

**NELSON MANDELA BAY  
METROPOLITAN MUNICIPALITY**

**Draft**

**Metropolitan**

**Spatial Development**

**Framework**



**November 2007**

## METROPOLITAN SPATIAL DEVELOPMENT FRAMEWORK (MSDF)

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## **1 EXECUTIVE SUMMARY**

During 1999, the erstwhile Port Elizabeth Municipality completed and adopted a Comprehensive Urban Plan (CUP) for the Port Elizabeth, Uitenhage and Despatch areas as part of its overall strategic planning strategy. This plan has been refined and extended to encompass the entire metropolitan area and forms the Metropolitan Spatial Development Framework (MSDF).

The MSDF is a plan outlining the desired spatial development of the metropolitan area as contemplated in Section 25(e) of the Municipal Systems Act (Act 32 of 2000). It also highlights priority investment and development areas and will serve as a guide to decision-makers and investors. It should be emphasised that the MSDF is an integral component of the IDP and translates this plan into its spatial implications to provide broad, overall development guidelines. It is therefore not a tool to be used in isolation, but should support decision-making within the context of the IDP.

The MSDF should furthermore not be interpreted as a blueprint or master plan aimed at controlling physical development, but rather as a framework giving strategic guidance in respect of the location and nature of anticipated future development in the municipality.

Although room still exists for interpretation and further refinement, the desired broad land use patterns are indicated. Moreover, the MSDF is development orientated to allow for growth and changing circumstances and to promote investor confidence.

### **1.1 Factual Overview**

The Nelson Mandela Bay Metropolitan Municipality (NMBMM) is the only metropolitan municipality in the Eastern Cape. After the Ekurhuleni Metropolitan Municipality in Gauteng, it is the second largest metropolitan municipality in area in the country covering an area of 1950km<sup>2</sup>.

According to the 2001 Population Census, the population in Nelson Mandela Bay was approximately 1,0 million. Demographic research undertaken as part of the refinement of the MSDF indicates that the 2001 census was more accurate than earlier believed and that the current population is still in the region of 1,0 million indicating that there has been very little population growth since 2001.

Nelson Mandela Bay plays a fundamental role in the economy of the Eastern Cape Province, the poorest of all the Provinces by contributing approximately 44% to the Gross Geographic Product. However, unemployment is high at about 41.6% with 39% of the population living below the poverty line.

Housing remains a challenge with a backlog in excess of 80 000 units.

## **1.2 Proposals**

The MSDF has three main focus areas. These are :-

### *1.2.1 Sustainability and the restructuring of the city:*

The restructuring focus is based on Sustainable Community Units (SCU's) to address the structural imbalances created by past apartheid policies which resulted in a major part of the city and its people being marginalised and excluded from urban opportunities.

The Sustainable Communities Project adopted by Council identifies a planning methodology for application in new areas, and for analysing and re-planning existing areas to ensure that all residential areas afford the inhabitants a good minimum standard of living.

It envisages urban areas of the city divided into a number of planning units or entities known as Sustainable Community Units (SCU's). The distance within which an average person can comfortably walk in half an hour, i.e. a 2 km radius, defines these units. The project aims to provide the requirements for a minimum standard of planning and living within those areas, and with amenities, facilities and job opportunities within walking distance of all residents. All SCU's are to be linked by a public transport network which will ensure that the city is accessible to all communities by means of public transport. This is also a requirement of the Integrated Transport Plan.

Moreover, the project concept identifies the need for higher levels of sustainability and integration in the city as the primary focus of planning the SCU's. The basis for sustainable community planning is found in the development principles that have been

adopted at national, provincial and at local government level, and which are supported by legislation and government policies.

The development goals and principles of particular importance for spatial planning in SCU's are:-

- a) Poverty alleviation and the satisfaction of basic needs
- b) Focus on special needs groups (HIV and AIDS affected persons, children, the aged and persons with disabilities)
- c) Gender equality and equity
- d) The environment (physical, socio-economic)
- e) Participation and democratic processes
- f) Local economic development
- g) Accessibility (public transport and pedestrian focus)
- h) Mixed use development
- i) Corridor development
- j) Safety and security
- k) Variation and flexibility
- l) Densification
- m) Reducing urban sprawl

In attempting to achieve both sustainability and integration, the following six functional elements have been identified as needing attention.

- a) Housing
- b) Work
- c) Services
- d) Transport
- e) Community
- f) Character and Identity

In focusing on these six elements, minimum standards have been defined for addressing an acceptable planning quality, leading to quality of life for residents in these areas (for more detail on the planning methodology outlined above, refer to the Sustainable Community Planning Guide dated June 2007, which is available on the municipal website (<http://www.nelsonmandelabay.gov.za>)).

### *1.2.2 Corridors and Accessibility*

Restructuring of the city also envisages corridor development along major routes with potential for integrated mixed land use development supported by improved public transport services (eg the Khulani Corridor). The Integrated Transport Plan is a key component of the MSDF and its primary goal is to improve accessibility for all inhabitants of the city.

### *1.2.3 Economic development and growth:*

This is a crucial components of the MSDF that aims to generate the means to support and enhance urban development. Various interventions may be utilised to support the focus areas of the MSDF, which are based on a number of considerations, such as-

- a) the importance of linking the people in Nelson Mandela Bay to opportunities;
- b) directing investments to places where they will have the greatest effect;
- c) protecting and enhancing natural and cultural resources for sustainability and enriching the experience of Nelson Mandela Bay; and
- d) weaving the growth of the Nelson Mandela Bay strongly into the economic fabric of the Eastern Cape Province.

The section below provides a brief synopsis of the MSDF proposals. The proposals are :-

- a) *Implementation of an Urban Edge or Urban Growth Boundary:* It is important to note that an urban edge should not be seen as a rigid regulatory mechanism to stifle development initiatives. It is rather a policy statement aimed at redirecting patterns of growth and encouraging all parties involved in development to reconsider all options available. This is a line put in place for the next few years and can be amended in later reviews of the MSDF. The following guidelines for development will apply:

Land uses within the Urban Edge: Such uses which are consistent with the relevant local precinct plan, the spatial development framework, land use management plan and/or town planning scheme would be permitted subject to the normal procedures and legislation e.g. environmental considerations, transportation requirements etc. Note that the Urban Edge does not imply that the entire area can/should be allowed to develop and that development rights are therefore guaranteed. Factors such as timing

and availability of services, the environment etc. must and should be applicable when considering applications within the boundary.

Land uses outside the Urban Edge: Land uses that are peri-urban in nature would be more desirable, and should therefore be promoted outside the Urban Edge rather than inside it. Where applicable, these will also have to be in line with local (eg Rural Management Policy) and provincial policies.

- b) *Peripheral uses*: The area directly outside the Urban Edge is earmarked for this use. It is envisaged that a transition area will develop around the Urban Edge comprising a range of different peripheral uses. It is proposed that low intensity land uses like agricultural holdings, peri-urban residential uses, low intensity service industries (typically those occurring on agricultural holdings) as well as urban agriculture be promoted in the fringe area around the Urban Edge. These uses should support and protect the Urban Edge by providing a clear boundary to contain the future expansion of the urban environment. It is also necessary to utilise opportunities optimally for urban agriculture in this area, especially those areas near to disadvantaged communities.
- c) *Extensive agriculture*: They are the areas outside the Urban Edge and peripheral use zone identified by the Department of Agriculture as prime agricultural land where extensive agriculture should be protected and promoted. The provision of services, such as health, education, retail, etc. should also be catered for in these areas.
- d) *Activity nodes or areas*: There is a wide range of activity nodes or areas accommodating a variety of activities. The Metropolitan area can be divided into four main core areas, namely:
- Port Elizabeth
  - Uitenhage
  - Despatch
  - Coega IDZ
- e) In terms of retail, the existing three Central Business Districts located at Port Elizabeth, Uitenhage and Despatch should be maintained and strengthened to protect public and private investment in these areas. The implementation of Business

Improvement Districts is proposed as a strategy to improve safety, security and overall environmental improvement in the CBD's.

The industrial / commercial areas serving Nelson Mandela Bay include the full range of industrial activities from heavy and toxic industries to light industrial, commercial and warehousing activities. Within the context of the four Core Areas identified, the functional specialisation of these industrial areas should be promoted, both in terms of local and regional context.

Existing, Rocklands, St Albans and Witteklip residential nodes located outside of the Urban Edge are recognized but should be curtailed in so far as their expansion is concerned. Furthermore, use of the properties abutting these residential nodes for agricultural purposes and to stimulate economic development within these nodes should be encouraged.

- f) *Infill Development Priority Areas and Social Housing:* There are two main areas that are a priority in terms of infill development (utilizing undeveloped/under-developed land in central locations). These are the Fairview and Salisbury Park areas which were subject of recent land restitution claims. These pockets of land are strategically located and detailed subdivisions have been done for the development of these areas.

In addition to the above, social housing within the context of identified Restructuring Zones, as defined in Government Policy and draft legislation, has been provided for in the MSDF. Opportunities for social housing will thus be provided for in specific, defined localities which have been identified as areas of opportunity (largely economic) where the poor have limited or inadequate access to accommodation, and where the provision of social housing can contribute to redressing the situation whereby in the past the urban poor lived in locations far removed from where vibrant economic growth is occurring.

- g) *Strategic Development Areas:* As far as future residential expansion is concerned, a number of major precincts have been identified, namely;
- Zanemvula (incorporating Soweto-on-Sea, Chatty Extensions 2 – 5 and 9 – 17 as well as Joe Slovo West)
  - Walmer Gqebera, particularly the Methane Gas site
  - KwaNobuhle / Jachtlakte

- Uitenhage East
- Motherwell
- Wells Estate
- Hunters Retreat (end of Walker Drive)

Furthermore, as not all this land is required immediately, the development of these areas has been phased based on the availability of bulk service infrastructure.

- h) *Metropolitan Open Space System (MOSS)*: A Metropolitan Open Space system has been defined for the metropolitan area and is schematically illustrated in the MSDF. The current MOSS system is being revisited and a new MOSS system will be formulated in terms of a Strategic Environmental Assessment (SEA).
- i) *Transportation*: The land use framework as highlighted above is supported by a transportation network and public transport system. These proposals are embodied in the Integrated Transport Plan and the Public Transport Plan.

### **1.3 Implementation and Prioritisation**

The MSDF provides strategic guidance as to the areas where the Municipality should focus the allocation of its resources. In order to assist with the prioritisation of projects and allocation of resources, four main elements of the MSDF were isolated as geographic entities, which could give guidance as to where the priority capital investment areas lie. These areas are-

- a) Core economic areas
- b) Infill priority areas
- c) Strategic development areas
- d) Service upgrading priority areas

The MSDF is also supported by a number of sector plans and topic specific planning documents, including the following:

- a) Strategic environmental assessment
- b) Urban edge/rural management and urban densification policies
- c) Demographic study update
- d) Land use management system (LUMS)

## **1.4 Incorporating Sector Plan Developments**

The following section identifies the various sector plans that are being incorporated into the MSDF. These sector plans, which have major spatial implications for the MSDF, are identified as follows:-

- a) Integrated Environmental Plan
- b) Coastal Management Plan
- c) Disaster Management Plan
- d) Environmental Policy
- e) Infrastructure Development Plan
- f) Integrated Transport Plan
- g) Integrated Waste Management Plan
- h) Local Economic Development Plan
- i) Public Transport Plan
- j) Tourism Master Plan

## **1.5 General**

Although the MSDF becomes binding on the Municipality through the adoption of the IDP, it is not site specific and must therefore only be used as a guide and not as the only tool to assess development applications. For this purposes, Local Spatial Development Framework Plans, which are more detailed, are to be used for the evaluation of such development applications.

## **2 INTRODUCTION**

### **2.1 Preamble**

Land is a scarce resource. Consequently, the unwise allocation of land uses will result not only in the waste of the land itself, but will also lead to the inefficient use of other resources. It is essential therefore that land, as a scarce resource, should be planned in the most optimum way.

The purpose of a metropolitan spatial development framework as a means to address this issue is to provide an enabling environment to promote the wise demarcation and responsible allocation of land. Moreover, land use planning is a strategic and integrative process and needs to embody a wide range of considerations and interests. It is imperative therefore that once planning is done that it be reviewed continually as situations change.

Planning therefore implies a commitment. This commitment must extend to both the planning process and to the plan itself. The process must be transparent, democratic and just. It is only through a legitimate process that a legitimate plan can be produced. Once the plan has been produced the owners of the plan must ensure both its enforcement and adaptability to new circumstances, otherwise the question "Why Plan?" may justifiably be asked.

The following report and accompanying plans attempt to allocate land to specific uses in a balanced way. It proposes a sequence of development and identifies priorities for further attention. Lastly, in order to achieve the vision identified and embodied within the spatial development framework, the support and commitment of politicians, officials, investors and the general public will be required.

### **2.2 Historical**

Nelson Mandela Bay, uniting Port Elizabeth, Uitenhage and Despatch bears the rich legacy of an area which saw the first meetings of Khoisan, British, Dutch, German and Xhosa people.

In 1497, Vasco da Gama noted the Bird Islands on one of his voyages. The "Bay" was later named "Baia de Lagoa", by Manuel de Mesquita Perestrello, referring to the lagoon situated at the mouth of the Baakens River.

For hundreds of years, however, Port Elizabeth was referred to on navigational charts only as "a landing place with fresh water" and it was only in 1815 that a formal city structure was laid out.

Before the upcountry gold and diamond booms, Port Elizabeth and surrounding areas developed as one of the major commercial cities in South Africa, trading in wool, mohair and ostrich feathers. Port Elizabeth as a result became a bustling port and has grown substantially over the years.

Situated northwest of Port Elizabeth is Uitenhage, known as the garden town of the Eastern Cape. Uitenhage was founded in 1804 by J.A. Uitenhage de Mist, a Dutch governmental official sent to the Cape Colony by the government of the Batavian Republic. Uitenhage is not only an industrial town with automobile and tyre manufacturing as major industry, it also contains a number of valuable historical 19th-century buildings, including the Drostdy (1815), the Town Hall (1882, extended in 1952), and the Court House (1898).

### **2.3 Background**

The quality of life for many persons living in Nelson Mandela Bay is extremely poor. An important contributing factor to this is the structure and form of the city. The urban policies and practices of the past have resulted in a city which aggravates poverty and inequality, which is highly inconvenient for many and which uses resources inefficiently.

The causes of these problems are complex and include a serious shortage of public investment to enable what needs to be done to remedy the situation. A primary contributing factor has been a lack of consistency and poor decision making about the spatial development of the city.

Apart from the Comprehensive Urban Plan that was approved by Council during 1999, there has been no subsequent spatial framework to guide the investment and decision

making process. The preparation of this spatial development framework (MSDF) therefore seeks to fill this gap.

The MSDF and associated more detailed local spatial development plans (LSDF's) seek to achieve, over time and in a controlled way, a radical restructuring of the city to make it more equitable, integrated and efficient.

## **2.4 Focus**

The MSDF, as its name implies, has a strong spatial focus. Spatial planning is a public sector activity that creates a public investment and regulatory framework within which private sector decision making and investment occurs. Spatial planning is important since most development decisions have spatial implications.

Spatial planning has two broad dimensions, namely:

1. Proactive planning, which defines desirable directions, actions and outcomes in relation to the spatial dimensions and relationships of the city, and which guides public investment.
2. Land development and management, which is concerned with regulating land use change (usually driven by private sector initiatives), and with protecting individual and group rights in land.

These two facets of spatial planning cannot be seen in isolation from each other. They need to be integrated and should inform each other. These two aspects of spatial planning and the issue of how to integrate them form the core focus of the MSDF.

## **2.5 Purpose**

In addition to spatially balancing the requirements of the Vision 2020 plans in the most optimum way, this report also aims to :-

- analyse spatial opportunities, constraints, patterns and trends;
- identify the need for spatial restructuring and land reform;

- provide spatial solutions to developmental issues;
- identify national spatial development principles and their spatial application in the metropolitan area;
- provide an understanding of and allow for the spatial implications of social, economic and environmental sustainability;
- produce a document that will guide decision-making with regard to developable and non-developable areas including the sequencing of development, and
- create a framework for public and private investment decisions to facilitate investor confidence.

## **2.6 Legal Status**

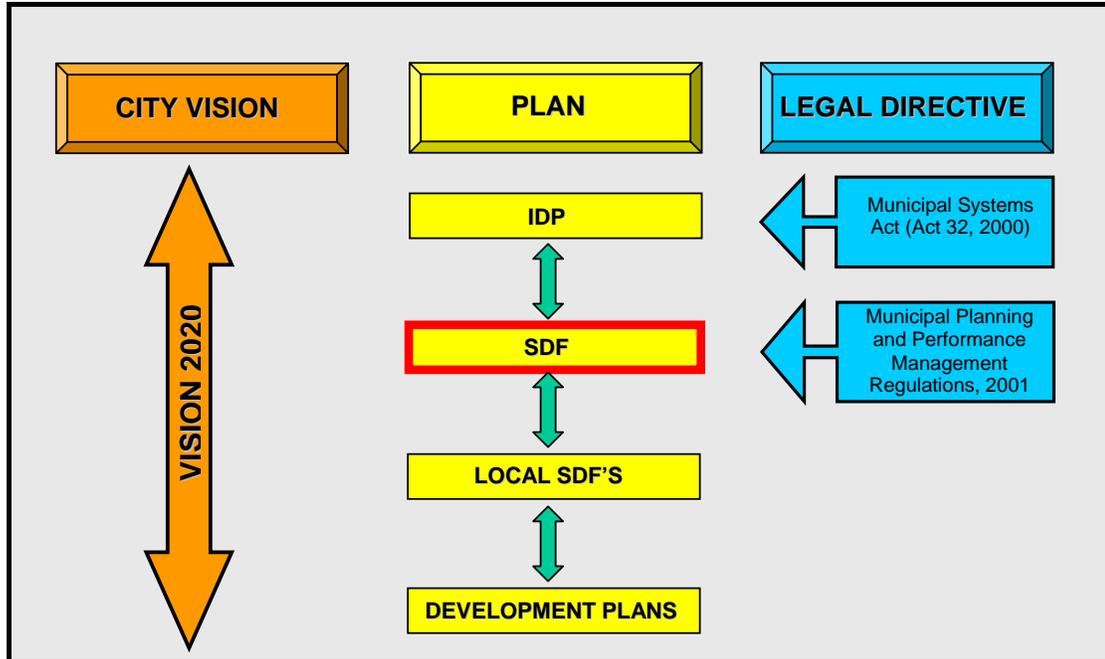
The MSDF as part of the Integrated Development Plan (IDP) is given legal status in terms of the Municipal Systems Act (Act 32, 2000) and the Municipal Planning and Performance Management Regulations published on 24 August 2001.

After adoption of the IDP by Council, the spatial development framework is binding on the local authority for a period of 5 years (linked to the term of office of the Council). A newly elected Council may adopt the IDP of the preceding Council or develop a new IDP taking into account the existing documentation. The MSDF must be reviewed annually which could result in amendments that can only be effected by following a statutory process.

The spatial development framework as part of the IDP has legal status and therefore supersedes all other plans that guide development at municipal level.

## 2.7 MSDF / IDP Relationship

Naturally, the MSDF does not operate in a vacuum or in isolation from the other planning initiatives in the Metro and the diagram below illustrates the relationship between the plans and the applicable legal directives.



**DIAGRAM 1 : RELATIONSHIP BETWEEN PLANS AND LEGAL DIRECTIVES**

The Demarcation Process as provided for in the Demarcation Act (Act 27, 1998) caused the disestablishment of 7 separate local authority administrations and the formation of the Nelson Mandela Bay Metropolitan Municipality (NMBMM). The most significant administrations incorporated were Port Elizabeth, Uitenhage, Despatch and a portion of the Western District Council.

Each of these administrations previously embarked upon planning exercises in terms of what was then understood to be the IDP process. Much valuable analysis and planning was done and this data has been used in the preparation of this report.

However, the study that was most detailed and complex and which covered most of the new metropolitan area is that of the Comprehensive Urban Plan (CUP). Jointly financed

by the erstwhile Port Elizabeth Municipality and the Swedish International Development Agency (Sida), this study was completed in 1999 and embraced the former Port Elizabeth, Uitenhage and Despatch areas as well as a large area previously falling under the jurisdiction of the Western District Council.

The Comprehensive Urban Plan had the benefit of input from a number of foreign experts in various fields such as planning, economics, conservation, transportation and the environment and was subjected to an extensive and intensive public participation exercise covering a wide range of planning and planning related issues. This report consequently relies heavily on much of the background work done for the Comprehensive Urban Plan.

## **2.9 Public Participation**

The MSDF is concerned with public involvement at two levels. The first is with participation in relation to the MSDF itself. The second is with public involvement as an ongoing part of spatial planning and urban management systems.

Implementation of the principles and recommendations of the MSDF will affect every resident and visitor to Nelson Mandela Bay in some way or another. It is therefore important that its citizens are engaged in the formulation of the MSDF.

## **2.10 The Planning Team**

Primary responsibility for preparing the MSDF rests with the Land Planning and Management sub-directorate of the Housing and Land Directorate. The project is, however, a corporate strategic priority in terms of the IDP and consequently draws on the experience and knowledge from officials in other municipal Directorates.

## **2.11 Document Structure**

The document is made up of nine sections.

Following Sections 1 and 2 of the report being the Executive Summary and Introduction to the MSDF respectively, Section 3 helps define an approach to planning and also provides a short comment on National, Provincial and Local legislation and policy guidelines

including the “Vision” for Nelson Mandela Bay. Section 4 outlines the various principles and guidelines for spatial planning. This is followed by Section 5 which presents a broad analysis of the current situation with regard to spatial planning and the existing metropolitan structure, the desired spatial logic and relationships between different elements which make up the city’s structure (topography, green space, movement systems, public facilities etc). Section 6 introduces how the spatial restructuring of the city is envisaged and highlights population trends and land demand scenarios and some of the important projects being undertaken. Section 7 provides comment on the various development phases and strategies for the implementation of the MSDF and Section 8 sets out the guidelines for a land use management system (LUMS). Lastly, Section 9 draws together specific follow up studies and planning projects.

## **2.12 Interpretation of Plans**

Plans contained in the document should be read with care, specifically with how lines, colours and tones on these maps relate to cadastral boundaries or impact on specific properties. Although some proposals relate to specific and well defined land parcels with clear boundaries, it is not the intention of the MSDF to spell out the detailed cadastral location of proposals.

The MSDF deals with spatial planning principles and relationships at the level of the municipal area as a whole. The plans attempt to illustrate the logic of how these principles and relationships will achieve a more equitable and integrated city.

At a more detailed level, the best way to determine the impact of the MSDF on a specific site is to think of the site as part of a broader area and then to explore the broad intentions for that area in relation to the reasoning contained in this document.

### **3. SETTING THE SCENE : THE APPROACH TO PLANNING**

#### **3.1 The Importance of Planning**

It is important to realise that poor performance is by no means inevitable and that it can, over time, be significantly improved. Positive planning is central to this. Moreover, the failure of planning in the past does not negate its importance today.

Planning therefore has a critical role to play and is essential to :-

- a) Give direction to public spending and decision making.
- b) Ensure the efficient use of scarce resources.
- c) Mobilise unutilised or under-utilised resources.
- d) Co-ordinate and integrate public and private investments in the city to maximise their impact.
- e) Protect nature and prevent ecological breakdowns.
- f) Protect the reasonable rights of individuals.
- g) Establish appropriate institutional, procedural and other mechanisms to promote positive city development.

#### **3.2 Determining Issues**

There are a number of issues that play a role and are important in shaping the nature and form of the MSDF. These include:

##### **3.2.1 Strategic Approach**

The MSDF cannot, and should not, attempt to do everything. Consequently, it needs to be strategic in what it strives to achieve. This has a number of implications, inter alia:

- ❖ It should not attempt to make decisions about every parcel of land. Rather, it must provide a framework that guides a way to thinking differently about space.
- ❖ It must be based on a logical argument rather than opinion or simply reacting to existing patterns. A range of people and organisations are doing their best to improve the quality of life for all in Nelson Mandela Bay. However, in the absence of a

common approach to developing and managing the city, it is difficult to maximise these initiatives. Thus, the MSDF must also provide spatial logic to guide both public and private investment initiatives, large and small.

- ❖ It must inform, and be informed, by the city's budget. The city faces a number of very different investment needs. These include, inter alia:
  - a) *Capital* investment – investment aimed at making the city better for future generations, to build on current assets and to provide new assets.
  - b) *Remedial* investment – investment aimed at mitigating the mistakes of the past and thus improving local living conditions.
  - c) *Basic needs* investment – investment aimed at improving access to basic levels of service in an equitable way.
- ❖ It needs to be able to *respond quickly* to appropriate calls from the private sector to invest in partnership projects at short notice.
- ❖ Each of these different investment needs is necessary and each could absorb the annual budget. At the same time, they are interdependent and require simultaneous attention – one cannot be exclusively pursued at the expense of the others. The shape of the budget, therefore, needs to inform, and be informed, by the MSDF.
- ❖ It must be based on the realisation that there is no 'magic' solution to the problems facing the city. Positive changes will occur incrementally mainly through a series of relatively small actions that must be directed. This means that the framework must identify the beginnings of things – the creation of opportunities – rather than the final outcomes. To ensure equity, these opportunities must be numerous and widely distributed.
- ❖ It must accommodate and emphasise the critical urban management themes of today – those themes which are not only important in their own right, but which are in the minds of people and which are currently central to many government initiatives to improve the lives of people. These include the needs of youth, public health, small business development, education and skills transfer.

- ❖ It must continuously promote reinforcement and clustering. Rather than a little bit all over (the watering can approach). The thrust, therefore, should be to concentrate investment to make special collective places that are of such quality that they impact on the lives of all people.

### 3.2.2 Opportunities

The need to stimulate economic development is one of the most pressing imperatives of our time. Spatial frameworks or plans themselves do not generate jobs or income. The way spatial development occurs, however, fundamentally affects, and needs to be informed by, the preconditions to optimise economic development.

The issue of economic development has two strongly interrelated dimensions. The one is maximising comparative advantage. In an increasingly global economy, cities of the world are in direct competition with each other to attract increasingly footloose investment capital. Internationally, three major factors are of growing importance in this regard. These are:

- the quality of the environment;
- the quality and skills of the labour force, and the
- efficiency of the urban environment.

The other is poverty alleviation. On the one hand, steady progress in alleviating poverty is itself a precondition for social stability and investor confidence. On the other hand, the alleviation of poverty requires economic growth. Particularly important in this growth are small, medium and micro-enterprises (SMME's). There are two main reasons for this. One is that growth in the large formal sector of the economy is insufficient to match the growth in the demand for jobs. The reality is that an increasing number of people will have no option but to generate their own income for survival. The other is that the rate of employment and income generation in SMME's internationally is, on average, greater than in larger enterprises.

The MSDF, therefore, should maximise the conditions required for small scale enterprises to thrive. Important factors in affecting this are:

- The emergence of intense, vibrant local markets which encourage specialisation and diversification.
- Integrated urban development which creates synergies between different uses and different scales of enterprises and which capitalises on flows of people and capital.
- The creation of opportunities for small entrepreneurs to trade and manufacture at really viable locations with low overheads.
- The generation of a wider range of opportunities, thereby creating choice.
- The transfer of skills appropriate to meeting local needs with local resources.

### 3.2.3 Priorities

The MSDF does not try to be comprehensive in its interventions but rather seeks to identify the minimum level of public actions necessary to give strong positive direction, and to integrate these actions creatively.

There are three reasons why this approach is important:

- ❖ Cities largely grow and develop through the energies, ingenuity, creativity and resources of the private sector. The MSDF, therefore, should seek to release energy rather than determining final outcomes. The release of energy, in turn, requires considerable freedom of action.
- ❖ Positive urban environments are complex and result from complex processes that cannot be designed and require freedom of action. The purpose of the MSDF is to guide and foster this complex process.
- ❖ Public investment resources are generally in short supply given the range and scale of demands being made upon them. In allocating these, it is necessary to be guided by the 80% - 20% principle, the realisation being that frequently 80% of benefits can be

obtained through the first 20% of investment. The MSDF should thus seek to identify the 20%.

In brief, the MSDF should:

- ❖ Give spatial definition to the vision and strategic priorities for Nelson Mandela Bay.
- ❖ Identify priority precincts and places for public investment, ranging from large to small.
- ❖ Establish a way of thinking that helps decision makers to deal with unexpected development initiatives, problems and opportunities based on principles and not opinion.
- ❖ Give strong direction to private sector initiatives rather than merely reacting to the private sector.
- ❖ Indicate how to respond to the city's different but equally important investment needs, including productive investment, remedial investment, basic needs investment and investment required for quick response to unexpected private sector initiatives.
- ❖ Set up a clear framework for ongoing data collection, analysis and planning so the MSDF over time becomes an increasingly refined management tool, shared by public agencies and the many groups and individuals who are collectively building the city.
- ❖ Give strong direction to lower levels of planning and identify a logical way of defining and managing local areas.

### 3.3 Directives

The following section describes the National, Provincial and Local legislation and policy guidelines that impact on the metropolitan spatial development framework.

#### 3.3.1 National

The IDP and the MSDF must embody the ideals for planning that have been set at a national level. These ideals are particularly significant when seen in the context of the historical time frame in which the plan is being formulated.

South Africa's post apartheid democracy was formally established in 1994. Since then the government has had to adjust and redefine policy on all government activities in order to respond to the need for transformation. The government has, since its inception, produced policy and legislation on many significant issues that, to a greater or lesser extent, affect spatial planning. All of these issues which concern, inter alia, the environment, transportation, land, water, housing, education etc. ultimately affect the spatial development framework.

At the broadest level, all policy and legislation is contextualised within the Constitution, which requires, inter alia, that all levels of Government are responsible for accountable decision making, the promotion of human rights (including economic and social rights), and the protection of the environment to ensure environmental sustainability.

At a less broad level, however, the following national policies and legislation are of overriding planning significance and influence the basic tenets of the IDP and MSDF for Nelson Mandela Bay.

- ◆ The Reconstruction and Development Programme.
- ◆ The Urban and Rural Development Strategies.
- ◆ The Development Facilitation Act (DFA).
- ◆ The White Paper on Local Government.
- ◆ The Municipal Systems Act, Municipal Structures Act and Demarcation Act.
- ◆ The Housing White Paper and Housing Act.
- ◆ The National Environmental Management Act.

- ◆ White Paper on Spatial Planning and Land Use Management.
- ◆ Land Use Management Bill.

The key focus areas and planning guidelines for the MSDF arising from the above - mentioned legislation and policies can be summarised as follows:

- **Integration** should be aimed for at all levels of planning. This entails physical, social and economic integration.
- Planning should aim at creating **efficient cities**. This implies reducing urban sprawl and encouraging densification to make the city more efficient, to reduce the need to travel and to contribute towards the viability of public transportation.
- Cities must be planned for **economic and environmental sustainability**.
- The principles of **democracy, equity and a people driven approach** towards planning should apply. This includes **gender** sensitivity and awareness. Public participation is a critical element of the planning processes in order to establish ownership of planning products and processes.
- The principles of **good governance and institutional practices** must apply to all spheres of government and planning.
- An environment must be created wherein people are able to **satisfy basic needs** such as housing, land, water, health and social security.

### 3.3.2 Provincial

From a planning perspective, the Province is most significantly responsible for implementing the requirements of the Development Facilitation Act, the Municipal Systems Act and all other legislation where it has a role in relation to Local Government. This includes acceptance of IDP's for consistency with Provincial Guidelines and the identification of possible conflicts and resolution of those conflicts between neighbouring Local Authorities and their IDP's.

Two documents have been prepared at the Provincial level and are of relevance, providing some direction, background and consistency with National policy. These are the Provincial Growth and Development Strategy and the Provincial Spatial Development Framework (which is currently under review). The following highlights of these documents are relevant to the MSDF for Nelson Mandela Bay.

The Provincial Growth and Development Plan (2004 - 2014).

Within the broad understanding of the Eastern Cape as having the highest poverty rate, the second lowest per capita income and the highest provincial unemployment; the Provincial Growth and Development Plan has prioritised the following needs which are addressed through a series of interventions, namely :-

- Agrarian Transformation and Food Security
- Poverty Eradication
- Manufacturing Diversification and Tourism
- Public Sector Transformation
- Infrastructure Development, and
- Human Resource Development

The Eastern Cape Provincial Spatial Development Plan (2003)

One of the aims of this plan is to provide a framework within which the local authorities in the Province can prepare their IDP's and Land Development Objectives (LDO's).

Apart from aligning the Provincial priorities with National goals and objectives, the following issues are raised in relation to Nelson Mandela Bay from a Provincial spatial perspective.

- The Coega Industrial Development Zone (IDZ) is one of 2 in the Province and is seen as having significant growth potential requiring Provincial attention.
- The Nelson Mandela Bay area is recognised as having Provincial tourism potential.
- Economic activity in the Province is focussed towards Nelson Mandela Bay.
- The relevant strategic approach of the Province in regard to Nelson Mandela Bay is to maximise the strategic advantage of industry and commerce in order to have a positive effect on the region.

- The Province will encourage the development of the tourism industry.
- Nelson Mandela Bay is identified as one of 12 provincial nodes to be targeted for strategic investment in order to create growth and spin offs for the region.

More generally the following guidelines are emphasised:

- “Urgent and radical steps must be taken to counteract trends towards peri urban settlement on the outskirts of towns.”
- “Councils need to adopt mechanisms to achieve rapid land sub division and allocation procedures so that settlement areas can be opened up in competition with peri urban areas.”

### 3.3.3 Local

At a local level, the Municipal Vision of **“A globally competitive city that works together with the people”** will influence and act as a reference point for all planning initiatives. The MSDF for Nelson Mandela Bay will need to identify, on a continual basis, the dreams, visions and perceptions of all citizens and translate these where possible into elements of the plan.

Moreover, the “Mission Statement” below developed for Nelson Mandela Bay forms the cornerstone of the IDP and must be spatially translated in the MSDF.

*“Nelson Mandela Bay Metropolitan Municipality is a global city that is governed by an inclusive and innovative Municipality, focused on sustainable service delivery, socio-economic and infrastructure development and local regional integration.”*

Within the vision identified above, the Mayoral Committee of the Council has identified seven development priorities as the most critical development needs within Nelson Mandela Bay.

It is essential that where possible the MSDF directly contributes towards the achievement of these development priorities.

The priorities identified are:

- Housing Delivery.
- Institution Building
- Tourism and tourism infrastructure development
- Crime Prevention
- Investment and Economic Growth
- Service Delivery
- Cleansing and the Environment

#### **4. PLANNING PRINCIPLES AND GUIDELINES.**

The following guidelines for spatial planning and planning processes flow directly from the principles that emanate from the legislation, policies and influences discussed above. These guidelines should be seen as the tools available to remedy the problems identified above.

##### **4.1 A Democratic and Transparent Approach.**

The preparation of the MSDF must rely on public participation. This is in line with national guidelines. While it is recognised that participation is generally more difficult at broader planning levels, approaches to increase awareness of the plan must be made and true participation in planning alternatives must be achieved.

##### **4.2 Human Rights and Democracy**

The Nelson Mandela Bay Metropolitan Municipality is committed to improving the quality of life of its residents. The IDP and its MSDF contribute directly in achieving this strategy through co-ordinated and improved planning.

Another focus of the IDP is economic development. This impacts directly on poverty alleviation through the creation of jobs. Disposable income provides people with an ability to make choices affecting their lives. This restores human dignity, reduces crime and improves the sustainability of society. The MSDF must thus encourage economic development and sustainability.

##### **4.3 Integration, Equity and Quality of Life**

Central to moving towards a city that works for all are the issues of integration, equity, redistribution and quality of life. Moreover, national planning legislation embodies integration as a planning principle and this must be adopted in the MSDF as a basic tenet. A fundamental recognition therefore is that for the city as a whole to work optimally, its individual components cannot be made to function with maximum effect to the exclusion of all the others.

As the city has grown outwards, it has become increasingly inaccessible, inequitable and inconvenient for a growing majority of people. The concept of integration is thus central to achieving a spatially more equitable and unified city. Equity, however, does not mean that all parts of the city should be the same or should have exactly the same opportunities and facilities. This is neither possible nor desirable. It is not possible because a characteristic of urban systems is that more collective activities tend to cluster together at the most accessible locations because they service and are supported by large numbers of people. Positive urban environments also provide residential choice, particularly in terms of location, lifestyle and affordability. Equity thus means that all people should have easy access to a broadly similar range of opportunities, facilities, special places and events.

Challenges posed by this include the need :

- to make existing opportunities more accessible to the majority,
- to create a new pattern of clustered opportunities and special places, and
- to address the issue of poverty

Poverty could be defined as “the absence of choice,” whereas integration deals with poverty in the sense that it involves maximising choices for all individuals irrespective of race, religion, gender, class or disability. The MSDF must aim to maximise choices in all aspects of life - social, economic and environmental - and, in doing so, promote the integration of the city.

Integration is thus addressed in the MSDF in the following ways:-

- Increasing Densities

It is an established fact that population will continue to grow, and that this growth needs to be accommodated spatially. Past practices of allowing the City to spread need to be countered and higher densities are one way of achieving this. Higher densities will contribute to improved integration by:

- ◇ creating opportunities for more people to live closer to facilities thus making facility provision more cost effective;
- ◇ improving access possibilities;

- ◇ encouraging more people to live closer to one another;
- ◇ improving the quality of housing provision through economies of scale, especially in the subsidised market.

It is not proposed that all parts of the City be made more dense, but rather that such efforts be concentrated close to transport / activity corridors. New development in areas further removed from the existing city fabric will also have to be planned at higher densities than at present.

- Corridor Development and the Transportation Network

It is a legislative requirement that a transport plan be prepared for the City. The transportation network, together with the emphasis on accessible public transport must aim to improve overall mobility within the City. This will make facilities, job opportunities and services more accessible.

- Sustainable Communities

The concept of creating self sufficient neighbourhood within walking distance of most of a communities needs can address integration. The intention of creating “neighbourhood planning units” is that they contain facilities, services and job opportunities in close proximity to places of residence, thus increasing accessibility and thereby choices by reducing the cost of and need to travel.

- Downtown Centre

The Central Business District of Port Elizabeth is one of the oldest parts of the City and forms the economic and identifiable heart of the Metro. Whilst growth has resulted in decentralisation and a decline in the importance of the CBD, it still contains the main civic facilities, thus maintaining its civic role. These facilities are widely used thus making the area ideal for social integration.

#### **4.4 Densification**

Densification is important in creating a sustainable and efficient City. It is also a mechanism for achieving integration. The density of existing areas should be increased through infill development on vacant land which is not required for other purposes. Corridor development will also increase densities in existing areas.

Densification can be achieved through a number of mechanisms - these include multi-unit residential buildings and double and triple storied buildings. Ideally, these forms of higher intensity residential development would be located on or in close proximity to public transport corridors.

To effectively increase density and thereby reduce urban sprawl, future densities should average at least 30 to 40 units per hectare (gross) in new areas. Current densities average 20 units per hectare.

It is predicted that more than 80% of the future residential demand in the Metro will be for low-income housing. In view of the need for densification, it is this sector that will, of necessity, be most affected.

The current practice of creating erven of 200 - 300m<sup>2</sup> for low-income housing is unsustainable from an economic and land utilisation point of view. Increased densities on the other hand can decrease land and servicing infrastructure costs as well as enhancing the viability of public transport systems.

Future low income housing layouts will ideally need to comply with densities of at least 30 - 40 units per hectare. Furthermore, layouts will have to accommodate corridor planning and greatly increased densities close to proposed transportation routes. Provision will also have to be made for mixed land uses - i.e. high density residential mixed with non-residential land uses - work and shopping opportunities along activity corridors.

If low-density development is allowed to continue, land available for urban uses will be used up in a relatively short period of time. Higher densities will consequently mean that land within the urban areas will be available for longer, thus preventing the need to incorporate more rural land into the urban area. The infrastructure costs of an expanded city will also be minimised through densifying development.

Higher densities could also result in more green space remaining in and around the city thus improving the environment.

## 4.5 Sustainability

Sustainable development can be seen as the balancing of environmental, economic, and social demands in a way that most benefits society as a whole. The challenge in implementing the MSDF will be to balance the first world / third world situation. For example, the dilemma as to whether housing or economic considerations should come before environmental protection.

Sustainable development is defined as:

*“Development that meets the needs of the present without compromising the ability of future generations to meet their own needs”.*

The overall guiding principles include sustainability and many of the more specific principles that are closely linked to the overall principle of sustainability. It is also apparent that many of the local planning principles are derived from, or are based on, the aspiration of achieving sustainability.

While it is fairly obvious that depletion of natural resources and pollution of rivers and the sea are not sustainable practices, threats against social and economic sustainability are less obvious. Social sustainability includes aspects such as equality, justice, transparency, democracy and the public involvement. Economic sustainability entails income distribution, employment, fair taxation, cost recovery and balances in municipal finances.

It will not be possible to influence or address these aspects directly in the MSDF, but as with environmental concerns, the plan aims to meet present needs without compromising the ability of future generations to meet theirs. The MSDF identifies the needs and thereby facilitates the assessment of the implications in terms of resources, capacity and finances as part of the IDP process.

The application of sustainability in planning and development includes the following principles:

- protection of human health;
- preservation of biological diversity;

- economic management of resources;
- protection of natural and cultural resources;
- poverty alleviation;
- local economic development;
- social justice;
- public and community involvement;
- education and improvement of environmental awareness.

#### **4.6 Accessibility : Transport and Activity Corridors**

The city structure needs to be developed in a manner that uses infrastructure more efficiently and minimises the need to extend infrastructure networks unnecessarily. Transportation infrastructure is the most expensive infrastructure in urban development and extensions to road and rail networks need to be kept to a minimum. Again, one means is to increase both residential and commercial densities along transportation routes and to transform these routes into activity or development corridors. This concept is supported by directives from the National Department of Transport that call for investigations into the development of transportation corridors in order to make public transport a viable alternative to the private motor vehicle.

The challenge lies in initiating the process of developing a transport corridor in a manner that will be attractive to the market, yet at the same time promoting an efficient public transport system. It is therefore necessary to examine how corridors can be initiated, their location and perhaps whether different types of corridors need to be developed. Living along or near corridors must be attractive if the numbers of people that will make public transport viable are to be accommodated.

The nature of the main transport routes that already serve the Metropolitan area need to be studied to find out how to develop them further in a way that will result in them being successful as public transport routes and routes along which people will want to live.

The Khulani Corridor Study (Kempston Road to Motherwell via Njoli Square and Daku Road) is the first corridor proposed and appropriate lessons learnt from this study will need to be applied to the other main routes in the Metropolitan area.

However, it is important when planning corridors to avoid ribbon development. A corridor must be the result of intensified development along a transport route and not merely the creation of business opportunities of a low key nature on either side of a major road as this will not promote public transport as an alternative to private transport. The character of a corridor should also be designed to change along its length to make it interesting and attractive. If people are to be encouraged to live along its length, the environment must be conducive to residential occupation. Open spaces and squares or plazas need to form part of the urban design embodied in corridor development.

#### **4.7 Enforcement**

Critical to the efficient and sustainable management of any city is the enforcement of its by-laws and land use schemes. It is important though that such laws and regulations be formulated in a manner that encourages public support. The reason for planning a city in the first place is to guide growth in a manner that will ensure that efficient development takes place in the interests of the community as a whole. Without enforcement, none of the planning programmes or initiatives that are instituted will come to fruition. If there is commitment on the part of the city, these ideals will be enforced.

The lack of enforcement is the most commonly mentioned problem in the context of the existing land use management system. Enforcement is to some extent dependent upon resources, skills and capacity, but is also linked to organisational structure.

Many cities are inefficient today because development has taken place on an ad-hoc basis without long term planning of land uses, transportation and infrastructure networks.

Plans organise and specify land uses in a way that reflects the public interest as opposed to individual interests. Regulations and by-laws are used to ensure that the public interests are protected. These are manifested in land use schemes, local spatial development frameworks and policy plans.

However, the reality of urban development in Nelson Mandela Bay is that many individuals are permitted through ineffective enforcement, to place their own interests above those of the community so that development occurs outside of the regulations and beyond any collective vision and goals. This can happen to the extent that visions, plans

and policies become irrelevant and market forces start to dictate the pattern of development. This renders planning ineffective and works against the public interest.

The MSDF addresses land use management but enforcement remains an essential part of looking after the interests of the entire community. It also instils investor confidence, offering security to investors. This in turn can attract more investment than any that might be turned away. New development legislation as provided for in the Land Use Management Bill will streamline the decision making process and ensure greater enforcement. However, until the new legislation is enacted, greater commitment to land use enforcement is recommended.

#### **4.8 Planning for Sustainable Communities**

The general guiding principles emphasised in all policy documents, and in particular, in planning related policies are manifested in urban development in different ways. These guiding principles include integration, densification, accessibility, sustainability and equality. The application of these principles imply profound changes in society and are such that would affect the urban structure, the content of the built environment as well as people's living conditions.

The sustainable communities unit (SCU) aims to establish a structure that will assist achieving the overall planning principles set out by Government in a spatial context. The SCU in its physical form is the main planning zone of the overall metropolitan structure.

The purpose of using this urban unit as a building block is to improve accessibility to services, employment opportunities and cultural and recreational facilities by providing them closer to places of residence and along main transportation routes. It is envisaged that it will result in a more balanced and integrated physical and socio-economic structure.

The objectives of the SCU are to :-

- reduce discrepancies between different sections of the society in terms of service provision and standards;
- promote integration in socio-economic and functional terms;
- provide for economic activities and employment opportunities;

- improve accessibility to services and facilities; and
- facilitate other requirements as identified in Government policy statements, goals and objectives.

Sustainable community units should include a range of housing types for different household categories including mixed densities. Areas for social facilities such as clinics, schools, crèches and libraries as well as industrial, commercial and other formal and informal economic activities should also be included. While major recreational areas are incorporated in the broader metropolitan open space structure (MOSS), units should provide for local open space and local recreational needs. Mixed land uses should be considered, particularly in centrally located sections of the unit and along transport routes and activity corridors.

It is envisaged that the vast majority of citizens will depend on public transport and walking. The approach within the SCU therefore focuses on pedestrian movement, public transport and the provision of access to services and job opportunities. Consequently the main criterion determining the size of an SCU is proposed as the maximum walking distance from the centre to the periphery. The walking distance in this context is assumed to be 2 kilometres or a 30 minute walk.

In theory, the maximum SCU size is approximately 1000ha with a population of approximately 100 000 inhabitants. In reality though, SCU's will vary in size depending upon location, densities, built-up areas, topography, physical constraints and existing land uses.

An SCU is intended to be a predominantly self-contained unit of development that is designed to minimise the need to travel while at the same time offering employment opportunities closer to places of residence. They will also be linked to one another by some form of transportation route. The core of the SCU's can comprise commercial or employment centres, service and educational centres, transport junctions or a combination of these. The efficient use of land and services will require variations in densities depending on proximity to centres or transport links.

#### **4.9 Urban Growth Boundary**

The MSDF aims to achieve the objectives of an integrated structure in functional and socio-economic terms, improved accessibility to employment and services, efficiency in use of resources, optimal utilisation of existing infrastructure, protection of agricultural land and other natural resources. The spatial planning principles that support the achievement of the objectives include densification, infilling, compact urban structure, combating urban sprawl, phasing and management of development and land use management.

One of the tools to achieve this is the establishment of a conceptual “urban fence” or urban growth boundary to limit urban growth and contain development within a designated perimeter. The reasons for this are numerous and include, inter alia, the following:

- National legislation stresses the need to use land assets more efficiently by generally increasing development densities.
- Curtail high servicing costs.
- Protect rural agricultural areas so that they can continue to provide food supplies to the City.
- Keep transportation distances to a minimum, especially in a developing economy where the majority of people are reliant on public transport.
- Environmental areas need to be conserved for future generations and to promote biodiversity (South Africa is a signatory to the Convention of Biological Diversity 2 November 1995)

The “urban fence” is a conceptual boundary delineating the urban area within which urban development will be enabled and guided by detailed plans. Outside the “urban fence” the land use will be predominantly agricultural with allowances and regulations for different types of agricultural activities and for rural developments. The “urban fence” is not a physical element, but rather identified by a spatial differentiation in proposed land use intensity between what is inside the fence (urban development) and what is outside the fence (peri urban and rural developments including small metropolitan open spaces, agricultural small-holdings, intensive farming, grazing and game farms).

To take this concept further, policy guidelines have been prepared to guide densification within the urban edge as well as means to assess applications for land use change

outside of the urban edge in the peri-urban and rural areas. The delineation of the urban edge on a more scientific basis has been undertaken as part of the policy guidelines.

#### **4.10 Conservation of the Natural Environment**

The overriding development principle entails the establishment of systems that reduce the utilisation of non-renewable natural resources. Sustainable development thus requires that natural resources be used wisely so that long-term development in ecological, social and economic terms is encouraged. Both environmental and development concerns should be integrated and balanced so that improved living conditions can be achieved without endangering sensitive natural environments or depleting natural resources.

The planning and management of land for development should avoid damage to the environment and must strive to protect ecologically sensitive areas. The protection of the unique biotypes found in the region will be incorporated in the MSDF through the delineation of a metropolitan open space system (MOSS). Furthermore, the formulation of policies for the use of land in peri-urban areas and the land use management system for supporting and monitoring development must similarly take environmental aspects into account.

Local Agenda 21 will be an important tool to achieve sustainability and in particular the conservation of the natural environment.

#### **4.11 Conservation of the Built Environment**

The existing built environment structures urban areas and reflects the historical and cultural development of a settlement. Protection and conservation of the built environment in its different forms contributes to an understanding of the existing character and identity of a place. Appropriate utilisation and rehabilitation of historical buildings and environments is a principle of urban development. The MSDF is based on the principle of conservation and sustainability as well as utilisation of the potential of historical and culturally valuable buildings, places and spaces.

The value of the built environment and historical buildings and sites to tourism and the role tourism can play in the economic development of the region needs to be recognised and capitalised upon.

The following fundamental principles have been identified for Heritage Conservation in South Africa.

- Heritage is a valuable, finite, non-renewable and irreplaceable resource that must be carefully managed to ensure its survival.
- Every generation has a moral responsibility to act as a trustee of the natural and cultural heritage for succeeding generations.
- South Africa has a rich heritage, both natural and man-made, which is unique and worthy of conservation.
- Numerous cultures, both past and present, have contributed to that heritage and all have the right to be protected. Conservation of the heritage is in the interests of all South Africans.
- Every person, community and institution has an obligation to ensure that significant elements of the natural and cultural heritage are not damaged or destroyed.

#### **4.12 Reinforcing the significance of the City Centre**

The city centre is the oldest and forms the economic and identifiable heart of the City. However, growth has resulted in decentralisation of business to the suburbs and a decline in the importance of the CBD as the heart of the city. Notwithstanding, it still contains the main civic facilities, thus retaining its civic role. These facilities together with the Feather Market Centre are widely used thus making the city centre ideal for social integration. The city centre has always been accessible to and used by all population groups. It therefore presents a better opportunity than any other part of the city to promote integration.

The reinforcement of the city centre is seen as an important planning tool in ensuring the health of the Metro. To this end, the Mandela Bay Development Agency (MBDA) has been established to oversee the revitalisation of the CBD and the surrounding area.

## **5 SPATIAL ANALYSIS**

The purpose of this section is to present a broad spatial analysis of the current situation with regard to spatial planning within Nelson Mandela Bay.

### **5.1 Existing Metropolitan Structure**

Nelson Mandela Bay comprises 3 urban centres that were previously, until December 2000, independent and separate municipalities. These urban centres are Uitenhage, Despatch and Port Elizabeth.

The largest centre is Port Elizabeth, followed by Uitenhage and then Despatch. The Metropolitan area since December 2000 also encompasses large areas of rural land that previously fell under the jurisdiction of the erstwhile Western District Council.

#### **5.1.1 Topography**

The metropolitan area comprises  $\pm 1950\text{km}^2$  of land. It has over 100km of coastline to the south and east with the inland boundaries defined by the Sundays River to the north and the highlands to the west of Uitenhage.

The rivers and associated valleys that have had the most impact on the existing urban form and transportation routes are the Swartkops and Baakens Rivers. Furthermore, prominent physical features include a wide floodplain south of the Swartkops River and a southern escarpment that rises steeply onto a flat plateau. This southern escarpment is incised by a number of valleys which are of environmental value and which provide opportunity for vehicular access between the low-lying floodplain area and the higher ground to the south.

The two escarpment edges contain development either on the valley floor or on higher ground to the north and south of the Swartkops River. Once on the higher ground, Port Elizabeth is essentially very flat with a gentle rise in elevation to the west and north-west. Movement in a north-south direction is impeded by the necessity to cross these valleys.

### 5.1.2 Built Form

The metropolitan area is characterised by an axis of development spreading from the central city area in a north-westerly direction towards Uitenhage. Approximately 35% of the metropolitan area can be considered “built up.”

The remaining areas are largely undeveloped and comprise small agricultural land holdings, land earmarked for future urban expansion, open spaces and major conservation protected areas.

## 5.2 Patterns and Trends

### 5.2.1 Business

Over the last 20 years, there has been a marked tendency to decentralise from the city centre of Port Elizabeth. Although decentralisation is not an issue in the Despatch area due to its small scale, a recent tendency has emerged in Uitenhage for small offices and service businesses to locate along Cannon and Graaff Reniet Roads.

Decentralisation in the erstwhile Port Elizabeth area has had a significant impact on the downtown CBD area as well as the North End, Sidwell and Korsten areas where not only commercial activities, but more industrial type activities are relocating to Walmer, Newton Park as well as Fairview west of the William Moffett Expressway. This includes motor sales outlets that have traditionally located in North End in “motortown.” Nevertheless, recent reports indicate a gradual reversal of this trend with commercial activities beginning to take up vacant space within the CBD.

### 5.2.2 Industry

#### 5.2.2(a) Coega Industrial Development Zone

The single biggest industrial development initiative is the 11470ha Coega Industrial Development Zone and the deepwater Port of Ngqura situated at the mouth of the Coega River. The Coega IDZ is expected, over time, to change the “epi-centre” of industrial growth. The stringent requirements to locate within the zone, the timing of availability of land and the need for other forms of industry in other locations will result in a continued demand for industrial land outside of the IDZ.

### 5.2.2(b) Other Industrial areas.

Other Industrial areas include the following:

- Markman – This industrial area primarily caters for the heavier type of industry. Although there has historically not been much demand for industrial land here due to its perceived distance from the city, this is expected to change because of its strategic proximity to the Coega IDZ.
- Perseverance – This area has the advantage of being located close to the Ibhayi residential area and thus provides conveniently located employment opportunities. Two large recent developments (SAB and Corning) have resulted in this area being almost fully developed.
- Airport – Developed as an area for industries dependent on air transport. The area is underdeveloped and vacant space exists.
- Struandale – This is an older industrial area close to labour sources with limited expansion potential.
- Korsten – This is an older industrial area with older buildings and smaller industries.
- Deal Party – This is an old industrial area and is fully developed.
- Uitenhage – Spare growth capacity for expanding the Uitenhage industrial complex exists at Jagtvlakte. Part of the industrial area is being developed for the Auto Cluster as one of the Vision 2020 projects. The Auto Cluster's focus is to address the needs of the auto industry in order to encourage new automotive operations and the expansion of existing operations. The first project is the Logistics and Light Assembly Park close to the Volkswagen plant.
- Greenbushes – This is a relatively new industrial area which started with the rezoning of residential holdings in the area known as Ericadene. Due to demand, additional properties north of the Old Cape Road have also been rezoned in the form of upmarket industrial parks. These industries provide much needed economic opportunities to the impoverished Kuyga settlement nearby.

Generally, the existing industrial areas are environmentally degraded with poor aesthetics and poor pollution control. It is seen that the Coega IDZ will be far superior in terms of environmental quality and aesthetics.

### 5.2.3 Residential

Repeal of the notorious “influx control” regulations during the 1990’s resulted in extremely rapid urbanization from the rural areas into the city. As people moved into the city, informal settlements established themselves in areas not suitable for residential development and the resultant poor quality of life in these areas became planning, social and economic issues. The increase in the number of informal settlements is also attributed to the backlog of housing which is estimated to be approximately 80 000 units for lower income groups.

In order to meet this demand, most new residential developments catering for this segment of the market are taking place north of the Swartkops River in Wells Estate and to the north-west of Motherwell, as well as towards Uitenhage along the main Uitenhage Road axis. Furthermore, in-situ upgrading is also taking place within existing township areas primarily on sites set aside for other uses like school sites which have been invaded.

A number of long standing informal settlements also exist in the peri-urban areas of the Metro. Part of the upgrading plans of the erstwhile Western District Council (now inherited by the NMBMM) was the establishment of properly planned and serviced residential townships in the following areas:

- Rocklands
- Kuyga
- Seaview
- St Albans
- Witteklip

With the formalisation of these isolated settlements as part of the housing program, they need to be contained as such developments are not in line with Development Facilitation Act principles or the Provincial Spatial Development Plan. Their development will cost the Council considerable amounts of money and there are insufficient employment opportunities in those peri-urban areas to sustain large numbers of people. Servicing is difficult and very expensive and the residents will forever be burdened by a lack of access to social, economic and cultural facilities and services which are available in the established urban areas.

The southern and western parts of Port Elizabeth as well as the northern sector of Uitenhage comprise the middle to upper income residential areas with well established infrastructure and social and recreational facilities.

### **5.3 Consequences for Spatial Planning**

#### 5.3.1 Topography

The Port Elizabeth city centre and harbour area have become the focus of all the transportation networks within the region with land use radiating from this central point in a series of sectors. Topography affected the position of the transport networks with both road and rail staying on level ground as far as possible but also using the breaks in the escarpments and side valleys to provide access between higher and lower lying areas.

These topographic features will continue to affect the manner in which the urban pattern of the region expands, as they will affect the location of land uses and new transportation links. This coupled with the manner in which increased residential densities are dealt with and successfully implemented, will determine the ultimate urban form.

#### 5.3.2 Metropolitan Open Space System (MOSS)

By virtue of the long coastline along with a number of rivers and ridges, the metropolitan area presents a unique opportunity for environmental quality. The presence of diverse and unique plants also provides opportunities for tourism and conservation.

This is further enhanced with the metropolitan area being situated at the south-eastern corner of the Cape Floristic Region (CFR) in an area where five of South Africa's seven natural biomes (*e.g. Fynbos, Subtropical Thicket, Forest, Nama Karoo and Grassland biomes*) converge. Such a concentration of biomes, particularly within a city, is unparalleled in the world. Furthermore the metropolitan area also contains three of the 21 international biodiversity hotspots, thus making it extremely valuable from scientific and eco- tourism perspectives.

Important for biodiversity conservation therefore is the inclusion of a Metropolitan Open Space System (MOSS) as part of the MSDF. As a major structuring element, the extension of the MOSS into the rural part of the Metropolitan area based on a detailed

biodiversity study conducted by the Wildlife and Environmental Society of South Africa (WESSA) and refined as part of the Strategic Environmental Assessment (SEA) of the metropolitan area. This study addresses conservation planning at a fine scale and seeks to provide a framework for the conservation of a representative proportion of the biodiversity endemic to the metropolitan area in addition to identifying economic and social opportunities.

### 5.3.3 Agriculture

A challenge in promoting opportunities for urban agriculture is the unavailability of suitable land in appropriate locations for small scale farming purposes. This is primarily due to land with the most viable agricultural potential being situated largely within the western segment of the metropolitan area with most of it being in private ownership. It is therefore essential that the ad-hoc subdivision of this agricultural land be controlled so that its agricultural potential is conserved and that the encroachment of urban type development into these areas is contained.

Another form of urban agriculture that should be encouraged is crop farming (market gardening and backyard gardening) as it is labour intensive and does not require large amounts of land. However, a major consideration with regard to crop farming is the extent to which potable water can be used.

There is also a growing need to accommodate urban agriculture and urban stock farming. The extent to which stock farming is allowed and managed needs to be investigated as land carrying capacity is generally very low.

### 5.3.4 Land for Expansion

The metropolitan area covers approximately 1950km<sup>2</sup> and is spread out over an area that extends approximately 35 kilometres inland and 45 kilometres from north to south. Only half of this area is contiguously developed. The remainder is either not economically developable (due to steepness or location within flood prone areas, etc.) or has not been developed due to ownership patterns or the fact that bulk servicing networks have not been extended.

The southern urban area extends westwards from the central part of Port Elizabeth. Although additional employment opportunities could benefit further expansion westwards, such expansion should be limited so as not to result in the gradual erosion of the agricultural and environmentally sensitive land west of Port Elizabeth.

The axis of development to the north-west focuses on Stanford Road and the main Port Elizabeth / Uitenhage Road. Development is spreading in this direction onto open land situated between Uitenhage, Despatch and Port Elizabeth. The Swartkops River and the limited opportunities to cross it impedes growth to the north. However, Motherwell and its recent extensions dominate all development on the northern side of the river.

Considering the above, the procedure involved in identifying areas suitable for future development would eliminate land that is :-

- already developed;
- too steep or prone to flooding;
- geologically uneconomical to develop or that cannot be developed for geological reasons.
- earmarked for other major uses (e.g. Coega IDZ or airport expansion, future land fill sites, sites for cemeteries, etc.)
- affected by servitudes.
- required for agricultural purposes.
- of environmental importance such as nature reserves and flora and fauna conservation areas.
- forming part of the Metropolitan Open Space System (MOSS).

Depending on the timing, cost and availability of services, the land remaining after this elimination process could thus be considered for development.

Coupled to this analysis are accurate population projections and to translate these projections into land demand. The number of dwelling units required at a specific density will indicate the number of hectares of land required. Updated population statistics will help determine the anticipated rate at which land will be required.

### 5.3.5 Peri-urban areas: western vs. northern.

The western peri-urban areas are characterised by smaller land holdings in private ownership. Of all the available land, the western region of the metropolitan area is potentially the best from an agricultural point of view with better soils and higher rainfall.

The northern peri-urban areas on the other hand are drier with less suitable soil conditions. Agricultural potential is thus poor in this region and carrying capacities are low. Land parcels are consequently larger.

### 5.3.6 Land reform requirements

Integration of the previously segregated urban form remains a central challenge. Without intervention, a normalisation process would take many years. Direct interventions are therefore required to accelerate this process and are discussed more fully under the next section dealing with policy guidelines.

Amenities and facilities are lacking in certain sections of the metropolitan area. Residents of those areas, many of whom cannot afford it, are required to travel greater distances to access the amenities and facilities that exist in other areas.

To this end, the sustainable community unit (SCU) concept of providing facilities within a 2km radius or 5 minute walk of residence has been formulated to address this issue. A further way in which land reform can be partially addressed is to ensure that sufficient land is made available for housing in the correct locations.

## **5.4 Specific Development Concerns.**

As with most other South African cities, Nelson Mandela Bay is faced with historically segregated suburbs, poverty, lack of proper infrastructure and housing in low-income areas including lack of public services such as clinics, insufficient social security as well as poor access to an efficient public transportation system. Other major problems are unemployment, crime and HIV/AIDS.

Some specific problem areas have been highlighted below. However almost all are interrelated and what affects / alleviates one area will impact on other problem areas.

#### 5.4.1 Urbanisation

Because it is relatively more successful than other cities in the Province, Nelson Mandela Bay is more attractive and as a result has to absorb a relatively higher degree of urbanisation.

Urbanisation therefore is a challenge and as the inflow of people from outer lying rural areas to the city is likely to continue, it is also increasingly difficult to quantify. Notwithstanding, population projections need to take urbanisation into account and to identify the planning needs and issues associated with the in-migration of largely poor, uneducated people in search of a better life.

A consequence of spontaneous urbanisation is that migrants tend to locate in areas where residential development is inappropriate. These areas would either be committed for some other purpose such as schools or open spaces including larger areas identified for housing or even within the outer lying peri - urban areas.

This type of rural-urban migration causes a social, economic and environmental burden. Means to mitigate this trend must be investigated to avoid serious consequences on quality of life, the city's economy and the impact on the environment. One such method to counteract this trend is to make sufficient land available in appropriate locations to cater for the increased demand for housing.

#### 5.4.2 Economic development.

Another critical issue is the relationship between the number of income generating activities and the population. Few job opportunities occur in areas close to homes and a large proportion of the population as a result are either unemployed or underemployed.

Spatial planning must address income generation by making provision for small-scale entrepreneurial opportunities in close proximity to homes that are easily reached by foot. The informal sector cannot be ignored and should be encouraged to formalise. Spatial solutions will consequently need to be found to encourage their growth.

#### 5.4.3 Social problems and the impact of HIV/Aids.

The most threatening factor to sustainable development and a balanced demographic structure is the HIV/Aids pandemic. The disease, which already has had a serious impact on society will result in reduced life expectancy, raise dependency ratios, cause fewer people to be capable of productive work and economic activity and thus a reduced labour force. The resultant loss of economically productive people, distortion of family structures as well as the increase in number of orphans and the associated cost for health care and social services all herald fundamental implications for the future.

HIV/Aids, if left unchecked, will retard the natural population growth rate both nationally and regionally. It is also likely to impact on the local growth rate as well as on migration trends. HIV prevalence among pregnant woman attending public antenatal clinics in South Africa rose from 1% in 1990 to 25% in 2000. With this growth, HIV/Aids has become more visible and its impact more evident. However, an update of previous demographic studies done in 2007 indicates that Nevirapine usage in the case of HIV positive pregnant women is expected to reach 90% from 2005 onwards, while the percentage HIV positive persons on anti-retroviral treatment is expected to rise between 2006 and 2020.

Statistics also indicate that the average life expectancy in South Africa for all population groups is expected to decrease between 2005 and 2020 from 63 to 56 years respectively. Although these are averages, the most affected are Blacks with an estimated average life span of 54 years in 2005 reducing to 44 years in 2020.

It can be assumed that the number of orphans in the city will increase dramatically, as well as the number of terminally ill who will be unable to care for themselves. This will have a large impact on the type of housing to be provided as well as the types, quantities and location of social services necessary – all of which will have spatial implications.

The number of maternal orphans (children under 18 years of age whose mother is dead) is projected to rise from 25 930 in 2005 to 44 050 in 2020. These include children whose mothers have died from non-AIDS causes as well as AIDS causes. Current estimations are that 12.9% of all children under the age of 18 will be maternal orphans in 2020.

The number of paternal orphans (children under 18 years of age whose father is dead) is expected to rise from 38 220 in 2005 to 48 450 in 2020. These include children whose fathers have died from non-AIDS causes as well as AIDS causes. Current estimations are that 13.6% of all children under the age of 18 will be paternal orphans in 2020.

The increase in AIDS deaths will thus lead to a changing demographic profile of the city. It is important therefore that spatial planning does not exacerbate the social problems caused by this disease and that improvement of the situation is facilitated where possible.

The impact of HIV/Aids on housing, health care, social services, crime, social segregation, payment backlogs for services and employment has not been thoroughly investigated or quantified. Further research into the overall implications of HIV/Aids is necessary in order to address these problems effectively.

#### 5.4.4 Sustainability

Pollutants from industry, sewerage, waste generation and air pollution sources contribute to environmental problems. Moreover, the use of vehicles, consumption of substantial amounts of water, energy and consumer products constitutes a high load per capita on the environment and on scarce natural resources.

The challenge for decision makers is to achieve environmental, social and economic sustainability in the city where the requirements of all sectors are balanced to ensure the protection of scarce resources such as open space for the future.

## **6 SPATIAL RESTRUCTURING**

### **6.1 Restructuring the City**

The existing pattern of development in Nelson Mandela Bay is the result of applying planning principles based on segregation. The structure not only separates different racial groupings of society in geographical terms but has also resulted in great disparities in standards of living as well as access to infrastructural services, employment and cultural and recreational facilities. These imbalances exist and must be taken into account both as constraints for redevelopment and as a feature that should be addressed and rectified in future spatial planning initiatives.

To address past spatial imbalances, the proposed building block around which the MSDF and the restructuring of the city is based is the sustainable community unit (SCU). In brief, an SCU is intended to be a predominantly self-contained development unit containing between 50 000 – 100 000 inhabitants and is designed to minimise the need to travel while at the same time offering employment opportunities, social facilities and recreational amenities closer to places of residence. Moreover, transportation routes along with an efficient public transport system will link these sustainable community units.

The intention with the SCU is to achieve a more balanced structure in order to reduce discrepancies in terms of service provision and standards, promote integration in socio-economic and functional terms and to provide for economic activities and employment opportunities.

### **6.2 Population**

#### **6.2.1 Migration and HIV/Aids.**

Recent research indicates that the situation and sequence of demographic development has for many reasons become more complex compounded by uncertainty regarding economic development and HIV/Aids. There is insufficient data, information and knowledge to make any firm population forecast and any estimates must be seen as tentative. However, demographic experts are of the opinion that earlier forecasts predicted in the Comprehensive Urban Plan (CUP) study have been too high.

The 2007 detailed demographic update study reveals some of the prevailing misunderstandings with regard to population features of the Metropolitan area and suggests that the population is less than is generally believed. A current population figure of slightly more than 1.1 million (1 130 821) is closer to the truth than the 1.3 million to 1.5 million that is often assumed.

Popular estimates may be influenced by the appearance of rapid growth on the urban edge. Observable evidence of the proliferation of new informal dwellings in some areas is often ascribed to the phenomenon of urbanization – i.e. the rapid movement of people from rural to urban areas.

The 2007 demographic study reveals that the proliferation of new dwellings on the urban edge and in the other areas is less a result of urbanization and more of the movement of people within the Metropolitan area. The study also suggests that the total population is not only smaller than expected but also that the fertility rate is declining. The relatively low population and declining fertility rate may be ascribed to the phenomenon of 'modernization', that is, increased education, adoption of modern values, women taking on modern roles and the increasing use of contraceptives (Simkins, 2007). He also suggests that population growth from migration is less than expected because Nelson Mandela Bay is not perceived as a major job-creation area.

The impact of HIV/AIDS should be factored in by way of an increased mortality rate. However, the demographic study suggests that the impact of HIV/AIDS was over-estimated by previous analysts and that the increased use of anti-retroviral treatment is likely to contribute to a stabilization of the impact of HIV/AIDS on population growth. In terms of the latest information available, HIV prevalence rates for the population of Nelson Mandela Bay as a whole are expected to rise from 1.2% in 1995 to 10% in 2010 and to 12.6% in 2020.

#### 6.2.2 Economic factors

The local economy is a major factor influencing population growth especially with regard to in-migration and employment. Positive economic development would improve the municipality's ability to provide services, which in turn would increase population growth. Major investments in the region and generally high economic growth nationally would encourage such population growth. On the other hand, in a stagnating local economy

along with positive growth in other parts of the country, low local population growth would result.

However, South Africa, after years of economic stagnation, has entered a period of high level economic growth. It is not anticipated that this will slow over the next ten years, as government and the parastatals are anticipating spending R410 billion in capital works over the next four years; previous metal prices, particularly platinum, are at very high levels; commodity prices are at all time highs, and, with China and India proving to be more and more reliable markets, a sustained base mineral boom is anticipated; African markets are improving, and South African companies are active players herein; and much else.

The economy of the Nelson Mandela Metro is expected to grow faster even than the South African economy, as, after years of investment, the Coega IDZ and the port of Ngqura are now on-stream and attracting enormous investments. In support of strong economic growth is the 2010 Soccer Stadium; the proposed reclamation of North End Beach and other large developmental projects.

### 6.2.3 Household characteristics

Previous population forecasts predicted that the household sizes would reduce as a result of improved living conditions and a better economy. In 2001, the average household size decreased nationally to 3.8 persons, down from 4.5 five years earlier. This is partly a consequence of the government's housing programme (i.e. households unbundled into smaller units in view of the increased availability of accommodation). This trend has translated into a 30% increase in the number of households in the country and in turn places pressure on the provision of bulk services.

This trend has also manifested itself locally. Whereas previous estimates used for calculating land demand assumed a household size of 4,5 persons, this has had to be recalculated on the basis of 4 persons per household for short term planning purposes to bring it into line with the 4 persons per household used for medium to long term planning periods (2010 – 2020).

It is also important to assess the impact and needs that will occur due to an increase in the number of single parent families and single income holder families with an increasing dependency ratio. This should form part of more in-depth studies and research.

#### 6.2.4 Forecast

Based on the 2001 Census, it was originally assumed that the population of the metropolitan area was approximately 1.25 million that year. However, after taking into consideration current local and national trends, a detailed demographic study conducted during 2007 significantly reduces this estimate and suggests that the current population is in fact smaller than generally believed with a figure of slightly more than 1.1 million being closer to the truth than the 1.3 million to 1.5 million often assumed.

This demographic study also suggests that the total population is not only smaller than expected but also that the fertility rate is declining and furthermore, that the relatively low population and declining fertility may be ascribed to the phenomenon of “modernisation,” that is, increased education, adoption of modern values, women taking on modern roles and the increasing use of contraceptives. Moreover, in-migration is less than expected because Nelson Mandela Bay is not perceived as a major job creation area.

For forecasting purposes and taking into account relatively low levels of in-migration, HIV Aids and the roll out of anti-retroviral drugs, it is assumed that there will be an annual population increase of 0.53% representing natural growth rate. The estimates below thus indicate the following projected population figures for the short, medium and long-term planning periods:

	Africans	Coloureds	Asians	Whites	Total
1985	466,920	201,970	9,780	143,330	822,000
1990	526,740	221,380	10,590	159,360	918,070
1995	581,200	240,470	11,390	177,210	1,010,270
2000	625,810	256,750	12,040	196,430	1,091,030
2005	653,990	270,160	12,480	214,640	1,151,270
2010	670,890	283,000	12,780	226,760	1,193,430
2015	685,860	295,010	12,920	230,840	1,224,630
2020	695,220	303,500	12,890	232,320	1,243,930

**Table 1 : Population Projections (Source : Prof Charles Simkins)**

### 6.3 Land Demand

For estimated requirements related to population increases, and in particular for the purposes of calculating land demand, the population figure to the year 2020 has been escalated to 1,5 million in order to allocate sufficient land in case population growth patterns unexpectedly increase. Furthermore, in view of the focus on housing delivery and the need to plan accordingly, predictions that household sizes will decrease from 4.5 to 4.0 persons per household in the medium and long-term perspectives are noted. Consequently, future land demand calculations will be based on this reduced household size assumption.

The table below for the different planning periods incorporates this assumed trend (which more recent statistical data confirms) and the calculated population growth including housing backlog.

<b>Planning Phases</b>	<b>Population growth</b>	<b>Additional Households</b>
2005-2010	110 000	27 500
2011-2015	115 000	28 750
2016-2020	125 000	31 250
<b>TOTAL</b>	<b>350 000</b>	<b>87 500</b>

**Table 2 : Population and Household Growth**

The above land demand estimates cover short, medium and long-term development phases and are based on an exaggerated population projection. Consequently, these projections need to be revised as and when more up to date information becomes available. Although short term predictions based on the 2001 Census are more accurate, medium to long-term predictions obviously suffer from greater uncertainties in terms of land demand and resources.

Much of the demand for land however relates to residential and residential related land uses. In terms of significant industrial and commercial need, it is anticipated that the supply for this need would be primarily accommodated within the new industrial areas at Coega as well as Jaghtvlakte outside Uitenhage. Provision for the needs of the commercial sector is largely located in the Walmer and Newton Park areas where large tracts of residential land have been identified for this purpose.

### 6.3.1 Applying the Sustainable Communities Unit (SCU) concept

Section 4.8 of this report sets out the sustainable communities unit (SCU) concept guiding principles and this section seeks to describe the associated land use components and requirements of each unit.

In brief, the predominant land use component of each SCU will be residential with associated related uses such as schools, clinics day care centres etc. Moreover, residential subdivision layouts must make provision for a variety of erf sizes to accommodate varying household income categories with a mixture of house types and tenure options.

An important principle of the SCU concept is the need to minimise travel distances to shopping and employment areas. Provision for conveniently located commercial, small-scale industry, social and community services, public open space and/or urban agricultural land are therefore vital considerations.

Most of the short term land need will be developed as a part of or adjacent to existing built-up areas. It is therefore important that in the process of more detailed planning, the complementary land uses in existing areas be reviewed in order to create fully functional SCU units. In particular, services that require large sites or appear in great numbers like schools, churches and local open space and are not being optimally utilised should be investigated to secure sufficient land to facilitate integration and sustainable development. Much of the land demand anticipated in the table above will consequently be taken care of within the various SCU units. This is further elaborated upon below under the sections dealing with each specific land use.

### 6.3.2 Housing

The existing housing stock is in the order of 289 000 dwellings. While great strides have been made to meet the demand for housing, the housing backlog is still a major issue with the housing shortage estimated to be approximately 80 000 units. Considerable effort is therefore required to address this backlog particularly when projected growth demand of some 6000 to 7000 units per annum is included.

Housing backlog and projected growth demand therefore place considerable pressure on the need for land that is recognised as a finite resource. It is imperative therefore that the utilisation of available infrastructure and existing road networks be done efficiently to achieve the objectives of the IDP. To avoid urban sprawl, the development of new housing areas must therefore recognise and implement principles that promote integration, sustainable use of resources, densification and mixed land uses. Whilst encouraged, it is recognised that densification is largely dependant on the initiatives of land owners, developers and investors in the housing market. As a result, densification will only occur over time and will consequently not have an immediate impact on meeting the demand for residential land.

The bulk of the housing need falls within the subsidised housing categories. Based on a reduced household size of 4 persons per unit, population projections suggest that the demand for new dwellings (including the backlog) is about 27 500 units to the end of 2010. Assuming that subsidised households represent 85% of the total number of units, the need for subsidised housing would be approximately 23 400 units for this period. This means that some 7800 units have to be constructed each year between 2008 and 2010 to meet this projected demand. The remaining 15% (or 4100 units) will largely be provided for by development initiatives by the private sector.

The municipality has assumed a great responsibility in terms of meeting the need for housing provision in the subsidised housing sector. To fulfil this responsibility, the housing programme suggests that approximately 57 000 erven be provided by 2015 in various locations throughout the metropolitan area.

Obviously the number of houses provided through the municipal housing programme will not be sufficient to satisfy the total demand. It is therefore important that the private sector and NGOs also become involved in low-income housing provision. Special efforts and conditions would be required to facilitate low-cost housing projects run by these stakeholders.

### 6.3.3 Commercial and Business

Commercial and business areas are located in a structure of main centres, local centres and are supplemented by business zones along certain major roads. The Central

Business District (CBD) in Port Elizabeth and the CBD in Uitenhage are the historical focal points in the commercial structure with the Port Elizabeth downtown area playing the dominant role. Within these two CBD nodes there is substantial floor space available and potential for expansion.

The importance of these main centres call for attention and require planning effort and investment for their role as attractive and dynamic centres in the urban structure to be fulfilled. The CBD's have potential as areas where the guiding principles of integration, accessibility, mixed land uses and densification could manifest. In particular, the Port Elizabeth CBD could contribute to functional, cultural and social integration. In combination with the rehabilitation of the harbour area and the improvement of the linkage between the two areas could become a critical component of the tourism and economic development initiative of the Municipality.

A considerable share of commercial and business land uses are found along major roads. However, development of these areas has often taken place in an ad hoc manner and due to pressure from developers. Whilst the establishment of activity corridors providing for mixed land uses and easy access to commercial and other services is encouraged, such corridors need to be carefully planned and located to benefit from public transport.

Other major commercial centres such as Greenacres, Walmer Park, Moffett Retail Park and Cleary Park exist. Although these centres provide a variety of services and an efficiently concentrated supply of consumer goods, the negative aspect is the decline of the CBD, which is partly a result of such external establishments. Furthermore, the location of these shopping centres is based on vehicular dependency and as a result do not take into account the limited accessibility for the majority of people.

#### 6.3.3(a) Commercial Land in the SCU-concept

The sustainable community unit (SCU) concept is envisaged to facilitate easy access to commercial services in each unit located at transport nodes and along activity corridors. As the initial five-years of development will, to a large extent, entail extensions of existing areas and new development areas adjacent to existing areas, it is important that the planning approach adopted includes an overall unit pattern. The aim also is to promote viable and functional units within existing areas.

The concept of activity corridors has been described in chapter 4. In considering the provision of commercial land at the SCU level, it is appropriate to co-ordinate the creation of activity corridors and provision of nodes for public transport. An activity corridor will promote easy access to services and public transport, and will include mixed land uses and high density residential areas.

It is envisaged that commercial services in the unit would include local centres within neighbourhood areas with larger centres at public transport nodes or along activity corridors. These centres would provide all daily consumer goods and most services needed by households.

Higher order services like business services and banking would be found in the main CBD's in the Port Elizabeth and Uitenhage areas as well as main external centres.

#### 6.3.3(b) Development of Commercial Centres

The Spatial Development Framework envisages that growth within the next five years will mainly occur as an extension of the existing developed areas. The commercial land needed would thus be accommodated in or adjacent to existing built-up areas to serve new developments as well as to improve conditions for present inhabitants. It is consequently estimated that there is sufficient supply of commercial land available through infilling and densification in the main centres. Moreover, it is anticipated that higher order commercial services will be provided for in the revitalisation of the Port Elizabeth and Uitenhage CBD areas as well as in Newton Park and Walmer and to some extent in the activity corridors. At the local SCU level, required new centres will be developed as a component of the residential expansion that is proposed in the SDF.

#### 6.3.4 Industrial

Land zoned for industrial purposes that is located outside of the Coega IDZ is estimated at 2470ha of which approximately 480 ha is vacant and thus available for development.

The total land needed for industrial activities and industrial related land use in the long-term planning perspective has been estimated to be 3550 ha. This estimate however is

based on assumed growth rates for economic sectors and land requirements depending upon employment/floor space ratios.

An additional 1550ha of industrial land to cater for the establishment of general industrial areas, including areas for special heavy industrial projects is thus required. Relevant to the anticipated demand for industrial land is that there is a considerable amount of derelict, empty or under-utilised properties in the existing industrial areas. The rehabilitation and re-use of these sites should be encouraged as their central location and the existence of services is a considerable cost saving and advantage.

In terms of distribution, a great variety of enterprises ranging from small-scale industry to large, heavy industries are distributed throughout the metropolitan area. Some of these small-scale businesses and industries are located close to residential areas and in that way provide for integration and accessibility. However, when it comes to emissions and negative aesthetic impacts of such industries, their location is of concern and considerable work needs to be done to improve the quality of industrial areas that are located near residential areas so that the negative impacts are minimised.

Industry may be broadly categorised as follows:

- i) industry that can be developed as part of a residential area because it has minimal impacts on residential development, is quiet and aesthetically acceptable, relying very much on a clean image. This category will include informal industries that are acceptable because of their scale and potential to provide work opportunities close to home.
- ii) industry that can be close to a residential area but not part of it due to impacts it may have on living conditions. These are normally developed as specialised industrial areas carrying a range of industrial type uses that cannot be termed "clean".
- iii) industry that needs to be kept some distance from residential areas due to operational characteristics. Such industry is usually heavy and/or has severe impacts on residential development which cannot always be minimised to satisfactory standards.

#### 6.3.4(a) Industrial land in the SCU concept

As with other uses, the sustainable community unit (SCU) concept also envisages that industrial land be identified and developed in each planning unit to promote the establishment of small industry and businesses. In this way the urban structure will include not only places to live and access to services, but also work places and employment opportunities within walking distance of home. The industries that locate in these units must have operational characteristics that make them suitable for location in or near residential areas. Development of the SCU concept will require further investigation insofar as the amount or size of the industrial component is concerned. Tentatively it is suggested that land for such small scale industrial and business activities within the planning unit will amount to 20 ha to meet the need for light industrial and business areas at a small scale and that are closely related to residential land use and sub-centres. It is important to note that these activity land uses are included in the calculation of gross residential areas.

Opportunities for the establishment of "clean" industry with no adverse impact on the environment need to be created as part of new residential development, especially in terms of the need to develop a semi-formal sector in the economy. The location of industrial and business activities within the planning units should be combined with the concept of activity corridors in which mixed land uses, accessibility to services and public transport facilitate economic activities.

#### 6.3.4(b) Major Industrial Areas

As far as major industrial establishments are concerned, the Port of Ngqura and adjacent Coega IDZ will be a major employment node and will open up and provide industrial land to meet much of the industrial need for a considerable period.

While the IDZ will accommodate some smaller industry, it is primarily intended for heavy or large-scale industry and transport functions related to the bulk handling harbour. The content and implications of the IDZ project is described in the section dealing with Major Developments.

## Industrial Land Demand Summary

<b>SCU No.</b>	<b>Industrial Area</b>	<b>Developed (ha)</b>	<b>Undeveloped (ha)</b>	<b>Total (ha)</b>	<b>Developed %</b>	<b>Proposed Ext's (ha)</b>
12	North End	250	-	250	100	-
12	Neave/Korsten	250	-	250	100	-
13	Swartkops/Deal Party	500	-	500	100	-
14	Struandale	250	-	250	100	-
18	Perseverance	160	40	200	80	-
22	Cuyler Manor, Despatch	100	-	100	100	-
23	Jagtlakke	30	390	420	7	1150
26	Alex. Park, Cape Rd, Uitenhage	200	-	200	100	-
28	H. Van Eck Rd, Uitenhage	30	20	50	60	-
37	Markman	220	30	250	88	200
38	Coega IDZ	250	900	1150	22	
ALL	Remaining SCU's @ 20-25ha each	-	-	-	0	400
<b>Total (ha)</b>						

**Table 3 : Industrial Land Demand**

### 6.3.5 Open Space

The municipal area covers an area of 1950km<sup>2</sup>, out of which built-up areas comprise approximately 20%, agricultural land and rural settlements 15%, MOSS and areas still under assessment for inclusion in the MOSS 15%. In addition to the MOSS there is valuable open space used for agriculture, grazing, recreational purposes that are important features in the structure. Within the built-up areas local open space, food gardens, parks and play-fields all contribute to positive impact that green areas have on the micro-climate, aesthetics, drainage and biodiversity.

#### 6.3.5(a) NM-MOSS

At present, many open spaces exist in isolation having been provided on an ad hoc basis as part of township design and development. An opportunity therefore exists to link the

various spaces together to allow residents to move on foot (or by bicycle in places) through the system. A metropolitan open space system (MOSS) has therefore been conceptualised with a view to linking together important open spaces and to gain some recognition for their importance within the urban framework.

A metropolitan open space system must not only be seen as a system of green open spaces kept for aesthetic reasons and has great value in terms of :-

- recreation;
- stormwater management;
- air and water pollution control;
- aesthetics;
- urban agriculture potential;
- traditional land sites (land for the abakwetha);
- biodiversity;
- protection and promotion of flora and fauna;
- conservation of unique species;
- environmental education

Based on other studies and experiences elsewhere, it could be calculated that a metropolitan open space system can save considerable amounts of money in dealing with problems such as stormwater disposal and reducing the need for the installation of expensive infrastructure.

A refined metropolitan open space system has been formulated as part of the strategic environmental assessment (SEA) of the SDF. The metropolitan open space system includes a great variety of environments, all with specific characteristics and value. The most predominant areas in physical terms are, inter alia, the coastal and marine areas, rivers and estuaries, coastal dune systems, mountains, valleys etc.

#### 6.3.5(b) Other Open Spaces

Whilst provision of other open spaces within residential areas will continue in accordance with current standards, attention should be given to linking these open space to the MOSS system where possible. Furthermore, the practice of compromising open space standards in lower income housing developments should be avoided. This is due to the fact that

these areas need more open space due to higher densities, have less private garden space and consequently a more urgent need for an improved quality of living environment.

Of importance therefore is the need to curb the slow attrition of public open spaces through ad hoc applications for development needs. If not, the very purpose for which the public open space was reserved in the first place will be lost. Furthermore, if the aim of densification is to be actively pursued, open spaces become even more necessary to maintain an acceptable quality of urban environment.

#### 6.3.6 Social and Community Services

Social and community services include a wide range of facilities that require space and have great impact on the function of urban areas and on the standard and way of living. The SDF however is at too broad a scale to show the detailed provision of all of these facilities. Suffice to note at this point that if the population is to increase as anticipated by 2020, such an increase will obviously impact on the need for schools, health clinics, community halls, recreational facilities etc. The applied SCU-concept will incorporate all such needs at a more local level and the detailed layout planning that will follow will set aside land for such facilities.

In many cases, central or provincial government authorities determine the standard and size of social and community facilities. There is a need for close co-operation between the Municipality and the Province of the Eastern Cape to make the demand for services known and to obtain information about the resources that may become available. Based on the available standards, approximately 775ha will be required for educational purposes plus a further 163ha to meet institutional needs by 2020 (refer Appendix B for a more detailed breakdown).

##### 6.3.6(a) Social and Community Facilities in the SCU-concept

In reality, sustainable community units (SCU) will vary in size, shape and content depending on densities, topography and other constraints. The population of a unit could for example include about 20 000 dwellings. Based on the standards indicated above, an SCU in addition to the residential, industrial and central component, would contain the following number of facilities:

<b>FACILITY</b>	<b>NUMBER OF SITES</b>	<b>TOTAL LAND REQUIREMENTS</b>
Pre-primary schools	50	15 ha
Primary schools	33	83 ha
High schools	11	75 ha
Place of Worship	100	20 ha
Clinics	10	2 ha
Community Halls	5	2 ha
Old Age Homes	4	6 ha
Day Hospitals	4	4 ha
<b>TOTAL</b>	<b>217</b>	<b>207ha</b>

**Table 4 : Social Facilities**

#### 6.3.6(b) Cemeteries Land Demand

The Spatial Development Framework Plan indicates the location of major existing and proposed cemeteries. It has been noted that at present there is a shortage of appropriately located cemeteries.

The two most important additional considerations in the location of any cemetery is the geological and hydrological suitability of the ground. Once sites have been identified they need to be subjected to detailed investigations to assess suitability in terms of these factors. Moreover, in order to ease maintenance and other costs, it is ideal to have cemeteries as large as possible. However, the size of cemeteries will ultimately depend upon land availability and land suitability. There will also be cultural and religious aspects to be taken into account. Due to these factors, it is not possible to determine need in size or numbers and investigations are required to determine areas suitable for new cemeteries and to assess more accurately land demand for this use on a long term basis.

A recent cemetery audit (refer Appendix C).indicates that there are 15 cemeteries totalling some 224ha to cater for current demand. Of these, the Paapenkuils Cemetery is now full leaving 14 cemeteries operational. Estimated available capacity at current burial rates indicates that these cemeteries will be full in 34 years. This figure may well reduce considerably should the spread of the HIV/Aids pandemic not be curbed.

Burials are taking place at a rate of approximately 11 000 burials per annum. Based on a 2006 population of 1,16 million, this equates to a death rate of approximately 0.95%. Assuming this remains at a constant 0.95%, an escalated 2020 population projection of 1,5 million will see this burial rate increase to approximately 15 000 burials per annum and will require an additional area of approximately 189ha to be set aside for cemetery purposes to provide sufficient capacity to the year 2020.

#### 6.3.6(c) Abakwetha Land Demand

The urban structure needs to accommodate the requirements of the Abakwetha custom. Such requirements include that land identified for this purpose should be reasonably vegetated so that shelters and activities are screened from view.

It is proposed that the Land Use Management Scheme be revised to accommodate a special zone for this land use as part of a detailed study into the identification of suitable sites. Such a study should be carried out in conjunction with the communities involved.

#### 6.3.7 Agricultural

##### 6.3.7(a) Agriculture and urban development

Fresh produce is required on a daily basis. The metropolitan area is favourably located in that agricultural land with potential for intensive farming is situated around the urbanised areas. Whilst farming in the Sundays and Gamtoos River Valleys meets some of the needs, there is still opportunity for large scale farming nearer the urban areas. The most suitable and fertile agricultural land for intensive farming and market gardening purposes is located west of the built-up areas. This is broadly depicted on the spatial plan as agricultural land.

Agricultural land not only fulfils a role in providing fresh produce but also acts as a green lung. Its presence should therefore contribute to an "urban fence" which limits expansion of the adjacent urban areas. Areas towards the north and northwest, although of less value for crop farming, include pockets of land suitable for irrigated farming and vast areas for livestock and wildlife farms.

Urban inhabitants and their related activities also produce a considerable amount of organic waste. The potential of turning this into compost has been investigated as part of the Integrated Waste Management Plan and a number of composting pilot projects have been identified. Market gardening areas need to be investigated as possible outlets for the use of any compost produced in this process. This will contribute further to recycling and sustainability principles.

The supply of agricultural produce and other consumer goods to urban areas from the immediate surroundings has great significance for long-term sustainable development. The MSDF map identifies areas for agricultural use within which the existing practices will be retained or more intensive farming encouraged.

### 6.3.7(b) Urban Agriculture

The MSDF aims to promote sustainability and urban agriculture in the form of food gardening and can achieve this in three ways:

Economically	It is estimated that 38% of the population are living below the poverty line. Urban agriculture can therefore become an important activity to alleviate poverty by providing a source of food and/or a source of income.
Socially	Food gardens can also supplement the diet of the poor, thus raising nutrition and consequently health levels. They can also play a role by providing opportunities for agricultural, organisational and management skills. Community participation in projects of this nature can also raise levels of social interaction and quality of life, especially for the unemployed.
Environmentally	Crop growing can improve the aesthetics of the environment by using otherwise vacant land. It can also utilise organic waste thereby contributing towards sustainability. Allocating urban agriculture projects in flood prone areas, servitudes and other under-utilised land helps to prevent undesirable development from taking place. This can benefit the community as a whole as people unwittingly tend to occupy land that is not necessarily suitable for residential development.

About 20 initiatives have been taken to establish food gardens. These are community based and supported by the Environmental Services Business Unit.

### 6.3.7(c) Agricultural Land in the SCU-concept

Vegetable gardens in the back or front yard of a dwelling are the most practical way of initiating crop agriculture. However, many do not have sufficient space around their homes. A community garden is therefore an alternative. An assessment of vacant land in residential areas should be carried out to determine the potential for food gardens and other types of urban agriculture.

There are individuals, communities and institutions that have already started food gardens. These can be used in pilot projects to increase awareness of the potential of vegetable gardens.

Preferably, food gardens in the form of allotments or community gardens should be established within the SCU structure. However, in many cases there is no land available and in new areas the suitability of such land may be limited. It is therefore often more appropriate to establish food gardens and allotments adjacent to residential areas, on land unsuitable for construction due to soil conditions, risk of flooding and impact of network services. Urban agriculture can be part of public open space and as a temporary use in future expansion areas.

## 6.4 Social Housing & Rental

### 6.4.1 Definition

Social housing as contained in the National Social Housing Policy is defined as *“a rental or co-operative housing option for low income persons at a level of scale and built form which requires institutionalised management and which is provided by accredited social housing institutions or in accredited social housing projects in designated restructuring zones.”*

#### 6.4.2 Background to Social Housing

In 2001, the President announced the Government's commitment towards the regeneration of inner cities in the country, the development of well located land and the intention to broaden current housing assistance programmes to accommodate higher density development and to address the increasing demand for rental housing in urban areas. More recently, reference was made to "a comprehensive housing programme dealing with human settlement and social infrastructure, including rental-housing stock for the poor" and highlighted the need to address "the broader question of spatial settlement patterns and implications of this in our efforts to build a non-racial society".

In September 2004, the National Department of Housing released its Comprehensive Plan for the Development of Sustainable Human Settlements. Entitled 'Breaking New Ground', this document "reinforces the vision of the Department of Housing to promote the achievement of a non-racial, integrated society through the development of sustainable human settlements and quality housing".

Moreover, the plan notes the shift in emphasis from the provision of housing to the creation of sustainable human settlements. This includes the promotion of more efficient cities, towns and regions. In support of spatial restructuring, the plan highlights the need to "integrate previously excluded groups into the city and the benefits it offers". The plan flags the need to promote densification, including "housing products which provide adequate shelter to households whilst simultaneously enhancing flexibility and mobility".

#### 6.4.3 Restructuring Zones

In most South African cities, the urban poor live in locations far removed from where vibrant economic growth is occurring. To assist in rectifying this situation, social housing will be located in specific, defined localities (mostly urban) which have been identified as areas of opportunity (largely economic) where the poor have limited or inadequate access to accommodation, and where the provision of social housing can contribute to redressing this situation.

The idea of focusing social housing investment in designated restructuring zones is given prominence in the Social Housing Policy for South Africa. Designated restructuring zones

are those geographic areas identified by local authorities and supported by provincial government for targeted, focused investment. Within these areas, the capital grant (a grant over and above the current institutional subsidy) will apply. This grant is a significant capital contribution from National Government for the development of social housing and may only be used within approved restructuring zones. Outside of these restructuring zones, the institutional subsidy (Provincial Grant) may be used for rental or other forms of development.

#### 6.4.4 Accreditation

In terms of accreditation, only accredited social housing institutions may implement projects in designated restructuring zones or must be accredited social housing projects if implemented by the private sector.

The Nelson Mandela Bay Metropolitan Municipality is in the process of applying for accreditation to enable it to act in a developmental role with regard to the provision of social housing.

#### 6.4.5 Roles and Responsibilities of Local Government

The role of the Municipality or Local Authority is to create an enabling environment in terms of the identification of land and disposing the land to delivery agents, Provision of Infrastructure and others.

In terms of the identification of restructuring zones as contained in the social housing policy, local authorities must, inter alia :-

- initiate the identification of restructuring zones and link these to the IDP process;
- apply to the National Department of Housing for the approval of restructuring zones;
- call for social housing projects in designated restructuring zones;
- provide preferential access to land and buildings for social housing development in approved restructuring zones;

- provide access to municipal infrastructure and services for social housing projects in approved restructuring zones and, where appropriate, provide local fiscal benefits (e.g. through rebates on municipal rates and service charges);
- conclude a performance agreement with the delivery agents that will be used for monitoring and evaluation of the projects.

#### 6.4.6 Development Types within Restructuring Zones

Social housing in restructuring zones must take the form of medium density multi-unit complexes requiring institutionalized management. This includes townhouses, row housing, multi-storey units, walk-ups etc, and excludes detached units. A defined density threshold, in respect of all social housing projects, will be elaborated in the guidelines for the social housing programme.

#### 6.4.7 Identification and Approval of Restructuring Zones

In terms of the Social Housing Policy, local authorities will, together with provinces, be jointly responsible for the identification of restructuring zones and for making application for their approval by national government.

Moreover, both provinces and local authorities will be partly responsible for mobilising and leading social housing initiatives and social housing institutions within their jurisdictions and that the Department of Housing at a national level (or its agent) will be responsible for the final approval of restructuring zones.

#### 6.4.8 Areas identifies as Restructuring Zones

As mentioned earlier in this report, social housing will be located in specific, defined localities which have been identified as areas of opportunity where the poor have limited or inadequate access to accommodation, and where the provision of social housing can contribute to redressing this situation.

Considering the above locational criteria and the current limitations on funding for social housing, six areas have been identified as Restructuring Zones. These zones are based on identified sustainable community units (SCU's) and have been selected as areas within which social housing projects may be undertaken.

- Mandela Bay Development Agency Mandate Area (MBDA)
- Walmer
- Mount Road
- Fairview
- Uitenhage CBD
- Despatch CBD

## **6.5 Proposed Metropolitan Structure**

### 6.5.1 Land for expansion

Being the second largest metropolitan municipality in the country and covering an area of approximately 1950km<sup>2</sup>, the area of jurisdiction is spread out and extends approximately 35 kilometres from east to west and 45 kilometres from north to south. Approximately 35% of this area, which is located within the urban edge, is developed.

The development axis to the north-west is focused along Uitenhage Road with infill taking place on available land. Capacity still exists for further infill opportunities on open land situated between Uitenhage, Despatch and Port Elizabeth.

The Swartkops River estuary and the resultant limited opportunities to cross it impede development to the north. However, Motherwell and its planned extensions dominate the northern side of the estuary. Future expansion from Motherwell extending westwards toward Uitenhage is foreseen in the short to medium term (ie between 2010 to 2020).

## 6.5.2 Structuring the Plan

The main factors influencing the spatial structuring of the plan are based on :-

- available land and its features
- envisaged population growth
- economic development, and
- the principles guiding integration, efficiency and sustainability.

The following considerations have been used to determine the basic structure of the plan :

- Land earmarked for new development has been selected on the basis that vacant land within and close to the existing built up areas is utilised first, whereafter areas further removed should only be considered for development once more centrally located land has been taken up. This will encourage efficient use of existing infrastructure before network extensions are required.
- Land uses are to be arranged in such a way so as to promote the development and use of an efficient public transport system. Densification and a mix of land uses along major transport corridors can achieve this objective.
- Access to green recreational zones from residential areas has been given special attention. Natural, sensitive areas have been identified for protection and additional green spaces have been set aside for recreational use as well as other uses that are of an ecological nature.
- Certain land uses have been kept separate due to the potentially adverse nature of their impact on neighbouring uses. For example, certain industrial areas have been kept away from residential areas due to the nature of industrial operations that would take place there (ie heavy industry and industries generating great amounts of traffic, air pollution, noise and of a size too great for residential areas).
- Recognising existing economic nodes such as the Coega IDZ as well as the main Uitenhage and Port Elizabeth industrial areas, existing commercial centres and the as structuring elements.

- Further transport links have been proposed to promote integration and overall accessibility, linking major centres and industrial areas with the residential areas taking into account the limitations resulting from valleys, rivers and escarpments.
- Public transport corridors have been proposed linking economic poles within the greater area. Early use of the corridors should be established to secure their protection and development.
- The Downtown area of Port Elizabeth gives Nelson Mandela Bay an identity that is different to any other city and is therefore vital to the maintenance of a unique identity.
- Other elements, including the coastal areas, the Swartkops River estuary and the Baakens River Valley in the heart of the city also provide a unique identity and need to be conserved and enhanced.

### 6.5.3 Development Axis and Growth Directions

Development axes have, for historical and economic reasons, primarily been focused on the Port Elizabeth CBD. Moreover, between the CBD and Uitenhage there are two parallel linear developments where substantial parts of the population live.

These two development axes run parallel to Uitenhage Road. One runs northerly from North End to New Brighton and from Ibhayi to Despatch and Uitenhage, and the southerly axis from Korsten to Gelvandale, Bethelsdorp, Bloemendal to Uitenhage. It is desirable to organise urban areas between poles of activity along transport corridors, roads and public transport lines. This could in turn be supplemented with new industrial zones in a manner that would ease the traffic pressure on existing zones and centres. Consequently, it should be possible to develop communication spines linking the two economic poles through the above residential nodes and thereby improving possibilities for the development of a viable public transport system.

Development to the north is largely dominated by Motherwell with the Coega IDZ limiting further residential expansion to the north. Future growth direction from Motherwell would

thus be to the west in the direction of Uitenhage with the Coega IDZ providing employment opportunities for the adjacent residential areas of Motherwell.

Main arterial roads and rail links for private and public transport between the different urban areas are most easily arranged in east west directions. However, such linkages in the north-south directions as well as inland are impeded by valleys, rivers and escarpments and are consequently mainly limited to coastal corridors.

It is vital to reserve land for future communication links through the urban zones. This is especially important when building in between existing developments to make the urban structure more dense and thereby more efficient. The reserves can help avoid future transport problems and extra costs for creating new links through developed areas.

A basic circumstance determined by the structure of the city is the fact that for the foreseeable future the vast majority of the population will have limited access to private cars. Moreover, the intra urban movements and commuting distances and commuting time will have a great impact on the urban structure. The approach should therefore focus on pedestrian movement, public transport and the provision of access to services and job opportunities.

#### 6.5.4 Transport Networks

As expansion takes place, an important challenge that arises is the need to minimise the extension of road infrastructure and, where it is imperative that it be extended, to ensure that maximum benefit is derived from the investment.

Based on current economic growth patterns and predictions for the future it is assumed that as much as 80% of the future population of the metropolitan area will not own cars. This means that the majority of the population will use public transport. Therefore, coupled with endeavours to reduce travel distances to and from work and facilities, there is a dire need to develop a public transportation system that will be attractive to commuters and reduce the need to continually build bigger and more expensive roads merely for single occupant motor vehicles. It is probable that such a public transportation system will not be in the form of underground rail or some other sophisticated system. Initially it is likely to be a system merely accommodating high occupancy vehicles (HOV's) in dedicated lanes where they can move rapidly from one point to another.

Expansion proposals have therefore been based on the potential to develop a public transportation network that will serve the area to the best advantage. Existing road and rail routes have been analysed to determine whether they could be utilised as public transportation routes. Possible extensions to that network have been examined and SCU's have been located in a pattern that will allow logical expansion and extension of the transportation network. Each SCU is therefore linked to others by a proposed public transport route or a route along which public transport can be accommodated.

The 2006 – 2011 Integrated Transport Plan is an update of the April 2005 ITP, which was prepared for the period July 2005 to June 2010 and focused mainly on transport infrastructure. At that stage, the Public Transport Plan was still in the process of preparation. The PTP was finalised in May 2006 and its strategies and implementation recommendations have been included in this update of the ITP.

#### 6.5.4.1 Goals and objectives

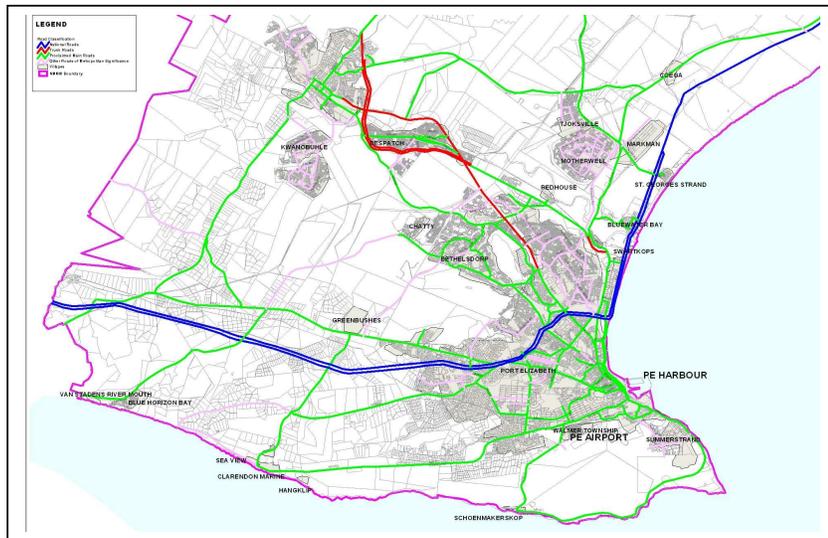
The goals and objectives stated in the NMBMM's IDP with specific regard to the transportation sector include the following:

To prepare an Integrated Transport Plan for the planning, management, implementation, financing and regulation of transport infrastructure, public transport services and urban traffic control.

- a) To improve public transport infrastructure planning.
- b) To prepare and develop a comprehensive preventative approach to transportation safety.
- c) To prepare an overall plan for the tarring of gravel roads and the maintenance and upgrading of tarred roads.
- d) To prepare an overall plan for the provision of sidewalks and cycle paths along major routes.

#### 6.5.4.2 Current transport situation

The Nelson Mandela Bay road network consists of a hierarchy of national, provincial and municipal roads. The roads that have been classified by the NMBM Metropolitan Transport Advisory Board as being of metropolitan significance by virtue of the function that they perform are shown in Figure 1. The Municipality undertakes traffic counts on all these roads annually. An analysis of these counts shows that high levels of traffic congestion occur on the following roads during weekday peak hours: N2, Cape Road, Kragga Kamma Road, Main Road, Glen Hurd Drive, Stanford Road, Heugh Road and Buffelsfontein Road.



**Plan 1 : Existing Roads of Metropolitan Significance**

Commuter rail services are currently provided between Port Elizabeth and Uitenhage, with eleven train stations situated along this line. Twelve train trips per day are operated on weekdays. No train service is provided on Saturdays, Sundays or on public holidays. There has been a steady decline in train usage during the past ten years, from about 15 000 passengers per day in 1995 to about 5 000 passengers per day in 2005.

The Algoa Bus Company is the only subsidised bus operator that provides commuter passenger services in the Nelson Mandela Bay area, operating approximately 330 buses and carrying about 85 000 passengers per weekday.

Ten registered minibus taxi associations are based in the Nelson Mandela Bay area, although there are many more that operate into the area from the surrounding towns in the Eastern Cape, most of which are affiliated to Border Alliance TA or Uncedo Service TA. It is estimated that there are between 2 300 to 2 600 minibus taxis operating in the NMBMM, of which at least 400 and possibly as many as 800 may be illegal. A travel survey conducted in 2004, estimated the number of passenger trips made using taxis at 280 000 person trips per week-day.

#### 6.5.4.3 Spatial plan

High-density corridors that contribute to sustainable public transport services are receiving high priority in the major cities of South Africa. These corridors focus on principles such as high density, captive public transport populations, integration opportunities and mixed land use development that maximise the use of services and reduce the need to travel through the provision of work opportunities in close proximity to residential trip origins. A key element is the focusing of new developments and infill in existing public transport corridors, with the objective of increasing the density of development. High-density development increases the potential of viable public transport and optimises the use of resources. The objectives of the Spatial Plan with regard to transport optimisation are as follows:

- a) Identify transport corridors that have the potential to be developed into integrated development corridors and can be supported by a suitable public transport system.
- b) Identify public transport infrastructure requirements to ensure that effective and efficient public transport operations are put in place to support the developments in each corridor.
- c) Formulate a broad strategy, covering all public transport modes, for more detailed planning in those corridors that could be used to achieve route and mode optimisation and public transport integration. These strategies are discussed in Section 6 of the ITP.

#### 6.5.4.4 Transport needs assessment

Future travel forecasts for 2010 and 2020 were developed from population and employment forecasts for these years. The population and employment forecasts were based on the latest Census statistics and were distributed according to the Spatial

Development Framework's proposed phasing of housing and industrial land use. Employment forecasts for NMBMM include employment forecasts for the Coega IDZ, which were obtained from the Coega Development Corporation.

A transport needs assessment for disabled people has been derived from personal interviews with an extensive variety of people and organisations concerned about the provision of accessible transport for people with disabilities and mobility disadvantaged people. Many of the interviewees were personally disabled or could be classified as mobility disadvantaged.

Two approaches to improving transport accessibility for the disabled have been identified:

- a) The first approach is to provide dedicated services for qualified people with disabilities. This type of operation is known as Dial-a-Ride or Door-to-Door Service and was put into permanent operation by the Cape Town Municipality in 2002/3.
- b) The second approach is to make the public transport vehicles and systems more accessible to all.

The NMBMM has commenced with the improvement of public transport facilities and sidewalks to make them accessible to people with disabilities and has submitted a funding application to the Department of Transport for the purchase of low-floor wheelchair-accessible buses.

#### 6.5.4.5 Public transport strategies

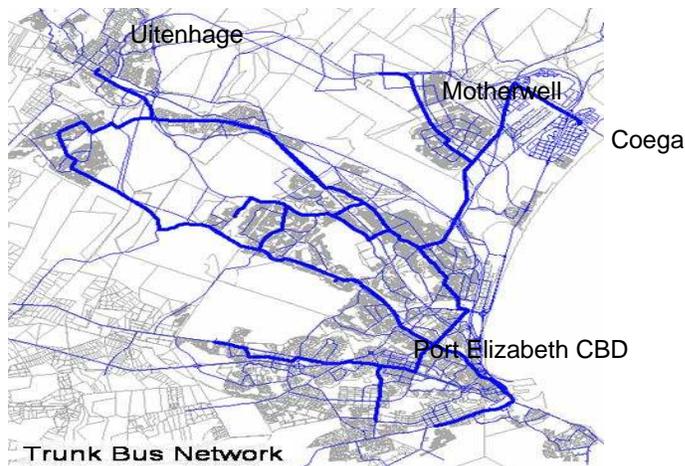
The first Public Transport Plan for the NMB area was completed in May 2006. It consists of a Long-term Strategic Plan and a Short-term Implementation Plan. Alternative scenarios consisting of different combinations of rail lines, bus trunk routes, local bus routes and minibus feeders were formulated and tested with the VISUM Transport Demand Model for 2020 land use and population forecasts as shown in table 4 above.

The conclusions from the scenario analysis were as follows:

- a) An integrated public transport system with scheduled services will serve NMBMM best. The non-intervention development of the existing situation should not be accepted.

- b) A system based on trunk bus route corridors and local bus and minibus-taxi services will best serve NMBMM for the next ten years.
- c) The Khulani Corridor (Motherwell – Njoli – Korsten – CBD) should be the backbone of the future public transport system.
- d) An expanded railway system will not attract enough passengers in the next ten years to justify large expenditure, except for possibly a short rail spur into Motherwell, which can be extended to a loop through the Coega IDZ when warranted by sufficient concentration of residential development in Motherwell and employment in the IDZ.

The long-term transport development strategy should include a modern and attractive public transport system offering seamless travelling and an integrated and scheduled service. This should include contracted operators and through ticketing. High-density development along the public transport corridors will be served with a high-frequency public transport service, which will convince more people to use the public transport system. The back-bone of the system will be the trunk bus network in the public transport corridors, as these trunk bus routes will attract sufficient patronage to justify the use of both articulated, and normal buses.



**Plan 2 : Trunk Bus Network**

For the low demand network and for feeder bus routes there will be an extensive network operated by normal buses, minibuses and minibus taxis; the vehicle used, will depend on the patronage of the route. A system based on trunk bus and feeder operations needs to have attractive interchanges, where safe and secure transfers can be made. The

interchanges will also be important nodes of attraction and should be located close to suburban business activities and in the city centre.

Until the long-term role of the railway service is clarified, the possibility of developing the system to include an extended railway service should be guaranteed. The current rail service between Port Elizabeth and Uitenhage should be kept and supported until long-term development is clarified. New public transport routes should not be implemented parallel to the existing railway service. The results from the SARCC regional railway study should be incorporated in the next revised PTP.

#### 6.5.4.6 Road infrastructure proposals

The evaluation of alternative road networks to provide cost-effective solutions to the traffic congestion problems that emanated from modelling the future travel demand for 2010 and 2020 land use projections resulted in the road infrastructure requirements shown in the table below for the different time periods.

	<b>Cost</b>
<b>2005 – 2010</b>	<b>R million</b>
(a) Widen Buffelsfontein and Heugh Roads to four lanes (Walter Road to First Ave)	58,0
(b) Construct link from Willow Road to Third Avenue (under William Moffett Bridge)	22,0
(c) Extend William Street through Cotswold to Cape Road	4,0
(d) Widen N2 to 6 lanes: Kragga Kamma Road – Creek Interchange	35,0
(e) Upgrade ramps at Linton, Cotswold and Creek Interchanges	9,0
(f) Extend Diaz Road to Burt Drive/Langenhoven Drive intersection	10,0
(g) Upgrade Kragga Kamma Road from Kabega Road to Samantha Way	12,0
(h) Upgrade and realign MR 448 from Booyens Park to MR 444	30,0
Sub-total	180,0
<b>2010 – 2020</b>	<b>R million</b>
(i) Extend Walker Drive to Cape Road plus N2 ramps	22,0
(j) Extend Overbaakens Road from William Moffett to First Avenue, Newton Park	24,0
(k) Extend Bramlin Street from Malabar to Uitenhage Road	21,0
(l) Construct Wells Estate Arterial from Tyinira Street to Weinronk Way	20,0

(m) Construct Second Carriageway of Dibanisa Road from TR 63 to MR 450	50,0
(n) Construct Motherwell Southern Bypass from MR 460 to Dibanisa Road	40,0
(o) Realign MR 460 to four lanes from Tyinira Street to MR 435	44,0
(p) Widen Addo Road (MR 450) to four lanes from Maku Street to N2	38,0
(q) Extend second carriageway MR 460 (TR 63 – MR 461)	26,0
(r) Extend second carriageway Algoa Road (MR 448 – MR 458)	13,0
Sub-total	298,0

**Table 5 : Roads Required for Additional Traffic Capacity 2005 – 2020**

In addition to the above road improvements that are required to address congestion problems, the following roads are required to provide access for new housing areas or to complete network connections:

	<b>Cost</b>
<b>2005 – 2010</b>	<b>R million</b>
(a) Mel Brooks Avenue Extension to Cuyler Street	4,0
(b) Uitenhage Central Arterial (Maduna Road to North Road)	10,0
(c) Standford Road Extension to Bloemendal Arterial	7,0
(d) Bloemendal Arterial (Standford Road to old PE – Uitenhage Road)	10,0
(e) John Tallant Road Extension (Grahamstown Road to Seyisi Street)	30,0
(f) Forest Hill Drive Extension to Walmer Boulevard	7,0
(g) Overbaakens Road Extension through Lorraine to Montmedy Road	8,0
(h) KwaNobuhle Southern Arterial (Phases 1 and 2)	7,0
Sub-total	83,0
<b>2010 – 2020</b>	<b>R million</b>
(i) Standford Road Extension to Algoa Road, Uitenhage	40,0
(j) KwaNobuhle Southern Arterial (Phase 3)	20,0
(k) TR 63 from Grahamstown Road to N2 with new interchange	30,0
Sub-total	90,0

**Table 6 : Roads Required for Access and Connectivity 2005 – 2020**

Several roads in Nelson Mandela Bay require major rehabilitation or reconstruction because the layerworks have failed. These roads, which are all of metropolitan significance, consist of the following:

	<b>Cost (Rm)</b>
(a) Baird Street reconstruction	2,0
(b) Magennis Street reconstruction	3,0
(c) Old Cape Road MR453 (R102 to Uitenhage)	42,0
(d) Harrower Road rehabilitation	5,0
(e) John Tallant Road rehabilitation	3,0
(f) Maqanda/Matomela Street upgrading	4,5
(g) Salamntu/Qeqe Street upgrading	6,0
(h) Seyisi Street upgrading	4,0
(i) Koyana Street upgrading	10,5
(j) Avenue A upgrading	4,0
(k) William Moffett Expressway rehabilitation	15,0
Total	99,0

**Table 7 : Roads Requiring Rehabilitation 2005 – 2010**

#### 6.5.4.7 Stakeholder consultation

During the course of preparation of the 2005 Integrated Transport Plan, consultation was carried out with the various interested and affected parties by meeting with different groups as follows:

- a) Planning authorities represented on the Metropolitan Transport Advisory Board;
- b) Community stakeholders represented on the local ward committees;
- c) Transport operators and transport users represented on the Metropolitan Transport Forum;
- d) Special interest groups, such as people with disabilities;
- e) Public meetings.

#### 6.5.4.8 Implementation priorities

The various projects identified from the needs assessment, scenario modelling analysis and stakeholder consultation have been grouped together into the following priority categories for implementation:

- a) Establishment of a Transport Authority.
- b) Planning and design of identified projects.
- c) Public transport facilities.
- d) Traffic management.
- e) Road maintenance and rehabilitation.
- f) Road construction.

#### 6.5.4.9 Funding plan

The funding required to enable the implementation of the Five-year Capital Programme is summarised according to the project categories in the table below.

Project Category	Financial Year (x R1000)				
	06/07	07/08	08/09	09/10	10/11
Transport Planning Projects	4 500	4 500	4 500	4 500	4 500
Maintenance Projects	30 200	35 400	28 500	18 600	15 600
Design Projects	5 360	5 310	5 310	5 310	5 310
Minor Works Projects	32 300	28 200	15 900	6 400	1 900
Implementation Projects	62 400	145 600	163 050	77 300	54 000
<b>Grand Total</b>	<b>R134 760</b>	<b>R219 010</b>	<b>R217 260</b>	<b>R107 610</b>	<b>R81 310</b>

**Table 8 : Funding Required for Five-year Capital Programme**

The above Capital Programme only includes infrastructure that is to be funded from the Consolidated Metropolitan Transport Fund and Public Transport Infrastructure Fund. It excludes infrastructure that is the funding responsibility of other authorities, notably the proposed upgrading of the N2 and ramps between the Kragga Kamma Interchange and Creek Interchange, which is the responsibility of SANRAL.

### 6.5.5 Major Infrastructure Networks

One of the main aims of the MSDF is to minimise the need to extend bulk infrastructure and to optimise existing infrastructure. The strategic planning of infrastructure, (water, stormwater, sewerage, and electricity) will need to be elaborated on in special studies that are based on the urban expansion proposed. Directorates will need to prepare development programmes for investments in the infrastructure required to support the development of and implementation of the IDP. Attention should be paid to the sustainable development of infrastructure in terms of economy, natural resources as well as environmental and health protection.

Existing bulk infrastructure systems, with minimal extensions, are expected to meet the needs of urban expansion for the near future. However, it is imperative that new technologies be explored and applied in the longer term, promoting sustainability with special emphasis on the use of resources and recycling principles.

Infrastructure expansion cannot be allowed to continue in the way it has done in the past. All over the world the challenge being faced is to limit urban sprawl in an attempt to make cities more compact and efficient and to reduce the extension of expensive bulk service infrastructure networks. Consequently, higher densities will have to become a reality despite the lack of community support for densification as the extensions to bulk services required to sustain low density sprawl, either the capital works or the on-going maintenance, are not affordable.

## 6.6 Economic Infrastructure

The generation of sustainable employment opportunities is one of the greatest challenges facing the city. Of particular importance is the generation of opportunities for small business (SMME's). Due to the limited number of jobs generated by larger enterprises, a large number of people will have no option but to generate their own income.

Spatially, the imperative is to ensure that opportunities exist for small entrepreneurs to manufacture and trade in viable locations at low overheads and it is a public sector responsibility to act proactively in this.

One such proactive response is to facilitate the provision of economic infrastructure for small businesses at accessible locations. To this end, efforts to work with provider organisations such as the Small Business Development Corporation (SBDC) should be made.

Other options include:

- a) A condition for the granting of development rights for larger commercial and industrial developments should be the concurrent provision of opportunities for small business. In this way, small business benefit from the generative power of the larger enterprises.
- b) Well located, regulated markets for informal sector traders should be provided at all existing and future commercial centres.
- c) Facilitate the provision of manufacturing hives for small entrepreneurs at suitable locations. Potential locations could include existing industrial areas (where recycling of industrial waste can be formalised), new centres and along important transportation corridors.
- d) The provision of food centres (shelter, services and common furniture which can be used by many small food and beverage providers) should be facilitated at all major tourist and destination points.

## **6.7 Incorporating Sector Plan Developments**

The various sector plans incorporated into the MSDF are identified in this section. These sector plans, which have major spatial implications for the MSDF, are tabled as follows:-

### **6.7.1 Integrated Environmental Plan**

The purpose of the Integrated Environmental Plan is to assist the NMBMM in complying with environmental legislation and to promote sustainable development by improving the integration of environmental issues into social and economic development. As environmental legislation develops, more components need to be added to the Environmental Plan.

Initially, the Integrated Environmental Plan comprised a Spatial Biodiversity Plan, an Environmental Policy and an Environmental Management System. During the past year, pending legislation has required the inclusion of several other plans such as alien organism control programmes, state of the environment report, integrated air quality management plan, integrated waste management plan etc into the future planning process.

#### 6.7.2 Coastal Management Plan

It is anticipated that the Coastal Management Bill, when enacted, will require coastal municipalities to develop Coastal Management Plans. Planning for a Coastal Management Plan started in 2005/06, and the Plan is expected to take until June 2008 to complete.

#### 6.7.3 Disaster Management Plan

The Disaster Management Plan, as approved by Council in 2005, aims to address compliance issues as contained in the *Disaster Management Act, 2002*. This user-friendly Plan contains generic information of a Level 3 Disaster Management Plan, a geographic information system component and the proposed disaster management framework. This Plan provides the framework for the Municipality to prevent disasters from occurring and to lessen the impact of unavoidable disasters.

#### 6.7.4 Environmental Policy

The Environmental Framework and Environmental Policy (adopted 1 October 2004) provides a statement of the environmental situation and aims to guide environmental management and the development of an Environmental Management System with the overarching aim of ensuring the compliance of the activities of the NMBMM with environmental legislation. The Environmental Policy includes a policy statement, backed by principles supporting the policy statement, and documents management actions (the basis of an Environmental Management System) required to implement the policy statement. The Environmental Legal Register is updated annually.

#### 6.7.5 Infrastructure Development Plan

Improving service delivery is an integral part of the Municipality's mandate. The Municipality is acutely aware of the many service delivery challenges confronting it, and has developed a number of plans to address these challenges.

#### 6.7.6 Integrated Transport Plan

The 2006 – 2011 Integrated Transport Plan is an update of the April 2005 ITP, which was prepared for the period July 2005 to June 2010 and focused mainly on transport infrastructure. At that stage, the Public Transport Plan was still in the process of preparation. The PTP was finalised in May 2006 and its strategies and implementation recommendations have been included in this update of the ITP.

#### 6.7.7 Integrated Waste Management Plan

The IWMP was adopted in July 2005, and the implementation of the projects is underway. It provides the current situation with respect to waste management in Nelson Mandela Bay and sets objectives for creating an appropriate, sustainable waste management system.

#### 6.7.8 Local Economic Development Plan

The situational analysis of Nelson Mandela Bay indicates high levels of poverty and unemployment. Forty four percent of the economically active population is unemployed and 38% of the total households are indigent. This indicates the need to accelerate a poverty alleviation strategy as well as the implementation of programmes and projects with huge potential for growth and development. Investment is central to this. Economic growth is a catalyst for all other government initiatives. Amongst the focus areas in terms of the growth of Nelson Mandela Bay are SMME and co-operative development, urban agriculture, tourism, broad based economic empowerment, investment and economic diversification. Furthermore, the national government initiated programmes under ASGISA and EPWP play an important role in poverty alleviation and job creation. The Municipality is aware that to implement various programmes needed to create jobs and reduce unemployment, skills development is key. Most of the people who are unemployed are also unskilled hence the need to develop a comprehensive skills development strategy.

#### 6.7.9 Public Transport Plan

The first Public Transport Plan for the NMB area was completed in May 2006. It consists of a Long-term Strategic Plan and a Short-term Implementation Plan. Alternative scenarios consisting of different combinations of rail lines, bus trunk routes, local bus routes and minibus feeders were formulated and tested with the VISUM Transport Demand Model for 2020 land use and population forecasts.

The conclusions from the scenario analysis were as follows:

- An integrated public transport system with scheduled services will serve the city best.. The non-intervention development of the existing situation should not be accepted.
- A system based on trunk bus route corridors and local bus and minibus-taxi services will best serve Nelson Mandela Bay for the next ten years.
- The Khulani Corridor (Motherwell – Njoli – Korsten – CBD) should be the backbone of the future public transport system.
- An expanded railway system will not attract enough passengers in the next ten years to justify large expenditure, except for possibly a short rail spur into Motherwell, which can be extended to a loop through the Coega IDZ when warranted by sufficient concentration of residential development in Motherwell and employment in the IDZ.

#### 6.7.10 Tourism Master Plan

During 2005, consultants were appointed to develop a Strategic Tourism Development Plan (Tourism Master Plan) for Nelson Mandela Bay. The plan was commissioned as an integral part of the implementation framework of the Economic Growth and Development Strategy which identified a number of key and strategic development initiatives and prioritised the need for a planning framework that would position Nelson Mandela Bay as a unique and competitive visitor destination within South Africa and in the African continent. A final Tourism Master Plan was produced and accepted by Council early 2007.

### **6.8 Developmental Projects**

A number of large developmental projects are being mooted in and around Nelson Mandela Bay. If each were to be developed on a fragmented basis and in isolation, successful development would be more difficult. However, if all were developed comprehensively and in support of one another, a collective momentum would be generated, with each supporting the other. Together, these projects would place Nelson Mandela Bay in a highly competitive position to attract tourism, both nationally and internationally, and to promote domestic economic growth.

The major projects identified are outlined below:-

#### 6.8.1 Nelson Mandela Bay Multi-purpose Stadium

Following detailed investigations, Prince Alfred's Park was selected as the site for the location of our 'unique and spectacular' Multi-purpose stadium which supports Nelson Mandela Bay's status as a World Cup 2010 Host City. The development of the stadium in Prince Alfred's Park will have many positive benefits, such as the upliftment and urban renewal of the surrounding residential and commercial area. Moreover, Prince Alfred's Park is well served by and closely located to railway and public transport routes.

#### 6.8.2 Njoli Square Development

Njoli Square is situated in the heart of KwaZakhele, approximately 10 km to the north of the city's CBD. Unlike its name implies, Njoli Square is not a "square", but in fact a large traffic circle – one of the major transportation hubs in the Ibhayi area. As one of the key nodes in the Khulani Corridor that links Motherwell in the north to the Port Elizabeth CBD in the south, Njoli Square has attracted significant informal traders as well as semi-formal business, making it the most important commercial node within the greater KwaZakhele area. It is the Municipality's vision that Njoli Square be redeveloped into a dynamic "civic centre", to serve as a catalyst to encourage and stimulate private sector investment in the surrounding area.

#### 6.8.3 Coega IDZ and Port of Ngqura

The Coega IDZ, situated in the northern part of Nelson Mandela Bay will be a high-tech industrial zone supported by the deepwater Port of Ngqura. Initially, development within the IDZ will be concentrated in a nucleus of about 6400 ha (including the deepwater port), known as the Core Development Area and will then radiate outwards in a north-westerly direction.

#### 6.8.4 Mandela Bay Development Agency

Established in 2003, the Mandela Bay Development Agency is a special development company whose aim it is to project manage the regeneration of the inner city and the development of the harbour area, with a view to promoting economic and tourism

development against this backdrop of urban renewal. Exciting projects such as the International Convention Centre, Freedom Statue and the upgrading of the CBD, featured below in more detail, are being driven by the agency.

#### *6.8.4.1 Revitalisation of the Central Business District*

Due to the movement of commercial activities to the suburbs, the historical city centre of Port Elizabeth, and now that of the metropolitan area, is under threat and has been for some years. In an effort to counteract the decline of the CBD and to restore its critical role in the city, a Downtown Planning Project is currently being prepared. This plan covers the harbour/waterfront area, South End / Humeral, the Central Business District, Central Hill, Richmond Hill and North End.

The broad objective is to start a sustainable process aimed at achieving the goals of the MSDF. Other objectives are to develop the city centre economically as an integrated civic hub, also from a transportation point of view. Plans to pedestrianise Govan Mbeki Avenue between Market Square (the Vuyisile Mini Square) and Russell Road and to improve linkages with the adjacent area are well under way and will contribute to the revitalization of this core area.

#### *6.8.4.2 Freedom Statue*

With reference to the proud name that the city bears, the Nelson Mandela Bay Metropolitan Municipality, a suitable icon needs to be developed that will enhance the identity of the city. A project designed to erect a statue/monument to freedom and democracy, called the Statue of Freedom, is proposed. Developed together with a range of other facilities, this project has the potential to become an international tourist asset.

#### *6.8.4.3 International Convention Centre*

A major convention centre is under consideration with possible location on the beachfront and close to the airport, hotels and other beachfront attractions.

#### *6.8.5 Motherwell Urban Renewal Project*

This project represents a multi-faceted approach that will upgrade amenities and services in Motherwell, as well as promote employment and community participation.

#### 6.8.6 Helenvale Urban Renewal Project

Helenvale has been identified as an area in urgent need of upgrading. Based on the success of the Motherwell Urban Renewal Project, a similar approach to Helenvale was adopted known as the Helenvale Urban Renewal Project. This project has also adopted a multi-faceted approach to the upgrading of amenities and services in and around Helenvale and to foster employment and community participation.

#### 6.8.7 Urban Agriculture

The urban agriculture project will allow poor and disadvantaged communities to secure food and to enter into an economic activity, as part of the Municipality's long-term vision to build agriculture into a strategic economic sector.

This is also supplemented by the Area Based Planning (ABP) initiative by the Department of Land Affairs to re-distribute 30% of white owned farms by 2014. A number of projects have already commenced whereby the Department purchases such land for agricultural projects.

#### 6.8.8 Beachfront Developments

Totalling approximately 100 km of beach and coastline, the beachfront is the city's greatest natural asset. It is largely underdeveloped and unexploited and consequently has the potential to form the foundation of a thriving tourism, recreation and holiday industry.

The Integrated Beachfront Development Plan, which focuses on the 25 km stretch of beach from St George's Strand in the north to Flat Rock in the south aims to maximise the strengths and opportunities of the beachfront area and to prevent unplanned *ad hoc* development, which could impact on the prime beachfront area.

The potential economic benefit of this tourism resource is estimated to be in excess of R5 billion per annum (*Source: Africoast Consulting Engineers*).

#### 6.8.9 Embizweni Bluewater Beach / St George's Strand Beach Node

This node, situated between Bluewater Bay and St George's Strand, is earmarked for development primarily for tourism purposes and will include, *inter alia*, a holiday resort, a hotel, a conservation area, camping facilities, a residential area and a tourism cultural centre.

#### 6.8.10 Resort Developments (Maitland and Van Stadens River Mouths, Beachview and Springs Resorts)

With the exception of the Springs Resort that fell under the erstwhile Uitenhage Municipality, the former Western District Municipality previously administered all the abovementioned resorts. Since the amalgamation of the various local authorities, the Nelson Mandela Bay Municipality now administers these resorts. However, as this is not seen as a core function of the Municipality, steps have been taken to privatise these resorts and to allow them to be upgraded as fully functional holiday destinations.

#### 6.8.11 N2 Developments

This project straddles the N2 at the western entrance to the city and envisages the development of a multi-use facility with an N2 city high-quality service station as an anchor. The envisaged development includes residential, high-tech industrial as well as commercial, hotel and recreational uses.

#### 6.8.12 Gateways and Beautification Project

Introduced to enhance the image of Nelson Mandela Bay and to attract tourism and business as well as to boost confidence and economic spin-offs, this project entails the beautification of major transportation routes such as the N2, the Settlers Freeway and the PE / Uitenhage Road.

The project also envisages the establishment of features, in the form of distinct boundary markers at strategic entrances to the city area and at the Airport that will announce to travellers that they have arrived at Nelson Mandela Bay.

#### 6.8.13 Greening of Nelson Mandela Bay

This project entails the beautification of the previously disadvantaged areas by tree-planting, as well as physical improvements and community education.

#### 6.8.14 Bayworld

The redevelopment of the existing Bayworld site will see the improvement and expansion of the existing facility to include an aquarium, sea-water features, upgraded dolphinarium and various other tourist facilities linked to both sides of Beach Road.

#### 6.8.15 Red Location Cultural Precinct

Located in the historic Red Location area of New Brighton, a tourism village incorporating a museum, art centre, market and library is proposed. The museum component of the tourism village, known as the Red Location Museum of Struggle, was officially opened in November 2006.

#### 6.8.16 Van Der Kemp's Kloof

Van der Kemp's Kloof has been identified as a priority area for biodiversity conservation in terms of the Nelson Mandela Metropolitan Open Space System and is in the process of being proclaimed a nature reserve.

To further environmental awareness, it is also proposed to provide facilities such as hiking trails, picnic areas and recreational dams in a holistic and environmentally sensitive way.

#### 6.8.17 Revitalisation of Uitenhage CBD

This project entails the revitalisation of the Uitenhage core area by upgrading and improving the CBD and adjacent areas. The upgrading of the exterior of the Town Hall has been completed, and plans are in place to upgrade the node between the Town Hall and the municipal library.

#### 6.8.18 North End Beachfront Land Reclamation

An exciting project complementary to the Vision 2020 Programme is the reclamation of the North End beachfront, which became eroded following the development of the PE harbour. This erosion has subsequently had to be curbed by the use of dolosse to protect the freeway and railway lines serving the city.

A littoral drift estimated at approximately 150 000 cubic metres of sand per annum moves northwards along the coastline from Cape Recife. Over the years, this sand movement has built up King's Beach, and as it moves past the breakwater, it silts the harbour entrance, which has to be dredged at a cost of some R7 million per annum. The continual cost of dredging the harbour entrance and the dumping in deeper waters of the sand dredged, is sufficient to render as available alternative a sand bypass scheme similar to that used at the Port of Ngqura.

Prior to the construction and subsequent extension of the harbour, the beaches to the west of the harbour extended approximately 200 metres further out to sea than today. The intention is to make use of the sand bypass system to replenish, in phases, the coastal zone west of the harbour with sand, and to open up this reclaimed area for development. Uses considered suitable include, *inter alia*, a marina with supporting residential and commercial components. Together with the Multi-purpose Stadium to be built at Prince Alfred's Park, the reclamation and subsequent development of the North End Beachfront will act as a strong catalyst for the urban renewal of much of the North End area, with particular emphasis on the commercial and industrial land situated in between.

#### 6.8.19 Greater Addo National Elephant Park and Baviaanskloof Conservancy

The Greater Addo National Elephant Park and the Baviaanskloof Mega-Reserve projects are aimed at developing and increasing the sustainability of two prime conservation areas in the Eastern Cape. Although located outside the jurisdiction of the Nelson Mandela Bay Metropolitan Municipality, their successful development will be a vital part of the arsenal of tourism and natural attractions offered to visitors to the region.

## **7 IMPLEMENTATION**

### **7.1 Implementing the MSDF**

#### a) General

The MSDF encompasses the entire area under the jurisdiction of the Nelson Mandela Bay Metropolitan Municipality. Moreover, it takes into account a number of sectors of society and outlines the relationship between the various activities and actors and provides a long term perspective of development. It is a strategic plan that will form the basis for decision making and it must be manifested in an implementation programme.

The MSDF is also a component of the Integrated Development Planning (IDP) process and is closely related to the other sector plans of the IDP. The linkage between planning and implementation is thus further emphasised and forms the foundation on which further detailed planning will be based and undertaken.

The MSDF is the broadest level of spatial planning. It will be followed up through a series of planning initiatives that are part of the implementation process. This is the first version of the MSDF and is based on the Comprehensive Urban Plan of 1999 and provides a general outline of the envisaged spatial form. It will thus be subject to more detailed analyses and considerations in the process of further reviews and revisions. The MSDF has a planning horizon to the year 2020 but includes a shorter term perspective of five years. Various aspects of the MSDF will be subject to deeper investigations and the results will be added in the form of annual reviews.

#### b) Administration and Procedures

All Directorates of the municipality will be involved in implementing the MSDF and will furthermore require inputs from Provincial and National Government. The co-operation and co-ordination of activities and distribution of responsibilities is addressed in the Institutional Plan prepared as part of the IDP process.

### c) Institutional Arrangement and Responsibilities

Implementation of the MSDF will also engage a great number of role players with specific responsibilities and interests in the process. The main responsibility will have to be shouldered by the Municipality, the elected representatives in Council and its Committees as well as officials of the Council.

Active involvement and support from the private business sector, political parties, provincial and central government, special interest groups and non-governmental organisations will be a prerequisite for the achievement of the goals set up as part of the MSDF. These roles and responsibilities are outlined below:-

- Eastern Cape Provincial Government

A number of aspects covered in the MSDF are currently directly or indirectly the responsibility of the Provincial Government with funding from the national budget i.e. education, health care, housing finance programmes, environmental protection, natural resource utilisation, roads and transport etc. Implementation of the MSDF therefore calls for co-operation and co-ordination in terms of financial planning and an investment programme.

- National Government

Local economic development is dependent, to some extent, on support from national programmes for regional distribution of investments.

Some infrastructure developments are financed through the national budget and will need National Government approval. The implementation process will therefore include co-ordination at national level.

- Private Sector

The basis for development and improved living conditions is reliant on economic growth in the country and in the region. While the Municipality can support and facilitate economic development through administrative measures, the driving forces for the implementation of the plan are the economic activities and investment of the private sector.

It is important that the private sector shares the visions, goals and ambitions expressed in the MSDF and that it takes the opportunity to contribute to and benefit from provisions for services and infrastructure.

- Non Government Organisations (NGO's)

NGO's representing different interests related to development play an important role in the process. The wide range of NGO's cover housing, environmental, urban agriculture, conservation, cultural, recreational, sports and other community interests, being general in character, area specific or community based. The Municipality will accommodate the various groups in the process through information, consultation, participation and negotiations, depending on the stage, type of planning and implementation. NGO's can contribute by providing a link between local people and the authorities.

#### d) Financing and Budgeting

The Integrated Development Plan process requires close linkage between planning, implementation and financing. This will be provided for through the Finance Plan and the Annual Budget that will take into account the proposals and implementation programme of the MSDF and any follow up detailed planning projects.

## **7.2 Development Phases**

The philosophy of the first phase is to develop new areas located adjacent to or as close to existing development and infrastructure as possible. This will minimise the need to extend bulk infrastructure networks, thus saving costs.

The second phase will involve the opening up of additional areas and extending infrastructure where it is most viable to do so. It is expected that such expansion will, inter alia, strengthen the axis between Port Elizabeth and Uitenhage. To the north, new development expansion will be located as an extension of Motherwell towards Uitenhage and will be closely related to the developing Coega IDZ.

The third phase would consolidate the development directions initiated in the first and second phases, establishing an urban structure that links the present centres and the new development areas in the north.

The metropolitan area includes large agricultural holdings of varying degrees and types. Although indications are that land within the metropolitan area has limited agricultural potential, it is nevertheless important that existing agricultural land situated to the west, being an important source of fresh produce for local consumption and local economic development, is protected from urban development. The remaining agricultural land situated towards the north and northwest is more suited for livestock farming. However, certain smaller portions may have good potential for intensive or irrigated farming as well as game and wildlife management farming. These assumptions however need to be ratified in terms of the soil based agricultural study being undertaken by the National Department of Agriculture.

Most of the estimated 28 000 persons living in the peri-urban areas are engaged in the agricultural sector. However, some interest in establishing new rural types of settlements has been noted mainly through the sub-division of farms into agricultural smallholdings. Although agricultural production is encouraged, it is important to avoid urbanisation through the creation of unviable smallholdings.

It is also important that consideration be given to limiting urban growth and sprawl by establishing and recognising an “urban fence” that confines urban development within certain geographic boundaries. This is in line with the densification principles contained in the Municipal Systems and Development Facilitation Acts.

### **Accommodating the expected growth. Proposed phasing**

#### ***Phase 1 : 2007 until 2010***

Phase 1 proposes that infill development takes place to fill in any gaps in the urban pattern, including new development expanding onto adjacent vacant land. The intention is to overcome the adverse effects that “leap frogging” has had over the years from a cost point of view. Bulk infrastructure is readily available to serve these areas.

Development in this phase is clearly shown on the spatial plan.

**Phase 2 : 2011 until 2015**

Whilst taking up any remaining infill development opportunities, this phase envisages new development taking place in areas located further away from the central parts of the metropolitan area.

The rate of expansion and where such development takes place within this phase is also determined by the need to extend bulk infrastructure networks to service the land and the ease with which this can be achieved.

Phase 2 development areas are also shown on the spatial plan. The municipality will have to incur costs to extend the infrastructure timeously to facilitate such expansion.

**Phase 3 : 2016 until 2020**

At the time of preparing this plan, land proposed for development in this phase can only be estimated and will require continual reassessment as the time draws nearer.

Little or no bulk infrastructure exists to serve these sites and considerable expense will have to be incurred in order to provide it. The municipal budgeting process will therefore have to be timeously informed so that development can continue.

**Post 2020**

These areas are shown on the spatial plan merely to indicate that growth of the greater urban area will continue beyond 2020 and is not expected to halt. However, it is important to recognise and implement some form of limit to the growth of the urban structure of the Metropolitan area. The MSDF proposes that agricultural land to the west, the mountains behind Uitenhage and the Coega River Valley should form the limits of urban expansion.

If additional growth needs to be accommodated, then serious consideration will have to be given to higher densities and recycling of land for better housing utilisation. After that, expansion should rather take place to the north before agricultural land to the west is lost to urban development.

### 7.3 Implementation Strategies

The following table itemises the main proposals for implementing the MSDF and an indication of timing:

Review the MSDF regularly including continual assessment of land needs.	At least every 5 years.
Actively promote the idea of containing of urban growth within certain accepted limits in order to protect agricultural land outside the City.	Ongoing
Prepare an Environmental Management Framework (EMF)	2007 – 2008
Refine “re-structuring zones” for the provision of social housing	2007 – 2008
Prepare a National Heritage Register as required in terms of the National Heritage Resources Act, 1999	2007 – 2008
Determine sites for future cemeteries, carrying out the necessary studies into ground conditions and hydrology.	2008
Investigate and understand the needs of the Xhosa community to facilitate the identification of appropriate sites for the Abakwetha.	2008.
Locate sites in appropriate areas for use as garden allotments and actively develop urban crop agriculture in communities. Land needs to be sought for limited stock farming.	2008
Complete new consolidated land use management system (LUMS).	2008
Develop a conservation policy aimed at conserving elements considered worthy of preservation. Special attention to be focused on the less privileged areas where information is only available by word of mouth and where conservation will not be manifested in buildings as much as in spaces and precincts.	2007 - 2009.
Systematically identify and prioritise those residential areas in need of upgrading. Determine costs and make budgetary provision (including the provision of social facilities and basic services.)	2007 to 2010.
Prepare a land delivery programme focusing on aspects such as land audit, simplified land delivery processes, sales policy, land acquisition programme and facilitating private land development in accordance with the MSDF. This must include the timeous acquisition of land for residential, commercial and industrial development, community facilities, open space, etc.	2007 to 2010.

Investigate, develop and maintain an information data capture system for planning purposes.	2007 to 2010.
Develop a Local Agenda 21 programme for the City including awareness and education and focusing on the role of the private sector.	2007 to 2010.
Identify and prioritise corridor development based on lessons learnt from the Khulani Corridor Project. Interim uses will need to be found to ensure that any corridor identified in the study remains free of development until required.	2007 to 2010.
Pursue further detailed local spatial development framework plans where aspects of the MSDF require further investigations for implementation purposes. This should include development of asset lists for all Wards within the Municipality using the communities to provide input.	2007 to 2010.
Seek external funding sources to supplement existing sources for housing projects.	On-going.
Identify land for new residential development in accordance with the MSDF, prepare detailed subdivision plans and ensure timeous approval.	On-going.
Develop programmes for investment in infrastructure for the various services	On-going.
Actively engage responsible authorities for the timeous and co-ordinated provision of facilities in housing areas, especially from a consolidation point of view.	On-going.
Continue to market and promote the MSDF as part of the IDP process.	On-going.
Actively promote public involvement in the planning process and consolidate the database of interested and affected parties.	On-going.
Investigate effective enforcement of planning and development regulations in the interests of community and investor confidence.	On-going.

**Table 9 : Implementation Strategies**

## **8 LAND USE MANAGEMENT**

### **8.1 Current Issues**

Development is hampered by the existence of different sets of legislation and a lack of uniformity between the various land use schemes applying to different parts of the metropolitan area. Although subject to review and amendment over the years, the existing land management system in the form of land use schemes remains largely the same as when they were introduced four to five decades ago. Consequently, there are a number of problems associated with the current land use management system. These include a system that is, inter alia:

- based on prescriptive control rather than facilitative development principles resulting in a mismatch between the land management system and new national planning legislation and policy.
- not informed by a proactive plan or spatial framework that clearly spells out the preferred spatial logic and relationship between activities for the city : decisions are sometimes therefore taken in the absence of detailed policy and the public consequently has little certainty about development intentions for the city.
- resource intensive : too much time and effort being spent by officials resolving issues only affecting a limited number of landowners.
- dysfunctional : local government restructuring has resulted in fundamentally different land management systems being in use in different parts of the city.

### **8.2 Guidelines for a Land Use Management System (LUMS)**

The Land Use Management System for Nelson Mandela Bay should be designed to meet the requirements of Government policies and legislation and take into account the principles and objectives of legislation and policies. It should also be designed to align with the city's spatial framework so that it adheres to the same view of space and activities.

Government policies identify a number of principles that should form the basis for land use management and the process and procedures for its implementation. These originate from the DFA guiding principles but are formulated to be more specific for planning and land use management in the draft Land Use Management Bill and are enumerated in the following section.

The proposed policy on spatial planning has its starting point in the IDP as the single, inclusive and strategic plan for local authorities. The physical planning aspect is provided for through the MSDF as the spatial component of the IDP.

The planning framework envisaged in the White Paper on Spatial Planning assumes the establishment of a planning system that provides an effective link between forward planning in the form of the MSDF and Land Use Management, which in turn is a part of the implementation process.

### **8.3 Principles**

There are a number of general principles should underpin the nature of the city's land use management system, namely that:

- land development and land use management must promote and enhance equality, efficiency, integration, sustainability and fair and good governance;
- land use decisions should be policy led with decisions informed by a proactive plan that provides sufficient guidance to decision makers;
- the benefits of land management should be equitably spread to all citizens, and
- inappropriate historically granted rights should be brought in line with the priorities articulated in new integrated plans.

## 8.4 Planning System

The planning system that emerges from the policy would include:

- a) Integrated Development Plan (IDP) and Spatial Development Framework (SDF)
- b) Local spatial development framework plans (LSDF"s) incorporating sustainable communities (SCU) principles
- c) Detailed planning (ie subdivision layouts)
- d) Land use scheme

These levels would be linked to each other so that one level informs and supports the content and proposals of the other. The system would be hierarchical, but with two-way communication and influence. Each type of plan should be a basis and tool for decision-making.

### a) **IDP/SDF**

The MSDF has a long-term perspective, but also supports short-term planning as part of the IDP by providing a basis for financing, investments, capacity building and public involvement. The MSDF will indicate future growth directions on the long-term perspective, but also outlines the programme for follow-up planning and implementation.

### b) **Local Spatial Development Framework Plans**

Such plans will outline development principles and policies for specific areas identified as sustainable community units (SCU's) in the MSDF. These could take the form of new development areas, extensions of existing areas or upgrading areas. This level would also include spatial development policies.

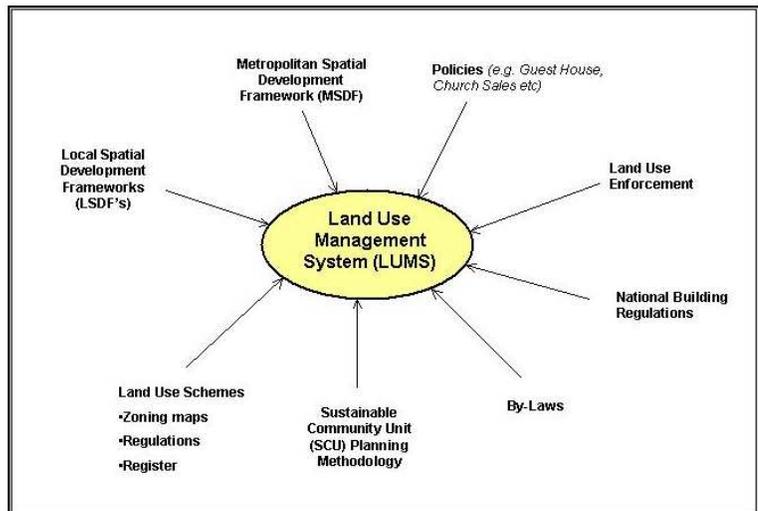
### c) **Detailed Planning**

Detailed planning would be concrete plans aiming at immediate implementation and infrastructure provision. The detailed plans will include policy recommendations that will inform and be complementary to the Land Use Management System.

### d) **Land Use Management System (LUMS)**

A new land use scheme and supporting regulations and maps should be drafted for the entire metropolitan area. It does not make sense to have different regulations in place for different parts of the same functional city. This will involve the repeal of all existing regulations in the city.

A new land use management system will allow for diversity and flexibility. In addition to the generally applicable regulations, provision must be made for the incorporation of development policies for specific areas in accordance with recommendations in local spatial development framework plans or in detailed subdivision plans.



**Diagram 2 : Land Use Management System**

Diagram 2. attempts to graphically illustrate the various components making up a land use management system.

The characteristics of the land use management system should be:

- simple to administer
- user-friendly, easy to understand in terms of
  - ◊ - terminology
  - ◊ - application procedures
- providing for flexibility through
  - ◊ - mixed uses
  - ◊ - diversification
- creating incentives for quality and performance rather than technical standards.

## **8.5 Land Use Management Procedures**

Procedures are to be established to make sure that there will be fair and just evaluation of the development proposals and that applicants are treated equally and given opportunities to obtain and provide information.

The procedures should guarantee that those affected or involved can object or comment. The procedures should facilitate proper investigations regarding the implications of the proposals.

The procedures can be improved through changes in administrative routines. The principles for change should include:

- further decentralisation
- greater delegation of power to officials
- community involvement and efficient public participation
- simplified procedures for proposals in line with policy plans
- increased participation of stakeholders
- simplified decision-making process.

Implementation of plans and enforcement of decisions depend upon respect for the law. To achieve respect for the law the authorities must have the capacity, tools and the will to enforce decisions. The planning and land use management system can only provide the mechanisms for orderly development and efficient use of funds.

## **9. FOLLOW UP STUDIES AND PROJECTS**

### **9.1 General**

This section draws together the various threads of the report into a suggested plan to take the MSDF forward and are discussed below:

- As a document, many of the programmes and projects identified require further work, discussion and negotiations and will be undertaken and included in subsequent updates of the MSDF.
- Immediate implementation in terms of principles, programs and projects and managing private sector initiatives in a way that supports these principles, programmes and projects. Implementation does not have to wait for the finalisation of the MSDF. The MSDF makes specific recommendations about the principles which should guide the planning and delivery of a range of services. Further, some projects should commence immediately, not only to benefit large numbers of people, but also to promote learning about new concepts developed as part of the MSDF process. Some aspects of delivery are therefore seen as taking place concurrently with the finalisation of the MSDF.
- On-going work identified through the MSDF process, but which cannot be resolved or completed in the 2007 / 2008 financial year.

#### **9.1.1 Public dissemination**

The MSDF spells out the preferred spatial arrangement for the metropolitan area, the envisaged relationship between the various spatial elements and where public spending should occur.

The spatial arrangement cannot be achieved by the local authority on its own. The different daily locational and investment decisions of many other service delivery agencies and ordinary people all contribute to the spatial organisation of the city. Also, it cannot be achieved through regulation alone. A great deal will depend on the extent to which other public and private initiatives respond to the spatial frameworks direction and related

programmes and projects. A positive response will depend on the extent to which the framework is known to other agencies and the public.

To facilitate this process, the MSDF will be produced in the form of a report including plans for distribution.

#### 9.1.2 Alignment with other initiatives and sector plans

The MSDF is not an isolated initiative. To have meaning it has to be aligned with different spatial and non-spatial initiatives. This alignment has been consciously pursued in the work done to date and will continue into the later editions of the MSDF.

#### 9.1.3 Planning investigations and projects

Apart from the major development initiatives mentioned earlier in this report, a number of additional studies and projects are being undertaken in order to further implement the MSDF. These are categorised as follows:-

##### a) **Transport Planning**

##### i) Transport plans

An Integrated Transport Plan has been prepared in terms of the Urban Transport Act and National Land Transport Transition Act to address transportation and, in particular, public transportation at a metropolitan scale. This plan was considered and approved by Council during October 2005.

Moreover, the Integrated Transport Plan also makes provision for a sequence of transport plans that have to be prepared and submitted to the Provincial MEC. These include the preparation of a public transport record, an operating license strategy, a rationalisation plan, a public transport plan and an integrated transport plan, all of which feed into the MSDF.

##### ii) Integrated Activity Transport Corridors

Due to its critical mass, corridor development is an essential element in the achievement of a viable public transport system. The Integrated Activity Transport Corridors study

therefore entails detailed investigation including the identification of projects, budgeting / financial planning and the initiation of corridor development projects to complement the Khulani Development Corridor which extends from Korsten to Motherwell.

In order to incrementally implement the corridor concept, it is essential at an early stage to identify and reserve corridors to ensure that present and future needs are accommodated. While planned as high capacity transport modes, the initial use of the corridors can be taxi lanes and bicycle tracks. Therefore, the corridor can begin to be transformed and upgraded when public transport demands increase to a sufficient level.

**b) Social Facilities**

The spatial component of the MSDF is too broad to show the detailed provision of social facilities. Suffice to note at this point that if the population of Port Elizabeth is to increase in the next 20 years, it will be necessary to expand the current provision of facilities and amenities if current standards are to be pursued. Moreover, additional resources are required because many existing areas are currently underprovided with facilities.

**c) Infrastructure**

One of the main aims of the MSDF is to minimise the need to extend bulk infrastructure and to optimise the infrastructure that exists. The strategic planning of infrastructure (e.g. water, stormwater, sewerage, and electricity) will need to be elaborated on in special studies that are based on the expansion proposed. Service divisions and departments will need to prepare development programmes for investments in the infrastructure required to support the implementation of the MSDF. Attention should be paid to the sustainable development of infrastructure in terms of economy, natural resources, environmental and health protection.

Existing bulk infrastructure systems, with minimal extensions, are expected to meet the needs of urban expansion for the near future. However, it is imperative that new technologies be explored and applied in the longer term, promoting sustainability with special emphasis on the use of resources and recycling principles.

**d) Sustainable Communities Unit (SCU) Project**

The existing pattern of development is largely the result of applying planning principles based on segregation. The structure not only separates different racial groupings of society in geographical terms but has also resulted in great disparities in standards of living as well as access to infrastructure, services, employment and cultural and recreational facilities. While these imbalances exist and must be taken into account both as constraints for redevelopment, they must also be seen as a feature that should be addressed and rectified in order to achieve a more balanced and integrated socio-economic structure.

In order to address this situation, the building block around which the MSDF is structured is the sustainable community unit (SCU). The MSDF proposes approximately 40 'sustainable community units' throughout the metropolitan area, all linked to major transportation routes. In brief, the SCU is intended to be a predominantly self-contained unit of development that is designed to minimise the need to travel while at the same time offering employment opportunities closer to places of residence.

As a component study of the MSDF, the SCU concept (which won the Star Trophy World Leadership Award in London during November 2005 in the town planning category) has been developed to a point where it can be directly applied to new or existing areas.

It is envisaged that the vast majority of citizens, due to limited access to private transportation, will depend on other forms of transport. The approach within the SCU will therefore focus on pedestrian movement and the provision of access to services and job opportunities.

The structure of the City will have a great impact on intra urban movements, commuting distances and commuting times. The intention is therefore to achieve a more balanced city structure to reduce discrepancies in terms of service provision and standards, to promote integration in socio-economic and functional terms and to provide for economic activities and employment opportunities.

e) **Environmental Management**

i) Environmental Policy

Council during October 2004 approved an Environmental Policy for the metropolitan area. The Environmental Policy states the Council's commitment to responsible environmental management and the implementation of a formal Environmental Management System. The Environmental Policy further provides guidance to all stakeholders regarding the management of environmental matters within the Municipalities area of control.

As a developmental local authority that is mindful of its Constitutional obligations, it is the policy of the Municipality to facilitate and enhance environmentally sustainable development. This includes promoting and delivering environmentally sustainable activities and services within the metropolitan area and areas over which the municipality can be reasonably expected to have an influence.

In essence, this means that Council must (i) conduct all operational activities in an environmentally friendly manner, and (ii) endeavour to rectify impacts on the environment that were caused through previous activities.

In order for Council to meet its environmental obligations, the following principles will be applied:

- a) Sustainable development that meets the needs of present generations without compromising the ability of future generations to meet their own needs;
- b) Sustainable and efficient use of natural resources and raw materials;
- c) The risk of harm to the environment and to human health and safety, including the effects of pollution, uncontrolled waste, litter, disturbance to ecosystems, and cultural heritage sites and loss of biodiversity, is avoided or minimised;

- d) The potential benefits to the environment and to human health and safety including the reduction of pollution, control of waste, preservation of ecosystems, cultural heritage sites and biodiversity, is maximised;
- e) Environmental legislation is complied with by the metropolitan municipality and by entities with whom the municipality does business;
- f) Ongoing and effective public participation and empowerment;
- g) The effects of activities at the local level shall be assessed in the context of regional, national and international environments;
- h) Continuous improvement of the state of our environment;
- i) Improve environmental awareness amongst our employees, stakeholders, and the public;
- j) To manage environmental resources and impacts so as to promote social, economic and environmental justice;
- k) To promote and protect the environment as our common heritage with the aim of creating a pleasant environment in which to live, work, invest, and visit; and
- l) The principles of "polluter pays" and "cradle to grave" should apply and the costs of services and products should reflect the environmental costs.

Notwithstanding the above principles, environmental issues are still poorly managed. The different actions of the many officials within the municipality need to be co-coordinated as well as with non-governmental organisations with environmental skills in different fields of work.

## ii) Local Agenda 21

Agenda 21 is the action plan for sustainable development for the 21<sup>st</sup> century adopted by world leaders at the United Nations Conference on Environment and

Development (UNCED) - the Earth Summit - held in Rio de Janeiro in June 1992. Because so many of the problems and solutions that Agenda 21 sets out to address have their roots in local activities, Agenda 21 calls on local authorities to work with their local communities to prepare local plans.

The process used around the world to prepare *local* action plans is termed "Local Agenda 21". It is a long-term, strategic approach for dealing with economic development and employment, environmental protection, and equity and justice concerns. It seeks to reflect the needs, resources and hopes of a local community, and place these in a global context.

The Local Agenda 21 approach has several fundamental principles, namely:

- Integration of social, economic, and ecological issues;
- Multi-sectoral approach - involving all sectors of the community;
- Concern for the future - taking a longer term view;
- Recognising and working within ecological limits;
- Local authorities working through partnerships with civil society;
- Linking local issues to global impacts; and
- Equity, justice and accountability.

The concept of sustainability is promoted in the MSDF. It is therefore necessary to develop a Local Agenda 21 programme in keeping with the International Charter. It is a long-term process, which aims to involve all citizens with a view to ensuring that all actions are performed in a sustainable manner.

The present situation and state of development of NMBMM is far from sustainable. Many environmental, ecological, social and economic problems prevail. The municipality is experiencing problems such as poverty and high unemployment typical of those faced in developing countries. At the same time, there are problems typical of developed countries such as unsustainable production and consumption patterns in high-income groups, with high consumption of natural resources and heavy loads on ecological systems.

A successful Local Agenda 21 process can be a large and complex undertaking with many stakeholders and issues involved simultaneously. However, in the initial stage a more modest approach would be to start with, for example, urban agriculture and

recycling of waste. There is also a need for increased awareness and capacity building within as well as outside the municipal organisation.

An introductory phase of Local Agenda 21 has involved certain sectors of the community and officials. Engaging leading politicians in the work is a further step. The main objective is to formulate a Policy for Sustainable Development within Nelson Mandela Bay.

### iii) Development of a Metropolitan Open Space System (MOSS)

A major structuring element of the MSDF is the metropolitan open space system. This provides for some of the ecological, recreational and environmental requirements. It is, however, continually under threat from decision-making regarding new development. Nelson Mandela Bay is the only area in the country where 5 of the 7 natural habitat biomes meet one another. The potential from an eco-tourism point of view is therefore immense if marketed correctly.

The objectives of the study will be to educate and create awareness of the importance of the metropolitan open space system. It is also necessary to quantify the value that this system has in order to defend its conservation.

Proposals also need to be made for the upgrading and development of certain areas within the built-up zones to fulfil the metropolitan open space system role. This is particularly true in previously neglected parts of the municipal area. This is also required to promote the value and increase the relevance of the metropolitan open space system for the entire population.

### iv) Energy Efficiency

There is little doubt that South Africa is facing a serious energy crisis and with the ever-increasing demand on fossil fuels as a source of energy, alternative and more sustainable methods of promoting energy efficiency need to be explored as a matter of priority.

f) **Water/Sea Use Plan**

While the sea is not strictly part of the local authorities area of jurisdiction, it is recommended that further studies be undertaken into considering the interrelationships between water use and land use.

It is therefore proposed that a study be carried out to determine a Water Use Plan for Algoa Bay and that this study dovetails with the MSDF's land use proposals.

g) **Coastal Management Plan**

The terrestrial part of the coastal zone within 200 - 450 m of the high water mark has been highlighted as being of utmost importance for biodiversity conservation, coastal protection (i.e. against the effects of sea level rise), and for the maintenance of the unique character of the coastal zone. These aspects that are all emphasised in the NEM: Coastal Management Bill. It is therefore important that the biological functioning and character of this part of the coastal zone not be substantially negatively affected further in any way particularly via fragmentation (e.g. coastal ribbon development).

h) **Cemeteries**

At present, there is a shortage of appropriately located cemeteries with sufficient capacity to cater for longer term population growth as well as increasing death rates due to illnesses such as HIV/Aids. To cater for this increase in demand, it is necessary to identify additional land suitable for cemetery purposes.

This is a complex exercise as land best suited for cemetery purposes is also prime land for development. Furthermore, research has shown that cemeteries can cause pollution particularly if sited incorrectly. Leachate produced is of a pathogenic nature and can pollute water features and groundwater if cemeteries are located too close.

The most important considerations in the location of any cemetery is the geological, hydrological and topographical suitability of the ground. Additional factors relate to community and cultural needs and preferences.

In order to timeously identify and reserve land for cemetery purposes, a desktop environmental and geotechnical study has been undertaken to identify portions of land

greater than 60ha in size that may be suitable for future cemetery development. As much of the land within the urban edge has been identified for either development or environmental purposes, the study has focussed on land portions outside of the urban edge. The study has initially identified ten possible alternative sites for cemetery purposes and these now need to be subjected to a more rigorous investigation.

i) **The emergence of a “semi-formal” sector**

A critical factor for the transformation of South African society is job creation (wealth distribution), wealth creation and improved standards of living for all South Africans. High unemployment rates (40-50%) and poor socio-economic conditions drive the need for reconstruction and development. Existing large firms in the modern economy and the public sector are unable to cope with solving these problems and hence the focus by all levels of government on SMMEs as an integral part of solving the economic crisis.

The term “semi-formal sector” is used to describe this component of the economic sector. The creation and development of these “semi-formal” firms should be regarded as a priority since, given the current economic and unemployment problems, it is probably the most potentially productive way of creating jobs. However, it is well recognised that it is virtually impossible for small firms (or entrepreneurs) to jump directly from the informal sector to the mainstream modern economy. Attempts to do so are fraught with a multitude of problems such as access to finance, resource skills, markets, business acumen, etc.

To ensure that South Africa’s SMMEs become nationally and internationally competitive, the following objectives should be embraced. These are to:-

- create long-term jobs,
- stimulate sector - focused economic growth,
- level the playing fields between bigger and small business as well as between rural and urban business, and
- prepare small business to cope with the challenges of an internationally competitive economy.

A key component of a support strategy is the establishment of decentralised / localised support service centres that provide a range of real and appropriate targeting assistance to small black owned manufacturing firms.

j) **Tourism Planning**

Various project initiatives from both the public and private sectors focus on tourism. At present there are a number of initiatives competing for prime land and are being mooted in various locations.

Tourism is seen as one of the ways in which the economy can be stimulated and therefore careful co-ordination and consideration of the various initiatives needs to be done. A strategic tourism master plan has been initiated which will:-

- identify locations for various projects
- identify capacity to attract and sustain tourism
- identify gaps in the tourism market for exploitation, and
- prioritise activities within the Council to develop tourism potential

k) **Land Audit**

Critical to future development strategies is the identification of all land parcels in public (eg municipal and state) ownership larger than 200m<sup>2</sup>. To this end, a study has been undertaken to identify such land parcels and to record them in a database. This study was completed and accepted by Council during July 2004.

As a third phase, the Land Audit study was extended to include vacant privately owned land parcels larger than 200m<sup>2</sup>. As a result of the availability of more detailed aerial photography, this extended study includes a refinement of Phases 1 and 2 and was accepted by Council during 2006.

l) **Demographic Update Study**

During the preparation of the Comprehensive Urban Plan for Port Elizabeth in 1997/1998, a study was undertaken to determine the population to be planned for in the next 20 years.

At the time of the preparation of the plan there were two areas of uncertainty. One was the impact of in-migration and the role of Port Elizabeth as an attractor of the poor and

homeless in search of a better life, and the second was the impact of AIDS on the future population.

A study was undertaken by the Population Research Unit at Rhodes University and this was combined with economic predictions. The end result was that planning for the Comprehensive Urban Plan was based on a doubling of the population by the year 2020 to between 2,4 million to 2,6 million, with the current population figure being estimated at 1,2 million. It was also estimated at the time that approximately 80% of the population would be poor and unable to sustain a reasonable quality of life.

The Comprehensive Urban Plan coped with these uncertainties by identifying population thresholds as opposed to actual numbers for the different planning stages. The thresholds were not specifically linked to a particular year and it was considered that with more accurate information, the thresholds and planning requirements could over time be adjusted accordingly.

In view of these uncertainties, a detailed demographic study was undertaken to update and expand the demographic information to reflect as accurately as possible the current situation. This study reveals some of the prevailing misunderstandings with regard to population features of the Metropolitan area and suggests that the population is smaller than is generally believed and that a figure of slightly more than 1.1 million is closer to the truth than the 1.3 million to 1.5 million that is often assumed.

Popular estimates may be influenced by the appearance of rapid growth on the urban edge. Observable evidence of the proliferation of new informal dwellings in some areas is often ascribed to the phenomenon of urbanization – i.e. the rapid movement of people from rural to urban areas. However, this study reveals that the proliferation of new dwellings on the urban edge and in the other areas identified in this study is less a result of urbanization and more of the movement of people within the Metropolitan area.

This study suggests that the total population is not only smaller than expected but also that the fertility rate is declining. According to the study, the relatively low population and declining fertility may be ascribed to the phenomenon of 'modernization,' that is, increased education, adoption of modern values, women taking on modern roles and the increasing use of contraceptives and that population growth from migration is less than expected because Nelson Mandela Bay is not perceived as a major job-creation area.

The impact of HIV/AIDS should be factored in by way of an increased mortality rate. However, this study suggests that the impact of HIV/AIDS was over-estimated by previous analysts and that the increased use of anti-retroviral treatment is likely to contribute to a stabilization of the impact of HIV/AIDS on population growth.

The study therefore projects the population for Nelson Mandela Bay as follows:-

	Total	Asians %	Blacks %	Coloureds %	Whites %
2006	1 160 740	1.1	56.7	23.5	18.8
2010	1 193 430	1.1	56.2	23.7	19.0
2015	1 224 630	1.1	56.0	24.1	18.8
2020	1 243 930	1.0	55.9	24.4	18.7

**Table 10 : Population Cohorts**

m) **Strategic Environmental Assessment (SEA) and Environmental Management Framework (EMF)**

As a developmental local authority mindful of its Constitutional obligations, it is the policy of the Municipality to facilitate and enhance environmentally sustainable development including promoting and delivering environmentally sustainable activities and services.

It is furthermore Council's intention to work towards development that is socially, economically and environmentally sustainable, to benefit both people and nature and to promote development which does not compromise the natural resource base and the ability of future generations to sustain themselves.

To meet the increasing demand for housing, the Municipality has embarked on an extensive housing delivery program. Pursuant to this, a number of subdivision layouts have been prepared on land which require applications to be made to the Department of Economic Development and Environmental Affairs (DEDEA) for environmental authorization.

Due to conservation concerns and the general lack of detailed related information, problems obtaining environmental authorizations have been encountered. In order to fast

track and facilitate this process, the spatial development framework (MSDF) is being subjected to a strategic environmental assessment (SEA).

Once this process has been concluded and with a view to facilitating applications for exemption in respect of developments within areas identified by the MSDF for this purpose, it is further proposed that this SEA be further to meet the requirements of an environmental management framework (EMF), the objective of which are outlined below.

The objectives of an EMF is to :-

- support the process of delineating geographical areas within which additional specified activities are to be identified in terms of NEMA;
- support the process of delineating geographical areas within which activities listed in terms of NEMA may be excluded by identifying areas that are not sensitive to the impacts of such activities;
- support informed and integrated decision making by making significant and detailed information about an area available before activity proposals are generated;
- contribute to environmentally sustainable development by anticipating potential impacts and by providing early warnings in respect of thresholds, limits and cumulative impacts, and
- support the undertaking of environmental impact assessments in the area by indicating the scope of potential impacts and information needs that may be necessary for environmental impact assessments.

n) **Local Spatial Development Frameworks (LSDF's)**

It is intended to prepare local spatial development framework plans for the following prioritised areas during 2007 to 2009:-

- Zanemvula (including Soweto-on-Sea and portions of Ibhayi and Bloemendal)
- Helenvale

- Greater Motherwell area including Wells Estate
- Uitenhage / Despatch
- Walmer
- Newton Park
- Korsten
  
- Hunter's Retreat
- Bethelsdorp
- Other priority areas to be determined depending on availability of funds

o) **Area Based Planning (ABP)**

Area Based Planning is an initiative proposed by the Department of Land Affairs for use as a fundamental tool for the integration and alignment of land reform with strategic priorities for provinces, municipalities and private institutions.

This process will allow the Department of Land Affairs to identify and implement the needs of local municipalities via a separate but associative initiative resulting in a spatial plan for the implementation of land reform.

The intention is that ABP's will be the primary tool to guide program and project conceptualisation and implementation (i.e. to define the framework from which projects emerge).

The objective of Area Based Plans are to:-

- speed up the pace of land reform in order to achieve national targets;
- contribute to enhanced economic development thereby contributing to ASGISA targets;
- integrate land reform into provincial and municipal development frameworks;
- improve the sustainability of the land reform projects;
- promote sector alignment;

- promote the objectives of inter governmental relations with municipalities and sector departments, and
- empower communities to actively participate in project formulation and the implementation of land reform projects.

It is anticipated that the Area Based Planning process will result in a strategic document which, read in conjunction with the IDP, captures the land reform requirements of the metropolitan area and results in the formulation of projects for implementation by the Port Elizabeth Land Reform Office.

## **9.2 Monitoring and Evaluation**

Monitoring and evaluation of the MSDF serve a number of purposes, inter alia:

- To determine the degree of compliance with the framework.
- Understanding inhibiting factors in relation to project implementation.
- Measuring the impact of specific projects.
- Measuring the impact of the MSDF on the quality of life of local residents.

Feedback from these processes and any amendments emanating therefrom will be incorporated into later revisions of the MSDF.

### **9.3 Ongoing Work**

The MSDF, once approved, is subject in terms of legislation to annual update with a major review every five years, the latter intended to coincide with the introduction of a new Council following local government elections.

The MSDF is therefore a living document and is intended to grow and be refined on a continual basis to enable it to remain a useful guide for development and investment in the city.

**Appendix A : POPULATION AND LAND DEMAND**

Population, Households, Dwelling Units & Land Demand - 10 Year backlog reduction	POPULATION PROJECTIONS		HOUSEHOLD PROJECTIONS						RESIDENTIAL LAND DEMAND PROJECTIONS			RESIDENTIAL LAND SUPPLY PROJECTIONS				
	Year	Population	Anticipated Increase as per Simpkins Projections	Estimated Number of Households based on Population @ 4 persons / h-hold	Household Increase split between subsidised and non-subsidised households			Estimated Housing Backlog	New Units required p/a for growth & to eliminate housing backlog	Land for Growth @ 25 u/ha	Land for Backlog @ 25 u/ha	Total Land Demand (ha)	Dwelling Units as per Housing Delivery Program (Sept 05)	Land Identified for Housing ito SDF		Total Dwelling Units (potential to meet projected demand)
					Non-sub (15%)	Subsidised (85%)	Total							Ha	Potential Units @ 25u/ha	
2005	1151270	0	287818													
2006	1160740	9470	290185	355	2012	2368	8000	10368	95	320	415	1983	<b>4768</b>	<b>119200</b>	<b>151009</b>	
2007	1169540	8800	292385	330	1870	2200	8000	10200	88	320	408	7347				
2008	1177910	8370	294478	314	1779	2093	8000	10093	84	320	404	8317				
2009	1185880	7970	296470	299	1694	1993	8000	9993	80	320	400	7362				
2010	<b>1193430</b>	7550	298358	283	1604	1888	8000	9888	76	320	396	6800				
<b>Subtotal 2005-2010</b>		<b>42160</b>		<b>1581</b>	<b>8959</b>	<b>10540</b>	<b>40000</b>	<b>50540</b>	<b>422</b>	<b>1600</b>	<b>2022</b>	<b>31809</b>				
2011	1200620	7190	300155	270	1528	1798	8000	9798	72	320	392	6087	<b>1338</b>	<b>33450</b>	<b>58787</b>	
2012	1207350	6730	301838	252	1430	1683	8000	9683	67	320	387	5300				
2013	1213690	6340	303423	238	1347	1585	8000	9585	63	320	383	4300				
2014	1219330	5640	304833	212	1199	1410	8000	9410	56	320	376	4100				
2015	<b>1224630</b>	5300	306158	199	1126	1325	8000	9325	53	320	373	5550				
<b>Subtotal 2011-2015</b>		<b>31200</b>		<b>1170</b>	<b>6630</b>	<b>7800</b>	<b>40000</b>	<b>47800</b>	<b>312</b>	<b>1600</b>	<b>1912</b>	<b>25337</b>				
2016	1229450	4820	307363	181	1024	1205	0	1205	48	0	48	-	<b>583</b>	<b>14575</b>	<b>14575</b>	
2017	1233800	4350	308450	163	924	1088	0	1088	44	0	44	-				
2018	1237650	3850	309413	144	818	963	0	963	39	0	39	-				
2019	1241030	3380	310258	127	718	845	0	845	34	0	34	-				
2020	<b>1243930</b>	2900	310983	109	616	725	0	725	29	0	29	-				
<b>Subtotal 2016-2020</b>		<b>19300</b>		<b>724</b>	<b>4101</b>	<b>4825</b>	<b>0</b>	<b>4825</b>	<b>193</b>	<b>0</b>	<b>193</b>	<b>-</b>				
<b>Total 2005-2020</b>	<b>1243930</b>	<b>92660</b>		<b>3475</b>	<b>19690</b>	<b>23165</b>	<b>80000</b>	<b>103165</b>	<b>927</b>	<b>3200</b>	<b>4127</b>	<b>57146</b>	<b>6689</b>	<b>167225</b>	<b>224371</b>	
<b>TOTAL (Rounded)</b>	<b>1500000</b>	<b>348500</b>	<b>375000</b>	<b>13077</b>	<b>74105</b>	<b>87183</b>	<b>80000</b>	<b>167183</b>	<b>3487</b>	<b>3200</b>	<b>6687</b>	<b>57150</b>				

**Appendix B : SOCIAL AND COMMUNITY LAND REQUIREMENTS**

FACILITY	STANDARD & SIZE	2005 - 2010 (27500 new dwellings)		2011 - 2015 (28750 new dwellings)		2016 - 2020 (31250 new dwellings)		TOTAL LAND REQUIREMENTS	
		Sites	Area (ha)	Sites	Area (ha)	Sites	Area (ha)	Total Sites	Total Area (ha)
<b>EDUCATIONAL</b>									
Pre-primary Schools	1 site per 400 dwellings @ 0.3ha each	69	21	72	22	78	23	219	66
Primary Schools	1 site per 600 dwellings @ 2.5ha each	46	115	48	120	52	130	146	365
High Schools	1 site per 1800 dwellings @ 6.8ha each	15	104	16	109	17	118	49	331
Colleges	4ha	0	0	1	4	1	4	2	8
Universities	6ha	0	0	0	0	1	6	1	6
<b>Sub-total</b>		<b>130</b>	<b>239</b>	<b>137</b>	<b>254</b>	<b>150</b>	<b>282</b>	<b>416</b>	<b>775</b>
<b>INSTITUTIONAL</b>									
Worship	1 site per 200 dwellings @ 0.2ha each	138	28	144	29	156	31	438	88
Clinics	1 site per 2000 dwellings @ 0.2ha each	14	3	14	3	16	3	44	9
Community halls	1 site per 4000 dwellings @ 0.4ha each	7	3	7	3	8	3	22	9
Old Age Homes	1 site per 5000 dwellings @ 1.5ha each	6	8	6	9	6	9	18	26
Day Hospitals	1 site per 5000 dwellings @ 1ha each	6	6	6	6	6	6	18	18
Hospitals	7ha	0	0	1	7	1	7	2	14
<b>Sub-total</b>		<b>169</b>	<b>47</b>	<b>178</b>	<b>56</b>	<b>193</b>	<b>60</b>	<b>540</b>	<b>163</b>
<b>GRAND TOTAL</b>		<b>299</b>	<b>286</b>	<b>315</b>	<b>310</b>	<b>343</b>	<b>342</b>	<b>956</b>	<b>938</b>

## Appendix C : BURIAL SPACE DATA

SURVEY OF ALL CEMETERIES							NB Column "Current Total Area Buried" equals measurements 03/04 report+ space buried 04/05+05/06											
OPERATIVE CEMETERIES							Paapenkuils closed end of May 2005											
WARD	CEMETERY	TOTAL BURIAL SPACE					BALANCE AVAILABLE BURIAL SPACE					CURRENT AVAILABLE BURIAL SPACE					BURIALS FROM JUL TO SEPT	SURVEYED
		TOTAL AREA m <sup>2</sup>	GRAVE SIZE m <sup>2</sup>	TOTAL No. GRAVES	BURIAL RATE	TOTAL CAPACITY IN YEARS	CURRENT TOTAL AREA BURIED	BALANCE AREA m <sup>2</sup>	TOTAL No. GRAVES	BURIAL RATE	BALANCE CAPACITY IN YEARS	DEVELOPED AREA m <sup>2</sup>	TOTAL No. GRAVES	BURIAL RATE	CURRENT CAPACITY IN YEARS			
1	Gqebera	378,744	4	139,038	264	527	885	377,859	100,762	264	382	10,305	2,748	264	10	60	April 2002	
2	Forest Hill	170,000	4	45,333	696	65	109,025	60,975	16,260	696	23	22,332	5,955	696	9	217	NO	
11	Papenkuils	128,173	4	34,179	1,280	27	133,787	-5,614	-1,497	1,280	-1	4,745	1,265	1,280	1	148	NO	
12	Malabar	30,000	4	8,000	47	170	4,720	25,280	6,741	47	143	33,759	9,002	47	192	39	NO	
13	Missionvale	49,980	4	13,328	240	56	21,409	28,571	7,619	240	32	20,441	5,451	240	23	123	June 1999	
31	Bethelsdorp	85,207	4	22,722	588	39	60,882	24,325	6,487	588	11	1,383	369	529	1	169	May 1993	
31	Bethelsdorp new	43,135	4	11,503	588	20	0	43,135	11,503	588	20	86,270	23,005	529	43	0	March 2001	
35	Bloemendal	96,940	4	25,851	588	44	1,372	95,568	25,485	588	43	7,829	2,088	529	4	123	August 1997	
37	Fitches Corner	39,060	4	10,416	18	579	8,157	30,903	8,241	18	458	182	49	18	3	13	NO	
39	Matanzima	141,627	4	37,767	1,320	29	14,767	126,861	33,830	1,329	25	109,955	29,321	1,320	22	357	NO	
43	Gerald Smith	111,697	4	29,786	392	76	69,018	42,679	11,381	392	29	8,359	2,229	392	6	123	NO	
43	Jubilee Park	127,460	4	33,989	125	272	108,677	18,783	5,009	125	40	3,735	996	125	8	45	NO	
45	Kabah	232,400	4	61,973	350	177	113,039	119,361	31,830	350	91	9,436	2,516	350	7	112	NO	
47	Despatch A& B	56,664	4	15,110	209	72	19,443	37,221	9,926	209	47	9,590	2,557	209	12	31	NO	
54	Motherwell	549,000	4	146,400	4,119	36	195,156	353,844	94,358	4,119	23	76,014	20,270	4,119	5	897	NO	
	<b>TOTAL</b>	<b>2,240,087</b>		<b>635,396</b>	<b>####</b>	<b>59</b>	<b>860,337</b>	<b>1,379,750</b>	<b>367,933</b>	<b>10,833</b>	<b>34</b>	<b>404,335</b>	<b>107,823</b>	<b>10,647</b>	<b>10</b>	<b>2,457</b>		
		<b>2,240,087</b>		<b>635,396</b>								<b>404,335</b>	<b>m2</b>					
		<b>224</b>	<b>0</b>	<b>64</b>								<b>40</b>	<b>Ha</b>					

## Appendix D : TABLE OF ASSUMPTIONS

No.	Assumption	Reasoning	Implication/notes
1	Population : 2005 estimate of 1,15 million for the metropolitan area used as a base.	<ul style="list-style-type: none"> <li>As per the 2007 Demographic study done by Development Partners.</li> </ul>	<p>The 2001 census suggests a population of 1,05 million. The 2007 Demographic study confirms that the 2001 Census was more accurate than previously thought.</p> <p>However, given the possibility of in-migration as a result of, inter alia, the Coega IDZ and improved HIV/Aids treatment, a projected population estimate of 1,5 million for the year 2020 is used for the purposes of the MSDF.</p>
2	<p>Gross residential density for new developments will be a minimum of 25u/ha excluding MOSS.</p> <p>Present gross densities increase by 20% and the area for houses versus area for other uses is assumed to be at a ratio of 60/40.</p>	<p>This density allows for some densification in line with the National call for densification.</p> <p>Current gross density is 20u/ha. The majority of development will be for low income housing which must necessarily be of a higher density due to infrastructure costs.</p> <p>Moreover, a minimum of 20% of all new lower income residential subdivisions to make provision for a variety of erf sizes, tenure options and income levels as well as provisions for social housing.</p>	
3	<p>85% of the present and future population will earn below R3500 / month at today's rates.</p> <p>Only 15 % of the future land demand will be for higher income groups</p>	Reliance on Economic report / study by Gosta Oscarsson for the 1997 Comprehensive Urban Plan.	Future land demand for higher income groups is likely to be taken up in the form of subdivisions of existing properties and extensions to existing suburbs.
4	Economic growth is presently 3,9%.	Economic Development Unit	Need growth of between 5 - 6% p/a to be sustainable.

5	Average household size in new housing areas estimated to be 4 persons / unit for the next 20 years.	<p>There are a number of uncertainties. Current occupation exceeds this figure but it is known that new housing areas accommodate households of fewer numbers as new households relieve overcrowding. The roll-out of the National housing program has also resulted in reduced household sizes.</p> <p>4 persons / unit for 20 years will allow an overestimation rather than underestimation of the number of households needed which will be safer for planning purposes.</p> <p>The impact of Aids and an increase in the number of orphans may eventually lead to an increase in the number of children in households.</p>	Because of the number of uncertainties in this regard, this figure will have to be monitored and reviewed as better information becomes available.
6	The housing backlog is set at 80 000 for income earners below R3500 / month	Based on a report to the Mayoral Committee during June 2000, there is a 64 000 unit backlog plus assumed WDC area backlog of 7000 units plus some room for error.	
7	20 000 units of the backlog will not be required as new land demand space	This portion of the backlog is estimated to be taken up in the form of backyard shacks / dwellings which will always fulfil a portion of the housing demand as they bring in rental for the owners and provide some form of accommodation for many cannot or do not want to own houses.	
8	10 000 units of the backlog will be taken up in the form of infill development and will not require greenfield land.		
9	The backlog less backyard shacks plus growth will be satisfied within 10 years.	The housing policy of subsidised services at full municipal standards plus the metro house make it unlikely that other providers will play a significant role in the provision of low income housing.	

## Appendix E : OPPORTUNITIES AND CONSTRAINTS

	OPPORTUNITIES	CONSTRAINTS
<b>1. ECONOMY</b>	<b>1.1 Economic Growth through export.</b>	
	PE harbour and Port of Ngqura potential - export opportunities	Cannot link existing PE harbour to heavy industry
	Coega IDZ - job creation	Land required for commerce and industry
	Extensive labour market available	Lack of co-ordination between industries
	Proximity to the African market	Lack of skills and training
	<b>1.2 Economic Growth through investment</b>	
	Perception that development initiatives are well received	Perception that red tape and bureaucratic procedures are time consuming and cumbersome
	The image of Nelson Mandela Bay as a harbour and industrial city.	Lack of bridging between formal and informal sectors
	Ngqura harbour and IDZ will attract industries and investment.	
	<b>1.3 Economic growth through tourism</b>	
	Tourism has the potential to generate more employment opportunities than the manufacturing industry.	Full potential still needs to be developed
	Pristine coastline and moderate climate.	Access to tourist market by disadvantaged communities is limited
	Tourist focus in the Eastern Cape and the beginning of the Garden Route	Proximity to other tourist attractions needs to be exploited
	Vast areas of historical significance which have tourism potential	Lack of awareness
	The existing harbour has potential as a tourism feature.	
<b>2. LAND DEMAND</b>	<b>2.1 General</b>	
	Sufficient land is available to accommodate future growth.	High population growth (high birth rate, urbanisation and in migration) creates a high demand for more land.

The municipality owns a considerable amount of land which can be made available for development	Land restitution claims affect the availability of land for development.
The implementation of the MSDP is an opportunity to promote integration.	Illegal invasion of vacant sites, flood plains, etc. restricts their use for more appropriate types of development.
Provision can be made for major land uses (ie MOSS, abakwetha, urban agriculture, cemeteries, landfill sites, etc).	
<b>2.2 Land for Residential Purposes (Housing)</b>	
Certain areas currently have low residential densities, creating the opportunity for densification and integration.	The demand for residential sites is greater than the delivery of top structures and services resulting in a substantial housing backlog and beneficiary frustration.
Existing infrastructure and services are not utilised to full potential	Higher densities require more social services and facilities.
The development of new technology in the provision of low cost housing is likely.	Certain areas require de-densification
Use of the Government's subsidy scheme provides opportunities.	Funds for services and social infrastructure are limited.
	Long travelling distances from residential areas to work.
<b>2.3 Land for Industrial Purposes</b>	
The Port of Ngqura and adjacent IDZ is situated in close proximity to industries and a labour market	The Port Elizabeth harbour is not easily accessible to existing industry
Land is available for industrial development	Limited potential to expand the existing industrial areas
<b>2.4 Land for Commercial Purposes</b>	
Revitalisation of the Central Business District	Traffic congestion and insufficient parking in the Central Business District
Land previously owned by Transnet becoming available for commercial development	Businesses are vacating the Central Business District in favour of suburban localities
Businesses locating closer to residential areas	

	<b>2.5 Public Open Spaces / Conservation areas</b>	
	Higher density residential developments require additional open space.	Desire to “cherry pick” public open spaces for development.
	Areas of conservation value need to be identified and protected.	
	<b>2.6 Land for Community / Social facilities</b>	
	A large number of appropriately zoned sites are available for development for social and community facilities	General lack of funding to develop schools, hospitals, clinics, police stations etc.
		Vacant sites are targeted for other development
<b>3. ENVIRONMENT</b>	<b>3.1 Conservation of natural environment</b>	
	MOSS forms an open space network consisting of open space, natural areas and nature reserves	Lack of education, awareness etc.
	Natural processes provide services that are prohibitively expensive to replicate.	Valuable open space areas are still targeted for non-open space development
	Legislation is available to protect the natural environment.	Suburban open spaces are not included in NMMOSS
	Urban agriculture provides an opportunity to conserve green space while enabling economic activity	Limited resources are available for implementation and enforcement of environmental controls and legislation
		The co-ordination of environmental management is lacking
		If uncontrolled, urban agriculture can pose an environmental threat
		Portions of MOSS in private ownership need to be acquired by Council and for which funds need to be identified.
	<b>3.2 Conservation of the built environment</b>	
	Heritage areas can be protected and maintained as tourist attractions.	General lack of resources, maintenance, knowledge and awareness.
	A survey of heritage assets has been undertaken in the Central Business District	The negative impact of the transportation network on the environment

	New heritage areas and sites in previous disadvantaged areas need to be identified.	Ad-hoc identification of heritage sites instead of long term holistic approach.
		Incentives needed for the conservation of heritage sites.
		Lack of Heritage Register
<b>4. TRANSPORTATION</b>	<b>4.1 Transportation by Road</b>	
	Corridors are planned to link and integrate the city.	Limited opportunities for north / south links exist due to physical constraints.
		The promotion of public transport is needed to make existing infrastructure more effective and to relieve the need to provide parking.
		Long travelling distances exist between residences and job opportunities
	<b>4.2 Transportation by Rail</b>	
	Opportunity exists to use rail for public transport and to transport goods	Existing railway infrastructure under-utilised (e.g. Apple Express).
		Resistance from taxi operators and removal companies.
	<b>4.3 Transportation by Air</b>	
	Provision is made for the extension of the airport	Noise pollution created by the use of the airport.
	International status of airport	Gqebera not attractive - first negative impression to arriving tourists.
	Accessibility and central location of airport important for tourism	
	<b>4.4 Transportation by Sea</b>	
	Redevelopment of PE harbour possible with relocation of tank farm and ore dump to Coega IDZ.	Cannot link existing harbour to heavy industry
	Uncertainty regarding Portnet's plans for the harbour.	

<b>5. SOCIAL</b>	Demographic information available suitable to establish needs for hospitals, schools, clinics etc.	Even though the birth rates are lower than national average, the population is growing continually
	Municipality can initiate procedures to access Provincial Government funds to provide social facilities.	Low provincial budget for new social facilities
		Groups with special requirements need to be accommodated (eg: Land for Abakwetha, disabled people (provision in pedestrian areas for the blind and wheelchairs) & pensioners (safe places to collect pension)
<b>6. GROWTH MANAGEMENT</b>	Existing land management legislation can be utilised to achieve densification, integration and conservation	Bureaucratic and time consuming procedures are currently in place.
	A new approach to growth management can be initiated to achieve densification, integration and conservation.	The enforcement of existing policies and town planning scheme regulations is not effective.
	The MSDF can be used as a tool for growth management	Inconsistent decision making by Council
		Shortage of skilled municipal staff.
		New initiatives are required immediately