ETHEKWINI MUNICIPALITY
DEVELOPMENT AND PLANNING UNIT
FRAMEWORK PLANNING BRANCH

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- Annexure-B-: Record of Cross Boundary Alignment
- Annexure-C-: Potential Impact of Redemarcation
- Annexure-D-: Rural Development Strategy
- Annexure-E-: Outer-West SDP Alignment with SDF

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<td>CBD</td>
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<td>DMOSS</td>
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<tr>
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<td>DEPARTMENT OF TRANSPORT</td>
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<td>DWAE</td>
<td>DEPARTMENT OF WATER AFFAIRS AND ENVIRONMENT</td>
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<td>EDU</td>
<td>ECONOMIC DEVELOPMENT UNIT</td>
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<td>ETHEKWINI MUNICIPALITY</td>
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<td>OWSDP</td>
<td>OUTER WEST SPATIAL DEVELOPMENT PLAN</td>
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<td>POTW</td>
<td>PRIVATELY OWNED TREATMENT WORKS</td>
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1.1 INTRODUCTION

The Outer West Spatial Development Plan (OWSDP) was first approved and adopted by Council in February 2005. The need to review the 1st draft Outer West SDP was identified as early as 2007 in an effort to provide clarity and guidance to the Land Use Management Branch, service providers and stakeholders including the private sector who were seeking detailed guidance that the OWSDP was failing to provide in its current format. The scope of the Review of the West SDP was mainly based on the need to respond to the following range of complex questions related to the development and growth of the Outer West:

1. What is the role of the Outer West in relation to the wider eThekwini Municipal area?
2. How can the role of the Outer West be protected in light of current development pressure?
3. What are the spatial structuring elements of the Outer West and how are these performing?
4. Does the existing and planned physical and social infrastructure support these structuring elements?
5. What is the desired spatial form for the Outer West to make it equitable and accessible to all?
6. What are the needs and how are needs and requirements of the communities and investors being incorporated into the desired spatial form for the area?
7. How is the City facilitating and fostering private sector investment to ensure balanced and appropriate growth in the Outer West?
8. What are the key problems and issues facing the area?
9. What are the servicing constraints and solutions?
10. What are the current development trends and are the trends supporting the role and desired spatial form?

Whilst the Review, attempted to provide clarity on the above, it did not provide all the answers. At best it highlighted the complexity of the development challenge facing the Outer West in striving to ensure a sustainable development path, which requires the integration of economic, social and environmental objectives.

Subsequent reviews of the OWSDP, 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. Since 2009, there have been two further reviews of the OWSDP. This OWSDP comprises review 3 of 4.

The Ethekwini Municipality (EM) is currently engaged in establishing a Land Use Management System (LUMS) for the entire municipal area. The system will eventually contain a number of elements (i.e. a planning and development management “toolbox”) which will include a package, or hierarchy, of plans as well as a variety of development policies, planning and development standards, regulations and by-laws. The establishment of the system includes a range of planning activities all running parallel to each other and with the common purpose of updating, refining, creating or establishing appropriate mechanisms for managing land use and development in the Municipality.

The package of plans being implemented within eThekwini is hierarchical and integrated and shows the move from strategy to implementation. Figure 1 and Table 1 Below indicate the package of plans concept and identify the purpose and scope of each level of plan in the package whilst the following Section 1.2 describes in more detail the purpose of the Spatial Development Plan (SDP) for the Outer West.
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Public Participation

- Long Term Development Framework
- Integrated Development Plan
- Spatial Development Framework
- Spatial Development Plan
- Local Area Plan
- Functional Area Plan
- Land Use Schemes

Corporate Strategy / Policy - Implementation Tools

- Corporate / Multi Sectoral Strategic Approach and Intentions eThekwini Municipal-wide
- Strategic / Multi Sectoral Planning Guidance for regional areas on a 10-20 year horizon
- Development Guidance for geographically specific districts and precincts 3-10 year horizon
- Development Guidance for geographically specific districts and precincts at a more local scale on a 3-10 year horizon
- Environmental and Built Form guidance for geographically specific areas 1-5 year horizon
### OUTER WEST SPATIAL DEVELOPMENT PLAN

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<td>Strategic Development Direction for the City</td>
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<td>IDP</td>
<td>Strategic: Operational Implementation</td>
<td>Strategic Implementation Direction and Imperatives for the Municipality</td>
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<td>Spatial Development Framework</td>
<td>Strategic: Spatial Development</td>
<td>Strategic Spatial Development Intentions for the City based on the LTDF and IDP</td>
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<tr>
<td>Spatial Development Plan</td>
<td>Strategic: Spatial Development</td>
<td>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</td>
</tr>
<tr>
<td>Local Area Plan</td>
<td>Detailed Physical Plan</td>
<td>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</td>
</tr>
<tr>
<td>Functional Area Plan</td>
<td>Detailed Physical Plan for special areas</td>
<td>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</td>
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<tr>
<td>Land Use Schemes</td>
<td>Zoning and Development Control Regulations</td>
<td>Detailed Land Use Management Tool for the Municipality and Allocation of Potential</td>
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**Section 1.2:** Describes in more detail the purpose of the SDP
1.2 THE SDP PROCESS

The initial OWSDP dated November 2009 was prepared through a structured and coordinated process using information sourced from various reports, studies, research processes, municipal and national policies. In addition, there has been extensive engagement with key municipal sectors (particularly traffic and transportation, water and sanitation, environment, housing and economic sectors) including a series of interdepartmental workshops and bilateral meetings; engagements with provincial authorities and neighborhood municipalities to achieve cross boundary alignment; key external stakeholder engagements and extensive community engagement during August and September 2009.

The involvement of planners, environmentalists, engineers and stakeholders in the development of the OWSDP reflects the integrated nature of the planning process. The OWSDP is a long term strategic framework plan with a 20 year timeframe. Major reviews of the SDP will be undertaken every 5 years, with minor revisions undertaken on an annual basis, in alignment with the IDP review process. This is the third minor Review of the OWSDP for 2012/13. The next major SDP review will be undertaken in 2014/15.

The OWSDP Review 3 of 4 will allow for the continual strategic refinement of the process, the re-assessment of the OWSDP based on new information and sector studies as the information becomes available. Of critical importance is the more detailed assessment of the Phase 1 Priority areas. Future reviews will need to take into consideration the Strategic Environmental Assessment of the SDP; the Integrated Rapid Public Transportation Network and demographic modelling studies; Reserve Determination and Water Reconciliation studies and the spatial interpretation of Climate Change Data as and when this information becomes available.

1.3 SCOPE AND PURPOSE OF THE OUTER WEST SDP

The Spatial Development Framework (SDF) of the eThekwini Municipality is the primary spatial strategy response to the development context, needs and vision of the municipality as described in the IDP. The SDF therefore depicts pictorially the thrust of the IDP showing the City’s investment intentions and development management approach. It is the underlying document that provides the physical implementation of the 8 Plans which respond to the City’s growth demands.

In order for this spatial strategy to become achievable and successful and in order for the city to be spatially restructured the SDF needs to be translated into more geographically specific physical development and land use management guidelines. This can be achieved through the preparation of a Spatial Development Plan (SDP).

In an effort to provide multi-sectoral planning guidance the OWSDP translates the spatial intentions of the SDF; indicates the short, medium and long term growth and development opportunities; manages and directs future investment over a 20 year time frame; identifies the City’s development priorities and phasing; and provides broad based land use, environmental, transport planning and bulk infrastructure directives to guide more detailed planning within Local Areas and Precincts and informs the Land Use Schemes.

The purpose of the OWSDP is to promote and guide development that is sustainable and responds to the various needs and challenges facing the eThekwini Municipality as a whole. This will be achieved by ensuring that development in the Outer West is aligned to the City’s social, economic and environmental imperatives. 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, and
- Consolidating local planning areas based on inherent characteristics.

The OWSDP has identified a number of Phase 1 Priority Areas for development in the next five years. These areas include, in no order of priority, Cato Ridge, Hammersdale, Bartlett’s, Hillcrest, Assagay/Shongweni, Mpumalanga, KwaXimba, Fredville and Inchanga, Molweni, Zwelibomvu and iQadi.

An initial study has revealed that these areas require various degrees of infrastructure provision to support the development that is envisaged in the SDP and in some cases, based on the resources and budget cycle of planning, designing and implementing infrastructure, may even go beyond the envisaged short term priorities (5 years). Accordingly, more detailed assessment of the Phase 1 Priority areas are underway with the view of gaining an improved understanding of cost, timing and phasing of development across the metropolitan area.

1.4 THE FOCUS OF THE 2012/13 REVIEW

In this 2012/13 OWSDP Review, the key areas of focus for the revision have included:

- Changes made in alignment with the new IDP 2012/13 and SDF Review 2012/13
- Changes to mapping and text to reflect new / updated information including:
  - Amended land-use mapping and land use quantums
  - Phasing
- The review of the OWSDP will allow for the continual strategic refinement of the process, the re-assessment of the OWSDP based on new information and sector studies as the information becomes available. Of critical importance is the more detailed assessment of the Phase 1 Priority areas. Future reviews will need to take into consideration the Strategic Environmental Assessment of the SDP; the City Densification Strategy; the City visioning process; Reserve Determination and Water Reconciliation studies and the spatial interpretation of Climate Change Data as and when this information becomes available.
- Participation in numerous climate change initiatives and fora to more fully understand the implications and possible spatial responses to water supply limitations as well as agricultural and food security impacts associated with climate change. In this regard, further engagement with the Department of Agriculture has been sought and an internal working group has been established to pursue investigations around agriculture and various regulatory and spatial planning issues.
- Changes made in alignment with key proposals in Council adopted SDF, Local Area Plans (LAPs) and Precinct Plans namely:
  - 2012/13 SDF for eThekwini Municipality
  - Cato Ridge LAP
  - Molweni FAP

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- Public Transportation (Refer to Annexure-A).
- Record of Cross-Boundary Alignment: In an attempt to foster a good working relationship with neighbouring municipalities, and to ensure integration and alignment of planning goals, the Framework Planning Branch has been undertaking dialogues with the adjacent district and local municipalities (Refer to Annexure-B).
- The Potential Impact of Redemarcation in the Outer West Region (Refer to Annexure-C)
- Rural Development Strategy: The Framework Planning Branch is in the process of developing the Rural Development Strategy for the wider eThekwini Municipality (Refer to Annexure D).

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1.5 THE STUDY AREA

The study area of the Outer West is in extent of approximately 78 438ha, representing 34% of the municipal region and accommodating 577 500 people. The area of effect of the Outer West SDP is that of the Outer West Region of the eThekwini Metropolitan Area which accommodates about 16.5% of the total population of some 3.5 million people (Stats SA Community Survey 2007).

The metropolitan area can be divided into cohesive and functional areas by virtue of the geophysical features of the Municipality and the associated settlement patterns and linkages that have developed in response to these. The first division that is apparent is at the metropolitan level where the uMngeni River, the uMlaas River and the Kloof Ridge dissect the municipal area into four sub metro areas (i.e. central, north, west, and south). The Outer West is one of the four SDPs that, collectively, make up the Municipality’s Spatial Development Framework (SDF).
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A large part (50%) of the study area 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.

Diagram 1: eThekwini Functional Districts

A major portion of metropolitan open space system (50%) which requires protection is found within this region. There are limited levels of economic development activities in the region in relation to the existing population resulting in people have to travel out of the region to access economic opportunities. Contribution to GDP stands at 6.6%.

2. METROPOLITAN SPATIAL DEVELOPMENT APPROACH

2.1. INTRODUCTION

The eThekwini Municipality is the amalgamation of a myriad of various sized municipal authorities (in 1995/6 they were amalgamated into four substructure councils that collectively formed a single metropolitan council) that transformation within local government has required. Each of these authorities had planning systems and approaches that best suited them as individual entities and which led to spatial and physical planning and development management strategies that they implemented.

New and emerging planning and development requirements, as determined through various pieces of national and provincial legislation, requires that planning systems within local municipalities are regularized and are updated in a manner that will result in an improved spatial organization of the municipal area. Specifically the systems and approaches adopted should begin to redress the adverse effects of apartheid and separate areas planning. The key policy this plan responds to is the Municipal System Act of 2000 that calls for the creation of Integrated Development Plans which guides all other layers of strategic planning.

As such it has been necessary for the eThekwini Municipality to develop a spatial planning approach that is consistent with legislation but also which is appropriate to management requirements of a metropolitan city. The sections, which follow outline the approach currently being used and developed by the Municipality as part of the overall spatial development planning initiative and as part of the process of establishing a common spatial planning language for the city.

2.2. THE SPATIAL NATURE OF HUMAN SETTLEMENTS

2.2.1. Overlapping Systems of Movement and Activity

Human beings experience and use the city through a number of scales of movement and through a wide range of day-to-day activities. At one level they access some of their needs by being able to move all over the city and at another level they access benefits from within their local neighbourhood. In order for the city to perform optimally for all its inhabitants these overlapping systems of movement and activity need to be accessible to all communities, need to operate efficiently and they need to be sustainable.

The legacy of apartheid is such that some areas perform better than others due to their interconnectedness with other areas and due to their ability to support human activity adequately at the local neighbourhood level. Spatial development planning seeks to ensure that access to opportunity and amenity at the local and metro scale is
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equally available to all communities through the protection of natural resource systems that provide benefit for human communities and through the establishment of manmade movement, activity and service systems that support human activity and endeavour.

The following sections describe the nature of the overlapping spatial systems that need to be either upgraded or established in order for the city to perform at an optimal level for all inhabitants in the future.

2.2.2. Metropolitan Levels of Interconnectedness and Exchange

2.2.2.1. Open Space as a Primary Structuring Element

At the metropolitan scale the open space system of the city (known as DMOSS – Durban Metropolitan Open Space System) that defines areas that are generally suitable and unsuitable for development; and ensures that a representative sample of the biodiversity in the eThekwini Municipal Area is conserved.

The DMOSS also connects areas of land thus ensuring that various processes that support the persistence of this biodiversity may continue. Protecting representative samples of our biodiversity and the processes that sustain this biodiversity ensures the ongoing supply of ecosystem services (e.g. water supply, flood protection, building materials, medicinal products, clean air and water, carbon sequestration), which are so important to our citizens and their quality of life.

2.2.2.2. Metropolitan Movement and Linkage as Primary Structuring Element

The developable areas of land and the communities that are established on them are connected through the primary metropolitan movement and linkage elements being major

roads and railways, allowing communities to experience the city at its metropolitan scale and to access benefits, in the form of employment or amenity, that are located at large distances from their homes or immediate and local neighbourhoods. This system needs to be upgraded and enhanced to ensure that all communities and metropolitan opportunity and amenity are adequately connected.

2.2.3. Local Levels of Interconnectedness and Exchange

Despite the need to be connected at the metropolitan level individuals and communities experience or undertake most of their day to day activities at a local level in and around their residential neighbourhood, their workplace or at some place where they access goods and services or recreation etc. (i.e. within a local neighbourhood or area which provides one or other form of benefit). These neighbourhoods are located within the developable portions of the metro as described in the previous section.

Invariably there are a number of discrete and or interconnected local neighbourhoods that are linked together and which form larger areas of functionally linked human settlement (i.e. functional districts). The manner in which these districts perform as a living environment for its inhabitants will be dependent on the number and quality of services and amenities located therein. The type of services and amenities will also be dependent on the thresholds available in the functional district to support them. Thresholds will be determined by numbers of people and their income levels.
2.2.4. EThekwini Integrated Development Plan

The eThekwini Municipality’s Integrated Development Plan 2011/2012-2015/16 (IDP) and beyond is the business plan that will guide development and growth of the eThekwini Municipal area over the next 5 years. It focuses on helping to realise the vision that “By 2020 eThekwini Municipality will be Africa’s most caring and liveable City.”

2.2.5. Metropolitan Spatial Development Framework

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. These are summarized below for ease of reference.

<table>
<thead>
<tr>
<th>Equity</th>
<th>Promote an equitable city by:</th>
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<tbody>
<tr>
<td></td>
<td>reducing infrastructure and service disparities</td>
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<td>redressing imbalances in the location of employment opportunities</td>
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<td></td>
<td>providing adequate, accessible and affordable housing opportunities</td>
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<td></td>
<td>promoting integration by linking and reducing distances between people, places and activities</td>
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<td></td>
<td>making the city work better for the disadvantaged (the poor, the disabled and women)</td>
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<th>Efficiency</th>
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<td></td>
<td>promoting more compact development by encouraging higher densities where appropriate and reducing urban sprawl</td>
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<td></td>
<td>reducing the separation between places where people live and work</td>
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<td></td>
<td>optimising development in areas of greatest opportunity</td>
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<td></td>
<td>encouraging effective use of infrastructure and facilities</td>
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<td></td>
<td>promoting cost effective movement systems</td>
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<td></td>
<td>promote accessibility through improving relationships between people, places and activities</td>
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<td>promoting a well-managed spatial form</td>
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<th>Sustainability</th>
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<tr>
<td></td>
<td>promoting optimal use of remaining land opportunities</td>
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<td>promoting the inherent value of the natural and built environment and introducing environmentally sensitive management of development</td>
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<tr>
<td></td>
<td>alleviating environmental health hazards</td>
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<td>promoting total living environments</td>
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<td>retaining and enhancing positive qualities and productive assets of the DMA</td>
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An important implication of the SDF strategy is that all development proposals that require the City to extend platform infrastructure to new areas will need to be carefully assessed within context as to whether they are cost effective, sustainable, and in the best interest of the City.

To summarise, the Spatial Development Framework’s defining features include:

- An Urban Core, being the urban centre, which generally has servicing capacity and thus opportunity for densification and to support thresholds for a range of services, industry and public transport.

- An Urban Development Line (UDL) concept 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 convenient, efficient, equitable and sustainable settlement form. Whist 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 UDL 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 important for enforcing density targets and physical development patterns within specific time horizons and is to be used to manage the growth patterns of a city over time. Within the UDL, the development phasing line demarcates the interim spatial limit to which development will be allowed to establish in accordance with infrastructure availability and capacity.

2.3. METROPOLITAN KEY CHOICES

In order to achieve the City’s vision, there are a number of key choices that have to be made. Key Choices for the Municipality to ensure the creation of a sustainable city are presented as being, *inter alia*, to:

**Choice 1: Improving our port and logistics Infrastructure**

Improving the City’s logistics infrastructure will ensure that economic opportunities presented by the existence of the Port are maximized. The SDP will have to respond by opening up areas for port related and other industrial development opportunities.

**Choice 2: Promoting Densification and Strategic Management for New Growth Areas**

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. Brownfield developments, regeneration, and reclaimed land will also be supported through infrastructure upgrades in specific areas.
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with economic value. The OWSDP will ensure that there is more effective use of existing facilities and that people live closer to amenities and work opportunities.

Choice 3: Bridging the Digital Divide

Improved telecommunications is critical for economic and social empowerment, providing citizens with opportunities that they have not previously enjoyed.

Choice 4: Good Public Transport System

Public Transport will reduce the need to increase road networks, will provide a platform of connectivity between people and reduce pollution by minimizing vehicle usage. The SDP will respond by ensuring that densification and nodal development are aligned with public transport infrastructure.

Choice 5: Ecological and related Tourism

The natural resources of the City of which a large part is found in the Outer West have large benefits for tourism and economic development. If harnessed well, tourism development in the Outer West can significantly improve local economic development in the area.

Choice 6: Ecological Integrity

Ensure ecological integrity by conserving existing natural resource by restricting development within important natural areas, management of adjacent and upstream land uses and activities, balancing social, economic and environmental needs and ensuring that all forms of development occur within the carrying capacity of the natural environment.

General Terms

Densification can take the two forms:

Infill – refers to the development of greenfields areas within designated urban areas or within brownfields (existing urban areas) sites within designated urban areas.

Compaction – refers to redevelopment of existing properties to higher densities and may include sub-division and development of large properties within urban areas.
2.4. KEY STRATEGIC PLANNING PROGRAMME

2.4.1. Develop and Implement a Sustainable and Integrated Spatial Planning System

The Municipality’s delivery plan 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 City. 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 eThekwini Land Use Management System (LUMS) will provide a customer-focussed 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.

These SDPs provide guidance as to the nature and intensity of development that can potentially be sustained on the land. The philosophy is that the carrying capacity of land and natural systems ought not to be exceeded as a result of development. The SDPs are also river catchment-based which entrenches the sustainability ethic being adopted by the Municipality.

2.4.2. Local Area Plans

An SDP comprises a number of Local Areas for which Local Area Plans (LAPs) will be prepared. The Council has taken a decision to prioritise and plan for LAP areas experiencing or likely to experience change that require more detailed planning and extensive management. The LAP carries through the intent of the SDP but responds to the specific nature of the local area.

A LAP would consider issues such as the alignment of local movement systems, the identification of local economic and leisure opportunities, and the more detailed identification of areas for both development and conservation within the context of existing and new infrastructure capacity.

The OWSDP has organised 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. Local Area Plans have now been adopted for Shongweni and Cato Ridge.

These plans identify programmes and projects which will assist in developing these areas.
2.4.3. Precinct/ Special Area Plans

Precinct or Special Area Plans will be undertaken for areas within the LAP that require special attention. Precinct plans would exhibit a high level of detail including architectural theming, landscaping, and street furniture. An example of a precinct plan is the Mpumalanga Town Centre that is being project managed by the Rural ABM office.

The Hillcrest–Gillitts–Kloof activity corridor and precinct plan and land use plan is another example where the focus is on introducing new land use management guidelines that would help an area respond appropriately to the changing development pressures experienced in that particular area. Future precinct plans will focus on the Cato Ridge industrial area and the Cato Ridge town centre nodes.

The City will only support development in accordance with the SDPs, LAPs and Precinct Plans if it has a supportive Land Use Management System. There are numerous aspects to a LUMS including land use schemes, rating policies and endowment policies that would require significant changes to realise a particular need and vision for an LAP and Precinct area.

2.4.4. Land Use Schemes

The 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 controls within the land use schemes.

A single land use scheme system for the whole of eThekwini is currently being developed in order to replace the ‘old’ town planning scheme terminology, achieve rationalisation, minimise fragmentation and confusion, and to ensure that historically under-invested areas, previously not covered by such planning controls, now have the potential to be brought into the system.

The conversion of the schemes into the new land use management system will be largely driven by the Spatial Development Plans and Local Area Plans and Functional Area Plans, as adopted.
2.5. MUNICIPAL SPATIAL STRUCTURING ELEMENTS

The SDP identifies a number of metropolitan spatial structuring elements or devices that can be used to direct development investment and to guide development actions for use by the Municipality as well as private sector for investment and decision making. A system that can be used to define / describe how an area works and functions as well as assess its performance as a living environment for people. These include:

<table>
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<tr>
<th>Metropolitan Spatial Structuring Elements</th>
<th>Description</th>
<th>Purpose</th>
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<tr>
<td>Urban Development Line (UDL)</td>
<td>An Urban Development Line (UDL) demarcating the extent to which urban development will be permitted to establish in the metropolitan area in the long term. More specifically it is the line that will promote a more convenient, efficient, equitable and sustainable settlement form. Whist 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)</td>
<td>The UDL 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 important for enforcing density targets and physical development patterns within specific time horizons and until such time as growth and development pressures require its review. The UDL may be temporal in the sense that it is to be used to manage the growth patterns of a city over time (i.e. development phasing). As such parts of it may be amended as and when development pressures within the UDL require additional urban land to be made available (see Development Phasing Line).</td>
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Within the UDL, the development phasing line demarcates the interim spatial limit to which development will be allowed to establish in accordance with infrastructure availability and capacity.
| **Local Areas** | Local Areas are identifiable geographic areas within the sub metro area which are physically and functionally connected (urban, suburban or rural); and which display predominant and homogeneous characteristics i.e. urban, suburban or rural. Each plays an important role with respect to the achievement of the broader based growth and development objectives of the Municipality as well as ensuring that local needs are met. | An important spatial structuring device that can create or protect identifiable, integrated and cohesive districts, precincts and neighbourhoods that perform well in terms of a role in the metropolitan area with respect to living areas, employment areas, economic opportunity areas, tourism and recreation areas etc. |
| **Open Space System** | DMOSS is a metropolitan-wide system of environmentally sensitive privately and publicly owned land that is linked. | DMOSS aims to conserve a representative sample of the biodiversity of the EMA and through this to ensure the ongoing supply of ecosystem goods and services (e.g. clean water, carbon sequestration and food production) to residents of and visitors to the eThekwini Municipal Area. It is thus a significant contributor to our quality of life. |
| **Development Corridors** | Corridors of development as growth or development axes that spatially structure development. These include:  
- N3 and N2 Metropolitan Movement and Development Corridor  
- Urban Services Corridors supporting mixed use urban activities  
- Tourism Corridors supporting tourism activities  
- Industrial Corridor support primarily industrial activities  
- Rural Services Corridor supporting local level services | The corridors comprise of a mix of activity making them intense robust and diverse environments that service the city. Establishment of links between districts and neighbourhoods that ensure cohesiveness and integration of activity and communities. |
### Development Spines
*Investment, Movement and Linkage Lines*

Development spines as investment, movement and linkage lines and vary in scale and type and include:

- Regional Access and Linkage Spines such as the N3, R103 and M13 which structure and link the region to the greater metropolitan area.
- Local Spines such as Old Main Road and MR385 linking various nodes and industrial opportunity areas; forming the spine to the corridor.
- Neighbourhood Linkages such as Inanda Road and Kassier Road feed into the local area spines and provide access to high density residential areas arranged into linear urban or rural systems.

Development Spines are road and/or rail transportation routes that link various nodes, industrial opportunity areas and high density residential areas into linear urban or rural systems and form the spine to the corridor.

### Nodes: Investment and Access Points

Nodes serve as investment and access points and include:
- Urban Nodes (Town Centre, Community and Neighbourhood scale Nodes)
- Rural Service Nodes
- Rural Investment Nodes
- Tourism and Recreation Nodes

Establishment of a hierarchy of services points within the city that provides convenient and efficient access to a hierarchy of commercial and community facilities. The form will follow the function of the node and will reflect the market threshold it serves.

### Settlement Forms

- Urban
- Suburban
- Rural Agricultural
- Rural Traditional

The protection, conservation, establishment and maintenance of a variety of lifestyle options at the scale of the local district. To provide housing areas at different densities and with varying forms for various income groups, cultures and preferences.

### Densities

Different measures of density that can be used for describing different lifestyle options, landscape character and for evaluating impacts on infrastructure and community facilities.
3. STRATEGIC ASSESSMENT OF THE OUTER WEST

3.1. INTRODUCTION

The primary aim of planning is to continually try to balance the demands of growth and change within a city and its hinterland with a diminishing or scarce supply of resources. Demands are in the form of population growth, poverty alleviation and economic development and supply is in the form of land availability, infrastructure capacity and environmental constraints. This section provides a strategic overview of the relationship between these two variables within the Outer West thereby identifying key issues and development opportunities and constraints that require some form of planning and management intervention.

3.2. OVERVIEW

The Outer West, as defined by this study stretches 30km east to west from the near the base of Field’s Hill, to Cato Ridge and 40km from beyond Inanda Dam on the uMngeni River in the north to beyond the uMlaas River in the south. The area accounts for 34% of land in the metropolitan area, however due to its extreme topography, 38% of the area is undevelopable. Due to its location, and height above sea level the area is significantly milder than areas along the coastal plain and is protected from windy conditions experienced along the coast making it a desirable environment in which to live. The area experiences higher precipitation in the form of mist. The deep valleys of the uMngeni catchment experience considerable heat and are in rain shadows.

3.3. SUPPLY ASSESSMENT

3.3.1. Environment

The Outer West is a vital component of the eThekwini Municipality’s Durban Metropolitan Open Space System (DMOSS) and contains 50% of the total system. Key habitats include primary and secondary grasslands, coastal scarp forest, rocky outcrops and large areas of dry valley thicket.

One of the main reasons for significant parts of the Outer West remaining largely undeveloped is its topography, which is at times dramatic ranging from flat plateaus and sheer cliffs to deeply incised river valleys. Large natural areas in the upper catchments the uMngeni (including the Inanda Dam), uMlaas, uMdloti and eziMbokodweni Rivers, for example, provide significant ecosystem services and buffer impacts felt in downstream coastal areas. Ecosystem services include goods like water for cleansing and consumption and plants for medicine, fuel and food. Indirect benefits, or non-consumptive benefits, include flood attenuation provided by wetlands. In addition there are option benefits including securing areas for future tourism enterprises and existence benefits which refer to unspoilt landscapes giving one a sense of well-being.

Importantly DMOSS also helps the eThekwini Municipality mitigate climate change by sequestering carbon (meaning the process of removing carbon dioxide from the atmosphere and storing it in vegetation, soil or water bodies) thus acting as a carbon sink.

Using resource economics, the replacement value of the ecological goods and services delivered by Durban’s 2002 open space system was conservatively estimated at R 3.1 billion per annum (excluding the contribution to the tourism sector, which was worth R 3.3 billion per annum in 2001).
Key environmental assets in the Outer West include large rural areas under communal tenure where traditional authorities play an important role. Notable sites include KwaZini on the uMdloti River, parts of KwaXimba, iNanda or Matata Mountain, the uMzinyathi Gorge and MataBetule Plateau next to the Shembe settlement at Ebuhleni, the uFudu mountain or mesa, land around and upstream of the Shongweni Dam and areas around Umbumbulu in the upper catchment of the eziMbokodweni River. Drier parts of these landscapes are covered in semi-deciduous Eastern Valley Bushveld, the steep, south-facing cliffs are clothed with ancient, species-rich Scarp Forest and the flat-topped Natal Group Sandstone mountains support Ngongoni Veld, dominated by Ngongoni Grass (*Aristida junciformis*), and, in moister sites, KwaZulu-Natal Sandstone Sourveld.

Elevated sandstone plateaus from about Maphumulo to Port Shepstone still support small areas of KwaZulu-Natal Sandstone Sourveld, which is a species-rich vegetation type that is endemic to the province. About sixty-eight percent has been transformed for agriculture and urban development and only 0.2% is statutorily conserved in the Krantz Kloof (Durban) and Vernon Crookes (Umzinto) Nature Reserves. Other patches of this vegetation are conserved in municipal and private nature reserves, e.g. at Springside, Tanglewood and the Giba Gorge. Most of the remaining areas of this grassland in the EMA (it is estimated that at least 73% has been transformed locally) in the EMA are to be found between Kloof and Hillcrest. Remaining fragments are threatened by further development and encroachment by woody species due to altered fire and grazing regimes as well as probable carbon fertilisation because of increased atmospheric carbon due to anthropogenic activities. Due to the high level of transformation (locally >73%), ongoing threats and a conservation target of 25% of the original area, the South African National Biodiversity Institute has classified KwaZulu-Natal Sandstone Sourveld as Endangered and the
Theekwini Municipality and its residents must do all they can to assist provincial and national conservation authorities in meeting this difficult target.

Scarp Forests in the EMA are also essentially confined to the Outer West. These are ancient, relatively tall, species-rich forests, which are home to many endemic and threatened species. About 20% of this vegetation type is statutorily protected in South Africa (the target is 40% due to the small total original area) with unprotected portions under increasing threat, mostly due to over-exploitation. There are four noticeable concentrations of this habitat in the EMA, around iNanda Mountain, Krantzkloof NR and environs (the only statutorily protected scarp forest in the EMA), a small patch downstream of Nungwane Falls and a discontinuous stretch situated in and around the Giba Gorge and Kloof scarp above Pinetown; the last-mentioned stretch the subject of recent municipal and community conservation efforts.

Key environmental assets include the Krantzkloof Nature Reserve, the Shongweni Dam and the Resources Reserve, the Giba Gorge, Stockville Edge, the Alverstone Conservancy and the Hammarsdale Falls. There are also large tracts of untransformed land along the UMlaas River and around Isithumba Hills and north of Inanda Dam.

3.3.2. Social

Whilst the Outer West accounts for 34% of the municipal region, it accommodates 16.5% (577,500 people) of the total population of some 3.5 million people (Census update 2006) of the metropolitan population of 3,500,000 (Census 2007). The largest concentration of people are in Mpumalanga and Inanda Dam (28%), followed by Cato ridge (15%), Western Suburbs (12%) and Shongweni (11%) and Zwelibomvu (6%). Almost 50% of the Outer West falls under Traditional Leadership structures. Development within these tribal areas is being administered/facilitated by the Rural Area Based Management Team. The Rural Development Framework Plan is the key strategic policy that guides development in rural areas. The Outer West is still extremely segregated in terms of income and developed areas provide little infill opportunity for mixed income groups. This is further intensified by the lack of infrastructure to support medium density housing in well located areas in existing corridors. The middle-upper income housing demand in the Western Suburbs which had experienced unprecedented demands over the last few years has slowed down. The current trend is for more affordable residential units targeting the low-middle income group. Few remaining vacant pockets of land along Old Main Road and Inanda Road are now facing pressure for this type of development.

The rural population is generally disconnected from the rest of the Municipality and suffers from high unemployment levels, which is related to low skills and literacy and numeracy levels as well as few employment opportunities. Overall unemployment is 21%, however 52% of the economically active population seeking employment, remain unemployed. This problem is exacerbated by the lack of suitable vacant land in the Outer West for relocation, which means that people will remain in these distant locations until such time as the eThekwini Central Region is able to undergo massive redevelopment and regeneration to absorb the poor and thereby restructure the City. Within peripheral areas people are also located inappropriately close to environmental sensitive areas and on steep slopes.

Some of the problems related to health and safety issues in low-and moderate income informal settlements can be addressed through improvement of infrastructure and services through negotiations and upgrade programmes. However, it is more difficult to address the risk generated by informal settlements being in vulnerable locations. This can lead to service providers refusing to provide services that might consolidate the settlement, but leads to
prolonged situations of poor environmental standards if alternative land is not immediately available.

Metro Housing has a housing backlog in excess of 200 000 units comprising informal settlements, backyard shacks, overcrowding and homeless. The long term Metro Housing programme has identified the need for some 21 000 housing units for the Outer West that predominantly take the form of in-situ upgrading and small pockets of greenfields development. The bulk of these projects are located in Molweni, Mpumalanga, and the settlements around Cato Ridge, Fredville, Salem, KwaXimba and a small extent in Zwelibomvu. Some of the challenges facing the delivery of housing for the poor include, the complexity of implementing in-situ upgrades e.g. community dynamics, relocation logistics, need for greenfields sites to accommodate re-locations prior to implementation and the community reluctance to accept housing typologies which support densification strategies (e.g. walk-ups and high rise). There is also a shortage of affordable housing opportunities. Affordable housing is categorised as follows.

- Social Housing which is partly subsidized rental or rent-to-buy tenure over fully serviced dwelling units for households with incomes from R1 500 to R7 500 per month
- Affordable Housing which is partly subsidized individual ownership by household with incomes between R3 500 and R7 500 per month. The majority of households in this target is micro-households within extended households, and micro-households in backyards, and will receive title, a serviced stand and a basic to better-than-basic dwelling unit.
- Gap Housing is unsubsidized or marginally subsidized rental or individual ownership tenure over fully serviced dwelling units by households with incomes from R3 500 to R15 000 p.m.
Social facilities within the Outer West are mainly lower-order in nature. There are 26 community halls, 7 libraries, 111 Primary Schools, 42 Secondary Schools and 5 Combined Schools (this is required to be updated at LAP stage). These facilities are scattered across the area with higher concentrations in Mpumalanga and the Western Suburbs. A variety of private education institutions are also located within the Western Suburbs. Health facilities are limited to clinics and there is a small provincial hospital within Hillcrest. With the increase in population in the Western Suburbs there is a need for more educational facilities, although people with private car ownership are willing to travel distances for educational opportunities that meet their needs. In Rural areas the Rural Nodal Development Programme was initiated which identified rural investment and local service nodes to provide local level of services and support services for specific areas.

3.3.3. Economic

The economy of the Outer West is small relative to its population. The estimated GDP of the area is R4, 0bn to R6, 0bn which constitutes between 5%-7% of Municipality’s GDP and GDP per capita indicates severe poverty levels in some areas. Unemployment levels are high. Most employment opportunities for all sectors of the population occur outside of the Outer West. Within the context of the Outer West however, there is a significant amount of economic activity. This ranges from subsistence and commercial agriculture, to arts, craft markets and farm stalls and leisure, to offices and shopping centres. Unfortunately in rural areas there is dearth of employment opportunities.

The spatial economy of the Outer West is diverse and ranges from commercial and retail centres in Hillcrest, Kloof and Waterfall, to relatively depressed industrial areas in Cato Ridge and Hammarsdale. There has been significant expansion of retail and office in these areas where purchasing thresholds are high, but in relation to the rest of the Metro, these are still small in significance.

The Retail Sector is influenced by the performance of shopping centres and the buying power of the nodal catchment. The biggest growth in the form of new developments over the last 5 years has occurred in Hillcrest and Waterfall. Some of the existing shopping areas on Old Main Road display minimal shopping activities during the day which may imply that the buying power has either moved out of Hillcrest or that there is an oversupply of shopping centres. Trends are not very clear as developers still pursue development in this area despite resistance from the public. Traffic congestion and lack of waste water disposal options act as deterrents to new development.

With the increase of middle-income residential in the Western Suburbs, the office sector appears to be growing. This could be attributed to the Western Suburbs being seen as an attractive location for offices. Areas in Kloof and Gillits are being particularly targeted due to relatively easy access to Old Main Road. Delay and lack of land use management and monitoring has resulted in illegal office conversions. Research is required on the impacts of the office land use on transport and waste water infrastructure.

According to the Durban Property Market Review, 2006/2007, Durban’s retail, office and industrial market are booming mainly due to the favourable macro commercial market fundamentals. The demand for more industrial and office space will be felt in the Outer West at Cato Ridge in the short term and Shongweni in the long term.

Cato Ridge/Harrison Flats offers a comparative advantage for industrial development in the Outer West and is ideally located for development as an inter-modal distribution hub for road and rail transport. Given the fact that the Metropolitan area is fast running
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out of greenfields land for industrial development there is an interest and resurgence for industrial development in Cato Ridge. Access to the currently zoned industrial land is difficult due to land ownership patterns, as a result, ad hoc parcels of land within the vicinity and in Camperdown Rural are been targeted for and are under pressure for industrial development. Road access, road capacity issues and lack of waste water treatment infrastructure are the major constraints to opening the industrial potential that exists.

The following manufacturing firms have recently located or shown an interest in Cato Ridge: Safal Steel, Tosas Bitumen Plant, NCP Chlorochem Pty Ltd.

Lack of space for service industry in the broader Outer West area has lead to inappropriate developments along the R103 which negatively impact on the tourism potential of this route. In the Waterfall area the industrial activities are posing a health risk due to inappropriate waste water disposal.

Agricultural activities on 12 501 hectares of land account for 25% of eThekwini’s total land used for farming. These range from community based gardens to large-scale commercial farming endeavours. Due to the relocation of the sugar mill, agricultural activities such as sugar cane farming on 3498 ha of land have become unviable. There is now pressure for an alternative use for large agricultural land parcels.

Small holdings within the rural stretch from Assagay to Drummond, located within spectacular landscapes offer much potential for tourism related activities. Marketing gardening occupies 39 hectares and about 104 ha are under forests. The following picture depicts the broad land potential areas for agriculture. Further analysis is required to determine the agriculture potential and viability within these broad categories.

Diagram 4: BROAD AGRICULTURE LAND POTENTIAL

November -2012
3.3.4. **Infrastructure**

The Outer West falls outside of the eThekweni Municipality’s urban services edge and the capacity of infrastructure is commensurate with this. Suburban areas in the Outer West are subject to servicing limitations. The newly introduced urban development line applies to the Western Suburbs LAP and the broader Cato Ridge/Mpumalanga area and must be applied in accordance with infrastructure availability, capacity and planning.

Areas falling out of this line area regarded as the rural periphery or hinterland in that they have different servicing needs and constraints and supports different lifestyles to those within the UDL. Within the UDL, the development phasing line demarcates the interim spatial limit to which development will be allowed to establish in accordance with infrastructure availability and capacity.

3.3.4.1. **Roads**

Due to the topography of the area, access to and within the Outer West is problematic. The N3, the main Durban/Johannesburg freeway, and the R103 from Key Ridge through Pinetown traverse the area from east to west. There are few north/south linkages. Due to difficulties in topography and the low and dispersed nature of the population of the Outer West, public transport will remain road based.

There are areas of congestion that require intervention. Particularly current problematic areas are Inanda Road, Old Main Road and Fields Hill for which roads solutions will need to be investigated and implemented. It is envisaged that the N3 will be under extreme pressure if nodal development along this road within and outside of the eThekweni Municipal Area is not co-ordinated and managed to ensure that only the most viable and essential activities are encouraged within these nodes. This will involve a concerted effort on the part of local, provincial and national role players to ensure alignment between planning intentions of various municipalities, particularly eThekweni, eMkhambethini and uMsunduzi. There is a current proposal to relocate the existing tollbooth on the N3 at Marianhill to Cato Ridge.

3.3.4.2. **Rail**

Currently there are 52 train sets (including 5 spare) 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 Mabida in 2009/2010 to the value of R348m with further station upgrades planned for 2010/2011 for Clairwood, Montclair, Zwelethu, Lindokhule and Avoca stations to the value of R45m. Since 2009, a total of R500m has also been spent on minor improvements (painting, repairs etc) in a number of stations situated throughout the municipal area.

A further seven (7) stations have also been selected in KZN for future Station Precinct Upgrades four of which fall within the eThekweni Municipal area. The stations include KwaMnyandu, Umlazi, Pinetown, KwaMashu, Umgeni Business Park, Scottburgh and Pietermaritzburg stations. This project has only recently been initiated and is currently in progress. 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 on the existing North –South Corridor from Umlazi to Bridge city. The detailed design of these capacity improvements is expected to be complete by 2015.
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The main Durban/Johannesburg passenger rail link traverses the southern portion of the Outer West from Pinetown through Mpumalanga and Cato Ridge and there is a secondary passenger line running through the Western Suburbs to Cato Ridge. The section of rail line between Durban and Pietermaritzburg suffers from extreme gradients, limited tunnel clearance and axle loading. Future investment on passenger rail by PRASA includes a potential new railway station at Mpumalanga. This is subject to a feasibility study to be undertaken by PRASA.

Diagram 5: Rail Network and Services

3.3.4.3. Sanitation and Water

Despite the Outer West falling outside of the water-borne services edge of the eThekwini Municipality, there are 5 wastewater treatment works: Hammarsdale, Mpumalanga, Fredville, Cato Ridge and Hillcrest. Four of these works are generally working within their capacity to cater for existing developments within their catchments. The Hillcrest Waste Water Treatment Works is at full capacity. This means that there is no current opportunity upstream of this works for waterborne development linking to this works.

Future developments within Cato Ridge, Mpumalanga, Hammarsdale and Fredville will have an impact on capacity of the existing works. Where infrastructure does exist e.g. Hammarsdale, development should take place incrementally outwards from existing infrastructure.

There has been a trend for the installation of package plants, small privately owned wastewater treatment plants, but at present these plants are unable to meet operational standards set by DWAE and the Municipality’s Water and Sanitation Department. The use of Privately Owned Treatment Works (POTW) has raised much debate and concerns about the sustainability of this practice. Cotswold Downs is one such residential area that has its own POTW.

The key concern is that waste disposal requires a receiving water body of which there is little known about the accumulative effects on the receiving environment. This will have serious implications for the development of rural service nodes which quite necessarily requires some form of local shopping and community facilities development to improve the quality of life. On-site sanitation refers to the use of septic tanks on 2000sqm minimum site sizes that allows for evapo-transpiration areas. For low income rural areas the
sanitation system is based on the Urine Diversion Toilets. Water provision is made through the 200 litre ground tank system.

3.3.4.4. Water

The responsibility for the supply of water in most areas of the Outer West falls under the responsibility of ETHekwini Water and Sanitation whilst Umgeni Water is responsible for the bulk supply of water. The Outer West region receives water from the Umlaas Road Reservoir which in turn is supplied by the Midmar Dam.

The bulk water supply pipeline that transfers water from the Umlaas Road Reservoir to the Outer West has been having problems with the lining and is reaching maximum capacity. To reduce pumping and relieve pressure on the Northern Aqueduct, the ETHekwini Water and Sanitation will implement the construction of the ‘Western Aqueduct’ a new bulk water pipeline from Cato Ridge to Inanda and Pinetown supplying Durban and its surrounding with gravity-fed potable water.

The water supply to the KwaZulu-Natal Coastal Metropolitan Area is experiencing serious difficulties. 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.

A Reconciliation Strategy for the KwaZulu-Natal Coastal Metropolitan Area Water Supply System was finalised in 2009 by the Department of Water Affairs (DWA), ETHekwini Municipality, Umgeni Water, other municipalities and stakeholders. This Strategy identified, prioritised and confirmed the essential interventions necessary to meet the water requirements of the area for the next 25 years and must be integrated with municipal planning. A Strategy Steering Committee (SSC) has been established as a result.

In the reconciliation strategy for the area, the high risk of restrictions was identified and a number of interventions were assessed to reduce the risk. The immediate interventions of constructing the Spring Grove Dam and pipeline and the raising of the Hazelmere Dam have fallen behind schedule. The risk of restrictions has escalated to an unacceptable level resulting in the need to now prioritise these projects.

The water balance diagrams depicting the water reconciliation situation in the Mgeni and Mdloti/Mvoti River Systems are shown in Figure 1 and Figure 2 respectively. The diagrams indicate the proposed timing of interventions to address the shortfalls in yield.

Figure 1: Water reconciliation situation in the Mgeni River System
Figure 1 shows the following:
- The solid blue line up to 2009 represents actual water use.
- The dotted blue curve represents the high water requirement projection scenario without further WC/WDM as applied in the reconciliation strategy.
- The dotted red curve represents the high water requirement projection scenario with further WC/WDM applied in the reconciliation strategy.
- The purple line represents the revised water requirement projection scenario compiled by Umgeni Water in February 2010.
- The black line represents the revised low water requirement projection scenario compiled by eThekwini (with further WC/WDM).
- The red shaded areas indicate where the water use exceeds the yield – shortfall in yield.
- Pink area represents the yield of Spring Grove Dam added onto the existing yield of the Mgeni River System.
- The green area represents the planned re-use volume of treated sewage effluent.

Figure 1 highlights the following:
- The immediate risk of water restrictions up until 2013 when Spring Grove Dam was scheduled to deliver water to the Mgeni River System;
- The importance of WC/WDM measures (red dotted and black line) in reducing the water requirement projection curve which will reduce the risk of water restrictions up until 2013;
- The successful implementation of WC/WDM will allow the proposed implementation schedule for the Spring Grove Dam and the treated effluent re-use to meet the water requirement projections after 2012 and beyond.

The implementation of the Smithfield Dam on the Mkomazi River needs to be completed by 2021.
The implementation dates of the Spring Grove Dam and the effluent re-use schemes are crucial to achieving a water balance for the Mgeni River System.
The studies for the Mkomazi River Development should start immediately so that the scheme can be implemented in time.
The desalination of seawater (a proposed option) could replace the Mkomazi River Development.

Figure 2: Water reconciliation situation in the Mdloti/Mvoti River System
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Figure 2 shows the following:

- The solid line up to 2009 represents actual water use. The drop in water requirements is due to some of the water requirements normally supplied from Hazelmere Dam being supplied from the Mgeni River System.
- The dotted curve represents the water requirement projection scenario from the reconciliation strategy.
- The purple line represents the revised scenario from Umgeni Water – February 2010.

Figure 2 highlights the following:

- The raising of Hazelmere Dam would have been required by 2009 if the original reconciliation strategy water requirement projection was realized. For the revised projection the dam raising will need to be completed by 2011.
- The transfer from the Lower Thukela River is planned for implementation by 2013.
- The Isithundu Dam or another dam on the Mvoti River is next scheme planned for development by 2018. This scheme is planned to be developed in two phases.
- Once the Mvoti River Development is in place the Ecological Reserve will be able to be fully implemented in the Mdloti River system.

A number of interventions aimed at addressing the water supply problems in the municipal area are currently underway. These include:

1. Water Conservation and Water Demand Management
   The first option to deal with water shortages is water conservation and water demand management (WC/WDM). The eThekwini Metro is addressing water losses through replacement of asbestos cement pipelines, leak detection, pressure reduction, rezoning and the improvement of reservoir integrity. The real loss in 2009/2010 was 37.5% and the target is to reduce this to 28% by 2013 and 25% by 2018. However, to achieve the target savings in water losses will take a concerted team effort from all parties involved, particularly the community. Even if completely successful WC/WDM measures will not be sufficient to ensure sufficient future water availability in the area and the following further significant interventions are required:

2. Spring Grove Dam and transfer system
   There are potential delays due to appeals on the pipeline. Projected water delivery will be in April 2013 if the project remains on schedule.

3. Raising of Hazelmere Dam
   If the project remains on schedule, the gates will be installed and commissioned in 2012, although there is already a delay of two years, and no further delays can be tolerated in the raising of the dam.

4. North Coast pipeline and Hazelmere Water Works Upgrade
   The Mvoti Development Scheme will be linked into the North Coast Supply System by 2019. The upgrade of the North Coast pipeline and Hazelmere Waterworks to be completed by 2014.
5. **Mkomazi River Transfer Scheme option**
The soonest water delivery can take place is 2022 and the professional service providers for the raw water infrastructure will be appointed in January 2011.

6. **Lower Thukela Transfer**
Construction is planned for commencement in January 2012 for delivery by 2014. This scheme is on track according to the current planning, with no complications foreseen.

7. **Mvoti River Development**
It is anticipated that the feasibility studies will start by August 2011.

8. **Re-use of treated sewage effluent**
Studies are being undertaken by eThekwini Metro to investigate the potential re-use of treated sewage effluent and the implementation plan is due for completion by December 2010. The assessment of the options resulted in the direct re-use option being identified as the preferred option. It is proposed that the treated sewage effluent from the KwaMashu, Phoenix and Northern works be collected and treated to a potable standard before pumping into the Northern Aqueduct. The project is on track to deliver water by 2016 as planned. Public perceptions of direct re-use could delay or prevent the implementation of the re-use option.

9. **Desalination of seawater option**
The potential of seawater desalination as a water supply option for the Durban area was investigated by Umgeni Water in a pre-feasibility study completed in May 2009. The study showed that desalination of seawater is technically and environmentally feasible and competitive with the cost of the Mkomazi River Development Project. Two 150 ML/day plants are planned, one on the north coast and the other located on the south coast.

Due to the seriousness of the future water supply security, the investigation into sea water desalination must be accelerated. The results have a bearing on the Mkomazi River Development Project and possibly the Mvoti Scheme. Desalination of seawater may be implemented more quickly than the surface water projects.

The actions identified in the Water Reconciliation Strategy that eThekwini Metro is responsible for are the following:

- Feasibility study for re-use of treated sewage effluent options
- Implement further Water Conservation and Water Demand Management measures (together with the DWA Directorate: Water Use Efficiency)
- Rain water harvesting (together with the DWA Directorate: Water Use Efficiency)

### 3.3.4.5. Stormwater
Some of the key concerns regarding stormwater in the Outer West are densification due to a reduction in plot sizes and increase in coverage results in an increase in hardened area and an associated increase in stormwater runoff. Linked to this is the impact of rezoning of agricultural or natural areas to allow more residential and other development.

In low cost housing areas this results in increased runoff into streams and rivers with little or no space for mitigation in the housing development. This can lead to flooding within other residential areas in the minor catchment area. The impact will be that the Municipality will have to act retrospectively to mitigate against residential flooding at a huge cost to the Municipality.
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3.3.4.6. Electricity and Telecommunications
Access to electricity and telecommunications is affected by Eskom’s power constraints and challenges, and this will impact on future development of the Outer West Region.

3.3.4.7. Solid Waste
The existing solid waste disposal sites serving the western areas of EThekwini via Bassasar Road and Marian Ridge area are nearing the end of their lives. At current rates of refuse disposal the maximum life these sites have is only 12-14 years. Thus new sites will have to be identified, all approvals obtained and preparation work commenced within 10 years as people will continue to produce significant amounts of waste.

Currently two sites are being assessed, one at Shongweni and the other at Cato Ridge, both sites are considered essential in the long term. The Shongweni site has environmental impacts which imply that Cato Ridge becomes essential. The lifespan of the sites which is 70 to 100 years indicates that the phasing of second site (either Cato Ridge or Shongweni) could enable an interim use.

3.4. DEMAND ASSESSMENT

The demand assessment highlights what assumptions are made about change and how this change will influence settlement patterns and development trends.

3.4.1. Social Drivers
The ETHeKwini Population of 3 510 000 is expected to increase by 1.1% per annum to 1 050 000 by 2030 which represents an increase of 30% in metropolitan population. (Source: Unlocking Development Project)

According to the middle AIDS scenario developed by the ETHeKwini Municipality, Durban is assumed to reach a 0% population growth rate. Whilst natural growth rates may well reach a nil growth pattern, due to increased poverty and pressures in areas outside of the Municipality, it is expected that the population of the Outer West will continue to grow. The existing 144 372 dwelling unit figure as at 2006 will increase ultimately to 247 019 over the next 20 years. This relatively high increase is the result of the rural periphery likely having to undergo consolidation and increases in density as these areas begin to fulfil the function of reception areas to the Municipality. The likelihood of the above growth changing and being reduced is very dependent on whether key policies will begin to reverse this trend and poor people will begin to be accommodated in the Central Region.

The future growth of the population can also be linked to increases in economic activity and public investment in housing and social infrastructure. Poverty Alleviation Programmes and the Governments renewed focus on the ‘war against poverty’ in rural and peripheral areas, whilst meeting the needs of existing populations, will act as attractors for further settlement. As perceptions of economic opportunities in ETHeKwini increases, international immigration from neighbouring countries is also likely to increase although the recent xenophobic attacks may lessen this to some extent in the short term.

Population growth will place a number of pressures on urban systems within the Municipality including: increased pressure on the limited vacant land available; increased pressure on the natural
resource base; increased pressure on social facilities, transportation and utility services and greater demands for housing and employment opportunities. These pressures will tend to be felt in the “soft” areas where vacant land is available on the periphery. Future densification should ideally occur mostly in Central Region of the Municipality and infill and densification policies should be directing this. Whilst this future trend is anticipated, there will be pressure on service providers to innovate in terms of service provision to deal with the current situation in the Outer West.

Perceptions and the reality of crime have also lead to new ways of living and are fuelling the rise of "gated-communities" on the urban periphery. The availability of large tracts of agricultural land that is no longer considered viable for sugar cane planting will most likely be developed for housing purposes as an alternate land use. The Outer West will continue to be a sought after location for middle-high income housing. Initiating trust between income and race groups will begin to address social integration which is quite essential for our new democracy.

3.4.2. Environmental Drivers

Increased, and at times, inappropriate development within the Outer West has resulted in natural areas having to “work harder” in order to assimilate and mitigate the effects of human settlements, e.g. increased consumption, waste outputs as well recreation and tourism needs. In some areas the ability of the environment to deal with the impacts (some of these illegal) of settlements has already been exceeded, e.g. where reduced water quality has been measured in watercourses, significant soil erosion has occurred, natural habitats are transformed by invasive alien species or bush encroachment and the prospects for conserving certain flora and fauna and vegetation types is diminished by over-utilisation, transformation, fragmentation and isolation. In addition management efforts by a range of role players in the remaining natural areas are generally uncoordinated and inadequate to maintain these at an acceptable level.

These impacts are likely to be exacerbated by anthropogenic climate change, which is predicted to result in increased temperatures and altered rainfall patterns (i.e. less frequent but more intense). Climate change is expected to lead to increased health problems, decreased water availability, decreased agricultural productivity, increased flooding and erosion, loss of biodiversity and damage to infrastructure.

The identification of areas to include within DMOSS is part of the eThekwini Municipality’s efforts to protect natural environments for the benefit of current and future generations. Many of the Municipality’s actions stem from requirements of national or provincial law reform as well as lessons learnt from international best practice. Some may view certain actions as inhibiting development, but there is a need to take into account environmental carrying capacities and to guide the scale and form of development and where it takes place. Underlying these actions is a concern for the wellbeing of all of Durban’s citizens and future generations.

3.4.3. Economic Drivers

A substantial portion of the ETHekwini Municipality’s economic development opportunities (such as major industry, commerce and tourism) are concentrated within the coastal plain beyond the boundaries of the Outer West, and the current spatial structure of the municipality suggests that this is likely to continue into the future. However major economic initiatives such as the Dube Tradeport and the Harbour will enable Durban to gain a comparative advantage in the global logistics market. The impacts of these initiatives will be felt in the Outer West as commerce and industry looks for secondary growth areas to locate in.
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Renewed confidence in the South African economy and until recently the low interest rates has lead to increased investment in the housing market which in turn is rapidly transforming either undeveloped or agricultural land into housing developments. If not managed correctly this would lead to rapid decline in environmental quality, loss of critical land parcels for community and social facilities and highly congested suburban areas. The property rates policy will be a major driver of development in the Outer West.

The decentralisation and deconcentration of commercial and retail sectors is changing the pattern of South African spatial economy. However, according to the Property Market Review, EDU (2006-2007), Infrastructure provision has a strong influence on property development and investment decisions. For instance, traffic congestion is becoming a critical issue in many South African cities and is starting to influence locational decisions. In Durban, levels of traffic congestion have become of significance in the northern commercial nodes and are revealing itself as an Achilles heel in Cato Ridge.

Although the trend according to this report remains unclear, there are indications that traffic congestion could in due course shift tenants back to the Central Business District and its periphery, where infrastructure is perceived as adequate. The ABSA Bank relocating its decentralised operations to the CBD is a positive indication of this.

3.5. SYNTHESIS OF ISSUES

The existing spatial structure of the Outer West can be described as follows:

- Extent and quality of natural assets make the area a high priority environmental management area

- Fragmented and un-articulated open space system will reduce ecological viability
- Poor inter linkages between different settlements and communities resulting in inefficient and inconvenient travel patterns
- Under provision of community and commercial facilities in rural areas resulting in inconvenience and lack of productivity
- Dominant land owners are drivers for new developments that are not always consistent with municipal priorities.
- Large under serviced informal settlements and developments on traditional land resulting in poor living conditions and pressure on the natural environment and social and health challenges.
- High risk generated by informal settlements being in vulnerable locations, could result in the municipality refusing to provide services that will consolidate a settlement, but leads to prolonged situations of poor environmental standards if alternative land is not immediately available.
- Low densities and fragmented settlement pattern with low thresholds for efficient service delivery
- Low densities, fragmented settlement pattern and low incomes with resultant low thresholds for viable commercial nodes and service points
- Poor linkages from rural and informal settlements to metropolitan transport links and to metropolitan facilities and services resulting in inefficient costly travel patterns, inconvenience, lack of productivity, social/family impacts.
- Diminishing capacity of major road transportation corridors to serve the metropolitan area from an economic point of view.
- Under performing agricultural areas resulting in pressure for land use change and impacts on food security.
- Property Rates Policy encourages uniform development of the City.
- Imbalance between availability of and location of employment opportunities in relation to economically active population.
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- Short term market pressures and rapid development may prejudice long term sustainable planning objectives.
- Inadequate and outdated policies and zoning will encourage the illegal use of land which will further negatively affect infrastructure capacity.

3.6. DEVELOPMENT PRIORITIES
The following table shows the Phase 1 Priorities (2010 to 2014). Lack of suitable infrastructure to unlock key development priorities will limit local economic development:

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>LAND RELEASE (ha)</th>
<th>INFRASTRUCTURE CONSTRAINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cato Ridge</td>
<td>916</td>
<td>Sewer/Roads/Water/Electricity (ESKOM)</td>
</tr>
<tr>
<td>Hammarsdale</td>
<td>193</td>
<td>Sewer/Water/Electricity (ESKOM)</td>
</tr>
<tr>
<td>Bartletts</td>
<td>148</td>
<td>Sewer/Roads/Water/Electricity (ESKOM)</td>
</tr>
<tr>
<td>Assagay/Shongweni</td>
<td>488</td>
<td>Sewer/Roads/Electricity (ESKOM)</td>
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<td>Hillcrest</td>
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<td>Sewer</td>
</tr>
<tr>
<td>Mpumalanga</td>
<td>813</td>
<td>Electricity (ESKOM)</td>
</tr>
<tr>
<td>KwaXimba</td>
<td>258</td>
<td>Electricity (ESKOM)</td>
</tr>
<tr>
<td>Fredville and Surrounds</td>
<td>838</td>
<td>Sewer/Roads/Water/Electricity (ESKOM)</td>
</tr>
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<td>iQadi</td>
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<td>Sewer</td>
</tr>
<tr>
<td>Molweni</td>
<td>218</td>
<td>Water</td>
</tr>
<tr>
<td>Zwelimbomvu</td>
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<td>Electricity</td>
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<tr>
<td>TOTAL</td>
<td>4765</td>
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</tr>
</tbody>
</table>
4. APPLICATION OF THE SPATIAL STRUCTURING APPROACH TO THE OUTER WEST

4.1. STRATEGIC ROLES OF THE OUTER WEST REGION IN THE EMA

In order to achieve the vision for the City which is that by 2020 ETHekwini Municipality will be Africa’s most caring and liveable City, each Region namely the Central, North, South and West will have to play particular roles consistent with their inherent characteristics and capacities to support Development. Out of the four regions and in the context of its ecological significance the Outer West is expected to absorb the least amount of residential growth.

In order to understand the role of the Outer West it is useful to sketch a broad spatial scenario based on the anticipated demographic and economic development outlooks for the EM. Key elements of the scenario are as follows:

- Safety and security concerns have resulted in a significant thrust for development in the north and to a certain extent in the west. This growth and the associated poor access to the central areas has manifested in a push for the location of commercial and key community facilities in the outlying areas where access to or availability of commercial and major community facilities is limited.

These conditions have been exacerbated to a certain extent by changes in municipal capital expenditure patterns that have been designed to improve living conditions in outlying areas thus creating the perception that infrastructure and management in central areas and investments are being reduced. In order to reverse this pattern in line with the compact city theory requires restructuring and re-development in the Central region which will then reduce pressure for development in the Outer West.

- Intensive mixed-use development of the coastline between Durban and Richards Bay due to land ownership patterns, land availability, existing and future infrastructure, geophysical conditions and regional accessibility and the objective of establishing Durban as an international logistic hub along the eastern seaboard.

- Consolidation of hinterland road and rail transportation linkages to accommodate flow of goods and services to immediate hinterland and Gauteng.

- Continual demand for middle-income living environments associated with employment and amenity zones within the coastal plain.

- Continual demand for lower density suburban and or rural lifestyle options located within high quality environmental settings in the municipal hinterland.

- Increasing demand for decentralised commercial and community facilities to support growth areas within the coastal plain particularly along the north coast.

- Continuing pressure to convert marginal agricultural land within the municipal boundaries to residential industrial or commercial uses.

- Increased demand for services and employment opportunities in rural areas where high densities exist.

The role of the OW has been determined in accordance with the inherent character, the performance of the property market and capacity of the Outer West to support envisaged growth and development within the EM. The role in turn provides the basis for identifying the most likely, or preferred land use responses for each area that should be protected and planned for in order to key principles of equity, efficiency and sustainability.
## 4.2. OUTER WEST METRO AND LOCAL SPATIAL DEVELOPMENT ROLES

<table>
<thead>
<tr>
<th>METRO STRATEGIES</th>
<th>OUTER WEST ROLE IN THE METRO</th>
<th>KEY IMPLICATIONS FOR SECTORS IN THE OUTER WEST</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Economic Growth and Development</strong></td>
<td>Support Tourism through Cultural Asset Development: Traditional and Natural</td>
<td></td>
</tr>
<tr>
<td>• Economic hub for Kwa-Zulu Natal contributing 75% of its total output in 2005.</td>
<td>• Subsistence Agriculture Outputs: Food Security</td>
<td>• Housing and Economic:</td>
</tr>
<tr>
<td>• International and National Industrial/Manufacturing Investment Location</td>
<td>• Export and Domestic Commercial Agriculture (including “muthi” farming)</td>
<td>o Consolidate existing development within Hammersdale/ Mpumalanga and promote expansion of Cato Ridge as an Industrial and Urban Nodes.</td>
</tr>
<tr>
<td>• International and National Logistics Hub : Airport and Harbour – Inland and Coastal Corridor</td>
<td>• Secondary locations for Industrial Development and Logistics Node</td>
<td>o Consolidate and /or establish new Investment Opportunity Nodes along N3 at Cato Ridge, Bartlett’s and Shongweni.</td>
</tr>
<tr>
<td>• International, National and Provincial Tourism Destination</td>
<td>• Supply of local retail outlets</td>
<td>o Limit residential settlement densities in line with proposed OWSDP densities.</td>
</tr>
<tr>
<td>• International, National and Provincial Trade Centre</td>
<td>• Environmental asset management</td>
<td>o Integrate housing and agriculture opportunities to ensure food security</td>
</tr>
<tr>
<td>• Infrastructure, Services and Housing Development</td>
<td></td>
<td>o Industrial growth permitted within identified new growth and expansion areas</td>
</tr>
<tr>
<td><strong>Social</strong></td>
<td>Suburban, Rural and Agricultural (Agrarian) Residential Lifestyle Locations.</td>
<td><strong>Environment:</strong></td>
</tr>
<tr>
<td>• Improving Quality of Life</td>
<td>• Metro Recreation Destinations.</td>
<td>o Consolidate, Protect, enhance and expand Open Space Assets</td>
</tr>
<tr>
<td>o HIV/AIDS, Poverty and Crime Reduction, Travel Times.</td>
<td>• Rural Services Nodes and Networks.</td>
<td>o Protect Landscape characters</td>
</tr>
<tr>
<td>o Life Style Choice.</td>
<td>• Community services (schools, clinics etc)</td>
<td><strong>Transportation:</strong></td>
</tr>
<tr>
<td>• Meet basic needs</td>
<td></td>
<td>o Improve Linkages to N3 Corridor and Internal Linkages.</td>
</tr>
<tr>
<td>• Sustainable Livelihoods</td>
<td></td>
<td>o Improve / Establish Linkages across Umgeni and Umhlathuzana Rivers.</td>
</tr>
<tr>
<td>• Enhance skills, capacity and technology.</td>
<td></td>
<td><strong>Infrastructure:</strong></td>
</tr>
<tr>
<td><strong>Environmental</strong></td>
<td>Metro Eco Services Protection – Water Supply, Estuaries, Flood Attenuation, Bio Diversity, Sub Tropical Character, Visual Gate way to Metro and Coastal Destinations, Waste Disposal Location</td>
<td>o Upgrade the Hammersdale Waste Water Treatment Works to cater for new growth and industrial expansion areas in Cato Ridge, Hammersdale/ Mpumalanga and Bartlett’s in the short to medium term; and establish a Regional Waste Water Treatment Works in Shongweni to cater for developments in Shongweni, Assagay and Hillcrest in the long term.</td>
</tr>
<tr>
<td>• Integrated Eco Goods and Services Delivery.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Bio Diversity Protection.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Catchment Management.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Pollution and Air Quality Management.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Climate Change adaptation and mitigation</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Spatial</strong></td>
<td>N3 integrating corridor linking the Metro to the national and regional economy.</td>
<td><strong>Infrastructure:</strong></td>
</tr>
<tr>
<td>• Densification of the Core.</td>
<td>• Linkage corridor to national and regional hinterland.</td>
<td>o Upgrade the Hammersdale Waste Water Treatment Works to cater for new growth and industrial expansion areas in Cato Ridge, Hammersdale/ Mpumalanga and Bartlett’s in the short to medium term; and establish a Regional Waste Water Treatment Works in Shongweni to cater for developments in Shongweni, Assagay and Hillcrest in the long term.</td>
</tr>
<tr>
<td>• Creation of Urban Services Edge.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Creation of Urban Development Line</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Improve High Priority Linkages and Public Transport network.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Creation and Consolidation of Nodes and Investment Corridors.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4.3. SPATIAL CONCEPT
The spatial concept for the Outer West is based on the following elements:

Environmental Priority Area
The extent, location and ecological service value of the environmental assets located in the Outer West demands that they perform an important regional and municipal role as a priority area for the supply of ecosystem services. These assets perform a substantial and significant role in conserving biodiversity as well protecting the quality of life of the residents of the EMA. Substantial natural areas are located in the OW and they support and mitigate impacts in the intensively developed coastal plain of the EMA. That the natural assets of the Outer West are very important is evidenced by the fact that DMOSS covers almost 50% of the area.

Local Areas
The Outer West sub metropolitan area can be organized into six local areas, namely Western Suburbs, Shongweni, Cato Ridge, Inanda Dam, Mpumalanga and Zwelibomvu that are physically and functionally interrelated. It should be a specific aim to develop the assets and attributes of each of these local areas into high performance and balanced living environments that fully support the range of lifestyles contained within them. As such local facilities and services should be balanced with the needs of the population resident in each Local Area.

M13/N3 Movement Corridor
The Local Areas described above are to be linked to each other and into the metropolitan system via the N3/M13 corridor so that residents of the Outer West can access the benefits of the municipality and the wider region in a convenient and efficient manner. The corridor is to be developed to perform local, regional and national roles relating to the provision of community and commercial facilities and services required by the thresholds of the six local areas, employment opportunities and economic development opportunities required in the sub metropolitan area and the wider region and tourist attractions consistent with the character and capacity of the Outer West. These roles will be accommodated through the establishment of a limited number of different types, sizes, scales and intensity of service nodes located at strategic locations adjacent to the N3/M13 movement corridor.

Lifestyle Options and Settlement Densities
Each Local Area needs to be managed in a manner that will retain and maintain existing sought after neighbourhoods and lifestyles and developed over time in a manner that will provide additional neighbourhoods and lifestyle options consistent with the growth of the Municipality and with the specific characteristics and capacity of the Outer West.

Rural areas are perceived as being low density but in reality districts such as Inanda Dam, Mpumalanga and Cato Ridge display very high urban densities and settlements cannot be improved and upgraded to reflect traditional large sites as the rural form. Due to the lack of better located vacant land opportunities in the Outer West to absorb these populations, unfortunately, high densities will remain in traditional areas. Residential design and building form will be critical to ensure that environmental areas remain protected.

Local services for these communities should be provided through the establishment of well located local order nodes that provide neighbourhood services. Settlement densities are to be consistent with the lifestyle character that is to be established in each neighbourhood and in accordance with the capacity of available infrastructure.
Urban Development Line
This line is introduced conceptually to demarcate the outer limits where urban development will be permitted in the long term. The urban development line applies to the Western Suburbs LAP and the broader Cato Ridge/Mpumalanga area and must be applied in accordance with infrastructure availability, capacity and planning.
Diagram 6: SPATIAL CONCEPT

- Environmental Priority Area for long term sustainability of eThekweni Municipal Region
- Promote LED by enhancing tourism potential
- Environmental Asset Protection
- Retain and Protect Agriculture and Rural Lifestyles
- Promote economic development at strategic nodes
- Encourage and manage development in the Urban Development Line
- Ensure and efficient regional movement system
- Ensure efficient public transport system
- Consolidate, upgrade and manage intensive settlements
- Environmental Services Priority Area
5. **KEY STRUCTURING ELEMENTS**

5.1. **OPEN SPACE SYSTEM**

The open space system (DMOSS) in the Outer West is a major spatial and functional component that performs a wide range of ecological, educational, agricultural, tourist, recreational and stormwater management functions. Spatially, open space helps to structure urban development patterns and contributes to the legibility and variety of the OW as well as providing relief from the built environment. In general the open space system, through the protection of connected diverse and functional ecosystems, aims to ensure the long-term sustainable supply of ecosystem services to the people of the EMA.

The key open space guidelines for the OW are listed as follows and should be read in conjunction with the eThekwini Environmental Services Management Plan 2001. 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.

5.1.1. **Manage 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.

5.1.2. **Conserve 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 (which run in a general west/east direction) and their tributaries (which run in a general north/south or south/north direction) are as follows:

- UMngeni River: Tributaries include the Molweni, Nkuthu, Sikheleketheni, Nontshebelezwana, Mogoweni, KwaGogoda, uMsunduzi and Mshwali Rivers
- UMhlathuzana River: Tributaries include the Giba River
- UMLaas River: Tributaries include the Shongweni, Wekeweke, Sterkspruit, Mpelengwane and Mophela Rivers

5.1.3. **Conserve 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. These areas 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 Wekeweke 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, Sterkfontein and Wekeweke Rivers) and land 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.
ETHEKWINI MUNICIPALITY

- Matabetule Plateau adjacent to the Shembe settlement at Ebuhleni.
- Matata or Inanda Mountain.
- KwaZini on the upper parts of the uMdloti River.
- Ufudu Plateau on the Umlaas River.
- The upper parts of the eziMmbokodweni River.

5.1.4. Establish N3 Open Space Corridor

The N3 road reserve represents a substantial open space component which links across the OW from the hinterland to the coast and should therefore be appropriately managed to enable it to support core environmental areas. In particular it has a significant role in the establishment and spread of invasive alien plants and this need to be controlled and eradicated where possible.

5.1.5. Maintain 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 movement of animals and genetic material between larger open spaces. These fragments include:

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

5.1.6. Incorporate High Priority Undeveloped Land

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

5.1.7. Conserve Visual Features

The visual amenity and character of the OW is 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.

5.1.8. Manage 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.

5.1.9. Incorporate Climate Change Considerations

Undertake literature reviews and research to ensure that climate change impacts are mitigated as far as possible. In addition put in place measures to adapt to climate change.

5.1.10. Threats to DMOSS and mitigation

Assess impacts of specific threats to DMOSS and where possible develop mitigation measures. Undertake literature and research to establish the impacts of development and develop measures, e.g. development guidelines, to address these impacts.

5.1.11. 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.
Diagram 7: ETHEKWINI RIVER CATCHMENTS

Diagram 8: OUTER WEST RIVER CATCHMENTS
5.2. RESIDENTIAL

The SDP needs to build for the future by responding appropriately to future needs and anticipated growth patterns and trends. Given the existing large low income populations that exist there is need to identify and establish settlement forms (urban, suburban, rural agriculture and rural traditional) and building types which are more responsive to environmental concerns and lifestyle patterns so as to support a wider choice of identifiable and sustainable lifestyles. This will entail the development of a range of housing options at various densities and in various locations. The densities proposed for the Outer West will have to align with the densification strategy for the City, however given its unique nature and predominantly rural character as well as the vital ecological significance of the Outer West Region the densities here will be lower than in other parts of the eThekwini Municipality. Existing high densities in some peripheral parts of the Outer West have historical relevance.

5.2.1. Net Densities

Densities are used to describe different lifestyle options, landscape character and for evaluation of impacts on infrastructure and community facilities. In considering the development potential of a large site or broad area it is useful to be able to make a broad assessment of the developable proportion for residential development. In order to calculate the net density, the proportion of the gross area that is not available for development due to slope constraints, roads, other uses not ancillary to the proposed development, and DMOSS must be excluded. The calculations for the Outer West was done by applying broad factors such as the percentage of the land that would be deemed developable after the above has been taken off for all new development areas. The following categories denote the type of densities that apply in the Outer West.

<table>
<thead>
<tr>
<th>LAND USE</th>
<th>NET DENSITY</th>
<th>PURPOSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>1du/ha</td>
<td>Maintain agricultural lifestyle/productivity</td>
</tr>
<tr>
<td>Equestrian</td>
<td>2.5 du/ha</td>
<td>Maintain equestrian lifestyle</td>
</tr>
<tr>
<td>Rural Residential</td>
<td>2.5 du/ha</td>
<td>Maintain rural character and encourage rural lifestyle</td>
</tr>
<tr>
<td>Rural Residential 1</td>
<td>5 – 10 du/ha</td>
<td>Maintain low density (5du/ha) in Traditional Areas and encourage efficient form by clustering residential (10du/ha) development close to rural service and investment nodes on public transport routes.</td>
</tr>
<tr>
<td>Future Residential</td>
<td>5 - 40 du/ha</td>
<td>Encourage future residential development in accordance with infrastructure availability, phasing, capacity and planning. Create efficient form by clustering medium/high residential development close to key urban nodes on public transport routes.</td>
</tr>
</tbody>
</table>
5.2.2. Potential Population

Based on the application of the above range of densities in accordance with desired lifestyles and inherent qualities, on land that is considered developable the Outer West has the potential to accommodate ultimately 247,019 dwelling units.

<table>
<thead>
<tr>
<th></th>
<th>Inanda Dam</th>
<th>Western Suburbs</th>
<th>Cato Ridge</th>
<th>Mpumalanga</th>
<th>Zwelibomvu</th>
<th>Shongweni</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Area in ha</strong></td>
<td>29,954</td>
<td>9,930</td>
<td>13,721</td>
<td>12,296</td>
<td>8,271</td>
<td>10,725</td>
<td>84,897</td>
</tr>
<tr>
<td><strong>Population – 2006</strong></td>
<td>162,089</td>
<td>68,811</td>
<td>85,940</td>
<td>163,101</td>
<td>34,233</td>
<td>63,315</td>
<td>577,500</td>
</tr>
<tr>
<td>** Dwelling Units – 2006**</td>
<td>40,522</td>
<td>17,203</td>
<td>21,485</td>
<td>40,775</td>
<td>8,558</td>
<td>15,829</td>
<td>144,372</td>
</tr>
<tr>
<td><strong>Ultimate Potential Units</strong></td>
<td>52,751</td>
<td>30,400</td>
<td>33,564</td>
<td>95,694</td>
<td>10,982</td>
<td>23,626</td>
<td>247,019</td>
</tr>
<tr>
<td><strong>% of Potential Units</strong></td>
<td>21%</td>
<td>12.3%</td>
<td>13.5%</td>
<td>38.7%</td>
<td>4.44%</td>
<td>9.5%</td>
<td>100%</td>
</tr>
<tr>
<td><strong>Metro Population</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3,500,000</td>
</tr>
</tbody>
</table>

November -2012
### 5.3. NODAL HIERARCHY

A clear hierarchy of nodes, as investment and access points, should be established, consolidated and distributed throughout the OW area including, Urban nodes which include Town Centres, Districts, and Neighbourhood scale nodes; Rural Nodes including Service Centres and Investment nodes; and Specialised areas such Industrial nodes, Tourism and Recreation nodes. New opportunity areas are also identified.

<table>
<thead>
<tr>
<th>Opportunity Areas</th>
<th>Urban Nodes</th>
<th>Rural Service Node</th>
<th>Rural Investment Node</th>
<th>Tourism and Recreation Node</th>
<th>Industrial Development Node</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>These areas provide opportunities for new investment that will benefit the entire Outer West Region including the traditional areas.</td>
<td>These nodes serve the surrounding communities or Local Planning area and may provide a focal area for socialising.</td>
<td>These nodes are to provide a local level of services for the surrounding communities.</td>
<td>These nodes will be utilised for ABM level activities and services, including support services for business, agriculture, tourism etc</td>
<td>These nodes provide specialised focused services. The node has a much broader significance than the district it is located in.</td>
</tr>
<tr>
<td>Characteristics</td>
<td>Located close to and have easy access to the N3</td>
<td>Located on mobility spines and activity streets</td>
<td>Centrally located and accessible to communities.</td>
<td>Located on mobility roads</td>
<td>Located on mobility roads</td>
</tr>
<tr>
<td></td>
<td>Midway between Durban and Pietermaritzburg</td>
<td>Pedestrian activity is relatively easy</td>
<td>Usually located where there is already existing accumulation of activities.</td>
<td>Usually located where there is already existing accumulation of activities.</td>
<td>May have inherent natural qualities such as dams or cultural heritage</td>
</tr>
<tr>
<td></td>
<td>Integrated with surrounding environment through pedestrian linkages</td>
<td>Provide for the day to day needs of the local area</td>
<td>Pedestrian Access</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Required Management Approach</td>
<td>Focus should be on monitoring and management to prevent over-supply</td>
<td>Focus should be on monitoring and management to prevent over-supply and degeneration</td>
<td>Focus should be on providing integrated local services for the surrounding communities, in terms of social and economic activities, traditional structures facilities etc.</td>
<td>Focus must be on continual harnessing to prevent degeneration</td>
<td>Focus must be on continual harnessing to prevent degeneration</td>
</tr>
<tr>
<td></td>
<td>Design must focus on integration to ensure the node is a cohesive whole</td>
<td>Provide comparative retail and office development to serve local needs</td>
<td></td>
<td>Promote local economic development</td>
<td>Promote local economic development</td>
</tr>
<tr>
<td></td>
<td>Integrated with surrounding environment through pedestrian linkages</td>
<td></td>
<td></td>
<td>Promote Safety and Security</td>
<td>Promote Safety and Security</td>
</tr>
<tr>
<td>Nodal Area</td>
<td>Cato Ridge</td>
<td>Hillcrest (District Node)</td>
<td>Zweibomvu</td>
<td>Inanda Dam / Shembe and Shongweni Recreation nodes</td>
<td>Cato Ridge Industrial</td>
</tr>
<tr>
<td></td>
<td>Shongweni</td>
<td>Cato Ridge (Town Centre)</td>
<td>KwaNgcolosi</td>
<td></td>
<td>Hammarsdale industrial node</td>
</tr>
<tr>
<td></td>
<td>Bartlett's Farm</td>
<td>Mpmalanga (Town Centre)</td>
<td>Nshongweni</td>
<td></td>
<td>(Re-vitalisation and investment opportunities)</td>
</tr>
<tr>
<td></td>
<td>(Key Investment Opportunities)</td>
<td>Kloof (Neighbourhood Node)</td>
<td>KwaSondela</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Waterfall (Neighbourhood Node)</td>
<td>(Essential service provision)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
Cato Ridge and Shongweni provide the opportunity for the development of two new industrial and mixed use nodes. Development in these nodes need to be directed in a manner that contributes positively to the consolidation of existing industrial areas such as Hammarsdale and mixed use areas such as Hillcrest, as well as to new industrial opportunities presented by the Bartlett’s and Edwards Estate. These areas have the potential to be developed as new well located employment zones for the rural hinterland. The existing and future industrial opportunity areas are intended to include general industrial manufacturing activity in Harrison Flats within the Umlaas River Catchment. Harrison Flats has the potential to be developed as a mixed manufacturing and logistics/business park. Shongweni has the potential to be developed as a regional retail, light industrial/business park and mixed use node. Bartlett’s and Edwards Estate has the potential to be developed as a supportive new general industrial area.

5.3.1. Urban Nodes

Existing and new lower order nodes serving the needs of the local areas should be consolidated and established. These nodes serve the surrounding communities or local planning area and are sometimes referred to as district nodes. When these nodes provide a focal area for socialising they begin to play the role of a Town Centre. When the nodes are smaller in scale and serve one or two neighbourhoods they perform the role of a neighbourhood node. The roles of these nodes are to provide essential day to day commercial and social services to immediate adjacent communities. Local nodes will vary in activity mix which should be determined by the thresholds it serves. The following are local nodes that should be consolidated or expanded.

- Hillcrest District Node: consolidate and expand the Hillcrest Town Centre in line with the recommendations of the Hillcrest-Gillitts-Kloof activity corridor precinct plan and land use plan in order to manage and direct appropriate commercial and office expansion.

- Cato Ridge Village: re-configure, upgrade, revitalise the Cato Ridge Village to a Town Centre Node supporting local community and commercial facilities and services.

- Mpumalanga should be developed as a vibrant Town Centre supporting mixed use community and commercial facilities that serves the local area.

- Kloof should be maintained as a local area node supporting local commercial, community and office development.

- Waterfall should be maintained as a community scale node and therefore no new development should be encouraged at this node.

- Botha’s Hill should be revitalised as a neighbourhood scale node that serves the local community but that also functions as a tourism node along the R103 tourism route. Discourage service industry at this node.

- Molweni: consolidate and expand as a neighbourhood node that supports local community and social facilities that serve the Molweni and Langefontein area.

5.3.2. Rural Nodes

Rural Service or Investment Nodes (as per the Rural Development Framework Plan of eThekwini Municipality) are to be established, consolidated and/or enhanced as village centers to provide support to the development of the rural and agricultural hinterland. The nodes are to include community/social facilities, commercial and infrastructure to support the residential needs located in the rural hinterland and is to be developed in a manner that reflects or establishes a clear identity with the community that it serves and the landscape that it is situated in.

The Rural Service Nodes are to provide local level of services for the surrounding communities in terms of social and economic activities, traditional structures, facilities etc, and include:

- Zwelibomvu
- KwaNgcolosi
ETHEKWINI MUNICIPALITY

- Nshongweni
- KwaSondela

The Rural Investment Nodes are to provide support services in terms of business, agriculture, tourism and environmental issues and opportunities for local economic development and include:

- Inchanga
- UMzinyathi
- KwaXimba

5.3.3. **Industrial Nodes**

These nodes have historically been established as industrial hives. These include Cato Ridge Industrial and Hammarsdale. Hammarsdale has potential for expansion and requires an urgent revitalisation strategy and intervention, which is currently underway. Waterfall is inappropriately located as an industrial node and should not be expanded any further for industrial purposes. Monitoring and management of existing industrial activity at the Waterfall node is essential.

5.3.4. **Tourism and Recreation Nodes**

These nodes have inherent qualities that can be used to provide a range of cultural, recreational and tourism opportunities for local economic development.

- Inanda Dam to be developed as a tourism and recreational node for local and international tourism.
- Shongweni Dam, to be developed as a recreational node
- Shembe Village, to be developed as a historical and cultural node

Diagram 9: POTENTIAL NODES
5.4. CORRIDORS AND SPINES

A key component of the SDP 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.

The following Corridors have been identified:

5.4.1. Development Corridor
The N3 is a major metropolitan movement corridor that could be used for the strategic location of mixed-use high intensity developments such as, office parks, housing and commercial facilities. Major new industrial development will be accommodated at Cato Ridge, Hammersdale and Bartlett’s Estate, while Shongweni and Mpumalanga will accommodate retail, business park and mixed use development. The development of these potential nodes must be carefully assessed to determine the likely impacts on the N3, as well as the impact on other established nodal area such as the Hillcrest-Gillitts Activity corridor. Development should be concentrated at nodes at the main intersections with the north/south routes to minimise the impact of these developments on the visual character of the route and the OW.

5.4.2. Tourism Corridor
The R103 and Old Main Road has tourism potential and its role as an arts and crafts meander route should be promoted. Intersections along the route should respond to the nature of the threshold which accesses the Old Main Road via these routes. This route should form part of a network of routes which together create a tourism meander for visitors to the OW.

5.4.3. Industrial Corridor
Eddie Hagen Drive has the potential to be developed as an industrial corridor providing much needed economic opportunities for the rural hinterland.

5.4.4. Rural Corridors
Some routes in the rural areas which link rural nodes together have the potential to be developed as rural corridors that support rural activities including arts and crafts and informal trade.

5.4.5. Agriculture Corridors
This section of the MR385 is predominantly focused on agriculture as the main economic activity. This use should be maintained, and supported in the short term.

5.4.6. Urban Service Corridors
MR385 and Old Main Road have the potential to be developed as urban services corridors supporting mixed use urban development.

5.5. MOVEMENT AND LINKAGE

5.5.1. Improve Sub-Metropolitan Linkages
These need to be improved between the OW, the rest of the EM and adjacent municipalities. Suggested improvements include:
- Reinforcing the importance of the N3 and M13 (Old Main Road) in providing links between Durban, the OW and the EM hinterland
- Upgrading the gravel road MR430 link with Tala Valley to the south via Mophela
- Investigating the possibility of establishing a bridge across the Umlazi River at Shongweni to allow access to the rural node at Zwelibomvu and access to MR454.
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- Upgrading the MR259 linkage with Inanda Dam in the north.
- Upgrading the gravel linkage MR528 linkage with the KwaSondela and Mabezondle communities (Valley Trust Road)
- Improving the gravel linkage D1027 with the adjacent local communities in Bhowonono.

5.5.2. Railway Line Development

The railway line is underutilised and could be used together with the D210/MR551/MR454 to create an east/west development corridor through Mpumalanga. Due to the steep topography of the area, this would take the form of a number of key nodes along the route. An investigation to assess whether rail can be used to support freight as well as more passenger usage is necessary. The use of rail to support industrial development is essential.

5.5.3. Mpumalanga Loop Road Development

The development of the MR385 loop road, linking various nodes and industrial opportunity areas, would contribute to the integration of Hammersdale and Mpumalanga with the remainder of the OW. This loop road development could incorporate higher density housing, general and agri-industry, mixed use development and major community facilities. This development should help to relieve the pressure for residential expansion in the peripheral Mpumalanga area close to sensitive environmental resources. Assessment of future development impact on this route and related upgrading is required.

5.5.4. KwaXimba Tourism Route

The major loop road connecting KwaXimba to the R103 and N3 has major potential to provide access to this relatively isolated tribal area and its associated tourism opportunities. This route could incorporate a range of service centre and tourism facilities and activities serving local residents and visitors to the area.

5.5.5. Inanda Road

The focus should be on upgrading and widening of Inanda Road to improve it as a neighbourhood spine linking local areas; providing access to high density residential areas arranged into linear urban or rural systems; and linking existing nodal developments at Waterfall and Hillcrest and a future small neighbourhood node at Molweni.

5.5.6. Kassier Road

Kassier Road must be established as a movement spine linking the Western Suburbs to Shongweni. Linkages to the R103, M13 and N3 make it an important alternate access to address congestion problems along Old Main Road. Better connectivity between Kassier Road and Inanda road is needed. Mixed Use developments should be restricted to the future Shongweni node.

5.5.7. Fields Hill

A strategy to alleviate the current congestion on Fields Hill needs to be investigated and implemented by KZN DoT as the key role player.

5.5.8. Proposed N3/Cato Ridge Interchange and Link Road

There is an opportunity to develop a link from the N3 to Eddie Hagen Drive to open up the industrial area, however infrastructure costs are prohibitive. Further research is required to establish the best option to open up the industrial potential that exists here.

5.5.9. Proposed MR360

There is an opportunity to create a link from M13 to the N3 via Kloof and Stockville; however existing developments and community dynamics may pose challenges. A strategy is required to enable this link to be developed, which is essential to alleviate current congestion on the M13 and Fields Hill.
5.5.10. Inanda Link Road
Whilst the cost to develop a potential link from Inanda Road across Molweni to Inner West will be high, this link remains important to address the current congestion challenges, as well as to provide an alternate exit for the Western Suburbs.

5.5.11. Cato Ridge to Dube Trade Port
Investigate a potential link from Cato Ridge to Dube Tradeport in the North.

5.5.12. Public Transport
Public transport is considered essential to alleviate traffic congestion. A public transport plan for the Outer West must be developed and implemented.

5.6. WASTE DISPOSAL
Whilst the Outer West has been identified as an environmental services priority area, it is acknowledged that there is a need for the siting of a solid waste landfill within the area for the long-term disposal of solid waste. The communities in the area are unlikely to support such a move, but strategically, it is not environmentally or economically sustainable to move solid waste from the west to areas either north or south of Durban.

The two sites identified in the Outer West include Shongweni and Cato Ridge (Ferroalloys). In terms of this SDP the preferred site is Shongweni however until such time as a final decision is made, a buffer preventing settlement within the vicinity of both waste sites is suggested.
Diagram 11: SPATIAL DEVELOPMENT PLAN

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## 5.7. LAND USE QUANTUMS PER LOCAL PLANNING AREA

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## 5.8. LAND USE QUANTUMS SUMMARY

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6. FUNCTIONAL DISTRICTS

Six functional districts or local areas have been identified which are separated from one another by major topographical features and major barriers such as river valleys and main roads. These districts identified in the OW each have their own character and opportunities for development and need to be planned and managed accordingly. The planning and management of these districts should be aimed at turning these functional districts into local activity systems which provide a range of facilities, opportunities and services required by local residents. Two of the local planning areas: Inanda Dam and Zwelibomvu are entirely traditional authority areas, while Cato Ridge and Mpumalanga have some traditional authority land within its boundaries.

The role, key characteristics, spatial development concepts and key actions are outlined for each of these functional districts in the following sections. More detailed studies are required at a local level. In assessing development applications in each of the local areas/districts it is useful to screen development to ensure that the core values as identified in the IDP are supported. Whilst the following guidelines are provided to assist with development pressure in the short term, the preparation of each local area plan is an urgent and critical requirement.
6.1. CATO RIDGE LOCAL AREA

(Diagram 15)
6.1.1. Key Characteristics
The Cato Ridge Local Planning Area is located in the north-west corner of the Outer West. The area is home to 15% of the Outer West Population on 17% of the land mass. 39% of the district is in the open space system. The district is predominately suburban traditional in nature. There are sixteen planning units that make up the district. From a regional context Cato Ridge is strategically located on the N3 national route between eThekwini Municipality and Mkhambathini Municipality and close to Pietermaritzburg.

6.1.2. Role
- Medium to High impact industrial expansion
- Location for regional solid waste disposal
- Environmental asset protection and consolidation
- Low and medium density suburban and rural settlement expansion
- Local commercial and service development

6.1.3. Planning Rationale: Residential
Cato Ridge is strategically located on the N3 National Route between eThekwini and Mkhambathini Municipality and close to Pietermaritzburg. A significantly large extent of existing zoned industrial flat land is located within the District, which makes it an attractive location for industry. The Greater Cato Ridge Local Area Plan, approved and adopted by Council in June 2012, investigated the viability of unlocking development within this particular node. The project resulted in the formulation of an Industrial functional area plan and Town Centre functional area plan for Cato Ridge/Harrison which guides the precise location of industrial and mixed use development. Each of these precincts have a unique role namely:

Cato Ridge Industrial Functional Area Plan - An industrial node providing job opportunities for the local community and contributing significantly to the economy of eThekwini Municipality. Taking advantage of sophisticated transport linkages and offering quality, environmentally sensitive infrastructure to investors, and taking realistic account of the topographical realities of the landscape.

Cato Ridge Village - A service centre to the Outer West Region of eThekwini Municipality and a gateway to the iconic Valley of a 1000 Hills. A green and welcoming environment providing commercial, educational, recreational, residential, social and tourism services to both local residents and visitors.

A key challenge for industrial development is that most of this land falls within the uMngeni River Catchment, which contains the Inanda Dam, which is a key source of water for the City. In order to protect the Inanda Dam from contamination from industrial waste disposal requires that proper waste water infrastructure be in place. The project investigated the waste water requirements and the interventions necessary to unlock development. A detailed study of the infrastructure planning and risk management was undertaken.

A second challenge which the area faces is the capacity of the road network to handle the anticipated traffic generation. The project investigated the traffic infrastructure requirements. A traffic impact assessment was conducted and this investigated the impact of development on the road system, the capacity that the road system and the N3 in particular can sustain, and the upgrades required to facilitate development. It is important to note that the road & sewer constraints in Cato Ridge restrict the extent of industrial development possible. The studies revealed that the maximum GLA of industrial development which can be accommodated by the road network is 121ha. The existing road network can accommodate 346,087m² of industrial development. In order for further land to be released a
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number of upgrades and interventions have to be implemented. Some of the upgrades are as follows:

- By the time 537,130m$^2$ of industrial development been reached the Hammarsdale IC will require upgrading to signals and the MR385 will need to be widened
- By the time 850,597m$^2$ of industrial development has been reached the new interchange will need to be built, the N3 will have to be widened to four lanes per direction and the MR385/R103 will need to be widened to two lanes per direction between Doornrug Road and eastbound on-slip.
- To realise the total development of 1,188,427m$^2$ of industrial development widening of the R103 to two lanes per direction between Dunbar Drive and Eddie Hagan Drive will be required

In addition to the above interventions a number of public transport improvements will be required to help facilitate movement of people between the surrounding residential and the industrial areas

Cato Ridge, despite these challenges, offers the only opportunity to provide significant job opportunities for the vast settlements in Fredville, KwaXimba and Mpumalanga. In addition, the area is an important development node for port expansion related activities, and other industries.

The following are some of the guidelines proposed for industrial development.

- Dry, non-polluting manufacturing and service industry north of R103 along Eddie Hagen Drive within the uMgeni River Catchment. Industrial activity in this zone must by necessity be job creating to ensure poverty reduction in the adjacent communities. Economic growth without simultaneous benefit to local communities is unwarranted and should be avoided. In cases where industry does not create enough job opportunities but where the industry is considered essential, then programmes should be developed to ensure that investors provide social upliftment in neighbouring communities e.g. upgrading of local educational facilities etc.
- Wet, general industry to be located between R103 and N3 within the uMlaas River Catchment. Development within this zone is very dependent on a proper waste water treatment facility without which development can become hazardous to human health. Pressure for other industrial activities such as light industry and warehousing should be avoided in this zone. This area is to be opened up only when the waste water and road access issues are resolved.
- Encourage light industrial uses adjacent to the wet general industrial as an interface zone between industry and residential in Inchanga.
- A future regional landfill site for solid waste disposal has been identified north of the industrial precinct. The proposed land fill site accounted for here is identified as a municipal need and may only be utilised within the next 70-100years. In the interim the area is to remain as an environmentally sensitive open space.
- Rezone the special industrial zone north of the Abattoir to discourage noxious uses at this location.
- Ensure sufficient buffering between industrial development and residential development.
- Upgrade the Hammersdale Waste Water Treatment Works to cater for new growth and industrial expansion areas in Cato Ridge, Hammersdale/ Mpumalanga and Bartlett’s in the short to medium term.

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6.1.4. Planning Rationale: Residential

Residential development will largely be in the form of in-situ upgrades in Fredville and more affordable housing opportunities in the Cato Ridge Village. There are pockets of large developable land in KwaXimba, but these are fairly disconnected from the proposed industrial node and other areas. Unless KwaXimba is well integrated with Cato Ridge and the uMkhambathini Municipal area it would remain an isolated community.

Future settlement plans in the rural areas will be addressing the upgrading of existing rural housing. Given the lack of suitable vacant land opportunities for relocation from rural peripheral areas to more central locations, it is expected that the rural community will remain in the area until such time that broader city restructuring is able to provide alternate housing for the poor. Some suburban type housing with minimum plot sizes of 900sqm is found south of the N3.

6.1.5 Proposed Residential Land Use and Densities

- Residential densities for traditional rural areas to be no greater than 5 du/ha to maintain a rural lifestyle and discourage large scale densification close to environmental areas on steep land. Clustering of rural housing closer to rural service nodes is preferable to encourage more efficient urban form and better use of infrastructure. Medium density scenarios and built form must be agreed upon at a local project level between Metro Housing and Development Planning Department.
- Medium density housing is permitted in Fredville at 20du/ha, with access to waterborne sewerage. Areas outside of the waste water catchment must be reduced to rural densities.
- Affordable suburban housing opportunities within Cato Ridge to support Town Centre development at 10-20 du/ha is proposed. This must follow on after the industrial node and Town Centre node are substantially developed.

6.1.6 Proposed Mixed Use

- Upgrade and revitalize the current Cato Ridge Village to a Town Centre urban node supporting local community and commercial facilities. Commercial facilities will only succeed when the industrial node is fairly developed as the current buying threshold is low.
- Develop the Inchanga rural investment node to support a mix of local community and commercial facilities and higher density residential development.
- Develop the KwaXimba rural service node to support local community and social services.
- Limit non-residential uses along R103 past the noxious zone.
6.1.5. Proposed Movement System
- Establish Eddie Hagen Drive as an industrial corridor.
- Establish R103 as a movement spine and a tourism route connecting different local areas.
- Potential link from N3 to Eddie Hagen Drive to open up industrial land development.
- Proposed new N3 interchange
- Improve internal circulation.

6.1.6. Open Space/Environment
- Protect and manage Isithumba Hills as Environmental Resource Core.
- Encourage environmentally friendly tourism opportunities within Isithumba Hills
- Encourage environmentally sustainable agricultural activities linked to rural housing.
- Protect and conserve the uMngeni River Catchment from negative industrial impact by ensuring stringent land use and pollution controls for proposed industrial developments.

6.1.7. Services
- Establish on-site sanitation in rural areas, but where densities are high especially around the rural nodes alternative waste water options are to be investigated.
- Water-borne sanitation within the natural catchment of Fredville Water Works.
- Phase affordable housing opportunities in line with infrastructure capacity and when nodes are sufficiently developed.
- Upgrade the Hammersdale Waste Water Treatment Works to cater for new growth and industrial expansion areas in Cato Ridge, Hammersdale/ Mpumalanga and Bartlett’s in the short to medium term.
- Undertake literature reviews and research to ensure that climate change impacts are mitigated as far as possible. In addition put in place measures to adapt to climate change.
6.2. WESTERN SUBURBS LOCAL AREA
(Diagram 16)
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Key Characteristics

The Western Suburbs are located in the eastern corner of the Outer West and are home to 16% of the Outer West population on 12% of the of land mass. 23% of the area is included in the Metro DMOSS.

6.2.1. Role

- Sub-urban Low to medium density residential infill and expansion
- International and domestic cultural and environmental tourism destination
- Environmental asset protection and consolidation
- Local commercial and office consolidation and expansion

6.2.2. Planning Rationale

Rapid and unprecedented development has changed the character of the Western Suburbs, particularly along Inanda Road and Old Main Road and this has resulted in significant congestion in the area. Currently there is very little opportunity for people who work in the area to live here as well. It is therefore the intention of the OWSDP to address the current situation and encourage land uses that will complement the existing uses thereby ensuring efficiency and social equity. There is infill opportunity for more affordable cluster housing opportunities on the remainder of Luke Bailles Farm and along Old Main Road in the short to medium term. The proposed affordable cluster housing may take the form of complimentary mixed use development as a way of promoting live, work, study and relax environments.

New residential growth will largely be in the form of affordable and cluster housing on the remainder of Luke Bailles Farm and along the Old Main Road Corridor in the short to medium term; as well as in the form of residential infill in Assagay and Waterfall in the long term. The provision of a range of affordable cluster housing within the remainder of Luke Bailles Farm will cater for the existing gap market demands and assist in formalising the existing community settlements. This may be achieved through the provision of a range of affordable housing; community type and recreational facilities; mixed business; and light industrial/ storage-warehouse type uses within the area that serve as an interface between Embo Traditional Authority rural settlement and high residential estates; as well as within the areas north and south of Nqutu River.

Assagay provides some greenfield opportunities for residential developments with on-site sanitation solution in the short to medium term with the possibility of connecting to water-borne sewerage in future once the Regional Waste Water Treatment Works is established in Shongweni. Any other future infill opportunities in the broader district must be aligned with on-site sanitation requirements. In the broader Molweni area there are many Metro Housing projects underway which are addressing the current population and additional new dwelling units are proposed in Crestholme and Release Area 90. In Crestholme only projects with on-site sanitation will be supported. Settlement plans in the rural areas will be addressing the upgrading of existing rural housing.

With the increase in population in the Western Suburbs there has been demand for more office and commercial development and this has occurred mainly along Old Main Road and the Waterfall area. The concern is that the private sector has been pushing for office and commercial development at a pace that will prejudice long term planning objectives for the area. Given that the intention of the SDP is to guide and direct the private sector to establish development at key locations, particularly within the activity corridor rather than infringing on the residential amenity, the Hillcrest-Gillitts-Kloof activity corridor precinct project was commissioned in June 2009 to introduce new land
use guidelines that would assist in appropriately responding to development pressures experienced in the area.

The Hillcrest-Gillitts-Kloof activity corridor precinct plan and land use plan approved and adopted by Council in September 2010 responds appropriately to the changing development pressures experienced in the area and especially along Old Main Road. The Plan outlines that there is an excess provision of offices within the Hillcrest corridor and proposes that given that the residential amenity in some parts of Old Main Road has been lost, particularly in Kloof where there is currently a demand for such development. Future residential conversion to offices will only be allowed in Kloof subject to phasing and service availability. However, beyond these growth areas, particularly, in Hillcrest and Gillitts (Hamilton Crescent) there should be no more office and commercial conversions. Commercial development in Waterfall should be maintained at a community scale and no additional commercial development should be encouraged at this node. The preliminary assessment of the cumulative impacts of all existing and proposed developments from a waste water and traffic perspective was undertaken as part of the study. This will then form the basis to guide future developments in this area and to ascertain whether the area is being over traded.

In line with the recommendations of the Hillcrest-Gillitts-Kloof activity corridor precinct plan and land use plan; and in order to manage and direct appropriate commercial development within Hillcrest Town Centre, development will be limited to the Old Main Road as the core while the hinterland or frame to the Hillcrest Town Centre consisting of well established residential areas; community administrative and social facilities and services; and recreational developments along sections of Inanda Road up to the railway line should be maintained and developed only with similar uses to avoid disamenity with the surrounding area. In the same token the OWSDP maintains that no further upmarket residential, commercial or office type development within the area north of Inanda Road (commonly known as the Courtyards), set aside by the order of KZN Development Planning Commission in October 2004, but rather recommends that the area be utilised for a range of recreational, social and educational type facilities currently needed in the area.

6.2.3. Proposed Residential Land Use and Densities

- A range of affordable cluster housing for the gap market at medium to high densities to be accommodated at the Remainder of Luke Bailles Farm in the short to medium term.
- Limited range affordable cluster housing at high densities to be supported only at strategic locations along main corridors in the short to medium term and once planned road improvements are completed.
- Housing expansion into Assagay with on-site sanitation commensurate with surrounding landscape in the short and medium term with the possibility of developing at medium to high densities with water-borne sewerage once the Regional Waste Water Treatment Works is established in Shongweni in the long term.
- Limited residential infill only on large plots within the developed residential area in Hillcrest and Waterfall to be in accordance with on-site sanitation, and must be commensurate with surrounding landscape and architecturally must respond to local vernacular.
- Rural/Equestrian lifestyle to be maintained in Everton which currently is zoned Special Residential 8000, commensurate with surrounding landscape
- Rural residential (2.5 du/ha) in Waterfall and Crestview to be maintained in the short term, future densities will be in accordance with on-site sanitation
- Maintain lifestyle in Forest Hills by reducing densities from 5du/ha to 3du/ha particularly in areas close to the Kranskloof Nature Reserve.
Future new housing in Crestholme to be in accordance with on-site sanitation.
Upper Langefontein to support net densities of 10 du/ha.
Lower Langefontein/Molweni to be developed at net densities of 20 du/ha.
Rural Molweni to be developed at rural densities of 5 du/ha with on-site sanitation.
Densities to be reduced at Tin Town and accommodated in the surrounding vicinity.
Limited residential infill at Kloof and Gillitts in areas that are not environmentally sensitive, commensurate with the surrounding landscape.
Stockville to be maintained at densities of 6 du/ha outside of the conservation areas. The proposed low cost housing project is inappropriately located on steep land, which will result in severe stormwater flows that may cause flooding in the Tshelimnyama community south of the N3. This project needs to be suitably relocated in line with the Metro Housing relocation plan.

6.2.4. Proposed Nodal Development

The Waterfall node is to be maintained as a neighbourhood node while the Hillcrest node serves as a district node and Shongweni a future regional retail node.
Extend the mixed use corridor from Gillitts to Kloof to manage and direct commercial and office expansion in areas that have lost residential amenity in the medium term. The Hillcrest-Gillitts-Kloof activity corridor and precinct plan has ascertained that there is the potential for residential conversion to office in Kloof along Old Main Road subject to phasing and service availability. However, beyond these growth areas and mainly in Hillcrest and Gillitts (Hamilton Crescent) there should be no more office conversions.

Commercial and office development within the Waterfall node to be developed at a community scale and not negatively impact on the existing developments along Old Main Road in Hillcrest and the future development of a regional retail and mixed use node at Shongweni.
The Nqutu River is negatively impacted by developments within the Waterfall node and surrounding areas and therefore no new development should be encouraged at this node until an alternative infrastructure solution can be sought in the long term. The OWSDP considers allowing any further developments within this area not only as being unsustainable but also as prejudicing the long term planning objectives for the Waterfall area.
New light industrial development in Waterfall should be discouraged as the existing transport infrastructure and waste water disposal methods are not suitable for industrial development at this location. Given the job opportunities that this small industrial area provides a long term alternative infrastructure provision should be investigated to improve the current situation.

In acknowledging the existing settlements in Molweni/Langefontein and increased population as a result of Housing Developments that have happened over the years on ad-hoc bases, Council commissioned a study of a Nodal Functional Area Plan for the Molweni/Langefontein area and surroundings. The above study has culminated in the development of the Molweni Nodal Functional Area Plan which was approved and adopted in October 2012. Among other things this plan responds on social and economic challenges of the area by providing for much needed space for social and commercial facilities to promote investment opportunities in that area. In addition this plan integrates the communities within the study area including existing and
The main node is the Mixed Use Node which covers a total area of 17.49ha in extent. It is located along Inanda Road in the vicinity of the existing taxi rank and is intended to accommodate a range of uses to include; commercial, light industry, transportation, a public square, market stalls, petrol filling station as well as the residential developments. The proposed Municipal depot is also located in the vicinity of the Mixed Use Node. The main commercial use to be accommodated within the node will be the neighbourhood shopping centre of between 5,000m2-12,000m2.

The Social Facilities Node is proposed in the vicinity of the Sizakala Centre adjacent Kwadinabakubo Combined School and stretches in an easterly direction to include the Health Centre, as well as the Community Hall. It covers an area of 11.54ha in extent. As indicated, the Social Facilities Node is intended to consolidate and enhance the existing social facilities within its boundary. The idea is to expand and improve existing facilities but also to introduce new facilities. This will ultimately improve accessibility to facilities and also provide a variety of facilities within a walking distance of each other.

The Community Multi-Use Node is proposed in the vicinity of the Molweni Hyper Store and includes; the car wash, adjacent informal traders and stretches all the way to include the clinic but excludes the cemetery to the east and the Tribal Court to the south. The node is intended to consolidate and enhance existing uses within its boundary with the primary objective of providing continued convenience to the central part of Molweni. The node will accommodate local convenience shops, informal traders, clinic, and a taxi holding area with supporting pick up and drop off points. It covers an area of 5.73ha in extent.

The Plan has identified recreational opportunity areas along Umgeni River in the Lower and Upper Molweni which links up with the Inanda Dam in the Upper Molweni and Kranskloof Nature Reserve in the Lower Molweni to promote tourism which among other things is expected to create business and employment opportunities for the local people.

Kloof to be maintained as a local node supporting local commercial and office development.
Botha’s Hill to be revitalised as a neighbourhood scale node that serves the local community but that also functions as a tourism node along the R103 tourism route. Discourage service industry at this node.
Tourism activities to be supported along Kassier Road to tie in with the R103 tourism corridor.

6.2.5. Proposed Movement
- Proposed upgrades to Old Main, Inanda Road, Kassier Road and St. Heliers link Road to be prioritised.
- Establish Old Main Road as a movement spine connecting various local areas as well as a Mixed Use Corridor supporting pedestrianisation.
- Establish Inanda Road as a neighbourhood spine linking local areas; providing access to high density residential areas arranged into linear urban or rural systems; and linking existing nodal developments at Waterfall and Hillcrest and a future small neighbourhood node at Molweni.
- Establish Kassier Road as a movement spine supporting tourism activities at key nodes and with linkages to the R103, M13 and N3 making it an important alternate access to address congestion problems along Old Main Road. Mixed Use developments should be restricted to the future Shongweni node.
- Ensure that Arthur Hopewell Highway (Fields Hill) operates as a Metropolitan Development Corridor.
- Re-enforce the importance of the proposed MR360 to alleviate current traffic congestion on Old Main Road and Fields Hill.
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- Improve internal circulation and access throughout the local planning area.

6.2.6. **Open Space/Environment**
- Protect and manage Kranskloof Nature Reserve as a conservation core.
- Expand open space footprint in areas previously under sugar cane.
- Manage land uses by limiting sub-divisions adjacent to strategic environmental assets such as Giba Gorge, uMhlathuzana Valley, Stockville Edge and Kloof Escarpment.
- Expand the open space system around river corridors especially in the lower Molweni and Upper uMhlathuzana Rivers.

6.2.7. **Services**
- Investigate waste water and sanitation solutions for identified mixed use growth areas along the Hillcrest/Gillitts/ Kloof activity corridor and higher density affordable cluster housing in the short to medium term.
- Improve the operation of the Hillcrest Waste Water Treatment works to ensure public health and investigate the possible expansion of the works in the short term to medium term.
- Investigate the potential of establishing a Regional Waste Water Treatment Works in Shongweni to cater for the expansion and developments within the Shongweni Regional Node, Assagay and Hillcrest Town Centre in the long term.
- On-site sanitation for all other existing medium/high income areas.
- Low income areas within the broader Molweni and Langefontein need to have appropriate waste water and sanitation solutions.

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- Ensure waste water infrastructure within the broader Molweni and Langefontein area is appropriately aligned with existing water services and availability.
- The management of stormwater to occur on-site.
- Ensure essential provincial road upgrades such as the MR360 are initiated and implemented via negotiation with relevant stakeholders.
- Undertake research to guide the short to medium term on-site sanitation option for office uses.
- Undertake literature reviews and research to ensure that climate change impacts are mitigated as far as possible. In addition put in place measures to adapt to climate change.
6.3. MPUMALANGA LOCAL PLANNING AREA
(Diagram 15)
6.3.1. Key Characteristics

The area of Mpumalanga is located on the western edge of the Outer West north of the uMlaas River and contains 28% of the Outer West population on 15% of the land, 27% of the area is reserved for open space.

6.3.2. Role

- Medium impact industrial development consolidation and revitalisation
- Environmental asset protection and consolidation
- Medium Density Residential Infill and consolidation
- Affordable Housing Expansion
- Low Density Rural Expansion

6.3.3. Planning Rationale

Residential development will largely be in the form of in-situ upgrades in Mpumalanga. Some of the more dense areas will need to be de-densified and accommodated within the area. Mophela and Ntshongweni are outside of the water-borne edge and will be developed at rural densities. The need for more residential development in Georgedale will be necessary once economic development improves and the industrial and town centre nodes are substantially developed. In response future demand for accommodation for people who work in the area must be concentrated close to the Cato Ridge Village and Bartlett’s Node.

The Mpumalanga District must be viewed in terms of its relationship with Cato Ridge as the activities in these two functional districts will impact on each other. The anticipation of Cato Ridge being developed as a major industrial node has resulted in high land owner enthusiasm in this district for industrial development. If this excitement is not managed well, this area could catapult into development that would not be well balanced with Cato Ridge and would therefore negatively impact on broader region, especially the N3. So far there has been interest for car parks and warehousing as well as light industry in the Camperdown/Georgedale area. While there is a need for these uses they provide very little job creating opportunities. It is envisaged that when Cato Ridge is significantly developed as an industrial node, there will be a need for more commercial facilities particularly in the Cato Ridge Village. Subsequent to this, there would be a need for more affordable housing opportunities in Camperdown/Georgedale for people who work in the area to live here as well. To provide mixed use and other higher intensity residential development in the short term in anticipation of industrial development is premature and therefore unsustainable.

The revitalisation of Hammarsdale is a priority. Should the clothing industry prove difficult to revitalise then it is logical to encourage other industrial activities at Hammarsdale. The node has the potential to grow northwards towards Bartlett’s and Edwards Farm at N3. It also makes sense from a waste water perspective to grow industry incrementally outwards from waste water infrastructure. Upgrade the Hammersdale Waste Water Treatment Works to cater for new growth and industrial expansion areas in Cato Ridge, Hammersdale/ Mpumalanga and Bartlett’s in the short to medium term.

The Mpumalanga Town Centre will provide a range of activities for people located here, such as housing, commercial, recreational and mixed use. The integration of Hammarsdale and Mpumalanga is essential and must occur in accordance with the Mpumalanga Precinct Plan and the Hammarsdale LED Strategy. Both the Mpumalanga Town Centre and Hammarsdale nodes are located on the MR385 which is planned as a mobility public transport route and as such, mixed use development will not be allowed along the full length of this road. From
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the Mpumalanga Town Centre eastwards towards Hammarsdale and the N3 the focus would be on urban services and general industry. On the western side connecting towards Cato Ridge Village the short term focus will be on agriculture activities with urban mixed uses occurring within the current suburban precinct at the Cato Ridge Village.

6.3.4. Proposed Residential Guidelines
- Medium density housing in central Mpumalanga at 20du/ha with access to water borne sewerage.
- Discourage densification in areas on the periphery of existing Mpumalanga and outside the “water-borne edge”, especially areas along the uMlaas River, where densities should be at 5 – 10 per hectare in accordance with rural infrastructure.
- Maintain and enhance formal suburban residential areas through maintenance and improvements to the public environment and the provision of support facilities such as recreational amenities.
- Reduce densities in some highly dense areas to 20du/ha and utilise infill opportunities on vacant or under-utilised land in the close vicinity.
- Changes in land use around Camperdown Rural need to be addressed in a sensitive manner in order to protect the headwater basin of the Sterkspruit and ensure vital environmental management of the area.
- Assess social facilities backlogs for the area with a view to catering to community needs.
- Densification to be permitted at the Cato Ridge Village node.

6.3.5. Proposed Nodal Development
- Develop the Mpumalanga node as a vibrant Town Centre supporting higher density residential, mixed use and leisure.

6.3.6. Proposed Movement System
- Establish MR385 as a local area spine connecting Mpumalanga to Georgedale.
- Develop the MR385 as a feeder route to the HPPTN in order to create a viable public transport system.
- Upgrade the MR430 as a movement spine connecting local planning areas as well as connecting Zwelibomvu and the adjacent local council.
- Improve internal circulation and access by upgrading existing linkages and establishing new linkages.
- Maintain visual character of the N3 by creating a “green” corridor along this route to enhance the scenic attractiveness of this gateway to the EM.
- Upgrade link from Ntshongweni through to Summerveld/Shongweni.
- Provide transport services an infrastructure at the Ntshongweni rural service node.

6.3.7. Proposed Open Space
- Protect the headwater basin of the Sterkspruit and ensure vital environmental management of the area.
- Protect, manage and enhance the open space footprint.
6.3.8. Services

- Water-borne sanitation within catchment of Mpumalanga Waste Water Treatment Works
- Upgrade the Hammersdale Waste Water Treatment Works to cater for new growth and industrial expansion areas in Cato Ridge, Hammersdale/Mpumalanga and Bartlett's in the short to medium term.
- Provide on-site sanitation in rural areas
- The management of stormwater to occur on-site
- Develop regional cemetery at Camperdown Rural.
- Undertake literature reviews and research to ensure that climate change impacts are mitigated as far as possible. In addition, put in place measures to adapt to climate change.
- Investigate services required for the Ntshongweni rural service node.
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6.4. SHONGWENI LOCAL AREA

(Diagram 16)
6.4.1. Key Characteristics

Shongweni is located to the east of the Outer West and is adjacent to the N3. The area is the least developed local planning area and contains 11% of the metro population on 13% of the land. Agricultural activity predominates and the open space system comprises 32% of the area.

6.4.2. Role

- National equestrian centre
- Low density rural and suburban residential expansion
- Sub Metropolitan commercial/service expansion
- Environmental asset consolidation and protection

6.4.3. Planning Rationale

This District sits between a predominantly suburban area in the east and a peripheral urban area in the west. It is a strikingly attractive district that has the potential to offer many tourism opportunities. Currently the district presents, in part, an equestrian lifestyle option and therefore future development in key areas should be commensurate with this. Much of the character and lifestyle in Summerveld and surrounds is due to the national equestrian centre being positioned here. If this had to relocate it would have an impact on the present lifestyle choice.

In areas such as Assagay, Peacevale and Drummond where intensive agriculture is not occurring but people are retaining a rural lifestyle by choice, the agricultural property rating should be reduced in order to protect the lifestyle and discourage densification purely to sell off land. Salem, a traditional rural settlement is located in the southern part of the local planning area. The intention is to retain the rural character of the settlement while still providing essential services to the community.

Connecting this community to broader economic opportunities in the local planning area is necessary.

The land between the M13 and the N3 offers potential opportunity to be developed as a regional node supporting a range of activities such as mixed use commercial, light and service industry and office/business parks in the long term. Given the extensive shopping facilities within the Hillcrest Corridor and the expansion of the Pavilion shopping centre the extent and scale of shopping here must be carefully assessed to ensure that no negative impacts are accrued onto existing shopping areas, especially those in the Hillcrest/Gillitts corridor.

The relationship between this node and Cato Ridge must also be carefully balanced and phased so that each node complements and supports the other. The impact of the Shongweni regional node will trigger off development in Kassier road. The northern side of Kassier Road towards R103 has the potential to support tourism focused activities that enhances the R103 as a tourism corridor. The R103 has the potential to be developed as a tourism corridor. Residential cluster housing must be avoided here. Service industrial activities located along the R103 must be cleaned up and find opportunity in the Hammarsdale and Shongweni nodes.

There is residential infill opportunity in Assagay, Alverstone and Salem. These activities must be in accordance with waste water requirements, meaning it should only have residential effluent that can be handled on-site in the short to medium term. There is a need to establish a Regional Waste Water Treatment Works in Shongweni to cater for the expansion and developments within the Shongweni Regional Node, Assagay and Hillcrest Town Centre in the long term.

Importantly the Shongweni nodal development must provide sufficient job opportunities for people located within the Salem and Ntshongweni.
communities. Within this district sugar cane farming is viewed as unviable due to long distance to the sugar mill. According to the Department of Agriculture and Rural Development, the area has good agriculture potential. The major land owners have expressed a desire to develop their land holdings while retaining parts of it for agriculture in the short term. In the long term there is potential for the conversion of agricultural land in Shongweni to residential.

Any future housing should be commensurate with the surrounding landscape and character. The area has the potential to accommodate some 3,500 new units with an equestrian character similar to Summerveld. Different housing typologies would be expected such as higher densities closer to the node and lower densities further south. The type and scale of development is only appropriate once infrastructure is in place.

The land fill site, proposed as an extension to the existing private ENVIROSERVE land fill site, while viewed negatively for residential development prospects will be accounted for here as it is identified as a municipal need. As a mitigation measure, green belt will be used to buffer the residential development from the proposed landfill site.

The Shongweni Dam is a key conservation area and should be developed as a nature reserve. The commissioned Shongweni LAP due for completion in November 2010 should guide how the nodal development within the broader Shongweni area and recreational opportunities at Shongweni Dam can be unlocked.

6.4.4. Residential Guidelines

- Create a green buffer around proposed Shongweni general land fill site.
- Maintain and enhance equestrian and rural lifestyle options.
- Encourage intensive agriculture of land around Peacevale/ Bux Farm and Cliffdale

Higher density to be permitted in nodal areas, once infrastructure is in place.

6.4.5. Nodal Development Guidelines

Council commissioned the Shongweni Local Area Plan (LAP) study in an effort to allow for the establishment of a new regional mixed use node at Shongweni between the N3 and M13 as a way of providing employment opportunity for local people. The Shongweni LAP adopted and completed by Council in November 2010, provided guidelines for unlocking development within the Shongweni and Surrounding areas.

The Shongweni LAP is premised on the notion of ‘Sustainable Urbanism’ and a wider view of sustainability. Whilst embracing the notions of ecological, economic, and social development, Sustainable Urbanism seeks to move the quest toward a more collective view that goes beyond the traditional understanding, a focus solely on the unbuilt, and the fixation with parts of the system.

The following four important roles were identified as having major significance in determining the future of the study:

- **Regional Green Infrastructure Asset** based on the unique natural attributes within the study area.
- **Agricultural Resource Base** for the region given the presence of a variety of productive mixed farming found in the study area.
- **A regional centre of Equestrian excellence** given the study area’s unique equestrian heritage and existing settlement pattern.
- **A new Regional Town Centre and Corridor** given the proposed activity structure, regional corridor position, and need to enhance access to opportunity within the area.

In line with the sustainable urbanism concept the spatial framework for Shongweni and Surrounding Areas as represented conceptual structure provide for sustainable urban development based on the eight goals of sustainability namely global connectivity, density...
compactness and complexity, green infrastructure, public transport, sustainable services, securing production, liveability and people centered development.

The Shongweni LAP study area has been structured into a number of distinct functional precincts as indicated by the map below:

Each precinct has a unique role, require key interventions to unlock the development potential and offer various Local Economic Development opportunities, subject to phasing and infrastructure availability, namely:

- **A- Northern Precinct- Old Main Road Tourism Precinct**- the main focus of this precinct is to promote the development of a tourism corridor through acknowledging and building on the unique natural character and resources whilst allowing for appropriate tourism and related opportunities to be assimilated into a logical yet sensitive development context. This will be achieved through enforcing the tourism concept along Old Main Road and allowing the establishment of service industry at the rear of the corridor.

- **B- Western Precinct- Smallholding/Agricultural Precinct**- the focus for this precinct is on agricultural production. High value agricultural land within this precinct is to be protected and existing agricultural smallholdings are to be retained and agriculture production is to be encouraged through appropriate rating. Existing settlements in areas such as Cliffdale and Bux Farm are to be upgraded while business park development focusing on labour intensive manufacturing (possibly linking green technologies and agri-processing) is recommended on the north western areas bordering Hammarsdale.

- **C- Southern Precinct- Shongweni Dam Precinct**- focus of this precinct is on eco-tourism and conservation management of the dam. Full tourism, recreational and environmental potential of the dam is to be exploited. Opportunities that the area currently offers such as accommodation, water sports and adventure sports development are to be encouraged while potential mountain-biking, 4x4 and equestrian trails extending into the valley are to be exploited.

- **D- South East Precinct- Salem Precinct**- Salem settlement is to be consolidated with the surrounding natural recourse elements and will benefit from employment and business opportunities in all neighbouring precincts especially tourism.
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development, equestrian sector, agri-business park development, office/retail development and residential development. Local interventions for Salem include the development of a commercial and social service node accommodating market place, cash access point and periodic government services. Agriculture production is to be promoted on existing urban agriculture site and available larger plots to the west towards the landfill area.

- **E- Eastern Precinct- Land Fill and Gateway Precinct**: This area is identified as the natural resource and future landfill site area. Appropriate environmental management is of utmost importance in this precinct. Management of land-use around the landfill site may present opportunities for carefully managed agricultural development forming part of the environmental management approach for the site. In Clifton Canyon the primary focus will be on maintaining, rehabilitating and conserving the high quality natural environment as part of the gateway to eThekwini. Opportunities for eco-tourism and recreation should be encouraged within the special site area of Clifton Canyon. Public works programmes focused on alien eradication, erosion control and establishing basic tourism infrastructure need to be investigated and encouraged as part of environmental management.

- **F- Central Eastern Precinct- Town Centre Precinct**: The main focus of this new proposed regional business development centre is on mixed use development consisting of new office, retail, and commercial investment. The proposed centre is distinguished between the core (high intensity area between the M13 and N3) and the frame (medium intensity area north of M13 behind the hospital and south of N3). The existing mixed use developed area adjacent to the hospital north of M13, along Kassier road is identified as low intensity area.

The Core will cater for high intensity development in a form of a minor regional town centre consisting of +/- 30 000m² of retail, office development to be supported by high density residential development. The frame will consist of medium intensity development in the form of business park development, high density residential villages in rural surrounds (natural or agricultural) and an agri-business park potentially accommodating a future municipal fresh produce market. The low intensity development area will cater for socio-economic activities such as educational facilities and a range of services that will blend in with the existing facilities such as the hospital and old age home and thereby making investment in residential development feasible.

- **G- North Eastern Precinct- Residential Precinct**: the focus of this precinct is to promote residential densification by allowing for the establishment of new medium density residential development while maintaining the current character of the area. Pockets of agricultural production and agri-business activities are to be preserved where possible and supported through rating policy.

- **H- Central West- Equestrian/ Conservancy Precinct**: the focus of this equestrian precinct with a strong environmental basis is to strengthen the base for developing the equestrian industry in eThekwini Municipality.
6.4.6. Movement Guidelines

- Establish D828 and MR 559 as Inter Neighbourhood Spines
- Establish MR461 as a local area spine connecting to Shongweni Dam via Salem
- Establish a movement spine from Shongweni to Mpumalanga
- Improve internal circulation and access by upgrading existing linkages and establishing new linkages.

6.4.7. Open Space

- Protect, manage and enhance open space footprint
- Establish Shongweni Resource Reserve as a key conservation area and investigate possibilities associated with developing a metropolitan nature reserve
- Protect uMhlathuzana Gorge
- Expand open space footprint in areas previously under agriculture

6.4.8. Services

- Investigate wastewater options and infrastructure requirement for nodal development in the short to medium term.
- Investigate transport impacts and infrastructure requirement for nodal development in the short to medium term.
- Undertake research to guide waste water solutions for tourism activities including seasonal activities.
- Investigate the potential for establishing a Regional Waste Water Treatment Works in Shongweni to cater for the expansion and developments within the Shongweni Regional Node, Assagay and Hillcrest Town Centre in the long term.
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6.5. INANDA DAM LOCAL AREA

(Diagram 17)
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6.5.1. Characteristics
The Botha’s Hill/Inanda Dam Functional District includes the areas of the Outer West north of the N3 and between the D1004 and the Western Suburbs. It is predominantly traditional/rural in nature with a very high population of about 162,089 (28%) people located here, making it just as highly populated as Mpumalanga, on 33% of the land mass. 54% of the area is in the Metro Open Space System that accounts for 24% of the Metro ESMP, and it contains the Inanda Dam. 25% of the Outer West population is located here.

6.5.2. Role
- Key Metro International and domestic cultural and environmental tourism destination
- Environment resource reserve
- Consolidation and Expansion of low/medium density rural settlements
- Hinterland water based recreation and tourism node
- Local commercial and services consolidation
- Consolidation of rural periphery offering traditional rural lifestyle options

6.5.3. Planning Rationale
The Inanda Dam District covers the largest land area and for a rural traditional area has a significantly high population. Much of this is sprawled across the entire district, which is predominantly steep and undevelopable. Such settlements are mostly found on the northern boundary and include areas such as Mgezanyoni, Mgangeni and Mbozamo. Settlements here must be relocated further south closer to the rural nodal areas. The steep slopes should be incorporated into DMOSS.

Future settlement plans would need to focus on clustering of units closer to rural nodes with appropriate levels of services that do not negatively impact on the environment. Innovation will be required in terms of how design can mitigate high stormwater flows. No new housing opportunities can be considered in this area and residential decanting will be required particularly close to environmental areas. The opportunity for agricultural based activities on land that has high agriculture potential must be investigated at an LAP stage. Further housing typologies, form and densities should also be explored at Lap or at settlement planning stages.

The Inanda Dam is viewed as a recreational node. This spectacular dam offers a great opportunity for local economic development. The key constraint to developing this area is the lack of waste water infrastructure to support reasonably higher density accommodation and mixed use tourism related activities. This node reveals the stark reality of how difficult it is to improve the local economy of a rural peripheral area despite it having and intrinsic natural asset that can act as a draw card for economic development. Clearly solutions need to be investigated to improve the situation. The plan for Inanda Dam which has been prepared by the Rural ABM will guide the development of the node. The Shembe node presents an opportunity for cultural tourism and links to the overall tourism opportunities here.

There are four rural service and investment nodes namely KwaSondela, Ngcolosi, and two nodes at uMzinyathi located in the local planning area. These nodes are proposed for local public and private investment to serve to the surrounding communities in terms of social and economic activities.

This planning area has better connection and linkages to the Northern Region. Access and integration between Inanda Dam and the Western Suburbs is very difficult due to steep topography.
6.5.4. Residential Development

- Discourage residential development on steep slopes in northern edge; relocate people further south closer to nodes.
- Upgrade and consolidate existing traditional rural settlements as rural lifestyle options in KwaSondela and Mabedlane along district roads.
- Future settlement plans to address the current population and no new housing opportunities to be considered here.
- Permit a cluster housing scenario on developable land, linked to agricultural activities where possible.
- Investigate future sustainable housing forms and typologies at an LAP stage.
- Investigate ways to unlock tourism related residential development at Inanda Dam.
- Encourage subsistence and commercial level agriculture.

6.5.5. Movement Systems

- MR259 has the potential to be developed as an activity street from the Ngcolosi rural service node to Inanda Dam.
- MR259 has potential to create strong eastward linkages to uMzinyathi.

6.5.6. Nodal Development

- Permit low impact tourism related development at Inanda Dam.
- Consolidate Botha’s Hill as Local Urban Neighbourhood Node.
- Develop Ngcolosi as a rural service node.
- Develop KwaSondela as a rural service node.
- Protect high scenic value of R103 tourism corridor and promote only tourism related activities along this route.
- Future local neighbourhood nodes must be designed as part of settlement plans.

6.5.7. Open Space

- Designate Inanda Dam as a Resource Core area.
- Protect, manage and enhance open space footprint.
- Permit sustainable harvesting of resources in open space footprint.
- Incorporate steep slopes into the open space footprint.
- Establish resource reserves in tributaries along uMzinyathi River.
- Ensure land use management controls include water quality and quantity, soil erosion prevention and stormwater management strategies.

6.5.8. Services

- On-site sanitation on large rural plots.
- Urine diversion method for medium density smaller plots in accordance with water provision.
- The management of stormwater to occur on-site.
- Investigate waste water capacity and solutions for the Inanda Dam nodal development.
- Undertake research to guide waste water solutions for tourism activities including seasonal activities.
- Undertake literature reviews and research to ensure that climate change impacts are mitigated as far as possible. In addition put in place measures to adapt to climate change.
- Provide waste water services at rural service and investment nodes.
- Provide transport services and infrastructure at rural service and investment nodes.
6.6. ZWELIBOMVU LOCAL AREA

(Diagram 18)
6.6.1. Characteristics
Zwelibomvu is disconnected from majority of the Outer West and enjoys greater access via the Inner West. The area houses 6% of the Outer West population on 10% of the land. 46% of the area falls within the open space system and the area is predominantly low density rural settlement.

6.6.2. Role
- Low density rural settlement area
- Environmental asset consolidation and protection

6.6.3. Planning Rationale
Zwelibomvu should remain as a low density rural area working in complete harmony with the relatively pristine landscape. The area has been identified as a settlement planning area for people who historically have been displaced from here.

The implications of having a housing project in this area is that rural infrastructure will be very difficult and costly to upgrade in such distant locations. Local economic development opportunities will be in the form of agricultural activities. Access to economic development nodes, such as Hammarsdale and Mpumalanga will be impossible due to extreme and difficult topography. Ideally, housing projects if necessary in this area should be located close to the rural service node at MR489. While the clustering of units will remain low, the form and typologies should be decided at an LAP or settlement planning stage.

6.6.4. Proposed Residential
- Maintain rural lifestyle and discourage densification close to environmental areas on steep land. Clustering of rural housing

6.6.5. Movement System
- Establish MR489 as a Local Area Spine connecting various neighbourhoods.
- Connect Zwelibomvu to the South Region via the M30

6.6.6. Nodal Guidelines
- Essential community, social facilities and transport should be encouraged in the node.

6.6.7. Open Space
- Protect, manage and enhance open space footprint
- Incorporate steep slopes into open space footprint

6.6.8. Services
- Urine Diversion sewerage option for Metro housing projects.
- The management of stormwater to occur on-sit
- Investigate waste water options for nodal community, social and community infrastructure development
- Undertake literature reviews and research to ensure that climate change impacts are mitigated as far as possible. In addition put in place measures to adapt to climate change
Current National Public Transport Strategy provides a strong focus on accelerated modal upgrading and integrated rapid public transport networks. It seeks to articulate the vision and steps required to implement a public transport system that integrates all modes into a seamless and high-quality network. The development of such an Integrated Rapid Public Transport Network (IRPTN) for eThekwini (Figure 23) is particularly crucial to providing a full network covering the expanse of the municipal area with appropriate services based on road, rail and non-motorised options. Residents of eThekwini depend upon the efficient provision of public transport services to fulfil their daily mobility needs. The integration of the different rail, bus, minibus, and non-motorised transport options remains a major goal in delivering more convenient and cost-effective services.

The system envisaged is of sufficiently high quality that will both attract existing car users and greatly enhance the travel experience of current captive public transport customers. The overall goal of this initiative is to improve the quality of life for the City's residents through the provision of an Integrated Public Transport Network that is rapid, safe and secure, convenient, clean, affordable, and socially equitable.

No single public transport technology is right for all circumstances. The appropriate solution depends greatly upon the local context, including physical, financial, social, environmental, and cultural conditions. Amongst the various technological tools available to cities are heavy urban and regional rail, underground metro rail, light rail transit, bus rapid transit, conventional bus services, minibus taxi, metered taxi and non-motorised transport. eThekwini has a mix of different technological tools to suit different travel and demand conditions. To function efficiently, road, and non-motorised options should be mutually complementary and act as a single system.
Figure 1: Main trunk routes

The nine trunks corridors are, supplemented by a fine grain of feeder and complementary services, as shown in Figure 1.

Figure 2: Feeder and Complimentary services

The following corridors have been supported and approved by the eThekwini Municipality, as the Phase 1 of the IRPTN roll-out.

C1: Bridge City to Durban Central Business District (CBD)
C2: North-South Rail line
C3: Bridge City to Pinetown and New Germany via MR 577
C9: Bridge City to Umhlanga via Cornubia along Phoenix Highway and Cornubia Boulevard.
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ANNEXURE B - (2012 Review)

Record of Cross-boundary Alignment

In an attempt to foster a good working relationship with neighbouring municipalities, and in ensuring integration and alignment of planning goals, the Framework Planning Branch has been undertaking dialogues with the adjacent district and local municipalities.

The Outer West Region: eThekwini Municipality was tasked by Cogta to establish a Cross Boundary Forum consisting of representatives from Umgungundlovu District Municipality, Umkambathini Local Municipality, Msunduzi Local Municipality and Umngeni Local Municipality in planning and aligning Western Corridor Concept Plan which would stretch from Pinetown to Howick towns. The Forum has been successfully set up and has met on a number of occasions since the inception.

Development pressures have been mounting on the N3 corridor between Durban in particular the Port and Gauteng. This has been fuelled by the industrial needs of Gauteng, economic activities becoming more global, port expansion and development pressure on Durban with particular emphasis on industry. Added to this are the inter-city movement needs of Pietermaritzburg and Durban.

Political boundaries have prevented cohesive development. Ad-hoc development is occurring and this often results in the duplication of projects adjacent to each other or worse still, incompatible land uses being approved; often outside already approved frameworks, and other planning tools. Development pressure may also be concentrated in certain areas where an opportunity may exist to diversify/spread potential development thereby benefiting adjacent municipalities. This runs the risk of spurring ad hoc development along the N3 corridor that would take little cognizance of or be unaware of other development proposals affecting not only traffic but also other services. Added to this is the vital environmental role this corridor plays.

Cohesive planning is required to alleviate pressure on the N3 and to create a consolidated approach. The various municipal plans need to be aligned in a broader concept plan which will not only benefit the municipalities involved but the various departments and stakeholders with an interest in the area. The creation of one plan will also allow for city planners to interact on a wider scale across boundaries thereby resulting in a truly integrated planning approach.
ANNEXURE C

The Potential Impact of Redemarcation in the Outer-West Planning Region (2012 Review)

The Demarcation Proposal was prepared by Ethekwini Municipality and to the Demarcation Board in 2011. The Demarcation Board held a public meeting in eThekwini Municipality on 4th May 2012, to table the proposed demarcation changes, which if successful, will be effected in 2016. Significant changes to the boundary of the eThekwini Municipality have been proposed, in the South and Outer West areas involving the inclusion of traditional authority land into the Metro.
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ANNEXURE-D-

Rural Development Strategy (2012 Review)
The Framework Planning Branch is in the process of developing the Rural Development Strategy for the wider eThekwini Municipality. There was a Rural Development Framework Plan done by the Rural Area Based Management unit in 2003. This plan is now outdated as most of the rural areas have transformed in terms of their nature and character.

Historically, the rural areas in South Africa were characterised by unusually high levels of poverty and unemployment, combined with very limited agriculture based employment. This situation largely reflected economic structures that were shaped by apartheid. 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 and marginalised. The situation is exacerbated by fragmented service delivery, unresolved land tenure, and a legacy of fragmented planning, which has always excluded the rural areas. This then requires significant changes in access to resources, including land and water; significant improvements in the provision of education and skills; and improvements in rural infrastructure and other government services.

Rural areas in are traditionally characterized by low densities of 0 to 5 dwelling units per hectare and encourage efficient form by clustering residential developments of over 5 to 10 dwelling units per hectare close to rural service and investment nodes and on public transport routes. Some areas have up to a maximum of 20 units per hectare in rural nodes. The level of services provided in rural areas is the urine diversion toilet, and the water supply is limited to a household standpipe which provides a maximum supply of 300 litres per day. This was in line with the conventional rural densities mentioned above.

The rural context of eThekwini deviates from the general rule of low densities and scattered settlements. The reality in areas such as Umzinyathi, Mpumalanga, Umnini, KwaXimba and Adams displays high densities. Settlements in these areas no longer reflect traditional large sites which make up the rural form. Residential design and building form will be critical to also ensure that environmental areas remain protected and that people are not located in sensitive areas that could endanger their lives. Rural areas in eThekwini are however still characterised by high levels of poverty, unemployment and limited economic opportunities.

The Rural Development Strategy will address the following:
- Definition of rural vs. Peri-urban areas
- Urban Development Line
- Current and proposed densities
- Appropriate level of services (water and sanitation, electricity and access roads)
- Institutional Arrangements and protocol for engagements with Traditional Leaders

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- Stakeholder identification and roles and responsibilities (eThekwini sector departments, Ingonyama Trust, Traditional Leaders)
- Land legal issues (ownership, security of tenure, land allocation)
- Land reform and agriculture
- Sustainable Livelihoods and pro-poor initiatives
- Natural resources vs. Risk areas (D’MOSS)
- Rural-urban migration patterns and rural-urban connectedness
- Demographics
- Rural Housing subsidy
- Current and proposed housing projects
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ANNEXURE: E (2012 Review)

Outer West SDP Alignment with eThekwini Municipality SDF

eThekwini has adopted the package of plans (suit of plans) as way to carry out the metro's spatial development intentions from the IDP into specific projects as well as interpret and implement the priorities at metro, regional and local development scale. The broader spatially intention is represented through Spatial Development Framework (SDF), which is in the metro scale to guide the formulation of the four regional plans: Spatial Development Plans which are currently in reviewing process. The eThekwini Municipality has 26 Priorities and the SDF only reflects the metro wide priorities i.e Dube Trade Port in the North, Cato Ridge in the Outer West and Back of Port in the Central South Regions.

Other priorities are carried out through the Regional Plans (SDP's) as well as number of local area plans for implementation. In the current Outer West SDP the regional Priority is the Cato Ridge and number of local priorities stated above.