Development charges Policy for Engineering services within the Mogale City Local Municipality

2020

POLICY

Mogale City
Local Municipality

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2 Definitions

"Act" means the [Municipal Fiscal Powers and Functions Act]

"Affordable housing" means housing that is earmarked for people within a specific monthly household income bracket as defined by the National Housing Code and must be certified by the City's Human Settlements Department as part of the Housing Program;

"Applicant" means a person who makes a land development application as contemplated in section 5 of SPLUMA.

"Bulk service" means that portion of an external engineering service which is intended to ensure provision of the engineering services for the benefit of multiple users or the community as a whole, whether existing or provided for in a municipal spatial development framework;

"Capacity" means the maximum demand for an engineering service, that the associated capital infrastructure assets can satisfy;

"**City**" means the City of Mogale city , a municipality established by the City of Mogale Establishment Notice No. 479of 22 September 2000, issued in terms of the Local Government: Municipal Structures Act, 1998, or any structure or employee of the City acting in terms of delegated authority;

"Condition of approval" means a condition imposed by the City on the approval of a land development application in terms of land use planning legislation;

"Constitution" means the Constitution of the Republic of South Africa, 1996;

"**Counci**l" means the Municipal Council of the City;

"CRT" means a certificate of registered title;

"Developer" means an applicant, as defined in the SPLUMA whose land development application is approved, in whole or in part, by the person or body authorised to do so in terms of applicable legislation. The developer is any private or public association/individual and includes Government;

"Development" means the changing of land use or of cadastral boundaries in order to intensify the utilisation of land, or the simultaneous changing of both land use and cadastral boundaries in order to intensify the utilisation of the land;

"Development Charge" means a once-off charge imposed by the City on a developer as a condition of approval of a land development application in order to cover the cost of municipal engineering services required as a result of an intensification of land use;

"Economic infrastructure" means infrastructure serving market driven and commercial and industrial consumers;

"Engineering services" means the infrastructure required to supply water, sewerage, municipal roads, stormwater drainage, municipal public transport, Parks and open spaces, solid waste collection and removal required for the purpose of land development;

"Engineering Services Agreement" means an agreement between the developer and the City in cases where the developer constructs or installs bulk engineering services in lieu of the payment in full or in part of a Development

Charge and in which the parties agree on their respective roles in the construction, installation and financing of infrastructure, including their respective responsibilities Engineering Services Development Charges Policy 2019 for maintenance and upkeep of infrastructure from the date of installation to the date of transfer of the land to another owner;

"Engineering service zone" means, for each engineering service, the area within a municipal boundary which is served by a discrete network of capital infrastructure assets, determined in accordance with the Act;

"External engineering services" means:

a) **municipal engineering services infrastructure external** to the development site boundary and includes both:

i) **bulk engineering services**, which means municipal services infrastructure external to the development, including land, required to provide engineering services to multiple users at a municipality-wide scale as indicated in the relevant master plans; and

ii) **link engineering services**, which means municipal services infrastructure external to the development site boundary, including land, required to connect internal engineering services within the proposed development to proposed bulk engineering services; and existing or (regardless if parameters are associated with bulk infrastructure)

b) **bulk and link engineering services as described above** in a) but which also falls within the site boundary where the characteristics of the site so require external engineering services to be included on the site in addition to internal engineering services;

"Home childcare" means the use of portion of a dwelling house or outbuildings by the occupant to provide day care, after school care or instruction for up to 6 number of infants or children;

"Home occupation" means the practising of an occupation or the conducting of an enterprise from a dwelling house, second dwelling, dwelling unit or outbuilding by one or more occupants who reside on the property; provided that the dominant use of the property concerned remains for the living accommodation of the occupants, and home occupation does not include a house shop;

"House shop" means a dwelling house, second dwelling or outbuilding in which a retail trade is conducted by one or more occupants who reside on the property and where the dominant use of the property remains the living accommodation of the occupants;

"Housing programmes & subsidies" means the various housing opportunities provided and facilitated by the City;

"IDP" means Integrated Development Plan;

"IHSF" means Integrated Human Settlement Framework;

"Infrastructure backlog" means a lack of capacity in the existing infrastructure networks that results in a service being provided below the minimum acceptable standard;

"Internal engineering services" means infrastructure that falls within the boundary of the development to service that development and which will be transferred to the municipality;

"Land development" means the erection of buildings or structures on land, or the change of use of land, including township establishment, the subdivision or consolidation of land or any deviation from the land use or uses permitted in terms of an applicable land use scheme;

"Land development application" means any application to the City for permission to develop or change the use of land in terms of applicable land use or planning law;

"Landscape Architect"- Refers to a professional practising in the sciences for the built environment and registered with the South African Council for Landscape Architects (SACLAP)

"Landscape Development Plan"- Refers to a two and three-dimensional plans illustrating the proposed layout of the natural landscape through soft and hard elements, which includes site or base plans, perspective drawings and Master plans.

"Land use" means the purpose for which land is or may be used lawfully in terms of a land use scheme, or in terms of any other authorisation, permit or consent issued by a competent authority, and includes any conditions related to such land use purposes.

"**Municipality**" means the City of Mogale City Local Municipality, a municipality established by the City of Mogale Establishment Notice No. 479of 22 September 2000, issued in terms of the Local Government: Municipal Structures Act, 1998, or any structure or employee of the Municipality's acting in terms of delegated authority;

"Municipal district" means one of the eight districts used by the Mogale City Local Municipality for infrastructure planning;

"MPBL" means the Mogale city Municipal Planning By-law, 2016;

"MSDF" means Municipal Spatial Development Framework.

"Municipality" means a municipality as defined in the Local Government: Municipal Systems Act, 2000 (Act No. 32 of 2000), and includes both local and district municipalities.

"Package plants" are pre-manufactured treatment facilities used to treat wastewater in small communities or on individual properties

"Second dwelling" means another dwelling unit which may, in terms of the zoning scheme, be erected on a land unit where a dwelling house is also permitted; and such second dwelling may be a separate structure or attached to an outbuilding or may be contained in the same structure as the dwelling house; provided that:

a) the second dwelling shall remain on the same land unit as the dwelling house; and

b) the second dwelling shall comply with the requirements specified in the Mogale city Land Use Management Scheme;

"Service master plans" means high level infrastructure plans prepared by the City to cater for future development. These include, but are not limited to: The Integrated Transport Plan, Electricity Business Plan, Bulk Water and Sanitation Master Plans, Stormwater Master Plans and Integrated Waste Management Plan;

"Social infrastructure" means infrastructure serving low-income and social housing households and institutions;

"SPLUMA" means the Spatial Planning and Land Use Management Act, 2013 (Act 16 of 2013);

"State-funded housing" means housing that is earmarked for people within a specific monthly household income bracket as defined by the National Housing Code and must be certified by the City's Human Settlements Department as part of the Housing Program;

"Systems Act" means the Local Government: Municipal Systems Act, 2000 (Act 32 of 2000);

3 Introduction

The Mogale City Local Municipality is one of the fastest growing metropolitan areas in the country and is promoted as a tourist attraction due to the Cradle of Humankind which acts as an economic investment. New economic development has a positive impact on the municipality finances as it increases revenue from property rates and service charges by expanding the base of ratepayers. However, development associated with this economic growth has an impact on the demand for essential engineering services (water, sewerage, stormwater, roads, transport, solid waste and electricity), as well as social services like clinics, schools and other public amenities. The municipality does not obtain the calculation of open spaces and parks and requires a fair calculation to benefit the environment, applicant and municipality. Infrastructure is needed to support sustainable social and economic development in the Mogale City Local municipality district. Without infrastructure, both public and private sector investment in Mogale city will slow down. The cost to the municipality of providing this infrastructure, however, is high. Funding to cover these costs is obtained from three sources:

(a) **Grants** are provided by national or provincial government and are generally targeted towards social infrastructure, particularly in support of low-income housing development.

(b) **Loans** are converted into tariffs and are recovered by user fees paid by all consumers to the Municipality.

(c) **Capital contributions** are a more targeted and more equitable way of ensuring that the main beneficiaries of infrastructure make an appropriate and fair contribution to that cost, without unduly burdening the Municipalities ratepayers. Development Charges are the most important form of capital contribution raised by the Municipality to pay for infrastructure.

(d) **Segregated Bulk contribution funds (ring fencing)-** Each bulk contribution (water, electricity, roads and storm water as well as parks and open spaces) will be segregated into separate accounts to ensure circulation of cash flow for maintenance and new infrastructure of each bulk infrastructure provided.

Local government is empowered to provide municipal services in terms of Section 156(1) of the Constitution, and Section 8 of the Systems Act, 2000. This obligation is discharged through, among others, the provision and operation of infrastructure, including external infrastructure. Section 73(2)(c) of the Municipal Systems Act also requires that these services must be provided in a financially sustainable manner and Section 75A of the same Act empowers a municipality to impose, *inter alia*, charges to pay for services. If the Municipality does not have an effective and efficient system of Development Charges, there will be two inevitable consequences. Firstly, there will be less capital available for the development of new infrastructure, or the expansion of existing capacity. This will result in declining investment by the private sector, lower economic efficiency of Mogale City Local Municipality and a consequent decline in economic growth. Secondly, the money that would have been recovered via Development Charges will have to be sourced from an increase in municipal property rates and services charges. This will have the effect firstly of further burdening

households and businesses in Mogale and of using existing ratepayers' money to subsidise new developments, which is self-evidently unfair. In addition, the obligation to pay for the marginal increase in the load placed Mogale cities external infrastructure by a development strengthens the incentive for the developer to maximise the use of existing infrastructure and to develop land in accordance with the Municipalities plans. Engineering Services Development Charges Policy 2010 illustrates that Municipality faces development pressure from several directions, including low-income housing, high-income housing as well as commercial, retail and industrial development pressure. Meeting this pressure is central to Mogale cities future economic growth. Without an effective and efficient system of Development Charges it will fail in this challenge. Development Charges ensure that those people who benefit most directly from the availability of infrastructure contribute their fair share to the cost of that infrastructure. The Municipality has not implemented a new Development Charges policy for Engineering Services since 15 December 2010 and the policy has been in operation for the last 9 years, whereby only applicable for 5 years. In a dynamic environment where trends and patterns change continuously it requires a sporadic review of the policy to measure how it aligns with stakeholder needs and new policy developments.

4 Objectives of the Development Charges Policy

The desired outcome of this Development Charges policy is to:

(a) recover the portion of the capital cost of economic infrastructure that is attributable to developments; and

(b) determine a fair contribution paid by either the applicant or municipality depending on the type of engineering service.

(c) enable the provision of economic infrastructure in a timely and enough manner to support land development; and

(d) provide economic infrastructure in the most cost-effective manner taking into consideration scarce resources and effective urban form.

(e) The strategic intent of this policy is to ensure the financial sustainability of the Municipality through the definition and confirmation of a Development Charge on any new development or land use rights application that increases the load on municipal external infrastructure. This intent is aligned with the Municipalities Strategic Focus Area of an *Opportunity Mogale City Local Municipality district,* which aims to create the economically enabling environment in which investment can grow and jobs can be created, while still being able to provide basic services to all its citizens implied in the *Safe Municipal* and *Caring Municipal* focus areas. The equitable and efficient financing of the costs of infrastructure to accommodate new developments is also an important contributor to the creation of a more *Inclusive Municipality areas*. There are also environmental

benefits that will flow from the implementation of this policy as inadequate infrastructure creates negative impacts on ecosystems and environmental quality. The policy promotes sustainable infrastructure provision and compliments the Spatial Development Framework in shaping a cost-effective urban environment.

5 Overview

This policy provides the key details of the Mogale City Local Municipality's Development Charge. These are, **firstly,** that it is a once-off capital amount paid to cover the costs of the additional infrastructure that the Mogale City Local Municipality is obliged to provide. **Secondly**, the trigger for determining whether a Development Charge must be paid is a land development application. **Thirdly**, the basis on which the amount of a Development Charge is calculated is the increased impact that a new or changed land use will have on the existing infrastructure. The policy identifies the conditions under which such a charge becomes payable, the way the amount is calculated and the administrative procedures for making the payment. The Development Charge is calculated over and above any other obligations that a developer may incur in terms of applicable legislation. This policy covers the following engineering services: roads, stormwater, water, sewerage, electricity, solid waste, parks and open spaces. The charges applicable for electricity are the subject of a separate policy and legal framework. The contribution of Electricity has been adjusted to accommodate (SPLUMA) Spatial Planning and Land Use Management Act 16 of 2013.

6 Principles guiding the Development Charge policy

The principles set out in this section guide the Mogale City Local Municipality in the implementation of this policy. These principles closely reflect National Treasury's National Policy Framework for Municipal Development Charges. The principles furthermore support the enabling planning legislation which guides developments and Development Charges:

6.1 Equity and fairness

Development Charges should be reasonable, balanced, and practical so as to be equitable to all stakeholders. In recognition of this principle:

(a) The Municipality should, as far as possible, recover from the developer the full and actual costs of the essential municipal services infrastructure that results from particular types of land development;

(b) The Development Charge associated with new land development – can be related;

(i) To pre-installed municipal services infrastructure resulting from historical municipal investments in excess (spare) capacity; and

(ii) To the provision of new infrastructure to meet additional capacity requirements; and

(iii) Cannot be used to compensate for inherited backlogs.

(c) Funds recovered through Development Charges should be dedicated only to the purpose for which they were raised, i.e. investment in external infrastructure.

6.2 Predictability

(a) Development Charges should be a predictable, legally certain and reliable source of revenue to the Municipality for providing the necessary infrastructure. These revenues should thus be treated as a formal commitment by the Municipality to provide or upgrade the associated municipal service infrastructure and should be clearly and transparently accounted for.

(b) In order to promote predictability and coordination the costs associated with municipal infrastructure must be established before any capital grants from national or provincial government or other funding sources are applied so that there is full transparency.

6.3 Spatial and economic neutrality

A primary role of the Development Charge is to ensure the timely, sustainable financing of the required municipal infrastructure to support land development in line with municipal planning, therefore Development Charges should:

(a) Be determined on identifiable and measurable costs in a way that avoids distortions in the economy and in patterns of spatial development.

(b) Not be used for the purpose of achieving spatial planning or economic development objectives; and

(c) Where appropriate, be raised on a sectoral or geographic scale to recover costs more accurately within a specific impact zone.

6.4 Administrative ease and uniformity

The determination, calculation and operation of Development Charges should be administratively simple and transparent. This will necessarily detract from the accuracy of individual charges, but this is a necessary trade-off. Development Charges thus only estimate the actual costs for the provision of proportionate new municipal infrastructure capacity to support the land development. The developer will prescribe a meeting with the municipality on his proposed development. The complexity of the township development will be determined by the municipality, whereby the municipality will advise the developer whether the developer should appoint a professional engineer as well as signed-off and is paid by the developer not the Municipality. The Municipality will confirm the amount provided by the professional engineer to determine if the amount is correct, whereby if not can be amended by the municipality. The application will then be submitted to the Town Planning department within the Mogale City Local Municipality.

7 Role-players and Stakeholders

(a) There are four sets of primary stakeholders. The first set consists of the various departments in the Mogale City Local Municipality that have a direct interest in the Development Charges system. They have been included in the development of this policy.

(b) The second set of stakeholders includes the land development industry, which includes both the private sector as well as the public sector (this is illustrated through low-cost housing) entities engaged in land development such as the provincial and national authorities responsible for low-cost housing.

(c) Thirdly, there are civil society organizations, especially community, citizen and ratepayer associations as well as special interest groups that are also stakeholders affected by this draft policy.

(d) The Fourth set of primary stakeholders is Government which includes the development of low-cost infrastructure but should also provide Bulk Contributions towards the services required for that development. Considered to have the same responsibility as any Developer, If Bulk Contribution Charges is not provided, Government should give an alternative to providing infrastructure.

8 Legislative Framework

Development Charges are an integral part of the broader legal framework for urban land development and municipal finance. The legal framework set out below outlines the legal environment regulating Development Charges.

8.1 Enabling legislation

(1) Constitution of the Republic of South Africa, Act 108 of 1996

(2) Local Government: Municipal Systems Act, 32 of 2000

(3) Local Government Municipal Finance Management Act, 56 of 2003

(4) Town Planning and Townships Ordinance, 15 of 1986

(5) The Division of Land Ordinance, 20 of 1986

(6) Gauteng Removal of Restrictions Act, 3 of 1996

(7) Electricity Regulation Act, 4 of 2006 and the Electricity Regulation Amendment Act, 28 of 2007

(8) Gauteng Transport Infrastructure Act, 8 of 2001

(9) Water Services Act, 108 of 1997

(10) National Water Act of 1998 (Act 36 of 1998)

(11) Access to Information Act, 2 of 2000

(12) National Environmental Management Act, 107 of 1998

(13) Spatial Planning and Land Use Management Act, 16 of 2013

(14) Public Finance Management Act (PFMA), Act No. 1 of 1999

(15)Municipal Fiscal Powers and Functions Amendment Bill

8.2 Policy context

This policy is consistent with the *Policy Framework for Municipal Development Charges* issued by the National Treasury in 2011 and which reflects a broadly shared understanding of the role, purpose and legal nature of Development Charges across the country. This policy may require adjustment once the Guideline for the implementation of Municipal Charges in South Africa becomes final.

8.3 Applicable legislation

National Provincial and Local Government exercised their legislative powers in respect of land use planning and a new legislative framework that came into force in 2015. Development contributions are dealt with in three laws.

8.4 SPLUMA

SPLUMA is the national law which provides a framework for spatial planning and land use management in the Republic and deals with the imposition of development charges.

Section 49 of SPLUMA, provides that:

(a) *an applicant is responsible for the provision and installation of internal engineering services.*

(b) *A municipality is responsible for the provision of external engineering services.*

(c) *Where a municipality is not the provider of an engineering service, the applicant must satisfy the municipality that adequate arrangements have been made with the relevant service provider for the provision of that service.*

(d) *An applicant may, in agreement with the municipality or service provider, install any external engineering service instead of payment of the applicable development charges, and the fair and reasonable cost of such external services may be set off against Development Charges payable.*

(e) *If external engineering services are installed by an applicant instead of payment of development charges, the provision of the Local Government: Municipal Finance Management Act, 2003 (Act No. 56 of 2003), pertaining to procurement and the appointment of contractors on behalf of the municipality does not apply.*

8.5 Municipality By-Law (MPBL)

The Mogale City Local Municipal Planning By-law gives effect to the municipal planning competencies conferred on Local Government in terms of Schedule 4 B of the Constitution. Sections 49, 71and 72 of the Mogale City's MPBL set out

requirements for the provision of engineering services for land development and the raising of Development Charges. Section 49 links the payment of development charges to a policy adopted by the Mogale City Local Municipality. This policy fulfils that requirement. The draft *Guidelines for the implementation Municipal Development Charges in South Africa* (2017) proposes that every municipality have both a Development Charges policy and by-law. Sections 49, 71 and 72 of the MPBL satisfy the national requirement for a Development Charges by-law. National legislation, through Section 75A of the Municipal Systems Act, further empowers a municipality '*to levy and recover fees, charges or tariffs in respect of any function or service of the municipality*'. The enabling planning legislation must, however, also be read with the relevant provisions of national legislation such as Section 11 of the Local Government: Municipal Finance Management Act (MFMA), 56 of 2003, which regulates municipal supply chain management and would be relevant in situations where the municipality agrees to permit a developer to install any engineering infrastructure instead of payment of the applicable Development Charges. Although public transport infrastructure is not typically included as one of the engineering services covered by Development Charges the National Land Transport Act, (Act 5 of 2009), allows a municipality to raise a user charge from 'land, buildings or other developments that generate the movement of passengers, including land or buildings of which the State is the owner, in its area', provided that this money goes into the municipality's 'land transport fund'.

8.6 Anticipated changes to the legislation

An amendment to the Municipal Fiscal Powers and Functions Act, 12 of 2007 is proposed. This amendment proposes a new chapter dealing with the levying of development charges and associated matters. This amendment will set out the power of Municipalities to impose development charges and will require a municipality to adopt a development charges policy. This amendment Bill will also propose changes to SPLUMA. Once this law comes into force, both the MPBL and the policy may need to be reviewed to ensure compliance.

9 Definition of Development Charge cost components

(a) External engineering services include both *bulk* and *link* engineering services. Both are covered by the Development Charge Policy, but different rules apply to the two categories of external engineering services. Developers are required to pay a Development Charge comprising both these two components:

(i) a pro rata/shares of the cost of *bulk* engineering services to the development; and

(ii) the direct costs/provision of any *link* engineering services required for the specific development.

(iii) Bulk link engineering services are considered to apply to the same principle as a "link service", whereby provision and payment is required by the municipality.

(b) The developer shall be responsible for both of the above, and where bulk engineering services are provided *in lieu* of Development Charges. the pro rata cost will be reduced with the equal amount.

(c) A description of the components of external engineering services for each of the engineering services. The amount payable excludes the capital charge for electricity connections as the provisions relating to this charge are described in the Electricity Development Capital Policy. The Development Charge only covers the provision of infrastructure for which the municipality is responsible. It does not therefore cover the costs of provincial and national infrastructure. These costs may well have to be met by the developer, but that has to be part of a process regulated and managed by the authority responsible for providing the service, such as the provincial government of the Gauteng for provincial roads, SANRAL for national roads and ESKOM for electricity in those parts of Mogale City Local Municipality, where it is the service provider.

(d) The provision and installation of internal engineering services is the responsibility of the developer and is excluded from the Development Charge.

(e) Where development takes place ahead of planned infrastructure provision, as allowed for in the service master plans and capital budget, or where development takes place outside the service master planning area, link external engineering services may be required to link the development's internal infrastructure to bulk infrastructure and to maintain functionality of the overall network.

(f) While the Municipality is obliged to *provide* all bulk engineering services, in terms of section 49 of the Spatial Planning and Land Use Management Act, 2013 the way the Municipality directs that each of the two categories of external engineering services is *installed*, differs. Also, the obligation on the Mogale City Local Municipality to provide external engineering services is not unqualified. The Municipality is not obliged to provide infrastructure where it is not consistent with the applicable service master planning and capital budgets.

(g) Where a development requires infrastructure inconsistent with the applicable master planning and capital budgets, but where the Municipality nevertheless approves the development application, the developer may be required to install some of the required external engineering services.

(h) Where the Municipality and the developer agree that the developer will install aspects of *bulk* engineering services, the cost of that installation can be set off against the developer's overall Development Charge liability. Should the set off value described here be greater than the total Development Charge for bulk engineering services for all phases of a development, the developer shall be responsible for the additional cost.

(i) However, in the case of link engineering services, the installation is the direct responsibility of the developer, unless otherwise agreed in writing with the Municipality. In this case the value of the required link engineering services must be determined by the developer and the developer will be responsible for the full cost of such link engineering services.

(j) Where the Mogale City Local Municipality identifies that the link engineering services installed by the developer must be of a greater capacity than that required by the specific land development, in order to maintain the functionality of the Municipality's long-term plans and master planning, then the Municipality may require that the developer install such greater capacity. The cost of the additional link engineering services can be set off against the developer's overall Development Charge liability.

(k) New works or the portion of new works required to eradicate infrastructure backlogs are excluded from the Development Charge cost calculation.

(l) With developing of NGO's, social housing and certain exceptions to the MPBL, the Site Development plan can be used to determine the Development Charges cost as per approval through the department.

10 Land development applications that give rise to Development Charges

Changes in land use normally associated with subdivisions and rezoning give rise to a Development Charge where there is intensified utilisation of the land and resultant increase in loading on the infrastructure. The current infrastructure was designed and implemented for the primary (as of) rights and secondary (additional) land use rights were not accommodated in the infrastructure design. Thus, where any use other than the primary use results in an additional infrastructure demand this additional demand must be catered for in the future provision of infrastructure. Development Charges will be imposed on all land use intensification that will or potentially may result in an additional demand on the infrastructure that were not accommodated for in the initial provision of the services.

For the purposes of the interpretation of this section the following definitions apply:

(a) **Coverage** means the total area of a land unit that may be covered by buildings, expressed as a percentage of the area of such land unit, and shall include all roofed areas; provided that the following portions of buildings shall be disregarded in the calculation of coverage:

(i) stoeps, entrance steps and landings;

(ii) open balconies and retractable awnings;

(iii) cornices, chimney breasts, pergolas, flower boxes, water pipes, drainpipes and minor decorative features not projecting more than 500 mm from the wall of the building;

(iv) leaves not projecting more than 1 m from the wall of the building; and

(v) a basement, provided that the finished level of the top of the basement roof slab does not project above the existing ground level.

(b) **Gross Leasable Area (GLA)** means the area of a building designed for, or capable of, occupancy and/or control by tenants, measured from the centre line of joint partitions to the inside finished surface of the outside walls, and shall exclude the following:

(i) all exclusions from the definition of floor space;

(ii) toilets; lift shafts, service ducts, vertical penetrations of floors; lift motor rooms and rooms for other mechanical equipment required for the proper functioning of the building;

(iii) areas reasonably used in connection with the cleaning, maintenance and care of the building, excluding dwelling units for caretakers, supervisors, cleaners or maintenance staff; and interior parking and loading bays.

(iv) Floor space in relation to any building means the area of a floor which is covered by a slab, roof or projection; provided that:

(v) any basement or part of a basement not intended as habitable space shall be excluded;

(vi) any area which is reserved solely for parking or loading of vehicles shall be excluded;

(vii) external entrance steps and landings, any canopy, any stoep and any area required for external fire escapes shall be excluded;

(viii) passages, access ways and fire escapes not wider than 1,5m, if they connect directly from the fire escape, vertical circulation to the entrance doors or both, shall be excluded;

(ix) a projection including a projection of eaves, and a projection which acts as a sunscreen or an architectural feature, which projection does not exceed 1 m beyond the exterior wall or similar support, shall be excluded;

(x) any uncovered internal courtyard, light well or other uncovered shaft which has an area in excess of 10 m^2 shall be excluded;

(xi) any covered paved area outside and immediately adjoining a building at or below the ground floor level, where such paved area is part of a forecourt, yard, external courtyard, pedestrian walkway, parking area or vehicular access, and which is permanently open to the elements on at least the front or long side, shall be excluded;

(xii) any covered balcony, veranda or terrace which, apart from protective railings, is permanently open to the elements on at least the front or long side, and which does not exceed 2,5 m in width, shall be excluded;

(xiii) subject to paragraph (h) below, any stairs, stairwells and atriums that are covered by a roof shall be included;

(xiv) in the case of multi-level buildings, any stairwells, lift wells, light wells or other wells, and any atrium, shall only be counted once;

and provided further that floor space shall be measured from the outer face of the exterior walls or similar supports of such building, and where the building consists of more than one level, the total floor space shall be the sum of the floor space of all the levels, including that of basements;

10.1 Definition of Development Charge Components

Section 7 sets out the different components to be considered when calculating Development Charges in the City. The most important rule is that Development Charges are used to pay for external services: i.e. Municipality-wide services that must be increased by the City to accommodate the impact of the new land use based on the Spatial Development Framework. Internal services, which are the services constructed on the developer's land and which serve that development only, are for the developer's own account. The external services, for which the Development Charges are used, are divided into bulk and link services. The bulk services are provided by the but paid for by the developer's payment of Development Charges. The link or bulk services must be installed by the developer directly. Table 1 below illustrates the approach to bulk and link services in the Development Charges policy. And the example below that illustrates how that approach is expressed in practice.

Table 1: Definition of infrastructure components

Component			**definition**	**Paid for by**
External engineering service	Bulk Engineering Services	External bulk	Services external to the development site boundary serving multiple users a municipality-wide scale as indicated in the relevant master plans	Developers through DC- calculated by formula
		Internal bulk	As above, but passing through the site boundary	
	Link Engineering Services		Services external to the development site boundary required to connect internal engineering services within the proposed development to existing or proposed bulk engineering services. This includes both Bulk link lines.	Developers through DC- paid directly through installation of services
Internal engineering service			Services within the development site boundary to service that development and which will be transferred to the municipality	Developer as a part of development costs

Provided example: Separate treatment of bulk and link components of a DC liability.

Developer X submits a development application. The City calculates X's DC liabilities to total R1,500,000 for roads, transport, storm water, sewerage, water and solid waste as calculated using the DC Calculator. Developer X, in this case,

also has to provide a link road to connect to the planned city road network, valued at R 500,000. The total DC liability is thus R2,000,000, which the developer discharges through the payment of a bulk DC contribution of R1,500,000 and the construction of the link road.

Land development applications that give rise to Development Charges

a) Not all land use changes give rise to Development Charges. Section 8 identifies those land development applications for which a developer will have to pay Development Charges. Development Charges will apply to:

I. Most rezoning decisions.
II. Subdivision, permanent departure and consent use applications that result in a more intense land use; and
III. Applications to amend conditions imposed on an earlier application, where the condition limited the intensity of the land use.

b) In general, Development Charges do not have to be paid in the case of other applications for land use change permission.

c) The policy also identifies a set of land use changes that do give rise to a more intense land use, and which would otherwise give rise to Development Charges. In these cases, a land development application may have an impact on municipal infrastructure, but that impact will be similar to or not greater than the existing impact. In these cases, the City has set impact thresholds, below which DCs will not have to be paid. Applications for land uses, up to the following thresholds, will **not** give rise to a DC liability:

I. Early childhood development centres up to 34 children per erf;
II. Home occupation up to 50m2 per erf;
III. Home childcare up to six children per erf;
IV. House shop up to 50m2 per erf;
V. Second dwelling up to 60m2 per erf; and
VI. Bed and breakfast establishment up to the first three bedrooms of an existing dwelling.

10.2 Methodology for determining unit costs for use in Development Charges calculations

A developer's overall Development Charge liability is calculated based on the impact on municipal services infrastructure that a development will have, multiplied by a pre-determined unit cost. This can be illustrated as:

$$DC = additional\ units\ of\ impact\ x\ unit\ cost$$

This was done through a modelling and costing of the infrastructure required to service a fully developed 20-year land use projection. The unit costs are average figures for the whole of the City of Mogale and will be applied uniformly

across the City. Unit cost estimates for each infrastructure category will be re-calculated annually in line with inflation in terms of the Civil Engineering Index published by the South African Federation of Civil Engineering Contractors (SAFCEC).

10.3 Calculation of Development Charges

Once the unit costs have been determined, as set out in this Policy, they must be multiplied by the additional units of impact. Section 10 of the Policy explains how this is done, starting with the identification of units of impact for each service. The total DC for any land development application then is the sum of the DCs calculated for each of the six services: water, sewerage, roads, transport, storm water and solid waste. In order to ensure uniformity across the Mogale City Local Municipality as well as administrative ease there is a spreadsheet calculator which should be used by the professional engineer appointed by the developer, which is introduced below. Examples of two DC calculations are annexed to this Guide.

SERVICE	RELEVANT FACTORS	YARDSTICK	UNIT OF IMPACT
Electricity	Refer to Electricity Development Capital Tariff (EDCT) Policy		
Roads	Increased municipal road capacity required	Vehicle trip generation	Vehicle trips/day
Transport	Increased number of passengers using public transport and requiring additional facilities	Person trip generation	Person trips per day
Sewerage	Additional sewage effluent generated	Average Annual Dry Weather Flow	kℓ/day
Solid waste	Increase in landfill airspace required and transfer station capacity	Solid waste generation rate	kg/day
Storm water	Increase in the overall quantity and the peak flow rate of the runoff	Runoff coefficient	C factor
		Area of the development	Ha (hectare)
Water	Additional consumption per distribution or reservoir zone	Average Annual Daily Demand (AADD)	kℓ/day

Open space and parks	Land use zoning, number of units allowed on property, amount of units erected on property	FAR of built-up environment, compared to open space for environment	Meters squared.

(a) The unit cost for each of the units of impact above will be derived from the modelling exercise described in Section 9, which will allocate the increased demand to the appropriate modelling impact zone for calculation of the actual cost. The actual costs will be aggregated to derive an average unit cost for each unit of impact for the Mogale City Local Municipality as a whole.

(b) The modelling impact zone used for the purposes of the calculation of Development Charges is a zone determined by the Mogale City Local Municipality in which all the components of a services infrastructure system, network or networks that a particular development impact on. This zone will be defined differently for different services and will be based on modelling work undertaken for each of the services as part of the determination of the average unit costs to be applied in the Development Charge calculation.

(c) Unit costs for all services are multiplied by the impact of the development on each service, as determined by the difference between the future impact and the current impact, to determine a total amount payable as a contribution to the bulk engineering services cost.

(d) Future impact is determined according to standard impacts (per service) that have been calculated for each DC Charges category of land use, which in turn are related to the Mogale city Land Use Management Scheme.

(e) Should an application for rezoning not specify the particular land use or extent, the highest possible development impact for that zone shall be charged for.

(f) If a particular application is based on a combination of uses that correspond to a number of the Development Charges categories listed in attached documents, the fee for the extent of the development in each category is calculated individually and added together.

(g) New development that is structured with sufficient densities along approved transport corridors has the potential to reduce development impact on road infrastructure. Where a development falls within a designated public transport area, in terms of the Mogale City Local Municipality's Integrated Public Transport Network, the reduced trip generation for private vehicles will be factored into the calculation of the applicable Development Charge.

(h) In order to promote development along approved transport corridors at sufficient density, the density and location of the development in relation to public transport corridors will be factored into the determination of the development impact and may reduce the calculated Development Charge.

(i) The Development Charge calculation is undertaken by means of a spreadsheet calculator populated with unit impact and cost data and completed with the specific development details per application. A copy of the calculation results sheet will be provided to the developer with the conditions of approval.

(j) Developers may, where there are recommended in certain circumstances or where it can be demonstrated that the Municipality will not need to provide municipal infrastructure, request the Municipality to calculate liability based on actual cost where:

(k) all expenses associated with the application are borne by the developer;

(l) the developer appoints a qualified third party, acceptable to the Municipality, to calculate the actual costs under the guidance of the Municipality; and

(m) actual costs evaluated to form part of the Development Charge are calculated for all infrastructure components listed in attached documents, including:

(i) the cost of the land;

(ii) professional fees;

(iii) materials;

(iv) labour;

(v) preliminary and general items; and

(vi) tax liabilities, provided that such costs would otherwise have been borne by the Municipality.

(n) Should the Municipality accept the request to calculate the liability on the basis of actual cost in the manner described above, then the total Development Charge (including the link engineering services) will be based on this calculation.

(o) The recommended circumstances for the purposes of calculating actual cost occur when it can be shown that the proposed development is of an unprecedented scale or will give rise to a recommended dependence on or independence from one or more municipal engineering services. Although measures to reduce consumption of water and lessen impacts on all infrastructure capacity are encouraged and supported by the Municipality, the implementation of these measures cannot be sufficiently guaranteed at the time of a development application to be considered in the calculation of the Development Charge, hence the provision of the option to calculate actual costs.

10.4 Development Charges will apply

Development Charges typically will apply to the following land use intensifications types:

(a) Rezoning applications:

(i) Rezoning's to subdivision area, overlay zoning or equivalent zoning that enables rezoning and simultaneous subdivision of the land and which is typically required for new development or urban infill development;

(ii) Rezoning of land from one base zone to another in order to change the permitted land uses on the site; and

(iii) Rezoning's from one subzone to another within the same base zone in order to increase the permitted floor space.

(b) Subdivision applications where the number of dwelling units increases as a result of the subdivision, or where the subdivision application results in the increase of floor space or GLA.

(c) Permanent departure applications:

(i) Applications to increase the permitted Floor Space, GLA, number of occupants or number of rooms; and

(ii) Applications to increase permitted Coverage.

(iii) Consent use applications (in terms of the By-law) where the change in land use is deemed by the Municipality to result in additional utilisation of infrastructure.

(iv) Any application for the amendment of conditions or a site development plan of a previous approval where the condition or site development plan limited the land use, Floor Space, GLA, Coverage or similar provision relating to the intensification of the land use.

(v) All additional land use rights including the consolidation of land units, where the change in land use or consolidation of the land units are deemed by the Municipality to result in additional utilisation of infrastructure.

(vi) Where a property owner is required in terms of the provisions of the Development Management Scheme to comply with conditions or development rules relating to available capacity on the municipal services network, such as but not limited to second or third dwelling units.

10.5 Development Charges do not apply

Development Charges will not apply to the following land development applications, which are deemed to have no significant impact on provision of external infrastructure:

(a) Rezoning applications to a less intensive zone, i.e. where one land use (primary or consent use) is replaced by a different land use with similar or lesser infrastructure utilisation impacts for all services.

(b) Subdivision applications where no additional development rights or land units are created, or which do not result in additional loading onto external infrastructure.

(c) Permanent departure applications for building lines or height or other similar parameters, which do not lead to an intensification of land use.

(d) Temporary departure applications where rights are granted on a temporary basis: provided that,

(e) temporary departures may only be granted if the infrastructure impact of the temporary use is the same or less than the existing use; and

(f) if the Municipality does not have sufficient spare capacity available to accommodate the application for the temporary departure it will not be approved.

(g) Consolidation applications that are not accompanied by rezoning or additional rights application.

(h) Consent use applications which have a similar or lesser impact on infrastructure utilisation than previous rights applicable to the property.

(i) Applications to change land use to one of the following land uses, up to the extent indicated and using the definitions set out in this policy:

(i) early childhood development centres up to 34 children per erf;

(ii) home occupation up to 50m2 per erf;

(iii) home childcares up to six children per erf;

(iv) house shop up to 50m2 per erf;

(v) second dwelling up to 60m2 per erf; and

(vi) bed and breakfast establishment up to the first three bedrooms of the B&B component and the first 3 residential rooms of the existing dwelling. (credit for 3 residential rooms and 3 accommodation rooms per property).

10.6 Exemptions

In this Policy it identifies the conditions under which exemptions can be granted from Development Charges. Exemptions are discouraged because they compromise the Municipality's ability to provide the required infrastructure for growth. Exemptions can only be granted by council resolution or a council-approved policy to exempt specified categories of land use or specified geographical areas or a combination of both from DCs. The Site Development Plan (SDP) if land-use within land zone does not provide a fair calculation. This is based on the approval of the department.

An exemption can be for the total DC liability or for a part of that liability. However, where the council does approve an exemption the Municipality must identify the alternative funding source that will be used instead of the DC payment. Exemptions to individual developers or properties are not permitted. The Municipality has to report annually on the number of exemptions granted and the amount of DC funding that was found from alternative sources. Exemptions are dealt with in a separate Municipality policy – the Investment Incentives Policy – and any applications in terms of this

policy should be directed to the Economic Development Department and not submitted as part of the land use application process.

10.7 Administrative process

The detailed steps to be followed in the implementation of the policy are contained in this Policy. These include:

(a) The information that a developer must provide in order for the Municipality to calculate the applicable Development Charges;

(b) The procedure to be followed for the calculation of Development Charges, as part of the land development application process;

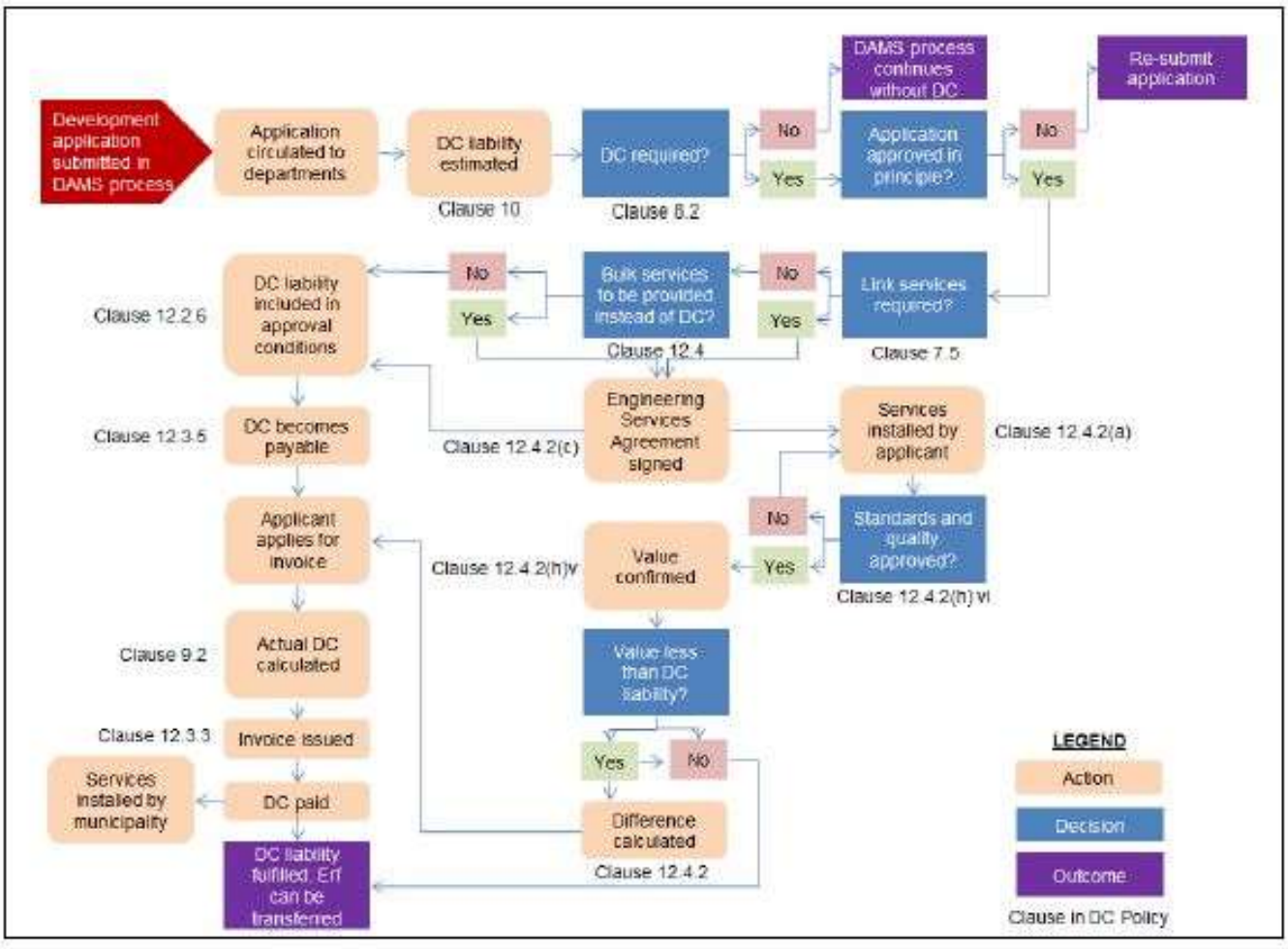
(c) The actual payment of the Development Charge (see Table 2 below);

(d) The installation of infrastructure by a developer in lieu of paying a Development Charge;

(e) Restrictions on the use of the Development Charges funds by the Municipality; and

(f) Transitional arrangements for the implementation of the new policy.

A flow diagram of the DC process from development application to granting of approvals is shown below:



Timing of DC payments for different types of land development

Type of land development	Timing of payment
Subdivision of land	Prior to the issuing of a section 31 clearance certificate which would allow transfer of first unit, or registration of a Certificate of Registered Title, unless the conditions of approval indicate otherwise
Where no subdivision is required and where the intended development requires approval of a building plan	Prior to approval of building plans unless the conditions of approval indicate otherwise
Where no subdivision clearance or subsequent building plan approval is required	Prior to commencement of any activity on site pursuant to the application

11 Methodology for determining unit costs for use in Development Charges calculations

A municipal Development Charge is calculated to determine as closely as practical the pro rata share of the actual, capital costs of related municipal infrastructure needed to service a particular development. The determination of costs is based on estimated unit costs for each service, which are calculated in the following manner:

(a) A 20-year land use model is developed for the Municipality that includes planned generic land uses and densification.

(b) This land use model is used to develop optimum service models for transport, water, sewerage, stormwater and solid waste to correspond to the future land use scenario.

(c) The demand from this future development on each of the engineering services is calculated using average unit demands for each land use category, based on demand factors from the Guidelines for Human Settlement Planning and Design (CSIR and Construction Technology, 2000), the South African Road Trip Generation Manual (Department of Transport, 1995) and professional engineering experience.

(d) The infrastructure required to service this new demand is determined, taking into account existing master planning and any existing capacity or lack thereof within the systems.

(e) Engineering standards for the infrastructure are obtained from the Guidelines for Human Settlement Planning and Design, Minimum Standards for Civil Engineering Services Version 1 , various design manuals and engineering practice in the industry as well as other Municipality-approved standards as amended from time to time.

(f) The future capital cost of this infrastructure is quantified using the current replacement cost of construction of the systems. Current replacement cost includes all land costs, professional fees, materials, labour, preliminary and general items. The capital cost to address infrastructure backlogs are excluded from the total cost.

(g) The total capital cost is reduced to a marginal unit capital cost by dividing the total cost by the total unit of demand for each service.

(h) The outstanding loan amount for each service is divided by the total capacity of the existing service infrastructure (to obtain a loan amount per unit of demand) and subtracted from the unit capital cost. This correction is made to avoid double payment for infrastructure capacity that is funded through loans and recovered through tariffs.

The above process can be summarized in the following conceptual formula:
Where: $W = (K/E2) – (L/E1)$

W = unit cost applicable to the type of development
K = total current cost of future bulk engineering services
E2 = design capacity of future bulk engineering services
L = total outstanding loans for bulk engineering services
E1 = design capacity of existing bulk engineering services

(a) Unit cost estimates for each infrastructure category will be inflated annually by the Civil Engineering Index, as published by the South African Federation of Civil Engineering Contractors (SAFCEC). Total outstanding loans for each service shall be taken from the financial statements of the financial year-end preceding the annual review.

(b) percentage increase to the unit costs, taken from the SAFCEC index, shall be approved and published as part of the annual budget process.

(c) Where possible, unit costs should be re-calculated every five years using current replacement costs to accurately reflect the infrastructure cost.

(d) In the case of a full re-calculation the annual inflation will not apply for that year The following:

(i) The developer shall be required to pay the unit cost rate applicable on the date at which the Development Charge becomes payable.

(ii) Where the payments are scheduled in accordance with phased approvals of a development then the applicable unit cost payable for each phase is that applicable on the date at which the Development Charges becomes payable for that phase.

(iii) In the case of a phased development where the application is made prior to a full re-calculation of the unit costs but the approval is granted thereafter, the last unit cost (including annual inflation) prior to the full re-calculation shall apply.

12 Exemptions

1. The Development Charges Policy is based on an equitable and sustainable model for providing infrastructure to promote economic growth. The total cost of infrastructure for new development is apportioned to the new users in accordance with the land use model and relies on each user paying for their share of the infrastructure.
2. Exemptions from Development Charges will negatively affect the ability of the Municipality to provide infrastructure in a sustainable manner if no alternative funding is provided to compensate for the shortfall created by exemptions. The Municipality should therefore seek to minimise the number and value of exemptions and apply any exemption of Development Charges in an equitable, transparent and administratively feasible manner.
3. Current land uses permitted as a primary right in terms of the Mogale city Land Use Management Scheme are not liable for DCs and do not require exemptions as there is no need for a land development application in order for the developer to exercise his or her right.
4. Exemptions from Development Charges may only be granted by the Municipality if it:

a) does so in accordance with a Council approved policy or Council resolution that complies with the requirements of national legislation and policy dealing with Development Charges, and which:

i. may exempt specified categories of land use or specified geographical areas or a combination of both; and

ii. may not specify individual developers or properties.

b) a Council approved policy or Council resolution allowing for exemption from Development Charges liability must:

i. calculate the full liability for Development Charges that would otherwise have been received by the municipality were it not for the exemption;

ii. make projections regarding revenue to be foregone for a period of at least three years; and

iii. make budgetary provision for the realisation of the associated revenue forgone from another realistically available source either through a specific capital transfer or an alternative capital budget vote.

5. Applications that qualify in terms of the Council approved policy or Council resolution allowing for exemption from Development Charges liability are not liable for Development Charges to the extent permitted in the policy or resolution, provided that.

a) the amount of the Development Charges liability for that application must be sourced from alternative funding identified in terms of the policy or resolution and transferred to the relevant asset-financing fund; and
b) the application for exemption must be approved by the Council.

6. The Municipality must disclose the value of exemptions provided for each budget year in its annual report.
7. No relief may be granted in respect of the payment of Development Charges to a category of properties or a geographical area other than by way of an exemption provided for in this policy.
8. No relief may be granted in respect of the payment of Development Charges to an owner of property or properties on an individual basis unless it is in compliance with a Council approved policy or resolution.

13 Administrative process

In order to implement this policy, the following implementation procedures will apply.

13.1 Information required from the developer to calculate Development Charges

In terms of the applicable legislation, the Municipality may require from the developer any information necessary for it to evaluate an application. This includes information that will enable it to calculate the required Development Charge. These details, however, will vary according to the type of land use change or land use intensification.

13.2 Application procedure

(a) Land development applications (Site Development plan and Landscape development plan) must be submitted to the Town Planning Department. The applicant will be informed at this stage that Development Charges may have to be paid and will be assisted by the Municipality in understanding what would constitute bulk and link external engineering services in the context of the particular development.
(b) The full application must be circulated to internal departments with a direct interest for comment. In general, any land use application that will result in a land use intensification and will have an additional demand in the infrastructure must be circulated to at least the following departments:

(i) Electricity Generation and Distribution;
(ii) Solid Waste Management;
(iii) Asset Management and Maintenance;
(iv) Transport Planning;
(v) Water and Sanitation Management.

(c) An internal department may put forward reasonable conditions relating to the development and, in particular, conditions relating to Development Charges which must include conditions relating to the time periods within which payment or payments must be made.

(d) The limitations to the scale of permitted development, which were used to calculate the Development Charge, must be clearly set out. Where the development is approved in development charges may be imposed in corresponding phases provided that the infrastructure for the full phase is available and functional.

(e) Should a developer in future wish to acquire additional development rights over and above those already approved, a new application will be required in terms of the applicable planning legislation and the Development Charges liability must be recalculated.

(f) The final Development Charges must be reflected in the calculation and form part of the conditions to be approved.

(g) The conditions of the relevant department must be included in the final conditions of approval that are approved in terms of the applicable land use or planning legislation. Where conflicting conditions between departments occur it must be resolved internally prior to the final conditions being formulated.

(h) The final approval of the conditions will be applicable to the property. Where an applicant disputes the conditions the relevant appeals process must be followed.

13.3 Payment of Development Charge

Under the discretion of the municipality, a contribution could be decreased by using other land use zoning, which compile to the use of land and engineering service needed.

The above statement is stated under the Spatial Planning and Land Use Management Act 16 of 2013, under Chapter 2, regarding development principles, norms and standards. This state, (C) principle of efficiency (ii) decision-making procedures are designed to minimise negative financial, social, economic and environmental impact. This is to avoid unfair payment of contributions regarding the Land Use Scheme of Mogale city.

(1) The conditions of approval appended to a land development application must set out the payment requirements and specifically must prescribe:

a) the amount to be paid, including provisions for escalation over time; and

b) the date when the Development Charge payment is due, which may include more than one payment date for more than one payment in the case of phased developments.

(2) The Development Charge will be payable by the developer in full by a BANK GUARENTEE CHEQUE or electronic funds transfer.

(3) Subject to 12.3.1 above, the developer will make one payment in response to a detailed invoice, provided by the Municipality to the developer and no payments by instalments will be permitted.

(4) The Municipality will allocate the funds into the correct Asset-Financing Funds of each of the relevant services.

(5) Payment shall be made as follows:

(a) in the case of subdivision of land, prior to the issuing of a subdivision clearance certificate which would allow transfer of first unit, or registration of a CRT, unless the conditions of approval indicate otherwise;

(b) in the case of an application where no subdivision is required and where the intended development requires approval of a building plan, prior to approval of building plans unless the conditions of approval indicate otherwise;

(c) in the case of any application where no subdivision clearance or subsequent building plan approval is required, prior to commencement of any activity on site pursuant to the application.

(6) The Municipality may withhold any approval or clearance in terms of planning or building control legislation where a developer has not complied with his or her imposed Development Charge liability.

(7) Where the development entails subdivision of land, no transfer or registration of a CRT may be concluded of any portion of land until the Development Charge has been paid.

(8) Where there is no transfer, the Municipality must withhold building plan approval until the Development Charge has been paid. No occupation may take place until the development is fully serviced and all conditions were met by the developer. No occupation certificate can be issued until the development is fully functional and conditions relating to functional services provision were met by the developer.

(9) In the event that a developer proceeds with exercising his or her rights without paying the Development Charge in accordance with the applicable conditions of approval no subsequent transfer of that erf, or registration of a CRT, may be processed or approved until the applicable Development Charge has been paid.

(10) In all cases where a Development Charge arises the Municipality must impose a condition that confirms that the land use becomes unlawful on account of non-payment of the Development Charge, thereby enabling the Municipality to invoke its enforcement measures appropriate to an unlawful land use.

(11) In large and/or complex projects the Municipality may approve a development in phases thereby allowing Development Charges to be paid on commencement of each approved phase.

(12) Where external engineering services are provided *in lieu* of Development Charges by the developer, the Municipality may agree to delayed payment of a Development Charge, provided that a Services Agreement between the Municipality and the developer is signed and a written guarantee from a registered financial services provider is provided by the developer to cover any risk to the Municipality that this arrangement may entail.

(13)The detailed roles and responsibilities for the provision of infrastructure in lieu of Development Charges must be set out in a separate Services Agreement, but the key aspects related to timing of payments as well as the amount(s) to be paid must be reflected clearly in the conditions of approval.

13.4 Infrastructure *in lieu* of Development Charge

(1) A developer may by agreement with the Municipality:

(a) install bulk engineering services *in lieu* of Development Charges; and

(b) transfer land of a value not exceeding the value of the payable Development Charge for a particular bulk engineering service and only where the land is required for the installation of that service in the municipal district concerned.

(c) amend infrastructure on provincial and national roads to mitigate the impact of the development on the said development.

(2) Where a developer installs bulk engineering services or transfers land in accordance with 12.4.1 he or she may deduct the cost of the infrastructure installed, taking into account the components of actual costs as set out in this policy, from the Development Charges for that particular development, provided that:

(a) the infrastructure to be installed is to the standard required by the Municipality, in accordance with of this policy;

(b) the infrastructure to be installed is located within the same municipal district in which the development is situated;

(c) a written Engineering Services Agreement is entered into, which specifies the infrastructure to be provided in lieu of Development Charges, the standards to which the infrastructure is to be built, the cost of the infrastructure and the assets to be transferred to the Municipality;

(d) the Engineering Services Agreement is signed by the developer and the Municipality prior to the commencement of any works to be provided in lieu of Development Charges;

(e) the actual implementation programme and anticipated transfer date is recorded;

(f) the Municipality may not issue any clearance in terms of local government legislation otherwise due to the developer prior to the fulfilment of the commitment or provision of a guarantee.

(g) the Municipality may not approve a building plan in relation to the development concerned prior to the fulfilment of the commitment or provision of a guarantee

(h) in relation to the procurement by a developer of a service provider, or service providers to build and install the infrastructure specified in the Engineering Services Agreement, the following requirements apply:

(i) the developer must follow a fair, equitable, transparent and competitive process of calling for bids from infrastructure providers and appoint the bidder offering the most cost effective bid;

(ii) a record of the procurement process and award must be appended to the Engineering Services Agreement;

(iii) the Municipality reserves the right to participate as an observer in the deliberations on bids received by the developer in order to check that the decision-making process is fair and a rational selection is made;

(iv) the Municipality may require the developer to engage with authorised officials prior to it making a decision on appointment of a particular contractor, so that the Municipality has an opportunity to make representations regarding the reasonableness of the costs and any other relevant consideration;

(v) the Municipality may appoint an appropriately qualified independent third party to assess the bid process conducted by the developer, including whether the costs claimed are fair and reasonable, which assessment could form the basis either for further negotiation between the Municipality and the developer, or could be binding on both of them, at the Municipality's discretion;

(vi) the Municipality may appoint an independent, registered Consulting Engineer to assess whether the standards of the infrastructure installed meet the Municipality's requirements as set out in this policy.

(vii) the Municipality may prohibit the developer from appointing as a contractor any person which has been black-listed by the Municipality or National Treasury or which has failed to perform under a municipal contract within a three-year period prior to the proposed appointment;

(viii) the value of the infrastructure to be installed in lieu of Development Charges must be certified reasonable by an independent, registered Consulting Engineer appointed by the developer;

(ix) the Municipality may appoint an independent, registered Consulting Engineer to verify the report provided to the developer in terms of paragraph (viii) above;

(x) accurate records of payment are to be kept by the developer to verify final payment certificates;

(xi) the Municipality may have access to all relevant records relating to the construction process, including not only records relating to the procurement process, but also the contractual documentation, notices, invoices, progress reports and other records; and

(xii) the Municipality may impose other appropriate safeguards on a case-by-case basis depending on the circumstances.

(i) The infrastructure installed and the land on which it is situated are either formally transferred to-, and received by the Municipality or the required agreements are made to ensure that the Municipality has access to the infrastructure if it does not fall on municipal land, which may include the registration of a servitude in favour of the Municipality.

(j) The final value of the assets transferred, as reflected in payment certificates, must be reconciled with the original Development Charges liability and any balance due by the developer must be paid in full.

(k) Where the developer installs external infrastructure of a higher value than the Development Charge liability, as provided for above in **Section 7**, the developer may offset the additional amount against his or her liability for Development Charges incurred under subsequent phases of the same development. The Municipality must verify that the additional infrastructure is necessary for the integrated and efficient development of the infrastructure network.

13.5 Use of Development Charges Funds

(1) Development Charges may only be used for capital works, i.e. the full and actual costs of construction of new municipal infrastructure or the upgrading of the capacity of existing municipal infrastructure, taking into account the components of actual cost as set out in this policy. Development Charges may not be used to reduce or eliminate existing infrastructure backlogs, for operations or maintenance costs, or as a general revenue source for the Municipality.

(2) All funds collected are to be retained in dedicated Asset-financing Funds, per service and per municipal district, to be applied in the districts concerned, and toward the services against which payment was made, provided that:

(i) in the case of cross-boundary services where the infrastructure network serving the proposed development are not confined to any one municipal district it will be permissible to pool Development Charges for use across areas and to implement inter-district transfers.

(3) Funds must be spent according to the project priorities of the Municipality for that municipal district and service, as illustrated in the infrastructure master plans and detailed in the capital budget or integrated development plan.

(4) Once a Development Charge has been paid in full for a specific piece of infrastructure, the Municipality must include that infrastructure development project on the capital budget in the subsequent budget cycle.

13.6 Transitional Arrangements

(a) This policy will come into effect on the date of approval by the Council.

(b) Development applications approved prior to the approval of the new Development Charges Policy will be subject to the current Interim Policy and all new developments approved after the date of approval of the new Development Charges Policy will be subject to the new policy.

14 Monitoring, Evaluation and Review

14.1 Monitoring

The Finance Department: Treasury Department will be responsible for monitoring the collection and use of the Development Charges. The use of Development Charges shall be reported on in the Municipality's Annual Report and be subject to the Municipality's standard auditing procedures.

14.2 Evaluation and review

The following information, broken down by service and by applicable region, must be published annually by the Municipality and used for evaluation and review of the policy:

(a) Value of Development Charges levied;
(b) Value of Development Charges received;
(c) Value of the external infrastructure provided by developers as payment in kind;
(d) Expenditure from all Development Charges funds; and
(e) Value of rebates/exemptions awarded and sources of alternative funding.

14.3 Review

(1) This policy should be reviewed when the need to do so arises. Triggers for the review of this policy include situations where:
(a) the growth trajectory of the Municipality deviates significantly from the projected land use model;
(b) the engineering service provision responsibilities of the Municipality are amended;
(c) new technologies arise that affect the capital costs of installing engineering services; or

(2) The determination of liability for a Development Charge is an administrative action regulated by law (including the requirements of procedural fairness, lawfulness and reasonableness as provided for in the Promotion of Administrative Justice Act, 3 of 2000) and, in addition, is procedurally subject to the municipal budget process. This provides scope for annual public consultation. Thus, the review of the policy will be incorporated into the annual budget process, in which it will be possible to engage stakeholders with the policy review.

15 First Review

15.1 General

The policy as adopted in 2010 was developed in consultation with a number of stakeholder and extensive land use and infrastructure modelling were done to derive at a Development Charge for all engineering services. This charge is adjusted annually to keep up with the construction price adjustment and remodelling of infrastructure and land use scenarios is expected to happen every 5 years. To ensure that the policy principles and operational procedures stay relevant in a very dynamic environment the current review concentrated on specific areas highlighted by in the previous policy (2010). Stakeholders over the past 3 years after implementation. The current review therefore concentrated on the review areas below and no modelling of infrastructure and land use scenarios were undertaken.

15.2 MSDF

The new Municipal Spatial Development Framework (MSDF) follows a strategic and facilitated process to create a desired spatial form concentrating critical mass around transport corridors and specific transport zones. The framework aims to facilitate a denser urban inner core that can improve the performance of metropolitan built environments. The promotion of more compact, integrated and mixed-use urban form in preferred transport zones requires specific infrastructure investment in line with the Medium Term Infrastructure Investment Framework (MTIIF). Urban sprawl and developments on the periphery of the Municipality poses a direct challenge to some infrastructure needs and specific provision of networks off the current bulk infrastructure grid. The MSDF facilitates specific development zones with specific criteria and the emphasis is on promoting the Urban Inner Core for economic sustainable reasons. Consolidation Areas around the inner core and more specifically Discouraged Growth Areas on the periphery often poses a challenge to infrastructure provision away from the bulk network. In line with the framework the DC policy provides a mechanism where developers are responsible for the provision of internal and link services and developers will have to provide these link services at their own cost. This promotes the MSDF objective to some extent and does not compromise sustainable economic development. The DC policy currently is in alignment with the MSDF and supports its objectives and principles.

15.3 MTIIF

The Medium-Term Infrastructure Investment Framework (MTIIF) assesses the current infrastructure capacity, costing and sequencing of future infrastructure provision. It furthermore articulates the operating and capital ‘cost surfaces’ of land use developments in relation to space to illustrate the differentiated costs to the Municipality, investors, households and the other public sectors. In principle the MTIIF aims to guide the Municipality’s budget allocation on

infrastructure to ensure maximum return on investment. DC's do not constitute the major funding source for new infrastructure stemming from developments or backlogs it merely compliments the funding source for new economic infrastructure. Whilst it is important to synchronise capital investment in specific areas of priority, developments may take place in different areas. This then often poses the challenge that bulk services may not be available for developments in certain areas at a given time and developers are required to either wait or fund the necessary bulk infrastructure themselves. Council prioritises its capital budget through the IDP process and then allocates capital budget for infrastructure-based availability and sustainability in line with the MTIIF.

Where Council priorities differ from developer's need and programmes, developers will have to fund bulk services through the DC availability or align their developments with the capital implementation programme of the Municipality. It is not always possible to synchronise market demand with private and public investment, and the current DC policy enables developers to a large extent to provide the required infrastructure through DC offsets. The DC policy currently compliments the MTIIF to a large extent by providing a mechanism for new users to fund their infrastructure based on the user pay principle.

15.4 Housing Development

Rapid urbanization has seen a continuous increase in demand for housing opportunities within the Municipality boundaries. This demand is addressed by the Municipality through an integrated approach in line with the IDP and the IHSF which forms the basis of a longer- term strategy. This demand for housing opportunities puts a significant demand on the Municipality's bulk infrastructure required to support the housing delivery strategy.

The Municipality fund these services through different funding mechanism of which an important funding stream is the Development Charges which basically requires that each new user pay his proportional share to the cost of the infrastructure. Failing to do so will transfer the load onto the rate payers and could prove unsustainable in the long term. The bulk infrastructure for qualifying housing opportunities is mostly funded through the national USDG program. In line with the National Treasury guidelines the DC liability for all developments, including housing opportunities, must be calculated and paid into an asset fund to ensure that infrastructure is delivered in a sustainable manner. Where bulk infrastructure is then provided through an alternative fund the DC liability is discounted against the infrastructure investment.

To this effect all housing typologies have either paid the DC amount from the fund provided or alternatively provided infrastructure to the same value in lieu of DC's. It has been recognized that the different housing programs call for a DC strategy that supports the actual impact of the developments. As part of the review all possible housing programs and typologies were categorized and the actual demand was adjusted to correspond with the real impact of the housing program. In essence a normal subsidized housing opportunity will contribute approximately 29 % of an economical residential unit and gap housing opportunities will contribute approximately 35% of an economical residential unit. This

is based on the actual unit demands for the different housing types and reflects the reduced demands required to provide infrastructure to this type of residential unit.

As part of the overall housing program informal settlements and other typologies needed a different approach. As services are often provided at a reduced ratio to informal settlements the actual reduction in demand has to be reflected in the development contribution. Shared services are normally provided in a 1:25 and 1:5 ratio and households share the services on a proportional basis. Thus where shared services are provided the DC amount is reduced to 50% of a subsidized unit which equates to approximately 15 % of the liability of an economical residential unit.
This apportionment is seen as a representative recovery of the actual demand housing developments place on the infrastructure and provides a fair recovery of the cost to provide sustainable infrastructure in the long term.

15.5 Planning Legislation

The 2010 policy were developed whilst there were several legislative amendments looming. The policy document anticipated most changes and was drafted taking current and possible future legislative changes into account.
Subsequently SPLUMA was enacted which became the basis for the planning by-law and in this case the DC policy.
As municipalities face a growing need to finance infrastructure, it is imperative that all possible sources of finance are accessed. Development charges (DCs) are an important source of such finance.
This is important to enable the municipality to provide economic infrastructure in a sustainable manner to facilitate land development.
The current DC policy is in line with National Treasury's policies and guidelines and current review of the national Policy Framework for Municipal Development Charges Guideline was considered in this review.

Policy Principles

The policy complies with all legal, financial and administrative requirements of the Council.
It is based on the following principles:

(1) **Justified.** The approval of enhanced land use rights, whether new townships or rezoning's, will result in the requirement for new or upgraded infrastructure, and/or create an additional load on existing infrastructure and services. It is therefore justified that the beneficiary of the enhanced rights contributes towards the capital cost of those services used. This additional load will be determined on the basis that existing communities should not have to subsidize new townships by allowing free use of previously provided services.

(2) **Limited.** The contribution a developer should make is limited to the expected impact on the infrastructure and services. The developer is not asked to contribute to backlog or to provide services in excess of the impact the land use change will have, hence the new township does not have to subsidize existing communities.

(3) **Full Cost Recovery.** In line with the above two principles, the policy is based on full cost recovery. The impact of the additional demand is calculated, and the full cost of supply to meet the demand is the contribution thus required.

(a) **Consistent.** The application of the policy is uniform and standardized throughout the Municipality of Mogale and has been aligned with National Standards
(b) **Equity.** All developers are treated equally. The impact is determined based on a fixed set of factors which are predetermined and set for each particular land use and size.
(c) **Certainty.** Applicants know beforehand what the ESC will be and can build that cost into their viability calculations before making the application.
(d) **Defendable.** The policy is based on sound engineering principles, has been the subject of extensive research and consultation, is valid in law, is aligned with national standards and is therefore defendable.
(e) **Efficiency.** The policy is transparent, easily checked and easily applied. There are no extra or hidden costs involved in implementing the policy, to either the applicant or the Council.

Applicability

The Engineering Service Contribution will be uniformly applied based on this policy and the formula described below. The Contribution applies whenever a land use change is granted, regardless of the legislation or method used by the applicant to apply for the change.

15.6 Roads and Stormwater

The current modelling for both the roads and stormwater network was based on the land use model employed by the City. The networks currently reflect the user demand and the DC's levied is an accurate reflection of the new user impact. With the anticipated recalculation of the DC's in the next 2 years it is imperative that the master planning of the networks is in place. This will require the stormwater network to be refined and updated to be ready for the next recalculation.

Currently the road network modelling through the EMME 4 model is continuously updated for the changing land use scenarios, but the stormwater modelling requires significant expansion to coincide with the next recalculation. The principles as encompassed in the policy do not require any changes and is a fair reflection of the actual user cost at this stage. The unit cost of the services is adjusted annually with the construction price adjustment factor obtained from STATSSA and no further adjustment is required in the interim.

15.7 Determination of the Contribution

In determining the contribution for roads, the following formula is used:

ESC roads = (new – existing) Trips * Distance / Lane Capacity * Cost of a lane.

Added to this is a contribution towards the strength component if the road must be strengthened due to heavy vehicles generated by the development; plus, a proportion of the cost if a boundary road (i.e. an access street (Class 4 and 5) which is not an internal street) is to be provided on the boundary of the development.

In applying the formula, the following is relevant:

i. **Trips**: The number of trips is determined by multiplying the proposed development size and type by the trip generation rate, less any existing land use rights on the site, multiplied by that trip generation rate. The trip generation rates are based on Average Annual Daily Traffic converted back to an equivalent hourly rate to account for the total impact on the road network and not merely the impact during peak hours. The trip generation rates are provided in TMH17 **South African Trip Data Manual**, September 2012

2. (a copy of which is attached to the Implementation Manual). These are the latest and most accurate trip generation rates available. This policy is based on these national rates, which have been adjusted to local circumstances as provided for in the policy. The Municipality will review these rates from time to time.
3. **Distance** is the distance travelled on Municipality of Mogale, owned mobility roads (Class 1, 2 and 3). The distance excludes travel on access streets (Class 4 and 5) as these streets are provided as internal streets at no cost to the Municipality. The distance also excludes national and provincial roads, as these are provided by other authorities at no cost to the Municipality. The distance on mobility roads is divided by two to account for the fact that the origin of the trip will pay for half the trip and the destination for the other half. The distance is provided in TMH17 **South African Trip Data Manual**, September 2012.

i. **Lane capacity** is the service flow rate (veh/hr/lane). This figure is provided in TMH17 **South African Trip Data Manual**, September 2012.

ii. **Cost per lane** is the cost of providing the land and constructing one lane kilometre of Municipality of Mogale mobility arterial road. The cost is comprehensive providing for all the road services defined in above. Again these figures are provided in TMH17 **South African Trip Data Manual**, September 2012.

15.8 Applying the Engineering Services Contribution

1) The municipality is responsible for providing a master plan to applicants indicating the development framework and the arterial road network required to serve the region or area. If the municipality is not able to provide a master plan for the area, the applicant can offer to pay for the master plan and any modelling required. This master plan is to be prepared under the direction and to the satisfaction of the municipality;
2) The following process must be followed by applicants:

(a) As part of the application, the applicant must indicate all new roads and road upgrading required, whether they comply with the master plan for the area, which roads are internal, boundary or external and the road authority (municipal, provincial, national or private), to the satisfaction of the municipality;

(b) The applicant will be given the opportunity to provide the external and boundary road upgrading indicated at his/her cost that fall within Municipality of Mogale responsibility. Improvements on bordering municipal, provincial or national roads, should be agreed by those authorities. This cost can include land, professional fees, and doing the construction itself;

(c) The Municipality can, in its sole discretion, accept the offer(s) above and agree to offset the costs incurred by the developer on external services against the ESC. The costs offset must be proven actual costs incurred by the applicant.

(d) In the event that the applicant offers to construct services on roads not owned by the Municipality of Mogale local municipality, but owned by bordering municipal, provincial or national road authorities and the Municipality of Mogale is in favour of such construction because it is in the interests of the community, then there must be an agreement with the relevant authority in terms of inter-governmental co-operation legislation and may grant the applicant a rebate on the contribution required up to the value of the construction undertaken, but not exceeding the Engineering Service Contributions for Roads and Stormwater;

(e) The Municipality will favour applications by the developer to provide the required “external” infrastructure and will not unreasonably withhold permission.

In the event that the Municipality agrees to the developer providing the infrastructure (and master plan if applicable), one of two events can occur:

(1) If the cost to the applicant is less than the ESC, the balance of the ESC must be paid to the Municipality of Mogale;

(2) If the cost to the applicant equals or exceeds the ESC, the applicant can decide:

(a) to absorb the cost in the interests of the development;

(b) to only provide infrastructure to the value of the ESC, in which case the City may have to refuse the application if it is to the detriment of existing developments;

15.9 Utilizing the Engineering Services Contribution (ESC)

The ESC for roads and stormwater will be used for providing roads and stormwater infrastructure as defined in this policy and not for any other purpose. Contributions paid to the Municipality will be transferred into ***Mogale city LM Account*** which has been established for this purpose.

(1) The ESC will be used where the need is greatest, considering:

(a) The cost to the applicant for undertaking the master plan on behalf of the Municipality, if applicable;
(b) The cost of land provided by the applicant for external roads and stormwater;
(c) The cost to the applicant of increasing the size of internal roads and stormwater to serve other developments at the behest of the municipality;
(d) The cost to the applicant of providing external services.

(2) Funds in the *Contribution Account* will be utilized in the impacted area of the development, considering:

(a) contributions received for specific roads, such as boundary roads;
(b) the costs of increasing the size of internal services where the Municipality has instructed the applicant to do so;
(c) the cost over and above the ESC spent by the applicant on external roads where an Engineering Services Agreement has made provision for this amount to roll over into another associated development;

15.10 Open spaces and parks

The Municipal Council hereby, in terms of Section 13 of the Local Government: Municipal Systems Act 32 of 2000 and Section 84(1)(p) of Local Government: Municipal Structures Act, 117 of 1998 publishes the By-Laws set forth hereinafter, which have been approved by the Council in terms of Sections 11 and 12 of the said Act.

15.11 Terms and abbreviations:

(1) In these By-Laws, unless the context otherwise indicates, the terms and abbreviations used will be interpreted as follows:

(2) Bio-Diversity- means that the variability among living organisms from all sources including, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part and also includes diversity within species and while between species, and of ecosystems.

(3) Bio-Diversity Reserve- Refers to any portion of land that has been set aside by legal process for the management and protection of its Bio-Diversity.

(4) Environmental Management department- The relevant department within the Mogale City Local Municipality that is responsible for managing all environmentally related functions in conjunction with relevant departments including Urban Greening.

(5) Local Economic Development department- The relevant department within the Mogale City Local Municipality that is responsible for managing all town planning, building control and economic development functions in conjunction with other departments.

(6) Environmental Management Framework- Refers to a set of Geographic Information System based data sets that informs decision making about the environmental status and sensitivity of an area with reference to geology, Veld types, ridges, hydrology, bio-diversity etc.

(7) Fee- will mean a fee determined by the Municipality in terms of its Tariff By-Law in respect of any matter dealt with in this By-Law;

(8) Garden/Landscape- In this context will refer to a designated area for the cultivation of lawns, trees, shrubs, perennials and annuals in an organized, functional and aesthetic manner. A garden/landscape may include hard structures and surfaces such as footpaths that are purposefully designed to allow water to penetrate the area in which it is placed and will not sterilize the soils on which it is placed.

(9) GDACE- Gauteng Department of Agriculture, Conservation and Environment that is the relevant authority in terms or Environmental Legislation.

(10) (ISC) Impermeable Surface Coverage- Refers to the total surface area in a development which is covered by material impervious to water, which largely contributes to surface water runoff and storm water generation. This will include but not be limited to roof tiles, corrugated metal sheets, fibreglass sheets, polycarbonate sheets, glass, paving, concrete and tarmac. ISC can also be referred to as the footprint of such development, which for the purposes of this By-Law excludes gardens.

(11) Landscape Architect- Refers to a professional practising in the sciences for the built environment and registered with the South African Council for Landscape Architects (SACLAP)

(12) Landscape Development Plan- Refers to a two and three-dimensional plans illustrating the proposed layout of the natural landscape through soft and hard elements, which includes site or base plans, perspective drawings and Master plans.

(13) Municipal Open Space System- Refers to the network of public and private open spaces within the Municipal area captured as a data set in the Municipality's Geographic Information System. Also abbreviated as MOSS.

(14) Municipality- Refers to Mogale City Local Municipality or abbreviated as MCLM.

(15) Natural open space- The remaining undisturbed natural and undeveloped areas within the urban edge. They are the areas that contain the core terrestrial, freshwater, estuarine and marine ecosystems. These ecosystems include land cover types such as grasslands, forests, beaches, estuaries, rivers, wetlands, etc.

(16) Private Open Space- Refers to open space on private land, which is set aside for greening and or conservation and or recreation purposes and is specifically zoned as private open space. Private open space is not generally accessible to the public.

(17) Public Open Space- Refers to erven that functions as open spaces and is specifically zoned as Park, Public Open Space, Agriculture or Undetermined to which the general public have access without restriction. This may include various park system classifications.

(18) Environmental Department- The municipal unit responsible for parks management and urban greening as described in the context of this By-Law.

(19) Sustainability- A desirable level of balance between the environment and human needs where consumption or use is equal or less than replenishment and does not compromise the ability of future generations to meet their own needs.

(20) Tree Ring- Refers to a concrete ring that serves as kerbing around the base of a tree which defines a small root zone space for the tree where water can penetrate and soil gasses can exchange freely.

(21) Urban Greening- Refers to a wide range of urban development actions that aim to facilitate a sustainable relationship between urban dwellers and their environment.

(22) Urban Greening Strategy- Refers to a strategy document developed for Mogale City Local Municipality in which an action plan for the facilitation of urban greening in the Municipality is presented. The Mayoral Committee approved this strategy document on 24 February 2005.

(23) Urban Open Space- Any human made or legally designated places and areas within the Urban Edge that are developed for community use. They include parks, sports fields, agricultural fields, streets, town squares, road reserves, servitudes for services such as electricity transmission lines, dams, private gardens, etc."

(24) Visual Impact-Refers to the visible impact a development has on the aesthetics of the environment.

(25) Visual Impact Assessment-Refers to the study of the visual impact a development has on the environment and makes recommendations to mitigate such impacts.

(26) Visual Pollution-Refers to developments or components of developments and/or the urban environment that forms clutter and/or visual confusion and/or detracts from the predominant sense of

place of the existing environment and/or detracts from the natural beauty of the environment and/or defaces natural features in the environment.

(27) These By-Laws emanate from the Urban Greening Strategy and should therefore be read and interpreted with this strategy document as reference.

15.12 Application of By-Laws

(1) These By-laws apply to every private individual, organization, company or any other legal entity.
(2) These By-laws are binding on the State.

15.13 Purpose of By-laws

The purpose of these By-laws is to provide in the area of Mogale City Local Municipality and in conjunction with other applicable legislation, an effective legal and administrative framework that also complies with national and provincial legislation –

(1) to create a green environment with instructions to all developers of property
(2) to establish green areas;
(3) to create or maintain corridors for the movement of living organisms such as smaller and larger animals, plants and reptiles;
(4) to preserve and protect existing trees and other natural features;
(5) to protect the existing biodiversity;
(6) to encourage the rehabilitation of areas to allow the biodiversity in that area to establish itself;
(7) to achieve an acceptable visual result;
(8) to structure the future use of the area being developed to be compatible to the aims set out above; in each development in a manner that will allow each development to link to similar areas or potential areas in neighbouring developments.

(a) to achieve this aim, natural features such as water courses, existing or degraded wetlands, areas containing clumps of trees, clumps of natural growth, trees, rocky outcrops, ridges, actual or potential areas that will allow or did allow the development or protection of biodiversity and other similar areas should be introduced in Landscape Development Plans as measures

(i) so that green areas and corridors are created,

(ii) the natural component of the development is protected, and its biodiversity enhanced,

(iii) hard structures and any proposed construction be planned around the natural areas, must complement them, must form an integral part of the development with the green features and be developed in such a manner that the green features are protected,

(iv) that projects are fully planned before such a development is undertaken and are included in the draft or final contracts entered into with all contractors and subcontractors on the project and be subjected if not implemented to appropriate penalty clauses,

(v) must ensure that the social, financial, economic and environmental liability of the development is not prejudiced.

(b) to ensure that the way in which the Municipality controls, manages and develops its municipal region is done in an environmentally sustainable way, and is in the long-term upholding the interests of the whole community of Mogale Municipality, including future generations;

(c) to give guidance to all stakeholders involved in the planning, development and management of open spaces and other green infrastructure; and

(d) which clearly defines the rights and obligations of the public in relation to urban greening and sustainable development.

15.14 Targeted property developments

(1) The submission of Landscape Development Plans to the department of Integrated Environmental Management will be compulsory for any residential and business development whether developed as a single unit or sub-divided portions, except for individual residential erven smaller than 2000 square

metres in extent and that the accepted conclusions in the Landscape Development Plan form part of and is integrated into the final development plans submitted to the Municipality for approval.

(2) The Department of Integrated Environmental Management may exempt an applicant from submission of a Landscape Development Plan if it is in the opinion of the Department is not feasible, or if a written motivation for exemption is submitted. The decision of the Department will be final in this regard.

(3) A fee will be payable by the applicant for the submission and consideration of Landscape Development Plans, as determined in the Municipality's Tariff By-Law.

15.15 Scope of Landscape Development Plans

The Landscape Development Plans will reflect the following information:

(1) Basic Information:

(a) Scale (1:100, 1:200, 1:250; 1:500 as norms)

(b) North point indicated.

(c) Erf Number of site, suburb and street names clearly indicated.

(d) Project Name

(e) Site Boundaries and their dimensions

(f) The name of the Architect, Engineer, Surveyor or company where plan/base was obtained.

(g) Entrance and windows of the ground floor of the development.

(h) Contours at 1-meter intervals for plans less than 1:250 scale and 5-meter intervals for plans larger than 1:250 scale.

(i) The 1:50 and 1:100-year flood lines where identified by an engineer.

(2) Hard Structures and Infrastructure Information:

(a) Boundary treatment indicating material, finish, height, and elevation.

(b) Building lines

(c) Servitudes including road reserves.

(d) Existing buildings and other structures that are being conserved if applicable

(e) Show phasing and proposed subdivision if applicable.

(f) Hard Structures and surfaces area coverage, properties and layout.

(g) Vehicular and pedestrian access to the site.

(h) Provision of electricity HT/LT chamber, water connection, storm water pipes, and sewer lines and pumping stations.

(i) Refuse area indicating whether it is covered or not and measures preventing spillage and drainage from the refuse area.

(j) Surface water runoff direction, channelling, calming, discharging and seepage /retention areas and infrastructure.

(k) Type of developments on surrounding areas indicated (Indicated as either open space, business, residential)

(l) Details of retaining walls locality, elevation and finish.

(m) Elevations including vegetation and boundary treatment

(3) Landscaping Information:

(a) Location of existing trees and large shrubs, presented in a site plan, indicating whether they will be retained or removed.

(b) Location and size of natural rock outcrops, ridges and any other geological feature.

(c) Location and size of any natural or manmade water body which will include but not be limited to wetlands, rivers dams, ponds or pools whether permanent seasonal or temporary.

(d) Plant selection indicating species, quantities and sizes in the planting plan. This will constitute a planting plan, which will be provided as an addendum to the landscape development plan.

(e) Planting method and soil preparation as technical specification.

(f) Irrigation system design, water source and volume distribution, if applicable and measures to reduce water consumption.

15.16 Reviewing of Landscape Development Plans:

(1) The Department of Parks Management will review submitted Landscape Development Plans based on the following criteria:

(a) Plant species selection with reference to Conservation of Agricultural Resources Act, Act 43 of 1983, bio-diversity preservation (National Bio-Diversity Act, Act 10 of 2004) and suitability of location.
(b) Effective use of existing natural resources and other material for optimum impact and functionality.
(c) Soil retaining and preservation measures to prevent erosion.
(d) Surface water runoff management to reduce impact on engineering infrastructure, and river systems in consultation with the Department of Roads and Storm Water.
(e) Irrigation water requirements of design.
(f) Compliance of landscape development plans to the requirements of the Record of Decision of GDACE and Environmental Management Plans for the development in question.
(g) Extent to which the landscape development addresses visual pollution and visual impacts the property development has. The Municipality may request a specific Visual Impact Assessment as addendum to the Landscape Development Plans if it is of the opinion that the landscape development plan does not optimally address the areas of visual pollution or if the nature of such property development has significant visual impacts on the surrounding areas and does not adhere to the general sense of place of the environment.
(h) The Department of Local Economic Development will review submitted Landscape Development Plans based on the following criteria:

(i) Compliance to National Building Regulations.

(2) The Department of Infrastructure Management will review submitted Landscape Development Plans based on the following criteria:

(a) Compliance to Engineering Standards and conditions set by the Municipality for on-site storm water infrastructure and surface water runoff management.

15.17 Additional Requirements

(1) Plans will only be drafted and signed off by Professional Landscape Architects registered with the South African Council for Landscape Architectural Professions (SACLAP) in terms of the South African Council of Landscape Architect Professions Act (Act 45 of 2000)
(2) The Landscape Architect will provide his registration details on submission of the plans.
(3) The Landscape Architect will provide a summary document of his brief, which will include the design concept, outlining technical specifications, construction work and materials, and design criteria.
(4) The plans will be submitted in duplicate and folded to A4 size, comprising one colour and one monochrome of the landscape development plan, planting plan and other relevant supporting documentation.
(5) Specialized engineering infrastructure must be designed in consultation with a registered Civil Engineer.
(6) Approval of the landscape development plan does not constitute final approval of the services infrastructure, and a final approval is still required from the Municipality's Department of Infrastructure.

15.18 Systems & Procedures

(1) The Department Integrated Environmental Management will determine whether an applicant needs to submit a Landscape Development Plan during review of any consent use application and or rezoning and or sub-division and or township establishment and or removal of restrictive conditions application/s. The Landscape Development Plans are due with the submission of the site development plans.
(2) The Department of Local Economic Development will inform any property developer where consent use application and or rezoning and or sub-division and or township establishment and or removal of restrictive conditions has already been approved but no building plans or site development plans has been submitted yet, of the Municipality's requirement for the submission of Landscape Development Plans in terms of section 1.1. The Landscape Development Plans are due with the submission of the site development plans.
(3) A letter will be issued to the applicant stating the Municipality's requirements for Landscape Development Plans in terms of this By-Law.

(4) The Landscape Development Plans, folded to A4 size, will be submitted with the building plans and/or site development plans to the Department of Local Economic Development.

(5) The Department of Local Economic Development will, once it has determined that the hard infrastructure complies with National Building Regulations, forward the Landscape Development Plans to the Department of Integrated Environmental Management within twenty working days of receipt thereof. The Director's office will then forward such landscape development plans to the department of Parks Management.

(6) The Department of Parks Management will review the Landscape Development Plans within 30 working days and inform the landscape architect of any amendments required. The landscape architect will in turn inform his client of the required changes. The Department of Parks Management will in the 30-day review period consult with the Department of Roads & Storm Water with regard to the compliance of the design to engineering standards and conditions with specific reference to storm water infrastructure and surface water management.

(7) The Landscape Development Plans will be approved once the necessary amendments have been made and the Department of Parks Management is satisfied that all the requirements of the Department Integrated Environmental Management, Department Local Economic Development, Department Infrastructure Management and of the By-Law are met.

(8) The approved plans will be forwarded back to the Department of Local Economic Development that will in turn inform the applicant.

(9) The Department of Local Economic development will withhold the approval of building plans and or site development plans if the applicant has failed to submit Landscape Development Plans in terms of section

(10) The Municipality will withhold the issuing of occupation certificates or the signing of a Section 101 certificate; whichever is applicable, if the applicant has failed to adhere to the requirements of the Municipality in terms of this By-Law.

15.19 Provision & Preservation of trees on Private Property Developments

(1) Provision of trees on parking lots and pedestrian walkways

(a) Any property developer providing more than four parking bays per property, will plant trees at a density of one tree for every four parking bays.
(b) Trees will be no smaller than 2 meters in height from at least a 50ℓ container.
(c) Trees in lawn and paved areas will be provided with a concrete tree ring of no less than 1 meter in diameter and will be covered with a grid if such tree is closer than three meters from a pedestrian walkway.
(d) The Municipality may specify the tree species if it is of the opinion that the property developer's selection is not suitable in terms of the provisions of the Conservation of Agricultural Resources Act, Act 43 of 1983 and the National Bio-Diversity Act, Act 10 of 2004.
(e) Property owners within private residential estates will only plant suitable indigenous tree species on their sidewalks, which will be determined by the Department of Parks Management. The estate manager will distribute a list of such suitable trees species to every new property owner within such residential estate.
(f) The estate manager will instruct property owners to remove tree species other than those specified on the prescribed list and upon failure to do so remove such trees at the cost of the property owner.

(2) Provision of trees on private roads

(a) Trees will be planted at an interval of 15 meters on both sides of any private road longer than 30 meters of a property development, unless otherwise indicated by an approved Landscape Development Plan.

(3) Preservation of existing trees and other significant flora on properties prior to, during and after development:

(a) Any applicant contemplated under section 1.1 will submit as an addendum to a Landscape Development Plan a site/base plan indicating:

(i) All existing trees and shrubs or groups of trees and shrubs.
(ii) Their location in relation to the proposed development.

(iii) If and how the trees and shrubs will be preserved.

(iv) How this natural features will be integrated into the proposed development plan

(b) The Department of Parks Management may enforce the preservation of certain trees on the site if it is of the opinion that such tree/s are unique and has become a distinct landmark. In such a case the onus will be on the developer to propose alternative site development plans to accommodate such trees.

(c) The developer may lodge an objection to the Director of Integrated Environmental Management regarding the decision to protect certain trees on site if he can provide sufficient substantiation that it would not be feasible to preserve the tree/s. If no alternative to removal of the tree/s can be found, a penalty fee payable to the Municipality will apply for each tree, (otherwise destined for preservation) which needs to be removed. Such charge is based on the standard tree valuation method used by the Municipality. A fine of up to R5000 per tree plus the valuation of the tree/s removed is payable by developers who remove trees without the due authorization of the Municipality.

(d) The Department of Parks Management may, in consultation with the landscape architect, determine the most suitable methods for preservation of the trees and shrubs on site prior to, during and after construction, which must be adhered to by the developer.

(4) Allocation of Private Open Space

4.1 All residential property developments or townships in excess of 1 ha in extent will show in their plans submitted for approval the use of natural areas in order to add value to the development and to the area, which area will be a minimum of 15% of the property in order to be zoned and used as private open space. Such zoned private open spaces will individually not be less than 1500 square metres in extent. Developments smaller than 1 ha in extent, if it cannot contribute a partial or complete beneficial use up to 15% of natural resources, shall pay a park contribution fee as determined by the Municipality.

4.2 All business estates including office parks and industrial parks in excess of 1 ha in extent will show in their plans submitted for approval the use of natural areas in order to add value to the development and to the area, which area will be a minimum of 10% of the property which will be zoned and used as private open space. Such zoned private open spaces will individually not be less than 1000 square metres in extent. Developments smaller than 1 ha in extent, if it cannot contribute 10% of its property for the use of natural areas, shall pay a park contribution fee as determined by the Municipality.

4.3 A minimum of 75% of the allocated private open spaces will be interconnected, forming a functional network of green spaces. Such open space connectivity may only be intersected by road infrastructure.

4.4 This private open space will exclusively be used for greening and/or conservation and recreation purposes, dependant on the provisions of the Record of Decision of the Gauteng Department of Agriculture, Conservation and Environment, the Environmental Management Plan and any other binding conditions of establishment laid down.

4.5 Private Open Spaces within any development will be registered as ecological servitudes as part of the conditions of establishment of the township and relevant title deeds to preserve such open spaces and natural areas from any future development. Any amendment to an ecological servitude will require authorization from the Provincial Department of Agriculture, Conservation and Environment.

(5) Allocation of Public Open Space

5.1 The Municipality will ensure, through its Department of Local Economic Development and in consultation with the Department of Integrated Environmental Management, that in the planning of all new Municipal Townships, natural areas must be used in a way that will add value to the development and to the area, which area will be a minimum of 20% of the property set aside for public open space.

5.2 The Department of Integrated Environmental Management will, in consultation with the Department of Local Economic Development, determine the location, layout and extent of such open space systems. The Municipality's Environmental Management Framework, MOSS, and any other relevant and applicable environmental policy and legislative framework will inform the identification of suitable open spaces areas.

5.3 The Department of Integrated Environmental Management will determine which open space erven will be reserved for developed parks and recreation facilities, natural open spaces and Bio-Diversity Reserve.

5.4 A minimum of 75% of the allocated public open spaces will be interconnected, forming a functional network of green spaces. Such open space connectivity may only be intersected by road infrastructure.

5.5 The Municipality will, as far as is reasonably possible, ensure that additional land that can add to the biodiversity protection of the area, can enhance the upgrading of natural features, can create corridors for wild life, can be beneficially used by the people and can maximise the value of natural features is purchased for public open space systems.

5.6 The Department of Local Economic Development will ensure that the allocation of public open spaces is captured in its Precinct Plans and any other relevant town planning processes, as directed by this By-Law.

(6) Greening within Low-Cost Housing Projects

6.1 All contractors appointed for the development of low-cost housing will plant one tree per house, which will be for the account of the contractor. This requirement will be a standard clause in tender specifications for low cost housing projects, whether the Municipality, the Provincial or National Department responsible for housing or its duly appointed representative administrates such tender process.

6.2 During the planning phase for low cost housing projects the following must be ensured:

(i) The house will be placed in such a manner to ensure that sufficient outdoor space is available for gardening purposes, which may often include household food gardens

(ii) Households must be able to access grey water effluent for gardening purposes.

(iii) Sidewalks must be a minimum width of 3 meters to allow for the planting of street trees.

(iv) Landscape development plans will be submitted for each low-cost housing project and its implementation will form part of the total project cost for such project.

(7) Erosion & Flood Control

7.1 In order to minimize the impact of storm water generated within urban areas on the environment, the Department of Integrated Environmental Management will regulate, in consultation with the Department of Local Economic Development and Department of Infrastructure the following parameters:

(i) The density of residential developments measured and limited to the number of residential units per Ha.

(ii) The maximum percentage of the property to be covered by impermeable surfaces, otherwise referred to as the development footprint.

(iii) The surface water runoff channelling, retaining, dissipating, seepage and discharging measures to be implemented on the development, with reference to the landscape development plans for such developments.

7.2 The Department of Integrated Environmental Management will determine these parameters for each township using the following environmental variables:

(i) Presence of ridges and its protection status.

(ii) Status, capacity and location of rivers, wetlands, dams, open spaces and water catchments likely to be affected by surface water runoff from the property. This will be verified by specialist studies where required by the Municipality.

(iii) Gradient of property affecting surface water runoff velocity and volume.

(iv) Presence or absence of engineering infrastructure to receive and channel surface water runoff.

(v) Current developed state and density of the surrounding areas the proposed development is situated in and its current cumulative impact on the environment.

(vi) Geology and soil conditions of the area.

(vii) State and presence of ecological reserve for primary water catchment and riverine systems.

7.3 The Department of Integrated Environmental Management will annually submit these parameters to the Mayoral Committee for approval, which will serve as an addendum to the Environmental Management Framework of the Municipality.

7.4 These parameters will be binding on all residential, business and industrial property developments.

(8) Wetlands & Bio-diversity Preservation

8.1 Wetland preservation

8.1.1 Infilling, excavation, drainage and hardened surfaces (including buildings and asphalt) will not be located in any of the wetland zones (i.e. permanent, seasonal or temporary).

8.1.2 Hardened surfaces will be located at least 50 m outside of the outer boundary of the seasonal/permanent wetland zone (Note: if the width of the outer temporary zone is greater than 50 m and section 8.1.1 above is met then this requirement would automatically be met).

8.1.3 Extension to the buffer in localized areas will also be included to minimize the impact of concentrated storm water run-off into the wetland. Storm water outflows will not enter directly into the wetland. A predominantly vegetated buffer area at least 20 m wide will be included between the storm water outflow and the outer boundary of the wetland, with mechanisms for dissipating water energy and spreading and

slowing water flow and preventing erosion. This buffer is particularly important when the catchment feeding the storm water drain comprises predominantly hardened surfaces.

8.1.4 Where the wetland has a particularly high biodiversity value, further buffering and linkages to other natural areas will be required, the width of which will depend on the specific requirements of the biota. In such cases, an environmental specialist will be appointed to determine the appropriate buffer and linkages

8.1.5 Roads will not be allowed to traverse a wetland. Thus, an alternative route will be sought if a wetland falls within the planned path of a road. If no viable alternative route exists, then it will be ensured that the road has minimal effect on the flow of water through the wetland (e.g. by using a bridge or box culverts rather than pipes). No excavation of the wetland or any stream passing through the wetland (i.e. lowering of the base level) will be permitted. The developer will ensure that an adequate buffer is present to deal with run-off from the road (see section 8.1.3 above). Disturbance of the wetland will be minimal at, and adjacent to, the road-crossing site (see section 8.1.8).

8.1.6 Where a road runs alongside a wetland and it intercepts natural hill slope runoff into the wetland, the road will be set back from the boundary of the wetland by at least 20 m and feed-off points will be included at frequent intervals along the road (at least every 100 m) and the outflows of these should conform to the requirements of the storm water outflows (given in section 8.1.2 above).

8.1.7 Where development (e.g. hardened surfaces, infilling and drainage) in a wetland is unavoidable then the resulting impacts must be mitigated. In many cases, off-site mitigation may be the only means of achieving satisfactory mitigation.

8.1.8 Stringent controls will be put in place to prevent any unnecessary disturbance or compaction of wetland soils. Where any disturbance of the soil takes place in a wetland, these areas must be stabilized and any alien plants which establishes itself should be cleared and follow up control undertaken for at least 3 years thereafter. Where compaction results, remedial measures must be taken (e.g. “ripping” the affected area).

8.1.9 Where the infiltration rate of a wetland’s catchment is naturally high and the wetland is maintained predominantly by groundwater input, adequate surface for infiltration will be ensured. In such cases,

specialist input will be obtained to determine this. Where the level of development is very high, reduced surface runoff will be enforced through mechanisms such as porous pavements (see section 6). (The inclusion of these mechanisms in areas dominated by hardened surfaces is generally sound catchment management practice, and will be encouraged widely as per section 7).

8.1.10 The Municipality will identify and delineate wetlands contained in its area of jurisdiction (according to the wetland inventory guidelines developed by National Department of Environmental Affairs and Tourism). Mapping will be undertaken at a minimum scale of 1: 50 000. All mapped wetlands will be protected and will be managed as per the provisions of this By-Law.

8.1.11 The developer will in addition to the provision of section 8.1.10, identify and delineate all wetlands in the project area at scale of 1:10 000 or smaller, depending on the proposed development. All wetlands in a development site must to be mapped as part of the Site Development Plan and Landscape Development Plan or Scoping Report and EIA procedures, and the impacts of a development on any wetlands present must be assessed.

8.1.12 Any development must comply with the requirements of the National Water Act. Through the concept of the "ecological reserve", this act makes provision for ensuring water of acceptable quantity and quality for maintaining the ecological functioning of wetlands and river systems.

a. Bio-Diversity Preservation

8.2.1 The Municipality may in consultation with the Gauteng Department of Agriculture, Conservation and Environment, National Department of Environmental Affairs and Tourism and relevant legislation, declare any portion of land as a Bio-Diversity Reserve, subject to section 8.2.2, if its unique natural status will contribute to bio-diversity preservation. Such declaration will be subject to the provisions of the National Bio-Diversity Act, Act 10 of 2004 and the National Forests Act, Act 84 of 1998 and the National Environmental Management: Protected Areas Act, Act 57 of 2003.

8.2.2 The Municipality will announce its intention to declare such portion of land as a Bio-Diversity Reserve through an advertisement in any local newspaper. It will also place visible notice/s on the proposed site of the

reserve for at least thirty days. The Municipality will allow a window period of sixty days from the date of placement of the notices for public comments and objections towards the establishment of the proposed reserve. The Gauteng Provincial Department of Agriculture, Conservation and Environment will hear any objections to the establishment of such reserve and make an appropriate ruling in this regard as per its own defined systems and procedures.

8.2.3 If no objections have been received and if all objections have been resolved according to section 8.2.2, the Municipality will, in addition to the regulations of relevant legislation, declare the portion of land as a Bio-Diversity Reserve through a Council Resolution and publish such notice in the Government Gazette.

8.2.4 The Municipality may fence such reserve off and restrict access to ensure the preservation of the reserve's bio-diversity. The reserve may be used for controlled recreation and leisure activities within the guidelines determined by the Department of Integrated Environmental Management.

8.2.5 Development of recreational facilities and infrastructure in a Bio-Diversity Reserve will be subject to approval from GDACE.

8.2.6 The Municipality may furthermore institute a buffer zone, which will be determined through a research and consultative process, around such reserve in which certain restrictions in terms of type and density of developments are established. Such restrictions will be published as addendum to the Council Resolution and Government Gazette Notice contemplated under section 8.2.3.

8.2.7 The Municipality may place such reserve under private management through a Public Private Partnership subject to the provisions of the Municipal Finance Management Act. Act 56 of 2003, in order to optimise its resources.

(9) Garden/Landscape Advertising

9.1 The Municipality may offer its traffic islands and gardens for the placement of semi-permanent advertisements for the purposes of funding Urban Greening Initiatives and maintenance thereof.

9.2 These advertisements will:

i) Not obstruct traffic view

ii) Not obstruct movement of pedestrians

iii) Not cause visual pollution or appear to be unsightly

iv) Will be tastefully low key, as will be defined by the Municipality.

v) Will not unrightfully interfere with other existing advertising rights.

9.3 These advertisements will also conform to the Municipality's Outdoor Advertising Policy.

9.4 Advertising space will be allocated on a first come first serve basis at a tariff determined in the Municipality's Tariff By-Law.

9.5 Applicants will submit a graphic design of the proposed advertisement, which will be subject to the approval of the Department of Integrated Environmental Management, Department of Marketing, Department of Local Economic Development, and Department of Public Safety.

9.6 The applicant will erect his advertisement on the allocated position once the application has been approved.

9.7 The lease will be valid for a period of 12 months after which the applicant can request for renewal.

9.8 Should a leaseholder prefer not to renew his lease; the advertising location will become available to the next applicant.

9.9 A penalty, as determined in the Municipality's Tariff By-Law will be payable to any leaseholder who wishes to exit such lease prior to its expiry date.

9.10 No other advertisement may be placed on such traffic island or garden except for temporary lamp pole advertisements. Offenders may be liable to a fine.

9.11 The Municipality may waive the mentioned tariff partly or in full should the applicant upgrade and develop the area and maintains such garden/landscape at its own cost to the satisfaction of the Department of Integrated Environmental Management.

15.20 Penalties

Any person who contravenes any of the provisions of these By-Laws will be guilty of an offence and on conviction liable to a fine calculated with the formula provided for parks and open space or in default of payment. This fine is not applicable to the fine contemplated under 3.3.3 of this By-Law.

16 Costing models policy

16.1 Roads and Stormwater

In determining the contribution for roads, the following formula is used:

ESC roads = (new – existing) Trips * Distance / Lane Capacity * Cost of a lane.

(1) Added to this is a contribution towards the strength component if the road must be strengthened due to heavy vehicles generated by the development; plus, a proportion of the cost if a boundary road (i.e. an access street (Class 4 and 5) which is not an internal street) is to be provided on the boundary of the development.

(2) In applying the formula, the following is relevant:

(a) **Trips:** The number of trips is determined by multiplying the proposed development size and type by the trip generation rate, less any existing land use rights on the site, multiplied by that trip generation rate. The trip generation rates are based on Average Annual Daily Traffic converted back to an equivalent hourly rate to account for the total impact on the road network and not merely the impact during peak hours. The trip generation rates are provided in TMH17 South African Trip Data Manual, September 2012

(3) (a copy of which is attached to the Implementation Manual). These are the latest and most accurate trip generation rates available. This policy is based on these national rates, which have been adjusted to local circumstances as provided for in the policy. The Municipality will review these rates from time to time.

(4) Distance is the distance travelled on Municipality of Mogale, owned mobility roads (Class 1, 2 and 3). The distance excludes travel on access streets (Class 4 and 5) as these streets are provided as internal streets at no cost to the Municipality. The distance also excludes national and provincial roads, as these are provided by other authorities at no cost to the Municipality. The distance on mobility roads is divided by two to account for the fact that the origin of the trip will pay for half the trip and the destination for the other half. The distance is provided in TMH17 South African Trip Data Manual, September 2012.

(i) **Lane capacity is the service flow rate (veh/hr/lane)**. This figure is provided in TMH17 South African Trip Data Manual, September 2012.

(ii) **Cost per lane is the cost of providing the land and constructing one lane kilometre of Municipality of Mogale mobility arterial road**. The cost is comprehensive providing for all the road services defined in above. Again, these figures are provided in TMH17 South African Trip Data Manual, September 2012.

(iii) Applying the Engineering Services Contribution

(5) The municipality is responsible for providing a master plan to applicants indicating the development framework and the arterial road network required to serve the region or area. If the municipality is not able to provide a master plan for the area, the applicant can offer to pay for the master plan and any modelling required. This master plan is to be prepared under the direction and to the satisfaction of the municipality;

(6) The following process must be followed by applicants:

(a) As part of the application, the applicant must indicate all new roads and road upgrading required, whether they comply with the master plan for the area, which roads are internal, boundary or external and the road authority (municipal, provincial, national or private), to the satisfaction of the municipality;

(b) The applicant will be given the opportunity to provide the external and boundary road upgrading indicated at his/her cost that fall within Municipality of Mogale responsibility. Improvements on bordering municipal, provincial or national roads, should be agreed by those authorities. This cost can include land, professional fees, and doing the construction itself;

(i) The Municipality can, in its sole discretion, accept the offer(s) above and agree to offset the costs incurred by the developer on external services against the ESC. The costs offset must be proven actual costs incurred by the applicant.

(ii) In the event that the applicant offers to construct services on roads not owned by the Mogale city local municipality, but owned by bordering municipal, provincial or national road authorities and the Municipality of Mogale is in favour of such construction because it is in the interests of the community, then there must be an agreement with the relevant authority in terms of inter-governmental co-operation legislation and may grant the applicant a rebate on the contribution required up to the value of the construction undertaken, but not exceeding the Engineering Service Contributions for Roads and Stormwater;

(iii) The Municipality will favour applications by the developer to provide the required "external" infrastructure and will not unreasonably withhold permission.

(7) In the event that the Municipality agrees to the developer providing the infrastructure (and master plan if applicable), one of two events can occur:

(1) If the cost to the applicant is less than the ESC, the balance of the ESC must be paid to the Municipality of Mogale;

(2) If the cost to the applicant equals or exceeds the ESC, the applicant can decide:

(a) to absorb the cost in the interests of the development;

(b) b.to only provide infrastructure to the value of the ESC, in which case the Municipality may have to refuse the application if it is to the detriment of existing developments;Utilizing the Engineering Services Contribution (ESC)

The ESC for roads and stormwater will be used for providing roads and stormwater infrastructure as defined in this policy and not for any other purpose. Contributions paid to the Municipality will be transferred into JRA's Road and Stormwater Contribution Account which has been established for this purpose.

(1) The ESC will be used where the need is greatest, considering:

(a) The cost to the applicant for undertaking the master plan on behalf of the Municipality, if applicable;

(b) The cost of land provided by the applicant for external roads and stormwater;

(c) The cost to the applicant of increasing the size of internal roads and stormwater to serve other developments at the behest of the municipality;

(d) The cost to the applicant of providing external services.

(2) Funds in the Contribution Account will be utilized in the impacted area of the development, considering:

(a) contributions received for specific roads, such as boundary roads;

(b) the costs of increasing the size of internal services where the Municipality has instructed the applicant to do so;

(c) the cost over and above the ESC spent by the applicant on external roads where an Engineering Services Agreement has made provision for this amount to roll over into another associated development;

16.2 Water and Sanitation

Development contribution for engineering services in respect of water supply shall be determined by means of estimating the cost of providing capacity for the supply, storage, lifting and conveyance of an additional annual average daily flow of 1 kℓ/d of water in the water supply system. The distinction between internal and external engineering services in respect of pipework in the existing and future water supply system is generally not clear. Internal engineering services generally have pipes of diameters equal to or less than 200 mm diameter. Pipes of 250 mm diameter could be required in larger development sites and for link engineering services. Nevertheless, such water mains could also be external engineering services. Water mains with diameters greater than 160 mm are generally external engineering services. Due to the uncertainty with respect to 160 mm diameter water mains, the benefit of the doubt is given to applicants. In this policy all water mains with diameters of 160 mm diameter and less are classified as internal engineering services for the purpose of calculating development contribution for engineering services. All water mains with diameters greater than 160 mm are classified as external engineering services for the purpose of calculating development contribution for engineering services.

With regards to the payments towards Bulk contribution of the below water and sewer infrastructure, the following applies:

To all developers intending on using bulk service contributions provided by the municipality, which may not comply to various circumstances of a physical link to the bulk infrastructure, but also refers to package plants. Whereby any built-in septic tank in rural and urban areas, which could not link to a bulk infrastructure link or chose to install the package plant, will comply to bulk contribution payments. This involves the payment of external services to drain the septic tank and would use municipal infrastructure to dispose of the waste. This constitutes to the below principals:

(a) The developer will pay for the external service used to dispose of waste from is implemented package plant, whereby considered to be “link infrastructure”

(b) Link infrastructure larger than the above parameters with diameter pipeline are still considered to be "link" whereas should be paid for by the developer.

(c) The developer is liable for bulk contributions services regardless if using municipal infrastructure.

(d) If bulk infrastructure is provided with future development, the developer could choose to link to the available infrastructure, if all bulk contributions was paid prior to the implementation of infrastructure.

(i) The developer is responsible for providing his/her own link infrastructure if connecting to the system, referring to the above statement

(ii) This does not apply to any developer that has not paid bulk contributions.

16.3 Water contribution

Water mains with diameters greater than 160 mm are generally external engineering services. Due to the uncertainty with respect to 160 mm diameter water mains, the benefit of the doubt is given to applicants. In this policy all water mains with diameters of 160 mm diameter and less are classified as internal engineering services for the purpose of calculating development contribution for engineering services. All water mains with diameters greater than 160 mm are classified as external engineering services for the purpose of calculating development contribution for engineering services.

Formula Development contribution = (cost per kℓ/d of system capacity) x (capacity in kℓ/d)

(Required by the change in capacity requirement) Explanation Term Description cost per kℓ/d of system capacity cost per kℓ/d of capacity of supply/treatment + cost per kℓ/d of capacity of water storage + cost per kℓ/d of capacity of pump stations + cost per kℓ/d of capacity of mains larger than 160 mm diameter + cost per kℓ/d of capacity of mains 160 mm diameter and smaller + cost of land per kℓ/d of capacity for external water supply services

Note: for township applications

cost per kℓ/d of capacity of mains 160 mm diameter and smaller is 0 (zero) as those mains represent internal engineering services capacity in kℓ/d required by the change in capacity requirement potential building floor area in m2 and/or the number of potential dwelling units applicable to the change in land use or development rights x capacity in kℓ/d required by each m2 and/or dwelling unit or the actual capacity required for a premise less the capacity previously agreed to by the municipality or for which an applicant paid a development contribution to the municipality

16.4 Sanitation contribution

With regards to sewer systems, sewerage mains with diameters greater than 250 mm are generally external engineering services. Due to the uncertainty with respect to 250 mm diameter sewerage mains, the benefit of the doubt is given to applicants. In this policy all water mains with diameters of 250 mm diameter and less are classified as internal engineering services for the purpose of calculating development contribution for engineering services. All water mains with diameters greater than 250 mm are classified as external engineering services for the purpose of calculating development contribution for engineering services.

Regarding the use of Package plants:
Package plants are pre-manufactured treatment facilities used to treat wastewater in small communities or on individual properties.

(1) How package plants should be dealt with regards to Bulk Contribution Charges:

(a) The applicant is responsible to pay a fee pre-determined by the Municipality with regards to the use of cities bulk infrastructure.
(b) The applicant is responsible for the cost of any external and internal service regarding the treatment and maintenance of her/his package plant.
(c) The applicant is responsible for any external service used to collect and discharge waste into municipal infrastructure.
(d) If Bulk infrastructure is provided after the package plant is installed:
(e) The applicant is responsible to pay for the provide bulk contribution infrastructure.
(f) The applicant is responsible to provide and pay for his own link as well as internal infrastructure.
(g) The municipality is not responsible to provide the following stated infrastructure (i) and (ii).

Formula Development contribution = (cost per kℓ/d of system capacity) x (capacity in kℓ/d required by the change in capacity requirement) + (additional capital cost of wastewater treatment works due to COD loading)

Explanation Term Description cost per kℓ/d of system capacity cost per kℓ/d of capacity of pump stations + cost per kℓ/d of capacity of sewers larger than 250 mm diameter + cost per kℓ/d of capacity of sewers 250 mm diameter and smaller + cost per kℓ/d of capacity of wastewater treatment works + cost of land per kℓ/d of capacity for external sewerage services

Note: for township applications -
cost per kℓ/d of capacity of mains 250 mm diameter and smaller is 0 (zero) as those mains represent internal engineering services
capacity in kℓ/d required by the change in capacity requirement
potential building floor area in m2 and/or the number of potential dwelling units applicable to the change in land use or development rights x
capacity in kℓ/d required by each m2 and/or dwelling unit or
the actual capacity required for a premise less the capacity previously agreed to by the municipality or for which an applicant paid a development contribution to the municipality

16.5 Electricity

Electricity Regulation Act, 4 of 2006 and the Electricity Regulation Amendment Act, 28 of 2007 A licence condition determined under section 15 relating to the setting or approval of prices, charges and tariffs and the regulation of revenues:

(1) must enable an efficient licensee to recover the full cost of its licensed activities, including a reasonable margin or return;

(2) must provide for or prescribe incentives for continued improvement of the technical and economic efficiency with which services are to be provided;

(3) in respect of electricity- NRS 034 Parts 1 to 3: Guidelines for the Provision of Electricity Distribution Networks in Residential Areas or the successor to NRS 034.

BASIS OF THE CALCULATION OF DEVELOPMENT CONTRIBUTION FOR ELECTRICITY WHEN CONNECTING AT DIFFERENT LEVELS IN THE NETWORK

NETWORK COMPONENT	CAPACITY OF COMPONENT IS BASED ON:	COST OF COMPONENT IS BASED ON CURRENT REPLACEMENT VALUE OF:	kVA LOADING ON NETWORK COMPONENT FOR AGREED MAX. DEMAND OF 1kVA FOR A CONSUMER SUPPLIED AT 33 kV 6,6	or 11 kV 400/231	V
1. Eskom supply Smaller of the	firm capacity of: Eskom's feeders into point of supply; or Eskom's firm transformer capacity	Eskom's installations used in supplying the municipality			
2. 33 kV switching installations	Sum of the firm capacities of each set of feeders outgoing from Condale or Teddy Neil substations only	Sum of all 33 kV and 33 kV/MV substations, excluding the cost of transformers, but including land acquisition costs			
3. 33kV lines and cables	Sum of the firm capacities of each set of feeders outgoing from Condale or Teddy Neil substations	Sum of values of all 33 kV lines and cable installations in the network, including servitude acquisition costs			
4. 33 kV/medium voltage transformation	Sum of the firm capacities at each medium voltage at all 33 kV/MV substations	Sum of the value of all 33 kV/MV transformers installed on the network including land acquisition costs			
5. Medium voltage feeders	Sum of the firm capacities of each set of feeders outgoing from 33 kV/MV substations only	Sum of values of all 11 kV and 6,6 kV lines and cable installations in the network including servitude acquisition costs			
6. Medium/low voltage transformation	Sum of the capacity of all MV/LV transformers in the network, including minisubs	Sum of the value of all MV/LV transformers in the network, including minisubs and switchgear			
	and switchgear associated with other distribution transformers	associated with other distribution transformers			
7. Low voltage installations	Sum of the capacity of all MV/LV transformers in the network, including minisubs and switchgear associated with other distribution transformers	Total value of the low voltage installations in the network, including service connections and connections for streetlights and traffic lights			
TOTAL					

NOTES FOR THE APPLICATION OF THE MATRIX

1. Network capacities and replacement values are intended to be recalculated annually.
2. The diversity factors as reflected in the loading at each level in the network are intended to be reviewed annually and be apportioned based on the highest recorded system demand over the preceding 12 months, the type of development or type of usage and the contribution from each voltage level to the overall demand at each point. Where recordings are not available at every point, available recorded values shall be scaled up to reflect the total demand. The highest recorded system demand may differ from the highest recorded maximum demand for Eskom billing purposes.
3. Where the expected demand cannot be more accurately determined in advance on the basis of the nature of the development and/or known usage by the potential occupiers of each site the demand for each type of connection, as per Annexure B, Section B.2 of NRS 069:2004 may be used as a guide for design and for the determination of development contribution. Where the NRS 069:2004 does not provide a specific value, a value as determined by the municipality shall be applied.
4. The Matrix excludes any costs directly associated with a specific consumer, such as service connection fees or feeders or transformers for the exclusive use of an applicant.
5. An applicant may be required to provide such network components as may be required to meet the land use changes or development rights arising from the application. Network components shall be sized and rated as per the municipality's standard sizes and ratings.
6. All supplies at HV or MV shall be of a firm (N-1) nature and any new networks or strengthening of existing networks shall ensure that this requirement is met.

Formula

Development Contribution = (cost per kVA of system capacity at the point of connection) X (capacity in kVA required by the change in capacity requirement) Explanation Term Description cost per kVA of system capacity cost per kVA of Eskom supply + capacity in kVA required by the change in capacity requirement cost per kVA of 33 kV switching infrastructure + cost per kVA of 33 kV lines and cables + cost per kVA of 33 kV/medium voltage transformation + cost per kVA of medium voltage feeders + cost per kVA of medium/low voltage transformation + cost per kVA of low voltage infrastructure

Note: for township applications the cost per kVA of capacity per network component payable for connection at 400/240 volt is 0 (zero) as that component represents internal services
the maximum capacity in kVA that can be supplied through the supply breaker for which the application makes provision - the maximum capacity in kVA that can be supplied through the supply breaker provided for the premises before the change for which the application makes provision

Land use	Maximum FAR. / Maximum Number of Dwelling Units (Units)	Unit of Measure	Guideline Capacity Require-ment
Residential 1	1 unit/erf	kVA/erf	3.0 (20A supply breaker) to 15.0 (80A supply breaker)
Residential 2	20 units/ ha	kVA/unit	3.0 (20A supply breaker) to 15.0 (80A supply breaker)
Residential 3	FAR: 0.6 44 units/ ha	kVA/unit	3.0 (20A supply breaker) to 15.0 (80A supply breaker)
Residential 4	FAR: 1.8 64 units/ ha	kVA/unit	3.0 (20A supply breaker) to 15.0 (80A supply breaker)
Business 1	FAR: 2.0	kVA/ 100m of floor area permitted by the FAR	6.0 (40A supply breaker) to 15.0 (80A supply breaker)
Business 1	FAR: 5.0	kVA/ 100m of floor area permitted by the FAR	6.0 (40A supply breaker) to 15.0 (80A supply breaker)

Land use	Maximum FAR. / Maximum Number of Dwelling Units (Units)	Unit of Measure	Guideline Capacity Require-ment
Business 2	FAR: 1.5	kVA/ 100m of floor area permitted by the FAR	6.0 (40A supply breaker) to 15.0 (80A supply breaker)
Business 2	FAR: 2.0	kVA/ 100m of floor area permitted by the FAR	6.0 (40A supply breaker) to 15.0 (80A supply breaker)
Business 3	FAR: 0.8	kVA/ 100m of floor area permitted by the FAR	6.0 (40A supply breaker) to 15.0 (80A supply breaker)
Schools Churches Government Municipal Institutions		kVA/ 100m of floor area permitted by the FAR	6.0 (40A supply breaker) to 15.0 (80A supply breaker)
Old aged homes Hospitals (medical facilities) Residences Hostels		kVA/ 100m of floor area permitted by the FAR	6.0 (40A supply breaker) to 15.0 (80A supply breaker)
Industrial Commercial (storage and warehousing)		kVA/ 100m of floor area permitted by the FAR	6.0 (40A supply breaker) to 15.0 (80A supply breaker)

CALCULATION METHOD OF THE DEVELOPMENT ELECTRICAL NETWORK CONTRIBUTIONS PER UNIT kVA

In general, the estimated capital cost for the distribution network assets shall be calculated per kVA unit, in accordance with the principles of the rationalized user specification, NRS 069:2017.

This method is currently used and included in Council policy VT of 15 February 2010 of which a extracted copy is attached as annexure A.

The kVA units cost calculated for 1xkVA unit, includes all cost of assets for a typical Municipal HV/MV/LV network, starting from the Eskom point of supply up to the end of line consumer being a residential or business premises consumer.

The kVA unit cost calculator sheet attached as annexure B-1 allow for the above costs, based on actual contract amounts, for the same typical sections of the network and includes a diversity factor based on SABS 10142-2017, given per typical number of consumers per group.

The unit kVA cost can be calculated at any point of of the typical network between the Eskom Point of Supply, and the boundary of the land Development area.

By using the estimated cost tables the proportional cost per kVA of the total network required to supply the proposed Land Development area power demand can be determined.

This proportional cost is proposed to be charged by Council as the development contribution amount. Contribution costs can be adjusted with the actual feeding distances between substations and switch rooms on a specific supply network, based on the demand in kVA of the connection applied for, alternatively, the feeding distances can be set on average distances to standardize the contributions.

The following typical sections of the network is estimated in separated sections and cost converted to a per unit kVA basis, summarized in annexure B-2 per section of the network, all excluding VAT.

Note: The following paragraph numbers correspond with the network sections indicated in the attached tables.

A. Eskom Supply Point.

The cost of required switchgear in a typical Eskom supply substation, including the required gantries circuit breakers and related equipment to provide 2 x 33kV supply bays, based on actual tenders received for similar work is, divided by the supply capacity in kVA and then used to calculate a kVA unit cost for this specific section of the HV network.

kVA Unit cost is derived from total installation cost of R12,463,200.00, to provide a 350MVA connection at R35.61/kVA in the Eskom HT. yard.

A1/A2. 33kV MV reticulation cost from Eskom supply to substation

Unit costs are calculated for overhead distribution feeders and as an alternative underground cable distribution up to a 33/11/6.6 kV substation. The cost of feeders are set on an average distribution distance of 5km, in the kVA unit cost calculator, but can be adjusted in the calculator to any distance if required.

A1. The kVA unit costs for overhead transmission lines is derived from a dual overhead line consisting of 2 x ZEBRA conductor circuits on concrete poles that supplied 110MVA for 5,8km, at a cost of R 3,600,000.00. The unit cost is there for R163.64/kVA/km.

A2. The kVA unit costs derived from an underground dual cable system to supply 150MVA over an 8km distance at a cost of R 131,583,264.00, therefor came to R548.26/kV/km for the cabling.

B. 33kV/11/6,6 kV Substation

The unit costs are extracted and calculated on a substation installation provided with a fully equipped single transformer bay with a 30MVA transformer, including a 30% spare capacity, to allow for spare transformer capacity. kVA unit costs derived from 30MVA capacity installed at R 18,480,000.00 calculate to R400.40 per kVA installed.

Note: Up to this point for items A, A1, A2 & B, a 50% diversity is applied due to the high number consumers supplied by these network sections.

B1. 11/6,6 kV underground cabling installed as bulk supply to a Switching Station

From the substation a typical bulk supply system is taken to an 11/6,6kV switching station and the unit cost were calculated on 4 x 185 Cu cables for a 20MVA total capacity at 11kV. 4 x Bulk supply cables are used of which 1 x cable to be installed as a spare feeder for the remaining 3.
The kVA unit costs are there for calculated on a rate of R4800.00 for 4 x cables as R720/kVA/km.

C. 11/6,6 kV Switching Station

A typical switching station, required to provide 11/6,6kV ring feeds to smaller consumers constructed at a total cost of R 4,380,000.00 to distribute 20MVA to a Development area, was used as typical section.

Based on the above the kVA unit costs calculates to R146.00/kVA.

Note: For items B1 and C a diversity factor of 60% is applied due to an assumed smaller number of consumers downstream from the substation at this point of supply.

C1. 11/6,6kV underground Cu reticulation ring feeders

Per kVA Unit costs of 11/6,6kV ring supply feeders are calculated on typical 185mmsq Cu cables, on an average distance of 5km ring supply cable length to distribute 7MVA at R1200/m installed.

The kVA unit cost calculates to R600.00/kVA/km.

Note: A diversity factor of 70% are applied to ring feeder cables, due to typical number of consumers per feeder.

D. Miniature Substations cut into the MV supply ring

Per kVA Unit cost are calculated using a 500kVA Minisub with SF6 Ring Main Unit at a cost of R490,000.00.

The kVA unit cost of the minisub amounts to R882.00/kVA.

Note: A diversity of 90% are applied to the transformer capacity.

D1. Low voltage (400V) Cu supply cables

Per kVA Unit cost of LV Cu cables to reticulate LV from the minisubs to the consumer boundry box or metering kiosk are calculated on Cu cables used in a 250kVA Township reticulation network installed with a total cable cost of R 217,000.00. A 100% diversity factor is applied to these LV cables.

The kVA unit cost therefor R868/kVA.

E. LV metering kiosk/boundry box sections

Per kVA Unit cost for typical metering kiosks with protective structures were costed using the total cost of kiosks for a network distribution of 1900kVA, installed at a cost of R1,137,400.00 and a diversity of 100%.

The kVA unit cost therefor calculates to R598/kVA.

Using the above typical network configuration and calculated kVA unit cost the proportional cost of the supply network to the boundry of a new Land Development area can be determined, which amount will represent the development contributions to be charged by Council.

Table: B-2

SUMMARY of NETWORK COST per kVA fof LAND DEVELOPMENT DEMAND for PERIOD 2018/2019		DATE: 19 Nov.'19	
COST OF MV/LV NETWORK per SECTION, FROM ESKOM POD TO POINT OF SUPPLY		CPE REV: REV H - ANNEX B-2	
REFER TO ELECTRICAL ESTIMATED COST CALCULATION SHEET FOR DETAILS		CPE PROJECT No.: 2019023	
SECTION OF NETWORK	NETWORK DISCRIPTION	USING COPPER CABLING	
		ESTIMATED COST PER SECTION	ACCUMALATIVE COST PER SECTION
A	ESKOM POD - (2X33kV Supply Circuit Breakers)	R 35.61/kVA	R 35.61/kVA (Cu)
[A1]	33kV OVERHEAD LINE (2 Circuits on Concrete Poles)	R/kVA/km (Cu)'	R199/kVA/km (AL)'
[A2] Alt.	33kV UNDERGROUND CABLES (2 x Al Cables)	R 548.26/kVA/km (Cu)'	R 583.87/kVA/km (AL)'
B	33/11/6.6kV SUBSTATION - 1 x 30MVA Bay - 30% spare capacity	R 400.4/kVA	R 984.27/kVA (Cu)
[B1 Cu]	11/6.6kV Cu CABLE TO SWITCHING STATION - 4 x Cables + Fibre	R 720./kVA/km (Cu)	R 1,704.27/kVA/km (Cu)
C	11/6.6kV SWITCHING STATION COMPLETE	R 87.6/kVA	R 1,791.87/kVA (Cu)
[C1 Cu]	11/6.6kV Cu CABLE TO SWITCHING STATION - 2 x (Cu) Cable Ring	R 600./kVA/km (Cu)	R 2,391.87/kVA/km (Cu)
D	MINIATURE SUBSTATION COMPLETE	R 882./kVA	R 3,273.87/kVA (Cu)
[D1 Cu]	LV DISTRIBUTION CABLE TO METERING KIOSKS (Cu)	R 868./kVA (Cu)	R 4,141.87/kVA (Cu)
E	LV METERING KIOSK WITH PROTECTIVE STRUCTURE	R 598.63/kVA	R 4,740.5/Kva (Cu)

16.6 Parks and Open spaces

PROBLEM STATEMENT

Although the request for open space contribution is legislated, the implementation of this matter is not consistently applied in the absence of a dedicated policy. No formal policy on open space contributions is readily available as confirmed by the Town Planning Division; Internal Audit and the Legal Division. The Department: Infrastructure Services, however confirmed that an Engineering Bulk Services Policy – recently updated and amended in 2011 – exists, but that it does not include Open Space Bulk Contributions.

The main aspects that tend to differ in consistently applying calculations for open space contributions are:

- In which cases contribution is required and,
- On which value/s contributions are calculated.

PURPOSE

The purpose of the policy is to develop a uniform approach to the calculation of open space contribution within the Mogale City Local Municipality (MCLM), which will be the responsibility of the Department: Integrated Environmental Management (Parks Division) and with dedicated inputs from the Town Planning Division and the Valuation Division.

DEFINITIONS

All definitions as included in the legislation mentioned hereunder are of importance. Reference to open space shall mean private and public open space.

MAIN CONSIDERATIONS

- Provision of open space in developing areas as provided for in Regulation 44 of the Town Planning and Townships Ordinance, 15 of 1986, open space shall be provided for each residential township that is established. The developer has the choice to:

    - provide all open space within the township;
    - provide some open space in the township and pay contribution for the rest, or
    - to pay contribution to the full amount

- Uniformity in requesting open space contribution: Contribution should be requested in the same manner in the whole of MCLM. According to the Town Planning and Townships Ordinance, open space contribution can only be requested for residential developments. Developments for any other uses do not need to make provision for open spaces.
- Uniformity in calculation of contributions: Regulation 43(e) of the Town Planning and Townships Ordinance provide for either the Municipal valuation as reflected in the Valuation roll to be used or a supplementary valuation to be done when determining the site value of the land. This aspect also needs to be uniform.
- Use of funds paid for open space contributions: Developers have often requested explanations on where and how funds paid in as open space contributions are used by the municipality. Proposals for ring fencing of these funds for exclusive use of providing open space were received. Due to the nature of the contributions the Finance Department commented that the Chief Financial Officer must ensure that the net contributions received are ring fenced for the exclusive use of providing open space.

16.7 Policy

(1) Spatial Planning & Land Use Management By-Law, 2018 (SPLUMA)

SPLUMA is a framework law, which means that the law provides broad principles for a set of provincial laws that will regulate planning. SPLUMA also provides clarity on how planning law interacts with other laws and policies. The act makes provision for Local Government to promulgate their own by-laws. Mogale City Local Municipality already has an approved SPLUMA By-Law (2018).

The following extracts are of importance:

49. Contributions to be paid in respect of external engineering services and open spaces or parks

(1) Where an amendment scheme which is an approved scheme came into operation in terms of section 46(7) above, the Municipality may by registered letter, by hand or by any other means available direct the applicant to which the scheme relates to pay a contribution to it in respect of the provision of:

(b) open spaces or parks where the commencement of the amendment scheme will bring about a higher residential density.

(8) No site development plans and building plans in respect of the approved scheme shall be approved in terms of the National Building Regulations and Building Standards Act unless the contribution levied under subsection (1) above has been settled in full.

51. Township establishment application

(2) A township must be established on any farm portion or agricultural holding where the land concerned is to be used, developed or subdivided mainly for residential, business, commercial, industrial, institutional, educational or other similar purposes as defined in the applicable land use scheme, excluding agricultural, open space or nature conservation purposes.

53. Decision and post-decision procedures

(16) Any external engineering services, open spaces and parks contributions (if applicable) required to be paid in respect of the approved township as envisaged in section 72(1), 73(5) and 73(7) below, shall be paid within 12 months from date of the notice envisaged in subsection (15) above, failing which, it shall be subject to arrear interest as well as escalation.

54. Prohibition of registration of certain deeds of transfer or endorsement on certain title deeds

(1) The Registrar shall not register a deed of transfer by which ownership of an erf in a township is transferred unless the Municipality certifies that –

(e) subject to section 53(16) above, all outstanding external engineering services contributions and all amounts in lieu of open spaces or parks as envisaged in sections 72(1), 73(5) and 73(7) below in respect of the township has been paid in full.

58. Subdivision and/or consolidation of an erf/erven in an approved township

(7) With a subdivision application, such condition may include a condition that the owner shall pay to the Municipality an amount of money in respect of the provision of –

(b) open spaces or parks and such amount shall be determined by the Municipality in terms of this By-law or approved policy.

62. Prohibition of registration of certain deeds of transfer

(1) The Registrar shall not register a deed of transfer of any portion of land where an application for the division of land was approved by the Municipality as envisaged in section 60(3) above unless the Municipality certifies –

(c) subject to section 60(15), all outstanding external engineering services contributions and all amounts relating to open spaces or parks in respect of the land have been paid in full.

(2) No building plans shall be approved, and no occupancy certificate shall be issued in terms of the provisions of the National Building Regulations and Building Standards Act unless the certificate contemplated in subsection (1) above has been issued.

73. Provision of land for open space, parks and payment in lieu of providing open spaces and parks contribution

(1) The approval of a township application as envisaged in section 51(1) and a division of land application envisaged in section 56(1) and 58(1) above, which provides for the use of land for residential purposes is subject to the provision of land for parks or open space by the applicant.

(2) The land required for parks or open space must be provided within the land area to which the development application refers or may be provided elsewhere within the Municipality's jurisdiction, at the discretion of the Municipality.

(3) The extent of land required for parks or public open spaces shall be determined by the Municipality in accordance with the formula as set out in Schedule 11 to this By-law.

(4) Any area of land in a proposed township which is subject to a water course shall indicate on the Landscape Development Plan (LDP) the following:

(i) 1:100 year flood line [Note: All catchments exceeding 30 ha must have a 1:100 year flood line shown in accordance with Sec 144 of the National Water Act, 1998 (Act 36 of 1998), and must be certified by a Professional Engineer or Professional Engineering Technologist (Pr.Eng or Pr.TechEng). The LDP, in all cases where flood lines are applicable, must reflect the name and registration number of the aforementioned engineer and his/her professional registration number. The LDP will also present at least 1m contours.];

(ii) Outer edge of riparian or wetland zone based on a delineation that was conducted in compliance with Department of Water & Sanitation's latest approved Riparian/Wetland Delineation Protocol and the latest Biodiversity Guidelines issued by Gauteng Department of Agriculture and Rural Development [Note: The wetland/riparian delineation must be conducted by a suitably qualified and experienced scientist registered with the SA Council for Natural Scientific Professions (SACNASP). A 32 m Buffer must be shown on the LDP from the edge of the riparian zone or temporal wetland zone. SACNASP Registration details and name of the scientist must appear on the LDP;

(a) All areas affected by wetland or riparian delineated buffers are excluded from the calculations as set out under paragraph (2) and (3), since the land is considered natural open space with functional ecosystems that are governed by various statutory requirements, and hence regulated by law as No-Go Areas. [Note: The 'no-go' alternative is sometimes referred to as the 'no-action' alternative and at other times the 'zero-alternative'. It assumes that the activity does not go ahead, implying a continuation of the current situation or the status quo. The 'no-go' alternative is also regarded as a type of alternative but is described separately to emphasize its importance in Environmental Impact Assessments. For the purposes of this policy, "no-go" will mean that no encroachment of any infrastructure or development will be allowed. The exception to this approach is that infrastructure associated with Sustainable Urban Drainage Systems (SUDS) and Water Sensitive Urban Design (WSUD), including onsite water retention/detention, will be encouraged.]

(b) The open space or park if so, required by the Municipality concerned and such area may at the request of the Municipality be protected by means of an ecological servitude and shall be indicated in terms of a zoning for the purpose for which it is set aside;

(c) All open space contribution money must be paid into the following Vote: 1220-24053 0049999999 (Parks: Developer Contribution), which will be ring-fenced and allocated for upgrade and development of parks in the Municipality's area of jurisdiction.

(5) When a township or a division of land application is approved without the required provision of land for parks or open spaces within the land area of the development, the applicant may be required to pay an amount of money to the Municipality in lieu of the provision of land and when it does so, the Municipality shall inform the owner of land in writing of the amount payable with the necessary supporting documentation on how the amount was calculated and the conditions it might be subject to.

(6) The amount of money envisaged in subsection (5) above shall be calculated in accordance with the formula as set out in Schedule 11 to this By-law and it shall be calculated in terms of a valuation relevant at the time of the notice envisaged in section 53(15) above.

(7) The amount of money calculated in terms of subsection (6) above shall be subject to escalation until it has been settled in full.

Schedule 11: Contributions payable and provision of land for open spaces and parks in terms of this By-law.

1. Determination of amount or contribution payable in respect of provision of open spaces (private open space or public open space) or parks.

Where, by virtue of or in terms of the provisions of this By-law, an owner of land on which a land development application is approved (excluding a township establishment in terms of section 51) is required to pay an amount of money or a contribution to the Municipality in respect of the provision of open spaces or parks, such amount or contribution shall be determined substantially, in the opinion of the Municipality, in accordance with the formula

$$\frac{(a - b) \times c \times e}{d}$$ *in which formula*

"a" represents the number of residential units which may be erected on the land to which the application relates in terms of the approved application;

"b" represents the number of residential units which could have been erected on the land contemplated in paragraph (a) prior to the approval of the application;

"c" represents:

(i) 24 m² where, in terms of the approved application, the land contemplated in paragraph (a) may be used for Residential 1 or 2 purposes or for purposes as may be determined by the Municipality from time to time, as the case may be;

(ii) 18 m² where, in terms of the approved application, the land contemplated in paragraph (a) may be used for Residential 3 or 4 for purposes as may be determined by the Municipality from time to time or as the case may be (e.g. retirement village).

"d" represents the area of the land contemplated in paragraph (a) in m²;

"e" represents the site value of the land contemplated in paragraph 1:

(i) As reflected in the valuation roll or the supplementary valuation roll of the Municipality; or

(ii) If the land is not reflected in the valuation roll or supplementary valuation roll of the Municipality, as determined by a valuer:

(a) Who is a member of the South African Institute of Valuers; or

(b) As defined in the Local Government Property Rates Act, 2004.

3. Provision of land for open spaces (private open space or public open space) or parks including where a division of township application;

(a) Where, in terms of section 51 of an application to establish a township, the Municipality imposes a condition requiring the applicant to provide land for open spaces or parks, the area of that land shall be determined substantially, in the opinion of the Municipality, in accordance with the formula:

a x 24 m² + b x 18 m², in which formula

"a" represents the number of residential units which may be erected on land in the township which, in terms of the land use scheme concerned, is to be zoned "Residential 1" or "Residential 2" or as may be determined by the Municipality from time to time;

"b" represents the number of residential units which may be erected on land in the township which, in terms of the town planning scheme concerned, is to be zoned "Residential 3" or "Residential 4" or "Residential 5" or as may be determined by the Municipality from time to time.

(b) Any area of land in a proposed township which is subject to flooding by a 1:100 year flood shall be shown on the plan of the township as an open space or park if so required by the Municipality concerned and such area may, at the request of the Municipality, be protected by means of a servitude and shall be indicated in terms of a zoning for the purpose for which it is set aside;

(c) If, in a proposed township, part of any area of land subject to flooding by a flood contemplated in paragraph (2) is less than 32 metres measured from the centre of a water course, the area of land shown as an open space or park on the plan of the township shall be extended to measure 32 metres from the centre of the water course;

(d) The area of land to be provided for open spaces or parks in terms of paragraph (1), may not be reduced by the area of land to be shown as open spaces or parks in terms of paragraph (2) and (3); provided that the Municipality may give consent to reduce this requirement.

The following notes are of relevance:

- All references to the 1:100-year flood lines must be read as follows: "*1:100 year flood lines, or the 32 m buffer zone from the edge of the riparian zone or wetland zone, whichever is the furthest away from the watercourse*";
- The reference of 32 meters (Section 3 (c)) must be interpreted as "*32 m buffer zone from the edge of the riparian zone or wetland zone".*

Town Planning and Townships Ordinance, 15 of 1986 - the following extracts are of importance:

Section 20 Provisions which may be contained in town planning scheme

"(2) Where consent is granted by virtue of subsection (1) (a), the conditions on which the consent is granted may include a condition that (c) the person to whom the consent is granted shall pay to the local authority an amount of money in respect of the provision of (ii) open spaces or parks where the granting of the consent will bring about a higher residential density."

Section 63 Contribution in respect of engineering services, open spaces or parks

"(1) Where an amendment scheme which is an approved scheme came into operation in terms of section 58 (1), the authorized local authority may, within a period of 30 days from the date of the commencement of the scheme, by registered letter direct the owner of land to which the scheme relates to pay a contribution to it in respect of the provision of

(b) open spaces or parks where the commencement of the amendment scheme will bring about a higher residential density, and it shall state in that letter

(i) the amount of the contribution;

(ii) particulars of the way the amount of the contribution was determined; and

(iii) the purpose for which the contribution is required:

Provided that

(aa) the amount of the contribution required in respect of open spaces or parks, where applicable, shall be determined by the local authority in the manner prescribed;

(bb) in calculating the contribution an amount paid, payable or becoming payable in terms of section 20 (c) shall be considered."

Section 92 Subdivision or consolidation of erven in approved township

"(3) Where a local authority approves an application in terms of subsection (2), it may impose any condition it may deem expedient, including a condition, in the case of an application for a subdivision, that the owner shall pay to it an amount of money in respect of the provision of

(b) open spaces or parks, and such amount shall be determined by the local authority in the manner prescribed: Provided that in calculating the amount, a contribution paid, payable or becoming payable in terms of section 48 or 63 shall be taken into account."

Section 98 Decision on application for establishment of township

"(2) Where an authorized local authority approves an application in terms of subsection (1) it may impose any condition it may deem expedient, including a condition requiring the payment of an endowment in cash or the provision of an endowment in kind or both."

Urban Greening & Biodiversity Preservation By-law

The most relevant by-law that addresses matters related to Private and Public Open Space is the Urban Greening & Biodiversity Preservation By-law. The following extracts are of importance:

4. Allocation of Private Open Space

4.1 All residential property developments or townships in excess of 1Ha in extent, will allocate a minimum of 15% of the property towards zoned private open space. Such zoned private open spaces will individually not be less than 1,500m2 in extent.

4.2 All business estates including office parks and industrial parks in excess of 1Ha in extent, will allocate a minimum of 10% of the property towards private open space. Such private open spaces will individually not be less than 1,000m2 in extent.

4.3 A minimum of 75% of the allocated private open spaces will be interconnected, forming a functional network of green spaces. Such open space connectivity may only be intersected by road infrastructure.

4.4 This private open space will exclusively be used for greening and/or conservation and recreation purposes, dependant on the provisions of the Record of Decision of the Gauteng Department of Agriculture, Conservation and Environment, the Environmental Management Plan and any other binding conditions of establishment laid down.

4.5 Private Open Spaces within any development will be registered as ecological servitudes as part of the conditions of establishment of the township and relevant title deeds to preserve such open spaces and natural areas from any future development. Any amendment to an ecological servitude will require authorization from the Provincial Department of Agriculture, Conservation and Environment.

5. Allocation of Public Open Space

5.1 The Municipality will ensure, through its Department of Local Economic Development and in consultation with the Department of Integrated Environmental Management, that at least 20% of all new Municipal Townships is set aside for public open spaces.

5.2 The Department of Integrated Environmental Management will, in consultation with the Department of Local Economic Development, determine the location, layout and extent of such open space systems. The Municipality's Environmental Management Framework, MOSS, and any other relevant and applicable environmental policy and legislative framework will inform the identification of suitable open spaces areas.

5.3 The Department of Integrated Environmental Management will determine which open space erven will be reserved for developed parks and recreation facilities, natural open spaces and Bio-Diversity Reserve.

5.4 A minimum of 75% of the allocated public open spaces will be interconnected, forming a functional network of green spaces. Such open space connectivity may only be intersected by road infrastructure.

5.5 The Municipality will, as far as reasonably possible, ensure that additional land is purchased for public open space systems where such areas are predominantly privately owned, to ensure the ongoing preservation

and provision of parks as a service to the broader community, and to ensure that the provisions of section 5.1 is met within all areas of the Municipality.

5.6 The Local Economic Development will ensure that the allocation of public open spaces is captured in its Precinct Plans and any other relevant town planning processes, as directed by this By-Law."

Considerations for the calculation of Open Space Contributions and approval of Landscape Development Plans

(1) The provision of either Private (i.e. 15% of property for Residential Townships; 10% for Business Estates) or Public Open Space (i.e. 20% of property for all Townships) may exceed the allocated size as calculated in terms of Regulations 43(c) and 44 of the Town Planning and Townships Ordinance, read with Schedule 11 of the SPLUMA By-law of MCLM;

(2) The allocation of Public/Private Open Spaces, Critical Biodiversity Areas and Ecological Support Areas and all Protected Areas, including its associated buffer zones, will be captured by the Department: Economic Services (DES) in its Precinct Plans and any other relevant town planning processes, as directed by the Urban Greening & Biodiversity Preservation By-law;

(3) The determination of Open Space Contributions and what the intended end uses are proposed on such Open Spaces are interconnected and hence it is important to note that the submissions of Landscape Development Plans (LDPs) to the Biodiversity Management is compulsory;

(4) With reference to the submission of LDPs and the calculation of Open Space Contributions, the following conditions will apply:

(5) The Applicant must present proof through the submission of a LDP that provision is made for onsite storm water retention and water conservation initiatives in line with the Integrated Water Resource Management Strategy and the Climate Change Action Plan of MCLM.

(6) The layout must accommodate Green Infrastructure and Sustainable Urban Drainage (SUD) principles that must ensure the following (as a minimum):

(a) Runoff for all new developments must be attenuated and the difference between the 1:25 year post and 1:10 year pre-development is to be stored on site as a minimum;

(b) All surfacing for driveways and parking areas must be permeable on slopes less than 5%;

(c) All sheet flow must be directed into onsite infiltration trenches, filter drains, filter strips and/or artificial wetlands rather than gulleys and pipes;

(d) Ensure that all outlet structures are adequately designed to prevent erosion.

(e) Any area of land in a proposed township which is subject to a water course (as defined by the National Water Act, 1998 (Act 36 of 1998)), shall indicate on the LDP the following:

(i) 1:100-year flood line;

(ii) Outer edge of riparian or wetland zone based on a delineation that was conducted in compliance with Department of Human Settlements, Water & Sanitation's latest approved Riparian/Wetland Delineation Protocol and the latest Biodiversity Guidelines issued by Gauteng Department of Agriculture and Rural Development;

(f) The 32 m Buffer Zone from the edge of the riparian or wetland zone.

(g) All areas affected the 1:100-year flood line and/or wetland or riparian delineated buffers are excluded from the calculations as set out above, since the land is considered natural open space with interconnected functional ecosystems that are governed by various statutory requirements;

(h) No surface stormwater generated as a result of any development may be directed directly into any natural drainage system or wetland;

(i) The Biodiversity Management Division reserves the right to request the Applicant to compile and submit a comprehensive surface runoff and stormwater management plan, indicating the management of all surface runoff generated as a result of the development (during both the construction and operational phases) prior to entering any natural drainage system or wetland, must be submitted (e.g. stormwater and flood retention ponds) for approval by the Biodiversity Management Division.

(j) This surface stormwater management plan must indicate how surface runoff will be retained outside of the demarcated buffer/flood zone, and how the natural release of retained surface runoff will be simulated so as not to impact on the natural hydrology and morphology of the river and the riparian zone.

(k) All areas designated as sensitive on the LDP must be appropriately zoned and incorporated into an open space system and registered against the title deeds as a conservation servitude. Development must be located on the areas of lowest sensitivity;

(l) The Biodiversity Management Division reserves the right to request the Applicant to compile and submit an ecological management plan for the open space system by a suitably qualified specialist for implementation by the landowner.

(m) This ecological management may:

(i) include a fire management programme to ensure persistence of grassland o include an ongoing monitoring and eradication programme for all non-indigenous species, with specific emphasis on invasive and weedy species

(ii) ensure the persistence of all Red and Orange List species o include a monitoring programme for all Red and Orange List species

(iii) facilitate/augment natural ecological processes

(iv) provide for the habitat and life history needs of important pollinators

(v) minimize artificial edge effects (e.g. water runoff from developed areas & application of chemicals)

(vi) result in a report back to the Biodiversity Management Division on an as and when required basis.

The LDP must be submitted and approved by the Biodiversity Management Division before final approval of the Site Development Plan (SDP) by DES; The rationale for this condition is that in terms of Section 2.2.1 of the Urban Greening & Biodiversity Preservation By-Law of MCLM, the submission of LDPs to the Biodiversity Management Division is compulsory for any residential and business development whether developed as a single unit or sub-divided portions, except for individual residential erven smaller than 2,000 square metres in extent and that the accepted conclusions in the LDPs form part of and is integrated into the final development plans submitted to the Municipality for approval.

TOWN PLANNING PROCEDURE

The following is proposed as a uniform policy for the contribution to be paid for open space:

Circumstances under which open space contributions will be payable:

(1) Open space contribution will be required in all rezoning and township establishment applications where approval of the application will result into the possibility that more residential units can be erected on the property than prior to the application. This would be applicable to any use zone where residential units will be erected.

(2) The contribution will be based on the density envisaged and the regulations in the Town Planning and Townships Ordinance. For densities lower than 20 units per hectare, 24m² of open space should be provided and for densities higher than 20 units per hectare, 18 m² of open space should be provided.

(3) Open space contribution will be applicable where the developer cannot provide the prescribed open space area within the township area in the case of a township establishment. Where the developer decides to

develop the township in phase, the prescribed open space must be either included in each phase or form part of the first phase. Where the developer provides such open space, these should be to the satisfaction of the Council. Land like sinkholes, flood lines, buffer zones of wetlands/riparian zones is not considered as usable open space and is excluded from the allocated open spaces.

(4) Open space contribution will be applicable in the case of a rezoning where the application implies an increase in density.

(5) No open space contribution will be required for subdivision applications only, as these contributions will be calculated as part of the rezoning application to increase the density, or as part of the original township establishment.

(6) In cases where a rezoning is applied for and the number of units are not known (no density is stipulated, but only height, coverage and Floor Area Ratio), contributions will be requested as part of the Site Development Plan procedure.

Calculation of open space contribution

(1) Formulas in Regulations 43 and 44 of the Town Planning and Townships Ordinance (No. 15 of 1986), read with Schedule 11 of MCLM's SPLUMA By-laws, will be used for the calculation of open space to be provided and contribution to be paid.

(2) The Valuation Division or appointed Valuation Firm will be requested to provide the current land value and determine the contribution as per the format attached at the time of compiling the Service Level Agreement. This will only be requested as soon as there is certainty regarding the recommendation and proposed condition of an application and this value will be considered a supplementary valuation.

(3) The calculations for contribution for open space will be done by the appointed official at the Biodiversity Management Division. The Biodiversity Management Division will submit the findings of the Open Space Contribution to both the Legal Division and the Local Economic Division, who in turn will inform the developer accordingly.

(4) All open space contribution money must be paid into the following Vote: 1220-24053 (Biodiversity: Developer Contribution), which will be ring-fenced and allocated for upgrade and development of parks in MCLM's area of jurisdiction.

ANNEXURES

Published as per Council Approved Tariffs.