rural development
& land reform

Department:
Rural Development and Land Reform
REPUBLIC OF SOUTH AFRICA

LAND USE SCHEME GUIDELINES

MARCH 2017

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CHAPTER 1

INTRODUCTION

1.1 PURPOSE OF THIS DOCUMENT

Section 24 of the Spatial Planning and Land Use Management Act of 2013 (SPLUMA) specifies that a municipality must, after public consultation, adopt and approve a single Land Use Scheme (LUS) for its entire area within 5 years from the commencement of the act. The purpose of these guidelines is to assist planners in the preparation of Schemes. It must be borne in mind at all times that this document is a guideline document, and that the planner is free to adapt or modify as he/she sees fit and as suits the circumstances.

1.2. THE DIFFERENCE BETWEEN LAND USE AND ZONING

It is important to understand that the two words "land use" and "zoning" does not mean the same thing. A land use is a type of activity that occurs on a piece of land. Zoning is the process of planning for land use by allowing or restricting certain land uses in a certain geographic area. A "Zoning" is NOT necessarily restricted to a single land use and typically include a number of related land uses. Zoning also includes restrictions in different zoning areas, such as height of buildings, density (number of structures in a certain area), coverage, parking requirements etc. Zonings are managed by means of a scheme.

1.3. WHAT IS A LAND USE SCHEME?

Some clarity is required regarding terminology. Internationally, land use is managed through the "zoning codes". Historically in South Africa, municipalities used the term "Town planning Schemes". After 2000, this term changed to "Zoning Schemes"[1], whilst the newest South African Planning Legislation (SPLUMA) coins the phrase "Land Use Schemes". All the different terms mentioned refers to the same thing:

A Land Use Scheme is a planning tool that allows or restricts certain types of land uses to certain geographic areas. Typically one can find a spatial depiction of these geographic areas (typically called "zones "or "zonings") as well as document (often called "scheme regulations") that sets out all procedures and conditions associated with the use of land in any of these zones. There may also be procedures and conditions applicable to the use of land in any zone.

Land Use Schemes are legal instruments, in fact they will in future become municipal by-laws (more on this will follow later on in the document). Whilst other planning instruments such as the Spatial Development Framework (SDF) are policy instruments, the Land Use Scheme can legally be enforced. Not the following important point:

A Land Use Scheme must note take a land use decision for the user or the planner. Much depends on the nature of the development application and the conditions of approval to be imposed. A Land Use Scheme should not result in a planner not engaging with the application, the relevant considerations, the SDF, SPLUMA principles etc.

There are some differences of opinion as to what exactly the "zones" or "zoning" on the maps included in a Land Use Scheme should indicate. In some instances, zones are used to indicate the **desirable future development of an area**. In other instances, the zoning on the map refers to the **existing land use rights** assigned to the property. These issues represent different approaches to land use management, and will be discussed in later chapters.

1.4. PURPOSE AND OBJECTIVES OF A LAND USE SCHEME

Schemes are tools used by municipalities to guide and manage development according to the vision, strategies and policies of the Integrated Pevelopment Plan (IDP) and Spatial Development Framework (SDF), and in the interests of the general public to promote sustainable development and quality of life. The general purpose of a Scheme is to create coordinated, harmonious and sustainable development of a municipal area in such a way that it efficiently promotes health, safety, order, amenity, convenience and general welfare, as well as efficiency and economy in the process of development.

[1] This term was used extensively in the Western Cape and KwaZulu Natal

The objectives of Schemes can be summarized as follows:

- To designate desirable land uses and provide clarity on what may or may not occur on a property, and what may be considered at the discretion of the municipality
- To promote the certainty of land use which protects property values and creates investor confidence
- To promote and protect the amenity within areas and neighbourhoods
- To resolve conflict between different land uses, and to control negative externalities
- To balance the interests of individuals with those of the public
- To enable the coordinated and efficient use of land
- To enable the efficient movement of persons and goods
- To promote the economy
- To protect natural resources (ecosystem services), including agricultural resources (high potential agricultural land)
- To protect unique areas or features
- To protect cultural resources and places of religious and cultural significance
- To manage land generally, including change of land use and building type
- To provide a statutory basis for public involvement. To provide a means of enforcement
- To ensure the retention of land for future uses, the need for location and extent of which is not presently certain.

1.5. LEGAL FRAMEWORK INFORMING LAND USE SCHEMES

Planning in South Africa operates within a legal framework, which strives to ensure that municipalities deliver their developmental duties (in terms of Section 153 of the Constitution):

- Structure and manage its administration, and budgeting and planning processes to give priority to the basic needs of the community, and to promote the social and economic development of the community; and
- Participate in national and provincial development programmes.

The Municipal Systems Act No 32 of 2000 – sets out in Chapter 2 the requirement, amongst other, for newly elected **municipal councils** to prepare and adopt an Integrated Pevelopment Plan (IDP) for their respective areas and to provide for annual revision thereof.

The IDP is required in terms of the act to include a Spatial Development Framework which must include the provision of basic guidelines for a land use system for the municipality.

SPLUMA (which was enacted 13 years after the Municipal Systems Act) defines municipal planning in much more detail as the following[2]:

- The compilation, approval and review of Integrated Pevelopment Plans;
- The compilation, approval and review of the components of an Integrated Pevelopment Plan prescribed by legislation and falling within the competence of a municipality, including a Spatial Development Framework and a Land Use Scheme; and
- The control and regulation of the use of land within the municipal area where the nature, scale and intensity of the land use do not affect the provincial planning mandate of provincial government or the national interest.

[2] SPLUMA, Chapter 1, Section 5

1.5.1. THE SPATIAL PLANNING SYSTEM IN SOUTH AFRICA

SPLUMA defines the spatial planning system in South Africa as consisting of the following components:

- Spatial Development Frameworks to be prepared and adopted by national, provincial and municipal spheres of government;
- Development principles, norms and standards that must guide spatial planning, land use management and land development;
- The management and facilitation of land use through the mechanism of Land Use Schemes; and
- Procedures and processes for the preparation, submission and consideration of land development applications and related processes

1.5.2. INTERRELATIONSHIP BETWEEN IDP, SDF AND LUS

Integrated Pevelopment Planning is an approach to planning that involves the entire municipality and its citizens in finding the best solutions to achieve sustainable long-term development. An IDP provides an overall framework for development. It aims to co-ordinate the work of local and other spheres of government in a coherent plan to improve the quality of life for all the people living in an area. It should take into account the existing conditions and problems and resources available for development. The plan should look at economic and social development for the area as a whole. It must set a framework for how land should be used, what infrastructure and services are needed and how the environment should be protected.

All municipalities have to produce an Integrated Pevelopment Plan (IDP). The municipality is responsible for the co-ordination of the IDP and must draw in other stakeholders in the area who can impact on and/or benefit from development in the area. Once the IDP is drawn up all municipal planning and projects should happen in terms of the IDP. The annual council budget should be based on the IDP. Other government departments working in the area should take the IDP into account when making their own plans.

The IDP is reviewed every year and necessary changes can be made. The IDP has a lifespan of 5 years that is linked directly to the term of office for local councillors. After every local government elections, the new council has to decide on the future of the IDP. The council can adopt the existing IDP or develop a new IDP that takes into consideration existing plans.

A municipal **Spatial Development Framework** must contribute to and form part of the municipal Integrated Pevelopment Plan; and assist in integrating, coordinating, aligning and expressing development policies and plans emanating from the various sectors of the spheres of government as they apply within the municipal area. Spatial Development Frameworks must also outline specific arrangements for prioritising, mobilising, sequencing and implementing public and private infrastructural and land development investment in the priority spatial structuring areas identified in Spatial Development Frameworks. A municipal Spatial Development Framework must also determine the purpose, desired impact and structure of the **land use management scheme** to apply in that municipal area.

A **Land Use Scheme** must give effect to and be consistent with the municipal Spatial Development Framework and determine the use and development of land within the municipal area to which it relates in order to promote economic growth, social inclusion, efficient land development and minimal impact on public health, the environment and natural resources. As mention earlier, property rights are managed through "zoning" as indicative rights of what land use can be exercised on a property. These property rights are assigned, managed and amended though the controls and mechanisms of a **Land Use Scheme**.

Schemes may be amended in the following manner:

- Land development applications which amends the scheme by changing the rights applicable to properties (e.g. a rezoning from residential rights to business rights). These amendments are decided by a municipal planning tribunal or a land development officer. This tribunal CANNOT make a decision on an amendment of a Land Use Scheme (called a development application) that is inconsistent with a municipal Spatial Development Framework (unless site specific circumstances justify such a departure).
- Changes to the scheme that affects the regulations (which sets out the procedures and conditions relating to the use and development of land) may only be authorised by the Municipal Council.

1.6. PRINCIPLES TO BE CONSIDERED IN A LAND USE SCHEME

Society has various needs and expectations such as land for settlement, protection of the environment, economic well-being, various social needs, proper management of resources and infrastructure. Planning aims to meet these by addressing aspects of economic, environmental and social well-being affected by land use and development. The following list of general planning principles should inform the formulation of a Land Use Scheme.

A planning authority preparing or administering a scheme must consider these principles as they will guide good decision-making in land use and development planning:

THE PRINCIPLES CONTAINED IN PLANNING AND OTHER RELEVANT LAW

Chief among these are principles highlighted in the Spatial Planning and Land Use Management Act:

PRINCIPLE OF SPATIAL JUSTICE

- Past spatial development imbalances to be redressed – better access and use of land
- SDF and policies must address inclusion of previously excluded
- Spatial planning mechanisms and LUS must enable redress in access to land
- Land use management system (LUM) systems must include provisions that are flexible and appropriate for managing disadvantaged areas
- Land development procedures must include provisions that accommodate access to secure tenure and upgrading of informal areas
- A Municipal Planning Tribunal (MPT) may not be impeded or restricted solely on ground that value of land or property is affected by the outcome of the application

PRINCIPLE OF SPATIAL SUSTAINABILITY

- Promote land development within fiscal, institutional and administrative means of Republic
- Ensure that special consideration is given to protection of prime agricultural land
- Uphold consistency of land use measures in accordance with environmental management instruments
- Promote and stimulate effective functioning of land markets
- Consider all costs (present and future) to all parties for the provision of infrastructure and social services in land developments
- Promote land development in locations that are sustainable and limit urban sprawl

PRINCIPLE OF EFFICIENCY

- Land development optimises use of existing resources and infrastructure.
- Decision-making procedures designed to minimise negative financial, social, economic or environmental impacts
- Development application procedures are efficient and timeframes are adhered to by all parties. Note that these timeframes should be reasonable to ensure that adequate consideration is given to any proposal.

PRINCIPLE OF SPATIAL RESILIENCE

- Flexibility in spatial plans, policies and land use management systems are accommodated - ensure sustainable livelihoods in communities most likely to suffer the impacts of economic and environmental shocks. Environmental shock may take on two forms – firstly there is the accepted natural even such as floods and earthquakes. Secondly – natural shocks that occur incrementally resulting from climate change. Often the second type of shock go unnoticed due to the delay in the effects of their impacts.

PRINCIPLE OF GOOD ADMINISTRATION

- All spheres of government ensure integrated approach to land use and land development - guided by spatial planning and land use management systems embodied in this Act
- All government departments provide their sector inputs and comply with any other prescribed requirements during preparation or amendment of SDF's.
- Requirements of any law relating to land development and land use are met timeously
- Preparation and amendment of spatial plans, policies, Land Use Schemes and procedures for development applications, include transparent processes of public participation including all parties the opportunity to provide inputs
- Policies, legislation and procedures must be clearly set to inform members of public

THE MUNICIPALITY'S INTEGRATED PEVELOPMENT PLAN

- The principles as set out in a Spatial Development Framework or policy plan
- The desired spatial form, including infrastructure investment, spatial reconstruction, location and nature of development, Urban Edge, scenic routes, areas of strategic intervention, protection of valuable agricultural land, mitigation of development impacts
- The conservation and protection of environmental and heritage aspects in accordance with national or provincial 'norms and standards'
- The principles of co-operative governance and the duties and objectives of local government as set out in the Municipal Systems Act, Act No. 32 of 2000 and the National Constitution, 1996.

SCHEMES MUST ALSO ADHERE TO LEGAL REQUIREMENTS AND REFLECT THE SPIRIT OF RELEVANT LEGISLATION, INCLUDING:

- Spatial Planning and Land Use Management Act 2013.
- Co-operative governance, including alignment of all plans (Municipal Systems Act, Act No. 32 of 2000 Section 24)
- Participation (Municipal Systems Act, Act No. 32 of 2000 Chapter 4)
- Various principles contained in National Legislation including:
- National Environmental Management Act, Act No. 107 of 1998 and its subsequent amendments. This includes all its associated Acts and their subsequent amendments.

  1. National Land Transport Transition Act, Act No. 22 of 2000

  2. Norms and standards as they are developed both nationally and provincially in terms of relevant legislation.
- For additional Acts and legal instruments than can affect the formulation of a Land Use Scheme - refer to Annexure B.

CHAPTER 2

TOWARDS A SPLUMA COMPLIANT LAND USE SCHEME

2.1. SINGLE USE ZONING

Typically (there are some exceptions) most EXISTING Land Use Schemes in South Africa can be categorised as single-use zoning schemes (also known as "Euclidean" zonings). This type of zoning scheme is typically based on a system of zones or zonings, lists of uses associated with each zoning, and certain standards that deals with the dimensions of allowed development.

The following are typical characteristics of a "single use" zoning system:

- Each zoning specifies a category of uses (e.g., Residential 1, Residential 2, Commercial, Industrial, etc.) and are applied geographically on the municipal zoning map (often referred to as Map 3).
- Allowable uses indicate the range of residential, non-residential, public, or other uses permitted within each zoning. While certain uses are "permitted" within the zone, others are identified as "ancillary" to the permitted uses, and still others may be allowed only as "consent" uses, requiring a consent from the municipality or adjoining property owners to agree that the use is appropriate for a specific site and applying special conditions to the use.
- Dimensional standards include criteria that outline the parameters for the creation of erven and the placement of structures and buildings on an erf, i.e., the building "envelope." These standards generally include, but are not limited to: minimum erf size, building lines and maximum height.

2.1.1. CRITICISMS AGAINST SINGLE USE ZONING

This type of zoning is proscriptive, in other words building contrary to the uses and standards outlined in the scheme is prohibited. Assuming the standards of the scheme are met, a "project" would generally be approved. Over time, a number of other development standards have become accepted additions to the basic dimensional standards, including density and floor-area ratios, to attempt to better control the impacts of development. The primary advantages of this type of land use management is its logical presentation of zonings, uses, and standards, in a format that is widely familiar to professionals, municipal officials and the public.

Major disadvantages of this type of land use management are:

- Its lack of flexibility to address the particulars of a site and its surroundings,
- That it does not prescribe precisely what is to be done, allowing for considerable uncertainty as to what the development product will look like.

SINGLE-USE ZONING HAS BEEN CRITICISED IN THE FOLLOWING MANNER

IT CONTRIBUTES TO URBAN SPRAWL

Urban sprawl has been defined as "low-density, land-consuming, automobile-dependent, haphazard, non-contiguous (or 'leapfrog') development on the fringe of settled areas, often near a deteriorating central city or town, that intrudes into rural or other undeveloped areas."[3] During the "sprawl process", the footprint of the city expand at much faster rates than population growth – primarily due to low density or leapfrog development. This increases the dependency on motorised transport (or private cars). The low density development still requires significant investment in bulk services which often leads to abandonment and underutilization of existing facilities.

SINGLE USE ZONING LEADS TO DECAYING CITY CENTRES

Urban sprawl also sees the middle and higher income families re-locating to estates on the fringes of the city – this is closely followed by jobs supporting those families such as office parks, shopping centres etc. This shift in the location of offices and manufacturing plants changed urban centres from centres of production and distribution of material goods to centres of administration. As a result, jobs remaining in the downtown core require higher levels of education, which many city residents do not possess.

SINGLE USE ZONING HAS A NEGATIVE ECONOMIC IMPACT

This type of zoning distorts the real estate market; imposes massive infrastructure costs and associated tax increases; which in turn increases the cost of housing and transportation; and reduces the ability of lower-income people to find work or create self-employment.

SINGLE USE ZONING CONTRIBUTES TO ENVIRONMENTAL PROBLEMS

Urban sprawl consumes scarce available and developable land. It also threatens prime agricultural land and often encroaches upon environmentally sensitive areas.

[3] Timothy J. Dowling, Reflections on Urban Sprawl, Smart Growth, and the Fifth Amendment, 148 U. PA. L. REV. 873, 874 (2000)

2.2. WHAT IS NEW IN SPLUMA COMPLIANT SCHEMES?

The following checklist can be used to measure existing schemes against SPLUMA requirements:

TABLE 1
SPLUMA REQUIREMENTS FOR LAND USE SCHEMES

ELEMENTS REQUIRED BY SPLUMA THAT CAN TYPICALLY BE FOUND IN SOUTH AFRICAN SCHEMES TODAY	ELEMENTS REQUIRED BY SPLUMA THAT ARE NEW TO SOUTH AFRICAN LAND USE SCHEMES
Appropriate categories of land use zoning and regulations.[4]	One Land Use Scheme for the entire municipal area.[5]
Take cognisance of any environmental management instrument adopted by the relevant environmental management authority, and must comply with environmental legislation.[6]	Include provisions that permit the incremental introduction of land use management and regulation in areas under traditional leadership, rural areas, informal settlements, slums and areas not previously subject to a Land Use Scheme. [7]
Provisions relating to the use and development of land only with the written consent of the Municipality. [8]	Include provisions to promote the inclusion of affordable housing in residential land development.[9]
Scheme regulations setting out the procedures and conditions relating to the use and development of land in any zone.[10]	Include land use and development incentives to promote the effective implementation of the Spatial Development Framework and other development policies.[11]
Map indicating the zoning of the municipal area into land use zones.[12]	Include land use and development provisions specifically to promote the effective implementation of national and provincial policies.[13]
A register of all amendments to such Land Use Scheme.[14]	Give effect to municipal Spatial Development Frameworks and Integrated Pevelopment Plans.[15]
	Specific requirements regarding any special zones identified to address the development priorities of the municipality.[16]

New requirements for schemes introduced by SPLUMA can be categorised into three:

- Additional geographic areas should be covered (a wall-to-wall municipal Land Use Scheme),
- The introduction of informal settlements and areas under traditional leadership into Land Use Schemes; and
- Mechanisms designed to give effect to polices, frameworks and plans developed by the municipality or other spheres of government.

The implications of each of the above will be highlighted discussed in later chapters.

[4] SPLUMA, Section 24(2)(a)
[5] SPLUMA, Section 24(1)
[6] SPLUMA, Section 24(2)(b)
[7] SPLUMA, Section 24(2)(c)
[8] SPLUMA, Section 24(3)(a)
[9] SPLUMA, Section 24(2)(d)
[10] SPLUMA, Section 25 (2)(a)
[11] SPLUMA, Section 24(2)(e)
[12] SPLUMA, Section 25 (2)(b)
[13] SPLUMA, Section 24(2)(f)
[14] SPLUMA, Section 25 (2)(c)
[15] SPLUMA, Section 24(2)(g)
[16] SPLUMA, Section 24(3)(b)

CHAPTER 3

CONTENTS OF A LAND USE SCHEME

3.1 SUMMARY OF KEY COMPONENTS OF A LAND USE SCHEME

SPLUMA clearly articulates the following fundamentals required for a scheme[17]:

A Land Use Scheme must:

- Include suitable categories of land use zoning and regulations for the entire municipal area, including areas not previously subject to a Land Use Scheme;
- Take cognisance of any environmental management instrument adopted by the relevant environmental management authority, and must comply with environmental legislation;
- Include provisions that permit the incremental introduction of land use management and regulation in areas under traditional leadership, rural areas, informal settlements, slums and areas not previously subject to a Land Use Scheme;
- Include provisions to promote the inclusion of affordable housing in residential land development;
- Include land use and development incentives to promote the effective implementation of the Spatial Development Framework and other development policies;
- Include land use and development provisions specifically to promote the effective implementation of national and provincial policies; and
- Give effect to municipal Spatial Development Frameworks and Integrated Pevelopment Plans.
- A Land Use Scheme may include provisions relating to:

1. The use and development of land only with the written consent of the municipality;
2. Specific requirements regarding any special zones identified to address the development priorities of the municipality; and
3. The variation of conditions of a Land Use Scheme other than a variation which may materially alter or affect conditions relating to the use, size and scale of buildings and the intensity or density of land use.

The different elements of a Land Use Scheme is discussed below:

3.1.1. SCHEME REGULATIONS

The scheme regulations is a document setting out procedures and conditions relating to the use and development of land in any zone. It explains the working of a scheme, development regulations as well as administrative procedures associated with changing land use.

The scheme regulation typically deals with the following components:

01 GENERAL PROVISIONS

BASIC PROVISIONS

- Title
- Enactment
- Land Use Rights
- Authorised Local Municipality
- Area of Scheme

GENERAL ARRANGEMENTS

- The purpose of the Scheme
- The Components of the Scheme
- Transitional arrangements

USER ORIENTATION

- The objectives of the Scheme
- The relationship between the Scheme and the Municipal IDP/ SDF
- The Municipal Land Use Scheme
- Other legislation that may have an impact on land uses (note that the objective is to inform users not experienced in land use management that other legislation may also play a role in land uses. Whilst a person may, for example, acquire business rights on a property in order to operate a restaurant, he/she still requires a business license in terms of the Businesses Act (1991)).

02 DEFINITIONS

GENERAL TERMINOLOGY

LAND USE CLASSIFICATION AND DEFINITIONS

- Land Use Classes
- Land Uses

[17] SPLUMA, Chapter 5, Section 24.

03 DEVELOPMENT POLICY

LAND USE ZONES

- Land Use Zones
- Land Use/Zone Matrix

MANAGEMENT ZONES

DEVELOPMENT REGULATIONS RELATING TO THE BULK OF DEVELOPMENT

- Bulk regulation (Floor area ratio (FAR), Coverage, Height and other)
- Height
- Coverage
- Building lines
- Parking and Loading requirements
- Residential Densities

GENERAL DEVELOPMENT REGULATIONS

- Site Development Plan
- Building restriction areas
- Urban Design Guideline

04 SCHEME MAP

SCHEME MAP

- Note that although not a legislative requirement, it is preferred to have the scheme maps both as a hard copy set of maps as well as in a Geographic Information System (GIS).

3.1.2. A MAP INDICATING THE ZONING OF THE MUNICIPAL AREA INTO LAND USE ZONES

This typically comprises of a set of maps at a scale that allows for easy recognition of a stand number (e.g. 1: 2 500). Different scales can be used for urban vs. rural areas of the municipality. The map depicts all cadastral entities that makes up the municipality (farm portions, agricultural or small holdings, erven etc.) and assigns a zoning or zone to that property by means of a colour or similar notation. Each notation refers to a specific zone which can be looked up in the land use table that is part of the scheme regulations. An example of these maps are included in **Annexure A: Example of Scheme Maps**.

If at all possible, municipalities should make use of Geographic Information Systems when compiling the scheme maps – the associated benefits by far outweighs the cost.

3.1.3. A REGISTER OF ALL AMENDMENTS TO A LAND USE SCHEME

The register records all amendments to the Land Use Scheme and contains the following information:

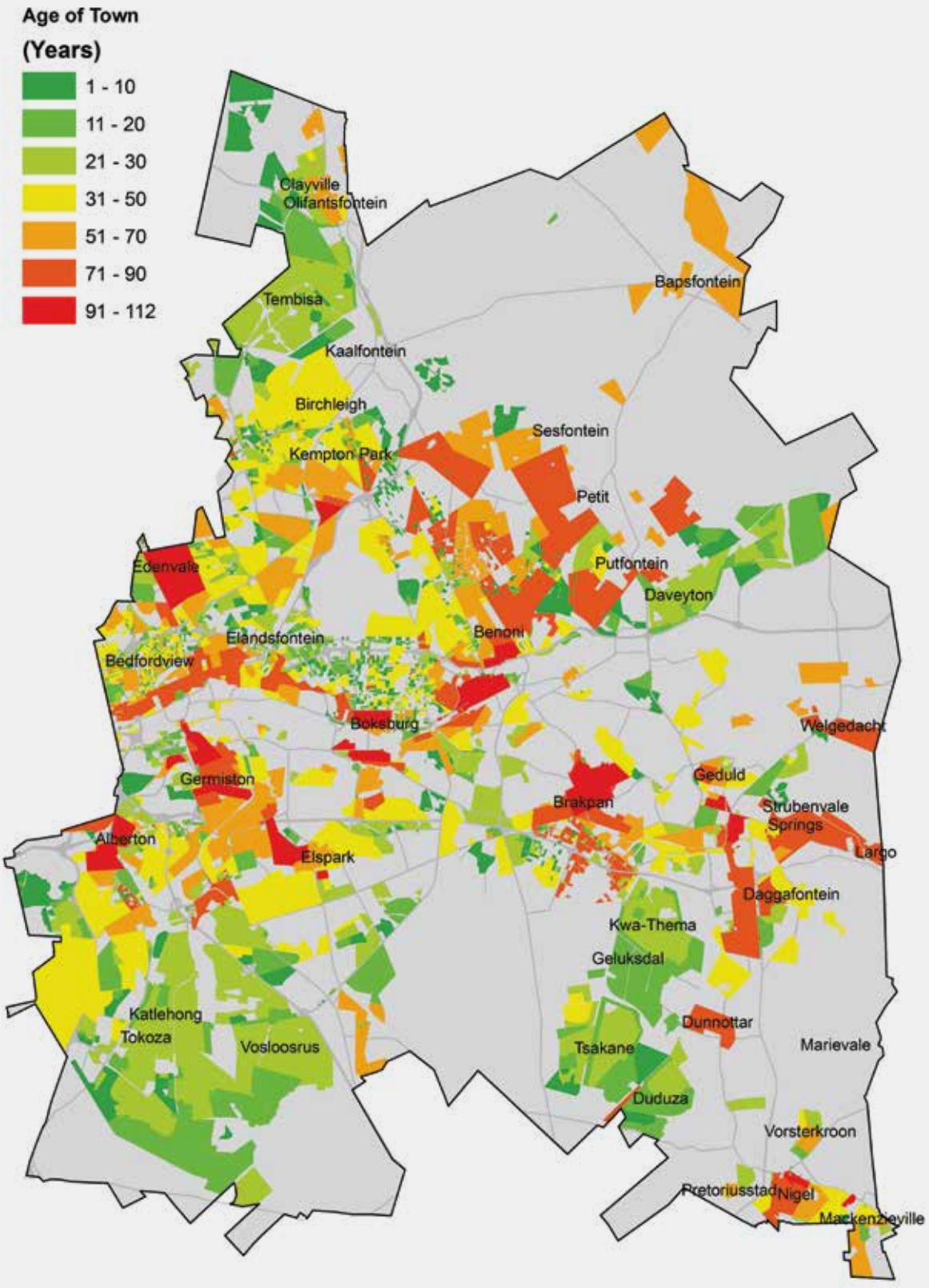
- Date of application
- Name and contact details of applicant
- Type of Application
- Township/Farm name
- Erf or farm number
- Portion / Remainder
- Property Description
- Existing zoning
- Rights applied for
- Secondary Rights Granted
- Square Metres Granted
- Density
- FAR
- Height (storeys) and metres where mean sea level or ground level datum is used.
- Coverage
- Building Lines/space about buildings.
- Parking Requirements
- Item No (refer to the reference system used by the municipality to sequentially record amendments)
- Decision (Approved/Not Approved)
- Decision Date
- Record of appeals:
  1. Type of appeal (applicant/objector)
  2. Date of lodgement of appeal
  3. Name of appellant
  4. Body considering the appeal
  5. Date of decision
  6. Outcome

The amendment register should preferably be kept up to date using electronic means such as database software – it should further also be linked to a geographic information system (GIS). The benefits of having a spatially represented register of amendments are shown on the next page.

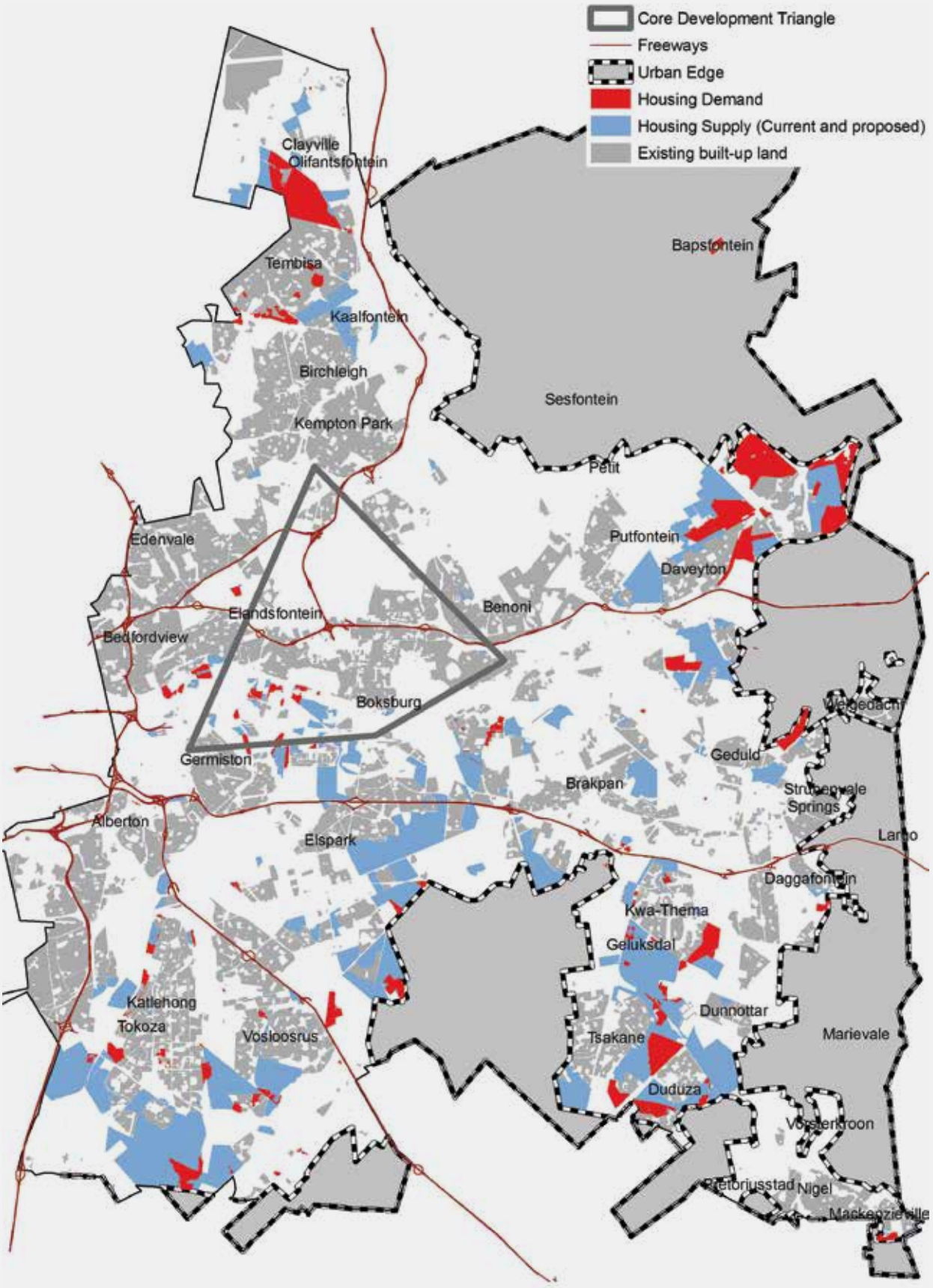
EXAMPLE 1

BENEFITS OF A GIS BASED REGISTER OF AMENDMENTS TO THE LAND USE SCHEME

Monitoring of urban growth. In the example below general plans are displayed for Ekurhuleni Municipality in terms of how long ago the township was established. This allows planner to monitor urban growth in relation to policy instruments such as the urban edge.

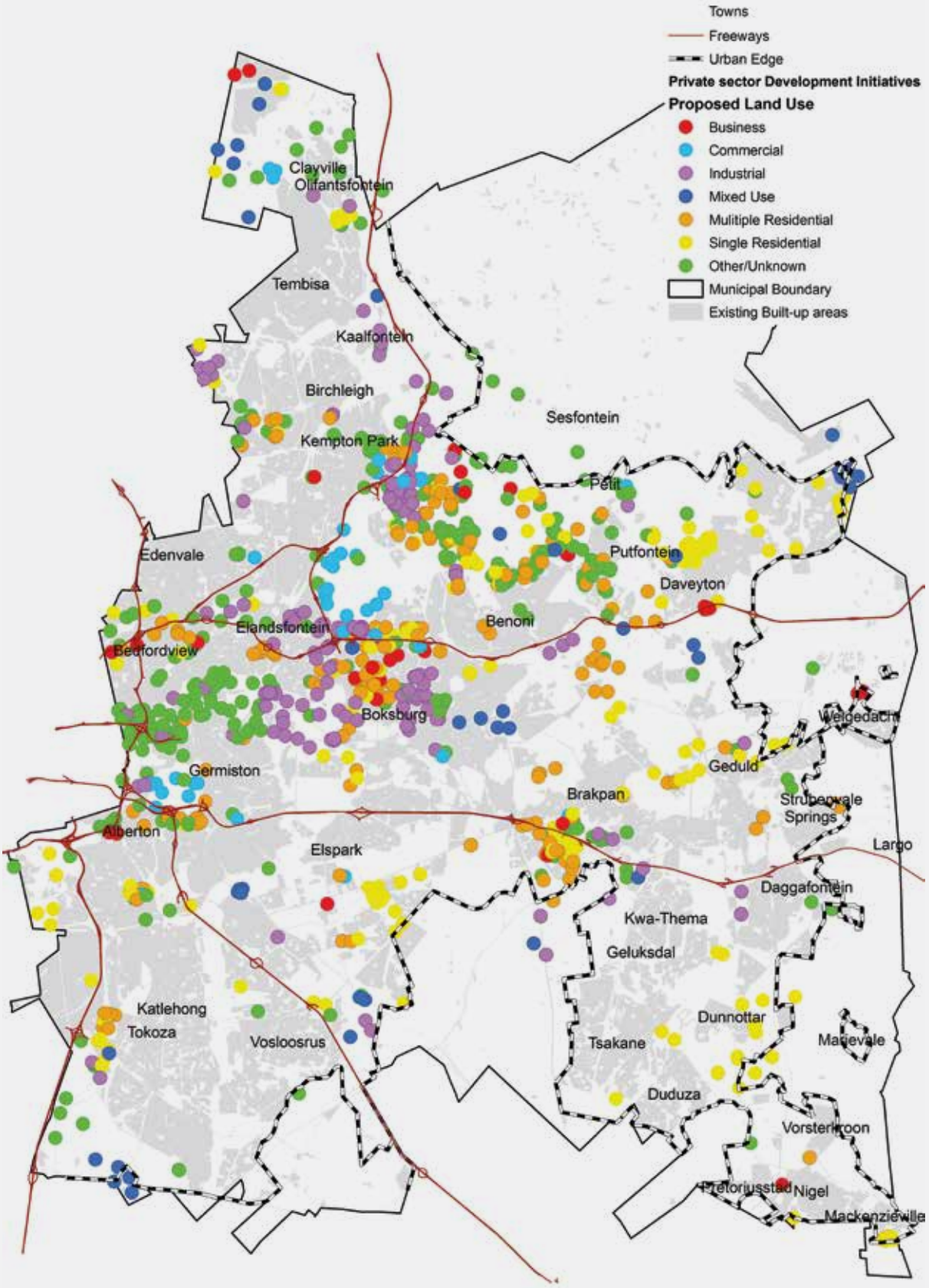


Track housing demand vs supply. The example below provides the municipalities response (housing projects in blue) to demand (informal settlement s in red).



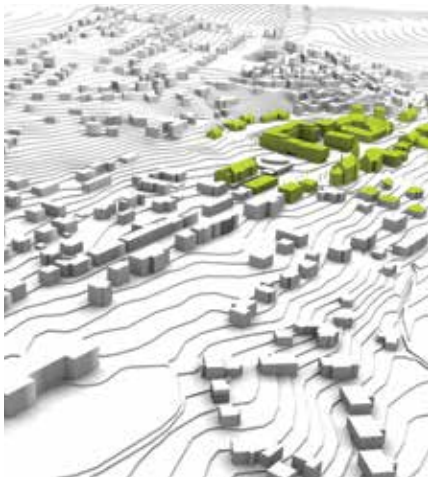
Identify development pressure. Each dot below indicates a development application (colours indicate the use applied for). This allows planners to:

1. Identify development pressure in specific areas and
2. Plan appropriate responses.



3.2 ZONING/ZONES

A zone is applied to a property and sets the property aside for a particular purpose/land use, or land uses usually used to separate different, incompatible land uses. Zones are usually applied to parcels of land that have cadastral boundaries. It is possible for one property to have a split zoning. Note that in the instances where land have not been surveyed (e.g. communal land/traditional council land/ informal settlements) this may not always be achievable – more on this topic will be covered later in the document. A zone may allow several different land uses as freely permitted, by consent and may prohibit some land uses.



Zones are depicted on the Scheme Map using different colours. Standard colours are used to facilitate common understanding, especially when working across different municipalities. This ensures consistency and legibility. For example, residential should usually be coloured from yellow to brown depending on typology and density, commercial is usually blue and industrial purple. A zone conveys potential development rights that are stipulated in the Scheme. They form one of the bases for property valuations and property tax (rates) calculation purposes.

The minimum size of erven and potential density of development must also take into account the type of engineering services required and available. Zones can be formulated with different degrees of detail, depending on the need or requirement for complexity. For small and/or simple settlements the planner might find it appropriate to make use of relatively few zones; while large and more complex areas might require a greater range of zones.

SPLUMA (In Schedule 2) proposes the following land use purposes, which can be used as a guideline for the development of "zones" in municipalities.

TABLE 2
SPLUMA LAND USE PURPOSE DEFINITIONS

LAND USE PURPOSE	SPLUMA DEFINITION
AGRICULTURAL	Means purposes normally or otherwise reasonably associated with the use of land for agricultural activities, including the use of land for structures, buildings and dwelling units reasonably necessary for or related to the use of the land for agricultural activities.
BUSINESS	Means purposes normally or otherwise reasonably associated with the use of land for business activities, including shops, offices, showrooms, restaurants or similar businesses other than places of instruction, public garages, builder's yards, scrap yards and industrial activities.
COMMERCIAL	Means purposes normally or otherwise reasonably associated with the use of land for distribution centres, wholesale trade, storage warehouses, carriage and transport services, laboratories or computer centres, plant nurseries, including offices and other facilities that are subordinate and complementary to such use.
COMMUNITY	Means purposes normally or otherwise reasonably associated with the use of land for cultural activities, social meetings, gatherings, non-residential clubs, gymnasiums, sport clubs or recreational or other activities where the primary aim is not profit-seeking, excluding a place of amusement.
CONSERVATION	Means purposes normally or otherwise reasonably associated with the use of land for the preservation or protection of the natural or built environment, including the preservation or protection of the physical, ecological, cultural or historical characteristics of land against undesirable change or human activity.
EDUCATIONAL	Means purposes normally or otherwise reasonably associated with the use of land primarily for instruction or teaching purposes, including crèches, schools, lecture halls, monasteries, public libraries, art galleries, museums, colleges and universities.
GOVERNMENT	Means purposes normally or otherwise reasonably associated with the use of land by the national government, a provincial government or a municipality to give effect to its governance role.

INDUSTRIAL	Means purposes normally or otherwise reasonably associated with the use of land for the manufacture, altering, repairing, assembling or processing of a product, or the dismantling or breaking up of a product, or the processing of raw materials, including a noxious activity. Note that this category excludes extractive activities (these would fall under mining).
INSTITUTIONAL	Means purposes normally or otherwise reasonably associated with the use of land for charitable institutions, hospitals, nursing homes, old-age homes, clinics and sanatoriums, either public or private.
MINING	Means purposes normally or otherwise reasonably associated with the use of land for mining.
PUBLIC	Means purposes normally or otherwise reasonably associated with the use of land as open spaces, public parks, public gardens, recreation sites, sport fields or public squares or for religious gatherings.
RECREATIONAL	Means purposes normally or otherwise reasonably associated with the use of land primarily for recreation, including entertainment, leisure, sports and amusement facilities.
RESIDENTIAL	Means purposes normally or otherwise reasonably associated with the use of land primarily for human habitation, including a dwelling house, group housing, hotels, flats, boarding houses, residential clubs, hostels, residential hotels and rooms to let.
TRANSPORT	Means purposes normally or otherwise reasonably associated with the use of land primarily as a point for the pick-up or off-load of people or goods, including taxi ranks, bus bays, bus stations, bus terminuses, railway stations and ancillary uses, including roads and streets.

The type of zones as well as the number of zones are left to the municipality to decide. Some provinces provide more guidance on this matter, see the example below.

EXAMPLE 2

WESTERN CAPE PROVINCE - ZONES TO BE USED IN A SCHEME

A more detailed category of zones/zonings (borrowed from the Western Cape Land Use Planning Act of 2014) are provided in the following table. Note that each municipality should consider whether the land uses and purposes in the table are in fact applicable to the municipality before including such zones/ zonings in their Land Use Scheme clauses.

AGRICULTURAL ZONE I (AZ1)

Agriculture

The objective of this zone is to promote and protect agriculture on large farms as an important economic, environmental and cultural resource. Limited provision is made for non-agricultural uses to provide rural communities in more remote areas with the opportunity to increase the economic potential of their properties, provided these uses do not present a significant negative impact on the primary agricultural resource.

AGRICULTURAL ZONE II (AZII)

Smallholding

The objective of this zone is to accommodate larger residential properties, which may be used for limited agriculture, but primarily serve as places of residence for people who seek a rural lifestyle. Such properties are often found close to towns and villages, and new smallholding areas should only be permitted within an acknowledged, demarcated urban area.

AGRICULTURAL ZONE III (AZIII)

Agricultural worker accommodation

The purpose of this zone is to support the government's rural land development programme and provide for the establishment of worker accommodation outside conventional towns. This will help to address the accommodation needs of workers and their dependants in rural areas such as farms, forestry and conservation areas. Provision is made for complementary consent uses that will improve the amenity of the settlement or supplement the economic base for residents.

SINGLE RESIDENTIAL ZONE I (SRZI)

Dwelling house

The objective of this zone is to provide for residential development where the predominant type of accommodation is a dwelling house for a single family, where each dwelling has its own land unit, and adequate outdoor space. Limited employment and additional accommodation opportunities are possible as primary or consent uses, provided that the dominant use of the property remains residential, and impacts of such uses do not adversely affect the quality and character of the surrounding residential environment.

SINGLE RESIDENTIAL ZONE II (SRZII)

Estate housing

The objective of this zone is to provide a high degree of flexibility for low- to medium density residential projects which have integrated site and design features, and which require individual design solutions and individually tailored development control provisions. This zone should not accommodate a resort, but is particularly suitable for residential estates that are governed by a property owners' association, with access control and coordinated design requirements (such as golf estates, equestrian estates and residential marinas).

SINGLE RESIDENTIAL ZONE III (SRZIII)

Shelter

The objective of this zone is to provide for upgrading and incremental housing from informal settlements to formal settlements and also to allow formal as well as informal housing types on a single erf. In recognition of the realities of poor and marginalised communities, development management provisions are not restrictive and local employment generation is encouraged within this zone.

ZONES RELATED TO MULTIPLE RESIDENTIAL

GENERAL RESIDENTIAL ZONE I (GRZI)

Double dwelling house

The objective of this zone is to facilitate low intensity densification in designated areas, which will not have an adverse effect on the character of the existing built area and may contribute to the optimal utilisation of land and infrastructure. The residential development consists of two dwelling units in a single structure, each of which may accommodate e a single family. Individual ownership of the units will be allowed through a sectional title scheme. Architecturally, the dwelling units will be uniform and will be developed to the same scale and extent.

GENERAL RESIDENTIAL ZONE II (GRZII)

Group housing

The objective of this zone is to encourage residential development of a medium density, with a coordinated design, and to accommodate group housing where special attention is given to aesthetics, architectural form and the interrelationship between components of the group housing scheme. Group housing may be located in single residential areas in places where an increased density is desirable, including along main roads, near local shopping centres and other activity nodes, and also preferably near to public open spaces.

GENERAL RESIDENTIAL ZONE III (GRZIII)

Town housing

The objective of this zone is to encourage residential development of a greater density than for General Residential Zone II, while retaining the emphasis on design coordination and a modest scale in terms of height. This zone has particular location requirements, such as proximity to transport and amenities, and should not be randomly located without due consideration of the availability of open space and community facilities. Town housing may be located in and around central business areas, near high density nodes and along activity axis such as railway lines and main traffic routes, where flats are often found.

GENERAL RESIDENTIAL ZONE IV (GRZIV)

Flats

The objective of this zone is to promote higher density residential development. The dominant use within this zone must be residential, but limited mixed-use development is possible with the Municipality's consent. This zone has particular location requirements, such as proximity to transport and amenities, and should not be randomly located without due consideration of the availability of open space and community facilities.

GENERAL RESIDENTIAL ZONE V (GRZV)

Guest lodge

The objective of this zone is to provide a temporary residence for transient guests in an appropriately scaled establishment where lodging and meals are provided and which may include a small conference/training facility that also caters for business meetings.

GENERAL RESIDENTIAL ZONE VI (GRZVI)

Hotel

The objective of this zone is to provide a temporary residence for transient guests, where lodging and meals are provided, and may include a restaurant and conference facilities. Outside towns it should only be considered in identified tourism areas or within resorts.

ZONES RELATED TO BUSINESS

BUSINESS ZONE I (BZI)

Business premises

The objective of this zone is to provide for intensive business and mixed-use development with relatively few restrictions in order to promote urban vitality and economic growth.

BUSINESS ZONE II (BZII)

Shop

The objective of this zone is to provide for the retail sale of goods and services to the public.

BUSINESS ZONE III (BZIII)

Neighbourhood shop

The objective of this zone is to provide for low intensity commercial and mixed-use development, which serves local neighbourhood needs for convenience goods and personal services. Such development should be limited in scale and nature and capable of integration into the adjacent residential neighbourhood, without adversely affecting the amenity of the residential neighbourhood. While mixed use development is encouraged, care must be taken not to compromise business operations.

BUSINESS ZONE IV (BZIV)

Offices

The objective of this zone is to provide an intermediate zone, which can, if required, act as a buffer or interface between high and medium-intensity business zones, and residential zones. Retail activities are limited to those which are ancillary to the dominant permitted uses, namely offices and flats. In order to protect the amenity of adjacent residential areas, appropriate levels of landscaping and environmental management are required.

BUSINESS ZONE V (BZV)

Big box retail

The objective of this zone is to provide for large-scale regional retail facilities that exceed the floor area of shops and supermarkets aimed at the local market in general. These facilities may offer a diverse range of products under one roof and supply products to individuals as well as wholesale trade. Such facilities may be developed as a power centre.

Specific consideration should be given to the locality and placement of these facilities with consideration of their regional significance and accessibility as well as possible impact on existing nodal areas.

BUSINESS ZONE VI (BZVI)

Service station

The objective of this zone is to provide opportunities in urban areas for petrol filling stations, service stations, motor repair garages and associated facilities which have specific vehicle access requirements and potential negative impacts on adjoining areas.

INDUSTRIAL ZONE I (IZI)

Light industry

The objective of this zone is to accommodate industry uses and service trades that may be carried out without nuisance to other properties or the general public. Such uses may be located next to business uses and in close proximity to residential areas, and do not present a potential negative impact on the character or amenity of such areas.

INDUSTRIAL ZONE II (IZII)

Industry

The objective of this zone is to accommodate all forms of industry, except noxious trade and risk activity, in order to promote the manufacturing sector of the economy. Some allowance is made for nonindustrial activities, but these should not compromise the general use of the area zoned for industry. It is accepted that the intensive nature of the industrial activity or the scale of the operation could generate some negative impact on adjacent properties.

INDUSTRIAL ZONE III (IZIII)

Noxious trade

The objective of this zone is to provide for those industries which are noxious in terms of smell, product, waste or other objectionable consequence of their operation, or which carry a high risk in the event of fire or accident. While other uses are permitted with consent, the

Municipality must ensure there is sufficient capacity for noxious trade in the limited areas suitable for this zone. A noxious trade should not be located close to residential areas.

INDUSTRIAL ZONE IV (IZIV)

Mine

The objective of this zone is to provide for the use of land for the extraction of minerals and raw materials and, to a limited extent, associated business operations. This zone is intended for operations of a more permanent nature as opposed to temporary, short-term mining or prospecting activities.

COMMUNITY ZONE I (CZI)

Place of instruction

The objective of this zone is to provide for educational facilities of all kinds, but controlled provision is made for other compatible community uses.

COMMUNITY ZONE II (CZII)

Place of worship

The objective of this zone is to provide for places where communities can congregate and worship according to the custom of their specific faith or religion.

COMMUNITY ZONE III (CZIII)

Institution

The objective of this zone is to provide for a wide range of institutional uses including facilities for health, education and worship.

RESORT ZONE I (RZI)

Tourist accommodation

The objective of this zone is to promote tourist and holiday facilities in areas with special environmental or recreational attributes, and to encourage general public access to these facilities. At the same time, care should be exercised to minimise potential negative impacts of development on fragile environments. The guiding principle should be that a resort must not detract from the amenity that attracted the holiday facilities in the first place, nor should it cause a public nuisance for other people living and working in the vicinity. This zone should only be used in exceptional cases and is normally applicable to tourist developments outside established, built-up areas.

RESORT ZONE II (RZII)

Holiday housing

The objective of this zone is to reserve a zoning for existing resorts situated outside the urban edge.

RESORT ZONE III (RZIII)

Eco-housing

The purpose of this zone is to provide an incentive for restricted eco-housing development rights with the specific condition that properties of high biodiversity value and/ or critical ecological support areas, as defined in terms of provincial guidelines, are consolidated and given formal conservation status.

OPEN SPACE ZONE I (OSZI)

Public open space

The objective of this zone is to provide for active and passive recreational areas on public land, in order to promote recreation, and enhance the aesthetic appearance of an area.

OPEN SPACE ZONE II (OSZII)

Private open space

The objective of this zone is to provide for active and passive recreational areas on private land, in order to promote recreation and enhance the aesthetic appearance of an area.

OPEN SPACE ZONE III (OSZIII)

Nature conservation area

The objective of this zone is to provide for the conservation of natural resources in areas that have not been proclaimed as nature areas (non-statutory conservation), in order to sustain flora and fauna and protect areas of undeveloped landscape including woodlands, ridges, wetlands and the coastline. A range of consent uses is provided to supplement and support the main objective of this zone.

OPEN SPACE ZONE IV (OSZIV)

Nature reserve

The objective of this zone is to provide for the conservation of natural resources in areas that have been proclaimed as nature areas (statutory conservation), in order to sustain flora and fauna and protect areas of undeveloped landscape including woodlands, ridges, wetlands and the coastline. A range of consent uses is provided to supplement and support the main objective of this zone.

TRANSPORT ZONE I (TUZI)

Transport use

The objective of this zone is to reserve land for transportation systems, excluding public streets, but including all other transport undertakings such as airports, heliports, harbours, railway lines, bus depots, taxi ranks, cable car stations, and modal interchanges.

TRANSPORT ZONE II (TUZII)

Public street

The objective of this zone is to provide for public streets, whether constructed or still to be constructed, as well as infrastructure associated with such streets. Provision is also made for the temporary use of the land unit for other purposes as may be approved by the Municipality.

TRANSPORT ZONE III (TUZIII)

Private road

The objective of this zone is to provide private roads for the passage or parking of motor vehicles, which is privately owned and does not vest in the Municipality or any other public authority.

UTILITY ZONE (TUZIV)

Utility service

The objective of this zone is to reserve land for uses normally undertaken by central, provincial and municipal government agencies as well as land for utility services such as electrical substations, and which do not fall into another zoning category. Some flexibility for the use of land and development parameters is provided.

3.2.1. PERMITTED USES, USES BY CONSENT AND PROHIBITED USES

Each municipality must choose which land uses it wishes to permit in each zone and whether these land uses should be:

- **Freely permitted**. This category includes land uses that are considered to be compatible with the surrounding land uses, and which may be permitted by the municipality. Application in writing for a permitted use can sometimes be required although a building plan can also be sufficient.
- **Permitted with the Consent of the municipality.** Consent in a scheme is an instrument which allows for amendments to the Scheme to which the municipality may apply conditions of approval. Municipalities should specify which applications require written consent from neighbours (which would only be applicable for proposed uses that are likely to have a low impact), or, consent uses which require full advertisement for public comment. In both situations, the municipality may impose conditions of approval. Therefore, the municipality should identify categories of consents in terms of its scheme for which the giving of notice in a local newspaper is not necessary. When preparing the Scheme, the planner needs to ensure that the land use tables, and or clauses, need to be specific about which uses require the written consent of neighbours and which require full advertisement.
- **Prohibited Uses**. This category includes land uses which are considered to be incompatible with the surrounding land uses, and which a municipality is precluded from considering in a particular zone.

3.2.2. SCHEME TABLES

There are many ways in which the different land uses permitted, permitted by consent, or prohibited in different zones and Scheme controls may be documented. The most common system used by municipalities in South Africa system is shown below:

Table A – Types of Buildings and Land Use

Table B – Reservation of Land

Table C – Use Zones

Table D – Density Zones

The table below shows an example of the conventional land use table (Table C: Use Zones) preferred by many municipalities.

EXAMPLE 3
TYPICAL SCHEME TABLE

Use Zone	Scheme Map Colour	Purposes for which buildings may be erected and used and land may be used	Purposes for which buildings may be erected and used and land may be used only with the consent of council	Purposes for which buildings may not be erected and used and land may not be used
		Permitted/Primary Use	Consent	Prohibited
COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5
Residential 1		Uses listed alphabetically and/ or by number	Uses listed alphabetically or by number	Buildings and land uses not included in Columns 3 and 4 and not listed in Table A
Residential 2		Uses listed alphabetically and/ or by number	Uses listed alphabetically or by number	Buildings and land uses not included in Columns 3 and 4 and not listed in Table A

Some municipalities have chosen to combine the tables depicting various development controls into one extensive table. See the example on the adjoining page.

EXAMPLE 4

MOGALAKWENA LAND USE SCHEME 2013: USE ZONES AND MULTIPLE DEVELOPMENT CONTROLS IN ONE TABLE

		TABLE "A"			TABLE "B"		TABLE "C"							
Use Zone	Notation on map	Uses permitted (Primary Right)	Uses/rights permitted only with the special consent of the local municipality (Clause 21)	Uses/rights permitted only with the written consent of the local municipality (Clause 22)	Uses/ rights not permitted	Parking spaces	Density/number of dwelling units per erf, property or per netto ha			Maximum height as permitted storey		Maximum coverage permitted as % of erf		Maximum F.A.R.	
							Primary right	Relaxation in terms of Clause 22	Relaxation in terms of Clause 21	Primary right	Relaxation in terms of Clause 22	Primary right	Relaxation in terms of Clause 22	Primary right	Relaxation in terms of Clause 21
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1 Residential 1		Single family residence			Uses not under columns		1 detached d.u./erf	2 detached d.u./erf	30 detached or semi-det d.u./erf	2	3	50%	70%	70%	1,2
			Guest house		3, 4 & 5	1 dust free per bedroom									
			Tea garden		Schedule 4	6 per 100m² GLFA									
			Institution			8 per 100m² GLFA									
			Place of instruction			4 per 100m² GLFA and an additional drop-off zone as required by the municipality									
			Place of public worship			8 per 100m² GLFA									
			Tavern			3 per tavern									
				Service enterprise		4 per service enterprise									
				Household enterprise		3 per household enterprise									
				Crèche		2 per crèche and an additional drop-off zone as required by the municipality									
				Spaza/kiosk		2 per spaza/kiosk									
			Special use			In accordance with the local municipality's policy									
2 Residential 2		Single family residence			Uses not under columns 3, 4 & 5	1 dust free per dwelling unit, and if required by the local municipality, additional parking for visitors	31 detached or semi-det d.u./ erf	-	44 detached or semi-det d.u./erf	2	3	60%	70%	1,2	1,4
				Residential building	Schedule 4	1 dust free per bedroom	46 rms/ha		66 rms/ha						
			Conference facility			8 per 100m² GLFA									
				Service enterprise		4 per service enterprise									
				Household enterprise		3 per household enterprise									
			Institution			8 per 100m² GLFA									
			Place of instruction			4 per 100m² GLFA and an additional drop-off zone as required by the municipality									
				Crèche		2 per crèche and an additional drop-off zone as required by the municipality									
			Place of public worship			8 per 100m² GLFA									
				Guest house		1 dust free per bedroom									
			Retirement village			1 dust free per dwelling unit									
			Tavern			3 per tavern									
				Spaza/kiosk		2 per spaza/kiosk									
			Special use			In accordance with the local municipality's policy									

Yet a different method of indicating zonings as well as its corresponding development controls can be seen in the eThekwini Outer West Scheme – referred to as a Development Facilitation Table.

EXAMPLE 5

ETHEKWINI OUTER WEST SCHEME - DEVELOPMENT FACILITATION TABLE

ZONE: GENERAL INDUSTRY 1

SCHEME INTENTION: To provide, preserve, use land or buildings for full range of industrial uses where the emphasis is on bulk and heavy industry and where due cognisance must be taken of environmental impacts. Ensuring sustainable locations which accommodate the requirements for industrial activities and minimize their impact on surrounding uses.

PRIMARY	CONSENT	PRECLUDED	
• Commercial workshop • Conservation Area • Dwelling house* • Government/municipal • Industry - General • Industry - Light • Residential building* • Warehouse	• Action sports bar • Adult premises • Agricultural activity • Agricultural land • Arts and crafts workshop • Boarding house • BTTS • Builder's yard • Direct access service centre • Drive-in cinema • Escort agency • Fuelling and service station • Funeral parlour • Garden nursery • Health & beauty clinic/health studio • Laundry • Motor garage • Night club • Office • Parkade • Private recreation area • Recycling centre • Restaurant/fast food outlet • Shop** • Special building • Special industrial building • Truck stop • Veterinary hospital	• Airport • Animal facility • Bar • Betting depot • Car wash • Caravan park • Cemetery • Chalet development • Container depot • Convention centre • Correctional facility • Crèche • Crematorium • Display area • Educational establishment • Extended residential building • Flat • Flea market • Hotel • Industry - Extractive • Industry - Noxious • Institution • Landfill • Mobile home • Mobile home park & camping ground • Mortuary	• Motor display area • Motor vehicle test centre • Motor workshop • Multiple unit development • Museum • Nature reserve • Office - Medical • Pet Grooming Parlour • Place of public assembly • Place of public entertainment • Place of public worship • Private open space • Reform school • Refuse disposal • Restricted building • Retirement centre • Riding stables • Sand-winning • Scrap yard • Tavern • Transport Depot • Utilities facility • Veterinary clinic • Zoological garden

ADDITIONAL CONTROLS

1. "Notwithstanding the provisions of the above table one dwelling unit may be permitted on each site to accommodate a manager or caretaker's flat (limited to 100m$^{2)}$.
2. No building or boundary wall is to be erected or parking provided in the area between the area between the building line and the site boundary which area is to be landscaped to the satisfaction of the Municipality.
3. BTTS shall mean Base Telecommunications Transmission Station.
4. Accommodation for motor vehicles to be provided on the erf as per Section 8.
5. Subject to the provision of a sewerage disposal system to the satisfaction of the Municipality.
6. **Reference is to be made for Special Consent to Clause 9.7 for a shop in industrial premises.
7. A General Industrial Building or Use may not be permitted if it is considered by the municipality that such use will become injurious or a significant source of danger, nuisance, discomfort or annoyance to the neighbourhood or adjoining neighbours (as amended by PPDC on appeal).
8. The Municipality may at its discretion call for a special consent application or a suitable environmental impact report prior to granting a General Industrial Building or Use, as well as insisting on-going confirmatory monitoring verifying that predicted impacts are within acceptable norms. Should such on-going monitoring reveal negative impacts higher than those predicted in the environmental impact report, the Municipality will have the right to order the offending activity to cease without any financial hardship being claimed from the Municipality.

DEVELOPMENT PARAMETERS

SPACE ABOUT BUILDINGS		DWELLING UNITS PER HECTARE	MINIMUM ERF SIZE	HEIGHT IN STOREYS	COVERAGE	FLOOR AREA RATIO
BUILDING LINE FRONT	BUILDING LINE SIDE AND REAR					
7.5 m	3 m	N/A	1800 m^2	2	50%	0.50

3.3. DEVELOPMENT PARAMETERS / SCHEME CONTROLS

A municipality manages development through a series of development parameters, or Scheme controls (often also referred to as development controls) relating to each zoning that detail the requirements in respect of buildings, built form and sub divisional matters.

Typical development parameters to include in a scheme include:

- Density as the number of dwelling units per erf/lot or per hectare
- Height restrictions expressed as the number of storeys or in metres above ground level or above mean sea level
- Floor Area Ratio (FAR) or the ratio of the total floor area of the building to the total area of the subdivision on which the building is or is to be erected
- Coverage – the percentage of the plot that may be covered by a building or roofs
- Parking and vehicle loading requirements
- Building lines/space around buildings

Other development parameters may also include:

- Space around the buildings – side and rear spaces
- External appearance of buildings
- Urban design criteria
- Signage and advertising

These parameters/controls need to be documented in the Scheme in an accessible and user-friendly manner. This information may be written in text, presented in tables or can be shown on templates that summarize key information about each zone. Consideration should also be given to climate change adaption / mitigation factors which are planning linked.

3.3.1. FLOOR AREA RATIO (FAR)

Means the ratio obtained by dividing the floor area of a building or buildings by the total area of the erf or site upon which the building(s) are erected. The FAR describes the intensity of the use on a site and not the building height or site coverage; however, building height and site coverage standards are critical in determining the arrangement and form of the building at the intensity permitted by the FAR. FAR includes all living space on an erf but does not include the area within parking lots or parking structures. There may be further exclusions from the determination of the floor area. These may include stairwells, balconies, refuse areas, lift motor rooms, electricity transformer rooms, ventilation or air-conditioning plant rooms, permeable car ports. The exclusion of areas will be determined by the intention of the Municipality in terms of the character and streetscape it may wish to develop.

$$FAR = \frac{\textit{Floor Area of a building or buildings}}{\textit{Total Area of the Erf or Site upon which the building(s) are erected}}$$

TABLE 3
FAR GUIDELINES

FAR	COVERAGE	BUILDING HEIGHT (STORIES)	COVERAGE	BUILDING HEIGHT (STORIES)	COVERAGE	BUILDING HEIGHT (STORIES)	COVERAGE	BUILDING HEIGHT (STORIES)
0.1	10%	1	•	•	•	•	•	•
0.2	20%	1	10%	2	•	•	•	•
0.3	30%	1	15%	2	10%	3	•	•
0.4	40%	1	20%	2	10%	4	•	•
0.5	50%	1	25%	2	12.5%	4	10%	5
0.6	60%	1	30%	2	15%	4	10%	6
0.75	75%	1	37.5%	2	18.75%	4	12.5%	6
1.0	100%	1	50%	2	25%	4	12.5%	8
2.0	100%	2	50%	2	25%	8	20%	10

The table below graphically illustrates different floor area ratios.

TABLE 4
GRAPHIC ILLUSTRATION OF COVERAGE/FAR

0.1 FAR

A site with a 0.1 FAR generally might have one – story building covering 10% of the site. The Graphic opposite shows a possible development arrangement using this FAR.

10% | 1 STORY

0.2 FAR

A site with a 0.2 FAR generally might have one –story building covering 20% of the site or a two story building covering 10% of the site. The Graphic opposite shows a possible development arrangement using this FAR.

20% | 1 STORY

20% | 2 STORY

0.3 FAR

A site with a 0.3 FAR generally might have a range between one-story buildings with 30% coverage to a three story building with 10% coverage of the site. The Graphic opposite shows a possible development arrangement using this FAR.

30% | 1 STORY

15% | 2 STORY

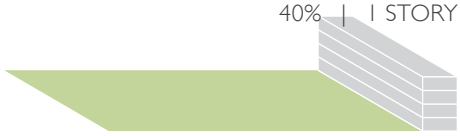
10% | 3 STORY

0.4 FAR

A site with a 0.4 FAR generally might have a range between one-story buildings with 40% coverage to a four-story building with 10% coverage of the site. The Graphic opposite shows a possible development arrangement using this FAR.

40% | 1 STORY

20% | 2 STORY



10% | 4 STORY

0.5 FAR

A site with a 0.5 FAR generally might have a range between one-story buildings with 50% coverage to a five-story building with 10% coverage of the site. The Graphic opposite shows a possible development arrangement using this FAR.

50% | 1 STORY

25% | 2 STORY

12,5% | 4 STORY

10% | 5 STORY

0.6 FAR

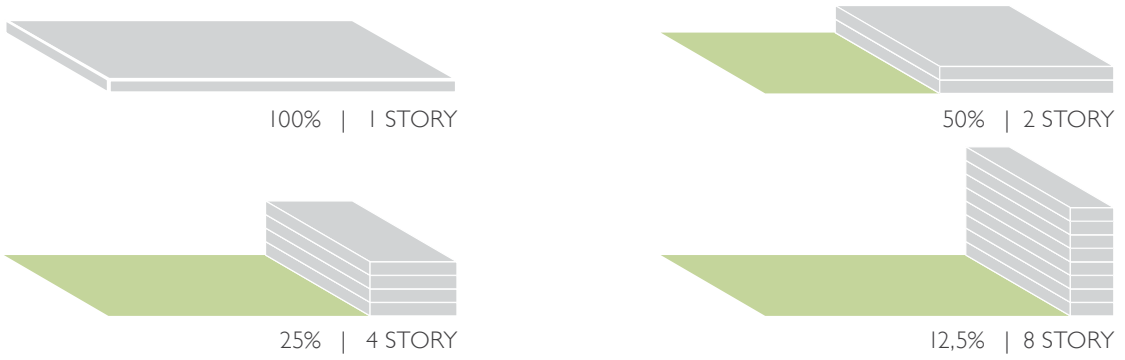
A site with a 0.6 FAR generally might have a range between one-story buildings with 60% coverage to a six-story building with 10% coverage of the site. The Graphic opposite shows a possible development arrangement using this FAR.

0.75 FAR

A site with a 0.75 FAR generally might have a range between one-story buildings with 75% coverage to a six-story building with 12.5% coverage of the site. The Graphic opposite shows a possible development arrangement using this FAR.

1.0 FAR

A site with a 1.0 FAR generally might have a range between one-story buildings with 100% coverage to an eight-story building with 12.5% coverage of the site. The Graphic opposite shows a possible development arrangement using this FAR.



2.0 FAR

A site with a 2.0 FAR generally might have a range between tow-story buildings with 100% coverage to a ten-story building with 20% coverage of the site. The Graphic opposite shows a possible development arrangement using this FAR.

3.3.2. HEIGHT

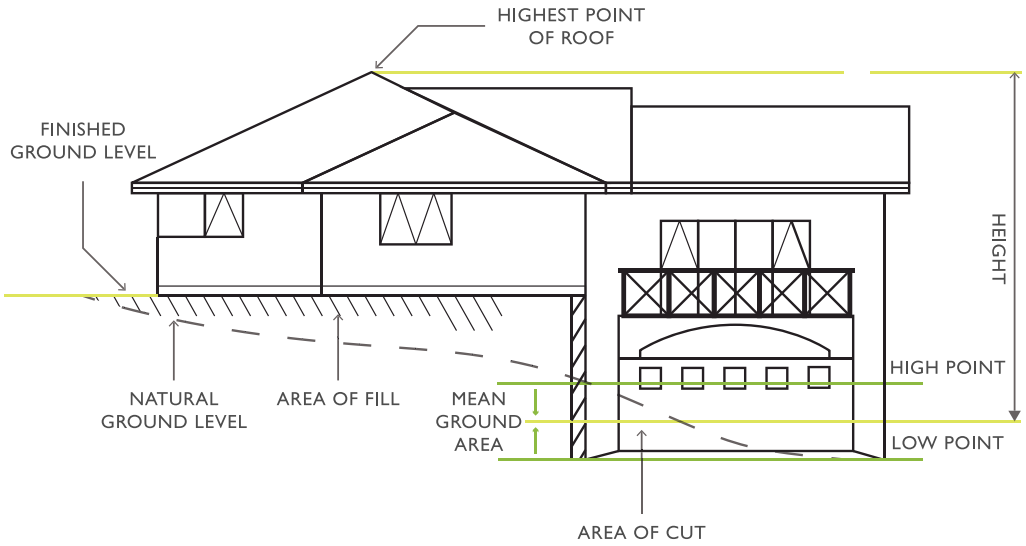
Height means the vertical dimensions of the building from the natural ground level to the highest point of the building measured in meters or in number of storeys; provided that[18]:

- The height restriction which refers to storeys does not apply to roofs, domes, chimneys, flues, masts and antennae; and
- Elevator motor rooms, satellite dishes, ventilation shafts, water
- Tanks, air conditioning plant and equipment on top of a building, shall be regarded as a storey, unless enclosed within the roof or hidden behind parapet walls, not exceeding 2,0 m in height, in which case it shall be counted as part of the top storey.

Height restrictions can be used as a development control mechanism to restrict the maximum height of structures. There are a variety of reasons for the use of height restrictions for example to limit the height of new buildings so as not to block views of other buildings. Other restrictions are because of practical concern, such as around airports to prevent any danger to flight safety[19].

A combination of height and setback is used to improve the lighting and ventilation of development, especially in areas of intense development where greater heights are permitted such as commercial nodes in urban areas. On sites which have sloping topography, it may be preferable to determine the average height, whether above ground level or mean sea level, as a reference point from which the height of the building is determined. This applies specifically to heights measured in metres. It has been found by applying this principle, conflict between developers and the Municipality is diminished by creating a clear understanding of the datum level from which height will be determined.

FIGURE 1
HEIGHT RESTRICTIONS



3.3.3. DENSITY

Urban density is a term used in urban planning and urban design to refer to the number of people inhabiting a given urbanised area. As such it is to be distinguished from other measures of population density. Urban density is considered an important factor in understanding how cities function. Urban density is a very specific measurement of the population of an urbanized area, excluding non-urban land-uses. Non-urban uses include regional open space, agriculture and water-bodies.

There are a variety of other ways of measuring the density of urban areas:

- Residential density - the number of dwelling units in any given area
- Population density - the number of people in any given area
- Employment density - the number of jobs in any given area Gross density - any density figure for a given area of land that includes uses not necessarily directly relevant to the figure (usually roads and other transport infrastructure). Gross density is calculated as follows: Gross density = Total residential units / total development land area
- Net density - a density figure for a given area of land that excludes land not directly related to the figure. Net density is calculated using the following formula:
  Net density= Total residential units / total residential land area.
- Weighted density - a density metric which measures the density at which the average citizen lives. It is determined by calculating the standard density of each census tract, assigning each a weight equal to its share of the total population, and then adding the segments.

[18] Building Regulations South Africa; http://www.buildingregulations.co.za/town-planning-definitions/
[19] Terterov, Marat. Investing in St Petersburg. GMB Publishing Ltd, 2005, pg. 132

Residential density refers to the intensity of development within a zoning district. In residential areas, density is generally measured by the maximum number of dwelling units permitted per hectare of land (e.g. 20 du/ha). Residential density can be expressed as net or gross density. Net residential density refers to the density on a specific site, excluding public roads, social facilities and public open space, thus including only the area allocated for residential use. Gross residential density refers to the density of a specific site including the land occupied by infrastructure, social and economic facilities, such as schools, shops, open space and roads.

The following table defines residential density:

TABLE 5
NET/GROSS DENSITY

DENSITY LABEL	APPROXIMATE GROSS DENSITY	APPROXIMATE NET DENSITY
VERY LOW	Less than 11 du/ha	Less than 17 du/ha
LOW	11-22 du/ha	17-33 du/ha
MEDIUM	23-45 du/ha	34-67 du/ha
HIGH	Greater than 45 du/ha	Greater than 67 du/ha

TABLE 6
DENSITY CHARACTERISTICS

	VERY LOW DENSITY
Typical Built Form	Very low density housing comprises single storey detached dwellings on large allotments, with large setbacks to side boundaries and the street, and large areas of private open space.
Approximate Gross Density	Less than 11 dwellings per hectare
Approximate Net Density	Less than 17 dwellings per hectare
Appropriate Locations	Very low density housing development occurs within the outer areas of country townships and on the fringes of the metropolitan area in locations relatively distant from community services and facilities. It should also occur where there are constraints such as topography, vegetation, character and heritage, and where sewerage services are restricted requiring and on-site wastewater disposal.
General Observations	• Large allotment sizes are the dominant characteristic of the examples included, all of which have allotments greater than 600 square metres. • The examples of more recent development are often on sloping sites. • Car parking and driveway provision often take significant land area. • Large mature trees are often prevalent in the streetscape, particularly with older examples of development.

Built Form: Single storey detached dwellings
Site Area: 23,593 m^2
No. of Dwellings: 30
Ave. Site Area per Dwelling: 786 m^2
Net Density: 12.7 du/ha

LOW DENSITY

Typical Built Form	Low density housing comprises single and 2 storey detached, semi-detached and row dwellings on reasonably large allotments, with small-to-medium setbacks to side boundaries, relatively large setbacks to the street, and reasonable areas of private open space.
Approximate Gross Density	11-22 dwellings per hectare
Approximate Net Density	17-33 dwellings per hectare
Appropriate Locations	Low density housing typically occurs on the periphery of the city in the traditional old suburbs. Modern times has seen a shift away from the traditional "suburbs" towards estates and clustered dwellings.
General Observations	• Erf sizes can vary substantially with low density housing. • The following examples have erf sizes between 310 and 560 square metres. • Car parking and driveway provision often take significant site area. • Visitor parking is contained within the site boundary and often results in wide driveways. • Front setbacks are often 6 or more metres deep. • Low density does not always equate with low site coverage. Many of the examples have comparatively small rear gardens.

Built Form: Single and 2 storey detached dwellings
Site Area: 5209 m^2
No. of Dwellings: 13
Ave. Site Area per Dwelling: 401 m^2
Net Density: 25.0 du/ha

MEDIUM DENSITY

Typical Built Form	Medium density housing development ranges from 2-3 storey detached, semi-detached and row dwellings on small allotments (with nil-to small setbacks to side boundaries and the street, and limited private open space) to small office home office, mews dwellings, residential flat buildings and apartment buildings up to 4 storeys in height.
Approximate Gross Density	23-45 dwellings per hectare
Approximate Net Density	34-67 dwellings per hectare
Appropriate Locations	Medium density housing should occur within in inner and middle suburbs as redevelopment and in locations close to public transport, shops, community services and facilities, and large areas of public open space, throughout the metropolitan area. Activity centres are also favoured locations for medium density housing.
General Observations	• The erf sizes are distinctly smaller than the previous low density housing examples. The following medium density housing examples all have average site areas less than 300 square metres. • Vehicle parking and driveways tend to represent smaller proportions of the site area. Most of the examples have off-street parking, but it is often accessed by a rear laneway or a communal driveway. Visitor parking tends to be on the street. In some instances car parking is in communal areas separate from the dwellings themselves. • These parking arrangements allow smaller front setbacks. Where the dwellings have front setbacks they tend to be between 2 and 4 metres deep. The smaller front setbacks still allow front gardens that contribute to the streetscape. • Medium density housing seldom has setbacks to side boundaries. • The higher medium density examples rely on balconies or small courtyard gardens for private open space. However, they are located near areas of public amenity, usually parks or beaches. • Some of the examples are/were Housing Trust properties. These developments have included shared amenity and landscaping areas to supplement comparatively small private open space. • Site coverage of medium density developments are not necessarily any greater (and in some instances less) than the low density

Built Form: 3 storey residential flat buildings
Site Area: 2138 m^2
No. of dwellings: 13
Ave. Site Area per Dwelling: 165 m^2
Net Density: 60.8 du/ha

HIGH DENSITY

Typical Built Form	High density development includes residential flat buildings and apartment buildings 5 storeys in height or greater, but may include alternative housing forms which deliver higher Dwelling yields. High density housing development includes high-rise development.
Approximate Gross Density	Greater than 45 dwellings per hectare
Approximate Net Density	Greater than 67 dwellings per hectare
Appropriate Locations	High density development should occur in locations of intense activity with excellent public transport links. High density housing development should be kept close to nodes and activity centres and as part of transport orientated developments along major public transport routes.
General Observations	• The following examples of residential high density have comparatively small site areas for individual dwellings (under 150 square metres). • Many of the examples are apartment buildings, varying in height between 3 and 12 storeys. • High density can also be low scale, such as the row cottages. • Low scale dwellings have very small front setbacks but may also have rear gardens. • High density is not a modern phenomenon and has been part of the character of Adelaide since pre-federation. There are also many examples from the 1970s, as well as contemporary developments. • The location and site area dedicated to car parking is a major contributor for high density developments to be achievable. The 1970s examples tend to have communal car parking at the rear, whereas the most recent examples have either car parking at the rear using communal space for vehicle manoeuvring or basement car parking. • High density development does not necessarily require high site coverage. • Private open space is often restricted to balconies or small courtyards inside the building envelope. The amenity of the surrounding locality often compensates for the loss of traditional gardens.

Built Form: 2 and 3 storey residential flat buildings and row dwellings
Site Area: 6708m^2
No. of dwellings: 66
Ave. Site Area per Dwelling: 102m^2
Net Density: 98.4 du/ha

3.3.4. COVERAGE

Means the percentage area of a property including any servitude area covered by the roofed area of all buildings as seen vertically from above but does not include a structure or building that has no roof. It is expressed as a percentage of the area of the property (see FAR). Paving, driveways, swimming pools and boundary / garden walls do not count towards coverage in SA. Coverage is typically 50% for a single or double storey dwelling / building and 40% for a three storey building.

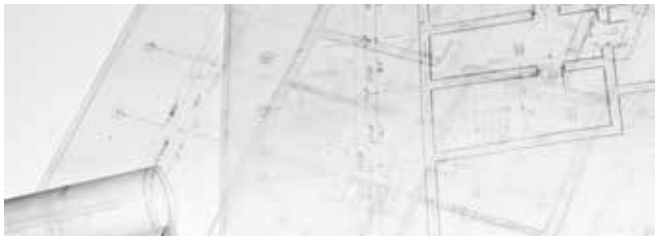
The following portions of buildings shall be disregarded in the calculation of coverage:

- Unroofed stoep, entrance steps and landing;
- Open balconies, retractable awnings;
- Cornices, chimneys, pergolas, water pipes, drain pipes and minor decorative features not projecting more than 500mm from the building wall;
- Eaves not projecting more than 1,0m from the wall of the building;
- A canopy erected on the street frontage of a shop;
- Electrical high and low tension chambers;
- The area covered by open air swimming pools;

Decisions regarding coverage can also play an important role in climate change mitigation. Consideration must be given to the impacts of hardened surfaces such as paved driveways, pathways and he like which increase run-off, thereby increasing the pressure on the stormwater reticulation system. The corresponding cost implication to the municipality, must play a role in the determination of coverage. In certain areas it may be advisable to consider the balance between run-off and absorption where it may be necessary to allow for greater run-off to supplement water storage facilities.

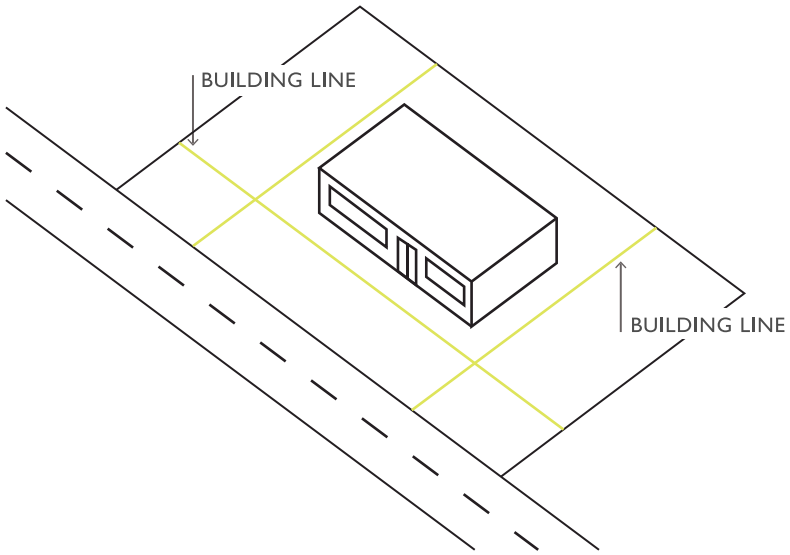
3.3.5. BUILDING LINES / SPACE ABOUT BUILDINGS

A Building Line is an invisible line on your property demarking the point up to which you can build – garden / boundary walls are not included. The purpose of these lines are to:



- Enhance lighting and ventilation
- Preserve sight lines for traffic safety reasons;
- To preserve view sheds;
- To create desired streetscapes;
- To protect infrastructure and right of way servitudes which may be present or intended; and
- To anticipate road widening where major routes are planned.

FIGURE 2
BUILDING LINES



Typically Building Lines are 5m at the front, 2m at the sides and 3m at the back. However Building Lines vary from street to street and it's best not to make assumptions. A building line prevents building too close to neighbouring properties or the road. Building lines are measured as the shortest distance from the boundary of a site to the wall of a building. This is a perpendicular measurement from a straight boundary, and in the case of a curved boundary it is measured perpendicular to the tangent point of the arc. In the case of a dwelling house, building lines from the street boundary are measured to the front wall of the dwelling (including balconies, verandas, patios, steps and the like).

3.3.6. PARKING REQUIREMENTS

Parking areas are considered hard open spaces, but their present use leaves much to be desired. Parking in the street and in front of shopping centres, office blocks, churches and public buildings is most common. Opportunities exist for a variety of uses; especially with regard to different times of night and day and different days of the week. Parking requirement is the number of parking bays required for each use or facility provided within a development. Parking requirement is usually expressed as the number of parking bays to be provided per building floor area (m2) covered by the use or facility. Parking to floor area ratios are calculated based on the amount of traffic generated by specific uses or facilities. Parking standards can differ from land uses.

The objective of parking requirements may differ and is dependent of the type of land uses as well as the proximity of the type of land uses to public transport:

01

The objective of parking standards for residential developments is to ensure that subject to road capacity considerations, future residential developments should have sufficient parking provision to match the car ownership of residents.

02

The provision of parking for community facilities should generally be limited to operational requirements. Users of community facilities will generally be expected to use public transport or public car parks. However, for certain major facilities such as cultural/ recreational complexes which are of territorial significance, there may be a need to provide sufficient parking spaces commensurate with the nature of such facilities.

03

The overall objective of the parking standards for commercial facilities is to ensure that, except in special circumstances, future commercial developments should have sufficient on-site parking to match manifest operational requirements.

04

The overall objective of Parking standards for industrial and business developments the parking standards for industrial and business developments is to ensure that sufficient parking and loading/unloading spaces are provided to satisfy requirements.

In all cases, the level of provision in a development is to be decided by the Authority. The standards serve to provide a guideline on which the Authority will base the decision.

TABLE 7
PARKING RATIOS AND THRESHOLDS[20]

MIXED-MODE STREETS

On-street parking	• In areas of high car ownership, two visitors' parking spaces should be provided onsite, in addition to on-street parking • In areas of low car ownership, on-street parking may be sufficient

PARKING RATIO PER LAND USE

Land Use	Spaces/units per land use
Dwelling unit of 1 habitable room	1.0 space/unit
Dwelling unit of 3 habitable rooms	1.0 space per unit
Dwelling unit of 4 habitable rooms	1.25 spaces per unit
Dwelling unit of more than 4 habitable rooms	1.5 spaces per unit
Visitors	0.5 space per unit
Hotels and motels	1 space per habitable room + 10 spaces per 100 m^2
Residential hotels, boarding houses, etc.	0.6 spaces per habitable room
Old-age homes, orphanages, etc.	0.3 spaces per habitable room

[20] Guidelines for human settlement planning and design; volume 1, p

GUIDELINES FOR DESIGNING SUSTAINABLE PARKING AREAS

ENSURE A MEANINGFUL LOCATION IN TERMS OF THE MOVEMENT NETWORK AND URBAN STRUCTURE

- Organise parking in small lots around the perimeter of the core of activities and movement. Parking lots should lead to the core and should provide pedestrian access to all streets.
- Integrate a parking area with the surrounding area through linking it to natural movement routes and accommodating short cuts.
- Parking should be located in smaller areas closer to destinations, especially in higher density development and at local shops.
- Parking should preferably be located away from the street at the back of buildings. If parking is provided at the front, a maximum of two rows of parking should be provided. Parking structures should not dominate street frontages.

INCREASE INTENSITY AND DIVERSITY IN THE PARKING AREA

- Manage activities in parking areas for various uses and effective utilisation of space through different times of the day, such as the closing of parking areas to act as markets in the evening or play areas on weekends.
- Type and intensity of uses can vary over time as the demand for parking increases or decreases (differences between day and night, times of the day, days of the week or month).
- Accommodate different uses that increase latency and allow for social change without physical change.

DEFINE THE PARKING AREA AS A SAFE AND UNIQUE PUBLIC SPACE

- The way buildings are arranged around the parking area should ensure adequate surveillance.

ACCOMMODATE A VARIETY OF USERS IN THE PARKING AREA

- Allow for informal traders to trade within the parking area in an organised way.
- Accommodate multifunctional use of elements within the parking area, such as trees.
- Accommodate pedestrian routes through the parking area.

CREATE EASY ACCESS TO AND FROM THE PARKING AREA

- Provide adequate stacking space for vehicles waiting to turn into the parking area.
- Provide ample dedicated pedestrian routes where access the parking area.
- Conflict between pedestrians and automobiles should be reduced through location and design of vehicular and pedestrian access to parking facilities.

ESTABLISH APPROPRIATE INTERFACES

- Design boundaries as meeting places between different domains.
- The boundary should act as interface between public space and private space or between inside space and outside space.
- Design edges to be used for shelter against wind or rain.

ENSURE A UNIFIED AND INTERESTING EDGE SURFACE DESIGN

- Plant shade trees in the parking strip to continue the trees found in surroundings.
- Open parking should be suitably landscaped with indigenous vegetation applicable to the geographic location of the parking.
- Consider open parking surfaces of permeable nature to reduce heat generation and storm water run-off which could reduce pressure on storm water systems.

3.3.7. LOADING REQUIREMENTS

Means an area which is clearly demarcated for loading and off-loading of goods from commercial vehicles, and which has vehicular access to a public street to the satisfaction of the Municipality [21]. Loading and off-loading facilities shall be provided on an erf or site to the satisfaction of the Municipality, provided that no space for loading and off-loading need be provided in respect of a building on an erf or site of less than 900m².

[21] Consolidated Johannesburg Town Planning Scheme.

3.4. DESIGN AND LAYOUT REQUIREMENTS

Most Schemes have a section that addresses a number of more detailed design aspects for particular uses and activities. It is suggested that these be collated into a separate section.

Examples of the various types of design requirements which contain further proscriptions are issues such as:

- Design and layout of Caravan Parks
- Use of Hotels for certain purposes
- External appearance of buildings
- Off-street parking and loading standards
- Design and layout requirements for Medium Density Housing Development
- Design and layout requirements for a Resort
- Design and layout requirements for Garages and Service Stations
- Any design requirement emanating from the Municipal building regulations
- Cellular masts and base stations

3.5. CLAUSES REGARDING GENERAL DEVELOPMENT MATTERS

In addition to the land use tables containing the zones and controls relating to these, a Scheme will need to include clauses relating to general development issues such as:

- Use and development of land applications
- Existing buildings, the existing use of buildings and land, and non-conforming and existing use of buildings and land
- Temporary uses
- Siting of buildings and access
- Restriction on areas likely to be subject to flooding, landslides, etc.
- Declaring, diverting, improving or closing of streets/roads
- Splaying of corners, street widening
- Car parks and malls
- External appearance of buildings
- Advertisements (signage)
- Exemptions and exceptions
- Loading and parking accommodation
- Protection of indigenous flora, fauna, habitats and natural systems
- Procedures, serving of notices, powers of entry as per relevant legislation or where additional to legislative requirements.

CHAPTER 4

PREPARING AND ADMINISTERING A SCHEME

4.1. GENERAL STAGES OF PREPARING A LAND USE SCHEME

The procedures for preparing and approving Schemes are set out below. These include requirements for advertising and public notification. Municipal By-Laws may also contain information regarding these procedures.

FIGURE 3
STAGES OF PREPARING A LAND USE SCHEME

PHASE 1: INCEPTION

- Compile work plan
- Council resolution

↓

PHASE 2: RESEARCH ANALYSIS AND RECOMMENDATION

- Data collection and analysis
- Land audt
- Translate SDF into more detailed broad land use areas
- Key questions/Status quo report.

↓

PHASE 3: DRAFT REPORT AND SUPPORTING DOCUMENTS

- Select Zones and prepare the Scheme Map
- Land Uses and Development Parameters
- Draft General and Land Use Definitions
- Policies and additional controls
- Procedures to be included in Scheme

↓

PHASE 4: CONSULTATION AND AMENDMENTS

- Public participation
- Circulation to relevant authorities
- Submission to Council for support of the Scheme in principle
- Public comment
- Revision based on public comments

↓

PHASE 5: FINAL REPORT AND SUPPORTING MATERIAL

- Preparation of final scheme clauses and scheme maps
- Submission to Council for adoption

↓

PHASE 6: IMPLEMENTATION

- Promulgation of scheme
- Training of officials

4.1.1. STEP 1: WORK PLAN

Prepare a work plan to show how the Scheme will be prepared, who the communities are and the level of consultation (including frequency and timing) required, including all relevant authorities that may have an interest in the Scheme, e.g. Department of Transport, adjacent municipalities, District Municipality, World Heritage Authorities, Department of Agriculture and Environmental Affairs, Department of Water Affairs, Water Boards, etc. The work plan should refer to all steps involved in the process of preparing the scheme.

4.1.2. STEP 2: OBTAIN COUNCIL BUY-IN

Although not mandatory (although many municipalities have included this step in a pre-requisite in their Planning By-Law), it is recommended that the planner obtain a resolution from Council to prepare or review a Scheme for the full municipal area or portions thereof. Motivation should also be given for why the scheme is prepared. This motivation can include an overview of any previous Scheme, and why the Scheme is being prepared/ reviewed.

4.1.3. STEP 3: DATA COLLECTION AND ANALYSIS

The following key informants are used to determine Scheme requirements. Information on each informant will need to be sourced and mapped as a set of base maps that will be used to prepare the Scheme (much of which should have been used and relied on in the formulation of the SDF). Meetings are needed with key stakeholders to establish the availability of information and the strategic needs for incorporation into the Scheme. This data needs to be carefully analysed and synthesised to provide meaningful input into the Scheme.

- The IDP and the SDF
- Aerial photography
- Title Deeds
- Cadastral and jurisdictional boundaries
- Different forms of land tenure and their spatial distribution
- Defined urban areas and settlements
- Geology, soil, topography and slope analysis
- Current land use and building use
- Existing Scheme/s, if any
- Existing levels of services, current demand and capacity levels as well as costs and thresholds for the expansion of these

- Demographics and population projections
- Requirements for social facilities
- Development opportunities and constraints
- Transportation planning requirements (corridors, nodes, modal transfer points, non-motorized transport, ingress and egress requirements, car free areas, parking standards)
- Economic development (strategic investment areas, areas where economic growth should be discouraged, spatial implications of LED strategies)
- Urban edge or urban growth boundary delineation
- Environmental elements including inter-alia:
  1. 1:50 year and 1:100 year flood lines
  2. Catchment areas
  3. Register of Protected Areas, Provincial Protected Areas, Nature Reserves, World Heritage Sites, Protected Forest Areas, Mountain Catchment Areas
  4. National Biodiversity Framework,
  5. Bioregional Plan and Provincial Biodiversity Management Plan if such is available
  6. Provincial list of threatened ecosystems and species
  7. Areas of agricultural potential
  8. Core conservation/fully functional ecosystems providing a full complement of ecological services
  9. Links between core areas/partially functional ecosystems
  10. Isolated portions of the open space system which are not linked to the other areas, but which provide important stepping-stones in the overall ecosystem
  11. Areas where urban agriculture may or may not occur
  12. Areas where the harvesting of indigenous vegetation may or may not occur
  13. Important view sheds/vistas
  14. Coastal management areas
  15. Sustainable utilization of Water Plans – dams and rivers
  16. Other elements a municipality may identify in an Environmental Management Plan, e.g. sites of cultural or ecological significance

4.1.3.1. The importance of a land audit

The purpose of a registered land audit is determine how much land is owned by whom, what it is zoning and what it is actually used for. Many municipalities will balk at including this step in the compilation of the Land Use Scheme process (mostly due to cost), but should really consider the benefits of the land audit before NOT including it. A land audit:

- Establishes a single database of all registered land portions within the jurisdiction of the municipality. This single database can be used not only for the purposes of a Land Use Scheme, but also for purposes of compiling a general valuation roll (also a legal requirement) or also to update the billing system of the municipality.
- Establish a single database of land use in the municipality.
- Establish a single database of land use rights in the municipality.

THE PROCESS OF CONDUCTING A LAND AUDIT IS AS FOLLOWS:

01 COMPILE INITIAL GIS BASE

The database should consist of at least the following:

- Cadastre and boundary data
- Provincial boundaries
- Local Authority boundaries
- District Municipality boundaries
- Townships boundaries
- Farm boundaries
- Traditional Authority boundaries, including Traditional Authority name and Traditional Chief name.
- Ward boundaries.
- Cadastre obtained from the Surveyor General. This includes Erven, Holdings, Farm Portions, Parent Farms, and General Plan boundaries, Public Roads, Public Parks as well as Allotment or Township Boundaries. The data from the SG could be replaced by municipal datasets if more updated.

02 UPDATE OWNERSHIP DATABASE

From the deeds office, all registered properties within the municipal boundaries can be obtained. The table below provides a sample an extract of the data contained in the deeds database. Note that electronic ownership information from the South African Registrar of Deeds is NOT free of charge. At the time of writing this guideline the cost amounted to R 10 per property (and could therefore be a prohibitive cost for larger municipalities). A number of website platforms (e.g. www.deeds.gov.za, www.windeed.co.za etc.) offer a deeds search service, which could prove indispensable for the municipality.

TABLE 8
EXAMPLE ELECTRONIC DEEDS DATABASE

Town Name	Volksrust	**Bond Holder**	FIRSTRAND BANK LTD
Farm/Reg Div		**Bond Amount**	72200000
Erf Number	2889	**Restant Indicator**	
Portion	0	**Deeds Office**	1
Sectional Scheme Name		**TownShip Number**	12650
Buyers Name	ROOS JOHANNES JACOBUS	**Add description**	
Buyers Id	7810025114088	**Bond Number**	B24387/2006
Buyers Status	MARRIED OUT	**Original Erf**	
Seller Name	VENTER GARTH GAVIN	**Old Title Deed No**	T18306/2005
Seller Id	6910235266081	**Share**	
Seller Status	UNMARRIED	**Date Captured**	20060302
Registration Date	20060220	**Province**	NORTH-WEST
Purchase Date	20051111	**Property Type**	E
Purchase Price	00000000000722000	**Deeds Office**	1
Extent	1033.0SQM	**Property Ref Code**	0000288900000
New Title Deed No	T18540/2006	**LPI Code**	T0JQ0002

03 CLASSIFY OWNERSHIP

The "Buyers Name" field in the deeds database above is the registered owner of the property. One of the reporting requirements of an ownership database is to provide the number of properties per ownership category. This is impossible if the deeds data is not classified by ownership type.

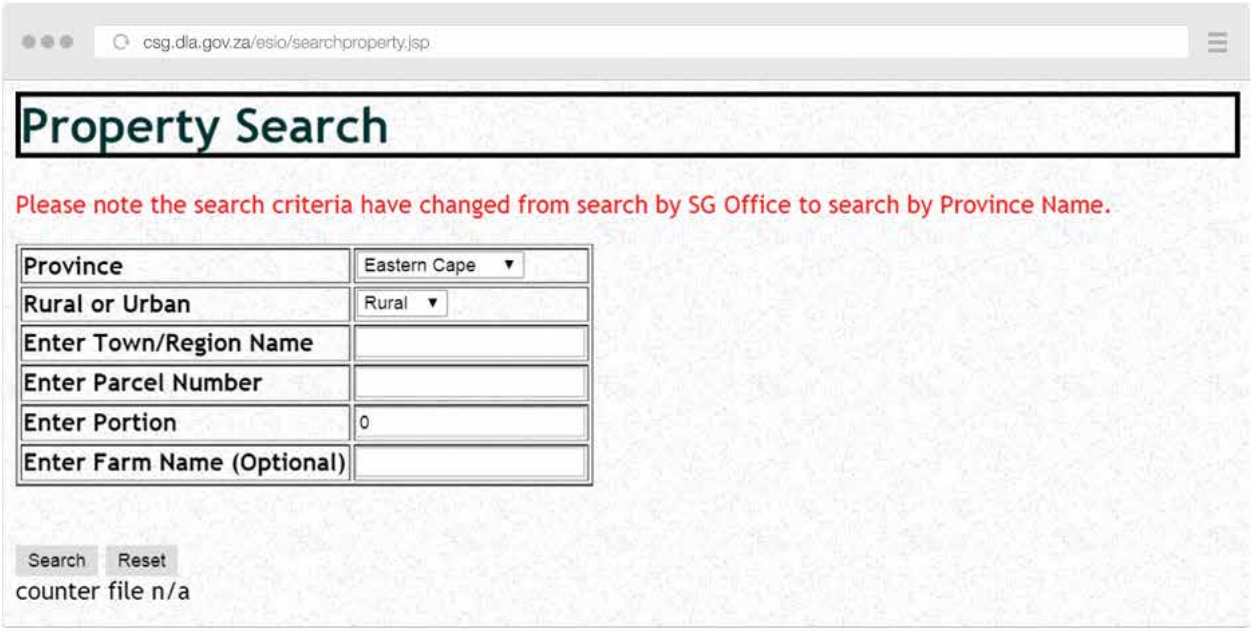
The "owner field" can be classified into the following categories (or any other that the municipality may deem fit):

- Private,
- State owned enterprises (Telkom, Transnet Eskom, SA Roads Agency etc.),
- Local municipal,
- District municipal,
- Other municipalities,
- Provincial government,
- State land,
- Ecclesiastical,
- Traditional authority (if applicable), and
- Other categories not listed here but approved by the steering committee.

04 CADASTRAL BOUNDRY VERIFICATION

It is necessary to verify the cadastral boundaries first as this will form the basis for the land use verification fieldwork. During this stage, the master ownership database will be compared with the best set of cadastre from either the municipality or the Surveyor General. In the case where a title deed record exist, but no matching cadastral entity, the specific SG diagram should be obtained and the entity captured by keying in the co-ordinates from the small scale diagram or general plan. It is important to note that NO information should be digitized as this method of capturing is vastly inaccurate. The website of the Chief Surveyor General is an excellent source of scanned images of small scale diagrams and general plans http://csg.dla.gov.za/

FIGURE 4
SURVEYOR GENERAL WEBSITE



05 LAND USE SURVEY

The verified cadastral boundaries will serve as template for the fieldworkers to conduct the land use survey. The following steps will be followed as part of the survey:

- **Land use classification**. Earlier in the document, mention was made of the land use classification initiatives of the Department of Rural Development and Land Reform. During this step, the steering committee should decide on a land use classification which will be used for fieldworker training.
- **Recruit and train fieldworkers**. Municipalities should consider using unemployed members from communities or students to conduct the fieldwork, thereby contributing to local economic development.
- **Conduct land use survey**. Fieldworkers will conduct the land use survey. Results should be obtained from each fieldworker at the end of each week and fed into the GIS database. Database algorithms can check for data anomalies and flag these for review. The result of the land use survey should be matched with the cadastre to ensure that each property have a land use. In the case where more than one land use can be found on a property, secondary land use(s) must also be recorded.

4.1.4. STEP 4: KEY QUESTIONS

Is there an existing Scheme/s and what have been the benefits/failings of that Scheme/s?

- What pressures/opportunities does the area face?
- What type/character of area are we designing for?
- What is the interpretation/application/translation of the SDF (if any)?
- What needs to be managed and why?
- What are the benefits of a Scheme for this area?
- Who is going to implement the Scheme?

Determine the appropriate level of management required, the resources needed, and the broad approach that should be adopted from the continuum of approaches (simple to complex, policy to prescriptive).

4.1.5. STEP 5: TRANSLATE SDF PROPOSALS TO BROAD LAND USE PROPOSALS THAT CAN ULTIMATELY BE LINKED TO THE LAND USE SCHEME

This step involves interaction between the existing MSDF, LSDF or precinct plans and should explore which SDF proposals can be included in the Land Use Scheme as well as the format thereof. This interrelationship between the LUS and the SDF is explored elsewhere in this document.

4.1.6. STEP 6: SELECT ZONES AND PREPARE THE SCHEME MAP

The municipal planner should determine which zones as well as the number of zones that should be included in the scheme clauses. Refer to section 3.2 on more information regarding zones.

4.1.7. STEP 7: LAND USES AND DEVELOPMENT PARAMETERS

Determine which land uses and activities are to be freely permitted, permitted by consent or prohibited, and the development parameters/Scheme controls pertaining to each zone. These mechanisms should be presented in a user-friendly manner such as a series of tables, templates and land use matrices.

The development parameters and additional controls that should apply to each zone should include:

- Minimum or maximum erf sizes
- Height restrictions
- Floor Area Ratio (FAR) or the ratio of the total floor area of the building to the total area of the subdivision on which the building is or is to be erected
- Coverage – the percentage of the plot that may be covered by a building
- Parking and vehicle loading requirements
- Setbacks – building lines
- Build to lines
- Space around the buildings – side and rear spaces
- External appearance of buildings
- Urban design criteria
- Signage and advertising
- Environmental controls
- Additional/special controls

4.1.8. STEP 8: DRAFT DEFINITIONS.

In this part of the process general definitions and land use definitions are drafted. General definitions can include terms typically used in a Land Use Scheme (e.g. "coverage"). Careful consideration should be given to definitions. Changing a definition may have legal implications:

- Changing a general definition such as "height" may influence how this development control is applied (i.e. number of storeys, or height above ground level, is basement included in the calculations or not etc.
- Changing the definition of a land use (e.g. dwelling unit) may take away rights or influence the extent of the development. By changing an existing definition of a land use, a planner may inadvertently remove rights currently exercised – thereby causing a number of existing "legal" uses to be illegal or non-conforming in the new scheme. This is particularly challenging in municipalities that have more than one existing town planning scheme with different definitions.

4.1.9. STEP 9: POLICIES AND ADDITIONAL CONTROLS.

Determine which planning and environmental policies and additional controls will be required to make the Scheme clear and effective. These may include parking policies, various guidelines relating to urban agriculture, preservation of listed buildings, etc. Decide which should be included in the Scheme and which should simply be referred to in the Scheme.

4.1.10. STEP 10: PROCEDURES TO BE INCLUDED IN SCHEME.

Decide which procedures, if any, need to be included in the Scheme.

4.1.11. STEP 11: CIRCULATION TO RELEVANT AUTHORITIES.

Circulate Scheme to government authorities that may have approval requirements such as Department of Agriculture. May also require input from Environmental Affairs and Rural Development, Department of Transport, Department of Water Affairs and amend where necessary.

4.1.12. STEP 12: SUBMISSION TO COUNCIL FOR SUPPORT OF THE SCHEME IN PRINCIPLE

4.1.13. STEP 13: PUBLIC PARTICIPATION AS PER RELEVANT LEGISLATION

4.1.14. STEP 14: REVISION BASED ON PUBLIC COMMENTS

4.1.15. STEP 15: SUBMISSION TO COUNCIL FOR ADOPTION

4.2. MONITORING, EVALUATION AND REVIEW OF THE SCHEME AND KEEPING AN AMENDMENT REGISTER

Schemes are amended regularly through applications (be it through consent use, rezonings or scheme amendments or formal reviews by the municipality as required by legislation). Thus, as part of the Scheme process, a municipality must establish an effective monitoring programme that can be integrated with the overall Programme Management System of the municipality and any provincial monitoring system that may exist.

A monitoring programme should, include, inter-alia:

- The implementation of directive principles contained in legislation
- A record of applications, council initiated amendments, all decisions and land use changes
- A record of the time taken to process applications
- The effectiveness of the Scheme and procedures
- An assessment of the need to review and amend
- Schemes; generally the need to review a Scheme or its components should be considered every five years in conjunction with the revision of the IDP. However, this should be a minimum requirement and more frequent reviews may be necessary in some areas.
- Note that amendments to scheme regulations should not be accumulated for an "annual "update. A delay in updating regulations when needed can have negative implications.

4.3. COMMUNITY PARTICIPATION

Why is community participation in the compilation of schemes needed?

- Legal requirements: Constitution of RSA, Act No. 108 of 1996, Municipal Systems Act, Act No. 32 of 2000, Spatial Planning and Land Use Management Act, 2013.
- Participation build trust between communities and the Municipality which forges acceptance by all parties of the final product
- More appropriate solutions and better decisions: indigenous knowledge is crucial to the success of a Scheme; local people know what the issues and problems are and can educate professionals; proposals are more likely to reflect what is needed
    1. There will be more likelihood of community support for the outcome
    2. It will build a sense of community as people work together
    3. It will develop a sense of citizenship and responsibility amongst users for the areas where they live, work and recreate
    4. Leads to empowerment by building confidence and developing skills and ability
    5. Promotes sustainability as people feel they have contributed to the management of their area; this brings about a tendency for self- Wpolicing and reduction in the likelihood of neglect and decay.

FOLLOWING ITEMS SHOULD BE ADDRESSED DURING COMMUNITY PARTICIPATION:

Planning issues that impact most frequently and directly on people's everyday lives should be communicated. The reasons for managing the use of land and the advantages of Schemes must be explained. Rather than describing the details of the system, the benefits that will be experienced by people should be communicated. Elaboration of the following basic themes and elements of Schemes during community participation exercises is suggested:

- The general purpose of planning
- What is a Scheme?
- Why Schemes are required?
- Schemes are part of the Integrated Pevelopment Plan for an area required by the Municipal Systems Act, Act No. 32 of 2000
- The flexibility of Schemes – they accommodate the needs of communities and changing circumstances over time through regular reviews, Scheme amendment, special consent and rezoning procedures
- The consistent approach across the municipal area achieved by Schemes
- The overall vision and desired outcome for the area
- In areas where existing Schemes are to be reviewed and converted to the new system, all changes must be highlighted and similarities with the previous system pointed out
- The concept of zones and why they are useful
- Proposed zones
- Development parameters or Scheme controls required to manage development on a site
- Applications, permissions and procedures that will apply once a Scheme is adopted
- Application fees
- Enforcement system
- Expectations and rights
- Existing land uses – where a Scheme is being prepared for the first time or amendments are being made, existing, legitimate

CHAPTER 5

INCENTIVES AS PART OF A LAND USE SCHEME

SPLUMA requires that a Land Use Scheme include land use and development incentives to promote the effective implementation of the Spatial Development Framework and other development policies.

SPLUMA[22] requires municipalities to include land use and development incentives to promote the effective implementation of the Spatial Development Framework and other development policies. This section will explore different types of incentives that municipalities could use to either fast track development, or to incentivise developers to adhere to the provisions of the SDF and Land Use Scheme. Note that some of these incentives are financial in nature. All incentives, however, should be applicable to some spatial element (a street block, a node, a corridor etc.) therefore even financial elements can be linked to a scheme or SDF by intruding a spatial element such as an overlay zone to the scheme maps and describing the implications thereof in the scheme clauses.

5.1. TIME TAKEN TO APPROVE A DEVELOPMENT APPLICATION

SPLUMA provides the first incentive that can be used. Fast track development applications in suitable areas. This is stipulated as a requirement for new SPLUMA compliant SDFs. SDF's should include (among other) "identify the designation of areas in which shortened land use development procedures may be applicable and Land Use Schemes may be so amended"[23]. Practically this could mean that these areas are identified in the SDF and then included in the scheme as an overlay. If, for example, the SDF proposes a "mixed use node" the regulations attached to the overlay zone could mean that land uses applications that will satisfy the "mixed use" criteria could be obtained through consent use applications as opposed to formal re-zoning procedures.

5.2. LAND VALUE CAPTURING

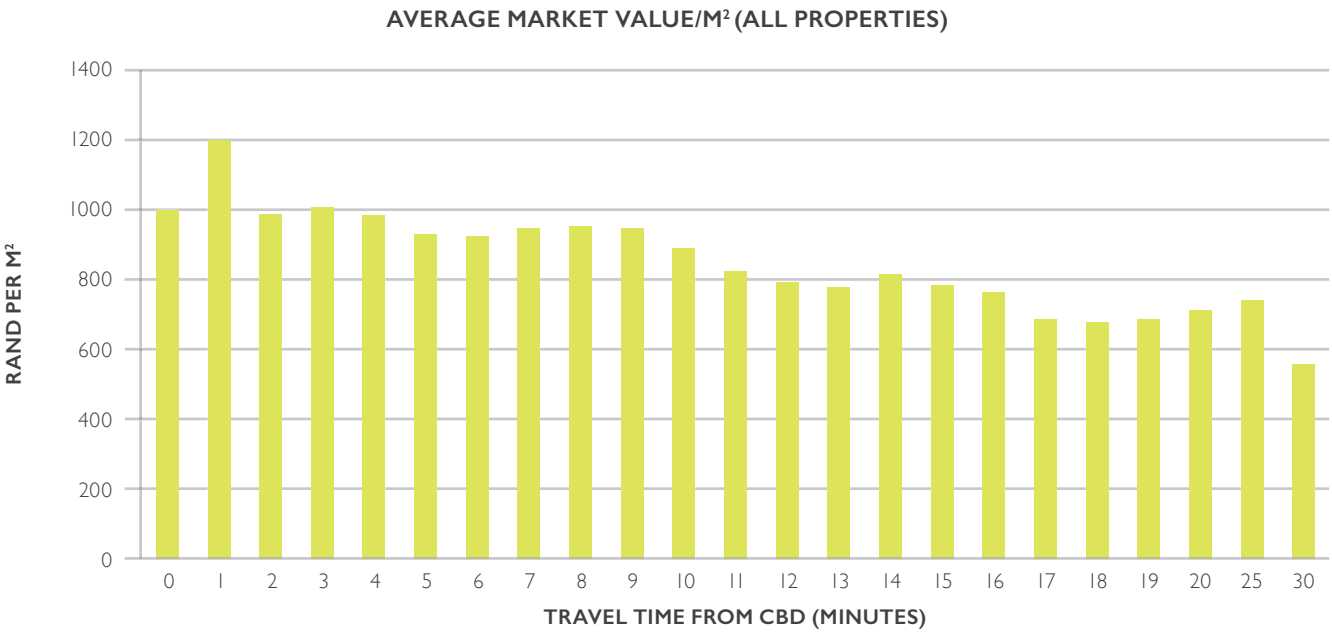
Cities are meant to be productive spaces and centres of wealth accumulation. A key feature of any city is that it is located at a physical point in space, meaning that a city requires land. The value of land in a city, or in sub-areas of a city, is generally considered a good indication of the productive capacity or investment potential of a city. Land is a particularly unique factor of production. Unlike other factors of production such as capital and human resource, land (and the fixed structures constructed on it, or the mineral resources contained in it) is immovable and fixed in a particular location. Depending on the business cycle and ownership arrangements, land can further be viewed as either a capital investment good (for owners of land) or as consumption good with utility bearing properties. Economic actors will tend to view land as a capital investment good in times of rapid growth and property price increases, and as a consumption good when prices are either stable or declining.

Repeated observation also generally confirms the following:

- Land prices in general fall with increasing distance from city canters at a diminishing rate; and
- The average size of the land area (plot, stand or erf) occupied by a household or business tends to increase the further it is from the city centre.

Consider the following graph – compiled for Ekurhuleni Metropolitan Municipality:

FIGURE 5
LAND RENT GRAPH - EKURHULENI MUNICIPALITY



[22] Section 24 (2) (e)
[23] Section 21 (l)(ii)

In general, land values appreciate closer to city centres and strong nodes such as regional shopping centres due to intensive land use and the existence of externalities associated with intense land use and building massing. These externalities include connectivity, infrastructure and increased social contact.

The further distance from city centres, the higher the probably that agricultural will become the dominant land use, with lower average per unit land prices compared to other land uses.

Planners should encourage higher-order land use, land value capture and optimum land use. The highest and best use considers only the uses that are legally permissible (meeting zoning, health, and public restrictions), physically possible (has adequate size, soil conditions, and accessibility), and is economically feasible (income is anticipated). The use that meets these criteria and produces the greatest net earnings (best returns) is the highest and best use.

5.3. VALUE CAPTURING FINANCE (VCF)

Many municipalities adopt an all-or-nothing approach with regard to urban development financing, particularly insofar as VCF represents an innovative means of maximising a city's assets. It is a finance mechanism which not only shares the risks and costs of urban development between public and private actors, but also the rewards. VCF sees some of the costs associated with making urban development succeed internalised within the balance sheets of the developments themselves. Public goods are consequently provided by urban development without the proportional draw on the public resources which would otherwise finance them. This potentially means that value capture is an attractive idea to the public sector (as it provides additional resources for public goods) and for the private sector (as it ensures that the value created by development is at least partly locally re-invested rather than being more broadly dispersed).

There is often, however, some confusion between VCF and other development finance mechanisms possibly because VCF can involve relatively complex financial and contractual arrangements, which can change according to the local development context, legal frameworks and the purpose of the funding. Value creation can result from a number of public sector interventions, including:

- Land use change using planning and regulatory tools e.g. zoning, restrictive land use planning and planning permission.
- Enhanced infrastructure provision e.g. road, rail, metro and airport links, as well as basic utility provision.
- Environmental improvement e.g. remediation of polluted land, or tackling of dereliction.
- Enhanced service delivery and image e.g. destination marketing, iconic architecture, event hosting and management, policing and cleaning.
- Population increase e.g. residential development and increases in tourist flows as a result of enhanced area infrastructure and image.

5.4. TAX INCENTIVES AND RATES ARRANGEMENTS

As in most countries, one of the main disconnecting issues in terms of sustainability is the presence of urban sprawl resulting in extensive urban decay[24]. In order to address these concerns governments internationally and nationally have utilised tax measures to support efforts aimed at regenerating these urban areas by attracting developers with a capital allowances to areas where interest would otherwise be lacking with interests[25]

WHAT ARE TAX INCENTIVES?

Incentive takes the form of a tax allowance covering an accelerated depreciation of investment made in either refurbishment of existing property or the creation of new developments within the inner city[26]. Furthermore, it can also be used as a method to integrate public-private partnerships in mixed-used developments that provide social facilities in new commercial and residential developments[27].

In South Africa, the core objectives of incentive are to address neglected zones in the largest cities to promote urban renewal and development by promoting investment by the private sector in the construction and/or improvement of commercial and residential buildings, which includes low-cost housing units. Incentive in South Africa are supported by the Department of Housing's Comprehensive plan for the development of sustainable human settlements by encouraging private investment in affordable rental housing in the inner city[28].

[24] UrbanGreenFile. 2005. Sustainability in Tshwane. Sprawling the city. Urban Green File, vol. 10. August, pp. 27.

25 SARS. 2009. Guide to the Urban Development Zone Tax Incentives. http://www.capetown.gov.za/en/Planningportal/Documents/UDZ%20Guide.pdf. Date of access: 4 Dec. 2012

[26] Creamer Media. 2012. Engineering news online. http://www.engineeringnews.co.za/print-version/company-announcement-appointed-principal-contractor-for-cape-towns-newest-office-tower-2012-02-29. Date of access: 7 Dec. 2012.

[27] EPA (Environmental Protection Agency. 2011. A Guide to Federal Tax Incentives for Brownfields Redevelopment http://www.epa.gov/swerosps/bf/tax/tax_guide.pdf. Date of access: 7 Dec. 2012.

[28] SARS. 2009. Guide to the Urban Development Zone Tax Incentives. http://www.capetown.gov.za/en/Planningportal/Documents/UDZ%20Guide.pdf. Date of access: 4 Dec. 2012

[29] Pretoria Provincial Government: Department of Trade and Industries. Policy development for the development of special economic zones in South Africa. Notice 45 no. 349683. January 2012.

5.5. MUNICIPAL PLANNING FINANCIAL TOOLS FOR ECONOMIC DEVELOPMENT

The Urban Development Zones (UDZ's) programme is one of the most critical tools that can be used for economic development in South Africa[29]. UDZ's are based on the built environment and uses incentive packages to attract targeted investments and technology in the identified zones for infill development of redevelopment in order to prevent the city from future urban sprawl.

Local governments give planning commissions latitude to waive certain zoning requirements for infill projects. Infill incentives are offered for a number of reasons[30]:

- Infill development reuses properties that may have been underutilized or blighted, helping to catalyse revitalization.
- It also has the potential to boost jobs, purchasing power, and public amenities in urban core neighbourhoods and generate tax revenue for local government.
- Infill housing is dense in comparison with housing in suburban areas and represents an effective way to meet a jurisdiction's affordable housing or population growth needs.
- Located in proximity to existing transit routes or within walking distance of services and entertainment, infill development can reduce auto use and accompanying congestion and pollution.

Prime locations for infill development include CBD's, transit corridors and locations near employment, shopping, and recreational and cultural amenities.

5.6. INNOVATIVE DEVELOPMENT INCENTIVES AND INITIATIVES

Following are some examples of innovative incentives and funding mechanisms around the globe[31]:

Funding for the design and construction of parking structures and transit infrastructure

This is considered one of the most useful and important incentives for the repair of large commercial sites such as regional shopping centres and malls, which will be possible only if the under-utilized parking lots are urbanized to support higher density, mixed-use development. Structured parking will be needed, and the investment for it can be considerable, making government financial support essential.

TAX INCREMENT FINANCING (TIF)

This is an instrument used to underwrite redevelopment projects. Applied to a district, TIF is typically used to pay for on-site and off-site infrastructure improvements. Bonds are issued based on the projected future increase of the local taxes within a certain redevelopment area.

BUSINESS IMPROVEMENT DISTRICT (BID)

Also called a BIA (Business Improvement Area). This is an overlay area that can be funded through a special assessment collected from commercial property owners within the district or area. The funds will pay for infrastructure improvements in the process of sprawl repair. They generally require legislative authorization.

REDUCE LOT SIZES, SETBACKS, AND PARKING REQUIREMENTS

Many localities are updating their zoning code to address the challenges of developing smaller parcels. Key incentives modify regulations to allow for reduced residential lot sizes, reduced setback requirements, and reduced street and parking standards.

ZONE FOR MIXED-USE DEVELOPMENT

Local governments may put in place a residential/mixed-use zoning designation to specifically encourage infill practices such as allowing housing development above stores. To ensure availability of affordable housing, the jurisdiction can amend the zoning regulations to establish an overlay zone for the residential/mixed-use district that permits the development of affordable housing "by right" on the areas covered in the overlay.

UPGRADING INFRASTRUCTURE AND AMENITIES

A key strategy for encouraging infill development, particularly housing, is a focused public investment strategy to improve antiquated infrastructure and add public amenities such as parks, libraries and streetscapes.

LOWERING OF IMPACT FEES

Offering lower impact fees for infill projects can more accurately reflect the true costs for providing services through existing infrastructure. This more calibrated approach makes infill parcels more attractive, and builds greater equity into metropolitan growth patterns.

PERMITTING BY RIGHT

Fast track permitting, applied within targeted infill development areas, allows developers of infill parcels to get their application processed ahead of non-infill applications. Affordable housing projects with slim profit margins can benefit substantially from speedy development review and approval.

INCREASE DENSITY ALLOWANCES

Increasing the maximum allowed density for infill areas in the city's zoning regulations is an important incentive. Higher densities permit more intensive development of a parcel and allow the developer the opportunity to spread development costs over more units. Local governments can also provide "density bonuses" to developers of infill sites that designate a certain percentage of housing units as affordable. In this way, localities can both encourage efficient use of the land and promote the inclusion of affordable housing units within a project.

[30] Policy Link. 2012. Infill investments. http://policylink.info/EDTK/Infill/ Date of access: 4 Dec. 2012.

[31] Tachieva. 2010.

CHAPTER 6

TRANSITIONAL MEASURES

Municipalities have until 2020 to finalise their Land Use Schemes. Development, however, cannot wait until such a time that the municipality have finalised this process. Municipalities may find themselves in the following situation:

- Decisions on some applications made in terms of laws repealed by section 59 of SPLUMA (DFA, LeFTEA, etc.) may still be outstanding; or
- Decisions on development applications made in terms of provincial laws (e.g. Land Use Planning Ordinance 15 of 1985 or the Town planning and townships ordinance no. 15 of 1986) may still be outstanding. These provincial laws may not yet have been repealed by new 'SPLUMA compliant' provincial legislation.

Application will therefore continue to be submitted and municipalities need to have measures in place to deal with those applications in process. SPLUMA[32] provides some guidance as to what may be required:

- The repeal of laws referred to in section 59 or by a provincial legislature in relation to provincial or municipal planning does not affect the validity of anything done in terms of that legislation.
- All applications, appeals or other matters pending before a tribunal established in terms of section 15 of the Development Facilitation Act, 1995 (Act No. 67 of 1995) at the commencement of this Act that have not been decided or otherwise disposed of, must be continued and disposed of in terms of this Act.

The Department of Rural Development and Land Reform drafted the following guidelines to assist Municipalities with the transitional period as it relates to development applications:

TABLE 9
TRANSITIONAL MEASURES RELATING TO DEVELOPMENT APPLICATIONS

LEGISLATION	ADMINISTRATIVE ACTION
Development Facilitation Act applications submitted prior to June 2012.	• Provinces to catalogue all existing applications and their current status (including stage of application, applicable municipality and summary of outstanding actions) • Provinces to provide the above to municipalities. • Provinces to hand over applications and relevant documentation (whilst keeping copies). • Provinces to inform applicants of the handing over process. • The above to be completed by the 1st of September 2015. • The minister to gazette timeframes for the completion of DAF applications (not exceeding 24 months). • Provinces to submit all applications to Municipal Manager of affected municipalities. • Municipalities to acknowledge receipt of applications. • Municipalities to dispose of these applications.
Ordinance applications received BEFORE 1 July 2015.	All "valid "applications submitted prior to 1 July 29015 to be finalised in terms of the applicable ordinance and decision made by the "decision making authority" as contemplated in section 60 60 read with section 12 of the interpretation Act, 53 of 1957.
Ordinance applications received AFTER 1 July 2015.	• No law or section of law that is inconsistent with the provisions of SPLUMA may be utilised to process an application. • Provinces and municipalities should jointly and severally do an analysis of legislation which they administer that are nor consistent in terms of section 2(2) with the understanding must that local government in terms of its constitutional mandate be developmental in nature. • When a municipality's Land use management by-laws are enacted, provincial legislation that prescribes a parallel system will not be consistent and the municipal by-laws will prevail.
Legislation repealed by SPLUMA: Applications in terms of LeFTEA, Removal of Restrictions Act and Physical Planning Act – BEFORE 1 July 2015.	• Applications to be finalised in terms of LeFTEA /Removals of Restrictions / Physical Planning Act and the decision made by the relevant land use regulator (to be determined by each province). • Note that no applications in terms pf this legislation should have been received after 1 July 2015.

[32] Section 60

Legislation NOT repealed by SPLUMA – BEFORE 1 July 2015.	Applications that have been submitted in terms of older order legislation must be finalised in terms of that legislation (Black Communities Development Act, Proclamation R293 and R188 etc.).
Legislation NOT repealed by SPLUMA – AFTER 1 July 2015.	Applications that have been submitted in terms of older order legislation can be finalised in terms of that legislation (Black Communities Development Act, Proclamation R293 and R188 etc.) ONLY in instances where those provisions are not inconsistent with SPLUMA.
Municipal By-laws.	Applications to be finalised in terms of Municipal By-laws

When considering the above guidelines for transitional measures as it relates to development applications the following is of importance:

- Section 60 of SPLUMA does not specifically deal with "applications" but it states that anything "validly done" in terms of other National, Provincial, or local Government legislation remains "valid".
- Irrespective of the legislation used above, applications will have been made according to some or other EXISTING Town planning scheme/zoning scheme or Land Use Scheme.
- Therefor the implications on the compilation of a Land Use Scheme should also consider that:
- Irrespective of the town planning scheme/Land Use Scheme/zoning scheme used, as long as the right applied for is "valid" that scheme remains valid.

The City of Cape Town provides an example of this in some of the clauses of its Municipal Planning By-Law[33]. Note that this clause can also be found in the Western Cape Land Use Planning Act, 2014.

- "Any approval, designation, determination, consent, right, authorisation, confirmation or instruction issued, granted or in force in terms of a law repealed by the Land Use Planning Act, and in existence immediately before the commencement of the Land Use Planning Act, remains in force and where applicable is regarded to have been issued, granted or occurred in accordance with this By-Law subject to the conditions under which it was issued and is valid for the period for which it was granted under the repealed law."
- "Despite the repeal of the Ordinance, any action taken or application made before the commencement of this By-Law in terms of a law repealed by the Land Use Planning Act, including a previous zoning scheme, which has not been finalised immediately before the commencement of this By-Law, must be finalised as if the Land Use Planning Act and this By-Law are not in force and as if the previous zoning scheme was not repealed.
- "Conduct in contravention of a law repealed by the Land Use Planning Act is regarded as a contravention of this By-Law and the penalties in this By-Law apply where the conduct would constitute an offence under this By-Law."

[33] City of Cape Town Municipal Planning By-Law, 2015

CHAPTER 7

ENFORCEMENT OF A LAND USE SCHEME

7.1. LEGAL STATUS OF A LAND USE SCHEME

Land Use Schemes are LEGAL instruments. SPLUMA[34] stipulates the following with regards to the legal effect of a Land Use Scheme:

An adopted and approved Land Use Scheme:

- Has the force of law, and all land owners and users of land, including a municipality, a state-owned enterprise and organs of state within the municipal area are bound by the provisions of such a Land Use Scheme; and
- Once a Land Use Scheme is adopted and approved, land may be used only for the purposes permitted by a Land Use Scheme.

Municipalities must promulgate their Land Use Schemes as a municipal by-law. Municipal by-laws are laws made by local government. They must be passed by a majority vote of a municipal council. Under the Constitution, the public must be given an opportunity to review and comment on by-laws before they are voted on by a municipal council. When a land use is exercised that is not permitted by the Land Use Scheme, this is seen as a contravention of the municipal by-law. In the case of such a contravention, SPLUMA[T] stipulates that a municipality have the following powers:

- It may appoint an inspector that can enter the property with the aim of ensuring compliance to the Land Use Scheme;
- It may apply to a court for an order:
    1. interdicting any person from using land in contravention of its Land Use Scheme;
    2. authorising the demolition of any structure erected on land in contravention of its Land Use Scheme, without any obligation on the municipality or the person carrying out the demolition to pay compensation; or
    3. directing any other appropriate preventative or remedial measure.

In the process of compiling a Land Use Scheme (see earlier sections) and more specifically conducting the land audit, identify a number of illegal land uses. The following process can be followed to rectify this.

IDENTIFY ILLEGAL USE

This can happen as the result of a land use survey or land audit, or can be the result of a complaint from a member of the community. Note that if it is the result of a complaint – the municipality should investigate first.

ISSUE NOTICE OF CONTRAVENTION

The City may serve a notice on an owner or other person if there are reasonable grounds for believing that the owner or other person is in contravention of the Land Use Scheme. The notice should contain the following information:

- Description of the property/land unit in question;
- Describe the conduct that lead to the contravention of the scheme (in other words, what is the illegal land use);
- Indicate which provision of this By-Law, condition of approval or other provision the conduct contravenes (refer to the specific scheme clause or land use table in the scheme clauses);
- Instruct the owner or other person to cease the unlawful conduct and to comply with the scheme;
- State that a failure to comply with the notice constitutes an offence and indicate the penalties;
- State that, in the event of non-compliance with the notice, the Municipality may take one or more of the following measures:
    1. if relevant, take steps to withdraw an approval for a temporary departure/consent or an approval granted for a limited period of time;
    2. apply an administrative penalty;
    3. apply to a competent court for appropriate relief including the costs of the application; and
    4. institute a criminal prosecution;
    5. advise the owner or other person of their right to apply for rectification of the contravention. This should include what the rectification process will involve (e.g. a rezoning application)
- Advise the owner or other person of their right to apply for rectification of the contravention. This should include what the rectification process will involve (e.g. a rezoning application)

[34] Section 26
[35] Section 32

INVITE THE OWNER

Or other person within a specified time to make written representations on the notice. If the owner supply written proof that he/she is exercising a legal right (e.g. an old zoning certificate) the municipality should withdraw the action.

- The owner submits an application to rectify the land use and follows the process of that application as is necessary (e.g. an application for consent or rezoning or departure etc.)
- If the application contemplated above is not successful, the owner should cease to exercise the land use. The municipality can consider enforcement litigation:

1. The City may apply to the High Court for appropriate relief, including orders compelling the owner or other person to; **demolish, remove or alter any building, structure or work erected in contravention of the scheme, and rehabilitate the land concerned; and**
2. Cease or modify conduct in contravention of this scheme, to comply with this scheme, or to address another impact of the contravention.

7.2. FINANCIAL PENALTIES

7.2.1. PENALTIES

Municipalities can consider penalising a property owner if he/she contravenes the municipal Land Use Scheme. City of Tshwane has introduced the following section in its land use management by-law:

An owner and/or other person are guilty of an offence if such owner or person:

- Contravenes or fails to comply with a:
  1. decision taken or a condition imposed or deemed to have been taken or imposed by the Municipality in terms of this By-law or any other law relating to land development;
  2. provision of the Land Use Scheme or amendment scheme;
  3. uses land or permits land to be used in a manner other than permitted by the Land Use Scheme or amendment scheme;
  4. uses land or permits land to be used in a manner that constitutes an illegal township as defined in terms of the provisions of this By-law;
  5. etc.
- Alters or destroys land or buildings to the extent that the property cannot be used for the purpose set out in the Land Use Scheme or zoning scheme.

Any person convicted of an offence in terms of this By-law, shall be liable to a fine not exceeding R5 000 or as may be determined by a Court of Law or to imprisonment for a period not exceeding 12 months or both such fine and such imprisonment.

A person convicted of an offence under this By-law who, after conviction, continues with the action in respect of which he/she was so convicted, is guilty of a continuing offence and liable to a fine not exceeding R5000, or upon conviction, to imprisonment for a period not exceeding three months or to both such fine and imprisonment, in respect of each day for which he/she has so continued or continues with such act or omission.

7.2.2. ILLEGAL LAND USE TARIFF

Cities and towns grow in wealth and size through investments in land and property. For municipalities this value is the base of their primary source of tax income, which is used to provide basic services and perform their functions. The Municipal Property rates Act (2004) specifies that a municipality must compile a register of all properties in the municipality which also include the value of those properties. This is called a valuation roll. The value of a property is determined by looking at the following factors:

- The value of any license, permission or other privilege granted in terms of any legislation;
- The extent and value of land and buildings (referred to as "immovable property" in the act);
- What the land and buildings are used for (legal or not).

Each municipality compiles a tariff policy (in terms of the MFMA Municipal Finance Management Act) which includes, among other, a property rates tariff applicable to land. This tariff is applied to the value of the property to determine the property rates amount payable on a monthly basis to the municipality (note that certain rebates can be applied to certain property classes e.g. RDP houses, or old age homes etc.). The table below provides an example of tariff for each category of property.

TABLE 10

PROPERTY TARIFF AND MONTHLY PROPERTY RATES BILL (FOR A PROPORTY VALUED AT R1,000,000)

CATEGORY	TARIFF (RAND)	MONTHLY PROPERTY RATES
Agricultural Residential	0.005878	R490
Agricultural Business	0.018287	RI 524
Farming	0.001632	RI36
Residential	0.006531	R544
Business and Commercial	0.018287	RI 524
Mining land	0.018287	RI 524
Public Service Infrastructure	0.001632	RI36
State	0.009796	R816
Public benefit	0.001632	RI36
Education	0.001632	RI36
Religious	0.000000	R0

In this example, a residential property valued at R 1 000 000 pays R 544 every month in property rates. A business valued for the same amount pays almost three times as much due to the higher tariff applicable to that category. Municipalities should consider amending their tariff policies to make provision for illegal land uses.

EXAMPLE 6

ILLEGAL LAND USE TARIFF

The example below (based on City of Johannesburg) introduces an illegal use tariff. In this scenario, a property owner will pay more than R 2000/month (if the property is worth R 1 million) if he/she is exercising an illegal land use. Using this method may force the property owner to try and "legalise" his land use rights in order to avoid paying the elevated property rates bill per month.

CATEGORY	TARIFF (RAND)	MONTHLY PROPERTY RATES
RESIDENTIAL	0.006531	R544
BUSINESS & COMMERCIAL	0.018287	RI 524
ILLEGAL USE	**0.026124**	**R2 177**

CHAPTER 8

TIPS AND TECHNIQUES FOR ENSURING SPLUMA COMPLIANT LAND USE SCHEMES

Note that this Chapter needs to be read together with a separate document (available from the Department of Rural Development and Land Reform) - **a land use management and regulatory guideline for rural areas.**

8.1. LAND UNDER TRADITIONAL LEADERSHIP

8.1.1. INTRODUCTION

SPLUMA requires that SDF's include areas under traditional leadership[36]. These areas as we know it in South Africa have its origins in the concept of "Bantustans" in the apartheid era of South Africa. A "bantustan" was a territory set aside for black inhabitants of South Africa for the purpose of concentrating the members of designated ethnic groups, thus making each of those territories ethnically homogeneous as the basis for creating "autonomous" nation states for South Africa's different black ethnic groups. The table below illustrates that approximately 11% of South Africa's land area[37] (around 140 000km^2) accommodates around 27%[38] of all households in South Africa – clearly illustrating the significance of this form of settlement type.

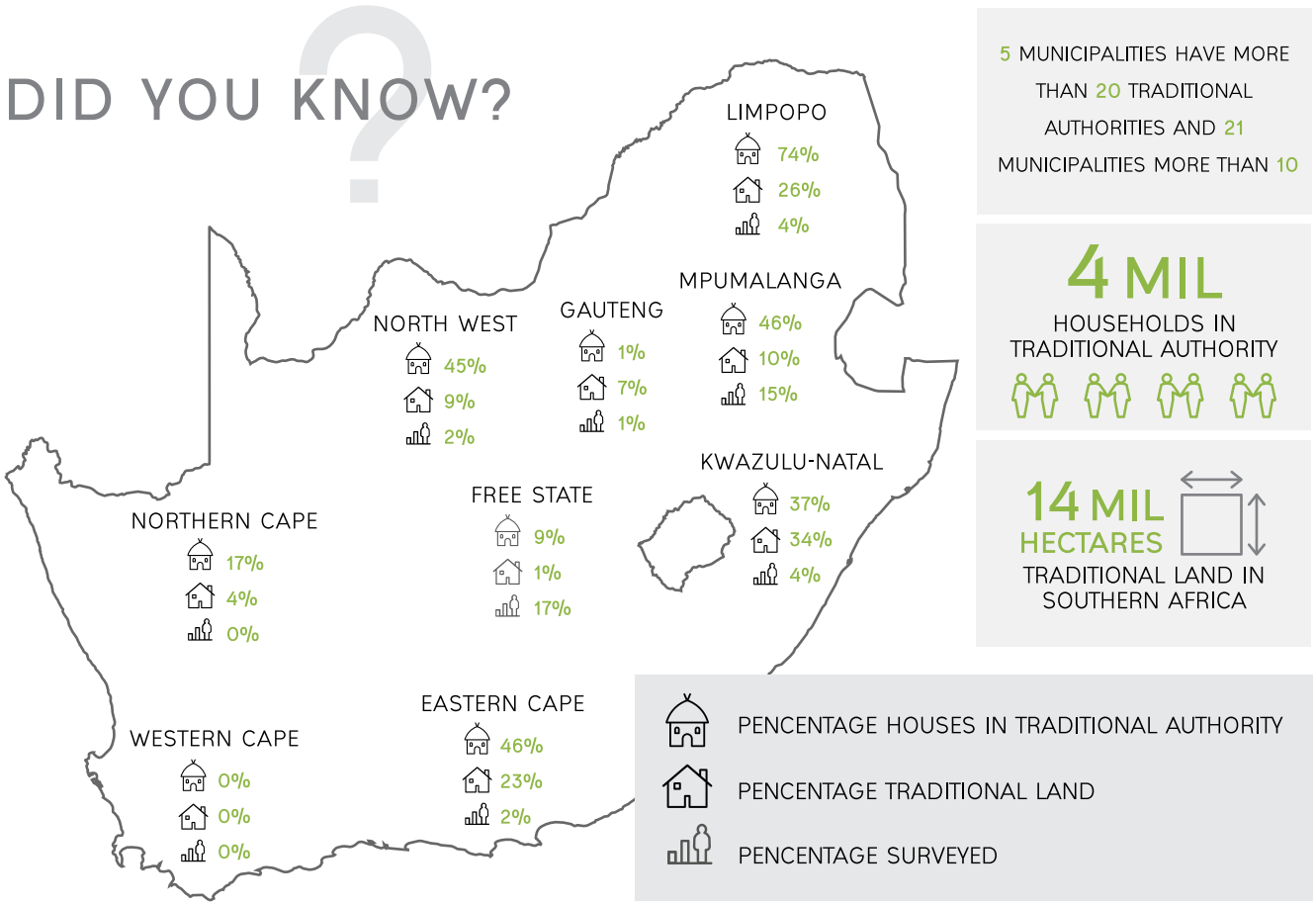
TABLE 11
TRADITIONAL COUNCIL AREAS IN SOUTH AFRICA

PROVINCE	TRADITIONAL AREA (KM2)	TOTAL AREA (KM2)	% AREA	HOUSEHOLDS IN TRADITIONAL AREAS	TOTAL HOUSEHOLDS	% TRADITIONAL HOUSEHOLDS
Eastern Cape	38 819	169 311	23%	771 983	1 686 635	46%
Free State	1 318	130 012	1%	73 912	823 155	9%
Gauteng	41	18 182	0%	38 485	3 908 771	1%
KwaZulu Natal	32 536	94 467	34%	951 067	2 539 218	37%
Limpopo	32 602	130 171	25%	1 055 043	1 417 717	74%
Mpumalanga	6 542	76 584	9%	490 911	1 075 276	46%
North West	18 806	106 502	18%	477 129	1 061 869	45%
Northern Cape	9 847	378 355	3%	51 438	301 261	17%
Western Cape	-	131 522	0%	-	1 633 860	-
Grand Total	140 511	1 235 106	11%	3 909 968	14 447 762	27%

SPLUMA acknowledges that traditional land use development processes are poorly integrated into formal systems of land use management[39] and includes provisions that these areas be included as part of Spatial Development Frameworks[40] and as part of Land Use Schemes applicable to the entire area of jurisdiction of the municipality[41]. The infographic below provides some information regarding the location and extent of traditional authorities in South Africa. More than 88 local authorities are affected by Traditional Authority Areas.

[36] SPLUMA Section 12(1)(h)
[37] Calculated from Demarcation Board GIS data
[38] StatsSA
[39] SPLUMA, Page 2
[40] SPLUMA, Section 12(h)
[41] SPLUMA, Section 24 (c)

FIGURE 6
INFOGRAPHIC - TRADITIONAL AUTHORITIES IN SOUTH AFRICA



LANGUAGE

ISIZULU **29%**
ISIXHOSA **20%**
SEPEDI **16%**

1,600m²

AVERAGE SIZE OF RESIDENTIAL STAND VILLAGES IN **RATLOU** TRADITIONAL AUTHORITIES

88 MUNICIPALITIES

MUNICIPALITIES ARE MORE THAN **50%** TRADITIONAL AUTHORITY

BASED ON NUMBER OF HOUSEHOLDS IN TRADITIONAL AUTHORITY AREAS

27%

OF ALL SOUTH AFRICAN HOUSEHOLDS RESIDE IN TRADITIONAL AUTHORITY AREAS

8.1.2. ISSUES RELATED TO LAND USE MANAGEMENT IN TRADITIONAL AREAS

8.1.2.1. Traditional areas are by no means homogenous

In trying to establish norms and standards or in order to create guidelines applicable to land use management, there is tendency to approach land uses as homogenous. And industrial type land use (although the definition may vary slightly) would more or less be handled in a similar fashion in Gauteng and the Western Cape. A traditional area is not a land use, but rather a collection of land uses practised in a specific setting. Some of these land uses may be similar in nature to that practised in urban areas, but other may differ enormously, or may in fact be unique to Traditional Areas. The unique nature of traditional areas are discussed elsewhere in this document. As a starting point, however, it is important to realise that the spatial form of Traditional Areas differ.

In North West, Limpopo and Mpumalanga, Traditional villages are similar. Most of the land is flat and the houses are neatly arranged in square gardens and within square road blocks. Each household is usually neatly fenced with any material (reed, thatch, wire, aloes or other material). Within each plot, there may be more than one house structure, and houses vary in size from village to village and from plot to plot. Livestock is kept within the boundaries of each household.

In KwaZulu-Natal, Traditional villages look totally different. This may be due to the very hilly country. A dwelling unit could consist of more than one hut built close together with a 'kraal' in the centre of the cluster for the cattle to be kept at night. Houses or huts are arranged sometimes on hill tops and sometimes on the slopes and sometimes along river courses. Occasionally, the houses are close together to form a village. On the other hand, there could be huts dotted all over the traditional area, each hut/hut cluster surrounded by its small vegetable garden, kraal and its own grazing area.

In the Eastern Cape (former Transkei and Ciskei), a dwelling unit could consist of more than one hut built close together with a 'kraal' in the centre of the cluster for the cattle to be kept at night. Houses are usually close together to form a very distinct village with communal land stretching to the edge of the administrative area.

The figure below illustrates the difference in built form within traditional villages in four provinces.

FIGURE 7
BUILT FORM OF TRADITIONAL VILLAGES

LIMPOPO

NORTHWEST

KWA ZULU-NATAL

EASTERN CAPE

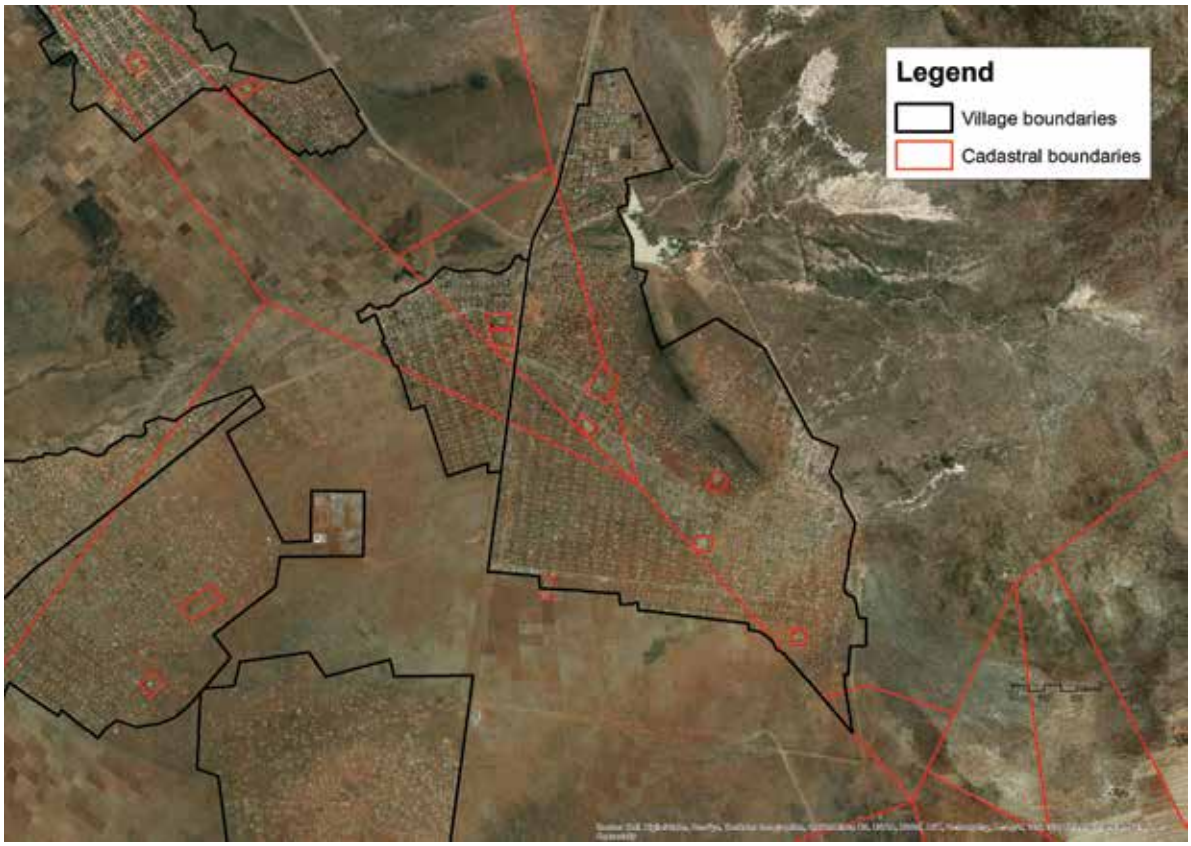
8.1.2.2. Most traditional villages are not surveyed

The typical Town Planning Schemes allocated a zoning to a surveyed portion of land registered to an owner (see Figure 8: Zonings for surveyed land parcels). In most instances a single land use is exercised on the property. In the case where more than land use is found, this may be handled by allocating a "split zoning" or through "special" zoning that records which land uses may be exercised on a property.

In the compiling a Land Use Scheme, it is customary to perform a land use survey and to capture the zoning and development controls applicable to the erf, lot, holding or farm portion. Tribal villages are either located on farm portions or in some instances on land that has not surveyed (see Figure 9: Traditional Village Located on Farm Portions) – thereby making this approach of giving a zoning to a surveyed, registered land parcel almost impossible.

FIGURE 8
ZONINGS FOR SURVEYED LAND PARCELS

FIGURE 9
TRADITIONAL VILLAGE LOCATED ON FARM PORTIONS



8.1.2.3. Traditional leadership and allocation of land

Although the land in a traditional village is communally owned, the use of that land is not necessarily decided by the community. Land is regarded as held by the chief on behalf of the community and allocated to heads of household by a hierarchy of traditional leaders. The following is an example of the process:

The normal process of obtaining permission to use land in traditional townships in Kwazulu-Natal involves the following:

- The Induna (a tribal councillor or headman), Amakhosi (tribal leader); or the Ingonyama Trust Board[T] is approached by the supplicant seeking permission for a specific use;
- In some instances the Amakhosi takes a decision, whilst in other instances the Induna facilitates dialogue with the traditional leadership and affected neighbours before a decision is made;
- The applicant must then pay a fee to the Tribal Chief at the tribal office. The office issues a letter of approval to the applicant.
- Note that the above applies to local inhabitants only. Should an "outsider" apply – the process is more elaborate.
- Another important note is that in the case of the Ingonyama Trust, no decision is taken without the involvement of the municipality.

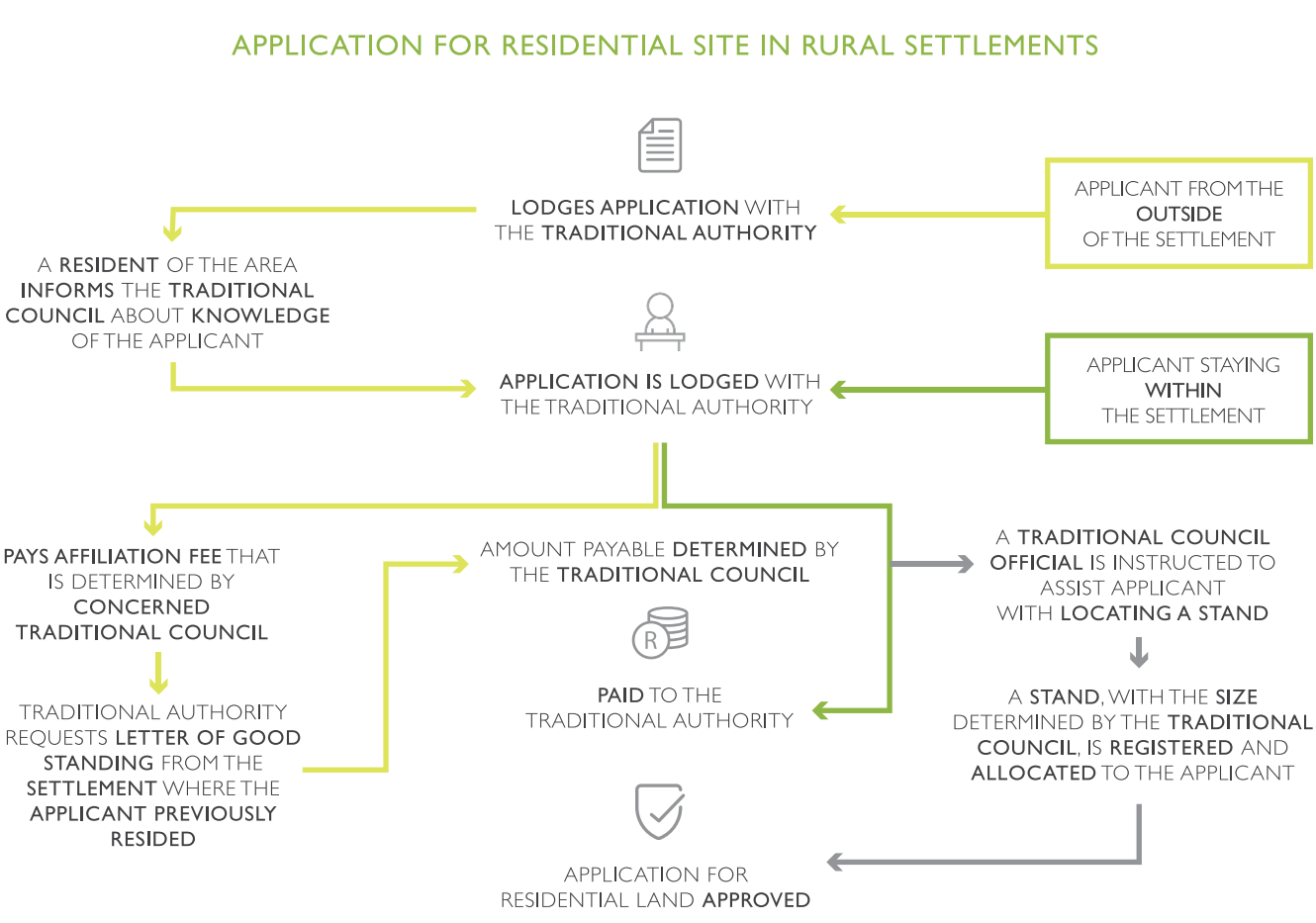
The most obvious issue with regards land use management is not necessarily that the allocation is done by the traditional leadership, but that is done outside of the planning instruments such as the SDF or the Land Use Scheme. This could result in undesirable land uses located in close proximity – e.g. a tavern in close proximity to a school etc.

In some instances the right of a person to exercise a land use is recorded through the Permission to Occupy (or PTO) system.

- A PTO is a permit for occupation of unregistered state or trust communal land for a specific purpose, for either residential or arable purposes.
- Unlike freehold title it is a land right attached to the person, not the parcel of land.
- The PTO is issued to a head of household, it is free, issued for life, and is not transferable, inheritable, or usable for financial security.
- Although official regulations, in the form of Land Use Schemes and conditions set out in the PTOs, were in place restricting rental and commercial land use, households generally disregarded these rules. The land managers, originally the state and the Indunas and later the local councillors, were also lax in the enforcement of the rules, and most households used their properties as they needed to[43].

The following two figures provides a generic process for land use applications in traditional authorities (note that these may differ for different provinces).

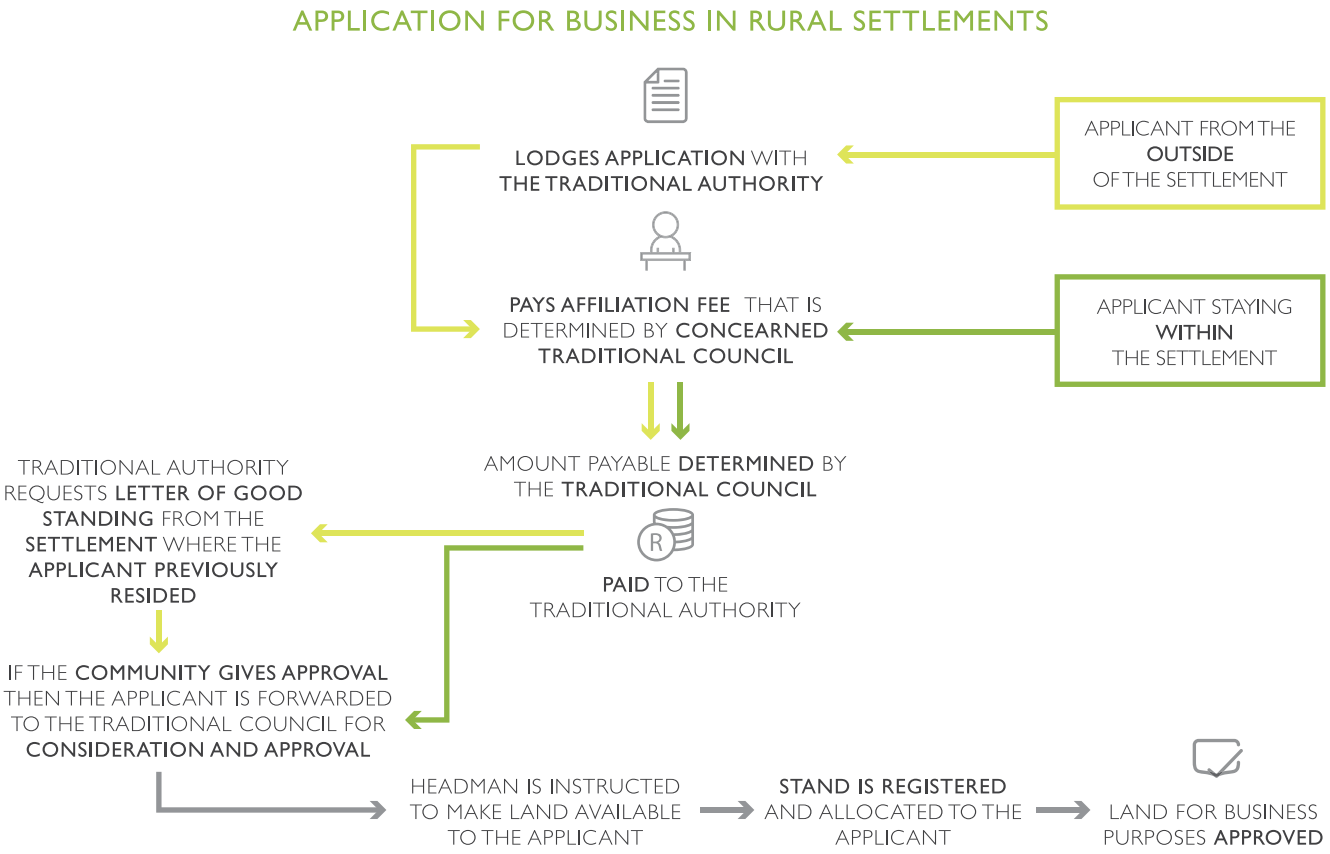
FIGURE 10
APPLICATION FOR RESIDENTIAL SITE IN TRADITIONAL VILLAGE



[42] An entity responsible for administration of Ingonyama Trust land which is about 2.8 million hectares in extent spread throughout the province of KwaZulu-Natal).

[43] Urban LandMark Scoping study, Local Land Registration Practices in South Africa

FIGURE 11
APPLICATION FOR BUSINESS SITE IN TRADITIONAL VILLAGE



A SUBURB IS NOT A VILLAGE, LAND USES DIFFER

With the recent emphasis on wall-to-wall Land Use Schemes, land use practitioners are tempted to either directly apply existing Land Use Schemes to its entire area of jurisdiction OR to formulate a one-size fits all approach to land use management. The question still remains as to what land use management scheme and systems will be suitable for the management of land in rural and traditional areas. The correlation between urban and rural/traditional land uses cannot be captured in a single definition which will be suitable for both areas. In other words, duplicating an urban land use definition or classification for the purpose of a Land Use Scheme in a rural or traditional area will lead to misguided and ineffective land management. Consider the following example:

- In Traditional areas, the term residential can include activities such as traditional slaughter of animals[44] and night rituals by religious groups that take place. In urban areas, such activities will never be allowed within any residential zoning.
- One of the major problems therefore facing land use management by municipalities in traditional areas remains the limited knowledge of the specific indigenous activities and the manner in which these activities can be defined by municipalities. This calls for a land use surveys specifically focused on rural and traditional areas, as well as land that has never been surveyed before.

FIGURE 12
RITUAL SLAUGHTER OF A COW ON A RESIDENTIAL STAND - SHONGOANE, LEPHALALE

[44] KwaZulu-Natal Planning and Development Commission. Land Use Management Systems in Rural Areas. P22.

8.1.3. LAND USE SCHEMES FOR TRADITIONAL COUNCILS

The following are recommendations that planning practitioners and municipalities should consider should traditional authorities occur in their area of jurisdiction. Note that these guidelines only apply to the compilation of the scheme, NOT to the land development processes of the tribunal or the land development officer.

01 START PARTICIPATION EARLY

Typically communities are consulted when there is a draft Land Use Scheme or proposals on the table. With traditional authorities this is too late. Notice should be given the traditional councils that the municipality is intending to compile a Land Use Scheme. This should, inevitably open a can of worms related to the implementation of SPLUMA in these areas. Some hints:

- explain the purpose and benefits of land use management;
- relay to the community the purpose and benefits of the process and that there is a need for a scheme to be put in place with respect to services which can be provided once there is clarity on future land uses within the area;
- when the debate about land tenure comes up – emphasise that the purpose of the Land Use Scheme is to manage land uses, NOT ownership; and
- emphasize that traditional authorities are a partner to Municipalities in this instance – the aim is to incrementally incorporate traditional and customary practises into the Municipal Land Use Scheme.

02 IT ALL STARTS WITH A LAND USE MAP

Mention was made earlier of the fact that old town planning schemes always attached a land use right to a surveyed cadastral entity. This cannot apply to traditional villages. The solution is to create a map based on the actual use of the land – whether it has been surveyed or not. The methodology below summarises this process.

2.1 AERIAL PHOTOS OR SATELLITE IMAGERY

In the absence of a proper base map – start by obtaining aerial photos of the municipality from the following sources:

- The Municipal GIS. Do not commission new aerial photography if not available from the municipality – this is vastly expensive.
- Department of Rural Development and Land Reform – National Geospatial Information (NGI) with offices in Cape Town or Pretoria.
- GIS online sources such as BING, Google Earth, SA 50cm Colour Imagery (ArcGIS Online) etc.
- Others.

The intention is to capture data in a GIS using the image as a backdrop. The date of the image may be an issue – but it will serve as starting point.

2.2 BOUNDARIES AND NAMES

- Use the StatsSA Census Subplaces (available from StatsSA – Census 2011) as base for the boundaries of the villages.
- Areas under consideration needs to be aligned with the area of a specific traditional leader (or leaders) to avoid conflict.
- Update the village boundary using the aerial photo the village would probably have grown since 2011.
- Note that the name of the village is very important and often the local name differs in spelling fro that recorded by StatsSA. Liaise with the municipality to get the correct spelling.
- Village names can also be corrected during the community participation phase.

2.3 INCORPORATE LINEAR DATA

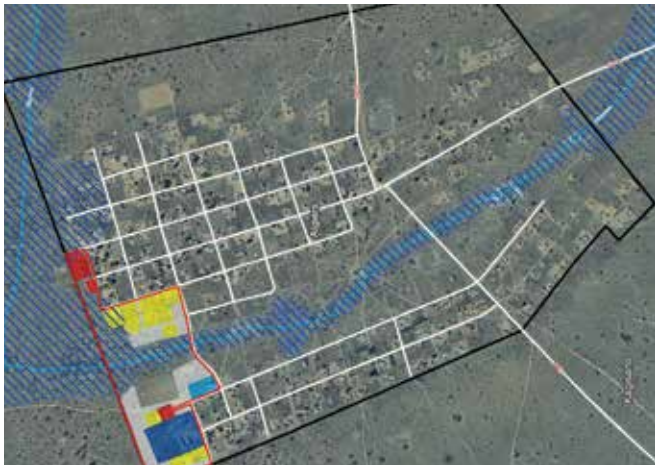
- Incorporate linear data such as rivers and streams (from the 1:50 000 Topo datasets from NGI) and roads onto the base map.
- Roads data is available from NGI but can also be purchased from commercial data vendors such as TomTom.
- Use a GIS to buffer the roads dataset (measure the road and reserve on the photo and apply these distances, alternatively use township layout principals).
- Overlay these buffers with the village boundary to create a set of street block polygons.

2.4 CAPTURE LAND USES

- Use point data from various government departments to start the land use data capture process (desktop). These sources can include:
    1. National and Provincial Dept.'s such as Health, Education, SAPS etc.
    2. Eskom SPOT Building Count
    3. StatsSA Dwelling Frame
    4. Municipal asset registers
    5. Commercial data vendors such as GeoTerraImage.
- Align land uses with the National Land Use Classification System discussed earlier (where possible).
- Note that land which may appear to be vacant on an aerial photo may in fact be used for some form of agriculture or more importantly grazing.
- Schedule 2 of SPLUMA can also be used to indicate land use purposed on the land use map.

2.5 DEALING WITH HYDROLOGY

- Where possible (and where available) incorporate actual 1:100 or 1:50 year flood lines. This data may, however, not be available. In the absence of flood line data, use the water features from earlier steps and apply the following simple modelling technique to indicate possible flood areas[45]:
    1. 30m buffer from the edge of the temporary zone of wetlands
    2. 100m buffer from the banks of rivers/streams outside built up areas
    3. 32m buffer from the banks of rivers/streams within built up areas
- These buffers can be indicated as Public Open Space, agriculture or grazing depending on the actual use thereof.



2.6 FINALISE LAND USE MAP

- Using the above methodology, finalise capturing and grouping land uses for the entire village.
- Once this draft land use map has been completed, verify the land use map by means of fieldwork. The aim of fieldwork is as follows:
    1. Verify that the land use on the map is in fact the actual land use.
    2. Unpack into more detail certain land uses e.g. a business land use can in fact be a general dealer, or a tavern, or a shop – each with different management characteristics.

[45] Department of Agriculture, Conservation and Environment - GDACE requirements for Biodiversity Assessments Version 2

03 COMMUNITY PARTICIPATION – UNDERSTANDING LAND USES

The next step in the process deals with understanding local land uses and its implications. To this end, it is proposed that meetings are held with Chiefs and the community to discuss the land use maps. Specific attention should be paid to the following:

- Discuss each group of land uses, understand the land use and try and derive specific management characteristics. A tavern for example, requires a liquor license and sells alcohol. This use should not be located close to community facilities such as schools, crèches clinics etc. Row houses, which occurs in Northwest province can include rooms for hire – and may have specific design considerations when dealing with infrastructure such as sanitation.
- Derive development controls for land uses, e.g. should land uses be subject to height restrictions or coverage or building lines etc.
- Determine environmental issues – such as overgrazing of river beds, sand mining for brick in riverbeds dumping etc.
- Determine the growth direction of the village, and where new residential development should be allocated (don't forget to discuss infill development).
- Determine the average stand size.
- Determine land uses with nuisance characteristics e.g. noise, pollution etc.

04 FORMULATE SCHEME MAPS

From the consultation process, it should emerge which land uses within the village should be managed as well as the extent of the management intervention required. Before scheme maps are formulated, as far as possible, these should be formulates as land use rules e.g.:

- Do not allocate residential or business land within the Public Open Space system and environmentally sensitive areas;
- Do not allocate land for tavern within a street block of community facilities;
- Allocate land for business close to existing nodes in the area;
- Protect areas used for agriculture and grazing;
- etc.

These land use rules can be included on the scheme maps as well as developed further as specific policies to be included in the Land Use Scheme clauses. With this done, Land Use Scheme maps for every village can be developed. Note that it would be preferable to develop one such as map for every village, to be mounted at the Traditional Council Offices in order to serve as guideline for the allocation of land. Consider therefore a practical size and material to use for the maps (as well as the associated costs).

Note that the draft maps, land use rules and where applicable, policies that were developed must once again be workshopped with the traditional leaders before finalised.

An example of such a scheme map is provided on the adjoining page.

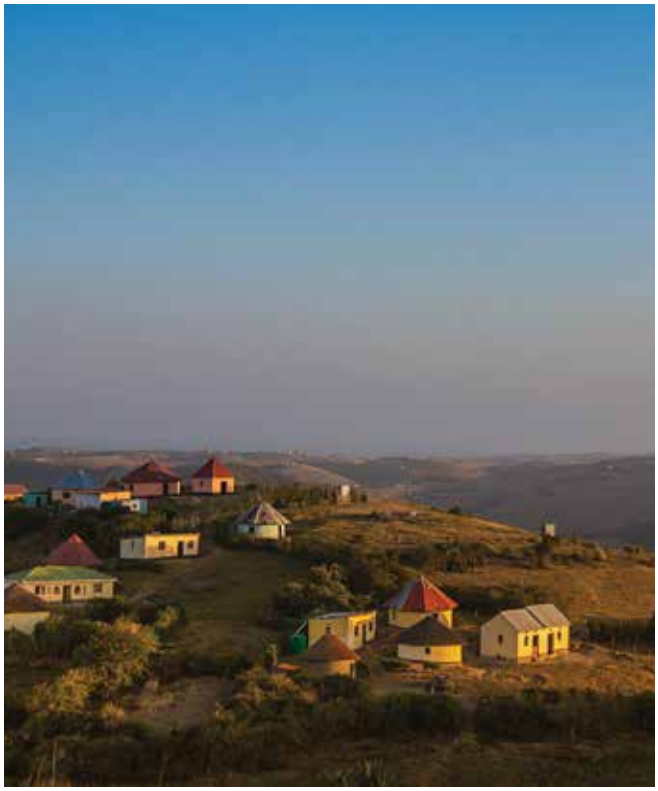
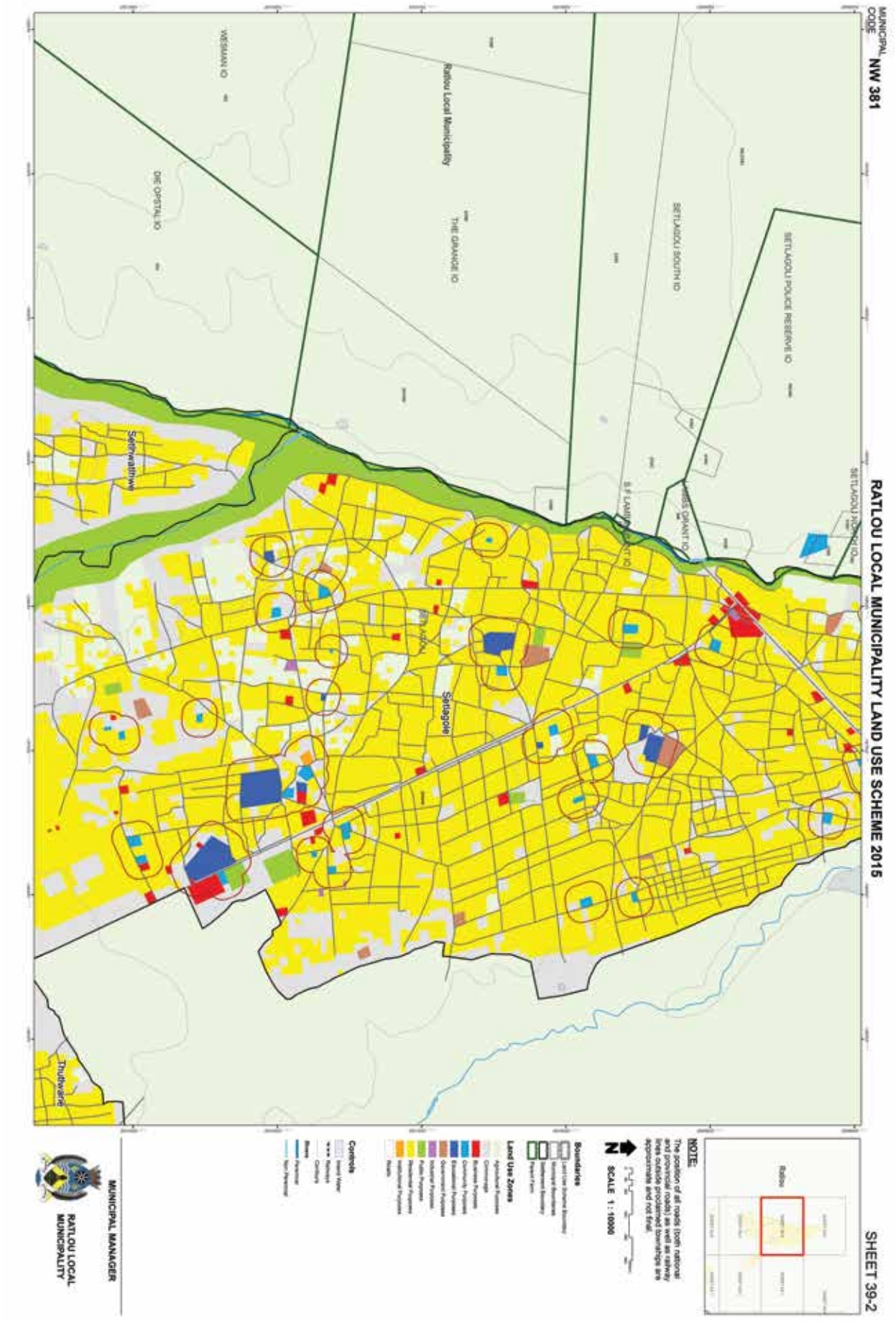


FIGURE 13
EXAMPLE LAND USE SCHEME MAP FOR TRADITIONAL VILLAGE



8.1.4. ROLES AND RESPONSIBILITIES OF TRADITIONAL COUNCILS

SPLUMA[46] states, subject to section 81 of the Local Government: Municipal Structures Act, 1998, and the Traditional Leadership and Governance Framework Act, 2003 (Act No. 41 of 2003), a municipality, in the performance of its duties must allow the participation of traditional council.

The Regulations to SPLUMA[47] stipulates that a traditional council may conclude a service level agreement with the municipality in whose municipality areas that Traditional Council is located, subject to the provision of any relevant National or Provincial Legislation, in terms of which the traditional council may perform such function as agreed to in the SLA, provided that the traditional council may not make a Land Development or Land use decision.

The roles and responsibilities of both the municipality and that of the traditional council are set out (for each step in the process) in the table below.

TABLE 12
ROLES AND RESPONSIBILITIES OF TRADITIONAL AUTHORITIES

PHASE	MUNICIPALITY	TRADITIONAL COUNCIL
01 **Inception**	• Prepare work plan, obtain council resolution • Present principles of land use management to Traditional Councils • Present Work Plan to Traditional Councils	• Understand the principals of land use management. • Review work plan and provide inputs • Traditional Council resolution to participate in the compilation and implementation of the municipal Land Use Scheme.
02 **Research analysis and recommendations**	• Collect and analyse data • Conduct land audit • Translate SDF into detailed broad land use proposals • Compile status quo report • Present to traditional council.	• Review land use information • Review and update land use maps (with the assistance of the municipality). • Discuss land uses and management implications of land uses.
03 **Draft report and supporting documents**	• Select Zones and prepare the Scheme Map • Land Uses and Development Parameters • Draft General and Land Use Definitions • Policies and additional controls • Procedures to be included in Scheme	• Participate in the selection of zones • Develop (with the assistance of municipality) develop parameters. • Assist in the development of local land use definitions and local terminology. • Review and participate in the development of additional policies (e.g. for Taverns). • Adopt draft scheme maps and clauses.
04 **Consultation and amendments**	• Conduct public participation • Circulate to relevant authorities • Submit to council for support of the scheme in Principle • Receive public comment • Revise draft scheme based on public comments	• Conduct participation in traditional authority areas. • Submit comments to municipality.
05 **Final report and supporting material**	• Prepare final scheme clauses and maps • Submit to Council for adoption	• Review final scheme clauses and maps.
06 **Implementation**	• Promulgate scheme • Train officials • Monitor, review and update scheme	• Assist municipality for implementation and enforcement of the Land Use Scheme • Allocate land in accordance with the Land Use Scheme maps

[46] Section 23(2)
[47] Regulation 19

8.2. DEALING WITH INFORMALITY

Until recently, the typical approach (as far as the Land Use Scheme goes) regarding dealing with informal settlements, was to ignore them. Often this was not due to any negligence of the planning department of the municipality but rather a view that informal settlements are "temporary" in nature, and that through the process of formalisation (either in situ or relocation) these settlements will become part of an established township, and therefore then be incorporated into the planning scheme of the municipality.

SPLUMA disagrees with this notion by declaring that "land use management systems must include all areas of a municipality and specifically include provisions that are flexible and appropriate for the management of disadvantaged areas, informal settlements and former homeland areas"[48]. In addition the Act requires Land Use Schemes to include provisions to deal with informal settlements.

Recent developments in municipalities such as City of Johannesburg and City of Cape Town provides some guidance for modern Land Use Schemes. The process starts with the "recognition of informal settlements" through a process of regularisation. Note that there is a difference between formalising a settlement and regularising a settlement[49]:

- Formalisation is the legal process whereby townships are established with formal services and residents obtain formal security of tenure (title). Usually implies development of top structures (RDP) houses.
- Regularisation is an approach that recognizes Informal settlements and promotes tenure security by including it in The City's legal framework (town planning scheme) so that basic services can be provided and the area can be managed and improved over time.

EXAMPLE 7

CASE STUDY - CITY OF JOHANNESBURG

The approach uses the Town Planning Scheme to declare certain informal settlements as "Transitional Residential Settlement Areas" thereby granting them a legal status which allows the city, the residents and private sector to invest, upgrade services, plan and manage the settlement. Additionally, it allows residents to have secure occupation rights and become recorded and integrated in municipal systems. It is an incremental approach which allows for continuing improvement of tenure, services, structures and land use management during that period between settlement and township establishment.

The process started with an amendment to the existing Town planning Scheme whereby all informal settlements were advertised to include a category called "Transitional Residential Settlement Areas".

The amendment included the following:

- It introduces and sets out the:
  1. definitions
  2. general conditions
  3. town planning controls
  4. administrative controls and requirements
  5. method of applying for, and
  6. the administrative processes to be followed in the identified "Transitional Residential Settlement Areas"
- It lists each of the properties over which the above scheme would apply (hence incorporating them into the town planning scheme)

The definition used in the scheme for this new "zoning" is as follows:

A "Transitional Residential Settlement Area" is defined as land upon which informal settlements are established by the occupation of land and provision of residential accommodation in the form of self-help structures and some ancillary non-residential uses.

These areas, as defined by property identification, are regulated by a set of rules (in an Annexure to the Scheme) that include the:

- preparation of a layout plan and its incremental improvement
- identification of occupant
- creation of a register
- basic standards for upgrading and improvement
- basic land use management and even law enforcement

[48] SPLUMA Section 7(a)(IV)

[49] Urban Landmark. Development of an approach for the recognition of informal settlements and tenure in South Africa with the potential for regional flexibility.

EXAMPLE 8

CASE STUDY - CITY OF CAPE TOWN

The City of Cape Town developed an approach to include informal settlements within the City and created a zoning in its Land Use Scheme – **"Single Residential Zone 2: Incremental Housing (SR2)**".

PURPOSE OF THIS ZONE[50]:

The SR2 zone facilitates upgrading and incremental housing from an informal settlement to a formal settlement. SR2 may apply to individual land units or to blocks containing an informal settlement. In recognition of the realities of poor and marginalised communities, development rules are not very restrictive and local employment generation is encouraged within this zone. Once upgrading of an area has reached an appropriate stage, as determined by Council, it is contemplated that the area may be rezoned to SR1 or another appropriate zone. All properties zoned as Informal Residential Zone in former zoning schemes are converted to SR2 in this scheme.

The zone also includes primary land use rights and additional land use rights, and are also subject to development controls of FAR, height, Building lines and parking. The city also provide guidelines for a house shop, shelter and informal trading in the scheme clauses.

8.3. RESOURCE CONSIDERATIONS

8.3.1. AGRICULTURAL LAND

The Subdivision of Agricultural Land Act, 1970, (Act 70 of 1970) (which has not been repealed by SPLUMA) has specific relevance in the compilation of Land Use Schemes:

- The Minister responsible for Agriculture needs to give consent to any Land Use Scheme that affects "agricultural" land.
- Activities related to the subdivision, selling, leasing or using agricultural land requires the input of the Department of Agriculture (for more detail on this Act, refer to Annexure B: Acts affecting the compilation of a Land Use Scheme).
- Note that while emphasis is placed on what constitutes "agricultural land", this definition more relates to demarcation than the agricultural potential of land. In the Act, for example, agricultural land is defined as "any land" except for:
- Land situated in the area of jurisdiction of a municipal council etc. (note that this refers to pre-2000 demarcation, before the introduction of wall-to-wall municipalities);
- Land which forms any area subdivided in terms of the Agricultural Holdings (Transvaal) Registration Act, 1919 (Act No. 22 of 1919);
- etc.
- It is, in fact, rather difficult to determine exactly what "agricultural land" is when preparing a scheme. This guidelines proposes the following actions related to agriculture that could be considered good practise:
- Ensure that the Department of Agriculture is part of the Steering Committee when compiling a Land Use Scheme;
- Task the Department of Agriculture to provide a GIS file that demarcates "agricultural land" in terms of Act 70 of 70 as initial input to the scheme;
- Task the Department of Agriculture to further, identify areas of high agricultural potential;
- Consider measures in the scheme to protect these areas of high agricultural potential (whether it is currently used for agriculture or not);

[50] City of Cape Town – Zoning Scheme Regulations.

- Agreement on the zoning types in terms of the agricultural zoning purposes with primary focus on:
  1. high potential agricultural land;
  2. areas earmarked for food production (commercial farming);
  3. protected areas as identified by NEMA and its related Acts such as NEMPA and NEMBA;
  4. areas earmarked for subsistence farming especially in rural areas;
  5. areas earmarked for grazing
- Consider any agricultural land use guidelines that can assist in the compilation of schemes;
- Circulate the draft Land Use Scheme to the Department of Agriculture (among others) prior to approving and adopting the scheme.

EXAMPLE 9

DIFFERENT TYPES OF AGRICULTURAL ZONINGS

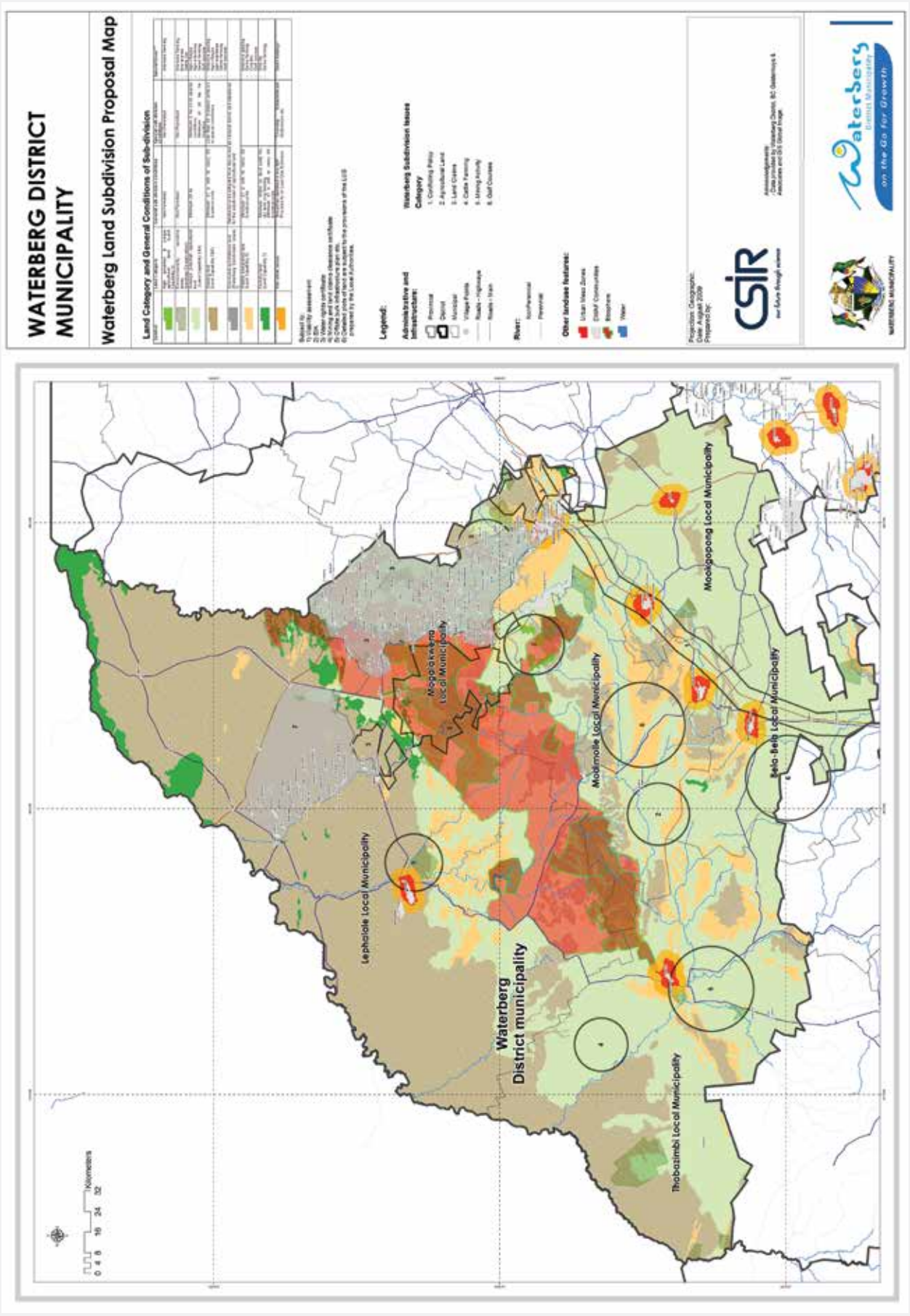
NO.	ZONE	INTENTION	COLOUR CODE
01	**AGRICULTURE 1** (or Agriculture Only)	A zone that provides for land and buildings where the primary activity is both intensive and extensive agricultural production of crops, livestock or products.	
02	**AGRICULTURE 2** (or Agriculture Traditional)	A zone that provides for land used for low intensity and small scale agricultural practices in association with other related uses in Traditional Authority areas, and may include market gardening, wood lots, the production of small areas of crops such as sugar cane and livestock.	
03	**RESTRICTED AGRICULTURE**	A zone that restricts intensive agriculture and cropping, so that it retains a level of natural vegetation.	
04	**SPECIAL AGRICULTURE**	A zone that provides for farming that comprises a substantial number of physical developments/buildings such as greenhouses, poultry farming, windfarms, etc.	
05	**URBAN AGRICULTURE**	A zone that provides for land located in urban areas for agricultural purposes, utilized for small scale agricultural production, market gardening, horticulture, aquaculture, the keeping of limited livestock and community gardens.	
06	**FORESTRY**	A zone that provides for land used or authorized for the growing of trees with the valid permission of Department of Water Affairs and the Department of Agriculture, Forestry and Fisheries.	

One of the key considerations from an agricultural perspective related to Land Use Schemes is the size of a farm that can effectively be used for agriculture. Dry-land crop production requires at least a 100 hectares, irrigated land around 20 hectares. Obviously this differs from province to province and also depends on the type of crop being farmed. In some areas studies are available that can assist municipalities with this aspect – see the following example.

EXAMPLE 10

WATERBERG DISTRICT MUNICIPALITY - LAND SUBDIVISION PROPOSALS

This land policy document seeks to provide a basis for rationalisation of the existing plethora of planning laws relating to the use of agricultural land into one system that is applicable across Waterberg District Municipality (WDM), in order to achieve the district objective of sustainable utilisation of agricultural land.



8.3.2. Land used for mining and mineral resource considerations

In 2015, mining was responsible for almost 17.4% (8.4% direct, 9% indirect & induced) of the GDP of South Africa. Mining has always been one of the key economic sectors in South Africa, both in terms of revenue and employment. Mining activities typically happen in the rural components of municipalities, and have to date mostly been excluded from land use schemes. In fact, in some provinces this exclusion was even legislated:

Section 21(1) of the Transvaal TownPlanning and Townships Ordinance (1986) states that a local authority shall not prepare a town-planning scheme in respect of land on which prospecting, digging or mining operations are being carried out, unless such land is situated within an approved township.

Whilst SPLUMA requires the incremental introduction into land use schemes of areas not previously part of town planning schemes, there is uncertainty amongst stakeholders how to apply this to mining. The number of court cases in recent years involving mining and municipal zoning is an indication of just how complex this matter can become. The Department of Rural Development in co-operation with the Chamber of Mines of South Africa has committed to drafting special guidelines applicable to dealing with mining in new generation Municipal Land Use Schemes. At the time of drafting of these general guidelines, these special guidelines were not available, however both parties felt that it is important to highlight the following complexities for Municipalities to consider:

- Many municipalities now include areas where mining activities have been exercised legally for many years. SPLUMA requires the development of land use schemes that cover the entire area of jurisdiction of these municipalities – therefore mining has to be accommodated in some form or other. Municipalities cannot "force" existing legal mines to "re-zone".
- "Mining" is not necessarily a zoning that one could typically find in a land use scheme. Instead, mining use resorted under a general exemption, a general exclusion, an existing use exemption, some form of industrial zoning, or as a consent use right under agriculture. Due to mining being excluded from schemes in the past, very few municipalities have included zonings or use zones that can accommodate the complexity of this type of land use.
- Moreover, mining in a broad sense takes various forms, such as reconnaissance, prospecting, underground mining with ancillary surface use, underground mining with no ancillary surface use and opencast mining with or without ancillary surface use. Further, not only minerals but also petroleum resources (such as oil or methane gas) are at issue.
- Similar to agricultural land, land with high potential mineral deposits that could be used for mining in future is FINITE. This aspect relates to future mining, and more specifically the role of a Land Use Scheme in protecting mineral resources.
- Municipal planners are not mining specialists. It is therefore of the utmost importance that the municipality involves all mining stakeholders within their area of jurisdiction, or even stakeholders such as the Chamber of Mines when embarking on the process of compiling a land use scheme. The intended guidelines for mining, when they become available, should assist.
- Existing mines often include a variety of mining related surface uses. The figure below provides an aerial view of the East Driefontein Mine close to Carletonville in Gauteng. The white lines indicate that the mine is situated over a number farm portions. It is quite clear that the actual footprint of the mine includes ancillary surface uses such as single residential, multiple residential, parks and open space, sports facilities, schools etc.

FIGURE 14
EAST DRIEFONTEIN MINE

[51] http://www.polity.org.za/article/the-obligation-to-rezone-land-and-its-impact-on-mining-and-prospecting-rights-in-south-africa-2012-11-19

8.3.3. WATER RESOURCES

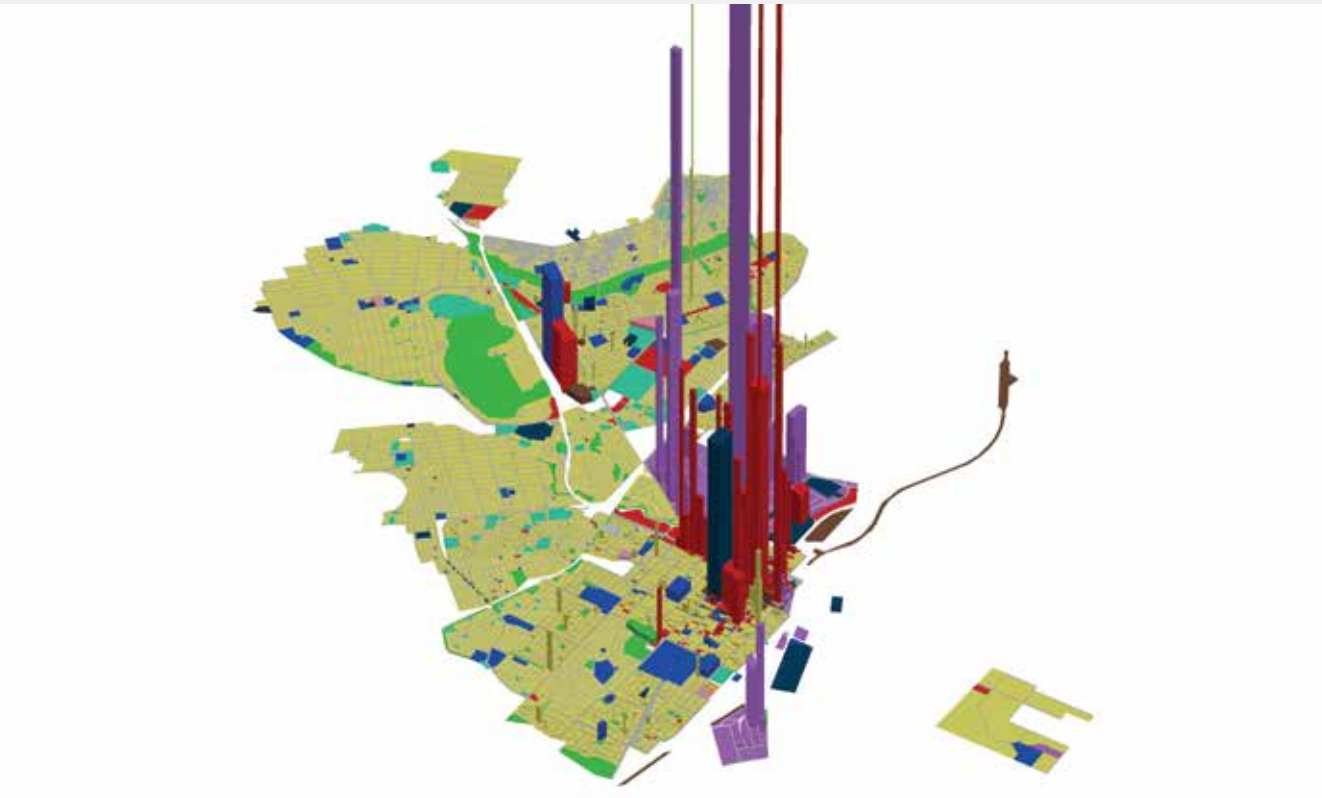
Globally, the human consumption of land is greater than ever and the mismanagement of land uses can have serious environmental consequences. Land use was once considered a local issue but is now recognised as a force of global importance, as the earth's regenerative capacity can no longer keep up with demand for resources[52]. The land use water resource footprint has a direct effect on the modern water cycle which consist of engineered infrastructure as well as ecological infrastructure. There is no doubt that major investment in water infrastructure has enabled the provision of water supplies to large urban areas, and in large parts of the rural areas, to commercial water users and the various economic sectors. Sadly, significant problems remain concerning the sustainable delivery of service, population's poor usage habits, physical and commercial losses and ecological degradation.

WHAT IS THE RELATIONSHIP BETWEEN SPATIAL PLANNING, LAND USE MANAGEMENT AND WATER?

- Many Spatial Development Frameworks do highlight the fact that water is a scarce resource (both Municipal and Provincial Spatial Development Frameworks). However, very little attention is given to either the protection of water resources, the future demand for the resource or enhancing the quality of water in spatial proposals contained in these documents. It would almost seem as if spatial planners are very good at understanding issues such as limited water supply – but do not possess the necessary skills or tools to address this matter as part of the SDF.
- Planning for the future is often done as if water is infinite. Although the SDF requirements stated by SPLUMA required planners to define future development, few if any SDF's specifically state the corresponding demand for infrastructure and natural resources (water).
- Urban form, and specifically compact cities and towns are still not adequate pursued in planning documents such as the SDF. Whilst a number of SDF's do contain growth management tools such as urban edges – these tools are too wide and therefore loose the power to truly direct growth internally and thereby assist in densification of the city or town.
- Little planning attention has in the past been given to spatial planning for areas outside of established urban centres. These include rural areas (populated or not) as well as traditional villages. This has led to the loss of significant ecological infrastructure. The new act requires that these areas also be dealt with.
- While the Municipal SDF do not confer land use rights, the municipal Land Use Scheme has the force of law. This makes it the ideal instrument to use in order to achieve spatial aims highlighted in other planning documents (e.g. environmental management plans, Spatial Development Frameworks etc.). The Land Use Scheme can also be expanded to address water demand management and water conservation aims.
- Whilst many guidelines and documents exist at municipal and provincial level aimed at water demand management and water conservation (e.g. reconciliation strategy, "all towns" strategy), these are often NOT implemented because there is no legal compulsion on municipalities to do so. Including these as part of the SDF and Land Use Scheme can achieve exactly that.

EXAMPLE 11

THE RELATIONSHIP BETWEEN LAND USE AND WATER



In the figure above, the different colours represent land uses (yellow = residential, red = business, purple = industrial). The height of the "skyscraper" represents the average monthly water consumption of the specific property. This clearly indicates that the bulk of water consumption on a monthly basis is consumed in the Central Business Area of the Municipality as well as in the industrial node. Although difficult to see – it also indicates that residential properties closer to the CBD consumes more water than in the outlying areas (this could relate to different incomes in these areas).

At the time of writing, the Water Research Commission has embarked on a study with t aim of developing innovative planning (both spatial planning as contained in SDF's and Land Use Scheme tools) to ensure the sustainability of water in South Africa. The study concludes in 2018 and should contain more guidance on the ability of Land Use Schemes to influence water demand and quality.

8.3.4. THE ENVIRONMENT

Environmental considerations often play an important role in planning decisions. Many development applications will be subjected to environmental impact assessments before approval is granted. In spatial planning documents such as the SDF, we often find layers of information that highlights ecologically sensitive or important areas. The spatial sustainability principle highlighted in SPLUMA states that spatial planning and land use management systems must uphold consistency of land use measures in accordance with environmental management instruments. SPLUMA furthermore includes as one of the objectives of a Land Use Scheme minimal impact on the environment and natural resources.

Looking at schemes of the past very little attention to environmental matters can be found. Environmental issued are mostly addressed in policy documents such as an Environmental Management Framework or a "Municipal/Metropolitan Open Space System". Environmental practitioners are of the view that Land Use Schemes should also be influenced by these policy documents in order to ensure compliance to the policies (the Land Use Scheme has the force of law).

[52] http://www.sustainablecitiesinstitute.org/Documents/SCI/Topic_Overviews/Land%20Use%20-%20Full%20OverviewNew_NLC.pdf

[53] Colvin, C., Nobula, S., Haines, I., Nel, J., Le Maitre, D., & Smith, J. (2013). An Introduction to South Africa's Water Source Areas. South Africa: WWF-SA.

SOME ENVIRONMENTAL OBJECTIVES TO CONSIDER INCLUDE THE FOLLOWING:

- International agreements needs to be considered. World Heritage Sites have certain spatial planning requirements (relating to buffer areas); whilst COP21 states that signatories will stop green-earth development by 2025 (i.e. no further loss of natural / near natural landscapes).
- Environmental issues spans municipal boundaries. Neighbouring municipalities should consider introducing similar instruments in their schemes aimed at environmental protection.
- The introduction of "natural environmental areas" could be considered in schemes. These include:
  1. Formally protected areas (e.g. Nature reserves and conservation areas)
  2. Natural areas which are not formally protected but that plays an important role in providing ecosystem services (e.g. mountain catchment areas).
- Spatial biodiversity plans can play an important role in identifying areas that can be included in schemes as "natural environmental areas". These plans typically highlight critical biodiversity areas and ecological support areas. An example of this is provided later in the chapter.
- The tendency to try link schemes with property boundaries is often NOT reflective of the landscape scale spatial informants e.g. agricultural potential soil locations, biodiversity priority areas, key water catchment areas.

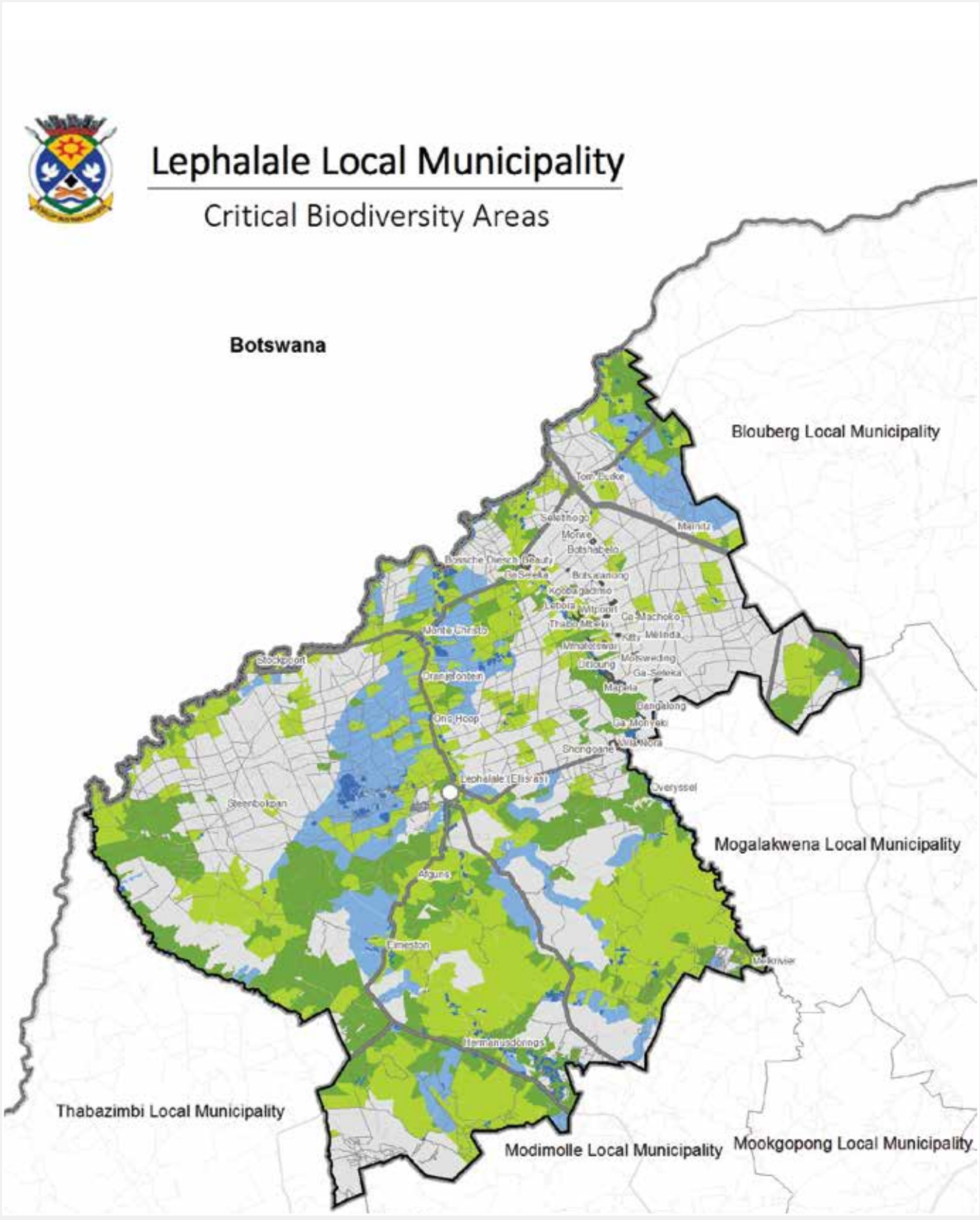
The following resources should be used when compiling Land Use Schemes (note that this was identified by Ezemvelo KZN Wildlife, but may also be applicable to other provinces):

- There are Biodiversity Sector Plans to be used to inform SDF and IDP spatial planning. These, together with all of the supporting GIS information required are available from:
  1. data@kznwildlife.com, requesting the SDF Spatial Data Disk (a compilation of all of the data required)
  2. http://bgis.sanbi.org/

- The Department of Rural Development and Land Reform has a mapped product for all of the Ingonyama Trust Board land.
- There is a landscapes norms and standards committee. This is looking at developing 2 products a) a protocol and norms and standards on how to develop and incorporate "sense-of-place", more technically referred to landscape characterisation, for the KwaSani Sub-region b) a development sensitivity map, showing various degrees of development constraint potential for the province of KZN.
- Ezemvelo has developed, in consultation with KZN: DARD, a dedicated spatial informant for Land-use schemes, complete with controls. There is also a draft for both SDF and Land-use Scheme development.
- Consider Reciprocal View sheds – areas of no development so as not to impact onto the defined wilderness areas (as defined in the WHS – required to be protected as per international Agreement).

EXAMPLE 12

BIODIVERSITY INFORMATION AS KEY INPUT INTO LAND USE SCHEMES



NO	LAND USE ZONE	ASSOCIATED LAND USE ACTIVITIES	CBA1	CBA2	ESA1	ESA2
1	Environmental Conservation	Conservation management, low-intensity eco-tourism activities and sustainable consumptive activities.	Y	Y	Y	Y
2	CBA Map Overlay Zone / Bioregional Planning Overlay Zone	These are areas that are designated as biodiversity priority areas, namely CBAs and ESAs;	Y	Y	Y	Y
3	Tourism and Accommodation	Low Impact Tourism / Recreational and Accommodation.	R	R	Y	Y
		High Impact Tourism / Recreational and Accommodation (e.g. golf estates).	N	N	N	R
4	Rural Residential	Low density rural housing or eco-estates.	R	R	R	R
		Traditional Areas (existing) and Rural Communal Settlement (New).	N	N	R	R
5	Agriculture	Extensive Game Farming	Y	Y	Y	Y
		Extensive Livestock Production	Y	Y	Y	Y
		Game Breeding / Intensive Game Farming	N	N	N	N
		Arable Land - Dryland and Irrigated Crop Cultivation	N	N	R	Y
		Plantation Forestry: Timber Production.	N	N	N	Y
		Agricultural Infrastructure - Intensive Animal Farming (e.g. feedlot, dairy, piggery, chicken battery).	N	N	N	N
6	Municipal Commonage	Local agri-economic development.	N	R	R	Y
7	Open-Space	Public or Private Open-Space, including recreational areas, parks etc.	Y	Y	Y	Y
8	Residential	Low, low-medium, medium-high, and high density urban residential development. (= NW = Urban & Business Development)	N	N	N	N
9	Urban Influence	An amalgamation of land use zones, including Institutional, Urban Influence, General Mixed Use, Low Impact Mixed Use, Suburban Mixed Use and General Business. (= NW = Urban & Business Development	N	N	N	N
10	Low or High Impact and General Industry	Low Impact, General Industry and High Impact Industry (Urban & Business Development).	N	N	N	N
12	Transport Services	Transportation service land uses e.g. airports, railway stations, petro-ports and truck stops, bus and taxi ranks and other transport depots. = NW = Linear Engineering Structures)	R	R	R	R
13	Roads and Railways	Existing and planned linear infrastructure such as hardened roads and railways, including activities and buildings associated with road construction and maintenance, e.g. toll booths, construction camps and road depot sites. (Linear Engineering Structures)	R	R	R	R
14	Utilities	Linear engineering structures, such as pipelines, canals and power lines. (Linear Engineering Structures)	R	R	R	R
		Small-scale Infrastructural installations, including wastewater treatment works and energy sub-stations	N	R	R	R
		Large-scale Infrastructure installations, including bulk water transfer schemes, impoundments (Water Projects & Transfers), and energy-generation facilities (powers stations).	N	N	N	N
		Renewable Energy (PV farms and solar arrays)	N	N	N	N
		Renewable Energy (wind farms)	N	R	R	R
15	Quarrying and Mining	Prospecting and Underground Mining	N	R	R	R
		Quarrying and opencast mining (includes surface mining, dumping & dredging).	N	N	N	N
		Hydraulic Fracturing	N	N	R	R

Y	**YES,** permitted and actively encouraged activity
N	**NO,** not permitted, actively discouraged activity
R	**RESTRICTED** to compulsory, site-specific conditions & controls when unavoidable, not usually permitted

8.3.5. HERITAGE AREAS

The National Heritage Resources Act (No. 25 of 1999) have specific implications for municipalities where certain properties may have a specific heritage status. The act includes the following categories which should be accommodated during the process of compiling Land Use Schemes.

HERITAGE SITE

Heritage Site means a place identified and declared to be a national heritage site by South African Heritage Resources Agency (SAHRA), or a place declared to be a provincial heritage site by a provincial heritage resources agency

PROTECTED AREAS

Protected areas include land surrounding a national heritage site, land covered by a mine dump and land that surrounds an archaeological or paleontological site or meteorite. Also included are land surrounding a provincial heritage site and land that surrounds an archaeological or paleontological site or meteorite.

HERITAGE AREA

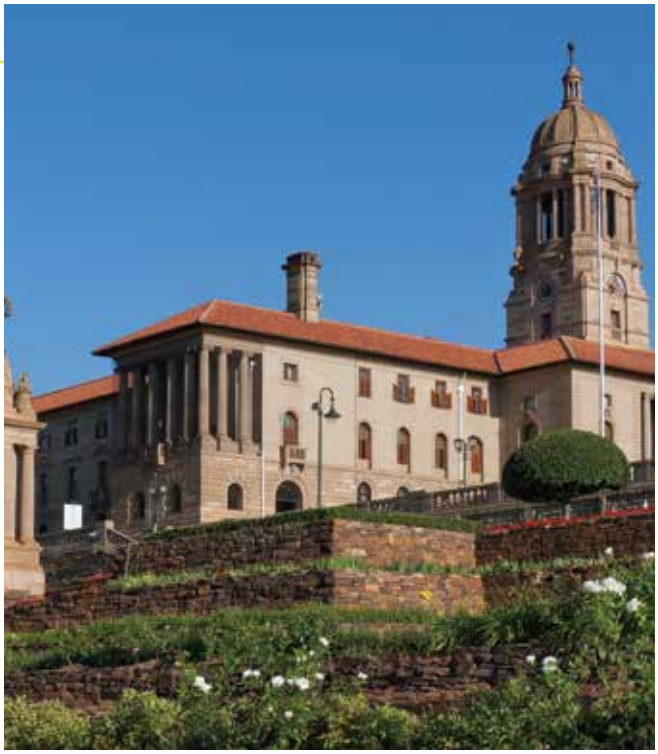
Heritage areas are areas having environmental or cultural interest or the presence of heritage resources.
In addition, a historical structure is defined as a building older than 60 years – permission is required to modify such a building – moving target (every year buildings gets older).

LEGISLATIVE COMPLIANCE

- SAHRA declares a Heritage Site – MUST inform Municipality. Implications – Municipality should keep a Heritage Register.
- Protected areas - A local authority MAY make provision, in its Land Use Scheme or in by-laws, for the management of the area.
- Heritage areas. The Act states that, every time a planning authority (a province, local authority or regional authority) compiles or revises a spatial plan (such as a Spatial Development Framework) or revises its Land Use Scheme (something that SPLUMA advises should be done on a regular basis) the planning authority (or at the initiative of the provincial heritage resources authority) should investigate the need for the designation of a heritage area. A local authority should also provide for the protection of heritage areas through the provisions of its by-laws or planning scheme - Special consent is required for any alteration or development affecting a heritage area.
- Heritage Register (compiled by provincial heritage resources authority and the provincial planning authority). Special consent from the local municipality is required each time any alteration or development affecting a place listed in the heritage register is considered.

IMPLICATIONS FOR THE COMPILATION OF MUNICIPAL LAND USE SCHEMES

- "Heritage" is more a status given to a specific geographic area than a land use. For example, the Union Building in Pretoria is both a national heritage site as well as the seat of Government in South Africa including offices and some other land uses. This implies that it will not be possible to design a "heritage zoning" which can be used in a municipal Land Use Scheme to protect and manage heritage resources. Use should therefore be made of other tools with which to manage these areas.
- Notify SAHRA and provincial heritage resource authority of the municipality's intent to compile a Land Use Scheme.
- Identify from own information any Heritage Sites within the municipality.
- Obtain from SAHRA and provincial heritage resource authority list (including cadastral boundaries or point-to-point descriptions) of any:
    1. Heritage Sites
    2. Protected areas
    3. Heritage areas
- Map the above on GIS in conjunction with existing cadastral boundaries and zoning
- Develop a Heritage Protection Management or Overlay Zone



EXAMPLE 13

CITY OF CAPE TOWN - HERITAGE OVERLAY ZONE

Designating a Heritage Protection Overlay zone

- The following heritage places are deemed to be Heritage Protection Overlay zones and shall be subject to the provisions of this overlay zone:
  1. any heritage place that has been entered into the register of heritage resources maintained by the provincial heritage resources authority in accordance with heritage legislation;
  2. any heritage place that has been designated a heritage area in accordance with heritage legislation; and
  3. any heritage place or resource as recorded in an annexure as described below.
- Notwithstanding the above and subject to the provisions of certain sections (the power of the council to designate a specific area as a heritage protection overlay zone), Council may designate any heritage place that it considers to be conservation-worthy in terms of its approved heritage strategy as a Heritage Protection Overlay zone, and such heritage place shall be subject to the provisions of this overlay zone.
- Council shall record all Heritage Protection Overlay zones in an annexure, which may include heritage places or categories of heritage resources mapped on a digital inventory in terms of the City's heritage strategies.

Use of the property

The following land use restrictions apply to property in this zone:

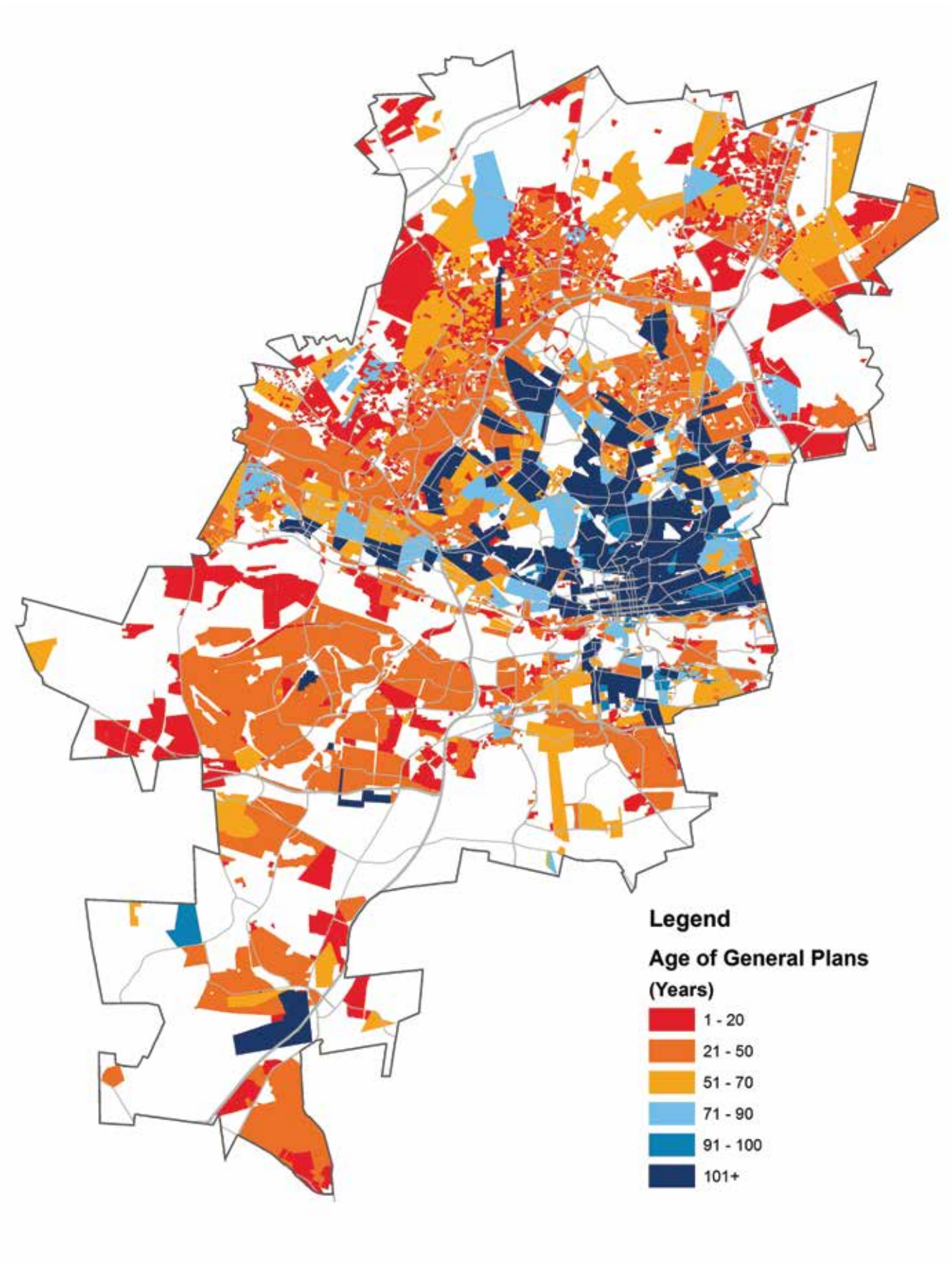
1. Primary uses are as stipulated in the base zone.
2. Additional use rights are as stipulated in the base zone.
3. Consent uses are as stipulated in the base zone, or any use approved by Council as an incentive.

Development rules

- In addition to the development rules that apply to the base zone, the provisions of the relevant Heritage Protection Overlay zone shall, where applicable, apply.
- Council may approve any use as a consent use in this overlay zone, provided that:
  1. such use is consistent with the uses determined to be appropriate in terms of a Council approved Heritage Management plan, in order to provide the owner with an incentive to preserve the heritage resource, and
  2. Council may require cessation of the consent use right if the heritage place protected in terms of the Heritage Protection Overlay zone is not maintained and protected to the requirements stipulated in the Council approved Heritage Management plan for the property, or as agreed between Council and the owner.
- Any development rules in terms of an approved Heritage Protection Overlay zone that exceed, or are more restrictive than, the limitations of a base zone, shall be deemed to be approved departures from the provisions of the base zone.

A tip for identifying areas that may be older than 60 years (and therefore possible having "historical buildings") is to map the age of the actual general plan of the township (the last 4 digits of the general plan number). The following is an example of City of Johannesburg.

FIGURE 15
EXAMPLE - MAPPING AGE OF SUBURBS IN JHB



8.3.6. COASTAL AREAS

The Integrated Coastal Management Act (No. 24, 2008) include specific consideration for municipalities with coastlines.

The following definitions apply:

- Coastal Public Property means a place identified and declared to be Coastal Public Property by the Minister in terms of the description in chapter 2 section 7 of NEM: ICM. It is primarily made up by the sea shore and coastal water.
- Coastal Protection Zone is a zone identified and declared to be Coastal Protection Zone by the MEC in terms of the description in chapter 2 section 16 of NEM: ICMA.
- Coastal Management Area is a management area which may be declared by the Minister after consultation with the MEC in terms of chapter 2 section 23
- Coastal access land means land designated as coastal access land in terms of 15 section 18(1), read with section 26. Coastal access land is the responsibility of the local municipality.
- Implications for the compilation of municipal Land Use Schemes.
- Delineation of coastal management lines must be undertaken in accordance, or alignment with a number of legislative tools. It includes the National Environmental Management: Integrated Coastal Management Act (Act No. 24 of 2008) (ICM Act), the National Environmental Management Act (Act No. 107 of 1998) (NEMA), Environmental Impact Assessment (EIA) Regulations, 2010, as well as Provincial Spatial Development Framework (PSDF).
- The municipality must obtain all necessary information (cadastral boundaries or point-to-point descriptions) of any:
    1. Coastal Public Property (including HWM)
    2. Coastal Protection Zone
    3. Coastal Management Area
    4. Coastal Access Land

- Map the above on GIS in conjunction with existing cadastral boundaries and zoning
- Align the Land Use Scheme with the Estuarine Management Plan, Coastal Management Programme and the Coastal Planning Scheme. Include specific information related to:
    1. Coastal access
    2. The high percentage of vacant plots and the low occupancy levels of residential dwellings;
    3. Equitable designation of zones for mixed-cost housing taking into account the needs of previously disadvantaged people;
    4. Coastal erosion and accretion;
    5. Description of specific areas within the coastal zone that require special management and strategies; and
- Estuarine management plans.
- This must then be filter into municipal planning through Integrated Pevelopment Plans (IDPs), Spatial Development Framework (SDF) and Land Use Management Scheme (LUMS).
- Coastal management zones (overlay Zones) could be considered as a means to facilitate improved planning and management of sensitive and often vulnerable coastal areas.

EXAMPLE 14

OVERBERG DISTRICT MUNICIPALITY COASTAL OVERLAY ZONET

The reality of existing legal coastal development in the Overberg meant that coastal set back lines had to make provision for developments and development planning that already extended into the hazard zone. Decisions regarding development in this zone are particularly difficult as they affect existing or assumed property rights as well as development precedents, and are relative to planning horizons. For example, a partly developed residential area within the hazard zone is unlikely to be removed or relocated and approval for infill development is unlikely to be refused.

By implication, the conceptualization of a hazard zone, determined on the basis of a coastal erosion threat, needed to be refined to accommodate existing development. A management response was required that differentiated between a modelled long-term erosion hazard and pragmatic development control. The potential solution recommended by the Overberg Coastal Set-backs project involved delineating realistic management coastal set-back line(s) in addition to the modelled maximum risk line. The management lines would then translate long term (e.g. 100 year) natural processes modelling into guidance that relates to pragmatic planning horizons (e.g. 50 year structural life expectancy).

The project culminated in three conceptual lines or zones:

- A broad Coastal Protection Zone extending to the landward boundary of sensitive coastal features in addition to the maximum modelled coastal risk zone, within which limited management control was required;
- A Physical Processes Zone which demarcated the output of the rigorous scientific modelling process used to project future coastal risk; and
- An Overberg Coastal Set-back Line which designated a narrow band of high risk area along the shoreline within which strict management controls are to be applied.

The management zones are determined by using the modelled physical processes line in conjunction with local planning knowledge and realistic determinants of the capacity for regulatory control, to delineate a final management zones which may (or may not) be closer to the water's edge than what is prescribed by physical processes modelling. The proposed management zones therefore rely not only on the modelling results but also on the interpretation thereof in terms of realistic planning horizons, and are delineated in consultation with affected local Municipalities[55].

8.4. GIVING EFFECT TO POLICIES, FRAMEWORKS AND PLANS

SPLUMA links the content of a municipal Spatial Development Framework and a municipal Land Use Scheme by requiring that a SDF

- Determines the purpose, desired impact and structure of the land use management scheme to apply in that municipal area[56]; and
- Include an implementation plan that includes (among other) necessary amendments to a Land Use Scheme.

Linking these two planning instruments has, in the past, proven to be quite difficult. While the SDF guides municipal wide planning and provides a future spatial form of the municipality, a Land Use Scheme deals with existing property rights. The timeframes of the two instruments has also varied dramatically in the past. SDFs are reviewed every 5 years – Land Use Schemes (or the old town planning schemes) tends to stick around for far longer (e.g. Nigel Town Planning Scheme of 1981 which was only recently replaced by the Ekurhuleni Land Use Scheme of 2012). The scheme, is "amended" through development applications (such as rezonings, consent uses, departures etc.) but that really only affects individual properties and property rights. In the past, the scheme as a tool was not really changed or amended.

One example of how to link the SDF and the Land Use Scheme comes from the KZN LUMS Guidelines[57]. The guidelines proposes linking elements which include:

- A spatial representation of the municipal area indicating the location of:
  1. Areas where prescriptive regulations are required, and areas where more flexible policy-based decision-making is required
  2. Special areas that need detailed action plans
  3. Environmentally sensitive and/or conservation areas requiring special provisions with regards to environmental management
  4. High potential agricultural land that needs to be protected to ensure ongoing food provision
- A link to institutional decision-making indicating where special decision-making processes are appropriate or when delegated powers are required, e.g. in redevelopment areas with special purpose implementation agencies, such as the Cato Manor Development Association and the Johannesburg Development Agency
- A dictionary of land use zones to be used in the municipality
- Appropriate quantification of broader SDF proposals
- A phasing plan to guide the introduction of the Scheme across a municipality. This component assumes there is insufficient capacity within the municipality to introduce the same levels of detail in all areas at the same time
- Generic urban design guidelines, where appropriate
- The detailing of principles suggested in the SDF to guide the preparation of the Scheme and decision-making on applications for land use change.

[55] Gerard, v. W., Tandi, B., and Tasneem, C. (2013). Determination of Coastal Management Zone(s). Cape Town: Royal Haskoning DHV.

[56] Spatial Planning and Land Use Management Act, Part E, Section O

[57] KZN Guidelines for preparation of schemes for municipalities 2011. Page 12.

Another example of achieving a link between the SDF and Land Use Scheme can be found in the Land Use Scheme of Govan Mbeki Municipality in Mpumalanga.

Instead of individual property based zonings such as can be found in a traditional scheme, Govan Mbeki municipality makes use of broader zones that indicate the "desirable future development of an area". All existing land use rights are recorded in a database. Land uses in these broad zone are grouped as "permitted and discretionary".

8.5. ALTERNATIVE FORMS OF ZONING

From earlier sections of this document it is clear that "single-use" zoning schemes are still used in many South African Municipalities. These schemes cannot effectively be used to give effect to strategic documents such as the Spatial Development Framework or other policies formulated by the municipality or other spheres of government. This section investigates alternatives to single use zoning found internationally and locally.

The following alternatives to mixed uses can be found internationally.

MIXED-USE DEVELOPMENT

Mixed-use development is the use of a building, set of buildings, or neighbourhood for more than one purpose. In South Africa, our zoning system has required uses to be separated. However, when jobs, housing, and commercial activities are located close together, and as a city becomes denser, a community's transportation options increase. In addition, mixed-use developments often have higher property values. Often located in existing urban areas or as part of a new town centre, mixed-use development provides a range of commercial and residential unit sizes and options. In zoning terms, this can mean some combination of residential, commercial, industrial, office, institutional, or other land uses. The term "mix use" can often be found in Spatial Development Frameworks, but in reality this is difficult to implement as no such actual zoning is set by legislative mandate. Whilst South Africa zonings do allow for some mix of land uses (e.g. within a business one can have rights for residential, business and some form of industrial), Municipalities often use zone "Special". These zonings are often used for any land-use right that is not otherwise defined in the specific Land Use Scheme, or more specifically in need of a specific set of development constraints. In South Africa this most often applies to uses like shopping centres, but it can actually be used to introduce the concept of "mixed use" into the land use management scheme. Recently, the City of Johannesburg used the "Special" zoning to bring informal settlements into the City's regulatory framework by introducing the zoning "Special for Transitional Residential Settlements".

PERFORMANCE ZONING

Performance zoning or "effects-based planning" uses performance-based or goal-oriented criteria to establish review parameters for proposed development projects. This approach to zoning focus on the effects of land uses rather than the actual category of land use. Performance zoning establishes specific standards and other criteria for determining the appropriate uses and site design requirements. These criteria aim to ensure that one land use is compatible with adjacent land uses, and more specifically that one land use will not adversely affect others. In its purest form, performance zoning may allow all possible uses and establish a uniform system of performance standards throughout a city. For example, a property owner in a municipality would have the right to develop a property up to a specific trip-generation standard, whilst the adjoining property owner may have the right not to be subjected to noise above a certain level. Performance zoning is intended to provide flexibility, rationality, transparency and accountability. A major disadvantage of this type of zoning is that it may be difficult to administer and enforce the specific standards.

INCENTIVE ZONING

First implemented in Chicago and New York City, incentive zoning is intended to provide a reward-based system to encourage development that meets established urban development goals. Typically, the method establishes a base level of limitations and a reward scale to entice developers to incorporate the desired development criteria. Incentive zoning allows a high degree of flexibility, but can be complex to administer. This form of zoning provides for give and take compromises on zoning restrictions, allowing for more flexibility to provide environmental protection. Incentive zoning allows a developer to exceed a Land Use Scheme's limitations if the developer agrees to fulfil conditions specified in the zoning scheme. The developer may be allowed to exceed height limits by a specified amount in exchange for providing open spaces or plazas adjacent to the building.

INCLUSIONARY ZONING

Inclusionary zoning is an effective tool that can be used by municipalities to ensure adequate affordable housing is included in the normal course of housing development. This may very well take the form of "Inclusionary Housing" where every commercial development including housing developments that are not directed at low income earners, spends some minimum percentage of project value on the construction of affordable housing. In practice, an inclusionary zoning bylaw may include some flexibility to its mandatory provisions. For example, bylaws may only apply to certain types of development, such as new construction or substantial expansion of building footprint. Inclusionary zoning bylaws may include "in-lieu-of" payment or construction alternatives providing developers the option of paying a fee per unit, building affordable units off-site, or rehabilitating units elsewhere in place of constructing affordable units within the proposed development.

FORM-BASED ZONING

Form-based zoning offers considerably more flexibility in building uses than do single-use zoning. Form-based zoning does not regulate the type of land use, but rather the form that that land use may take. For instance, form-based zoning in a dense area may insist on high density and pedestrian accessibility. This type of zoning was developed in response to conventional zoning's inability to define and create character as well as mixed use communities. Form-based zoning divides a city into districts where regulations vary by physical design characteristics, rather than by use. This type of zoning is particularly effective for the redevelopment of urban communities such as CBDs where traditional land use management systems hamper these regeneration strategies. It directly addresses design and gives property owners flexibility in how to best use their property. It is, however, unfamiliar to administrations used to single-use zoning and can be complex to administer.

MODIFIED CONVENTIONAL ZONING

Modified conventional zoning combines basic use and other development controls with overlay zones or floating zones that supplement the basic regulations. This form of zoning revises the basic zoning regulations by using special districts or geographic areas such as planned development districts, mixed use districts and introduce a specific set of regulation for that district that aims to meet specific objectives. Its major advantages lie in the fact that is fairly familiar to land use practitioners but it can still be more effective than traditional or conventional zoning. A major disadvantage can be that all the additional requirements may in fact protract the development application process.

8.6. IMPACT OF ZONING ON DEVELOPMENT CHARGES

Municipalities choose to impose conditions relating to the payment of development contributions when approving new developments or granting increased use rights. These contributions pay towards the increased impact on municipal services such as roads, public transport, storm water, water and sewerage which have either already been provided or still to be provided by the municipality. Development charges cover the capital costs of providing infrastructure and not the ongoing operating costs, which are covered by user charges and property rates.

The objectives of development charges are to ensure that:

- Municipalities are able to provide infrastructure in a timely and sufficient manner to support land development;
- Development charges complement other sources of capital finance available to municipalities and are not utilised as a general revenue source by municipalities;
- Development charges are managed in a predictable, fair and transparent manner; and
- Unnecessary litigation in the administration of development charges is reduced.

Four key principles must underlie the system of municipal development charges in South Africa, as proposed by the National Treasury's Policy Framework for Municipal Development Charges.

01

Equity and Fairness: Development charges should be reasonable, balanced and practical so as to be equitable to all stakeholders. The key function of a system of development charges is to ensure that those who benefit from new infrastructure investment, or who cause off-site impacts, pay their fair share of the associated costs.

02

Predictability: Development charges should be a predictable, legally certain and reliable source of revenue to the municipality for providing the necessary infrastructure.

03

Spatial and Economic Neutrality: A primary role of a system of development charges is to ensure the timely, sustainable financing of required urban infrastructure.

04

Administrative Ease and Uniformity: The determination, calculation and operation of development charges should be administratively simple and transparent.

The impact of innovative zoning on development charges:

- However and in principle the more flexible and wide a zoning category is, the more innovative and alternative a zoning will be and the more a zoning scheme will do forward zoning to be SDF's consistent, the more difficult it will be to levy, control and ensure payment of development charges, leading already cash strapped municipalities further down the path financial difficulty.
- Municipalities should not be advised of all kind of innovative zoning schemes, without having been shown or alerted to the difficulty it will bring with development charges.
- Incentive zoning and performance based zoning will almost certainly work directly against development charges and vice versa.
- It is a fundamental issue for consideration of the type of zoning scheme to be considered.

8.7. THE NATIONAL LAND USE CLASSIFICATION SYSTEM

One of the objectives of SPLUMA is to provide for norms and standards that can add value to the spatial planning process required by the act. While the rest of this document will focus on a number of issues related to the compilation of Land Use Schemes, this specific section will expand on the National Land Use Classification Standard as a key input into the compilation of schemes. A Land Use Scheme deals with a number of different dimensions of land use:

- What land uses are allowed on a property
- What the future land use composition of a specific geographic area should look like
- The intensity of that land use which can be exercised (expressed as density, height etc.)
- Whether those land uses currently on a property is legal
- The process to follow to change land use, etc.

While different municipalities have in the past compiled schemes that differ in complexity, how land uses are managed etc., the basic building blocks of the Land Use Scheme still remains – land uses.

The National Land Use Classification Standard (NLUCS) aims to provide a nationally accepted framework with which to:

- Classify land uses in some form of hierarchy;
- Define land uses; and
- Depict land uses using some form of symbology (SPLUMA even provides for the standardisation of symbology at different scales![58]).

Irrespective of which model of a Land Use Scheme a municipality adopts (these will be discussed later in the document), the municipal Land Use Scheme needs to refer to land uses, define these land uses and depict them some form on a map. These are all elements that are currently being addressed by the NLUCS.

8.7.1. INTERRELATIONSHIP BETWEEN THE CLASSIFICATION STANDARD AND LAND USE SCHEMES

The intention of the National Land Use Classification System (NLUC) is NOT to standardise scheme development but rather to provide a standard for any and all exercises that involve land use. The NLUC involve more role-players than just municipalities. If, for example, Eskom needs to perform a land use survey to determine load forecasting for a specific geographic area, the intention is that they make use of the land use classification. The NLUC can be used to inform schemes in the following manner:

LAND USE DEFINITIONS

A Scheme is a legal document and is required to contain definitions of terminology for both general aspects and land uses. In developing a list of definitions, a municipality should decide whether the list would be comprehensive and include definitions of as many terms as possible or be more selective. Definitions are crucial and often form the basis of legal arguments if an objector or applicant, who is aggrieved by a decision taken by an approving authority, takes a planning decision on appeal or to court. Professional legal input is essential in finalizing the list of definitions and affirming their rigour. To illustrate the complexity of a land use definition, consider the following two definitions of "Dwelling house" contained in two different schemes.

Means a freestanding dwelling unit used as a dwelling for a single family, together with such outbuildings as are ordinarily used therewith[59].

[59] KZN EThekwini Outer West Town Planning Scheme (amended May 2004)

[60] Consolidated Johannesburg Town Planning Scheme 2011

*Means a detached **self-contained** inter-leading suite of rooms containing a kitchen with or without an ancillary scullery and the appropriate ablutions, used for the living accommodation and housing of one family, together with such outbuildings and subsidiary dwelling unit as is ordinarily permitted therewith, as long as the subsidiary dwelling unit comply with the process stipulated in the Town Planning Scheme in Use Zone "Residential 1"; provided that a second kitchen, which is to be used for religious purposes and which is physically connected with the first kitchen, may be provided to the satisfaction of the Council. An entertainment, reception and/or living area within a dwelling house or part of a reasonably required and ancillary outbuilding (See "outbuilding" definition), may include a wash-up area used exclusively for that purpose[60].*

The NLUC standard will provide a definition for each land use that is included in the classification. Municipalities should make use of these definitions when compiling a Land Use Scheme. This will ensure a level of uniformity around the interpretation of land uses which is exactly the intention of the NLUC standard.

ZONINGS AND LAND USES

All schemes divide the municipal area into zones. It is furthermore a requirement of SPLUMA that new Land Use Schemes also conform to this practise. Each zone either depicts EXISTING land uses or FUTURE preferred land uses. Zones are not only depicted on a map, but also summarised in a table (sometimes referred to the land use table). The table below is an example of this (which will be discussed in much more detail later in the document).

FIGURE 16
EXAMPLE: LAND USE TABLE

		TABLE "A"			
Use Zone	**Notation on map**	**Uses permitted (Primary Right)**	**Uses/rights permitted only with the special consent of the local municipality (Clause 21)**	**Uses/rights permitted only with the written consent of the local municipality (Clause 22)**	**Uses/rights not permitted**
1	**2**	**3**	**4**	**5**	**6**
1 Residential 1		Single family residence			Uses not under columns
			Guest house		3, 4 & 5
			Tea garden		Schedule 4
			Institution		
			Place of instruction		
			Place of public worship		
			Tavern		
				Service enterprise	
				Household enterprise	
				Crèche	
				Spaza/kiosk	
			Special use		

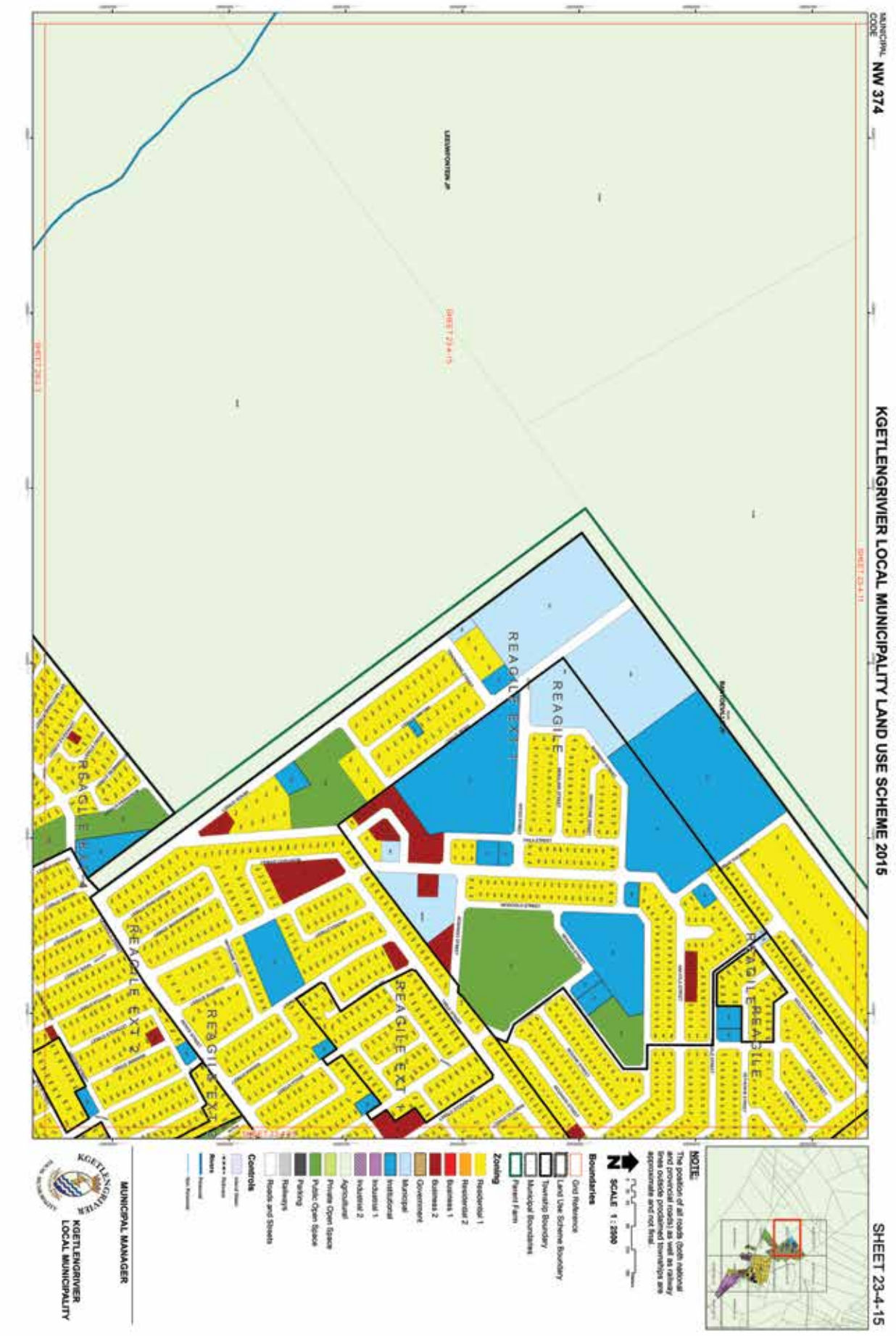
ZONES / ZONING

LAND USES

The NLUC standard will provide an exhaustive list of detail land uses as well as groups of land uses. When compiling Land Use Schemes (or indeed Spatial Development Frameworks or any other policy dealing with land uses), municipalities should pick from this list of land uses to associate with zones or zonings – keeping in mind the definitions mentioned earlier.

ANNEXURE A

EXAMPLE OF **SCHEME MAPS**



ANNEXURE B

ACTS AFFECTING THE COMPILATION OF A LAND USE SCHEME

B1: ACTS DEALING WITH THE NATURAL ENVIRONMENT:

B1.1. MOUNTAIN CATCHMENT AREAS ACT 63 OF 1970

INTENT AND PURPOSE OF THE ACT

This Act provides for the declaration of areas as mountain catchment areas and for the conservation, use, management and control of land in these areas. It focuses on integrated catchment management, and provides a range of instruments to enable cooperation and the involvement of private landowners.

IMPLICATIONS

- Mostly affects Western Cape (at the moment):
- Mountain catchment areas and specifically any provision regarding the use of land in these areas must be in line with the Land Use Scheme of that specific municipality.
- GIS Data available from DEA (2010)

B1.2. NATIONAL FORESTS ACT 84 OF 1998

INTENT AND PURPOSE OF THE ACT

- This act promotes the sustainable management and development of forests for the benefit of everyone. It also provides special measures for the protection of certain forests and trees.
- Certain areas can be declared as a "State Forest" the "Minister "may require a license for any activities in these state forests – many of which involve land uses decisions.

IMPLICATIONS

- This act requires the Ministers permission for changes to the use of the land or the erection of buildings etc. This creates parallel legislation to SPLUMA that assigns this right to Local Municipalities.
- Land Use Schemes could be used to indicate the existence of a State Forest, and highlight the implications thereof in the scheme clauses.

B1.3. NATIONAL ENVIRONMENTAL MANAGEMENT ACT 107 OF 1998

INTENT AND PURPOSE OF THE ACT

This Act creates the legal framework for environmental legislation in South Africa and sets out the fundamental principles that apply to environmental decision-making. In a development context the 2010 Environmental Impact Assessment Regulations contain the procedures to be followed to obtain an environmental authorisation

IMPLICATIONS

- This act coins the phrase "Environmental Management Plans" which most municipalities are considering or requiring when compiling SDF's.
- At the very least the SDF should take into account the EMF of the area. The Land Use Scheme of the municipality must be in line with and give effect to the SDF of the municipality. The Scheme should therefore, also align with and give effect to the EMF of the municipality.
- This could impact on "environmental" types of zonings in the scheme clauses.

B1.4. NATIONAL ENVIRONMENTAL MANAGEMENT: PROTECTED AREAS ACT 57 OF 2003

INTENT AND PURPOSE OF THE ACT

This Act provides for the protection and conservation of ecologically viable areas representative of South Africa's biological diversity and its natural landscapes and seascapes; for the establishment of a national register of all national, provincial and local protected areas; for the management of those areas in accordance with national norms and standards; for intergovernmental co-operation and public consultation in matters concerning protected areas

IMPLICATIONS

- Any portion of land "protected" in terms of this act should be indicated on the SDF as well as the Scheme of the municipality. (data is available from DEA)
- The act include many sections that require the authorisation of a "management authority" for changes to land use within a park. These could be included in a Land Use Scheme.
- Municipalities could require these "management authorities" to submit a development plan (SDP?) for inclusion in the scheme.

B1.5. NATIONAL ENVIRONMENTAL MANAGEMENT: AIR QUALITY ACT 39 OF 2004

INTENT AND PURPOSE OF THE ACT

To reform the law regulating air quality in order to protect the environment by providing reasonable measures for the prevention of pollution and ecological degradation and for securing ecologically sustainable development.

IMPLICATIONS

- The requirements of this act could be used in scheme clauses to further regulate noxious industries or land uses that could lead to air pollution.

B1.6. NATIONAL ENVIRONMENTAL MANAGEMENT: BIODIVERSITY ACT 10 OF 2004

INTENT AND PURPOSE OF THE ACT

The intent of this act is to provide for the management and conservation of South Africa's biodiversity within the framework of the National Environmental Management Act, 1998; the protection of species and ecosystems that warrant national protection; the sustainable use of indigenous biological resources; the fair and equitable sharing of benefits arising from bio prospecting involving indigenous biological resources; the establishment and functions of a South African National Biodiversity Institute; and for matters connected therewith.

IMPLICATIONS

- Many biodiversity frameworks exist at District or Local Level (e.g. Waterberg Biodiversity Framework 2016).
- Spatial data accompany these frameworks, but these hardly ever translate into land use controls etc.
- http://bgis.sanbi.org/Projects

B1.7. NATIONAL ENVIRONMENTAL MANAGEMENT: INTEGRATED COASTAL MANAGEMENT ACT 24 OF 2008 (NEM: ICMA)

INTENT AND PURPOSE OF THE ACT

Coastal Public Property: includes a number of components such as the actual water of the coast, the land below that water, islands, the sea shore, and other state land such as Admiralty Reserve. Interesting enough, coastal public property also includes natural resources found in any of the areas mentioned above. The Act requires a coastal planning scheme that deals with the matters highlighted. The scheme "can" be part of a municipal Land Use Scheme, but NO Land Use Scheme may be inconsistent with a coastal planning scheme.

B1.8. ASTRONOMY GEOGRAPHIC ADVANTAGE AREAS ACT NO. 21 OF 2007

INTENT AND PURPOSE OF THE ACT

In terms of this Act, certain geographic areas in South Africa (and therefore within the boundaries of any municipal Land Use Scheme) can be declared as areas that are "uniquely suited for optical and radio astronomy; to provide for intergovernmental co-operation and public consultation on matters concerning nationally significant astronomy advantage areas; and to provide for matters connected therewith".

IMPLICATIONS

- Areas declared as part of this act should be indicated on the Land Use Scheme of the municipality.

B2: ACTS DEALING WITH NATURAL RESOURCES.

B2.1. ACTS DEALING WITH AGRICULTURE

The **Subdivision of Agricultural Land Act, 1970, (Act 70 of 1970)** has specific relevance in the compilation of Land Use Schemes. This act places various restrictions on the development of "agricultural" land. This, however, has little or nothing to do with whether land can be utilised for agricultural purposes – rather it was a demarcation issue – all land previous TLC's and TRC's (old urban areas) is seen as agricultural.

The Act requires that:

1. Agricultural land shall not be subdivided;
2. No undivided share in agricultural land not already held by any person, shall vest in any person;
3. No part of any undivided share in agricultural land shall vest in any person, if such part is not already held by any person;
4. No lease in respect of a portion of agricultural land of which the period is 10 years or longer, or is the natural life of the lessee or any other person mentioned in the lease, or which is renewable from time to time at the will of the lessee, either by the continuation of the original lease or by entering into a new lease, indefinitely or for periods which together with the first period of the lease amount in all to not less than 10 years, shall be entered into;
5. (i) No portion of agricultural land, whether surveyed or not, and whether there is any building thereon or not, shall be sold or advertised for sale, except for the purposes of a mine as defined in section 1 of the Mines and Works Act, 1956 (Act 27 of 1956); and
   (ii) No right to such portion shall be sold or granted for a period of more than 10 years or for the natural life of any person or to the same person for periods aggregating more than 10 years, or advertised for sale or with a view to any such granting, except for the purposes of a mine as defined in section 1 of the Mines and Works Act, 1956;
6. No area of jurisdiction, local area, development area, peri-urban area or other area referred to in paragraph (1.) or (2.) of the definition of 'agricultural land' in section 1, shall be established on, or enlarged so as to include, any land which is agricultural land;
7. No public notice to the effect that a scheme relating to agricultural land or any portion thereof has been prepared or submitted under the ordinance in question, shall be given, unless the Minister has consented in writing[61].

[61] Section 3

The Act further requires that the National Minister of Agriculture, Forestry and Fisheries must give written consent to any application that affects land deemed to be for agricultural purposes[62].

Determining what "agricultural land" is, is crucial in the context of developing Land Use Schemes. The Department of Agriculture, Forestry and Fisheries administers agricultural land in RSA and thus also determines what is primarily considered as land to be utilized for agricultural purposes.

Agricultural land in RSA is primarily used for the following purposes:

- Commercial farming;
- Subsistence farming;
- Livestock farming; and
- Grazing

The sector contributes 10% of formal employment and contributes around 2.6% to the GDP of South Africa.

The **Preservation and Development of Agricultural Land Bill** moves away from the "demarcation" issue – it speaks about "high potential agricultural land"

- The Dept. can compile a land classification system regarding land capability
- The Minister can declare Protected Agricultural Areas
- Municipalities must prepare Agricultural Sector Plans
- Planning authorities including municipalities must:
    1. Designate agricultural land as defined in this Act;
    2. Ensure that agricultural land is protected against negative impacts from adjacent non-agricultural land uses;
    3. Adhere to and ensure that farming systems are viable and resilient; in accordance with the demarcations and guidelines developed by the Minister and or MEC, as amended from time to time

IMPLICATIONS

- DAFF makes available shapefiles to any municipality embarking on the preparation of a LUS. (Note that current land capability is very high level).
- DAFF is working on "more" detailed datasets that will indicate if land can be used for agricultural activities.
- Municipalities MUST consult with DAFF when compiling a scheme – as per Act 70 of 70, the Minister of Agriculture must still approve a "town planning scheme"

B2.2. NATIONAL WATER ACT NO. 36 OF 1998:

INTENT AND PURPOSE OF THE ACT

- The National Water Act provides the legal framework for the effective and sustainable management of our water resources. In line with the international trend of integrated water resource management, the National Water Act aims to manage rivers, dams, wetlands, surrounding land, groundwater, as well as human activities that influence them, in an integrated way.

IMPLICATIONS

- This Act deals with water as a scarce resource - requires that "water licenses" be applied for.
- Any land use consumes water, yet decisions regarding current and future land uses in schemes and SDFs hardly ever looks at the effect of the application on water quantity or quality.

B2.3. NATIONAL HERITAGE RESOURCES ACT 25 OF 1999:

INTENT AND PURPOSE OF THE ACT

This act introduces an integrated and interactive system for the management of national heritage resources. The act identifies Heritage Sites, Protected Areas and Heritage Areas.

IMPLICATIONS

- Heritage areas must be protected though the mechanism of a Land Use Scheme.
- In the case of compiling a new Land Use Scheme, provision must be made in the scheme for protection of heritage areas and land listed in the heritage register. The law also calls for an application for "special consent" each time any development is considered that affects these heritage areas or registers. It is therefore important that such a use zone or zoning is provided for in the scheme clauses of a Land Use Scheme.
- Source of information: Municipal Asset Register – Heritage Areas.
- A historical structure is defined as a building older than 60 years – permission is required to modify such a building – moving target (every year buildings gets older)

[62] Section 4

B2.4. MINERAL AND PETROLEUM RESOURCES DEVELOPMENT ACT 28 OF 2002:

INTENT AND PURPOSE OF THE ACT

The Department of Mineral Resources (DMR) is the responsible national authority for granting mining application permits.

IMPLICATIONS

- The act identifies the following types of authorisations (each of which has a land use implication): a reconnaissance permission, a prospecting right, a retention permit, a mining permit and a mining right.
- Until recently applying for the above permissions, permits and right from the National Department was basically all that was necessary to allow for the activity. Many court cases leading up to SPLUMA requires that the land use right (or mining or prospecting etc.) ALSO need to be in place before the activity can start. Municipalities would do well to consider mining activity or the location of mineral deposits in compiling its Land Use Schemes. Considerations should also be given to mining in all its forms as zonings or permissions.

B3. ACTS DEALING WITH SPECIFIC LAND USES

B3.1. VARIOUS LIQUOR ACTS

INTENT AND PURPOSE OF THE ACT

To establish national norms and standards in order to maintain economic unity within the liquor industry; to provide for essential national standards and minimum standards required for the rendering of services; to provide for measures to promote co-operative government in the area of liquor regulation. These Acts issue licenses for carrying out liquor related activities on premises.

IMPLICATIONS

- Similar to other acts (see Mining related acts) the Liquor and related Acts required an applications for a license without necessarily proving that the actual land use allows for the selling of liquor and related activities. This has led, especially in rural areas, for an unwanted positioning of taverns and liquor stores in close proximity to community facilities such as churches or crèches etc. This should be addressed in Land Use Schemes. Applicants for a liquor license should for example, provide a zoning certificate as proof of acceptable land use.

B4. ACTS DEALING WITH THE PROMOTION OF DEVELOPMENT

B4.1. INFRASTRUCTURE DEVELOPMENT ACT NO, 23 OF 2014:

IMPLICATIONS

Every organ of state must ensure that its future planning or implementation of infrastructure or its future spatial planning and land use is not in conflict with any strategic integrated project implemented in terms of this Act. Any dispute which arises in the application of Section 8(4)(a) must be resolved in terms of the Intergovernmental Relations Framework Act, 2005 (Act No. 13 of 2005), subject to any national legislation regulating spatial planning and land use management.

The National Infrastructure Plan lists 18 Strategic Integrated Projects (SIPS)

- E.g. SIP 1: Unlocking the northern mineral belt with Waterberg as the catalyst (with an emphasis on investment on heavy haul rail links to Richard's Bay) - Unlock mineral resources.
- These SIP's MUST be taken into account when planning for these areas – both at SDF and LUS scheme level.

B4.2. SPECIAL ECONOMIC ZONES ACT, NO. 16 OF 2014:

INTENT AND PURPOSE OF THE ACT

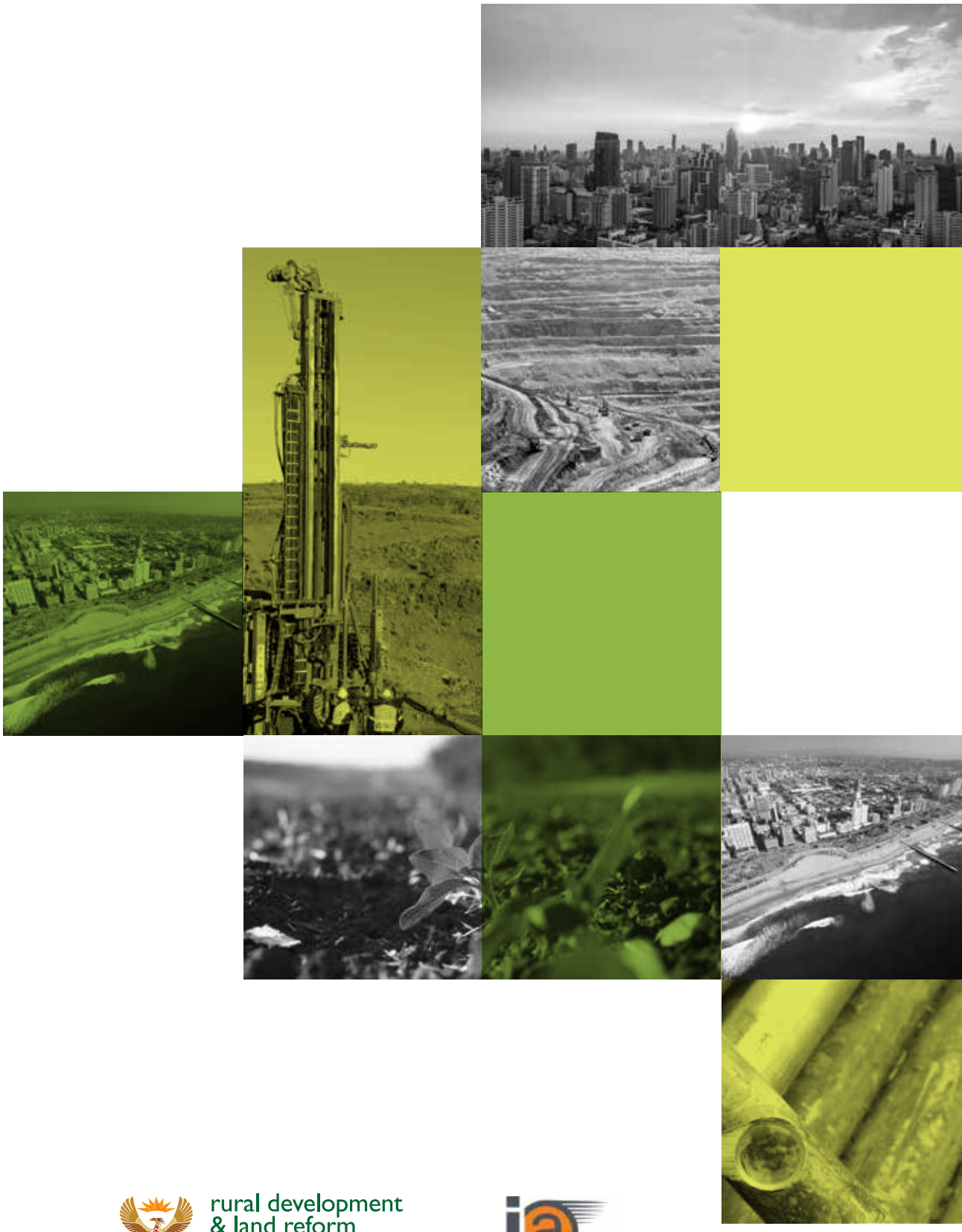
Special Economic Zones (SEZs), are geographically designated areas of a country set aside for specifically targeted economic activities, supported through special arrangements (that may include laws) and systems that are often different from those that apply in the rest of the country. Benefits may include:

- Preferential 15% Corporate Tax
- Building Allowance, etc.

Upon designation of an area as a Special Economic Zone, the licensee must provide the entity with the resources and means necessary to manage and operate the Special Economic Zone, including the transfer of ownership or control of the land comprising the area designated as a Special Economic Zone

IMPLICATIONS

- This Act could provide for a way to incentivise developers and to give effect to the SDF of the Municipality. A Special economic Zone should be indicated on the Land Use Scheme map and also described in the scheme clauses, with specific references to land use incentives.



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Rural Development and Land Reform
REPUBLIC OF SOUTH AFRICA

ia consulting

LAND USE SCHEME GUIDELINES

MARCH 2017