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THE RELATIONSHIP BETWEEN PLANNING AND ENVIRONMENTAL MANAGEMENT IN GAUTENG

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A research report submitted to the Faculty of Engineering and the Built Environment, University of the Witwatersrand, Johannesburg, in partial fulfilment of the requirements for the degree of Master of Science in Development Planning.

Johannesburg, 2009

DECLARATION

I declare that this dissertation represents my own independent work. It is being submitted to the Degree of Master of Science in Development Planning to the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination to any other University.

Gerard Michael Mac Carron

……

…….day of…….2009

ABSTRACT

The relationship between the planning and environmental management fields is examined at various government levels, but in more detail for Gauteng province and the Ekurhuleni Metropolitan Municipality. This study examines the evolution of each of the fields in the South African context. An analysis of the relevant national and provincial legislation, policies and procedures is undertaken to determine how this relationship is enacted and practised on a daily basis. The various planning and environmental policies of Ekurhuleni Metropolitan Municipality are critically examined in order to assess the extent of the issues at local government level. Two relevant case studies are discussed in which different outcomes of the current planning-environment relationship are described. The study concludes that there is duplication in application procedures as well as in public participation processes. The two fields operate separately and at different spheres of government, resulting in unnecessary delays and poor decisions being taken. The study proposes changes to improve the overall relationship.

ACKNOWLEDGEMENTS

I would like to thank Professor Alison Todes for her constant support and advice with this study and for sharing her knowledge and ideas on the subject.

I would also like to thank my wife, Taryn, for the constant support and encouragement to persevere with this research report.

I would like to thank my father, Ciaran Mac Carron, for the language editing of this research report.

Lastly, I would like to thank the Ekurhuleni Metropolitan Municipality for its financial assistance towards completion of this degree programme.

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GLOSSARY OF TERMS

BCDA	Black Communities Development Act (Act No. 4 of 1984)
CBD	Central Business District
CoJ	City of Johannesburg Metropolitan Municipality
Corridor	Broad band of intensive mixed-use activities along transport routes
DFA	Development Facilitation Act (Act No. 67 of 1995)
DLA	Department of Land Affairs (National)
DPSIR	Driving Force-Pressures-State-Impact-Response
EAP	Environmental Assessment Practitioner
EBOSS	Ekurhuleni Biodiversity and Open Space System
ECA	Environment Conservation Act (Act No. 73 of 1989)
EMF	Environmental Management Framework
EMM	Ekurhuleni Metropolitan Municipality
EIA	Environmental Impact Assessment
GDACE	Gauteng Dept. of Agriculture, Conservation and Environment
GDS	Growth and Development Strategy (of EMM)
GDT	Gauteng Development Tribunal (i.t.o. the DFA)
I&AP	Interested and Affected Parties
IDP	Integrated Development Plan (i.t.o. the MSA)
IEM	Integrated Environmental Management
LAB	Local Action for Biodiversity project
LDA	Land Development Area (i.t.o. the DFA)
LDO	Land Development Objectives (i.t.o. the DFA)
LSDF	Local Spatial Development Framework
LUMB	Land Use Management Bill (2008)
MSA	Local Government: Municipal Systems Act (Act No. 32 of 2000)
MSDF	Metropolitan Spatial Development Framework
NEMA	National Environmental Management Act (Act No. 107 of 1998)
Node	Any concentration point or area for an activity
Ordinance	Town Planning and Townships Ordinance (No 15 of 1986)
RDP	Reconstruction and Development Programme
ROD	Record of Decision (i.t.o NEMA or ECA)
RSDF	Regional Spatial Development Framework
SDF	Spatial Development Framework (i.t.o the MSA)
SEA	Strategic Environmental Assessment
SoER	State of Environment Report

1 INTRODUCTION

The relationship between planning and the environment is one that has been examined in various ways in recent times. Some literature on the subject broadly tries to separate these two fields However, in reality, these two fields are interrelated in many respects. Two schools of thought have therefore developed, one of which was proposed by Van Wyk (1999), who broadly identified and defined this relationship by incorporating environmental management, spatial planning and land-use management legislation under the broader field of 'Planning Law'.

The second school of thought was proposed by Claassen (2002) who stated that 'Environmental Management' incorporated spatial planning, development planning and land-use management. It is therefore evident that, whilst some confusion may exist on terminology, the two fields are closely related and intertwined.

In Todes *et al.* (2005), the relationship between these two fields is discussed from the perspective of institutional arrangements and from the need to integrate these two fields to reduce amongst other things, the administrative burden. In this study it is concluded that the relationship between these two fields has lead to, amongst others, unsustainable development in KwaZulu-Natal, and also includes some discussion on the Western Cape system. In a similar study Claassen (2002) focussed primarily on the problem nationally and in the context of the Western Cape. He argues that service delivery in both the planning and environmental management fields is being hampered by duplication and parallel legislation.

Claassen (2002) and Todes *et al.* (2005) and, at the broad scale, Van Wyk (1999), describe the areas of responsibility for environmental matters and planning matters that have been delegated by the country's constitution to different spheres of government (i.e. planning is both a provincial and local government matter, whereas environmental issues are primarily provincial). These two areas also fall under distinct national departments of government.

However it appears that the legislature does not view the two as interrelated fields and prefers to separate them. The relationship between these two fields is therefore brought into question.

Therefore, whilst the relationship has been described by various authors such as Claassen (2002); Todes *et al.* (2005); Todes *et al.* (2007); Van Wyk (1999); and Van Wyk (2007) as being problematic nationally and in other parts of South Africa, it is important to determine whether the same situation has arisen in Gauteng and, ultimately, in the Ekurhuleni Metropolitan Municipality (EMM) at local government level. In addition, the relevant policies that give insight to this relationship that have been developed by the EMM will also be investigated, although some are only in draft format and as yet have not been critiqued.

The specific audience that will be most interested in the findings will be practising professionals and academics in both fields, as well as those in other related fields at the local and provincial spheres of government. Although the scope of this study is relatively limited, the policy and legal authors at national government level may also find the information useful.

1.1 RESEARCH QUESTION AND HYPOTHESIS

This research report will attempt to answer the following question:
“Do current planning and environmental management legislative frameworks and their associated policies and procedures lead to unsustainable development in Ekurhuleni Metropolitan Municipality?”

Further sub-questions that arise are:

1. How is the relationship between environmental management and planning operating in practice (status-quo)?
2. What are the main reasons for this situation having arisen?
3. What legislative and procedural changes need to take place that would result in more sustainable development and are there are any other solutions?
4. Do case studies show that unsustainable development is the result of poor legislative frameworks coupled with poor procedural practices?

The hypothesis for this research report is that:
"Current legislation, policies and procedures in the planning and environmental management domains result in unsustainable development in Ekurhuleni Metropolitan Municipality."

1.2 THEORETICAL FRAMEWORK

The theoretical context follows a pragmatic approach with practical implications, practical case studies and practical solutions to the problem statement.

In the context of this study, the key theoretical framework that will be used to explore the hypothesis will be underpinned by the institutional arrangements and structure that is in operation within government departments. As Todes *et al.* (2007) have analysed the institutional arrangements with respect to both the planning and environmental management domains in KwaZulu-Natal, a similar study with regard to Gauteng and Ekurhuleni Metropolitan Municipality will form the framework of this study.

However, as Todes *et al.* (2007) indicate, there can also be a somewhat cyclical link between the legislation written in the institutional framework and the same framework being influenced by the legislation that it has written. Therefore the legislative context is also a critical component of the theoretical framework. This will be discussed in detail in Chapter 4.

1.2.1 Sustainable Development

As "Sustainable development" is a term that is commonly used by activists and the general public alike when describing planning and environmental management applications, this term is also a concept that forms part of the theoretical framework that will guide this study. There is no single definition for Sustainable development or a single perspective on sustainable development and, according to Shields (2001), between 1979 and 2001 over 300 definitions were identified. In the context of this report I will not follow the inter-generational equity approach of the Brundtland Commission which defined sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (United

Nations, 2001 and Van Wyk, 1999: 242), but will rather use the definition of sustainable development based on the three dimensions, or bottom lines, of sustainable development - economic, environmental and social (Shields, 2001 and Van Wyk, 1999), as represented in a Venn diagram in Figure 1.1 below. It is the critical balance between these components that is sustainable development and which forms part of the theoretical framework of this study.

Sustainable development is therefore critical to understanding the relationship between environmental management (the environment component) and planning which influences all three components in this theoretical dimension.

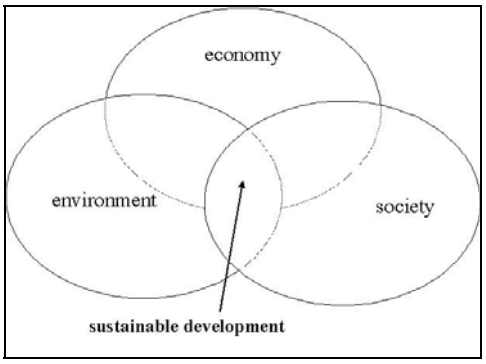


Figure 1.1 Sustainable Development (Shields, 2001)

Sustainable development has also been described by Campbell (1996) as the "Planners triangle: Three priorities, three conflicts". Campbell (1996) shows sustainable development as the centre of a triangle that, if achieved, balances the other three legs of the triangle (this is depicted in Figure 1.2 below).

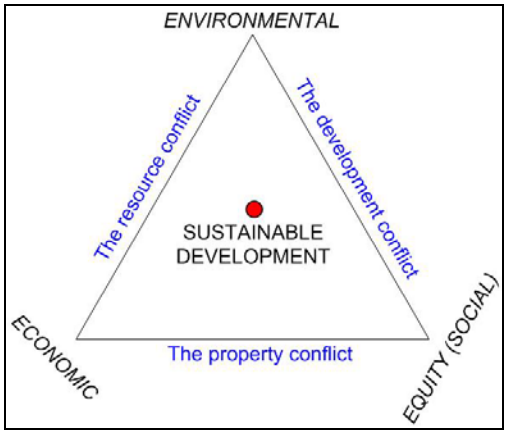


Figure 1.2 Sustainable development (after Campbell, 1996)

Campbell (1996) indicates that in order for sustainable development to be achieved, three distinct conflicts do take place, as shown in Figure 1.2, and a balance must be found. Campbell (1996) describes substantive and procedural paths for conflict resolution, but aims towards a combination of the two in order to achieve positive sustainable development. A positive relationship between planning and environmental management is precisely the type of compromise he is promoting and will be discussed later in this study.

The National Environmental Management Act (NEMA) (Act No. 107 of 1998) defines sustainable development as "the integration of social, economic and environmental factors into planning, implementation and decision-making so as to ensure that development serves present and future generations" (Van Wyk, 2007: 60).

Sustainable development should also be viewed from the perspective of the 'triple bottom line'. This approach is similar to that as described by NEMA and Shields (2001), but is aimed at the business sector. In the context of this report, developers are seen as profiting in some form from developments approved in terms of either planning or environmental applications. The 'triple bottom line' approach therefore looks at the total cost of the 'profit' of the development from an environmental and social perspective. The 'triple bottom line' is summarised as "people, planet and profit" by the social capitalist, John Elkington (Mother Jones, 2008). The focus of my study is not sustainable development but rather the influence that the environmental – planning systems have on the achievement of sustainability.

A further dimension of sustainable development relates to institutional arrangements and their effect on achieving sustainability. The Food and Agriculture Organisation (FAO) (2008) describes sustainable development as "the orientation of technological and *institutional* change in such a manner as to ensure the attainment and continued satisfaction of human needs for present and future generations." Chapter 38 of Agenda 21 of The United Nations Division for Sustainable Development "addresses the international *institutional* arrangements needed to further integration of environment and development issues at national, subregional, regional and international levels, including in the UN system" (United

Nations, 2007). This acknowledges that institutional arrangements are critical to the achievement of sustainable development.

This study will not directly discuss sustainable development, but rather show that poor institutions, policies and legislation may lead to development that is either less sustainable or unsustainable.

1.3 RESEARCH METHODOLOGY

The methodology employed in this study consists of the following:

1. Literature Review: This will form the basis of this study and there are many relevant works dealing with both aspects of the subject as interpreted and reviewed by existing authors;
2. An assessment of key national and provincial legislation relating to the subject;
3. Detailed assessment of key local government policies and the institutional arrangements with particular reference to the Ekurhuleni Metropolitan Municipality;
4. Detailed assessment of the procedures described in the legislation that highlight the relationship between planning and the environment.

   Planning Applications:

   Planning applications are made at either local government or provincial level, depending on the legislation that is followed. For the purposes of this study application procedures that will be addressed will be limited to generic procedures relating to Township Establishment and Rezonings. The local government procedures that will be analysed will focus on EMM and there will be an investigation into participatory processes.

   Environmental Applications:

   Environmental applications are made to the Gauteng provincial government (Gauteng Dept. of Agriculture, Conservation and Environment – GDACE) and the procedures and practices adopted by that department will be assessed by means of an analysis of the procedures that the regulations prescribe in a generic manner, with a further focus on what occurs in EMM and the participatory processes.

5. Detailed Case Studies.

   Two case studies will be investigated: one that involves participatory processes and one that involves the protection of the environment by undertaking development and the difficulties in achieving this.
6. Acquisition of relevant information by means of email and telephonic discussions; and finally
7. Combination of all of these elements to enable a suitable conclusion to be drawn and appropriate recommendations to be made.

1.4 ETHICAL CONSIDERATIONS

There are few ethical considerations for this topic since the research is primarily literary in nature. However, discussions took place with a variety of actors on some issues and some of the opinions expressed are personal opinions that must be kept anonymous. The persons with whom discussions were held were asked if they were prepared to be quoted in the report.

1.5 STUDY AREA IN CONTEXT

The province of Gauteng is part of the former Transvaal in northern South Africa (see Figure 1.3 below). The province has three metropolitan municipalities (Tshwane, Johannesburg and Ekurhuleni) within its borders as well as smaller local municipalities, and has a total population of approximately 9,4 million (HSRC, 2005).

The Ekurhuleni Metropolitan Municipality, which was officially formed on 5 December 2000 (Maluleke, 2005), is one of 283 local governments in South Africa and covers an area of approximately 2000km², with a population of approximately 2,5 million. The population density is around 1250 persons/km², as opposed to 513 persons/km² in Gauteng as a whole and 38 persons/km² nationally (EMM, 2007a). The rapid urban development and population increase, whilst trying to conserve as much of the natural environment as possible, give some indication of the scale of the urban environmental challenges faced by the EMM. There are other challenges which are detailed in Chapter 4.



Figure 1.3 The Location of EMM in South Africa (in red)
(Source: Municipal Demarcation Board; GIS: G. Mac Carron)

The EMM comprises nine towns formerly referred to as the East Rand (Alberton, Boksburg, Benoni, Germiston, Kempton Park, Edenvale, Springs, Brakpan and Nigel) each with their own 'group areas', the former white areas being near to the CBD and the former black areas located some distance from the towns leading to a "spatially fragmented, inequitable city" (EMM, 2007a: 5).

There has been some research on EMM by Maluleke (2005), titled *Environmental Management at Ekurhuleni Metropolitan Municipality.* Maluleke's work provides a useful indicator of how far the municipality has come in developing environmental policies over the last few years. His study largely focuses on the structure of the municipal departments, the implementation of Agenda 21 at the EMM and in the establishment of participatory channels in environmental matters for residents. Maluleke (2005) argues that without a formal environmental policy, as with other local governments in South Africa, there can be no proper environmental planning in EMM and he makes a strong argument for the introduction of strategic environmental assessment reports (SEA) at the local government level and he states that "Local governments should address environmental concerns in

a holistic manner in all phases. This implies that local governments should be pro-active in addressing environmental concerns...” Maluleke (2005: 83). Maluleke (2005) provides a useful basis on the environmental side from which to investigate the relationship between the two fields, and shows further investigation is necessary.

It should be noted that the author is employed by the Ekurhuleni Metropolitan Municipality as an Area Development Planner and will draw on personal experiences at the municipality.

1.6 RESEARCH LIMITATIONS

The following are the limitations of this report:

1. The research is focussed specifically on Gauteng and where applicable at the local government level, Ekurhuleni Metropolitan Municipality will used.
2. Only a very small number of case studies will be investigated.
3. The definition of sustainability must be extended beyond the ‘green’ issues to include the economic and social implications.
4. Only the implications on rezonings and township establishments have been examined.

The significance of this research is limited by the scale of the research. However it may be of interest to planning and environmental practitioners specifically in the Ekurhuleni area, but more broadly in the Gauteng context.

1.7 CHAPTER OUTLINE

The report is divided into the following chapters.

Chapter 1: Introduction
The topic, methodology and research questions are described.

Chapter 2: Literature Review
This chapter will examine key literature related to the topic at various scales.

Chapter 3: Relevant Legislation and Policies

This chapter will describe the origin and intentions of relevant legislation and policies at the national and provincial spheres of government.

Chapter 4: Municipal Policies – Ekurhuleni

This chapter describes the area and the issues, the organisational layout of the municipality, and an assessment of planning and environmental policies in Ekurhuleni.

Chapter 5: Procedures and Regulations

This chapter will describe the processes that are followed for certain types of applications in Ekurhuleni.

Chapter 6: Case Studies

This chapter will demonstrate the implications of the planning – environment relationship by examining relevant cases affected.

Chapter 7: Conclusion

This chapter summarises key findings from the study.

Chapter 8: References

Chapter 9: Appendices

1.8 CHAPTER CONCLUSION

This research is important as it can elaborate on the flaws in the relationship between planning and environmental management identified by Claassen (2002); Todes *et al.* (2005); Todes *et al.* (2007); Van Wyk (1999); Van Wyk (2007) and others. It will propose solutions to the problem in Gauteng and Ekurhuleni Metropolitan Municipality. In the quest for all developments to be sustainable it is important that government acts, policies, procedures and inter-relations be focused towards sustainable development (Van Wyk, 1999) in the 21st century.

This empirical research analyses various data sources to assess the relationship between the planning and environmental management fields that may currently be leading to unsustainable development. The next chapter will review existing literature related to this subject.

2 LITERATURE REVIEW

The literature that forms the foundation for this report has been assessed at different contexts in order to analyse the relevance to the study. This will therefore begin with literature at the international context and then the South African context. The literature in the context of the Ekurhuleni Metropolitan Municipality will be discussed in Chapter 4. The literature review does not cover legislation and policies at the various spheres as these are detailed in Chapter 3.

2.1 INTERNATIONAL LITERATURE

One of the leading authors on the subject of planning and the environment was Ian McHarg, his 1969 book *"Design with Nature"* (McHarg, 1971) being particularly significant. In his obituary in 2001, *The Pennsylvania Gazette* (2001) noted this book as "perhaps singly the most seminal and important book in our field of the 20th century."

In order to understand the relationship between the environment and planning, it is important to contextualise McHarg since his work is almost 40 years old. Much of his inspiration for *Design with Nature* is based on personal experiences, projects and research in his early years in the United Kingdom and later in the United States. This book was written at a time when cities began to grow and form metropolitan areas and the automobile allowed 'subdivisions' to take place further from the city centre thus expanding onto previously green areas. McHarg does not advocate containment of urban sprawl but rather more appropriate use of the land.

A second leading author on this subject is Michael Hough, with his work entitled "*Cities and Natural Process*" (Hough, 1995). This book explores similar themes to McHarg and in many ways updates McHarg's ideas: this is even acknowledged in the foreword when Grady Clay says that this is "expanding the footsteps of his great teacher Ian McHarg" (Hough, 1995: foreword). Nonetheless the book does explore newer ideas independently of McHarg.

McHarg, as both a planner and landscape architect, begins to analyse the best use from a perspective different from that of traditional urban planners, whereby

he analyses water courses, geology, vegetation, relief, etc. In a series of overlays he is able to determine which land is best suited to development in general and which type of development in particular. In this process he begins to advocate for green space within the urban context. Further, he guides in a step-by-step way the selection of uses which could arguably be regarded as the pre-cursor to modern Geographic Information Systems (GIS) in the pre-personal computer era. Figure 2.1 below demonstrates simplistically what McHarg (1971) proposed, and which time has shown to be a scientifically proven method of analysis of geographic space.

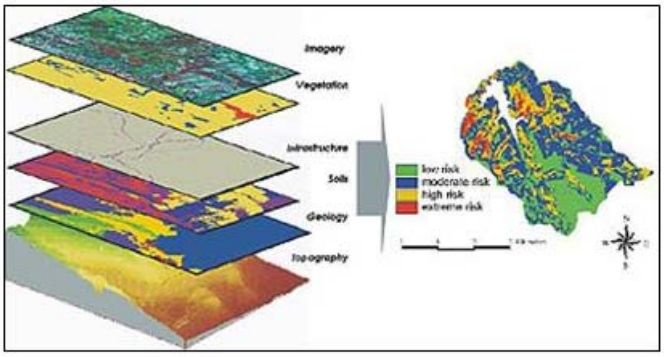


Figure 1.4 Layers in a Geographic Information System (GIS). (Source: Unknown)

McHarg (1971) and Hough (1995) both advocate the greening of existing cities and the provision of quality private garden space in less dense suburban areas, but mostly for higher density cluster developments in a larger natural setting. They call for the retention of green areas in new developments based on the fact that certain areas posed natural risks to urban areas which cannot be tamed by humans and therefore were best left undeveloped. Essentially what they proposed forms the basis of the modern open space systems and spatial development frameworks. These open spaces, which will be discussed in a local context later (promoted by Van Wyk, 2005) are strongly advocated by Hough (1995), who details plans for the linking of existing green spaces throughout an area using old railway routes, power line routes, etc. What neither author promotes is the idea that green space should be quantified and a certain amount provided for new developments as is done in Gauteng, but rather the best use of the land.

McHarg is influenced by Lewis Mumford, who is acknowledged in the book for his assistance in its compilation. Mumford (1937) was a strong critic of urban sprawl, an idea seemingly not shared by McHarg, but was a strong advocate of social infrastructure provision or community building, an idea which is shared by McHarg (1971) in a different way as he proposed that communities include the interaction with the natural environment, an idea also shared by Hough (1995). Mumford himself was influenced by Patrick Geddes who developed the triad of "Place-Work-Folk" (Dundee, 2008) and begins to tend towards the triple bottom line definition of sustainable development.

McHarg (1971) does not follow the Iberian, Italian or French landscape-architectural style, but is extremely pro-English in his style. The English essentially landscaped their entire country in the 18th century but in such a way that natural materials, indigenous plants and crops were used so that the 'natural' environment became somewhat self maintaining. McHarg contrasts this with other European styles, using the French King Louis XIV's Versailles Gardens as an example of nature that has been entirely conquered by man and which must be maintained as it cannot occur in such a manner naturally. He argues that plants are domesticated to the same extent as cats, dogs and horses and that this is not a suitable method of creating an urban green environment. Hough (1995: 6) similarly refers to this as a "'pedigreed' landscape of traditional civic design". McHarg (1971) further argues that nature does not occur in straight lines and shouldn't be forced to do so, whereas Hough (1995) argues that neat landscaped urban environments are in fact derelict.

It would appear that McHarg and Hough both argue for retention of as much of the natural environment as possible, which is particularly important in the South African context where exotic species and modified landscapes dominate the urban environment, although perhaps not as 'pedigreed' in civic design as those found in cities like Paris, Washington DC, etc.

McHarg (1971) and Hough (1995) make proposals that have some similarity to those of Ebenezer Howard's Garden City Movement in the United Kingdom. The Garden Cities were designed with a similar approach to the natural environment and the desire for man to be close to nature. However the proposed cities had

very defined ‘zoning areas’ and had no significant scientific basis for their design or analysis of the best use of the land. McHarg was opposed to simplistic zoning and this perhaps also sets it apart from the type of zoning used in Garden Cities, but he does not want scientists to investigate urban expansion as he sees that this would over-analyse and not holistically promote his ideal urban form.

McHarg (1971) argues that landscape architects rather than planners are best placed to promote the natural environment in the urban setting, but this was in a time before the development of environmental science and environmental specialists who are also trained to think holistically.

McHarg can truly be seen as a pioneer of the modern urban planning – environment relationship which was given impetus by his work and which was revolutionary in an era that did not use terms such as sustainable development, environmental management, etc. but had at its core the same key ideas although strongly focussed on the ‘green’ issues. Hough (1995) builds on the work of McHarg but does not try to describe the urban environment in distinct layers but rather in terms of certain key characteristics, namely water, plants, wildlife, urban agriculture and the climate.

Hough (1995) makes mention of sustainability and sustainable development throughout his book and tries to implement the economic, social and environmental definition to most of his proposals. He states the city was primarily developed for the purposes of economic and social needs of people and that the environment was all but neglected or modified. He says that urbanisation must become a “participant in the workings of the natural systems” (Hough, 1995: foreword) Hough also seems to share Mumford’s views on the participatory social city, including the wishes, habits, ideas, goals and industrial processes contained therein, but stresses the amenity that natural surroundings can provide for well-being.

The relevance of McHarg and Hough to this study, as described above, show that urban planning is fundamentally flawed, as the relationship to the environment has not been correctly incorporated into planning as it is “more concerned with utopian ideals than natural process as determinants of urban form” (Hough, 1995:

9), leading to urban wastelands with high energy demands and reduced social cohesion that must be addressed. Whilst neither author advocates for planners to manage the natural environment, they do advocate better urban planning which, given their proposals, implies that the broader field should include managing the environment.

It becomes evident that what McHarg proposed in the 1960s tends towards what is known today as Strategic Environmental Assessment (SEA). This implies that all variables for a particular geographic area or region are analysed to determine the best use of the environment. Similarly, Hough's analysis of certain key layers or features is also incorporated into the modern SEA, which will now be described in further detail.

A Strategic Environmental Assessment (SEA) is, precisely as it implies, an assessment of the environment at a strategic or very broad level, thus not concentrating on project specific detail as done in an Environmental Impact Assessment (EIA), as described in Figure 2.2 below. IEM refers to Integrated Environmental Management described later in this study.

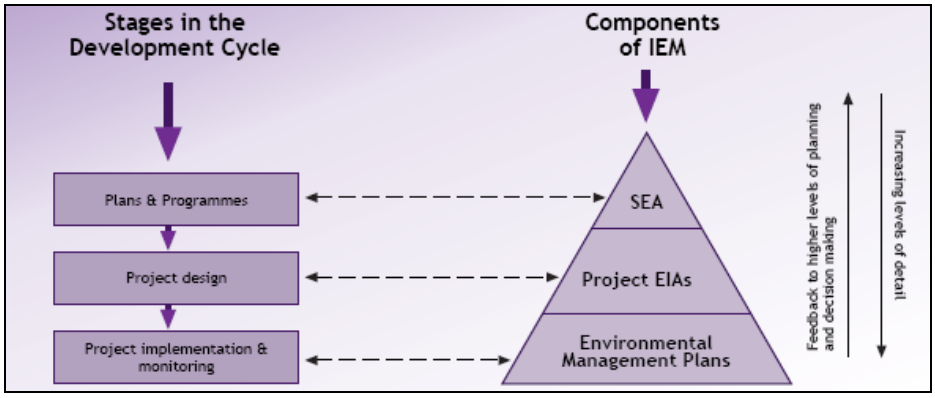


Figure 1.5 SEA v EIA (Source: DEAT, 2004b)

The processes for an EIA and SEA are similar as the impact–response–mitigation studies must be undertaken even at a broad scale (broadly summarised in Figure 2.3 below). As DEAT (2004) states, SEA is more concerned with the impact of larger scale "policies, plans and programmes". SEA could therefore be done to assess the Integrated Development Plan (IDP), the Growth and Development Strategy (GDS) or other policies that have a spatial

implication, usually on a local or district municipality; provincial or nation-wide basis.

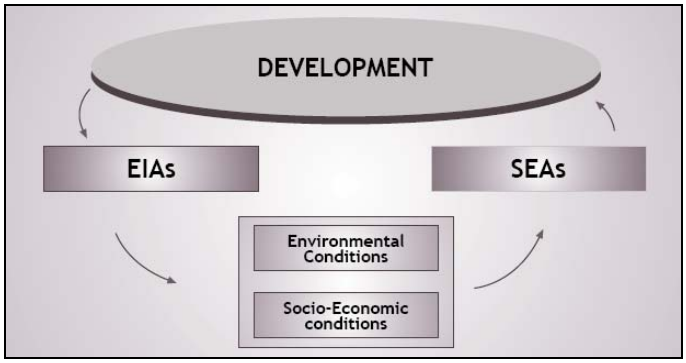


Figure 1.6 The relationship between EIA, SEA and development (Source: DEAT, 2004a)

Whilst the broad scale nature of the SEA does not allow for easy 'cause and effect' predictions, it does at least present an in-depth status quo report that somewhat resembles a State of Environment Report (SoER) which have in the past been used to sum up the existing conditions, particularly in the larger cities so that better planning and the IDP may be undertaken.

Thus, if one were to use a SoER and analyse the effects of the IDP or other policy for a particular region, this would essentially be an SEA. It should also be further noted that at the heart of an SEA is a drive towards sustainable development, similar to that promoted by Hough (1995).

In the international context the *World Development Reports* by the World Bank state that sustainability is "a shared goal at local, national and global level and that policies at these levels are required to enhance sustainability." (World Bank, 2006b).

2.2 SOUTH AFRICAN LITERATURE

This section will examine the works that have been written that deal directly with the subject of this report. Unfortunately there are very few authors who have examined the subject in detail and also there is very little work relating directly to Gauteng.

2.2.1 The Origins of Planning in South Africa

Planning is defined by Van Wyk (1999: 3) as "a formulated or organised method according to which something is to be done, a scheme of action." Planning has been formally carried out in South Africa since the arrival in the Cape of the Dutch settlers in 1652. The tenure of the land was changed from leasehold to freehold when the British occupied the Cape, resulting in a need to formalise registration of the properties following the 1813 Proclamation of Sir John Cradock (Van Wyk, 1999). This led to the first township establishment process which were overseen by the colonial government and / or the Dutch Reformed Church in the Cape. These townships were usually the first towns or villages in otherwise rural areas and were developed from farm land (Blumenthal, 1991).

Towards the end of the 1800s in Britain, town planning developed in reaction to health and other social needs within rapidly expanding cities. As Britain was the colonial power in South Africa at the time, British planning laws became the source for statutory planning in South Africa (Blumenthal, 1991). Van Wyk (1999: 83) states that the British "1925 Town Planning Act…formed the basis of South African Town Planning Legislation."

The rapid expansion of the population in the South African Republic (Transvaal) following the discovery of gold and the need for control of land uses lead to the first planning laws that form the basis of the Town Planning and Townships Ordinance 1986 (Transvaal) today. (Blumenthal, 1991)

As Blumenthal (1991) describes, regulation of land use until 1931 was done by means of title conditions or covenants (Van Wyk, 1999). In 1931 the Ordinance introduced zoning, based on the American system and, presumably, on the 1925

Town Planning Act. It was not until 1975 that spatial planning was legislated in the Physical Planning and Utilisation of Resources Amendment Act (Blumenthal,1991; Van Wyk, 1999).

The physical planning of South Africa became a tool of the Apartheid regime, resulting in an urban spatial form that will take decades to erase and much of the later planning legislation was in the interests of racial segregation, e.g. the Group Areas Act.

The day-to-day land use management functions of local municipalities are primarily concerned with property zonings and the associated zoning scheme. Van Wyk (1999: 21) describes zoning as “perhaps the most important device to regulate land use.”

Claassen (2002) advocates the continued use of zoning schemes as a method of urban management. However, he states that the development and management of these zoning schemes must make provision for environmental impact assessments (EIA). Claassen (2002) further argues for zoning schemes to be the single method of ‘environmental’ (according to his definition) management and enforcement. The advantages and disadvantages of zoning schemes are examined by Claassen (2002) but he clearly regards them as a method of certainty to people, who, if involved in long term planning, will be able to realise their full rights in-so-far as this relates to the protection of private property. Further, he argues a strong case for a single more effective public participation and arbitration in both planning and environmental matters.

Spatial planning has largely dominated the newer planning legislation in South Africa, firstly with the Land Development Objectives (LDO) introduced in the Development Facilitation Act in 1995 and this was followed by the development of Spatial Development Frameworks (SDF) as part of the Integrated Development Plan (IDP) for a municipality in terms of the Municipal Systems Act (MSA). In terms of provincial legislation Gauteng province has developed the Planning and Development Act but this is not yet in operation and is focussed primarily on zoning schemes and land use management. The Land Use Management Bill (2008), after the production of several White Papers and

rewriting, was the most recent development in the planning field but has yet to be passed by parliament. This means that at present there are a number of planning laws and processes that operate in a parallel fashion at the national and provincial spheres of government.

In terms of the management of the profession itself, the Planning Profession Act (Act No. 36 of 2002) was passed in 2002 and replaced the Town and Regional Planners Act of 1984 (Act No. 19 of 1984). This legislation primarily creates a more equitable system for professional registration and extends the field of planning beyond the traditional 'town and regions' approach towards a more spatial planning and integrated planning approach within the profession. This legislation also defines the field of planning differently to Van Wyk (1999) as "initiating and managing change in the built environment in order to further human development and environmental sustainability…", and it is significant that it fully recognises the need for planners to promote environmental sustainability. The 2002 act also allows for the delimitation of certain work to be undertaken by registered planners only, and indications are that this may soon be implemented.

The planning system has thus evolved from colonial, apartheid and post-apartheid influences and, although we have begun to see attempts to transform land use management in South Africa and Gauteng, much of the pre-1994 legislation is still applicable and prevents to some extent the transformation of South African cities (Van Wyk, 1999).

2.2.2 The Origins of Environmental Management in South Africa

Painting (1992: 300) states that the environment refers to "all of the surrounding things, conditions and influences affecting the growth or development of living things, not just people". Todes *et al.* (2005) acknowledge that environmental issues developed in isolation in South Africa and at a much later stage than planning. Van Wyk (1999) concurs, as she states that, whilst environmental legislation was established in the United States in 1970, it was not until 1989 that the Environment Conservation Act (ECA) (Act No. 73 of 1989) was passed in South Africa.

The ECA was developed along the concept of Integrated Environmental Management (IEM), the primary tool of this concept being the Environmental Impact Assessment which is a site-specific assessment of the impacts that the development will have on the environment. The IEM was first recognised by the apartheid government in 1976, and in 1980 the White Paper was published as a forerunner to the ECA (Van Wyk, 1999).

The late apartheid government in 1993 and the early post-apartheid government began to realise that a more integrated and holistic approach was needed to management the environment. This involved various White Papers and Green Papers, culminating in the White Paper on Environmental Management Policy for South Africa in 1998 (Van Wyk, 1999) that established certain principles for managing the environment and were followed shortly thereafter by the National Environmental Management Act (NEMA) (Act No. 107 of 1998). NEMA is essentially framework legislation and replaces most of ECA and Van Wyk (1999: 241) sees it as "the most significant event on the environmental legislation horizon in a long time."

Further developments in the environmental management field in recent times include the publication of the NEMA regulations in 2006 and the passing of field specific environmental legislation in the broader context of NEMA as framework legislation in recent years.

It is important to note that the environment is constitutionally important as Section 24 of the Constitution states that "Everyone has the right to an environment that is not harmful to their health or well-being, and to have the environment protected for the benefit of present and future generations, through reasonable legislative and other measures…" (Van Wyk, 1999: 50). Van Wyk (1999:50) also states that "environmental factors should be at the forefront of every decision relating to land-use planning."

It is evident that the environment, environmental management and sustainable development have gained significant recognition in recent years in South Africa.

2.2.3 The Relationship between Planning and the Environment

As mentioned in Chapter 1, Claassen (2002) takes the stand from the outset that 'Environmental Management' incorporates both planning and environmental (green) issues, essentially arguing that the management of the built environment is no less a part of the environment itself (Todes *et al*, 2005). This argument provides a suitable theoretical framework from which to discuss all the issues relating to the built environment as it is managed and legislated. Claassen (2002) summarises the history of planning and environmental management in order to reach his new definition. Similarly Todes *et al.* (2005) also analyse the evolution of the two systems with substantial focus on the KwaZulu-Natal situation.

The Todes *et al.* (2005) report was commissioned to study the relationship between planning and the environment in KwaZulu-Natal so as to provide suitable recommendations for the future improvement of this relationship and to restructure the government systems to achieve this. That report was the first phase of the project. In the second phase (Todes *et al*, 2007) examined the relationship further. In the 2007 report the methods of dealing with and managing environmental matters and planning matters in various countries and other areas in South Africa are examined, not only to explore the options available but also to assess the strengths and weaknesses of the systems in operation and their relevance to the KwaZulu-Natal system.

The 2007 report does have some relevance to this research report, as it examines the situation in the City of Johannesburg which, like Ekurhuleni, falls within Gauteng, and the jurisdiction of the Gauteng provincial government and therefore has the same national and provincial legislative basis as the EMM. Todes *et al.* (2007) explain the confusing departmental duties within the Gauteng context whereby the Department of Finance and Economic Affairs is the responsible department for planning matters (e.g. the Townships Board, GDT), whilst the Department of Agriculture, Conservation and Environment (GDACE) is responsible for environmental authorisations, as well as for strategic planning.

Strategic planning in this context may include such tools as urban development boundaries, indicating duplication since these are also prescribed by the municipalities in the SDF (in CoJ and EMM). Todes *et al.* (2007) show immediately that there are overlapping duties that lead to confusion and duplication at the provincial level.

In the relationship between environmental and planning matters at the local (CoJ) level, the 2007 report shows how site level decision-making is done in such a way that planning applications and environmental authorisations take place almost independently of one another, which result in a cyclical problem as changes are often required in design, affecting planning applications as well. Unfortunately the delays that result from a system at two levels of government and the lack of control that the CoJ has on the environmental authorisation applications result in public perception that the municipality is to blame for time delays. This may result in developers choosing to follow the DFA route to expedite applications.

The 2007 report by Todes *et al*, further analyses the departmental structure of the CoJ of the relevant departments dealing with and assessing both planning and environmental matters. The report explains how the CoJ separated the two matters into distinct departments, even though they had worked together in the past. The report argues for a more unified approach to planning in spite of the difficulties being faced by the two departments merely trying to manage the day-to-day workload of the administration. It is evident that the report advocates more 'cross-profession' training of planners and environmentalists to develop a merged department in the future.

The Todes *et al.* (2005) and Todes *et al. (*2007) reports provide broader discussions on the various aspects relating to planning and the environment and ultimately how they fit together and, in particular, the failure of strategic planning to incorporate environmental planning, thus providing the most comprehensive assessment of the problem.

2.2.4 Integrated Development Planning

Van Wyk (2007) builds on the subject of integration of the planning and environmental fields from a legal perspective and highlights the legislative deficiencies that lead to the current situation. However Van Wyk uses integrated development planning as the ideal goal which she states “remains a dream” (Van Wyk, 2007: 77).

It must be noted that Van Wyk does not specifically refer to integrated development plans, but to integrated development planning. This broader field would include all aspects of spatial planning, land use control and environmental management. In other words she argues for the integration of all these fields towards a common goal. The author further proposes that, in the context of their constitutional obligations, local governments should have the mandate to carry out integrated development planning, but she does acknowledge that municipalities are not able to carry out many of their obligations at present, for a variety of reasons, without and cannot assume additional responsibilities. The idea does however come from the national government’s own White Paper on Spatial Planning, which evidently does not have “buy-in” from all spheres of government.

Whilst Van Wyk (1999) clearly acknowledges sustainable development as a basis for legislation, in the 2007 report she simply mentions the sustainable development component of each act, and rather advocates broader integrated planning *per se*. There is no reference to EMM in any of these reports by Van Wyk and very little focus on Gauteng specifically, her analysis being rather from a national perspective. Nonetheless these reports do contribute substantially to this study.

2.2.5 Legislative Deficiencies

Although the report by Van Wyk (2007) clearly demonstrates the broader problems that have been developed by decades of legislation, some Apartheid and some post-Apartheid problems have not been rationalised. In relation to planning Van Wyk (2007: 74) quotes Judge Griesel, who states that the

legislation in its “present form is fragmented and cumbersome in the extreme.” Van Wyk does discuss the proposed Land Use Management Bill (LUMB) but regards it as somewhat of a retrograde since the current DFA has its own environmental authorisations which LUMB will not have, relying instead on NEMA as discussed previously.

2.2.6 Conclusion

The 2005 report by Todes *et al*. examines the relationship between the two areas by assessing application procedures as prescribed by legislation and policy. In Chapter 3, the Gauteng situation will be examined in a similar manner to assess the situation applicable to the EMM context. The 2005 report examines the processes followed and the duplication that is involved in the KwaZulu-Natal situation and this will be assessed in Chapter 4 of this study.

Van Wyk (1999) forms the basis of the investigation into the legal aspects that underpin the planning profession, especially as regards land-use management. However works by Claassen (2002) and Todes *et al.* (2005) and Van Wyk (2007) have also helped to the present author to examine the legislation. Van Wyk (1999) is an important source of information as she goes beyond simply listing the legislation but also indicates some of the procedures which are critical to my investigation and will be discussed further in Chapters 3 and 4.

2.3 CHAPTER CONCLUSION

This chapter has examined the relationship between planning and environmental management at various scales. Further this chapter has investigated the evolution of the two fields so as to better understand how the current situation arose. This chapter describes the literature and the works of other authors and forms the basis for the understanding of the overall planning-environment relationship in this study.

The origins and forerunners to the concept of sustainable development were also discussed and it is evident that this has been around, in some form, for many decades. The next chapter will examine the key legislation that has been

developed at the national and provincial spheres of government in response to the evolution of the planning and environmental management fields.

3 RELEVANT LEGISLATION AND POLICIES

The key legislation at the national and provincial spheres of government that are relevant to understanding of the planning–environment relationship is examined in this chapter. The associated procedures linked to this legislation will not be analysed as these will be discussed separately in Chapter 4.

This chapter begins by examining legislation at the national level. The following planning and environmental laws are discussed:

- The Development Facilitation Act – this is legislation designed primarily to fast track development, particularly housing projects.
- The Land Use Management Bill – this is proposed legislation that will try and rationalise planning legislation in South Africa.
- The Environment Conservation Act – largely repealed, this was the first legislation in South Africa that began to measure the impacts of activities upon the environment.
- The National Environmental Management Act – this is the current legislation that regulates and protects the environment and forms a framework for other related legislation.
- The Local Government: Municipal Systems Act – this brings about Integrated Development Planning and Spatial Development Frameworks and is important if municipalities are to achieve their developmental mandate.

Gauteng Province has a certain planning laws that will also be discussed. These include:

- The Town Planning and Townships Ordinance – this is old Apartheid era legislation that is still used for land use management planning and control.
- The Gauteng Removal of Restrictions Act – this land use management legislation allows property owners to remove conditions restricting the development of the land.
- The Gauteng Planning and Development Act – this is non-operational planning legislation that will rationalise planning in the province.
- Other policies – environmental legislation is enacted nationally but the province has developed a variety of environmental policies.

3.1 NATIONAL LEGISLATION

3.1.1 The Development Facilitation Act

The Development Facilitation Act (DFA), (Act No. 67 of 1995) is a nationally enacted piece of legislation that was designed to fast track the formal town planning procedures to realise the developmental goals of the Reconstruction and Development Programme (RDP) of the post-Apartheid government (Van Wyk, 1999), perhaps with similar intentions to the Less Formal Townships Act (Act No. 113 of 1991). According to the Department of Land Affairs (DLA, 2008), the DFA was drawn up as "interim legislation to override a mass of historically inherited planning legislation" (DLA, 2008: 4.1) and also to provide a basis for future planning law in the post-Apartheid era.

Roos (1997) describes the composition of the provincial tribunals, known in Gauteng as the Gauteng Development Tribunal (GDT). The key change in the GDT as opposed to local authorities' own tribunals is that the DFA requires experts and officials to undertake the decision making rather than politicians and should be seen as "wholly independent" (Roos, 1997: 74).

The DFA is founded on what are termed in the Act as "General Principles for Land Development" (Juta 2008b, Chapter 1 (3)). Many of the principles deal with more integrated planning and also aim to reform the spatial patterns in the post-Apartheid era. However, for the purposes of this study the principles that directly relate to this report are found in Section 3(1)(c) of the Act:

"(i) Promote the integration of the social, economic, institutional and physical aspects of the land development.

(vii) Encourage environmentally sustainable land development practices and processes." (Juta, 2008b)

Van Wyk (1999: 260) regards the DFA and the principles relating to the environment as "heralding a new approach to environmental issues" which should be scale-specific and strategic in dealing with land development applications. It is further evident from Van Wyk (1999). that the concept of sustainability forms a fundamental component of the DFA's underpinnings. The DFA, however, goes on to define its own environmental evaluation process,

which seems once again to duplicate or run in parallel to the environmental evaluation process as defined in the National Environmental Management Act (NEMA) (Van Wyk, 1999; Van Wyk, 2007)

It is the intention of the DFA to apply these principles uniformly throughout the country and all land development applications should therefore be consistent with these principles even if they are submitted in terms of provincial ordinances. The Ekurhuleni Metropolitan Municipality in fact requires these principles to be addressed with every land development application report, albeit superficially (i.e. does not generally influence the decision). The DFA also contains Land Development Objectives (LDO) that do to some extent resemble Spatial Development Frameworks (SDF) that form part of the Integrated Development Plan (IDP) as defined in the Municipal Systems Act 2000 (Act No. 32 of 2000) (MSA). Writing in 1999, Van Wyk noted that the LDOs would probably form this spatial component of the IDP. However at present both seem to exist in parallel.

The DFA contains its own procedures for the establishment of townships and rezonings (to be discussed in Chapter 4) that are entirely independent of any provincial legislation. The DFA therefore provides an alternative method for these applications and it is immediately evident that duplication and confusion will result in terms of planning applications as well. The City of Johannesburg (CoJ) municipality recently disputed the ability of the DFA and the GDT to approve applications within its jurisdiction and the court found against the CoJ on the grounds that the DFA "provides for a system parallel to the Town Planning and Townships Ordinance of 1986, and that no conflict exists between the two pieces of legislation" (Cox, 2008: 6). However, as Cox (2008) goes on to state, the CoJ argued that parallel systems would result in confusion and an "untenable" situation.

Cox (2008) sees the DFA for developers as a more efficient method of land development because of the strict timeframes that the DFA prescribes, this statement is supported by Todes *et al.* (2005: 36) who state that the DFA is "sometimes also used by applicants who believe that it provides a speedier or more effective handling of their application, regardless of whether it has special social or economic merit."

3.1.2 The Land Use Management Bill

The DFA will soon be repealed and effectively replaced by the Land Use Management Act (currently the Land Use Management Bill, 27 of 2008), scheduled for 2008 (Cohen, 2008). This has been 10 years in the making (Adam, 2008) but has recently been withdrawn from parliament (Kihato, 2008). This proposed act would have again encompassed the principles that the DFA strives to promote, particularly sustainability (Chapter 1 (4)(1)(d)), although it makes much less reference to environmental assessments, indicating that they will be dealt with in their own relevant acts, such as National Environmental Management Act (Act No. 107 of 1998) (NEMA) but Van Wyk (2007: 67) states this will "perpetuate the dual decision-making process" with regard to land development. Cohen (2008) also states that an integrated process would be preferable. In fact the Bill makes specific reference to NEMA throughout Sections 44(2); 50(1); and 53(1) which clearly indicates that environmental issues should be taken into account but addressed in a separate process. As part of the repeal of laws (Schedule 2), the Physical Planning Act (Act No. 125 of 1991) and the Removal of Restrictions Act (national) (Act No. 84 of 1967) are also repealed in their entirety as the Bill will encompass all that these acts made possible and can therefore be seen as an act that will rationalise planning legislation in the country.

Unfortunately, as can be seen throughout the Bill, the provisions relating to spatial planning and integrated development planning, still refer to the Municipal Systems Act, which means that all planning legislation is not incorporated into one Act (Bill). However, the spatial components of the DFA, such as LDA will no longer exist as the Spatial Development Framework (SDF) will become the sole spatial plan at the local level. Further, the Land Use Management Bill is also not clear on the status of existing provincial planning legislation, although the Bill clearly states that it seeks to provide uniform land use management systems, which may result in it replacing all of the provincial legislation.

Cohen (2008: 13) sees the legislation as "broad framework legislation" but that it is not able to address the problem of "procedural duplication for new developments" and "entrenches parallel decision making processes" (Adam, 2008: 48)

3.1.3 The Environment Conservation Act

The Environment Conservation Act (ECA), Act No. 73 of 1989 is seen as the first real step towards environmental planning in South Africa. The ECA introduced terms such as Environmental Impact Assessment (EIA) to South Africa, although this had been practised since 1969 in the USA (Hugo *et al.*, 1997). Hugo *et al.* (1997: 213), (citing Fuggle and Rabie, 1992), define an EIA as the "administrative or regulatory process by which the environmental impact of a project is determined". Hugo *et al.* (1997) summarise the purpose of an EIA as:

1. Aiding decision-making;
2. Promoting positive aspects and mitigating negative aspects of a project;
3. Developing solutions to environmental problems; and
4. Promoting communication and participation of stakeholders.

It is therefore evident that an EIA does not prevent development at all costs but rather finds solutions that will allow the development to take place with the least possible amount of impact on the environment, achieving a "desirable balance" (Van Wyk, 1999: 247). Hugo *et al.* (1997) regard the EIA process as a component of what they term "Integrated Environmental Management" (IEM). They also state that in South Africa the two terms have been used interchangeably, and incorrectly so. As will be described in Chapter 4, the procedures used for environmental management form a procedure that follows the IEM methodology, with the EIA process as a small component thereof. However the ECA legislates the EIA process, whilst IEM remained more of a policy statement until it was incorporated into NEMA in 1998 (Van Wyk, 1999).

Prior to promulgation of the ECA in the 1980s the environmental focus of the government was primarily on soil conservation, pollution and waste management (Todes *et al*., 2005). The ECA was therefore developed along the concept of IEM whilst mostly setting out the EIA process, typical in the ambit of a government of control and management in the late Apartheid era. The IEM process should also take into account "socio-economic conditions and cultural heritage" (Van Wyk, 1999: 250), which means that IEM tends to have many similarities to sustainable development as discussed in Chapter 1. In practise, however, IEM focuses mostly on the 'green issues'.

The ECA provides a schedule of so-called “listed activities” (as per government notice GN R1182 (Van Wyk, 1999)) that then trigger the EIA process on the basis that these activities may have- or are known to have- negative environmental effects. This means that authorisation must be obtained from the relevant authority (Todes *et al*., 2005). In the case of Gauteng this would be the Gauteng Dept of Agriculture Conservation and Environment (GDACE).

The ECA (in-so-far as the implementation of the listed activities and the requirement of an EIA) came into operation only in September 1997, not long before the greater part of the ECA was replaced by NEMA in 1998 (Van Wyk, 1999). Van Wyk (1999) further states that EIA procedures would continue until new regulations were published in terms of NEMA. As this took place in 2006 the ECA no longer applies, but its legacy with regard to EIA practices has established a new order in environmental management. One of the key points to ECA is that, in terms of its limited IEM methodology, an EIA was seen as a separate process from the overall project under development (Todes *et al*., 2005).

The sections of the ECA that have not been repealed or have not yet been dealt with by NEMA focus on the following areas according to ETU (2008):

- “protected natural environments;
- littering;
- special nature reserves;
- waste management;
- limited development areas; and
- regulations on noise, vibration and shock”.

3.1.4 The National Environmental Management Act

The National Environmental Management Act (NEMA), (Act No. 107 of 1998) attempts to take the concepts of Integrated Environmental Management (IEM) and sustainable development further, by legislating certain principles to this effect. According to ETU (2008) the principles that NEMA promotes and that are relevant to this study include:

- environmental management must put people and their needs first;
- development must be socially, environmentally and economically sustainable;
- there should be equal access to environmental resources, benefits and services to meet basic human needs;
- government should promote public participation when making decisions about the environment; and
- utmost caution should be used when permission for new developments is granted.

As Van Wyk (1999) notes, the principles of IEM are essentially echoed in the NEMA principles. It is also evident that sustainable development has been specifically mentioned in the Act (Van Wyk, 1999), and the definition that the Act provides for regarding sustainable development as described by Van Wyk (1999) were listed in Chapter 1, in defining “sustainable development”.

It should be noted that other constitutional obligations of a democratic state, such as effective public participation and access to information are also acknowledged. This is quite a paradigm shift from the ECA and planning legislation of the Apartheid era, but does bear some similarity to the principles developed for the DFA (Van Wyk, 1999) and those contained in the LUM Bill.

What is key to NEMA is to recognise it as ‘framework legislation’ (Todes *et al*., 2005; Van Wyk, 2007; ETU, 2008). According to Enviropaedia (2007), the other legislation that has been developed in terms of this framework includes the:

- National Environmental Management: Protected Areas Act (Act No. 57 of 2003);
- National Environmental Management: Biodiversity Act (Act No. 10 of 2004);
- National Environmental Management: Air Quality Act (Act No. 39 of 2004); and
- National Environmental Management: Integrated Coastal Management Bill.

The other related legislation will not be discussed further in this study. However they all have aspects that affect planning and urban development, but in the framework context, they must all conform to the NEMA principles, which means that they should also take sustainable development into account.

As part of NEMA's approach towards co-operative governance, the act provides that different spheres and departments of government should develop Environmental Implementation Plans (EIP) and Environmental Management Plans (EMP) (Glazewski, 2002; Todes *et al.*, 2005). But, as Todes *et al.* (2005) note, this is evidence that the government values integrated decision making and co-ordination but that the EIP has not been that successful in achieving this. The IDP and SDF of the municipality should also conform to the EIP in the provincial context, but as Todes *et al.* (2005: 42) conclude that, whilst the plans have great potential to achieve "integrated planning for land development and environmental management", co-operation between the environmental and planning authorities should be promoted, rather than a new system of plans being introduced.

A further aspect of NEMA that has been developed with further amendments to the act (Act No. 46 of 2003) relates to the prosecution for those who contravene the Act and its associated regulations or even the principles of NEMA (ETU, 2008; Feris, 2006). The Act makes provision for the establishment of a body known as the 'green scorpions' (Enviropaedia, 2007) to ensure law enforcement.

Enviropaedia (2007) states that the green scorpions are a body consisting of approximately 800 inspectors that "provides a co-ordinated response to environmental law enforcement across all departments and tiers of government. It includes park rangers, conservation officers, air-quality officers, marine and coastal enforcement officers, pollution and waste enforcement officers and

officials monitoring urban developments". Whilst some of these inspectors or job descriptions are not new, it is the approach towards a single co-ordinated enforcement system that the Act creates.

Unfortunately this is exactly where the Act once again creates duplication (perhaps in existing environmental inspectorates), specifically with regard to monitoring urban development whereby the local authorities' planning departments have inspectors monitoring the same sites from a different perspective and there is no synergy in this regard. The coordination and rationalisation of all of planning and environmental inspectorates at all spheres of government is urgently required to ensure sustainability is achieved.

Lastly, according to ETU (2008) NEMA allows a person to take legal action under the following circumstances:

- "to protect your own interest
- to protect someone else's interests who cannot do so
- on behalf of a group of people whose interests are affected
- if the legal action is in the publics interest
- if the legal action is in the interests of protecting the environment".

It will be shown in the case studies in this study that this ability to take action provides significantly more legal standing to the private individual and concerned groups of people than is allowed by current planning legislation.

3.1.5 The Local Government: Municipal Systems Act

The developmental mandate of the municipalities as envisaged in Sections 152 and 153 of the Constitution of the RSA (Act No. 108 of 1996), has been further developed for implementation in terms of Section 23 of the Local Government: Municipal Systems Act (Act No. 32 of 2000) in order to begin to achieve the progressive realisation of many of the rights contained within the Bill of Rights in Chapter 2 of the Constitution. Harrison (2006) defines this developmental state as "being concerned with promoting the economic and social development of communities". This definition tends towards some form of sustainable development (the natural environment aside).

The MSA therefore required that local government be developmentally oriented, and devise strategic plans to achieve this realisation. The form that this took was the Integrated Development Plan (IDP), an idea that Harrison (2006) and Van Wyk (2007) say was first conceived in the Local Government Transition Act (Act No. 12 of 1996). The IDP was refined in the MSA, and required an elected local council to achieve its minimum contents and to remain in force for a five year term (Harrison, 2006). The IDP in brief requires the following as listed in Section 26 of the MSA and by Harrison (2006):

- A long-term vision;
- a status-quo analysis on services;
- developmental priorities and objectives;
- development strategies;
- a spatial development framework;
- operational strategies;
- sectoral plans (e.g. water, transport, disaster, etc);
- a financial plan (budget); and
- key performance indicators and targets.

Harrison (2006) has described the IDP process as flawed on the basis of its inflexibility and the often all-consuming resources used in devising the plan. In the EMM this is not the case as together with other larger local governments, the resources and funding are available to devise a strong and valuable IDP document that can be effectively implemented.

Whilst the IDP is seen as the principal municipal 'planning' tool, in the context of this study, planning should be limited to spatial planning and land-use management (i.e. this does not include other IDP 'planning' components such as water provision, budget planning, etc.). To this end the IDP established the Spatial Development Framework (SDF). The SDF is required in terms of Section 26 (e) of the MSA which states that "a spatial development framework which must include the provision of basic guidelines for a land use management system for the municipality" (Claassen, 2002: 47).

The SDF is therefore a tool that forms part of the bigger IDP requirements. In Figure 3.1 Klug (2007) shows diagrammatically how these components integrate. Further Claassen (2002) illustrates his ideal hierarchy of plans, as depicted in Figure 3.2 below.

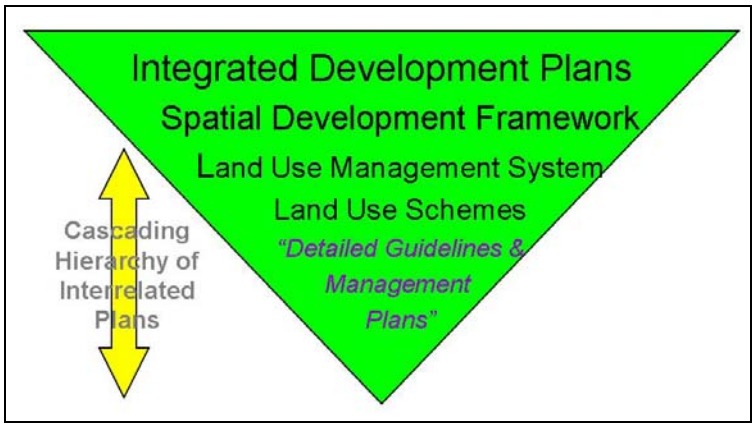


Figure 3.1 Hierarchy of Plans (Klug, 2007)

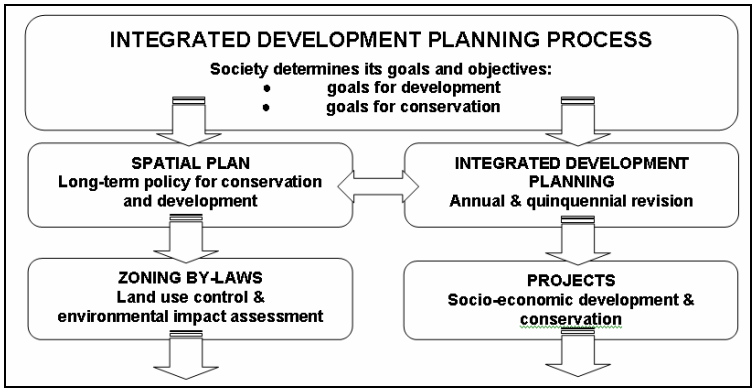


Figure 3.2 Hierarchy of Plans (Claassen, 2002)

The land use management schemes, (also known as Town Planning Schemes in the Ordinance (Claassen, 2002) and as zoning schemes in the Gauteng Planning and Development Act), are therefore still a requirement of planning in the post-Apartheid era. A new land use management scheme is currently being devised by the EMM to replace the 18 schemes currently in operation.

The new 'scheme' is, however, currently being developed in terms of the Ordinance, as this is the only operational piece of legislation that facilitates this process. It was envisaged that any new scheme in the metro would be undertaken in terms of one of the new acts (Gauteng Planning and Development Act or LUM Bill). The development of land use schemes is important to the operational side of the SDF (and IDP) and will be discussed further in section 3.3.1.

The SDF is a strategic planning document that sets out objectives in order to achieve a desired spatial form so as to redress spatial inequalities, indicate desired land use patterns and plan for future developments (Klug, 2007). At the regional level, which arguably the EMM is, the SDF should be seen as providing "broad guidelines" (Claassen, 2002: 63) for spatial planning. The SDF may also contain certain complementary guidelines such as an urban edge (Klug, 2007), but also must take into account the environmental and sustainability issues of the area (Todes *et al.*, 2005).

The relevance of the SDF to this study is that it provides the guide or the policy statement that promotes certain types of development. However, this does not imply that environmental authorisation will be obtained at provincial level for individual applications. The SDF is a spatial plan similar to that of the LDA (in the DFA), the EMP (in NEMA) and the long term plan proposed in the Gauteng Planning and Development Act (Claassen, 2002). It is therefore evident that, although the value of long-term strategic or forward planning is appreciated, the development of several similar but parallel plans further enhances the belief that there is duplication in the planning and environmental spheres. As discussed previously, the Land Use Management Bill makes provision for the SDF as its spatial plan, which may reduce the duplication to some extent. However the Bill may be reworked and may have a different spatial focus in future.

3.1.6 Conclusion

There is a significant amount of national legislation that controls both the planning and environmental spheres. The planning legislation is not limited to that discussed but also includes other legislation that is either outdated or soon to be repealed. It is immediately evident from the discussion that much duplication exists in terms of key requirements that both the planning legislation and environmental legislation require. It is also worth noting that, even within the planning legislation itself, there are duplications and parallel systems that promote further confusion. Whilst soon to be enacted legislation (e.g. LUM Bill) may go a long way to reducing duplication within the planning field itself, there is no evidence that environmental legislation will at any point be rationalised with planning legislation, in fact the LUM Bill seems to make it clear that these two fields will continue to be legislated separately. This is evidently the subject of a national study currently underway by the National Treasury[1].

The next section examines the situation at the provincial sphere of government which has, over time, drawn up provincial legislation to manage the urban environment.

[1] There is currently no information publicly available about this study.

3.2 PROVINCIAL LEGISLATION - GAUTENG

The legislation enacted by the Province is, in the context of this study, limited to planning only. Much of the legislation in Gauteng has been carried over from the former Transvaal Province and was developed over a significant time period and separately from that of other provinces. The principal planning law is the Town Planning and Townships Ordinance which has been revised several times since the early 1900s.

3.2.1 The Town Planning and Townships Ordinance

The Town Planning and Townships Ordinance (Ordinance No. 15 of 1986) is provincial legislation enacted by the Transvaal Provincial Administration, which came into operation on 10 June 1987 (Juta, 2008a). It was subsequently reassigned to the Gauteng Provincial Government on 31 October 1994 with some minor amendments (Juta, 2008a). This piece of legislation is commonly known as the "Ordinance" when used by planners and when referred to by other pieces of legislation and will also be used as such in this study. The Ordinance was drawn up essentially to control the establishment of townships, town planning schemes and the rezoning of erven (Blumenthal, 1991: 93). As Blumenthal (1991: 93) states, the purpose of the Ordinance was to "regulate urban land uses in the white areas of the Transvaal".

Control of land uses in the "black areas" of the then Transvaal was by means of the Black Communities Development Act (BCDA), (Act No. 4 of 1984), which was all but repealed in 1991, owing to the race-based nature of this legislation (Van Wyk, 1999). However certain components of the legislation relating to land use were not repealed.

The so-called "Annexure F" to this Act remains in force in the former township areas (black "locations" – not townships as defined in the Ordinance), within Gauteng and elsewhere. Some parts of the BCDA were incorporated into the Less Formal Townships Establishment Act (Act No. 113 of 1991). (National Legislation not discussed), leading to shortened procedures and "speedy delivery of land" (Van Wyk, 1999: 150).

Since rezoning and township procedures are both complicated and very rare in terms of these acts, this research report will not focus any further on this legislation, but rather the Ordinance under which most applications are made. Table 3.1 below indicates the relative quantity of applications by legislation received in Johannesburg between 1991 and 1995.[2]

Table 3.1 Applications Processed in Johannesburg (1991-1995)

TYPE OF APPLICATION	NUMBER PER ANNUM
Ordinance – Rezoning	550
Ordinance – Township	25
Ordinance / Scheme – Consent Use	1200
Removal of Restrictions	100
Less Formal Townships	5

Source: Greater Johannesburg Transitional Metropolitan Council (as cited in Roos, 1997)

In order to use this legislation to assess its relationship to environmental legislation, it is important to limit the possible applications in the ordinance to those dealing with the establishment of new townships as described in Sections 69, 96 and 108 of the Ordinance and also rezoning of erven as described in Section 56 (Roos, 1997).

The Ordinance has, in fact, been repealed in its entirety by the Gauteng Planning and Development Act (Act No. 3 of 2003). The second "primary legislative tool" that Blumenthal (1991: 93) indicates is the Removal of Restrictions Act. The importance of this piece of legislation is reviewed in section 3.2.2 below.

3.2.2 The Removal of Restrictions Act

The primary act that is most widely used nationally is Act No. 84 of 1967. However the Gauteng Provincial government has enacted its own legislation, namely the Gauteng Removal of Restrictions Act (Act No. 3 of 1996). (SAPOA, 2008; Van Wyk, 1999). In terms of Section 14 the 1967 Act is repealed in-so-far as it applies to Gauteng. This Act is intrinsically linked to the Ordinance and, although town planning applications can be made in terms of the Act, many of the procedures and processes that will be described in Chapter 4 are either very similar to or the same processes as those referred to in the Act (Juta, 2008c).

[2] No comparative figures were available from the EMM.

As Blumenthal (1991) notes, the Act allows property owners to remove conditions of title that prohibit the effective development of the site or land use controls which are controlled by means of the town-planning schemes. In Gauteng the local authority may “amend, suspend or remove a condition” registered against the title deed of the property (Van Wyk, 1999: 202).

The importance of this Act to this study is relatively limited but its relevance is two-fold: firstly, simultaneous town planning applications can be submitted alongside the application to remove restrictive title deed conditions in terms of the Act or a town planning scheme, in particular rezoning applications (Section 5(5)). Secondly, the removal of some title conditions could have an environmental effect, for example a condition prohibiting the extraction of borehole water.

It should also be noted that the Gauteng Act has also been repealed by the Gauteng Planning and Development Act (Act No. 3 of 2003) (SAPOA, 2008).

3.2.3 Gauteng Planning and Development Act

The Gauteng Planning and Development Act (Act No. 3 of 2003), which was gazetted on 17 October 2003, will only come into force once the associated regulations have been gazetted (SAPOA, 2008). Although there is little literature on the new Act, the procedures relating to rezoning and township applications will be examined insofar as this is possible prior to promulgation of the regulations.

The Gauteng Planning and Development Act (Act No. 3 of 2003) also repeals the Ordinance (No. 15 of 1986), the Gauteng Removal of Restrictions Act (Act No. 3 of 1996) and the Division of Land Ordinance (No. 20 of 1986) which controls the subdivision of farmland. It appears from the contents of the new act that, in some respects, it is a consolidation of the existing legislation, whilst also modernised and adapted for the new dispensation, especially as regards public participation.

The issue surrounding farmland subdivision will not be discussed in any detail but the environmental implications are noted. It should also be noted that comments from the national Department of Agriculture are usually required in these applications, in addition to those from GDACE.

3.2.4 Other Policies

The Gauteng Provincial Government has other policies related to planning and the environment. These include:

- The Gauteng Spatial Development Framework (GSDF);
- Gauteng Department of Agriculture, Conservation, Environment and Land Affairs Development Guidelines for Ridges; and
- Urban Development Boundary (UDB) (by GDACE), that is, the land uses within the UDB and outside UDB (EMM, 2007b).

As these policies are similar to others (such as the Urban Development Boundary and the SDF) or are overly detailed and not relevant to determining the overall planning-environment relationship, none of these policies will be discussed in further detail.

3.2.5 Conclusion

The key Gauteng provincial legislative acts have been discussed, not in their detailed procedures, but by examining their function and development. Much of this legislation is technically repealed but is still in daily use on the operational side of planning applications and land use management.

3.3 CHAPTER CONCLUSION

This chapter has assessed the various pieces of legislation that guide and enforce planning and environmental matters at the various spheres of government, with a specific focus on Gauteng. It is evident that legislation in the two fields has developed independently and this results in processes that are parallel. These processes will be discussed in more detail in Chapter 5 to demonstrate the realities of the parallel system.

There are a variety of other policy documents at national level, such as White Papers that have not been specifically discussed, as they are cannot be implemented and have formed the basis of many of the new acts or bills. From examination of the local government policy it is apparent that these have been adapted to their specific environment and can be more easily implemented.

In concluding this chapter it becomes immediately evident that there is a significant problem in the relationship between planning and the environment at all spheres (or levels). There is much duplication, repetition and separation that results in an inefficient system. It should be noted that some improvement towards rationalising both planning (on its own) and environmental legislation (on its own) at the national and provincial levels has been, or will be, taking place. There appears to be no political pressure to further rationalise or integrate the two systems.

The planning and environmental policies of the Ekurhuleni Metropolitan Municipality at the local government level are addressed in Chapter 4.

4 MUNICIPAL POLICIES – EKURHULENI

"The mission of EMM is to provide sustainable and people-centred development services that are affordable, appropriate and of high quality. It is focussed on social, environmental and economic regeneration of the city and communities, as guided by the principle of Batho Pele (people first) and through commitment of a motivated dedicated team." (EMM, 2007a)

It is evident from this statement that the EMM aims towards the triple bottom line of sustainable development. This provides a sound basis for analysis of the policies that have been developed by the metro, from an environmental and planning perspective.

This chapter will examine the Ekurhuleni situation. This will include a description of the area and its problems, including the results of previous studies. The layout of the departments responsible for planning and environmental matters is then described, followed by an analysis of the various environmental and planning policies of the Ekurhuleni Metropolitan Municipality.

4.1 EKURHULENI AS A PLACE

The Ekurhuleni area, formerly the East Rand, was sparsely settled by indigenous peoples prior to 1820 and later by the Voortrekker farmers in the 1840s. The land was primarily used for agriculture until the discovery of coal in the 1880s which was mined to supply the gold mines in Johannesburg. Shortly thereafter gold was discovered on the East Rand, particularly in Germiston, Boksburg, Benoni, Brakpan, Springs and Nigel.[3] The area is illustrated in Figure 4.1 below.

The result of the gold discovery was the rapid population expansion and the need to lay out towns in the late 1880s and 1890s. In addition to this, a railway line was built to link the mining towns to Johannesburg (initially for coal supply), to the Orange Free State and Cape Colony (1892), Pretoria (1893) and Natal Colony (1896). These railway lines all connected at Elandsfontein Farm (Germiston), which is still the country's largest railway junction (EMM, 2008d).

[3] Kempton Park, Edenvale and Alberton are not mining towns.

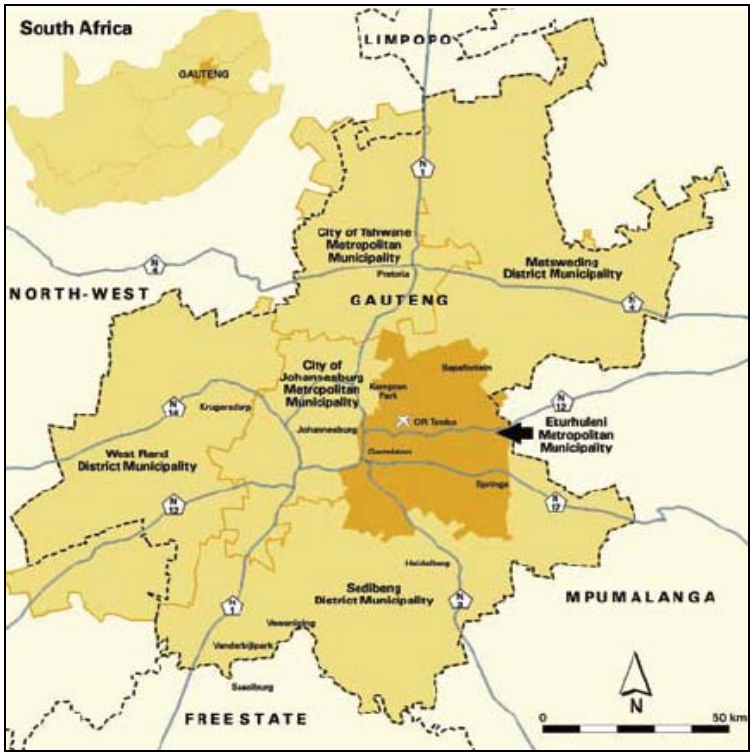


Figure 4.1 Ekurhuleni in the context of Gauteng Province (Source: EMM, 2008d)

The gold mining changed the face of the region in many ways. The population grew from a few hundred farmers in the 1880s to over 2.5 million people today and the former farm land has been developed into residential, industrial, mining and other land uses (see Figure 4.2 below).

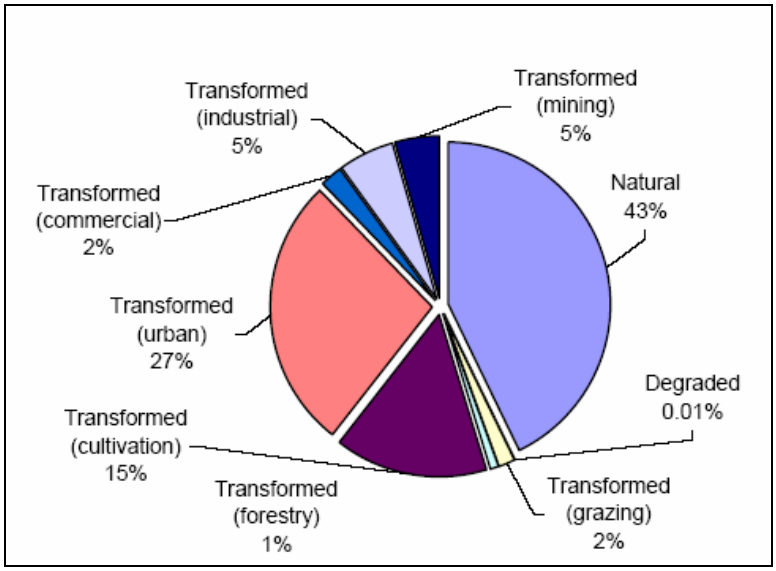


Figure 4.2 Land Uses in EMM (Source: National Land Cover 2000 as per EMM 2004)

It is evident from Figure 4.2 above that the EMM has a significant amount of natural landscape (43%) that will need to be protected or developed carefully and that there is another 18% of the land that is used for agricultural activities that may be developed for urban uses over time. The EMM is therefore a useful focal point, as the relationship between the environment and planning can have a significant effect on the future of the area.

Mining activities produced significant waste in the form of powdered and liquefied rock from underground workings. This waste was collected into mine dumps and tailings dams which still dominate much of the mine belt land along the main reef. Many of these dumps have been removed for reprocessing and are being dumped outside the urban areas. However they leave behind land that is polluted and unsafe for building work and this arguably poses the greatest environmental challenge to the mines and the municipality, as underground operations begin to cease and the rehabilitation process begins. The vast amounts of open land, often close to the CBDs (especially in Boksburg, Benoni, Brakpan and Springs), provide a unique opportunity to redevelop the land for residential and commercial uses once the risks of developing this land have been overcome. Further, the redevelopment of this land will unify towns that are split by mine land and prevent sprawl on the outskirts of the city. The mining belt is depicted in pink in the Spatial Development Framework (Figure 4.7) later in this chapter.

Since the mid-1900s mining in EMM has ceased to be the principal economic activity and has been replaced by manufacturing and commerce. The breakdown per sector is described graphically in Figure 4.3 below and it is evident that mining has declined to only 2% of the workforce in the area (EMM, 2008d).

The EMM is host to the country's largest railway junction, as well as to the country's biggest airport, the OR Tambo International Airport in Kempton Park. The airport is a significant catalyst for growth in tourism and transport/logistics within the EMM (EMM, 2008d).

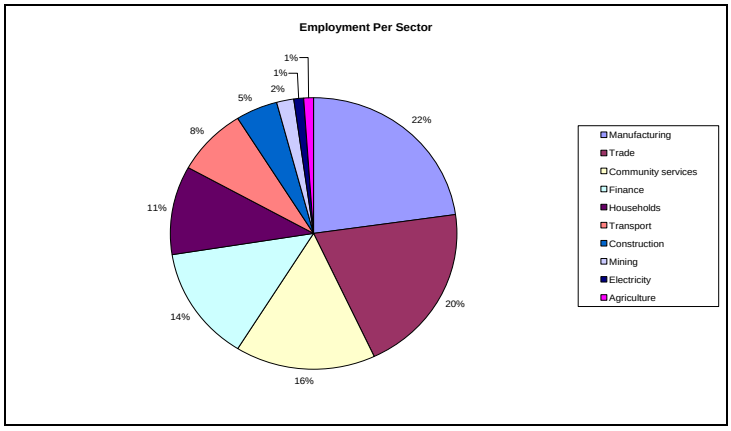


Figure 4.3 Employment by sector (Source: Adapted from EMM, 2008d)

From a planning perspective the EMM is highly fragmented, with a multi-nodal structure (i.e. 9 CBDs as well as regional shopping centres) with no clear metropolitan CBD (as in Johannesburg or Cape Town). Further, the towns still largely depict an Apartheid 'group areas' layout, the black and coloured areas being on the outskirts of the city, resulting in increased transport costs and pollution.

Since the area used to be administered by 9 municipal councils and 2 regional services councils there was very little attempt to plan on a larger scale and each town developed in its own way. Since the formation of the metropolitan structure, much emphasis has been placed on addressing the spatial fragmentation of the area as well as on homogenisation of the systems used by the municipality.

Therefore with respect to the planning–environment relationship the following issues arise in the Ekurhuleni context:

- The development of a practical institutional arrangement;
- The development of employees in planning and environmental matters;
- The development of citizens in planning (land use and spatial) and environmental issues;
- The move towards Integrated Development Planning – including the IDP, SDF and environmental policies;
- The planning and environmental challenged posed by rapid population increase and the need to provide land for residential development;
- The planning and environmental challenges posed by the eradication of the Apartheid spatial form; and
- The environmental challenges and planning opportunities for the redevelopment of the mining belt land.

4.2 ORGANISATIONAL LAYOUT OF EKURHULENI

This section will briefly describe the layout of the two key departments involved in planning and environmental applications at the Ekurhuleni Metropolitan Municipality, namely the City Development Department and the Environmental Development Department.

4.2.1 The City Development Department

This department is headed by the Executive Director, Ms Serah Mekgoe, who, in turn, reports to the Deputy City Manager: Strategic Services Cluster, Mr Johan Leibrandt and to the City Manager, Mr Patrick Flusk.

The department is divided into 3 sections, namely:

- Land Use Management;
- Spatial Planning; and
- Planning Support Services (including GIS).

The department also has representation at Customer Care Centre (CCC) level which, whilst essentially part of the Land Use Management section, actually reports directly to the Executive Director.

The department was formerly organised into the three regions of the metro, but these have gradually been phased out and staff redeployed or grouped at the corporate office. The departmental organogram has not yet been finalised and so the structure depicted in Figure 4.4 is how it currently operates in practise. Whilst the structure effectively brings planners to the different communities (towns) for which they plan, it also results in a disjointed department where there is very little communication or interaction between officials who are not managers. There are plans to further restructure the system, and this may result in spatial planners also having a presence at the CCC level. Applications are currently referred to spatial planners in the corporate office, resulting in delays in processing times. In addition spatial planners currently have very little direct interaction or knowledge of the urban environment for which they are responsible, which is not conducive to providing satisfactory analysis of the applications.

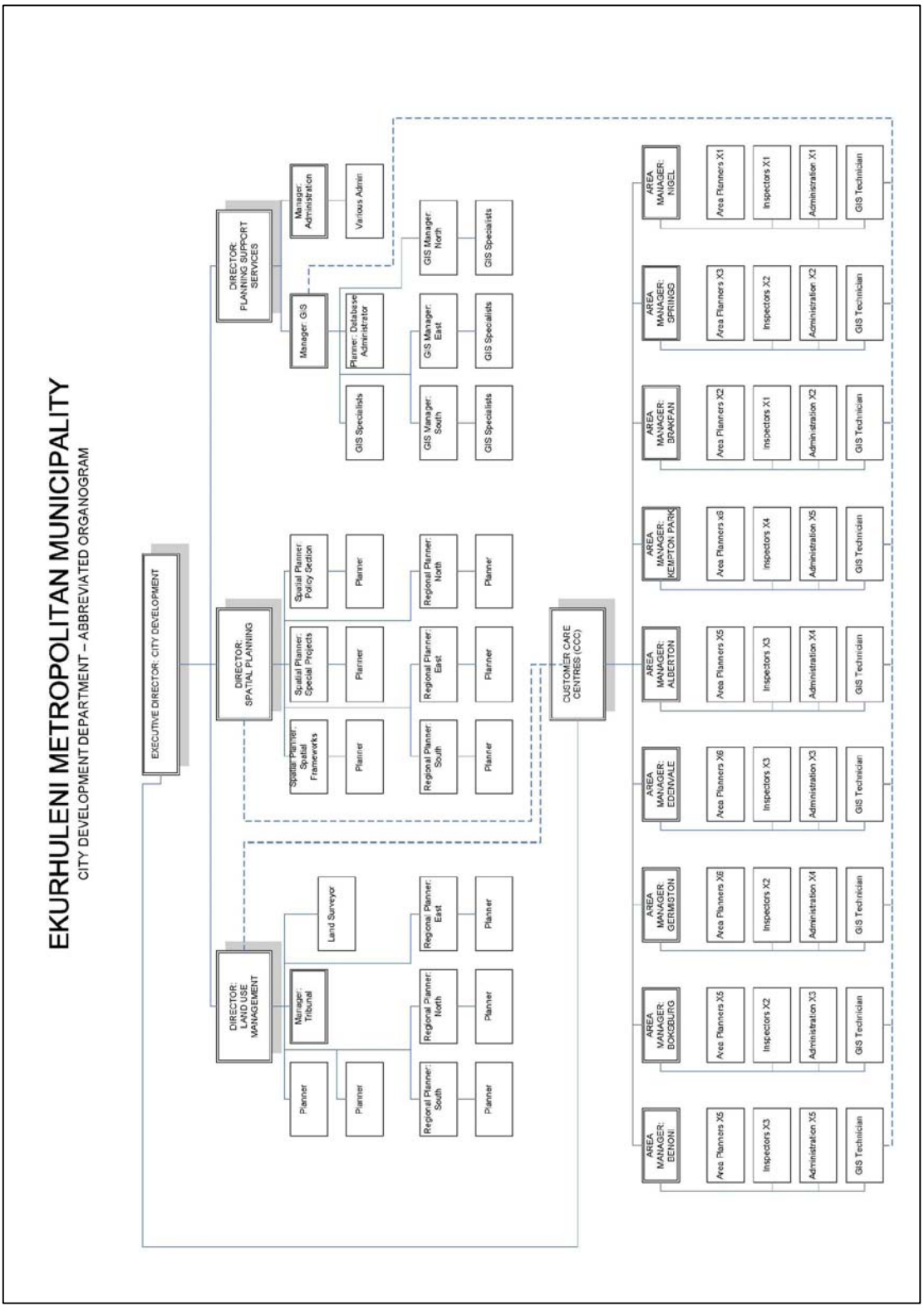


Figure 4.4 City Development Departmental Organogram (As adapted from departmental information; Diagram: G Mac Carron)

4.2.2 The Environmental Development Department

This department is headed by the Executive Director, Mr Mandla Sithole, who, in turn, reports to the Deputy City Manager: Operations Cluster, Mr Mkhabela Sibeko and to the City Manager, Mr Patrick Flusk.

This department is responsible for a variety of 'environmental' matters, such as solid waste removal and the maintenance of parks and cemeteries. One section of this department is the Policy and Planning Section, which deals with environmental policy development, education, law enforcement and impact management. The Planning and Coordination and Impact Management environmental officers deal directly with EIA and similar applications that are project-specific. The departmental organogram, as adapted, is shown in Figure 4.5 below.

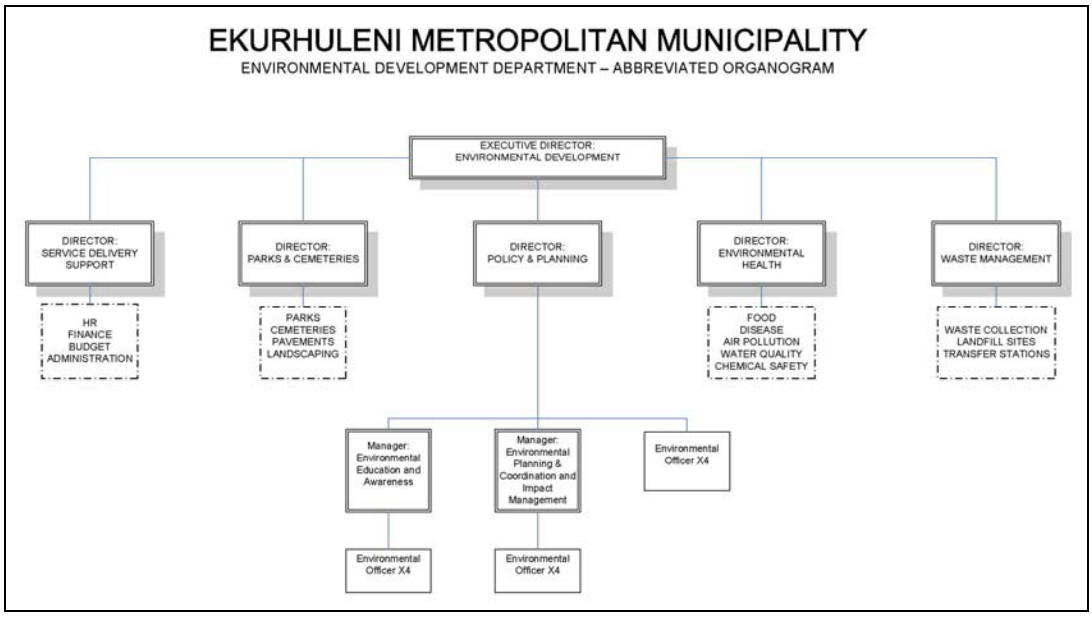


Figure 4.5 Environmental Development Departmental Organogram (As adapted from EMM (2008d) and Maluleke (2005); Diagram: G Mac Carron

The Environmental Development Department is a large department employing many people ranging from grass cutters to impact specialists and land-fill site managers. The focus is, however, on the Policy and Planning section.

4.2.3 Interdepartmental Relationships

From the author's personal experience the relationship between the two departments is almost non-existent. The two departments operate entirely independent of one another with very little interaction. The nature of policies such as the spatial development framework require some input from the Environmental Development Department, but in day-to-day land use applications (which are circulated to them if there are environmental concerns) there is very limited input from this department which has very limited resources.

There have been some attempts in recent times by the Environmental Development Department to try to make land use planners more environmentally aware by hosting interdepartmental workshops so that potential impacts can be more easily recognised. This should lead to improved decision making about the impact of a development upon the environment.

Although the procedures will be discussed later in this report, it is important to note that land use applications that have a potential environmental impact (determined by the land-use planner checking if the activity is listed) are sent by the City Development department to GDACE for comment. GDACE may then request a Basic Assessment or Environmental Impact Assessment which will then be commented on by the Environmental Development Department on behalf of the municipality. GDACE will then issue a Record of Decision (ROD) back to the City Development Department in order to enable it to continue with the land use application, such as rezoning or township establishment.

4.2.4 Conclusion

The effectiveness of the current organisational layout of the departments is questioned. It is the author's opinion the Planning and Policy section of the Environmental Development Department should be housed in the City Development Department. This would allow daily interaction between environmental and planning officials and ensure that service delivery is improved whilst, at the same time, improving the quality of the urban environment.

Further, it is suggested that all environmental comments and interaction with GDACE be coordinated via the Impact Subsection rather than via GDACE as this would ensure that proper environmental planning and enforcement could take place.

4.3 EKURHULENI POLICIES

Before the individual policies are analysed it should be noted that planning competencies as envisaged in Schedules 4 and 5 of the Constitution of the RSA (Act No. 108 of 1996), allocate municipal planning functions to local government (Cohen, 2008). Environmental competencies are reserved for the provincial and national spheres of government, unless certain functions are specifically allocated to local government. However despite this, municipalities do develop their own environment related policies that may be used when assessing applications, commenting on environmental applications from provincial government and the development of parks and open space facilities.

In this section there are three categories of policies developed at the Ekurhuleni Metropolitan Municipality that will be discussed, namely:

General Policies:

- The Growth and Development Strategy

Planning Policies:

- Town Planning Schemes
- Spatial Development Framework
- Densification Framework
- Other land use policies

Environmental Policies:

- State of Environment Report
- Environmental Policy
- Environmental Management Framework
- Biodiversity and Open Space Strategy.

4.3.1 General Policies

The Growth and Development Strategy 2025

The EMM developed the Growth and Development Strategy 2025 (GDS) and its aim is well defined in the document itself:

"The GDS is a strategy, not a policy document, for all sectors of society. It is not just a local government strategy, but is intended to build a common vision and purpose across traditional barriers between government, the private sector and civil society" (EMM, 2005b: 2). "The GDS provides a framework and point of reference for all the EMM's plans, policies and strategies in its various areas of operation. The broad development strategies and targets contained in the GDS will be further contextualized and refined in the IDP and in the various sectoral strategies and policies of the metro" (EMM, 2005b: 2).

It is perhaps interesting that the GDS sees itself as the point of reference for all policies in the metro, and that the later Environmental Policy (2007) sees itself even feeding into the GDS as illustrated in Figure 4.18 below. This perhaps indicates that the EMM has moved towards placing a higher value on the environment than in the past and is striving to achieve true sustainable development.

The GDS is a policy that describes the status-quo (in a similar manner to the SoER) of the EMM in terms of "three broad developmental areas: infrastructure and services, economic, and social." (EMM, 2007a: 4). There is no specific attention given to the natural environment, as the GDS recommends that this be managed in terms of the EMF. The GDS does not have a strong sustainable development theme, which is quite unfortunate, since it sets many of the longer term developmental goals for the EMM. As with other metropolitan municipalities (e.g. City of Johannesburg and City of Tshwane), the IDP process limited the forward planning ability to a very short time period (i.e. 5 years). The GDS should therefore be seen as a situational analysis taken in 2005, and the proposed changes and developments that are envisaged over the following 20 years to reach a desired city form in 2025.

The IDP will therefore form the short-term operational and budget plans that will be used to achieve this goal. The relationship between these two plans is diagrammatically illustrated in Figure 4.6 below.

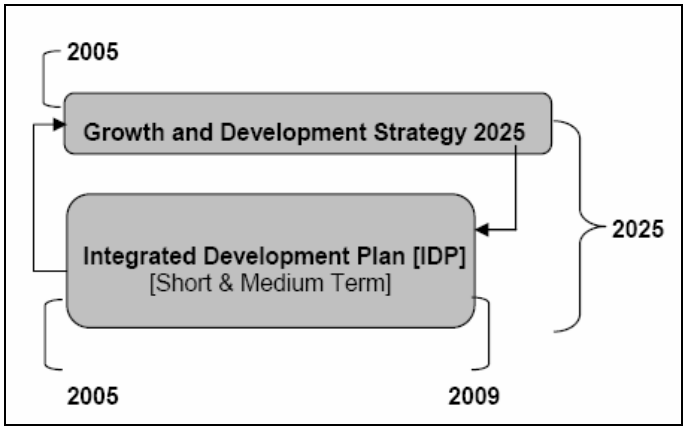


Figure 4.6 The IDP and GDS Relationship (Source: EMM, 2005b)

4.3.2 Planning Policies

Town Planning Schemes

The town planning schemes in the EMM were developed in terms of the Town Planning and Townships Ordinance (Ordinance No. 15 of 1986) as described in the previous chapter. The development of these schemes was entirely for the purposes of land use management to promote the "health, safety and welfare of the community" (Mahubane, 1998: 26). Although deemed by some to be outdated, the parcel-by-parcel management of land uses is still required in terms of the MSA, the LUM Bill, etc. and will therefore remain a key component to planning in the South African context.

To this end, the EMM has embarked on a process to amalgamate 18 schemes in the Ekurhuleni area – a monumental task. The author's personal experience and involvement in the project have demonstrated how time- and resource-consuming this task will be. As it is essential that land owners are not arbitrarily deprived of their land rights, a new scheme must accommodate all possible definitions, restrictions and rights of the former 18 schemes.

The focus of this study is not to discuss the development of zoning schemes, but rather to assess their relationship to environmental matters. To this end, the draft scheme clauses for the new scheme mention only that all uses must at all times comply with the requirements of NEMA and GDACE, with no further mention of the environment, except perhaps to say that the physical environment is mentioned, particularly in dolomitic areas (EMM, 2008a).

Spatial Development Framework

In terms of the MSA the EMM was obliged to develop an SDF for the metropolitan area as part of the IDP process. The EMM's SDF has been devised at three strategic levels: a metropolitan scale plan (MSDF), with limited detail; 3 regional scale plans (RSDFs), with increased detail; and many local spatial development frameworks (LSDFs) that provide erf level detail and are used to assess land-use applications. Todes *et al.* (2005) note that the scale of the SDF usually means that it has limited value for decision-making and that the EMM MSDF "indicated broad, desirable land use patterns and is therefore not a mechanism intended to evaluate individual land use applications." (MSDF, 2005: 147) it is therefore evident that, in the EMM the scale issue has been addressed to make the SDF more useable. The LSDF more closely resembles the 'structure plans' that were used prior to the development of the SDF and are to be used for the consideration of all application types. "If no LSDF is available for a specific application site, then the RSDF can be used to consider the application" (MSDF, 2005: 149).

The SDF documents provide the best planning tool at municipal level and are also used to guide development applications to ensure that the spatial development of the city is as envisaged by the SDF. The SDF also contains other planning tools, such as the urban edge, as described previously.

The SDF also acts as the LDO as required by the DFA (Swanepoel, 2008). Although this has been found to be problematic in the City of Johannesburg (Gildenhuys, 2008), it would at least mean that the EMM is not duplicating two procedures which essentially have the same intent. The LDO will therefore not be discussed further in this chapter.

The SDF lacks a solid environmental basis or underpinning. Although environmental protection is acknowledged, this is mostly with reference to the urban development boundary. The SDF requires that a comprehensive Open Space system be developed and that LSDFs take cognisance of the Environmental Management Framework. It should be noted that future LSDFs will be significantly more detailed on environmental aspects than was the case until 2008 (EMM, 2007a).

The approved Spatial Development Framework that covers the entire EMM in limited detail can be seen in Figure 4.7 below. LSDF Area 8 (depicted in Figure 4.8) which guides development in the Alberton CBD and surrounding suburbs has a chapter dedicated to the environment but the discussion is very limited and generalised. It is important that an SEA of a scale relevant to the LSDF area be developed and, in fact, the LSDF makes this same statement when it calls for environmental scoping reports to be developed for various precincts within the LSDF area. It is important that the report has taken cognisance of many of the environmental requirements (such as flood lines) and other environmental constraints on developments of the plan. Further, the LSDF makes specific recommendations towards the development of an Open Space System in the area (EMM, 2005).

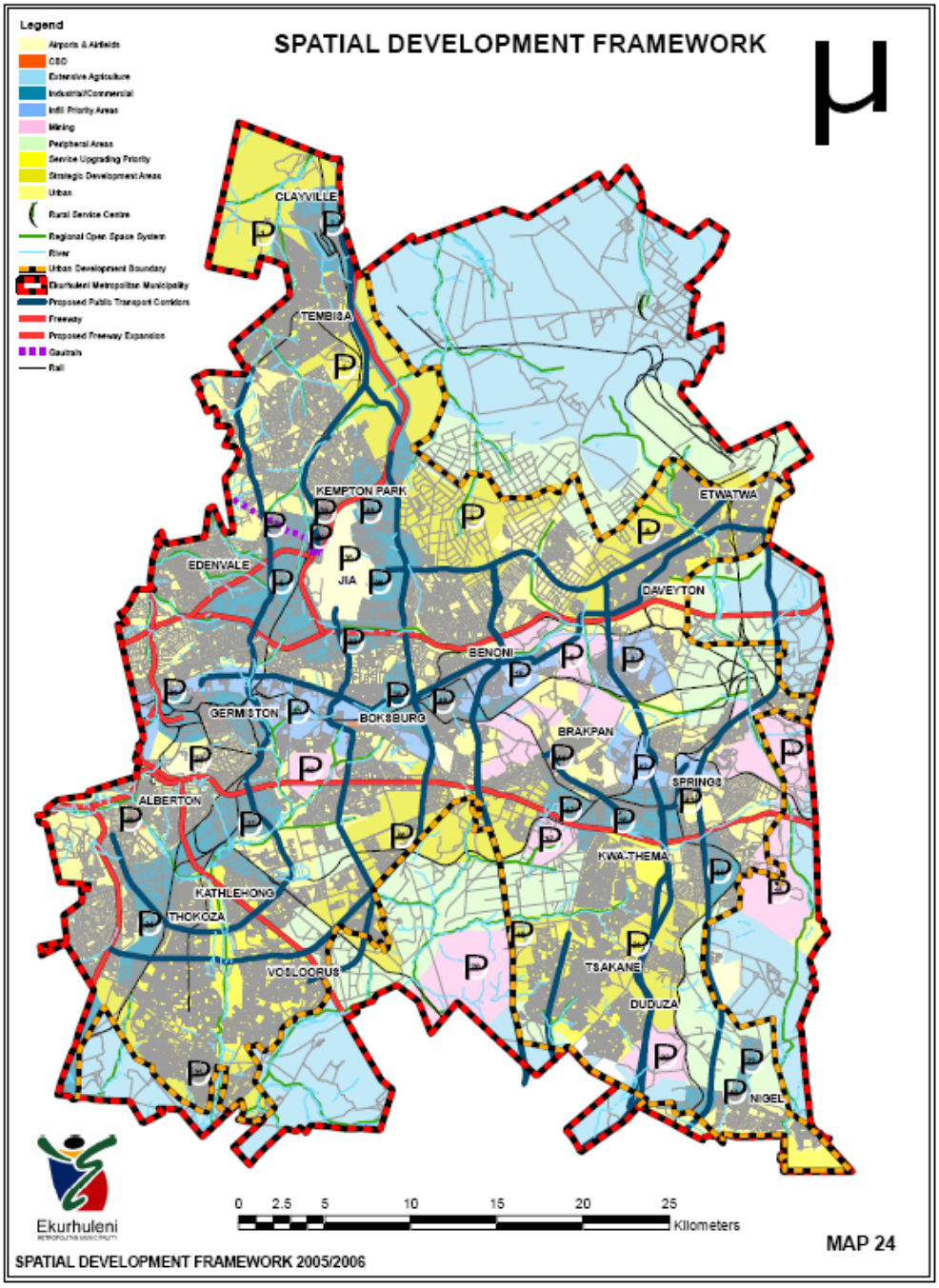


Figure 4.7 EMM Metro SDF 2005/2006 (Source: EMM, 2005)

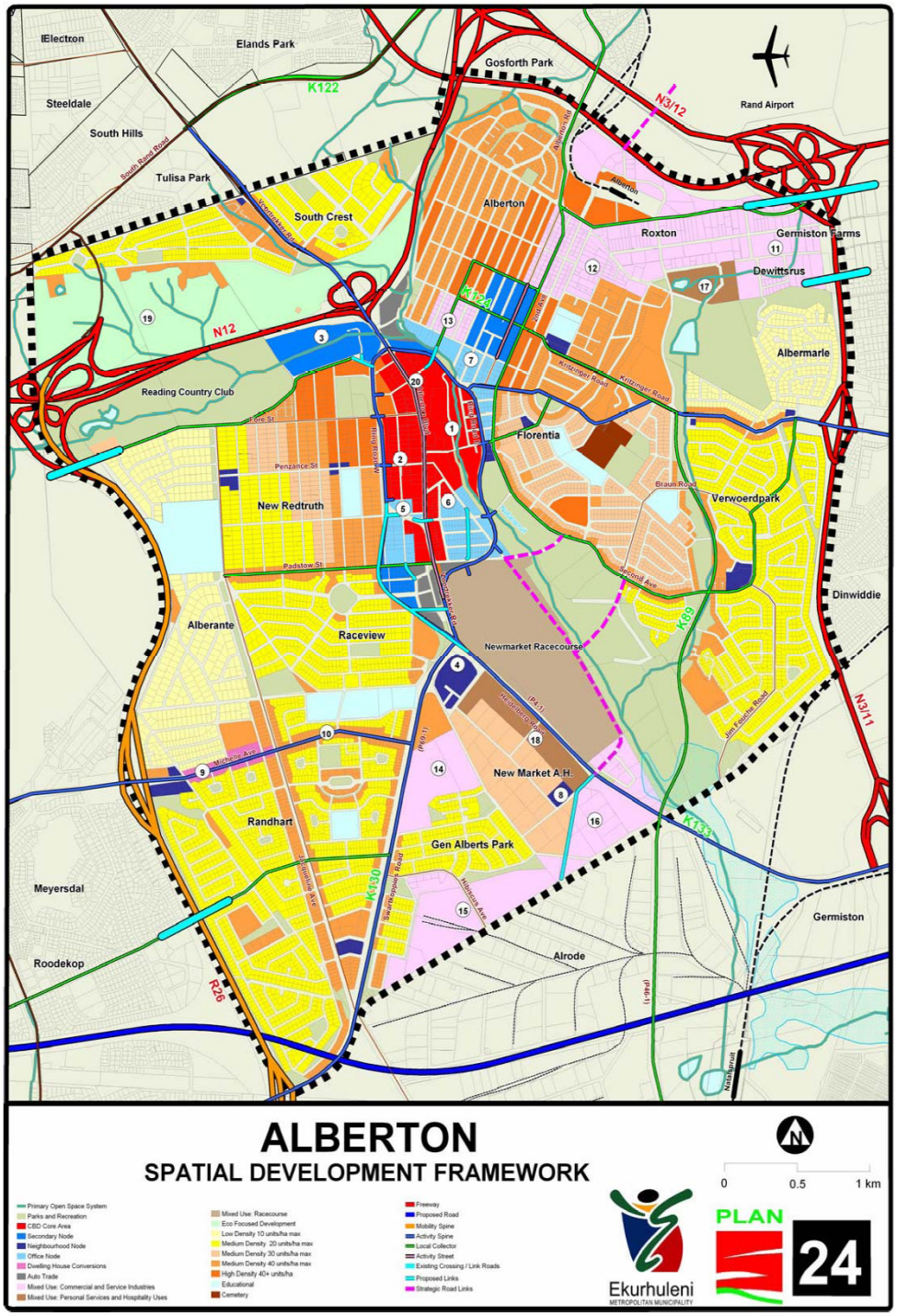


Figure 4.8 Local Spatial Development Framework (Source: EMM, 2005)

The Densification Framework

The EMM was required to develop a uniform policy to regulate densification within the metro. In line with Mumford (1937) the metro recognises that urban sprawl cannot be allowed to continue unabated, as lower densities lead to increased maintenance costs for municipal services (water, sewers, roads) that are not factored into the costing of a developer. It is also important to recognise that lower densities neither permit the effective development of public transport systems nor adequately support the existing transport systems.

The density framework is just that: a set of ideals to which other planning policies in the metro should subscribe, in particular the LSDF (EMM, 2008b).

The density framework recognises the importance of the environment within the context of the policy. The policy also acknowledges, rightly, that the environment on the edge of the city is protected by promoting the densification of existing developments, but that any substantial change in densities within the area also needs to be environmentally beneficial and sustainable. Overall the policy is a step in the right direction but when implementation is discussed, it refers directly to environmental procedures of NEMA and GDACE. Therefore, although some attempt has been made to integrate the environment and develop a sustainable policy, the existing system prevents full integration so that it is a policy based on planning only.

Other Planning Policies

The EMM developed numerous other planning policies dealing with such issues as guesthouses, nursery schools, professions from home, spaza shops, taverns, cell phone masts, street naming, etc. Given the nature of these policies they essentially provide guidance with regard to land use controls and the application procedures in terms of the existing town-planning schemes. These policies are ultimately implemented in terms of the LSDF and therefore have no environmental component, although environmental authorisation may need to be obtained for certain uses such as cell phone masts. For the purposes of this study these policies shall not be discussed further.

4.3.3 Environmental Policies

State of Environment Report

The EMM appointed SRK Consulting to develop a State of Environment Report (SoER) for the year 2003-2004. This was the first such report compiled for the entire region. A SoER can be seen as a very broad environmental assessment strongly resembling that of a strategic environmental assessment (SEA) on the basis that it is generalised and broad.

A Strategic Environmental Assessment (SEA) is a requirement of the IDP and SDF processes. Paragraph 4(f) of the Local Government: Municipal Planning and Performance Management Regulations, 2001, states that the IDP must… "contain a strategic assessment of the environmental impact of the spatial development framework". The SoER does, to some extent, fulfil this requirement, but this needs to be taken further in the development of more environmentally sensitive spatial frameworks at all scales.

The SoER follows the DPSIR methodology (Driving Force-Pressures-State-Impact-Response) as can be seen in Figures 4.9 and 4.10 below.

Component	Definition	Question Asked	Example
Driving forces	Are the human activities, that when combined with environmental conditions, cause environmental change	What causes environmental change in Ekurhuleni?	The use of coal and wood for cooking and heating, particularly in low-income areas, causes the release of air pollutants
Pressures	Are exerted on the environment as a result of human activities (driving forces)		
State	Is the condition or quality of the environment	What is the condition of the environment?	There is a poor indoor air quality
Impacts	Are the consequences of the pressures (i.e. the environmental responses)?	How does this affect the environment?	This causes respiratory disease
Responses	Are the societal actions taken to address the changes in the state of the environment	What are we doing about it?	Government increases the access to electricity

Figure 4.9 DPSIR Model (Source: EMM, 2004b)

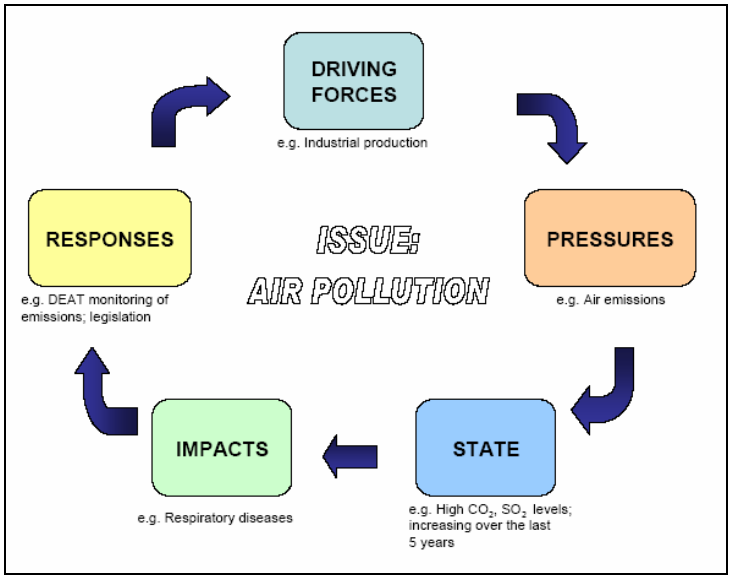


Figure 4.10 DPSIR Framework example (Source: EMM, 2004)

The SoER for Ekurhuleni is, to a large extent, a status quo report. Had the report been built upon or used as a comparison against historic reports then the impacts and responses would have been more meaningful and accurate. Nonetheless the SoER does demonstrate that the EMM is committed to environmental preservation and enhancement of the area (EMM, 2004). The SoER provides the basis for much status quo information used in the IDP and other municipal reports with respect to environmental data.

In conclusion, the SoER calls for complete integration of municipal policies, including the IDP, SDF, SoER, Water Development Plan, Transport Plan, etc. (EMM, 2004). The SoER is "not likely to be updated, as the EMM wants to take a different approach and do sustainability reporting" in the future (Matjitji, 2008).

Environmental Policy

The EMM Environmental Policy was finalised in 2007. According to EMM (2007b: 4) the purpose of the Environmental Policy is:

- "To spearhead sustainable development;
- To improve the governance function of the municipality;
- To create environmental awareness within the municipality;
- To enhance a safe and healthy environment; and
- To direct sustainability and responsible decision-making".

The environmental policy is nothing more than a commitment by the metro to upholding its environmental constitutional obligations. The policy further indicates the development of other key environmental policies such as the EMF and the Open Space System.

The environmental policy should be seen as the central reference point of all other policies developed in the metro. This is clearly indicated by the diagram (Figure 4.11) which is included in the policy. This would indicate the EMM has taken cognisance of the proposals made in the SoER by trying to harmonise all the environmental and planning processes and policies.

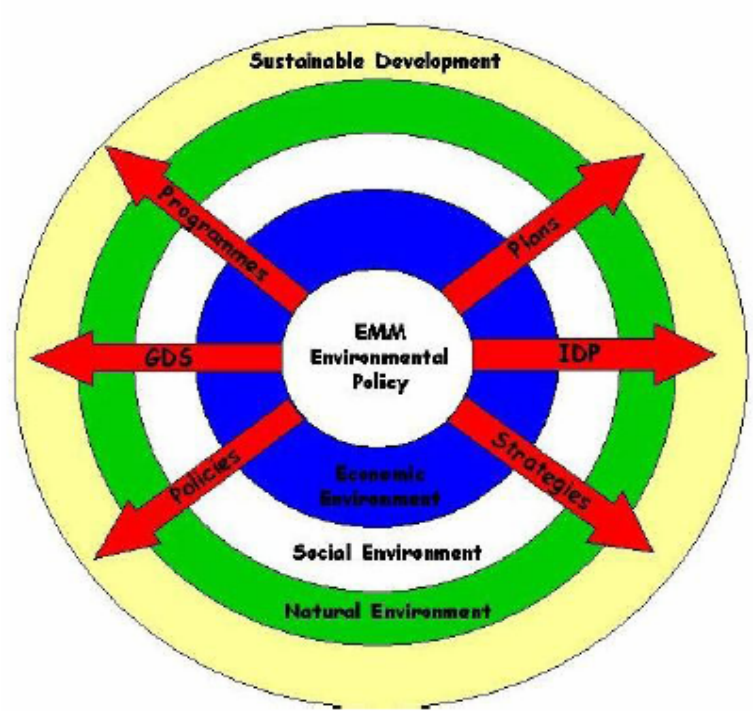


Figure 4.11 The Environmental Policy relationship (Source: EMM, 2007b)

It may be worth noting that the above diagram appears to prioritise the economic, social and natural environments (in that order) although there is no indication that this is intentional and is probably for diagrammatic purposes only. It is important that sustainable development be seen as the ultimate goal of all the policies that this feeds into and that plans such as the IDP (and presumably the SDF) will be informed by the overall environmental and sustainability intentions of the metro.

With regard to land use the “overarching goal for this principle is to ensure the sustainability of the EMM through the integration of environmental, social and economic principles in all spatial development planning processes” (EMM, 2007b).

The policy does therefore have an implication for planning and will inform such plans as and when they are developed. The policy notes that the natural environment and the built environment need to be integrated and also indicates that public participation is key to both planning and environmental applications in order to ensure the support and understanding of the residents of the area affected.

The policy sets a number of other goals related to the environment which are quite detailed. These include aspects such as water quality, energy efficiency, noise control, air quality, etc. and should be taken into account in a comprehensive planning application (EMM, 2007b).

Environmental Management Framework

An Environmental Management Framework (EMF) for Ekurhuleni was developed in 2007 by a consortium of consultants lead by Environomics. The EMF does to a large extent, rehash what is already known about the area and indicates all the potential natural features and hazards of the land. An EMF is essentially a Strategic Environmental Assessment (SEA) that is undertaken for the broad metro area as described above. In future all LSDFs will also require an SEA that will guide the development of the area (EMM, 2007a).

The result of this analysis is similar to that proposed by McHarg (1971), whereby all variables are analysed in isolation and together and it becomes evident where the areas best suited to development are located. (See Figure 4.12 below as an example). Further, the policy also takes into account certain environmental areas that need to be protected.

This policy is not really one designed for implementation but rather as a reference tool to be used in the compilation of SDFs and also in the assessment of planning applications. In addition the key reason for compiling this report is to serve as a

guide for environmental applications at provincial level to speed up development that has been broadly assessed to have a limited impact in certain areas. Conversely, the EMF also indicates which areas require significant environmental investigation in the assessment of plans, policies or applications.

NEMA specifically allows for the demarcation of areas that specifically require authorisation (Section 24(2)(b)) and geographical areas that may be specifically excluded (Section 24(2)(c)) and the EMF will be used for this purpose.

The EMF further serves to promote the ideals of co-operative government as envisaged in the Constitution, as it was developed in collaboration with the EMM and GDACE and will assist the EMM to achieve its development mandate by removing unnecessary 'red-tape' whilst ensuring the protection of the environment.

In terms of NEMA, the EMM adopted the EMF in terms of Regulation 72(2) on 17 June 2008, the first municipality to do so. The primary EMF system is electronic in the Geographic Information System (GIS), which can be accessed by officials in various departments. GDACE has still to decide how the updating and amendment of electronic data will affect the EMF.

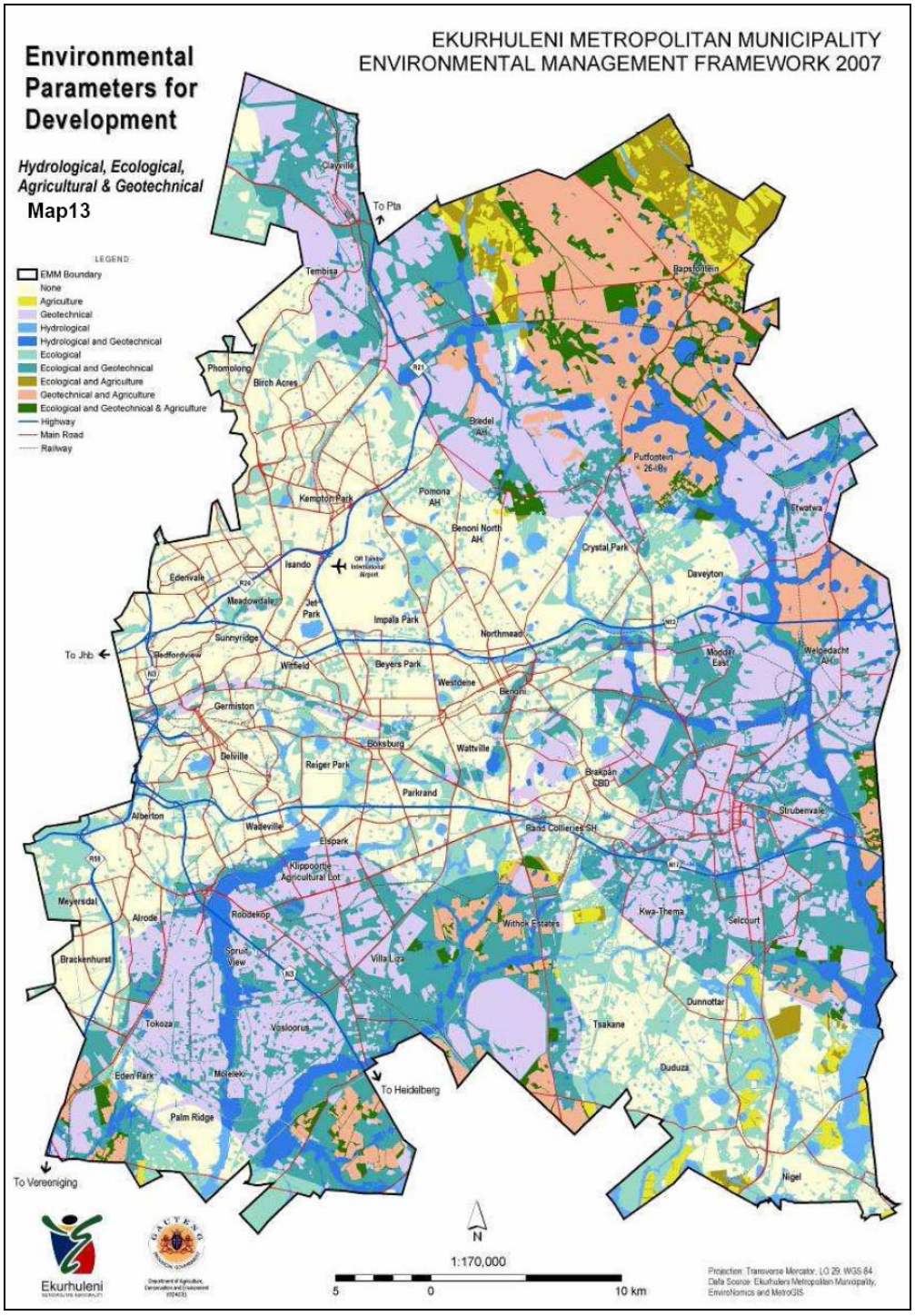


Figure 4.12 Environmental Parameters for Development (Source: Environomics, 2007)

Ekurhuleni Biodiversity and Open Space System

The EMM has developed the Ekurhuleni Biodiversity and Open Space System (EBOSS). This is essentially a policy that will guide spatial planning and will be integral to the development of future spatial development frameworks.

The policy incorporates elements of biodiversity management within the EMM area and deals with the aspects as defined in the South African National Biodiversity Act (Act No. 10 of 2004) and it means "…the variability among living organisms from all sources including, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part and also includes diversity within species, between species and of ecosystems" (EMM, 2008c: Chap 3, 1) and is linked to the National Protected Areas Expansion Strategy (NPAES).

The second component of the policy is the Open Space System, similar to that envisaged by Van Wyk (2005) and Hough (1995). The EBOSS policy itself seems to contain no definition of an open space system. To this end a definition contained in the Johannesburg Open Space System (JMOSS) is probably best suited to what the EBOSS is trying to achieve: "Any undeveloped vegetated land within and beyond the urban edge, belonging to any of the following six open space categories: ecological, social, institutional, heritage, agricultural and prospective (degraded land)" (SEF, 2002: 6). Unlike other cities open space systems, Johannesburg and Ekurhuleni do not include hard surface areas (e.g. roads) in the definition and instead focus primarily on green issues. This means that EBOSS is using the correct platform to incorporate biodiversity issues and those of conservation and preservation into the overall open space system. The proposed Open Space System can be seen in Figure 4.13 below.

Like so many of the other environmental plans, the EBOSS lists all the environmental issues in the area and it would be ideal if these were contained in only one plan (e.g. the SoER) so that they are not reworked into each policy. On the biodiversity side, the various ecosystems have been assessed both as a desktop exercise and also with field inspections. The various threats posed to each species are described quite generally.

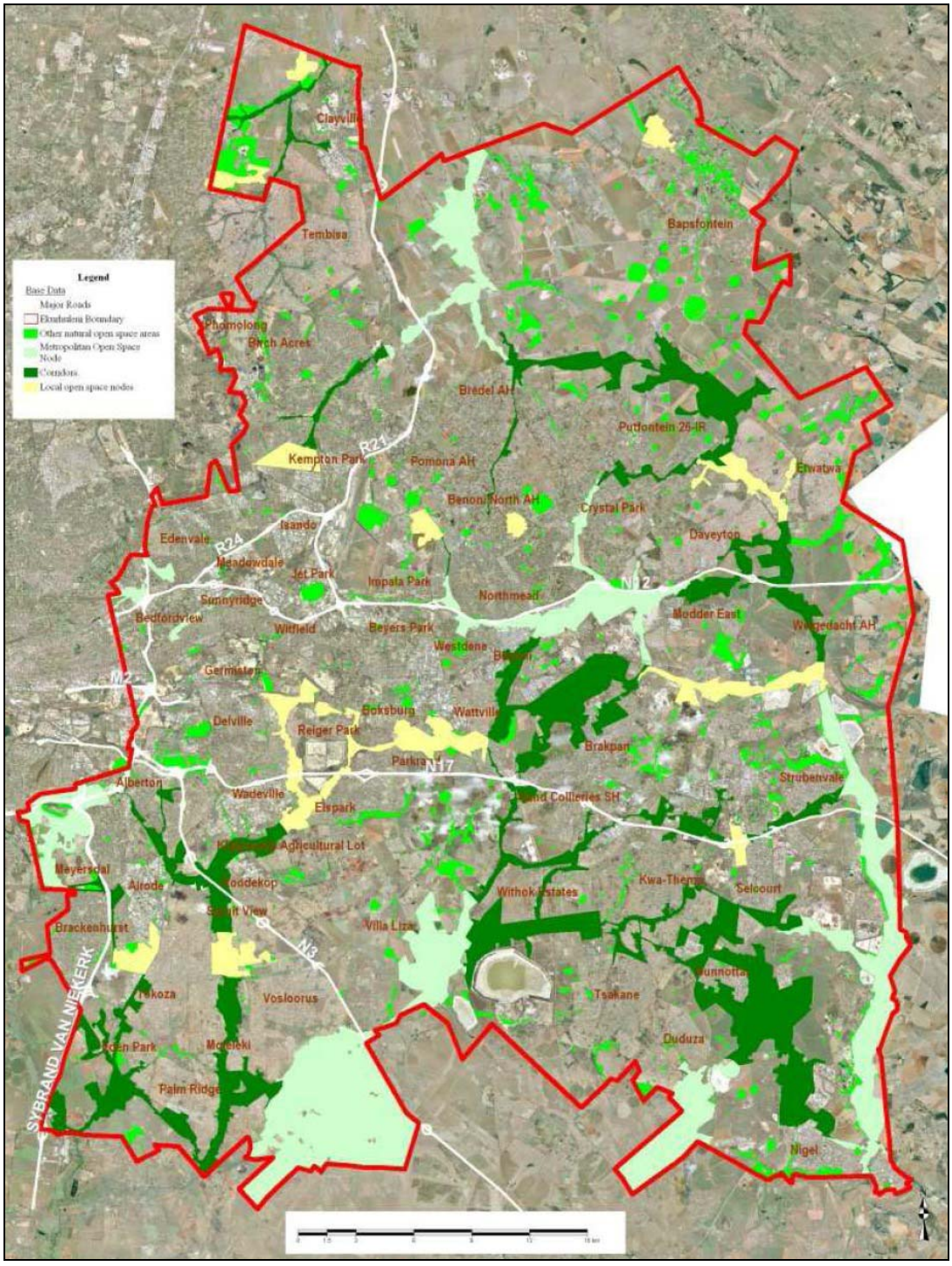


Figure 4.13 EMM Open Space Delineation for EBOSS (Source: EMM 2008c)

The true impact of the EBOSS on the planning system is the influence it can, and must, have on spatial planning. To this end EBOSS is one of the most critical policies that unites the planning and environmental fields. In terms of land use management, Van Wyk (2005: 266) states that when the open space system is related to zoning the "principal objective is not so much to limit the permissible use of the land, but rather to secure the non-use of the land." This means that, apart from integration into SDFs and the IDP, EBOSS will also be looked at by planners and utility providers when townships are established and when rezonings and servitudes are granted (Van Wyk, 2005). Certain servitudes (e.g. power lines) provide a continuous link between various pockets of open space and should be retained and enhanced for this purpose (EMM, 2008c).

The EMM aims to be recognised in the Local Action for Biodiversity (LAB) project. According to EBOSS the goals of LAB include "demonstrating best practice urban biodiversity management; provision of documentation and development of biodiversity management and implementation tools; sourcing funding national and international agencies for biodiversity-related development projects; and increasing global awareness of the importance of biodiversity at the local level" (EMM, 2008c: Ch 9, 1).

The EBOSS indicates various steps that must be undertaken by the EMM to formally be recognised by LAB. Essentially all of these steps demonstrate the commitment of the EMM to the LAB project and biodiversity issues throughout the "line functions of the organisation" (EMM, 2008c: Ch 9, 3). A further step is to identify at least 5 areas for biodiversity projects. The EMM has identified several sites, seen as 'catalyst projects' in its jurisdiction. These can be seen in Figure 4.14 below, namely:

1. Rietspruit Grassland and Wetland Conservation and Recreation Project
2. Swartspruit Grassland and Wetland Conservation and Recreation Project
3. Elsburg Spruit Urban Conservation and Recreation Rehabilitation Project
4. Glen Austin Bullfrog and Bird Sanctuary
5. Leeupan Regional Park Project
6. Bill Steward Ridge Conservation and Recreation Project
7. Blesbokspruit Ramsar Site Upgrade Project
8. Gillooley's Gateway Project
9. N12 Gateway Project
10. Meyersdal Nature Area Project
11. Midrand Estates Grassland Conservation Project

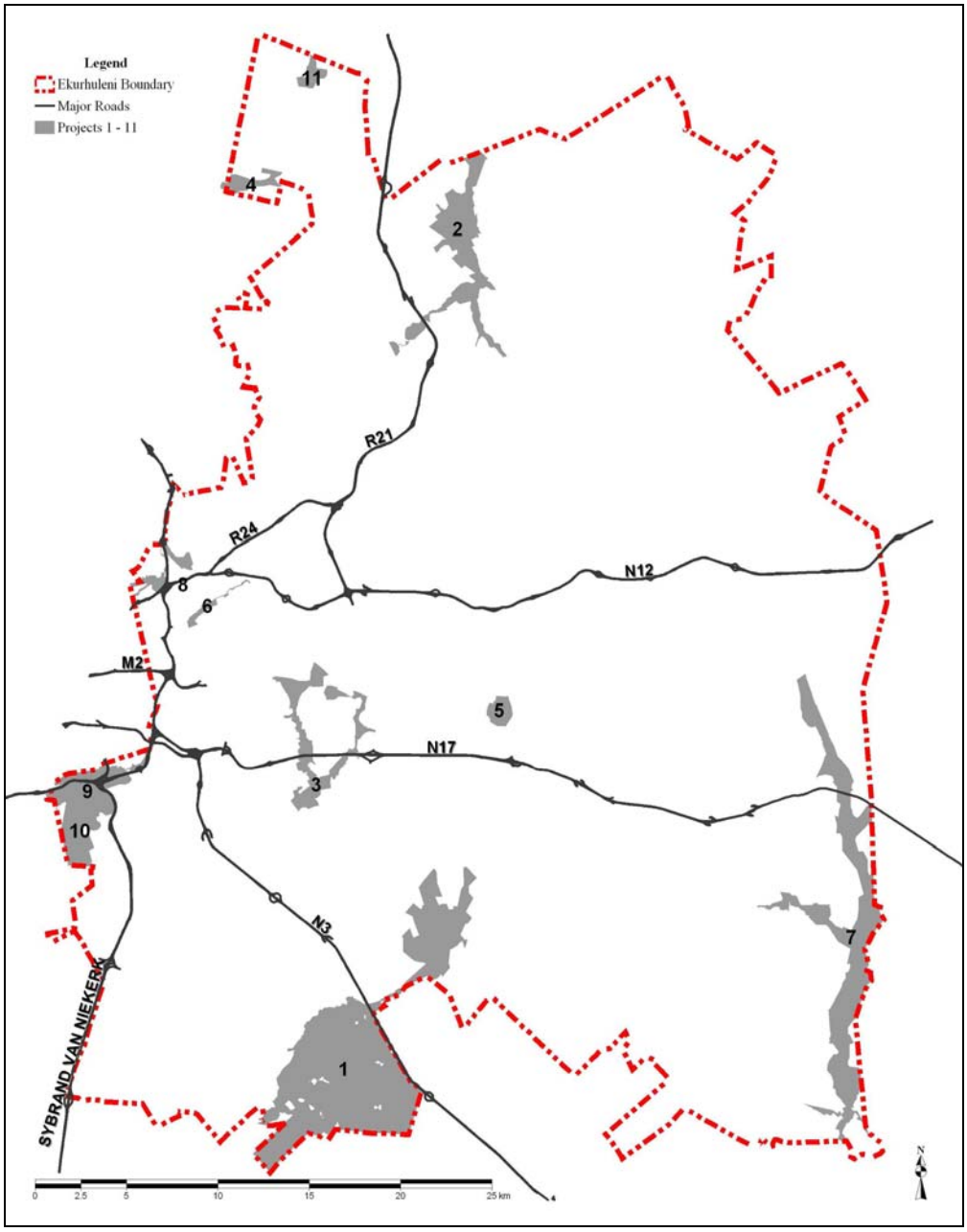


Figure 4.14 LAB Project Sites in EMM (Source: EMM, 2008c).

The LAB projects in conjunction with the entire EBOSS system have a significant planning implication and it is critical that they are incorporated into spatial and land use plans. It is disappointing that such a plan has been developed separately from those of the 'planners' but it is encouraging that there seems to be a drive towards interdepartmental co-operation to ensure that the aims are achieved.

4.3.4 Conclusion

The EMM has developed a substantial number of policy documents on both planning and environmental matters in recent years. The EMM sends a strong message towards living up to its goal of being the “smart, creative and developmental city” (EMM, 2007a). The municipality has acknowledged its developmental mandate as envisaged in the Constitution and now needs to become more pragmatic and put into action all that these policies intend to do for the local community. Many of these policies have not been critically examined before and it appears that the situation at the EMM is very promising from an environmental-planning relationship perspective.

4.4 CHAPTER CONCLUSION

This chapter examined the situation at the Ekurhuleni Metropolitan Municipality and it is evident that this local authority is a leading municipality, especially in the development of environmental policies.

The organisational layout of the two departments dealing with planning and environmental matters should be reconsidered. Similarly, if the municipality is serious about environmental protection, then additional environmental officers should be employed to build up a more substantial department. At present it is evident from the organograms that planners in EMM outnumber environmental officials about 6 to 1.

There are a significant number of planning and environmental policies, required by legislation. It is important that especially the environmental policies begin to be rationalised for ease of use and for clear policy direction.

In the following chapter this study will examine the detailed processes used with some of the legislation discussed in the previous chapter to further demonstrate the dysfunctioning system.

5 PROCEDURES AND REGULATIONS

This chapter will detail the procedures and participation processes that are undertaken in terms of some of the legislation discussed in Chapter 3. As there are numerous different procedures that could be followed in terms of the legislation this report will limit the types of application to township establishment and to rezonings. These two types of application are done in terms of several of the existing or future acts and the majority of developments that take place will have to go through these planning processes. Linked to this is the environmental legislation which has its own procedures that must be followed, as well as the relevant spatial policies that guide the development of the area.

5.1 TOWN PLANNING AND TOWNSHIPS ORDINANCE

When gold was discovered on the Witwatersrand a system was needed to control the division of land so that towns could be laid out with the interests of the public being taken into account and so that some control could be exercised over entrepreneur developers. The first Gold Law was passed in 1875 (Act No. 15 of 1875) by the Volksraad (Legislative Assembly of the South African Republic). and established what were known as ‘stand-townships’. Subsequent ordinances in the Transvaal evolved from this Act and the term ‘township’, ‘stand’ and ‘erf’ are still legally used today. These are defined below (Blumenthal, 1991).

In terms of the current ordinance (Ordinance No. 15 of 1986), a township is defined as “any land laid out or divided into or developed as sites for residential, business or industrial purposes or similar purposes where such sites are arranged in such a manner as to be intersected or connected by or to abut on any street, and a site or street shall, for the purposes of this definition, include a right of way or any site or street which has not been surveyed or which is only notional in character” (Juta, 2008a).

An erf is defined as “land in an approved township registered in a deeds registry as an erf, lot, plot or stand or as a portion or the remainder of any erf, lot, plot or stand or land indicated as such on the general plan of an approved township…” (Juta, 2008a).

As Blumenthal (1991) and Van Wyk (1999) state, it was only from the 1931 Ordinance that town planning controls became part of the legislation. This now legally restricted the use of the land or buildings for certain uses by means of controls normally inserted into title deeds of the erven in a township.

5.1.1 Township Establishment Process

Until Ordinance No. 15 of 1986 (the current ordinance) came into force, all applications for townships were assessed by the provincial administration. The 1986 ordinance allows authorized local authorities to assess their own applications, and the provincial government only dealt with appeals. As Ekurhuleni Metropolitan Municipality is an authorized local authority, this study will only focus on applications to the local authority, as the other processes are not relevant.

The township establishment process involves numerous steps and can take a considerable amount of time. The process is simplistically described by Roos (1997:54) and adapted to the EMM situation (EMM, 2007a) and is depicted in Table 5.1 and illustrated in Figure 5.1 below.

Table 5.1 Township Establishment Process (after Roos, 1997, Beach, 1990 and EMM, 2007a)

STEP	ORDINANCE	TIME INVOLVED
Lodging of Application (by whom)	Owner or Agent	
Lodging of Application (to whom)	City Development Dept. at the Customer Care Centre (CCC)	
Advertising	Gazette, newspaper and site notice	28 day objection period
Circulation (external)	Eskom, National Roads, Gautrans, GDACE, Rand Water, other municipalities, etc.	60 day comment period
Circulation (internal)	Roads Dept, Water Dept, Electricity Dept, ward councillor, Environmental Development (if necessary), etc	21 day comment period
Compilation of Draft Conditions of Establishment	Incorporate comments received after all departments satisfied.	6 weeks
Consideration of Application (by whom)	Executive Director (delegated) or Portfolio Committee (not in line with policy) or Development Tribunal (objections received against the application)	5 – 6 weeks Avg. 9 months after submission (Roos 1997)
Appeal	*Appeal to the Premier, Considered by the Township Board.*	*28 days (may be extended to 56 days)*

Appeal Hearing	*By Township Board.*	*Avg. 3 months. Currently longer than 1 year.*
Lodging of general plan to Surveyor General	Within 1 year of approval (may be extended)	6 weeks
Section 101 Certificate	All conditions met.	8 weeks
Townships Register Opened		3 months
Proclamation	Municipality proclaims township in gazette.	4/5 weeks
Section 82 Certificate	Services completed.	5 weeks

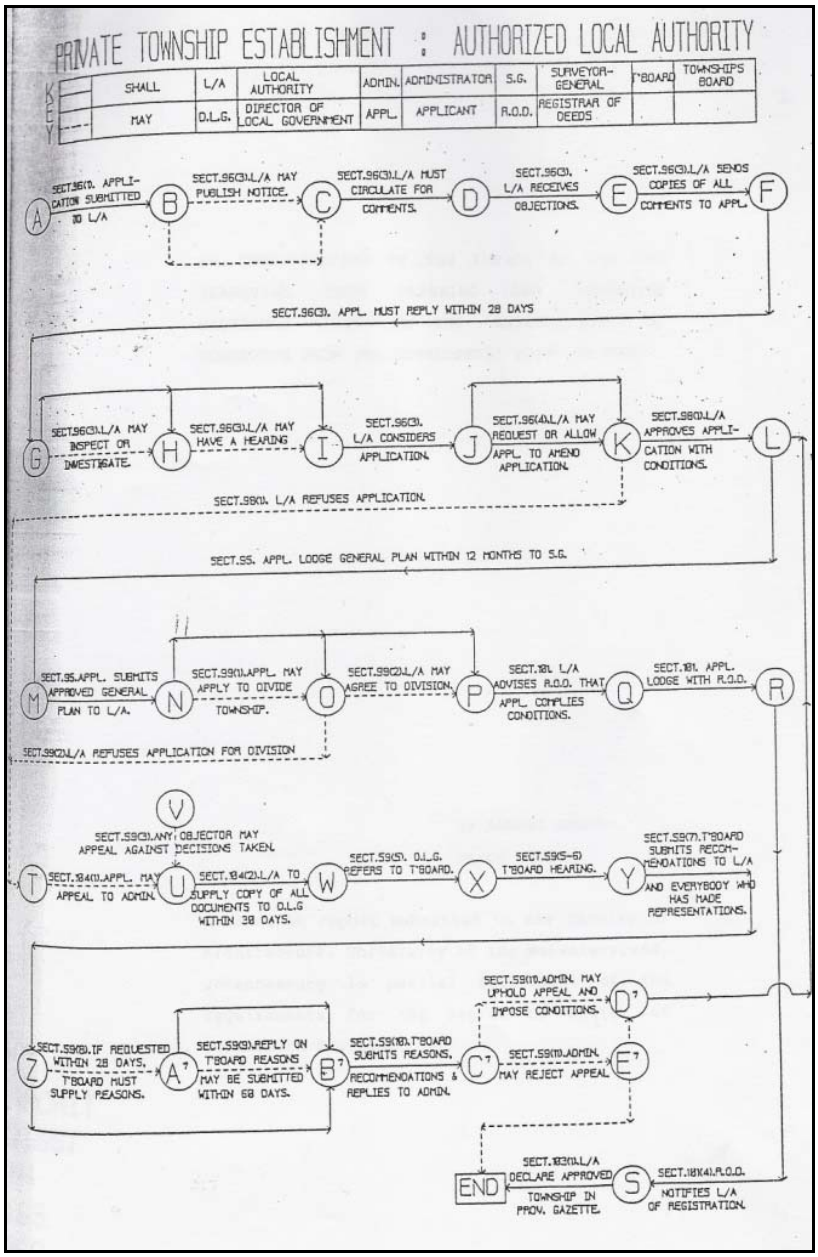


Figure 5.1 Township Establishment Process (Source: Beach (1990) and Speirs (1993)

It is evident from the table and diagram above that the complicated township establishment process has very little connection with environmental legislation. At the time of receipt of the proposed township application the town planner determines if the proposed activity would trigger an environmental process in terms of NEMA. (This is discussed in 5.4 below). Should this be the case, the application is sent to GDACE for comment. It is unfortunate that a planner with an advanced knowledge of his/her area of jurisdiction does not comment on environmental issues related to the development. This is because planners are generally not trained in environmental matters and are limited to checking if activities are listed or not.

There are two other types of environmental components to a township which are done as a matter of compliance with the legislation. These include:

- The Geotechnical report to assess the suitability of the geology and the soils for development and may determine the foundation specifications for buildings and height restrictions.
- The flood line certificate. This is normally indicated on the layout plan of the proposed township. This indicates that the land will not be affected by flood waters in a 1 in 100 year occurrence (as per the Ordinance). However this has been superseded by a 1 in 50 year occurrence in terms of the National Water Act (Act No. 36 of 1998).

In terms of participatory processes the Ordinance limits this to a 28 day objection period, following advertisements in one newspaper and in the provincial gazette. The EMM requires that a site notice be situated on the land and that advertisements be placed in two newspapers. Objections to the establishment of townships are relatively rare since they are usually on undeveloped areas.

Departmental comments are easily obtained in the EMM. However long delays occur at the Section 82 certificate stage in order to finalise service agreements and ensure that services have been installed to the council's standards. Department interaction is limited to the circulation of the applicant's submission and comments are generally received within 4 weeks. Comments from most external organs of state are usually received within 8 weeks, although the Gauteng Department of Education and the Department of Minerals and Energy

do not usually submit comments within the stipulated 60 day period which may result in delayed decisions on applications. In addition, most townships will not be approved without some form of environmental authorisation or ROD from GDACE, which in many instances may take several months.

5.1.2 Rezoning Process

In order to describe the rezoning process, the terminology here must be clarified as well. Rezoning is not a term defined in the ordinance, the correct term being 'amendment scheme'. This implies, correctly, that every time the zoning of a property is changed, the relevant town planning scheme is amended and this "must be in the public interest" (Floyd, 1960, as quoted in Blumenthal, 1991: 75). The rezoning process is depicted in Table 5.2 below.

Table 5.2 Rezoning Process (after Roos, 1997 and EMM, 2007a)

STEP	ORDINANCE	TIME INVOLVED
Lodging of Application (by whom)	Owner or Agent	
Lodging of Application (to whom)	City Development Dept. at the Customer Care Centre (CCC)	
Advertising	Gazette, newspaper and site notice	28 day objection period
Circulation (external)	Eskom, National Roads, Gautrans, GDACE, Rand Water, other municipalities, etc.	60 day comment period
Circulation (internal)	Roads Dept, Water Dept, Electricity Dept, ward councillor, Environmental Development (if necessary), etc.	21 day comment period
Compilation of Draft Conditions of Approval	Incorporate comments received after all departments satisfied.	6 weeks
Consideration of Application (by whom)	Executive Director (delegated) or Portfolio Committee (not in line with policy) or Development Tribunal (objections received against the application)	5 – 6 weeks Avg. 9 months after submission (Roos 1997)
Map3 Documents Compiled	Used to amend the scheme	6 weeks
Promulgation Notice	Rights come it effect	6 weeks
Appeal	*Appeal to the Premier, Consideration by the Township Board.*	*28 days (may be extended to 56 days)*
Appeal Hearing	*By Township Board.*	*Avg. 3 months. Currently greater than 1 year.*
Promulgation Notice	*Decision of Townships Board*	*6 weeks.*

The rezoning process appears to be similar to the township establishment process. This may be the case up to the point where a decision is taken, after which a township establishment becomes very cumbersome and detailed.

The environmental connection to rezoning is more limited than township establishment since rezonings are usually done in existing areas and activities are unlikely to trigger an environmental process in terms of NEMA. Rezoning to a noxious industrial use and rezoning of land zoned as 'Public Open Space' are the most common causes for an environmental process to be triggered.

There is therefore limited concern for environmental issues, even though rezoning or several rezonings in an area could have a substantial affect on the environment of the area. This therefore requires significantly more input from the Environmental Development Department, even for applications that do not trigger an environmental authorisation process. The spatial planning of an area needs to take into account environmental changes that can occur should a particularly be drastically modified over time.

As part of the rezoning process (similar to the township establishment process), the Ordinance allows for the 'forced' provision of Open Space in terms of Regulations 43 and 44. This can either take the form of a payment for the municipality to provide such open space in the vicinity of the township or the developer setting aside a certain quantity of land for open space purposes. Formulae are used to determine the amount/quantity required and are based on the number of residential dwellings, as well as on the size and value of the land. The Ordinance only makes provision for the levying of open space with Residential 1, 2, 3 and 4 zonings, and not for other uses.

The open space procedure in the Ordinance contradicts the opinion of Van Wyk (2005: 268) when she says that "No universal open-space standard exists. An open-space standard must be flexible enough to accommodate changes in recreation and conservation patterns. Open-space allocation is not static, but changes with changing circumstances."

The open space requirement is crucial for social and recreational aspects in the city. It is, however, also important that the open spaces purchased or created by these regulations are set aside on the basis of the Open Space System plan, so that arbitrary pockets of land are not located all over the city. Also, funds generated for this purpose should be used to purchase land to link pockets of 'green land' so as to enhance the environmental aspects of the city.

Participatory processes for rezonings are prescribed by the Ordinance and take the form of notices in two newspapers and in the Provincial Gazette for two weeks, with a 28 day objection period. Many objections, especially to densification, are normally received.

In Ekurhuleni the various departments that have to comment on rezoning applications are located all over the metro resulting in delays caused by the delivery system. It is hoped that this situation will be improved, as applications may soon circulate electronically (as is done in Tshwane) and significantly improve service delivery. As in the case of township establishment, most comments from internal departments are still received within 4 weeks and from most external bodies within 60 days (GDE excluded) and, in terms of the Ordinance, these late comments are not usually waited for as the 60 day period has expired. It is therefore possible to finalise rezoning applications shortly after the 60 day period has expired, although backlogs and the number of applications usually result in an average time of 4 to 6 months for approval.

5.2 GAUTENG REMOVAL OF RESTRICTIONS ACT

The Gauteng Removal of Restrictions Act (Act No. 3 of 1996) is rarely used in the process of establishing townships, although this is technically possible. In terms of Section 5(4) of the Act "an application under this section may be initiated simultaneously with any other application pertaining to the land in question…" In terms of Section 5(4) applications usually involve the simultaneous rezoning and/or subdivision of the property, together with the removal of certain restrictive conditions of title. However consent uses and other applications in terms of the Town Planning Scheme may also be considered simultaneously.

The Gauteng Removal of Restrictions Act essentially follows the same process as prescribed in the Ordinance when dealing with whichever simultaneous applications that are submitted. In terms of the participatory processes the Act requires that neighbours are informed in writing by applicants of their intentions in addition to the site, newspaper and gazette notices. Section 5(5)(c)(i) implies that a more comprehensive public participation process must be followed in which directly affected neighbours are involved and is an improvement on the Ordinance and reflects the participatory planning approach of the post-Apartheid era.

A further improvement on the Ordinance is the timeframe for consideration of an application. In terms of Section 6(7)(a) the local authority shall within 42 days "consider and make a decision on the matter". In reality this is seldom achieved and, given that the only avenue for complaint is the townships board with a year-long backlog, it is normally quicker to wait for the local authority to make a decision. The Act is a useful piece of modern planning legislation and would be improved if environmental applications could also be submitted simultaneously and dealt with as one.

There is little relationship to the environment in this Act (except as discussed with the Ordinance). However other environmental type of conditions that are contained in title deeds that may have a direct environmental impact may be removed. These could include conditions relating to boreholes, excavation of soil, flood lines, etc., which should trigger some sort of impact study when removed. The Act does not allow for the removal of conditions related to mineral rights (Section 3(3)(b)). After the application is approved the "Registrar of Deeds must bring about the necessary endorsements on the title deeds" (Van Wyk, 1999: 203).

5.3 DEVELOPMENT FACILITATION ACT

This section will assess the procedures contemplated in the Development Facilitation Act (DFA) (Act No. 67 of 1995). The basic processes for applications that are essentially similar to a township (Land Development Area) have been described by Claassen (2005) in Table 5.3 below.

Table 5.3 DFA Procedures and Timeframes (Source: Claassen, 2005)

DAYS	ACTION	REG NO.
	Applicant lodges application with Designated Officer.	21(1)
1	Designated Officer requests pre-hearing and hearing dates from the Tribunal Registrar.	21(4)
2	Tribunal Registrar provides pre-hearing and hearing dates, minimum 80 days and maximum 120 days from date of submission.	21(5)
7	Designated Officer: ▪ Acknowledges receipt of application; ▪ Informs applicant of any additional information required; ▪ Advise applicant regarding the persons or bodies to be given notice of the application; and ▪ Informs applicant of pre-hearing and hearing dates	21(3)(a) 21(3)(b) 21(3)(c)
14 (65 days prior to hearing date	The applicant gives notice of the application: ▪ To interested parties; ▪ In Afrikaans and English newspapers; ▪ In Government Gazette; and ▪ On the application property.	12(6) 21(10) 21(10) 21(8)(c)
21	Applicant lodges proof that the provision of Sub-regulations 21(8), (9), (10) and (11) have been complied with (Sworn affidavit).	21(12)
21	Objector or interested party lodge objections or representations with the Designated Officer.	21(13)
7	Designated Officer submits a copy of every objection or representation to applicant.	12(17)
14	Applicant submits a written reply to objections or representations.	21(19)
14	Designated Officer submits a report to Tribunal Registrar regarding the application.	21(20)
1 (7 days prior to hearing date)	**PRE-HEARING CONFERENCE** The applicant and every person who intends appearing at the Tribunal hearing must attend the pre-hearing.	21(24)
	TRIBUNAL HEARING The Tribunal considers the application.	21(38)
7	Registrar informs the Designated Officer of the decision of the Tribunal.	21(40)
3	Designated officer informs parties of the decision of the Tribunal.	21(41)
7	Any party may request written reasons for the decision.	21(42)
5 months	**PROCEDURES AFTER APPLICATION WAS APPROVED BY TRIBUNAL** Applicant lodges general plan, diagrams and records with Surveyor-General. If the applicant fails to comply, the application will lapse.	23(1)
60	Applicant complies with request from Surveyor-General (if any). If the applicant fails to comply, the application will lapse.	23(4)
2 months after approval of general plan	Applicant submits certified copies of approved general plan with the Designated Officer and the municipality, as well as with the Registrar of Deeds. If the applicant fails to comply, the application will lapse.	23(10)
14	**APPEALS** Any person who wishes to appeal must give notice to the Registrar and every interested party who were a party to the Tribunal proceedings.	33(1)

The proposed decision is submitted by the applicant to the Tribunal. In an unopposed application it is assumed that the application will be approved as submitted, although the Tribunal does have the right to make changes as it sees

fit. The very nature of the DFA means that this approach requires that the motivation for the proposed development is well justified and defendable, and the applicant obtains the comments from various departments, which ultimately speeds up the decision-making process.

According to Van Wyk (1999), a critical component of the DFA is its ability to set aside other legislation in the interests of rapid development (Section 33(2)(j)(vi)). This section reads as follows:

"(2) In approving a land development application a tribunal may, either of its own accord or in response to that application, impose any condition of establishment relating to: …(j) the question whether the provisions of-
…(vi) any other law relating to land development, but not the Restitution of Land Rights Act, 1994 (Act No. 22 of 1994), which in the opinion of the tribunal may have a dilatory effect on the development of a land development area or the settlement of persons therein, shall apply in respect of a land development area in question: Provided that a decision to suspend the application of a law shall be taken after the tribunal has afforded the authority, if any, which is responsible for the administration of the law, and any other interested person or body an opportunity to provide the tribunal with its views on the expedience of such a decision in the circumstances" (Juta, 2008d).

The rationale behind this would allow housing projects and other developments in the public interest to not have to comply with further red-tape and thus be finalised more rapidly and with less cost to the government. It is the author's experience that this section of the DFA is now used by developers to bypass certain restrictive legislation. The most common request is to set aside Section 24 of NEMA (requiring environmental authorisation), a request that is usually denied by GDACE and defended at great cost to the government.

The procedures of the DFA as described in Table 5.3 above follow a similar process to Ordinance applications, although the terminology is different. Applications dealt with by the DFA have legislated time frames and it is possible to subpoena parties that do not comment to attend the hearing and thus the DFA applications are taken more 'seriously' by responding departments.

As a primary planning tool, the DFA promotes the sustainable use of the environment and requires the Tribunal to assess the environmental implications of the proposed development. Regulation 31 of the DFA requires an applicant to submit an environmental scoping report to the relevant DEAT standards. Regulation 31 (6) reads as follows:

"The scoping report must indicate the extent to which the proposed activity or development will impact on the environment and, where appropriate, deal with the following specific aspects of the environmental impact:

a. *The physical and landscape characteristics of the land development area and its surroundings;*
b. *the ecological characteristics of the land development area and its surroundings;*
c. *the current and potential land-uses of the land development area;*
d. *existing significant archaeological, historical and cultural sites in the land development area and its surroundings;*
e. *the social and economic impact on communities in the land development area and surroundings;*
f. *the existing infrastructure and/or services in or around the land development area;*
g. *the existing social and community structures, services and facilities in or around the land development area;*
h. *the levels of present and possible pollution, including noise pollution, in the future as a result of the proposed development;*
i. *any risks or hazards to the environment posed by the development;*
j. *the health and safety of the public;*
k. *the social costs of the proposed development;*
l. *the effect of the proposed development on different groups or individuals;*
m. *the medium and long term environmental sustainability of the proposed development;*
n. *what mitigating measures could be implemented to reduce negative impacts and enhance positive impacts of the aspects described in paragraphs (a) to (m) and, where appropriate, to what extent alternative sites for the development were investigated"* (Juta, 2008d).

The Tribunal may, separately from GDACE, require a detailed EIA or any other environmental studies as it sees fit. The Tribunal must be satisfied that the applicant has "addressed the interrelationship between the built and natural environments" (Claassen, 2005: 5). Claassen (2005: 5) also indicates that the applicant must show that the application "has appropriately considered the relationship of environmental laws and regulations" with regard to the proposed development. This approach is important in the context of parallel legislation as it requires the Tribunal to consider the environment, even if NEMA or other legislation is set aside.

The problem with this situation is that the Tribunal comprises planners and lawyers and not environmental experts, although it is possible for environmental experts to be appointed to the GDT as is the case in KwaZulu Natal. This means that whilst applicants comply with the legislation and submit the required environmental studies, decisions may not be fully informed as they are not assessed by environmental experts.

In addition, 'environmental' requirements of the DFA include a geo-technical report and a flood line study (1:50 years) as are required in terms of the Ordinance. The removal of indigenous trees may also be considered by the Tribunal and, from a built environment perspective it is important to note that heritage buildings must also be protected (Claassen, 2005).

Participatory processes in the DFA are similar to the Gauteng Removal of Restrictions Act (Act No. 3 of 1996), although the Designated Officer may require that additional parties or neighbours are informed of the application. This may also be extended to persons who may be settled on the land, such as recipients of RDP housing. The objection period is limited to 21 days and includes a provision for illiterate persons to give oral submissions to the Designated Officer.

In conclusion the DFA process itself is arguably the most comprehensive of the current planning – environment processes in Gauteng and also provides a tool for government to realise its developmental goals. However, the DFA has to some extent been used to bypass certain legislation by developers and the intended goals are often not realised.

5.4 NATIONAL ENVIRONMENTAL MANAGEMENT ACT

The National Environmental Management Act (NEMA) (Act No. 107 of 1998) provides the procedures for obtaining authorisation for activities that may have a detrimental effect on the environment. The components that list these activities and some of the procedures are the Environmental Impact Assessment Regulations (2006). These replaced the regulations that were operational on the Environment Conservation Act, now partially repealed (Van Wyk, 2007).

Van Wyk (2007) also states that the Minister (of Environmental Affairs and Tourism), in conjunction with the relevant MEC in a province, may list certain issues that require a certain type of authorisation. According to Van Wyk (2007: 61), these may include:

- "activities;
- geographical areas based on environmental attributes; or
- individual or generic existing activities which may have a detrimental effect on the environment."

The Act has established two lists of activities and therefore two types of authorisation procedures. The first list is known as Government Notice R386 and the second Government Notice R387. Government Notice R386 relates to activities with a lower impact and requires a basic assessment process to be followed, whilst Government Notice R387 requires a full scoping and EIA procedure, as these activities could have a significant environmental impact. (Refer to Annexures A and B for the full notices.)

The document that details the basic assessment, scoping and EIA procedures was published simultaneously with the listed activities and is known as Government Notice R385. This notice also requires environmental authorisation applications to be submitted by Environmental Assessment Practitioners (EAPs). only, who must be independent and suitably qualified in environmental matters and matters relating to the proposed project. As the EAP is appointed by the applicant at his cost, this may bring the independence of the EAP into question, as he will be trying to achieve the desired result for his client. The regulations specifically require that this does not happen, but it would be best if EAPs were appointed by the relevant authority to assess the project in the public interest.

In terms of activities listed in GN R386, the Basic Assessment procedure is summarised and described in Table 5.4 below.

Table 5.4 Basic Assessment Procedure (adapted from Juta, 2008e – GN R385, Part 2)

STEP	***DETAIL***	***PARTY***
PUBLIC PARTICIPATION Notify: Compile:	Neighbours and other parties Organs of state and GDACE List of interested and affected parties Consider objections	EAP
BASIC ASSESSMENT REPORT (in required format) Introduce: Impacts on: Describe: If necessary: Comply with:	Description of project Issues on physical, biological, social, economic or cultural environment. Legislation Potential specialist studies Public participation process Describe the need and desirability of the project and authorisation. Describe the mitigation, extent, probability, etc for each issue. Describe alternatives for the project. Describe the findings of the specialists. Guidelines of GDACE and DEAT Practices by GDACE in relation to proposed activity.	EAP
SUBMIT BASIC ASSESSMENT REPORT (Submit to GDACE)	Application form and fees Basic Assessment Report Any objections received Minutes of meetings with I&APs Responses to objections and I&APs Declaration of interest (EAP)	GDACE / EAP
CONSIDERATION OF SCOPING REPORT	Request additional information Request specialist studies and reports Suggest alternatives Require scoping and EIA procedure Reject – refuse Amend – send to EAP for correction Accept	GDACE (30 days)
AUTHORISATION ISSUED	Approve – for all or part of the activity Refuse – for all or part of the activity Authorise alternatives	GDACE / MEC
PROJECT	Proceed or stopped as per authorisation.	OWNER
APPEAL	Appeal decision if necessary	EAP

In terms of activities listed in Government Notice R387, the procedures are summarised and described in Table 5.5 below, which indicates a much more intense procedure and requires a significantly longer time to compile, and this procedure therefore is better suited to activities with greater impact on the environment.

Table 5.5 Scoping and EIA Procedure (adapted from Juta, 2008e – GN R385, Part 3)

STEP	***DETAIL***	***PARTY***
SUBMISSION	Application form Declaration of interest Relevant fee Other documentation	GDACE
PUBLIC PARTICIPATION Notify: Compile:	Neighbours and other parties Organs of state List of interested and affected parties Consider objections	EAP
SCOPING Identify potential:	Issues Impacts Alternatives	EAP
SCOPING REPORT Introduce: Impacts on: Describe: Plan of study for the EIA:	Description of project Issues on physical, biological, social, economic or cultural environment. Legislation Potential specialist studies Public participation process Tasks and specialist activities Consultation with GDACE Proposed issues, alternatives and possible no-go. Public participation plan	EAP & Specialists
SUBMIT SCOPING REPORT	Submit to GDACE Any registered interested and affected party for comment	GDACE / EAP / I&AP
CONSIDERATION OF SCOPING REPORT	Reject – refuse Amend – send to EAP for correction Accept – proceed to EIA phase	GDACE (30 days)
EIA REPORT PHASE	Detail the issues that were suggested in the scoping phase. Describe the need and desirability of the project and authorisation. Describe the methodology for the EIA. Describe alternatives for the project. Describe the findings of the specialists. Describe the mitigation, extent, probability, etc for each issue. Provide an expert opinion on the results of the EIA. Provide an impact statement (summary) Provide a preliminary environmental management plan.	EAP
SUBMIT EIA REPORT	Submit to GDACE	EAP
CONSIDERATION OF EIA REPORT	Reject – refuse for no compliance Amend – send to EAP for correction Review – send to specialist for review Accept – issue authorisation	GDACE (60 days) (Add 45 days for review)

AUTHORISATION ISSUED	Approve – for all or part of the activity Refuse – for all or part of the activity Authorise alternatives	GDACE / MEC
PROJECT	Proceed or stopped as per authorisation. Adhere to EMP for site.	OWNER
APPEAL	Appeal decision if necessary	EAP

The procedures listed in Tables 5.4 and 5.5 are reasonably simple to follow, although a final report for a full EIA could be several hundred pages long and these tables do not emphasise the quantity of work required for an application.

It is important to note that the tables refer to applications submitted to GDACE as the competent authority in Gauteng. The national department (DEAT) and the minister also have the authority to approve authorisations and certain activities as do certain other organs of state. For example the issuing of mineral exploration and mining permits are delegated to the Minister of Minerals and Energy.

Participatory processes for NEMA applications are described in Chapter 6 (Regulations 56 and 57) of Government Notice R385. These regulations require that a list of Interested and Affected Parties (I&AP) be compiled. The environmental application and its alternatives should be advertised in:

- a local newspaper;
- on the site;
- in the gazette;
- in a national newspaper if on a larger scale;
- in writing to neighbours all property owners within 100 metres of the site;
- in writing to the ward councillor; and
- in writing to the local municipality and other organs of state. (Juta, 2008e)

It is important to note that the I&APs are not necessarily objectors (as with Ordinance participation) and are entitled to make alternative proposals and must have sight of and comment on the Basic Assessment or Scoping Report (or any specialist report) before submission to GDACE. The participation process is therefore very comprehensive and arguably affords the public the best opportunity to have input into the development and alternative proposals.

In Ekurhuleni the Environmental Development department comments on behalf of the municipality as an I&AP. In many instances the NEMA applications are undertaken before the planning applications and, because the City Development department does not comment on the NEMA application, the planners are usually not aware of proposals until the planning applications are received.

Van Wyk (2007: 62) states that the “Environmental Impact Assessment Regulations 2006 are the principal procedures available to the provincial authorities to assess the impact of development on the environment.” Van Wyk (2007) also notes that the involvement of the local government is limited to the planning aspects of the project and that there is no synergy in the two processes. This view is confirmed by Sampson (2007: 77) who also notes that EIA processes have been “criticised for frustrating development and causing unnecessary delays and creating unreasonable barriers”.

In conclusion, it is evident that a wide number of activities require authorization, as indicated in Annexure A. It is perhaps unfortunate that activities and processes are generalised, but this does remove uncertainty and establishes a clear process to be followed. The current process introduced the basic assessment procedure which allows for more rapid and less detailed environmental studies for activities that are unlikely to have a significant impact. The implementation of NEMA results in a system that is entirely independent of the planning system and that is administered at provincial level. It is important that, as local governments develop the resources, they are delegated authority for certain environmental approvals. This could be easily be achieved at metropolitan municipality level.

There exists, therefore significant administrative challenges with the new regulations. However, although the current processes seem to aid development whilst not compromising the impact on the environment, there appears to be quite a lot of duplication of processes.

5.5 GAUTENG PLANNING AND DEVELOPMENT ACT

The Gauteng Planning and Development Act (Act No. 3 of 2003) as described earlier in this study, is not operational legislation since no regulations have yet been published. Rumours within the planning field suggest that the Act may be significantly changed prior to implementation. Currently the Act will allow for the following types of applications to be made in terms of Section 61 (1):

- To establish a township;
- To extend the boundaries of a township;
- To establish a settlement;
- To subdivide land;
- To simultaneously consolidate and subdivide land;
- To amend the provisions of a zoning scheme in respect of land;
- To amend, suspend or remove a restrictive condition, servitude or reservation registered against the title deed or leasehold title of land;
- To amend conditions of establishment of any township;
- To obtain consent for an application in terms of a zoning scheme;
- To close and alienate any public place, including roads; and
- To limit the manner or purpose for which a public place, including a road, is used.

The procedures that are described in the existing Act are summarised in Table 5.6 below.

Table 5.6 Procedures for a land application (adapted from the Act – Juta 2008f)

STEP	ORDINANCE	TIME INVOLVED
Lodging of Application	BY: Owner or Agent (Section 60)	
Lodging of Application	TO: Municipal Manager (if not accepted, applicant to appeal)	
Advertising	Not prescribed in the Act	56 day objection period
Circulation	Municipal Departments and Organs of State	56 day period
Compilation of Draft Conditions of Approval	Incorporate comments received after all departments satisfied.	Time period to be prescribed
Consideration of Application (by whom)	Planning Committee or Municipal Planning Tribunal or Municipal Manager	No undue delays, time period to be prescribed
Promulgation Notice	Rights come it effect	

Appeal	*Appeal to the Provincial Planning Tribunal or Appeal Tribunal*	
Appeal Hearing	*By Tribunal*	
Promulgation Notice	*Decision of Townships Board*	

Very little attention is given to environmental issues in the Act. There is a brief reference to sustainable development as a principle to be applied to applications and decisions as envisaged in NEMA. When the processes in the Act are summarised it appears that the new Act is a synthesis of the acts it replaces with a few enhancements insofar as public participation is concerned but with very little environmental consideration. As the Act has no regulations as yet, the public participation processes cannot be assessed.

5.6 CHAPTER CONCLUSION

This chapter has described in broad detail the processes that are followed when either a township is established or a property is rezoned. The purpose of this description was to demonstrate that much of the planning legislation does not incorporate environmental processes and that these operate almost entirely in parallel to each other.

The DFA is the only planning legislative tool that requires a comprehensive environmental assessment, but is flawed on the basis that this will be assessed by Tribunal members who are not necessarily qualified in environmental matters and the Tribunal should therefore be reformed to include environmental experts. The DFA is also to be repealed and replaced by the Land Use Management Act (Bill). As described previously the current Bill prefers to separate the environmental issues and make them the responsibility of NEMA, arguably a step backwards.

It should be recognised that at the time the DFA was drawn up, much of ECA was not operational and so the DFA may have included environmental assessments in order to provide some environmental protection in rapid development projects. The governments intention may, therefore, always have been to separate the planning and environmental processes.

This chapter also described the different environmental procedures that are currently used in terms of NEMA. In concluding this chapter it is important to question why the Basic Assessment process is not required for most planning applications and assessed at Local Government level, as this would enable an improved recognition of the environment and also ensure that planners take proper cognisance of environmental matters. The function of GDACE could potentially be limited to assessing full EIA reports that are likely to have a significant effect on the environment and thus improve the ability of GDACE to monitor management plans and also improve the relationship between the planner (at EMM) and environmental manager (at GDACE) in a system of parallel legislation. However this is unlikely to be changed in the near future.

It is worth noting that, in the case of arbitration in the EMM, there is a Development Tribunal (Councillors and Business representatives) dealing with planning matters, the Townships Board (Planning Professionals), Gauteng Development Tribunal (Planning Professionals) for DFA applications. Appeals on environmental matters are usually referred to the MEC or to the High Court (Van Wyk, 1999; EMM, 2007a). The next chapter will assess two cases studies dealing with some of the application procedures discussed.

6 CASE STUDIES

This chapter will look at two case studies that involve both planning and environmental applications and that had significant publicity in recent times. The first case deals with participation processes and the implications for individual rights and the second case deals with development in an environmentally sensitive area and its implications for other areas.

6.1 LIBRADENE SERVICE STATION

This case involves the development of a Sasol service station on Erf 342 Libradene Extension 2, south of the Boksburg CBD. The land in question straddles a wetland which feeds into Cinderella Dam, Elsburg Spruit and eventually the Vaal River, passing through various residential areas (Macleod, 2006). (See Figures 6.1, 6.2 and 6.3 below.)

The land formerly belonged to the municipality and was sold to Dealmania (Pty). Ltd in 1999. Dealmania realised that the site was well situated for the development of a service station and that the land's value would be improved if the rights for such a filling station could be obtained (Tip, 2005).

The land was still zoned as agricultural land and was a farm portion (i.e. not in a legal township). The land use changes thus required that a township be established (Libradene Extension 2) and that environmental authorisation be obtained as a filling station was a listed activity in terms of the prevailing Environment Conservation Act (ECA) (Act No. 73 of 1989), and also that permission be obtained from the national Department of Water Affairs and Forestry (DWAF) for modification of the wetland area (Tip, 2005).

The processes began with environmental authorisation from GDACE and was submitted on 6 June 2000 by independent consultants, the final report (scoping report) was submitted in February 2002 (Tip, 2005). At some point between February 2002 and April 2005 the EIA study was approved and an ROD was issued. However the exact date is not mentioned in any of the articles or in the judgement.

The scoping report was also sent to DWAF on 18 June 2002 and permission was obtained on 31 January 2005 for modification of the wetland.



Figure 6.1 Location of service station site (Source: EMM; GIS: G Mac Carron)

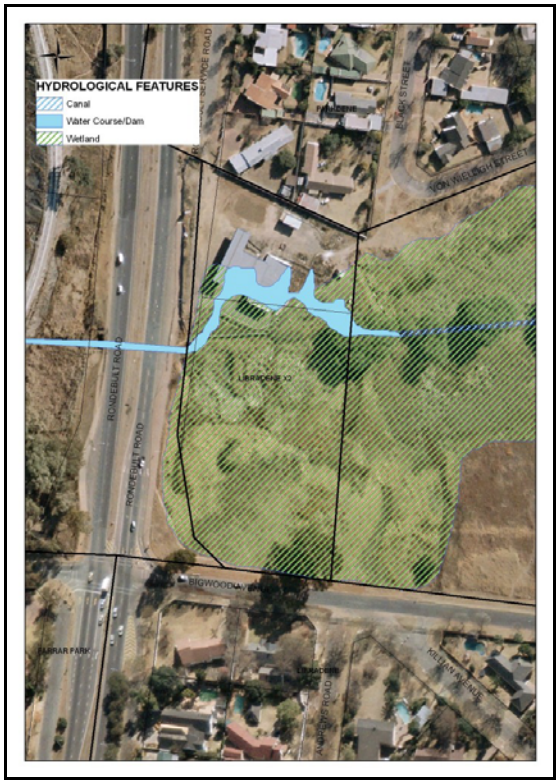


Figure 6.2 Hydrological features (Source: EMM; GIS: G Mac Carron)



Figure 6.3 C-Plan features (Source: GDACE / EMM; GIS: G Mac Carron)

Following receipt of authorisation from GDACE and DWAF, the township of Libradene Extension 2 was proclaimed on 18 April 2005 and the Boksburg Town Planning Scheme was simultaneously amended in terms of Section 125 of the Ordinance, granting Business 3 rights, including filling station rights, to Erf 342 (Tip, 2005).

In the interim the site (presumably under the assumption that the rights would be realised) was sold to Petra Props (Pty) Ltd on 18 February 2004 and the land was transferred, after proclamation of the township, on 25 July 2005 (Tip, 2005). The above issues were not disputed and it would appear that all processes had been correctly followed. However, in March 2005 a nearby resident noticed signage indicating the proposed development of a Sasol service station on the site. Although the proposed activities were not clearly advertised earlier, it appears that in late 2004 the site was being cleared and the wetland modified.

A local resident, Ms. Nicole Barlow, questioned how a filling station could be approved in a wetland area. This she did by establishing an interest group, by publishing articles in the local *Boksburg Advertiser* newspaper and by directing questions to Sasol and the relevant government departments.

The result of her continuous pressure on government departments, including her having the issue raised in parliament, was that GDACE decided on 30 November 2005 to issue a directive following its own internal investigation. This investigation, it is reported, was based on allegations that the signatures on the ROD may have been forged. The second result was that Sasol indicated that it might decide not to proceed with the project, owing to the negative publicity that it had received in the press (Tip, 2005).

Following this, Petra Props decided to sue Nicole Barlow and the Libradene Wetland Association (LWA) and claim damages amounting to R6 million. The applicant in the case before High Court Judge Tip took the position that Nicole Barlow and the LWA had had an opportunity to prevent the development from proceeding and had not followed the correct procedures when making objections. Petra Props also maintained that, as a result of her meddling, the project was in jeopardy after an R8,5 million investment (Tip, 2005).

The procedures that the applicant refers to are the participation procedures as contained in the planning and environmental legislation.

As the applicant points out, participatory procedures in the establishment of the township were correctly followed. In terms of the Ordinance the proposed township was advertised by the erstwhile Boksburg Municipality on 8 and 15 March 2000 in the provincial gazette and presumably in at least one other newspaper as required. I have not been able to determine whether objections were received against the application within the 28 day period. However that does not matter, as the point is that Nicole Barlow was unaware of the application at that time.

Later, in terms of the ECA, the proposal was again advertised and interested parties may have registered their concerns, but this did not include Nicole Barlow, who was unaware of any development until 2005.

Judge Tip acknowledged that the proper appeal and objection periods had expired. However he ruled that the comment period of 14 days allowed for in terms of ECA was "absurd … The result is that a decision such as this one, to approve a petrol station in an eco-sensitive area, would be entirely immune from public debate or the lodging of representations outside the narrow and formal processes" (Tip, 2005).

The applicant further sought an order that said that its rights of enjoyment of its property outweighed Nicole Barlow's and the LWA's right to freedom of expression. The judge found against the applicant, owing to the fact that the proposed development and the effects on the environment affected more than the property owner.

The judge also found that, owing to the peaceful and lawful process followed by Nicole Barlow and the LWA who stood to gain nothing from their efforts that they were within their constitutional rights. Nicole Barlow also pointed out that she had nothing against Sasol or Petra Props but only against the development of a service station in that location, a sensitive wetland (Tip, 2005).

In Macleod (2006) the environmental problems of the development are identified. These include the statistic that “most filling stations drain about 200 litres of waste oil into the sewage systems every week, which usually end in watercourses, rivers and dams – in the case of Libradene probably in the surrounding wetland.” Barlow is also quoted in Tip (2005), who said that the site is recognised by GDACE in its C-Plan as an “irreplaceable site”. However Figure 6.3 above does not show the site as irreplaceable but does indicate the area surrounding the Cinderella Dam as such. In an article in the *Boksburg Advertiser* and quoted in Tip (2005) Ms Barlow also stated that, should the fuel leak, the Bokkie Park (a nearby recreational facility) would be damaged. The problem with this statement is that the Bokkie Park is upstream from the development.

The fact that the land is a wetland has not been disputed by any of the parties and has been confirmed by environmental experts. The development also takes place in all three wetland ‘zones’: permanent, seasonal and temporary, and the concern is probably justified.

In concluding this study it should be noted that the participation processes are the main concern in this case. It is important that participation processes in terms of the Ordinance and NEMA (or ECA in this case) be rationalised into one so as to limit public confusion. Also, it is important that participation processes be valid only for a certain amount of time. In this case 4 to 5 years had passed between the participation processes and the first ground works on the land. Although it is understood that environmental authorisations and township establishment take time to finalise, this process should be limited to 2 years. Alternatively it could be possible to approve the development ‘in principle’ subject to a participatory process at the time of construction.

What is recognised in this case is that individuals do have the power to take action for a cause that they believe in. However this requires significant resources and time. Judge Tip states that “it should be borne in mind that the Constitution does not only afford a shield, to be resorted to passively and defensively. It also provides a sword, which groups like the association can and should draw to empower their initiatives and interests.”

This is a powerful statement that strongly supports the action of Nicole Barlow and the LWA, despite having not participated as required in terms of the relevant legislation.

Unfortunately this story has not yet ended as the half-complete development remains on the site, as can be seen in Figure 6.4 below. To date there has been no rehabilitation of the site or the wetland area and there is no indication of when this will take place.



Figure 6.4 Sasol filling station site – November 2008 (Photo: G Mac Carron)

This case clearly illustrates that the current legislative procedures do not serve the environment well, are ultimately unsustainable and cannot be seen to be in the public interest.

Nicole Barlow has become known as the 'Erin Brockovich' of Boksburg (after the American who took on large mines that were causing health problems and won the case) and has since taken on other developers who affect wetlands in the Ekurhuleni area.

6.2 MEYERSDAL NATURE ESTATE AREA

The Klipriviersberg is an east-west hilly area on the western boundary of Alberton. This area has been degraded to some extent over the years but much of the land to the south and north of this area is still natural and undeveloped. In line with the DFA principles and requirements the erstwhile Alberton Town Council began to develop land development objectives (LDO). As part of this process it was determined that a more comprehensive study was needed for the area. In 1998 the council appointed the Disa Environmental / Planpractice Consortium to identify land that could be earmarked for development and land that should be conserved (Disa, 1999a). This study was called the Klipriviersberg Management Framework and was more of a status quo report with management proposals for illegal activities and contained proposals for possible future development on some parts of the land. This policy was approved in April 1999 by the Alberton Town Council (Disa, 1999b).

Shortly thereafter the same consortium was appointed to devise the Land Development Guidelines: Klipriviersberg report (August 1999), which tried to further refine the proposals in the Management Framework and also looked at a proposed road network in the area, the archaeological findings, whilst providing more detailed environmental management guidelines (Disa, 1999b).

The result of the above investigations was that the Alberton Town Council began to realise that the area should be conserved as much as possible and should also be linked to other open areas to the south and north of the original study areas. This was named the Meyersdal Nature Area (MNA) and includes the Rietvlei Zoo Farm area (owned by the City of Johannesburg), land owned by the EMM, land owned by Rand Water and land privately owned the Meyer Trust (the original farmers in the area who still farm the north section of the study area). The area is approximately 1070ha in extent.

In November 2000, the Alberton Town Council appointed EnviroNomics to compile a detailed Management Plan for the Meyersdal Nature Area (submitted on 31 July 2001), which included proposals for restoration of the area, fencing of the area, access arrangements and areas to be developed.

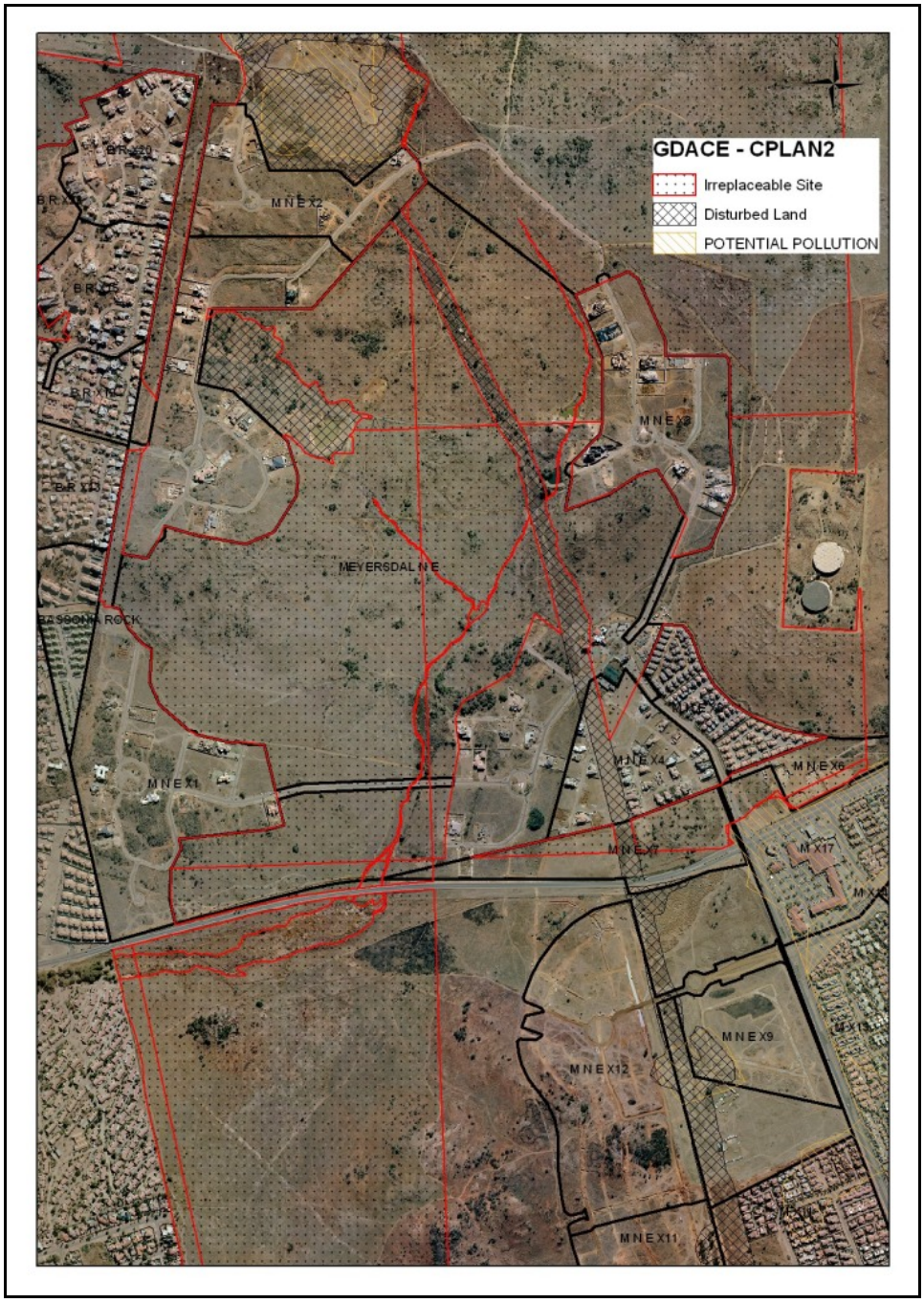


Figure 6.5 Meyersdal Area – C-Plan Status (Source: EMM / GDACE; GIS: G Mac Carron)

EnviroNomics takes into account all of the requirements of GDACE (Figure 6.5) and begins to develop land use proposals by overlaying the various components such as red data species, hydrology (Figure 6.6), visual aesthetics, geology and the state of the land. This was done in a manner similar to that proposed by McHarg in order to find the best use of the land (EnviroNomics, 2001).

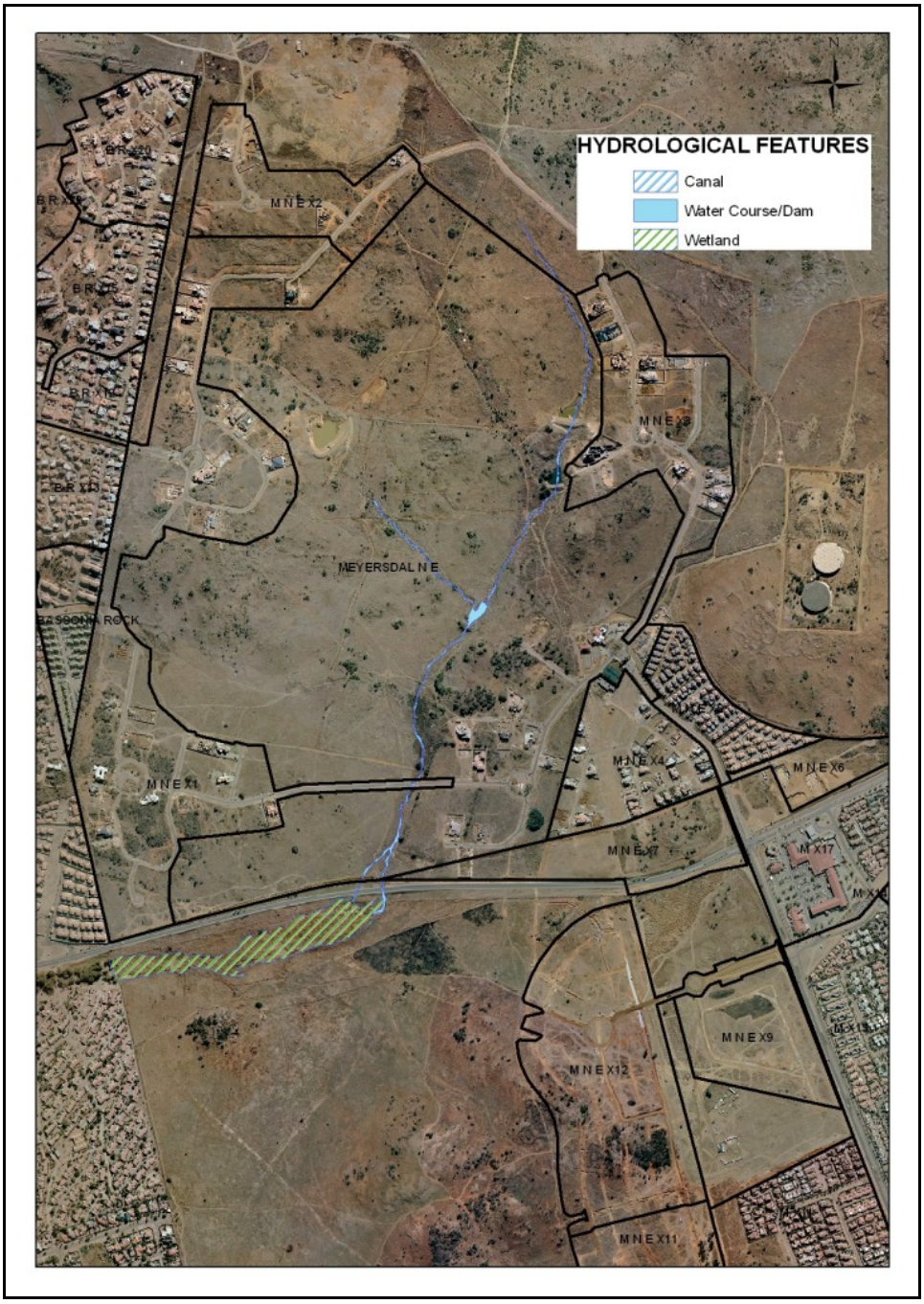


Figure 6.6 Meyersdal Area – Hydrology (Source: EMM / GDACE; GIS: G Mac Carron)

The land is essentially cut into a north section and a south section by Michelle Avenue and Bellairs Road. The north section is essentially the land belonging to the Meyer Trust and the south to the EMM. Figure 6.7 below shows the ownership of the various land parcels.

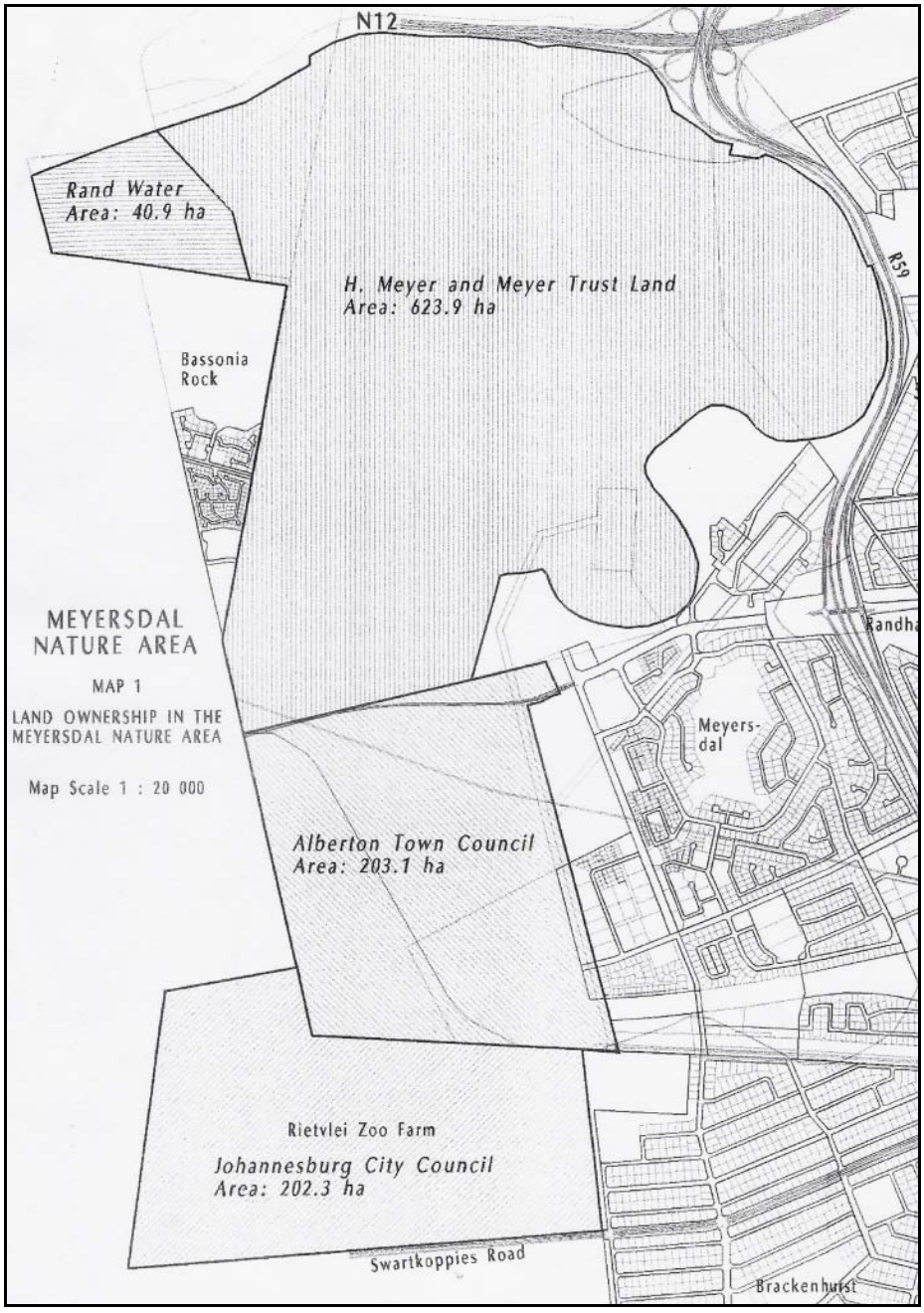


Figure 6.7 Meyersdal Land Ownership (Source: EnviroNomics, 2005)

It should be noted that the report recognised at an early stage that low-density residential development should be permitted in the area and that this should be directed to an upper income level, owing to the costs of building on the clay soil as well as to the income that would be generated to support the maintenance and improvement of the area.

The report therefore indicates the area north of Michelle Avenue as being restricted to residential development in certain areas along the edges outside the nature area with a large private open space component in the centre that would be conserved by the owners of the erven in the townships to be established (EnviroNomics, 2001).

This necessitated the establishment of townships to effect the residential development. The applicants used the DFA to establish Land Development Areas (townships), called Meyersdal Nature Estate and extensions 1 to 6, and included an environmental scoping report and EIA. These were gazetted in August 2005 following various changes proposed by GDACE in 2004 (EnviroNomics, 2005) and construction commenced shortly thereafter.

The area to the south of Michelle Avenue, mostly owned by the EMM, became the subject of a land-swop agreement owing to the changes made by GDACE in 2004 (EnviroNomics, 2005) which has been very controversial on account of allegations of fraud in the deal. The townships in this area were established in terms of the Ordinance (Meyersdal Nature Estate extensions 7 to 12) and have mostly been proclaimed. No development has taken place on the south side as the Section 82 certificate has not yet been issued by the EMM's City Manager.

The project is not yet complete owing to the ongoing investigations. However, once completed the open area in the southern section will become public open space and will feature hiking trails, bridal paths, environmental education centres and recreational facilities that will lead to a sustainable community facility for present and future residents to enjoy. The EMM will manage the open space and will essentially be funded by the property rates tax generated by the upper income erven created in the area. Residents purchasing erven in any of the new developments will be obliged to commit themselves to funding environmental projects and the maintenance of the nature area.

The importance of this case study to this study is that it highlights the need for an integrated environmental-planning approach, a form of merging the 'substantive and procedural paths' proposed by Campbell (1996) in order to achieve sustainable development.

Planning in the Meyersdal Nature Area was done whilst taking into account environmental sensitivities and although GDACE initially did not support any development of the area, it too came on board as it realised that the conservation of the area would be extremely expensive and that the best way to achieve this would be to allow upmarket residential developments in less sensitive parts of the area, resulting in a truly sustainable solution (GDACE, 2006). It is envisaged that after construction the area will be stocked with game and that other areas will be rehabilitated to the mutual benefit of the environment and the residents. It is essential that the developmental mandate of the municipality be supported by environmental (public and private) partnerships.

6.3 CHAPTER CONCLUSION

In this chapter two projects with a planning and environmental relationship were briefly investigated. The Libradene project demonstrates the need for proper community participation in development projects where the impact of the project may extend beyond the site. It is also important that there is not a significant delay between the participation process and actual development, as this does not do justice to the process, which then merely becomes a formality. It is important that the planning and environmental processes, in particular the participation process, also become more rationalised as this would reduce confusion to the general public who may not be aware of the technicalities of the two processes.

The Meyersdal Nature Area project demonstrated that, with careful planning and full buy-in of all the authorities and the community, an environmentally sensitive area can be developed in a sustainable manner. However this was not a prescribed process but rather one driven by the Alberton planners and it would be more beneficial if the Spatial Development Frameworks contained similar proposals and initiatives for other areas and were not developed as separate Environmental Management Frameworks in which the two plans are not linked.

Although this study has only demonstrated two projects, it is clear that there are problems with the current legislated process and procedures in the planning-environment relationship. The case studies also demonstrate that even though this relationship is problematic, with dedicated and committed people, the system can be overcome and the environment can be protected in the public interest.

7 CONCLUSION

This Research Report has attempted to answer the following question:
“Do the current planning and environmental management legislative frameworks and their associated policies and procedures lead to unsustainable development in Gauteng?”

In Chapter 1 (Introduction) the concept of sustainability was discussed and the focus was placed on the ‘environment – economy – social’ definition as well as on the definition that includes institutional arrangements.

The study has focussed on the various pieces of legislation at national and provincial levels that regulate environmental and planning applications in order to answer the first sub-question “How is the relationship between environmental management and planning operating in practice (status-quo)?” Immediately it became evident that the legislation regulates these two fields separately and that even more modern legislation, such as NEMA and the Land Use Management Bill, proposes to keep these two fields separated from one another. Currently only the DFA, to some extent, requires environmental aspects to be addressed in applications, although they all have legislated principles requiring sustainable development. In Gauteng the existing Ordinance and the non-operational Planning and Development Act do not take the environment into consideration as part of land-use applications. It is essential that planning legislation itself be rationalised and standardised across the country for consistency, as is proposed in the Land Use Management Bill.

The second sub-question “What are the main reasons for this situation having arisen?” has been addressed in the review of the literature and the assessment of the two fields. It became evident that the planning field developed in England over many decades in response to health issues and to concerns for orderly settlement, especially colonial settlements and Apartheid-era ‘group areas’. In Gauteng the planning field grew from the development of mining townships, some of which are still part of the Ekurhuleni area today.

The environmental aspect developed in the United States in the post-World War II era and took many decades to find acceptance by legislators in South Africa on account of the command style of government in the Apartheid era. Environmental legislation that was subsequently developed in South Africa, such as NEMA, is highly advanced and is ahead of that of many countries. In response to events and policies such as the Rio Earth Summit, the Johannesburg Summit on Sustainable Development, Agenda 21, the Kyoto Protocol and others, the government has developed powerful environmental legislation, whereas planning legislation has been developed much more slowly, despite the large spatial challenges facing the cities in Gauteng, particularly Ekurhuleni.

In the post-Apartheid era the government must relinquish some of its control of planning and environmental applications, despite its desire to take developments to the communities and to enable them to participate fully in the development of their urban environments. Mahubane (1998: 3) states that "there has been a focus change from 'control-oriented development' to the 'developmentally oriented approach'. Similarly the overall community planning moves from the realm of professional planners to a people centred hands on approach within the affected community, and this has to be encouraged." Although this approach has been adopted, the current legislation does not sufficiently address this process.

Despite the existence of advanced legislation promoting the protection of the environment, the penalties for causing damage are not severe enough as the legislation relies too heavily on the 'command and control' approach to enforcement rather than on incentives for self-regulation (Feris, 2006). In order to achieve the desired environmental protection a balance needs to be found between the certainty of an authorisation and the freedom to self-regulate whilst not having absolute freedom and according to the diagram by Claassen (2002). This will ensure that sustainable development can be achieved, as depicted in Figure 7.1 below.

It is evident that the current situation in the planning – environment relationship has come about for a variety of reasons and also over a very long period of time. It is essential that the government begins to find a way to develop these fields together in the future.

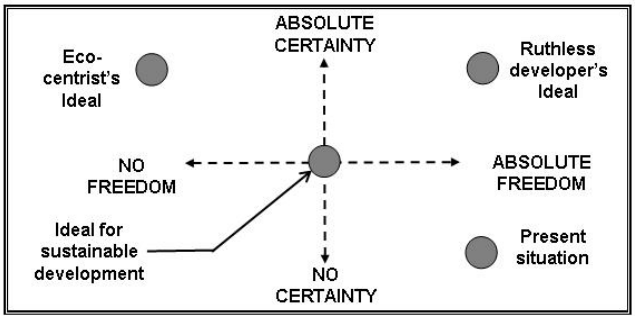


Figure 7.1 The balance between certainty and freedom (Source: Claassen, 2002)

The third sub-question posed in this report is "What legislative and procedural changes need to take place that result in more sustainable development and are there are any other solutions?" This question was answered by assessing the legislation and how it is implemented in practise. The detailed processes were assessed and it is has been shown that much duplication takes place in land use applications that require environmental authorisation as well. Perhaps of more concern is that some planning applications require no environmental authorisation at all and that the environmental implications of numerous developments within one area may have a significant effect on the environment. As discussed above consolidation of planning and environmental legislation into one legislative framework is necessary, as well as standardisation of legislation across the country for consistency.

The institutional frameworks that the legislation has created and the delegation of authority also need to be rationalised. It is imperative that large metropolitan municipalities are delegated the responsibility to issue environmental authorisations in the same manner as they do planning applications which would allow for a more rapid process to ensure that the municipality meets its developmental mandate. These delegations may also be extended to well-managed district municipalities with the emphasis on self regulation and community participation, with proper interaction between environmental officers, planners, elected officials and the general public. The institutional arrangements in the EMM and their institutional relationship with GDACE further emphasises the need for re-examination of the legislation and the institutional arrangements.

The Constitution currently allocates planning applications to the local government level but local government could become responsible for environmental management if this was specifically provided for in the legislation, and would not necessitate an amendment to the Constitution. Independent monitoring would have to take place to ensure that local government is not pressured by developers, at the expense of the environment.

The final sub-question in this report is “Do case studies show that unsustainable development is the result of poor legislative frameworks coupled with poor procedural practices?” In answering this question it should be noted that only two cases were investigated. The first case study showed that the legislation is poor, its participatory processes not being in the interest of the community and may lead to unsustainable development in certain cases. The second case shows that, if all processes are followed in legislation, they will not properly incorporate the issues and promote sustainable development and consolidated legislation should thus address spatial planning that includes environmental investigations in order to define the best use of the land and ultimately achieve sustainable development.

In summary, and in answer to the primary question “Do the current planning and environmental management legislative frameworks and their associated policies and procedures lead to unsustainable development in Gauteng?” the answer to the various sub-questions have shown that indeed this is the case. In Gauteng the existing Apartheid-era legislation does not promote sustainable development, whereas in the case of the EMM, a municipality in Gauteng, there is a lack of integration and synergy in addressing the planning and environmental matters. The EMM has developed many planning and environmental policies and documents that aim to achieve sustainable development in the metro but this will not occur if these continue to be addressed separately.

It is argued that the hypothesis that “Current legislation, policies and procedures in the planning and environmental management domains result in unsustainable development in Gauteng” is therefore proved to be valid.

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APPENDICES

APPENDIX A – GOVERNMENT NOTICE R386

APPENDIX B – GOVERNMENT NOTICE R387