

# Madibeng Local Municipality Spatial Development Framework 2015



10 June 2015 Draft SDF



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## 1. INTRODUCTION

### 1.1 THE MADIBENG LOCAL MUNICIPALITY

The Madibeng Local Municipality (MLM) is a category B municipality in terms of the Municipal Structures Act, 1998 (Act 117 of 1998) and its key functions are the provision of basic services to the communities as per Part B of Schedule 4 and 5 of the Constitution of the Republic of South Africa, 1996 (Act 106 of 1996).

The Spatial Development Framework of Madibeng Local Municipality was developed in line with the Municipal Planning and Performance Management Regulations of 2001 in accordance of Municipal Systems Act of 2000 (Act 32 of 2000).

The Madibeng Local Municipality(NW 372) is situated in the North West Province and cover over an area of about 3 814 km<sup>2</sup>. The Madibeng Local Municipality comprises of the following main towns Brits, Hartbeespoort, Skeerpoort area, 9000 farm portions as well as 43 villages. The Madibeng Local Municipality is demarcated into 41 Wards. The population of Madibeng is estimated by the 2011 population census to be at 477 381. Madibeng Local Municipality is located roughly 40km from Pretoria, 55km from Johannesburg and 50km from Rustenburg.

Madibeng Local Municipality is located or situated on the Northern part of North West Province and one (1) of the five (5) local municipalities within the Bojanala District Municipality.

## 1.2 OBJECTIVES OF THE SDF

The main aim of the SDF is the provision of guidance with regard to physical development of Madibeng Local Municipality so as to improve the manner in which activities are arranged in the physical space. By enhancing the ways in which activities are situated in Madibeng Local Municipality as well as interrelation of several activities with others will eventually improve the efficient and effective functioning of Madibeng Local Municipality. This strategic arrangement of activities will also improve the municipality capability to contribute to economic expansion, social well-being and environmental sustainability. The key objective of Madibeng SDF is the attainment of an integrated and coordinated municipal area wherein all the sectors have the ability to contribute to an effective, well-organized, justifiable, liveable as well as sustainable urban environment.

The SDF has an influence on both private and public capital investments in the sense that it needs to fulfil the following:

- The SDF ought to give direction to private investors with regard to where certain developments will be allowed as well as where they won't be allowed;
- The SDF should make it a point that it creates a conducive environment for the implementation of municipality's Integrated Development Plan; and

SDF ought to provide guidance in terms of spatial location of Madibeng capital interventions in ensuring that the maximum benefits are attained from investment in place.

## 2. METHODOLOGY

### 2.1 PROCESS FOR DRAFTING THE SDF

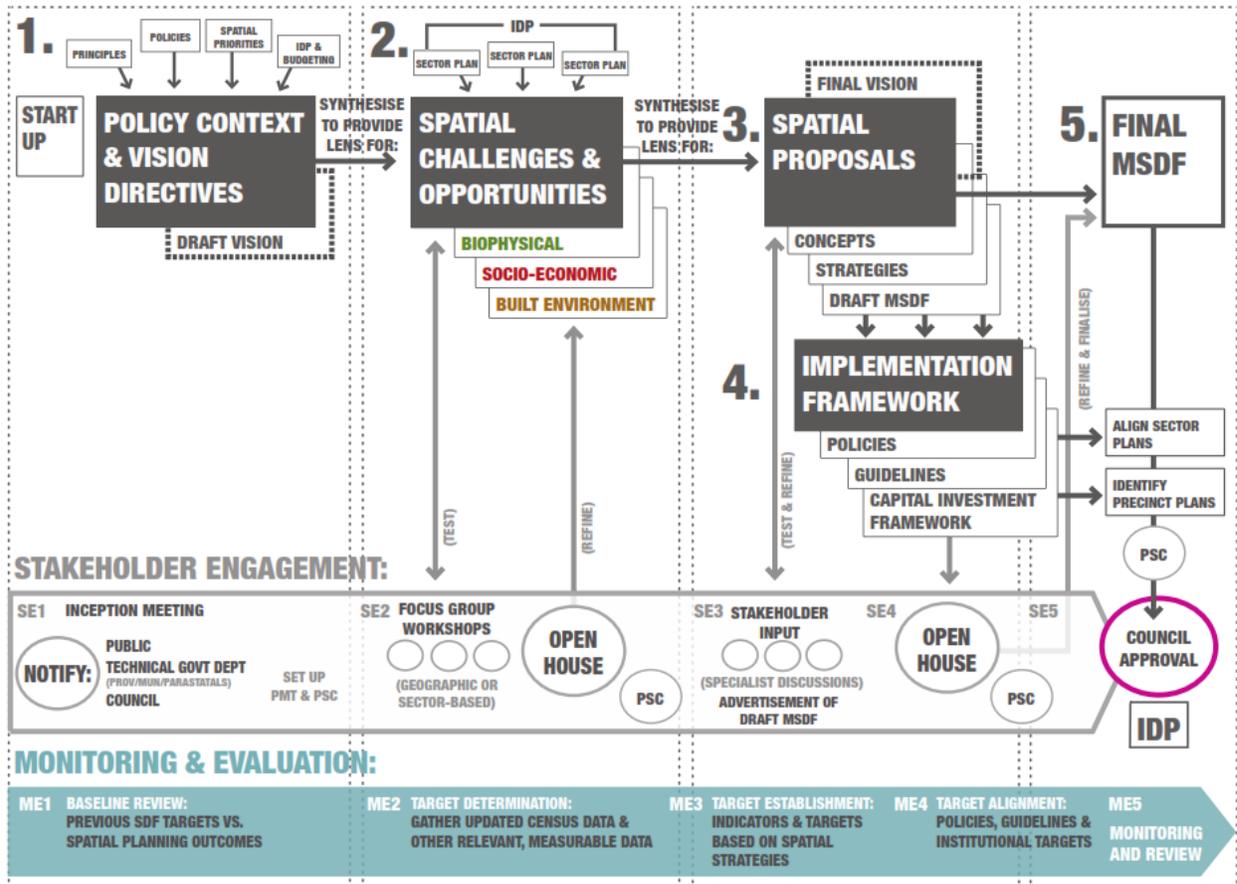


Figure 1: Municipal SDF Process (DRDLR, 2014)

#### PHASE 1: START-UP ISSUES AND VISION

##### 2.1.1.1 START UP

This sub-phase involves the consultants and the Municipality. An inception meeting which entails the costs of SDFs, understanding the scope of work, completion of the project plan and the signing of Service level Agreement.

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### 2.1.1.2 LEGISLATIVE & POLICY CONTEXT REVIEW AND SYNTHESIS

In line with SDF Guidelines, institutional and political support structures need to be involved in the development process of the SDF. This can be achieved by the development of a Project Steering Committee (PSC) that will guide the SDF process.

The legislative and policy context that is applicable throughout the Municipal area needs to be highlighted and incorporated into the document. Other policies involve departmental sector plans and various national, provincial and municipal spatial derivatives.

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### 2.1.1.3 FORMULATE DRAFT SPATIAL VISION

The purpose of this phase is to further agree with stakeholders (including sector departments) on the spatial vision and issues. This phase precedes the status quo investigation and ensures that the analyses and proposals are strategically focused by issues of concern and the vision of where the Municipality wants to be in 5 years and longer.

The issues and vision will be developed by the steering committee that will be put in place by the Madibeng Local Municipality. The project steering committee (PSC) will amongst others consists of representatives from:

- Bojanala District Municipality;
- Representative of all Provincial Sector Departments (i.e. Office of the Premier, CoGHSTA, Rural Development & Land Reform, Agriculture, Water Affairs, Roads & Transport, Safety & Security, Public Works, etc.)
- Representative of SALGA; and
- Any other stakeholder the municipality may deem fit.

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## 2.1.2 PHASE 2: SPATIAL CHALLENGES AND OPPORTUNITIES

This phase will focus on the analysis of the current state of spatial issues within the Madibeng Local Municipality.

The desired outputs of this phase include:

- Information and data that can be measured and monitored such as population data, housing need, crime.
- Spatial indication of infrastructure capacities and where it will be feasible to invest in new infrastructure and where to upgrade existing infrastructure.
- Mapped information on the status quo themes.
- Quantification of housing need, population growth and land requirements.
- Qualitative assessment of performance of municipality against desired spatial form and principles.
- Map or set of maps indicating municipal wide issues and area specific issues.
- Synthesis map or set of maps indicating key spatial challenges and opportunities.

This phase will further outline the strategic focus and key development challenges identified in the Municipal IDP, sector department plans and other sector plans. The synthesis thereof will be presented through the analysis of the following aspects:

- Analysis of Biophysical Environment;
- Analysis of the Socio-Economic Environment;
- Analysis of Built Environment.

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### 2.1.3 PHASE 3: SPATIAL PROPOSALS AND DRAFT SDF

This phase will contain the draft spatial development proposals of the Madibeng Spatial Development Framework. During this phase draft SDF proposals are formulated.

These should be directly informed by:

- Policy and principles;
- Issues and vision;
- Status quo synthesis.

Phase 3 will involve the presentation of the SDF proposals to stakeholders and sector departments to obtain their approval and support. This phase will be finalised by the Madibeng Local Municipality. This should be done as extensively as possible to solicit buy-in from a wide range of stakeholders. This is the second round of public participation.

The desired outcomes of this phase include:

- Political endorsement of the draft SDF to be released for comment;
- A record of written and oral submissions from the public with comments on the draft SDF;
- Agreement with affected municipalities on the alignment of the SDF proposals with the planning of affected municipalities;
- Alternatively an agreed way forward on the resolution of conflicts;
- A record of decisions regarding the alignment of the proposals with that of neighbouring municipalities; and
- A record of comment and input from affected government departments on the draft SDF.

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#### 2.1.4 PHASE 4: IMPLEMENTATION FRAMEWORK

Phase 4 provides guidelines on the implementation and monitoring of the SDF and the revision of the SDF, which should be coordinated with the IDP cycles. This phase as well will be completed or finalised by the service provider and the Madibeng Local Municipality. The Implementation Phase of the SDF includes the monitoring of the goals or key performance indicators, as well as the implementation of capital investment and policies. This process should start as soon as the SDF has been approved and endorsed.

Furthermore this phase involves:

- Implementation:
  - using the SDF to guide municipal decision making;
  - drawing up strategies or policies, incentives, and by-laws to facilitate implementation of the SDF;
  - development control and land use management procedures  
Spatial Analysis and Synthesis;
- Monitoring
- Vision Cycles

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#### 2.1.5 PHASE 5: FINAL SDF

This phase will involve the analysis of the comments and proposals for amendment, finalisation of the SDF and the approval of the SDF by the relevant authorities. This phase will be completed by service provider in consultation with the Madibeng Local Municipality once all inputs and representation from all stakeholders have been received and consolidated on the SDF document.

## 2.2 LEGISLATION AND POLICY FRAMEWORK

The following table present the relevant legislation applicable to Spatial Develop Frameworks:

**Table 1: SDF legislation**

LEGISLATION PERTAINING TO SDFs
Municipal Systems Act (Act 32 of 2000)
Local Government: Municipal Planning and Performance Management Regulations (GN R796 of 2001)
White Paper on Spatial Planning and Land Use Management (2001)
Spatial Planning & Land Use Management Act (Act 16 Of 2013)
Subdivision of Agricultural Land Act 70 of 1970
National Environmental Management Act no.107 of 1998
Municipal Financial Management Act (56 of 2003)

### 2.2.1 CONSTITUTION OF THE REPUBLIC OF SOUTH AFRICA, 1996

The Constitution is the supreme law of the land. The Bill of Rights enshrines the rights of all people in our country and affirms the democratic values of human dignity, equality, and freedom. It terms of the Constitution the following Sections are relevant to spatial planning:

- Section 24: Everyone has the right to an environment, which is not harmful to their health or well-being.

- Section 26 (1): Everyone has the right to have access to adequate housing.
- Section 152: spells out the objectives of local government as insuring access to at least basic services and facilitating economic development within a framework of financial sustainability.

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### 2.2.2 MUNICIPAL SYSTEMS ACT, 2000 (ACT 32 OF 2000)

In terms of the Municipal Systems Act, 2000 all municipalities must prepare a Spatial Development Framework (SDF) as a core component of the Integrated Development Plan (IDP). Of vital importance, Chapter 5 of the MSA (Act 32 of 2000) provides for the preparation of IDPs:

- Section 24(1) requires that municipalities should align their planning with national and provincial planning, as well as those of affected municipalities;
- Section 26(e) lists an SDF as a core component of an IDP and requires that the SDF provides basic guidelines for a municipal land use management system.

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### 2.2.3 NATIONAL HOUSING ACT, 1997 (ACT NO. 107 OF 1997) & NATIONAL HOUSING CODE

With regard to human settlement provision, the National Housing Act provides for the facilitation of a sustainable housing development process and lays down general principles applicable to housing development. The Act provides the following prescriptions concerning housing provision:

- Prioritise the housing needs of the poor;
- Provide as wide a choice of housing and tenure options as is reasonably possible;

- Be economically, fiscally, socially and financially affordable and sustainable;
- Be based on integrated development planning;
- Consider and address the impact on the environment;
- Socially and economically viable communities;
- Safe and healthy living conditions;
- Racial, social, economic and physical integration in urban and rural areas;
- Effective functioning of the housing market and level playing fields;
- Higher densities and the economical utilisation of land and services.

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#### 2.2.4 BREAKING NEW GROUND (BNG) POLICY

The Breaking New Ground Policy: A Comprehensive Plan for Housing Delivery was adopted by government as a framework policy which is fundamentally about the need to move away from a housing-only approach to a more holistic development of human settlements, including the provision of social and economic infrastructure. The BNG Policy prescribes that housing delivery should comply with the following objectives:

- Safe and secure environments;
- Adequate access to economic opportunities;
- A mix of safe and secure housing and tenure types;
- Reliable and affordable basic services, educational, entertainment, health, welfare and police services within a Multi-purpose cluster concept;
- Compact, mixed land use, diverse, life-enhancing environments with maximum possibilities for pedestrian movement and transit;
- Low-income housing in close proximity to areas of opportunity;

- Integrated, functional, and environmentally sustainable human settlements, towns and cities;
- Social (Medium-Density) Housing;
- Alternative technology and design.

At national level it must be noted the government of Republic of South Africa since the advent of democracy in 1994 has put emphasis on the development of national policy with the intention to guide planning and decision making on how development should evolve from national, provincial as well as local government level. In 2010, government commissioned the National Planning Commission to develop the National Development Plan, 2030 which is regarded as a blueprint policy framework that guide government on the development of the country. The National Development Plan, 2030 provides a new scope of focus for planning authorities, in that its focus areas that affect spatial planning include the following:

- Creating jobs and livelihoods
- Expanding infrastructure
- Transition to a low carbon economy
- Transforming urban and rural spaces
- Education and training
- Provide adequate health care

In addition, certain aspects that are of specific importance to spatial planning and development at large include:

- Expanding infrastructure:
  - Invest in a new heavy-haul rail corridor to the Waterberg coal field and upgrade the central basin coal network;
  - Upgrading of informal settlements;

- Public transport infrastructure and systems supported by station and facilities to upgrades to enhance links with road-based services;
- Timely development of water schemes to supply urban and industrial centres.
- Transforming urban and rural spaces: -
  - Stop building houses on poorly located land and shift more resources to upgrading informal settlements, provided that they are in areas close to jobs;
  - Increase urban population density, while improving the liveability of cities by providing parks, open spaces and ensuring safety;
  - Improve public transport;
  - Give business incentives to move jobs to townships;
  - Move jobs and investment towards dense townships that are on the margins of cities. Building new settlements far from places of work should be discouraged through planning and zoning regulations responsive to government policy;
  - Give communal farmers, especially women, security in tenure.

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### 2.2.5 NATIONAL DEVELOPMENT PLAN: VISION FOR 2030

Of utmost importance, Chapter 8 of the NDP, 2030 focuses on 'Transforming Human Settlements' and provides five pivotal overarching principles for spatial planning that should guide:

- integrating rural and urban areas;
- accommodating social diversity within the built environment;
- creating more dense settlements without raising the cost of land and housing for the poor;
- integrating transportation systems and land use; and

- broadening the economic base of towns and cities through supply of reliable infrastructure, suitable land and property, connectivity, skills and logistics;
- building community involvement and partnerships;
- generally supporting the development of vibrant, diverse, safe, green and valued places

The overarching principles as identified in the National Development Plan, 2030 includes the following:

- Spatial justice;
- Spatial sustainability;
- Spatial resilience;
- Spatial quality;
- Spatial efficiency.

The National Development Plan identifies a reduction in inequality as being one of the main goals for the country. Key areas in which challenges lie were identified to be as follows:

- Unemployment;
- Standard of education;
- Infrastructure being poorly located, under-maintained and not sufficient for promoting more growth;
- Spatial patterns that exclude the poor from key benefits of development;
- An economy that is too resource intensive to the extent of being unsustainable;
- Widespread disease exacerbated by a public health system that is not doing well;
- Public services that are uneven and also of poor quality;
- Problems with widespread corruption;

- Divisions that exist in South Africa's society.

In aiming to address the above mentioned challenges, the key aspect will be to increase the capability of people to improve their lives and this is to be done through education, health care, housing and basic services, to name but a few.

The NDP vision 2030 identifies the following investments as key priorities:

- Upgrading of informal settlements;
- Provision and renewal of existing public transport infrastructure and public transport systems;
- Development of a freight corridor between Durban and Gauteng;
- Development of new water schemes for urban and industrial centres;
- Construction of infrastructure for importing liquefied natural gas;
- Construction of infrastructure for accelerated exploration in an effort to find more gas feedstock's;
- Addressing the challenge of energy availability through the use of renewable energy and importing electricity from the region.

#### 2.2.6 SPATIAL PLANNING & LAND USE MANAGEMENT ACT (ACT 16 OF 2013)

The Spatial Planning and Land Use Management Act (herein referred as SPLUMA), 2013 is regarded as the most vital piece of legislation that deals with spatial planning and land use management in the country. The Act provides for guiding principles, norms and standards as well as the procedures for spatial planning and land use management. SPLUMA was developed as a result of the Development Facilitation Act (DFA), being declared invalid and unconstitutional by the Constitutional Court in 2012, and was promulgated as Act in August 2013, and serves to provide a framework for spatial planning and land use management. It must be noted that though the Act has been promulgated, its regulations has not been complemented, however the principles are set.

Of vital importance to the Madibeng SDF, SPLUMA comprise of seven (7) chapters, which will be summarised in this document to highlight its relevance to spatial planning.

In terms of Section 5 (1) of Chapter 1 identifies three (3) categories of spatial planning, which in turn identifies three components of municipal planning in particular:

- Integrated Development Planning;
- Spatial Development Planning and Land Use Schemes; and
- Control and regulation of the use of land. In addition,

Chapter 2, Section 7 deals with the development principles for spatial planning, land development and land use, which include the following:

- Spatial justice
- Spatial sustainability
- Efficiency
- Spatial resilience
- Good administration

With regard to the development and preparation of the Spatial Development Framework (SDF) Section 12 of Chapter 4 directs as follows:

- the national and provincial spheres of government and each municipality must prepare spatial development frameworks that :
  - interpret and represent the spatial development vision of the responsible sphere of government and competent authority;
  - are informed by a long-term spatial development vision statement and plan;
  - represent the integration and trade-off of all relevant sector policies and plans;

- guide planning and development decisions across all sectors of government;
- guide a provincial department or municipality in taking any decision or exercising any discretion in terms of this Act or any other law relating to spatial planning and land use management systems;
- contribute to a coherent, planned approach to spatial development in the national, provincial and municipal spheres;
- provide clear and accessible information to the public and private sector and provide direction for investment purposes;
- include previously disadvantaged areas, areas under traditional leadership, rural areas, informal settlements, slums and land holdings of state-owned enterprises and government agencies and address their inclusion and integration into the spatial, economic, social and environmental objectives of the relevant sphere;
- address historical spatial imbalances in development;
- identify the long-term risks of particular spatial patterns of growth and development and the policies and strategies necessary to mitigate those risks;
- provide direction for strategic developments, infrastructure investment, promote efficient, sustainable and planned investments by all sectors and indicate priority areas for investment in land development;
- promote a rational and predictable land development environment to create trust and stimulate investment;
- take cognisance of any environmental management instrument adopted by the relevant environmental management authority;

- give effect to national legislation and policies on mineral resources and sustainable utilisation and protection of agricultural resources; and
  - Consider, where necessary, incorporate the outcomes of substantial public engagement, including direct participation in the process through public meetings, public exhibitions, public debates and discourses in the media and any other forum or mechanisms that promote such direct involvement.
- The national government, a provincial government and a municipality must participate in the spatial planning and land use management processes that impact on each other to ensure that the plans and programmes are coordinated, consistent and in harmony with each other. A spatial development framework adopted in terms of this Act must guide and inform the exercise of any discretion or of any decision taken in terms of this Act or any other law relating to land use and development of land by that sphere of government.
  - A municipal spatial development framework must assist in integrating, coordinating, aligning and expressing development policies and plans emanating from the various sectors of the spheres of government as they apply within the municipal area.
  - Spatial development frameworks must outline specific arrangements for prioritising, mobilising, sequencing and implementing public and private infrastructural and land development investment in the priority spatial structuring areas identified in spatial development frameworks.

Chapter 4 provides the structure for the preparation and content of spatial development frameworks. Part E, Section 20 deals with municipal spatial development frameworks and prescribes the following concerning the content of municipal spatial development frameworks. Section 21 indicates that a municipal spatial development framework must –

- a) give effect to the development principles and applicable norms and standards set out in Chapter 2;
- b) include a written and spatial representation of a five-year spatial development plan for the spatial form of the municipality;
- c) include a longer term spatial development vision statement for the municipal area which indicates a desired spatial growth and development pattern for the next 10 to 20 years;
- d) identify current and future significant structuring and restructuring elements of the spatial form of the municipality, including development corridors, activity spines and economic nodes where public and private investment will be prioritised and facilitated;
- e) include population growth estimates for the next five years;
- f) include estimates of the demand for housing units across different socioeconomic categories and the planned location and density of future housing developments;
- g) include estimates of economic activity and employment trends and locations in the municipal area for the next five years;
- h) identify, quantify and provide location requirements of engineering infrastructure and services provision for existing and future development needs for the next five years;
- i) identify the designated areas where a national or provincial inclusionary housing policy may be applicable;
- j) include a strategic assessment of the environmental pressures and opportunities within the municipal area, including the spatial location of environmental sensitivities, high potential agricultural land and coastal access strips, where applicable;
- k) identify the designation of areas in the municipality where incremental upgrading approaches to development and regulation will be applicable;

- l) identify the designation of areas in which –
- (i) more detailed local plans must be developed; and
  - (ii) shortened land use development procedures may be applicable and land use schemes may be so amended;
- m) provide the spatial expression of the coordination, alignment and integration of sectoral policies of all municipal departments;
- n) determine a capital expenditure framework for the municipality's development programmes, depicted spatially;
- o) determine the purpose, desired impact and structure of the land use management scheme to apply in that municipal area; and
- p) include an implementation plan comprising of –
- (i) sectoral requirements, including budgets and resources for implementation;
  - (ii) necessary amendments to a land use scheme;
  - (iii) specification of institutional arrangements necessary for implementation;
  - (iv) specification of implementation targets, including dates and monitoring indicators; and
  - (v) Specification, where necessary, of any arrangements for partnerships in the implementation process.

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### 2.2.7 LOCAL GOVERNMENT: MUNICIPAL PLANNING & PERFORMANCE MANAGEMENT REGULATIONS (GN R 796 OF 2001)

Section 2(4) of the Local Government: Municipal Planning and Performance Management Regulations provide that an SDF should:

- give effect to the DFA principles;
- set out objectives that reflect the desired spatial form of the municipality;

- contain strategies and policies to achieve the objectives and which should indicate desired patterns of land use;
- address the spatial reconstruction;
- provide strategic guidance regarding the location and nature of development;
- set out basic guidelines for a land use management system in the municipality;
- set out a capital investment framework for the municipality's development programs;
- contain a strategic assessment of the environmental impact of the SDF;
- identify programs and projects for the development of land within the municipality;
- be aligned with the spatial development frameworks reflected in the integrated development plans of neighbouring municipalities;
- provide a plan of the desired spatial form of the municipality, which should:
  - indicate where public and private land development and infrastructure investment should take place;
  - indicate desired or undesired utilisation of space in a particular area;
  - delineate an urban edge;
  - identify areas for strategic intervention; and
  - Indicate priority spending areas.

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#### 2.2.8 NATIONAL ENVIRONMENTAL MANAGEMENT ACT, (ACT 107 OF 1998)

This Act establishes principles for decision-making on matters affecting the environment. In terms of the provision of NEMA, the following directives are relevant to development:

- Development must be socially, environmentally, and economically sustainable.
- Equal access to environmental resources, benefits, and services to meet basic human needs.
- The utmost caution should be used when permission for new developments is granted.

In addition, the Act requires during development attention must be taken to consider all relevant factors which have direct impact on planning and development, including the following:

- that the disturbance of ecosystems and loss of biological diversity are avoided, or, where they cannot be altogether avoided, are minimised and remedied;
- that pollution and degradation of the environment are avoided, or, where they cannot be altogether avoided, are minimised and remedied;
- that the disturbance of landscapes and sites that constitute the nation's cultural heritage is avoided, or where it cannot be altogether avoided, is minimised and remedied;
- that waste is avoided, or where it cannot be altogether avoided, minimised and reused or recycled where possible and otherwise disposed of in a responsible manner;
- that the use and exploitation of non-renewable natural resources is responsible and equitable, and takes into account the consequences of the depletion of the resource;
- that the development, use and exploitation of renewable resources and the ecosystems of which they are part do not exceed the level beyond which their integrity is jeopardised;

- that a risk averse and cautious approach is applied, which takes into account the limits of current knowledge about the consequences of decisions and actions;
- that negative impacts on the environment and on people's environmental rights be anticipated and prevented, and where they cannot be altogether prevented, are minimised and remedied; and
- Equitable access to environmental resources, benefits and services to meet basic human needs and ensure human wellbeing must be pursued and special measures may be taken to ensure access thereto by categories of persons disadvantaged by unfair discrimination.

The participation of all interested and affected parties in environmental governance must be promoted, and all people must have the opportunity to develop the understanding, skills and capacity necessary for achieving equitable and effective participation, and participation by vulnerable and disadvantaged persons must be ensured.

Decisions must take into account the interests, needs and values of all interested and affected parties, and this includes recognising all forms of knowledge, including traditional and ordinary knowledge.

Community wellbeing and empowerment must be promoted through environmental education, the raising of environmental awareness, the sharing of knowledge and experience and other appropriate means.

The costs of remedying pollution, environmental degradation and consequent adverse health effects and of preventing, controlling or minimising further pollution, environmental damage or adverse health effects must be paid for by those responsible for harming the environment.

The vital role of women and youth in environmental management and development must be recognised and their full participation therein must be promoted.

Sensitive, vulnerable, highly dynamic or stressed ecosystems, such as coastal shores, estuaries, wetlands, and similar systems require specific attention in management and planning procedures, especially where they are subject to significant human resource usage and development pressure.

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#### 2.2.9 NORTH WEST SDF (2008)

According to NW PSDF, Brits is earmarked as a primary Regional centre that is situated in close proximity to the priority development zone along the N4 highway. Brits Town is also identified as the development of a vehicle component manufacturing hub as well as dry-port.

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#### 2.2.10 NORTH WEST EMPLOYMENT, GROWTH AND DEVELOPMENT PLAN, 2004 - 2014

The Brits Town area is identified by PGDS as motor manufacturing hub with huge situational advantages to benefit from the Maputo railway line and harbour.

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### 2.2.11 BOJANALA DISTRICT IDP 2013/2014

The MLM IDP Review 2013/2014 put emphasis on the following strategic objectives:

- The provision of basic municipal services must be in line with approved budget as well as set targets;
- The delivery and promotion of access to free basic services ought to be in accordance to with available resources as well as set targets;
- The upgrading and maintenance of existing municipal services must be in line with set targets, norms and standards;
- To improve quality of life of communities through social development initiatives in alignment with set targets, norms and standards;
- Provision of risk-free, safer, clean and healthy environment to the constituents in alignment with set targets, norms and standards;
- Promotion of integrated human settlement and land use management in line with set targets, norms and standards;
- To enhance and give support to LED initiatives in line with set targets, norms and standards;
- Promotion of good governance and principles of accountability achievable through public and stakeholder participation informed by set targets, norms and standards; and

Promotion of coordinated planning, monitoring, evaluation and improvement in line with set targets, norms and standards.

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### 2.2.12 BOJANALA DISTRICT SDF 2005

The District SDF of 2005 stipulates that there is viability for establishing a vehicle component manufacturing hub and associated dry-port for distribution

purposes in Brits Town ought to be investigated. The locational benefit and its proximity to vehicle and vehicle component manufacturing industries in the Rosslyn industrial area could also support the development possibility of a dry port in Brits.

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2.2.13 MADIBENG ENVIRONMENTAL MANAGEMENT FRAMEWORK,  
2009

The motive behind Environmental Management Framework is formed on the basis of the fact that the-

*“Municipality is experiencing development pressure, especially along the south through to the eastern boundaries, which is threatening the sustainability of its natural resources. As a result one of the main aims of the EMF would be to define the environmental limits within which development can occur and the levels of environmental quality beyond which development cannot be sustained. This will be achieved by ensuring that the EMF is used to pro-actively plan development expansion in a sustainable manner.”*

On the basis of the statement above Madibeng EMF identifies the following pressures on the Brits Environment:

- An increase in urban development;
- Informal dwelling and urban sprawl;
- Harvesting of natural resources (fauna and flora) in unsustainable manner for medicinal and domestic purpose;
- Mining and industrial related procedures;
- Illegal dumping and land transformation;
- Agricultural activities that are poorly governed result in Biodiversity loss; and
- Loss of wetlands and degradation of freshwater systems.
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#### 2.2.14 MAGALIESBERG ENVIRONMENTAL MANAGEMENT FRAMEWORK AND PLAN, 2007

As a result of unique geological, visual, biodiversity and ecological characteristics of Magaliesberg area and the development pressure on the Magaliesberg Protected Environment, the North West Department of Agriculture, Conservation and Environment appointed the development of an Environmental Management Framework and Plan with regard to part of Magaliesberg in North West.

According to EMF the Magaliesberg vision is described as follows:

*“The Magaliesberg Protected Environment is internationally and nationally recognized for its unique biodiversity, geo-morphology and heritage resources which are protected and conserved to provide sustainable and quality eco-tourism and educational/research opportunities for current and future generations”.*

EMF is viewed as a decision support instrument aiming at informing strategic level decision making. Furthermore, it offers a clear strategic direction to decision makers in ensuring that the MPE is administered in line with the set strategic vision and objectives of the area.

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#### 2.2.15 MAGALIESBERG BIOSPHERE

Magaliesberg became a Protected Environment in 2003 when Environmental Conservation was replaced by Protected Areas Act. Magaliesberg area was proclaimed a Biosphere under the UNESCO's Man and the Biosphere program. Biospheres represent an innovative and sustainable approach to the

management of land and water resources. The natural features of Magaliesberg make it valuable for from a tourism and recreation point of view. As stipulated by MPE and EMF the region is faced with huge development pressure as a result of ever increasing demand for housing, infrastructure development, tourism as well as other forms of developments in the urban and surrounding areas. According to EMF these are causing damage and threatening the sustainability of Magaliesberg environment.

Magaliesberg Biosphere Guidelines are divided into three and are listed in the table below:

**Table 2: Magaliesberg Biosphere Guidelines Categories**

	Core areas	Buffer Zones	Flexible transition area
Definition	<ul style="list-style-type: none"> <li>• These are protected areas and those seeking formal protection in Magaliesberg such as National Parks, Nature Reserves, World Heritage Sites to mention a few.</li> </ul>	<ul style="list-style-type: none"> <li>• These are undisturbed areas worthy of protection as a result their generally high natural, visual and cultural quality.</li> </ul>	<ul style="list-style-type: none"> <li>• Areas within Magaliesberg Biosphere where majority of people live and with significant and diverse economic activity</li> </ul>
Objectives	<ul style="list-style-type: none"> <li>• These are meant to protect the landscape, biodiversity and cultural history of Magaliesberg Biosphere as well as promoting the use of these resources in a sustainable way.</li> </ul>	<ul style="list-style-type: none"> <li>• Intended to support the environmental integrity of the core area but permits a broader variety environmentally sensitive land uses and activities which are economically sustainable</li> </ul>	<ul style="list-style-type: none"> <li>• The aim in these areas is the fact that stakeholders work together in managing and developing the area's resources in a manner that is sustainable and environmentally friendly in accordance with Magaliesberg Biosphere</li> </ul>

<p>Land Use/Desirable activities</p>	<ul style="list-style-type: none"> <li>• Conservation and research activities, conservation-based education and limited low-key nature based tourist facilities as well as activities with light touch</li> </ul>	<ul style="list-style-type: none"> <li>• Conservation and research activities, conservation-based education, tourism and recreational activities as well as inclusion of agricultural and other legal land uses in existence</li> </ul>	<ul style="list-style-type: none"> <li>• Aimed at land uses considered suitable in terms of planning guidelines that are assessed by the Management Authority/Board and in accordance with Magaliesberg Biosphere</li> </ul>
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### 2.2.16 MADIBENG INTEGRATED DEVELOPMENT PLAN, REVIEW (2015/16)

According to Madibeng Integrated Development Plan, 2013/2014 different communities in various wards set out their needs during the public participation process. The community need for different wards in Hartbeespoort area include the following:

- Land and Housing;
- Electricity;
- Water and sanitation;
- Roads and storm water;
- Social services; and
- Local Economic Development.

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### 2.2.17 MADIBENG LOCAL ECONOMIC DEVELOPMENT STRATEGY, 2008-2009

According to MLM LED Strategy it is stipulated that many manufacturers and industries are relocating to areas like Rosslyn as a result of unattractive conditions in the Brits Industrial area. This can be addressed through competitive incentives and promotions to draw industries to this region.

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### 2.2.18 MADIBENG INDUSTRIAL DEVELOPMENT STRATEGY 2013-2023

MIDS 2013-2023 states that majority of industries are located in Brits, but due to favourable industrial prospects offered in the Tshwane Metropolitan Municipality a huge number of industries are moving to areas such as Rosslyn. Tshwane Metropolitan Municipality is at present finalizing a feasibility study to

revamp the Ga-Rankuwa and Babelegi Industrial Park and this can make matters worse in terms of manufacturers relocating to those areas. Furthermore, majority of companies are relocating to Ga-Rankuwa Industrial Park as rental is cheaper (R13, 97m) as compared to Brits (R20m).

According to MIDS the following proposals are very crucial with regard to industrial regions in MLM:

- Local Business Investment climate must be improved;
- Investing in Hard Strategic Infrastructure;
- Building skills and expertise through shaping private public partnerships;
- Encouragement of new enterprise;
- Promotion of inward investment;
- Sector Development; and
- Safety and environmental management.

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#### 2.2.19 REGIONAL SPATIAL DEVELOPMENT FRAMEWORK 2013 FOR REGION 3: CITY OF TSHWANE METROPOLITAN MUNICIPALITY

With regard to Regional Spatial Development Framework 2013 for Region 3, the following are relevant aspects that relate to the Precinct Plan:

- The eastern part of precinct boundary (including part of Tshwane) earmarked for rural development;
- The Urban Edge of City of Tshwane is situated 7km away from the Hartbeespoort area boundary along the R104 in the southern part and approximately 10km away along the R514 in the north; and
- The area along R511 is identified as an area with tourism potential.

### 3. SDF VISION

With regard to drafting of Madibeng Local Municipality spatial vision and analysis of the current IDP as well as SDF vision statements on the various spheres of government were carried out. The IDPs and SDFs of different spheres of government were analysed and discussed below.

#### 3.1 PROVINCIAL

The North West Provincial Spatial Development Framework has the following objectives:

Provision of the appropriate information to be used in the participatory development of the provincial development as well as environmental management;

- Address the current spatial planning and land use management situation within the province to promote co-ordinated, integrated as well quicker decision-making;
- Considerately address the present inequalities and unsustainable development with North West province with special emphasis on rural development;
- Promote spatial integration amongst provinces as well within regions (functional areas) in North West;
- Promote growth and development of places through a multi-sectoral approach in accordance with their potential (location, comparative advantages, availability of natural and human resources);
- Contributing to co-operative governance through ensuring better alignment between economic as well as social infrastructure by providing guidelines for setting priorities; and

- Conservation, protection as well as rehabilitation of the natural resource base in a manner that these resources remain available for future utilization by present and future generations.

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- Contributing to co-operative governance through ensuring better alignment between economic as well as social infrastructure by providing guidelines for setting priorities; and
- Conservation, protection as well as rehabilitation of the natural resource base in a manner that these resources remain available for future utilization by present and future generations.

The MLM SDF 2009 identifies Brits Town as the highest order settlement and the key economic and administrative centre in the MLM which is under pressure for development. Furthermore, SDF identifies the following issues regarding to Brits Town area:

- Public transport route of Fafung-Lethlabile lacks direct linkages between Brits, Oukasie and Lethlabile;
- Majority of the roads in Brits have not been resealed for 25 years and maintenance is a high priority;
- There is requirement for efficient public transport systems running between Bapong and Brits;
- MLM is unable to meet the demand for potable water in the Brits Town area; and
- There is conflict of interest between expansion of the Brits area and high potential, listed land surrounding it.

In the process of developing the Precinct Plan the following development proposals from MLM SDF 2009 should be taken into consideration:

- The precinct lies inside the urban edge as delineated by the MLM SDF 2009 and is demarcated as urban areas;
- The proposed further developments should be directed towards the eastern direction along the R566 towards Tshwane;
- The transport corridor running between Brits and Mmakau (R566) forming a linkage with Ga-Rankuwa and Rosslyn Industrial area is crucial as an economic corridor in MLM. This corridor should be aligned along R566 extending from Brits/Oukasie past Damonsville heading to Rosslyn and recommended for industrial, economic and mining expansion;
- The railway line for commuters which runs from Mmakau eastwards to Rosslyn ought to be stretched along the current freight line to Brits;

- The expansion of Brits southwards makes logic from a planning point of view, however this is constrained by high potential agricultural land;
- It is proposed that the area in between western side of the R511 in between Brits and the N4 Platinum Highway should be developed for a high quality economic activity corridor;
- The entrance in the southern part of Brits along the R511 is not pleasing in the eyes and ought to be addressed through urban design measures, landscaping and strict land use control measures; and
- Land amounting to 100ha located next to Oukasie towards Brits along the main road must be reserved for cemetery.

On the basis of the statement above Madibeng EMF identifies the following pressures on the Brits Environment:

- An increase in urban development;
- Informal dwelling and urban sprawl;
- Harvesting of natural resources (fauna and flora) in unsustainable manner for medicinal and domestic purpose;
- Mining and industrial related procedures;
- Illegal dumping and land transformation;
- Agricultural activities that are poorly governed result in Biodiversity loss;
- Loss of wetlands and degradation of freshwater systems.

According to EMF there are four development constraint zones for the MLM.

## 3.2 DISTRICT MUNICIPALITY

Madibeng Local Municipality is within Bojanala Platinum District Municipality. The Bojanala Platinum District IDP has the following vision:

*'Bojanala Platinum District Municipality, a model of cooperative governance for effective and efficient service delivery in partnership with local municipalities and all stakeholders'.*

The Bojanala Platinum District Municipality has the following mission in order to achieve its vision.

The mission of the Bojanala Platinum District Municipality is as follows:

*'Bojanala Platinum District Municipality, through shared services, will coordinate, facilitate and support local municipalities by equitable sharing of resources and maximising community benefit of natural resources in a safe and healthy environment'.*

The current District SDF has no vision but it does propose objectives similar to that of the Provincial SDF.

North West Province has the Objectives of Vision 2014. Furthermore, these objectives of Vision North West 2014 as set and committed to at the North West Provincial Growth and Development Summit dated August 2004 include the following:

- Both poverty and unemployment be reduced by half in next ten (10) years;
- Economy be promoted through skill development provision and build the capacity in fighting poverty;

- Enhancing the human rights as enshrined in the Bill of Rights amongst vulnerable groups such as women, youth, disabled, children and the elderly;
- Government services must be provided efficiently and effectively to the people;
- Significantly decrease cases of preventable diseases as well as turning the tide on HIV/AIDS; and
- Creating of an environment that is safe and secure for the promotion of sustainable development.

### 3.3 MADIBENG LOCAL MUNICIPALITY

The spatial vision is the core of the prime leg of the Madibeng SDF. The vision focal point is on service delivery and reads like this:

*“To be a leading, united Municipality through service excellence.”*

In terms of space, it has the following interpretations:

- Service provision in areas where not available as well as improving those in existence to up their standard for public acceptance;
- Ensuring that delivery of services forms tangible end products, like schools, clinics, roads as well as job opportunities; and

To be the leading Municipality in terms of bringing all relevant stakeholders together in this common goal of service delivery, so as to the benefit of the entire Madibeng residents.

### 3.4 VISION

Based on the existing vision statements and goals and principles, the following have to be included in the vision statement:

- ✓ The need for the correction of currently dysfunctional spatial patterns that contribute to inequality, poverty and lack of development, as proposed in National and Provincial Legislation;
- ✓ The need for Spatial Reconstruction that can be attained through urban integration, bulk municipal infrastructure, service integration, land use and transportation integration and protection of agricultural land and open spaces;
- ✓ The need for Development Concept which takes into consideration and addresses community needs such existing Spatial Development Initiatives (SDIs), Core area (CBD), and Primary and Secondary Development Corridors;
- ✓ The importance of Cradle of Humankind-a World Heritage Site, Magaliesberg Mountain Ranges, Hartbeespoort Dam and Platinum Corridor linking east and west of Africa; and its potential for tourism, especially eco-tourism as contained in the district and local municipal visions; and . This Corridor links Trans Kalahari Corridor at the Botswana border with Walvis Bay. On the Gauteng border it links Maputo Corridor to Mozambique.

Vision statements that relate to actions that are part of the function of government such as efficient administration of resources and affordable service provision will not be included in the vision as these actions are prescribed by legislation and deal with administrative actions. They do not provide a view on where the district wants to be spatially in the future but rather the minimum that is expected of a municipality.

Based on the above, the proposed spatial vision for Madibeng Local Municipality is as follows:

***“A Municipality characterised by social equity, environmental sustainability and efficient functionality. “***

This vision can be achieved through the attainment of the following Spatial Development Goals:

- Preservation of the Municipality’s unique biodiversity and cultural heritage;
- Provision of basic services, amenities and education accessible to everyone;
- Improvement of the quality of living environments through integrated human settlements;
- Ensuring that public good reigns over private interests;
- Ensuring that people have access to a similar range of opportunities, resources and amenities; and
- Restructuring dysfunctional spatial forms into more accessible and efficient living spaces.

## 3.5 IMPLICATIONS OF NEIGHBOURING SPATIAL DEVELOPMENT FRAMEWORKS

### 3.5.1 NEIGHBOURING SPATIAL DEVELOPMENT FRAMEWORKS

This section will briefly summarise the most important aspects identified in the neighbouring local municipality SDF.

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### 3.5.1.1 MORETELE SDF

Moretele local municipality is strategically located in relation to Madibeng local municipality, Gauteng, Limpopo, Harare and the Maputo Harbour. Furthermore, is located along Heritage Route linking the World Heritage Site with Pilanesberg, Madibeng local municipality and Madikwe Game Reserves. It is highlighted by Environment Report that the percentage contribution to the Gross Geographic Product (GGP) by the local municipality shows that Madibeng is one of the main contributor by 25.76%. The NEMA requires that air quality management within Madibeng local municipality be managed with regard to set national norms and standards.

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### 3.5.1.2 MOGALE CITY SDF

The issues listed below must be regarded as central with regard to the development of Mogale City Local Municipality SDF. The Cradle of Humankind World Heritage Site and its proposed buffer zone should be considered when proposing any development within the area. Towards the north, Mogale City Local Municipality and Madibeng Local municipality share a strong agricultural and natural open space border, with a continuous rural environment between these two local municipalities. The Cradle of Humankind World Heritage Site, which spans the two municipalities, forms a vibrant linkage of both municipalities.

Equally, the rural environment stretches into the Rustenburg Local Municipality in the west. The Magaliesberg and Witwatersberg, which extent across Tshwane, Madibeng, Mogale City and Rustenburg Local Municipality, provide strong natural structuring and environmental linkages between these areas.

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### 3.5.1.3 CITY OF TSHWANE SDF

With regard to water supply, certain portions of the water systems within Madibeng Local Municipality in areas such as Itsoseng, Kgabalatsane and Klipgat are supplied from the City of Tshwane bulk system. In terms of major regional corridors the former N4 (PWV1) freeway links the CBD of Tshwane with North West and runs east-west through the west of the region where Madibeng local is located. This road forms a dominant central mobility spine within the region.

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### 3.5.1.4 THABA ZIMBI SDF

Road R511 which runs between Thabazimbi and Brits links the Madibeng Local Municipality and Thabazimbi Local Municipality. According to Madibeng SDF, this route is earmarked as a tourism corridor, also known as the Crocodile River tourism corridor. It is also stated in SDF of Madibeng that this road is the basic route for both visitors and tourists to the region to their specific tourist destinations, like Dikhololo Game Reserve and Lodge to mention but few. According to Thabazimbi SDF this route is also classified as a Movement Corridor particularly of the tourists from Gauteng via Brits, and a Development Corridor for tourism related as well as rural residential developments. The Madibeng highlighted that this road should be viewed as a scenic route which is supported by the development proposals in the Thabazimbi SDF in respect of tourism and eco-related land uses. Usual land uses that are supported in both the SDF's are extensive and intensive agriculture areas, game farming, conservation and nature reserves, tourism facilities and associated activities, rural residential areas and interrelated uses as well as mines.

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#### 3.5.1.5 MOSES KOTANE SDF

The road R556 (P51/1) serves as the key tourism link between Moses Kotane local municipality and Gauteng via Brits and Hartbeespoort Dam. There are mining activities within Moses Kotane local municipality are closely associated with the Merensky Reef (Platinum Belt) and are concentrated in a band stretching from the west of Pilanesberg, southwards through the Bafokeng area towards Marikana and Brits which is in Madibeng local municipality

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#### 3.5.1.6 RUSTENBURG SDF

Rustenburg is located within the eastern parts of North West Province and this makes it accessible to a number of major South African centres. These major centres include Johannesburg and Tshwane located approximately 120km from Rustenburg. Furthermore, there are smaller centres surrounding Rustenburg which include Madibeng local municipality, Mogale City local municipality and Zeerust within the Ramotshere Moilwa local municipality.

### 3.6 SUMMARY OF EXISTING PLANS

**Table 3: Madibeng Sector Plans**

Type of Plan	Name of Plan
<b>Precinct Plans</b>	Hartbeespoort Area Precinct Plan (2014)
<b>Precinct Plans</b>	Brits Area Precinct Plan (2014)
<b>Environmental Management Framework (EMF)</b>	Madibeng EMF
<b>Master Plan</b>	Madibeng Tourism Master Plan 2008
<b>Local Economic Development (LED) Strategy</b>	Madibeng LED Strategy 2008/09
<b>Management Plans</b>	Magaliesberg Biosphere Management Plan 2011
<b>Transport Plan</b>	Bojanala Integrated Transport Plan (2003)

## 4. SPATIAL ANALYSIS

### 4.1 BIOPHYSICAL ENVIRONMENT

#### 4.1.1 GEOLOGY & TOPOGRAPHY

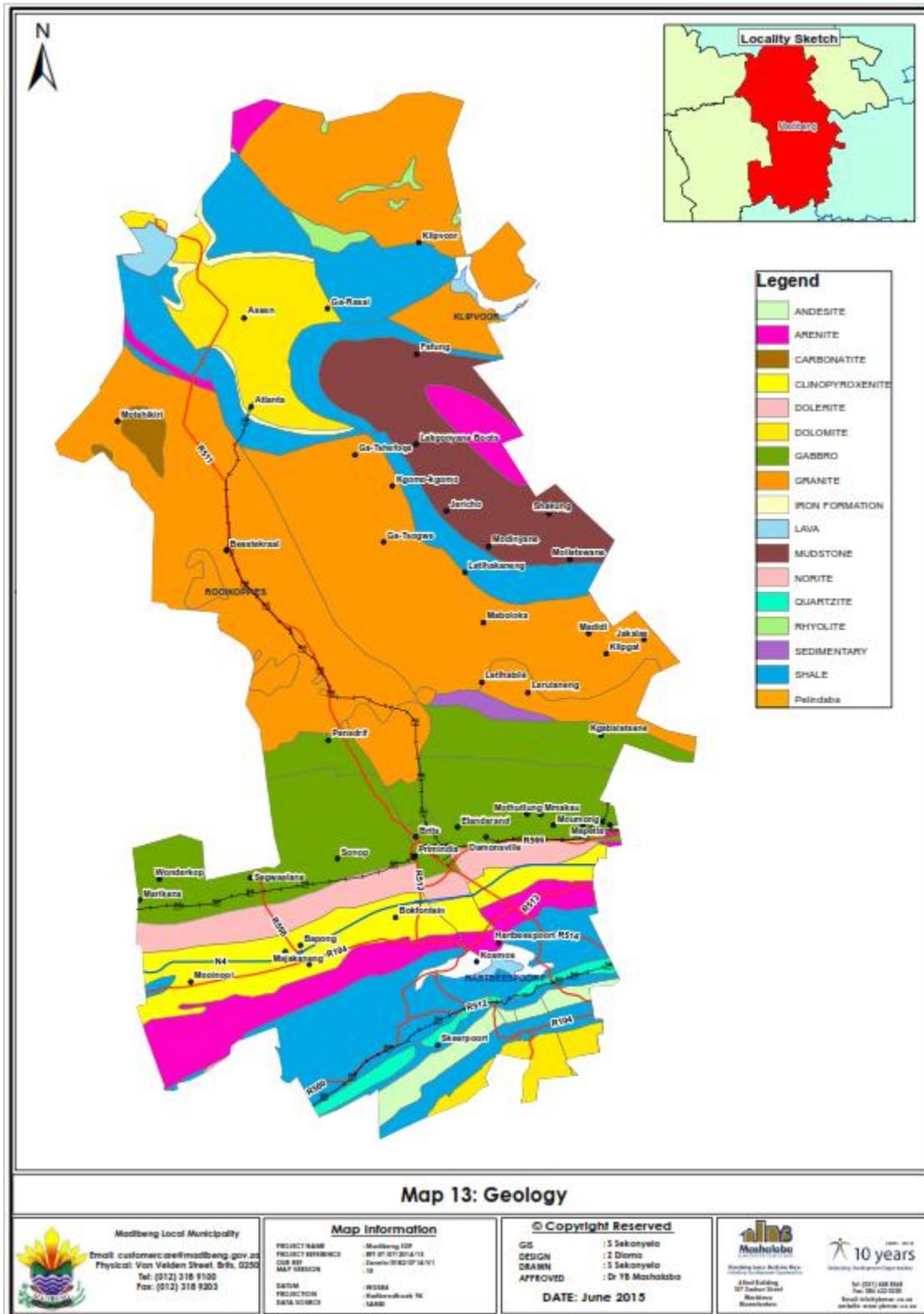


Figure 2: Geology

The table below classifies some of the rock types found with the Madibeng Local Municipal area. For geological purposes, the intrusive rock types are of significance.

**Table 4: Madibeng Rock types**

MINERAL	ROCK TYPE	DESCRIPTION
<b>ARENITE</b>	Sedimentary	<ul style="list-style-type: none"> <li>• Arenite rocks are formed when weathered grains are consolidated into rock via compaction, consolidation and cementation.</li> <li>• This rock type generally occurs along the coastlines of Southern Africa within the sand deposits.</li> </ul>
<b>GRANITE</b>	Igneous	<ul style="list-style-type: none"> <li>• Granite forms when magma intrudes into the Earth's crust to crystallize in an isolated environment.</li> <li>• This causes the rock to be coarse-grained.</li> <li>• Granite consists of minerals like quartz, plagioclase and alkali feldspar.</li> </ul>
<b>MUDSTONE</b>	Sedimentary	<ul style="list-style-type: none"> <li>• Mudstone is built up of particles originating from the weathering of other rocks and deposited in a depositional basin.</li> <li>• Clay-sized particles are transported in suspension in water settle in deep water marine or fresh water lakes.</li> <li>• After compaction and cementation it is called mudstone.</li> <li>• Clay refers to particles smaller than 0.02mm.</li> <li>• Mudstone occurs within a succession of coarse-grained sandstone alternating with fine-grained mudrock.</li> </ul>
<b>NORITE</b>	Intrusive Igneous	<ul style="list-style-type: none"> <li>• Norite consists primarily of plagioclase and pyroxene.</li> <li>• Norite along with gabbro is one of the major rock types in the Bushveld Igneous Complex.</li> </ul>
<b>QUARTZITE</b>	Metamorphic	<ul style="list-style-type: none"> <li>• Quartzite is formed through pressure and heat of mainly sandstone and other silica-rich rocks.</li> <li>• Quartzite like many other types of sandstone has also undergone recrystallization due to burial depth and are then referred to as orthoquartzites.</li> </ul>

MINERAL	ROCK TYPE	DESCRIPTION
SHALE	Sedimentary	<ul style="list-style-type: none"> <li>• Shale consists largely of silt and clay sized particles and with visible layering (fissile) as opposed to a mudstone that is massive.</li> <li>• Shale always occurs within a succession of coarse-grained sandstone alternating with fine-grained shale (mudstone).</li> <li>• The most widespread occurrence is in the Karoo strata which covers 75% of the central subcontinent.</li> </ul>

Norite and Gabbro are minerals quarried from the Bushveld Igneous Complex (BIC). These minerals are contained within the Merensky reef which stretches parallel to the N4 in the northern direction of the Magaliesberg range. The Bushveld Igneous Complex generally contains the bulk of Platinum reserves. The mining potential of associated with these minerals will be deliberated later in the report.

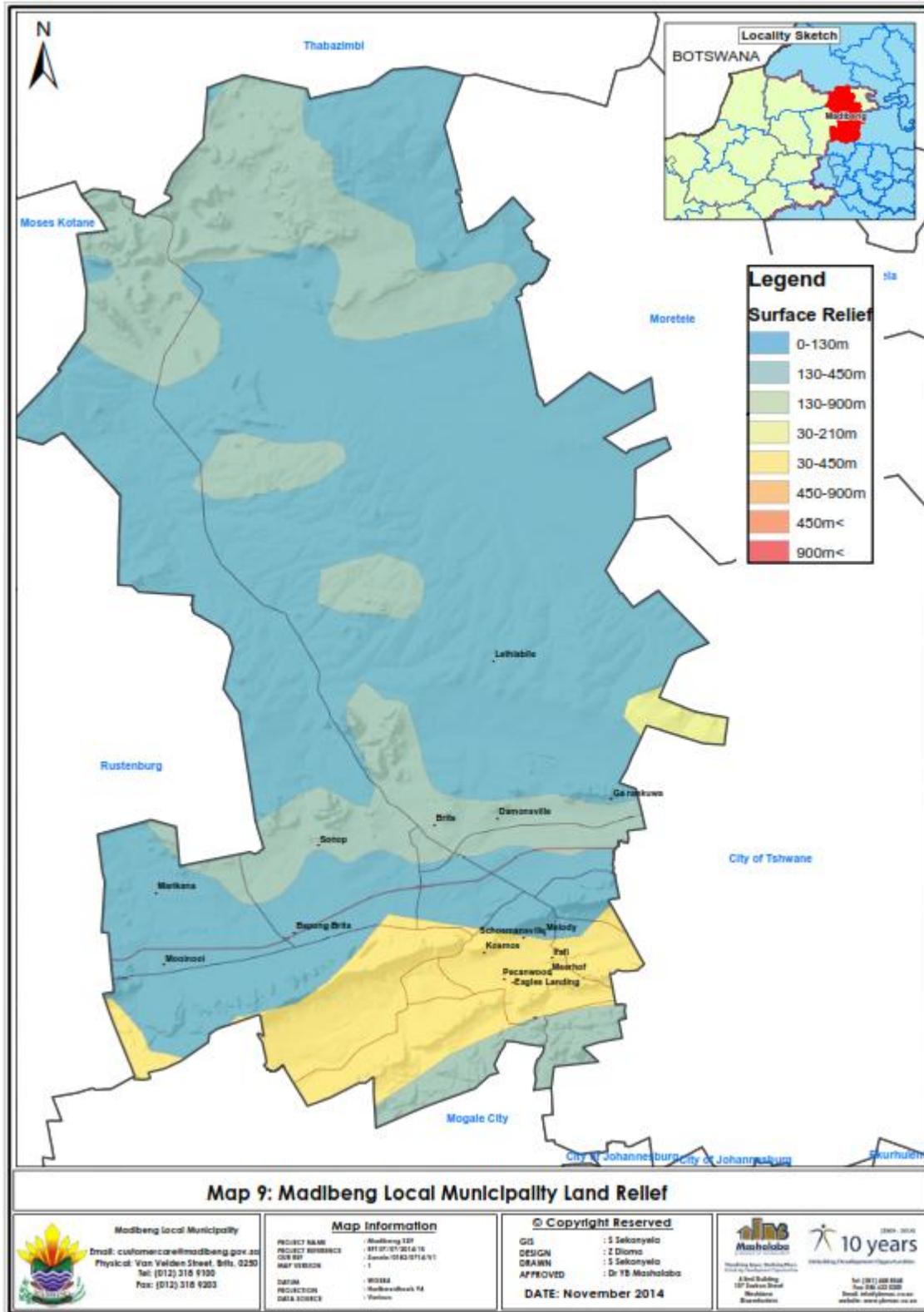


Figure 3: Land Relief

The northern area of Madibeng Local Municipal is generally mountainous with higher level terrain types along the Magaliesberg and the Witwatersberg Mountain ranges. The area has a total of four mountain ranges, which are:

- The Magaliesberg Mountain range;
- The Witwatersberg Mountain range;
- The Langberg Mountain Range; and
- The Elandsberg Mountain range.

Map 9 indicates a surface relief ranging from 300 metres to 450 metres along the Magaliesberg Mountain range. The Magaliesberg range together with the Hartbeespoort dam equate to a majestic natural landscape. This causes increased development initiatives along the northern boundary of the dam. This terrain poses environmental concerns with regards to slope restrictions on development initiatives at macro level, as there is an important need to retain the natural landscape.

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#### 4.1.1.1

#### WITWATERSBERG MOUNTAIN RANGE

The Witwatersberg Mountain range is also within the 300 metres to 450metre surface relief. This mountain range runs parallel to the Magaliesberg Mountain range and forms the southern boundary of the Hartbeespoort dam. The above mentioned form one of Madibeng's natural beauties. This results in increased high tourism potential and development initiatives which need strict monitoring.

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#### 4.1.1.2

#### LANDBERG MOUNTAIN RANGE

The Landberg Mountain range is located central to municipal area. It is on the north western direction to Brits. It falls within the 130 to 300 metres surface relief. Characterised by game farming, this mountain range serves as a tourist

destination. In this regard, there is conservative and protection measures in place for this mountain range.

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#### 4.1.1.3 ELANDSBERG MOUNTAIN RANGE

The Elandsberg Mountain range is located in the north western area of the municipality. It falls within the 130 to 300 metres surface relief. Similarly to the Landberg mountain range, this mountain range has tourism potential. However the game farming activity occurs at a lower scale.

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#### 4.1.2 HYDROLOGY AND AQUATIC ECOSYSTEMS



Madibeng Local Municipality hydrological system is composed of three dams and three main rivers. All of these water sources serve as irrigation sources for the agricultural activity in the Municipality. The rivers are the Crocodile River, Moretele River and Tolwane River, while the dams are Hartbeespoort Dam, Klipvoor Dam and Rooikoppies Dam.

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#### 4.1.2.1 THE CROCODILE RIVER

The Crocodile River is the biggest and the primary river within the Madibeng Local municipality. This river runs parallel to the R511 and stretches from the North Western side to the South Eastern side of the Municipal area. Along its flow, it feeds into the Rooikoppies dam and the Hartbeespoort dam.

The Crocodile River is characterised by intensive agricultural activity located along its banks. This is due to the irrigation and water supply that the river possesses. Thus the Crocodile River contributes a very big role in the agricultural sector within the municipality. For this reason, the protection and sustainable use of this river is of vital importance.

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#### 4.1.2.2 MORETELE RIVER

This river is situated on the Northern quadrant of the Municipal area. It is the second biggest river in Madibeng Local Municipality, flowing from the east to the west and serves as a major tributary into the Crocodile River. In the eastern side, it feeds into the Rooikoppies dam. Along its banks, this river is characterised by subsistence and agricultural holdings.

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#### 4.1.2.3

#### TOLWANE RIVER

The Tolwane River is the smallest of the three rivers found in Madibeng Local Municipality. It stretches diagonally from the South Eastern side of the Moretele River towards the North Western side of the municipality, where it merges into the Moretele River. The banks of the Morete River have a reasonable dispersion of subsistence farming and fewer small holdings. The former can be located near Modinyane.

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#### 4.1.2.4

#### HARTBEESPOORT DAM

The Hartbeespoort Dam is located on the Southern area of the municipality. It is found between the Magaliesberg and the Witwatersberg Mountain Range. This dam has a national footprint. The dam wall which connects Damdoryn and Schoemanville is a national landmark known for its historical significance. The Magaliesberg River and the Crocodile River feed into this dam, with the latter River as the bigger tributary.

From a tourism point of view, Hartbeespoort Dam is considered a water based leisure and entertainment zone. The scenic beauty of the dam and its surrounding ranges has resulted in increased residential development and tourist attraction into the local municipality. This ironically exerts pressure on the ecological conditions of the dam.

In an attempt to reserve this area, some of the dam banks are declared protected as small nature reserves. Kommandonek and Oberon are the most noticeable of the nature reserves. However, water pollution is a major concern with the regards to the dam's ecology. This is not attributed to the residential and tourism pressures experienced at the dam but rather by pollution coming

upstream from the Crocodile River, beyond the Madibeng jurisdiction. The pollution is dominantly caused by invasive species and fertilizers.

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#### 4.1.2.5 KLIPVOOR DAM

Klipvoor dam is located on the northern side of the Municipality. As indicated earlier, the Moretele River is the tributary to this dam. The Northern and Western area around the dam is characterised by subsistence agriculture. Furthermore, the Borakalalo Nature Reserve protects largely the Southern and the Northern shores of the dam.

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#### 4.1.2.6 ROOKOPPIES DAM

The Rooikoppies Dam is located on the North Western side of the Municipal area and a portion of the dam fall out of the Municipal area. Similarly to Hartbeespoort Dam, the Crocodile River is the only tributary into the dam. The dam shores are surrounded by intensive agricultural activity and there are no proclaimed nature reserves around this dam.

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#### 4.1.3 AGRICULTURE

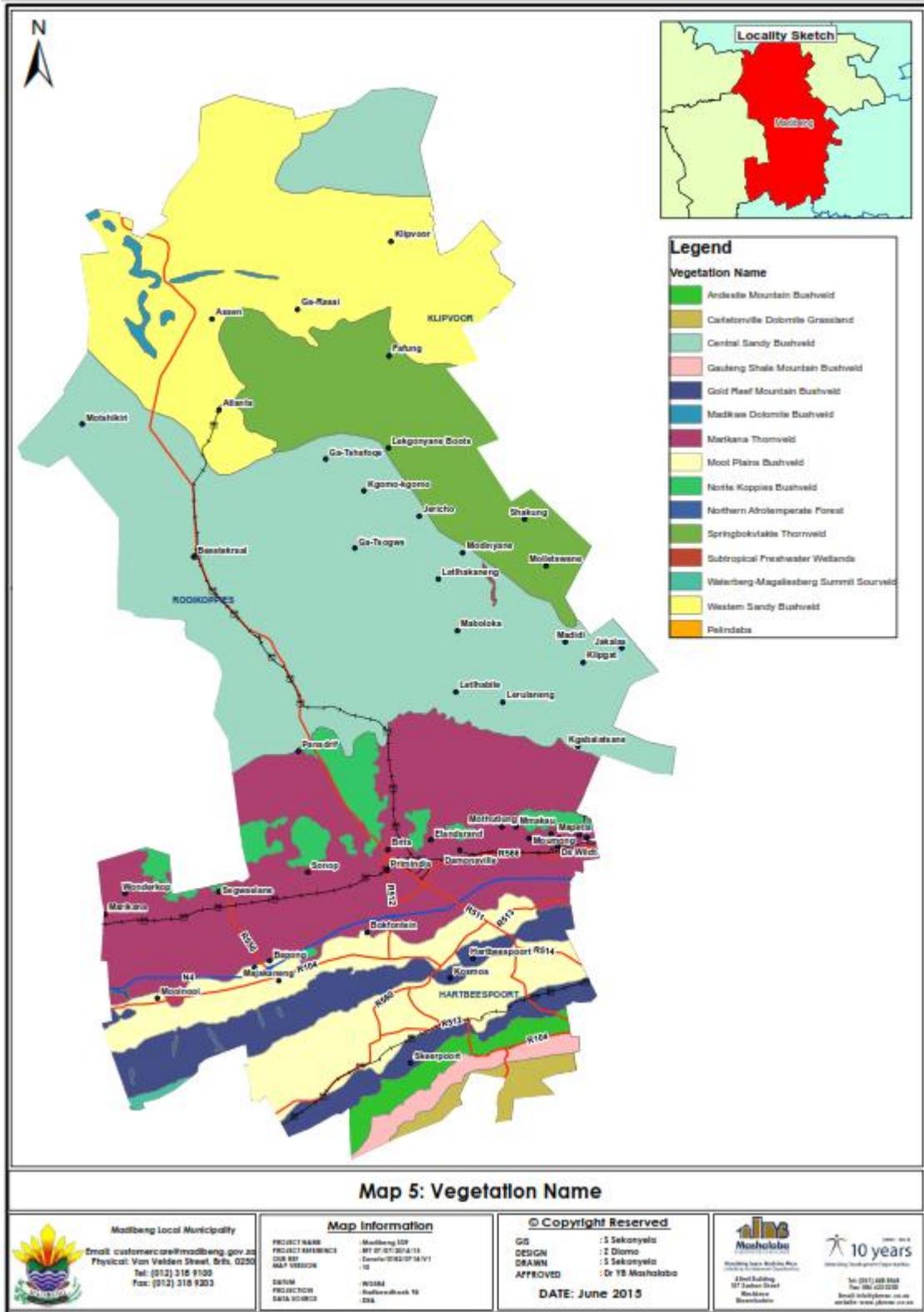


Figure 5: Vegetation Name

Madibeng Local municipality area is dominated by the Bushveld vegetation type. The Clay thorn vegetation belt stretches across the N4 route covering Brits and other settlements such as Marikana and Ga-Rankuwa. This area is populated by the Marikana Thornveld. South of the Marikana Thornveld lies a variety of vegetation names ranging from different types of Bushvelds to the Carletonville grasslands towards the Gauteng province. The Northern side of the Marikana Thornveld is dominated by sandy types of Bushvelds.

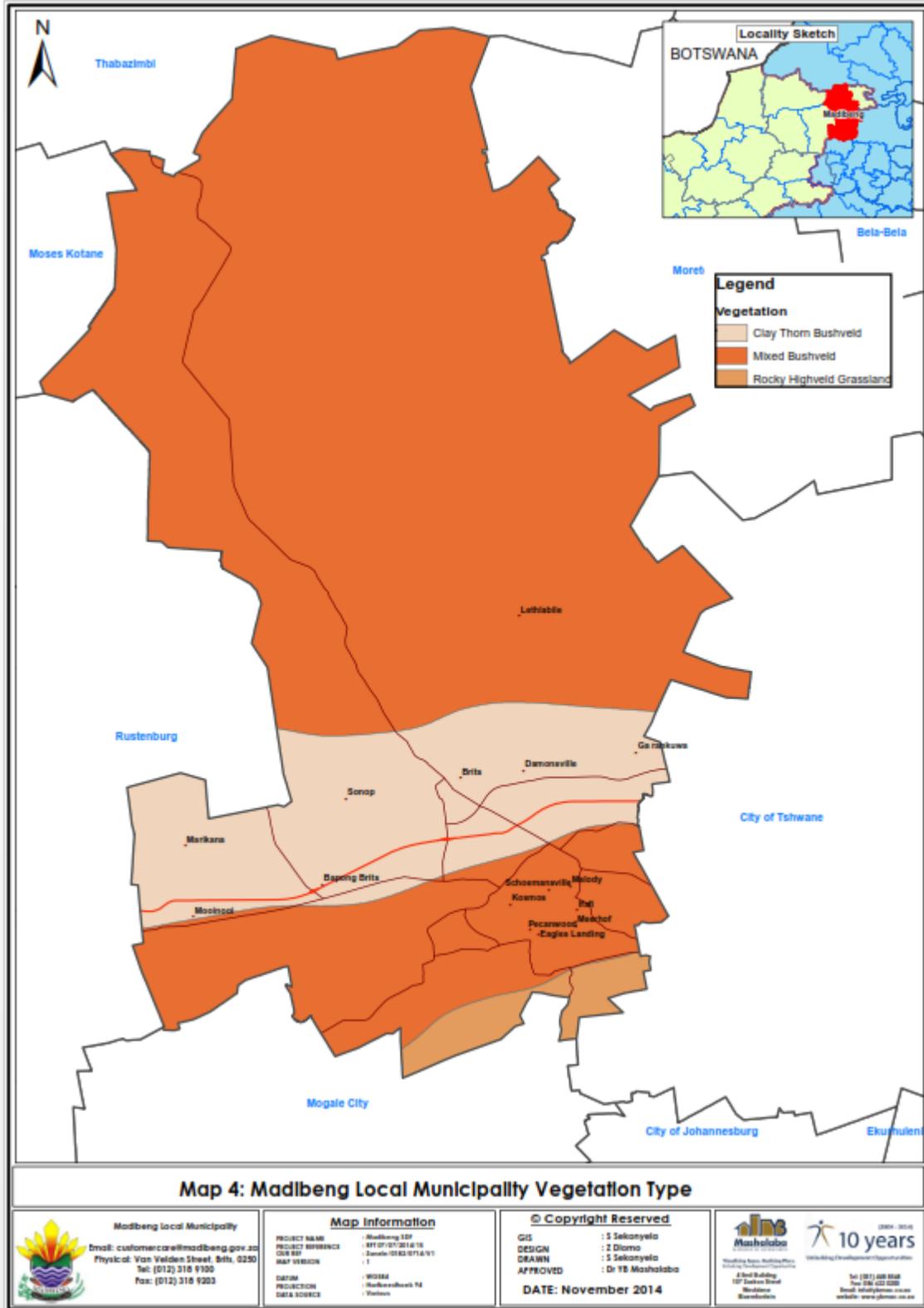


Figure 6: Vegetation Type

#### 4.1.4 CONSERVATION, HERITAGE AND SENSE OF PLACE

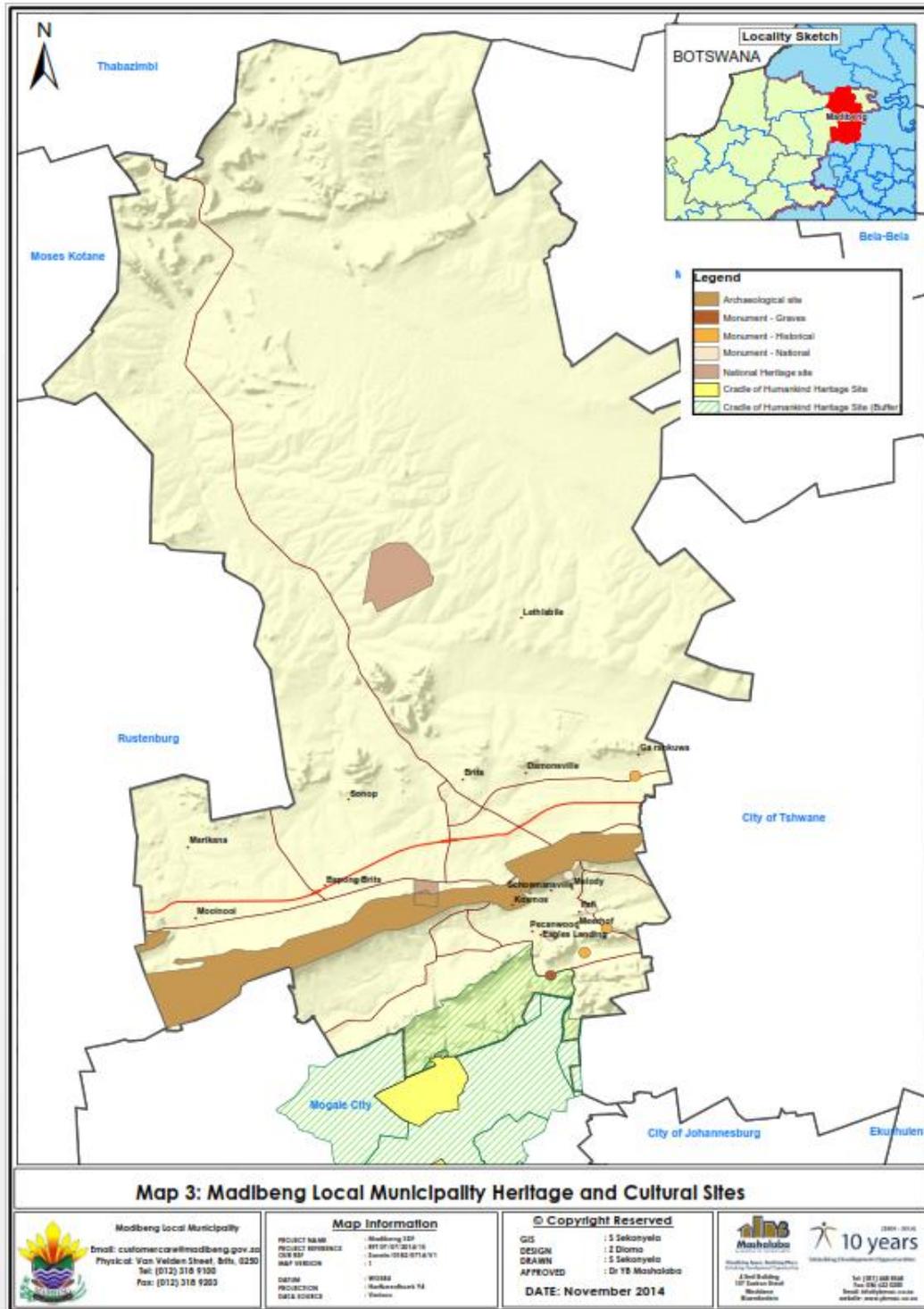


Figure 7: Heritage and Culture Sites

The Southern region located south of Brits in the Municipal area contains the bulk of heritage and conservation sites. Magaliesberg and the Witwatersberg Mountain Ranges

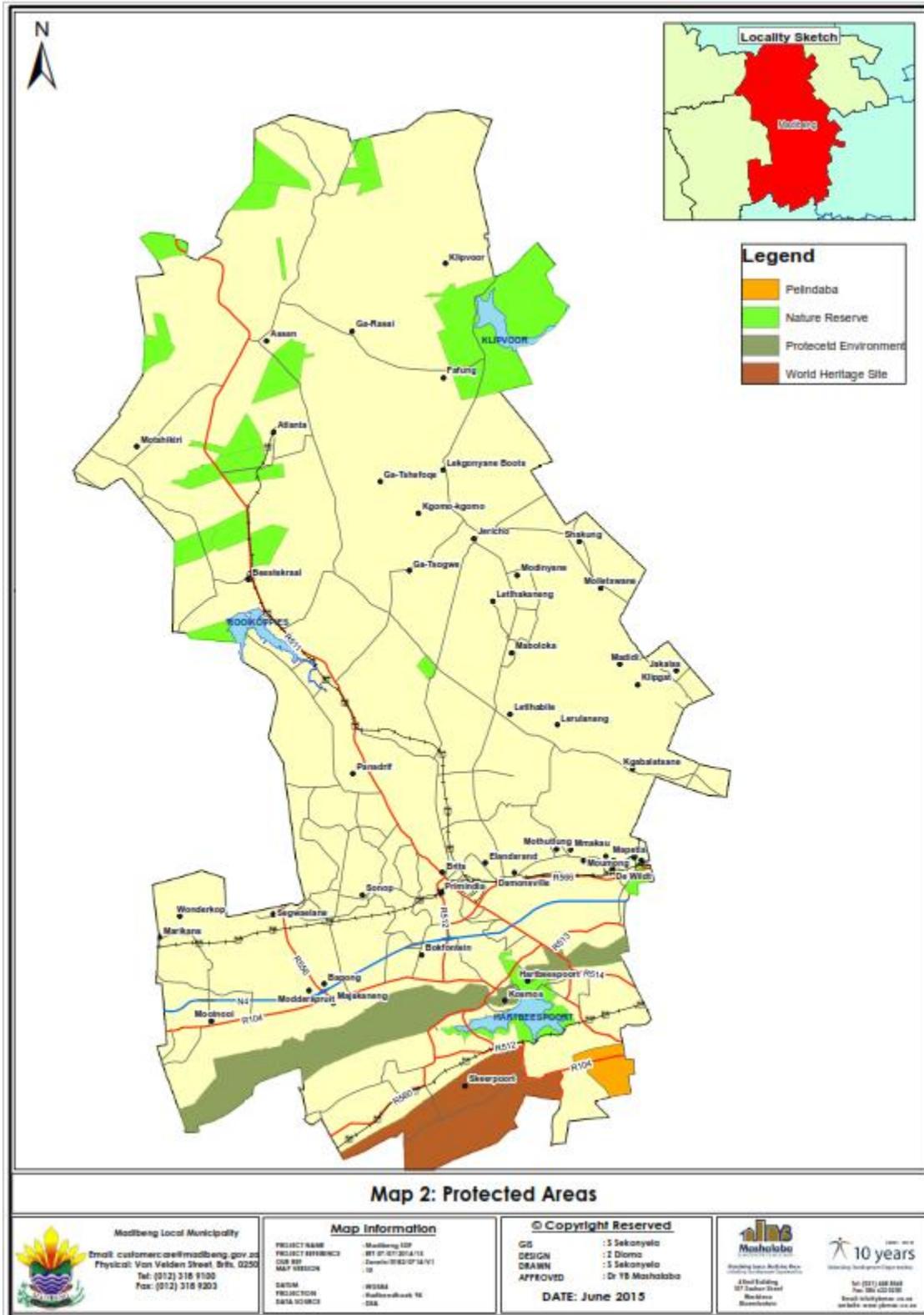


Figure 8: Protected Areas

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#### 4.1.5 LAND CAPABILITY

With regard to land capacity, the two important aspects to be considered are the grazing capacity and soil potential within Madibeng Local Municipality.

The Local Municipality of Madibeng is characterized by a variety of fertile soil types, pleasant climate and numerous water sources. As a result of these favourable conditions, the area is suitable for producing a variety of agricultural products. Another great advantage for agricultural activities is that the area is part of one of the largest irrigation schemes in the country. According to agriculture sources in the area, approximately 20 % of agricultural land with access to canalized water is not utilized for agricultural purposes at this moment. Irrigated vegetable farmlands cover about 130 km<sup>2</sup> around Brits, with canalized water from Hartbeespoort Dam. Approximately 18 000 ha of land is under irrigation with about 16 000 ha from the Hartbeespoort Dam irrigation Scheme and 4 000 ha from the Crocodile River. (Beestekraal).

The Agriculture and Nature Conservation Unit started the financial year of 2007/08 with a general survey of all agricultural activities in Madibeng. The Madibeng farming community was then seen as having three categories with different development needs. These were classified as the commercial sector farmers, the emerging farmers and those that belong to house-hold food security producers.

Most of the land in Madibeng comprises of turf, a highly agricultural potential soil. It is a challenge within the Local Municipality as to how best to prioritise. Demographic trends of the communities escalate tremendously, in such a manner that it is difficult to provide houses without backlogs, using agricultural lands.

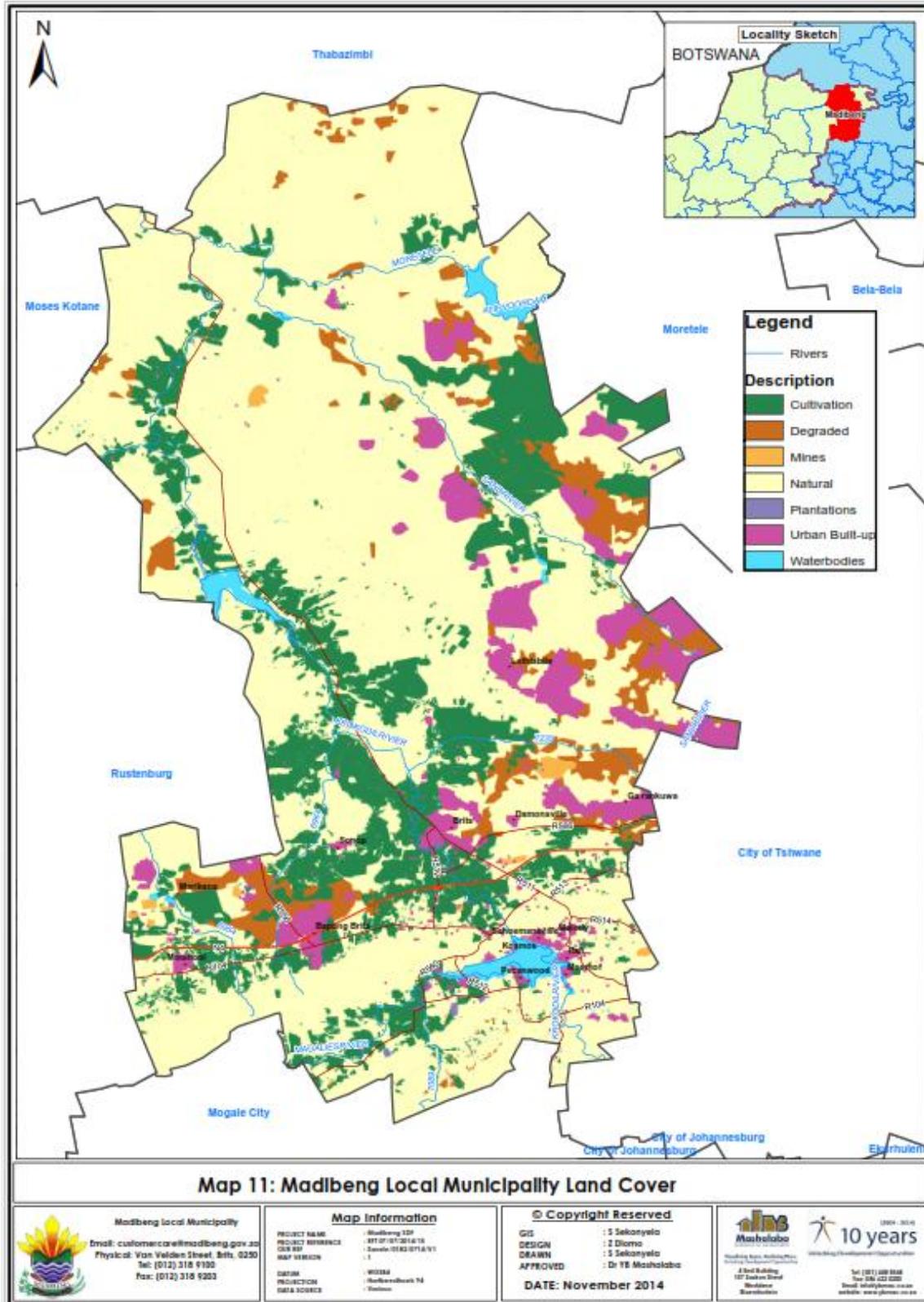


Figure 9: Land Cover

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#### 4.1.6 MINING

On the western part of Brits town there is mining activity which lies on the Merensky Reef. Mining in Merensky is a resource detailed industry and therefore specific provision has been made in MLM SDF to accommodate this type of development. The location of Merensky Reef next to Bakwena Platinum Highway offers opportunities for the integration of mining activities with other economic sectors. There are also small scale mining activities scattered throughout the Madibeng Local Municipality. Within the past few years the area witnessed new open-cast mines. The mining sector in MLM mainly comprises of Platinum Group Metals, Chromium and intensive granite and sand mining.

### 4.2 SOCIO-ECONOMIC ENVIRONMENT

Madibeng Local Municipality, in particular Brits Town is a more formal urban area which has vibrant economic nodes. The Municipality area of Madibeng is characterized by a various economy, including vibrant agriculture, mining, and manufacturing as well as tourism sectors. Nonetheless, these sectors at present contribute a huge percentage to the total Gross Geographic Product (GGP), they are capable and have potential to encourage and accommodate economic growth and development. Madibeng is the world's third largest chrome producer and includes the richest Platinum Group Metals Reserve (situated on the Merensky Reef). Manufacturing is the dominant sector, with motor industry related activities predominant.

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## 4.2.1 DEMOGRAPHIC PROFILE

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### 4.2.1.1 POPULATION DENSITY

According to Stats SA 2011 Madibeng Local Municipality has population of 477 381 people growth rate of 3, 2% from 2001 to 2011. Therefore, it is tabulated that the Municipality has a population density of 124 persons/km<sup>2</sup>.

**Table 5: Municipal Area (Stats SA, 2011)**

Municipality	Total Area of Municipality	Total Area of Settlements	Area of Settlements as % of Municipal Area
Madibeng Local Municipality	3,839km <sup>2</sup>	63 639 ha	5%

The map below illustrates population concentrations per place name. It can be deduced that there are more people in Lethlabile, Brits, Bapong, Majakeng, Kgabalatsana, Elandsrand areas. Fewer concentrations are seen in the Hartbeespoort, Mmakau, Mothutlung, Klipgat and Madidi areas. A lesser concentration is visible in the rural northern areas.

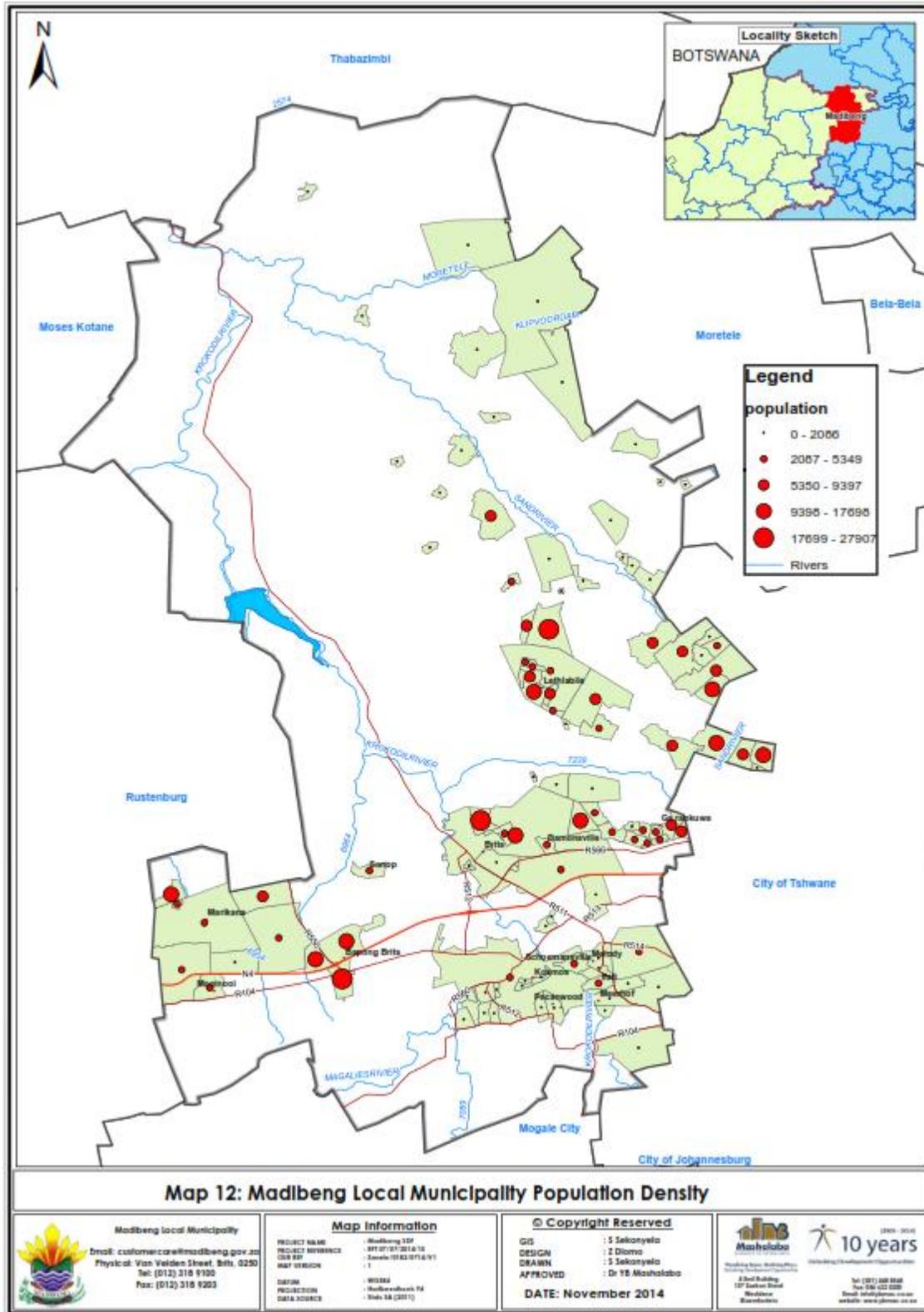


Figure 10: Population Density

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#### 4.2.1.2

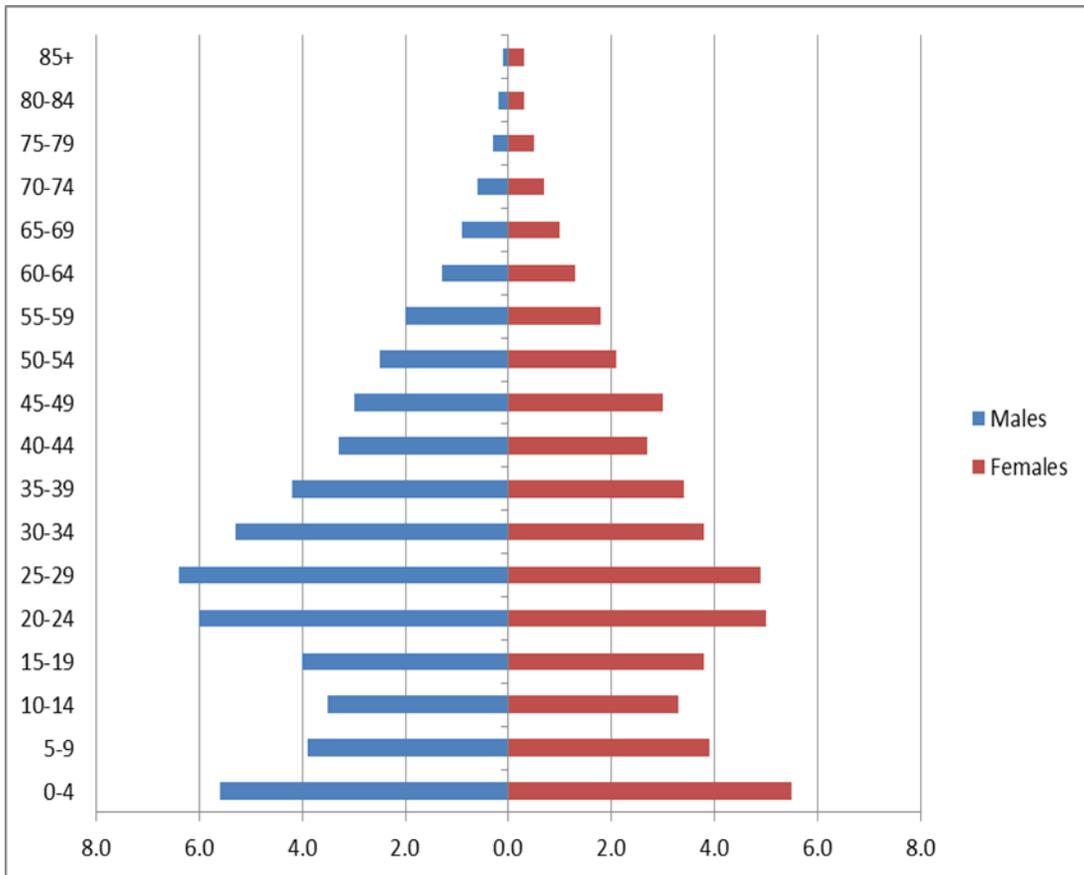
#### AGE AND GENDER DISTRIBUTION

The table below (Stats SA, 2011), illustrates age and gender distributions of the Madibeng Local Municipality from 1996, 2001 and 2011. From this table, it is evident that the population of the municipality is growing. Further analysis show that the number of male against that of female is higher at lower (less than 64 old) ages and becomes lesser at higher (65 and above) ages.

Table 6: Gender Age Trends (Stats SA, 2011)

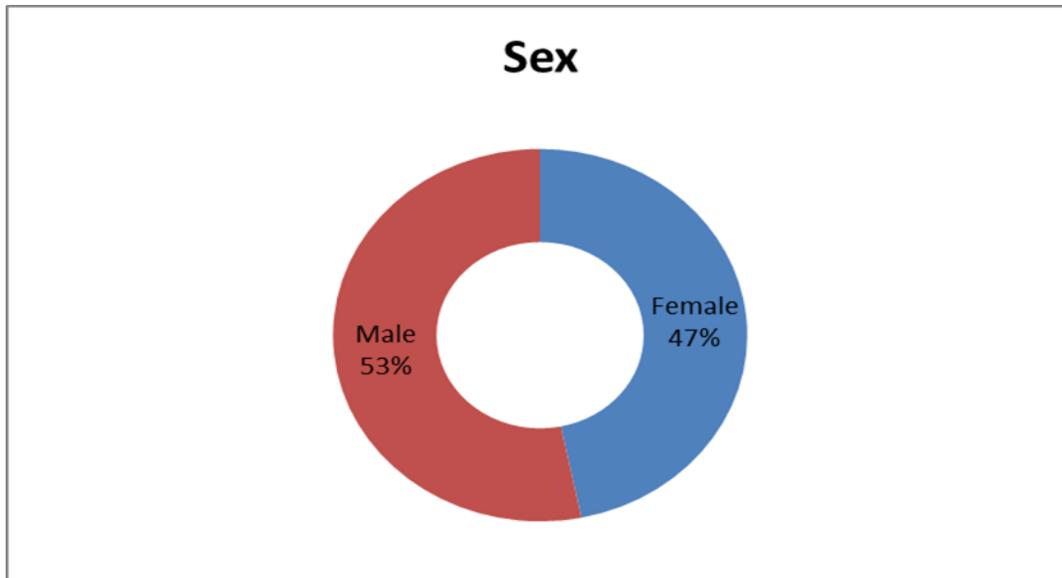
Age	1996			2001			2011		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
0-4	16 215	16 486	<b>32 700</b>	15 716	15 558	<b>31 274</b>	26 819	26 121	<b>52 940</b>
5-9	17 029	17 26	<b>34 298</b>	15 755	15 877	<b>31 632</b>	18 792	18 682	<b>37 474</b>
10-14	15 516	16 031	<b>31 547</b>	17 679	17 769	<b>35 448</b>	16 698	15 577	<b>32 275</b>
15-19	15 166	14 846	<b>30 012</b>	16 879	16 853	<b>33 732</b>	19 132	17 985	<b>37 117</b>
20-24	16 291	15 995	<b>32 286</b>	17 920	15 841	<b>33 762</b>	28 599	23 656	<b>52 255</b>
25-29	15 986	14 117	<b>30 103</b>	17 531	16 165	<b>33 696</b>	30 403	23 421	<b>53 825</b>
30-34	14 427	12 245	<b>26 672</b>	15 502	13 462	<b>28 965</b>	25 529	18 324	<b>43 852</b>
35-39	12 862	10 772	<b>23 633</b>	14 691	12 346	<b>27 037</b>	20 136	16 072	<b>36 209</b>
40-44	10 587	9 005	<b>19 592</b>	13 195	10 575	<b>23 770</b>	15 780	13 057	<b>28 837</b>
45-49	8 030	6 768	<b>14 798</b>	10 117	8 940	<b>19 057</b>	14 224	11 829	<b>26 053</b>
50-54	5 804	5 341	<b>11 145</b>	7 300	6 462	<b>13 762</b>	12 029	9 895	<b>21 923</b>
55-59	4 344	4 125	<b>8 469</b>	5 322	4 986	<b>10 308</b>	9 462	8 479	<b>17 941</b>
60-64	2 881	3 868	<b>6 749</b>	3 922	4 266	<b>8 189</b>	6 221	6 271	<b>12 492</b>
65-69	2 454	2 957	<b>5 412</b>	2 509	3 610	<b>6 118</b>	4 312	4 888	<b>9 200</b>
70-74	1 610	2 202	<b>3 812</b>	1 835	2 672	<b>4 507</b>	2 717	3 569	<b>6 286</b>
75-79	1 179	1 624	<b>2 802</b>	1 123	1 795	<b>2 918</b>	1 518	2 567	<b>4 085</b>
80-84	511	912	<b>1 423</b>	790	1 291	<b>2 081</b>	916	1 601	<b>2 517</b>
85+	431	832	<b>1 263</b>	377	946	<b>1 323</b>	705	1 394	<b>2 100</b>
<b>Grand Total</b>	<b>161 321</b>	<b>155 394</b>	<b>316 715</b>	<b>178 163</b>	<b>169 415</b>	<b>347 578</b>	<b>253 991</b>	<b>223 390</b>	<b>477 381</b>

The figure below concentrates only on the 2011 statistics. Similar resemblance can be seen from the previous table. In addition, this figure shows that the most population within the municipality is infants younger than four years of age as well as youth and adults ranging between 20 and 34 years of age. This shows that there are a large number of individuals of working age.



**Figure 11: Population Gender and Age (Stats SA, 2011)**

The gender figure below created from census 2011 data reveals that on average, the majority of individuals in Madibeng are of the male sex group.



**Figure 12: Population Gender**

#### 4.2.1.3 GENDER OF THE HEAD OF HOUSEHOLD

**Table 7: Heads of Household (Stats SA, 2011)**

Municipality	Year	Male headed households	Female headed households	Unspecified
Madibeng	2011	12 107	7 935	Nil

The table above indicates that there are more male headed household than there are females.

#### 4.2.1.4 HOUSEHOLD INCOME

The chart below illustrates average household income brackets per annum for the population of Madibeng Local Municipality. The R 19, 601 –R38, 200, R38, 201 –R76, 400, and the R9, 601-R19, 600 income brackets are respectively the

most contributing income levels. However there is approximately 16% of the population that has no form of income.

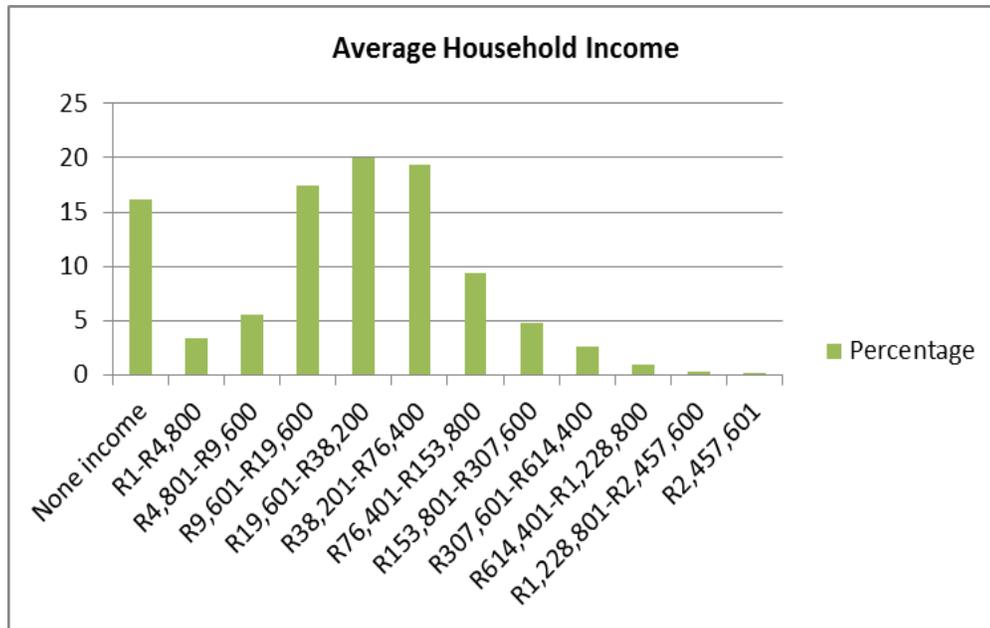


Figure 13: Average Household income (Stats SA, 2011)

#### 4.2.1.5 LANGUAGE

It is vastly clear that the Madibeng Local Municipality is dominated by Setswana speaking people. This is attributed to the fact that the North West province is dominated by Batswana due to its history and proximity to the country of Botswana. From a local context and lesser extent, there are traces of Afrikaans, Xitsonga, Sepedi and Sesotho speaking people which each of them contribute less than 15%.

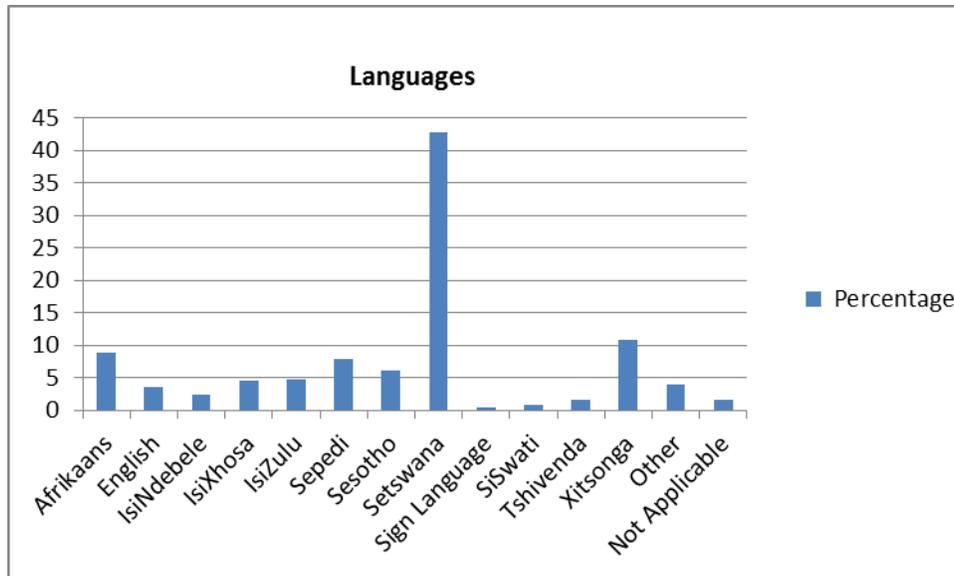


Figure 14: Types of Languages (Stats SA, 2011)

#### 4.2.1.6 POPULATION GROUPS

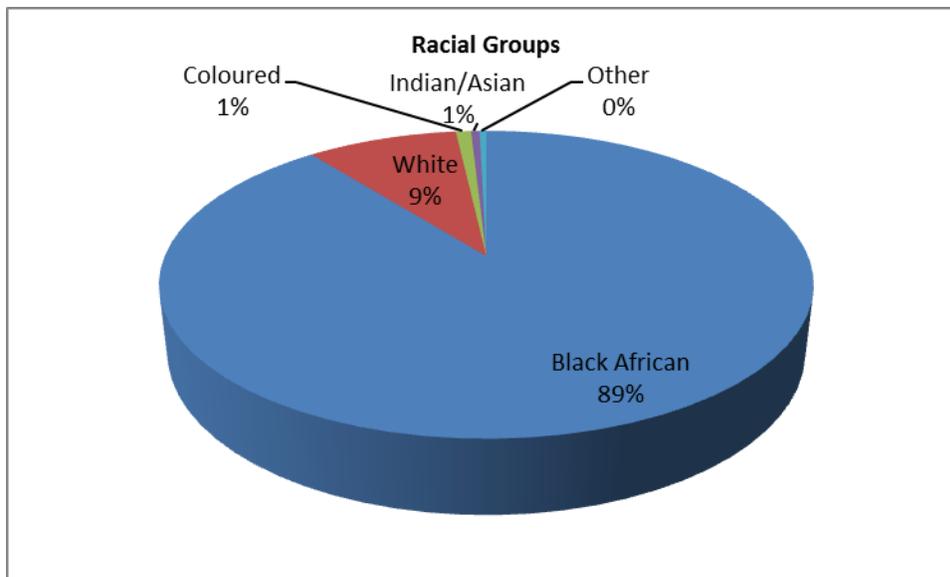


Figure 15: Racial Groups

Complementing the languages graph, the racial groups' pie chart below indicates that 89% of the population in Madibeng are black Africans. These are followed by white, coloured and Indian/Asian to a lesser extent.

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#### 4.2.2 THE STRUCTURE OF LOCAL ECONOMY

There are local economic objectives identified within Madibeng Local Municipality and are as follows:

- Reinforcing the current Brits economic cluster for maximizing the existing competitive advantages;
- Defining the economic development role of MLM;
- Investigating and implementing incentives for the retention and support businesses currently existing in MLM;
- Identification and creation of investment opportunities;
- Ensuring that resources in mining, tourism, agro-industries and manufacturing are utilized economically as well as in an environmental sustainable manner;
- Establishment of politically and technocratic leadership that will connect the potential of the region's main economic sectors and natural resource base;
- Determining economic priorities and establish simplified, user-friendly processes to encourage economic development;
- Creation, promotion and sustaining a single economic forum which is all-inclusive;
- Marketing MLM as an attractive investment destination;
- Reforming bureaucracy and reducing regulations that affect businesses;
- Finding ways and means to invest in rural economic infrastructure and to redress development imbalances;

- Improving physical access to Madibeng by road and rail; and
- Development of various fast track programmes that stimulate short-term economic opportunities.

In order to attain this MLM SDF's objective is to identify and demarcate areas that have high potential level for economic development as well as ensuring that the required movement networks are proposed to support these Economic Activity Areas. Economic Activity Areas in MLM are divided into three categories:

- Mining;
- Economic Corridors; and
- Tourism Areas.

The Madibeng economic activity is dependent on industrial, farming, tourism and little bit on mining activities. The two key economic activities in Madibeng Local Municipality are agriculture (17.7%) and manufacturing (13.3%).

#### 4.2.2.1 MINING

The mining sector in the area is one of the highest employment creators. Some of the world's richest platinum deposits and the largest chromate reserves are found in Madibeng local municipality. Other mining products include ferrochrome, stone and granite quarries, silica sand and vanadium pentoxide.

The Consortium recognized the point that mining activities in Madibeng Municipality contribute considerably to the local economy and job creation. When sustainable development is the key objective, ways have to be found to bring stability of the resources and simultaneously stimulate economic growth the following industries are identified as high to medium risk industries, which may contribute to the degradation of the environment:

- Buffelsfontein Chrome;
- Eastern Platinum;
- Elandskraal Chrome;
- Heric Mines;
- Krokodilrivier Mines;
- Pandora;
- PPC;
- Rhombus;
- Vametco; and
- Western Platinum.

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#### 4.2.2.2 TOURISM

The Madibeng Local Municipality has three major tourism attractions situated in its area of jurisdiction. The Magaliesberg Mountain ranges extends in the east-west direction across the southern half of Madibeng. It was proclaimed Protected Environmental Area due to its ecological importance and therefore, development on this area must be done bearing in mind that there is least impact on the natural environment.

Hartbeespoort Dam is located in the southern part of Madibeng and is fed by Crocodile River. With regard to tourism, Hartbeespoort Dam is the major open space within Madibeng. The Magaliesberg Mountain Range, Hartbeespoort Dam as well as its shores is preferred by most people for residential purpose as well as weekend-tourist attraction.

Historical and Archaeological Sites are located in the Magaliesberg and Witwatersberg surroundings. Situated on the south of Witwatersberg is the Cradle of Humankind which is proclaimed as a World Heritage Site. There are also farm buildings dating back to the 20<sup>th</sup> century which are proclaimed

National Monuments as well as archaeological site on these mountain ranges of Magaliesberg and Witwatersberg. Also historic elements such as old forts and fortifications of historic battlefields including categorizations of prehistoric farming, mining, metal production as well as village building in Africa.

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#### 4.2.2.3 AGRICULTURE

Agriculture is one of the largest contributor the Madibeng income accounting for 17.7% of the economic activity. There are four different types of agriculture which can be identified in the area:

➤ Intensive agriculture

This type of agriculture is the most dominant economic active agricultural sector in Madibeng and it covers nearly the southern half of Madibeng. The areas situated there rely on Crocodile River, Hartbeespoort Dam as well as Rooikoppies Dam for irrigation purpose.

➤ Extensive agriculture

Extensive agriculture is the second most economic active agricultural sector in the region. They are dependent on Moretele River and Tolwane for irrigation as well as rain water.

➤ Game farming

These areas are located in the north-western quadrant of the region, flanked by Rooikoppies Dam and the Elandsberg mountains. Its location makes it accessible to tourists as well as visitors to the game-farming region.

➤ Subsistence agriculture

This type of agriculture is exclusively located in the north-eastern quadrant of Madibeng and is characterised by informal settlements. It is situated along the banks of Tolwane River and irrigation water is extracted from this river. This types

of agriculture supplement the income as well as food supply for residents contribute significantly and greatly to the welfare of the communities in this region.

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#### 4.2.3 LAND

The map above illustrates the land types based on the Stats (2011) enumeration areas within the municipality. The bulk of the municipality is farm areas, which cover the north and easterly area of the municipality. The southern side has a combination of the farm and urban land types. The urban land types are found around Brits, Hartbeespoort, Pelinda, Mooinooi and Lethlabile areas.

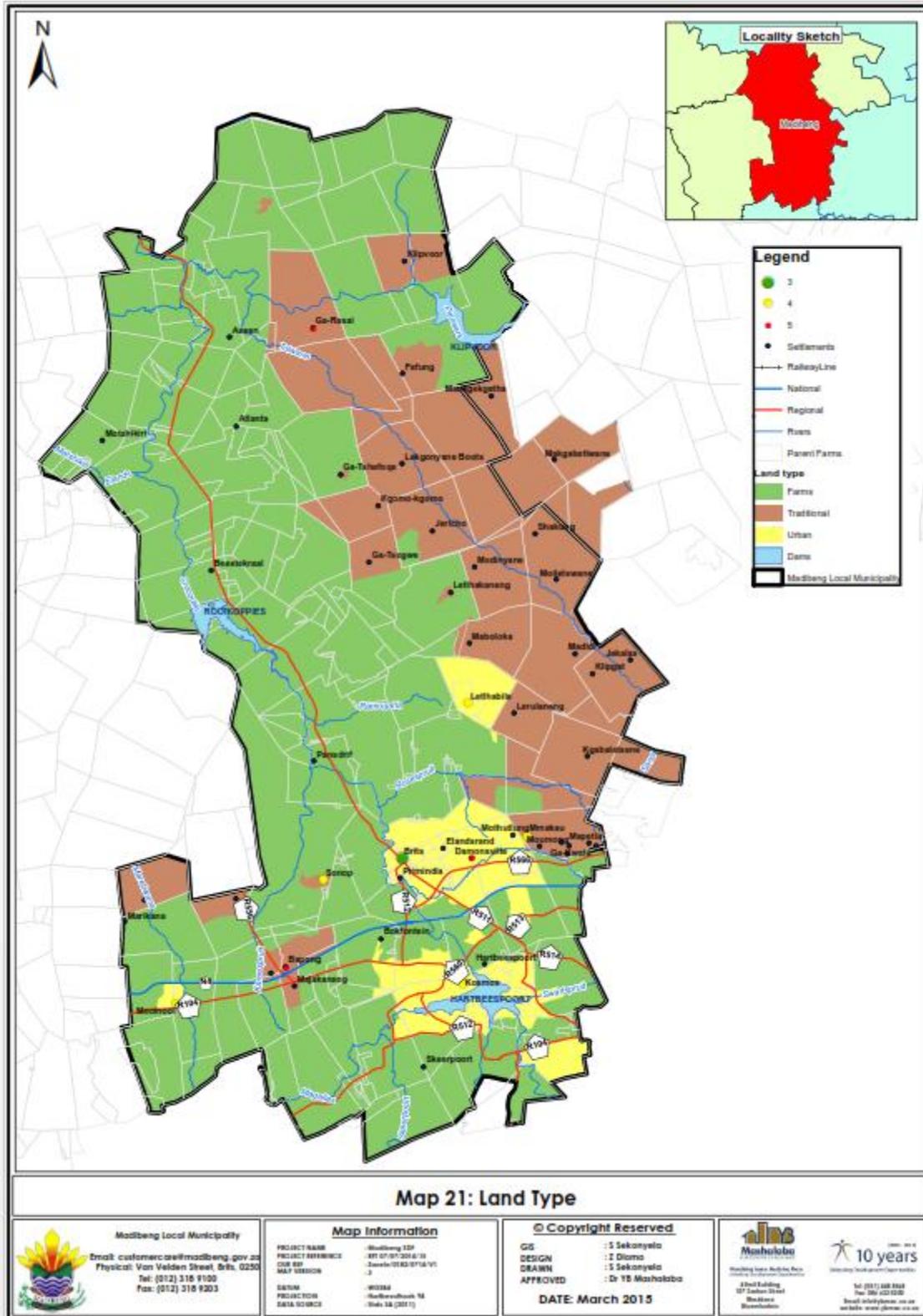
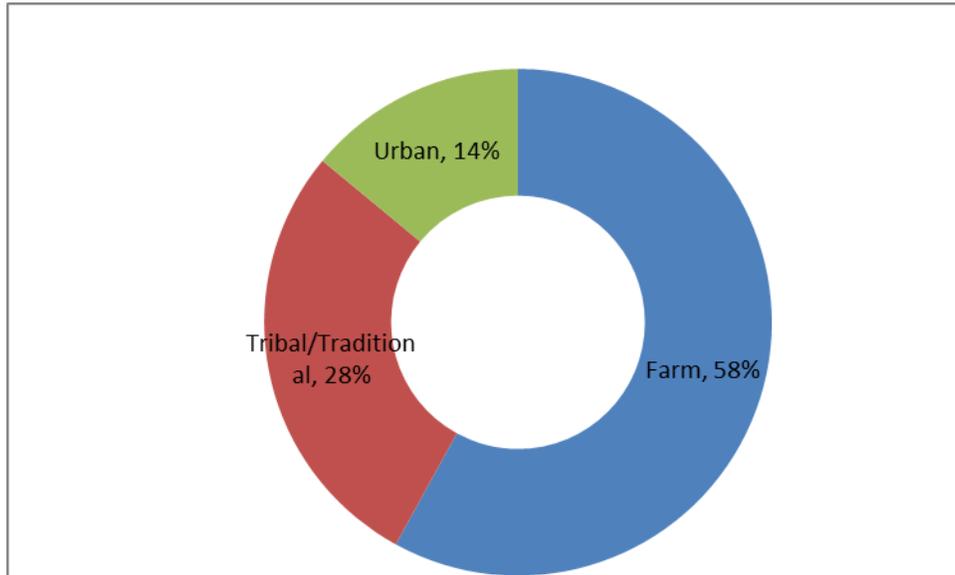


Figure 16: Land Type

The traditional areas dominate the north western area of the Municipality but there are some traditional settlements around the Bapong and Majakaneng areas. Traditional offices are located in Mmakau, Bapong (Baapo), Jericho (Bakwena), Hebron (Bakwena) and Maboloka (Batang) areas.



**Figure 17: Types of settlements within Madibeng Local Municipality: Census 2011**

#### 4.2.3.1 MUNICIPAL WARD DEMARCATATIONS

Previously there were a total of 36 wards, but according to the Demarcation Board the municipal area now has a total of 41 wards. Although the total municipal area has decreased, there has been an increase of 5 wards. However, the exact boundaries for the new wards are still in progress. It is proposed therefore that the only the final ward boundaries should be included in the document and not the draft boundaries.

#### 4.2.3.2 LAND OWNERSHIP

The Department of Rural Development and land Reform undertook a state land audit. The land audit was done to determine among others, the land use rights, and to determine the state organ which holds title deed to mention but

a few. The national results were published in 2013 and the map below illustrates the results thereof.

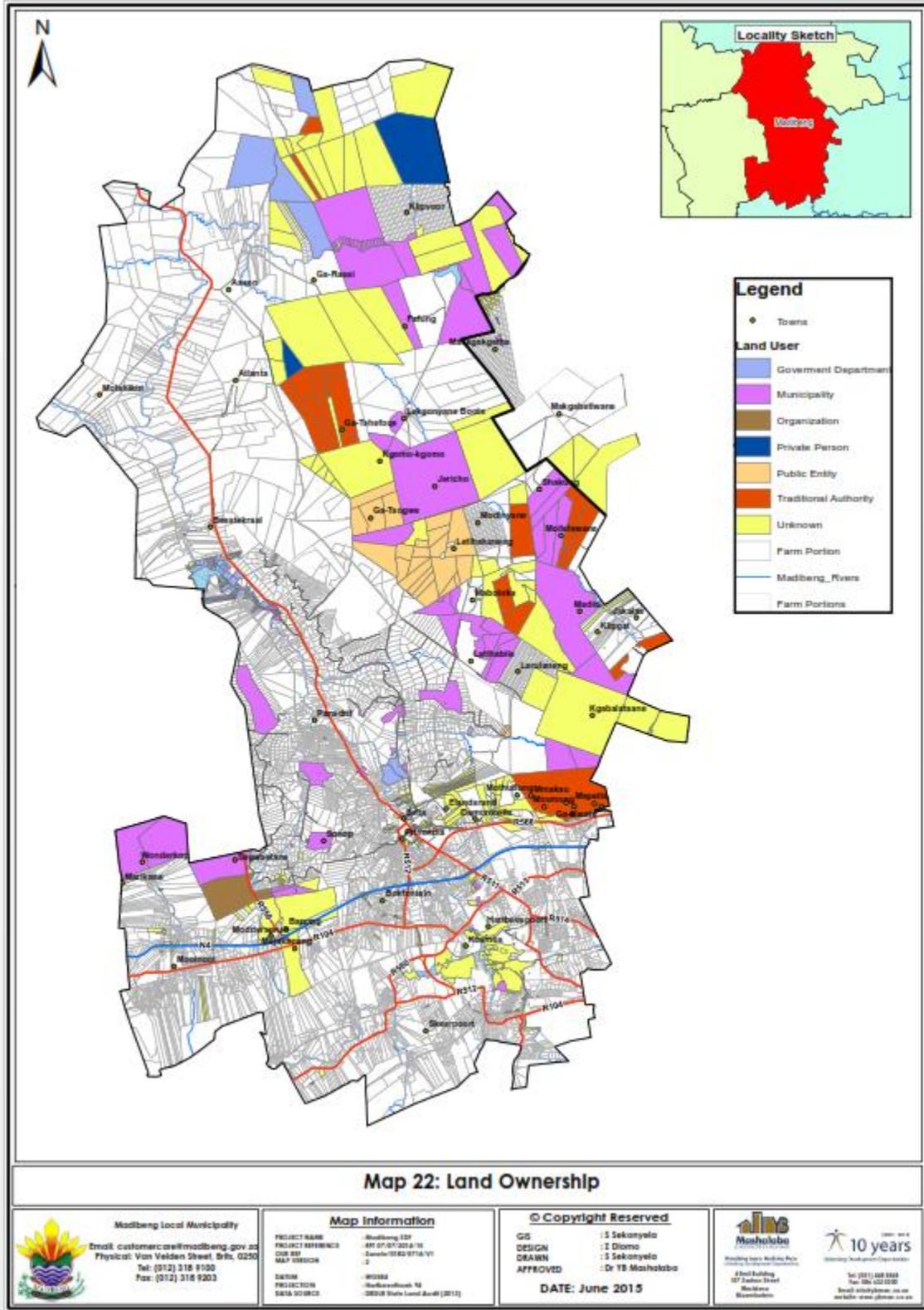


Figure 18: Land Ownership

## 4.2.4 MUNICIPAL FINANCES

### 4.2.4.1 OPERATING INCOME AND EXPENDITURE

Affordability, sustainability and other factors such as operating surplus, debt ratio and return on capital investment to mention but a few, contribute to municipal capital expenditure and borrowing ability. The overview of MLM's MTREF 2014/15 is stipulated in the table below.

**Table 8: Operating Expenditure**

Expenditure Items	Approved Budget 2013/14 (R000)	Adjusted Budget 2013/14 (R000)	MTREF		
			2014/2015 (R000)	2015/16 (R000)	2016/17 (R000)
<b>Employee Related Expenses</b>	288 400	288 400	308 100	324 672	346 416
<b>Remuneration of Councillors</b>	24 498	24 498	25 800	27 606	29 538
<b>Bad Debts Provision</b>	190 000	111 000	232 913	245 490	258 747
<b>Depreciation</b>	40 395.5	40 395.5	78 340	82 600	85 699
<b>Repair &amp; Maintenance</b>	36 215	42 757	47 825	52 167	56 046
<b>Interest: External Bowing</b>	10 000	10 000	10 000	10 540	11 109
<b>Bulk Purchases</b>	366 000	378 020	449 200	539 297	590 909
<b>Contract Services</b>	114 550	115 420	106 200	111 935	117 979
<b>Assistance to indigents</b>	5 000	5 000	15 000	15 810	16 664
<b>General Expenses</b>	138 391	123 267	120 554	124 128	129 883
<b>Total Operating Expenditure</b>	<b>1 219 454</b>	<b>1 212 762</b>	<b>1 393 932</b>	<b>1 534 244</b>	<b>1 642 939</b>

Local revenue such as property rates and service charges contributes 73.03 percent to the municipality's revenue stream. This is attributed by Water and electricity sales coming first with total revenue injection of R550.9 million in 2014/15 and an estimated steadily increase of R580.7 million in 2015/16. Secondly are the property rates which contributed R330 million rand total of the

Municipality revenue source. It is expected to increase to R347 million by 2015/16.

#### 4.2.4.2 CAPITAL BUDGET

From the 2014/15 financial year MTREF infrastructure and technical services takes the bulk of the budget. This builds on the accumulative benefits that result in the provision of bulk services and infrastructure. Moreover this approach has resulted in the increased spatial developments. This is to illustrate that the MLM has an aggressive approach to improve its infrastructure. This is illustrated in the table below.

**Table 9: Capital Budget**

Description	Approved Budget 2013/14 (R000)	Adjusted Budget 2013/14 (R000)	MTREF		
			2014/2015 (R000)	2015/16 (R000)	2016/17 (R000)
Municipal Infrastructure Grant	216 956	216 956	241 194	253 548	265 707
Municipal Infrastructure Grant (unspent)					
Expanded Public Work Programme	2 573	2 573			
Expanded Public Work Programme (unspent)					
Integrated National Electrification Programme	3 000	3 000	8 000	20 000	18 000
Provincial Grant (unspent)					
Internal Funding		11 407.4	6 500		
<b>Total capital Grants and Subsidies</b>	<b>222 529</b>	<b>233 936.4</b>	<b>273 548</b>	<b>238 707</b>	

There is a need to recover this aggressive capital budget expenditure. This can be best implemented by the development of debt collection policies. The successful implementation thereof will result in faster and progressive service delivery and sustainable human settlements in the municipality. This is the basis for sustainable development.

## 4.3 BUILT ENVIRONMENT

### 4.3.1 HIERARCHY AND ROLE OF SETTLEMENTS

The roles of settlements are determined by the functionality and polycentricism of activities in the area. There are three hierarchies of settlements in Madibeng. These are 1<sup>st</sup> order centres, 2<sup>nd</sup> order service centres and 3<sup>rd</sup> order settlements. 1<sup>st</sup> order towns are normally the centre of the municipality characterised by the CBD. 2<sup>nd</sup> order centres are centres associated with residential areas and certain functionality or service. Third order centres are dominated by residential the core centre. These hierarchies of settlements apply as follows in Madibeng.

**Table 10: Settlement order centres**

Hierarchy order centres	Place name
1 <sup>st</sup> order	Brits CBD
	Brits Suburb
2 <sup>nd</sup> order	Hebron
	Lethlabile
	Mmakau
3 <sup>rd</sup> order	Ifafi
	Schoemansville
	Mothutlung
	Peaconwood

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### 4.3.2 LAND USE MANAGEMENT ISSUES

At present the land use management system in Madibeng is governed by 5 different land use schemes. This has resulted in a fragmented pattern of development within the municipal area. In addition to the fragmented land use management system created by the different schemes there are also areas that do not fall within the jurisdiction of the existing schemes (i.e. farm lands and rural/traditional areas). These areas that are not covered by existing schemes include mostly rural and farming areas.

The following town planning schemes are currently in operation in the Madibeng Local Municipality:

- Brits Town Planning Scheme, 1958
- Peri Urban Town Planning Scheme, 1975
- Lethlabile Town Planning Scheme, 1990
- Hartbeespoort Town planning scheme, 1993
- Kosmos Town Planning Scheme, 1999
- Madibeng Town planning Scheme, 2008 (not implemented)

The municipality is however in the process of developing a wall-to-wall scheme that will cover the entire municipal area.

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### 4.3.3 TRANSPORTATION

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#### 4.3.3.1 ROADS

From a glance there is more tarred road infrastructure in the southern region than any other area in the MLM. The southern quadrant is characterised by a

national highway and several regional and secondary roads. The northern side however has one regional road and plenty of secondary roads.

The N4 (Platinum highway) is the only national freeway found in MLM. It stretches on the south of Brits and the north of Magaliesberg mountain range. On the west it links to Rustenburg until the Trans-Kalahari Corridor, while it links up to City of Tshwane. On the Southern side N4, the R104 runs parallel until it merges into R560. The latter road stretches from the south of Magaliesberg and ends south of the N4 where it merges into the R511. From the R51, the R513 runs similarly to the R104 but in the easterly direction.

The R566 (Pendoring Street) in the south east of Brits links Madibeng to the Ga-Rankuwa in City of Tshwane. In the westerly side, the R566 branches off on from the N4 at Modderspuit and spreads in a north westerly direction. In the northern side of MLM, the R511 (Hendrick Verwoerd) is the only regional route that stretches along the Crocodile River and all the way to Elandsberg. The north eastern side of the MLM is dominated with secondary gravel roads.

**Table 11: Roads in Brits Town: Madibeng Local Municipality IDP 2011-2016**

Area	Surfaced Roads (Km)	Gravel Roads (Km)
Brits	125	0
Lethlabile	56.5	44.5
Mothutlung	13.6	18.4
Damonsville	6	5.1
Oukasie	15	28
<b>Total</b>	<b>216.1</b>	<b>96.0</b>

**Table 12: Roads in rural areas surrounding Brits Town: Madibeng Local Municipality IDP 2011-2016**

Area	Distance (Km)
Itsoseng bus route	3.0km
Roma road	2.3km

Roma road ext.	2.0km
Maboloka	4.2km
Sofasonke	3.0km
Wonderkop	11km
Sephai (BPDM)	2.5km

**Table 13: Roads in Hartbeespoort Town: Madibeng Local Municipality IDP 2011-2016**

Area	Surfaced Roads	Gravel Road
Bokfontein	2230m	16060m
Broederstroom	10560m	4350m
De Rust	19300m	
Eagles Landing	1980m	
Glenogie	960m	
Hartbeesfontein	2240m	
Hartbeespoort	5240m	
Ifafi	12020m	
Kalkheuwel	5540m	220m
Kosmos	6760m	
Leeuwenfontein	22980m	4590m
Meerhof	6380m	
Melodie	12284m	
Rieffontein	5740m	16260m
Skeerpoort	1200m	
Schoemansville	24800m	
Syferfontein	1140m	9970m
Weldaba	5920m	
Welgegund	2480m	
Randfontein	10040m	
<b>Total</b>	<b>159794m</b>	<b>51540m</b>

**Table 14: Roads in rural areas surrounding Hartbeespoort Area: Madibeng Local Municipality IDP 2011-2016**

Area	Surfaced Roads
Magalies Estate	4km
Pecanwood	8km

<b>Ifafi</b>	4km
<b>Xanadu</b>	6km
<b>Melodie</b>	3km
<b>Hebron Cove</b>	5km
<b>Ville De Afrique</b>	4km
<b>Kosmos X6</b>	2km

#### 4.3.3.2 RAIL

There are three distinct railway lines in the MLM. Two run horizontally in the southern area of MLM while the other runs in a north westerly direction of the R511. Of the horizontal ones, one is located south of Hartbeespoort Dam, while the second one is located on the north side of the Magaliesberg Mountain range. The one below the dam stretches along the R560 and at the base of the Witwatersberg mountain range, all the way to Longmeadow. However this railway line is not in use, but there are tourism options for it in the future.

The other railway line enters MLM at Rosslyn, runs past Mmakau via south of Brits and travels north of Bapong into the western boundary of MLM. This railway has four station located at the north of Bapong, Brits CBD, Brits Industrial and Mmakau. The third railway line stretches from Mmakau-Bapong into the northern direction similarly to the R511 route. This railway line has three station and ends at the last one. These stations are namely, the Lanberg, Rooikoppies Dam and the final one at Kalklaagte mine.

#### 4.3.4 SERVICES INFRASTRUCTURE

##### 4.3.4.1 WATER AND SANITATION

Water				
Locality	Number of Households	Service Level		
		Access	Below RDP No Access	Intervention Required
Madibeng Local Municipality	160,724	86%	14%	

The table above indicates that 86% of the number of households in the municipality have access to water services. According to Stats SA, 14% of the households have below RDP access to water. There is still intervention needed in MLM since other areas like Mothutlung still experiences continued water challenges despite community protests which occurred in 2013/2014.

Sanitation									
Locality	Number of Households	Service Level							
		Access	Flush Toilets (Sewerage)	Flush Toilets (Septic Tank)	Chemical Toilet	Pit-Latrine (VIP)	Pit Latrine (Not VIP)	Bucket Latrine	No Access
Madibeng Local Municipality	160,724	151,403	26.0%	41.3%	30.3%	24.7%	35.3%	65.4%	9.6%

The table above shows that 65.4% of households use Bucket latrine system for sanitation. This value is the highest. However a combined value of 67.3% of households have Flushed toilets using either sewerage or septic tank.

#### 4.3.4.2 WASTE WATER TREATMENT

There are three Wastewater Treatment Works in Madibeng, namely Mothutlung, Lethlabile and Rietfontein Wastewater Treatment Works. The table below details the design capacity per plant.

**Table 15: WWTW design capacity**

WWTW Name	Design capacity
Mothutlung	8Ml per day
Lethlabile	3Ml per day
Rietfontein	2Ml per day

#### 4.3.4.3 SOLID WASTE MANAGEMENT

The municipality account for 25.7% of all solid waste. The majority of the solid waste is disposed through own refuse dump. This calls for the intervention by the municipality to improve the solid waste removal service.

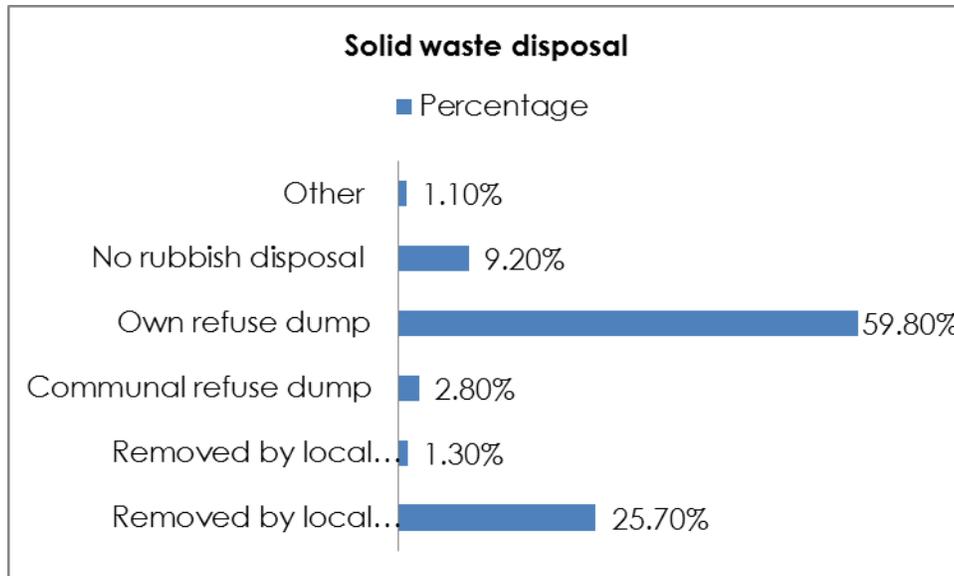


Figure 19: Refuse disposal in Madibeng Local Municipality: Census 2011

#### 4.3.4.4 ENERGY

Table 16: Electricity

Electricity									
Locality	Number of Households	Service Level							
		Cooking		Heating		Lighting		Intervention Required	
		Access	No Access	Access	No Access	Access	No Access		
Madibeng Local Municipality	160,724	78%	22%	78.0%	22.0%	83%	17%		

There is fair distribution of energy for cooking, heating and lighting purposes in the municipality. This is attributed by the fact that the majority of household have access to these services as illustrated in table above.

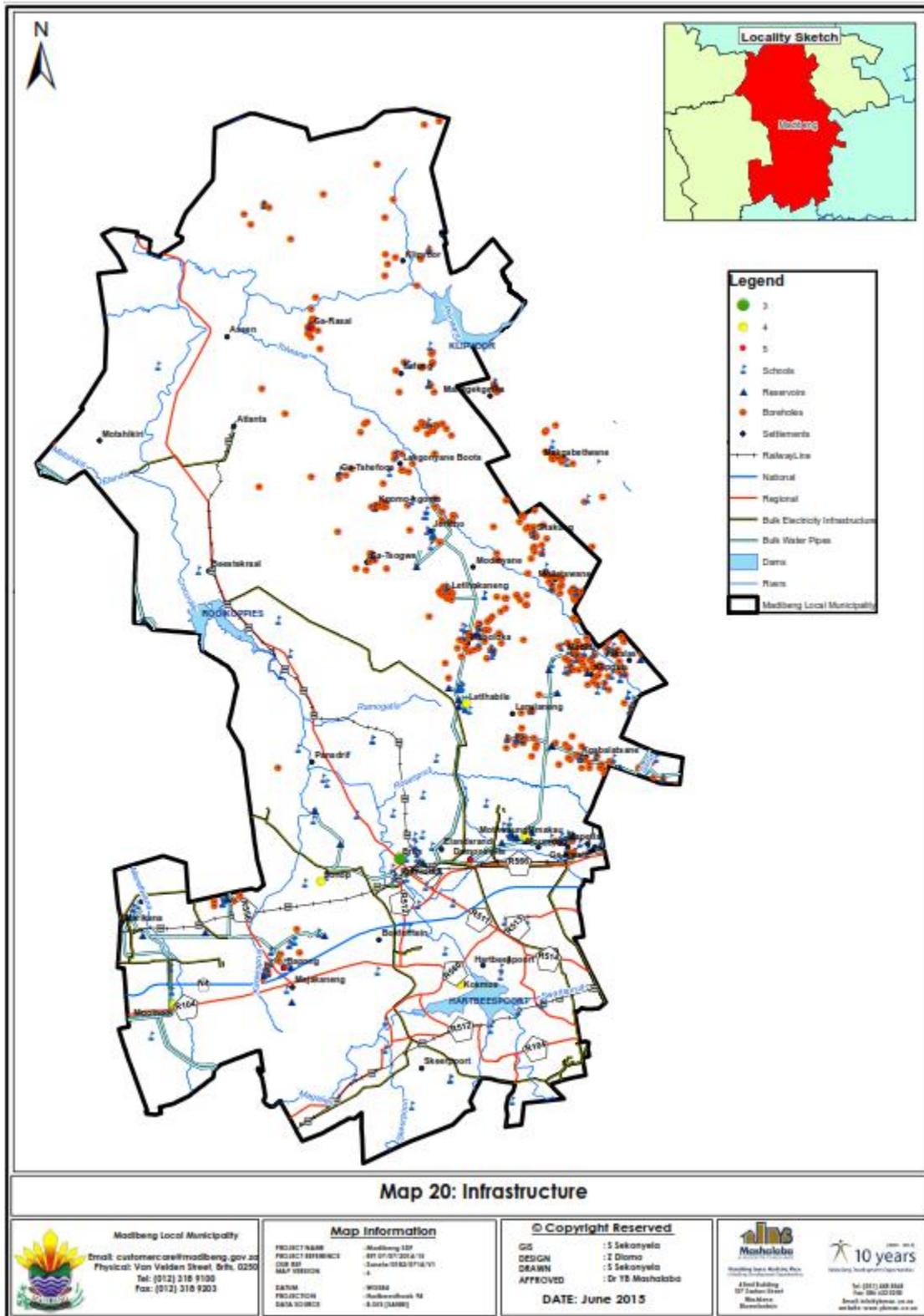


Figure 20: Infrastructure

## 5. SYNTHESIS

The Madibeng Local Municipality can be divided into four functional quadrants. These quadrant zones enable a spatial fragmentation of the municipal area based on the dominant activities found in each zone. These zones can be understood as follows:

- Zone 1: the southern zone which is the economic and development centre of Madibeng;
- Zone 2: the north-eastern section which comprises the majority of the informal settlements, marginalised townships and rural villages;
- Zone 3: the north-western section which comprises agriculture and game farming, and
- Zone 4: the northern section which comprises a high concentration of natural assets.

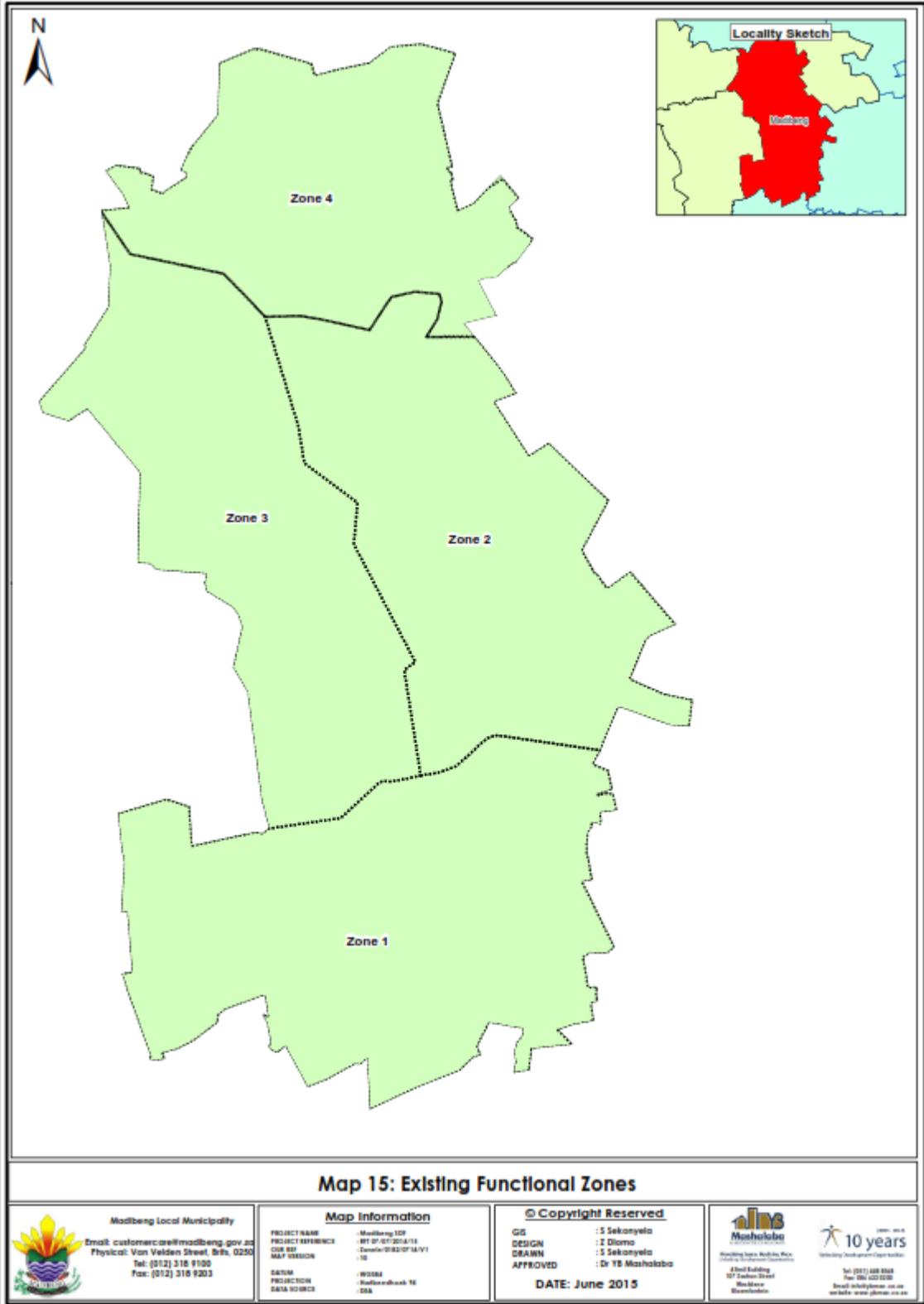


Figure 21: Existing Functional Zone

## 5.1 BIOPHYSICAL ENVIRONMENT

As indicated earlier, Madibeng Local municipality is composed of three dams and four major rivers. The Crocodile River is the longest of the rivers in the Municipality area. This river feeds into the Hartbeespoort dam located in the Southern side of the Municipality.

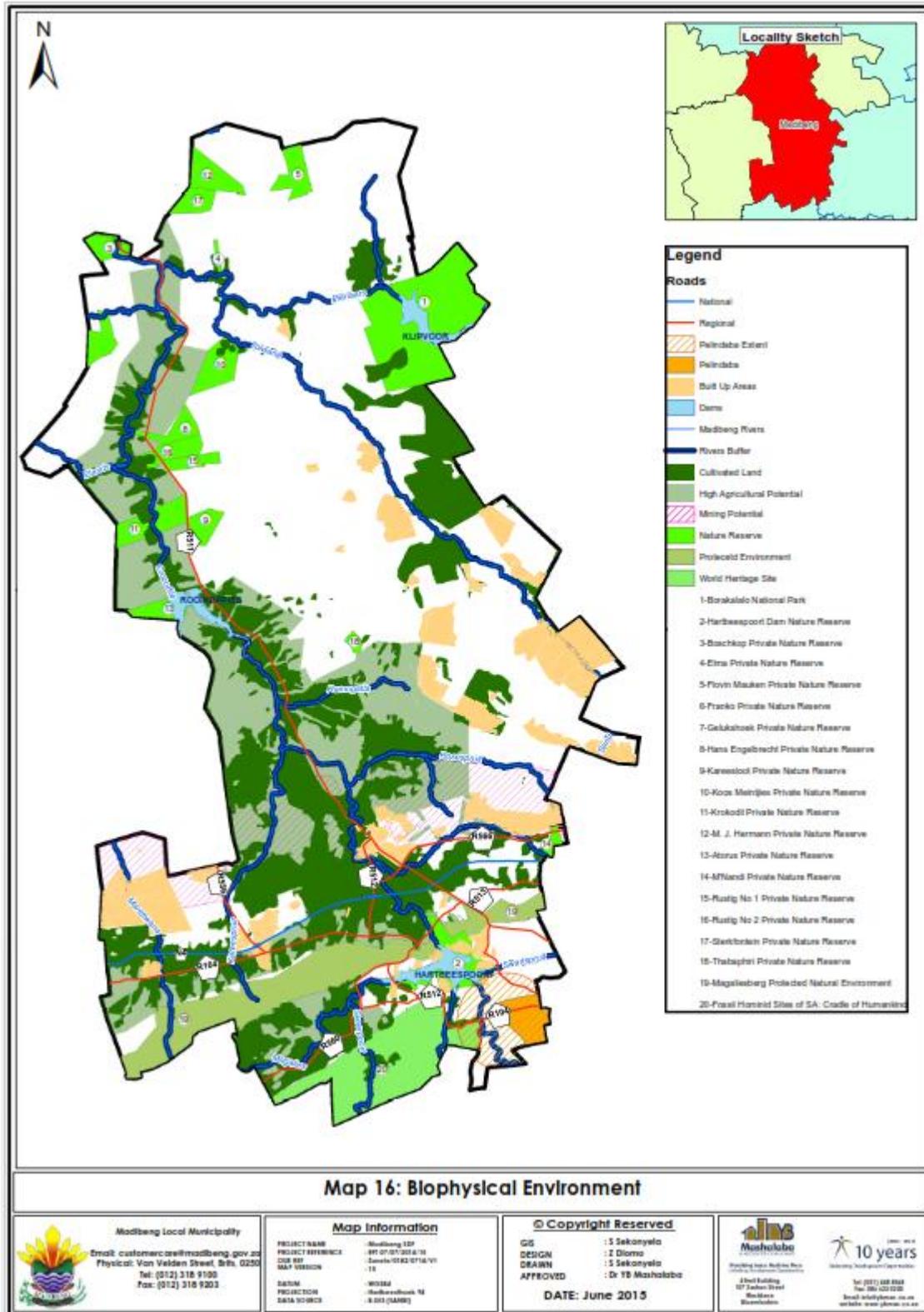


Figure 22: Biophysical Environment

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### 5.1.1 NATURAL FEATURES

Natural open spaces in Madibeng play a big role in the development direction of the Municipality. This is due to the fact that open spaces and natural environments need to be preserved and some of these natural features attract economic activity towards the municipality. In this regard cost effective, smart and manageable urban structures are developed around these features. These open space and natural features may include ridges, mountain ranges, and wetlands, drainage lines, proclaimed nature reserves, natural habitats, rivers, drainage lines as well as historical and archaeological sites.

Some of these natural wonders within the Municipality are preserved in forms of nature reserves (private and state owned). The Borakalalo Nature Reserve is located around the Klipvoor dam. The Silkaatsnek Nature Reserve, located between Hartbeespoort and Brits is another reserved natural space spreading on land covering approximately 17 000 hectares.

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#### 5.1.1.1 HIGH POTENTIAL AGRICULTURE

Agriculture plays a major role in the economy of Madibeng Local Municipality. Agricultural activity found in the municipality includes extensive and intensive commercial as well as subsistence farming activity. The bulk of the intensive agricultural activity is found in areas along the banks of Crocodile River all the way up to Elandsberg. Mooinooi as well as the areas between the Witwatersberg and Magaliesberg mountains are characterised by intensive agricultural activity. Subsistence farming activity dominates rural and agricultural holding areas.

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### 5.1.1.2 MINERAL RESOURCES

Mining activity in MLM is located in the Merensky Reef. This is found parallel to the N4 highway and stretches from Brits in the westerly direction to Bapong and ultimately Marikana, linking up to Rustenburg. The biggest commodities here are platinum and chrome.

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### 5.1.1.3 HERITAGE

Cultural and heritage sites in the municipality are found on the farms Hartbeeshoek, Leeuwenkloof, Broederstroom, Skeerpoort, Remhoogte and Bulfontein. On the southern tip of the MLM, there is a portion of the Cradle of the Human World Heritage Site, which is renowned as a world heritage site.

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## 5.1.2 MAGALIESBERG BIOSPHERE AREA

This region covers a range of natural features found mostly in the southern quadrant of the municipal area. These include the Hartbeespoort Dam, knit together with the Magaliesberg and Witwatersberg mountain ranges. Further south lies the Cradle of the humankind, encompassing of human history which includes Stone and Iron Age cultures, pre-colonial Tswana tradition and South African Wars. This priceless concentration of heritage, landscape as well as diverse fauna and flora has become a favourite destination for many in the past two centuries.

This region is however in a close proximity to Platinum Belt, which is quoted as a high value mineral resource. Careful considerations need to be taken with regards to short term gain and long term sustainability between the two conflicting sectors.

## 5.2 SOCIO-ECONOMIC ENVIRONMENT

### 5.2.1 PRIMARY ECONOMY

Agriculture, Tourism and mining are the main primary economies. The Agricultural sector, which produces food, is the biggest primary economy. It is categorized into four classifications, namely, extensive farming (44% of the Municipal area), intensive agriculture (18%), game farming (10%) and subsistence farming. Tourism also plays a major economic role as it is based on the natural systems (11%). Scenic routes, heritage sites, resorts and nature reserves are some of the main attractions in the tourism sector.

The mining sector is dominated by platinum and chromium mining as well as quarrying activity. Platinum mining activity is located on the south eastern side of the side of Brits while quarrying is spread around the municipal area. The primary economic activities have to be managed in such a manner as to make sure that their impact on the natural environment and resources is controlled.

### 5.2.2 SECONDARY ECONOMY

Secondary economy refers to activities involved in the manufacturing of finished goods. The secondary sector is understood to include all manufacturing, processing, and construction. Activities associated with the secondary economy include metal working, smelting, automobile production, textile production, chemical industries, engineering industries, manufacturing, energy utilities, breweries, bottlers, and construction.

Secondary economic activities are normally linked to the primary economic activity. Thus secondary activity in Madibeng Local Municipality is in alignment

with agricultural processing without the exclusion of manufacturing and construction. These activities are located in Brits, along the N4 Highway as well as a lesser activity scale in Lethlabile.

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### 5.2.3 TERTIARY ECONOMY

The tertiary sector of the economy is largely associated with service industries. This sector provides services to both the general population and businesses. Activities that are commonly associated with tertiary economy include retail and wholesale sales, transportation, distribution, entertainment, restaurants, clerical services, media, tourism, insurance, banking, healthcare and law.

In most developed and developing countries, a growing proportion of workers are devoted to the tertiary sector. The N4 Highway plays a significant role within the transport, logistics and distribution activities within the municipal area. The N4 facilitates transport linkages between Rustenburg, Tshwane and Johannesburg.

Brits is the administrative capital of the municipality, bearing the bulk of municipal and government services. The Pelindaba nuclear facility also forms part of the government services. It is located on the south eastern side on the municipal area.

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### 5.2.4 DEMOGRAPHIC INDICATORS

The ability of individuals to contribute to production is largely dependent on their level of human capital development. This level of development is indicated by demographic indicators such as education, housing, employment and income levels.

Education and formal training play an important role in the overall value of people. Increased value of Madibeng Local Municipality's residents can improve their living conditions. Further Education Training (FET) colleges, which concentrate on economic sectors present in the Municipality, will improve the human capital in Madibeng. This will reduce unemployment rate in the Municipality.

---

#### 5.2.5 RURAL DEVELOPMENT

The north eastern quadrant of the Municipality is composed of rural settlements (villages). These villages are characterised by subsistence farming and indigenous knowledge systems. Rural development can be assessed by investigating rural livelihoods, access to income, access to land and access to services. This will inform the manner in which basic services are provided and the rural landscape is retained.

Rural areas are characterized by relatively high logistical costs and high per capita service costs. Therefore the provision of government services such as the municipal office, clinic, schools, become costly. Thus in cases where services are provided, the recurrent costs of all but the most basic services must be met by those who use them. It is essential for Madibeng to recover costs in the peri-urban and rural areas through the pro-active debt collection policies.

The process of formalising settlements in rural areas is essential. This process helps to unlock the economic potential of the area, facilitate appropriate regulation of land use as well as enable the municipality to implement cost recovery. This will ensure sustainable rural settlements.

## 5.3 BUILT ENVIRONMENT

### 5.3.1 GROWTH PRESSURES

The two main economic contributing areas within the Madibeng local municipality are Brits and Hartbeespoort Areas. The natural hydrology of the Madibeng presents economic opportunities along the water bodies. There is increased pressure of residential developments along the Hartbeespoort Dam and the Rooikoppies Dam. The former has experienced the development pressure for longer than the latter. This is due to the scenic natural settings around the dams. The rivers on the other hand experience agricultural activity due to the favouring conditions on the river banks and areas within their proximity.

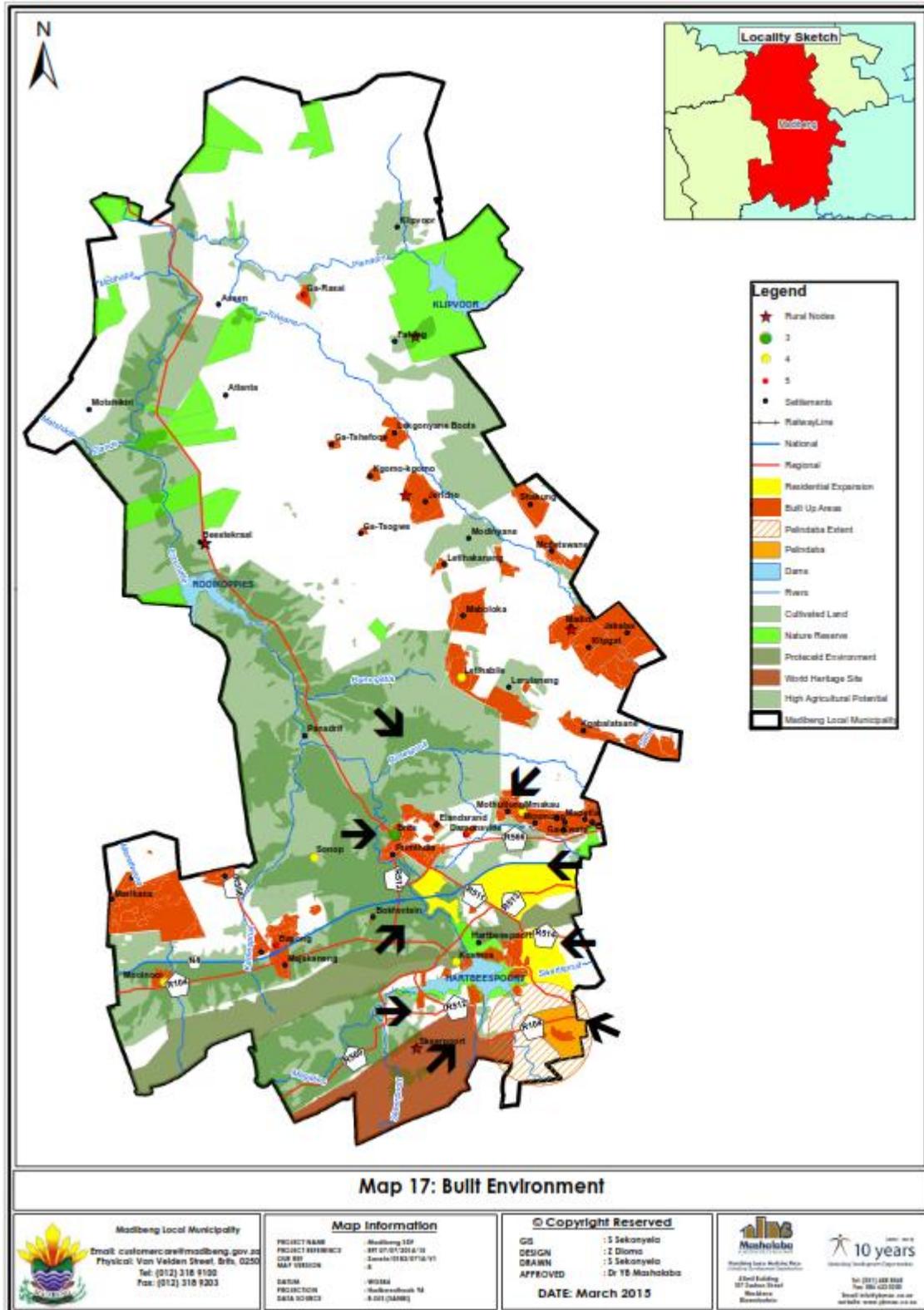


Figure 23: Built Environment

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### 5.3.1.1 BRITS

Brits Town Precinct is situated within Madibeng Local Municipality north of Hartbeespoort Dam and adjacent to N4 Bakwena-Platinum Highway intersection. Brits Town occupies an area of 54,47km<sup>2</sup> of the total of 3,839km<sup>2</sup> of Madibeng Local Municipality. The study area consists of the following areas:

- Town of Brits with the inclusion of the Central Business District;
- Residential neighbourhood of Elandsrand;
- PRIMEDIA;
- Brits Industrial Area;
- The remote townships of Oukasie, Damonsville and Mothutlung; and
- The farm portions in-between these areas.

The Brits Town Area is the key economic as well as governance centre within the Madibeng Local Municipality. Brits is located in close proximity to key urban centres in Gauteng and 65km from Rustenburg. This area is linked to both Rustenburg and Gauteng urban centres by N4 Bakwena-Platinum Highway.

This area is physically and functionally interconnected to the northern parts of Tshwane through a group of informal settlements, such as Mmakau, stretching eastwards from Mothutlung up to Ga-Rankuwa. Formal residential developments are found in Lethlabile located north of Brits and Mothutlung in the easterly direction of Brits town.

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### 5.3.1.2 HARTBEESPOORT

Hartbeespoort is located on the boundary between Gauteng and North West Province. The Precinct is in close proximity to and with good connectivity to key urban areas in Gauteng such as Pretoria, Sandton, Randburg, Midrand and

Krugersdorp and is 65km from Rustenburg. This area is linked to both Rustenburg and Gauteng urban centres by N4 Bakwena-Platinum Highway. From a regional tourism perspective the area is close to Lensaria International Airport which offers both domestic and international flights in Gauteng. This area consists of places around Hartbeespoort Dam in MLM and extends to approximately 180km<sup>2</sup>.

Hartbeespoort is characterised by residential development such as Schoemansville, Ifafi, Meerhof and Kosmos. Residential areas are very distinct from those in Brits. The Magaliesberg Mountain Range topographically separates these two areas. Towards the South of the mountain range there are high income estates and resorts which cater for up-market lifestyles. The residential areas include but are not limited to golf courses, nature reserves, marinas and security control. These areas include the likes of Pecanwood, Key West, Kashane, Mount Kos to mention but a few.

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### 5.3.2 RURAL AND FARMING AREAS

In rural areas, access to services, land, income and livelihoods contributes to the depiction of the municipal human resources and thus influence the rate of rural development. Rural areas are characterised by sparsely populated residential units. Similar and even further scattered settlements can be found in remote agricultural and farm units. These types of settlements can be found in the easterly direction of the municipal area. These areas include Oskraal, Madinyane, Klipvoor Dam and Kilpvoorstad. These settlements are characterised by subsistence farming.

Located on the east side of Schoemansville and South of the Magaliesberg mountain range is the agricultural holding of Melodi. This areas unlike the rest

who are subsistence farming rural areas, its purpose is to foster rural living lifestyle. This is attributed by the affluent households it hosts.

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### 5.3.3 NUCLEAR AREA

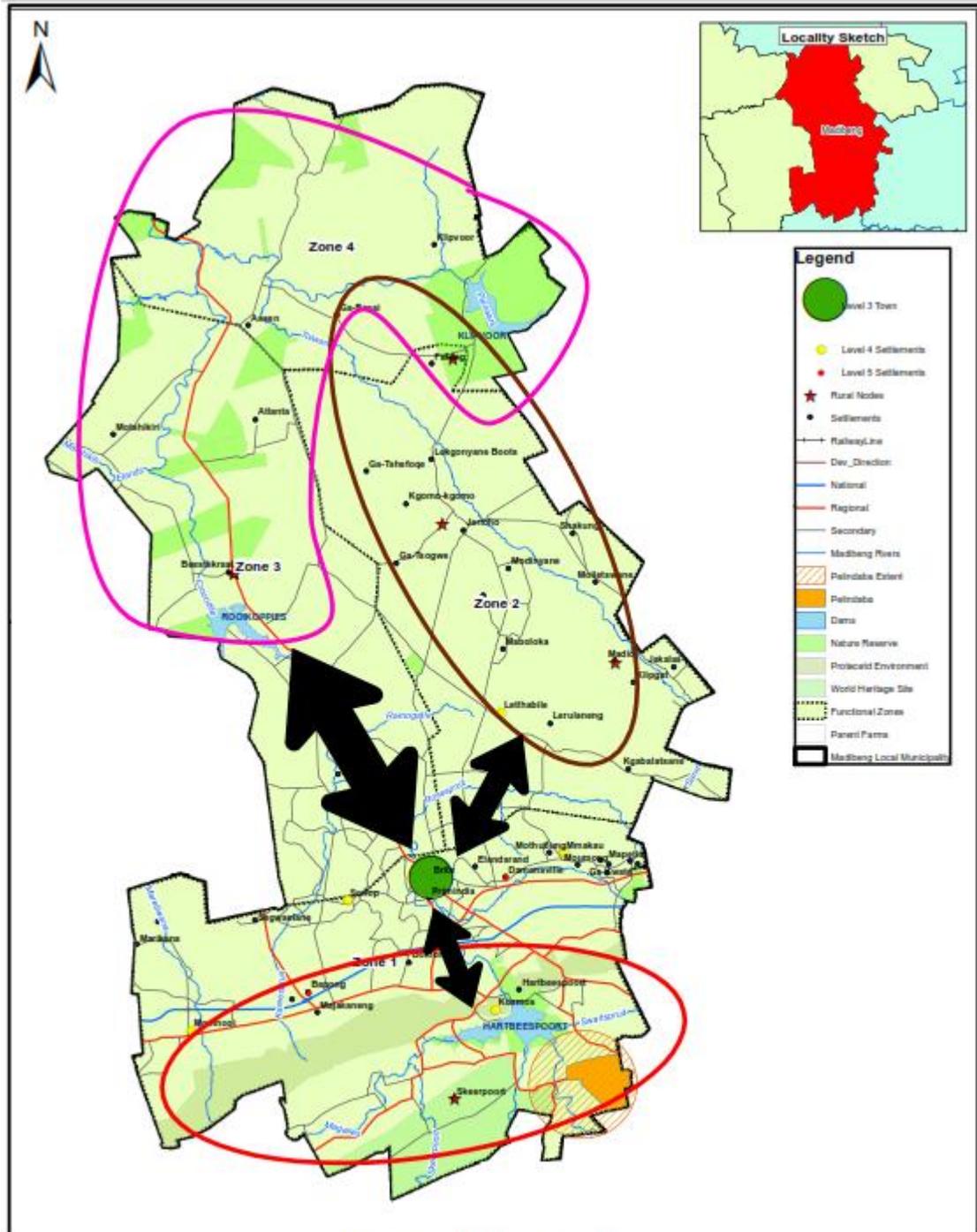
The Pelindaba Nuclear Plant facilitates nuclear activity for the state. It is located on the South Eastern side of the municipal area and it has a 5 km restricted development buffer zone.

## 6. SPATIAL OPPORTUNITIES AND CHALLENGES

### 6.1 SPATIAL OPPORTUNITIES

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#### 6.1.1 SERVICE NODES



**Map 18: Nodal Integration Linkages**

 <p>Madibeng Local Municipality          Email: <a href="mailto:customerservice@madibeng.gov.za">customerservice@madibeng.gov.za</a>          Physical: Van Velden Street, Breda, 0200          Tel: (012) 318 9100          Fax: (012) 318 9203</p>	<p><b>Map Information</b></p> <p>PROJECT NAME : Madibeng IDP          PROJECT REFERENCE : 001/01/07/2014/10          JOB REF : 2014/01/03/0716/1/1          MAP VERSION : 1          DATUM : WGS84          PROJECTION : MadibengIDP_16          DATA SOURCE : S.GIS (SANS)</p>	<p>© Copyright Reserved</p> <p>GIS : S Sekonyela          DESIGN : S Diomo          DRAWN : S Sekonyela          APPROVED : Dr YS Mashabela</p> <p>DATE: March 2015</p>	 <p><b>Mashabela</b>          Building Better, Better, Bets          Building Better, Better, Bets          10 years          Building Better, Better, Bets          Tel: (012) 488 8842          Fax: 086 422 0100          Email: <a href="mailto:info@shamba.co.za">info@shamba.co.za</a>  <a href="http://www.shamba.co.za">www.shamba.co.za</a></p>
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Figure 24: Nodal Integrated Linkages

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#### 6.1.1.1 BRITS THE CBD

Brits CBD is the first order service delivery centre in MLM. This service centre holds the majority of government services and industrial activity in the municipality. However there has been a decline in industrial activity due to cheaper rental space in the Rosslyn area. Thus there should be measures in place to prevent the Brits CBD in following the general decline of CBDs in South Africa.

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#### 6.1.1.2 TOURISM NODES

The southern section of the municipal area carries the bulk of the tourist activity. This area includes the Hartbeespoort Dam, Magaliesberg Mountain Range and various settlements that are found around the dam. This area is easily access able from the northern suburbs of Johannesburg in the south eastern direction and multitude of commuters from the City of Tshwane in the eastern direction.

As mentioned earlier, there are other tourists activities found in all the natural open spaces spread within the Municipal area. These include but are not limited to game farming in around the Elandsberg area as well as Klipvoor dam. However accessing these game farming tourist destinations is not convenient due to lack of access roads. It is in this regard that measures need to be taken in linking all the tourism nodes in the MLM.

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#### 6.1.1.3 RURAL NODES

The rural landscape dominates the north eastern area of MLM. The most recognisable service nodes are Madidi, Jericho, Fafung, Makgabatlwane and

Beestekraal. These are characterised by improved government services and close proximity to other rural settlements. Fafung services areas close to the north of the municipality, while Beestekraal is more on the western boundary close to the Rooikoppies Dam. Jericho is located in the centre of the northern area, and Makgabetloane is located towards the north-eastern boundary. Madidi is closer to settlements such as Lethlabile, located on the mid-east of the municipal area.

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### 6.1.2 TRANSPORT CORRIDORS

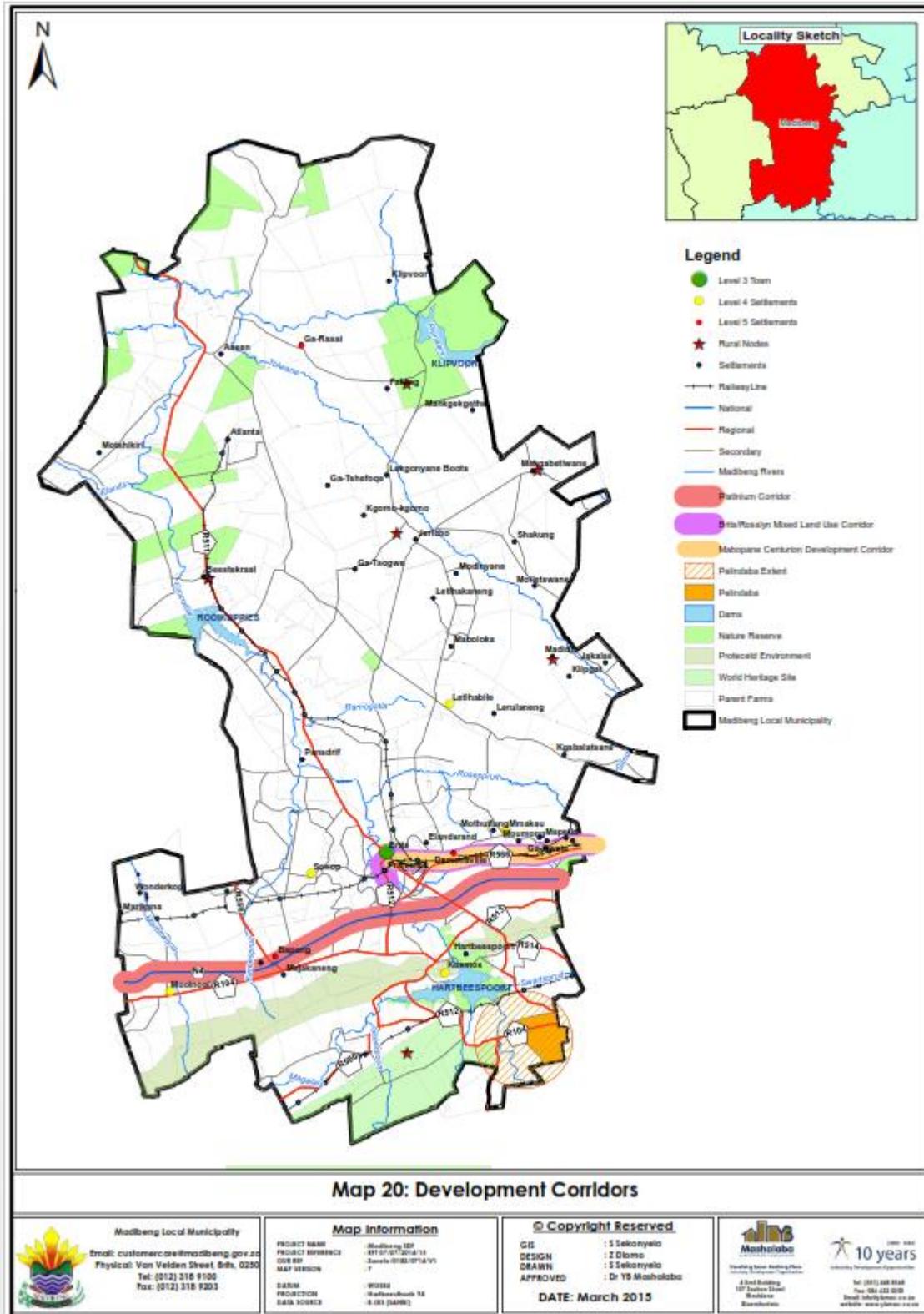


Figure 25: Development Corridors

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### 6.1.2.1 SPATIAL DEVELOPMENT INITIATIVES

The two Spatial Development Initiatives (SDIs) present in MLM are the Platinum Corridor and the Mabopane-Centurion Development Corridor. The former is of high importance based on the fact that it forms part of the key National imperatives.

#### 6.1.2.1.1 PLATINUM CORRIDOR

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The Platinum Corridor runs parallel to the Magaliesberg Mountain Range along the N4 freeway. This corridor is part of the bigger transport link which stretches from the Walvisbay in Namibia through Botswana on the western side and links to the Maputo Corridor in the eastern direction. The Platinum Corridor is essentially meant to link Namibia, Botswanan, Gauteng and Mozambique to Brits and its surroundings, so as to stimulate the tourism, business and industrial/commercial development in MLM.

This corridor is more a transport corridor than it is a land use corridor. This is attributed to the fact that it is a freeway, which allows more mobility than land use. In this regard there is a need for a smaller scale spatial form that will harness MLM's local economies and link it to the Platinum Corridor.

#### 6.1.2.1.2 MABOPANE-CENTURION DEVELOPMENT CORRIDOR (MCDC)

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The Mabopane-Centurion Development Corridor (MCDC) is located on the eastern direction of the municipal area. This corridor feeds into the Platinum Corridor and intends to link Brits with Tshwane, Centurion, Sandton and Mabopane. The idea is to link major residential and employment areas in this

zone. These may include the automotive cluster in Rosslyn, linked to Mabopane's labour markets and the high tech industries in centurion. Through this corridor, agglomeration economies shall emerge and the existing economic base will be harnessed.

#### 6.1.2.1.3 BRITS-ROSSLYN MIXED LAND USE CORRIDOR

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Brits-Rosslyn Mixed Land Use Corridor is in alignment to the MCDC and the Platinum Development Corridor. There are various land uses found in this area, ranging from residential, industrial, commercial and mining developments. This is beneficial with regards to the Platinum corridor as good manufactured from Rosslyn and Madibeng agricultural produce can be stored and be readily available for transportation within the Platinum corridor linkages.

This corridor stretches from the core (Brits/Oukasie) of MLM to the eastern side towards Rosslyn, where it covers Damonsville, Mothutlung and Mmakau. There is increased interdependence between this area and Tshwane. The R566 and the railway line are the backbone of this corridor. In this regard there should be attempts to foster public and commercial transport infrastructure as to allow the efficient and cost effective transportation of good and people.

## 6.2 SPATIAL CHALLENGES

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### 6.2.1 NATURAL FEATURES

Protected and conservation areas as well as areas with high agricultural potential need to be protected. The biggest dilemma that the Madibeng

Local municipality faces is the well needed balance between increasing development pressure on the natural landscapes. As much as the prospective developments present economic opportunities, they also threaten the natural setting. Economic potential may include agricultural activity or tourism developments or residential developments. In this regard there has to be strict and careful monitoring of the natural environment.

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### 6.2.2 SETTLEMENTS

The sparse distribution of settlements in the 2<sup>nd</sup> quadrant (zone 2) of the municipal area poses as a challenge. This results in costly infrastructure investment in the scattered settlements. In addition, the development direction of these settlements is unpredictable and the land use cannot be carefully regulated.

## 7. SPATIAL PROPOSALS

### 7.1 SPATIAL DEVELOPMENT PROPOSALS

The spatial development proposals are derived from the spatial development objectives and strategies above. The spatial objectives and strategies are consolidated and narrowed down to the following three overarching development concepts structuring elements:

- Natural form giving elements;
- Strategic Development areas; and
- Linkages.

The spatial proposals for the Madibeng Local Municipality aim to display in a spatial form the vision of the municipality. The elements discussed therein after, work as a guide for development in the municipal area.

## 7.2 SPATIAL DEVELOPMENT OBJECTIVES AND STRATEGIES

This section establishes the objectives and strategies of the spatial development framework. The aim of this section is to illustrate what needs to be achieved for the vision of the municipality to be realized. In addition actions to be taken per objective are also detailed. These actions ensure that the current spatial situation is transformed to the desired spatial form.

**Table 17: Spatial Development Objectives and Strategies**

No.	Development Objective	Development Strategy	Actions
1.	<b>Ensure that the population of Madibeng has access to social and economic opportunities</b>	Direct development to areas that contribute to a more efficient urban functionality in terms of the provision of services, transportation, the protection of the natural environment and linkages with other major areas of development. Do not promote or support developments that are out of context with the desired development directions.	<ul style="list-style-type: none"> <li>• Channel development into a system of nodes and corridors, in accordance with the principles of the National Spatial Development Perspective;</li> <li>• Identify land for housing projects in close proximity to major centres, and with linkages to those centres;</li> <li>• Development must be localised in specific strategic areas where there can be a focused effort on the provision of engineering services;</li> <li>• Consolidate existing areas rather than creating new development areas.</li> </ul>

2.	<b>Ensure the creation of sustainable human settlements</b>	Move away from the current pattern of housing delivery towards an approach of integrated, inclusive and sustainable settlement creation	Employ the principles of Breaking New Ground in all new settlements as well as in the upgrading and renewal of existing settlements.
3.	<b>Enable the cost efficient provision of engineering services</b>	Provide service infrastructure in accordance with spatial requirements	Identify the strategic areas of opportunity that should be the focus areas for capital investment in services infrastructure, in terms of the National Spatial Development Perspective
4.	<b>Identify movement networks and linkages in and around Madibeng.</b>	Develop a movement network that supports the spatial development focus areas	<ul style="list-style-type: none"> <li>• Ensure land use and transportation integration</li> <li>• Foster economic activity per area and establishing service centres.</li> <li>• Establish nodes and corridor linkages.</li> <li>• Establish regional linkages with other provinces</li> </ul>
5.	<b>Identify areas for economic development in the municipal area</b>	Promote economic development areas that contain the right characteristics to support sustainable economic development and which contribute to the overall spatial efficiency and sustainability	<ul style="list-style-type: none"> <li>• Identify areas where secondary and tertiary economic sectors can be developed</li> <li>• Hinder developments that are of detrimental to the local economy</li> <li>• Protect the areas with resources that</li> </ul>

			<p>contribute to the local economy</p> <ul style="list-style-type: none"> <li>• Identify suitable areas for secondary and, if viable, tertiary sector economic development</li> </ul>
6.	<b>Protect the environmental assets of the municipal area</b>	Protect the natural environment	<ul style="list-style-type: none"> <li>• Identify and isolate the valuable natural assets, and exclude these from development proposals.</li> <li>• Ensure that a continuous ecological and open space system is created in Madibeng.</li> </ul>

## 7.2.1 OVERVIEW OF THE SDF PROPOSALS

This section provides a summary of all the development proposals, the identified priority areas as well as actions to be taken in the identified priority areas. The SDF proposals are discussed in detail in the proceeding sections.

**Table 18: Summary of Development Proposals**

No.	Development Proposal	Priority Areas	Action
1.	Development of Urban Areas	Brits Hartbeespoort Dam Area	<p>Strengthening of existing Brits economic cluster</p> <p>Development and marketing of Madibeng as a centre for investment.</p> <p>Regeneration of the Brits Central Business District</p> <p>Industrial and mixed land use development should be supported especially to the east and along the Brits/Rosslyn Mixed Land Use Corridor</p> <p>Development should be restricted by the urban edge demarcated by the Department of Environmental Affairs.</p> <p>Infill development in urban areas to improve densities.</p> <p>Managed expansion of urban areas. Expansion should be restricted by urban edge.</p>

2.	<b>Reinforcement of Rural Service Centres</b>	Fafung, Makgabatloane, Jericho, Madidi, Skeerpoort, Beestekraal	<p>Rural service centres are to be improved by incremental investment in infrastructure.</p> <p>Although the rural character of these areas is to be preserved, they should not be exempt from development.</p> <p>Investment in Further Education and Training (FET) Colleges should be considered to improve the skills of the local population.</p> <p>The services offering of rural service centres should be expanded.</p> <p>This services offering includes education, healthcare and government services.</p> <p>It is recommended Local Economic Development strategies and research be carried out to ensure detailed rural development concepts.</p>
3.	<b>Tourism and Conservation</b> <ul style="list-style-type: none"> <li>• <b>Eco-Tourism</b></li> <li>• <b>Heritage Tourism</b></li> <li>• <b>Cultural Tourism</b></li> <li>• <b>Aqua-Tourism</b></li> <li>• <b>Agri-Tourism</b></li> </ul>	Hartebeespoort, Kosmos, Skeerpoort, Hartbeespoort Dam, Pienaars Dam, Damdoryn, Magaliesberg Biosphere, Nature Reserves, Conservation Areas, Heritage Sites	<p>Specific attention is to be given to the Damdoryn Tourism node and the formulation of an Urban Development framework for the area. This framework is to ensure land uses within the tourism node are efficiently integrated and complementary.</p> <p>The character of the northern tourism areas of Madibeng should be retained as due to their unique aesthetic offering and their characteristic extensive and intensive agriculture areas, game farming activities, conservation areas and nature reserves, tourism facilities rural residential areas.</p> <p>Leisure and entertainment activities are some types of developments that will be supported.</p>

			<p>Development within these areas is to be strictly limited to conservation and tourism activities.</p> <p>Natural drainage channels and banks of the rivers and dams must be protected up to the 100-year flood line.</p> <p>Vegetation zones should be developed along the shorelines of dams to act as a buffer against wave erosion of the shoreline; provide habitat for fauna and flora, act as filter for pollutants and improve the aesthetic quality of the dam.</p> <p>The development of conservation areas should be controlled in such a manner that they remain accessible to the public.</p> <p>Projects should be initiated involving the community, especially woman and youth in conservation.</p>
4.	<b>Agricultural Development</b>	Northern and Western portions of municipal area ( Functional Zone 3 and Functional Zone 4 )	<p>Agricultural development and cultivation of high potential agricultural land and secondary land uses supporting agricultural development.</p> <p>These secondary land uses include manufacturing and industrial activities related to Agri-Processing.</p> <p>Manufacturing and industrial activities in agricultural areas are to be conducted within a strict environmental management framework.</p>
6.	<b>Transport Linkages</b>	Road Infrastructure, Rail Infrastructure, Beestekraal	<p>Road and rail linkages play a vital role in the economic development of the municipal area.</p> <p>These linkages should be improved to support accessibility of tourism offerings.</p>

			<p>These linkages are also vital to the agricultural and business sectors as well.</p> <p>The expansion of the rail network between De Wildt and Brits will cater for commuters and transportation of some industrial products.</p> <p>Beestekraal – Rail transport of agricultural produce and mined material</p>
7.	<b>Townships</b>	<p>Lethlabile, Mooinooi, Bapong, Settlements along the Brits/Rosslyn Mixed Land Use corridor</p>	<p><b>Lethlabile</b>- Reinforcement as a growth point and intermediary town between urban and rural areas.</p> <p>In the towns of <b>Mooinooi</b> and <b>Bapong</b> economic activity areas should be supported and provided with sufficient infrastructure where required. These towns should be reinforced as growth points and important nodes along the N4 corridor.</p> <p><b>Brits/Rosslyn Settlements</b>- These areas should be integrated via public transport and diverse basic services.</p> <p>Skills Development initiatives proposed should in line with surrounding mining and tertiary activity in the found along the R566 corridor.</p>
8.	<b>Corridor Development</b>	<p>Brits/Rosslyn, Mabopane/Centurion, N4 National Road, R512 Regional Road, R511 Regional Road</p>	<p><b>Brits/Rosslyn Corridor</b> - mixed land use development corridor. This corridor also includes the Brits/R511 linkage to the platinum corridor.</p> <p><b>N4 Platinum Corridor</b> – important nodes include Brits/R511 intersection with the Platinum Development Corridor, Bapong area via the R556 access and the Mooinooi area.</p> <p><b>R512 Tourism Corridor</b> – Extension of the existing tourism corridor to the south to include Skeerpoort. Development restrictions along this corridor are to remain the same.</p>

9.	Mining Areas	Marikana, Sunway Village, Wonderkop, Rankotea, Bosfontein	<p><b>R511 Agricultural Corridor</b> – Encourage light industrial development along within a 300 meters buffer from the road between Brits and the Platinum Highway.</p> <p>Encourage tourism vending stalls along the R512 south towards R104.</p> <p>Facilitate the Enforcement of Environmental Management Frameworks especially for open cast operations.</p> <p>Establishment Private Public Partnerships that will improve the living and working conditions of employees in mining towns.</p> <p>Align any development plans within mining communities to be in alignment to integrated human settlements.</p>
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## 7.2.2 NATURAL FORM GIVING ELEMENTS

The form giving elements are core areas whereby development may not take place. In this regard these areas are conserved and protected with minimal to no development allowed. These natural form giving elements can be categorized into Natural Open spaces and High potential agricultural land, Cradle of Humankind as well as the Pelindaba Nuclear area.

The Cradle of Humankind and the Pelindaba Nuclear plant are not natural structuring elements but they have a structuring function due to their functionality. The cradle of humankind is a world heritage around which the nature and extent of permitted developments is restricted. Similarly, there is a 5km buffer around the Pelindaba Restricted Zone. In this 5km buffer it is recommended that commercial and light industrial activity may take place.

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### 7.2.2.1 NATURAL OPEN SPACES

Natural Open Spaces dictate the direction of development as they need to be preserved. The bulk of the Madibeng local municipality is dominated by natural open spaces. Preservation of these environmental have an ecological and visual benefits as well as serve as a mechanism to consolidate and focus development in the municipal area.

An open space system for Madibeng would consist of continuous open system of natural and ecological corridors. Elements of the natural open space include:

- Mountains and ridges;

- Rivers and dams;
- Nature reserves and environmentally sensitive areas;
- Wetlands;
- Drainage lines; and
- Riparian zones.

### Development and management Directives for Natural open Systems

The natural drainage channels and banks of the rivers and dams must be protected up to the 100-year flood line. No development may be permitted within the 100-year flood line from rivers, streams and wetlands without the written consent of the relevant environmental and water authorities.

Development along the riverbanks should only be considered if strict measures for riverbank protection, wastewater treatment plants, storm water control and erosion control are put in place and enforced. No development shall take place directly adjacent to the riparian zone and shoreline of a water source (i.e. dams, rivers, wetlands and drainage lines) without an Environmental Management Framework indicating measures for the conservation of the ecological integrity of the shoreline as well as measures to repair damage to the shoreline and its vegetation caused by construction.

Waste-water effluents from all developments shall comply with the maximum standard release of 1 mg soluble ortho-phosphate per litre.

Vegetation zones must be developed along the shorelines of dams to (i) act as a buffer against wave erosion of the shoreline; (ii) provide habitat for fauna and flora, (iii) act as filter for pollutants and (iv) improve the aesthetic quality of the dam. The "riparian zone" around the dam shall be considered as a priority for the effective maintenance of the zone. A 50m buffer around the shoreline to be added to the DWAF servitude must be reserved from development. All future developments may not be allowed to encroach into this buffer.

A buffer zone of 30 meters along all rivers, wetlands and drainage lines should be enforced within which no development should take place. The construction of facilities within this buffer zone necessary to gain access to water should be subject to an EIA process.

Sanitation services must be provided to settlements located within the catchments of water sources to avoid pollution due to surface run-off and groundwater seepage of sewerage

and other harmful effluents. Owners of developments must:

- Ensure that package plant systems for wastewater treatment comply with the laid-down maximum release standard of 1 mg soluble ortho-phosphate per litre.
- Put sufficient back-up systems in place for their wastewater treatment systems to cater for system failures or power interruptions.
- Adhere to the principles and guidelines set out in the Hartbeespoort Dam Strategic Environmental Assessment, the Hartbeespoort Dam Structure Plan and the Madibeng Environmental Management Framework.

The shorelines of dams must remain accessible to the general public. Prior to consideration being given in future to private development initiatives along the Klipvoor Dam and Rooikoppies Dam, areas should be demarcated that will fulfil the function of public areas.

No development may take place on the Kommandonek and Oberon properties adjacent to the Hartbeespoort Dam, and these properties should be utilized for public recreation facilities in perpetuity to ensure public access to the shoreline.

All development around the Magaliesberg shall adhere to the principles and guidelines set out in the Magaliesberg Protected Natural Environment Management Plan.

No new mining activities shall be permitted on any mountain or ridge or in or adjacent to any river, wetland or drainage line in the Madibeng area without the approval of the Northwest Department of Agriculture, Conservation and Environment.

A slope analysis should be conducted on all ridges and mountains in order to determine development restriction areas, as per the Ridges Policy.

All scenic vistas should be protected from development.

#### 7.2.2.2 HIGH POTENTIAL AGRICULTURAL LAND

This section refers to land with favourable soil conditions and the listed irrigation properties with access to water from irrigation canals. This land is found along the Crocodile River which runs on the South western parts of Madibeng. As much as the majority of land in Madibeng is suitable for agricultural activity, some areas are under threat. This is attributed to fact that these areas are sensitive, as this land cannot be replaced once lost. Thus high potential agricultural land should be protected from development and mining activity.

## Development and Management directives: High potential Agricultural Land

No activities or developments other than agriculture and agricultural related activities shall be permitted on high potential agricultural land.

No township establishment shall be permitted on high potential agricultural land.

### 7.2.3 SPATIAL DEVELOPMENT FOCUS AREAS (NODES)

The spatial development areas of Madibeng Local Municipality can be categorized into two areas, namely the development potential areas and the consolidated areas.

#### 7.2.3.1 DEVELOPMENT POTENTIAL AREAS

This element refers to core areas based on their development potential. Each area has a specific functionality which complements other development node. In addition these areas have room for expansion towards each other. This is evident in the urban areas of the municipality which already have some form of economic activity and the potential to grow. Essentially these areas will result in a system of nodes and corridors. It is proposed that State-owned land that fall on high potential agricultural land must be privatised for the purpose of intensive agricultural development.

##### 7.2.3.1.1 URBAN AREAS

Urban areas are characterized by concentrated and mixed activity. This includes residential development, business and administrative functions, social services and infrastructure. Urban areas should house a range of services and facilities required to achieve a sustainable, efficient, convenient and liveable environment. In order to counteract the current dispersed inefficient spatial form that is characteristic of the municipal area, future settlement development should be focused in specific areas. Existing settlement areas and clusters within the Madibeng municipal area have been identified. These areas are to be developed further and their development potential is to be unlocked.

The development of urban areas in the Madibeng municipal area is to take place through infill development and managed expansion. Infill development is concerned with the identification of vacant land parcels within the urban edge and the development of these parcels according to their optimal development potential. Infill development is directed at improving the densities within urban areas and efficient land use. Managed expansion is concerned with the gradual incremental outward growth of settlements within the urban edge. Outward expansion should not be permitted where opportunities for infill development still exist. The establishment of new settlements with no functional linkages to existing areas should not be permitted.

The demarcation of the urban edge is primarily directed at the prevention of unregulated urban sprawl. Urban sprawl adversely affects the availability of land and increases pressure on services provision. Furthermore, the urban edge serves to protect valuable agricultural land and sensitive environmental areas.

The Urban Areas identified in the Madibeng Spatial Development Framework are as follows:

- The Greater Brits Area
- Hartbeespoort Dam Area
- Mooinooi
- Greater Bapong Area
- Lethlabile/Hebron

### Development Directives for: Urban Areas

The development of urban areas is to include the full range of urban activities in order to ensure access to a range of opportunities.

Detail local spatial development frameworks are to be drafted for each of the Urban Areas to outline densification areas, nodes, linkages etc.

Aside from the spatial demarcation of the Urban Areas, no new development is to be permitted if the necessary infrastructure, specifically water and sanitation, is not in place.

All new settlement layouts shall be informed by the principles of "Crime Prevention through Environmental Design".

Residential development is to employ an environmentally sustainable framework which includes solar heating and green building technologies. The Madibeng Local Municipality is to develop a policy specifically for this.

All development to the west of the Hartbeespoort Dam area is to be subject to the following conditions:

An agricultural suitability study must be undertaken to establish that the land to be developed is not high potential agricultural land.

Developments falling within the Cradle of Humankind or Cradle of Humankind Buffer Zone are to be forwarded to the relevant authority responsible for the management of the Cradle of Humankind for approval. This approval is to be attained prior to submission to the local authority.

Strengthening of existing Brits economic cluster

Development and marketing of Madibeng as a centre for investment.

Regeneration of the Brits Central Business District and the formulation of a regeneration strategy to guide investment.

Industrial and mixed land use development should be supported especially to the east and along the Brits/Rosslyn Mixed Land Use Corridor.

Infill development should be facilitated within the urban edge demarcated by the Department of Environmental Affairs.

Infill development in urban areas to improve densities.

Managed expansion of urban areas. This can be achieved through strict measures to control expansion/mushrooming settlements.

Improve public transport networks especially to tourism attraction areas.

#### 7.2.3.1.1.1 GREATER BRITS AREA

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The urban centre of Brits and its surroundings constitute the core area of Madibeng Local Municipality. This area is the economic hub of the municipality and contains the region's only Central Business District and industrial area. The Brits area contains the majority of urban functions and a large proportion of the municipal population. The Brits area is well serviced in terms of municipal infrastructure including road, rail, electricity, water and sanitation. At present the area has sufficient capacity to support future development.

Due to the significance of Brits as the economic hub and primary service centre of the municipality it is vital that it continue to attract investment.

However, there is at present a conflict between the development of the Brits area and the high potential agricultural land surrounding the area. The important role the agricultural land plays in food production as well as its contribution to the local economy requires that this land need be protected from development. More specifically the development of the Brits area toward the north and the west is limited due to high potential agricultural land.

### Brits Area Development Directives

Further development of the greater Brits area is to be directed in an easterly direction along the R566 road towards Tshwane.

Although there is a small portion of land suitable for development along the R511, no development in this area is to take place without the consent of the Minister of Agriculture.

It is proposed that a town regeneration strategy be formulated for the urban centre of Brits.

Reinforcement of the position of Brits as the economic hub and major service centre of the municipality.

Furthermore development in the Brits area is to be regulated by the Brits Precinct Plan. The precinct plan sets out the following development objectives for future development:

A development approach which is focused and well planned. This approach should facilitate the creation of sustainable neighbourhoods that are attractive, safe and convenient places for people to inhabit.

A development approach which facilitates economic development.

The integration of different parts of the precinct via efficient and affordable movement systems. This integration includes internal integration of the core area as well as integration within the region.

Infrastructure, services and facilities are to be improved to support development.

Environmentally sensitive areas are to be protected and enhanced.

#### 7.2.3.1.1.2 HARTBEESPOORT DAM

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The Hartbeespoort Dam area is a prime development location in the Madibeng municipal area. Development in this area is characterised by high income residential development and this trend is set to continue. Development within this area should be channelled towards the east toward Tshwane and creeping to the west away from major regional linkages should be restricted. Although the area to the west of the dam has been included as an urban area, a large portion of this area falls within the Cradle of Humankind Buffer Zone. This area is subject to development restrictions and approval is required by the relevant authority. Development towards the south and the east is desirable, however development in this direction is restricted around the Pelindaba Nuclear Complex as well as the Cradle of Human Kind World Heritage Site.

#### Development Directives for: Hartbeespoort Dam Area

Development of tourism information centres for the Hartbeespoort Dam area.

Development of informal trading areas with adequate infrastructure to support local economic development and tourism.

All development to the west of the Hartbeespoort Dam area is to be subject to the following conditions:

An agricultural suitability study must be undertaken to establish that the land to be developed is not high potential agricultural land.

Developments falling within the Cradle of Humankind or Cradle of Humankind Buffer Zone are to be forwarded to the relevant authority responsible for the management of the Cradle of Humankind for approval. This approval is to be attained prior to submission to the local authority.

Furthermore, development in this area is also to be governed by the Hartbeespoort Precinct Plan which sets out the following focus areas based on the spatial development concept:

A rural tourism area is to be established along the R104 in the north-western part of the precinct. This area is to be directed at economic development whilst protecting environmental capital.

Non-residential activities to the south of the Pecanwood Estate which include the existing, approved and proposed business developments need to be consolidated with business, education, recreational and leisure developments forming part of the 'Masada' development;

A mixed-use activity corridor is to be created along the R511 in the eastern part of the Hartbeespoort Dam Area. This corridor will be a major structuring element in this part of the precinct.

The Melodie Agricultural Holdings area should be developed as a mixed-use, urban environment. This urban environment is to differentiate itself from the inward-oriented residential development patterns that are characteristic of the area to the east. The core element of the development area will be a tourism-related development spine. This spine is to run down from the cableway to Village Mall and onto the Schoemansville Nature Conservation Area.

A sustainable human settlement is to be developed in the Rietfontein area. This settlement is to cater for a variety of housing typologies and income groups. The settlement is to be supported by sufficient social and community facilities.

#### 7.2.3.1.1.3 MOOINOOI/BAPONG

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The Mooinooi/Bapong complex which is situated in the south-western part of the municipality is a vital area in terms of future development. At present this area is characterised by a number of settlements that are inadequately

serviced and connected. However, this area is strategically located along the Bakwena Platinum Corridor and within the mining focus area. The Bapong complex is a growing settlement cluster that should be a priority area for the introduction of infrastructure and services. The reason for this is due to the expansion of mining activity in the area and the effect this will have on the growth of the settlement.

Due to the strategic location of the Bapong/Mooinooi settlements along the Platinum Corridor they have the potential to benefit from economic development along the corridor. The location of the settlement adjacent to the corridor makes it highly accessible for development. Development in this area will necessitate a public transport network on the R104 to serve the users of public transport in this area and to connect them to the other urban areas within the municipality.

Mooinooi/Bapong Development Directives
Incremental improvement of services and infrastructure. Support for economic activities in these areas. Integration via a public transport network in the R104. Development around Mooinooi/Bapong will be subject to the following conditions: <ul style="list-style-type: none"><li>○ Development may not affect high potential agricultural land</li><li>○ Development of the settlement requires connection to the municipality's bulk services network</li></ul>

#### 7.2.3.1.1.4 LETHABILE/HEBRON

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At present the Lethlabile-Hebron area is characterised by a number of scattered, largely underdeveloped settlements. Due to the location of this area relatively close to the Core Area of Brits and strong relationship to the

Mabopane area in Tshwane, this area has potential to become a future development focus area. Development within this area should be largely directed at residential infill development, infrastructure investment, the creation of community services and community facilities as well as the stimulation of economic activity. Furthermore, this area should be integrated with the Brits/Oukasië cluster via a high quality road linkage and public transport system.

Lethlabile/Hebron Development Directives:

Infrastructure development.

Infill residential development.

Integration into the core Brits area via improved road linkages and public transport networks.

#### 7.2.3.1.1.5 SKEERPOORT

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The Skeerpoort area currently is not classified as an urban area. The area is characterised largely by its rural nature and agricultural activity. Due to its isolation from main development focus area, the area should be a focus area of expansion in terms of urban development. The reason for this is that it will not be efficient in terms of investment in infrastructure to upgrade this area. It is proposed that a specific spatial development framework be drafted for the Skeerpoort area. This spatial development framework should clearly outline which forms of development are to be permitted and can be supported by existing infrastructure. The Skeerpoort area is to be developed as a rural tourism node. Improvement of service is to occur incrementally.

### 7.2.3.1.1.6 SETTLEMENTS ALONG THE BRITS/ROSSLYN CORRIDOR

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This section refers to settlements along the Brits/Rosslyn Corridor. These settlements include Ga-Malou, De Wildt, Moumong, Mmakau, Mapetla and Hoekfontein. These settlements located along the Merensky Reef mining belt are characterised by residential development. Due to the increased economic activity, mostly mining and manufacturing in Rosslyn, as well as the increased connection to the City of Tshwane, these areas expected to grow. In this regard, development within this area should be retained through residential infill development. In addition the facilitation of infrastructure investment, enhancement of community services and community facilities as well as integrated transport network systems, will ensure that these settlements sustainability. Integrated transport linkages should be linked to the City of Tshwane BRT system. It is encouraged that feasibility studies to establish regional linkages be undertaken. Furthermore the development of neighbourhood nodes will also enable a vibrant economic activity along the Brits/Rosslyn Corridor.

Brits/Rosslyn settlements Development Directives
Infrastructure and social amenities improvement.
Residential infill facilitation.
Improved linkages through public transport networks.
Development of neighbourhood nodes
Strengthen Industrial and economic activity

### 7.2.3.1.2 MINING AREAS

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Mining activity in Madibeng occurs in the Merensky Reef. It stretches from Brits in a westerly direction towards Bapong and on to Marikana and Rustenburg. Mining activities, especially quarrying leaves permanent scars on the landscape and not only damages the ecological function of the ridges but also destroys the visual and tourism potential of an area.

It is a National key imperative for mining companies which have operations in mining towns to improve housing standards and foster equity for the workers. This may include and not be limited to:

- Upgrading of hostels;
- Promotion of housing ownership options; and
- Conversion of hostels to family units.

To achieve this, there needs to be improved communication between the public sector and its varying sectors as well as mining companies. Intergovernmental coordination is needed to provide integrated and sustainable human settlements. It ensures that housing projects are approved in alignment to transport services, bulk services and access to general services. The role of private companies is to establish sustainable livelihoods for their employees. The objective of improving mining communities is well coordinated across government departments, private companies and the communities. Integrated transport linkages should be linked to the Rustenburg BRT system. This will improve regional linkages along the regional Merensky Reef mining belt.

## Development Directives for Mining Areas

Rehabilitation of mining areas should be enforced during operation and after closing of mines.

Public Private Partnerships for the provision of more sustainable housing solutions.

Redevelopment of disused mines for tourism offerings and industrial activities

Development of integrated human settlements for mining communities

### 7.2.3.1.3 TOURISM NODES

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Tourism areas in Madibeng present specific intrinsic values or characteristics found in in the areas. Such areas in Madibeng Local Municipality are:

- The Cradle of humankind World Heritage Site;
- The North tourism node;
- Hartbeespoort Dame and its surroundings;
- Damdorynn; and
- R512 tourism corridor.

## Development and Management Directives: Tourism Development Areas

The development of infrastructure, such as roads, water and electricity, is a key requisite for successful tourism development.

The Madibeng tourism development areas must be conserved and its quality enhanced with

appropriately controlled land uses and environmental improvements. It is proposed that a visual impact analysis be conducted for each of these areas to determine how to develop and protect these visually sensitive areas over the long run.

Community development project should be initiated whereby the community is involved in conservation and tourism, especially youth and women.

Land uses along the R512 Tourism Corridor shall be restricted to low intensity tourism related activities such as restaurants and tea gardens, road side stalls, lodges and conference venues.

Development in the Damdoryn Tourism Node shall be in accordance with the Damdoryn Development Framework. No Urban Areas shall be permitted in and around this node

Tourism Information centres in Brits and major attraction areas should be developed. These centres should be supported by locally produced tourism goods.

Rail tourism should be utilised to expose tourists to the other areas of the municipality.

Festivals and adventure sports events are to be expanded to enhance tourism offering of municipal area.

The character of the northern tourism areas of Madibeng should be retained due to their unique aesthetic offering and their characteristic extensive and intensive agriculture areas, game farming activities, conservation areas and nature reserves, tourism facilities rural residential areas.

Leisure and entertainment activities.

Agri-tourism and Adventure tourism should be promoted in rural areas.

Development within these areas is to be strictly limited to conservation and tourism activities.

Natural drainage channels and banks of the rivers and dams must be protected up to the 100-year flood line.

Vegetation zones should be developed along the shorelines of dams to act as a buffer against wave erosion of the shoreline; provide habitat for fauna and flora, act as filter for pollutants and improve the aesthetic quality of the dam.

The development of conservation areas should be controlled in such a manner that they

remain accessible to the public.

#### 7.2.3.1.3.1 NORTHERN TOURISM ZONE

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The character of the northern tourism areas of Madibeng should be retained due to the unique aesthetic offering and their characteristic agriculture areas, game farming activities, conservation areas and nature reserves, tourism facilities as well as rural residential areas. The northern tourism areas need to be linked more effectively to the rest of the municipal area. Rail infrastructure should be utilised for this purpose. Tourism offerings in these areas are to include Agri-Tourism, Eco-Tourism, Adventure Tourism, Hunting, Cultural and Conservation Tourism. The farms that constitute this region and contribute to its unique character are to be protected from urban and mining encroachment to ensure that it remains an attractive tourist destination. Linkages between the eastern and western portions of the region need to be improved through the construction of a road linkage between the two areas.

#### 7.2.3.1.3.2 HARTBEESPOORT AND ITS SURROUNDS

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The Hartbeespoort Dam area and surrounding mountains provide a range of tourism opportunities from eco-tourism to outdoor recreation to weekend breakaways for urban residents. Development in the area of the dam includes tourism facilities such as hotels, resorts and water sport related activities. These activities have an impact on the dam and surrounding areas. The pollution and surrounding areas' environmental degradation needs to be addressed in order to support the sustainability of the development of the area as a tourism destination.

Furthermore, historical and archaeological sites have been found in the Magaliesberg and Witwatersberg surroundings. These sites of historic and

cultural significance are primarily located on the farms Hartbeeshoek, Leeuwenfontein, and Broederstroom, as well as Skeerpoort, Remhoogte and Bulfontein. The Skeerpoort, Remhoogte and Bulfontein farms contain farm buildings dating back to the early 20<sup>th</sup> century. These buildings have been declared national monuments and also contain confirmed archaeological sites. In addition to the farm buildings other historical elements of value in the area between the Magaliesberg and Witwatersberg mountains are old forts and ramparts of historic battlefields. There are also some of the finest examples of historical elements of prehistoric farming, mining, metal production and village building in Africa. These elements are of national value and should protected and be conserved for future generations.

#### 7.2.3.1.3.3 DAMDORYN

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Specific attention is to be given to the Damdoryn Tourism node and the formulation of an Urban Development framework for the area. This framework is to ensure land uses within the tourism node are efficiently integrated and complementary. In the past Damdoryn has been haphazardly developed and this has had a significant effect on the development of the area. In order for the full potential of this tourism node to be unlocked, stricter aesthetic control needs to be implemented in this area through land use control, urban design and landscaping.

#### 7.2.3.1.3.4 R512 TOURISM CORRIDOR

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The portion of land along the R512 stretching between Brits and the R104 has been earmarked for tourism related development. Although this area consists largely of high potential agricultural land, some farm portions are attributed by mining and quarrying activities. The development restrictions in this area are as follows:

- Between Brits and the Platinum Highway: light industrial and other commercial activities may be permitted within a 300 meters on both sides of the R512. However, the bulk of the area must be reserved for agricultural purposes.
- Between Platinum Highway and the R104: within a distance of 300 metres on the eastern side of the R512
- R104 between Damdoryn and R512/R104 intersection: facilitation of tourism vending stalls along the R104 linking to the Damdoryn tourism node.

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### 7.2.3.2 CONSOLIDATION AREAS

Areas in the north-eastern side of the municipality are scattered and dominantly rural. Essentially an approach to consolidate all the settlements into a bigger node shall be implemented. Since these areas have no inherent service infrastructure and urban development potential, the focus has to be on retaining the rural character. This entails permitting small scale farming and an introduction of eco-tourism. Consolidating these areas will enable cost efficient provision of infrastructure and community services and establish local linkages within the rural settlements.

#### 7.2.3.2.1 RURAL AREAS

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##### 7.2.3.2.1.1 EXTENSIVE AGRICULTURE

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Extensive agriculture is a dominant land use that covers the bulk (45%) of the municipal surface areas. This land use spreads over the northern side of the

municipality with some traces spreading into the central region. Extensive agriculture occurs on the Bushveld vegetation. It permits livestock and game farming as well as low-values crops. About 50% of the extensive agricultural farms within the municipality are state-owned. However the majority of these farms are leased for farming purposes.

#### 7.2.3.2.1.2 RURAL SETTLEMENTS

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These refer to rural villages, which are characterized sparse population distribution, subsistence farming as well as customary practices. These types of settlements dominate the north eastern quadrant of the municipal area. Minimal access to services is a major concern in these areas. In addressing this issue, infrastructure supporting the rural and customary practices should be invested in. This will result in the retaining the rural heritage, lifestyle and landscape as opposed to converting these areas to housing areas.

Settlements whereby customary and subsistence agriculture occur will require settlement layouts that would cater for the specific land uses. Such land uses may include a subsistence agricultural use within a residential land parcel. This would reduce long travelling distances to communal farming land portions. Settlement typologies that maybe be suitable for this land uses include agricultural holdings, agricultural villages and small rural villages,

There are 43 villages within the municipality, with the majority of the villages located between Fafung and Madidi. About 3% of the Madibeng is characterized by subsistence agriculture, whereby people produce food for daily consumption. These can be found in areas along the Tolwane River and around Jericho which have high agricultural potential soils thus making them more suitable for subsistence farming which could possibly become commercial.

Development concepts in rural areas are highly linked to tourism activity. Activities in these areas may include crafting and weaving as well as pottery. These activities are closely linked to the diverse cultural heritage found in villages. Investment in Further Education and Training (FET) Colleges should be considered to improve the skills of the local population. It is further recommended that Local Economic Development strategies and research that focus on aspects like women and youth as well as Indigenous Knowledge Systems be investigated. These studies will better inform concepts and best approaches for rural development.

#### Development and management Directives: Rural Areas

Illegal land uses on farm portions, such as industrial and commercial developments that have no relation to agriculture, should be eradicated and moved to economic activity areas or urban areas. The Madibeng Local Municipality should ensure that a unit that deals with land use contraventions specifically focuses on the rural environment.

The rural settlements are not suitable for low cost housing developments, as they are far removed from services and facilities that can contribute to the creation of sustainable human settlements. No low cost or affordable housing developments should therefore be permitted in the Rural Areas.

The following land uses are permitted in Rural Areas:

- Rural Residential (in line with the criteria set out for Rural Residential below)
- Rural Settlements/Villages
- Tourism activities and facilities such as: Guest Houses, Cultural Villages, Environmental education centres, Restaurants, tea gardens, Wellness centre/spa, Infrastructure that serves the lodge or resort
- Conservation areas
- Extensive and Intensive agriculture

- Subsistence and small scale agriculture
- Rural service centres

#### 7.2.3.2.1.3 RURAL RESIDENTIAL

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This section refers to residential areas that are within the rural environment but are neither rural villages nor rural settlements. These areas are characterized by low-density country estates, or agricultural holdings which are not involved in agricultural activities. Rural residential is normally settlements subdivided from farm portions.

Caution for the approval of such developments should be practiced. This is to avoid segregated settlements that have no access to social amenities and infrastructure. These settlements should only be approved if they inform the spatial principles of spatial integration and efficient spatial form.

#### Development and management Directives: Rural Residential

All developments shall be subject to the approval of the Minister of Agriculture. No development shall infringe on high potential agricultural land.

Country Estates, Private Resorts and Public Resorts shall be approved in accordance with the North-west Province's policy on Country Estates, Private Resorts and Public Resorts.

The primary focus is the conservation of the natural resource (open space). Conservation in this sense must be seen as conserving open space as a resource in itself. Conservation conditions must be strictly adhered to

A Clutter-and-Space layout shall be adhered to. Dwelling units shall be grouped together in as few clusters as possible

60% significant open space (calculated over the gross area of the site); provided that the area reserved for open space may be increased in cases of environmental sensitivity to the satisfaction of the relevant environmental authority.

A Strategic Environmental Impact Assessment must determine the open space, the position of clusters, the position of ancillary facilities, roads etc.

Conditions to be set for design, character and overall relationship with its environment

Strict requirements must be laid down for the provision of engineering services to and within these estates to ensure that it does not lead to environmental problems. The ability to provide services according to the standards set by the municipality is a pre-requisite for approval.

#### 7.2.3.2.1.4 RURAL SERVICES

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These are areas within the rural landscape that tries to bridge the distance between rural communities and urban areas. Rural service Centres are meant to provide basic day-today services to rural residents. These services may include but not be limited to:

- Municipal Services (Pay points)
- Social and Support Services
- Small scale (convenience) retail
- Tourism facilities and services
- Transport services

These service centre nodes are not meant to develop to be urban nodes but need to be strategically located so as to ensure equitable distribution of services and facilities throughout the rural settlements. Options of mobile services may also be considered so as to facilitate flexibility and mobility for the elderly and areas that are hard to reach.

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## 7.2.4 LINKAGES

Corridors are essentially meant to connect development focus areas through efficient transport systems. Linkages in Madibeng can be developed through two forms, either as efficient mobility corridor or development corridor, depending on the most viable within the particular context. Mobility linkages should be prioritized between the north-eastern settlements and the southern development core area.

Development corridors are dominantly present within the southern zone due to the increased number of development focus areas and the increase development pressure around Hartbeespoort Dam and Brits. The linkages of particular importance are the Platinum Corridor and the Mabopane-Centurion Development Corridor.

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### 7.2.4.1 PLATINUM CORRIDOR

The Platinum is located parallel to the N4, stretching on the Merensky Reef mineral belt. The mineral belt covers the edge of the Gauteng border, Brits, Rustenburg, and Zeerust up to the Botswana Border. The Platinum Corridor forms part of the Maputo Walvisbay Development Corridor, which links the west and east coasts of Africa.

Although this corridor has regional economic development potential, there are spatial restrictions that hinder effective integration of Madibeng Local Municipality into the corridor. This is attributed to the fact that the N4 is a freeway and thus has a limited number of access points that could link Madibeng nodes to the corridor.

The existence of corridors enables an environment for economic growth and development. Places along the transport corridors typically grow at a higher

rate than areas further away from the corridor. Closer areas benefit in terms of Infrastructure, construction, transport, communications, finance and real estate.

With reference to the N4 corridor, there are four development nodes along which economic integration to the Madibeng Local Municipality can be established. These places are seen as potential activity nodes, whereby the traffic on the N4 can be harnessed to benefit Madibeng. The table below provides a summary of the possible area, the type of node the area may grow to be and possible developments that may occur within each node.

**Table 19: N4 development nodes**

Intersection/ Location with N4	Potential Node	activity	Possible development initiatives
<b>R511</b>	Economic node		Shopping mall Services Industry, Mixed land uses, light industrial, Commercial Activity
<b>R566 Bapong</b>	Development node		Commercial, Mixed land uses, Housing developments, light industrial
<b>R512</b>	Agricultural/Tourism		Commercial, Mixed land uses, Housing developments, light industrial Trade and tourism information centre
<b>Mooinooi</b>	Development node		Housing developments

These are intersections at which there is potential for development activity along the N4 corridor which can contribute to the Madibeng economy. However, it should be noted that detailed feasibility studies need to be carried out to detail the extent of possibilities that could take place at the listed intersections.

#### 7.2.4.1.1 R511 CORRIDOR

The R511 stretches from the north western side running through Brits down to the south eastern part of the municipality, linking to the northern suburbs of Gauteng. This makes the intersection between the R511 and the N4 a node with development potential. The land directly adjacent to the western side of

the R511 between Brits and the N4 Platinum highway should be developed for a quality economic activity corridor. In the design of the node, aesthetic quality of development, urban design and the management of illegal land uses should be of highest priority.

#### 7.2.4.1.2 R566 BRITS-ROSSLYN CORRIDOR

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The R566 and the railway line stretching from Brits to Rosslyn, present an opportunity for mixed-use development corridor. This corridor is linked to the tertiary economic activity between these two development focus areas as well as links up Brits/Oukasie, Damosville, Mothutlung, Mmakau and Ga-Rankuwa. The increased number of people and goods flowing between these two nodes highlights the interdependence between this area and Tshwane. It is envisioned that this corridor will feed into the R511 corridor and ultimately to the Platinum corridor.

#### 7.2.4.1.3 R512 TOURISM CORRIDOR

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The R512 links the N4 to R104 on the southern side and to Brits on the northern side. This area is primarily high potential agricultural land and thus is earmarked for tourism related developments. The tourism related activities will be permitted on 300 meters on both sides of the R512.

#### 7.2.4.2 MABOPANE-CENTURION DEVELOPMENT CORRIDOR (MCDC)

This corridor is located in the north western part of the City of Tshwane. Major access roads that link the eastern region of Madibeng and the western region of City of Tshwane intersect with the DCDC. These routes include the NW8, D2284, P2 and P35. The MCDC also have a strong pull factor for the greater

rural settlements located in the north eastern part of Madibeng Local Municipality. This link is strengthened by various roads and transport systems (bus and taxi).

## 7.2.5 DENSIFICATION IN URBAN AREAS

Urban densities vary from one urban area to the next. This is attributed to the unique spatial attributes that each location has. The aim of densifying is to achieve efficient living environments spread over a relatively small area. This serves as means to prevent outward expansion and development on vulnerable land. In this regard, increasing residential densities needs to be complemented by efficient public transport systems and other special facilities.

The following density framework serves as a guideline with regards to the typical nature of densities around certain nodes and locations. The Hartbeespoort and Brits precinct plans detail the densities per urban area.

**Table 20: Density Guidelines**

Location	Residential typology	typical Density
Adjacent to local neighbourhood activity nodes or spine	Duplex Residential and Tow storey walk-up	40-60 dwelling units per hectare
Adjacent to major public transport facility such as railway stations	Duplex Residential and Two to three storey walk-ups	40-80 dwelling units per hectare
On the edge of the Urban Settlements areas	Single residential developments	10 dwelling units per hectare and less
Settlements in the Northern side of the municipality	Single residential developments	1 dwelling unit per hectare

<b>Other areas</b>	Single residential developments and townhouses	25 dwelling units per hectare or less
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### 7.2.5.1 BRITS

The table below provides detailed density typologies within the Brits Area. However it must be kept in mind that the precinct plan should be read in alignment to the land use scheme. This ensures thorough density developments within the formalised area.

**Table 21: Brits Densities**

<b>Location</b>	<b>Recommended density</b>
<b>Brits CBD Core</b>	Minimum 100 dwelling units/hectare
<b>Brits CBD Periphery and densification Zone around CBD</b>	Minimum 80 dwelling units/hectare
<b>Around public transport routes and along Business corridors</b>	Minimum 60 dwelling units/hectare
<b>Around neighbourhood clusters and spines</b>	Minimum 40 dwelling units/hectare
<b>Low density Residential Areas</b>	Minimum 50 dwelling units/hectare for single residential

### 7.2.5.2 HARTEBESPOORT

The Hartbeespoort area is characterised by middle to high income residential areas. Due to its environmental vulnerability, the proposed densities range between 80 units per hectare to 1 unit per 10 hectares. The higher densities are

located around neighbourhood nodes or close to shopping centres. The 2014 Hartbeespoort precinct plan provide more detailed density information.

**Table 22: Hartbeespoort Densities**

Location	Recommended density
Areas with commercial Activity on the Western side of the Hartbeespoort dam	Maximum 1 dwelling unit/ 5 hectare and Minimum 1 dwelling unit/ 10 hectare
Areas around the dam that are day visitor resorts and Residential resorts	Maximum 10 dwelling units/hectare
Areas around the dam that are agriculture and country living	Maximum 1 dwelling unit/ 10 hectare
Residential areas around the dam that are associated with commercial activity	Maximum 16 dwelling units/hectare
Residential Areas in close proximity to commercial activity.	Maximum 20 dwelling units/hectare

The details for the above table are further detailed in the Hartbeespoort precinct plan.

## 7.2.6 AFFORDABLE HUMAN SETTLEMENTS

This section entails the principles that guide human settlements development in terms spatial and environmental quality. Sustainable human settlements is a comprehensive approach that looks at housing including access to services, proximity to job opportunities, access to transport systems as well as conservation of the natural resources. In essence the housing policy focuses at building communities and conditions that promote economic, social and environmental sustainability.

According to the IDP, the following strategies need to be in place in order to promote integrated human settlements and land use management:

- Acquisition of well-located state land, tribal authorities, parastatal and privately owned land for housing development;
- Infrastructure provision (water, sanitation, electricity and roads as well as storm water);
- Progressive informal settlements eradication;
- Enhance municipal capacity and capability regarding housing planning and delivery;
- Develop and nurture partnerships with important stakeholders (Communities, Employers, Financial sector and Contractors);
- Providing formal tenure arrangements

Human settlements need to form an integral part of the urban areas and no housing developments initiatives must be identified if they do are not socially and economically integrated as well as inclusive. Thus employers (i.e. mining or agricultural companies) and the municipality need to have a joint strategy for identifying appropriate locations for housing provision. These may include areas around Bapong urban area.

Development and Management Directives: Affordable Housing Development
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No housing development shall take place if proper water and sanitation is not in place
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New housing developments must be restricted to Urban Areas. A development strategy must be formulated for each of the Urban Areas whereby land can be identified and procured by the municipality and/or provincial government for housing projects. No Affordable Housing Developments may take place in the Rural Area.
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The municipality must develop a strategy for the development of Social Housing and Restructuring Zones.
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All future housing developments that take place in the municipal area shall adhere to the principles of the policy document Breaking New Ground: A Comprehensive Plan for the Development of Sustainable Human Settlement. These include principles such as:

- Residents should live in a safe and secure environment, and have adequate access to economic opportunities, a mix of safe and secure housing and tenure types, reliable and affordable basic services, educational, entertainment and cultural activities, health, welfare and police services.
- Ensure the development of compact, mixed land use, diverse, life-enhancing environments with maximum possibilities for pedestrian movement and transit via safe and efficient public transport in cases where motorised means of movement is imperative.
- Ensure that low-income housing is provided in close proximity to areas of opportunity.
- Integrate previously excluded groups into urban areas and the benefits it offers, and to ensure the development of more integrated, functional and environmentally sustainable human settlements, towns and cities. The latter includes densification.
- Encourage Social (Medium-Density) Housing.
- Multi-purpose cluster concept will be applied to incorporate the provision of primary municipal facilities, such as parks, playgrounds, sports fields, crèches, community halls, taxi ranks, satellite police stations, municipal clinics and informal trading facilities.
- Enhancing settlement design by including design professionals at planning and project design stages, and developing design guidelines.
- Social housing must be understood to accommodate a range of housing product designs to meet spatial and affordability requirements.

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## 7.2.7 SUBDIVISION OF FARM PORTIONS

The table below illustrates the guidelines that shall apply with regards to subdivision of farm portions. The subdivision zones are read in conjunction with the map which shows the location of the zones.

**Table 23: Farm Portions subdivision Zones**

<b>Zone</b>		<b>Minimum Size</b>
<b>1</b>	Rural Areas	20 hectares
<b>2</b>	High Potential Agricultural Land	20 hectares
<b>3</b>	Urban areas along the Brits/Rosslyn corridor (Eastern side of Brits)	1 hectare
<b>4</b>	Rural Area south of N4	5 hectares
<b>5</b>	Hartbeespoort Dam	5 hectares beyond the precinct plan boundary
<b>6</b>	Cradle of Humankind	5 hectares but guided by the EMF
<b>7</b>	Pelindaba Restriction Zone	20 hectares
<b>8</b>	South of N4, between R511 and R512	3 hectares
<b>10</b>	North Eastern Settlements	5 hectares
<b>11</b>	Mining Areas	20 hectares

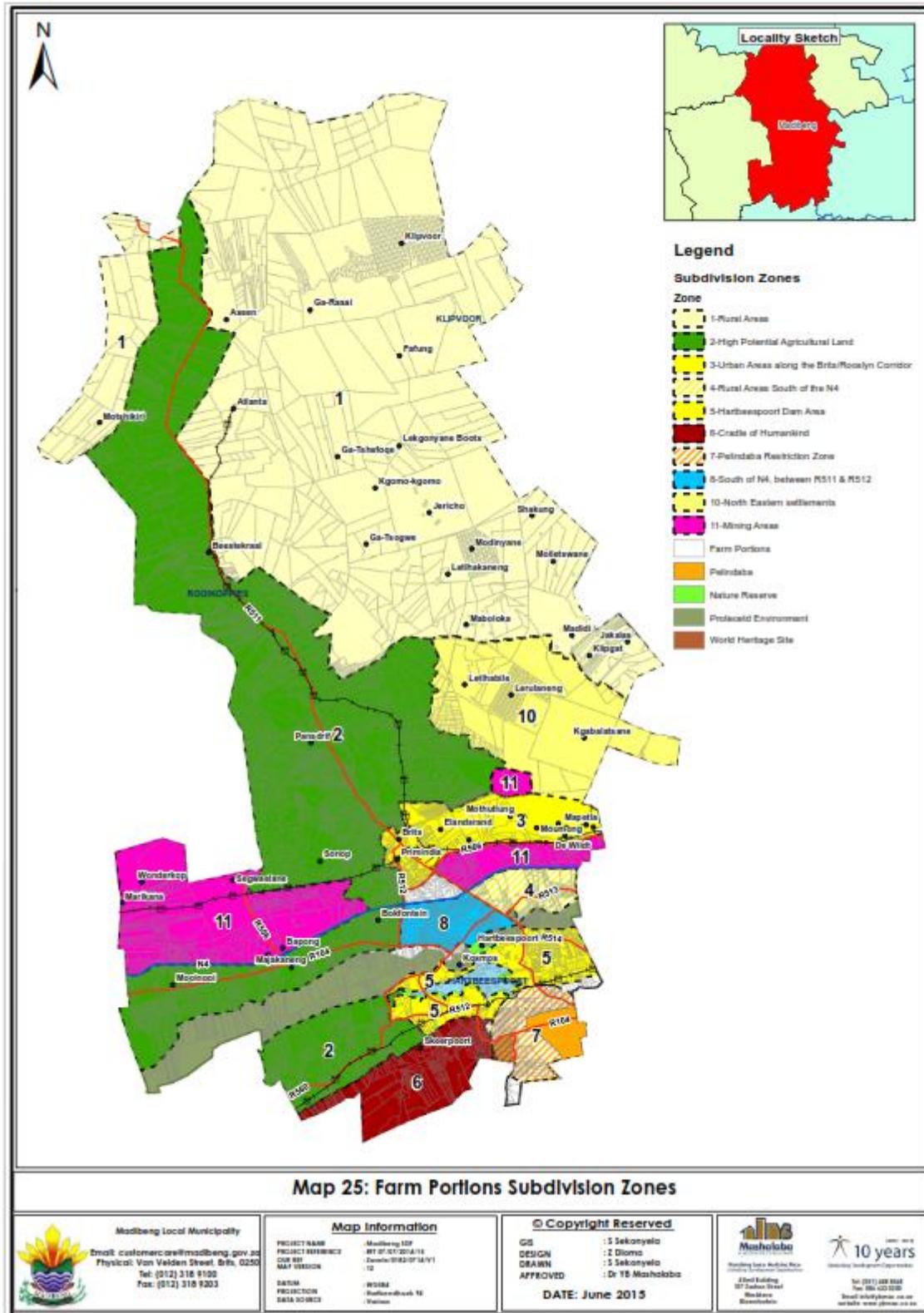


Figure 26: Farm Portions Subdivision Zones

### 7.2.7.1 BRITS

The Brits area is the biggest urban node in Madibeng, and it is dominantly developed and thus has few land parcels that have not been subdivided. The Brits 2014 Precinct plan therefore details the manner in which the subdivided land parcels could be densified. These are detailed in section 4.2.5 (Densification in Urban areas).

### 7.2.7.2 HARTBEESPOORT DAM

The table below presents a summary of the details provided within the 2014 Hartbeespoort Dam Precinct Plan.

**Table 24: Hartbeespoort Dam farm portion subdivisions**

Zone	Location/activity	Minimum size
1	Areas located to the north of the Magaliesberg and west of the Hartbeespoort (mainly along the R104).	West of R512 3ha
		East of R512 5 ha
2	Areas to the north-west, west and south of the Hartbeespoort Dam	Dominated by residential development from Kosmos to Ville De' Afrique Regulated per scheme
3	Areas south of the precinct boundary and to the west of the R512 but covering both sides of the railway	Portions of the farm De Rust 478 JQ. 5ha
		Portions of the farm Scheerpoort 477 JQ 3ha
4	Areas south of the Witwatersberg and slightly north of the R104 north of NECSA	Probable future residential areas following Rietfontein 5ha
5	Areas south of the R104 towards the NECSA	Light industrial activity Linked to the Madibeng EMF due to the close proximity to NECSA
6	Established residential Areas along the eastern side of the Hartbeespoort Dam	Schoemansville, Melodie, Ifafi, Meerhof and Xanadu Eco-Park Regulated per scheme

7	Area along the R511 Activity Corridor, stretching between the railway line parallel to the R104 and Schoemansville	-	Regulated per scheme This area shall have mixed land uses with a proposed density of 80 dwelling units/Ha. Detailed as per Madibeng scheme.
8	Triangular precinct between the R511 and Tielman Street, to the south of the cableway.	-	Regulated per scheme Proposed minimum density is 20 dwelling units per hectare and the maximum is 60 dwelling units per hectare.

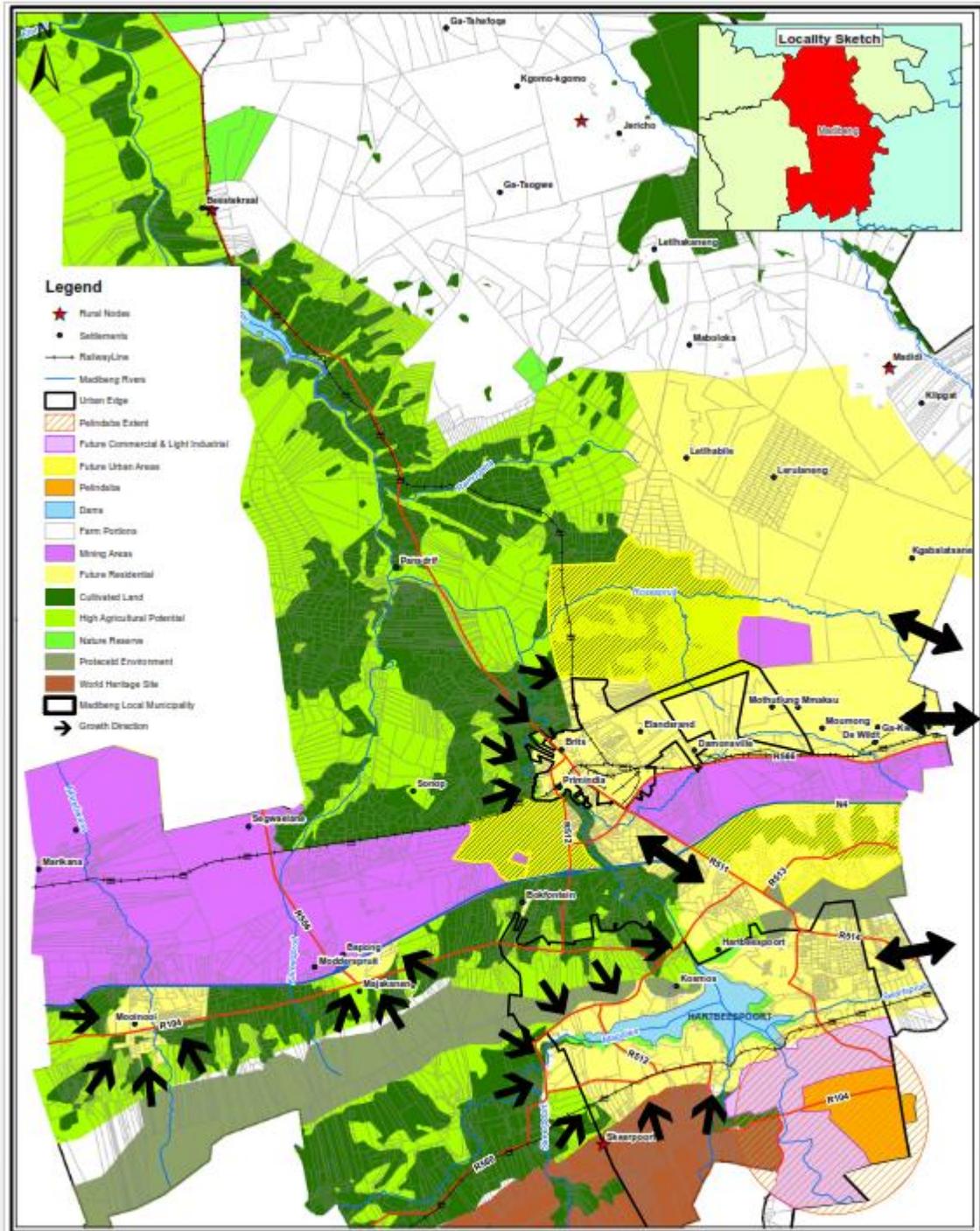
All of the above are applicable provided that the said area does not fall within the Magaliesberg Protected Environments.

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## 7.2.8 FUTURE URBAN AREAS

This section deals with the ability of the municipality to manage growth by demarcating future urban growth. This enables the Municipality to:

- Prevent dispersed development in Madibeng that is impossible to provide engineering services to;
- Stimulate infill development;
- Direct overall efficient and sustainable development;
- Protect valuable agricultural land.



**Map 24: Future Urban Areas**

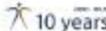
 <p>Madibeng Local Municipality          Email: <a href="mailto:customers@mlm.gov.za">customers@mlm.gov.za</a>          Physical: Van Velden Street, Brits, 0256          Tel: (012) 318 9100          Fax: (012) 318 9203</p>	<p><b>Map Information</b></p> <p>PROJECT NAME: Madibeng IDP          PROJECT REFERENCE: APR 07/07/2016/16          CUR REF: Sandoz/0183/0716/V1          MAP VERSION: 1A          DESIGN: WJMSA          PROJECTION: Madibeng/Beaufort 14          DATA SOURCE: Kulhan</p>	<p><b>© Copyright Reserved</b></p> <p>GIS: S Sekanyela          DESIGN: S Diamo          DRAWN: S Sekanyela          APPROVED: Dv YB Mashabela</p> <p><b>DATE: June 2015</b></p>	 <p><b>Mashabela</b>          Mashabela Group of Companies          11011 Building          127 Duiven Street          Westdene          Johannesburg</p>  <p>10 years          Celebrating 10 years of service to the community</p> <p>Tel: (011) 488 8500          Fax: (011) 422 0200          Email: <a href="mailto:info@mashabela.co.za">info@mashabela.co.za</a>          Website: <a href="http://www.mashabela.co.za">www.mashabela.co.za</a></p>
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Figure 27: Future Residential