future that is increasingly uncertain

1.5.2 Promoting Spatial Concentration / Efficiency

The principle of Spatial Concentration / Efficiency is aimed at ensuring the optimal use of existing resources and infrastructure, discouraging urban sprawl, encouraging residential & employment opportunities in close proximity, streamlining development application procedures and decision-making procedures aimed at sustainable development. Based on this principle the EMA must strive to:

- promote a more compact development by encouraging higher densities where appropriate to reduce the need to travel and increase accessibility;
- reduce the separation between places where people work and live;
- optimize development in areas of greatest opportunities\encourage efficient use of infrastructure and facilities;
- promote optimal use of remaining land opportunities by encouraging urban infill;
- foster a socially equitable environment where the resources, opportunities and amenities offered by the Municipality are easily accessible to all
- promote effective public transport and non-motorised transport in support of a more efficient spatial form

1.5.3 Enhancing Economic Potential, Co-ordinated Planning and Implementation to support economic growth

This principle is aimed at improving productivity and closing economic performance gaps, promoting sustainable economic growth and ensuring the alignment of projects. This principle not only aims to improve productivity but also recognizes that infrastructure planning and delivery has a direct impact

on the quality of household and community life as well as impact on how efficiently the economy functions and on the utilization of a region's potential.

In order for eThekweni to maintain its status as a gateway to Southern Africa and the world, particular attention to its infrastructure planning and delivery is needed. The Municipality must invest in building modern infrastructure, particularly freight and logistics, that reduces business costs, enhances competitiveness and creates employment firms. In line with this principle the Municipality needs to:

- promote Dube Trade Port as a key transport, logistics and communication hub
- promote development of Information and Communications Technology (ICT)
- invest and maintain tourists nodes
- ensure energy production capacity
- invest in public infrastructure to support people in social and work life
- regenerate key economic nodes and corridors especially in townships
- support greater industrial land
- promote investment in key sectors and create a diverse economy and
- reduce the cost of doing business and simplifying development procedures

1.5.4 Promoting Balanced and Sustainable Urban and Rural Development

In the South African context, the concept of equity is an extremely important component of society as it emphasizes the need to re-dress unequal planning of the past. As with other South African cities, eThekweni has been shaped by the political ideologies of apartheid and post-apartheid class divisions, in which racial groups are separated and buffered from each other with the poorer groups located on the periphery of the Municipality.

Few formal job opportunities exist within these dormitory suburbs and accessing employment means long daily commuting to larger centers. Commuting distances range from 12–25 km to more than 40 km. In this context, balanced development promotes the linking of areas of economic opportunity with areas of greatest needs and promoting a mixture of land uses in support of each other at various spatial urban and rural scales.

This principle brings to attention the development of rural areas which have largely been neglected in planning and have been addressed as completely separate entities to urban areas. The plan advocates for the integration of rural and urban areas so there is equality in decision making associated with general planning and land use management across the entire Municipality area. To this end, this principle of an equitable city is adopted and translated as an informant to:

- create quality and safe living environments for all residents of the Municipality (urban and rural).
- address spatial imbalances ensuring that basic needs/services provision is prioritized in areas with social and servicing backlogs

- reduce infrastructure and service disparities
- redressing imbalances in the location of employment opportunities
- promote integration by linking and reducing distances between people, places and activities
- make rural areas productive
- build greater resilience to social and economic climatic shocks particularly in areas of need

CHAPTER 2

INTRODUCTION TO ETHEKWINI MUNICIPAL AREA

Synopsis: This role of this chapter is to *introduce* the reader to the local context of the Municipality within a broader provincial and local context within which exists. From a broader provincial level the planning issues and challenges relating to cross border planning of eThekweni Municipality with its surrounding municipalities are outlined. The spatial development team has initiated working stream with neighboring Municipality to discuss proposals particularly those with cross border implications in an effort of fostering cross border alignment and planning. From a local context eThekweni's planning background and current planning is explored with a particular focus on the four Municipal Planning Regions, namely, *the North, Central, South and Outer West* Planning Regions. The Municipal Land Use Management Framework (Land use schemes) have also been reviewed under the local context.

2. INTRODUCTION TO ETHEKWINI MUNICIPAL AREA (EMA)

2.1 EThekwini Contextual Framework

The eThekwini Municipality is located on the east coast of South Africa in the Province of KwaZulu-Natal (KZN). The eThekwini Municipal Area (EMA) spans an area of approximately 2297km², extending from Tongaat in the North to Umkomaas in the South and from the coastline in the East to Cato Ridge in the West.

About 45% of the Municipality is rural while the remainder of 30% is peri-urban and 25% urban. About 90% of the rural areas are under traditional leadership and authority. The municipal area has 103 wards 60% of which are rural in nature. The coastline and beaches are significant tourist anchors for accommodation, commercial and entertainment development. Durban's central beachfront is arguably the most important tourism and recreation resource in the EMA.

2.1.1. EThekwini Demographic Profile

Population

The total population of eThekwini is currently approximated at 3.4 million just over one third of the population of KwaZulu-Natal province (Stats SA 2011). The population number is projected to rise to approximately four million by 2020 (eThekwini Municipality IDP Review 2014/2015). According to Stats SA (2011) the population has grown by 1,08% from 2001 to 2011 as against 2,34% from 1996 to 2001. The growth of the population is likely to be driven by the general trend of migration and natural growth.

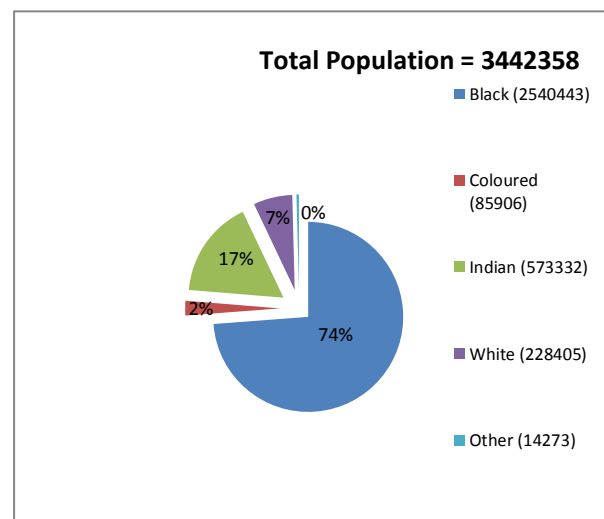


Figure 2: Total Population and Profile by Race

The people who reside within the municipal area consist of individuals from different ethnic backgrounds. The majority of the population come from the African community (74%) followed by the Indian community (17%), White community (7%), Coloured community (2%) and other nationals (0.4%).

Gender Profile

The gender profile of the eThekweni Municipality is typical of the trend in most other municipal areas. There are a greater number of females totaling to 1759956 as opposed to males which are 1682408. The diagram below presents the gender profile.

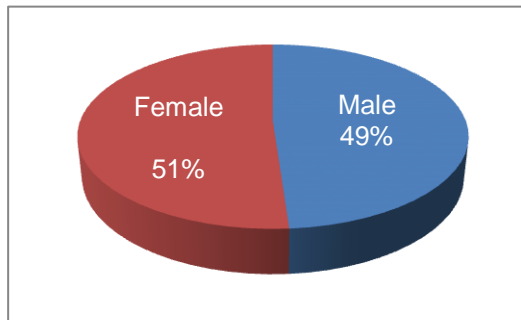
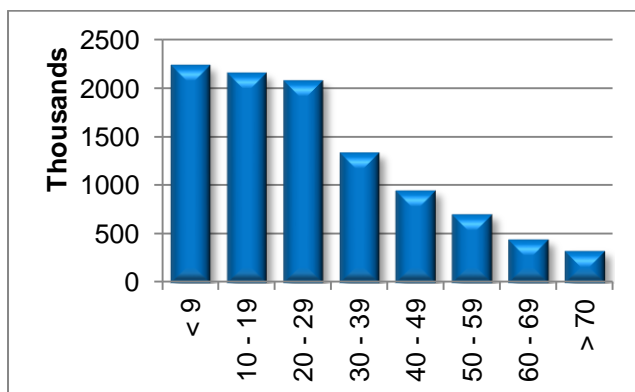


Figure 3: Gender Profile

Age Profile

The majority of the population in eThekweni Municipality is still very young falling within the 0-29 year age category. The 60-70 and above year category constitutes a small percentage of the entire population.

A relatively young population implies a high dependency rate on the working population to meet the needs of this young population. As such there is significant pressure on the working population to take care of the youth and the elderly. To further exacerbate the problem, not all the people within the economically active category are employed.



Age (Years)	
< 9	2240668
10 - 19	2158370
20 - 29	2083313
30 - 39	1341855
40 - 49	953722
50 - 59	709965
60 - 69	447006
> 70	332371

Figure 4: Age Profile

Education Profile

29% of the eThekweni Municipal population has some secondary education, 19% of the population has some primary education, 4% has no schooling and 4% is unspecified meaning they are functionally illiterate in that they either do not have school-based education or have not received sufficient school-based education to acquire marketable skills and engage in serious business ventures. 26% of the population has secondary education (grade 12/standard 10) while only 8% of the population have tertiary level education.

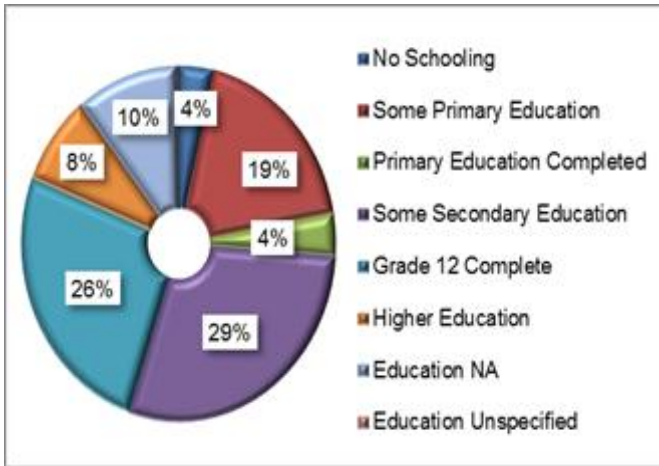


Figure 5: Education Profile

HIGHEST EDUCATION	
No Schooling	720792
Some Primary Education	2540146
Primary Education Completed	471590
Some Secondary Education	2723785
Grade 12 Complete	1934764
Higher Education	551452
Education NA	1308153
Education Unspecified	16629

Employment Profile

An extremely high percentage of the population is not economically active. This also means high dependency ratios on household heads with low income levels. Despite the diversified nature of the local economy, unemployment in the municipal area is of concern as only 992560 of the total labour force are employed. The unemployment rate is currently estimated at 430319 of the population while 873583 of the total labour force are not economically active.

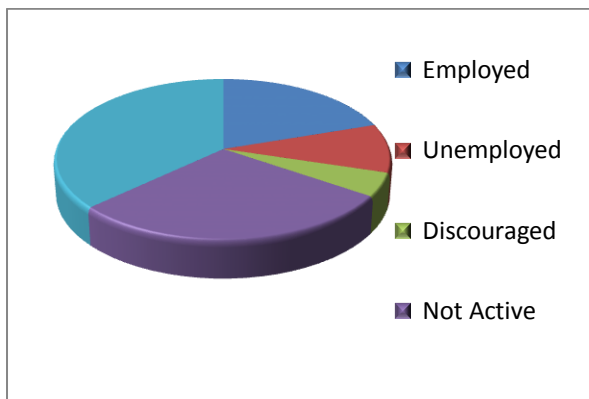


Figure 6: Employment Profile

Employment Profile	
Employed	992560
Unemployed	430319
Discouraged	114229
Not Active	873583
Employment NA	1031671

Individual Monthly Income

The majority of the population earn below R800 per month.

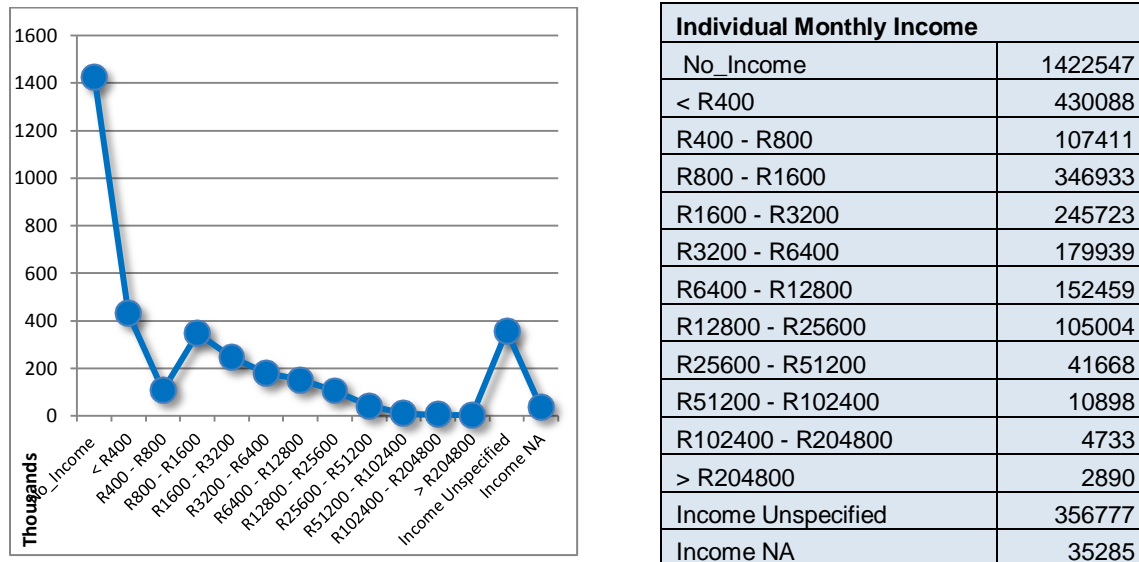


Figure 7: Individual Monthly Income

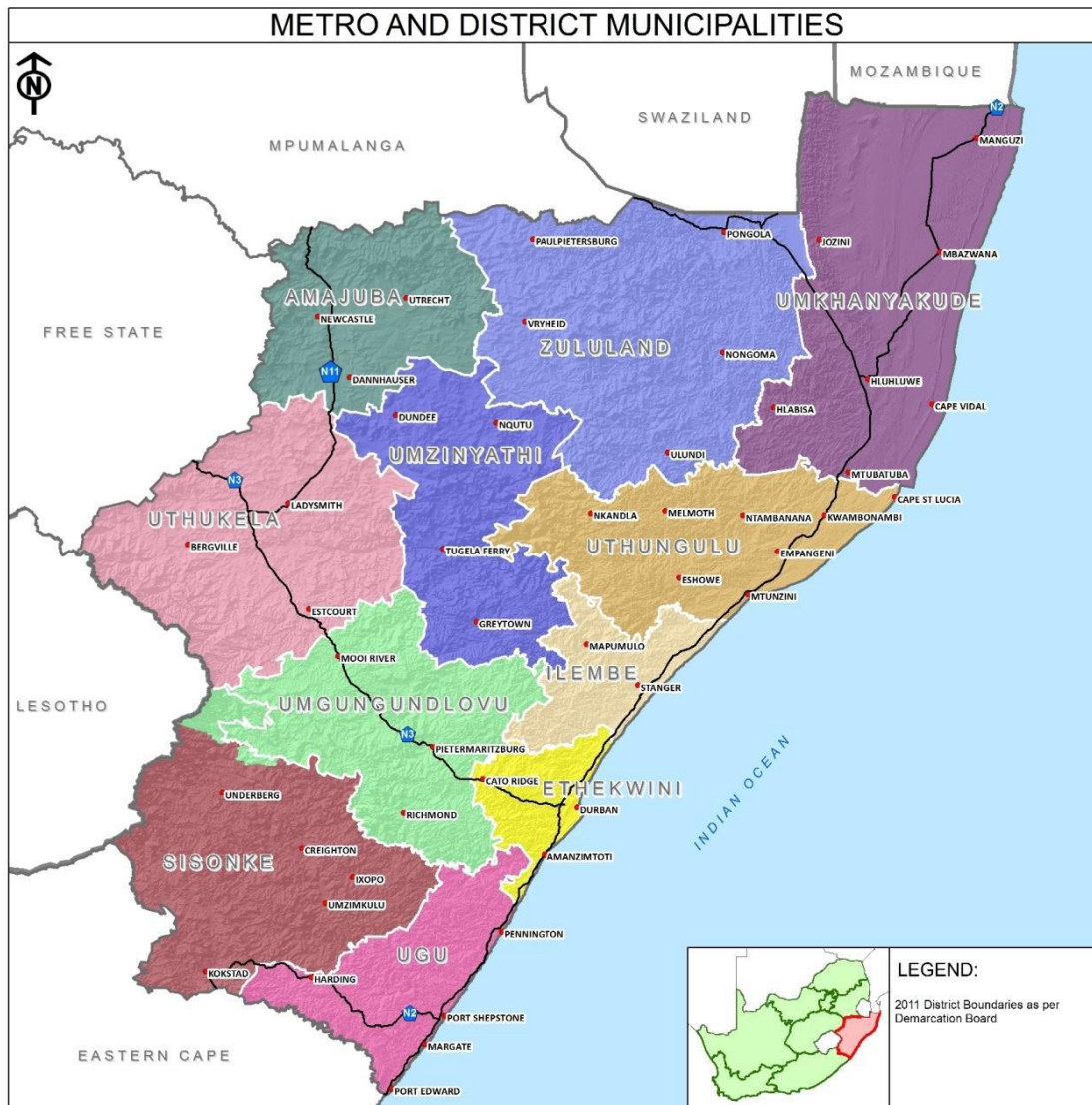
In terms of population spread, the greatest population concentrations occur in the central and north planning regions. The central planning region is the Urban Core of the EMA and is home to approximately 1.18 million people which represents 34.4% of eThekweni's total population of approximately 3.4 million people. In terms of population size it is followed by the northern region which is home to approximately 1, 15 million people, which represents approximately 33.6% of eThekweni's total population.

The South accommodates approximately 760 000 people or 22% of the total municipal population. The Outer West region accommodates the least number of people with a total population of approximately 338 000 people; this is approximately 10% of the total population of some 3.4million people (Stats SA, 2011).

2.2. Neighbouring Municipalities

The eThekweni Municipal Area (EMA) is bordered by three district municipalities, namely, iLembe in the north, UGu in the south and uMgungundlovu in the west. These are shown in Map1 below:

Figure 8: Provincial Context of EMA



Source: PGDS presentation by COGTA

The eThekweni Municipality is contextualized as a Metropolitan area within a broader context of KwaZulu-Natal Province and as such is aligned with the spatial development frameworks of neighboring municipalities. The alignment with neighboring municipalities is necessary in order to:

- prevent conflicting initiatives and land uses to be implemented on opposite sides of a boundary
- ensure an aligned regional vision with regards to the region's infrastructural development to allow governments to take advantage of comparative advantages offered within an area. This also refers to cross border provision of services such as education facilities which can be utilized by

communities residing in two municipalities. This allows for cost effective provision of services and is applicable to the provision of civil services, social services and economic opportunities.

2.2.1 Cross- Municipal Boundary Planning Engagements

The eThekweni Municipality has a mandate to ensure that its IDP is in compliance with the planning legislation and policies and to give effect to the development of an SDF as a spatial representation of the IDP. The municipal SDF directs and guides strategic investments that are developmental and beneficial both within eThekweni and across neighbouring municipalities. The Department of Co-operative Governance and Traditional Affairs (COGTA) is coordinating and facilitating the cross boundary planning alignment meetings to ensure that the spatial implications of planning initiatives between the eThekweni Municipality and the affected neighbouring municipalities are addressed. To this end, a number of cross border planning and alignment meetings have been held on an ongoing basis the purpose of which is to discuss cross border planning and alignment issues.

The municipalities have agreed that the areas that need joint planning and alignment include the IDP, SDF, GIS, environmental frameworks and joint consideration of Development Applications and Proposals in addition to the need for sub-regional planning and entering into agreements for the sharing of infrastructure services and resources.

A summary is given below of municipalities bordering eThekweni with their key planning issues as they relate to the eThekweni Municipality:

Table 4: Summary of planning issues with municipalities bordering eThekweni

DISTRICT MUNICIPALITY	LOCAL MUNICIPALITIES THAT SHARE A BORDER WITH EMA	CROSS BORDER ISSUES
iLembe Municipality Local municipalities that are within iLembe include the following: <ul style="list-style-type: none"> • KwaDukuza • Ndwedwe • Maphumulo • eNdongasuka 	KwaDukuza <ul style="list-style-type: none"> • Is the strongest local municipality in iLembe economically, • Houses the towns of Ballito and KwaDukuza (Stanger), • Has a mix of coastal tourism, commercial, light industrial and agricultural activities. Shares northern border with EM. Ndwedwe <ul style="list-style-type: none"> • One of the rural/traditional/ agricultural Local Municipalities • Has poor level of services and infrastructure, • Has high unemployment, • shares north western border with EM 	KwaDukuza <ul style="list-style-type: none"> • Vision of an economic corridor along N2 & R102, • Degree of unregulated economic and residential development may lead to conflict and competition between the municipalities. • Ndwedwe <ul style="list-style-type: none"> • Large proportion of residents in Ndwedwe employed in EM and cross boundary issues almost inseparable. • Poverty, unemployment, unregulated development all threatens the UDL and the environmental sensitivity of EM's northwestern border. • Identified the need for a cooperative agreement on the sharing of infrastructure and services. General planning issues to emerge: <ul style="list-style-type: none"> • The need to establish a common communication and co-

		<p>ordination platform</p> <ul style="list-style-type: none"> • The need for alignment of a common development concept at a regional scale and translate this into a binding spatial planning document • Establish a cross border urban-rural management committee to address a wide range of issues include climate change with the private sector involved where applicable • Enter into MoU regarding servicing, socio-economic and any other pertinent issues that may arise resulting from Cross Border Spatial Planning • Factor in political leadership and buy-in for cross border planning issues • Factor in geo-political aspects inclusive of socio-economic aspects which can and may influence development realized • Cross border mapping (to include terminology of nodes, corridors and uniform colour coding) • To consider the areas proposed for demarcation • To hold special meetings to discuss development applications and proposals with specific reference to:- <p>a) Conservation Areas:-KDM Biodiversity and Open Space Plan and eThekwini DMOSS; Future developments in eThekwini to consider KDM and iLembe environmental layers as development proposals in eThekwini may have adverse effect on KDM and iLembe natural environment and vice versa.</p> <p>b) New Planned Projects: The provision of bulks could influence influx of PDA submissions to the south of KDM where Tongaat Hullet is a major land owner</p> <p>c) Infrastructure Development: Alignment of land use planning to iLembe services provision. Possible scenarios where for example major WTW or WWTW plants are located on either municipality but service the other. This could also have an effect as such infrastructure could be susceptible to development pressures in either municipality</p> <p>d) Role of settlements: Housing plans vs housing subsidies</p> <p>e) Key Development Proposals: Wewe Driefontein Mixed Use Development and Tongaat Hullet Compensation Area</p> <p>f) Influence of Catalytic Projects: Dube Trade Port at its current state of development, DTP at 2035 and 2060 development horizon and rail transport</p> <p>g) Corridors and Linkages-PSEDS and PGDS: Role of the North South corridor in the context of the eThekwini-Umhlathuze corridor. Influence on space economy with regard to release of industrial. Need to ensure the sustainable management of industrial and residential land development between eThekwini and KwaDukuza Municipalities as well as R102. Need to strengthen East West Corridors.</p>
<p>UMgungundlovu Municipality</p> <p>Local municipalities within uMgungundlovu include the following:</p> <ul style="list-style-type: none"> • uMshwathi • uMngeni 	<p>uMkhambathini</p> <ul style="list-style-type: none"> • Has always been considered as rural and traditional Municipality • Mainly focusing on agriculture and tourism development. • Between the years 1996 and 2007 this Municipality has experienced an increase in population mainly because 	<p>uMkhambathini</p> <ul style="list-style-type: none"> • The eastern boundary of Mkhambathini is set aside as commercial farms and agri.ecotourism which reflects the actual land use and is compatible with the proposed land uses on the western extremity of the eThekwini Municipality.. • Cognisance needs to be given to the Big 5 Mayibuye Game Reserve on the north western boundary of Cato Ridge. Development which impinges on the skyline of this resource requires monitoring.

<ul style="list-style-type: none"> • Mooi Mpfana • Impendle • UMsunduzi • UMkhambathini • Richmond 	<p>of its proximity to Pietermaritzburg and Durban which are the main centers of economy.</p> <ul style="list-style-type: none"> • Unauthorised industrial development has taken place along the eastern boundary of Mkhambathini and is the subject of High Court action for demolition. • The Umlaas Road development has adequate water supplies from the Umgeni Water pump station and reservoirs in that area, • Although a sewage works has already been constructed to accommodate immediate development pressures in Umlaas Road, a new works of R60 million has been funded (in part), designed and reticulations plans finalised to accommodate the developable area identified in the SDF expansion plans which commences in the Camperdown locality. • Development approved to date centres on Provincial main roads and are considered sufficient. ESKOM has not placed any restrictions on the supply of electricity to any proposed projects. 	<ul style="list-style-type: none"> • Greater emphasis needs to be placed on the Umbumbulu region with its rapid urbanisation and impact on the R603 which serves as an alternative major route through the region • Further ad hoc meetings are proposed to engage around development applications that may impact on both municipalities • Need to collaborate on the SIP2 N3 Corridor Planning Initiative. N3 is the primary economic corridor to Gauteng, need for coordinated and integrated development. <p>General planning issues to emerge</p> <ul style="list-style-type: none"> • The need to establish one forum: consisting of the IDP, SDF and GIS representatives from Department of COGTA and relevant municipalities. • The need for a Terms of Reference for the forum • Cross border Mapping (to include terminology of nodes, corridors and uniform colour coding) • Special meetings needed to discuss development applications and proposals along N3 corridor and/or encroaching the boundary of the municipalities. Specific emphasis is on Umlaas Road, Camperdown, Cato Ridge and Umbumbulu. This will also consider housing and bulk infrastructure projects as well as act 70 of 70 agricultural land. • It is also proposed that joint site inspections be undertaken on the identified strategic projects that could be a point of integration between the two Municipalities, with the aim of analysing and making possible land use adjustment to ensure sustainability and also to ensure that these projects will benefit the wider communities. It will also be important to also look at how the linkages between the two Municipalities can be improved to facilitate better access to the economic and social services between the communities of the two Municipalities. • To consider the areas proposed for demarcation
<p>UGu Municipality</p> <p>Local municipalities within UGu include the following</p> <ul style="list-style-type: none"> • Vulamehlo • uMdoni • Umzumbe • Umuziwabantu • Ezingolweni • Hibiscus Coast 	<p>uMdoni</p> <ul style="list-style-type: none"> • The Municipality is located about 50 km from Durban, which makes it have both competitive and comparative advantage with EM particularly in terms of tourism. • Umdoni has an approximate coastline of 40 km and stretches inland as far as Umzinto. • Umdoni has established tourism infrastructure and an existing tourism market for coastal, golf and diving adventure tourism <p>Vulamehlo</p> <ul style="list-style-type: none"> • Predominantly rural in nature • Has limited services and infrastructure • Has high levels of unemployment 	<p>uMdoni</p> <ul style="list-style-type: none"> • At the boundary of EM where the two municipalities abut each other; there are disparities in densities. The EM proposes low densities with a level of services to match low density areas in order to maintain and promote rural and agricultural activities. On the other hand Umdoni is proposing high income housing developments. This creates non alignment in term of densities and service requirements. • In follow up meetings it has emerged that development in the northern portion of Umdoni is dependent on a services level agreement with eThekweni. • There are potential synergies from tourism and agricultural development that will be explored <p>Vulamehlo</p> <ul style="list-style-type: none"> • There are disparities in services in areas towards the border of EM and areas towards the boundary of Vulamehlo. • There is alignment in terms of proposed uses as both municipalities have low density rural housing developments at their boundaries.

		<p>General planning issues to emerge:</p> <ul style="list-style-type: none"> • The need to establish one forum: consisting of the IDP, SDF and GIS representatives from Department of COGTA and relevant municipalities. • The need for a Terms of Reference for the forum • Cross Border Mapping (terminology, colour coding etc) COGTA has convened a meeting to highlight their concerns and will make their analysis available on the website. They are also in a process of standardizing the mapping and colour coding requirements. • To identify the areas proposed for demarcation that are functionally linked to eThekwini and currently serviced by EM • To consider all areas proposed for demarcation • Special meetings between Umhloni and EM to share information on proposed industrial development and the proposed freight route, to share information on Strategic Environmental Assessments and to identify functional linkages and road linkages • Special meeting to engage with and present our SDF's to the Ingonyama Trust Board • To hold special meetings to discuss development applications and proposals with specific reference to: <ul style="list-style-type: none"> a. Agricultural areas in decline- b. Land reform issues c. Use of rail for commuting and tourism purposes d. Umbumbulu and the COGTA process for the formalization of towns
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The Municipality has engaged neighboring municipalities, other key government departmental sectors and parastatals. These include the Department of Water and Environment Affairs (DWEA), Umgeni Water, ESKOM, Department of Transport (DOT), Public Rail Association of South Africa (PRASA) as well as ILembe, KwaDukuza, Ndwedwe, UGu, UMkhambathini and UMsunduzi local and district municipalities.

Other initiatives within the eThekwini Municipality that have addressed planning alignment between adjacent municipalities was the establishment of an inter-municipal forum, chaired by the eThekwini Municipality and represented by local and district municipalities from eThekwini Municipality, westwards, to Howick for the preparation of N3 Corridor Plan. This has been superseded by the National SIP2 process (Strategic Infrastructure Plan), which involves the preparation of an N3 corridor plan from Durban to Gauteng and includes representation of all local and affected municipalities along this route to ensure that planning and development along the N3 corridor will occur in a coordinated and integrated manner.

2.3 EThekwini Spatial Regions

New and emerging planning and development requirements, as determined through various pieces of national and provincial legislation, require that planning systems within local municipalities are regularized and are updated in a manner that will result in an improved spatial re-organisation of the

municipal area. Specifically, the systems and approaches adopted should begin to redress the adverse effects of apartheid and separate areas planning as well as social, economic and environmental sustainability.

As such it has been necessary for the eThekweni Municipality to develop a spatial planning approach that is consistent with legislation but also which is appropriate to the management requirements of a metropolitan Municipality. As part of the Municipal planning process and system, the Municipal area has been divided into four functional areas, namely, the Central Municipal Planning Region (CMPR), South Municipal Planning Region (SMPR), West Municipal Planning Region (WMPR) and North Municipal Planning Region (NMPR). The functional boundaries of these regions are defined by the Umgeni River, the Umlazi River and the Kloof Ridge and are catchment based. The following map represents the abovementioned spatial planning regions.

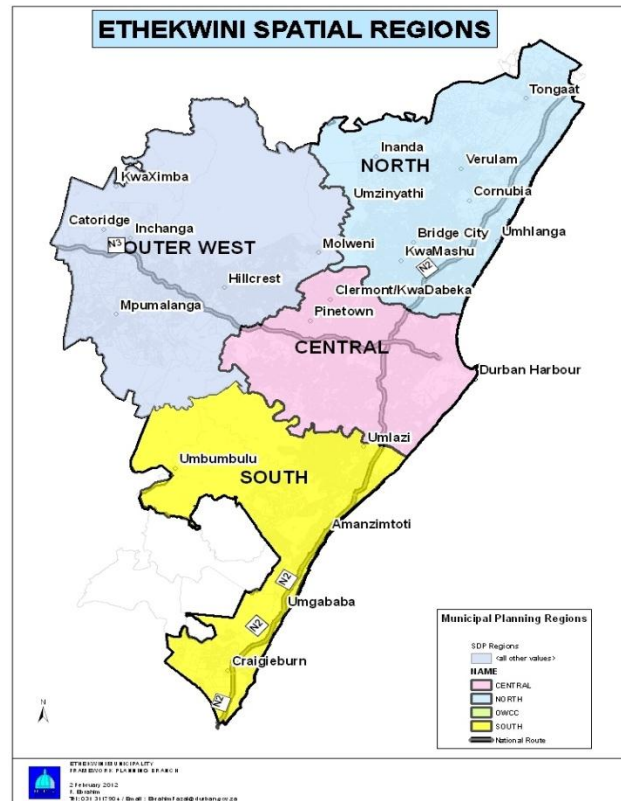


Figure 9: eThekweni Spatial Regions

The regions and their respective roles are summarised below:

2.3.1 Northern Spatial Planning Region

The Northern Municipal Planning Region (NMPR) stretches from the northern banks of the Umgeni River in the South up to and including Tongaat in the North, from the coast line in the east to UMzinyathi, Inanda and border with the ILembe District Municipality in the West and North. This is a total area of 59, 764 ha which represents approximately 26% of the EMA. The region has a population of approximately 1,157 109 million people which represents 34% of eThekweni's total population. The role of this region within the broader municipal area is as follows:

- it provides a logistics support
- it has significant residential, commercial & services function
- specializes in coastal tourism & recreation
- it is a trade and industrial investment centre
- has significant agricultural support function

2.3.2 Central Spatial Planning Region

The boundaries of the Central Municipal Planning Region (CMPR) extend from the Umgeni River, in the North, along the coast through to the Umlaas Canal in the South and extend to the escarpment in the west. The region has a population of approximately 1.18 million people which represents 34.4% of total population of the eThekweni Municipal Area and extends over an area of 677km² (67772.33 ha).

The role of the Central region is as follows:

- It is the urban core of the Metro,
- It is the urban core of Metro (commercial, retail, financial & administrative hub),
- Centered on transport activities and logistics port,
- Contributes 56% of the EMA's total GDP,
- Key Industrial hub,
- Events, Tourism and Logistics hub,
- Largest employment generator,
- Major economic sectors: Industrial, logistics, warehousing, business, commercial, retail and financial services and tourism,
- Has significant coastal resources and service nodes, and
- Offers a range of lifestyle options.

2.3.3 Southern Spatial Planning Region

The Southern Municipal Planning Region (SMPR) extends from the northern boundary consisting of the Umlazi River and the Umlaas Canal to the UFudu Escarpment and the EziMbokodweni River in the north-West to the Western and Southern boundaries of the eThekweni Municipality. The southern region is in extent of 510km² and is estimated to accommodate in the region of 760 000 people (census 2011). It abuts in the north onto both the central and western metropolitan planning regions. In the west the South MPR shares a common border with UMgungundlovu and UGu District Municipalities. The South MPR is made up of the previous South Local Council area, containing a series of earlier local municipalities, and significant areas added to EThekweni during the recent re-demarcation. The latter areas formed previously part of the KwaZulu homeland structure. The role of this region is as follows:

- it has a large residential population,
- it has some of the Provinces leading economic sectors,
- has existing Coastal Tourism and has potential for expansion,
- has potential to diversify/intensify existing agricultural uses,
- has the largest tribal areas within the Councils area of jurisdiction.

2.3.4 Outer West Spatial Planning Region

The Outer West planning region is approximately 78 438ha in extent, representing 34% of the municipal region and accommodating approximately 338 000 people; this is approximately 10% of the total population of some 3.4million people (Stats SA, 2011). A large part (50%) of the Outer West region comprises traditional areas. . A major portion of the metropolitan open space system (50%) which requires protection is found within this region.

The role of this region is as follows:

- it is an Environmental Management Priority Area
- provides opportunity for strategic Industrial Expansion and hence employment opportunities
- has potential for tourism related opportunities.

2.4 EThekwini Rural and Traditional Authority Areas

The rural areas of eThekwini Municipality form a significant role in future planning for EMA. The rural areas of eThekwini occupy approximately 1500 km² hinterland located northwest and southwest of the Municipality, including the peri-urban areas alongside the N2 and N3 corridors. These areas are largely defined by their geo-spatial features such as hilly, rugged terrain, dispersed settlement patterns in traditional dwellings and communal land holding under Ingonyama Trust.

A large part (50%) of the outer west region is covered by traditional authorities. The region shares an urban and rural landscape with a wide range of settlement types extending from formal urban to rural settlements. Rural areas as well as the Western Suburbs have shown significant residential growth in the last few years. A major portion of the metropolitan open space system (50%) which requires protection is found within the outer west region. The southern region consist of the southern portion of the South Durban Basin, the old airport, a range of formal residential developments, a large contingent of informal residential development both within the formal development and on its periphery, and large rural areas being substantially in the ownership of the Ingonyama Trust.

These areas are also characterized by severe poverty and unemployment with many households reliant on localized social assets such as community networks and organizations. Another challenge is the environmental vulnerability of the area due to heavy reliance by households on the natural resource base. The situation is exacerbated by fragmented services delivery, unresolved land tenure, a shortage of substantive information, and a legacy of lack of planning. The following map represents the rural core and traditional settlements of eThekwini Municipality:

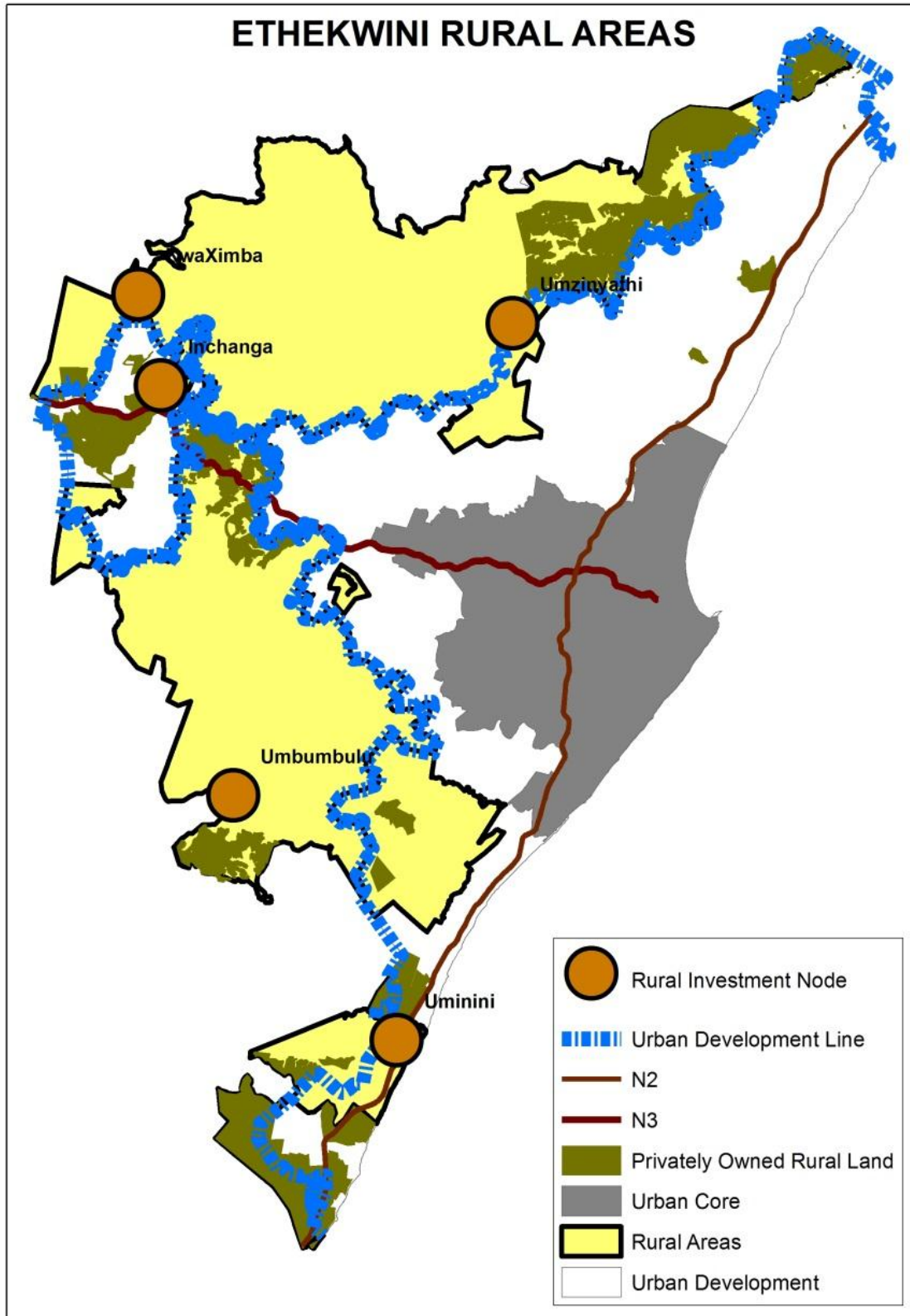


Figure 10: Rural Areas

2.5 EThekweni Land Use Management Framework

Land Use Management Schemes, more commonly known as Schemes, are statutory planning tools used to manage and promote development. A land use scheme is a critical component of the integrated spatial planning system and deals with zoning and built form controls. The intent embodied within the package of spatial plans must be translated into the most appropriate zones and land uses within the schemes. Schemes are the tangible tools in the package of plans as it is this level that development rights become important proponents for development. Schemes enable statutory decisions to be made and this in turn allows building plans to be considered. Schemes are required by law to be reviewed on an annual basis in line with the IDP and SDF reviews.

Land Use Schemes are planning tools used to deliver quality environments. This results in integrated responses which allows for the establishment and creation of robust and vibrant environments; while at the same time contributing to sustainable environments. Planners over the years have grown to realise that Planning is far more than a planning response to applications; rather the emphasis is now on environmental issues, infrastructural capacities and equally on the impact of development. Schemes also provide a mechanism for effective protection of ecosystem services through the creation of specialized environmental land use zones.

Schemes are the mechanisms that drive the Municipality's income as it relates to development and informs building plans, a variety of land uses such as mixed use developments such as Umhlanga Ridge and KwaMashu Town Centers; it creates quality work environments such as the La Lucia Office Park; and robust Industrial parks such as River Horse Valley and the emerging Cornubia Industrial Area; not to mention quality recreational spaces such as the Umhlanga Promenade.

Within the Council's area of jurisdiction, there are land parcels that are contained within Schemes areas; land contained outside Scheme areas; land parcels that are under the jurisdiction of the Ingonyama Trust Board. (See Map below):

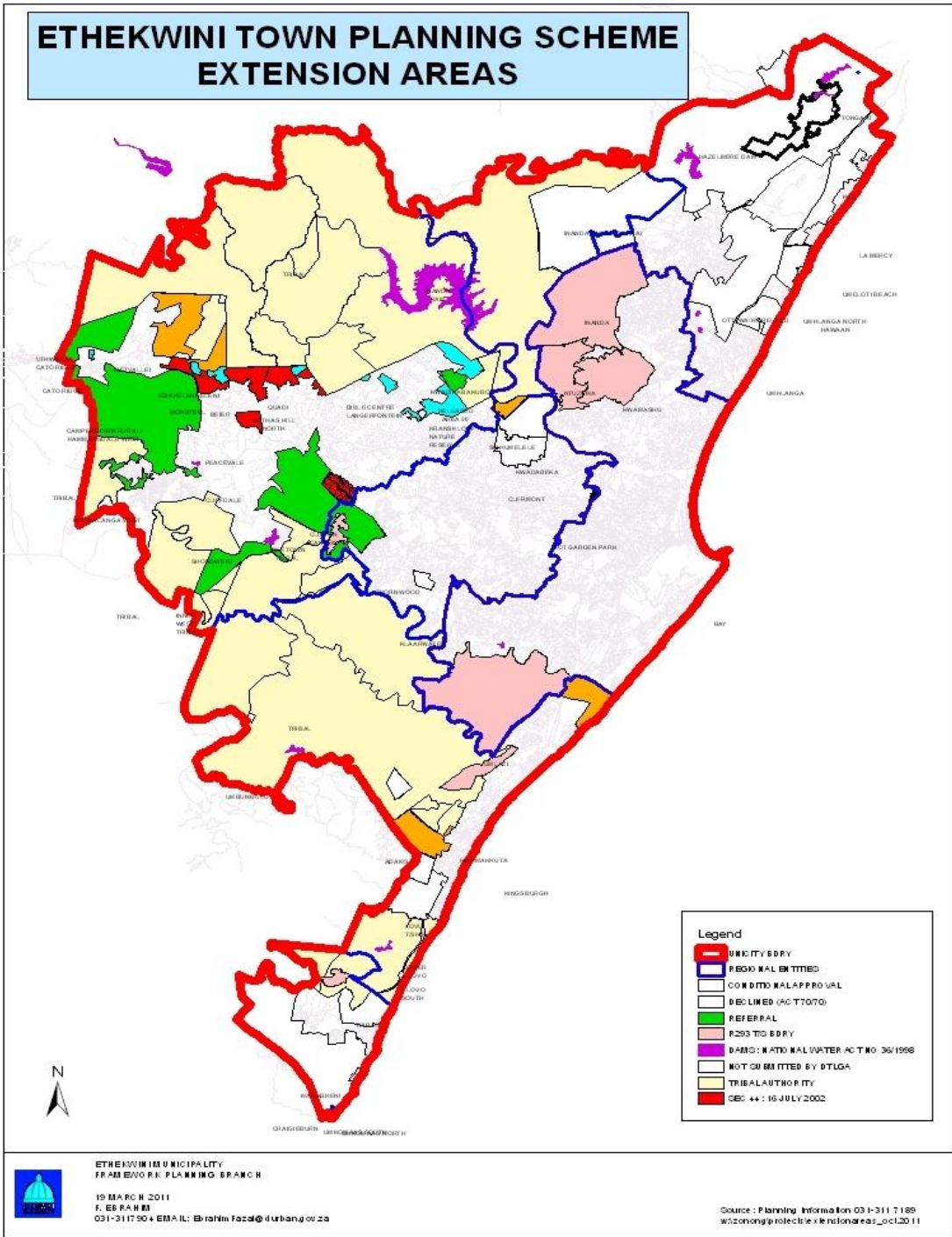


Figure 11: Town Planning Schemes Extension Areas

While Council in 2003 resolved to include all areas under its jurisdiction, the Department of Agriculture has yet to consent to numerous applications; identifying sustainability of agricultural land into the future as their primary concern. This is a critical issue as strategic land parcels cannot be released for development.

Schemes within eThekweni Municipality are currently being reviewed to include and address climate change issues, energy efficiency and sustainable environments. Past planning has left huge gaps in managing and directing development. Old order legislation has to some extent allowed some 'peripheral townships' to develop in exactly the same way as formal areas. Townships such as uMnini have had huge capital infrastructure injection making them different from other areas. However, in the absence of a Scheme, development has not been managed in a sustainable way.

To date all previous R293 townships now have a formal scheme implemented. This allows for managing development in these areas. It also allows infrastructure departments to plan for these areas thus enhancing service delivery and broadening the rates base of the council. It encourages investment and reduces poverty, but most of all it improves people's lives.

Within the traditional areas a relationship built on trust and understanding needs to be cemented. Clearly in these areas formal planning schemes may not be an appropriate planning tool. However, a planning scheme may be considered a tool that considers and respects people's culture and heritage while at the same time driving and directing sustainable livelihood, all in the spirit of a better quality of life.

CHAPTER 3

THE STATUS QUO OF ETHEKWINI MUNICIPAL AREA

Synopsis: Flowing from the contextual analysis of the Municipality, Chapter 3 is an analysis of the status quo of the municipality. This is a comprehensive investigation into all matters that have an implication for the spatial form and development of the municipality. This investigation is necessary so as to ensure that the SDF is strongly rooted in reality. A summary of this analysis is outlined in Chapter 4, which provided a synthesis of key issues coming out of this investigation.

3. THE STATUS QUO OF THE MUNICIPALITY

This chapter is a spatial representation of eThekweni Municipal area urban structure. The spatial analysis seeks to determine the structure of the Municipality, establish a good understanding of the present conditions influencing development and contribute to the efficiency and legibility of the Municipality.

The development issues and trends facing the EMA are outlined below along with the underlying causes and their spatial impacts under the following broad topics:

- Environmental Planning issues and trends
- Transport/Movement Planning issues and trends
- The Built Environment, Land Uses and Housing Planning issues and trends
- Public Facilities Planning issues and trends
- Economic Planning issues and trends
- Service Infrastructure Planning issues and trends

3.1 Environmental Planning Issues and Trends

3.1.1. Ecosystem services proved by Durban's natural environment

The eThekweni Municipality (EM) is situated at the centre of the Maputaland-Pondoland-Albany Region, an area described by Conservation International as a “Biodiversity Hotspot”, one of only 34 in the world. The eThekweni Municipal Area (EMA) is characterised by diverse topography, from steep escarpments in the West to a relatively flat coastal plain in the East. The landform incorporates 98 km of coastline, 18 major catchments and 16 estuaries, 4000 km of river, and nearly 75 000 hectares of land identified as part of the Durban Metropolitan Open Space System (D'MOSS) (adopted December 2010). D'MOSS supports a wide variety of terrestrial and aquatic ecosystems, thereby attempting to meet biodiversity conservation objectives, while aiming to secure the supply of the ecosystem services that are provided freely by these ecosystems to the people of eThekweni. Ecosystem services, and their associated biodiversity, provide probably the most significant buffering effect against the negative impacts of climate change for local communities and infrastructure.

These ecosystem services include soil formation, erosion control, water supply and regulation, climate regulation, cultural and recreational opportunities, raw materials for craft and building, food production, pollination, nutrient cycling and waste treatment. Importantly the protection of our natural environments will make a significant contribution to our ability to adapt to climate change impacts (known as ecosystem-based adaptation or EBA), which are predicted to include higher temperatures,

sea level rise and more intense rainfall. The EGS supplied by the D'MOSS were valued at R3.1 billion/per annum in 2003.

Notwithstanding their value, the EMA's natural environments have been severely impacted by landscape change, habitat fragmentation, invasive alien species, over exploitation and pollution. Climate change is a significant and increasing threat. Many people have benefited over the last century from the conversion of natural ecosystems to human-dominated ecosystems and from the exploitation of biodiversity. This has occurred because of the lack of regard for the value of these systems, which makes greenfields development an attractive option. At the same time, however, these gains have been achieved at growing cost in the form of losses in biodiversity, degradation of many ecosystem services, and the exacerbation of poverty for other groups of people (Millennium Ecosystem Assessment, 2005). The situation in eThekweni Municipality is no different to the global assessment and suggests that current policy, law, governance and environmental management efforts have been inadequate to prevent this degradation.

Habitat destruction (or land transformation), invasive alien species, and pollution, are widely regarded as the greatest threats to biodiversity and the associated delivery of ecosystem services. At present a mere 14% of the D'MOSS area is protected (e.g. through proclamation as a protected area, appropriate conservation zoning, conservation servitudes and land acquisition) whilst only 12% of D'MOSS is managed for conservation. Increasing the total area of D'MOSS that is protected and managed for conservation is critical if the biodiversity of the EMA, and its associated EGS, are to be protected. This is a huge challenge considering the rapid urbanisation and transformation that is taking place within the city in order to meet development and service delivery goals, as well as growing threats such as invasive alien species and climate change. The EM has made some progress in reversing the loss of natural areas by using various instruments such as controlled development areas, environmental servitudes, environmental special rating areas, land acquisition and including environmental considerations in preparing the municipal valuation roll. Furthermore, several steps toward improved natural asset management have been initiated, including active reforestation of certain open spaces (e.g. the Buffer Zone surrounding the Buffelsdraai Landfill Site), and improved management and restoration of other areas (e.g. through the Working on Fire and Working for Ecosystems programmes).

The total terrestrial and aquatic areas falling within the D'MOSS plan is in the order of 75 000 ha of which an estimated 53% is physically undevelopable. More than 90% of this total area is in private or communal ownership, and a key goal is the protection of land included in the D'MOSS plan through education, awareness, incentives, targeted land acquisition, supportive valuation and rating approaches, conservation servitudes and other town planning mechanisms.

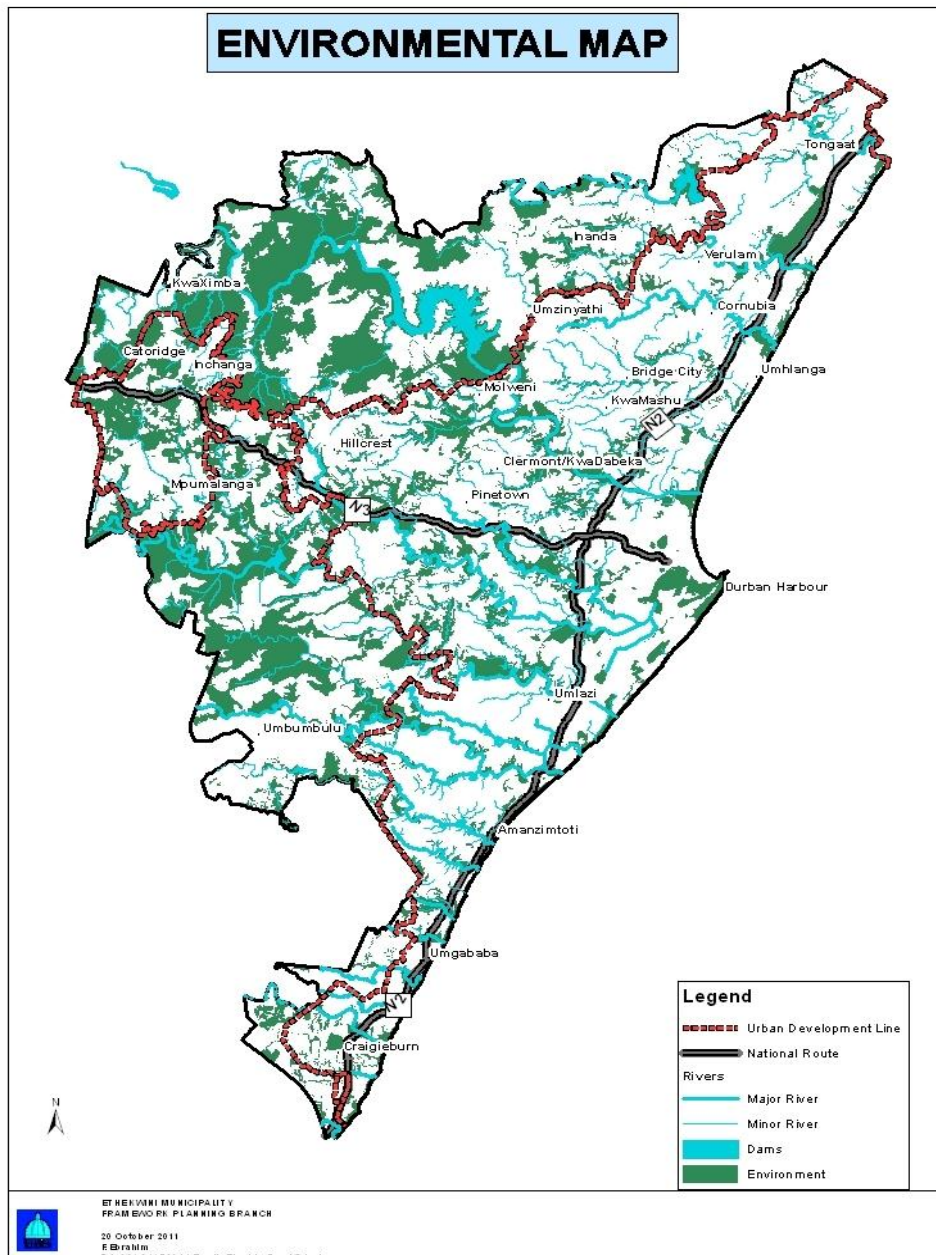
The open spaces within EMA include a diverse range of environments which are acknowledged as contributing significantly to Durban's visual attractiveness. Other benefits, apart from the positive

visual impact that the open space system provides, which are not widely acknowledged and yet contribute to the EMA's economy and which generally improves the quality of urban living include:

- Water supply (rivers, watersheds and reservoirs for agriculture, industrial and household use)
- Recreation (ecotourism, sports fishing, swimming and other outdoor recreation activities)
- Waste treatment (breakdown of waste and detoxifying of pollution)
- Disturbance regulation (flood control, drought recovery, etc.)
- Gas regulation (carbon sequestration, oxygen production).

In order for the D'MOSS to continue to deliver these services it needs to be sensitively integrated and effectively managed within the metropolitan area. The following map represents the key environmental assets as represented by D'MOSS that need to be conserved and protected:

Figure 12: Environmental Map



Source: eThekweni Municipality: Development Planning and Environment Management Unit

3.1.2 Terrestrial Ecosystems

Virtually every terrestrial habitat in the EMA has undergone significant levels of transformation (see Table below). The data suggests that every vegetation type requires some level of protection in light of the major losses due to transformation, and the relatively small areas that are statutorily protected. KZN Sandstone Sourveld, North and South Coast Bushland, and North and South Coast Grassland, however, are vegetation types that have been subjected to significant habitat destruction and require immediate and particular protection if they are to remain extant and continue to contribute to the well-being of our citizens. Quantitative targets set by Ezemvelo KZN Wildlife for the protection of different

vegetation types (given as a percentage of the original extent) have already been exceeded for three vegetation types in the EMA: KZN Sandstone Sourveld, and North and South Coast Grasslands.

Vegetation Type	Conservation Status	Original Extent (ha)			Transformed			Protected Statutorily		
		SA	EMA	%EMA	%SA	%EMA	EMA (ha)	%SA	EMA (ha)	%EMA
Dry Ngongoni Veld	Vulnerable	1005320	18109	7	73	33	5899	0.73	0	0
Moist Ngongoni Veld	Vulnerable	1005320	12394	3	83	31	3884	0.17	0	0
Eastern Valley Bushveld	Least Threatened	996568	20080	2	15	19	3846	0.80	6	0.03
KZN Hinterland Thornveld	Vulnerable	113341	6824	6	22	32	2151	0.00	0	0
KZN Sandstone Sourveld	Endangered	160819	15681	10	68	67	10559	0.20	116	0.74
North Coast Bushland	Endangered	88811	32758	37	79	44	14527	0.01	11	0.03
South Coast Bushland	Endangered	89103	1953	2	71	37	714	0.69	0	0
North Coast Grassland	Endangered	291877	82979	28	95	77	63986	0.50	218	0.26
South Coast Grassland	Endangered	153568	24184	16	94	72	17502	1.35	0	0
Southern Coastal Scarp Forest	Least Threatened	33750	8878	26	NA	NA	NA	26	514	6
KZN Coastal Forest	Least Threatened	21089	2193	10	NA	NA	NA	61	32	1
KZN Dune Forest	Least Threatened	12396	1287	10	NA	NA	NA	23	26	2
Mangrove Forest	Critically Endangered	2393	65	3	NA	NA	NA	74	47	50
Voacanga thoursii Swamp Forest	Critically Endangered	3022	55	2	NA	NA	NA	67	0	0

Original extent (not calculated for forest, current extent given), level of transformation, and protection status of vegetation types from an EM, provincial and national perspective. Vegetation types are a key landcover mapping unit used to map areas of homogenous habitat.
Source: National: Mucina, L & Rutherford, M.C. (eds) 2006. The vegetation of South Africa, Lesotho and Swaziland. SANBI, Pretoria. Provincial: Scott-Shaw, R. 2009. Unpublished Data. Ezemvelo KZN Wildlife Local: Environmental Planning and Climate Protection Department. 2012. EThekweni Municipality Systematic Conservation Plan. Version 1. Environmental Planning and Climate Protection Department, Internal Report.

Invasive alien plants in South Africa now infest over 20 million hectares, as reported by the Agricultural Research Council (ARC). The report, released in July 2010, was commissioned by the Department of Water Affairs. A recent survey by the EM found that as much as 48% of selected conservation areas were infested with invasive alien plants. Many alien plant species are predicted to expand their density and distribution under climate change scenarios, thereby impacting further on local biodiversity.

It is acknowledged that current indigenous biodiversity will be a critical lifeline to humans should the various predicted climate change scenarios unfold. As such, the EPCPD has engaged in various research programmes, including a research partnership with the University of KwaZulu-Natal, in order to gauge if an adequate natural resource base will be secured over time. These works includes a variety of ecosystems-based research, as well as monitoring and reporting on the state of key biodiversity indicators, For example, see the annual publication of a State of Biodiversity report. Research on novel ecosystems, restoration ecology, reforestation, as well as human ecological systems are also ongoing.

3.1.3 Aquatic Ecosystems

Results from bio-monitoring programmes focusing on the rivers and estuaries of Durban have revealed that these ecosystems are in a particularly poor state. Using aquatic bio-monitoring methodologies, the EM found in 2010 that 71 of 175 (or 40%) of its monitoring sites on its rivers were considered to be in a poor condition and only six (or just over 3 %) were classified as near natural. Rivers were found to be experiencing multiple impacts including spills and illegal discharges, solid waste dumping, wastewater treatment works not operating to specification or license conditions, sand mining, realignment of watercourses, flow reduction through dams, removal of riparian flora, and infestation by alien flora and fauna.

In a survey of the 16 estuaries in the EMA published in 2010, only three, together making up 10% of the total municipal estuarine area, were classified as in good condition (none were classified as excellent). Because of the condition of the larger systems such as the uMngeni and Durban Bay, a total of 50% of the municipal estuarine area must be considered highly degraded. The lack of national and provincial data prevents a direct comparison being made. Expert opinion, however, would suggest that based on the current ecological condition of Durban's aquatic ecosystems, they are amongst the lowest ranked systems in the country. This has major implications for communities depending directly on water from these systems, and also undermines tourism opportunities on municipal beaches.

Water quality covers a broad spectrum of parameters, which are largely influenced by the activities of the EM. Eutrophication as a result of nutrient enrichment is having a detrimental impact on rivers and estuaries in the EM. Reducing nutrient loading, particularly at treatment works across the Municipality, will go a long way towards addressing this threat.

Sand mining, both legal and illegal, is also having a major impact on aquatic ecosystems and the delivery of sediment to the coast. Controlling the damage caused by sand mining represents a serious challenge for the EM. The CSIR was commissioned in 2008 to undertake a study of the sand supply from rivers and the implications for coastal sand budgets. The 18 rivers within the EM's jurisdiction supply sediment (an ecosystem service) to the coastal zone, which is important in replenishing sand lost from beaches and coastal dunes through coastal erosion processes. Therefore the sand is important for *inter alia* buffering the impacts of high seas and making beaches attractive to tourists – further ecosystem services. Sediment yields have been increased through poor land management practices, but overall supply to the coastline has decreased by two-thirds of “natural” yields due to sand mining and the 12 large dams that have been constructed on Durban's rivers which act as sediment traps. Given that discharge of sediment from rivers dominates sand supply, it is predicted that the reduction in sand supply could result in mean coastal erosion of > 1 m/yr. The report found that the combined impacts of sea level rise and increased sea storminess are likely to have severe

consequences in terms of coastal erosion, initially similar to and eventually exceeding the erosion suffered in KZN during 2007.

3.1.4 Ecosystem-based adaptation (EBA) and the Green Economy

Given the current threats to biodiversity, and the pending impacts anticipated as a result of climate change, the EM must urgently invest in protecting, restoring and managing ecosystems to enhance adaptive capacity in a cost-effective and sustainable manner. Ideally, this will be achieved by transitioning to a “green” economy, primarily through the building of a new economy based on bio-infrastructure, which increases the supply of ecosystem services. The use of bio-infrastructure represents a strategic opportunity as it can be expanded without straining already limited natural resources. In fact, the use of bio-infrastructure can actually increase the supply of these resources.

In this regard, two large, municipal-funded implementation programmes, namely the Working for Ecosystems Programme and the Working on Fire Programme have been established. Both offer not only EBA advantages (through Invasive Alien Plant control and ecosystem management) but also employment and skills development opportunities for previously unemployed members of local communities. In addition, reforestation of transformed areas, either previously cleared for agriculture (sugarcane) or, in forests damaged by fire and resource harvesting, is in progress. The Community Reforestation Programme has demonstrated a holistic approach to biodiversity conservation, climate change mitigation and adaptation, as well as rural development and poverty alleviation.

Other critical environmental challenges are highlighted in the sections below:

3.2 Climate Change

Climate change is recognized as the major environmental problem facing the globe. Escalating greenhouse gas emissions contribute towards climate change and will ultimately impact on human health, food security, natural resources, sea level rise, land loss and coastal infrastructure. Climate change embraces far more than temperature change and may include changes in rainfall patterns, sea level rise, the spread of infectious disease such as malaria, increase alien vegetation invasion and loss of biodiversity.

Climate change is likely to cause a number of challenges for eThekweni Municipality, linked to global impacts such as increased temperatures, extreme weather events (e.g. flooding and drought), sea level rise and climate variability. As such, climate change runs the risk of undoing all of the development gains of the last one and a half decades, and for a Municipality such as eThekweni climate change adaptation in all sectors will have to become one of the Municipality’s top

development priorities.

Temperatures in Durban are likely to increase by 1.5⁰C and 2.5⁰C by 2065 and by 3.0⁰C and 5.0⁰C by 2100. Projected annual rainfall changes are likely to include an increase in aggregated rainfall by 2065 with an increase of up to 500 mm by 2100. This increase is likely to be manifested as an increase in extreme rainfall events and stream flow intensity across the municipal area with prolonged dry spells between rainfall events. Sea level rise along Municipality's coastline is already occurring at 2.7 cm per decade and may accelerate into the future.

Climate change impacts for the EM may include:

- An increase in the frequency and intensity of floods and droughts;
- A decrease in water availability due to changed rainfall patterns and increased evaporation; this will affect subsistence dry land farmers the most.
- An increase in erosional capacity of river courses, resulting in the loss of more top soil, thus decreasing the agricultural value of land and increasing siltation in dams.
- Infrastructural damage as a result of extreme weather events causing flooding, affecting human well-being and safety as well as insurance costs;
- An increase in erosion of coastal areas due to sea-level rise;
- Higher energy consumption due to increased residential cooling load;
- An increase in economic losses due to property damage and decreased tourism revenue;
- An increase in heat-related vector-borne (e.g. malaria) and water-borne (e.g. cholera) illnesses;
- An increase in heat stress, leading to dehydration, particularly for those that reside in the city, as well as children and the elderly;
- Changes in the geographical distribution of plants and animals with extinction of species that are unable to move and an increase in the prevalence of alien invasive species. This will negatively affect the biodiversity of the eThekweni Municipal Area and the associated goods and services;
- Further loss of critically endangered grassland habitats as they are outcompeted by woody species able to utilize the higher concentrations of CO₂ in the atmosphere.
- A reduction in yield of staple food crops, such as maize;
- Changes in the optimal planting and harvesting dates for crops as well as land suitable for crop production;
- Heat stress increasing livestock and poultry mortality rates;
- An increase in respiratory problems in the city due to a decrease in air quality (e.g. changes in the concentration and distribution of near-surface ozone) and increased dampness;
- Deterioration of foods leading to increased incidents of food-borne diseases;

The areas particularly vulnerable to sea-level rise are coastal wetland and dune ecosystems. The majority of coastal land is currently undeveloped in Durban; however, land a few meters above the current high water mark could be lost to potential sea-level rise. Shoreline Management Plans are required to determine what adaptation interventions if any are required now or in the future.

To respond to these changes EM initiated the Municipal Climate Protection Programme (MCPP) in 2004. This is a phased programme, which has focused on climate change adaptation and enhancing the city's ability to cope with climate change impacts. The likely climate change impacts have been assessed and plans, programmes and projects have been developed to assist the Municipality in dealing with these impacts.

The mitigation and adaptation work streams of the MCPP are located in the Energy Office and the Environmental Planning and Climate Protection Department respectively. This latter office has advanced the adaptation agenda with the development and approval of the Durban Adaptation Charter during United Nations Framework Convention on Climate Change COP 17/CMP 7 in December 2011. This document, endorsed by over 200 mayors and other elected local leaders representing over 1100 local governments from around the world, promotes ten key local government adaptation interventions, and marks a milestone in the advancement of the adaptation agenda in the international climate change debate. The two offices are also currently developing an integrated mitigation and adaptation strategy to address climate change within the city. The strategy is being developed within eight themes: Biodiversity, Water, Health, Food Security, Energy, Transport, Economy and Waste & Pollution.

Other climate change initiatives being undertaken in the municipality include a focus on developing and implementing the densification strategy, rural development strategy and sustainability criteria for spatial planning and land use management. Sea level rise predictions have also been taken into consideration in determining appropriate land use and development setbacks in the coastal corridor.

3.2.1 Agriculture and Food Security

Hunger and food insecurity are great challenges facing communities residing within the municipal area. Agriculture is considered a critical component of social and health infrastructure in the Municipality and food security is seen as a national and provincial priority. The Municipality is becoming more urbanised and the reliance on primary sector is reducing. EThekweni's agricultural potential is being reduced by the rate of urbanization, which restricts expansion.

It is anticipated that climate change will have a significant impact on the weather variability and agricultural production within KZN, which will in turn impact on the most vulnerable rural communities. The remedies are to be sought in effective conservation measures, responsiveness to climate changes with regard to choice of agricultural production techniques and products in planning/implementing judicious water management practices and in preparedness for extreme weather conditions.

The greatest and available high potential agricultural land for the eThekweni Municipality exists in the Outer West mainly within the rural stretch from Assagay to Hammarsdale which include areas such as parts of Shongweni, Summerveld, Alverstone, Cliffdale, Pinetown Rural and Monteseel. Currently 36% of the Northern area is under agriculture, of which 31% is sugar cane. Sugar cane occurs predominately within the coastal plain and in Buffelsdraai and mixed agriculture around Hazelmere Dam. High value agricultural land is located at Cornubia, west of the R102, between Tongaat and Verulam and within the Buffelsdraai area. Other good agricultural opportunities exist in the Southern Municipal Planning Region within parts of Inwabi, Magabheni/ Umnini and Amahlongwa Rural area.

The protection of agricultural and scenic land abutting the urban areas towards the rural landscape is particularly important. This is often the most valuable land from an agricultural or tourism point of view because of its close proximity to an urban area. It should not be blighted by piece-meal or leap-frog urban development. Where possible, sufficient arable land within the local municipality should be reserved for agriculture in the event of an energy or transport crisis as well as to promote local economic development and land reform

Through initiatives such as shifting to new crops which are more resilient to climatic conditions and can meet the demands of an ever growing population, maintaining agricultural land so as to keep it arable, introducing mitigation methods to fight climate change, promotion of sustainable agricultural production, ensuring reasonable food costing as well as introducing and managing community gardens, the Municipality could play a major role in ensuring food security.

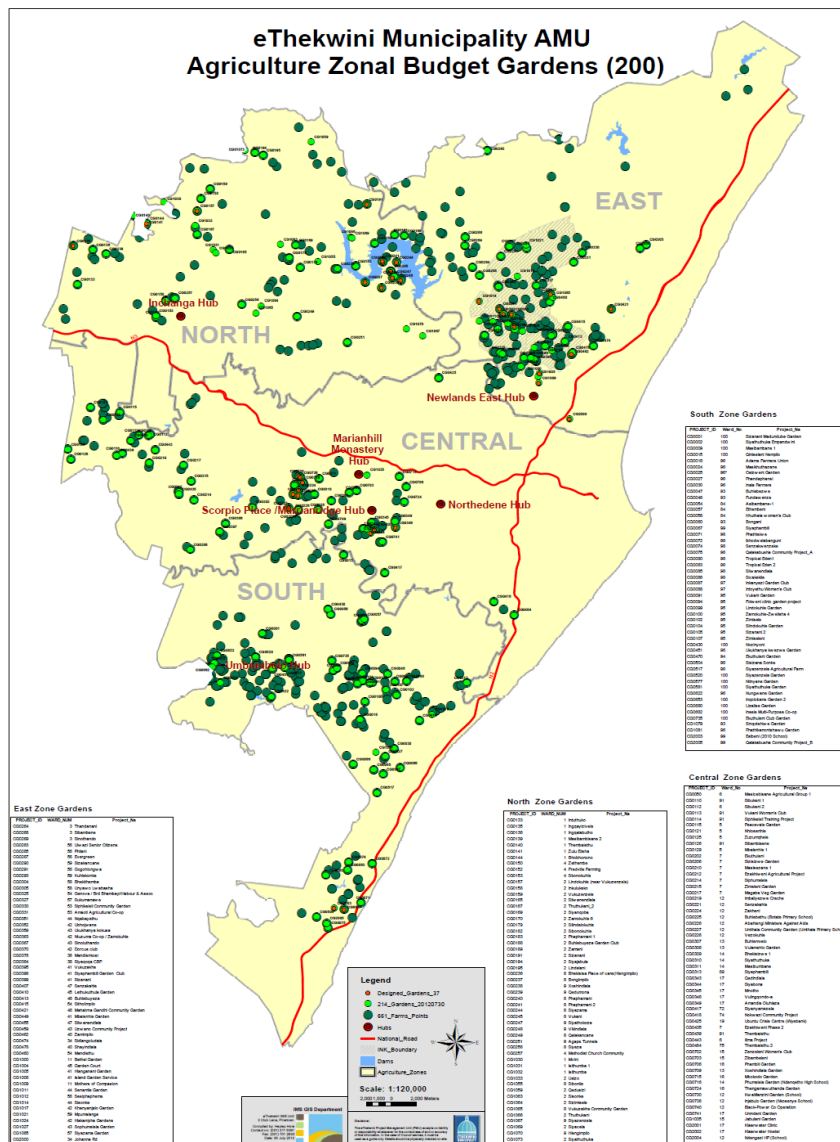
A multi-pronged approach is necessary to improve the lives of the people. The key challenges faced include land shortages and ability to identify appropriate opportunities for local production of food. The Municipality has initiated a number of programmes to assist in the alleviation of food insecurity. These include the creation of dedicated structures to drive agriculture, aqua and poultry farming; soya bean project, 20 community support farms; 423 community gardens, mushroom vs hydroponics project, One Home One Garden project, etc. Support in the form of seedlings and compost together with expertise is provided to communities to assist them in ensuring their food security.

Key Issues relating to Food Security:

- High levels of hunger and food insecurity;
- Shortage of land to undertake food production;
- High unemployment rates lead to low purchasing power;
- Inadequate safety net – few household income earners and high dependency ratios exacerbates the situation;
- Impact of climate change on food security.

In terms of urban and peri-urban agriculture, the Municipality has an Agro-ecology Programme in place which complements other municipal policies which focus on poverty and unemployment. The United Nations Special Rapporteur on the right to food conducted a mission to South Africa in 2011. He was particularly impressed by the peri-urban agro-ecology strategy and programmes put in place by the eThekweni Municipality. The programme aims at promoting appropriate and sustainable approaches to the way in which agriculture is planned and implemented. Six agricultural support hubs have been established or under development which contain demonstration sites of agro-ecology techniques, a research and development centre on agro-ecology, training sites, a packing and marketing hub and a future seed bank. The hubs are as follows Northdene Agro-ecology research & development Centre, Newlands-Mashu Permaculture Centre, Inchanga, Scorpio Place in Mariannridge, Mariannahill Monastery and Umbumbulu. The programmes primary targets are those with greatest need and where the most impact can be made with limited resources.

Figure 13: Agriculture Management Unit's- Zonal Budget Gardens



3.2.2 Sea Level Rise

Being a coastal Municipality with 98 km of highly developed coastline, Durban is particularly vulnerable to sea level rise. The areas particularly vulnerable to sea-level rise are coastal wetland and dune ecosystems. The majority of coastal land is currently undeveloped in eThekweni however land a few meters above the current high water mark could be lost in the event of sea-level rise. In response to this risk Shoreline Management Plans are being prepared to determine what adaptation interventions if any are required or will be required into the future.

3.3 The Movement Network System

eThekweni Municipality has a comprehensive road network comprising of municipal, provincial and national roads. The road and rail network are well developed, despite the significant topographical challenges. The network has a well-articulated hierarchy, the challenge however, is to ensure maximum accessibility of goods, services and destination points to all residents of the Municipality largely by linking land use and transport. This is to enable people and goods to be moved more efficiently and promote greater integration and accessibility. The elements of the transport system are described below:

3.3.1 Public Transport System

The primary mode of travel by residents of eThekweni is public transport namely, rail, bus and taxi. The taxi and bus route system provides extensive coverage throughout the metro area. There are approximately 1400 bus service routes which are serviced by approximately 200 operators in a mix of subsidised contracts and unsubsidized services. There are approximately 120 taxi associations serving the municipal area.

Overall, the current public transport system is economically inefficient with many services in direct competition with each other, resulting in unprofitable rail and bus trips and in taxis competing fiercely on some routes for passengers. There has, however, been good progress over the last 5 years in the recapitalisation of rolling stock with the new taxis, municipal buses and particularly, with the commuter rail fleet. Against this background, proposals have been developed to rationalise and restructure the public transport system and services in order to address some of the fundamental issues.

3.3.2 Freight Transport System

One of the goals for transport in eThekweni, is to develop an efficient and integrated freight transport system that will ensure regional economic stability. The region's transportation system requires the optimum integration of the different modes of transport that includes road, rail, aviation, maritime and pipeline with the appropriate modal balances.

To this end and in line with legislative provisions, the eThekweni Transport Authority (ETA) is in the process of developing an Integrated Freight and Logistics Plan for the entire eThekweni Municipal area. This plan will focus on the port-city interface, industry requirements and how each of these connect with the broader economy of South Africa and the world, while still ensuring efficiency and ease of doing business within the municipal area.

The elements of the Integrated Freight and Logistics Plan will comprise: a thorough Status Quo Analysis of freight and logistics sectors in the city; a strategic framework that would guide the future development and strategy surround future freight development; and an implementation plan that will incorporate interventions that will address the following:

- Infrastructure: freight routes and roads;
- Operational: operational interventions that can ease the port-city-private sector interfaces and breaks in the logistics chain;
- Regulatory: legislative and enforcement that would promote compliance in the logistics and freight sector;
- Communication and network: IT solutions, as well as stakeholder interactions that would ensure information sharing and ongoing management.

The formulation and implementation of this plan will involve a number of stakeholders and agencies in government and the private sector. It is anticipated that much of the work will also revolve around trying to secure a commitment on the implementation of the various elements of the plan from relevant agencies.

3.3.3 Air Transport

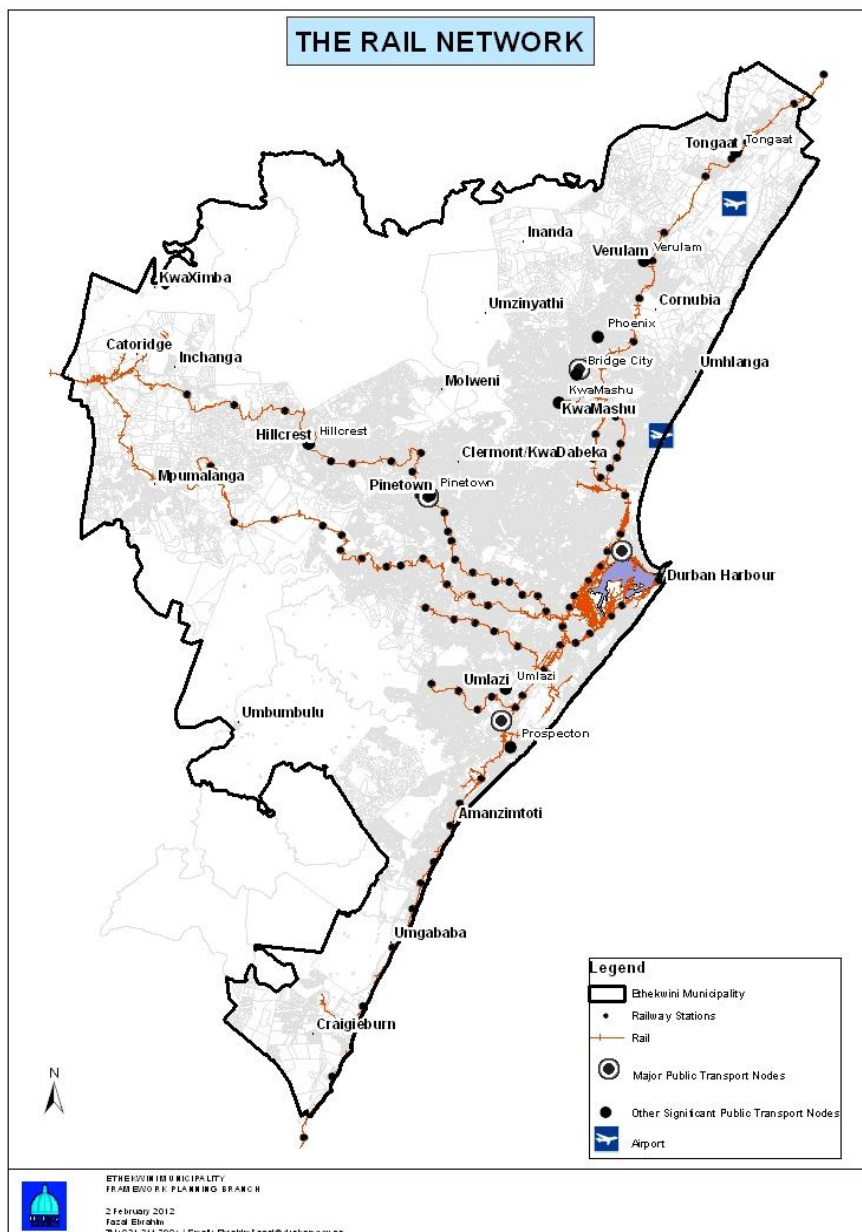
The King Shaka International Airport (KSIA), is located approximately 30 kilometers north of Durban. Adjacent to the King Shaka International Airport is the Dube Tradeport. The primary objective of the Dube Tradeport is to provide long haul international flights to and from Durban (KSIA) to cater for the increasing air freight demands.

The Trade Zone is linked to the airport's freight component that provides dedicated space for the imports and exports of high value goods. It is envisaged that the Trade Zone will capture local freight

3.3.4 Passenger Rail System

The Municipality is fairly well serviced with commuter rail services which comprise of the following:

- North-south line following the coastal plain;
- Mainline into the hinterland;
- Circuitous line between Pinetown Central Business District (CBD) and Rossburgh Station;
- Three spur lines into Umlazi, Chatsworth and KwaMashu;
- Spur line to the lower Bluff;
- Section of single line adjacent to North Coast Road.



Source: eThekweni Municipality Development Planning and Environment Management Unit

Figure 15: The Rail Network

Currently there are 52 train sets operating on the current rail network serving passenger rail with plans afoot to acquire additional train sets. The passenger railways are going through a process of modernization. As part of this process, PRASA has already invested a significant amount of money on station upgrades in Rossburgh, Isipingo, Duffs Road, Durban, KwaMashu, KwaMyandu and Moses Mabhida with further station upgrades planned for Clairwood, Montclair, Zwelethu, Lindokhule and Avoca stations. PRASA has also invested on minor improvements (painting, repairs etc) in a number of stations situated throughout the municipal area.

PRASA will also in the future, be undertaking a recapitalization of the rolling stock (trains) as well as capacity upgrades to the signaling and infrastructure systems. In this regard, PRASA has indicated that it will be focusing on undertaking capacity improvements.

3.3.5 Non-Motorized Transport (NMT)

The NMT plan has been developed to encapsulate the City's commitment towards NMT, by giving prominence to NMT as an integral part of the City's overall transport system. The plan defines NMT policies, strategies and NMT guideline standards, together with the network development process for implementation for over the next five years.

These key elements have been consolidated into four themes or "*Pillars of Ideology*" which are:

CONNECTING: talks to meeting the basic needs of people, i.e. providing access to goods, services, people and work opportunities, either directly or via other forms of transport.

ENHANCING: is about improving the quality of life, reducing transportation costs by creating viable alternatives, creating safe environments that support and enhance human interactions as well as promoting healthy lifestyles by providing access to social and recreational activities.

GROWING: is about stimulating regeneration of our ailing Cities and economic growth via *inter alia* tourism and other opportunities that ultimately result in the general increase in prosperity of the population

SUSTAINING: is about ensuring long term viability and sustainability of our City and the environment and includes issues of land-use development, emissions reduction, alignment to other sustainable practices and programmes as well as influencing behavioural changes.

The NMT strategies are a set of programs, aligned to the ideology, defining how the objectives are to be met and seeks to address the gap between where we are and where we want to be. The development of a NMT network plan is based on meeting the demands of all existing NMT users as well as promoting the use of all forms of NMT by new users. However, NMT utilisation, whilst overall quite significant, is predominantly focused around pedestrian activity, with other forms like cycling, skateboards and push-scooters, animal powered transport, and human powered goods transport occurring on a very small scale.

Thus, in developing a network plan, the focus has been in the short term to identify key nodes within the Municipality and to provide mixed-used NMT facilities that link these key nodes into the surrounding area. The development of mixed-use facilities (as opposed to dedicated facilities) allows the Municipality to develop a more comprehensive network plan in the short term within its limited funding pool. As demand for other forms of NMT grows, it is anticipated that these networks would be expanded into the wider area surrounding these key nodes, with segregated facilities as demand rises. Once NMT activity across all forms has reached a significant level, the intention is to then create a network that has connectivity across the entire Municipality, with dedicated facilities for the different types of NMT users.

The City has already established a series of cycling routes in and around the Inner City and is currently expanding its network to accommodate both professional and recreational cyclist. The routes have also taken into account those residents that wish to commute using bicycles. The Municipality will also roll-out a staff bicycle programme that will encourage staff to use bicycles as a mode of transport between municipal centers.

In terms of the five year implementation plan a total of 88 corridors have been identified, of which 31 have been prioritized to have a high rate of usage benefitting large numbers of existing and potential NMT users distributed across the municipal area. The corridors provide connections between schools, public transport interchanges, commercial centres and residential areas.

3.3.6 Summary table of Transport Issues and Trends

ISSUES	UNDERLYING CAUSE	SPATIAL IMPLICATIONS
<p>1. The current Municipal structure results in high social and economic costs especially in terms of Residential Pattern/Housing</p>	<ul style="list-style-type: none"> • High degree of segregation of places of work and home due to past planning practices that promoted land use and racial zoning. 	<ul style="list-style-type: none"> • Gives rise to long commuting times (between home to work) and imposes travel costs upon commuters • Has largely precluded the development of mixed use environments
	<ul style="list-style-type: none"> • Poor or no planning with respect to optimizing efficiency for the majority of the population. 	<ul style="list-style-type: none"> • Unsustainable use of resources : Urban sprawl raises the unit cost of servicing and infrastructure • Reinforces the need/urgency to commute

3.4 Overview of eThekweni Economy

The eThekweni Municipal region is the economic powerhouse of KwaZulu-Natal and also makes a significant contribution to the South African economy. It is vital link between the regional economies of Pietermaritzburg (and onward to Gauteng) and Richards Bay. EThekweni ranks as the second largest economic centre and is the second most significant industrial region in South Africa. It is a promising global competitor with a world-class manufacturing sector.

EThekweni is home to Africa's first multimodal logistics platform and international passenger airport, Africa's busiest port, and a global conferencing, sporting and tourist destination. It is also a substantial administrative centre, providing key public services within the Metropolitan area as well as to the wider region. It is both a centre for low cost production, as well as a key logistics hub in the national economy. It is home to 10% of all employment opportunities in South Africa.

The key Issues relating to the economy at eThekweni (as elaborated below) include:

1. Persistently high unemployment;
2. 41,8% of population subject to conditions associated with poverty;
3. Need for greater diversity in the economy.
4. Declining resource base and the impacts of climate change

3.4.1 Future Economic Growth and Development

Major development projects planned at the eThekweni municipal region are poised to have a positive impact on the economy during the next ten to fifteen years. Expansions at the Durban Port, the mixed-use development at Cornubia, the Dig-out Port at the old airport site, the major shopping Centre development at Shongweni and industrial development in Cato Ridge in the Outer West, new developments at Dube Trade Port and surrounding area are all expected to play an effective role in placing the city on a firm growth trajectory especially for the local economy and job creation. All of these initiatives are expected to create a substantial number of temporary and permanent jobs. The development at Cornubia project alone will create approximately 60,000 permanent jobs when complete.

The National Government's New Growth Path 2010 aims to grow the economy by 7% and create 5 million additional jobs by 2020. The main indicators will be jobs (the number and quality of jobs created), growth (the rate, labor intensity and composition of economic growth), equity (lower income inequality and poverty) and environmental outcomes. Accordingly, eThekweni must also target an economic growth of 7% and contribute towards the national employment target by creating approximately 45,000 jobs per annum (projection based on current trends and the fact that eThekweni's employment share of national is about 8%).

The Economic Development and Job-Creation Strategy 2012-2017 was compiled by the eThekweni Municipality for the City of Durban and will be executed via a comprehensive Implementation Plan by the Economic Development and Investment Promotion Unit, in partnership with all other relevant Units in the Municipality, as per the local government mandate with the intention of providing for the core principles, mechanisms and processing necessary to enable municipalities to move progressively towards social and economic upliftment of local communities.

The municipality is poised for steady economic growth from several major catalytic projects over the next 20 years creating in excess of 400,000 construction jobs and 200,000 permanent jobs, respectively. Major construction projects such as the Cornubia mixed-use commercial-residential development, the port expansion plans, Dig-Out Port, Kings Estate, Inyaninga Industrial Estate, on-going economic opportunities at Dube Trade Port and the development of the dedicated freight route are all expected to contribute towards this growth. Furthermore, the Dube TradePort / King Shaka International Airport, Tongaat CBD and portions of La Mercy Sub Area forms part of the potential Aerotropolis for the Northern Municipal Region. The Dube TradePort / Tongaat Inyaninga sub region is also proposed as a Special Economic Zone that will act as a trigger for potential investment opportunities that will extend to neighboring Municipalities such as Ilembe and KwaDukuza Municipalities.

The Strategy seeks alignment with the relevant Strategies amongst the three spheres of government – most notably the New Growth Path, National Development Plan and the Industrial Policy Action Plan from National government, all of which have identified specific sections of the economy with job-creation potential. The KwaZulu-Natal Provincial Industrial Development Framework and the Growth and Development Strategy also guide the local government initiatives. In compiling the regional Integrated Development Strategy, the Spatial Development Framework and others, the eThekweni Municipality has ensured that the essential principles and focus areas resonate with these reports.

South Africa's invitation to join a group of countries now calling itself BRICS (Brazil, Russia, India, China, South Africa) means that South Africa is now sharing a platform with a hugely significant bloc having tremendous clout to influence tangible outcomes at the global level. On the regional front it gives eThekweni the opportunity to explore or strengthen economic gateways to the Southern African Development Community (SADC) and with the other members within BRICS as the City embarks on its ambitious plans to develop its freight corridor and expand operations at the existing- and the new Dig-Out Ports.

These lofty goals, however, may be hampered by various socio-economic and other threats such as the lack of appropriate job skills, poor political will, unspectacular economic- and employment growth, inadequate foreign direct investment, high cost of doing business, poor infrastructure and a lack of serviced industrial land.

The Strategy examines trends in the detailed sub sectors in manufacturing noting the comparative and competitive attributes for each after which a choice of industries are selected. These priority sectors include automotive, chemicals, clothing and textiles, food and beverage, furniture, metals, electronics and electrical machinery and green industries. In the services sector tourism, ICT, creative industries (Film and Media; Crafts; Fashion), finance and professional services and transport and logistics were identified.

The eThekweni's GDP (in constant 2005 prices) amounted to R206, 9 billion in 2012. It is forecasted to grow by 3, 1% to R213, and 2 billion during 2013. Presently it comprises 65, 5% of KwaZulu-Natal's GDP and 10, 7% nationally.

GDP growth in the eThekweni Municipal region increased by 2.0% between 2011 and 2012 while KwaZulu-Natal and South Africa grew by 2.5% and 3.0% respectively.

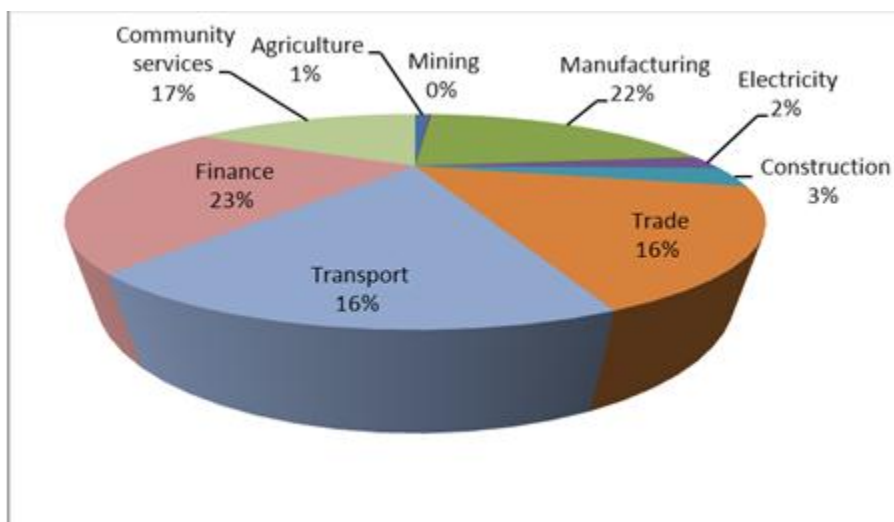


Figure 16: Percentage Contribution to GDP in 2012 (Constant 2005 prices), Source: Global Insight

The above chart shows the percentage contribution to GDP by broad sectors during 2012. The eThekweni economy was dominated by tertiary industries that included (1) finance (22%), (2) manufacturing (22%), (3) community services (18%), trade (16%), transport (16%) and construction (3%). Apart from the tertiary sector fulfilling a major role within the context of eThekweni's economy, manufacturing (which is classified within the secondary sector) constituted 22% of the total economic activity. It was particularly the production of food and beverages, as well as fuel, petroleum, chemical and rubber products that contributed towards the magnitude of manufacturing within eThekweni.

The tertiary sector continued to provide the majority (74%) of the Gross Value Added (GVA) in eThekweni, with the majority of the tertiary GVA coming from the finance and business sector. With respect to the secondary sector, the construction sector became, for the first time since 2011, more important in terms of GVA contribution than the 'fuel, petroleum, chemical, and rubber products' sector or the 'food, beverages, and tobacco products' sector. The sector with the greatest

comparative advantage in the City is transport, storage, and communications, with a location quotient of 1.65, then manufacturing with a location quotient of 1.31. The eThekweni economy is becoming more diverse, but is still less diverse when compared to KZN or South Africa.

A key trend is the increasing amount of labour remuneration assigned to the community services sector (32%). The two sectors that hold eThekweni's comparative advantage, 'transport, storage, and communications' and 'manufacturing' contribute 9% and 22% of all local labour remuneration respectively. Additionally, these two sectors were once growing strongly in the economy, but have not yet recovered from the 2008 economic downturn. This feature of the economy is unsustainable due to the high amount of wages and salaries being paid from the public sector.

The eThekweni population makes up 33% of KZN and 7% of South Africa's total population. Census 2011 records the population as 3,442,361. The yearly population growth rate from 2006 to 2011 averaged 1.0% per annum, which is 0.1% higher than KZN on average, and equal to the national average. This rate shows a steady decrease from its 2006 levels, which was 1.1% per annum. In 2011, the population growth rate was 0.8% per annum.

Literacy and education have been improving over the last five years in eThekweni and, when compared to the averages of KZN and South Africa, eThekweni performs the best. However, in comparison to the other metro municipality averages, eThekweni ranks fifth in the percentage of the population over the age of 15 with a matriculation level of education (42%) behind the City of Tshwane (52%), the City of Johannesburg (49%), Cape Town (44%) and Ekurhuleni (44%), and then also ranks fourth in literacy rates (87.0%) behind the City of Cape Town (94.3%), Nelson Mandela Bay (93.2%), and the City of Johannesburg (89.7%).

According to Census 2011, there were 956,713 households in eThekweni, 65.2% of which were African, 18.7% Asian, 13.5% White, and 2.6% Coloured. In 2011, 38% of the eThekweni population was economically active, decreasing by 2.0% from the economically active population in 2006. EThekweni showed significant improvement with respect to the municipality's unemployment rate, decreasing from 31.4% in 2006 to 20.4% in 2011. When compared to the other metro municipalities in 2011, only the City of Tshwane performed better with a 13.2% unemployment rate. Despite the decrease in unemployment, a more representative figure is the percentage of people employed from 2006 to 2011 as it includes the effect of discouraged workers. EThekweni still outperformed other metros with an employment increase percentage of 3.8% during the five year period. These gains are essentially not as great as the reduction of unemployment rates portray.

The majority of the unemployed in eThekweni in 2011 were from the African population (85%), followed by the Asian population (11%), and the Coloured and White populations (2% each). In the last five years, all population groups have experienced a decrease in their unemployment levels. Females constituted 47% of the eThekweni's unemployed in 2011, while males made up the

majority of those unemployed with 53%. EThekwini comprised 54% of KZN's total unemployment in 2011.

The tertiary sector accounted for 73% of employment in eThekwini in 2012, while the secondary sector made up 26% and the primary sector made up 1%. With respect to the 10 broad economic sectors in eThekwini, trade accounted for 23.5% of employment, while manufacturing accounted for 18.6% and community services for 20.7% in 2012. The community services sector percentage composition increased in the past five years, while the trade and manufacturing sectors decreased in their percentage composition over the same time frame.

In 2011, formal employment comprised 76% of total employment, whilst informal employment made up 24% of total employment. The informal sector employed 262,758 people in 2011, up from 233,104 people in 2006. Approximately half of these labourers worked in the trade sector (131,737).

Real disposable income grew by an average of 3.6% per annum from 2006 to 2011, despite dipping to a negative growth rate of 0.9% in 2009. From 2006 to 2011, the percentage of lower income households decreased by 18.6%, the middle income group increased by 7.3% and the affluent category increased by 9.3%. The number of households living on less than R72, 000 per year (R6, 000/month) in 2011 was 411,236; this is down from 569,371 in 2006 and 447,270 in 2010. This accounts for roughly half of eThekwini's households. 98% of these households were African in 2011.

In 2011 the per capita income for eThekwini was R47 221/annum (R3, 935/month). EThekwini has the 6th highest per capita income when compared with other metros; the highest of which being Tshwane with R76 349 per capita. The overall gini-coefficient in eThekwini is 0.61 in 2011, down from 0.64 in 2006. This is equal to the national average.

Total household expenditure in eThekwini in 2011 amounted to R164 billion, up from R148 billion in 2009. The majority of household expenditure was on 'food, beverages and tobacco' (23%), with 16% on 'transport and communication' and 15% on 'accommodation and catering'. With regard to detailed product categories, 14.1% is spent on accommodation, while 12.3% is spent on taxes.

Total retail sales amounted to R54 billion in 2011, up from R36 billion in 2006. By far the most retail sales (34.9%) were experienced in the 'perishable and processed products' category. EThekwini accounts for 56.6% of KZN's total retail sales. In 2011, of the total buying power of the country (100), eThekwini's share (index of buying power) amounted to 8.4%, down from 8.6% in 2009.

The percentage of people living in poverty has reduced from 34% in 2006 to 31% in 2011. The percentage of people in poverty in KZN was substantially higher than eThekwini in 2011 at almost 49%. Over the previous 5 years all population groups have reduced in poverty except the Asian population group which increased by 2.7% on average annually but this is largely due to a very high 13.7% increase between 2007 and 2008 (global economic downturn). Between 2010 and 2011 all population groups' number of people living in poverty was reduced by at least 3.1%.

Of eThekweni's 1,093,372 people living in poverty, 92.4% of those are African, while 6.3% are Asian, 1.2% are coloured and 0.1% are white. 42% of the African population is living in poverty, while 15% of the coloured population, 10% of Asian population and 0.3% of the white population are living in poverty. The poverty gap in eThekweni amounted to R 1.9 billion (current prices) in 2011 - of which R 1.8 billion was required by the African population group. EThekweni has the lowest Human Development Index of all the metros at 6.1, while Cape Town has the highest HDI of 0.73.

In eThekweni, imports have grown at a faster rate than exports (nominal growth of 8% and 7% respectively), therefore, the trade balance has remained negative, and spiked in 2011 due to a large increase in imports driven by renewed local consumer spending. EThekweni's contribution to South Africa's merchandise exports has decreased from 7.2% to 5.9% in 2011, while eThekweni's contribution to national imports has decreased by 0.4% to 9.8% in 2011.

The majority of exports (31.1%) were in the 'metal, products, machinery and equipment' sector, followed closely by the 'transport equipment' sector (30.8%). More specifically, 'motor vehicles, parts & accessories' and 'basic iron & steel'. The majority of imports are in the transport equipment sector (31.2%) followed by the 'fuel, petrol, chemical, rubber and plastic products' sector (17.4%). More specifically, 'motor vehicles, parts & accessories', 'food' and 'basic chemicals'.

With regard to trade blocs, the majority of exports are to the EU with 36% of all exports; however, this is down from 45.6% in 2009. The majority of imports (60%) are from the APEC countries. With regard to geographic areas, the majority of exports are destined for African countries (36%) and the majority of imports are from Asia (58%). The number one export partner remains the United Kingdom, while the top import partner remains to be Japan in 2011. A large 51% of eThekweni's imports come from China and Japan.

EThekweni's share of the national total tourism spend has increased from 5.7% in 2006 to 8.5% in 2011. Total tourism spend in 2011 for eThekweni was R14, 647 million, up by 323 million from 2010 (current prices). In 2011, tourism contributed 4.8% to eThekweni's GDP. This has declined by 0.5% since 2006.

The total number of trips in eThekweni in 2011 was 2,751,342. This has decreased by 2.2% on average annually for the previous 5 years. The most severe decrease in trips was in 2011 (-7.7%). 69% of trips in 2011 in eThekweni were visiting friends and relatives, leisure trips were 16%, while the contribution of business trips was 9%. The only purpose that has shown growth over the previous 5 years has been leisure trips (1.5%).

While the number of domestic trips to eThekweni has decreased over the previous 5 years, the number of bed nights has increased by 2.4% on average annually, which means that while domestic tourists are making lesser trips, they are staying for longer when they do come. The number of bed nights did also decline in 2011, however (by 1%). The number of bed nights spent in eThekweni in

2011 by domestic tourists was 14,633,403 and the number spent by international tourists was 2,635,884. This is an 85% to 15% split.

3.4.2 The Spatial Economy

The spatial distribution of economic activity in the EMA is heavily skewed towards the Durban City Centre, the Durban South Basin, the Port of Durban and the Pinetown and New Germany areas. The EMA has uneven distribution of economic opportunities with most employment and consumption opportunities concentrated in the central core areas.

There is also a separation of residential uses from economic ones. Higher densities are found in townships and informal settlements on the periphery but these are not supported by the provision of amenities. These poor resource areas have high unemployment rates, low household incomes, poor levels of education and low levels of access to areas of economic opportunity. This implies that there are few employment opportunities where people live, and that economically active residents must commute between work and home.

The spatial economy of EMA is analyzed below under the following categories:

- Industrial development
- Freight and Transportation Logistics
- Commercial / Retails and business development
- Informal economy
- Agricultural development
- Tourism and recreation

3.4.3 Industrial Development

The EMA has five main industrial areas as shown in the figure below. These are Durban Central, South Durban Basin, Inner West, Outer West and North Manufacturing is the most dominant sector of industrial activities and as can be expected it occupies the most amount of land in the Municipality. Patterns of clustering have occurred usually in mature industrial areas. The following significant clusters appear in the Municipality:

- Logistics and Transport – highly concentrated around the Port and in Pinetown
- Chemical sector – Pinetown and South Durban Basin
- Furniture and Bedding – Pinetown, Hammarsdale and Umbilo Road
- Textiles, Clothing, Footwear and Leather – Hammarsdale, UMngeni Road and Pinetown
- Other Industrial areas within the EMA include uMbongitwini, Phoenix, River Horse Valley, Tongaat, Canelands and Ottawa.

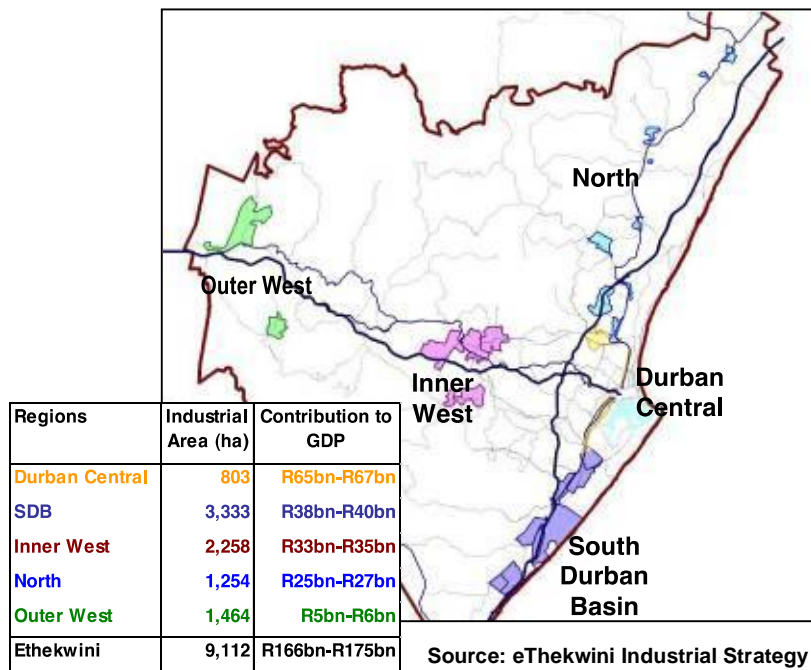


Figure 17: Industrial Areas

3.4.4 Freight and Transportation Logistics

The freight and transport logistics is the type of infrastructure that is needed to support, maintain and grow economic activity. This service infrastructure includes rail linkages, port efficiency, back of port operations (to enhance capacity and range of business), intermodal transport hub in ports and inland and the newly planned dug out port are projects which will give life to KZN, positioning the province as a gateway to Africa.

At the center of the transport industry is the Port of Durban. The Port of Durban is the busiest on the African continent as it handles the largest number of vessels per annum in comparison to all other African ports. The port offers a combination of port facilities and services. Transnet Ports Authority, formerly known as the National Ports Authority (NPA), is the custodian of all the national ports, managing the most vital conduits of the country's imports and exports.

3.4.5 Commercial / Retails and Business Development

The constraint on land in the Central Spatial Region has led to a significant thrust of development outward toward the adjacent regions particularly toward the North and Western regions within the EMA. The decentralization of commercial development (including office and retail activities), particularly higher order activities, from the Durban and Pinetown CBD's to more affluent suburbs

such as Umhlanga in the Northern Region has resulted in spatial restructuring (including the changing commercial role of these CBD's with the relative establishment of new nodes).

As a consequence of commercial and retail decentralization, these CBD's have experienced high vacancy rates as well as declining property values. (EThekwini Property Market Review 2006/2007, Viruly Consulting (Pty) Ltd) The loss of critical mass of economic activities within the core Durban and Pinetown CBD's in the form of decentralization to shopping malls as suburban models of development is being perpetuated. There is also a tendency towards expanding suburban office nodes and new office park developments which are attracting offices out of these CBDs.

3.4.6 Informal Economy

The management of the informal economy, especially street trading and retail markets, is a demanding task involving demarcation of trading areas, the issuing of permits, organising traders into area committees that feed into a citywide forum, and the ongoing collection of rentals. Coupled with this is the necessary enforcement of regulations and by-laws in conjunction with the Metro Police, as well as negotiations and dispute resolution where the interests of residents, traders and the formal economy come into conflict.

In order to provide a first step up for budding entrepreneurs and traders, a number of local incubator factories and storage facilities have been set up where workshop space or storage is available at a minimal rental. For entrepreneurs showing promise, there is a selection process whereby enterprises can advance to the entrepreneurial support centre, and where additional facilities are available, including training and support.

3.4.7 Tourism and Recreation

Tourism remains one of the most significant components of the metropolitan economy. Recreation opportunity is considered to be the main tourist resource within EMA and is based largely on the natural qualities of the coast. The coastline and beaches are significant tourist anchors for accommodation, commercial and entertainment development. Durban's central beachfront is arguably the most important tourism and recreation resource in the EMA.

According to SA Tourism, research conducted in 2005, the value of foreign tourist to KZN was R6, 9 billion with the eThekwini Municipality attracting 1, 1 million foreign tourists (equivalent to 78% of foreign tourist to KwaZulu-Natal or 16% of foreign tourists to South Africa). The Durban Beachfront was found to be the most popular attraction among foreign tourists, and was visited by approximately 875 000 foreign tourists (64% of tourism to KZN). Accordingly, the KwaZulu-Natal Tourism Authority analysis of the value of KZN's regional tourism markets concluded that Durban captures around 33% of foreign consumer spending in the province.

3.4.8 Summary table of Economic Trends and Issues

ISSUES	UNDERLYING CAUSE	SPATIAL IMPACT
Jobless growth in the formal economy	Decline in labor intensive industrial sector, associated with shedding of jobs	Decline and blight associated with closure of business in industrial areas Land demand for expansion, and associated infrastructure requirements
Infrastructure limitations to economic expansion	Capacity limitations for port to expand Aging and obsolete industrial infrastructure Growth in road-based traffic, notably for container transport Poor transport linkage between certain economic zones and installations Infrastructure is inadequate to cater for growth	Pressure upon interface between port and city Relocation of business from aging industrial areas to newly established areas Congested transportation routes, mixing of industrial and residential traffic Certain forms of development are precluded from economic zones where water, waste disposal, waste water treatment and energy supplies are inadequate to meet requirements of the Municipality Development is focused along North. South and west growth path with limited development in adjacent hinterland
Changing locational patterns	Outward expansion of industry Growth in suburban retail markets Emergence of specialist, bulk retailing activities Growth in suburban high grade office space	Relocation of service industry and light manufacturing to decentralized business parks along north, south and west growth path Relocation of higher income retailing functions to suburban locations Emergence of specialist/value retail parks outside CBD's Decentralization of office (especially A-Grade) to suburban office parks
Changing nature of economic markets	Emergence of informal/small scale economy Transformation of mass tourism and leisure markets Emergence of niche tourism and hospitality industry	Growth of economic activity around commuter hubs, public nodes and activity corridors Growth of street trading Growth of economic activity around commuter hubs, public nodes and activity corridors Growth in mass tourism and leisure focusing on seasonal utilization of the beachfront by day trippers Deepening of the niche tourism and leisure industry via growth of elite/coastal tourism, business and convention

In the coming years the City has a number of priorities that it will pursue, most of which align with national government's focus on infrastructure development and job creation. These include:

1. The development of the Northern Urban Development Corridor. This includes the development of Cornubia and support for development around Dube Trade Port/ Aerotropolis.
2. In the Outer-West, development is to support the national Durban-Gauteng Corridor. This corridor is more than just a logistics route and there are significant development opportunities that these routes will make possible, including developments in Pinetown, Showngeni and Cato Ridge. The City will work with the Province and other Municipalities in proactively planning and opening up opportunities in this corridor.
3. In the Central area of the city (from the Durban Inner City to Pinetown), there will be further investments to support the inner city and entrench its role as a services center incorporating offices, sport and tourism uses, the civic heart and a residential community. It is also an area that supports the micro enterprises and all of these aspects will be strengthened. The planning in the back of port area will also be finalized. Pinetown is a key manufacturing node as well as an important CBD that needs to be revitalized.
4. In the Southern part of the city, the new dig-out port will be prioritized as well as the development of a logistics park in Illovo to support the automotive sector. The development of a dedicated freight route is also being investigated.
5. The City has a rural development programme and energy programme that focuses on key rural nodes, energy projects as well as agricultural projects to stimulate the economies of the rural areas.
6. The City accessed about R700 million from National Treasury in terms of the Neighbourhood Development Partnership Grant (NDPG) to facilitate investments in the township areas. The programme has been progressing well and investments have been made at Bridge City, the Mpumalanga New Town Centre, Umlazi, Clermont-KwaDabeka and KwaMashu. The City will continue to support these initiatives.
7. There are programmes aimed at revitalizing the secondary CBDs, as well as projects aimed at developing tourism nodes and corridors. These include uMhlanga; iNanda Heritage Route, Hazelmere Dam, uMgababa, Kingsway Tourism Corridor as well as many others.
8. The planning and implementation of public transport programmes in conjunction with Province and National Government will receive significant attention.
9. The investment climate will improve with improved procedures announced by National Government and the City should support this by ensuring simplified and expedient local processes to support investment. The Municipality is reviewing the first Best Practice City

Commission (BPCC) and in addition – assess the current institutional mechanisms promoting and facilitating investment, with particular emphasis on the roles of the eThekweni Municipality. A BPCC Project manager has been appointed. The study is expected to inform the City leadership and officials about the current and new obstacles to investment in the municipal area, and provide a suite of recommendations and an implementation plan as a response. The City has experienced an increased level of interest in investments, however, a key challenge for many of the developments are around sanitation infrastructure and transport.

10. The Premier recently announced the establishment of the Provincial Human Resource Development Council aimed at guiding skills development. The City plans to become involved in this to ensure the interests of our young people seeking employment are supported through various programmes anticipated from this initiative.

However, there are numerous local challenges which if addressed and implemented may ensure a steady growth path towards the magic 5-7% with many additional benefits such as increased employment, investment and a more inclusive economy where all citizens of eThekweni enjoy equal access to the opportunities to come. The City intends to undertake initiatives in the various priority sectors that directly create jobs or support those that do. The Industrial Strategy currently under review in the City will spell out which sectors we should be focusing on and where to locate same.

The City will also attempt to play a meaningful role in the major projects recently announced by national government for example the Dig-Out Port, Corridor development and expansions in the existing port need to be fast-tracked to ensure that we are able to reach GDP growth that exceeds 3%.

3.5 The Built Environment, Land Uses and Housing

The EMA accommodates a wide range of land uses including formal and informal, urban and rural settlements and these are complimented by economic, transport and public and social infrastructure. Alongside the built environment is agricultural land and undeveloped land, of which a large part of it designated as part of the metropolitan open space system.

3.5.1 Major Land Uses

The current urban form of eThekweni is dominated by residential, commercial/ office and industrial land uses.. Other prevalent land uses include agriculture and traditional settlements. . The economic land uses are unevenly distributed throughout the Municipality and separated from residential uses. The Central Municipal Planning Region has significant economic and residential uses. The following map indicates the dominance and intensity of key land uses with the Municipality:

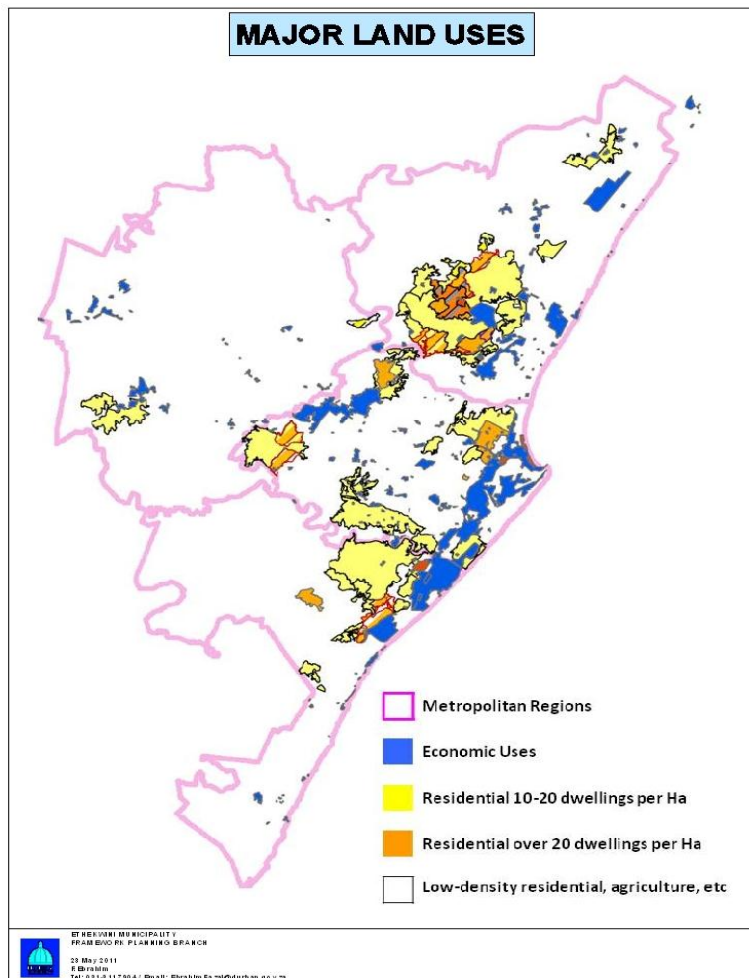


Figure 18: Major Land Uses

There is a concentration of more intense uses in the Central and North planning regions, and by comparison, relatively low-intensity of use in the Outer West and Southern Planning Regions. The Central Region represents the urban core of the EMA. It has significant economic, residential and servicing capacity and thus presents opportunity for densification and because of its service capacity can support thresholds for a range of services, industry and public transport. The Northern Region on the other hand is seen as the growth path of EMA.

The concentration of uses in the Central and North regions and the significant economic and residential uses in the Central Metropolitan Region has resulted in the urban form with a clear separation of residential uses from economic uses. This implies that there are few employment opportunities where people live, and that economically active residents must commute.

In eThekweni as in most SA cities, jobs are not where the people live, and vacant land for housing is not where the jobs are. Vacant land for low income settlements has predominantly been identified in the North. The long distances between residences and employment needs to be addressed.

3.5.2 Current Density Distribution/Settlement Patterns & Trends

The current distribution of density in eThekweni reflects the Apartheid spatial planning legacy and the distribution pattern is similar to other South African cities:

- a fragmented city;
- limited variations in density levels across the metropolitan area;
- large areas of low density in central, well-serviced locations;
large areas of high density on the urban periphery

The overall metropolitan density of the eThekweni is 4du/ha. Densities in excess of 40du/ha are located in scattered pockets across the city and these are limited to the Durban CBD/Beachfront; Cato Manor, Umlazi and KwaMashu/Inanda. Density is concentrated within the former townships of KwaMashu, Ntuzuma, Inanda and Phoenix in the north, Umlazi, Lamontville and Chatsworth to the South, Clermont/KwaDabeka and Marianridge in the West and the Durban CBD/Beach, Glenwood, Berea, Cato Manor in the Central areas. The remainder of the metropolitan area is settled at densities less than 15du/ha. This includes areas such as Durban North, Westville, Pinetown, Mpumalanga, Tongaat and Verulam. The settlement pattern also reflects the rural/traditional periphery of eThekweni where residential densities are below 5du/ha. The following map represents the key characteristics of residential densities within eThekweni Municipality:

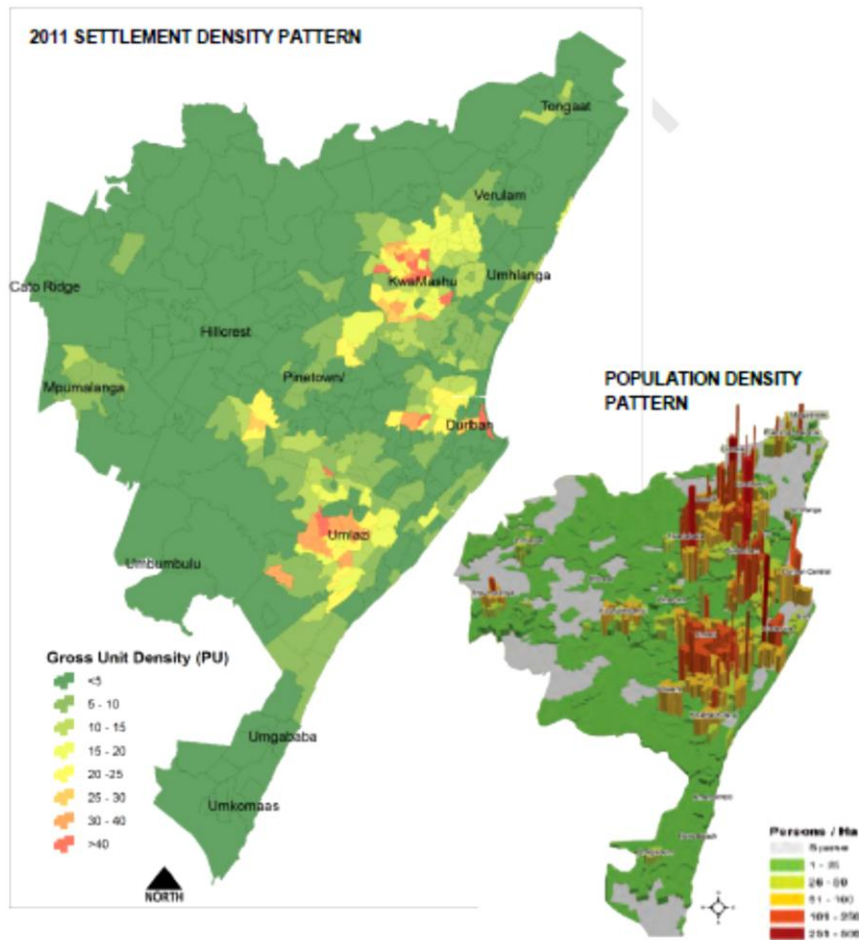


Figure 19: Settlement Density Pattern

These density characteristics have important implications for where people may wish to settle, (whether formally or informally); commuting patterns; public transport and the provision of basic services and social facilities. The existing fragmented urban form of the Municipality coupled with low density dramatically affects the access which residents can enjoy to places of residence, employment and social facilities. Fragmentation of the metropolitan area can threaten its potential as an economic engine, and social and environmental problems in any one part of the urban area can stunt overall metropolitan growth. Because of the self-reinforcing nature of this kind of spatial pattern, fragmentation and low density settlements can both be attributed to and result in the following:

- Long commuting times (average for the majority of eThekweni commuters is 2 hours return). This in turn impacts negatively on labour productivity and results in high transport costs.
- High infrastructure costs associated with extending infrastructure to new locations resulting in high costs per dwelling for pipe runs, road lengths; high costs per dwelling for maintenance and operations. Developing outside existing areas results in unused infrastructure capacity in existing areas.
- Impacts on higher order social and economic facilities require large geographic catchments, the consequence with developing in fragmented locations results in new facilities being located far away from much of the population.

- Underused public space in existing areas, which contributes to security and urban quality issues.
- Environmental degradation through high energy requirements of transport.
- Challenge to quality of life and to long-term sustainability.

Overcoming fragmentation and low density would work towards diminishing or reversing these negativities, and assist in achieving spatial integration, increased probability of cosmopolitanism, diversity of class and urban form.

3.5.2.1 Density Trends

It is evident in comparing the EM density pattern of 2001 to that of 2011 that there has been a change in the distribution of density. As the following map which shows the percentage change in gross density for metropolitan area illustrates:

- Density within the traditional suburbs of Berea, Montclair, Pinetown, Phoenix, Westville (inner core) etc has remained stable.
- Density in the rural periphery has doubled
- Density has increased threefold in greenfield development areas such as Hillcrest, Mt Edgecombe, Umhlanga and Welbadacht.
- Density along the backbone of the IRPTN has either decreased, or is stable.

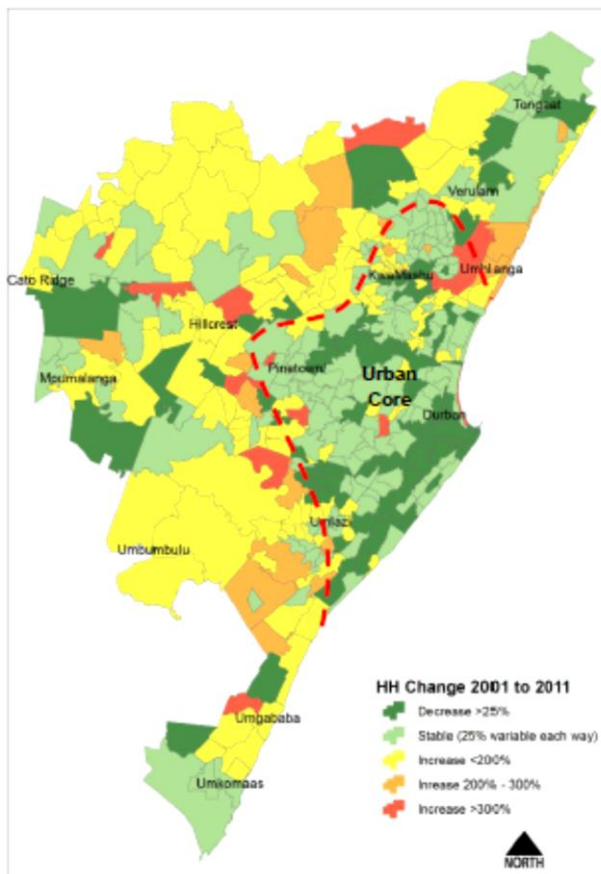


Figure 20: Density Trends (2001-2011)

An interrogation of the reasons for this pattern provides invaluable insight for the preparation of a strategy to manage density.

- The rural areas in particular offer a “soft” landing for migrants into the municipal system. Here the barriers to acquiring land to settle on, and the regulations regarding the development of land, are far less onerous than within the formal urban system where available land is not readily available. There is also anecdotal evidence of residents choosing to invest in rural areas where property taxation and servicing costs are minimal compared to land under formal land legal administration. Also developing in these areas is a cultural choice.
- Municipal investment in servicing backlogs has been directed into these areas on the past decade.
- Corporate decisions by major land owners e.g. Tongaat Hullet Developments and Luke Bailes etc to transform former sugar cane land to urban development have resulted in a plethora of new housing opportunities, with a particular emphasis on high quality managed and secure neighbourhoods that are under threat in existing neighbourhoods. This has resulted in a push of residents to emerging edge cities.
- The municipality’s housing programme has been unable to secure well-located land at reasonable prices and has been forced to deliver large-scale greenfield housing projects on the periphery of existing settlements.

A number of density patterns, both current and in terms of trends, are evident in eThekweni, each of which is a product of a number of constraints and/or incentives. These constraints and incentives are either implicit (hidden) or explicit (clear).

3.5.3 EThekweni Housing Sector

The housing sector is a major investor into the built environment. The role of this plan for the housing sector is to help guide the type and location of housing investment, to restructure the Municipality towards integration of different land uses and to align development objectives of housing with planning and other sector plans.

In 2007, eThekweni had approximately 3.6 million in some 900,000 dwellings. This is expected to increase to 4 million citizens by 2020 and by 2035 to 4.4million citizens. The majority - 86% - of eThekweni’s citizens in 2007 were urban - i.e. 3.014 million, and rural citizens numbered 0.511 million. There are presently no projections on how the distribution might change, but it seems likely that the urban periphery will continue to be a major destination for newly urbanising citizens, unless active steps are taken to promote a different pattern of urban growth.

Currently there are approximately 946 000 households in the eThekweni Municipality divided as follows:

Type	Sub Type	Households
Formal	Houses	414,357
	Flats	110,225
	Sub Total	524,582
Informal	Single Dwelling ("Shack")	265,542
	Backyard	48,975
	Formal Informal	3,096
	Sub Total	317,613
Rural	Cluster ("Umuzi")	70,317
	Single Dwelling	26,949
	Formal Informal (Formal houses in rural areas)	6,449
	Sub Total	103,715
Total		945,910

The table below shows the housing delivery since 1994, and its impact on the 2007 backlog.^[1]

¹ eThekweni Housing Unit, data supplied in July 2011

HOUSING BACKLOG AND DELIVERY SCENARIOS 2007 & 2011 dwelling counts

Backlog Dwelling Growth Rate =	3.22%						2007 Co unt	2007 Count	2007 Count	2011 Count	2011 Count	2011 Count
Delivery pa =		Target	Actual Houses pa	Houses Cum.	2001 Census (IS+BY+ Trad)		Inf. Sett.	Inf. Sett. + Backyard	Inf. Sett. + Backyard +Trad	Inf. Sett.	Inf. Sett. + Backyard	Inf. Sett. + Backyard + Trad.
Escalation =												
		Target	Delivery	33,843								
01-Jul-00	1994-2000		33,843	33,843								
01-Jul-01	2000\1		7,623	41,466	210,564							
01-Jul-02	2001\2		8,000	49,466	204,670							
01-Jul-03	2002\3		10,000	59,466	196,716							
01-Jul-04	2003\4		12,500	71,966	186,183							
01-Jul-05	2004\5		15,172	87,138	172,873							
01-Jul-06	2005\6		11,552	98,690	163,050							
18-May-37	313958		16,253	114,943	148,428		269,323	313,958	408,544			
19-May-38	2007\8	16,000	18,149	133,092	131,763		259,849	305,922	403,554			
19-May-39	2008\09	16,000	16,515	149,607	116,565		251,704	299,260	400,037			
18-May-40	2009\10	13,000	9,387	158,994	108,344		250,424	299,512	403,536			
18-May-41	2010\11	8,500	4,752	163,746	104,676		253,738	304,408	411,781	265,542	314,512	411,783
19-May-42	2011\12	5,000	3,389	167,135	102,333		252,887	304,063	412,510	264,808	314,268	412,512
19-May-43	2012\13	5,000	4,181	171,316	99,176		235,415	287,104	412,454	263,276	297,411	412,456

The Comprehensive Plan for the Development of Sustainable Human Settlements (August 2004) provides detailed information on the programmes identified by the National Department of Human Settlements. The new “Human Settlements Plan” promotes the achievement of a non-racial, integrated society through the development of sustainable human settlements and quality housing. This program seeks to use housing delivery as a means for the development of sustainable human

settlements in support of spatial restructuring. It moves beyond the provision of basic shelter towards achieving the broader vision of integrated, sustainable and economically generative human settlement systems at both local and regional scales. The following are fundamental tenets and underlying principles of this new approach:

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

3.5.4 Housing Supply Trends

In terms of the predominant housing supply trend the formal market is not spontaneously providing dwellings in sufficient number of adequate quality or in the optimal locations for the poor or affordable markets. The degree to which the formal market fails the low-income sub-market is extreme. The focus of publicly funded housing has been on the low-income sub-market. The main outcomes have been free standing houses coupled with individual freehold title, transfer of state owned rental stock to tenants, and some hostel upgrades coupled with rental tenure.

About 80% of new housing projects have been implemented within the Urban Development Line (UDL). These include rural projects and upgrades for community's who had occupied land outside the UDL. The market is spontaneously providing dwellings in sufficient number, of adequate quality and in the optimal locations for the upper-middle and upper income markets. Mid-market and up-market developments tend to be at the urban periphery often in the form of gated communities coupled with individual freehold title or sectional title, such as those in Hillcrest. A significant exception is the development on Umhlanga Ridge.

All spheres of government recognize the necessity and desirability of having housing markets that work for all the segments of the market, and consequently are willing to avail resources to address market shortcomings and failures. There is significant demand for rental stock. Research estimates are that 33% of households in eThekweni live in rented accommodation, many of them in inadequate human settlements.

The following housing sub-markets are applicable to eThekweni Municipality:

HOUSING SUB-MARKETS IN ETHEKWINI MUNICIPALITY	
Low-income Housing (also known as Housing for the Poor or Pro-poor Housing)	Informal, traditional, rental or individual ownership of serviced or un-serviced dwelling units by low-income households with incomes under R 3 500 p.m. Single sex hostels are also part of the low-income market.
Affordable Housing	Rental or individual ownership tenure over fully serviced dwelling units by households with incomes from R 3,500 to R 15,000 p.m. It includes the so-called "Gap market", of households who earn from R 7,500 to R 15,000 p.m. The term 'gap' derives from the absence of subsidies for these households, the virtual absence of available housing stock, and the thin availability of bond finance.
Mid-market and Up-market Housing (also known as Upper-middle Income Housing or Upper Income Housing)	Rental or individual ownership tenure over fully serviced dwelling units by households with incomes over R 15,000 p. m.
Social Housing	Subsidised rental tenure over fully serviced dwelling units for households with incomes from R 1,500 to R 7,500 p.m. There are differing views as to whether social housing is a housing program or a housing market. In this document, the term is used for the housing program that addresses the low-income and affordable rental markets.

3.5.5 Rural Housing

The rural low-income demand is significant, and is expected to grow. The demand in 2011 was estimated at 97266 (eThekweni dwelling count 2011). The estimate however treats all traditional dwellings as being inadequate shelters, in contrast to the common perception that traditional homesteads are often a better shelter solution than newly-built subsidised housing, although clear incidences of inadequate shelters exist. There is not sufficient information on rural shelter to clarify the situation.

Currently, rural settlements are addressed via the Rural Housing Subsidy Programme and are largely a reactive response. The provision of top structures is not a major shortfall in such areas, with the demand more on the provision of services. As such, initiatives such the Water and Sanitation Unit's rural sanitation programme and to an extent Eskom's electrification programme are in place to address these areas.

The Rural Programme applies outside of the Urban Development Line. Large parts of these areas are owned by the Ingonyama Trust. In areas under traditional authority the legal tenure is likely to remain a long-term lease. The program can be applied based on functional tenure. All projects funded under the Rural Programme are in-situ upgrading projects.

The Rural Housing Programme provides subsidies to beneficiaries on the basis of functional tenure. The program currently provides a VIP, a house and access road per homestead. The Sustainable Human Settlements Strategy (SHSS) however aims to change this approach towards greater emphasis on housing at well-accessible Rural Service Nodes. The Cost Surfaces Model is influenced by locating rural housing projects where services capacity is presently available (nodes) rather than locating projects in areas where new services need to be provided at higher costs to the Municipality.

In the eThekweni context this programme currently receives a major share of the provincial budget. Access to social facilities such as schools, food gardens and clinics as well as provision of road linkages to markets must begin to inform the manner in which human settlements are designed in the near future.

The current rural service standards:

- One ground tank per household supplied with 300l per day;
- Urine diversion toilet;
- Electrification only of densely clustered pockets;
- All weather surface to all public transport routes and roads within communities having a density greater than 15 persons per Ha

The map below shows the proposed rural housing projects.

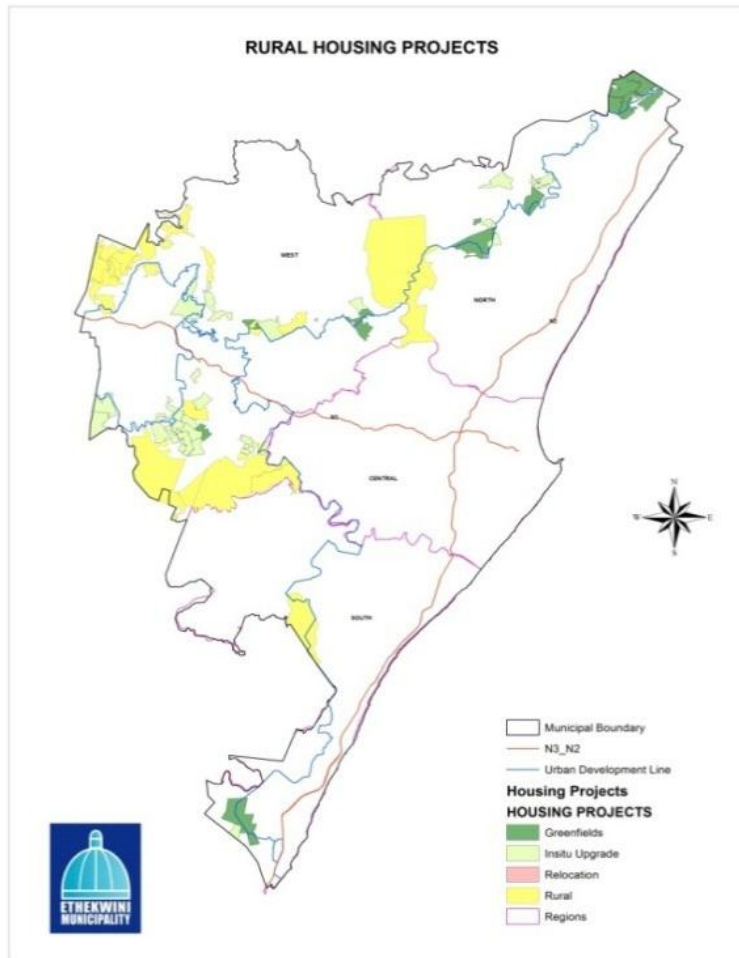


Figure 21: Rural Housing Projects

3.5.6 Rural Development Programme

eThekweni is a metropolitan municipality comprising 60% rural-land occupying approximately 1500 km² mostly located northwest and southwest of the city. These areas are largely defined by their features such as hilly, rugged terrain, dispersed settlement patterns in traditional dwellings and communal land holding under Ingonyama Trust. The rural population is generally disconnected from the rest of the Municipality and also characterized by high levels of poverty and unemployment. The situation is exacerbated by fragmented service delivery, unresolved land tenure, and a legacy of fragmented planning, which has always excluded the rural areas.

Traditionally rural areas were characterized by low densities and however, the municipality encourages a more efficient form by clustering residential development of about 10 dwelling units per hectare close to rural service and investment nodes and on public transport routes. Most rural areas within eThekweni have medium to high densities which is influenced by in migration within eThekweni and neighbouring municipalities for services and job opportunities. The current reality of rural areas

such as Umzinyathi, Mpumalanga, Umnini, KwaXimba and Adams display high densities which has led to settlements that no longer reflect traditional large sites which make up the rural form. Lack of land use and development control in these areas has affected residential design and building form as people have illegally located on sensitive areas that could endanger their lives.

eThekweni Municipality is therefore embarking on preparing a Rural Development Strategy that aims at addressing the above mentioned issues. The study will look at more closely defining what “rural” means in the eThekweni context, reviewing the urban development line or urban edge and its impact on rural areas, revision of current and proposed densities and associated level of services (water and sanitation, electricity and access roads), land legal issues and institutional arrangements and protocol for engagements with Traditional Leaders. Issues of land reform and agriculture will be looked at together with other sustainable livelihoods and pro-poor initiatives.

The KZN Department of Cooperative Governance and Traditional Affairs is currently looking at formalizing densifying rural areas into townships, in the eThekweni context, the focus will be on Umbumbulu. This process will include *inter alia* an investigation of land ownership options linked with service provision, protection of natural resources and risk areas (D'MOSS) and land use management.

The eThekweni Municipality has recently engaged in this COGTA initiative of formalizing dense areas outside the UDL to ensure that rural areas are clearly distinguished from peri-urban areas and ensuring developmental outcomes of the land rural development programmes. The Rural Development Strategy is also underway to define what is rural in the eThekweni context as well as formulating policies and strategies to protect rural and agricultural land and promote appropriate local rural economies.

3.5.7 Peri-Urban Settlements outside the Urban Development Line (UDL)

The primary focus of the Housing Programme is largely on addressing urban informal settlements either through upgrades, relocations, interim services and/or the implementation of greenfields projects.

Dense peri-urban settlements and those in particular which are located just outside the UDL will be considered for interim services. Interim services are provided to settlements earmarked for upgrade which will not be addressed via the housing programme in the short term. The package of services will include water, sanitation (communal ablutions, UD scheme, Dewats system), roads, footpaths, stormwater controls and electricity. Depending on the location and density of settlements, the full package of services may be altered or reduced.

It is anticipated that interim services will emerge as a key programme which could well overtake the housing delivery programme in terms of breadth i.e. reaching a far higher number of households. It is

in line with the Outcome 8 Presidential target and very much supported by both National and Provincial Departments of Human Settlements.

3.5.8 Informal Settlements

Since 1994, public investment in eThekweni Municipality has provided in excess of 171,000 new housing opportunities. Many more households still live in inadequate human settlements, either because their shelters are inadequate, and-or they do not have access to basic infrastructure, social facilities and economic opportunities. The problem is most visible in informal settlements.

The problem of eThekweni's informal settlements is large, and is set to become more so as the province's population urbanizes. As the largest and most economically active Municipality in the province, eThekweni is likely to attract more than a proportionate share of the province's urbanising citizens, and from elsewhere in the country and beyond the borders. Informal settlements tend to have higher densities, especially within the inner core. Informal settlements with lower densities tend to be located to the west and on the urban periphery.

The following map shows the location of existing informal settlements and their densities:

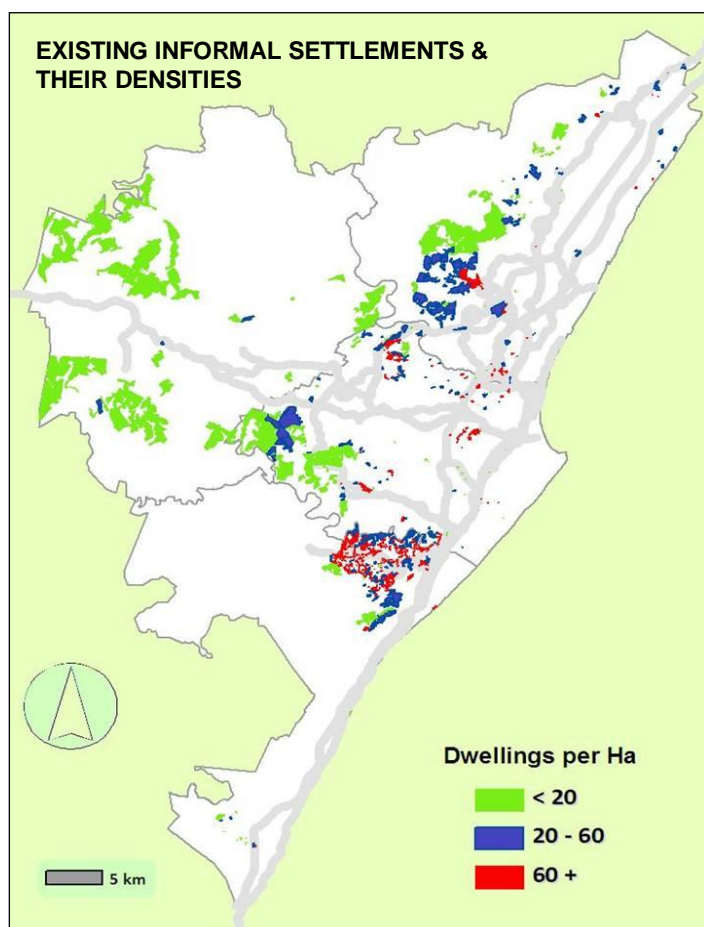


Figure 22: Existing Informal Settlement

The Informal Settlement programme is the major focus of eThekweni Housing. The principal intention is to upgrade informal settlements wherever possible and to only relocate residents if upgrading is impossible for health, safety or technical reasons. Social and economic amenities to enhance the sustainability of the upgraded settlements may also be provided, or existing ones expanded.

Informal settlements must be integrated into the broader urban fabric to overcome spatial, social and economic exclusion. This will require a range of short- and long-term responses, including interim relief, incremental upgrades, planning and management of informal settlements, greenfields, and sustained, long-term upgrading programs.

A key challenge for these areas is to ensure that the physical development of the EMA addresses areas of needs with opportunities in a manner that ensures that the relationship between physical elements, activities and people function in an efficient, equitable and sustainable manner.

3.5.9 Addressing Housing Demand

The total target for greenfields related projects is approximately 120,000 units which translate to vacant land requirement of approximately 6,000 hectares assuming a density of 20 dwellings per hectare as per conventional housing delivery. If the current intentions of achieving gross densities of greater than 20 dwellings per hectare are achieved, then the land assembly target could be reduced. For instance producing attached or row style double-story units at a density of 60 units per hectare could reduce the amount of Greenfield land required to 2,000 hectares.

If the demand for greenfields sites increases as a result of an unanticipated increase in the number of relocations required from informal settlement interventions, the amount of vacant land required for greenfields projects will increase as well. Greenfields projects require well-located land ideally in proximity to the informal settlements the residents lived in before relocation. Land acquisition and assembly is a critical aspect of Upgrading projects and of Greenfield projects. In the context of National Government imperatives as well as IDP objectives, the focus will be on increasing housing densities in appropriate locations thus reducing the amount of vacant land required. This shift towards eliminating urban sprawl and towards more sustainable settlements is acknowledged and accepted as it also drastically reduces the amount of funding that the Municipality will require to budget for extending bulk infrastructure and providing new community facilities.

Land availability and land demand for low income housing has been addressed to an extent in the Housing Unit's Strategic Housing Framework. However, a number of constraints to land acquisition need to be acknowledged. These include amongst others, poor geo-technical conditions, high land values, competing land uses, environmental restrictions, land claims, conflicting interests especially

with adjoining communities. In addition the acquisition of land, particularly in cases where there is mixed land ownership, i.e. a combination of either Municipal, State, private and unregistered owners, has resulted in the need for different approaches to negotiations and different procedures for acquisition. This has resulted in unnecessary delays and often frustration.

Availability of well-located land for public housing remains a serious challenge especially because the sustainability of settlements depends strongly on their location and accessibility. Well-located land is generally expensive and subject to competition from other uses. In the past the cost of land acquisition was capped by the limit imposed by the housing subsidy but this no longer applies,. Consequently the acquisition of land for human settlements has suffered.

The Department of Land Affairs (DLA) reports that it does not have sufficient budget for land acquisitions in eThekweni. The Housing Development Agency (HDA) has a mandate to acquire land for human settlements but is currently only involved in land acquisitions in the Cornubia project in eThekweni Land supply is challenging. Land owned by the Municipality can and often has been used for housing purposes, but is usually subject to intense competition for other uses.

The processes to use land owned by other spheres of government for housing tend to be complicated and time consuming. In addition land owned by State Owned Entities (SOEs) is being treated as a balance sheet asset and consequently sold or let at market prices. At market price, acquisition of private land is often the faster option. Despite the difficult context in which housing officials have had to operate, the identification and assessment of land for housing continue

The Housing Sector Plan approved by Council in December 2011 alluded to the workings of a project prioritisation model. The model principally prioritises housing projects according to location. It should be applied to all types of housing projects namely Greenfields and Upgrading Projects, but not to Rural projects. The following criteria have been developed to assess the locations of future projects:

- Within the Urban Development Line
- In walking distance of Public Transport Trunks
- In Existing Urban Settlements whose current densities promote sustainability
- At low investments in new Bulk Infrastructure
- Close to Selected Public Transport Interchanges
- Close to Basic Social Facilities.

Improved locations of housing and improved accessibility, especially of low-income housing, is therefore a major goal of the Housing Spatial Plan. More recently the model was revised to include an additional two criteria viz. Personal Travel Costs and Proximity to Employment and Economic Opportunities.

The following map represents the housing plan reflecting the planned five-year housing projects for the Municipality:

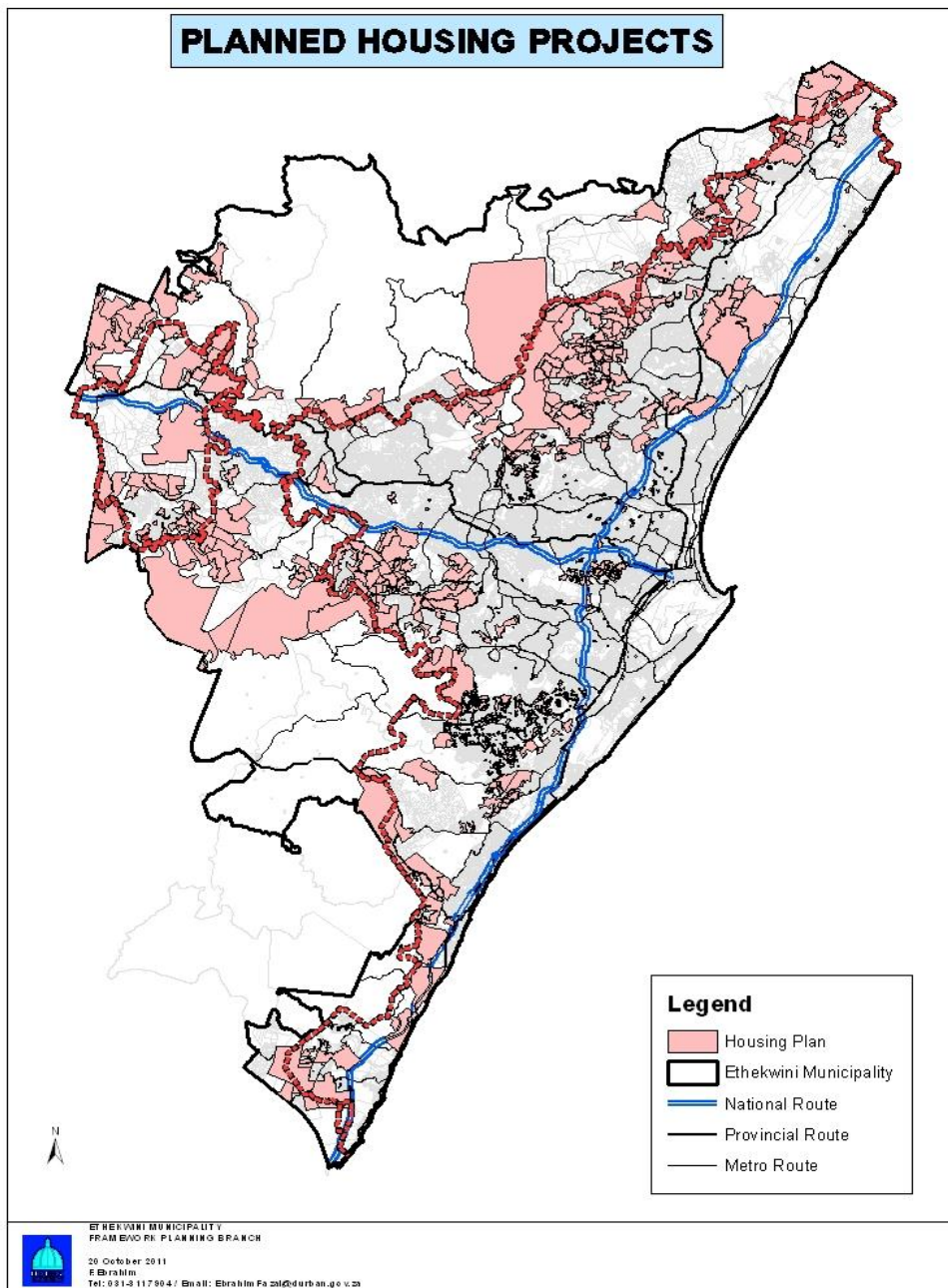


Figure 23: Planned 5 year Housing Projects

3.5.10 Challenges to Housing Delivery

In the last two years the delivery targets of 13,000 and 8,500 units respectively have not been achieved. Obstacles to delivery included:

Regulatory Obstacles:

The most often mentioned regulatory obstacles or delays for housing delivery are:

- Environmental Impact Assessments (EIA) rarely stop housing projects but frequently delay them because long and complicated processes need to be followed before permission from the Province (Department of Agriculture, Environment and Land Reform) can be obtained.
- Town planning requirements are principally township establishment. This often requires rezoning of the land. The new KZN Planning and Development Act (PDA) enables the Municipality to carry out rezoning and township establishment in its own right without engagement with Province. The Municipality would be interested to explore a streamlined town planning process, with cadastre being formally defined only for commercial and social sites and for roads, and with a less formal process for the definition of individual residential sites.

Land Acquisition Obstacles:

The scarcity of well-located land is often highlighted. EThekweni has a very low density with significant infill areas. The problem is not that there is no vacant land, but rather that well-located land is expensive and a subject of competition from other users. The problem of scarcity of land could be addressed through higher density developments but these have their own obstacles, as indicated below. The Municipality is interested to investigate if the apparent scarcity of funds for land acquisition can be resolved. If it could be resolved, the Municipality would be interested to establish a Municipal Strategic Land Fund.

Obstacles to Densification:

The main obstacles to densification are:

- Higher construction costs of the top-structure
- The apparently entrenched perception that low-income housing should be detached houses on individual plots.

Funding Constraints:

Funding constraints are experienced for:

- Land assembly
- Bulk infrastructure
- Local infrastructure
- Top-structures, particularly for medium- and high-density housing typologies.

3.5.11 Summary table of the Built Environment, Housing and Land Availability Issues and Trends

ISSUES	UNDERLYING CAUSE	SPATIAL IMPLICATIONS
<p>1. Socio Economic Conditions including:</p> <ul style="list-style-type: none"> • High levels of unemployment • Increasing immigration • Spatial concentrations of low income households 	<ul style="list-style-type: none"> • Rapid urbanization • Skills mismatch • Peripheral residential developments located far from employment opportunities 	<p>Rapid urbanization give rise to:</p> <ul style="list-style-type: none"> • Growth of informal settlements • Pressure for provision of social facilities • Pressure for development and delivery of basic needs such as water, electricity, sanitation, waste removal and social amenities
<p>2. The current Municipal structure that results in high social and economic costs especially in terms of Residential Pattern/Housing</p>	<ul style="list-style-type: none"> • Location of incompatible land uses adjacent to each other 	<ul style="list-style-type: none"> • Environmental and social conflict arising from poor planning
<p>3. Constraints associated with restructuring city form</p>	<ul style="list-style-type: none"> • National Housing Subsidy Scheme constraints higher density, multi-storey housing options for assisted housing 	<ul style="list-style-type: none"> • Constraints: the building thresholds to support higher levels of services, facilities and public transport.
	<ul style="list-style-type: none"> • Availability of well-located land is a serious challenge especially because the sustainability of settlements depends strongly on their location and accessibility. Well-located land is generally expensive and subject to competition from other uses. 	<ul style="list-style-type: none"> • Location of public housing beyond the urban development line = urban sprawl
	<ul style="list-style-type: none"> • insufficient information on rural housing 	<ul style="list-style-type: none"> • No clear direction on rural housing development in relation to provision of subsidised housing

3.6 Social Facilities at eThekweni Municipality

Social facilities are publicly and privately owned and operated properties and/or services which are publicly accessible, which deal with social development and socio-economic development, and which are necessary components of sustainable human settlements. Social facilities include:

- Health
- Fire Protection and Emergency Services
- Police
- Education
- Sports and Recreation
- Social Grants
- Cemeteries
- Government Offices

Improved quality of life for eThekweni citizens means that they are able to enjoy equitable opportunities to participate in culture, leisure and education, such as those that are available through community facilities. Ensuring full service provision of community facilities needs to be closely guided by service standards, and requires the necessary operating funds to sustain these facilities on a day to day basis.

The provision of community facilities and services is guided by the standards developed by municipal line departments and are based on a combination of national norms and the ability to sustain these standards given municipal budget constraints.

An Access Model has been developed to match the demand for facilities, based on population numbers and income and age profiles, with the supply and capacity of facilities geographically. The social services currently included in the Access Model are Primary Health Clinics, Community Health Centres, Primary Schools, Secondary Schools, Libraries, Fire Services, Community Halls, Sports Fields, Indoor Sports Halls, Sports Stadia, Swimming Pools, Cemeteries, Parks, and Police.

This assessment shows the nature and extent of facility backlogs across the Municipality and all requests for the construction of new facilities are currently being assessed within this context.

3.6.1 Service Levels and Backlogs

According to the Access Model, the current levels of service for social facilities are as shown alongside. A capital development program is in the design phase to respond to the most critical under-provisions of service. Overcoming under-provision in security, fire protection, health care, education (including libraries), cemeteries and basic recreation are likely to be prioritised.

Facility	Current service coverage as % of the 2006 population.
Police	No figures at present
Clinics	56%
Cemeteries	Not measured as %
Primary schools	83%
Secondary schools	77%
Libraries	70%
Fire Stations	72%
Sports fields	91%
Parks - local	Under Review
Indoor Sports Halls	71%
Sports Stadia	80%
Swimming Pools	70%
Parks - regional	Under Review
Community Halls	79%

3.6.2 Reconsidering the Basic Approach to meeting Community Facilities Backlogs

About R 4.5 billion would be required for the construction costs of all facilities proposed by the Access Model. Additional funds would be required for land acquisition, equipment, staffing, and other operating costs. For the MTEF period ending 2011/12, eThekweni Municipality committed R 83 million for a pilot program for essential social facilities.

Social facilities are either funded by the Municipality or Provincial Line Departments. For some types of facilities such as libraries and clinics there are overlapping funding responsibilities. The pricing of the Optimal Locations compared to the Capital Environment prompted the need to reconsider the basic approach.

Some of the new thinking to emerge was to:

- Distinguish Essential Services from Desirable Services, and by applying different accessibility levels for Essential Services and Desirable Services, reduce the capital requirements
- Through the cataloguing process, discover “hidden” facilities – hidden either because they had not been recorded at all or their sizes had been under-estimated (both of which seems to be the case for local and regional parks), or hidden because they have not until now been regarded as social facilities (which is the case for school sports fields, though with many notable exceptions where school fields also already serve as community fields). The discovery of hidden facilities ought to lead to a revision of the current accessibility, and consequently a smaller backlog than originally thought.
- Reduce the space standards and-or planning thresholds for some facilities, particularly basic recreation.

- Rather than build new facilities or expand existing ones, increase the operating capacity at existing facilities, through increased opening hours, increased opening days, equipment improvements, and process improvements
- Expand existing facilities rather than build new ones
- Only consider building new facilities after the possibilities of increasing operating hours and-or building extensions at existing facilities would not be enough or nearly enough to meet local backlogs.
- If a new facility was indeed required, then consider building adjoining an existing facility
- If a new facility was required and it could not be adjoined to another facility, then find a site adjacent to the existing facility, and if this was not possible, then find a site within close proximity (less than 400m))
- Only consider building stand-alone facilities on their own sites and isolated from other social facilities as a last resort.

Based on the distinction of Essential Facilities and Desirable Facilities, the funding requirements of social facilities are as shown below.

ESSENTIAL FACILITIES	Current accessibility	Accessibility after new 'big impact' facilities	No. of proposed new 'big impact' facilities		Average Total Costs 2011 Baseline
Clinics	56%	93%	19	No.	108
CHCs	56%	93%	7	No.	79
Fire Stations	72%	85%	8	No.	151
Primary schools	83%	100%	20	No.	403
Secondary schools	77%	99%	21	No.	582
Libraries	70%	92%	11	No.	166
Sports Fields	91%	91%	0	No.	0
Cemeteries	-	-	-	Ha	157
Police Stations	?	?	?	No.	?
Subtotal			86		1,648

DESIRABLE FACILITIES	Current accessibility	Accessibility after new 'big impact' facilities	No. of proposed new 'big impact' facilities		Average Total Costs 2011 Baseline
Indoor Sports Halls	71%	71%	3	No.	66
Sports Stadia	80%	80%	4	No.	202
Swimming Pools	70%	70%	8	No.	227
Local Parks	Under Review	100%	687	Ha	1,731
Regional Parks	Under Review	100%	188	Ha	710
Halls (A, B, C)	79%	79%	8	No.	60
Subtotal			898		2,996
TOTAL			984		4,644

3.6.3 Spatial Distribution of Proposed Additional Capacity of Selected Essential Social Services

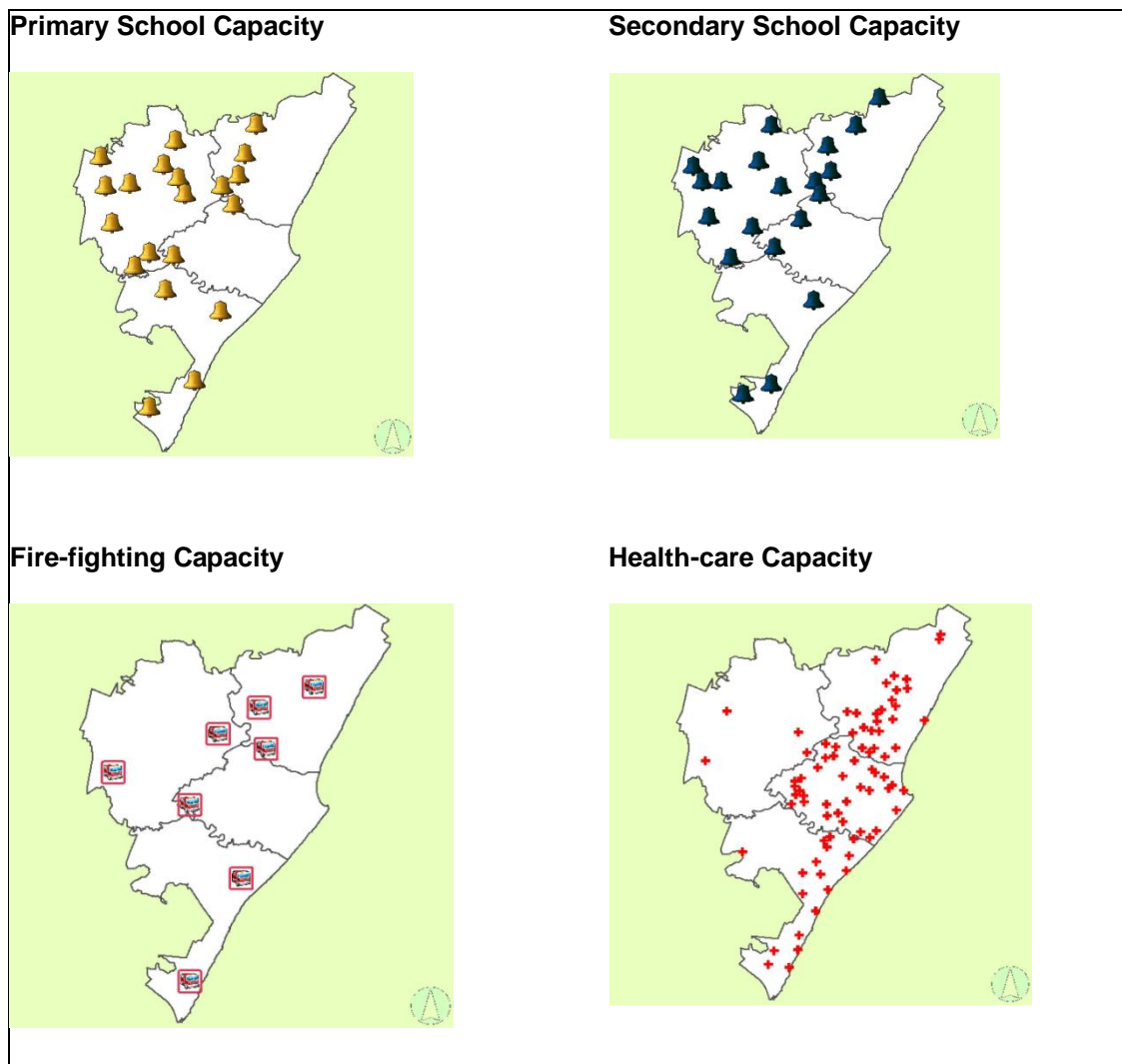


Figure 24: Proposed Additional Social Facilities

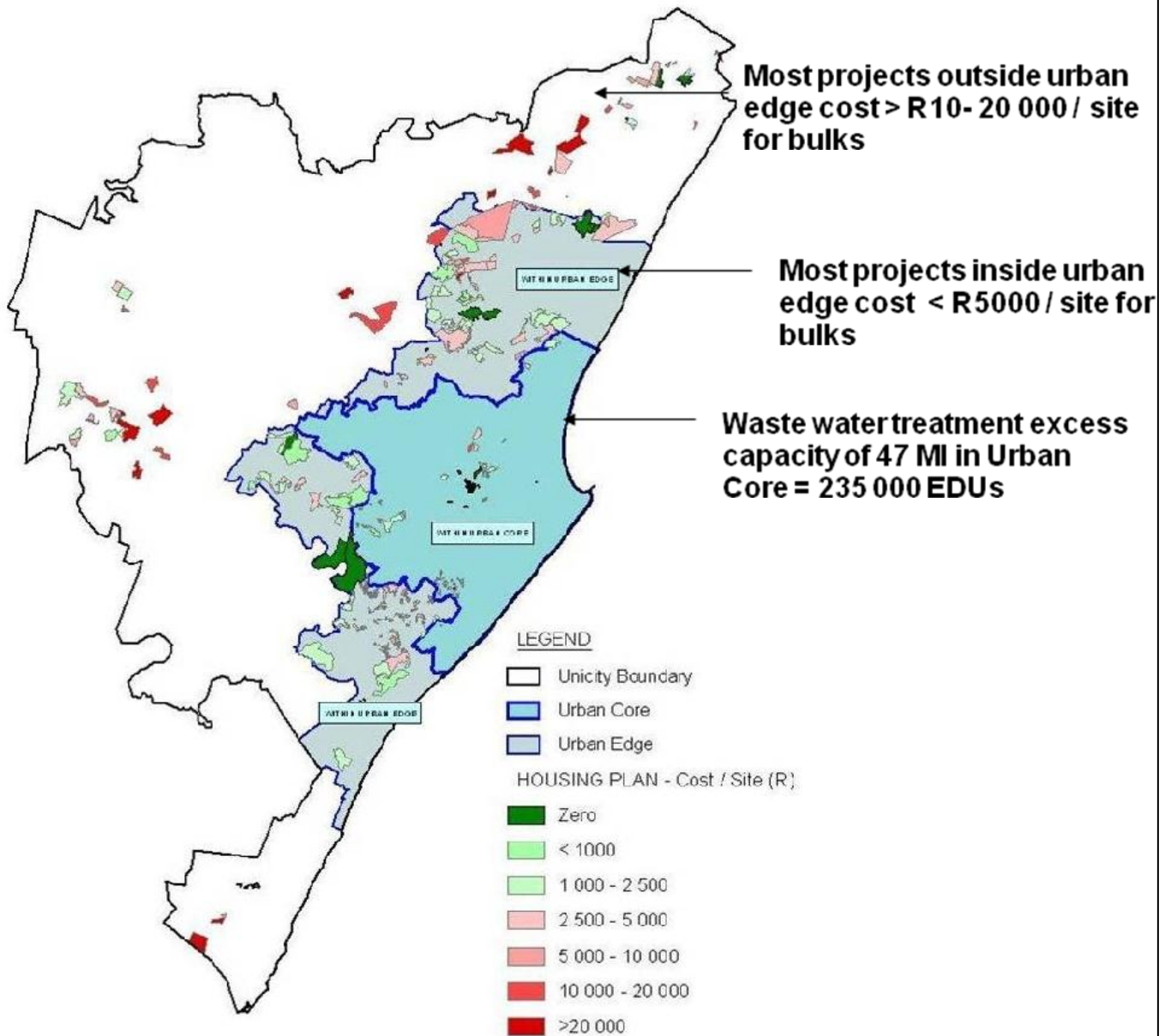
3.7 Infrastructure Services

The Municipality has substantial excess capacities in central areas for certain engineering services and most social services. However, developments have tended to happen in the outskirts of the Municipality where there is limited bulk infrastructure and services. The property boom of the last few years has placed significant pressure on road and sewer infrastructure particularly in the northern and western regions and the inability to expand these systems 'ahead of the growth' has to some extent retarded this growth. The slowdown is now providing the city with an opportunity, within its resource capacity, to address bottlenecks over the next few years to resume more efficient and more equitable growth through the timely supply of infrastructure in key growth areas.

The challenges with regards to bulk infrastructure cost and availability has a direct relationship to the provision of housing especially low income housing. Over the years the trend with housing development and location in the Municipality has mainly been based on the availability and cost of land rather than infrastructure costs. This has led to infrastructure backlogs which are associated with high infrastructure cost as these developments are built in inaccessible peripheral locations outside the urban /services edge. Development beyond the 'infrastructure/services edge' is also outstripping current infrastructure capacity budgets. This causes delays in development and also results in development occurring in inappropriate areas.

For financial sustainability more housing projects should be encouraged inside the infrastructure services edge. Developing inside the infrastructure services edge and within the urban core will promote densification in accessible areas while creating thresholds for Public Transport. The following map shows the comparison costs of developing within and outside the infrastructure services edge:

ESTIMATED INFRASTRUCTURE DEVELOPMENT COSTS



eTHEKWINI MUNICIPALITY
 FRAMEWORK PLANNING BRANCH
 20 October 2011
 Ebrahim
 Tel: 031-3 117 904 / Email: Ebrahim.Fa.zak@durban.gov.za

Source: eThekweni Municipality: Engineering Unit

Figure 25: Infrastructure Development Cost

3.7.1 Water

The water supply to the KwaZulu-Natal Coastal Metropolitan Area is experiencing serious difficulties. Poor long term infrastructure planning and decline in investment in bulk infrastructure over the last 20 years and above average rainfall over the last few years has led to a false sense of security regarding the water supply situation.

A below average rainfall period will result in the need for water restrictions with their associated impacts on the local economy. The continued economic growth and development of the KwaZulu-Natal Coastal Metropolitan area requires an assured water supply in line with DWA's policy of water for growth and development.

The level of assurance of water supply from the UMgeni system has dropped from 99% to 95% and will drop further. The situation is sufficiently severe that water restrictions are inevitable once rainfall returns to normal and the Head: Water and Sanitation has reported this to the eThekweni Council with a recommendation that a senior political delegation request a meeting with the Minister of Environment and Water Affairs to unblock the obstacles around bulk water supply and the finalisation of river reserve determinations.

The augmentation of supply from the Springgrove Dam will only become a reality in 2013/14 and even with this additional capacity eThekweni will still suffer from a water supply shortage. Water recycling may, if all the approvals are received, come on stream in 2016 but more efficient utilisation of the existing resource is a priority. From the point of view of current water supply, there is insufficient supply to deal with any further development as envisaged in the SDF and SDPs.

In the area of current water delivery, 91% of households have water available within 200m of their dwelling. To cater for the indigent, the Municipality as part of its welfare package provides a basket of free basic services which include water, sanitation, and electricity and refuse removal for informal and rural settlements in accordance with a defined level of service. In addition, those consumers living in formal properties having a maximum property value of R120000 are considered to fall in the indigent category and therefore also benefit from free service delivery. The statistics recorded in the 2011/12 municipal scorecard already reflect the above but a new set of KPIs has been introduced to clearly reflect the percentage of estimated indigent households with access to free basic services.

In respect of the provision of water, sanitation and electricity to schools and clinics, the role of the Municipality is to ensure that either bulk infrastructure is available to allow connections, or that acceptable levels of service are defined to enable appropriate action to be taken by the provincial Education and Health authorities.

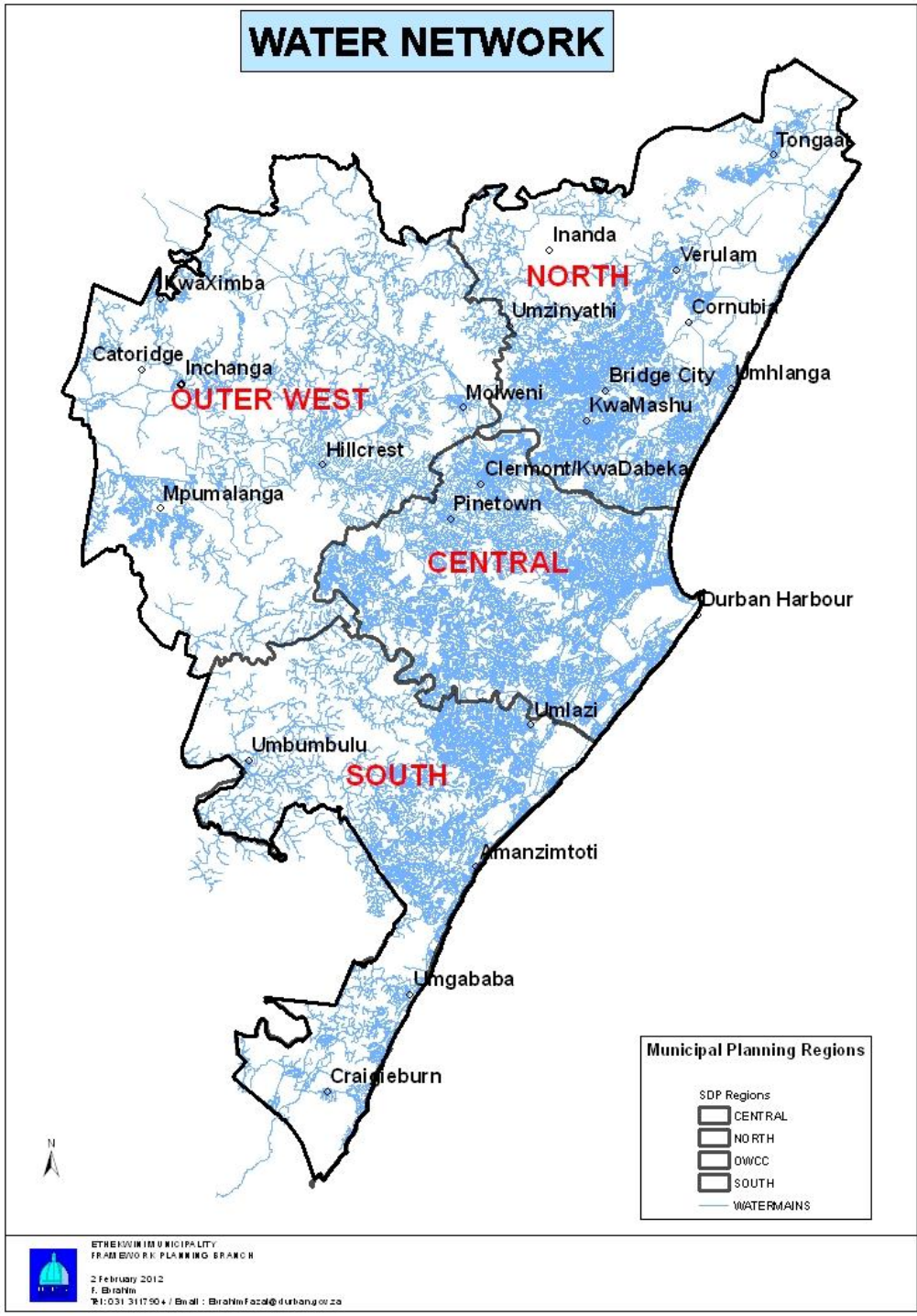


Figure 26: Existing Water Network

3.7.2 Sanitation

The central and suburban regions of EMA are serviced with a water-borne sewerage system that transports sewage to a number of sewage treatment plants for treatment prior to final discharge in the Indian Ocean. There is spare capacity in the Central core area of the Municipality (approximately 100MI/day, less in the North and South and very limited capacity in the Outer West (less than 2MI/day). In line with the planned growth trajectory to the North, the Municipality is planning upgrades and a new regional works on the UMdloti River.

The outer peri-urban and rural areas, as well as informal settlements, are provided with on-site sewage disposal. The supply of basic sanitation to the poor households (ventilated improved pit latrines for dense settlements and urine diversion (UD) toilets for less dense settlements) is founded by national government. The UD toilet is the Municipality's preferred method of sanitation in less dense settlements.

The following map represents the existing sewerage network for the Municipality:

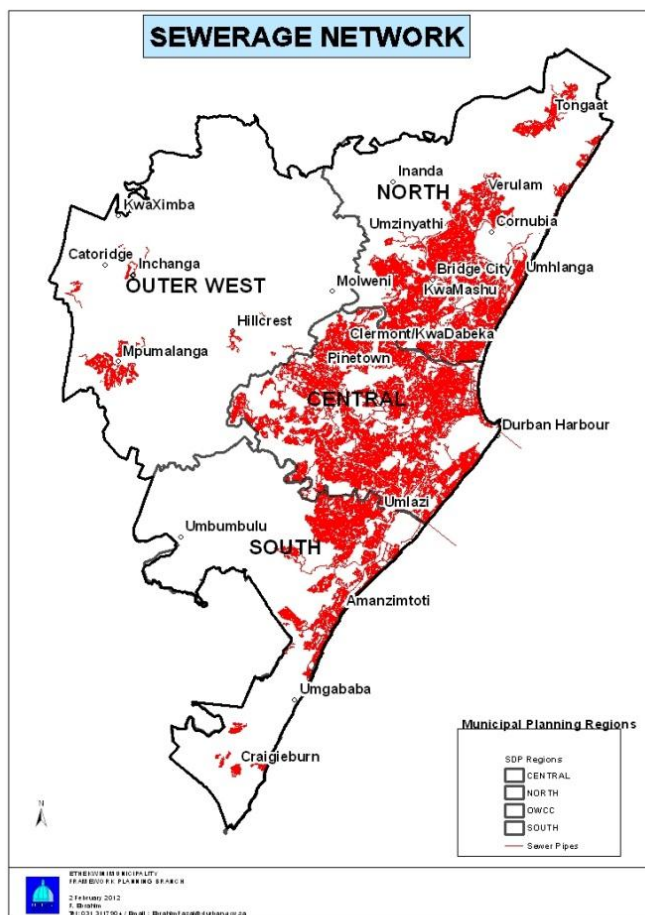


Figure 27: Existing Sewerage Network

Providing a sewerage service for further development can necessitate expanding existing sewage treatment works and/or building new works. Under the National Water Act, to undertake either of these activities an application for a water use license must be made. Before a license application is assessed by the Dept of Water Affairs (DWA) the ecological reserve of any affected water resource must be established.

Although the ecological reserve determination studies have been completed for a number of the eThekweni estuaries - and submitted to DWA by the specialists - these studies have not been finalized by DWA. However, it already seems to be clear from a sewerage planning perspective that, if the intentions of the ecological reserve process are to be met, and the current land uses in the SDPs remains unchanged, a combination of direct re-use of treated sewage effluent for potable water supply and some quite extensive and expensive, cross-catchment pumping, will have to form the basis of future sewerage planning.

3.7.3 Solid waste

The dominant method of disposal at the EMA is done through landfills. Over 1 million tons of waste per annum is accepted by the four main landfills in the municipal area. EThekweni Municipality's waste management agency, Durban Solid Waste (DSW) has been responsible for ensuring that the waste sector is one of the most active in initiating actions that contribute towards a reduction in carbon emissions. DSW has promoted a number of options for recovering materials that would otherwise end up on a landfill. These include:

- Separation at source with curbside collection (also known as the Orange bag system"
- Material recovery facilities where recyclables contaminated by other waste are recovered. These include drop off centers, buy back centers and mixed waste materials recovery facilities.

The Municipality runs 3 landfills: Bisasar, Mariannahill & Buffelsdraai. This will change in the near future where Bisasar landfill will close and a new site in the south at Lovu will open. The landfill at Bul-Bul, owned by Wasteman is closed at this time but they are attempting to get the site reopened. The only other private landfill is that owned by Enviroserv at Shongweni. Technically Durban only has 4 operational landfills taking in some 1,4m tons of waste. In the medium term Mariannahill will close and be replaced by a new site also at Shongweni (probably around 2018/2019)

DSW is also looking to introduce waste to energy projects (i.e. converting waste directly to energy). DSW are also investigating if building rubble can be used more effectively but these are not yet reality.

3.7.4 Electricity

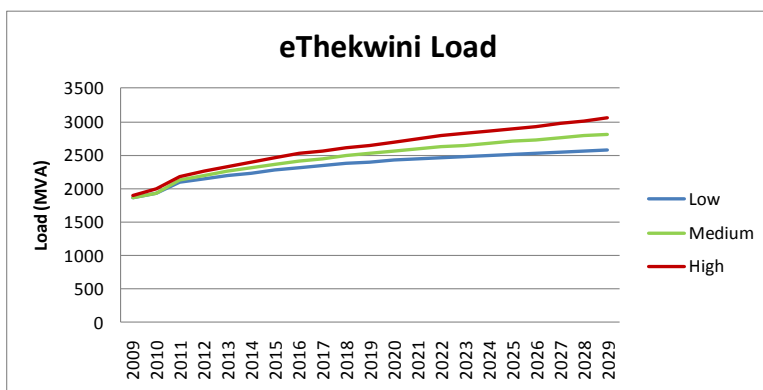
EThekwini Electricity purchases from ESKOM, the national generator and transmitter of electricity, at five infeed points viz. Klaarwater, Ottawa, Durban North, Durban South and Lotus Park. Electricity is purchased at 275 kV at these points and are transformed and transmitted to end customers at voltages of 132 kV, 33 kV, 11 kV, 6.6 kV, 400/230 V.

The bulk of electricity in South Africa is produced from coal, with generating stations situated in Gauteng and Limpopo. 6 MW and 1 MW of electricity are generated at the City's landfill site at Bisassar Road and Mariannahill respectively. 500 kW of electricity are generated through photovoltaic cells in Hazelmere. EThekwini Electricity's electricity demand is presently 1.7 GW. In 2008 South Africa experienced a supply shortage and customers were interrupted twice a day for two hours. Since then the electricity demand has been managed through various initiatives. At present new generating stations are being built with the first due to be commissioned during 2014. Also, customers are advised to incorporate energy efficiency within their developments.

eThekwini electrical networks have sufficient bulk capacity, with localized constraints in the Westmead, Springfield, Assagay/Shongweni and Cato Ridge areas. Plans are in place to rectify these. However, the process is quite elaborate and this constraint will remain a challenge until 2015.

An electrical master plan for eThekwini was presented in 2011. This study included the long-term demand and energy forecast and the associated financial cash flow requirements to support the infrastructure strengthening and renewal. This study focuses on the eThekwini area of supply within the eThekwini municipal boundary with the objective of the study being to provide eThekwini Municipality a clear view and plan to develop the electrical infrastructure to support the envisaged future demand.

Load Forecast



The Base Case (Y2009)

Existing electrical networks are indicated in the map below:

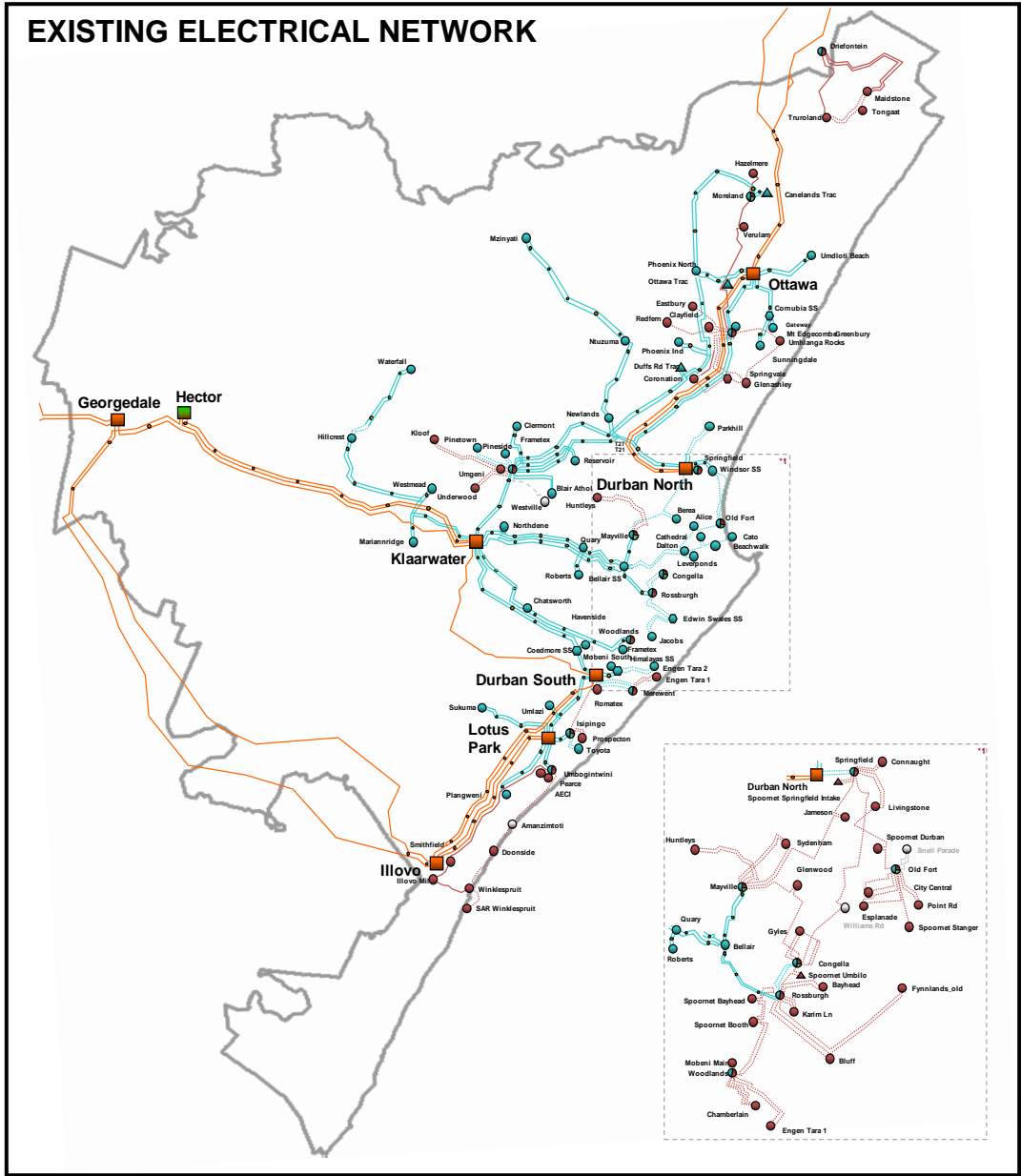


Figure 28: Existing Electrical Networks

Proposed Network (Y2029). The map below indicates the future expansion plans:

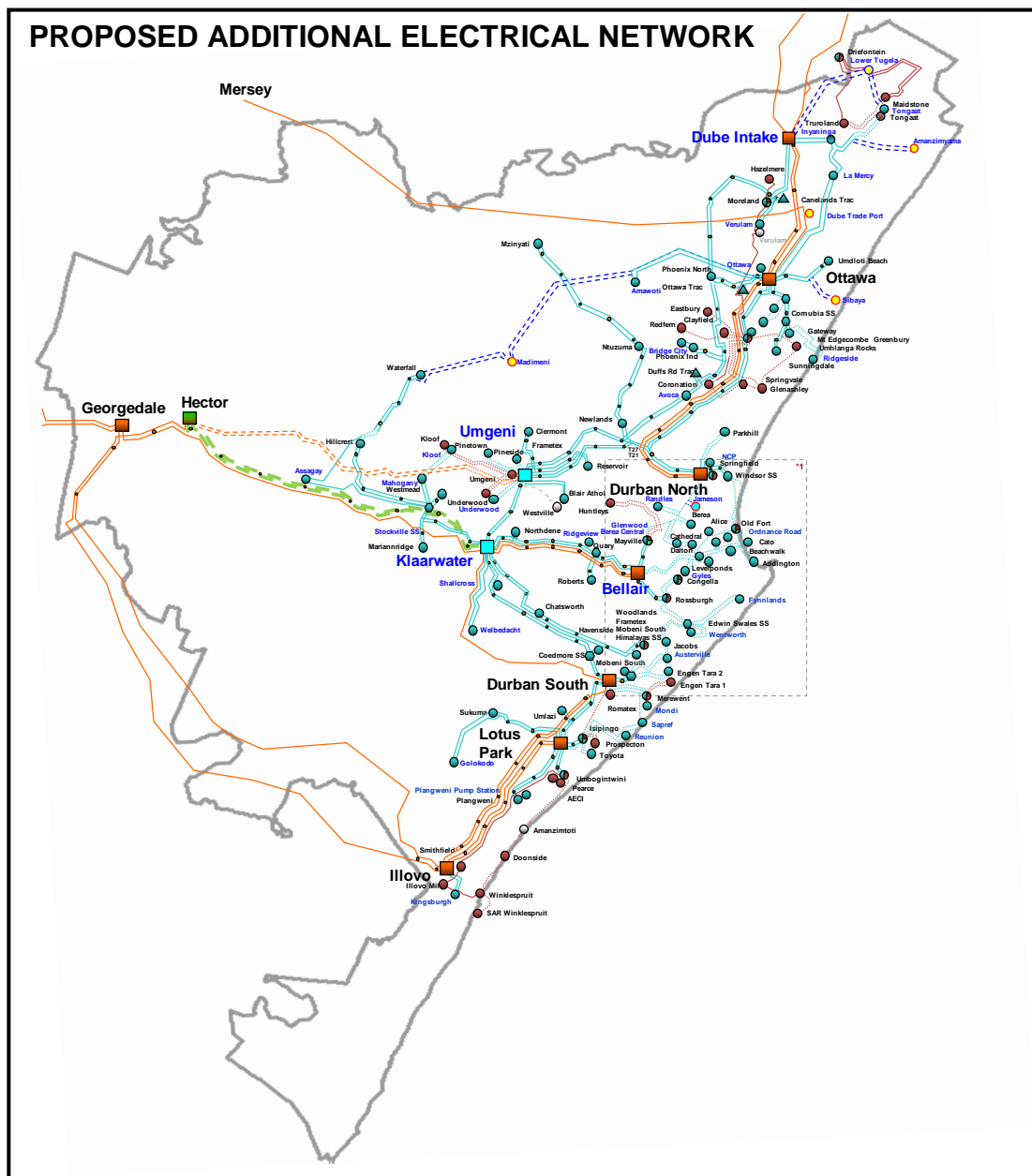


Figure 29: Proposed Electricity Network

3.7.5 Combined Infrastructure Backlogs

The provision of acceptable basic services is a critical element in the national developmental agenda. Water, electricity, sanitation, waste removal and social amenities are key critical services which have been identified by communities that are required to meet their basic needs. Limited funding and exponential growth in the Municipality has increased the levels of backlogs. The current existing backlogs within the Municipality and as contained in the IDP are shown and summarised in table 4 below:

Table 4: Utilities and Services

Basic Service	Existing Backlog (Households) as at 30 June 2011	Timeframe to address based on current funding/ delivery levels
Water	74481	37 years
Sanitation	231387	14 years
Electricity	323000	32 years
Refuse removal	0	0 years ²
Roads	1 136 kms	103years
Water	74481	37 years

The following map highlights the various service backlogs within the Municipality:

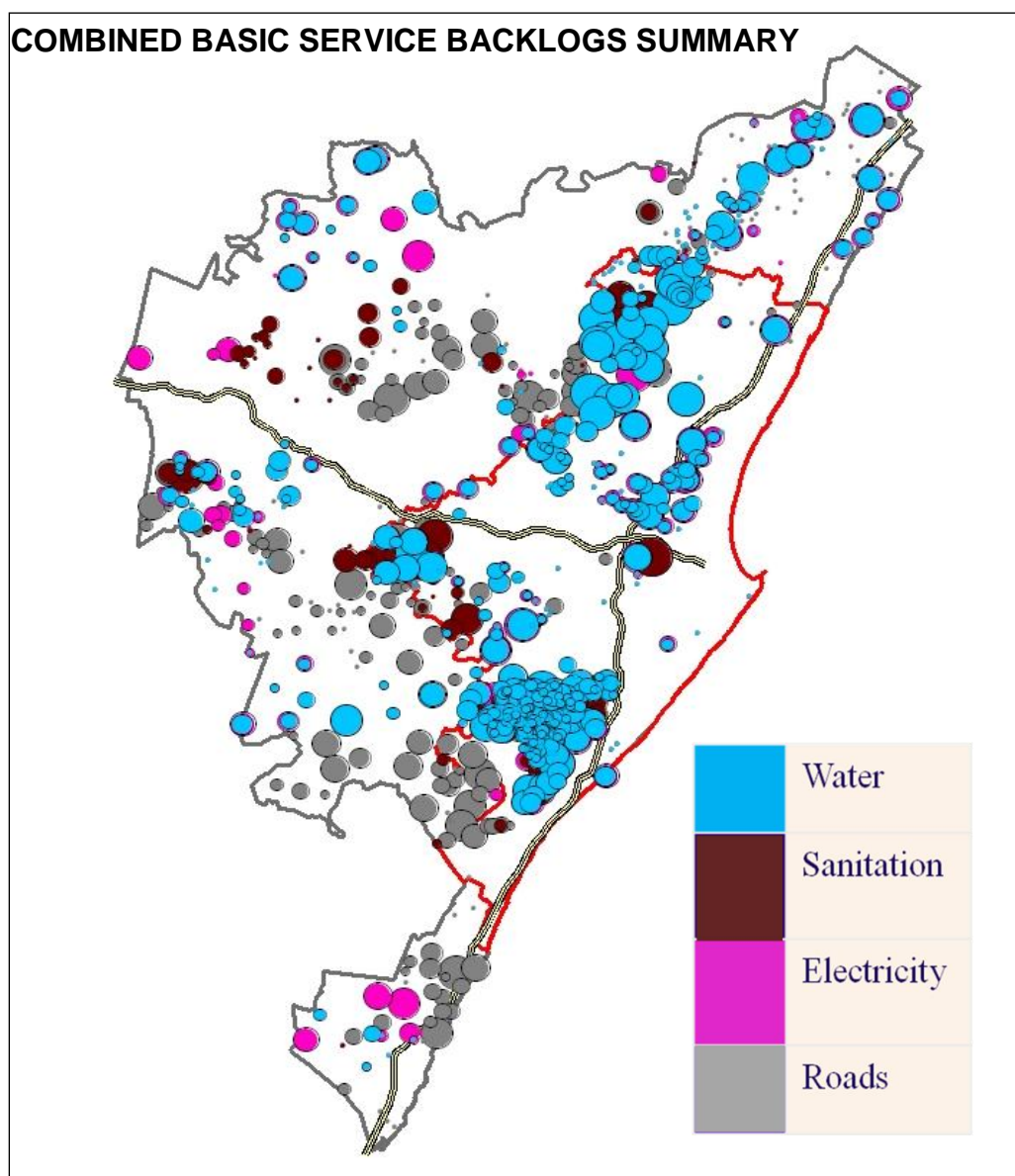


Figure 30: Infrastructure (combined) Services Backlogs

² History has shown that this backlog grows every year as new needs are uncovered through modelling of the network as well as new backlogs arising due to storm events.

Vast strides have been made by the Municipality to address the service delivery backlogs and specific strategies have also been put in place to deal with the existing backlogs. The achievements to date include:

- 15 000 new customers having access to electricity each year;
- 852 000 customers having access to water;
- Desludging of 30 000 VIP pit latrines;
- 100% refuse removal coverage;
- 33 pedestrian bridges and 320kms of sidewalks constructed

The eThekweni Municipality is committed to ensuring that all backlogs in the provision of infrastructure are removed and as such has embarked on a Municipal Infrastructure Investment Framework for the Municipality. In line with the Investment Framework, the EMA can make best use of existing resources and infrastructure can be achieved by building upon existing concentrations of activities and existing infrastructure.

A number of water plans have been produced by the eThekweni Water Service (EWS) to address the backlogs in water supply and to meet future demand. These include:

- A pre-feasibility study to determine potential of hydro-turbine projects in Hillcrest, Wyebank Road and Inanda. The estimated potential is 9mW and is anticipated that they will be commissioned in 2013.
- Mini-turbines at a water reservoir. Total generation capacity is 600-700kW and they have a potential to be replicated at other Reservoirs.

Investigation of the potential of pico-turbines on the water reticulation system down-stream of water reservoirs:

- Pre-feasibility study of a large scale desalination plant with a projected capacity of 450MI/day. This would result in the availability of a new water source but it is recognized to be energy-intensive.
- Feasibility of recycling domestic waste-water to potable drinking standard.
- Water recycling for industrial use.

CHAPTER 4

SYNTHESIS OF KEY ISSUES, CHALLENGES AND DEVELOPEMENT TRENDS WITHIN ETHEKWINI MUNICIPALITY

Synopsis: This chapter represents a synthesis of key issues coming out of this analysis. This information is analysed conceptually in Chapter 5 through the conceptual framework proposals. The synthesis also provides an overview of the spatial issues and opportunities within the Municipality and gives direction to spatial proposals as outlined in chapter 6.

4. SYNTHESIS OF KEY ISSUES, CHALLENGES & DEVELOPMENT TRENDS

The future development pattern of EMA is informed by the current realities of the Municipality as has been analysed in the previous chapters. Developing spatial guidance for the Municipality requires an understanding of the current situation in terms of challenges and key issues being faced by the Municipality and the opportunities available to address these. Together with an assessment of underlying causes and impacts, this understanding has provided a basis on which to utilize opportunities and to direct future development toward common goals. This chapter presents a summary of these issues to help develop spatial guidance for the Municipality. A summary of key issues as identified in the plan include the following:

a) The current urban form

The spatial structuring elements analyzed in the plan not only determine the structure of the Municipality but also contribute to the sustainability, efficiency and legibility of the Municipality. It is proposed in the plan that for the Municipality to perform optimally the overlapping systems of **movement and activity need to be accessible to all communities**, they need to operate efficiently and be sustainable. However, the current reality of the EMA (as influenced by previous planning ideologies) has resulted in some areas performing better than others due to their interconnectedness with other areas and due to their ability to support human activity adequately at the local neighborhood level. The current reality is also that of segregation of people and activities which has resulted in a mismatch between workers and jobs reflected in the high levels of commuting between home and work especially for the poor.

The current spatial form of EMA is also **fragmented with low densities**. The spatial fragmentation and low density dramatically affect the access which residents can enjoy to places of residence, to employment, and to social facilities. The fragmentation of the metropolitan area can threaten its potential as an economic engine, and social and environmental problems in any one part of the urban area can stunt overall metropolitan growth. It has been established that the current national housing policy subsidy has a major contribution to low **density sprawling city**. The housing subsidy offered through the housing policy allows for a single house on one plot and an increasing search for cheap, large new land parcels beyond the urban edge and far from centers of economic opportunities. The **housing sector** is recognized in the spatial development framework (SDF) as a major investor into the built environment. Based on this, the housing plan has a major role to play in facilitating sustainable urban growth provided housing is built in more appropriate locations whilst ensuring that basic needs/services provision is prioritized in areas with backlogs.

b) Poverty , Inequality and Unemployment

Poverty, inequality and unemployment are the crucial challenges facing the entire country and are issues that need to be addressed within our Municipal area and beyond our borders. A sustainable increase in employment will require a faster-growing labour intensive economy and the removal of structural impediments, such as poor-quality education or spatial settlement patterns that exclude the majority. These are essential to achieving higher rates of investment and competitiveness, and expanding production and exports. Business, labour, communities and government will need to work together to achieve faster economic growth.

c) Environmental Management

It has been identified in this plan that climate change and the pressure of development on natural resources are key environmental factors affecting the EMA. Climate change will have a significant effect on the land and its people in the form of extreme weather conditions, storms, drought, floods and rising sea levels. For new growth and development the SDF suggests that a comprehensive response to the challenge of climate change is needed in the EMA. The SDF further proposes compact city form to curb low density settlements and urban sprawl. This can be achieved through appropriate densification of existing and well located settlements to maximize the use of existing services and infrastructural capacity, and ensuring that development concentrates along specific public transport / mixed use corridors and within existing nodes, that densification is promoted at strategic locations, that environmental conservation areas and areas of high ecosystem services delivery are demarcated and protected and areas of agricultural importance are identified and protected.

d) The Movement System

The movement system is a key structuring element within the Municipality. Cities are to a large extent 'movement economies' and the efficiency of the urban system is directly related to the efficiency of the movement system. The eThekweni municipal area has a comprehensive transportation network comprising of road, rail, air and maritime linkages. The network has a well-articulated hierarchy the challenge however, is to ensure maximum accessibility of goods, services and destination points to all residents of the Municipality largely by linking land use and transport planning. This is to enable people and goods to be moved more efficiently and promote greater integration and accessibility. It is also crucial for eThekweni to develop an efficient and integrated public transport and freight system that will ensure local and regional economic sustainability.

e) Rural Planning

The rural areas of eThekweni have limited access to physical and social services and contain limited economic development and as such are highly dependent on the urban centers/areas for resources and income. The SDF recognizes there is a need to provide appropriate guidance to Council policy and establish relevant development programmes and projects for rural areas. This will involve the facilitation of social, economic, institutional, and physical integration and promote integrated development in rural and urban areas. Future plans need to address the uneven access to land and economic and social opportunities, between urban and rural areas and to ensure these are addressed in a more holistic manner.

Presenting the way forward

The IDP 2012/13 has introduced a number of key strategic priority areas targeted at achieving the vision and addressing the development challenges outlined above. The IDP strategy recognizes that the Municipality has to make hard choices, not in a vacuum, but within a spatial framework. This will be done by connecting actions, resources and expenditure across the metropolitan area to unlock sustainable growth, whilst ensuring that inequitable, inefficient and unsustainable consequences of past development patterns are addressed over a period of time. The key strategic priority areas identified in the IDP for achieving the Municipality's vision are summarized below and provide the basis for the spatial conceptual framework SDF proposals in Chapter 5 and 6 respectively. The Strategic Priority Areas as identified within the IDP are as follows:

Strategic Priority Areas

- **STRATEGIC PRIORITY ONE: Creating Sustainable Livelihoods**

Goal: All citizens in a prosperous eThekweni earn a decent living and support a sustainable lifestyle.

Value Statement:

Ensure that initiatives undertaken by the Municipality contributes to strong economic growth, sustainable job creation, poverty alleviation, improved skills and promotes a Green Economy.

- **STRATEGIC PRIORITY TWO: Socially Cohesive City**

Goal: eThekweni has well rounded and caring citizens who act to support the common well-being of eThekweni and embrace mutual respect, tolerance and compassion for those in need.

- **STRATEGIC PRIORITY THREE: A Financially Sustainable City**
Goal: To maximize the Municipality's financial resources to ensure long-term financial viability and sustainability, thus improving service delivery.

- **STRATEGIC PRIORITY FOUR: Creating a Safer City**
Goal: All those who live, work, play and invest in eThekweni feel and are safe in private and public spaces.

- **STRATEGIC PRIORITY FIVE: Promoting an Accessible City**
Goal: All citizens of eThekweni can easily and affordably access the facilities and services that they require for a sustainable lifestyle.

- **STRATEGIC PRIORITY SIX: Environmentally Sustainable City**
Goal: The environment of eThekweni protects and promotes the health of its citizens and its biodiversity.

CHAPTER 5

THE SDF CONCEPTUAL FRAMEWORK

Synopsis: This Chapter presents the SDF Spatial Conceptual Framework. The Spatial Conceptual Framework indicates how the municipal vision along with the key issues, challenges and trends outlined above can be translated spatially to direct, guide and inform municipal decisions relating to the use, development and planning of land.

5. THE SPATIAL CONCEPTUAL FRAMEWORK

The SDF is intended to guide and inform municipal decisions relating to the use, development and planning of land and bulk infrastructure. The Spatial Development Concept outlines the key spatial tools used to protect both the built and natural environment and guide the direction of growth and the delivery of social services by outlining areas in which particular types of land uses should be encouraged or discouraged and areas in which the intensity of land development could either be increased or reduced.

The Key Spatial Concept Tools include:

- An **Urban Core**, being the urban centre, which generally has servicing capacity and thus opportunity for densification and can support thresholds for a range of services, industry and public transport;
- An **Urban Development Corridor bounded by an Urban Development Line (UDL)**. The UDL is used not only to demarcate the extent to which urban development will be permitted to establish within the metropolitan area in the long term, but more specifically to promote a more accessible, compact, efficient, equitable and sustainable settlement form. Whilst the line indicates the outer limit to which urban development will be restricted there will be areas within the UDL that will not be permitted to be developed (i.e. environmentally sensitive areas);
- The Cost- Surface Model, prepared by the Council for Scientific and Industrial Research for the eThekweni Municipality, indicates where it is cost effective to extend municipal services. As indicated in the diagram below, this study was one of the key informants of the UDL. The UDL therefore implies that there is a rural periphery or hinterland that is different in character and which has different servicing needs and servicing constraints and which supports different lifestyles. The UDL is therefore important for enforcing density targets and managing the growth patterns of the municipality over time but also for protecting agricultural resources beyond the UDL, ensuring food security and ensuring the municipality's resilience to climate change. As not all areas within the proposed Urban Development Corridor or UDL are currently serviced, it is anticipated that development will be permitted in accordance with infrastructure availability and capacity and / or its planned incremental expansion.
- **A Rural Hinterland** with a different character, lifestyle and development intensity and where access is poor and servicing costs are high. Such areas are seen as important for protecting agricultural resources, ensuring food security, addressing social needs and building the resilience of communities.

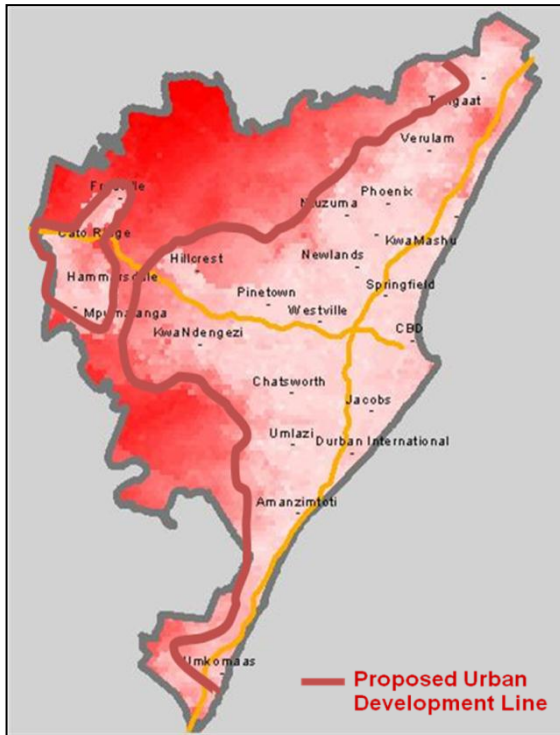
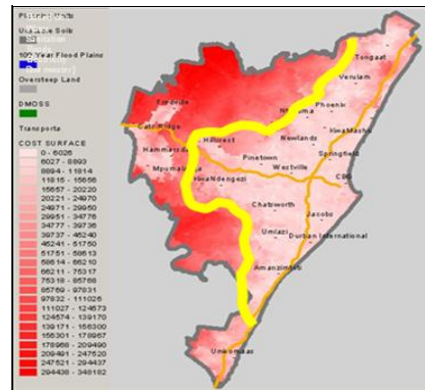


Figure 31: Urban Development Line

Urban/ Rural Development & Services



CSIR Cost Surface Model

The Spatial Development Concept highlights specific areas that require targeted intervention to assist in guiding sustainable growth throughout the Municipality by:

- Identifying areas that need to be protected. These include natural, heritage and environmental key assets as well as agricultural and rural assets;
- Identifying areas of need where integration and restructuring is needed;
- Identifying areas where economic growth and investment will be pursued, and those where social investment will take preference;
- Identifying areas where infill, densification and urban renewal should be pursued;
- Identifying new growth areas and areas for future development;
- Identifying hierarchy of roads, transport corridors and nodes; and
- Identifying areas with existing infrastructure capacity to support integration, densification, as a way of ensuring sustainable development.

CHAPTER 6

THE SDF KEY SPATIAL PROPOSALS

Synopsis: This chapter applies the Conceptual Framework into a detailed Spatial Development Framework. The proposals outlined in this Chapter will inform a variety of stakeholders of the future growth and nature of development that is envisaged for the municipality

6. KEY SPATIAL PROPOSALS

The SDF proposals, centered on the key spatial structuring elements, essentially indicate the following:

- shows areas to be protected, including natural, agricultural and heritage resources and urban open spaces.
- Identifies a hierarchy of roads, transport corridors and nodes to promote accessibility and efficient movement of people and goods
- restructures the Municipality into a compact city to ensure that access to opportunity and amenity at the local and metro scale is equally available to all communities
- identifies future growth areas and where to direct growth in a sustainable manner and ensure that people are well located with respect to employment and social and recreational services;
- Identifies well located land, close to urban opportunities, areas where infill densification and urban renewal should be pursued
- Identifies areas where economic growth and investment will be pursued, and those where social investment will take preference.

Critical to achieving these objectives is a single integrated Land Use Management System (LUMS) that provides a clear direction and fosters a sense of security and confidence in the Municipality to its citizens, landowners, developers and businesses.

The spatial proposals are discussed around the following broad topics:

SPATIAL DEVELOPMENT FRAMEWORK

SPATIAL VISION

The envisaged SDF spatial vision is to have **“by 2030 a socially equitable, environmentally sustainable and functionally efficient municipality that bolsters its status as a gateway to Africa and the world”**.

ANALYSIS LAYER (see chapter 3)	GUIDING PRINCIPLES (informing proposals)	SPATIAL PROPOSALS (as discussed in chapter 6)	INTENDED OUTCOMES
1.ENVIRONMENT	<i>Principle of environmental planning</i>	6.1 <i>Open Space System</i>	<ul style="list-style-type: none"> Protect and manage important environmental areas. Supply a broad range of high quality ecosystem services to our residents. To contribute to human well-being and quality of life. Promote Sustainable Environmental Management Create a network of green open spaces. Support sustainable catchment management and stormwater practices. Increase the adaptive capacity of the city.
2.LAND USE & SPATIAL PLANNING	<i>Principle of Spatial concentration (efficiency)</i>	6.2 <i>Improving Accessibility</i> <ul style="list-style-type: none"> Road Hierarchy Public Transport Nodes and Corridors Infill and Densification Mixed use nodes and corridors 	<ul style="list-style-type: none"> Supporting an Efficient Movement System in an effort to Support a viable public transport and integrate historically disparate areas Restructure the spatial form and promote accessibility of communities to employment, recreation and social opportunities. Protect the mobility function of major roads (such as the N2 and N3) Promote appropriate densities at Strategic Locations such as the IRPTN corridors Enable access to social and economic services in existing nodes to reduce the need to travel long distances
3.TRANSPORT			
4.BUILT ENVIRONMENT& HOUSING	<i>Areas of need</i>	6.3 <i>Areas of need</i>	<ul style="list-style-type: none"> Managing Urban Growth Combat urban sprawl and support infill development Facilitating Sustainable Housing location Promote adequate provision of social and economic amenities
5.UTILITIES & INFRASTRUCTURE	<i>Strategic Infrastructure Planning & Strategic Investment Areas</i>	6.4 <i>Strategic Investment Areas</i> <ul style="list-style-type: none"> Economic Nodes and Corridors 	<ul style="list-style-type: none"> Facilitate utilisation of municipal resources in an efficient manner Ensure adequate provision of services infrastructure to support densification and infill. Promoting balanced development Ensure strong viable nodes Clustering of various activities at appropriate locations Reduce Unemployment Reduced income and spatial inequality and poverty Creating sustainable economic growth and development Becoming a global metropolis over the next 20 years
6.ECONOMY			

6.1 Sustaining our Natural and Built Environment

In line with national legislation and international agreements, the Municipality is committed to a sustainable development path that strives to balance social, ecological and economic priorities.

Our natural systems provide ecosystem services that are often impossible, or extremely costly, to substitute. These include clean air, climate stabilization, rainfall, flood attenuation, marine resources, leisure and recreation areas, fertile and stable soils, food, building materials, amenity and heritage. These ecosystem services are critical in meeting the growth and development needs of the Municipality and all its residents and visitors. In both urban and rural areas, low income people are dependent on these critical and free services provided by natural resources.

It is recognised that natural resources provide the platform for sustainable growth and development for all of eThekweni's residents, poverty alleviation opportunities for the Municipality's most vulnerable households, and help to buffer the negative impacts associated with climate change. The eThekweni Municipality is therefore committed to ensuring the long term sustainability of the natural resource base through concerted efforts in a number of key areas.

By protecting the Municipality's natural environment we ensure that costly replacement interventions, such as storm water protection measures and beach sand replenishment schemes are minimized as much as possible. The economic value of services supplied by eThekweni's ecosystems was estimated at R3.1 billion per annum (2003 estimate), excluding the contribution to the leisure industry. The economic value of the eThekweni coastline (estuaries and beaches) has recently been valued at over R5 billion per annum (2008 estimate).

The eThekweni Municipality seeks to protect specific natural environments, terrestrial and aquatic, within the eThekweni Municipal Area (EMA), in order to secure a sustained supply of ecosystem services (ES) for its residents and visitors. This contributes to sustainable development in the EM's jurisdiction and to give effect to its Constitutional obligations and the requirements of other legislation e.g., the National Environmental Management Act (NEMA) (1998) and the Municipal Systems Act (2000).

The Durban Metropolitan Open Space (D'MOSS) plan identifies those environmental service assets that require protection and management. These assets include rivers, wetlands, estuaries, grasslands, forests and coastal zone resources. To ensure the sustained functioning of ecosystems that provide services, it is essential that we conserve and manage the biodiversity (simply defined as plants, animals and micro-organisms) that live in and shape these ecosystems. The D'MOSS implementation strategy that has been prepared, therefore, has a specific biodiversity focus. The protection and management of Durban's Metropolitan Open Space System will need the sustained and co-ordinated efforts of a range of role-players in order to secure the sustained supply of high

quality ecosystem services for our residents and visitors. The following environmental planning proposals are highlighted as way of ensuring sustainable growth and development:

6.1.1. Managing the Drainage Catchments

The terrestrial and aquatic elements within drainage catchments are linked through complex processes. The condition of these systems are felt downstream and where degraded will impact on the coastal plain. It is vital therefore that the adverse impacts of urban land are minimised and managed.

6.1.2. Conserving the Riverine Systems

A vital component of drainage catchments are the main rivers and their tributaries. These need to be conserved in order to protect the ecological viability of the open space system. The main rivers run in a general west/east direction and their tributaries run in a general north/south or south/north direction. There are various Acts in place that provide guidance for the protection the riverine systems such as NEMA, the Water Act and the integrated Coastal Management Act.

6.1.3. Conserving Functional Ecosystems

There are a number of major open space areas that contain functional ecosystems and which act as key conservation areas “feeding” the open spaces elsewhere in the EMA. Examples of these are as follows:

- Krantzkloof Nature Reserve (associated with the Molweni River)
- Giba Gorge (associated with the Giba Stream)
- Alverstone Conservancy (associated with the watershed between the **Sterkfontein** and uMhlathuzana Rivers)
- Hammarsdale, Nungwane and uMzinyathi Falls (associated with the Sterkfontein, Nungwane and uMzinyathi Rivers)
- Shongweni Dam and Resources Reserve (at the confluence of the uMlaas, and Sterkfontein inland of this on the uMlaas River.
- Inanda Dam and Resources Reserve (on the Inanda Dam)
- Kloof escarpment above Pinetown and including municipal land, the Nkonka Trust and Tanglewood Nature Reserve Matabetule Plateau adjacent to the Shembe settlement at Ebuhleni.
- Matata or Inanda Mountain,
- KwaZini on the upper parts of the UMdloti River,
- UFudu and Inwabi Plateaus on the Umlaas River, and

- The upper parts of the EziMbokodweni River.

6.1.4. Maintaining Smaller Open Space Fragments

Fragments of open space that may not be directly connected to the broader open space network should be conserved and linked, where possible, to provide critical “stepping stones” for the dispersal of flora and fauna between larger open spaces. These fragments include:

- local parks, sports fields and public gardens,
- private gardens, and
- undeveloped land with ecological significance.

6.1.5. Incorporating High Priority Undeveloped Land

Land with high conservation value should be afforded legal protection and managed to enhance its contribution to the ecological viability of the broader system.

6.1.6. Conserving Visual Features

The visual amenity and character of the within the municipality closely associated with highly visible natural features. These should be conserved for residents and tourists and include components such as:

- Cliffs and escarpments,
- Hilltops and ridgelines,
- Large water bodies,
- Rivers and waterfalls,
- Marine (beaches and rocky shores) and estuarine environments, and
- Coastal dune forests and mangroves.

6.1.7 Eco-tourism and the Green Economy

The D'MOSS and in particular the 18 river valleys in the EMA present an opportunity to achieve greater community awareness of environmental protection, local environmental management partnerships and associated job creation and economic opportunities. Development of eco-tourism within these spaces offers a Green Economy synergy. The Durban Green Corridor Project is an example being developed within the uMngeni Catchment. Initiatives of this sort should be investigated as to means of spatially dispersing economic opportunities throughout the EMA.

6.1.8 Managing Development Impacts

Land uses adjacent to, or upstream from, open spaces can have major impacts on sensitive ecological systems. Activities therefore need to be carefully assessed and controlled to ensure that they do not undermine the ecological viability of the open space system.

6.1.9 Incorporating Climate Change Considerations

At this point it is extremely difficult to incorporate climate change considerations into planning because of the difficulty in representing climate change impacts accurately at a spatial level. In this regard the city wide risk assessment that has just been commissioned provides a possible mechanism of beginning this process through the proxy of risk identification. The recently completed densification strategy and the development of sustainability criteria for spatial planning are current initiatives that will significantly assist with taking climate change considerations into spatial and land use planning.

6.1.10 Threats to D'MOSS and mitigation

The key environmental assets represented by D'MOSS layer need to be conserved and protected. DMOSS needs to be sensitively integrated with other municipal planning and effectively managed as a way of ensuring environmental sustainability. The SDF review process has allowed for an assessment of threats and impacts to DMOSS to be undertaken and where possible develop mitigation measures as well as literature and research to establish the impacts of development e.g. development guidelines to address these impacts. Consideration will also need to be given to determine how D'MOSS can contribute towards a more socially inclusive lifestyle.

6.1.11 Biodiversity protection and socio-economic development

Investigate and implement opportunities to link biodiversity protection and socio-economic development. Develop projects where biodiversity protection and socio-economic development take place simultaneously.

6.1.12 Towards a Strategic Environmental Assessment (SEA) for the eThekweni Municipality

The Local Government: Municipal Planning and Performance Management Regulations (2001) require that a Spatial Development Framework (SDF) must contain a strategic assessment of the environmental impact of the spatial development framework. In 2009, eThekweni Municipality initiated

its first effort to undertake this Strategic Environmental Assessment (SEA) and appointed a team of local and international experts to work with officials from the municipality to develop a framework and methodology that would allow the sustainability of the municipality's spatial plans to be assessed according to their impacts on the provision of ecosystem services. Since the preparation of the methodology, thinking in the field of global environmental change has advanced significantly and it is felt that the approach suggested needs to be modified to accommodate this.

Recent international work in the environmental sciences (Rockström et al, 2009) highlights the scale of global human impact on the natural environment and points to the fact that in many cases, environmental thresholds are being exceeded. These natural thresholds (also referred to as 'planetary boundaries') define the 'safe operating spaces' within which global planning and development can take place sustainably.

The 'planetary boundaries' work described above also provides a useful conceptual starting point to guide the work that needs to be done by eThekweni Municipality in articulating environmental baseline information and environmental thresholds so that the sustainability of the city's spatial plans can be assessed. For this reason, eThekweni Municipality has initiated a 'Safe Operating Space' study for the city in order to better understand these issues. It is anticipated that the output of the study will be a combination of spatial data and a decision-making framework which together will provide the structure needed to assess the environmental sustainability of the city's spatial plans. The proposed 'Safe Operating Space' study will provide a critical starting point for the municipality to undertake a SEA.

6.2 Spatial Development Strategy

The inability to access well-located land for low-cost housing perpetuates continued outward expansion and sprawl and the inability to escape poverty. Densification of established, well-located areas (including areas around nodes and along corridors) will promote more efficient use of existing infrastructure and help create a threshold for public transport. The densification strategy to be adopted by the municipality is dependent on the spatial context of development, the site specific characteristics, the capacity of existing infrastructure and what impact that development will have on the environment. Within the densification strategy it is acknowledged that there has to be a balance between compactness and the retention of significant open space to satisfy other social and environmental needs.

The Municipality is striving to ensure that people are brought closer to where they live, work, study and relax. While the Council is committed to bringing people closer to areas of economic activity, the principle of sustainability will be the driver to ensure that people are living in harmony with the environment. Using the Municipal Spatial Development Framework (SDF) and supporting Package of Plans, the Municipality is committed to the zoning of land in appropriate areas in order to increase

densities and reduce urban sprawl. The Municipality will also limit urban sprawl and associated development costs through the prioritization of infrastructure provision to support new growth areas.

The spatial strategy to achieve the above is to:-

- Limit and contain the urban development footprint within the Urban Development Line.
- Promote higher “net” residential densities in targeted areas (both greenfields and brownfields) especially within core areas, new growth areas, areas prioritised for infrastructure development and promote densification where feasible along public transport routes.
- Create new residential development opportunities that connect fragmented areas and consolidate urban form around high accessibility routes and spines.
- The “Urban Development Line” concept is used as a tool to curb urban sprawl, promote compaction and achieve associated efficiencies, secure agriculture and upper catchment environmental assets.

6.2.1. The desired spatial form and growth path

The economic growth of the eThekweni is mostly based on the port and related activities. The Port Expansion and Back of Port redevelopment are key investment priorities not only to the municipality but to the country as a whole. The expansion of the port is one of the ways the eThekweni can maximise future investment and strengthen its comparative and competitive advantage over other port cities both locally and internationally.

Other key municipal priority projects are proposed in this SDF to include: the **implementation of the IRPTN, the development of Dube Trade Port and surrounding areas including Cornubia, Cato Ridge industrial area and Mpumalanga/ Hammarsdale**. The development activities within these priority investment areas are linked to support for the port development through a number of economic actions, which includes logistic, tourism and trade.

6.2.2 Infill, Urban Renewal and Densification

The key elements of densification are the promotion of compact, integrated and efficient city form. This can be achieved by limiting urban sprawl, by promoting higher densities, infill and re-development in and around the urban core and other activity nodes and by the promotion of mixed use activity corridors linking otherwise isolated and nonfunctional areas with a focus of public transport.

Infill refers to development of vacant or under-utilized land within the existing urban areas. In order to promote a more compact urban development, attention should be given to those areas that are not densely developed but are well serviced and centrally located. These gaps within the urban fabric

should be identified for priority projects. Vacant land within the central area provides infill opportunities to make use of existing services and to strengthen internal development. Vacant land beyond the central area provides opportunities for linking and integrating peripheral areas.

The different methods for achieving densification can occur through:

- Infill development on vacant or underutilized parcels of land at higher densities. A range of infill processes may include transfer of development rights, land swaps, land consolidation, public housing projects and so forth.
- New development on vacant or under-utilized land at higher densities
- Cluster development on large parcels of land through a consolidation process
- Conversion of existing building (sometimes vacant/derelict) to other uses
- Subdivision of large pieces of land to encourage higher densities
- Allowing additional units to be developed on a single piece of land
- Redevelopment of poorly functional areas to encourage and facilitate infill

Infill and densification as proposed above are key strategies contributing to the restructuring of urban environment.

Other key interventions include the following:

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

6.2.2.1 Densification Strategy for the eThekweni Municipality

The eThekweni Municipality (EM) has developed a city wide densification strategy and is seeking to shift the growth trajectory of the city in a more efficient, equitable and/or sustainable direction. A specific strategy that has been developed for the direction and management of one of the most important characteristics that influences the quality and performance of, and the efficiency and

sustainability of human settlements i.e. urban and rural settlement density. The eThekweni Municipality is faced with having to manage the challenges associated with a scarcity of natural resources, high population growth and rural to urban migration whilst at the same time, enhancing the sustainability and liveability of the area under its jurisdiction. In developing this strategy the focus has been to:

- Identify and consolidate ideas, concepts and definitions relating to density in the EM into a widely accepted policy statement and also a management framework for density within the EM;
- Begin to align key planning and development stakeholders in the public and private sector around these ideas, concepts and definitions and the manner in which it can be effectively implemented;
- Understand the contextual and management dynamics that underpin density targets, patterns and trends in the EM context;
- Identify practical and realistic implementation interventions and tools that can be inserted into the existing (and proposed new) policy, operational and urban management environment of the Municipality so as to unlock impediments to achieving density targets and / or the creation of quality living environments;
- Identify areas within the city that are suitable for densification and the appropriate mix of interventions and tools for achieving targets in these areas.

The City Densification Strategy recommends that net residential density and net population density should form the sector-wide basis for setting density targets in eThekweni, rather than any other use of density measurement. In this regard, it makes use of the number of net residential dwellings per hectare as the unit of measurement (du/ha).

The strategy has also made use of existing planning and development tools, policies and plans within the Municipality, to ensure that densified development is:

- Located along Integrated Rapid Public Transport Network
- Located within identified Nodes and Corridors
- With urban densities within the Urban Development Line (UDL) and rural densities without
- Within available services and close to social facilities
- In proximity to economic/employment opportunities.

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

6.3 Improving Accessibility

The hierarchy of roads identified, is to facilitate movement within the Municipality and to ensure that people have access to jobs and other opportunities within the municipal area. In order for the Municipality to perform optimally the overlapping systems of movement and activity need to be accessible to all communities, they need to operate efficiently and be sustainable. To achieve this, the municipality needs to implement a fully integrated and efficient public transport system. The road classification as shown below has been developed and is indicative of the appropriate functions different the roads play.

6.3.1. Road Classification

Table D: Rural Access Management Requirements and Features

Basic Function	Description		REQUIREMENTS				TYPICAL FEATURES (use appropriate context sensitive standards for design)									
	Class No (R_)	Class name	Design typology	Route no.	Access to property	Parking	Speed km/h	Inter-section control	Typical cross section	Roadway / lane width	Road reserve width	Public transport stops and ped. xing.	Pedestrian footways (constructed)	Cycle lanes	Animal drawn vehicles	
Mobility	1	Principal arterial	Expressway	Yes (N)	Not allowed*	No (off road rest stops allowed)	120	Grade separate or priority to through	2 / 3 / 4 lane, surfaced shoulders, climbing lanes	3.5 - 3.7 m	60 - 80 m (62 m)	No	No	No	No	
	2	Major arterial	Highway	Yes (R: 2 or 3-digit; or N)	Not allowed**	No (off road rest stops allowed)	100-120	Priority or grade separate	2 / 3 lane, surfaced shoulders, climbing lanes	3.5 - 3.7 m	40 - 70 m (48 m)	As required	Isolated	Recreational, on shoulder	No	
	3	Minor arterial	Main road	Yes (R: 3 or 2-digit)	Not allowed**	No (off road rest stops allowed)	80-100	Priority, roundabout	2 lane surfaced, gravel shoulders	4.0 m	30 - 50 m (30 m)	As required	Isolated	Recreational, widen roadway by 1.2m both sides	Widen shoulder	
Access / Activity	4	Collector road	Collector	Allowed, T (tourist) or D (district)	Yes	No (off road edge or in lay-byes / viewpoints)	80 - 100	Priority	2 lane surfaced or gravel, gravel shoulders	3.5 m	25 m	As required	Rare, isolated	Widen roadway	Widen shoulder	
	5	Local road	Farm road	Allowed, T (tourist) or L (local)	Yes	No (on verge or shoulder)	60 - 80	Priority or none	1 / 2 lane gravel, 600 mm concrete strips in environmental areas		20 m	As required	Rare	Use roadway	Use roadway	
	6	Walkway	Track or pathway	No	Yes	n/a							Not constructed, formed by use			

* Access to properties sufficiently large to warrant a private intersection / interchange can be considered if access spacing requirement met and there is no future need for a public road.

** Low volume farm gate and tourist access (less than 10 vehicles per day) can be considered if no alternative exists.

Table E: Urban Access Management Requirements and Features

Basic Function	Description		REQUIREMENTS					TYPICAL FEATURES (use appropriate context sensitive standards for design)								
	Class No (U_)	Class name	Design typology	Route no.	Intersection spacing	Access to property	Parking	Speed km/h	Inter-section control	Typical cross section	Roadway / lane width	Road reserve width	Public transport stops and ped. xing.	Pedestrian footways (constructed)	Cycle lanes	Traffic Calming
Mobility	1	Principal arterial	Freeway	Yes (M/R/N)	2,4 km (1.6 km - 3.6 km)	not allowed	No	100-120	Interchange	4 / 6 / 8 lane freeway	3.3 - 3.7 m lanes	60 - 120 m (60 m)	No	No	No	No
	2	Major arterial	Highway	Yes (M/R)	800 m (± 15%)	Not allowed ^{*/**}	No	80	Co-ordinated traffic signal, Interchange	4 / 6 lane divided, kerbed	3.3 - 3.6 m lanes	38 - 62 m (40 m)	Yes at intersections	Off road	Yes – widen by 1.2 m	No
	3	Minor arterial	Main road	Yes (M)	600 m (± 20%)	Not allowed ^{*/**}	No	70	Co-ordinated traffic signal, roundabout	4 lane divided or undivided, kerbed	3.3 - 3.5 m lanes	25 - 40 m (30 m)	Yes at intersections	Yes	Yes – widen by 1.2 m	No
Access / Activity	4a	Collector street, commercial	Commercial major collector	No (A for temp. routing)	> 150 m	Yes (larger properties)	Yes if conditions allow	60	Traffic signal, roundabout or priority	4 lane, median at ped. xing., boulevard, CBD one-way		20 - 40 m (25 m)	Yes at intersections or mid block	Yes	Yes, widen lane or on verge	Median for peds, curved roadway
	4b	Collector street, residential	Residential minor collector	No	> 150 m	Yes	Yes if appropriate	50	Roundabout, mini-circle or priority	2 / 3 lane undivided	6 - 9m roadway, < 3.3 m lanes	16 - 30 m (20 m)	Yes anywhere	Yes	Yes, in road or on verge	Raised ped, median, narrow lanes
	5a	Local street, commercial	Commercial access street	No		Yes	Yes if conditions allow	40	Priority	2 lane plus parking		15 – 25 m (22 m)	If applicable, anywhere	Normally yes	Use roadway	Raised ped. crossing
	5b	Local street, residential	Local residential street	No		Yes	Yes on verge	40	Mini-circle, priority or none	1 / 2 lane mountable kerbs	3.0 - 5.5 m roadway (two way)	10 - 16 m (14 m)	If applicable, anywhere	Not normally, pedestrians can use roadway	Use roadway	Yes, but should not be necessary
	6a	Walkway, non-motorized priority	Pedestrian priority	No	500 m maximum	Yes	Yes if parking lot or woonef	15	None, pedestrians have right of way	Surfaced			If applicable, anywhere	Yes or use roadway	Rare	Yes
	6b	Walkway, non-motorized only	Pedestrian only	No	500 m maximum	Yes	No vehicles	peds. 80 m / minute	None, pedestrian signal	Block paving		6 m		Yes	Yes	

* Access to properties sufficiently large to warrant a private intersection / interchange can be considered if access spacing requirement met and there is no future need for a public road.

** Partial and marginal access at reduced spacing allowed to relieve congestion, reduce excessive travel distances or remove the need for a full intersection

6.3.2 Proposed Transport Linkages

The spatial focus in relation to the movement system is to improve transport linkages at a, metropolitan and local level by identifying future network linkage opportunities. Improving transport linkages includes upgrading existing links, constructing new links and integrating different modes of transport (rail, bus, taxi, and non-motorised transport). Some of the proposed linkages (as identified below) help to integrate areas of need to wider metropolitan opportunities. Proposed linkages for the EMA are as follows:

- R102 bypass at Tongaat;
- Network linkages to Cornubia
- The MR577 from Duffs Road to KwaDabeka providing a much-needed crosslink from the north to the Pinetown area.
- The MR579 will connect Umlazi with Pinetown south and MR577 providing an outer-outer ring road

6.3.3. Major Road Infrastructure Proposals for Port of Durban and Dig Out Port

The following map reflects the proposed major road proposals for Port of Durban

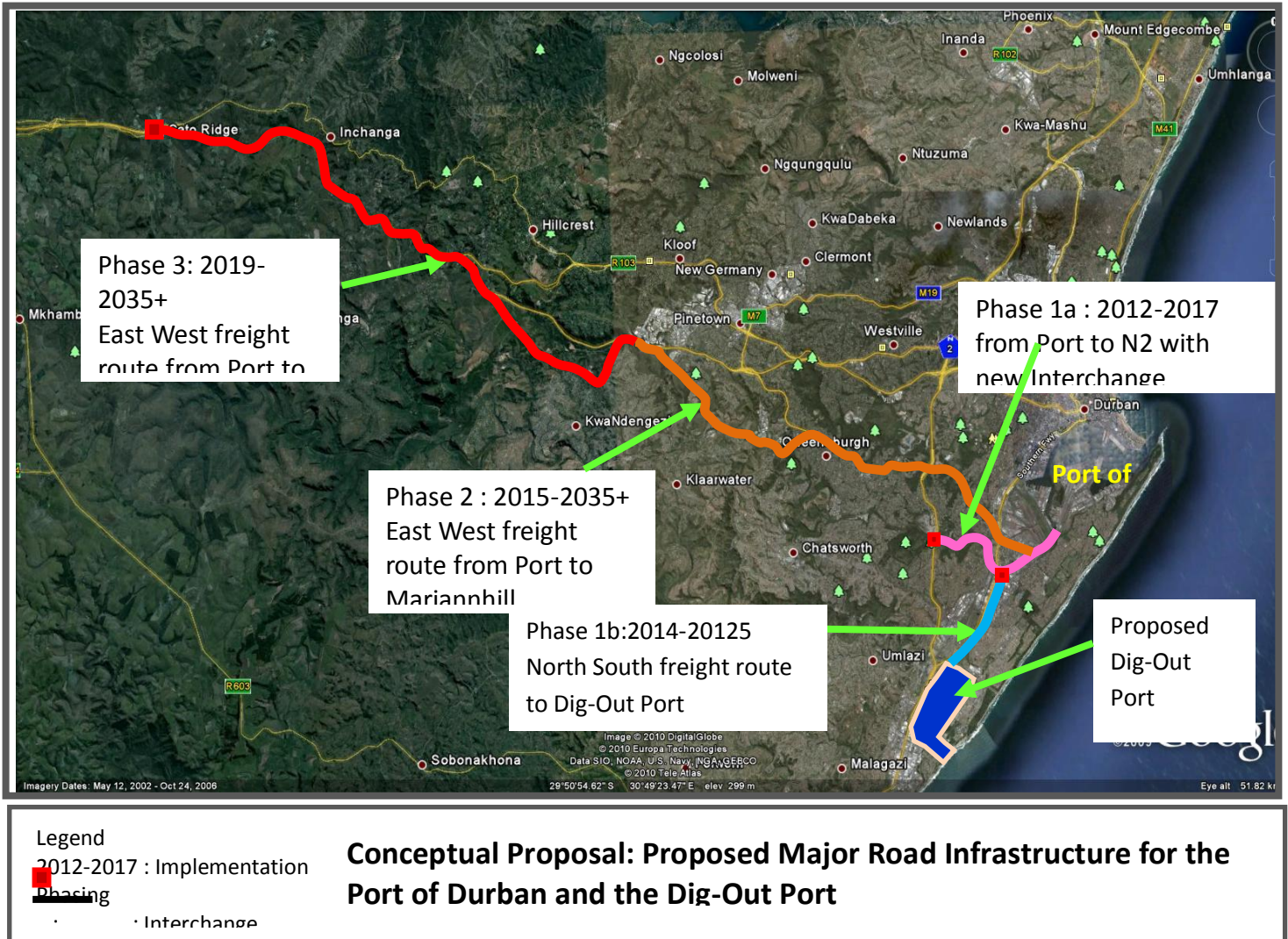


Figure 33: Conceptual Proposals Major Road Infrastructure Proposals for the Port of Durban

6.3.4 Integrated Public Transport Network (IRPTN)

The overall goal for transport in eThekweni is to implement an effective, efficient, sustainable and safe public transport system. To this end and in line with legislative provisions, the eThekweni Transport Authority (ETA) has developed an Integrated Rapid Public Transport Network (IRPTN) plan for the entire eThekweni Municipal area. The IRPTN “wall to wall” plan defines the ultimate (2025) public transport network for the Municipality to ensure that the incremental implementation of the IRPTN achieves the following established objectives:

- **Equity of Access to Opportunity:**

All inhabitants of the Municipality regardless of income levels, disabilities, etc. should have and enjoy quality access to various opportunities (live, work, play) within eThekweni;

- **Reduce the overall impact of transport on the environment:**

The IRPTN should aim to have a net reduction in carbon emissions related to motorised travel;

- **Promotion of a liveable city:**

Apart from providing a transport solution that aims to offer all commuters an escape from congested roadways, the infrastructure of the IRPTN as well as the precincts the network serves are to be designed in a manner that accommodates non motorised transport modes and achieves urbanity;

- **Spatial Structure:**

The IRPTN is intended to be a major structuring element of the eThekweni Municipality. Integrated land use-transportation planning ensures that the IRPTN would help rectify the imbalances created by historic apartheid type planning practices;

- **Quality of Service that is Acceptable to Car Users:**

Apart from catering for the needs of captive public transport users, the IRPTN should be of a quality that private vehicle users would find acceptable;

- **Have a Positive Impact on the City's Economy**

Apart from being operationally efficient to ensure sensible operational expenditure, the various secondary economic opportunities created by the system should contribute to the city's economy.

Systems Concept: The integrated network comprises a system of trunk, feeder and complementary routes that have been designed to respond to the resultant demand of the existing and forecasted activity patterns in accordance with the Municipality's Spatial Development Plan. This network will be complemented by connecting bus/minibus services and local services to key nodes on the trunk alignments.

This system will include, in terms of a defined programme, various forms of priority infrastructure for bus trunk services including: transfer stations; park and ride facilities; information, communication technologies; fleet; non-motorised transport facilities; and depots and control centres.

The ultimate IRPTN plan for the Municipality comprises some 250km of trunk public transport corridors of which some 60km are rail based. The full IRPTN network will be within 800m (10-15min walk) of more than 85 percent of the Municipality's population.

The trunk corridors are described below and are shown in Figure below:

- **Corridor C1: Bridge City to CBD via KwaMashu:**

C1 provides capacity between two major centres of employment and other activity. This high frequency BRT service provides connections into the CBD to widen access to employment. C1 forms part of the Phase 1 network in view of its strategic importance.

- **Corridor C2: Bridge City and KwaMashu via Berea Road to Umlazi and Isipingo:**

The main rail route will be upgraded to enable a more intensive, reliable and higher capacity service to be operated. Infrastructure improvements will allow headways of up to three minutes to be operated with new trains being capable of carrying 2,000 people. A number of stations are in place, many of these stations will also be served by other IRPTN services, enabling interchange and a wide range of journey opportunities. Rail services continue further south to Isipingo and beyond.

The branch serving Zwelethu, KwaMnyandu, Lindokuhle and Umlazi is well used and would form part of C2. In contrast, the branch to Havenside, Bayview, Westcliff, Chatsglen and Crossmoor is lightly used, it is planned to provide new services in C5 to address demand in this corridor. To the north of C2, the line continues to Phoenix, Mount Edgecombe, Tongaat and beyond but is relatively lightly used. The loop serving Avoca, Red Hill, Greenwood Park and Briardene is a single track line which supplements the main line from KwaMashu.

- **Corridor C3: Bridge City to Pinetown**

C3 provides new connections between two major centres in a corridor that is not easily traversed at present. Interchange opportunities will be important both in the Pinetown area (with C6 and C7 or east-west movements) and at Bridge City (C1, C2, C4 and C9). C3 forms part of the Phase 1 network.

- **Corridor C4: Bridge City to Mobeni and Rossburgh**

C4 offers new services from Bridge City via the N2 avoiding the need to transfer at Warwick Interchange with the route splitting to serve both Rossburgh and Mobeni.

- **Corridor C5: Chatsworth to CBD**

C5 provides direct services from the CBD and Warwick to Chatsworth town centre. This will be a high frequency BRT service although there is an option to provide light rail services using former heavy rail alignments and platforms and on-street sections to access Chatsworth town centre. This would serve the area more effectively than the current heavy rail alignment.

- **Corridor C6: Hammarsdale and Pinetown to Warwick**

C6 provides east-west services linking Pinetown to Warwick Interchange with possible variants to serve more than one route within the corridor. Some services will be extended to Hammarsdale in the west as an improved means of accessing Mpumalanga and the rural area with appropriate feeder services.

- **Corridor C7: Hillcrest to Chatsworth**

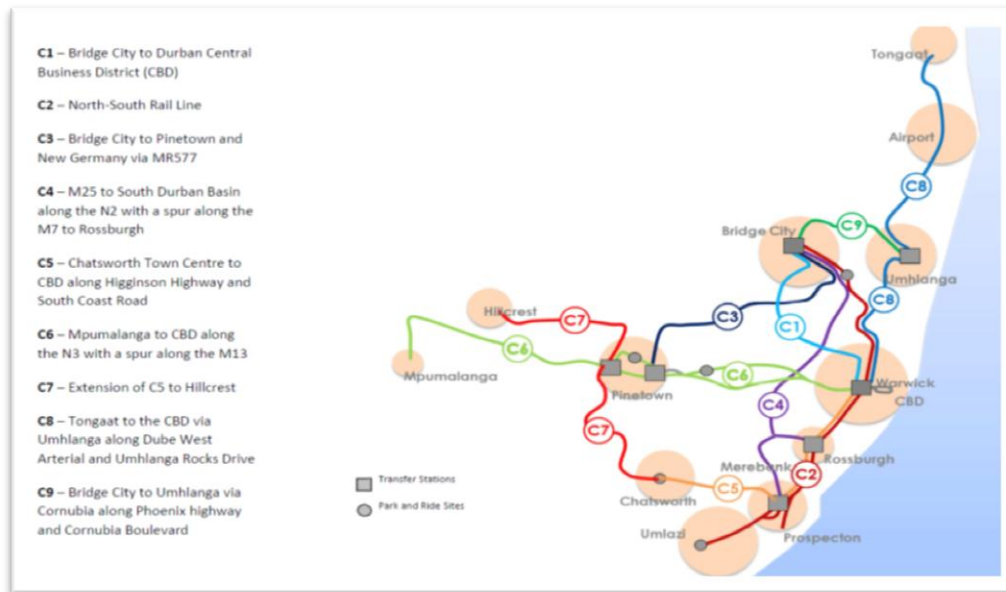
C7 was originally conceived as part of C5 but separating this part of the network reduces the operating distance and links Hillcrest with Pinetown (connecting with C6 to Warwick) and Chatsworth town centre as.

- **Corridor C8: Tongaat and Airport to Umhlanga and Warwick**

Rail services are available to Tongaat but an alternative route would be provided by C8. This would divert to serve the airport and Umhlanga town centre and provide direct access into Durban. This corridor is expected to experience considerable growth as development takes place and also presents a strong public transport presence for airport users and workers.

- **Corridor C9: Bridge City to Umhlanga**

C9 links the growth areas of Umhlanga and Bridge City. C9 forms part of the Phase 1 network in that it links key employment and expanding development areas.

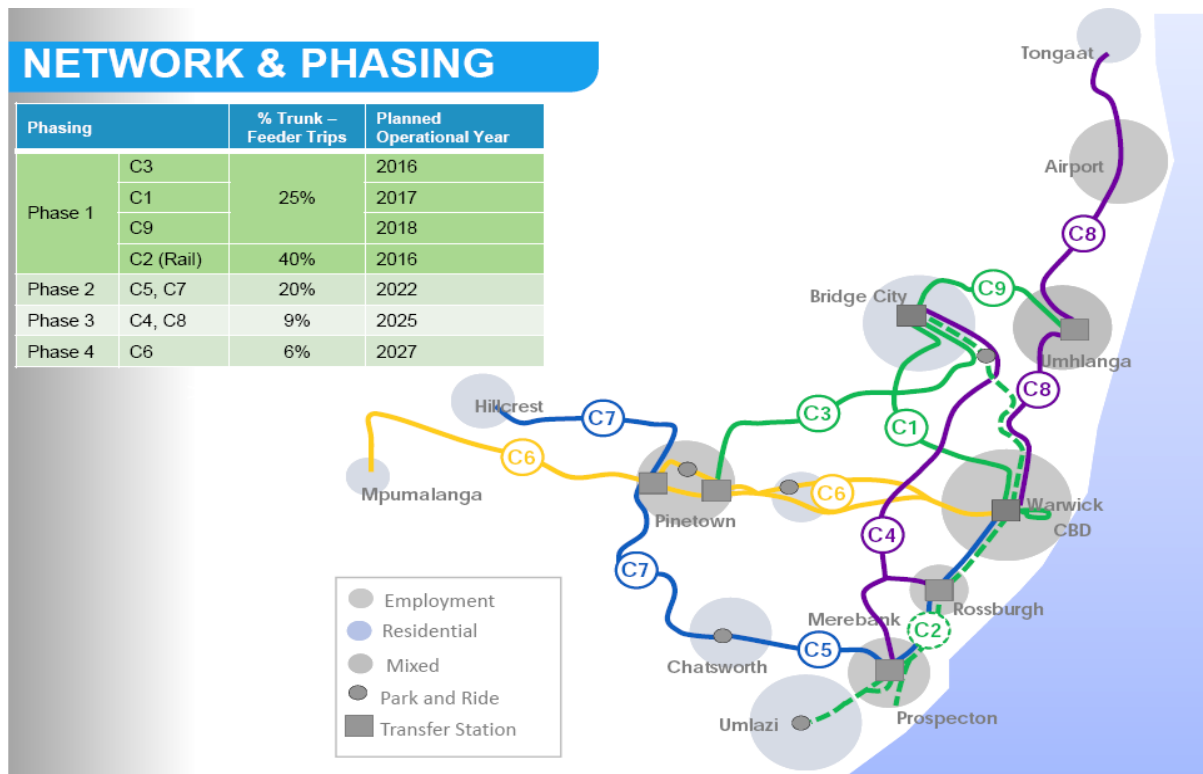


Source: eThekweni Municipality, Procurement and Infrastructure Cluster

Figure 34: IRPTN Trunk Corridors

6.3.5 IRPTN Phasing Plan

The intended trunk route phasing plan is shown diagrammatically in the Figure below:



Source: eThekweni Transport Authority

Figure 35: IRPTN Trunk Route Phasing

Phase 1: Of the 190km of road based trunk corridors, 60km are planned for the Phase 1 implementation of the network by the first quarter of the 2015 financial year. Phase 1 will comprise of 3 Bus Rapid Transit (BRT) routes and 1 rail corridor. The 3 BRT routes are: C1 Bridge City to Warwick, C3 Bridge City to Pinetown, C9 Bridge City to Umhlanga Corridor and the rail corridor: C2: Bridge City and KwaMashu via Berea Road to Umlazi and Isipingo.

The Phase 1 network will accommodate approximately 25% of the Municipality's total trunk public transport demand on road based IRPTN services with a further 40% being accommodated by the trunk rail network as part of Passenger Rail Association of South Africa (PRASA) implementation plans. This approach ensures recognisable benefit to the maximum number of users in the shortest period of time for the given level of investment required.

The following steps will take the public transport initiatives on a sustainable trajectory;

- Firstly, building on restructuring proposals to date, by developing a programme for the phased implementation of an Integrated Rapid Transit Network (IRTN) with public transport service and support system plans across the whole of the eThekweni Municipality;

- Secondly, to develop a comprehensive business plan and corporate structure plan with documentation for pro forma public transport service contracts and related support systems, service contracts;
- Thirdly, to take the corridors adopted as part of the first phase of the implementation programme and develop the proposals in adequate detail to provide firm cost estimates for infrastructure and support systems;
- Funding for both the infrastructure and operating the system has been motivated for via National, Provincial and Municipal budgeting provisions. The Public Transport Infrastructure System Grant (PTIS) will no doubt be the key source of the majority of the funding;
- Preliminary work suggests that Phase 1 IRPTN projects can be operational by 2015 if the requisite funding is secured.

Land use strategies that support the development and performance of an effective and sustainable transport system are focused around the major IRPTN corridors and include the following:

- Protecting existing employment opportunities within these corridor areas;
- Maintaining the quality of high value investment, office, retail, residential and tourist areas within the corridors;
- Discouraging the development of major employment opportunities outside the corridor areas- at least in the short term until the corridor investment has gained momentum;
- Stimulating higher employment and residential densities within these corridors in particular, as well as the promotion of residential densification within the core urban area in general;
- Renewing areas around major stations and modal interchanges as high density residential, office and retail uses.

6.3.6 Public Transport Activity Nodes and Corridors

Nodes are places of high accessibility usually located at important transport interchanges and characterized by a concentration of mixed uses. Sometimes, transport interchanges generate a node, and other times a node may encounter transport development.

The main transport /interchange nodes include the following:

- a) Warwick ,
 - Major public transport node
- b) Pinetown CBD
 - Major public transport node
 - Hub of transport activity
- c) Bridge city
 - major transport node

Accessibility corridors are linear mixed-use areas containing a concentration of facilities such as retail, office, work, residential, entertainment and community facilities. Mobility corridors are primarily high speed routes to access different areas.

Existing activity corridors include:

- The north-south rail corridor extends from Isipingo in the south to the northern residential areas of KwaMashu, Ntuzuma, Inanda and Phoenix in the north.
- The east-west corridor extends from the Port of Durban to the Old Main Road in Westville-Pinetown Kloof and Hillcrest areas right through to Cato Ridge and Mpumalanga areas.
- Umbilo & Sydney Roads, Umgeni Road, Stamford Hill, Florida Road, Spine Road and North and South Coast Roads, Essenwood Road and Musgrave Road

The extension of these corridors provides opportunities around which to attract investment.

6.3.7 Development Corridors

Corridors of development are viewed as growth or development axes that spatially structure development. Development corridors comprise of a mix of activity making them intense robust and diverse environments that service the Municipality. Corridors of development also lead to the establishment of links between districts and neighbourhoods that ensure cohesiveness and integration of activity and communities. Development corridors within the Municipality include:

- Urban Service Nodes and Corridors supporting mixed use urban activities;
- Rural Service Nodes and Corridors supporting local level services;
- Coastal Corridor consist of high quality natural coastal assets and consist of mixed uses including mixed density residential, recreation, entertainment and tourist oriented activities;
- Tourism Corridors supporting tourism activities;
- Industrial Corridor supporting primarily industrial activities;
- Agriculture Corridor ; and
- Airport Noise Zone.

6.4 Economic Development Nodes and Corridors

The identification of economic nodes and corridors is to help provide an effective distribution network for a range of economic opportunities and to identify areas which may serve varied catchments of people for different purposes. The hierarchy of investment nodes as identified below has a range and variety of functions to achieve the accommodation of community needs and services. The following type of nodes is identified;

6.4.1 Metropolitan Node	
<p>The Metropolitan node is the key economic centre where all of the varieties of economic sectors are prevalent and perceived to have good potential to be further expanded on. The nodal area is visibly linked to high accessibility areas with existing bulk infrastructure and relatively high population densities which would both contribute to the economic expansion and benefit from interventions in these areas</p>	
Description : Metropolitan Node	Nodal Area
Scale of node <ul style="list-style-type: none"> Provides services at a National, Provincial and Local area Accessibility <ul style="list-style-type: none"> accessible at a metro-wide scale Characteristic of node <ul style="list-style-type: none"> Offers a wide variety of mixed uses including recreation, formal and informal residential, businesses, tourism and its CBD role <p>Also characterized by port operations and associated transport activities which service the region and beyond as a multi-modal transport hub</p>	Durban CBD/Inner City
6.4.2 Sub-Metropolitan Node	
<p>Sub-metropolitan nodes provide accessible day to day business, transport and social services for existing and future local communities. These nodes serve sub-metropolitan areas of large districts and are well connected to metropolitan public transport systems and to their adjacent residential areas. They are generally situated on mobility spines supported by mobility roads and have access to urban freeways offering a full variety of higher order uses with a sufficient mix that may be in tight competition with other such nodes.</p>	
Description: Sub-Metropolitan Node	Nodal Area
Scale of node <ul style="list-style-type: none"> These are nodes of a sub-metropolitan significance Accessibility <ul style="list-style-type: none"> accessible at a metro-wide and local scale Characteristic of node <ul style="list-style-type: none"> provide economic support at a metro wide and local scale nature of these nodes can vary from having a variety of mixed uses (residential, retail, commercial, business public transport interchange, specialize logistics services and have potential for densification opportunities 	Existing Sub-metropolitan Nodes Umhlanga town centre Pinetown town centre Emerging Sub-Metropolitan Nodes Dube Trade Port Potential Sub- Metropolitan Nodes Shongweni Cornubia

6.4.3 Urban Node	
<p>Urban nodes are existing and new and are well located lower order nodes serving the needs of local areas. These nodes are located at transport interchanges and or at the intersections of development spines. Their role is to provide essential 'day to day' commercial needs and social and commercial services to immediately adjacent communities.</p>	
Description of Urban Node	Nodal Areas
<p>Scale of node</p> <ul style="list-style-type: none"> • These are lower order nodes serving the needs of local communities <p>Accessibility</p> <ul style="list-style-type: none"> • Are easily accessible by high order transit, a good road network • New urban nodes ideally to be located at transport interchanges and / or at easy access or intersections of major public transport <p>Characteristic of node</p> <ul style="list-style-type: none"> • The nodes provide essential 'day to day' commercial needs, social and commercial services to immediately adjacent communities. • These local nodes are varied in activity mix and are determined by the thresholds which they serve. • Contain a mix of low, medium and high residential densities • Characterized mainly by pedestrian activity • Non-Motorised Transport should be prioritized in this nodes 	<p>Existing Urban Nodes</p> <p>Verulam Tongaat KwaMashu Town Centre PhoenixTown Centre Newlands Town Centre Inanda Town Centres Bridge City</p> <p>Umlazi Isipingo/Prospecton Amanzimtoti Craigieburn Chatsworth, Malvern, Westville, Musgrave and Glenwood/Berea</p> <p>Cato Ridge Village Hillcrest Botha's Hill, Kloof and Waterfall Cato Ridge (Town Centre) Kloof (neighbourhood Node) Waterfall (Neighbourhood Node)</p> <p>Potential Urban Nodes</p> <p>Illovo Clermont/ KwaDabeka Molweni Node Mpumalanga Town Centre</p>
6.4.4 Investment Opportunity Areas	
Description Investment Opportunity Areas	Investment Area
<ul style="list-style-type: none"> • These areas provide opportunities for new investment • These areas need to be supported by public investment • Must be targeted for the encouragement of private sector involvement. • Must have or be easily accessible to major public transport routes • Available infrastructure capacity needs to be investigated in these areas 	<p>Cornubia Inyaninga Canelands River Horse Valley Phoenix Industrial Park Tongaat North Springfield Park Umlazi Isipingo/ Prospecton, Umbongintwini industrial area Hammersdale Mpumalanga Cato Ridge Shongweni Bartletts</p>

6.4.5 Rural Service Nodes	Nodal Areas
<p>Description: Rural Service Node</p> <ul style="list-style-type: none"> • These nodes provide local level services (social and economic activities, traditional structures, facilities etc) for surrounding communities • Must be centrally located for easy access to surrounding rural communities • Must have easy access for pedestrians 	Zwelibomvu KwaNgcolosi Ntshongweni KwaSondela Buffelsdraai Cottonlands Adams/Folweni Matabetule (new) Senzokuhle (new)
6.4.6 Rural Investment Node	Nodal Areas
<p>Description : Rural Investment Node</p> <ul style="list-style-type: none"> • Rural Investment Node have potential to provide support Services (Business, Agriculture, Tourism and Environmental issues and opportunities for local economic development) • Must ideally be located within easy access to major transport routes • Ideally must be located where there is already an existing accumulation of activities 	uMgababa/ uMnini Umbumbulu Inchanga uMzinyathi KwaXimba
6.4.7 Industrial Node	Nodal Areas
<p>Description: Industrial Node</p> <ul style="list-style-type: none"> • These nodes provide specialized focused services • These areas have a metro-wide significance 	Cato Ridge (Industrial) Hammarisdale (Industrial Node) Tongaat Inyaninga Cornubia Port Umbogintwini Illovo Pinetown
6.4.8 Tourism and Recreational Node	Nodal Areas
<p>Description: Tourism and Recreational Node</p> <ul style="list-style-type: none"> • These nodes can provide a range (or some) form of cultural, recreational and tourism opportunities • May have inherent natural qualities such as dams, scenic views or cultural heritage • Provide a range of Cultural, Recreational and Tourism Opportunities for Local Economic Development. 	Durban Beach Front Umhlanga Umdloti Amanzimtoti Kingsway Tourism Corridor Valley of Thousand Hills Inanda Dam Shogweni Recreational Node Inanda Dam Hazelmere Dam Ntshongweni Dam Dudley Pringle Dam (New local recreational node) Shembe Village

6.4.9 Rural Tourism and Recreational Nodes	Nodal Areas
<ul style="list-style-type: none"> • Description: Rural Tourism and Recreational Node • Range of Cultural, Recreational and Tourism Opportunities for Local Economic Development 	<ul style="list-style-type: none"> • Inanda Dam • Hazelmere Dam • Ntshongweni Dam • Dudley Pringle Dam (New local recreational node) • Shembe Village
6.4.10 Tourism Routes	Areas
<p>Description: Tourism Route</p> <ul style="list-style-type: none"> • Scenic cultural and environmental routes. 	<ul style="list-style-type: none"> • Durban Beach Front • Umhlanga • Umdloti • Amanzimtoti • Kingsway Tourism Corridor • Valley of Thousand Hills • Inanda Heritage • Township Tourism • Warwick
6.4.11 Sports and MICE (Meetings, Incentives, Conferences/conventions and Exhibitions) Nodes	Nodal Areas
<p>Description: Sports events and MICE (Meetings, Incentives, Conferences/convention and Exhibition) Node</p> <ul style="list-style-type: none"> • Offer a range of sports events, recreation, entertainment and tourist oriented precincts 	<ul style="list-style-type: none"> • International Convention Centre (ICC), • Point Waterfront Development, • Ushaka Marine World, • Sibaya Kingdom, • Golden Mile • Green Hub Corridor • Sun Coast Entertainment Complex • Moses Mabhida and King's Park Sport Precinct

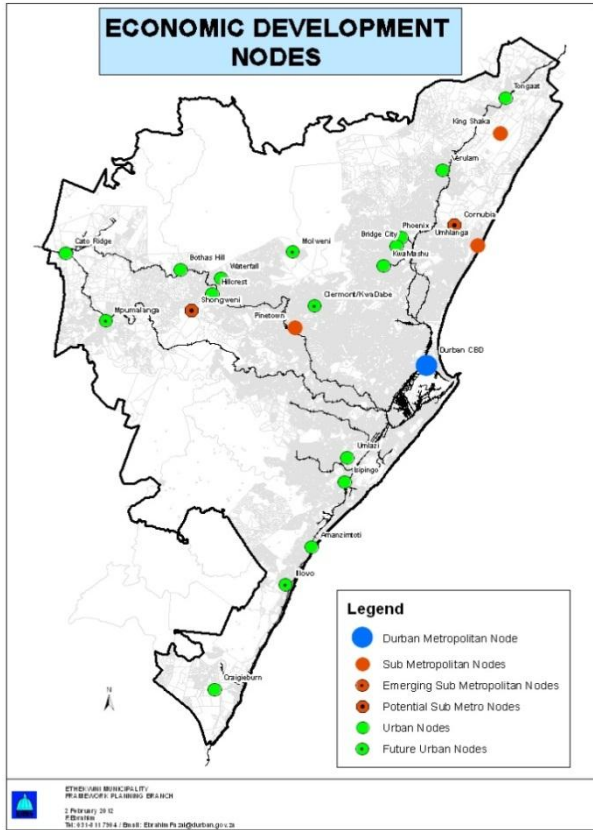


Figure 37: Economic Development Nodes

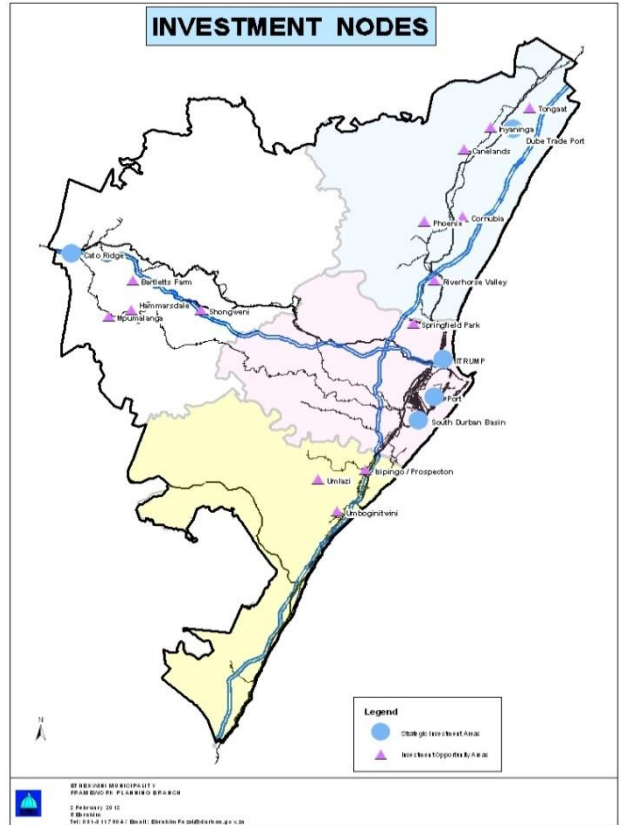


Figure 36: Investment Nodes

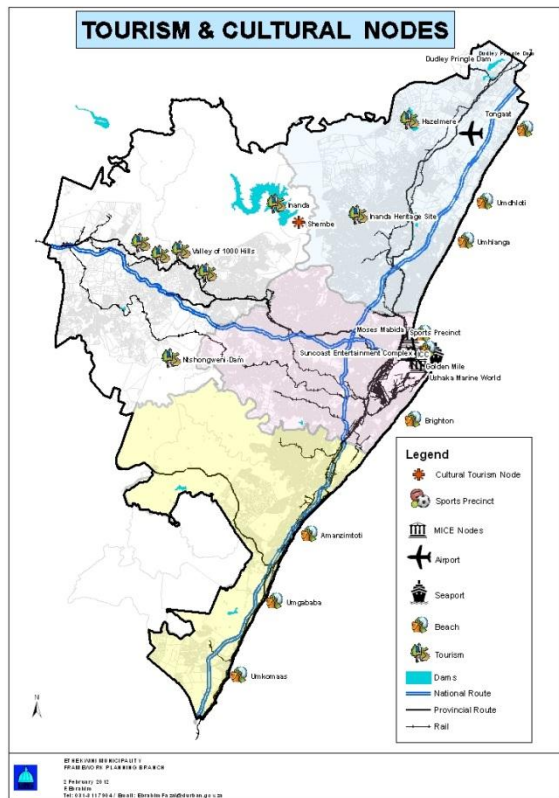


Figure 38: Tourism and Cultural Nodes

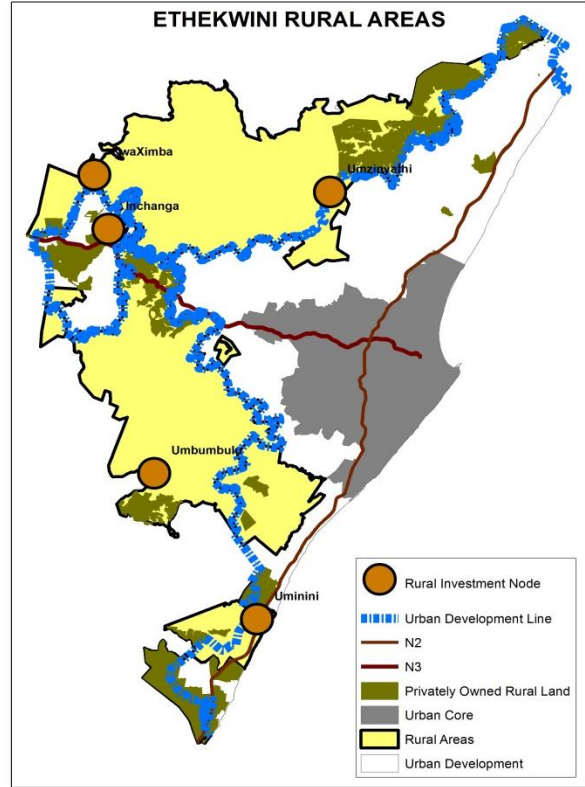


Figure 39: Rural Nodes

6.4.12 Strategic Investment Areas

In addition to these nodes the SDF identifies Strategic Investment Areas (Figures above) to help prioritise and guide development initiatives to be located in areas where the greatest impact and positive spin-offs from a city wide scale can be achieved. The Strategic Investment areas are identified as follows:

- **Port of Durban**

The Port of Durban is the primary contributor to eThekweni's economy which is of provincial and national significance and has seen a steady increase in container traffic in recent times. One of the serious constraints to development is the inefficiencies and congestion in the Durban port operations. Improving the Municipality's logistics infrastructure will ensure the maximization of port economic opportunities. In this sphere, rail linkages, port efficiency, back-of port operations to enhance capacity and range of business, inter-modal transport hubs in-port and inland and the newly-planned dug-out port are projects which will give life to KwaZulu-Natal's positioning as the Gateway to Africa.

- **Illovo**

The Illovo Local Area Plan (LAP) is underway to develop a shared vision for understanding the role of Illovo in the sub region, metropolitan and regional context. The Illovo South Boundary is within close proximity to the South of Durban Port and forms part of the Strategic Investment Project (SIP 2) corridor from the South of Durban inclusive of the Port to Gauteng. The Port expansion plans, the Back of Port Plan, the Dedicated Freight Route and the Automotive Supply Park (ASP) are all integral elements of SIP2 and will be crucial to the economy of eThekweni and the Province.

- **Back of Port**

The development of the Port as an economic, manufacturing and trading hub is essential for its promotion as a gateway especially to the east. This needs to be located within an integrated development plan for the port that includes linking its planning with that of the CBD and with the adjacent industrial areas to the south. The Department of Trade and Industry's National Spatial Development Initiative (SDI) provides the opportunity for focusing on the co-ordination of different levels of government and different stakeholders.

- **Dube Trade Port**

The Dube Trade Port (DTP) has been established between the two sea-ports of Durban and Richards Bay to harness the value of having an air logistics platform. DTP is developed to promote access to global trade and open up new opportunities for production and export of high –value perishable products and manufactured goods. It is expected to act as a catalyst for economic development and labour intense growth throughout KZN province. The massive infrastructure investments in the Dube Trade Port aerotropolis will need to be optimised to fulfill its logistics promise and the Richards Bay port and industrial complex will work on the development of its growth path.

- **Cato Ridge**

Cato Ridge has been identified as one of the industrial expansion and potential dry port areas in the Municipality that can respond to the increasing demand for industrial land in eThekweni Municipality and provide logistics support for the port. However, the area faces enormous challenges especially with regards to traffic issues (limited accessibility) and as a result the area has not been unlocked and used to its full potential. By improving the infrastructure, upgrading the N3 and addressing the sewer issue these challenges can be addressed and the area can be unlocked for industrial and logistic development. The development of Cato Ridge will also serve as a stimulus to unlocking the potential of the surrounding areas of Mpumalanga and Hammersdale

- **South Durban Basin**

This area contains South Africa's largest manufacturing enterprises in the midst of relatively poor residents. The aim in this area is to regenerate the industrial base, creating cleaner, greener industries, whilst improving the residential conditions of people in the area. The aim of the SDB ABM is to improve resident's access to social, recreational, economic and environmental facilities in the area. As a strategic focus area the objective in the SDB is to restore business confidence, consolidate existing enterprises and stimulate new development, facilitate renewed socio-economic investment and improve quality of life by tackling environmental problems, addressing operational deficiencies and improving the built environment in a sustainable manner.

- **iTRUMP Inner City Regeneration**

The Inner eThekweni Regeneration and Urban Management Programme (iTRUMP) programme drives regeneration and urban management in the Durban inner city. A complex range of issues from the flight of offices to the suburbs to the problems of the urban poor, informal trading etc all require innovative responses and is thus a strategic focus area. The iTRUMP ABM was established as a response to the need to prioritise regeneration of the inner city and places strategic value at the core of its business which seeks to maximize its multiple opportunities. The promotion of the inner city as a commercial and tourist gateway requires building on the current strengths of the inner city as well as utilising opportunities for residential densification and economic growth. The work of the current inner city ABM (iTRUMP) must give guidance to realising this potential.

6.5 Provision of Social Facility Nodes

A hierarchy of social facilities is supported and reinforced in this SDF to ensure the allocation of social facilities is done in appropriate locations. The hierarchy of nodes is proposed to guide an effective distribution network for a range of social services and to maintain service provision efficiency. This is to ensure that facilities have the potential to be utilised to an acceptable level rather than planning for high levels of excess / unused capacity.

6.5.1 Proposed hierarchy of social facility nodes

The criteria that has been used in the study of social nodes has taken the following factors into consideration;

- **The Catchment area extent** which shows the node locations and catchment extent. The model assigns all population in the hexagons to the closest node (each having unlimited capacity), thereby creating a spatial extent / boundary;
- **The User-side classification** which takes into consideration travel time to the closest node within each catchment (indicated by shading on the map) and
- **The service-side node classification** based on the modeled allocation to each node of all people (who are closer to this node than to any other).

The clustering of social facilities is ranked and translated into different social facility nodes levels (level 1-5) as follows:

Level 1 Node: Durban CBD

This level is linked to the foreseeable future of a single social facility node of a metropolitan status where all the highest order social facilities are to be located. This includes facilities such as the High Court, City Hall, Reference Library, ICC and International Sport Precinct, main City Council offices, etc. This decision was based on the pragmatic approach that irrespective of the emergence of decentralised nodes over the years, the historic Durban CBD remains the established location for these services with limited likelihood of any change. Duplication of these metropolitan facilities is unlikely in the foreseeable future given resource constraints. Durban CBD is supported by the *de facto* investment in higher order local, provincial and national facilities.

Level 2 Node:

The second level nodes have threshold requirements of sub-regional / higher order facilities. Second order nodes should have a population catchments of 400 000 people within 20 minutes travel time. It is considered appropriate that there should be at least one Level 2 Node in each sub-region to act as the focus for higher order facilities. The outcome indicated too many competing nodes in the North and no Level 2 Nodes in the South or West due to inadequate population within any of the catchments. An initial action was to test the ability of Isipingo Rail (key transport node) in the South, and Mpumalanga in the West, to attract 400 000 residents within its catchment before testing the remaining nodes in competition with one another.

Bridge City will serve as the Level 2 Node in the North and Umlazi (mega city area) will be the Level 2 Node in the South. Pinetown will serve the West and part of Central whilst the CBD will provide for all Level 1 and 2 needs for those closest to this area. In the next five to eight years it is expected that a second Level 2 Node is likely to emerge in both the north and south.

No node in the Outer West can be designated as a Level 2 Node as neither Hillcrest nor Mpumalanga (the two most established nodes) attract 400 000 people. Shongweni node has the greatest regional accessibility but at the moment there is insufficient development at this node.

Level 3

The primary criterion for ranking of Level 3 and lower nodes was based on a minimum threshold of 90 000 people, but not exceeding 390 000, living within a 20 minute travel time (in competition with other nodes of Level 3 status or higher)

Level 4

The population threshold of level 4 ranges between 30 000 and 90 000 people. The nodes of this level are in competition with other nodes of Level 4 or higher, in 15 minutes travel time.

Level 5

The population threshold of this level is less than 30 000 people but more than 3 000 people in 10 minutes of travel time.

The catchment areas around the nodes are shown in various shades on the map to distinguish each separate catchment area

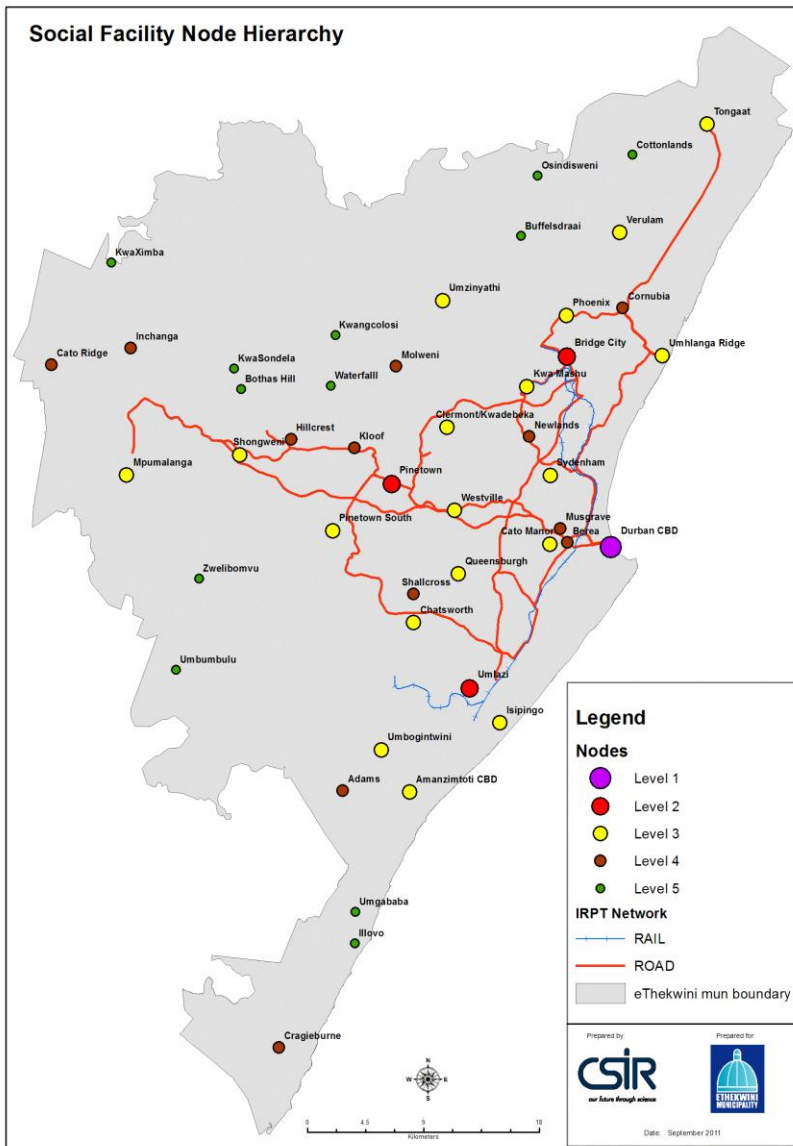


Figure 40: Social Facilities Node Hierarchy

6.6 Strategic Infrastructure Planning and Implementation

6.6.1 Infrastructure Asset Management

The Municipality is on a drive to introduce good asset management practices in all municipal departments. For example, ensuring that there is a greater emphasis on proactive rather than reactive maintenance of infrastructure thus ensures that we are not over-committing funds to building new infrastructure which leads to insufficient funding for the maintenance, renewal, rehabilitation/reinforcement and replacement of existing assets. Managing the demand for new infrastructure is also being promoted. One example of this is the effort being put into reducing the loss of municipal water (and thereby reducing the need for new water infrastructure to be built)

through replacing water pipes and repairing leaks, reducing water theft and managing water pressures in the pipe network. Consideration is also being given to, where possible, reducing the dependence on river water as the only potable supply through the re-use of water from treatment works as well as research into sea water de-salination. These initiatives are referred to as 'alternative supply' projects. Another example of this type of project is the generation of electricity from methane gas at municipal landfill sites.

6.6.2 Addressing Infrastructure Backlogs

The Municipality has as part of its Infrastructure Planning, documented the nature and extent of the urban and rural backlogs in service delivery across the entire metropolitan area, using digital records held by the Municipality together with input from communities and councilors. Services that are being targeted include water, electricity, solid waste, sanitation, storm water, roads and sidewalks, pedestrian bridges, public transport infrastructure, all community facilities and the provision of street addresses to all houses within eThekweni. In order to address these backlogs, specific strategies will be developed for urban and rural areas.

The Comprehensive Infrastructure Plan (CIP) Phase One identifies the backlog for bulk and reticulation infrastructure, and the backlog in asset management for water, sanitation, electricity and roads. The asset management section of the plan indicates the long-term operational costs.

Phase 1 of the CIP deals with the provision of services for the current Housing Plan and to rural areas. It acknowledges that later editions of the plan will need to deal with private developments as well. Phase One reflects all projects in the eThekweni Housing Plan, the Interim Service Program, rural backlogs and New Initiatives for social facilities.

Emphasis is given to the eradication of rural basic service backlogs especially water and sanitation. In urban areas the primary intervention is the eradication of informal settlements through the provision of housing and a package of household services as well as the provision of interim services to improve living conditions in these settlements.

The CIP distinguishes between three standards of services:

Area	Standard
Rural service standards	One ground tank per household supplied with 300l per day; Urine diversion toilet; Electrification only of densely clustered pockets; All weather surface to all public transport routes and roads within communities having a density greater than 15 person per Ha
Interim Service standards	Communal ablution blocks (toilets and showers) within 200m of served households; Electricity to every dwelling; High mast lighting for security; Emergency access roads for waste removal, fire and emergency vehicles.
Urban service standards	Full pressure house connections; Waterborne sanitation; Electricity connection; All weather surface roads

6.6.3 Cost Surfaces Model

Land identified for both in-situ upgrade and greenfields projects are evaluated using the Cost Surface Model. This Model indicates spatially the presence as well as the capacity of bulk infrastructure across the Municipality. It provides cost estimates for bulk infrastructure provision for any location in the city.

The objective of applying the model is to locate housing projects where services with available capacity are present rather than locating projects in areas where new services must be provided at higher cost to the Municipality. Where services are not available in areas identified for projects (given land constraints) a phased servicing approach integrating various (engineering) line budgets is undertaken. It is noted that the Cost Surfaces Model needs to be regularly updated to reflect new developments.

CHAPTER 7

THE REVISED SPATIAL DEVELOPMENT FRAMEWORK

Synopsis: This chapter seeks to guide the overall spatial distribution of current and desirable land uses within the municipality in order to give effect to the vision, goals and objectives of the municipal IDP

7.1 Composite/ Spatial Development Framework Map

The strategic focus areas for our municipal SDF are:

- Identification of future land uses including areas for industrial expansion, mixed use development and residential infill contained within an urban development line.
- Future residential development outside the UDL that supports different lifestyles, densities and has different servicing needs and constraints as opposed to those within the UDL which are higher density and urban in nature;
- Regeneration of existing developed areas such as Warwick Junction, the Inner City, Cato Manor and South Durban Basin, Secondary CBD's such as Pinetown, and Township Nodes and Corridors e.g. INK, Clermont/KwaDabeka and Umlazi)
- The Port of Durban, Dube Trade Port and Cato Ridge as key economic investment areas which require major investment;
- The provision of investment opportunity areas within Hammarsdale, Bartletts, Shongweni, Cornubia and Illovo as a way of encouraging private investment and partnerships within the Municipality subject to servicing and financial limitations;
- Smaller urban investment nodes which provide convenient and efficient access to commercial, community and social facilities thereby reducing the need to travel long distances. These nodes have a number of characteristics and may include higher residential densities, mixed use, public transport and non-motorised transport, public amenities and good infrastructure with the level of services defined by the respective role of the node within the hierarchy of nodes;
- Densification and intensification of land uses along the Integrated Rapid Public Transport Network (IRPTN) and within existing nodes and corridors to reduce sprawl and the need to travel long distances to access services.
- Emphasis on integration, accessibility and convenience in more densely populated urban areas including the provision of priority public transport routes, road and rail linkages;
- The promotion and preservation of key environmental assets e.g. upper catchment areas that provide free ecosystem services, including the buffering of negative climate change impacts, and supports the health of the entire metropolitan area;
- The promotion and preservation of key agricultural assets to secure long term food security

- The promotion of Coastal, Mixed Use and Tourism corridors that provide diverse opportunities for development and lifestyle whilst protecting against the risks of sea level rise;
- Any development in areas in or adjacent to the Municipalities important environmental assets will require careful scrutiny and appropriate action to ensure no negative impacts, notwithstanding the current zoning that may apply.

7.2 Detailed Spatial Planning

The SDF does not provide definitive statements on all aspects of spatial development in the EMA. Sector plans and detailed spatial plans also reflect this understanding at a more local scale. In order to achieve more detailed spatial proposals the SDF is translated into more geographically specific physical development and land use management guidelines through the preparation of Spatial Development Plans (SDPs), Local Area Plans, Functional Area Plans and Land Use Schemes .

Spatial Development Plans are undertaken annually for each spatial planning region identified in the municipal area, namely the Central, North, South and Outer West Spatial Planning Regions. These are informed by the SDF and provide greater detail about future spatial planning and land use, environment, transport and infrastructure interventions required at a regional level and might be considered equivalent in nature to a Regional Spatial Development Framework. This SDF should be read in conjunction with all lower order plans (SDP', LAP's, FAP's and Schemes as they reflect and carry through the spatial and non-spatial planning intentions of the IDP and SDF to increasing levels of detail culminating in detailed Land Use Guidelines and Draft Schemes. All of the above plans form part of the Package of Plans and should be read in conjunction with the SDF Review 14/15. Annexure 2 of this report provides a summary of the SDPs .

CHAPTER 8

SDF IMPLEMENTATION AND CAPITAL INVESTMENT FRAMEWORK

Synopsis: The capital investment framework is part of the implementation which indicates capital projects and priorities which the Municipality will undertake within its five years budget cycle.

8. SDF IMPLEMENTATION AND CAPITAL INVESTMENT FRAMEWORK

8.1 Linking Town Planning Schemes to the SDF

The Municipality's delivery plan (IDP) is organized into eight separate but related plans. The first of these plans is 'Sustaining the Natural and Built Environment'. The goal of this plan is to direct and manage the use of the built and natural environment to ensure sustainable and integrated growth and development of the Municipality.

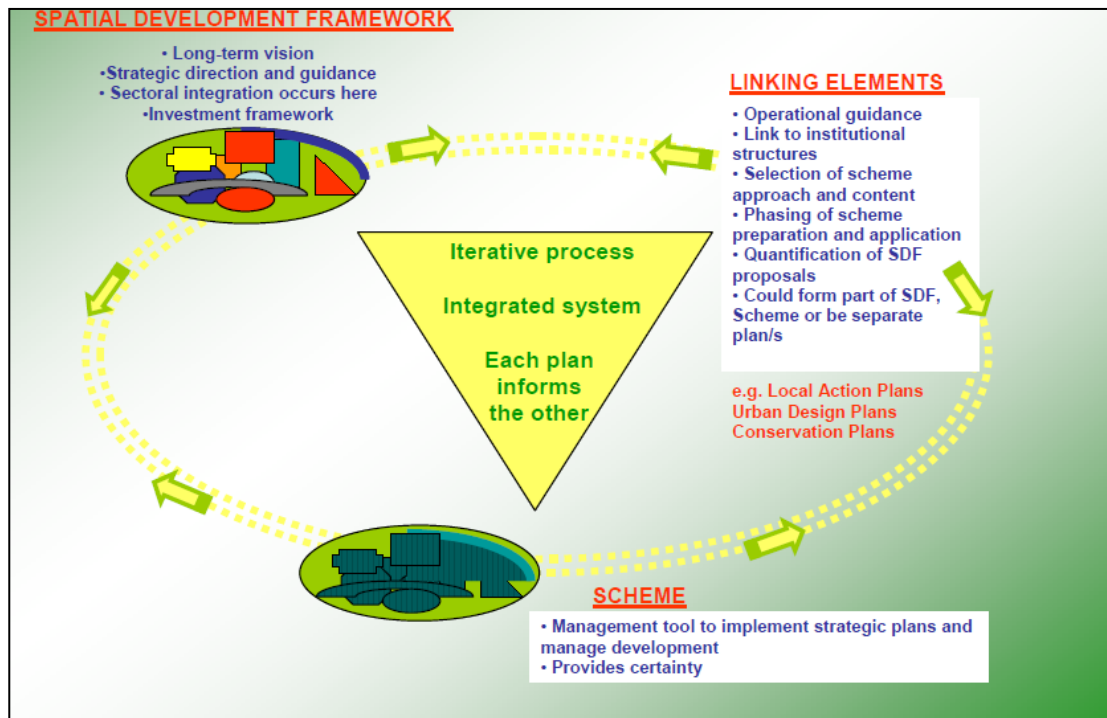
There are 7 programmes in the plan, and programme 1 aims at establishing and implementing a sustainable and integrated spatial planning system. The desired outcome of the plan is that citizens will be able to access and use resources to meet their needs without comprising the ability of future generations to achieve well-being by meeting their needs (better health and wealth) as free as possible of inherited burdens.

The Spatial Development Framework (SDF) is the point of integration of strategic municipal spatial strategies in the arena of economics, transport, environment and society. The Spatial Development Plans (SDPs) cover the municipal area at a greater level of detail than the SDF. The relationship between broader strategic planning and Schemes is central to ensuring consistent and thorough decision-making around land use management and change.

The Scheme is used to enforce the broader policies contained in the Municipality's Integrated Development Plan (IDP) and Spatial Development Framework (SDF) at a property level. Our municipal IDP and SDF guides development, and thus inform the preparation and management of land use in terms of the Scheme. The Land Use Management Framework (LUMF) provides the link between the Scheme and SDF proposals.

The LUMF translates the strategic objectives to a level that will provide spatial representation and quantification of SDF proposals to guide the preparation of the Scheme and decision-making on applications for land use change. It does this by translating the SDF into a more detailed set of broad land use areas that direct the future development of areas and provides the basis for the formulation of the detailed zones for the Scheme.

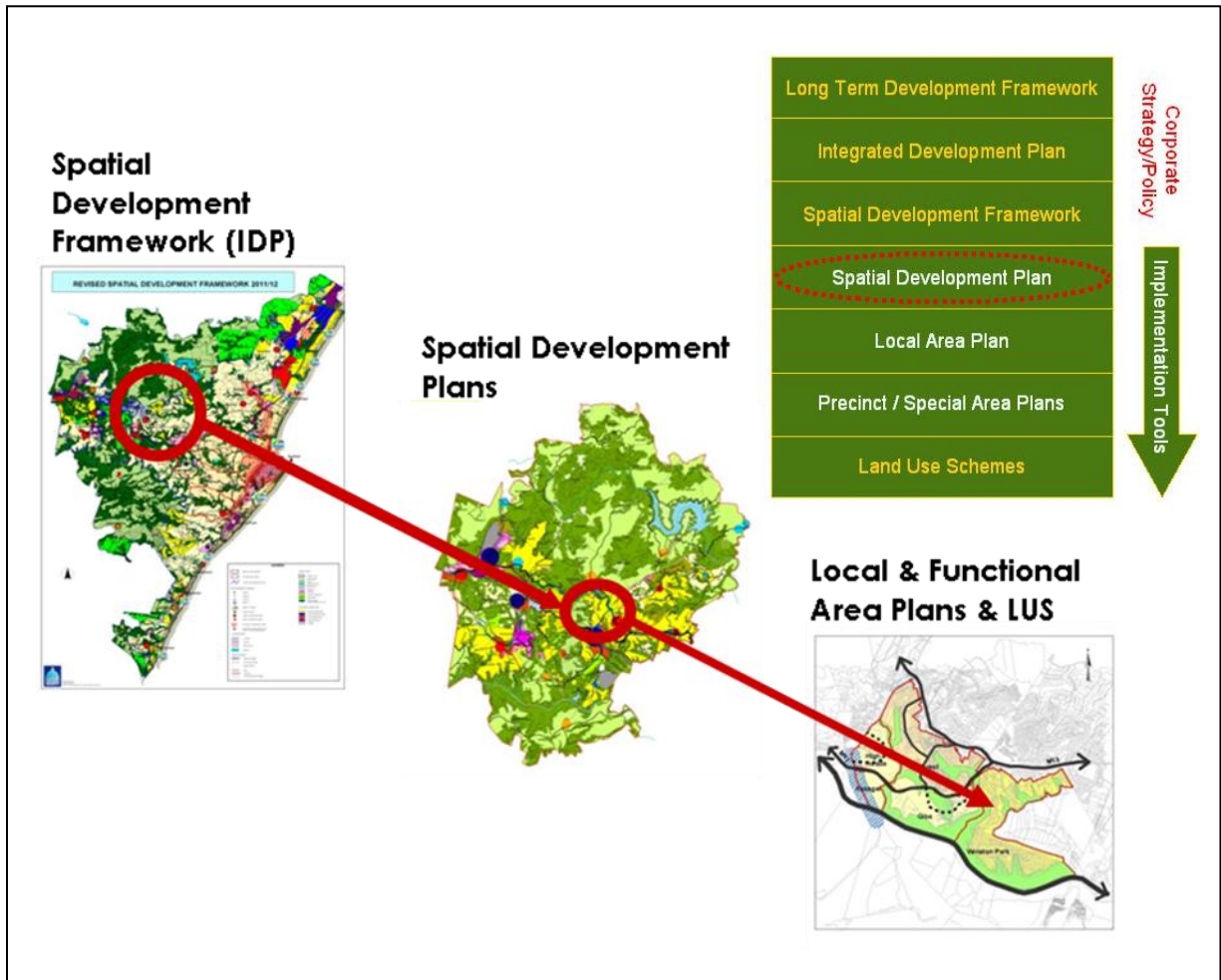
This link between the Scheme and SDF through the LUMF ensures that operational guidance is provided for planners responsible for implementing the SDF and Scheme and ensures that institutional guidance is provided and takes account of existing governance structures such as Traditional Authorities and the Ingonyama Trust Board in some areas of land use decision-making. The following diagram illustrates the relationship between the SDF, LUMF (linking elements) and the Scheme;



The eThekweni Spatial Planning and Land Use Management System (LUMS) will provide a customer-focused tool that will implement spatial policy, stimulate growth, which will give citizens, landowners and developers a sense of security and confidence, and will allow Council to make decisions that are in the public interest. The eThekweni Land Use Management Systems ‘toolbox’ is made up of an Integrated Suite of Plans. The Suite of Plans includes corporate policies and strategies for the Municipality (LTDF, IDP and SDF) and implementation tools (SDPs, LAPs, FAPs, SAPs and LUSs).

The corporate policies and strategies outline the long term vision for the development of the Municipality which is applied and achieved through the implementation tool. The implementation tools consist of a range of planning activities all running in parallel with each other with the common purpose of updating, refining and establishing appropriate mechanisms for managing land use and development in the Municipal area.

The SDF provides a spatial translation of the corporate policies and strategies. It is implemented through a set of detailed plans starting from the Spatial Development Plans (SDP’s) which are developed to bridge the gap between the strategic/conceptual SDF and the detailed land-use schemes referred to in the municipal plan hierarchy. The SDP’s identify a number of priority projects which are detailed in Local Area Plans (LAPs) and Functional Area Plans. The following diagram reflects the integrated suite of plans and the relationship between the Implementation tools:



The implementation tools provide detailed planning and land development guidelines. These guidelines often include urban design guidelines and directives as a way of detailing the principles as suggested within the SDF. This in turn guides the preparation of the Scheme. The update of Schemes is informed by the phasing of development as illustrated in the detailed planning. The Municipality will only support development that aligns with the policy proposals and guidelines as contained within the Integrated Suite of Plans.

8.2 Development Strategies, Policy Statements and Land Use Guidelines

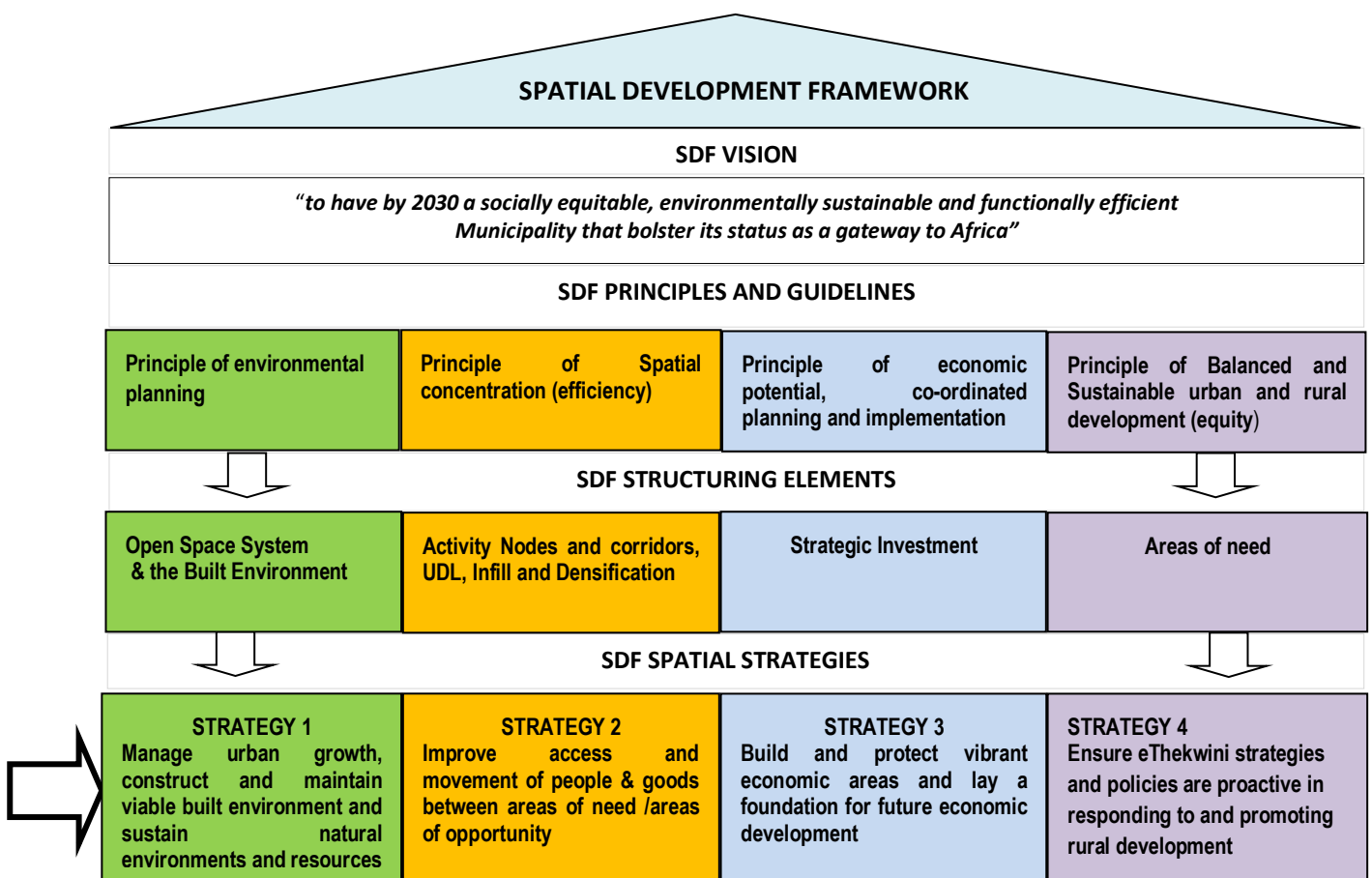
Development strategies have been formulated to help achieve the desired spatial outcomes of the EMA. The strategies outlined below have been developed from an understanding of the development context and are guided by the policy framework pertaining to the SDF as outlined in chapter 1.

The strategies are also guided by the SDF vision, to have by 2030 a ***socially equitable, environmentally sustainable and functionally efficient Municipality that bolsters its status as a gateway to Africa***. This vision is underlined by a set of principles as discussed in chapter 2.

The strategies discussed below are intricately linked and do not exist in isolation of each other. Integration of the strategies occurs in the following way:

- At a broad strategic level through the Integrated Development Plans, and
- At an operational level through the application of spatial planning tools (such as nodes and corridors density variation, catchment based planning and encouraging compact development through the application of the Urban Development Line (UDL)).

Underlying the strategies are two institutional pre-conditions. Firstly there needs to be a supportive land use management system to provide the strategic and operational framework for development. Secondly linkages should be established with IDP strategies.



8.2.1 STRATEGY 1: Manage urban growth, construct and maintain viable built environment and sustain natural environments and resources

This strategy is informed by the principle of sustainable environmental planning. The spatial focus of this strategy is protecting and enhancing rural, agricultural and urban built and natural environments. The strategy aims to maximize opportunities for sustainable urban form and promoting sustainable use of resources and protection of the natural environment and agricultural resources. Some examples of Municipality projects that align with this strategy include the Coastal Management Plan, Catchment Planning, the Umgeni Green Corridor Project and the Ohlanga-Tongati Local Area Plan.

The key elements of the strategy include environmental protection and enhancement, climate change, place-making and optimal use of existing infrastructure. Good design, creativity and innovation, are essential to improve the built environment and make better use of land to support sustainable patterns, for example:

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

Strategy 1 is elaborated further in the table below:

Strategy 1 Policy Statements, requirements and land use management guidelines

Manage urban growth, construct and maintain viable built environment & sustain natural environments and resources			
Policy Statements	Requirements to achieve policy statements	Land use management guideline	Alignment with policies
1. Construct and maintain a viable built environment	<ul style="list-style-type: none"> Promote the optimal use of existing and future infrastructure and resources Promote densification in strategically located and well-serviced areas Encourage mixed land use particularly along transport corridors Identify well located, accessible land for Greenfield development Upgrade informal settlements and under-invested areas. Maintain public investment in existing residential and public environments. Previously disadvantaged areas should be specifically targeted for the identification of open space projects 	<ul style="list-style-type: none"> Promote a variety of housing typologies to maximize efficiency while at the same time promoting culture and heritage. In promoting housing, ensure that there are safe spaces and recreational places for people. Ensure preservation of the natural environment. Rural development should be guided by the Rural Strategy 	<ul style="list-style-type: none"> EThekwini densification study DMOSS IRPTN SDP's Housing Sector plan EThekwini Urban Design Adaptation Plan Strategic Environmental Plan Catchment Management Plan
2. Reduce urban sprawl and promote a compact city development	<ul style="list-style-type: none"> Minimise the conversion of agricultural land for new urban development Prioritise infill development in areas that provide opportunities for linking and integrating areas Ensure clustering of various activities (work, live, play) at appropriate locations. Densification and Infill should be promoted in well serviced and strategically located areas and should contribute to the restructuring and efficiency the urban environment Densification and Infill should help to create thresholds for public transport and contribute towards more effective utilization of various modes of public transport. Higher residential densities should be promoted around nodes and within corridors 	<ul style="list-style-type: none"> In areas where there is sufficient infrastructural capacity, densify the area by the introduction of a mix of land uses. Support rezoning of land to allow for increased densities only in areas identified for densification Prioritise infill areas for development that provide opportunities for linking and integrating communities, neighbourhoods and economic areas Ensure the pre-conditions to densification such as suitable development controls and building regulations, namely, FAR, coverage, setbacks, minimum lot sizes, zoning, parking regulations, height, restrictive title conditions are addressed and discussed with the applicant. Prioritise higher residential densities / housing projects within existing nodes and within public transport corridors 	
3. Sustain natural environments and resources	<ul style="list-style-type: none"> Optimise the economic, social, aesthetic and functional value of open space services through the implementation of DMOSS Existing natural environmental resources should be protected and enhanced to ensure that the ecosystem within the open space 	<ul style="list-style-type: none"> Ensure proposed development does not encroach onto environmentally sensitive land 	

	<p>are able to effectively deliver services</p> <ul style="list-style-type: none"> • Development must be directed away from hazardous areas such as floodplains, unstable soils and steep slopes • Protect environmentally sensitive areas, agricultural land and open space • Protect river catchments and develop catchment management plans for river systems where rapid development will occur • Develop coastal management plans • Create a network of green open spaces and protect important environmental areas • Support sustainable catchment management and stormwater practices. • Promote the prevention and reduction of pollution. 		
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8.2.2 STRATEGY 2: Improve access and movement of people and goods between areas of need and areas of opportunity

This strategy is informed by the principle of spatial concentration and promotes efficient movement of people and goods, urban infill and densification. The spatial focus of this strategy is to address challenges relating to spatial fragmentation and distorted settlement patterns within the EMA.

In relation to movement of people the strategy proposes that development should be located so as to reduce the need to travel, especially by car, and to enable people as far as possible to meet their needs locally. Safe and sustainable access for all, particularly by public transport, between homes and employment and a range of services and facilities (such as retail, health, education, and leisure) should be promoted.

In terms of movement of goods a shift towards a more sustainable mode of transport for freight should be secured, an integrated approach to managing travel demand should be encouraged, and road safety improved.

An example of a project that aligns with this strategy is Bridge City, a fairly new mixed use sub-metropolitan node which is located on a major development corridor and transport networks, MR93 and North Coast Road and includes an underground railway station. The locality of the Bridge City site suggests that, from a development perspective, the site is accessible to a local and regional commuter and consumer markets. Bridge City will serve as the social and commercial centre to an area housing a population of over 800 000 people, who at present, have generally poor access to facilities and social services.

Other examples of projects that align with this strategy include the City's Densification Strategy; the MR 577 (constructed) links Pinetown and Inanda-Ntuzuma-KwaMashu (INK) areas and the MR 579 (proposed) aimed at improving linkages between uMlazi with Pinetown.

Strategy 2 is elaborated further in the table below:

Strategy 2 Policy Statements, requirements and land use management guidelines

Improve access and movement of people and goods between areas of need and areas of opportunity			
Policy Statements	Requirements to achieve policy statements	Land use management guidelines	Alignment with policies
<p>4. Improve connectivity within the Municipal area and</p>	<ul style="list-style-type: none"> Strengthen and integrate public transport networks, services and modes to ensure that passengers move optimally from origin to destination in an efficient manner and in the shortest time possible. promote public transport links between disadvantaged areas and main economic nodes of the Municipality Reduce the need to travel by vehicular transport Facilitate movement between areas of need and wider metropolitan opportunities Create a safe, efficient and integrated city wide public transport system and use it as a tool to restructure the Municipality and integrate marginalized areas. Include Non Motorized Transport as essential components of land use and transport planning Investigate new road and rail based network links. Engage with PRASA to explore potential of improving passenger rail service 	<ul style="list-style-type: none"> Around brown field developments: the strategy to create and introduce a vibrant mix of land uses and higher densities must be considered without impacting on the existing amenity of the area while at the same time supporting a more efficient public transport system. In green field developments: the opportunity to density along public transport corridors remains prime with densities of varying intensity toward pure residential development. Promote mixed use, working from home e.g. in the form of online work in zoning and land use management. Identify and maintain non-motorized transport routes 	<ul style="list-style-type: none"> Integrated Transport Plan (2010/15) EThekweni Housing Sector Plan (2011) eThekweni Energy Strategy EThekweni Environmental Services Management Plan
<p>5. Implement the Housing within the context of a sustainable and integrated development planning framework</p>	<ul style="list-style-type: none"> Encourage the implementation of housing as part of a broader strategy to re-structure and transform the present sprawling and inequitable urban form into a more compact, integrated and accessible environment. Promote the development of well located areas and optimize the use of existing infrastructure Ensure that movement system directly links with and is supported by strong high intensity nodes and higher density residential development. Integrate land use with economic and transport planning Encourage mixed use environments and non-residential uses in appropriate areas, namely, particularly in identified nodes and along transport corridors and interchanges. 	<p>When assessing new proposed housing developments the following issues must be considered:</p> <ul style="list-style-type: none"> Is the proposed development inside the Urban Development Line? Is the proposed development in close proximity or within a walking distance to main public transport routes Is the proposed development within walking distance to main nodes and corridors? Does the proposal benefit from good access to economic and social opportunities? Does the layout encourage a grid road structure that provides logical and accessible public transport routes? Identify mechanisms and processes to fast track the 	

		delivery and approval of subsidized housing applications	
6. Develop an efficient and integrated freight transport system	<ul style="list-style-type: none"> • Investigate the feasibility of dedicated freight routes. • Ensure the reservation and availability of land for the development of the freight route. • Ensure that support for the freight route is attained with neighboring municipalities and other government spheres. • Improve the accessibility and efficiency of rail transport to allow for a move from road to rail in the longer term • 	<ul style="list-style-type: none"> • In brown field developments, the freight route should be assessed against its impact on existing developments, and • In greenfields the freight route should be assessed against the future spatial role and intentions of the area. Land should be reserved for the development of the freight route. 	

8.2.3 STRATEGY 3: Build and protect vibrant economic areas and lay a foundation for future economic development

This strategy is informed by the principle of enhancing (or harnessing) economic potential, co-ordinated planning and implementation. The strategy aims to promote and enhance the economic role of the EMA within the KZN province. This could be achieved in several ways including:

- Revitalisation of existing economic areas. Examples include Greater Durban and Pinetown CBD.
- Developing new economies (e.g. Cornubia, Umhlanga, Bridge City and Shongweni) and former townships (e.g. Umlazi Megacity and Clermont/ KwaDabeka Regeneration Project and Mpumalanga Town Centre).
- Facilitating emerging and informal economic activity for example Warwick Junction.
- Identifying industrial and business expansion opportunities in areas such as Cato Ridge, Inyaninga / Tongaat and Dube Trade Port.
- Improving freight and passenger linkages (as per the Integrated Rapid Public Transportation Network study recommendations)

Strategy 3 is elaborated further in the table below:

Table 12: Strategy 3 Policy Statements, requirements and land use management guidelines

Build and protect vibrant economic areas and lay a foundation for future economic development			
Policy Statements	Requirements to achieve policy statements	Land use management guideline	Alignment with policies
7. Revitalize economic areas of major significance	<ul style="list-style-type: none"> • Encourage economic restructuring and development in existing and prioritized economic nodal areas and corridors. • Establish incentive for businesses to locate in established areas to avoid decentralization of businesses and increasing vacancy rates and declining amenity at the centre. 	<ul style="list-style-type: none"> • Translation of the Municipality's economic Plan into the Schemes as it relates to market trends. • Updating and Review of the Schemes to promote emerging land uses. • Ensure quality environments as it relates to built form. 	<ul style="list-style-type: none"> • eThekwini Economic Development and Job Creation Strategy (2013) • eThekwini Industrial Spatial Strategy
8. Develop new economic areas to augment and diversify the economic base of EMA	<ul style="list-style-type: none"> • Enable and encourage the promotion of a wide range of economic sectors to complement each other • Promote the Green Economy including the generation of energy from renewable sources in the eThekwini municipal area. • Promote and manage investment into energy generation from renewable sources • Focus economic growth and job creation through investment nodes and tourism corridors 	<ul style="list-style-type: none"> • All new zoned land to continuously promote a variety of vibrant land uses that will promote the Municipality's vision and quality environments. • Consider energy generation from renewable sources in town planning scheme and related policies. 	<ul style="list-style-type: none"> • Economic Review and the Industrial Strategy • eThekwini Energy Strategy

<p>9. Develop spaces to facilitate economic activity which should encompass informal trading economy and SMME's</p>	<ul style="list-style-type: none"> • Focus employment interventions to include the marginalized sectors of the population to support emerging and informal enterprises 	<ul style="list-style-type: none"> • Introduce land use policies and mechanisms that will support the development of small business and allow for location of trading facilities in established market areas • Where appropriate ensure that the informal sector and small business opportunities are not excluded from formal economic development • Facilitate, support and extend agricultural production and distribution networks 	
<p>10. Identify appropriate industrial and business infill and expansion paths to accommodate demand</p>	<ul style="list-style-type: none"> • Protect existing industrial land and identify new opportunities for Industrial development 	<ul style="list-style-type: none"> • The Industrial development strategy must be used as a guide in assessing industrial development applications • Carefully consider the compatibility of proposed land use when assessing rezoning application especially in predominantly residential areas • Do not support growth of ad hoc industrial areas, use nodal areas, transport routes and service availability as guidelines 	
<p>11. Address spatial economic imbalance</p>	<ul style="list-style-type: none"> • Ensuring there is spatial integration of investment for local economic development. • Development of LED strategies for key nodal and under-invested areas • Unlock employment generating opportunities in areas. that lack economic opportunities • Bring economic opportunities closer to where people live • Improve /establish access to facilitate that are of major importance • The development of nodes should take into consideration rural-urban linkages 	<ul style="list-style-type: none"> • Support development initiatives in locations that are easily accessible especially to areas of need 	

8.2.4 STRATEGY 4: Ensure eThekweni strategies and policies are proactive in responding to and promoting rural development

This strategy is informed by the principle of Balanced and Sustainable urban and rural development. This strategy provides the basis for integration of the rural areas into the mainstream growth and development of the municipal area. This includes understanding the nature of the space economy and how urban and rural activities support each other (e.g. agriculture and agricultural processing) and adopting policies that could strengthen this relationship (e.g. protect agricultural land from development and diversifying agricultural opportunities and rural economies). There is also the need to understand the roles of rural settlements in the space economy and promote future development that is supportive of this role. For this strategy, reference is made to the eThekweni Rural Development Framework and the development of priority rural nodes i.e. Inchanga, Umbumbulu, KwaXimba, uMzinyathi and Umnini nodes.

The strategies formulated for the rural areas are aligned with the sector plans as contained in the IDP summarized here as follows:

- **Economic development**, facilitation of community based economic development with emphasis on skills development, agriculture support, cultural and eco-tourism and sustainable livelihood opportunities, renewable energy generation potential, public investment focused on rural service centers,
- **Transportation**, provided by the Integrated Public Transportation Network,
- **Housing and services**, providing appropriate rural servicing packages in line with affordability, sustainable use of natural resources and minimisation of environmental impact, public investment to be focused on rural service centers,
- **Environment**, securing threatened environmental areas on which the health of the urban periphery and core depend, promoting good land management via appropriate land use management and catchment management mechanisms, maximising open space opportunities for eco and cultural tourism, sustainable livelihood opportunities and agriculture.

Table 13: Strategy 4 Policy Statements, requirements and land use management guidelines

Ensure eThekweni strategies and policies are proactive in responding and promoting rural development			
Policy Statements	Requirements to achieve policy statements	Land use management guideline	Alignment with policies
1. Protect and enhance the city's rural environment	<ul style="list-style-type: none"> • Conserve critical environmental assets • Conserve good agricultural potential land for future food security and job creation • Prevent unconventional urban development from intruding into the rural environment 	<ul style="list-style-type: none"> • Defend rural landscape • Support appropriate development and activities in rural areas 	<ul style="list-style-type: none"> • eThekweni Municipality rural development framework (currently being updated) • eThekweni Energy Strategy • National Development Plan (2011)
2. Promote integrated and appropriate development in the rural periphery	<ul style="list-style-type: none"> • Facilitate sustainable and integrated service delivery, • Development of Human Settlements in line with National and Provincial Policies • Development of rural service nodes and rural corridors 	<ul style="list-style-type: none"> • Develop a clear hierarchy of rural service nodes and corridors • Promote and support integrated housing development in rural areas 	
3. Establish appropriate land use planning and management guidelines for rural development	<ul style="list-style-type: none"> • Clear understanding of the nature and role of rural areas within the wider eThekweni Municipal area 		
4. Promote the opportunities of generating renewable energy in rural areas.	<ul style="list-style-type: none"> • Investigate the potential of resources for renewable energy generation and appropriate technologies • Facilitate investment into renewable energies in rural areas 	<ul style="list-style-type: none"> • Include and manage generation of renewable energy as an additional land use. 	

8.3 Spatial Monitoring and Evaluation

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

Furthermore, the Municipal Finance Management Act of 2003 (MFMA) obligates a municipality to complete and adopt the Service Delivery and Budget Implementation Plan (SDBIP). The SDBIP links the IDP with the municipal budget and is based on specific targets and performance indicators derived from the IDP. Section 67 of the MSA also highlights the monitoring, measuring and evaluating of performance by the municipalities. Similarly, for eThekweni Municipality, the monitoring and evaluation of the impact of the SDF is an on-going process that is inclusive, interactive and involves consultation with various stakeholders (internal and external). This process is viewed by the municipality as being critical in that it identifies areas that need improvement, identifies priorities and interventions.

The monitoring and evaluation process also involves the identification and allocation of roles and responsibilities for different role players while at the same time documenting all the activities that are taking place as part of the SDF review process. The SDF reporting is done through the SDBIP quarterly reporting and municipal Annual Balanced Score Card system. .

8.4. Capital Investment Framework

8.4 .1 The Municipal Infrastructure investment framework

The municipality has embarked on a Municipal Infrastructure Investment Framework for the city. The municipality is committed to ensuring that all backlogs in the provision of infrastructure are removed. However, this must be done in such a way so as to ensure that the municipality, which is at the forefront of infrastructure delivery, remains financially viable and have the capacity to operate and maintain this infrastructure.

The Municipal Infrastructure Investment Framework (MIIF) thus aims to establish:

- The extent of infrastructure to be provided;
- The capital expenditure required to provide this infrastructure;
- The extent to which financing is available for this capital expenditure;
- The operating expenditure required to ensure that the infrastructure provided is properly operated and maintained;
- The extent to which revenue can be raised to cover this operating expenditure, within the provisions of the Municipal Fiscal Framework.

The framework also considers the monitoring systems required to assess progress with respect to infrastructure delivery as well as processes to ensure that systems and management capacity are in place in municipalities to manage the infrastructure, with the emphasis on a municipal infrastructure asset management strategy. The Capital Investment Framework (CIF) outlines the capital projects and priorities which the Municipality will undertake within the next five years. The capital projects and priorities are as a consequence of strategies and goals set by the Municipality in order to achieve the desired outcomes and vision.

The Capital budget is directly informed by the needs submitted by the community through the IDP process. The capital budget continues to reflect consistent efforts to address backlogs in basic services and the renewal of the infrastructure of existing network services.

8.4.2 Overview of past capital budget allocation and expenditure

8.4.2.1 Capital Allocations

The Capital Budget from 2006/07 to 2009/10 increased by 56% cumulatively to fund increased expenditure on major infrastructure (Roads, Electricity, Water & Sanitation) as well as World Cup 2010 related projects.

The capital budget totaled R5.4 billion in 2010/11. This was funded by National and Provincial grants in the amount of R2.1 billion and R1.0 billion being funded from Council's internal sources, with the balance of R2.3 billion from external sources.

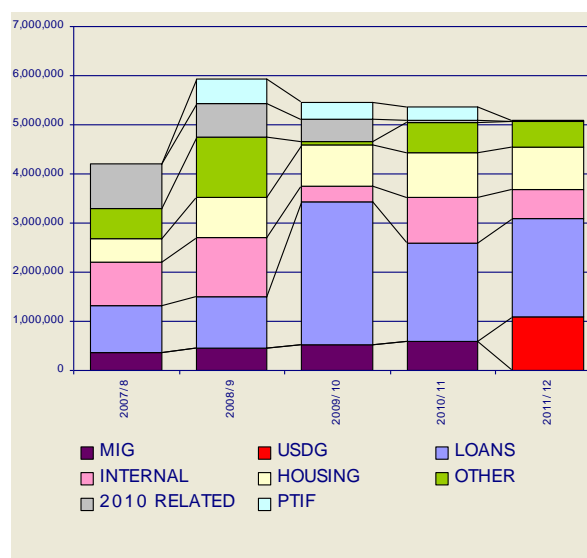
The 2010/11 capital budget allocation decreased by 22.8% amidst concerns about eThekweni being over-gearred and hence needing to limit further borrowing. This also comes in the context of the global recession and the potential for a decline in revenue due to households' economic circumstances.

8.4.2.2 Capital Sources

The city's capital program is financed through a mix of internal sources, borrowing and major grants. They account for 15%, 34% and 51% respectively over the five-years ending 2011/12.

Grants and subsidies are the most significant financing sources.

Borrowing grew significantly in 2009/10 to account for shortfalls in revenue realisation arising from the recession. This was necessary to maintain planned levels of capital spending.



Borrowing indicators

R million	05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13
Borrowings	4,218. 1	4,582. 6	5,322. 8	6,070. 3	8,674. 6	10,110. 4	10,679. 0	10,642. 0
Gearing Ratio (%)	40. 6	38. 5	34. 9	35. 6	46. 3	50. 9	45. 5	39. 9
Finance Charges	544. 4	499. 2	513. 8	598. 5	690. 8	687.3	855.0	1,152. 0
Capex	1,865. 4	2. 489. 4	4,724. 6	5,987. 7	6,493. 6	4,614.8	4,088.6	5.285.2
Internal Capex Funding	168. 9	398. 3	1,739. 8	2,830. 0	1,828. 6	979. 1	583. 1	482. 6

New Borrowings in 2010/11

Institution	Fixed Interest Rate	Term	R m	Status
A B S A	10. 19%	15	1. 000	Already taken
A B S A	8. 73%	7	1. 000	Already taken
TOTAL			2. 000	

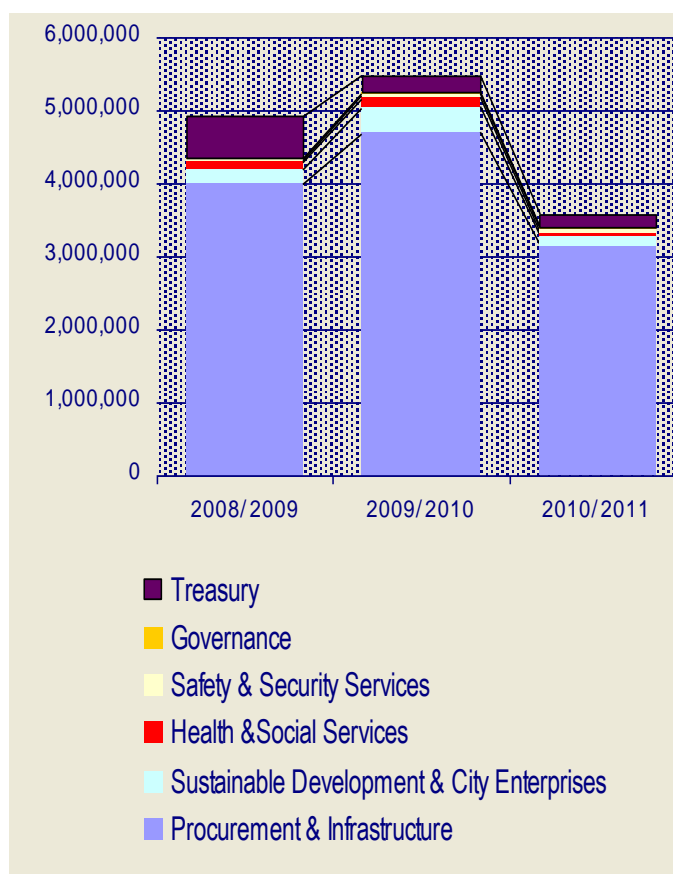
8.4.2.3 Capital Expenditure

The major capital expenditure made by the city has been in infrastructure. Increase in Water Services expenditure was due to two major projects being implemented, namely the Western Aqueduct bulk water supply pipeline and the replacement of ageing Asbestos Cement secondary pipe network.

In addition there has been increasing emphasis on rolling out a package of interim services to informal settlements in order to improve the quality of life of residents in these communities through the provision of ablution facilities, all weather footpaths and electricity.

In the 2010/11 year, housing delivery reduced, because of slow-downs in receipts of funding from Province, and because of slow-downs in procurements, which were prompted by corrections in SCM processes.

The electricity spend is related to the expansion of current infrastructure to create additional capacity and to support housing delivery. The total capital spends decreased post the 2010 World Cup by 43%



8.5 Capital budget summary

CAPITAL BUDGET BY CLUSTER 2014 – 2016	BUDGET 2014/15	BUDGET 2015/16	BUDGET 2016/17
HUMAN SETTLEMENTS & INFRASTRUCTURE	4,712,362	5,421,971	5,743,690
Housing	707,587	1,327,400	1,411,535
Engineering	740,235	755,691	831,792
Water	846,200	806,100	858,795
Electricity	678,857	676,130	711,420
Sanitation	700,750	677,400	692,576
Solid Waste	101,935	95,963	140,380
ETA	936,798	1,083,287	1,097,192
HEALTH & SOCIAL SERVICES	203,861	271,827	501,599
Establishment of parks & gardens	13,437	17,100	20,400
Sport fields	22,994	27,138	29,120
Community halls	3,129	4,653	5,679
Cemeteries	3,457	3,630	16,000
Libraries	54,462	133,781	308,320
Recreation facilities	33,832	35,861	15,200
Museums & art galleries	46,070	25,664	89,680
Clinics	26,480	24,000	17,200
SOCIAL & SECURITY SERVICES	103,849	96,819	85,180
Fire & Emergency Services	44,041	67,969	58,080
Emergency Control & Disaster Management	37,257	23,850	16,800
Plant & Equipment	2,600	2,000	2,000
Metro Police	14,951	0	6,700
Security Management	5,000	3,000	1,600
SUSTAINABLE DEVELOPMENT & CITY ENTERPRISES	168,897	242,786	313,466
Economic Development ¹	118,457	163,186	187,226
Business Support	1,170	4,200	63,200
D'Moss	3,150	17,100	3,200
Markets	3,420	19,800	17,440
Strategic Projects	42,700	38,500	42,400
TREASURY	180,668	136,131	186,360
GOVERNANCE	30,080	18,555	15,169
CORPORATE HUMAN RESOURCE	15,700	14,650	859
OFFICE OF THE CITY MANAGER	197,660	235,900	215,534

Information Technology	94,060	105,900	112,534
Internal Audit	600	0	0
Economic Development Projects – other	0	27,000	0
Zonal Plans – Blocksum	103,000	103,000	103,000
TOTAL	5,613,077	6,438,639	7,061,857

8.5.1 Service Delivery

The City places a high level of importance on achieving value for money from its investments, measured in terms of its strategic priorities. Key outputs delivered show significant progress in the eradication of household backlogs by the city. With over 75 % of residents having access to basic services, the municipality has one of the best service delivery programmes in Africa. Nationally, our municipality is used as a financial model for financial governance and we are making great strides environmentally.

The municipality has maintained its proud record of always receiving unqualified audit reports which strengthens the municipality's vision of receiving clean audit reports ahead of government's clean audit target. eThekweni continues to review and develop sound policies, procedures and systems.

Our service delivery achievements include (amongst others) the following:

- 125 669 housing units built (2002-2012)
- 67 946 new electricity connections (2008-2012)
- Solid waste services to 945 910 formal and 687 000 informal houses (100 % coverage)
- Water Supply to 730 650 formal customers
- 253 000 houses with free basic sanitation
- 518 200 houses with free basic water
- Provision of 106 lane km of new roads and 110 lane km of gravel to 'black-top' roads
- Construction of 305 km of sidewalks
- Construction of 46 pedestrian bridges

In recognition of the service delivery progress, the municipality has received the following awards:

- SALGA awards for the following :
 - Human Settlement award – best delivery of houses
 - Blue Drop Status- clean water category
- COGTA Awards for the following :
 - Best Integrated Development Programme
 - Best own Metro in the District Municipality Category
 - Best Innovative Infrastructure

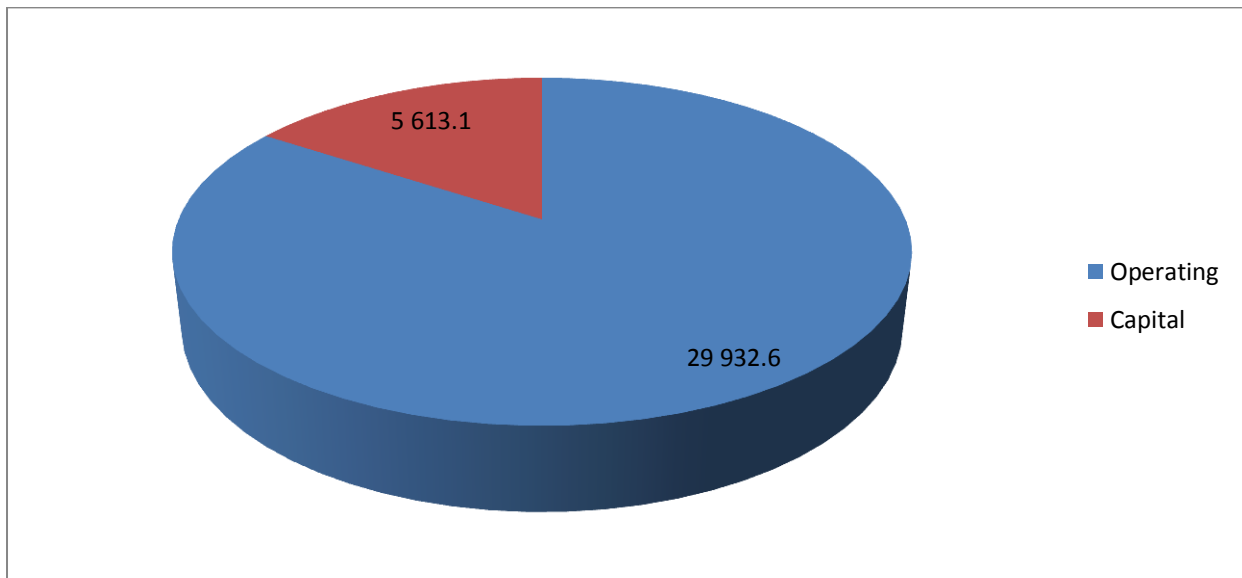
- Top Business Portfolio Award
- Winner for Promotion of Sustained economic growth

- Govan Mbeki Human Settlement Awards
- Recognition of delivering houses
- South Africa's "Greenest " City Award

8.6 2014/15 Budget Overview

The 2014/2015 Medium Term budget proposes a total consolidated budget of R 35.5 billion which has been developed with an overall planning framework and includes programmes and projects to achieve the city's strategic objectives. Provisions in this medium term budget continues to support government's commitment to broadening service delivery and expanding investment in infrastructure, while taking into account the constrained fiscal environment. This budget has been developed to contribute to the municipality achieving the strategic objectives of the IDP. The 2014/2015 MTREF is informed by the municipality's long-term financial strategy with emphasis on affordability and long-term sustainability. National Treasury's MFMA Circular No's 66 and 67 were used to guide the compilation of the 2014/15 MTREF. In addition, this budget format and content incorporates the requirements of the Municipal Budget and Reporting Regulations.

2014/2015 TOTAL BUDGET R35.5m



This budget seeks to continue addressing the backlog in infrastructure and service delivery in order to deliver for all. The municipality is committed towards ensuring that the limited financial resources are maximized for service delivery. This infrastructure roll-out will allow the municipality to focus on creating the economic environment in which investment thrives and jobs can be created. This budget has also been developed within an overall planning framework and includes programmes and projects to achieve the municipality's strategic objectives.

8.6.1 Strategic Priorities for the 2014/15 Year

The Municipality has identified the following priority areas to be addressed during the 2014/15 financial year.

- Service delivery backlogs;
- Human settlements.
- Economic development;
- Financial sustainability;
- Mitigation and adaption of the municipality for climate change;
- Water challenges;
- Access to public transport;
- Human capital development;
- Energy challenges;
- Health of society;
- Food security;
- Sustainable spatial form;
- Rural development;
- Infrastructure degradation;
- Undermining natural capital;
- Safer city

8.6.2 2014/15 Capital Budget [Medium Term Revenue and Expenditure Framework (MTREF)]

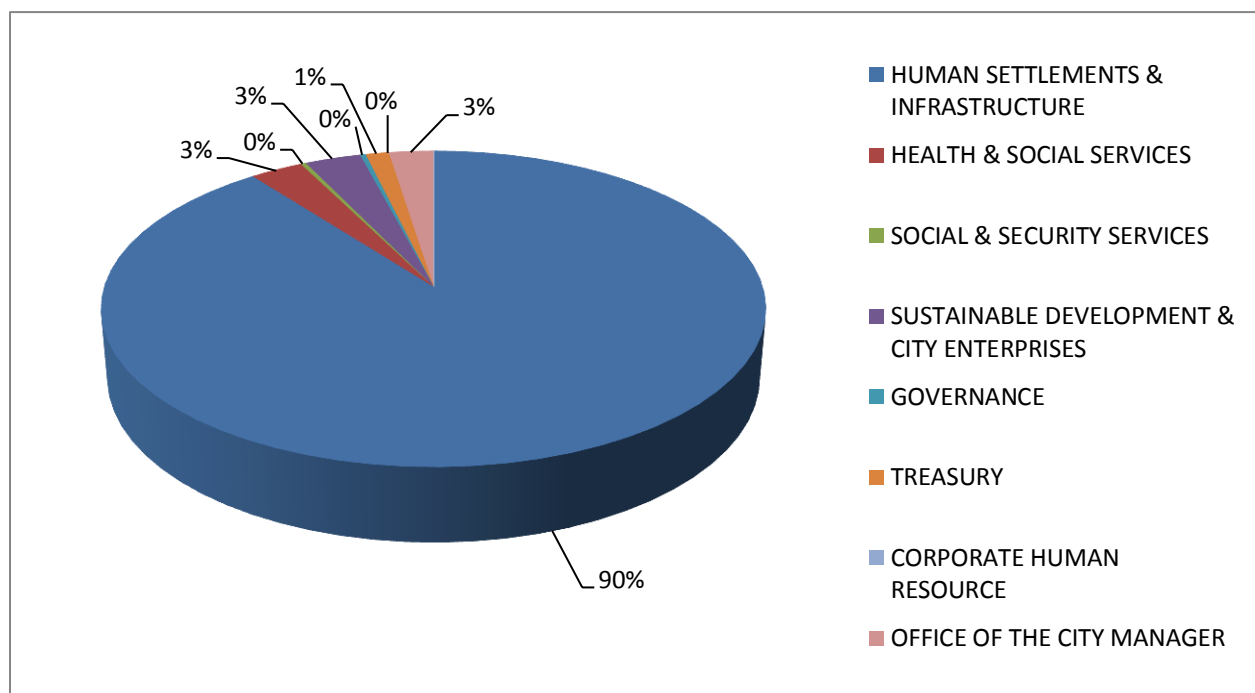
Municipalities play a critical role in creating an enabling environment for investments and other activities that lead to job creation. Investment in urban infrastructure is important for the development of the local economy, combating poverty and the provision of universal access to municipal services. Rapid inward population migration, declining household sizes and greater economic activity places pressure on existing municipal infrastructure and requires larger investments in the periods ahead.

The capital budget is directly informed by the needs submitted by the community through the IDP process.

In view of borrowings being maximised and the present economic climate, the high levels of capital expenditure cannot be sustained. The capital budget continues to reflect consistent efforts to address backlogs in basic services and the renewal of the infrastructure of existing network services. To meet the demand for infrastructure; the projected capital expenditure budget for the 2014/15 period is R5.6 billion. In line with strategic priorities, the major capital investments made by the city have been in Water services and Housing

Over the next three financial years, 2014/15 to 2016/17, capital spending is projected to increase slightly. The following diagram reflects the proposed capital expenditure program for 2014/15 by vote:

2014/15 Budget Year Capital Expenditure program per vote



The following are some of the Major Capital programmes, which have been included in the Medium Term Capital budget:

Project / Item	Rm
Addressing Infrastructure Backlogs	3,704.3
Low cost Housing and Infrastructure	2,299.7
Ethekwini Transport Authority (including PTIS)	3,350.0
Electricity Infrastructure	762.9
Addressing Community Service Backlogs	847.5
Water Loss intervention programme	185.0
Roads Rehabilitation & Reconstruction and new access roads	1,585.4
Northern Aqueduct – Water	296.9
Western Aqueduct – Water	980.0
Solid Waste Fleet replacement	160.9
New Central Library	525.0
Ablution Blocks Upgrade: Informal Settlements	760.0
Town Centre Renewals – Nodal developments	230.8

8.6.3 Economic / Social Development

In a highly global economy where competition for investment has intensified, only those economies that continuously improve their comparative and competitive advantages will weather the economic storm. The city has several comparative and competitive advantages and has in recent years

enhanced these in a bid to stay ahead of the competition for investment. The municipality is on the expansion trail, with a number of strategic areas earmarked for rapid development to fit in with the city's aim of remaining a regional power house. The second phase of the 55 km Western aqueduct pipeline is underway and will be rolled out over a seven year period. It is expected to significantly strengthen the capacity of bulk water supply to the Western regions, ultimately boosting water supply to the north of the city. There are currently a number of programmes and projects being undertaken as part of the city's priorities in a range of sectors most of which align with national governments focus on infrastructure development and job creation. Further enhancing the provinces comparative and competitive advantages are several major infrastructure projects that form part of the Strategic Infrastructure Projects (SIP's) announced by government. Aerotropolis, DubeTradePort, KingShakaInternationalAirport, dig-out port, logistics hub development, dedicated rail and links, Durban to Gauteng rail upgrades-all multibillion-rand projects, which are key infrastructure developments of the Provincial Growth and Development Strategy.

8.6.4 Capital Funding and Projected Expenditure

In terms of funding the capital budget, the municipality is in a fortunate position to undertake much needed service delivery programmes from both internally generated reserves and long term external funding. In the latter case, the municipality with its sound financial credentials has financial options available that are in line with the NFMA and the Municipal Borrowing Framework. Section 45 of the MFMA guides short term borrowing in the City.

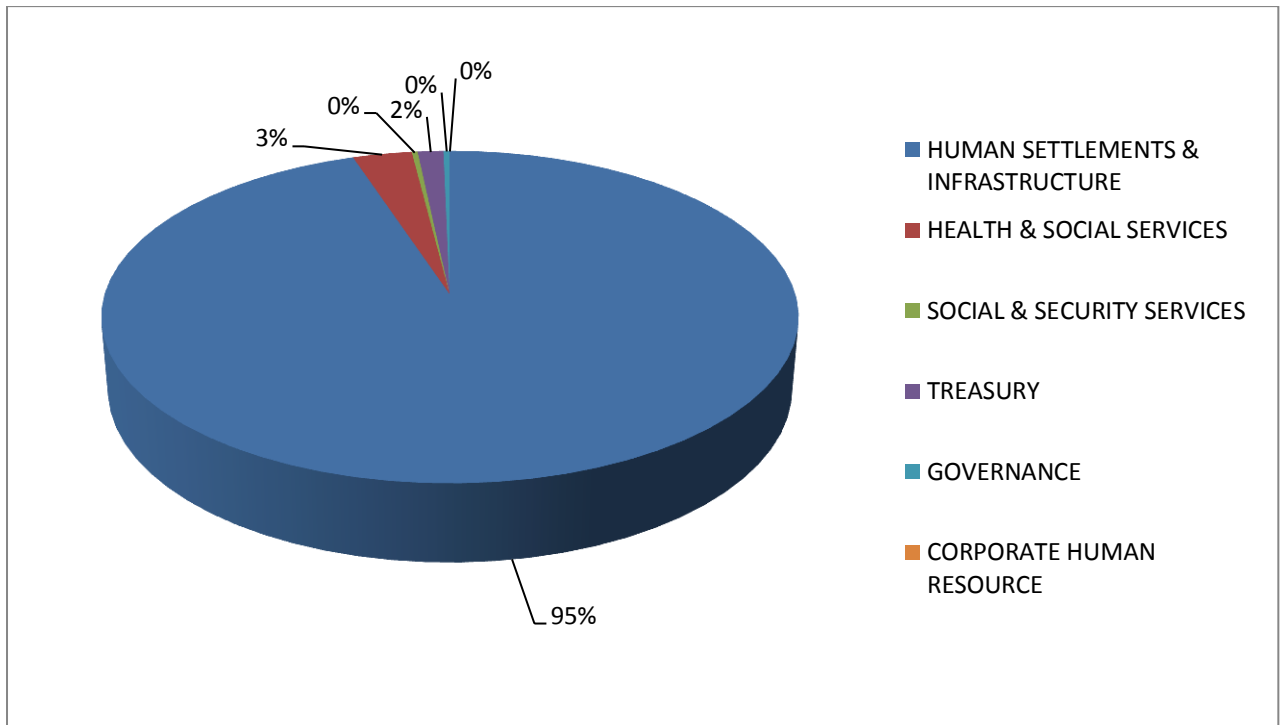
Investments for the municipality are done in accordance and adherence with the Municipal Investment Regulation of the MFMA, Councils Investment Policy and other relevant legislation. Cash flow forecasts and cash needs by the city provide guidance for the type of investment employed. The investments are made with primary regard to the risk profile, liquidity needs of the city and the return on investments. In so far as the investment and borrowing activities are concerned, all the requirements of the MFMA have been compiled with. The ability of the eThekweni Municipality to deliver on progress depends a lot on its funding sources which are summarised as follows:

	2014/2015 RM	2015/2016RM	2016/2017 RM
Total Capital Budget	5,613	6,439	7,062
Funded as Follows			
Grant Funding	3,545	4,439	4,938
Internal Funding	1,068	1,000	1,124
External Funding	1.000	1.000	1.000
	5,613	6,439	7,062

R5.6 billion in 2014/15, R6.4 billion in 2015/16 and to R7.1 billion in 2016/17. The following diagram reflects the proposed capital expenditure program over the next three years by vote:

2014/15 MTERF (3 YEAR TOTAL)

Capital Expenditure program per vote



The Municipal Integrated Development Plan (IDP) Review 2014/15; Medium Term Revenue and Expenditure Framework (MTREF) 2014/15 and the Service Delivery and Budget Implementation Plan 2014/15 will provide extensive details on all current projects. Indicated below is the spatial location of capital projects 2011-2015, followed by the spatial representation of the capital budget by Ward 2011-2015.

Capital Budget per Ward – 2011/12

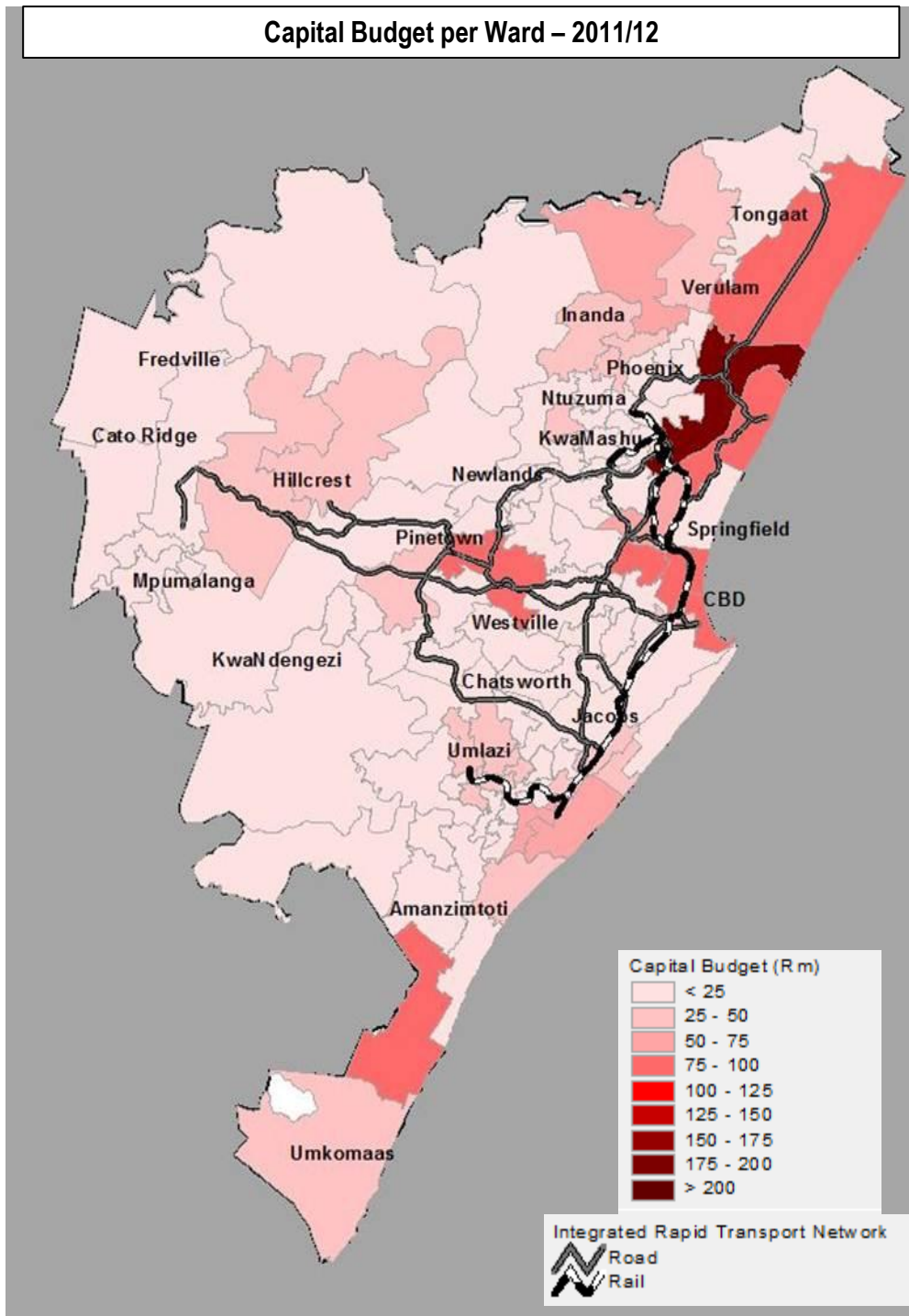


Figure 43: Capital Budget per Ward 2011/12

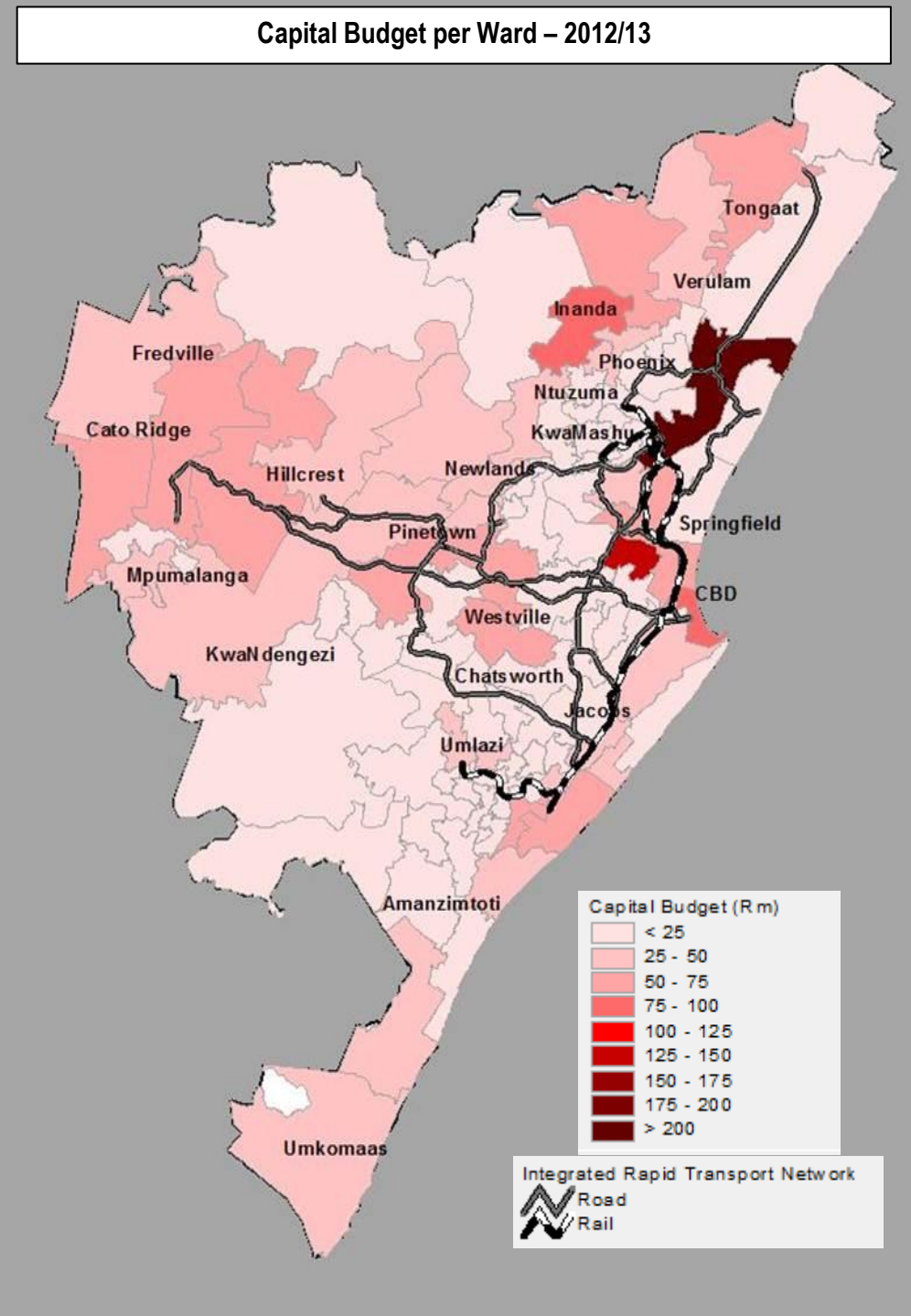


Figure 44: Capital Budget per Ward 2012/2013

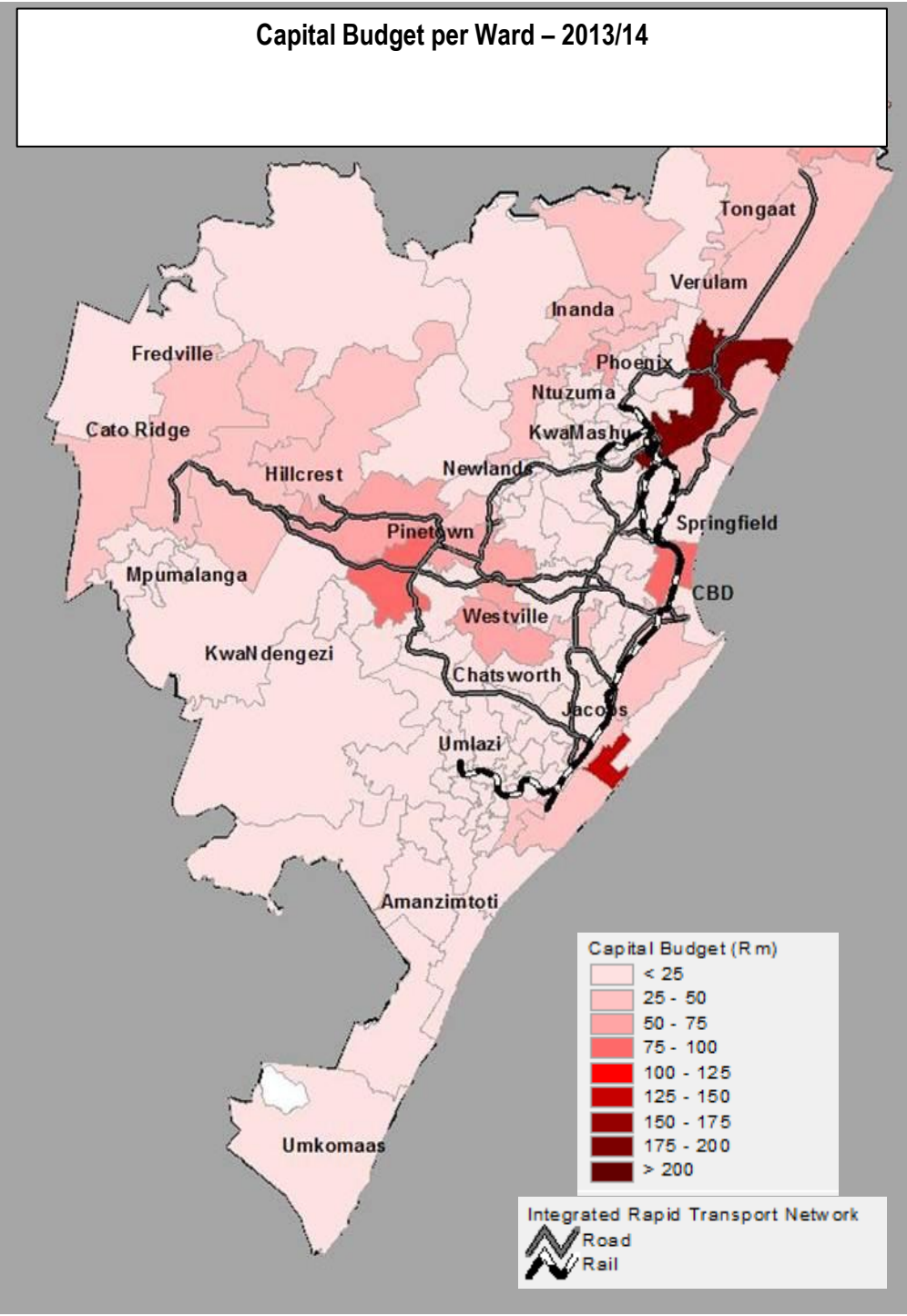


Figure 45: Capital Budget per Ward 2013/14

8.6.5 Current Projects as per the Spatial Priorities

Of the 26 phase 1 priorities identified in the SDF/SDP's, the following were identified as key priority investment areas in both rural and urban areas:

- **Cato Ridge**
- **Port and Back of Port**
- **Tongaat/ DubeTradePort and Surrounds / Cornubia**
- **Mpumulanga**
- **KwaXimba**
- **Illovo is new investment priority area for which detailed investigations are currently underway.**

Listed below are the capital budget 2013-2015 provisions for these key priority areas.

Project Area	Capital Budget Millions			
	2012/13	2013/14	2014/15	2015/16
Cato Ridge		5.000	69.886	92.000
DubeTradePort& surrounds	438.189	486.000	505.000	541.500
Back of Port	32.000	417.260	378.313	373.400
Mpumulanga	109.424	45.010	26.100	114.000
Cornubia	610.689	615.146	595.000	586.400
KwaXimba	13.490	1.170	1.700	18.900
Umbumbulu	1.971	10.000	6.850	4.400
Inchanga	31.365	4.170	1.200	16.500

8.7 Spatial Planning Priorities and Budget Alignment Processes

A significant amount of work has been undertaken by the eThekweni Municipality in attempting to align spatial planning priorities and the city's budget.

In 2007, based on initial work done on the SDF/SDP's, a strategic level assessment was made of the bulk infrastructure required to support the future growth of the municipality. The assessment revealed that the North region (north of the Umgeni River to the Tongati river boundary) within a city-wide context, offered the greatest potential for new development and hence the largest opportunity for expanding the municipal rates base. The reasons for this, was that in the metropolitan context, the North region was anticipated to yield the greatest proportion of new low income housing construction. It was also projected that 73% of the metropolitan residential growth, 88% of mixed use (a mix of commercial, office and residential land use) and 34% of industrial expansion would occur in the North

region. Economic development was focussed in the North region and it was considered that this trend would be likely to continue for the foreseeable future with the construction of flag ship economic projects such as the Dube Trade Port.

The North comprises a number of waste water treatment catchment areas. Of these catchments it made financial, engineering and planning sense to focus development in the Ohlange catchment. Furthermore, from an infrastructure network perspective it was considered preferable to incrementally grow the network outwards rather than to provide infrastructure to 'islands' of development beyond the current urban area. The Ohlange catchment exhibited an excellent mix of private development (which provided for the expansion of the municipal rates base) and public housing development (which is not rateable but which addresses social and equity priorities.) In the North region, the Ohlange is the only catchment where development was not being severely constrained by the uncertainty around how much treated sewage effluent can legally be discharged into the municipal river systems. The non-completion, by the Department of Water Affairs & Forestry at the time, of these river reserve determinations was effectively holding back bulk infrastructure planning for the Umdloti and Tongati catchments which lie north of Ohlange. This combination of factors made the Ohlange the prime catchment in which to focus development to 2010/11. Through the provision of the necessary infrastructure, the following development would be facilitated in the Ohlange catchment:

- 44 500 Low Income Housing Units
- 31 200 Private Residential Units
- 1.045 million square metres Commercial / Office (Mixed Use)
- 175 ha Industrial

It was noted that much of the bulk infrastructure required to serve this new development had lead times of 3-4 years. Even though 2011 was the likely year for this new infrastructure capacity to come on stream, there were approximately 2000 sewer connection approvals already granted to cover developments that would be completed prior to 2010/11. It was also considered unlikely that public sector housing in the Verulam and Tongaat areas would be stalled since there was spare capacity in the Verulam and Tongaat sewerage treatment works at the time.

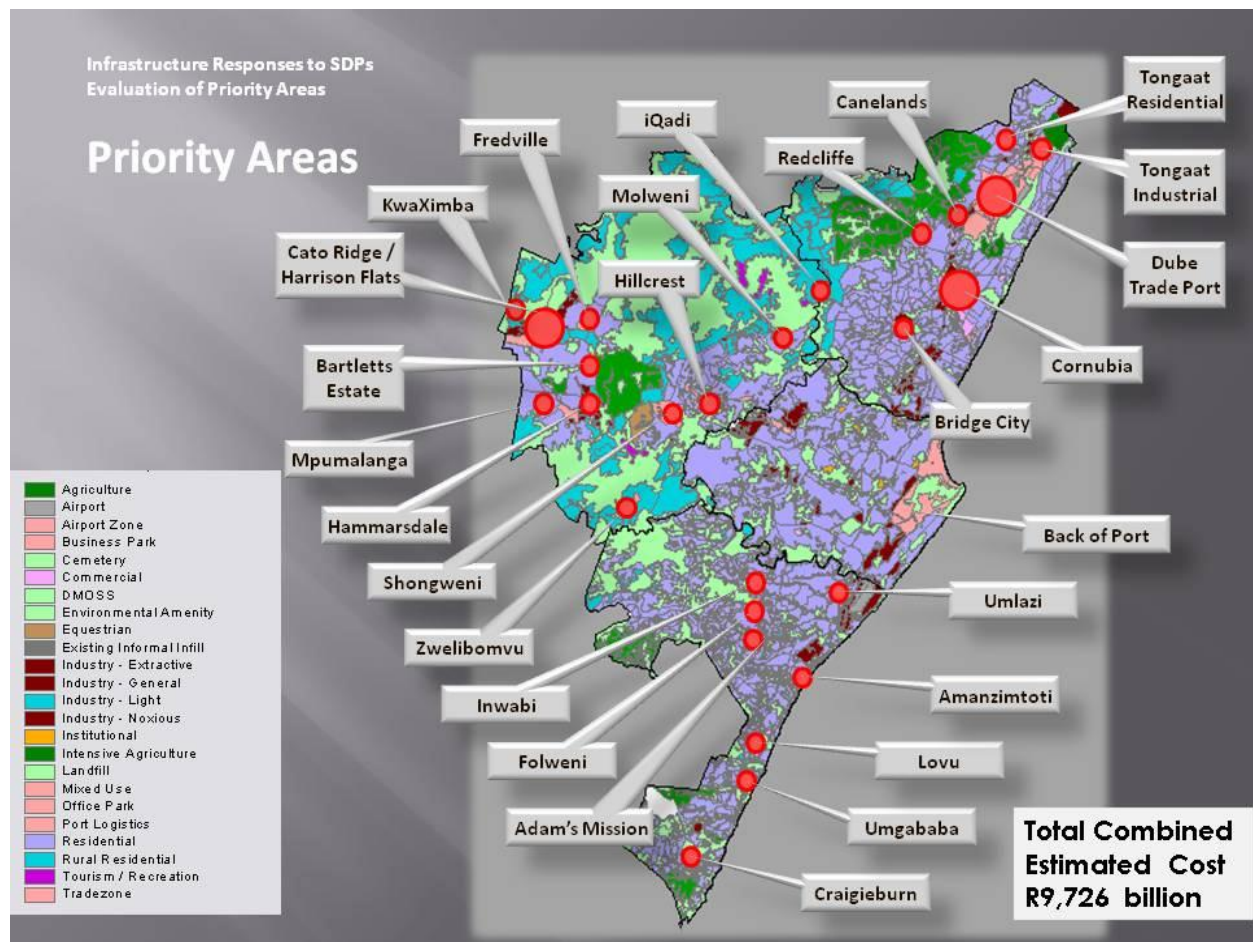
The package of infrastructure required to service the above development was then split into 'essential' and 'supporting' infrastructure for the purpose of minimising the immediate investment required. Considering the 'essential' infrastructure items, the additional capital monies required were estimated noting the commitment required by Council and other external bodies. A number of funding options were then identified and it was recommended that, *inter alia*, municipal officials assess all infrastructure within the Ohlange catchment in more detail to determine which developments would trigger the need for each infrastructure project and that the detailed analysis undertaken for the Ohlange catchment be undertaken for other catchment.

Aligning the budget with the development need of the city has subsequently been undertaken at two levels:

- Nodal level
- Community level

8.7.1 Nodal Level – Unblocking Development

With the completion of the SDF/ regional SDP's in 2009, a number of Phase 1 Spatial Investment Priority Areas were identified for development in the next 5 years. The following map is the spatial representation of the priority areas for each region and the estimated cost as at 2009 estimates, required to unlock their development:



(Subject to phasing and service limitations)

Figure 46: Spatial Priority Areas

A strategic level bulk infrastructure assessment of the 26 phase 1 priorities revealed that these areas require various degrees of infrastructure provision to support the development that is envisaged and in some cases, based on resources and budgets and the cycle of planning, designing and

implementing infrastructure, may even go beyond the envisaged short term priorities (5 years). Since 2009, the infrastructure assessment of the Phase 1 priorities has focused on refining the data base information and priorities across sectors, with particular focus on the following:

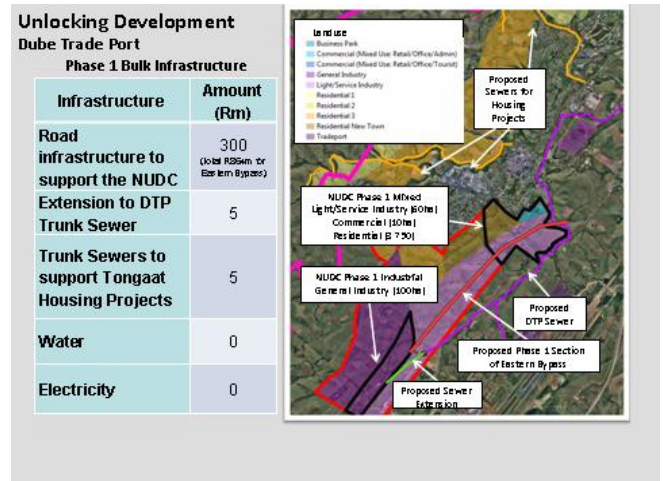
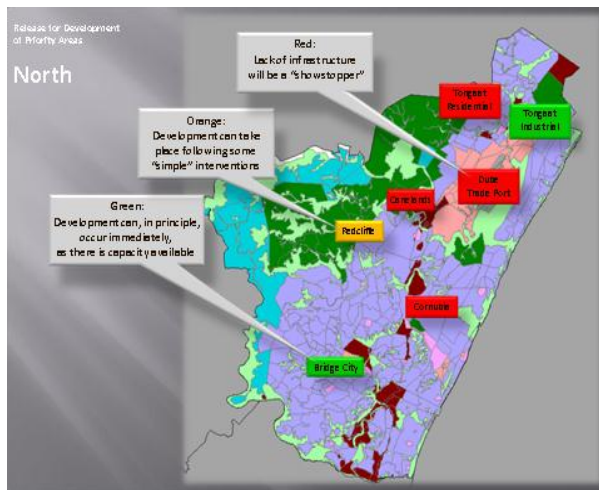
- Establishing current development pressures and realistic take up rates in the various regions to “ground truth” and further refine the anticipated phasing of development within each region in order to inform the likely demand for infrastructure.
- Refining the criteria for prioritization by establishing which sectors of the economy will make the greatest impact on job creation and regional wealth and determining which geographic areas require infrastructure in order to meet the city’s imperatives of reducing unemployment. This process was trying to reach alignment across sectors in terms of the priorities identified
- Establishing upfront the availability of excess infrastructure capacity and the areas in which development opportunities could be provided in the short term while new infrastructure was being built;
- As a further criterion for prioritization, investigating the opportunities for spatial restructuring including how the municipality might support public transport corridors and housing densification around these corridors;
- Understanding and responding to the public housing and basic services programmes since these are reliant on bulk infrastructure and establishing how to spatially align the demands for infrastructure provision for housing and the 26 priorities originally identified;
- Further investigating opportunities to grow the municipal rates base which in 2009/10 grew by a mere 1%. If the rates base does not expand it begins to limit the ability of the municipality to maintain and expand its social programme.
- Several meetings have been held with the key municipal sectors to inform more realistic development phasing based on likely demand and in particular growing the rates base and prioritized public housing initiatives with impact and scale.
- In addition, consideration has also been given to private sector plans and the likely take up rates in the Phase 1 priority areas with a view to seeking greater alignment in unlocking the development potential of these areas.

Of the 26 phase 1 priorities identified in the SDF/SDP, the following Catalytic Projects were identified:

- *Cato Ridge*
- *Port and Back of Port*
- *Tongaat/ DubeTradePort and Surrounds*
- *Cornubia*

Of the priority project listed above, attention focused on two catalytic projects where there were projects identified and there was certainty with respect to development, namely Cornubia and Tongaat/Dube Trade Port and surrounds. Both these priority areas incorporate housing opportunities, a mix of commercial and industrial land uses addressing economic requirements, help to maximize

infrastructure efficiencies and address the developmental aspect associated with development in close proximity to the R102 (a mixed use and public transport corridor close to existing and future residential areas and an important road link to neighbouring municipal areas). Work to date has focused on unlocking these developments and understanding the infrastructure costs, timing and financing options. As further detailed studies have progressed, so too have the detailed infrastructure investigations, leading to further refinements to the anticipated cost and phasing of development as illustrated below.

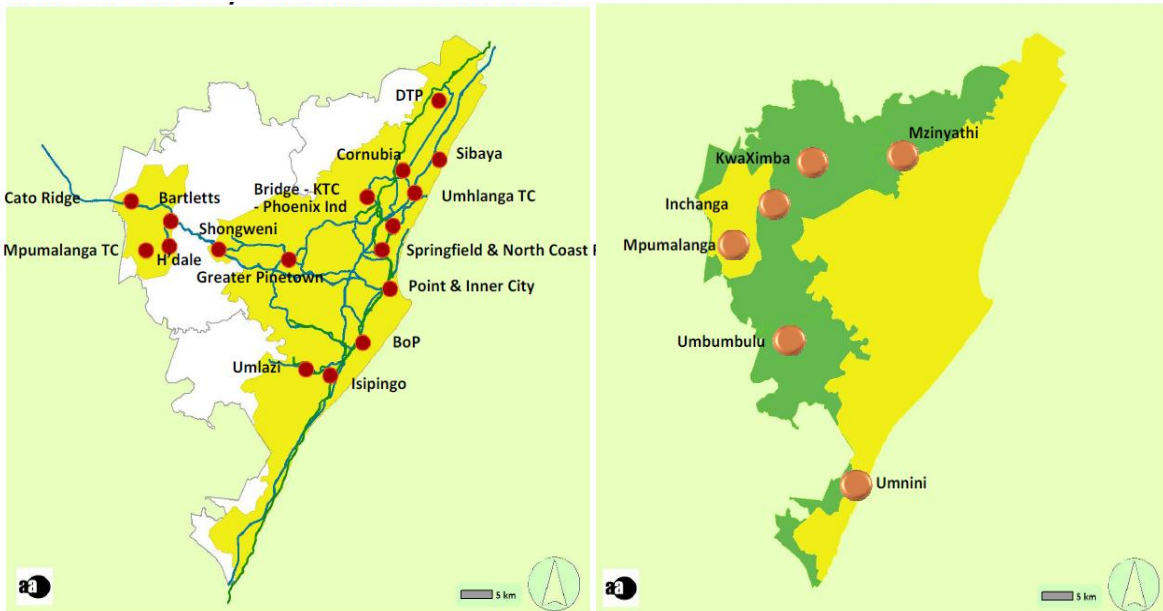


Currently the eThekweni Municipality is updating the Prioritization Decision Matrix with the most recent SDF/SDP's and are adding more filters in order to get better alignment across sector strategies, budgets and National (SIP2) and Provincial initiatives.

In addition to the work being done above, the eThekweni Municipality has also embarked on a spatial analysis of the current budget spend and the identification of mechanisms for achieving greater internal alignment. This process is often referred to as the "Blue Skies Process" to which reference is made in Chapter 1 of this report. Translating the Blue Skies process into projects was an attempt to use spatial budgeting to identify key investment locations in order to drive spatial transformation, address social, economic and environmental imperatives, and address inefficiencies in service provision. Taking its cue from the Blue Skies Process the following strategic outcomes or criteria were identified:

- Intensify, Density and Regenerate the Existing Urban Centres and Key Corridors
- A strategic approach around the development of greenfields projects
- Mitigate Apartheid Spatial Planning and Mitigate the Urban-Rural Divide
- Promote Social Inclusion
- Connect the City
- Retain Existing Jobs and Grow New Ones
- Grow the Rates Base

These strategic outcomes were then turned into overarching criteria and used to identify Key Urban and Rural Investment Locations in alignment with the SDF key investment areas. Projects were then identified inside the Key Investment Locations. The key urban and rural investment areas that measured up closely to these criteria are illustrated below. In addition, there are projects and programs that affect or support Multiple Investment Locations such as the IRPTN, D'MOSS, freight routes and agricultural areas.

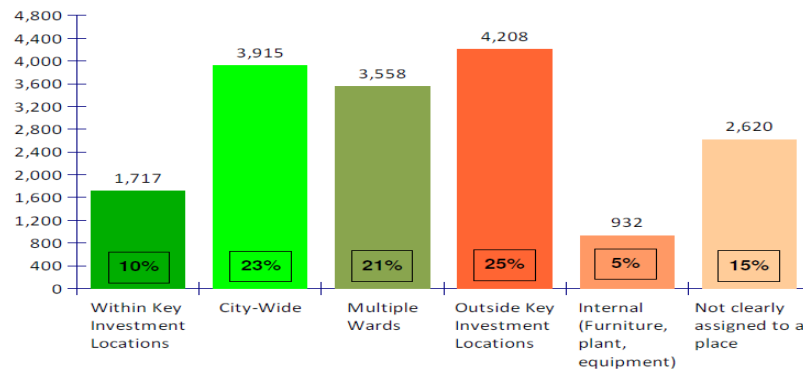


Urban Investment Locations

Rural Investment Locations

The projects listed already enjoy attention and were sourced from a number of municipal plans (SDF, SDP, sector plans etc) and then assessed in terms of the 2011/12 and 2012/13, MTEF up to 2013/2014. This assessment demonstrated a mismatch between the spending on key spatial locations and public sector investment in other areas of the city – a total of R2.94 billion being spent outside of the key investment locations. It was further noted that project life-cycles tend to be much longer than MTEF or even IDP periods, and it was not clear if the current mechanisms are effective for keeping long-term projects in view and in funds.

**Budget analysis re Key Investment Locations
How do the Key Investment Locations
feature in the MTEF up to and including the 2013/2014 Budget?**



The process then explored possibilities for redirecting the budget to key investment locations and city wide projects through project savings in non-key investment locations and / or reviewing, coordinating and consolidating projects and their budgets to achieve maximum impact. This process further highlighted the need to examine the projects and budgets outside of the key investment locations with a view to identifying cost savings and/ or, if slower capital expenditure is possible etc.

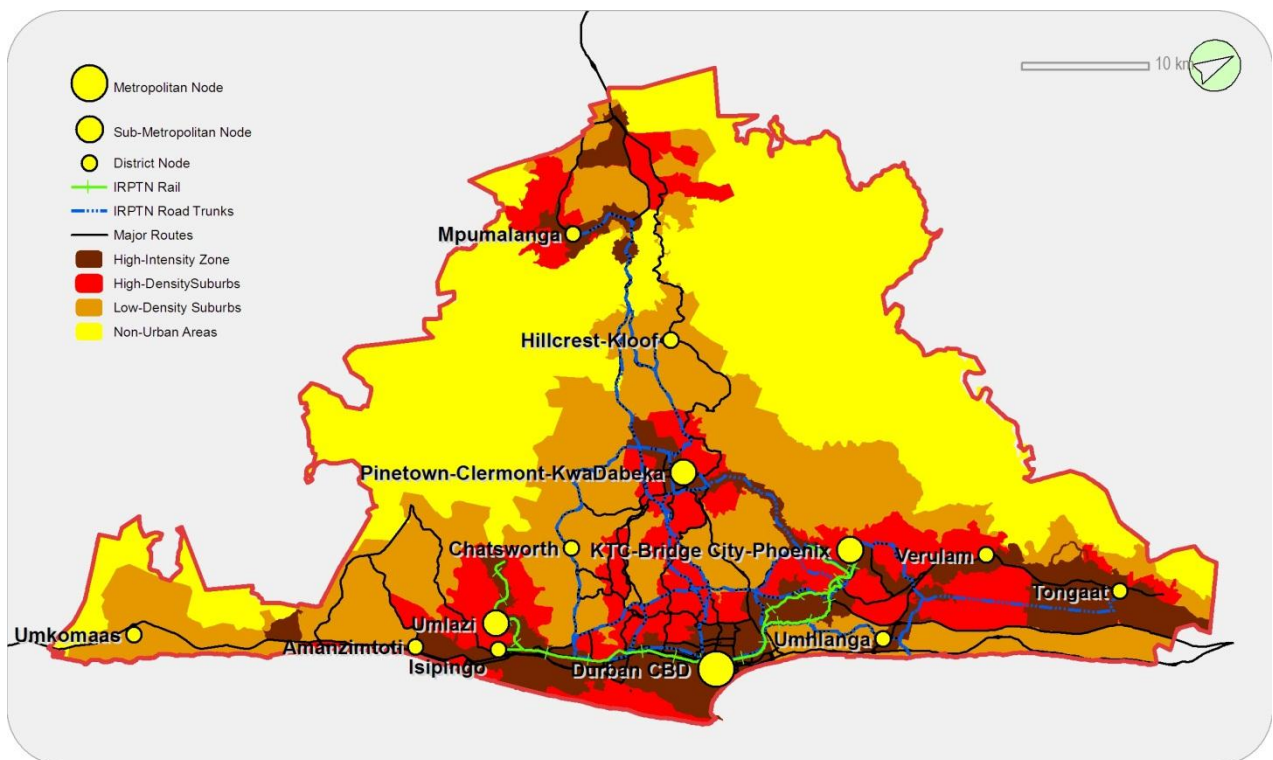
Building on this previous work, the eThekweni Municipality has recently embarked on an exercise to map the municipality's past and future capital budget to determine the spatial implications and further align delivery with the 26 spatial priorities referred to above. This work will also include an analysis as to what extent the past and future expenditure support or do not support, or indeed inhibit

- Where particular land uses and typologies are to be encouraged or discouraged
- Locations where development intensity is to be increased or decreased
- Where development and infrastructure investment have been consciously prioritised to take place
- Other measures taken by the municipality to achieve the desired spatial form.

The mapping of capital expenditure will also include categorisation according to whether the expenditure will generate, absorb, or protect revenue from rates and from paid services; groupings per funding categories; proximity to investment corridors, the 26 phase 1 priorities, sewer catchments, IRPTN, major routes, zones as per zone plans, UDL, investment trends and other locational criteria as defined during the mapping exercise;

This project will provide the mapping input required to further refine the municipality's Capital Investment Framework and will be included in future SDF reviews.

8.7.2 Strategy Level-Development and Budgeting



National Treasury introduced spatial targeting linked to budgeting in late 2013. It uses the concept of an Integration Zone as the foundation for making medium and long-term capital commitments for the purpose of creating efficient, sustainable and inclusive development in the country's metropolitan municipalities. The spatial focus of the National Treasury's spatial targeting initiative is the identification of a CBD, major Townships, other Townships, and the connections between these three types of spaces or elements, and an Integration Zone. This system is termed the Urban Network.

Ethekewini' Municipality's response to the Urban Network is to take it on board, and to contextualise it within a broader city Spatial Development Strategy, which has additional types of spaces or elements, and also additional types of connections between the increased diversity of spaces. The response has also been to incorporate and develop the intellectual and institutional capital which was created in the preceding Blue Skies initiative. Another response is to use the opportunity to develop a corporate spatial prioritisation and 20-year implementation program which is rooted in the SDF and the other documents in the eThekewini Municipality's Package of Plans.

The eThekewini Municipality's approach has resulted in the adjustment and confirmation of its hierarchy of urban centres, in the identification of four main types of spaces, and the identification of the network connecting these elements.

The model used by Ethekekwini defines a High-Intensity Zone, High-Density Suburbs, Medium and Low-Density Suburbs, and Non-Urban Areas. These major elements are connected by a Metropolitan Movement Network, comprising the Integrated Rapid Public Transport Network (IRPTN) plus other major routes.

The High-Intensity Zone is made up of major economic uses, significant urban centres, the external and internal connections (particularly the IRPTN), and the intense uses along these connections. The High-Intensity Zone contains both existing high-intensity uses, as well as numerous opportunities for intense brownfields or greenfields urban development. A key program will be to identify and stimulate take-up of development opportunities, particularly in Cornubia and around the Aerotropolis, and to accelerate the construction and commissioning of the IRPTN. Infrastructure investment, particularly in sewer works and reticulation, as well as the improvement of regional routes northwards will also be required

The High Density Suburbs are residential areas adjoining the High Intensity Zone, which are well connected by public transport and other movement systems to the High-Intensity Zone, and have good access to social facilities. Typically they form a belt of approximately 2km wide around the High Intensity Zones. Existing densities are typically in the low and medium range. About 40% of the population live here, but that proportion is planned to ramp up. The intention is to maximise densities, which will require vigorous intervention, to upgrade informal settlements into high density schemes, and to promote higher levels of Local Economic Development (LED) to support the new densities.

The Medium and Low-Density Suburbs form another belt beyond the High Density Suburbs. They are currently low density residential suburbs. The development intentions are to rectify backlogs in social facilities, to promote LED, to increase densities to a degree, to quickly provide informal settlements with universal access to basic services alongside the slower upgrading program, and to significantly improve the connectivity of these suburbs to the High Intensity Zone.

Beyond the Medium and Low-Density Suburbs is a belt of Non-Urban Areas, which support traditional lifestyles, agriculture and nature conservation. The development intention is to preserve lifestyles, to ensure access to basic services, to improve physical and digital connectivity, and to promote sustainable livelihoods and agri-LED.

It is intended to steer capital budgets to delivering on the diverse development intentions for each of the four spaces. Already there is an emerging spatial and temporal prioritisation within this framework. The development initiatives in the North Urban Development Corridor (including the Aerotropolis), the Dry Port, and the current phase of the IRPTN have been accepted and confirmed as initial priorities within the High-Intensity Zone.

In essence, the Integration Zone concept is about co-ordinated implementation in each of the zones. If this can be achieved, the impact of capital and operating spend will be greatly enhanced with significant benefits emerging for residents and for the economy as well as for the municipality.

8.7.3 Community Level- Development and Budgeting

Zone Plans have been prepared for the entire municipal area. Zones Plans indicate 17 zones (or clusters of wards) across the municipal area. Profiles of 'Need' have been developed for each Ward /Zone together with the Capital Budget Spend in each Ward/Zone which details 'Delivery'. 'Need' has been determined from the socio-economic information for each ward / zone and from expressed community priorities. Using the ward / zone profiles, the municipality has been able to map spatially the areas of "Need" and compare this with the "Delivery of Services" as a means of aligning the municipal budget to the developmental needs of communities. The analysis of the "Need" that exists within these geographic units (Ward & Zone Profiles), allows the municipality to assess how well it is "Delivering" in relation to the "Need", to identify the "Gaps" and determine the local area priorities. The analysis has revealed that some Developmental Needs are not adequately funded and the big gaps are largely around economic development/job creation/skills, health & welfare, safety & security and services to informal settlement.

The greatest Developmental Need exists in Zones 2, 3 & 10. Accordingly, these Zones should receive high priority in the Capital Budget based on the geography of "Need" - an indicator combining indices of unemployment, income, infrastructure backlogs and social facility backlogs.

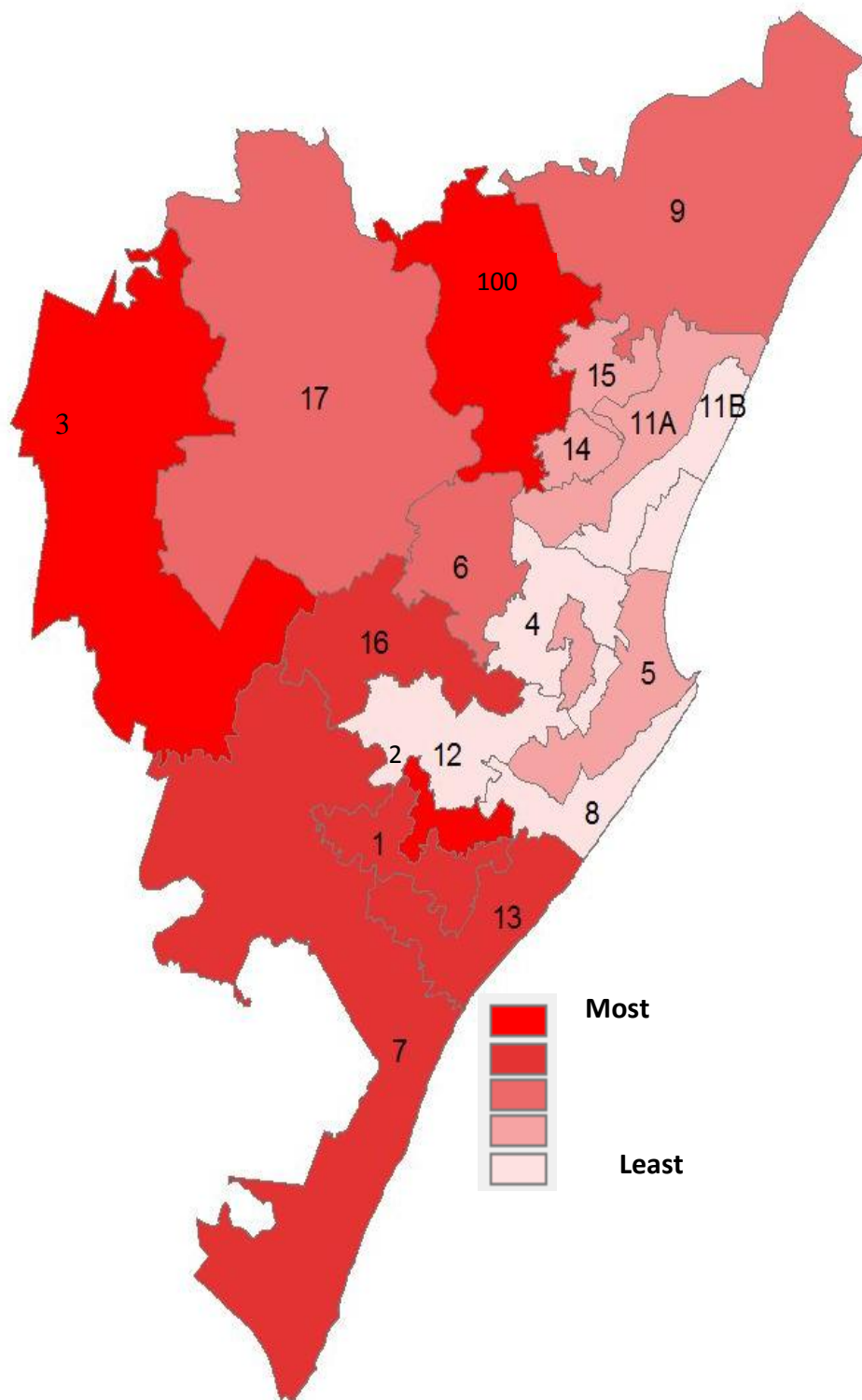


Figure 47: Geography of Need

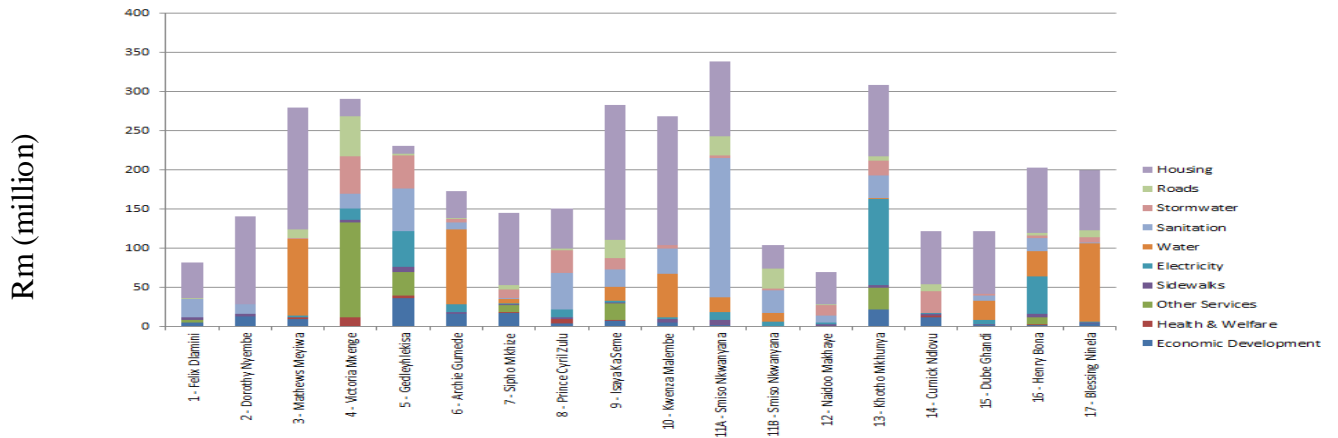


Figure 48: Breakdown of 2012/13 Capital Budget by Zone

As of February 2013 a new process is being proposed. This will entail an analysis of 'Need' versus 'Delivery' in the 17 Zones for 2013/14-2015/16 budgets for 'Community-facing' projects (such as roads and sidewalks etc), obtain candidate projects and engage at a zone level with a view to finalising the Zone Plans and obtaining Council approval of the Zone Plan and Community Block Sum

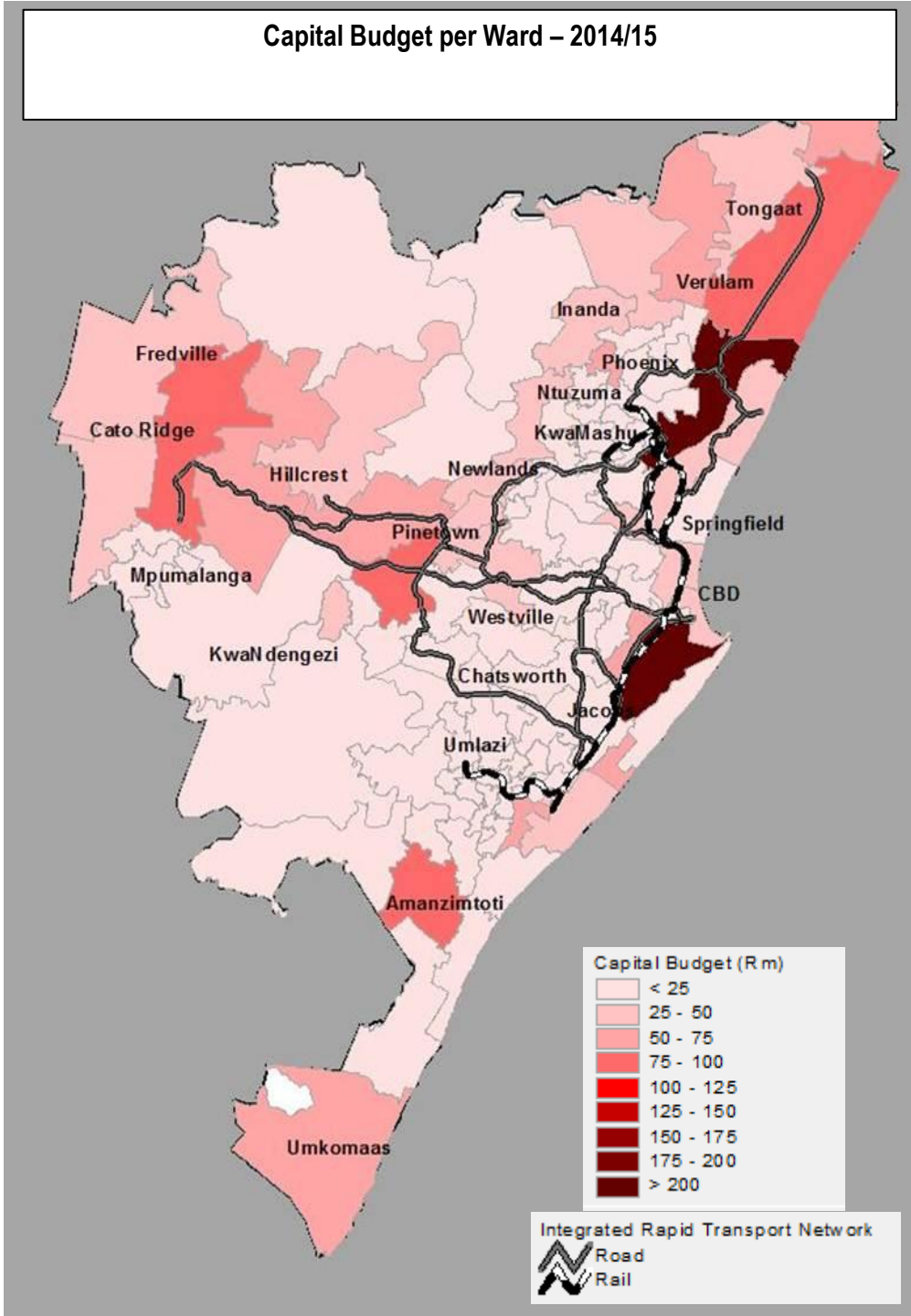
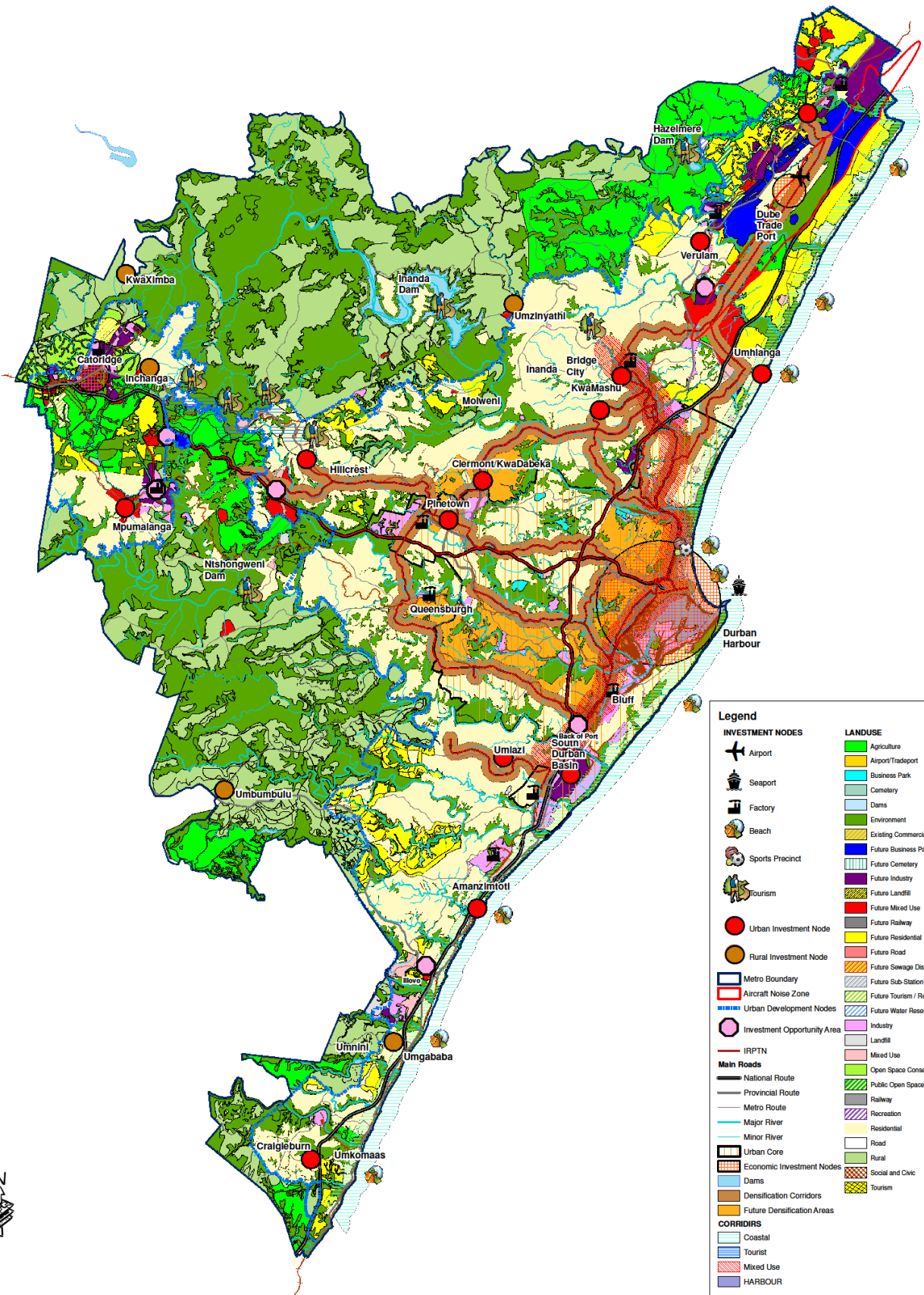


Figure 49: Capital Budget per Ward 2014/15

SPATIAL DEVELOPMENT FRAMEWORK: COMPOSITE MAP (A3)

REVISED SPATIAL DEVELOPMENT FRAMEWORK 2014/15



Date : May 2011
 Prepared by Framework Planning
 Revised Feb 2013
 Path F:\Zoning\Zoning\Framework Planning\SDF_FEB 2014_15

NOTE:
 UPDATED CATO RIDGE LAP
 UPDATED INYANGGA LAP
 WEWE_DRIEFONTEIN MIXED USE DEVELOPMENT

ANNEXURES

ANNEXURE 1: PUBLIC PARTICIPATION
ANNEXURE 2 SPATIAL DEVELOPMENT PLANS

ANNEXURE 1: PUBLIC PARTICIPATION PROCESS

Annexure 1a- Spatial Development Framework Consultation Process

The SDF review process is driven by the Strategic Spatial Planning Branch of the Development Planning, Environment and Management Department. Key sector departments also participate in SDF/ sector meetings and provide input during the development and review of the SDF.

Public participation engagements are also undertaken with key stakeholders on completion of the SDF draft document which is advertised for public input. The Draft IDP and SDF are then submitted to COGTA for assessment by the Provincial IDP Multi-Sectoral Forum. Comments from the public participation process are incorporated into the Draft SDF document prior to finalisation. The Draft and Final SDF report is adopted by the Executive Committee and Full Council in March and May respectively. The following table provides a summary of the consultation meetings and engagements undertaken as part of the SDF 2014/15 Review process:

SUMMARY OF SPATIAL DEVELOPMENT FRAMEWORK REVIEW 2014/2015 MEETINGS

MEETING & ACTIVITY	SCHEDULE DATE
COGTA IDP / SDF Alignment COGTA / eThekweni IDP/SDF presentation Clarity on COGTA requirements	15 May 2013 10 September 2013
Various Core Group Meetings & actions to update SDF (Framework Planning Branch)	July 2013 –June 2014
Sector Engagement: Follow up meetings with Environmental Department on Strategic Environmental Assessment, Safe Operating Spaces Study and Sustainability Indicators for Spatial Planning and Land Use Management	December 2013- May 2014
Sector Engagement: IDP / SDF Alignment	16 April 2014
Sector Engagement: Internal Sector Departments	February 2014 – May 2014
Sector Engagement: IDP/ COGTA alignment meeting	19 November 2013 14 February 2014
Sector Engagement: Water and Sanitation Department - SDF- phasing of development and roll	28 June 2013

MEETING & ACTIVITY	SCHEDULE DATE
out of sewerage infrastructure	
<u>Spatial Prioritisation Process</u> Unlocking Development Process Integrated Cities Development Grant – identification of Integration Zones (parallel process), projects and performance indicators Revision to Integration Zones - meeting	20 June 2013 – on going September 2013 - on going 16-17 May 2014
<u>Capital Investment Framework</u> - Mapping of Capital Budget and Past Expenditure to inform the major SDF Review 15/16. (sub-project) Scoping of project with Planning / Engineering Dept. & COGTA TOR finalised Project Advertised Inception Meetings #1 Inception Meetings # 2 Phase 1 Steering Committee Meeting	25 July 2013 12 August 2013 17 December 2013 15 January 2014 10 February 2014 6 March 2014 6 May 2014
Sector Engagement: Energy Office & Framework Planning	19 February 2014
<u>Cross Border Planning & Alignment Meetings</u> eThekweni Municipality & Umdoni/ Vulamehlo/UGU Municipality eThekweni Municipality - Illembe, UGU and Umgungundlovu - COGTA	13 February 2014 11 March 2014
Submission of Draft SDF 2014/15 to EXCO /Council for noting prior to public process	11 & 18 March 2014
Draft SDF 2014/15 advertised for Public Comment Documents to be placed in public libraries and Sizakhala Centres, available on Municipal website Neighbouring municipalities (Ugu, Illembe and Mkhambathini) and COGTA invited to comment.	21 March 2014 – 22 April 2014
Sector Consultation on Draft SDF 2014/15 <ul style="list-style-type: none"> • <i>Economic (EDU, Itrump, INK, AMU)</i> • <i>Finance (Treasury Dept, IDP office, Engineering, Real Estate)</i> 	February- April 2014

MEETING & ACTIVITY	SCHEDULE DATE
<ul style="list-style-type: none"> • <i>Transport – ETA</i> • <i>Land Use Management (LUMs branch)</i> • <i>Infrastructure Depts (Water, Sanitation, Electricity, Eng, Parks and Recreation, Fire, Disaster Management, Coastal, Real Estate, Solid Waste, Storm Water)</i> • <i>Rural ABM and Agriculture (AMU)</i> • <i>IDP office</i> • <i>Housing (PSH, Metro Housing , INK ABM, Real Estate, Housing Eng, Rural),</i> • <i>Environment (Environment, Env Health, Coastal Engineering, Storm Water, Energy office)</i> 	
IDP/Budget Hearings 2014-2015	April 2014
Draft 14/15 IDP Assessments	29 April 2014
Amendments and revisions to SDF based on Public / Sector Comments	April 2014
Submission of FINAL SDF to Executive Committee of Council (SDF)	May 2014
Adoption of IDP / SDF by Full Council	May 2014
Deliver to MEC COGTA	May/June 2014

Annexure 1b – Comments and Responses

SUMMARY OF PUBLIC AND STAKEHOLDER COMMENTS - SDF REVIEW 2014-2015		
SOURCE	COMMENT	RESPONSE & DOC REFERENCE
UDIDI 10 April 2014	Advised of correction required to the mapping and legend of the SDF MAP	<i>The legend has been updated</i>
Greg Larson 26 March 2014	Enquired as to whether the revised SDF affects the density or amends in any way the core area 29 of the Berea Core Extension Project (2012) adopted by the Council in October 2012. If it does then he requests that his objection be noted as he does not think that core area 29 should be more densified as the Council has identified this area together with the core area 30 as being earmarked as special/single residential precincts.	<i>The SDF does not propose any change in this review to Core Area 29 or 30 as per the Berea Core Extension Project.</i>
Head Real Estate: Keith Matthias 25/03/2014	<p><i>Section 3.4 and 3.5 and Section 6.2 and 6.6 do not relate to Real Estate Unit specifically but rather Economics and Human Settlement.</i></p> <p><i>However some comments:-</i></p> <ol style="list-style-type: none"> <i>1. I am not seeing how financial sustainability is coming through. There is significant coverage of environmental but we need to balance and make the trade-offs that are necessary. The document is also silent on how these trade-offs are to be made and that holds risk.</i> <i>2. Social Housing land demand is raised correctly in terms of the current “product”. I think it would be useful to drive home what the scale of land demand would be against current product and backlog. A simple overlay to the existing metro area based on yields in say Cato Manor would illustrate and drive the point home.</i> <i>3. The Framework Map – given its scale, and as pointed out, it is impossible to provide legibility to all aspects. Accordingly, would it not make sense to augment with a map to just show key changes anticipated in a 5 – 10 year timeframe? Hence Dig Out Port, bulk service expansion and IRPTN are the main game changers. This would then provide the necessary focus.</i> <i>4. Servicing - Mapping from pg 112 does not capture the challenges adequately. Would make sense if mapping was done per service to show coverage, areas of excess capacity (and hence development opportunity) and future expansion in 5 year cycles.</i> <i>5. The industrial land study is starting to show some interesting outcomes. Suggest that you see if you can start to pull this in although it is not complete. Again, if industrial needs and take-up are projected spatially it will start to focus attention.</i> 	<p><i>Noted and agreed.</i></p> <p><i>These issues will be addressed as part of the major SDF review process for 15/16. However it is noted that they can only adequately be addressed following the completion of an SEA and once the city has taken a firm decision on the key spatial development priorities. While a great deal of work has been done on the short term priorities and the intention to spatially target investment within the integration zones, decisions still need to be taken on the strategic direction of development within the municipal area in the next 5, 10 and 20yrs and beyond. Although useful to show areas of existing capacity, it should be noted further that the future expansion of services is dependent on the areas prioritised for future growth.</i></p> <p><i>Mapping defects will also be addressed in the major review of the SDF.</i></p> <p><i>The planning department will engage with the Economic Department around the outcomes and recommendations of the Industrial Strategy.</i></p>
Disaster Management: Malcolm Canham and Stephen Hendrikse 08 April 2014	Suggest that a portion of the Disaster Management Section from the IDP be inserted into the SDF. The only section relevant to DM&EC is Section 1.3.2, Table 2 which addresses the Municipal Framework.	<i>Noted, the relevant section is already contained in the IDP. Reference will be made in the report to the need for disaster risk reduction plans to be prepared and included in the future SDF reviews</i>

SUMMARY OF PUBLIC AND STAKEHOLDER COMMENTS - SDF REVIEW 2014-2015

SOURCE	COMMENT	RESPONSE & DOC REFERENCE
Fire Department: Mark TeWater 01 April 2014	As there is nothing specific I suggest that we leave it as is for the moment	<i>Noted</i>
IDP Office: Puven Akkiah 25 April 2014	The IDP Office do not have comments on the SDF in its present form. Considering that the changes are minor in this review there are limited changes to both the IDP and SDF. However we would need to work more closely when we look at the new 5 year plan which would also require a major amendment to the SDF. Therefore we have no comments at this stage.	<i>Noted</i>
Solid Waste: John Parkin 19 February 2014	The Municipality runs 3 landfills: Bisasar, Mariannahill & Buffelsdraai. This will change in the near future where Bisasar will close and a new site in South at Lovu will open, but still 3 landfills. The landfill at Bul-Bul, owned by Wasteman is closed at this time but they are attempting to get the site reopened. The only other legal landfill is that owned by Enviroserv at Shongweni. So technically Durban only has 4 operational landfills taking in some 1,4m tons of waste. In the medium term Mariannahill will close and be replaced by a new site also at Shongweni (probably around 2018/2019). DSW is also looking to introduce waste to energy projects (i.e. converting waste directly to energy). Also investigating if building rubble can be used more effectively but these are not yet reality.	<i>Noted, the report has been updated accordingly.</i>
LUMS: Lekha Allopi 23 April 2014	No comment as it's a minor review, will provide input Will input into the bigger review.	<i>Noted</i>
Environment Dept, EWS, Energy office, Env Health	Noted that the absence of an Strategic Environmental Assessment (SEA) is critical, there is a need for a collective approach to include social and economic aspects; The city was not taking the SEA and SDF seriously enough.	<i>A preliminary process towards preparing an SEA has been initiated through the Safe Operating Space Study as part of the first phase of an SEA but a collective process and institutional response is still required.</i>

SUMMARY OF PUBLIC AND STAKEHOLDER COMMENTS - SDF REVIEW 2014-2015

SOURCE	COMMENT	RESPONSE & DOC REFERENCE
Environmental Planning, Climate Protection and Development 19 March 2014 22 April 2014	<p>Various comments received</p> <p>The principle of Mainstreaming and Coordinating Environmental Planning is intended to protect and conserve environmentally sensitive areas and prime agricultural land within the Municipality and encompass the integration of social, economic and ecological factors into planning, decision making and implementation in order to:</p> <ul style="list-style-type: none"> • reduce greenhouse gas emissions, build resilience to extreme weather events, and enable long term adaption to climate change; • promote positive environmental quality and introduce environmentally sensitive management of development; • promote a spatial form that supports the EMA as a world class/globally competitive region; • promote an inherent value of the natural and built environment and an understanding of the environment's role in providing natural resources to underpin sustainable socio-economic development; • alleviate environmental and pollution related health hazards; • retain and enhance natural qualities and assets of the EMA. • build urban resilience in response to a future that is increasingly uncertain 	<i>The document has been updated accordingly.</i>
EThekweni Transport Authority 22 April 2014	Change to be made to the illustration of the Freight Route to read as a Conceptual Proposal: Proposed Major Road Infrastructure for the Port of Durban and the Dig-Out Port . Adjustment to Freight routes projected phases reflected in figure 33 page 144	<i>Noted, report has been updated accordingly.</i>
Human Settlement Department 22 April 2014	<p>Page 103 - last 2 para</p> <p>The Housing Sector Plan approved by Council in December 2011 alluded to the workings of a project prioritisation model. The model principally prioritises housing projects according to location. It should be applied to all types of housing projects namely Greenfields and Upgrading Projects, but not to Rural projects. The following criteria have been developed to assess the locations of future projects:</p> <ul style="list-style-type: none"> • Within the Urban Development Line • In walking distance of Public Transport Trunks • In Existing Urban Settlements whose current densities promote sustainability • At low investments in new Bulk Infrastructure • Close to Selected Public Transport Interchanges • Close to Basic Social Facilities. <p>More recently the model was revised to include an additional two criteria viz. Personal Travel Costs and Proximity to Employment and Economic Opportunities</p>	<i>Noted, report has been updated accordingly.</i>
Economic Development Unit 13 May 2014	Various amendments to be inserted in the document including reference to the National Treasury Integrated Cities Development Grant requirement to spatially target investment into Integration Zones.	<i>Noted, the report has been updated accordingly. Chapter 8 of the report provides an update on the current spatial prioritisation process, namely the identification of Integration Zones and the intention of the municipality to spatial target future integrated budgets within these priority areas.</i>

Annexure 2 – Spatial Development Plans

SPATIAL DEVELOPMENT PLANS

Spatial Development Plans are undertaken annually for each spatial planning region identified in the municipal area, namely the Central, North, South and Outer West Spatial Planning Regions. These are informed by the SDF and provide greater detail about future spatial planning and land use, environment, transport and infrastructure interventions required at a regional level and might be considered equivalent in nature to a Regional Spatial Development Framework. Although summary details are provided about the SDP's in this Annexure, this SDF should be read in conjunction with all lower order plans (SDP's, LAP's FAP's and Schemes which accompany this SDF) as they reflect and carry through the spatial and non-spatial planning intentions of the IDP and SDF to increasing levels of detail culminating in detailed Land Use Guidelines and Draft Schemes.

The information used to prepare the SDP's was sourced from various reports, studies, research processes, municipal & national policies. In addition, there has been extensive engagement with key municipal sectors (particularly transport, water and sanitation, environment, housing and economic sectors) including a series of interdepartmental workshops and bilateral meetings, as well as engagement with provincial planning authorities and neighbouring municipalities to achieve cross boundary alignment, external stakeholder engagement and extensive, community engagement throughout the metropolitan area.

Minor revisions of the SDPs are undertaken annually between 2010-2013 while the major reviews are undertaken once every 5 years in line with the IDP review process. This provides an opportunity to re-assess the SDPs based on new information and sector studies as the information becomes available. The third minor annual review of the SDPs was conducted for the 2013/14 financial year and adopted by Council in March 2014. The focus of the revision included:

1. Changes made in alignment with the IDP 2013/14 and SDF 2013.14
2. Changes made in alignment with the key proposals in Council adopted Local Area Plans (LAPs), Special Plans and Functional Area Plans / Precinct Plans namely:
 - Adams/Folweni Local Area Plan (August 2012),
 - Nsimbini Functional Area Plan (January 2013)
 - Northern Public Transport And Land Use Corridor Study Phase 2 (May 2013)
 - Tongaat and Inyaninga Functional Area Plan and Draft Scheme (2013)\
 - City Densification Strategy (May 2013)
 - Cato Ridge Local Area Plan (May 2012)
3. Changes to ensure alignment with the IRPTN and that densities are in support of these.
4. Verification of alignment between existing land uses and spatial planning intentions
5. Ongoing stakeholder engagement, particularly to obtain alignment with private sector and neighbouring municipality planning initiatives.
6. Changes to mapping and text to reflect new/updated information including:

- Demographic profile according to Stats SA 2011
 - Amended Land-use Mapping
 - Density Mapping
 - Urban Development Line and Phasing
 - Approved Projects
 - The Freight Route
7. A new Central SDP Concept Map to reflect the long term spatial intentions of the Central Region.
 8. LAP Map reflecting the LAP detail land use and boundaries- for what and where
 9. City Wide Densification Strategy
 10. An ongoing engagement with the Dept of Agriculture has been sought and an internal working group in collaboration with COGTA has been established to pursue investigations around agriculture and various regulatory and spatial planning issues.
 11. Information highlighting the status of the Rural Development Strategy as well as the City Densification projects currently underway
 12. Updated mapping to include Passenger Rail SA (PRASA) stations and the Integrated Rapid Public Transport Network (IRPTN) and update
 13. Industrial Spatial Strategy

Future SDP reviews will be informed by a number of current and planned studies. These include:

- Spatial Prioritization and Spatial Capturing of projects
- Consolidating the documents and addressing mapping defects
- Informed by further studies (eg Climate Change Impacts and Safe Operating Spaces, Strategic Environmental Assessment of the SDF and SDPs);
- Refinements to the City Wide Densification Strategy
- Rural Development Strategies
- Information highlighting the Demarcation Board's re-demarcation proposals, which if approved, will take effect in 2016
- Sustainability Indicators for Spatial Planning and Land Use Schemes
- Review of the Outer West Development Corridor Plan
- Transfer of Development Rights: Phase 2 of the Hillcrest Gillits Kloof Land Use Management Framework
- Mpumalanga Local Area Plan

These reviews allow for a continual strategic refinement of each Regional Spatial Development Plan. Of critical importance, is the more detailed assessment of the Phase 1 Priority areas.

PRIORITY AREAS FOR DEVELOPMENT

A number of Phase 1 Priority Areas have been identified for development in the next 5 years. An initial study has revealed that these areas require various degrees of infrastructure provision to support the development that is envisaged in the SDPs and in some cases, based on resources and budgets and the cycle of planning, designing and implementing infrastructure, may even go well beyond the envisaged short term priorities (5 years).

Accordingly, more detailed assessments of the Phase 1 Priority areas are currently underway with a view to gaining an improved understanding of the cost, timing and phasing of development across the metropolitan area:

REGION	STRATEGIC PRIORITY	REGION	STRATEGIC PRIORITY
Central SDP	Port of Durban South Durban Basin Regeneration and Redevelopment Inner City Regeneration Pinetown South Point Waterfront Cato Manor Regeneration	South SDP	Umlazi Illovo Umkomaas/Cragieburn Areas west of Umlazi (including parts of Folweni and Inwabi) Umgababa/Umnini Amanzimtoti
North SDP	Bridge City Canelands and Surrounds Cornubia Dube TradePort and Surrounds (Inyaninga) Redcliffe Tongaat Industrial Tongaat Residential	Outer West SDP	Cato Ridge Hammersdale Bartletts Hillcrest Shongweni Mpumalanga KwaXimba Inchanga Molweni Zwelibomvu uMzinyathi

Table above: eThekweni First Phase (5-10 years) Priority and Strategic Focus Areas

*Source: eThekweni Municipality, Development, Planning, Environment & Management Unit
(Subject to further detailed cost investigation, phasing and servicing limitation)*

There has been significant progress with refining the SDP priorities based on the following criteria:

- Establishing current development pressures.
- Establishing which sectors of the economy will make the greatest impact on job creation and regional wealth.
- Establishing upfront the availability of excess infrastructure capacity and the areas in which development opportunities can be provided in the short term while new infrastructure is being built;
- Investigating the opportunities for spatial restructuring including how the Municipality might support public transport corridors and housing densification around these corridors and reduce sprawl;
- Establishing how to spatially align the demands for infrastructure provision for housing and the 26 priorities originally identified

In addition to the above, there has been ongoing engagement with other spheres of government to support the financing and release of Phase 1 priorities.

eThekwini SDPs at a glance

The following section provides detailed summaries of the four municipal SDPs:

CENTRAL SPATIAL DEVELOPMENT PLAN (CSDP:2013-2014)

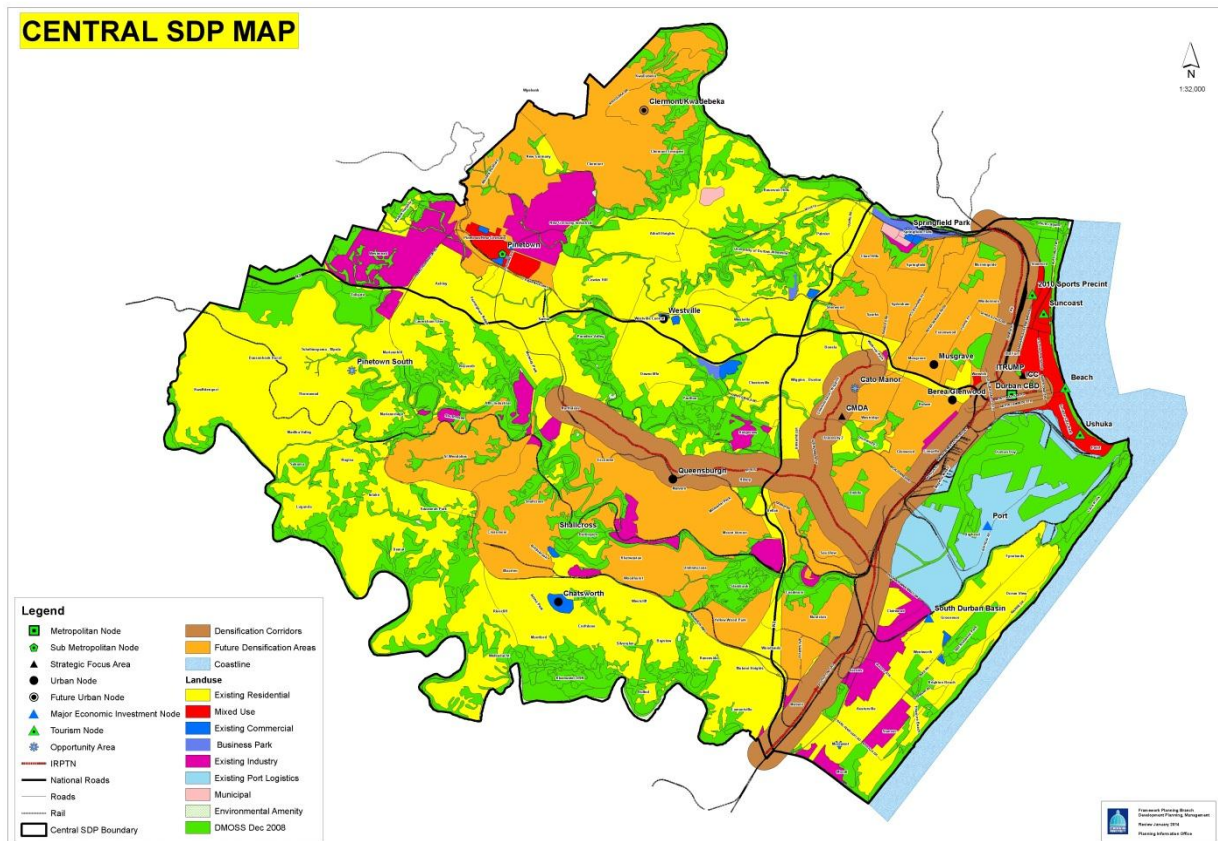


Figure: Central SDP, Map Source: eThekwini Municipality, Development, Planning, Environment & Management Unit

The Central Spatial Development Plan (CSDP) differs from other SDPs in that it is more focused as a highly developed and serviced area that is under constant change. The focus of this plan is to identify and propose standards at a broad level that tests impacts and sustainability. Large parts of the Central Spatial Region are already engaged in further detailed levels of planning that is (Local Area Plans (LAPs) and Precinct Plans that give more city-wide direction in terms of the needs, opportunities and challenges of an area such as the Back Of Port (BOP) Local Area Plan(LAP).

This region is essentially the Urban Core of the EMA and is home to approximately 1.30 million people accounting for 34% of eThekwini's total population of 3.5 million people (Stats SA, 2011). The boundaries of the Central Spatial Region (CSR) extend from the Umgeni River, in the North, along the coast through to the Umlaas Canal in the South and extend to the escarpment in the west extending over an area of 677 km² (67772.33 Ha). Three Area Based Management (ABM) areas fall within the CSR namely; Inner eThekwini Regeneration and Urban Management Programme (iTrump), Cato Manor Development Association (CMDA) and part of the South Durban Basin (SDB).

The Central Spatial Region contributes to 56% of the EMA's GDP and is centered on the transport and logistics activities of the Port. A substantial portion of the EMA's economic development opportunities are concentrated in the Central Spatial Region with industry, commerce and tourism being the leading sectors.

The spatial intent of the CSR is to have a mix of residential type and quality which would be characterized by high density, high amenity and ease of affordability. The “Plan” for the Central Spatial Region does not build up to a spatial concept, it was however developed through investigations of the respective functional areas and subsequent identification of regeneration projects within those areas, due to the region being already developed.

The vision for spatial development of the Central Spatial Region has been formulated in accordance with the strategic role this region serves in the wider context of eThekweni and has been underpinned by its inherent characteristics and capacities to support development. The identification of strategic spatial investment areas at a metropolitan level highlights the areas that can play an important role in promoting spatial principles.

While each of these opportunities presents its own set of issues and concerns, if the Spatial Development Plan is to have maximum impact, it needs to draw together these largely unrelated claims for attention so that they work to reinforce and support one another and are directed to achieving the aims of the metropolitan vision.

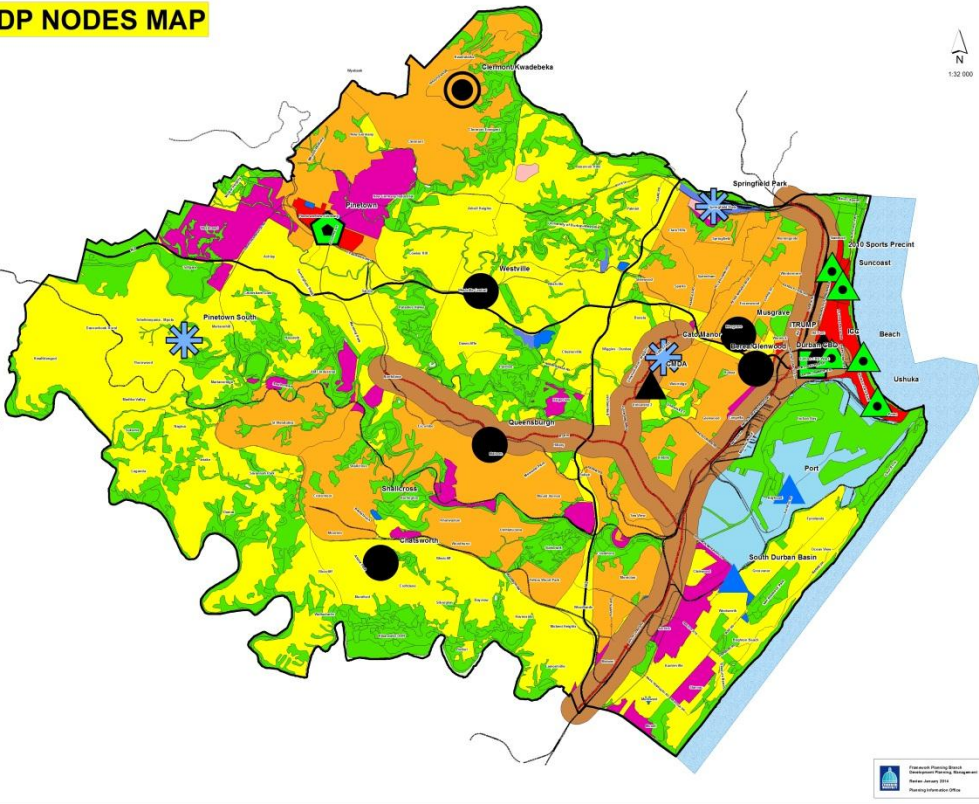
All of the areas listed below are currently covered by a range of projects and initiatives. Realising the opportunities that these areas present require that they are accommodated within the Spatial Development Plan and are linked to other spatial elements:

- Development of the new dug-out port and expansions to the existing port and supporting infrastructure to ensure that Durban continues to be the hub-port of Southern Africa
- Re-investment and new opportunities in the south Durban Basin to consolidate the manufacturing, logistics and industry will continue. Promoting tourism and mixed use development in the **inner city, the beach, sports and business and heritage areas in particular.**
- Ensuring that **Cato Manor and the Pinetown CBD** still represents an opportunity for well-located mixed-use development and the promotion of higher densities.
- Maximisation of industrial and economic potential in areas such as **Pinetown/New Germany and Back of Port.**
- Promotion of **densification** within the central region especially along public transport nodes and corridors.
- Regeneration of areas within the Inner City and former R293 townships such as **Clermont/KwaDabeka, Umlazi, Inanda, Ntuzuma and KwaMashu (INK)**

In terms of balancing physical, social and economic benefits, optimising the opportunities offered by the coastal area includes the need to ensure that tourism enhances the quality of the environment and is undertaken in a sustainable manner, and that other competing uses are managed. Historically advantaged areas and infrastructure that serve the metropolitan area are major assets for the city in terms of sustaining and generating economic opportunities.

CENTRAL SDP NODES MAP

- Legend**
- Metropolitan Node
 - Sub-Metropolitan Node
 - Strategic Focus Area
 - Urban Node
 - Future Urban Node
 - Major Economic Investment Node
 - Tourism Node
 - Opportunity Area
 - IRPTN
 - National Roads
 - Roads
 - Rail
 - Central SDP Boundary
 - Densification Corridors
 - Future Densification Areas
 - Coastline
 - Landuse**
 - Existing Residential
 - Mixed Use
 - Existing Commercial
 - Business Park
 - Existing Industry
 - Existing Port Logistics
 - Municipal
 - Environmental Amenity
 - DMOIS Dec 2006



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NORTHERN SPATIAL DEVELOPMENT PLAN (NSDP: 2013-2014)

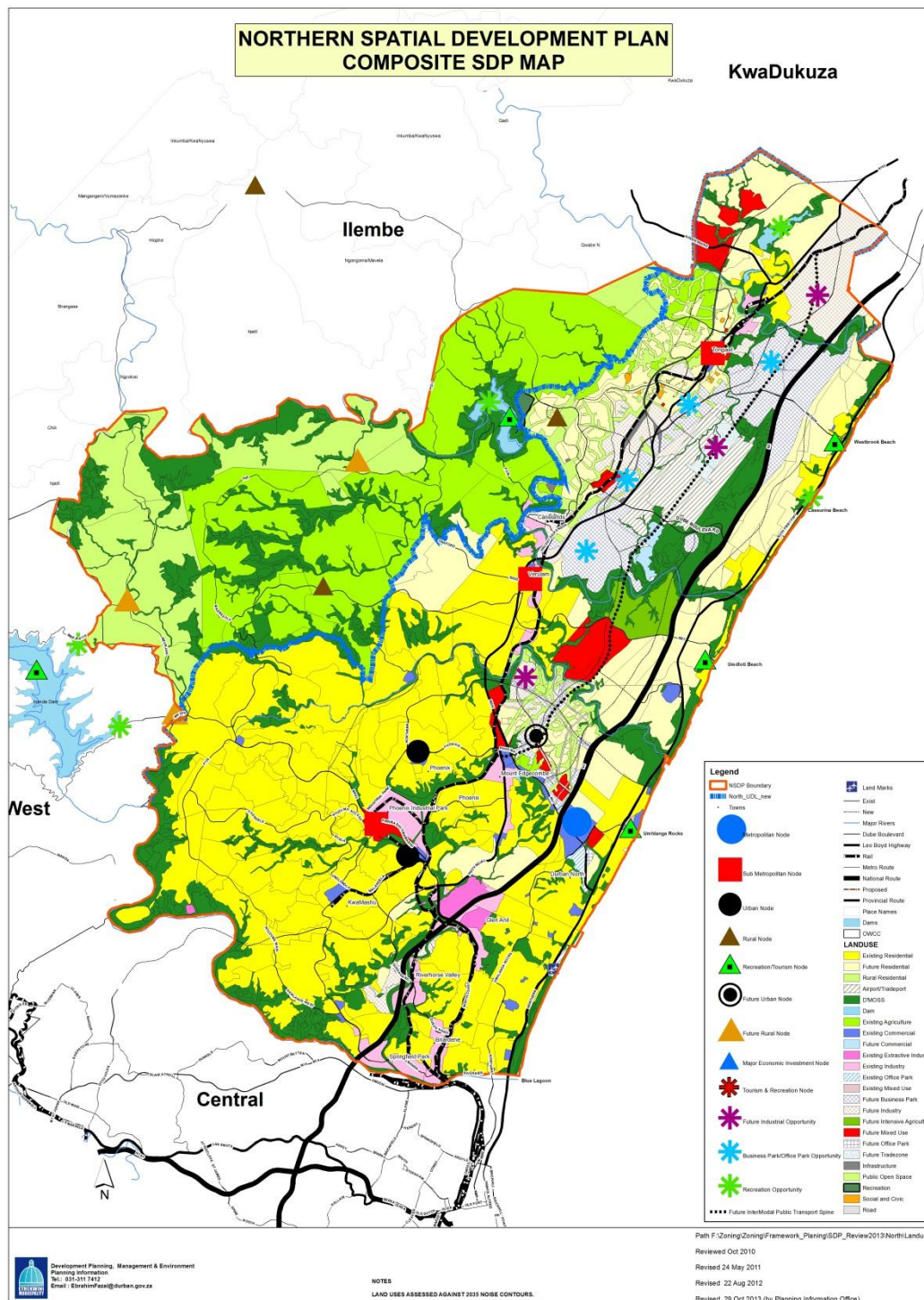


Figure : North SDP Map 13/14

Source: eThekweni Municipality, Development, Planning, Environment & Management Unit

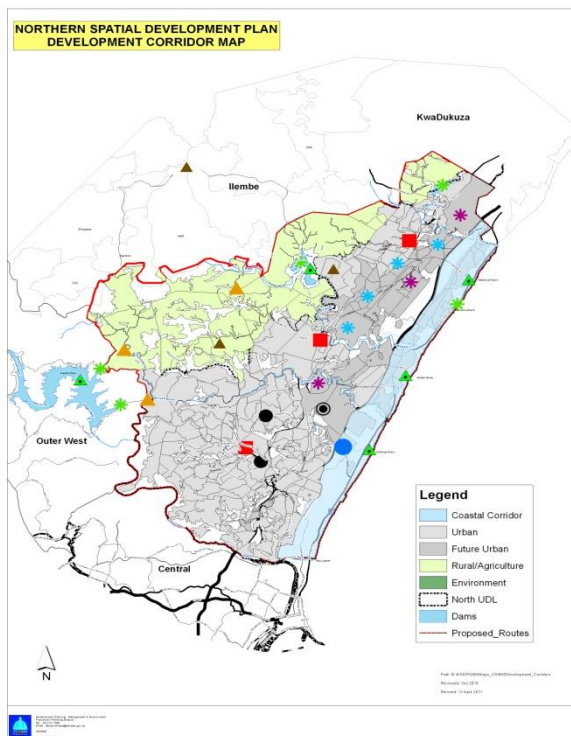
The Northern Municipal Planning Region (NMPR) boundary extends from Umgeni River in the south to Tongaat in the north with the coastline in the east and the ILembe District Municipality to the west and north. It has a population of about 1, 15 million which is 31% of the total population of 3, 5 million (Stats SA Community Survey, 2007). The population is housed in a total of 201,612 houses. The largest population concentrations are to be found at Inanda/ KwaMashu (58.6%), Phoenix (17.5%) and Durban North (7.1%).

In determining a spatial role for the NMPR it is important to note the area has environmental, social and economic linkages to the wider metropolitan area. These linkages also occur within the broader region both provincially and nationally. The following roles of the NMPR have been determined in accordance with its inherent character and capacity to support envisaged growth and development within the EMA:

- Air and landside component to logistics hub associated with new international airport
- National and international Gateway to Metropolitan area and Coastal Destinations.
- Consolidate Provincial Development Corridor between Durban and Richards Bay and surrounding municipalities
- Protection, consolidation and establishment of new well located serviced industrial opportunity areas.
- Protect denuded environmental assets to ensure eco-service delivery and to ensure tourism and recreation opportunities are not lost.

The spatial challenges of the NMPR include protection of environmental assets; prevention uncoordinated urban sprawl; protection lifestyle options; provision new major transport infrastructure; provision employment opportunities; protection agricultural assets and provision new bulk infrastructure.

Approximately 25% of the NMPR is urban, 36% is agricultural activities of which 31% is sugar cane. Industrial and commercial land uses currently only account for 2%. Development is concentrated around Durban North/La Lucia, Inanda, Ntuzuma, KwaMashu and Phoenix and around the small towns of Verulam and Tongaat. 84% of the land is under freehold ownership. Sugar cane land is under pressure for conversion to residential and/or commercial and industrial development.



At the sub metropolitan level the NMPR consists of three discrete land use corridors i.e. rural, urban and coastal corridors, all running parallel to the coast. The roles of the corridors are directly related to their inherent landscape, settlement and infrastructure characteristics and potential which include urban, rural and coastal characters.

The northern region has been divided into 6 Local Areas namely; Buffelsdraai, Hazelmere, Ohlanga-Tongati, Northern Suburbs & Umhlanga, Phoenix/ INK, Tongaat & Dube Tradeport, and lastly Verulam/ Cornubia. These local areas will play a role in achieving the broader growth and development objectives of the metropolitan area but will also ensure that local level needs and lifestyles are respected and met. All the LA's will be linked to each other and into the metropolitan area as a

whole through the metropolitan level access, movement and linkage system.

The Northern Region is dynamic and there is a high demand for development, particularly within the urban corridor. A number of key areas are development priorities and various projects and initiatives are taking place, including:

- **King Shaka Airport** and the surrounding **Dube Tradeport** are being promoted as a key economic node, comprising of a variety of economic and transport related activities.
- A major business, retail and mixed use urban node is the **Umhlanga Town Centre/ Gateway** area
- **Bridge City**, strategically located between KwaMashu and Phoenix, brings innovative transportation, urbanism and mixed use development to a previously marginalised part of the city and actively promotes higher densities.
- As an emerging entertainment and tourism node, the **Sibaya** area plays a key role.
- To promote town centre redevelopment, the **Verulam and Tongaat CBDs and KwaMashu Town Centre** are seen as key priorities and being revamped to increase functionality within the broader Northern Urban Development Corridor.
- The new town of **Cornubia** is central in the promotion of mixed use, **densification** and integration.
- The emerging industrial and residential components of the **Inyanninga** area, west of the Airport, are seen as top city-wide development priorities.

In addition rural nodes are to be established, consolidated and enhanced as village centres to provide support to the development of the rural and agricultural hinterland, these include; Matabetule, Senzokuhle, Buffelsdraai and lastly Cottonlands.

SOUTHERN SPATIAL DEVELOPMENT PLAN (SSDP: 2013-2014)

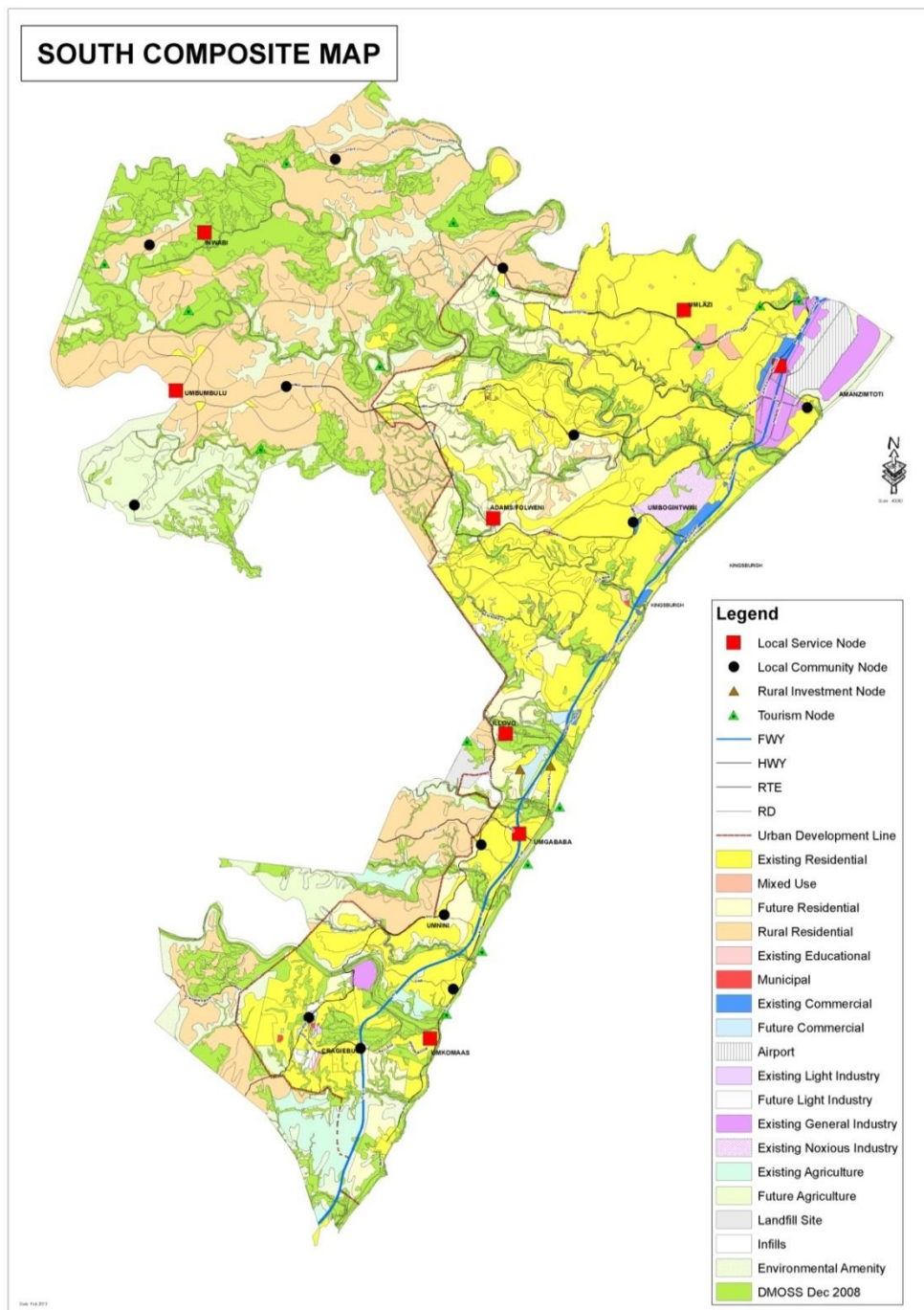


Figure: Southern SDP Composite Map

Source: eThekweni Municipality, Development, Planning, Environment & Management Unit

The South Spatial Development Plan (SSDP) identifies the capacity of the existing natural and built environment to create sustainable investment and development opportunities and establishes linkages to opportunities for the socio-economically disadvantaged communities of the south. Within this context, the SSDP identifies what development is desirable, where such development should occur and how such development should be facilitated.

The main objectives of the SSDP therefore include:

- To establish an understanding of the strategic role of the southern area within the context of the eThekweni Municipality,
- To ensure alignment of the SSDP with the development plans of the west and north as well as the South Durban Basin Framework in progress,
- To inform the broader eThekweni Spatial Development Framework as well as providing guidance for subsequent local area plans and land use schemes.

The study area of the SSDP is in extent of 510km². In 2001, it was estimated to accommodate in the region of 730 000 people (census 2001), and the projected population for 2008 was 754 356 (based on a 1.1% growth rate). The South MPR extends from the northern boundary consisting of the Umlazi River and the Umlaas Canal to the uFudu Escarpment and the EziMbokodweni River in the north-west to the western and southern boundaries of the eThekweni Municipality. It abuts in the north onto both the central and western metropolitan planning regions. In the west the South MPR borders onto the UMgungundlovu and UGu District Municipalities.

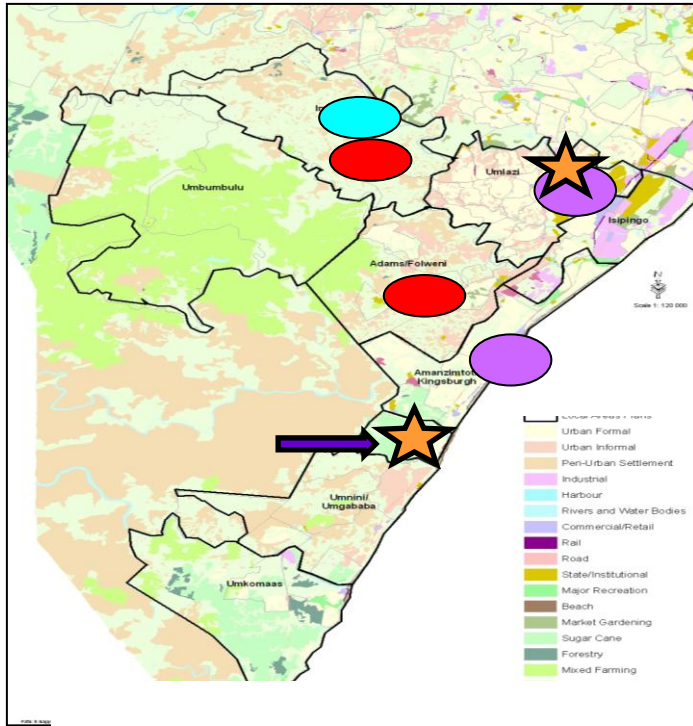
The role of the SSDP is based on achieving a balance between the following key imperatives that the Southern Region must address to achieve sustainable development for the broader Metropolitan region as well as the local region:

- Major residential role
- Industrial role with potential for limited expansion
- Coastal Tourism (existing and development of potential)
- Potential to diversify/intensify existing agricultural uses and improve food security for Metro

The conceptual approach and vision of the SSDP includes the following:

- To provide quality, variety and properly serviced residential facilities to cater for all residents of the SMPR
- To upgrade and develop existing industrial and commercial activity, while expanding and developing LED and tourism opportunities and diversifying & intensifying agriculture for the benefit of all.
- To integrate and link communities, through co-operation between traditional and non-traditional authorities, structures & communities, and the provision of social facilities for all.
- To strengthen the Metro role of the South Municipal Planning Region (SMPR), to ensure appropriate development of airport site, the creation of increased employment opportunities, and the upgrading of informal areas and market activities.
- To identify and strategize for additional appropriate industrial, business, commercial, agricultural and tourism opportunities.
- To plan for additional required residential accommodation, through infill & densification in a range of affordability levels.
- To plan for improved & appropriate accessibility throughout the SMPR.
- To ensure a protected, rehabilitated & managed natural environment.
- To ensure the improvement of living environments and the enabling of communities to take a greater part in influencing their environment.

SSDP has identified 9 Local Planning Areas (LAPs) these include Isipingo, Umlazi, Kingsburg/ Amanzimtoti, Illovo, KwaMakhutha, Umbubulu Folweni, Umgababa/Umnini and Umkomaas. The LAPs will establish Land Use Management and regulatory instruments for the area in terms of the overall Metro LUMS approach and frameworks for specific developments to guide municipal actions and private investment.



Major development components consist of the southern portion of the South Durban Basin, the existing airport (due to become a key area for redevelopment), a range of formal residential developments (including the former township of Umlazi), a large contingent of informal residential development both within the formal development and on its periphery, and large rural areas, being substantially in the ownership of the Ingonyama Trust.

Figure :Southern SDP Nodes

Source eThekweni Municipality, Development Planning Environment and Management Unit

The South MPR accommodates a significant part of the coastal environment of the eThekweni Municipality. While the South Coast provides some recreational and tourism activities, much of the development potential is severely underutilized.

OUTER WEST SPATIAL DEVELOPMENT PLAN (OWSDP 2013-2014)

OUTER WEST SPATIAL DEVELOPMENT PLAN (OWSDP 2013-2014)

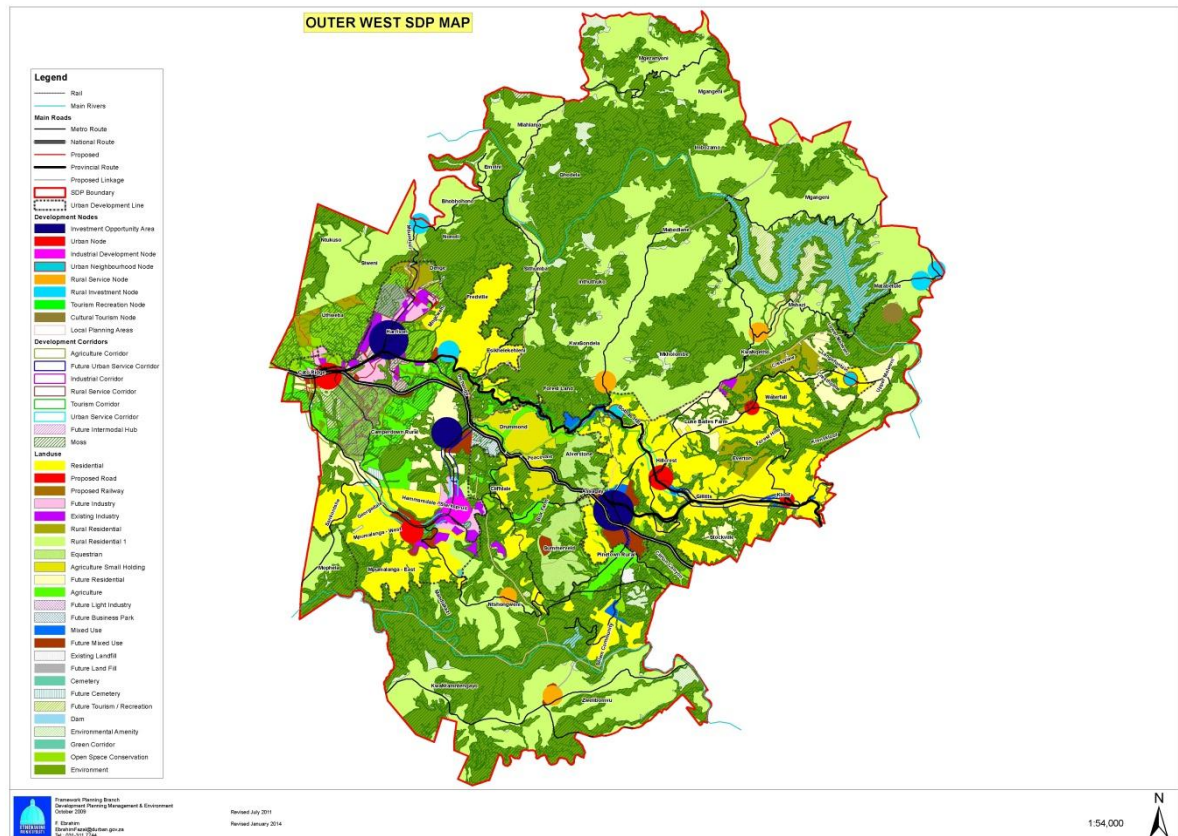


Figure: Outer West SDP Composite Map

Source: eThekweni Municipality, Development, Planning, Environment & Management Unit

The fourth OWSDP will be adopted by Council in March 2014 and builds on the need to address current challenges and unpack the long term strategic policy by translating it into a more detailed framework in terms of residential, transport, investment and environmental interventions. The purpose of the OWSDP is to promote and guide development in the Outer West to respond in a sustainable manner to the various needs and challenges facing the eThekweni Municipality as a whole. The OWSDP provides the spatial expression for short, medium and long term development of the region, which will be achieved by identifying spatial structuring elements aimed at:

- Safeguarding the environment
- Establishing investment points and lines based on local opportunity
- Establishing the urban development line to guide infrastructure provision

- Consolidating local planning areas based on inherent characteristics

The Outer West Planning Region is spatially located in the western part of the eThekweni Municipality. It measures approximately 78 438ha in extent. The area has approximately 338 024 people which constitute 10% of eThekweni's total population of 3 442 358 (Stats SA Community Survey, 2011). The Outer West Region stretches 30km east to west from near the base of Fields Hill, to Cato Ridge and 40km from beyond Inanda Dam on the uMngeni River in the north to beyond uMlaas River in the south. Umkhambathini Local Municipality (under Umgungundlovu District Municipality) forms the western boundary of the region. 50% of the Outer West Region is covered by traditional authorities. The region shares an urban and rural landscape with a wide range of settlements types extending from formal urban to rural settlements. Rural areas as well as the Western Suburbs have shown significant residential growth in the last few years. A major portion of metropolitan open space system (50%) which requires protection is found within this region.

The region shares an urban and rural landscape with a wide range of settlement types extending from formal urban to rural settlements. Rural areas as well as the Western Suburbs have shown significant residential growth in the last few years. Agriculture activities in the form of commercial and subsistence farming, is under threat from urban development. There are limited levels of economic development activities in the region in relation to the existing population resulting in people having to travel out of the region to access economic opportunities. The role of the OWSDP is based on achieving a balance between the following key imperatives that the Western Region must address to achieve sustainable development for the broader Metropolitan region as well as the local region:

- Priority Environmental Management Area
- Strategic Industrial Expansion
- Strategic Residential & Commercial expansion
- Key Metro International and Domestic Tourism Destination
- Settlement Upgrading

The conceptual approach of the spatial development plan includes the following:

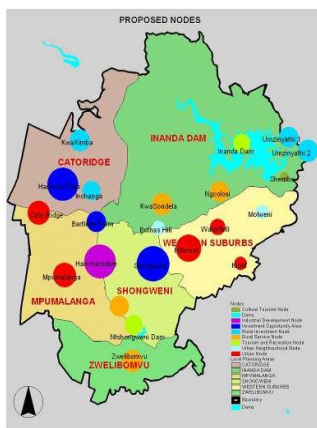
- Establishing the N3/M13 corridor as the main economic movement system linking the Outer West to other economic centres, as well as supporting key strategic economic development.
- Protecting and managing of the natural assets of the Outer West are very important and is evidenced by the fact that DMOSS covers almost 50% of the area.
- Establishing the Urban Development Line to delineate the outer limits where urban development will be permitted in accordance with infrastructure provision and capacity. The urban development line applies to the Western Suburbs and the Cato Ridge/Mpumalanga areas. Due to historical policies certain parts of the Outer West such as Hammarsdale and Mpumalanga are more developed in terms of infrastructure services than other areas. The

proposed urban development line in this context therefore applies to the east and west of the region with agriculture concentrated in the centre.

- Organising the Outer West region into six local areas, namely Western Suburbs, Shongweni, Cato Ridge, Inanda Dam, Mpumalanga and Zwelibomvu to support a range of lifestyles and develop the assets and attributes of each local area.

Corridors of development act as growth or development axes that spatially structure development. These include

- N3 Metropolitan Movement and Development Corridor
- MR385 and Old Main Road as Urban Services Corridors supporting mixed use urban activities
- R103 as main Tourism Corridors supporting tourism activities.
- Eddie Hagen supporting an Industrial Corridor



The aim of the OWSDP is to establish a movement system which not only operates in terms of improved circulation, access and linkage, but which also reinforces the social, economic and spatial importance of the movement network. Particularly as public transport routes are used for locating and structuring the provision of community facilities and economic activities. A clear hierarchy of nodes are established, consolidated and distributed throughout the OW area including, Urban nodes, Rural nodes, Tourism and Recreation nodes and new opportunity areas. These nodes will serve as investment and access points that provide convenient and efficient access to a hierarchy of commercial, community services and facilities.