MUSINA LOCAL MUNICIPALITY

DRAFT SPATIAL DEVELOPMENT FRAMEWORK
FULL REPORT
2014/15 REVIEW

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1. INTRODUCTION

1.1 THE MUSINA LOCAL MUNICIPALITY

The Musina Local Municipality (MLM) is a category B municipality in terms of the Municipal Structures Act, 1998 (Act 117 of 1998) and its main 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).

Musina Local Municipality is situated on the Northern part of Limpopo Province and is one (1) of the four (4) local municipalities within the Vhembe District Municipality. The municipal area covers approximately 757 829 hectares (ha) that extends from the confluence of the Mogalakwena River and Limpopo River in the West to the confluence of the Nwanedi River and Limpopo River in the East. In its Southern borders, it is flanked by Tshipise and Mopane, and is bordered by Botswana and Zimbabwe in the North West and North respectively.

The location of Musina Municipality results in international links with Botswana and Zimbabwe, through the Pontdrift and Beit Bridge border posts. Beit Bridge border links South Africa through Zimbabwe to all North African countries. This results in the border post being the busiest and characterised by various cross border issues arise which influence development and planning in the municipality. The links and impact is not always through legal and formalised interaction but the impact of black market importers from Zimbabwe and refugees and other people looking for employment in the area.

Due to location of the municipality as a gateway to other African State, Musina Local Municipality has been accorded the opportunity or status of a Special Economic Zones (SEZ) in order to enhance and accelerate economic growth within the region through industrial development and agro-processing as well as manufacturing.

1.2 POWERS AND FUNCTIONS

The powers and functions were assigned to Musina local municipality in accordance with Section 156 of the Constitution and all Section 84(2) of the Municipal Structures Act (Act 117 of 1998) together with Section 85 adjustments to Musina local municipality on Waste, Roads, Cemeteries, Tourism and public works.

These powers and functions of the Musina Local municipality are outlined as follows:

i. The facilitation for the provision and maintenance of child care facilities.
ii. Development of local tourism.
iii. Municipal planning, municipal roads
iv. Municipal public transport.
v. Municipal public works relating to the municipality's functions.
vi. Administer trading regulations.
vii. Administer billboards and display of advertisements in public areas.
viii. Administer cemeteries, funeral parlours and crematoria.
ix. Cleansing.
x. Control of public nuisances.
xi. Control of undertakings that sell liquor to the public.
xii. Ensure the provision of facilities for the accommodation, care and burial of animals.
xiii. Fencing and fences.
xiv. Licensing of dogs.
xv. Licensing and control of undertakings that sell food to the public.
xvi. Administer and maintenance of local amenities.
xvii. Development and maintenance of local sport facilities.
xviii. Develop and administer markets.
xix. Development and maintenance of municipal parks and recreation.

xx. Regulate noise pollution.

xxi. Administer pounds.

xxii. Development and maintenance of public places.

xxiii. Refuse removal, refuse dumps disposal.

xxiv. Administer street trading.

xxv. The imposition and collection of taxes and surcharges on fees as related to the municipality functions.

xxvi. Receipt and allocation of grants made to the municipality.

xxvii. Imposition and collection of taxes, levies and duties as related to municipality function.

xxviii. Storm water management systems.

xxix. Provision and maintenance of water and sanitation.

2. METHODOLOGY

2.1 PROCESS FOR DRAFTING THE SDF

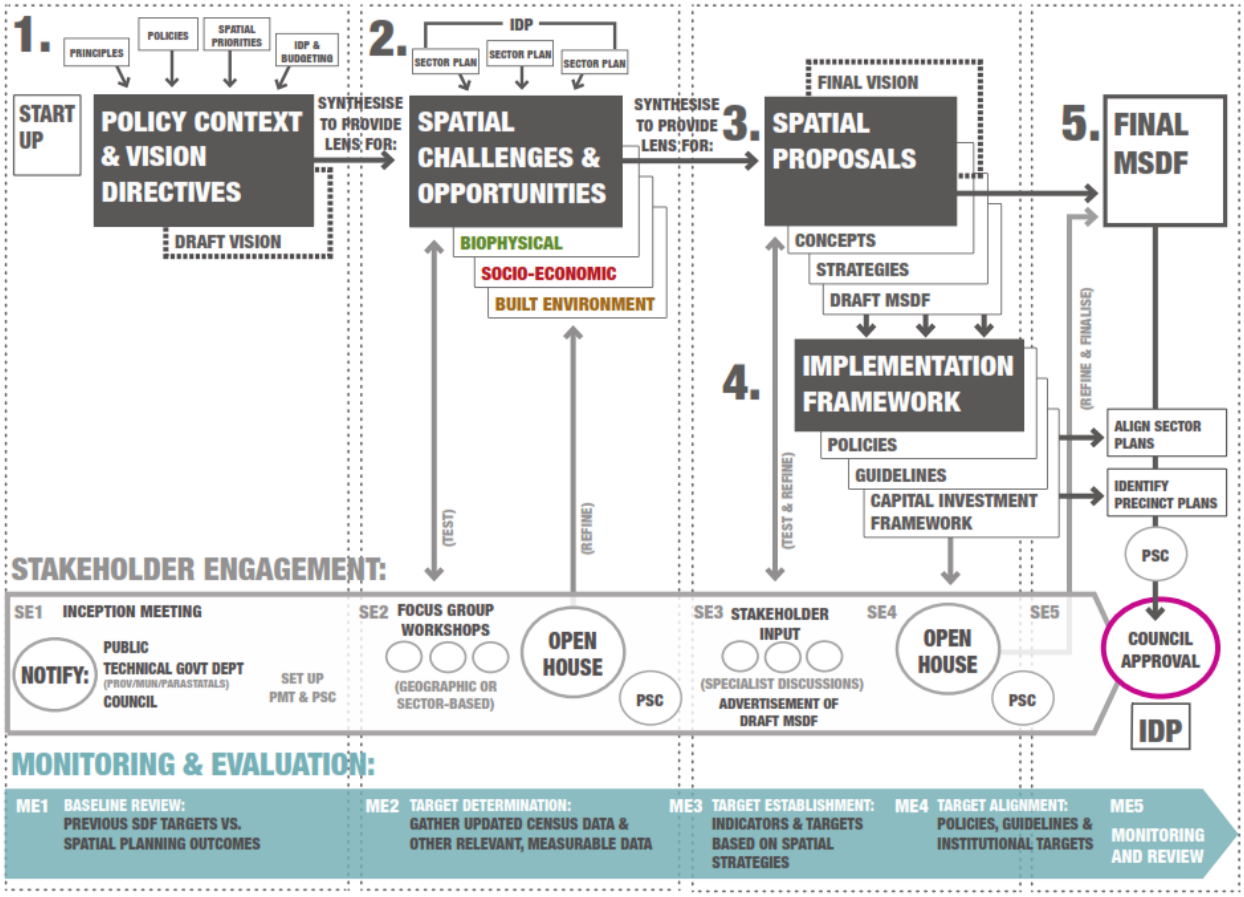


Figure 1: Municipal SDF Process (DRDLR, 2014)

2.1.1 PHASE 1: START-UP

In line with SDF Guidelines, Phase 1 involves the setting up of institutional and political support structures, understanding of the role of the SDF, agreement of the scope of the work of the SDF and the completion of the project plan.

This phase entails:

- Getting political support for SDF formulation;
- Setting up a Steering and Joint Technical Committee to guide the work;

- Joint Technical Committee;
- Use of consultants;
- Costs of SDFs; and
- Understanding the scope of an SDF.

2.1.2 PHASE 2: ISSUES AND VISION

The purpose of this phase is to 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 and longer.

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

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

2.1.3 PHASE 3: SPATIAL ANALYSIS AND SYNTHESIS

This phase will focus on the analysis of the current state of spatial issues within the Musina 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.

2.1.4 PHASE 4: DRAFT SDF

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

These should be directly informed by:

- Policy and principles (Phase 1);
- Issues and vision (Phase 2);
- Status quo synthesis (Phase 3).

2.1.5 PHASE 5: ACHIEVING SUPPORT FOR THE SDF

Phase 5 will involves the presentation of the SDF proposals to stakeholders and sector departments to obtain their approval and support. This phase will be finalised by the Musina 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.

2.1.6 PHASE 6: FINALISATION AND APPROVAL

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 Musina Local Municipality once all inputs and representation from all stakeholders have been received and consolidated on the SDF document.

2.1.7 PHASE 7: IMPLEMENTATION

Phase 7 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 Musina 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

2.2 LEGISLATION AND POLICY FRAMEWORK

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

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.

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.

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.

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.

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.

Linked to the NDP are the National Infrastructure Plan (NIP) and the Special Economic Zones (SEZ). In 2012 the Government adopted a National Infrastructure Plan, which aims to transform the economic landscape while simultaneously creating significant numbers of new jobs, and strengthen the delivery of basic services. The plan also supports the integration of African

economies. Over the three years from 2013/14, R827 billion will be invested in building new and upgrading existing infrastructure. These investments will improve access to healthcare facilities, schools, water, sanitation, housing and electrification and investment in the construction of ports, roads, railway systems, electricity plants, hospitals, schools and dams will contribute to faster economic growth.

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 challenged, 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 Musina 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.

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.

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.

2.2.9 LIMPOPO SPATIAL RATIONALE (SDF)

The Limpopo Spatial Rationale was developed as policy document to guide government department and parastatals as well as private investors on the decision on the provision of bulk infrastructure development, macro land-use planning, housing provision, community based public works, schools and health facility building programmes, land reform initiatives etc. The Spatial Rationale is spatial tool for the provincial government, and provides the necessary guidelines for decision-making by all government departments involved in the development of the province as a whole. It would therefore be expected that guidelines and issues addressed in the Spatial Rationale should be reflected in the individual SDFs.

The most important goal of the Spatial Rationale is ***the formulation of an optimal and functional spatial pattern for the Limpopo Province***. In order to achieve this, a few main issues are addressed in the Spatial Rationale.

Growth points form the major areas where future growth should be stimulated have been identified. In general it can be described, as areas where the largest spectrum of specialized land uses and services in an area must be accommodated according to the subsequent ranking/classification. Growth points are further classified as:

- Provincial Growth Points (PGP);
- District Growth Points (DGP); and
- Municipal Growth Points (MGP).

In addition, the most notable aspect in the Limpopo Spatial Rationale is the identification of a hierarchy of settlements from provincial growth point to scattered settlements. Therefore, in terms of the Spatial Rational the development interventions should be proposed in terms of infrastructure provision and government services in such a manner that the natural economic potential of growth points is further stimulated. Interventions at scattered settlements are such that basic services are provided to ensure that the quality of life objective in the Growth and Development Strategy is achieved, but that prevents over investment in places that are depopulating. The hierarchy of settlements according to the Limpopo Spatial Rationale is indicated as follows:

- First (1st) Order Settlements
- Second (2nd) Order Settlements
- Third (3rd) Order Settlements
- Fourth (4th) Order Settlements
- Fifth (5th) Order Settlements

2.2.10 LIMPOPO EMPLOYMENT, GROWTH AND DEVELOPMENT PLAN (LEGDP), 2009 - 2014

The Limpopo Employment, Growth and Development Plan (LEGDP) is regarded as a government practical action – oriented policy framework for integrated and sustainable employment, growth and development in the province. The LRGDP outlines key action programme with key strategic interventions that will ensure that Limpopo Province reduce poverty and improve the living conditions of its citizens, and the following programmes are identified:

- Industrial development programme;
- Mining and mineral beneficiation industries;
- Enterprise development;
- Regional economic development and integration;

- Public infrastructure investment programme;
- Water resource development and demand management;
- Agriculture and rural development programme;
- Education and skills development programme;
- Health care development programme;
- Safety and security;
- Green economy and creation of green jobs, and
- Corporate governance

2.2.11 SPECIAL ECONOMIC ZONES (SEZ)

As indicated above, in 2013 the Government tabled the Special Economic Zones Bill, 2013 to the National Council of Provinces (NCOP), aimed to support balanced regional industrial growth by fostering the development of more competitive and productive regional economies in South Africa. The reasoning for the establishment of the SEZ is as a result of government trying to close the gaps with regard to the implementation of designated Industrial Development Zones (IDZs) taking into account that the IDZs were only biased towards the development of coastal regions while ignoring the economic potential that exists in inland regions of the country. The most notable designated IDZs include Coega, East London, Richards Bay, OR Tambo and the recently designated Saldanha Bay, and out of the 5 only 3 are fully operational (i.e. Coega, East London and Richards Bay).

Special Economic Zones are defined as geographically designated areas of the country that are set aside for specifically targeted economic activities, and supported through special arrangements and systems that are often different from those that apply to the rest of the country.

In terms of the Bill, the SEZs ate sought to boost private investment, both domestic and foreign, in labour-intensive areas in order to increase job creation,

competitiveness, skills and technology transfer, and exports of beneficiated products. To cater for various socio-economic and regional planning considerations, the Bill provides for the designation of the following types of SEZ:

- Free ports: duty-free areas adjacent to a port of entry where imported goods may be unloaded for value-adding activities, repackaging, storage and subsequent re-export, subject to special customs procedures.
- Free trade zones: duty-free areas offering storage and distribution facilities for value-adding activities within a special economic zone.
- Industrial development zones: purpose-built industrial estates that leverage domestic and foreign fixed direct investment in value-added and export-oriented manufacturing industries and services.
- Sector development zones: zones focused on the development of specific sectors or industries through the facilitation of general or specific industrial infrastructure, incentives, technical and business services primarily for the export market.

2.2.12 LIMPOPO (BURGERSFORT SEZ)

In terms of government intervention, the Musina Local Municipality has been identified as one of the Special Economic Zones due to its strategic geographic location as the entry port or a gateway to the rest of Africa. The Musina Special Economic Zone will focus on logistics and the beneficiation of coal in order to enhance and accelerate economic growth within the regional through industrial development, petro-chemicals, agro-processing and manufacturing.

Link to the Special Economic Zones in relation to Musina is the government initiative popularly known as Musina to Africa Strategic Supplier Hub Initiative (MUTASSHI) identified in 2012 as a critical area that requires special focus in terms of development. The identification of the MUTASSHI initiative was a result

of the large volume of trucks crossing the Beit-Bridge Border post daily to various coats in the country which contribute to the cost of doing business. As a response to this the Limpopo Provincial Government in 2012 pronounce that MUTASSHI as an inland port will promote and enhance the North to South trade relations whilst broadening access to our goods and services as the province and the country, and will also be a strategic intervention that will promote cross-border trading and reduce heavy freight on the roads.

2.2.13 VHEMBE DISTRICT IDP

The Vhembe District Municipality IDP indicates the following vision for the district: "The legendary cultural hub in the Southern hemisphere and a catalyst for agro-processing and tourism development." The Vhembe District Municipality SDF has no spatial vision but it does propose objectives similar to that of the Provincial SDF.

2.2.14 VHEMBE DISTRICT SDF

It must be noted that the success of the Musina Local Municipality SDF depends on its alignment with the district SDF (i.e. Vhembe District Municipal SDF), because if the District SDF is not aligned with the municipal SDF the situation can create conflicting processes that would negatively impact on the municipality and ultimately be to the detriment of the people. In this regard, the Musina SDF thus recognises the Vhembe District Municipality SDF.

The most important aspects highlighted by the Vhembe District SDF with regard to the review and development of the Musina SDF include a number of aspects. Musina has been identified as a provincial growth point and is a key district development priority area, while Tshipise serves as a local service point in the Musina municipality. These important areas are connected by development corridors and include:

- Beit Bridge Border Complex / Limpopo (Mineral) Belt which hosts a number of minerals, the most important of which include: Iron, Dolomite, Diamonds, Marble and Graphite.
- The Tuli, Mopane, Tshipise and Pafuri coal fields;
- Tshipise magnetite field;
- Musina copper;
- Schiel Complex; and
- Soutpansberg group host a number of minerals associated with corundum, feldspar, garnet, graphite, kieselguhr, limestone, phosphates and talc.

It must also be noted that the Vhembe District SDF is silent on the spatial implications of these mineral deposits or how it will impact or contribute to the development of the region. In addition, it must further be noted that the Vhembe SDF is currently under review, and its final content will be included in the final document of the Musina SDF.

2.3 SDF VISION

The SDF is an integral part of the IDP, thus the SDF Vision is informed by the IDP. The aim of the SDF is to support the Municipal vision by spatially interpreting the vision.

The Council Vision:

"To be the' vibrant, viable and sustainable gateway city to the rest of Africa"

2.4 IMPLICATIONS OF NEIGHBOURING SPATIAL DEVELOPMENT FRAMEWORKS

2.4.1.1 NEIGHBOURING SPATIAL DEVELOPMENT FRAMEWORKS

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

2.4.1.1.1 MAKHADO SDF

The Makhado SDF is regarded as the principal planning document, which should inform all decisions pertaining to spatial planning, development and land use within the municipal area. The Makhado SDF indicates that the main objective of the spatial analysis is to provide an overview of the municipality's spatial structure/pattern in order to effectively guide all decisions that involve the use and development of land or planning for the future use and development of land. These decisions include:

- Land use management decisions on applications for the change in land use, such as rezoning or subdivision applications;
- Decisions on where and how public funds (municipal and other government agencies) are invested, such as extension of bulk service networks, or provision of community facilities; and
- Guide developers and investors to appropriate locations and forms of development.

2.4.1.1.2 MUTALE SDF

The Mutale Local Municipality Spatial Development Framework (SDF) was developed as a tool to guide development, investment, infrastructure development and advice on the municipality spending patterns while assisting

the municipality in making sound decisions. The SDF looks at all the challenges, trends, key issues and opportunities that the municipality has as far as development is concerned and try to come up with directions and guidelines in terms of future development forms and patterns.

In addition, the Mutale SDF main thrust is the identification of Nodal Points categorised as primary, secondary and third Municipal Nodes. This identification of nodes will inform future spatial development and infrastructure investment as well as identifying important routes for economic and development.

2.4.1.1.3 THULAMELA SDF

The Thulamela Local Municipality approved a Spatial Development Framework (SDF) revolves around Nodal Point's Development Strategy and hierarchy of settlements based on the priorities of the residents, as well as the direction that the municipality intends to take in relations to the following identified areas:

- Strategic and potential development areas;
- Hierarchy of business centre as well as areas for future industrial development;
- Radial road network;
- Future spatial form and major directions of desired growth; and
- National, provincial and municipal routes and nodal points, as well as strategic development initiatives' and functional development areas.

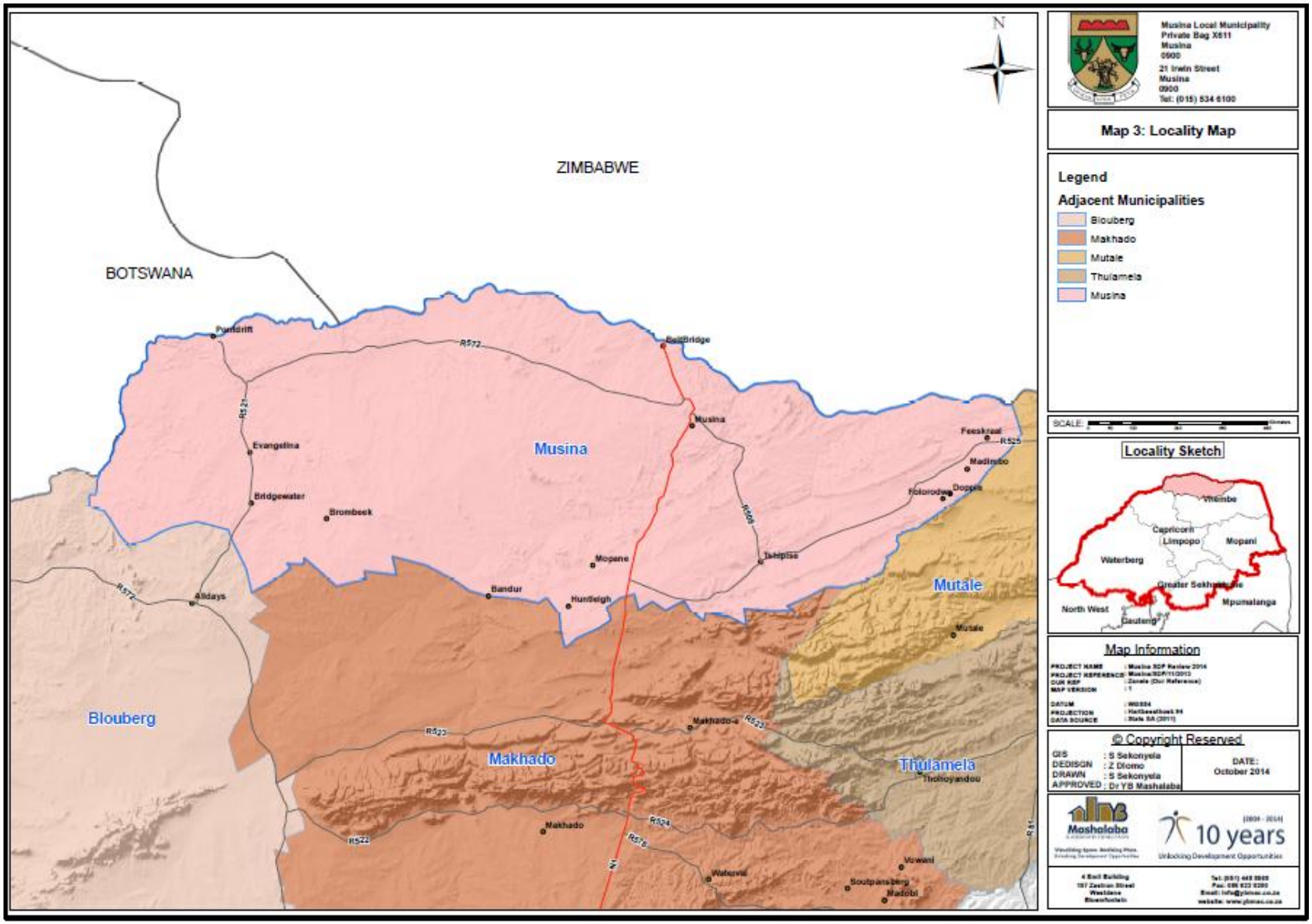
2.4.1.1.4 BLOUBERG SDF

The Limpopo spatial rationale played a significant role in informing the development of the Blouberg Municipality Integrated Development Plan and Spatial Development Framework. Furthermore, the Blouberg Municipality Spatial Development Framework has taken into consideration the National Spatial Development Perspective and is aligned with the NSDP. In terms of this

alignment certain nodal points and corridors have been identified and outlined for development. These corridors and strategically located nodes and pieces of land as well as related investment are directed at the triggering of economic development. The inclusion of recently demarcated areas such as Tolwe, Vivo, Swartwater and Mastrom have also influenced the contents of SDF and core areas as identified in the original Spatial Development Framework.

The Blouberg Spatial Development Framework identifies the following as core nodes of the municipality:

- Senwabarwana (district growth point);
- Alldays (district growth point);
- Eldorado (provincial rural node);
- Tolwe;
- Langlaagte; and
- Puraspan-Avon - Indermark corridor.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Makhado-a
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Thohoyandou
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Waterval
Vuwani
Soutpansberg
Madobi
R81
Musina Local Municipality
Private Bag X611
Musina
0900
21 Irwin Street
Musina
0900
Tel: (015) 534 6100
Map 3: Locality Map
Legend
Adjacent Municipalities
Blouberg
Makhado
Mutale
Thulamela
Musina
SCALE:
Locality Sketch
Vhembe
Capricorn
Limpopo
Mopani
Waterberg
Greater Sekhukhune
Mpumalanga
North West
Gauteng
Map Information
PROJECT NAME : Musina SDF Review 2014
PROJECT REFERENCE: Musina/SDF/11/2013
OUR REF : Zanele (Our Reference)
MAP VERSION : 1
DATUM : WGS84
PROJECTION : Hartbeesthoek 94
DATA SOURCE : Stats SA (2011)
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DRAWN : S Sekonyela
APPROVED : Dr YB Mashalaba
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2.5 SUMMARY OF EXISTING SECTOR PLANS

According to the SDF Guidelines, sector plans mean the plans that are in place for the purpose of addressing particular aspects of the development strategies of the municipality. These plans among others include Housing Sector Plans, Environmental Management Plans etc. Synergy amongst the sector plans and the SDF is vital as to ensure that development directions and plans complement each other.

Therefore, the SDF guides the different sector plans that have to be drafted as required by the Municipal Systems Act, 2000 as the core component of the municipal IDP and should assist in alignment between the different sector plans. The most important sector plans includes:

Table 1: Musina Sector Plans

Sector Plan name	State as per Musina Local Municipality
Municipal Housing Sector Plan	Recommended
Integrated Transport Plan -	Recommended
Environmental Management Plan (EMP) and Environmental Management Framework (EMF) -	Recommended
Infrastructure Master Plan	In place
Local Economic Development Plan/Strategy –	Recommended
Town Master Plan	In place

2.6 SPATIAL ANALYSIS

2.6.1 BIOPHYSICAL ENVIRONMENT

2.6.1.1 GEOLOGY

The municipal area of Musina is largely underlain by rock and soil classifications belonging to the Beaufort Group. This group is the third of the main subdivisions of the Karoo Super group of geological strata in Southern Africa. Generally, the Beaufort Group is associated with predominantly fossil and coal deposits.

In terms of the geology of the municipal area there are two areas of significance that need to be taken into consideration. The first of these is the geological band stretching from the southwest to northeast in the eastern portion of the municipality. The second area relates to the geological bands located in the western parts of the municipal area.

There exists substantial mining and specifically coal mining potential in the Musina municipal area. Apart from the potential coalfields in the east and west, there are also a substantial number of kimberlite pipes with the potential for diamonds, copper and various other minerals.

The following table presents the underlying geology of the Musina municipal area.

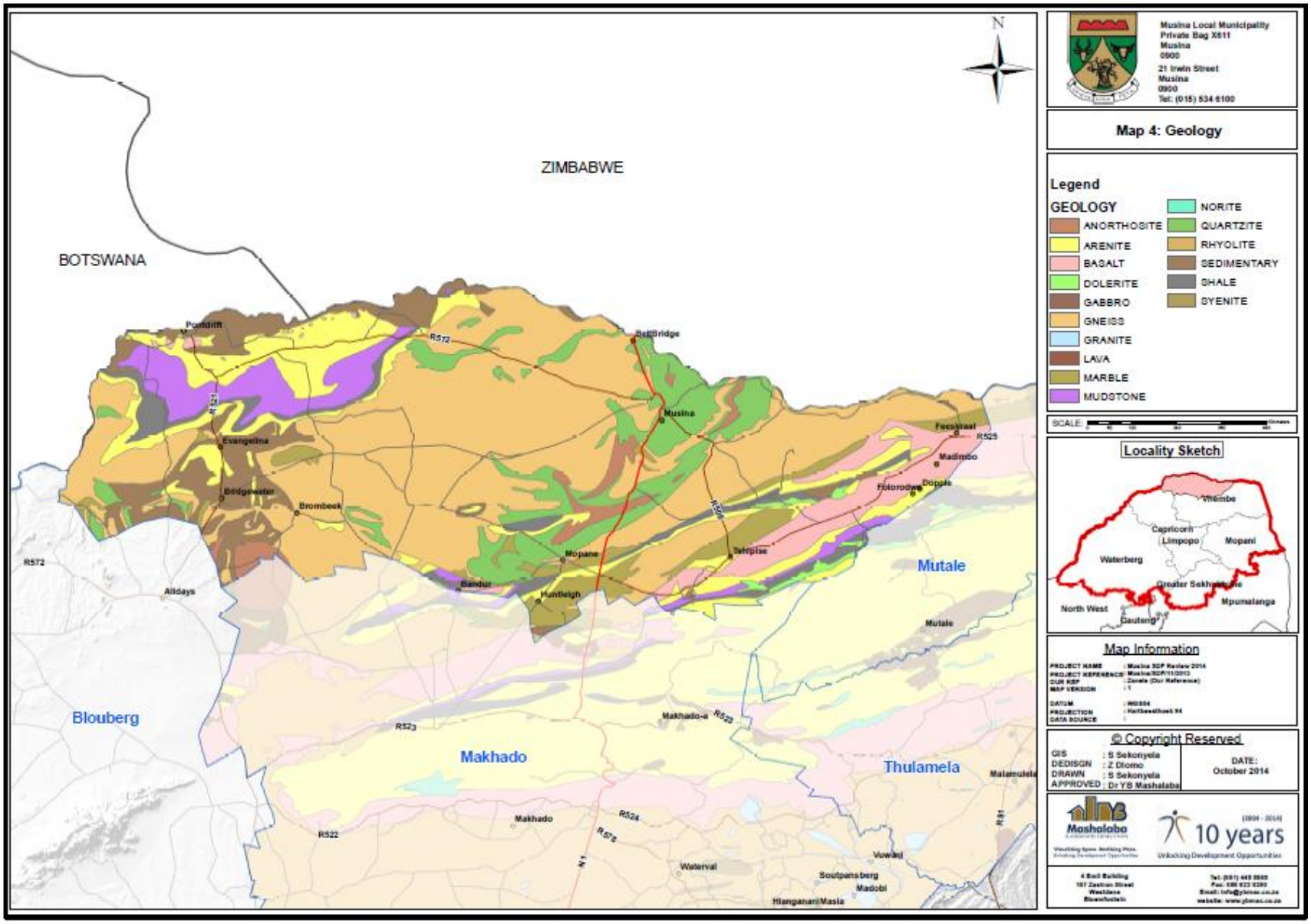
Table 2: Geology Description

MINERAL	ROCK TYPE	DESCRIPTION
ARENITE	Sedimentary	• Arenite rocks are formed when weathered grains are consolidated into rock via compaction, consolidation and cementation. • This rock type generally occurs along the coastlines of Southern Africa within the sand deposits.

MINERAL	ROCK TYPE	DESCRIPTION
BASALT	Extrusive Igneous	• Basalt rock is formed when magma flows from large fissures in the Earth's crust. • Basalt is a fine-grained dark coloured rock. • This rock type forms the flat area called the Springbok Flats in the southern parts of Limpopo. • A number of smaller members of basalt also occur in the far northern parts of Limpopo and the Kruger National Park.
DOLERITE	Intrusive Igneous	• Dolerite is usually a dark coloured, fine-grained rock. • Dolerite occurs mainly as dykes and sills in the sedimentary strata of the Karoo. • Dolerite also occurs in a wide range of other rock types such as granite.
GNEISS	Metamorphic	• Metamorphic rocks like Gneiss form under high pressure and temperature conditions. • Under these conditions existing rock is changed by adjusting to the new conditions. • This may cause a number of changes like the formation of new minerals, recrystallization or as is the case of gneiss the reorientation and regrouping of minerals. • The texture of this mineral is referred to as foliation and banding. • Gneiss occurs mainly in the Basement Complex as a remnant of the old crustal rocks.
GRANITE	Igneous	• Granite forms when magma intrudes into the Earth's crust to crystallize in an isolated environment. • This causes the rock to be coarse-grained. • Granite consists of minerals like quartz, plagioclase and alkali feldspar.
MUDSTONE	Sedimentary	• Mudstone is built up of particles originating from the weathering of other rocks and deposited in a depositional basin. • Clay-sized particles are transported in suspension in water settle in deep water marine or fresh water lakes. • After compaction and cementation it is called mudstone. • Clay refers to particles smaller than 0.02mm.

MINERAL	ROCK TYPE	DESCRIPTION
		• Mudstone occurs within a succession of coarse-grained sandstone alternating with fine-grained mudrock.
NORITE	Intrusive Igneous	• Norite consists primarily of plagioclase and pyroxene. • Norite along with gabbro is one of the major rock types in the Bushveld Igneous Complex.
QUARTZITE	Metamorphic	• Quartzite is formed through pressure and heat of mainly sandstone and other silica-rich rocks. • Quartzite like many other types of sandstone has also undergone recrystallization due to burial depth and are then referred to as orthoquartzites.
SHALE	Sedimentary	• Shale consists largely of silt and clay sized particles and with visible layering (fissile) as opposed to a mudstone that is massive. • Shale always occurs within a succession of coarse-grained sandstone alternating with fine-grained shale (mudstone). • The most widespread occurrence is in the Karoo strata which covers 75% of the central subcontinent.
SLATE	Metamorphic	• Slate is formed through pressure exerted on shale rock. • The rock exhibits cleavage along the original bedding planes. It is usually a dark coloured fine-grained rock.

The following map outlines the underlying geology of the Musina municipal area. The specific mining potential of this underlying geology will be discussed in a later section.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Evangelina
Bridgewater
Brombeek
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Mopane
Sekgopse
Bandur
Huntleigh
Mutale
Alldays
Blouberg
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Makhado-a
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Makhado
Thulamela
Malamulele
Makhado
R524
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Waterval
Vuwani
Soutpansberg
Madobi
Hlanganani Masia
R81
Musina Local Municipality
Private Bag X611
Musina
0900
21 Irwin Street
Musina
0900
Tel: (015) 534 6100
Map 4: Geology
Legend
GEOLOGY
ANORTHOSITE
ARENITE
BASALT
DOLERITE
GABBRO
GNEISS
GRANITE
LAVA
MARBLE
MUDSTONE
NORITE
QUARTZITE
RHYOLITE
SEDIMENTARY
SHALE
SYENITE
SCALE:
Locality Sketch
Vhembe
Capricorn
Limpopo
Mopani
Waterberg
Greater Sekhukhune
Mpumalanga
North West
Gauteng
Map Information
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PROJECT REFERENCE: Musina/SDF/11/2013
OUR REF : Zanele (Our Reference)
MAP VERSION : 1
DATUM : WGS84
PROJECTION : Hartbeesthoek 94
DATA SOURCE :
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GIS : S Sekonyela
DIDISIGN : Z Dlomo
DRAWN : S Sekonyela
APPROVED : Dr YS Mashalaba
DATE: October 2014
Mashalaba
10 years
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2.6.1.2 CLIMATE

Musina is located in one of the warmest regions of South Africa. Only the Kalahari basin and lower Orange River valley records higher average maximum temperatures. Maximum temperatures exceeding 30°C are experienced throughout the municipal area. The Limpopo valley is the warmest with maximum temperatures exceeding 33°C on average (Refer to table and map 6 below). Within the South Africa weather system, Musina falls within the rain shadow of the Soutpansberg. As the rainfall map indicates, the annual mean rainfall within the local municipality ranges from 200mm to 500mm. Refer to map 7 below.

The generally low rainfall across the municipal area has a significant impact on development within the municipality. Surface water is limited and some of the rivers within the municipal area only flow during high intensity rainfall periods. This restricts agricultural options and has a measurable impact on the soil potential in many areas of the municipality (Refer to map 8 below).

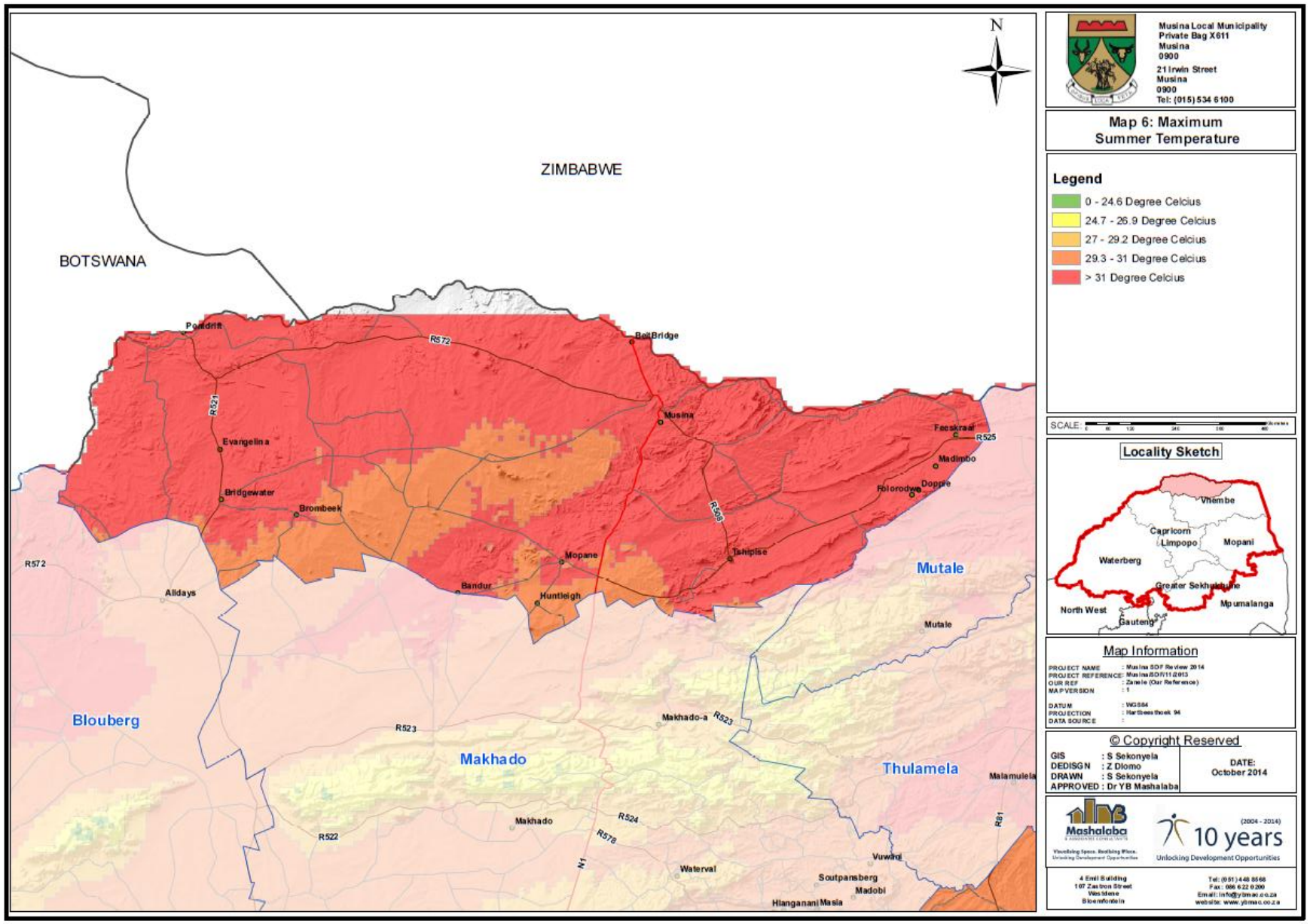
Musina has a hot semi-arid climate and experiences hot temperatures most of the year. The average annual precipitation in the municipal area amounts to 372 mm. Rain is experienced mostly in the summer months and winters are relatively dry. The months of October to April are characterised by severe late-afternoon and evening thunderstorms. The winter months in the Musina municipal area are extremely dry, with almost no rain. During the months of June to August, clear skies and low humidity enable temperatures to plunge close to freezing at night. Even with these low temperatures, frost is fairly uncommon. Droughts occur frequently during the winter months in the Musina municipal area due to the low rainfall experienced. These droughts are more infrequent during the summer months. These intermittent droughts experienced during the summer months are becoming more common as a result of climate change.

The following graphs and table present the climate data of the Musina Local Municipality:

The following table provides a summary of the relevant temperature and precipitation data of Musina Local Municipality.

Table 3: Musina Climate Data

CLIMATE DATA FOR MUSINA, SOUTH AFRICA													
Month	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	**Year**
Average high °C	33	32	31	30	28	25	25	27	29	31	32	32	29.6
Average low °C	21	21	19	16	12	8	8	10	14	17	19	20	15.4
Precipitation mm	61	65	42	26	12	4	1	2	15	33	55	56	372
Avg. precipitation days	8	8	5	4	2	2	2	1	3	5	7	9	55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Soutpansberg
Madobi
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Masia
Musina Local Municipality
Private Bag X611
Musina
0900
21 Irwin Street
Musina
0900
Tel: (015) 534 6100
Map 6: Maximum
Summer Temperature
Legend
0 - 24.6 Degree Celcius
24.7 - 26.9 Degree Celcius
27 - 29.2 Degree Celcius
29.3 - 31 Degree Celcius
> 31 Degree Celcius
SCALE:
Locality Sketch
Vhembe
Capricorn
Limpopo
Mopani
Waterberg
Greater Sekhukhune
Mpumalanga
North West
Gauteng
Map Information
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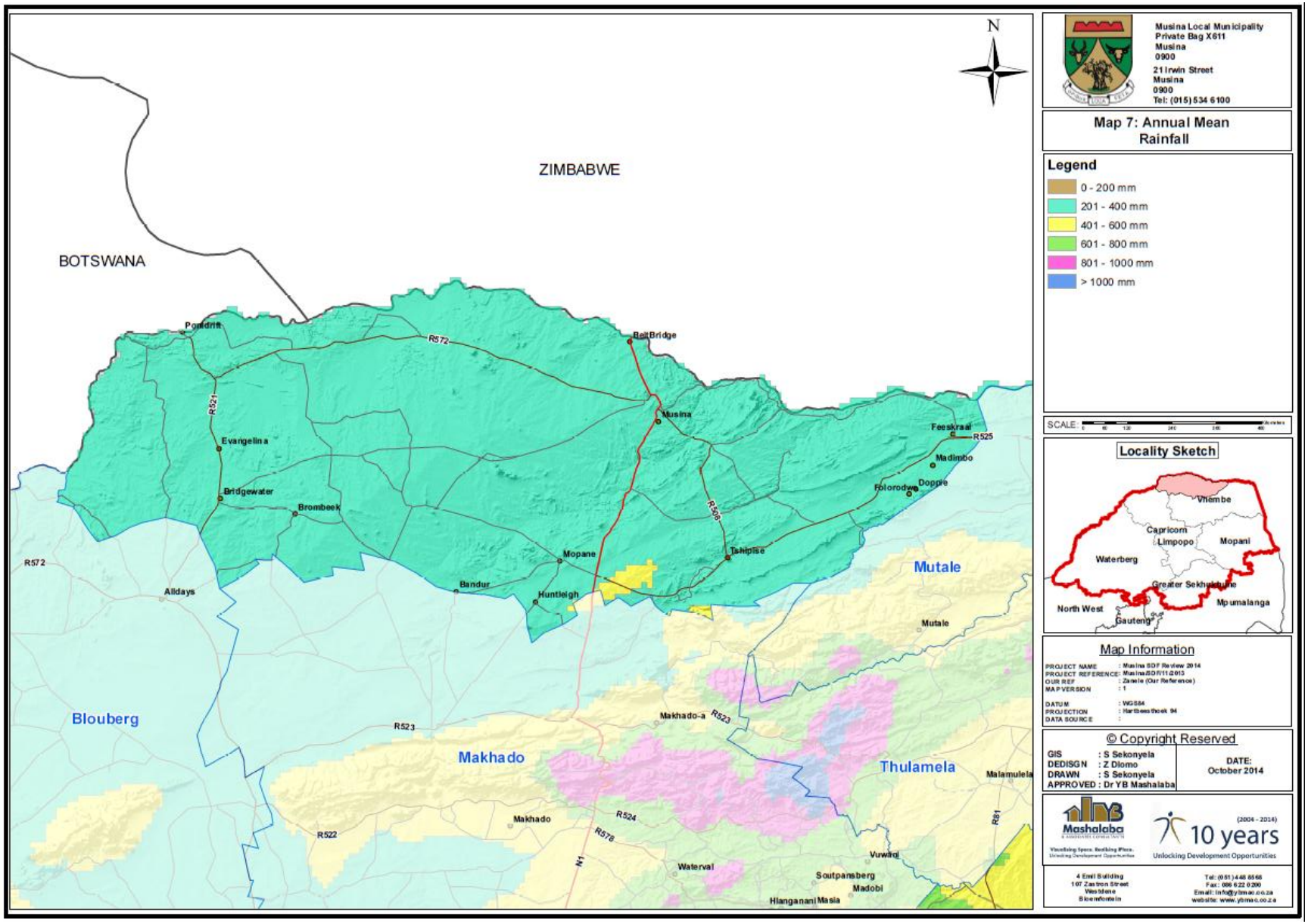
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Madobi
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Musina Local Municipality
Private Bag X611
Musina
0900
21 Irwin Street
Musina
0900
Tel: (015) 534 6100
Map 7: Annual Mean Rainfall
Legend
0 - 200 mm
201 - 400 mm
401 - 600 mm
601 - 800 mm
801 - 1000 mm
> 1000 mm
SCALE:
Locality Sketch
Vhembe
Capricorn
Limpopo
Mopani
Waterberg
Greater Sekhukhune
Mpumalanga
North West
Gauteng
Map Information
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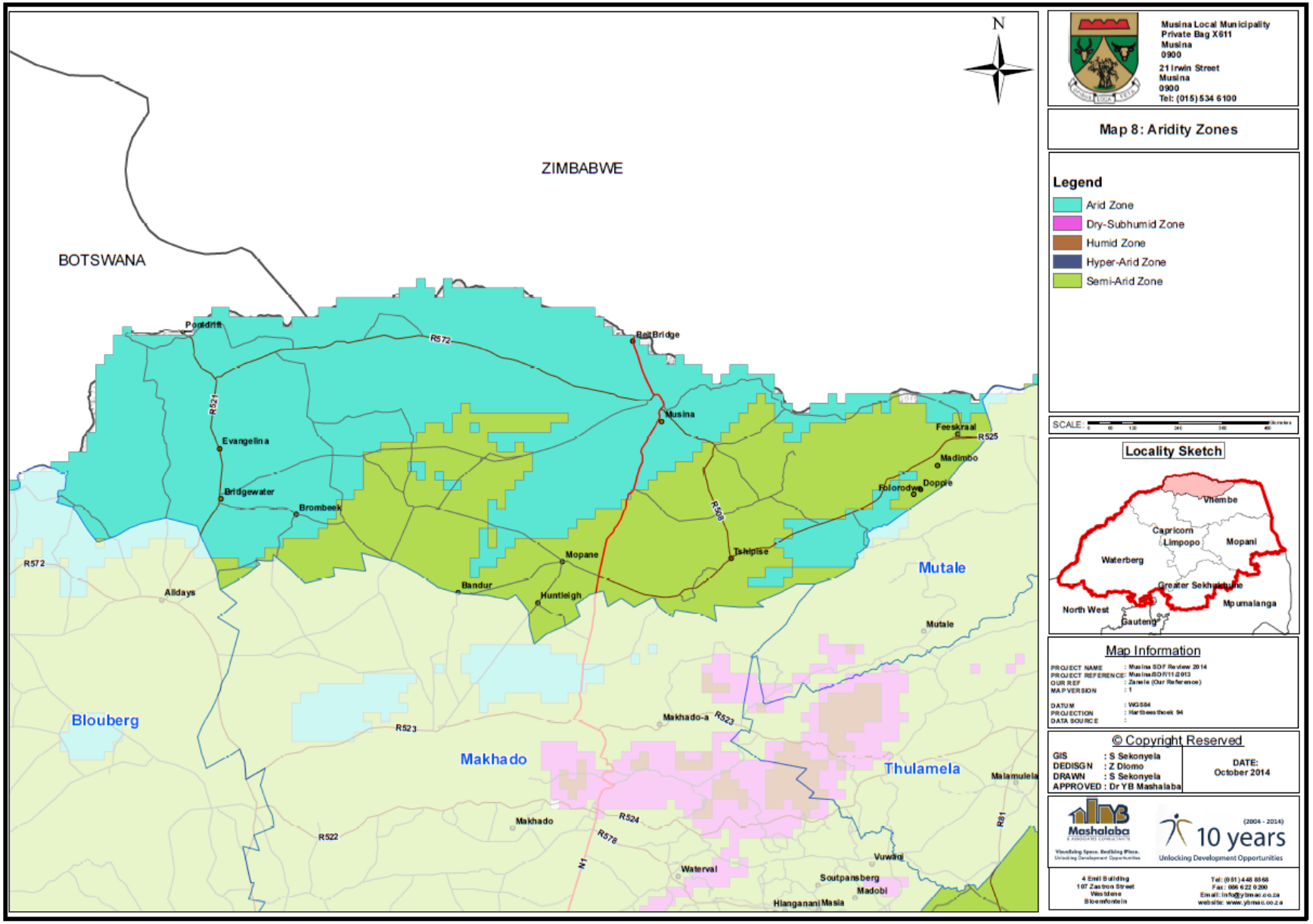
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Masia
Musina Local Municipality
Private Bag X611
Musina
0900
21 Irwin Street
Musina
0900
Tel: (015) 534 6100
Map 8: Aridity Zones
Legend
Arid Zone
Dry-Subhumid Zone
Humid Zone
Hyper-Arid Zone
Semi-Arid Zone
SCALE:
Locality Sketch
Vhembe
Capricorn
Limpopo
Mopani
Waterberg
Greater Sekhukhune
North West
Mpumalanga
Gauteng
Map Information
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website: www.ybmac.co.za

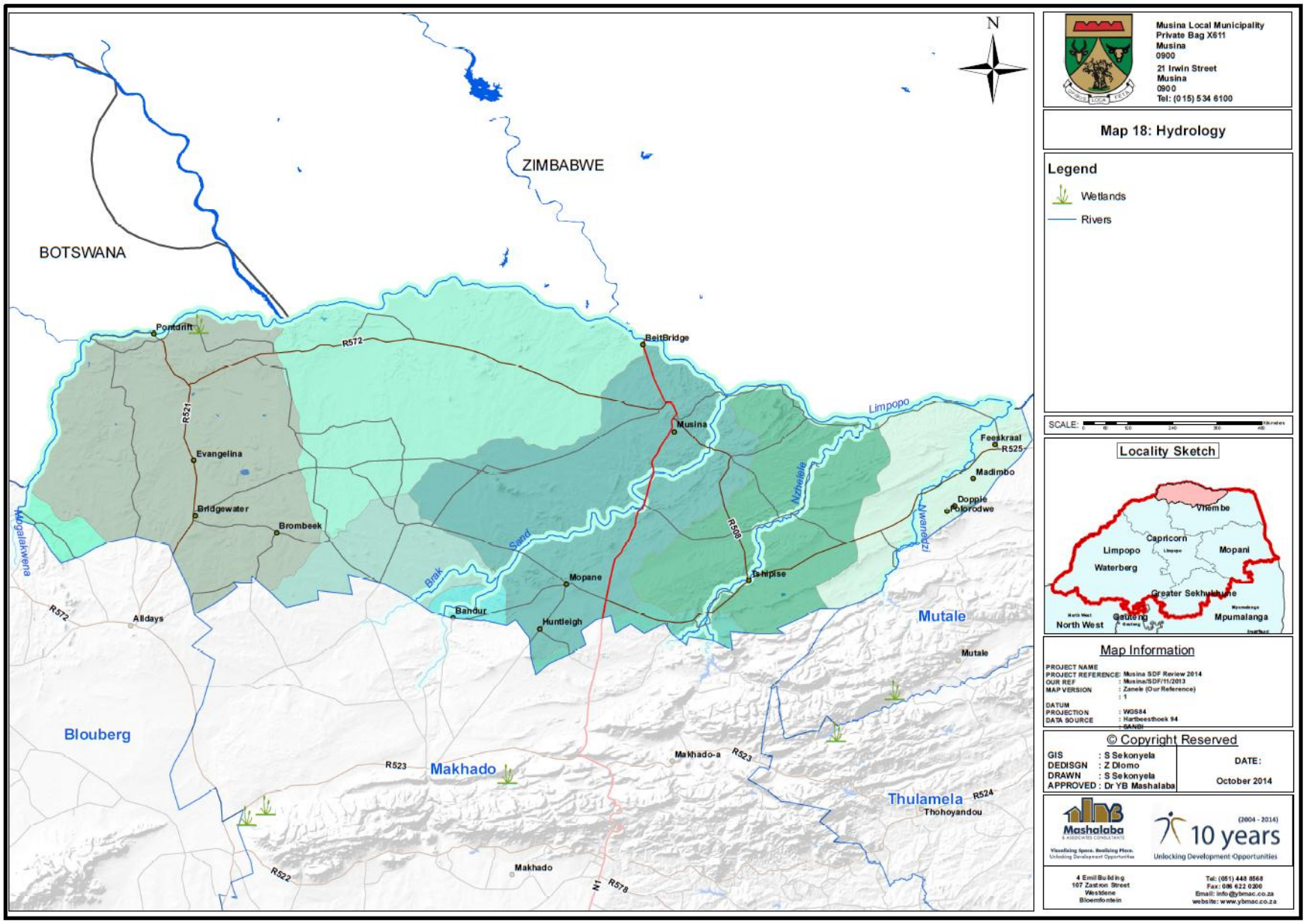
2.6.1.3 HYDROLOGY AND AQUATIC ECOSYSTEMS

The Musina municipal area forms part of the Limpopo basin that is recognised as one of the primary catchment areas in South Africa. The following map shows catchment areas and rivers of the Musina municipal area. The important catchment areas in the municipality are the Sand River catchment area, the Nzhelele River catchment area and the Nwandzi River catchment area. These catchment areas drain into the Limpopo River. The National Water Act of 1998 (Act 36 1998) makes provision for catchment management areas to be managed by Catchment Management Agencies. The Musina municipal area falls within the Limpopo catchment management area (Refer to map 18 below).

The Musina Local Municipality also has two water management areas. These water management areas include the Limpopo and the Luvuvhu Letaba water management areas. The Limpopo water management area is 757 319.2 ha in extent and covers 99.95% of the municipality. The Luvuvhu Letaba water management area measures 321.6 ha in extent and makes up 0.04% of the municipal area. There are 618 wetlands in the municipal area of Musina. These wetlands cover an area of 4 403.7 ha. There are seven rivers within the Musina municipal area.

These rivers include:

- Brak River
- Limpopo River
- Mogalakwena River
- Mutamba River
- Nwanedi River
- Nzhelele River
- Sand River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Limpopo
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Nzhelele
Sand
Brak
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Ishipise
Bandur
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Alldays
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Mutale
Mutale
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Makhado
R522
N1
R578
Musina Local Municipality
Private Bag X611
Musina
0900
21 Irwin Street
Musina
0900
Tel: (015) 534 6100
Map 18: Hydrology
Legend
Wetlands
Rivers
SCALE:
Locality Sketch
Vhembe
Capricorn
Limpopo
Mopani
Waterberg
Greater Sekhukhune
North West
Gauteng
Mpumalanga
Map Information
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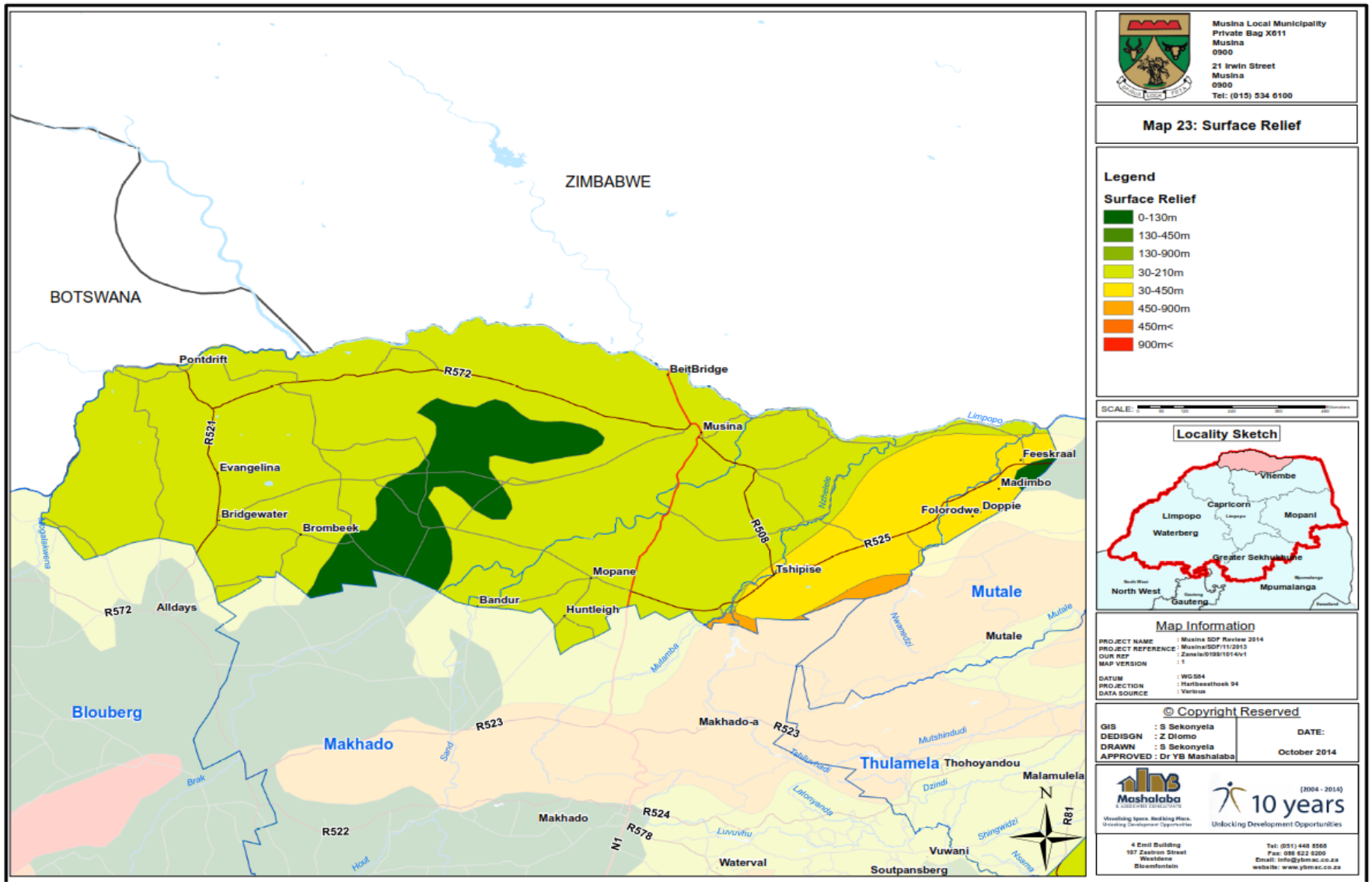
2.6.1.4 TOPOGRAPHY AND SLOPES

The municipal area of Musina Local Municipality is largely flat with the exception of a few prominent terrain features. The visible terrain types are as a result of the underlying geology. There are no significant terrain features that affect general development in the municipal area. However, the 'koppie' in the centre of the town of Musina has an effect on the development of the town around the specific terrain feature. At a macro development level there are no significant slope factors to be considered. The municipal area of Musina is characterised by a number of ridges in the eastern portion of the municipality and a generally flat and level or slightly rolling landscape in the western parts of the municipality.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Limpopo
Feeskraal
Evangelina
Madimbo
Bridgewater
Brombeek
Folorodwe
Doppie
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Tshipise
Mopane
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R523
Mutshindudi
Thulamela
Thohoyandou
Malamulela
Dzindi
Sand
Brak
Makhado
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R578
N1
R522
Hout
Luvuvhu
Latonyanda
Shingwidzi
Nsama
Vuwani
Waterval
Soutpansberg
R81
N
Musina Local Municipality
Private Bag X611
Musina
0900
21 Irwin Street
Musina
0900
Tel: (015) 534 6100
Map 23: Surface Relief
Legend
Surface Relief
0-130m
130-450m
130-900m
30-210m
30-450m
450-900m
450m<
900m<
SCALE:
Locality Sketch
Vhembe
Capricorn
Limpopo
Mopani
Waterberg
Greater Sekhukhune
North West
Gauteng
Mpumalanga
Map Information
PROJECT NAME : Musina SDF Review 2014
PROJECT REFERENCE : Musina/SDF/11/2013
OUR REF : Zanele/0199/1014/v1
MAP VERSION : 1
DATUM : WGS84
PROJECTION : Hartbeesthoek 94
DATA SOURCE : Various
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GIS : S Sekonyela
DEDISGN : Z Dlomo
DRAWN : S Sekonyela
APPROVED : Dr YB Mashalaba
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2.6.1.5 BIODIVERSITY

The municipal area of Musina measures 757 682.6 ha in extent. The total area of the municipality which remains natural amounts to 716 669.7 ha or 94.6%. The developed extent of the municipality where no natural habitat remains consists of 40 781.4 ha or 5.4% of the municipality. The Musina Local Municipality is covered predominantly by a savannah terrestrial ecosystem. This terrestrial ecosystem covers 757 483.4 ha or 99.97% of the municipal area. The remaining extent which makes up the municipality is covered by endangered and vulnerable ecosystems. Although there are no critically endangered ecosystems in the Musina municipal area, the Mapungubwe/Greefswald Riverine Forest which covers an area of 2 255.9 ha or 0.3% of the municipality is classified as an endangered ecosystem. Furthermore, the Lowveld Riverine Forest which covers an area of 25.4 ha is classified as a vulnerable ecosystem.

The Musina municipal area is also home to a number of formal protected areas in the form of nature reserves, conservation areas and national parks. These protected areas play a significant role with respect to conservation as well as tourism. These reserves include the Baobab Tree Reserve, the Honnet Nature Reserve, the Mapungubwe National Park and the Nwanedi Nature Reserve. Collectively these protected areas cover an area of 39 862.8ha which constitutes 5.3% of municipality.

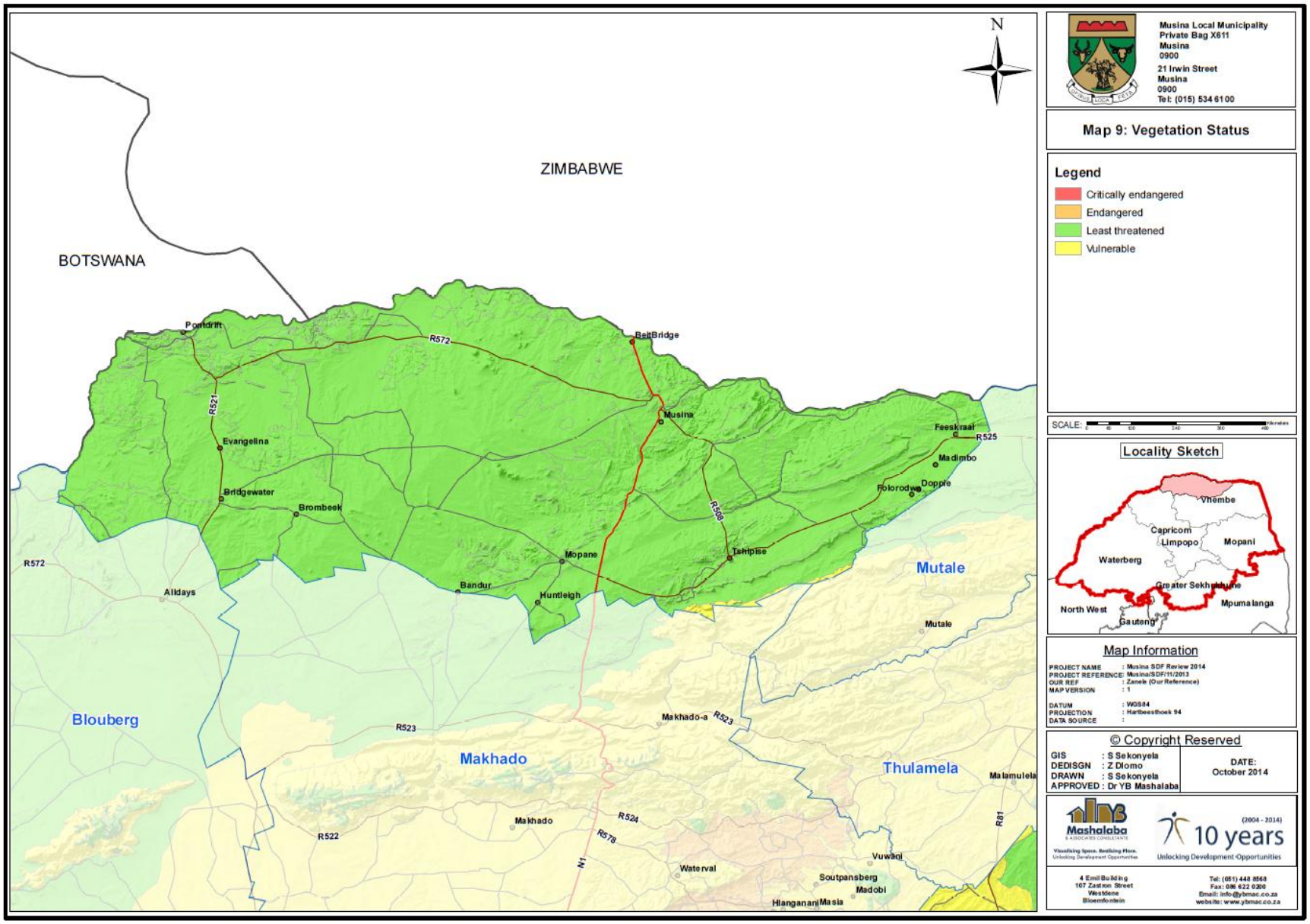
2.6.1.1 VEGETATION

The Musina municipal area is classified as a savannah landscape in terms of Acocks broad classification. Predominantly four types of vegetation are found within this landscape. These types of vegetation include the Limpopo Ridge Bushveld, the Musina Mopane Bushveld, the Soutpansberg Mountain Bushveld and the Subtropical Alluvial Vegetation. The majority of the Musina municipal area, 550 824.2 ha or 72.7% is covered by Musina Mopane Bushveld. An area of 185 786.8 ha, 24.52% of the municipal area is covered by Limpopo Ridge Bushveld. The remaining extent is covered either by Soutpansberg Mountain Bushveld or Subtropical Alluvial Vegetation.

The following table outlines the different types of vegetation and their respective coverage areas:

Table 4 Vegetation areas and coverage

VEGETATION	AREA	PERCENTAGE
Limpopo Ridge Bushveld	185 786.8 ha	24.52 %
Musina Mopane Bushveld	550 824.2 ha	72.7 %
Soutpansberg Mountain Bushveld	2 897.5 ha	0.38 %
Subtropical Alluvial Vegetation	18 020.4 ha	2.38 %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Dopple
Folorodwe
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Tshiplise
Mopane
Bandur
Huntleigh
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Blouberg
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Makhado-a
R523
Makhado
Thulamela
Malamulela
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R81
Vuwani
Waterval
Soutpansberg
Madobi
Hlanganani
Masia
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Map 9: Vegetation Status
Legend
Critically endangered
Endangered
Least threatened
Vulnerable
SCALE:
Locality Sketch
Vhembe
Capricorn
Limpopo
Mopani
Waterberg
Greater Sekhukhune
Mpumalanga
North West
Gauteng
Map Information
PROJECT NAME : Musina SDF Review 2014
PROJECT REFERENCE: Musina/SDF/11/2013
OUR REF : Zanele (Our Reference)
MAP VERSION : 1
DATUM : WGS84
PROJECTION : Hartbeesthoek 94
DATA SOURCE :
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DRAWN : S Sekonyela
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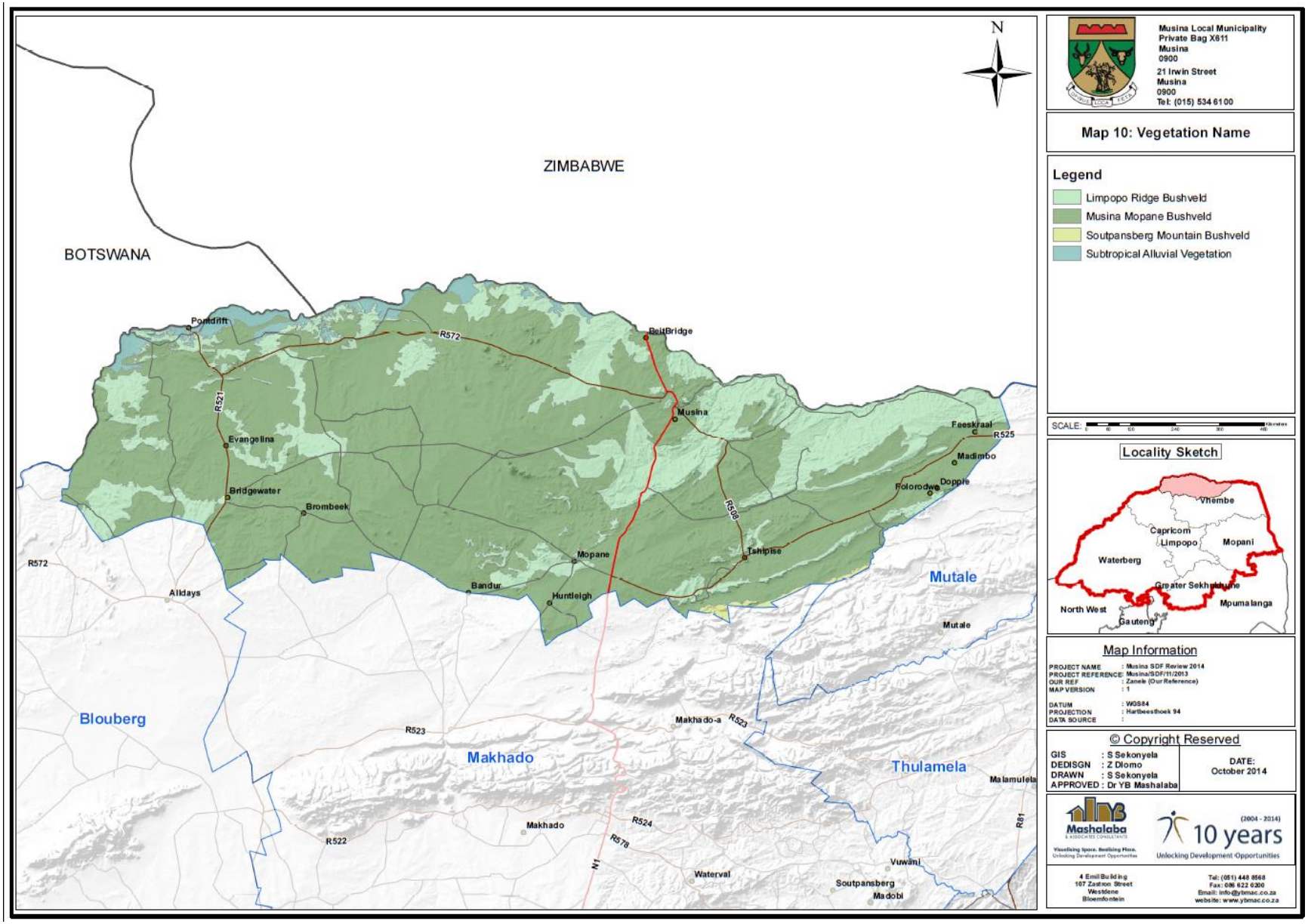
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Vuwani
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Tel: (015) 534 6100
Map 10: Vegetation Name
Legend
Limpopo Ridge Bushveld
Musina Mopane Bushveld
Soutpansberg Mountain Bushveld
Subtropical Alluvial Vegetation
SCALE:
Locality Sketch
Vhembe
Capricorn
Limpopo
Mopani
Waterberg
Greater Sekhukhune
Mpumalanga
North West
Gauteng
Map Information
PROJECT NAME : Musina SDF Review 2014
PROJECT REFERENCE: Musina/SDF/11/2013
OUR REF : Zanele (Our Reference)
MAP VERSION : 1
DATUM : WGS84
PROJECTION : Hartbeesthoek 94
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2.6.1.2 CONSERVATION, HERITAGE AND SENSE OF PLACE

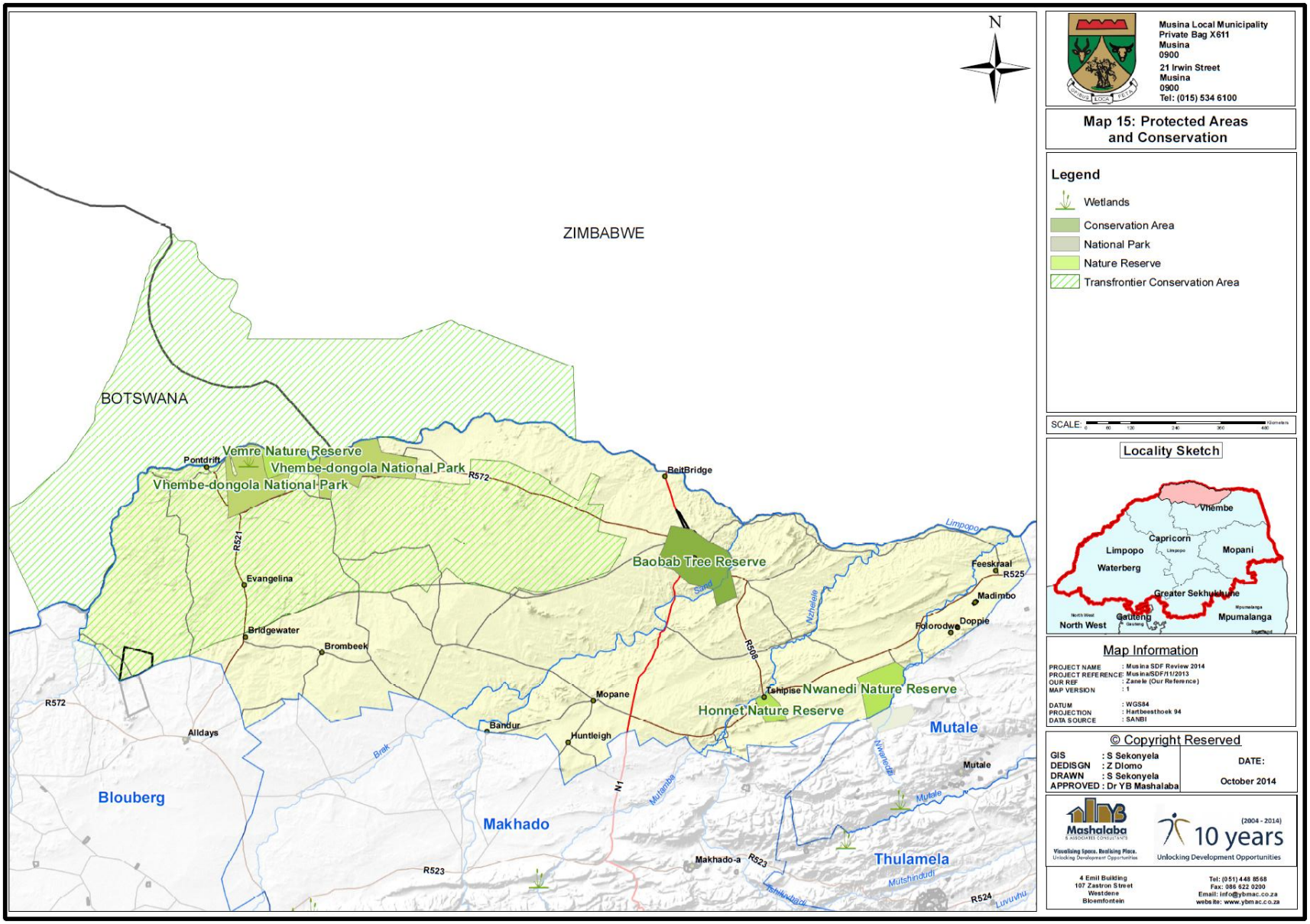
Approximately one thousand years ago, Mapungubwe in the province of Limpopo was the centre of the largest kingdom in the subcontinent. It was the place where a highly sophisticated group of individuals believed to be the ancestors of the Shona people of Zimbabwe, who traded gold and ivory with China, India and Egypt. The Iron Age site of Mapungubwe was discovered in 1932 but was only recently revealed to the public. Mapungubwe was declared a World Heritage site by the United Nations Educational, Scientific and Cultural Organisation (UNESCO) in July 2003.

Mapungubwe is an area of open savannah at the coming together of the Limpopo and Shashe Rivers and abutting the northern border of South Africa and the borders of Zimbabwe and Botswana. Mapungubwe thrived as a sophisticated trading centre from around 1220 to 1300. UNESCO describes Mapungubwe as the centre of the largest kingdom in the sub-continent prior to its desertion in the 14th century. UNESCO stated "*What survives are the almost untouched remains of the palace sites and also the entire settlement area dependent upon them, as well as two earlier capital sites, the whole presenting an unrivalled picture of the development of social and political structures over some 400 years*".

Mapungubwe is probably the earliest known site in southern Africa where evidence of a class-based society exists. This is evident in the separation of the leaders of Mapungubwe from the rest of the inhabitants.

Some of the botanical highlights of the Musina municipal region include fine specimens of baobab trees and impala lilies which are both protected species. In 2004, South African National Parks opened Mapungubwe National Park. Within this park, the UNESCO-designated Mapungubwe Cultural Landscape in an area covering well over 28 000 hectares was also incorporated. The

Mapungubwe National Park forms part of the Great Mapungubwe Transfrontier Conservation Area which crosses the borders of Botswana, South Africa and Zimbabwe, linking Mapungubwe National Park with Botswana's Tuli Block and Zimbabwe's Tuli Safari area. Aside from the rich cultural heritage of Mapungubwe National Park, most of the Africa's big game roam within the park. There is an incredible diversity of plant and animal life. Sandstone formations, Mopane woodlands and unique riverine forest accompanied by baobab trees form an astounding scenic backdrop for a rich variety of animal life. Elephant, giraffe, white rhino, eland, gemsbok and numerous other antelope species occur naturally in the area. In addition to this visitors to the park can spot predators like lions, leopards and hyenas, and birdwatchers can tick off 400 species, including Kori bustard, tropical booboo and pel's fishing owl. The following map shows the protected areas within the Musina municipal area.



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Map 15: Protected Areas and Conservation

Legend

- Wetlands
- Conservation Area
- National Park
- Nature Reserve
- Transfrontier Conservation Area

SCALE:

Locality Sketch

Map Information

PROJECT NAME	: Musina SDF Review 2014
PROJECT REFERENCE	: Musina/SDF/11/2013
OUR REF	: Zanele (Our Reference)
MAP VERSION	: 1
DATUM	: WGS84
PROJECTION	: Hartbeesthoek 94
DATA SOURCE	: SANBI

GIS	: S Sekonyela	DATE:
DEDISGN	: Z Dlomo	
DRAWN	: S Sekonyela	October 2014
APPROVED	: Dr YB Mashalaba	

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2.6.1.3 AGRICULTURE

The agricultural sector is one of the main contributors to the economy of the Musina Local Municipality. Agriculture is the biggest land user (99%) of the municipal land and at the same time the key job creator within the local economy. The section will cover specifically the potential with regard to agriculture and development established through the integration of certain factors dealing with soil potential.

Within the municipality, five areas with agricultural potentials have been identified. These areas include the area along the Limpopo River known as Limpopo valley-including Weipie farms, the area along the Sand River to the West of Mopane, the Nwanedi farms of which only a small section falls within the municipal area, the area along the Nzhelele River known as the Nzhelele irrigation area and the area along the Nwanedi River which is predominantly state land leased by small-scale farmers.

The following Table summarises the opportunities and potential projects that are possible in the Agriculture sector of the Musina Local Municipality, together with the gaps that need to be filled in order to achieve these opportunities.

Table 5: Agricultural development potential

EXISTING DEVELOPMENT	POTENTIAL OPPORTUNITIES
Existing production: • Cabbages • Oranges • Tomatoes • Mopani worms • Butternuts • Pepper • Macadamia nuts • Baobab trees	• Animal feed production • Beauty products • Vegetable processing • Tomatoes and Tomato processing • Juice making • Nut processing and packaging plant • Sun-dried tomatoes • Tomato jam, purees, paste, etc. • Producers co-operative • Packaging and export • Frozen vegetables • Canned vegetables

EXISTING DEVELOPMENT	POTENTIAL OPPORTUNITIES
	• Organic farming • Processing of Mopani worm products • Date liqueur • Medicinal plant nursery and processing • Spirulina production • Lucerne production • Pumpkin chutney and jam • Traditional beverages • Cotton production • Cream-of-ta-ta from the baobab tree • Citrus production • Production and processing of cabbages, • mielies, onions, potatoes
Existing Livestock Farming	• Goat, Beef and Game Meat Processing • Plants • Dairy Production • Leather Production • Establishment Of Abattoirs • Poultry Processing • Egg Production And Broilers
Mechanisation	• Letting of farming implements • Agricultural input services • Refrigerated trucks • Processing and packaging

2.6.1.3.1 SOIL POTENTIAL

Soil potential is regarded as a basic issue which determines the agricultural potential of an area. However, soil potential is also largely influenced by climatic and other factors. The next map shows the soil potential for the Musina municipal area. The spatial distribution of soil potential clearly correlates closely with the local geology and morphological structure of the environment. The following table outlines the different types of soil as related to the different types of geology.

Table 6: Musina soil profile

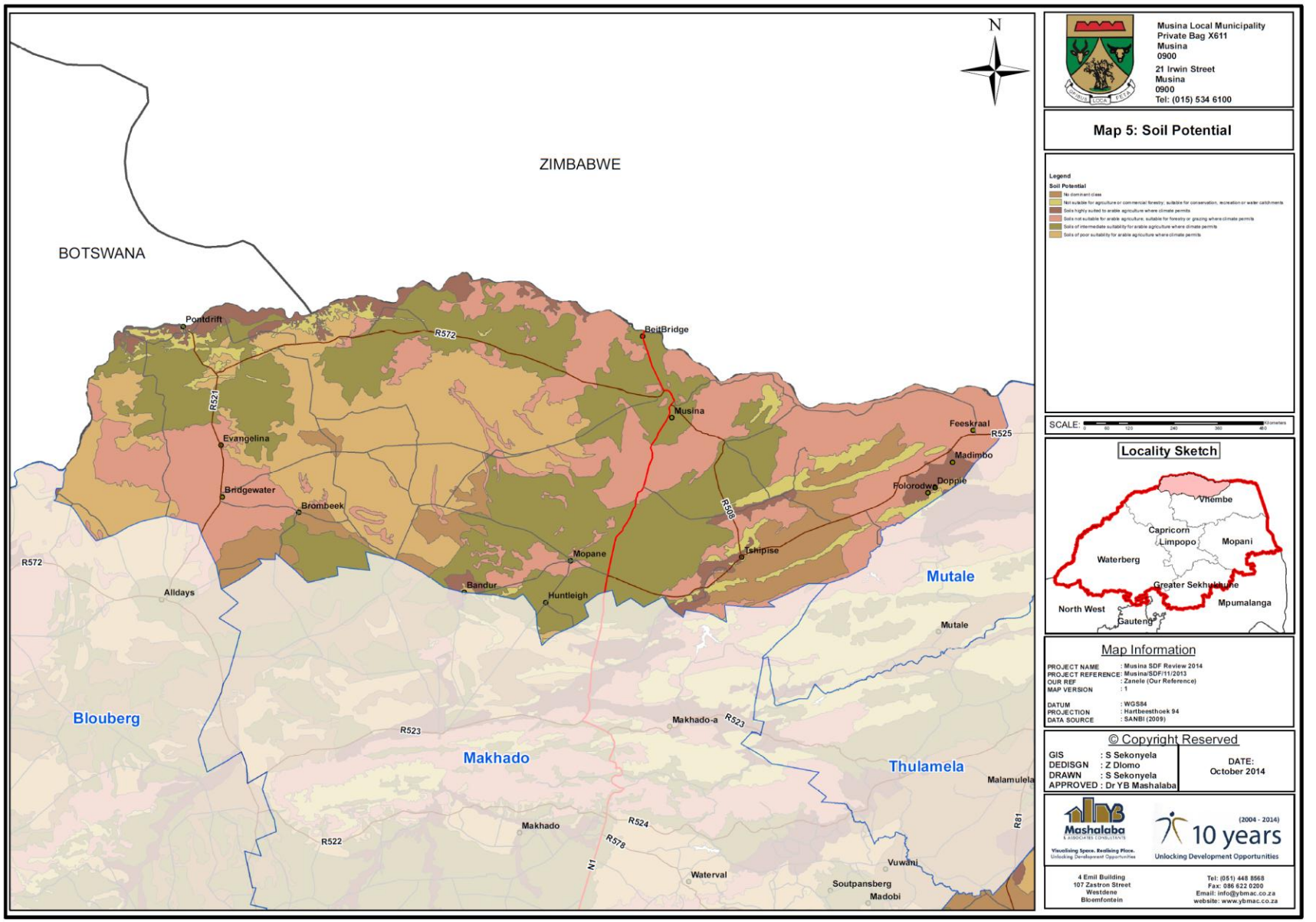
MINERAL	SOIL PROFILE
ARENITE	• In most cases Arenites occur within recent sand deposits forming more local harder zones. • Weathering of Arenites results in a sandy material consisting of medium sized quartz grains. • The residual material is seldom deeper than 1m.
BASALT	• The weathering of Basalt results in a clayey silt or silty clay soil depending on the rainfall and topography of the specific area. • In the mountainous regions erosion rates are very high with virtually no soil cover except in the river valleys. • On the Springbok Flats the weathering of Basalt has resulted in so-called black cotton soil, which is a dark brown to black highly expansive clay.
DOLERITE	• In terms of climate, the weathering of Dolerite can be classified into three types. • In the western drier regions, disintegration of Dolerite results in a gravelly soil. • In the semi-arid regions some minerals decompose forming a sandy soil. • In the wetter eastern parts all the primary minerals are susceptible to decomposition resulting in a clayey soil. • The clays are generally red in colour and may be quite thick.
GNEISS	• In the more humid areas silty sand or clayey silt forms from the weathering of Gneiss. • This silty sand and clayey silt is rich in mica with quartz grains. • These soils are dispersive and highly erodible and have a high permeability. • Core stone development and uneven bedrock topography are likely to occur. • In some areas a collapsible grain structure may develop.
GRANITE	• The weathering of Granite results in soils with a coarse structure, low fertility and high acidity. • The physical weathering of Granite can break the rock along its crystal boundaries. • The chemical weathering of Granite selectively removes feldspars and biotite, leaving behind a residue of quartz and other weathering resistant minerals. • Granite is a coarse, crystalline rock and breaks down fairly slowly. • The quartz-rich material tends to produce poorly buffered, acidic soils of poor nutrient status.

MINERAL	SOIL PROFILE
MUDSTONE	• Mudstone weathers to a clayey soil, which may have expansive characteristics depending on the original mineralogy of the soils from which the rock formed. • In some areas mudstone is weathered to great depths. • The soils of Mudstone are usually highly erodible and dispersive.
NORITE	• A number of different soil profiles occur on the Norites varying from dark reddish brown clayey silt to the typical black cotton soil (clay). • These clays are the most expansive soils known in South-Africa and may contain between 30% and 60% clay. • The black colour is due to a complex forming between clay and organic material. • Core stone development is a general feature in the wetter regions.
QUARTZITE	• Due to the recrystallization and predominantly silica rich minerals in quartzite it rarely weathers and is usually covered by only a thin layer of sand.
SHALE	• Shale weathers to a clayey soil, which may have expansive characteristics depending on the original mineralogy of the soils from which the shale formed. • In some areas the shales are weathered to great depths. • The soils are usually highly erodible.
SLATE	• Due to the changes taking place during metamorphism slate is usually fairly resistant to weathering and the thin soil cover is usually clayey silt.

In a practical sense, the aridity of the area, lack of ground water and the very low and irregular rainfall limits the potential for land utilisation. As a result of the arid climate and lack of ground water, the only areas where arable land can be cultivated successfully are on the banks of the rivers flowing through the municipal area. More specifically, these areas are understood to encompass the banks of the Limpopo River and the three rivers running north south through the eastern part of the municipality. The rest of the area cannot be cultivated due to the prevailing climatic conditions and ground water availability.

The soils found in the Musina municipal area have varying potential in terms of various land uses. The climate of the area also has a significant impact on this suitability. In terms of climate and soil potential, four types of soil potentials have been identified (refer to map 5). The four types of soils found in the Musina Local municipality have these potentials with regard to various land uses:

- Musina is covered by soils which are of provisional suitability for arable agriculture where climate allows;
- Musina is enclosed by soil right for forestry or grazing where climate permits, but not appropriate for arable agriculture. This kind of soil is frequently covered and found alongside the Sand River and towards the Limpopo River and dominant further West;
- To the Eastern side of Musina the soils are not suitable for agriculture or commercial forestry, but are suitable conservation and recreation; and
- The other type of soil found in Musina is one considered poor suitable for arable agriculture where climate permits the use of soil.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Map 5: Soil Potential
Legend
Soil Potential
No dominant class
Not suitable for agriculture or commercial forestry; suitable for conservation, recreation or water catchments
Soils highly suited to arable agriculture where climate permits
Soils not suitable for arable agriculture; suitable for forestry or grazing where climate permits
Soils of intermediate suitability for arable agriculture where climate permits
Soils of poor suitability for arable agriculture where climate permits
SCALE:
Locality Sketch
Vhembe
Capricorn
Limpopo
Mopani
Waterberg
Greater Sekhukhune
Mpumalanga
North West
Gauteng
Map Information
PROJECT NAME : Musina SDF Review 2014
PROJECT REFERENCE: Musina/SDF/11/2013
OUR REF : Zanele (Our Reference)
MAP VERSION : 1
DATUM : WGS84
PROJECTION : Hartbeesthoek 94
DATA SOURCE : SANBI (2009)
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DEDISGN : Z Dlomo
DRAWN : S Sekonyela
APPROVED : Dr YB Mashalaba
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2.6.1.3.2 LAND CAPABILITY

The capability of the whole agriculture is a combination of several reasons or factors. Agricultural potential affords an indication of the type of the most suitable activity that needs to take place in a certain area as well as the capability of the land. The capability of the land is determined mainly by the collective effects of soil type and landscape features as well as climatic conditions. In terms of agricultural capability the classification system considered application of rain fed agricultural activity and excludes any form of irrigation. Economic thoughts like closeness to markets and capital resources of the farmer are not standards for land capability. The land suitability is presented in a hierarchy ranging from land with few limitations on its use starting with crop production through a range of other less intensive uses such as pasture, natural grazing, forestry and wildlife. Land suitability is linked to good farm management practices.

The following table outlines the land capability Matrix with the different classes, conditions and restrictions.

Table 7: Musina Land capability Matrix

Land Capability	Class	Climatic Conditions	Restrictions	Alternative Use
Land suited to cultivation	Class I: Land very suitable for intensive and well adapted cultivation	• Climate is favourable for growing many of the common field crops.	• Few limitations that restrict its use and it may be safely cultivated • Some limitations that reduce the choice of plants or require moderate conservation practice • Limitation are few and shows the	• The land may be used for cultivated crops, but with less latitude in the choice of crops or management practices • When used for
	Class II: Land suitable for intensive cultivation	• Slight climatic limitations on soil use and management.		

Land Capability	Class	Climatic Conditions	Restrictions	Alternative Use
			effects of gentle slopes, moderate susceptibility to wind and water erosion. • Severe limitations that reduce the choice of plants or require special conservation practices, or both. • Very severe limitations that restrict the choice of plants and normally require very careful management.	cultivated crops, the conservation practices are usually more difficult to apply and to maintain. • Well suited to only two or three of the common crops or the harvest produced may be low
	Class III: Land for moderate well adapted cultivation	• Water holding capacity as a result of climatic conditions.		
	Class IV: Poorly adapted cultivation	• Moderately adverse climate.		
Land with limited use – generally not suited to cultivation	Class V: Intensive grazing	• Have little climatic limitations	• Have other limitations impractical to remove. • some occurrences are wet or frequently flooded while other are stony • limitations that cannot be corrected, amongst others, steep slopes, severe erosion hazard, effects of past erosion, stoniness • Very severe limitations that make it unsuited to cultivation and that restrict its use largely to grazing, woodland or wildlife. • Badlands, rocky outcrop, sandy beaches, river wash, mine tailings and other	• Use largely to pasture, range, woodland or wildlife food and cover. • Restrict its use to recreation, wildlife, water supply or aesthetic purposes.
	Class VI: Moderate grazing	• Severe climate.		
	Class VII: Light grazing	• Depending on soil characteristics due to climate		
	Class VIII: Wildlife			

Land Capability	Class	Climatic Conditions	Restrictions	Alternative Use
			nearly barren lands are included	

2.6.1.3.3 GRAZING CAPACITY

In order to be able to know the grazing capacity of the municipality one needs to express this with regard to animal units. One Animal Units (AU) equals to 450 Kilograms (kg). .

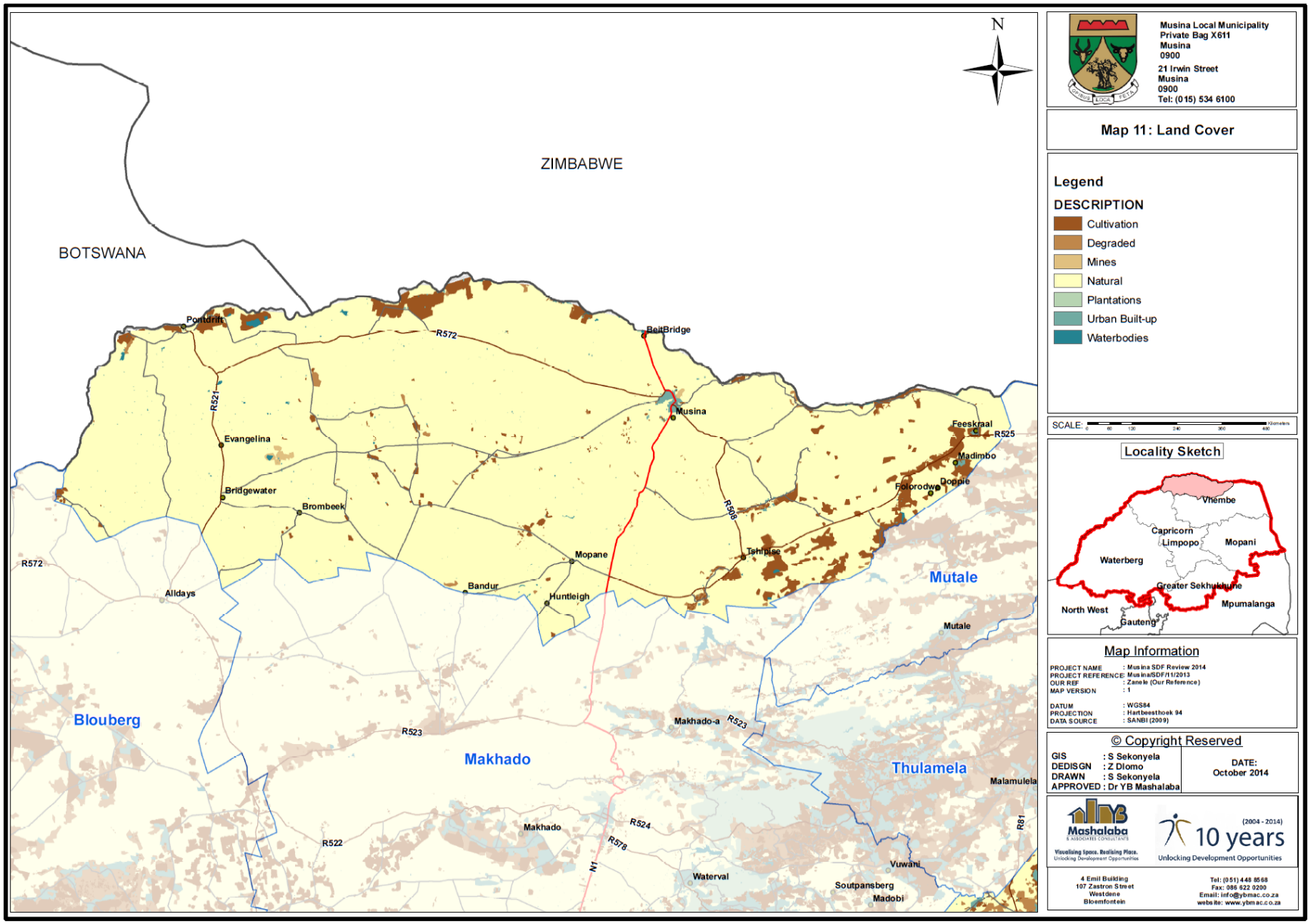
Even though agricultural activity is essential to local development, the area of Musina offers limited choice for this sector. There are very few areas that can be irrigated and extensive cattle faming is the prime focus of the agricultural sector. Nonetheless, as employment statistics specified, this sector is undoubtedly shedding jobs. Moreover, in several instances game farming is either done simultaneously with cattle farming or in some occasions substituting cattle farming. This does not essentially infer that the shift is contributing to job shedding. Though, the big scale introduction of game farming unlocks a lot of opportunities and in the process starts connecting farming activities with the tourism sector in the region.

2.6.1.3.4 TRANSFORMED RANGE LANDS

According to Agricultural Research Council it is stipulated that changes that occur in the natural ecosystems wherein both the structure and species arrangement are absolutely or nearly completely altered it is called transformations. The fundamental agencies which transform the South African landscapes are agriculture, plantation forestry as well as urbanization. In Musina local municipality the effects of transformation is very limited since there is no forestry, limited cultivation of land as well as limited urban development

constituting to less 0.5% of the entire land area. The only land use transformed in the area is the irrigation land range in Musina.

The following map outlines the land cover of the Musina Local Municipality. Representation of the transformed land is indicated as the cultivated land.



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Map 11: Land Cover

Legend

DESCRIPTION
- Cultivation
- Degraded
- Mines
- Natural
- Plantations
- Urban Built-up
- Waterbodies

SCALE:

Locality Sketch

Map Information

PROJECT NAME	: Musina SDF Review 2014
PROJECT REFERENCE	: Musina/SDF/11/2013
OUR REF	: Zanele (Our Reference)
MAP VERSION	: 1
DATUM	: WGS84
PROJECTION	: Hartbeesthoek 94
DATA SOURCE	: SANBI (2009)

GIS	: S Sekonyela
DEDISGN	: Z Dlomo
DRAWN	: S Sekonyela
APPROVED	: Dr YB Mashalaba

DATE: October 2014

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2.6.1.4 MINING

Mining is at present the largest contributor to the local economy in terms of gross value added. The focal point of mining in the Musina Local Municipality is the Venetia Diamond Mine which is the largest producer of diamonds in South Africa. The Venetia Diamond Mine is an opencast mine mining a kimberlite pipe.

2.6.1.4.1 ACTIVE MINES

2.6.1.4.1.1 VENETIA DIAMOND MINE

According to the 2011 municipal SDF, this mine is the largest diamond producing mine in South Africa. Mining operations stared in 1992 and the mine has an estimated life span of 20 years, with the potential of extending as the mining operations go underground.

2.6.1.4.1.2 VELE MINE

Vele Mine is a coal mine operating under the Coal of Africa Limited. It has been in operation since the start of 2012. The operations are curated for 16 years open cast and underground thereafter.

2.6.1.4.2 ABANDONED MINES

The following mines form part of the heritage of Musina. These mines are Harper, Campbell, Spence and Anton. They were predominantly copper mines and contributed to the origin of the town. However they have been abandoned and there has been little attempts to revitalise them.

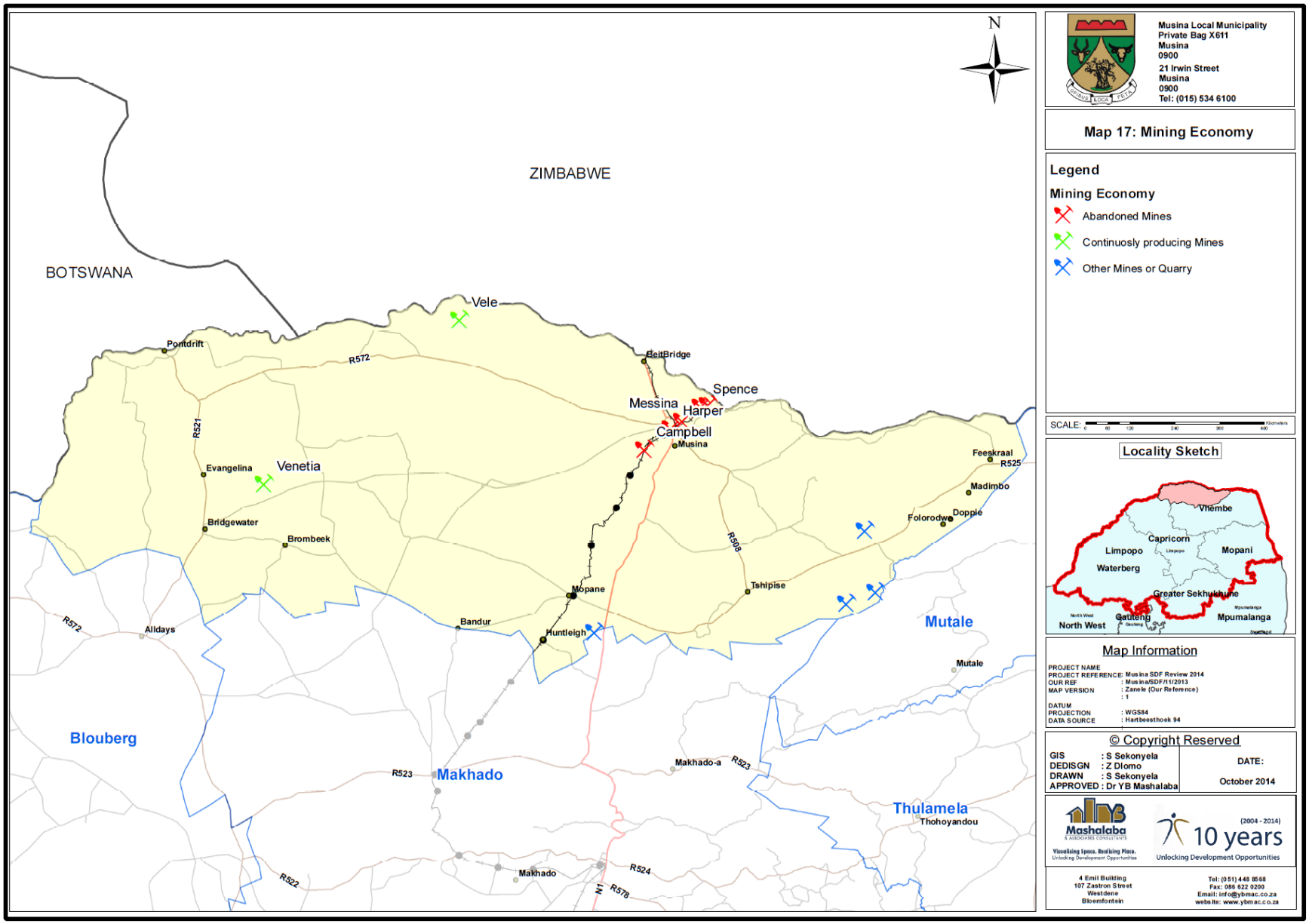
2.6.1.4.3 MINING POTENTIAL

The mining sector in the Musina Local Municipality contributes 27% to the provincial gross domestic product. Mining within the municipality is recognised as one of the dominant economic sectors. The commodities mined within the municipal area include diamonds and coal. In addition to these mines there are also a number of smaller mines and quarries located on the south eastern side of the municipality.

There still is substantial mining and specifically coal mining potential in the Musina municipal area. Besides the potential coalfields in the east and west, there are also a considerable number of kimberlite pipes with the potential for diamonds (Alluvial), copper and various other minerals.

With regards to dolomite/limestone, the Gumbu Group has significant reserves. Deposits that have been exploited include that on the farm Steenbok (565 MT) and Naus (178 MT).

The Limpopo River is known to have significant alluvial diamonds. However, no deposits are mined at present and the only deposit mined in the past is located on the farm Riedel (48 MS). Prospecting has indicated diamonds to occur on the farms Krone (104 MS), Blyklip (25 MS), Halcyon (21 MS), Little Bess (70 MS), Skutwater (115 MS), Bismark (116 MS), and River (141 MS).



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Musina
0900
21 Irwin Street
Musina
0900
Tel: (015) 534 6100

Map 17: Mining Economy

Legend

Mining Economy

- Abandoned Mines
- Continuosly producing Mines
- Other Mines or Quarry

SCALE: 0 60 120 240 360 480 Kilometers

Locality Sketch

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2.6.2 SOCIO-ECONOMIC ENVIRONMENT

2.6.2.1 DEMOGRAPHIC PROFILE

2.6.2.1.1 POPULATION DENSITY

According to Stats SA 2011 Musina Local Municipality has population of 68359 people growth rate of 5, 53% from 2001 to 2011. Therefore, it is tabulated that the Municipality has an average population density of 9 persons per km^2.

Table 8: Population Density

Municipality	Total Area of Municipality	Total Area of Settlements	Area of Settlements as % of Municipal Area
Musina Local Municipality	757 829 ha	63 639 ha	0.08

2.6.2.1.2 AGE AND GENDER DISTRIBUTION

According to Census 2011 Municipal report, the table below indicates both Age and Gender distributions of the Musina Local Municipality from 1996, 2001 and 2011. From the table below it is evident that the population of the municipality is growing. During 1996 the age group which show an increase is between 20-24. In both 2001 and 2011 the highest growing age group is between 25-29.

As far as gender is concerned there are more males than females in the years 1996 and 2011, but in 2001there were more females than males in the Musina Local Municipality.

Table 9: Age and Sex distribution

Age	1996			2001			2011		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
0-4	1487	1548	**3035**	2306	2300	**4606**	4482	4247	**8729**
5-9	1383	1462	**2845**	1819	1837	**3656**	2711	2736	**5447**
10-14	1259	1303	**2562**	1619	1725	**3344**	2598	2458	**5056**
15-19	1499	1490	**2989**	2035	2233	**4268**	2942	2897	**5839**
20-24	2373	2243	**4616**	2419	2727	**5146**	4284	4211	**8495**
25-29	2360	1781	**4141**	2311	2913	**5224**	4677	4576	**9254**
30-34	1608	1198	**2806**	1737	1829	**3566**	3726	3342	**7067**
35-39	1055	963	**2018**	1251	1333	**2584**	2791	2809	**5600**
40-44	801	796	**1597**	873	1148	**2021**	1959	1886	**3845**
45-49	644	581	**1225**	721	738	**1459**	1274	1331	**2605**
50-54	485	400	**885**	608	482	**1090**	979	1012	**1991**
55-59	357	322	**679**	320	326	**646**	700	736	**1436**
60-64	304	268	**572**	259	275	**534**	481	501	**982**
65-69	214	229	**443**	168	233	**401**	327	321	**648**
70-74	127	138	**265**	155	183	**338**	175	269	**443**
75-79	88	98	**186**	85	93	**178**	89	183	**273**
80-84	45	43	**88**	54	91	**145**	88	124	**212**
85+	36	45	**81**	43	54	**97**	80	126	**205**
Grand Total	**16123**	**14905**	**31028**	**18785**	**20524**	**39309**	**34363**	**33765**	**68128**

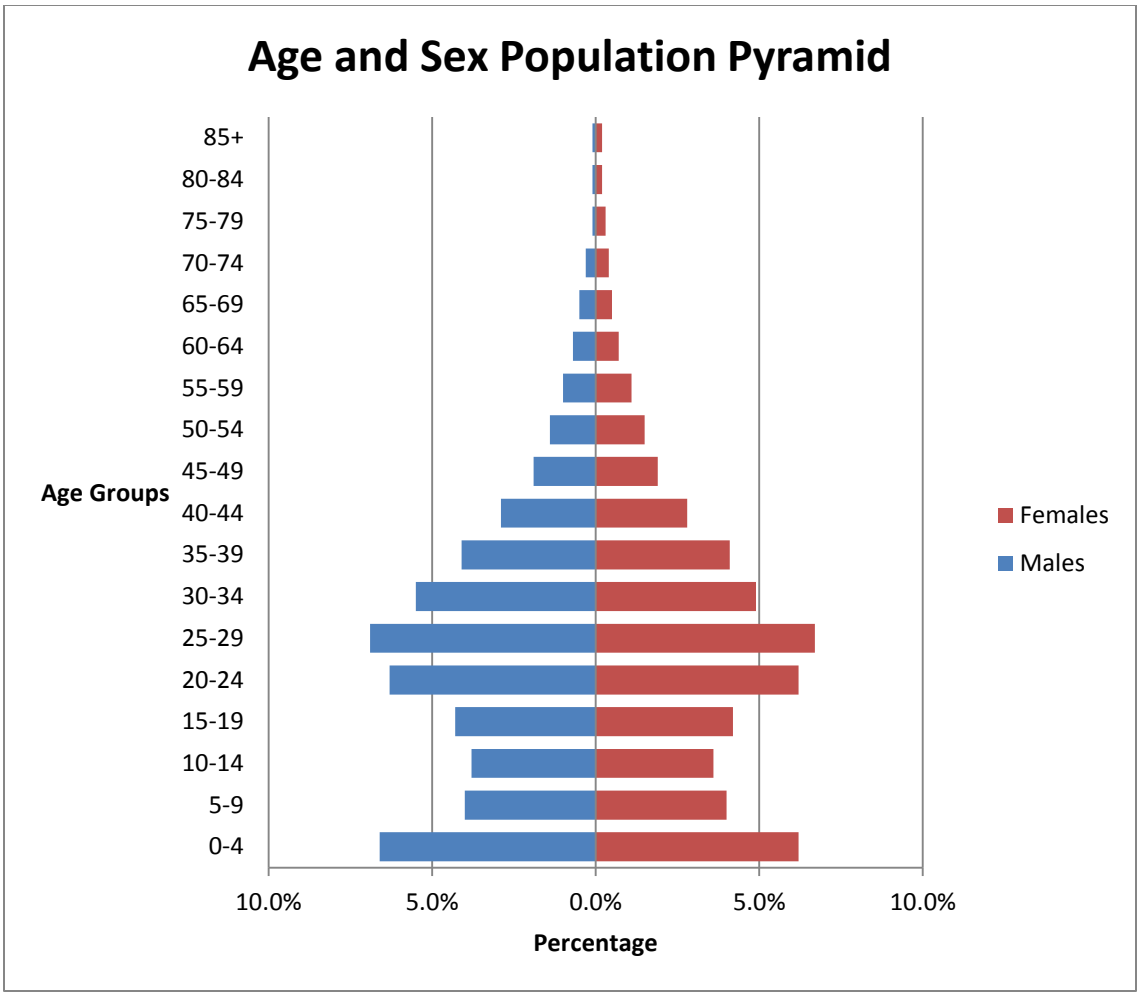


Figure 2: Age and Sex Population pyramid

An examination of the Age and Sex distribution table above created from census 2011 data reveals that the majority of individuals in Musina belong to the younger population groups. There are a large number of individuals of working age.

2.6.2.1.3 GENDER OF THE HEAD OF HOUSEHOLD

Table 10: Gender of the Household Head

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

According to (Census 2011) the table above indicates that in the year 2011 many households were headed by males as opposed to females. This also indicates that there are more males than females in the Musina municipality.

2.6.2.1.4 LEVEL OF EDUCATION

The Musina Local Municipality does not possess a highly educated population. Only 7 % of the population has completed tertiary education. A large portion, 43 % of the population of the municipality has some form of secondary education. A mere 21 % of the population has completed their secondary education. It is important to note the levels of education of the population of the municipality as these will largely influence proposals, especially with proposals that are dependent on highly skilled labour. Furthermore proposals have to address these levels of education in terms of employment creation and skills development. The following graph outlines the education profile of the Musina Local Municipality.

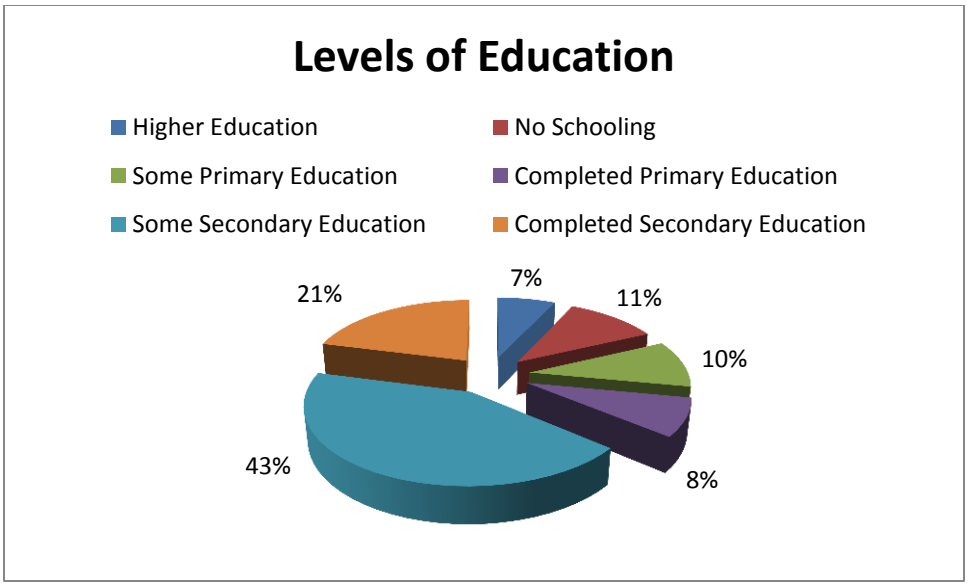


Figure 3: Education Levels in Musina

Based on Census 2011 the graph above indicates that very few people in Musina have tertiary education and the percentage is less than that of people with no schooling at all. The graph indicates that majority of the people in Musina have progressed to secondary but did not completed their studies.

2.6.2.1.5 HOUSEHOLD INCOME

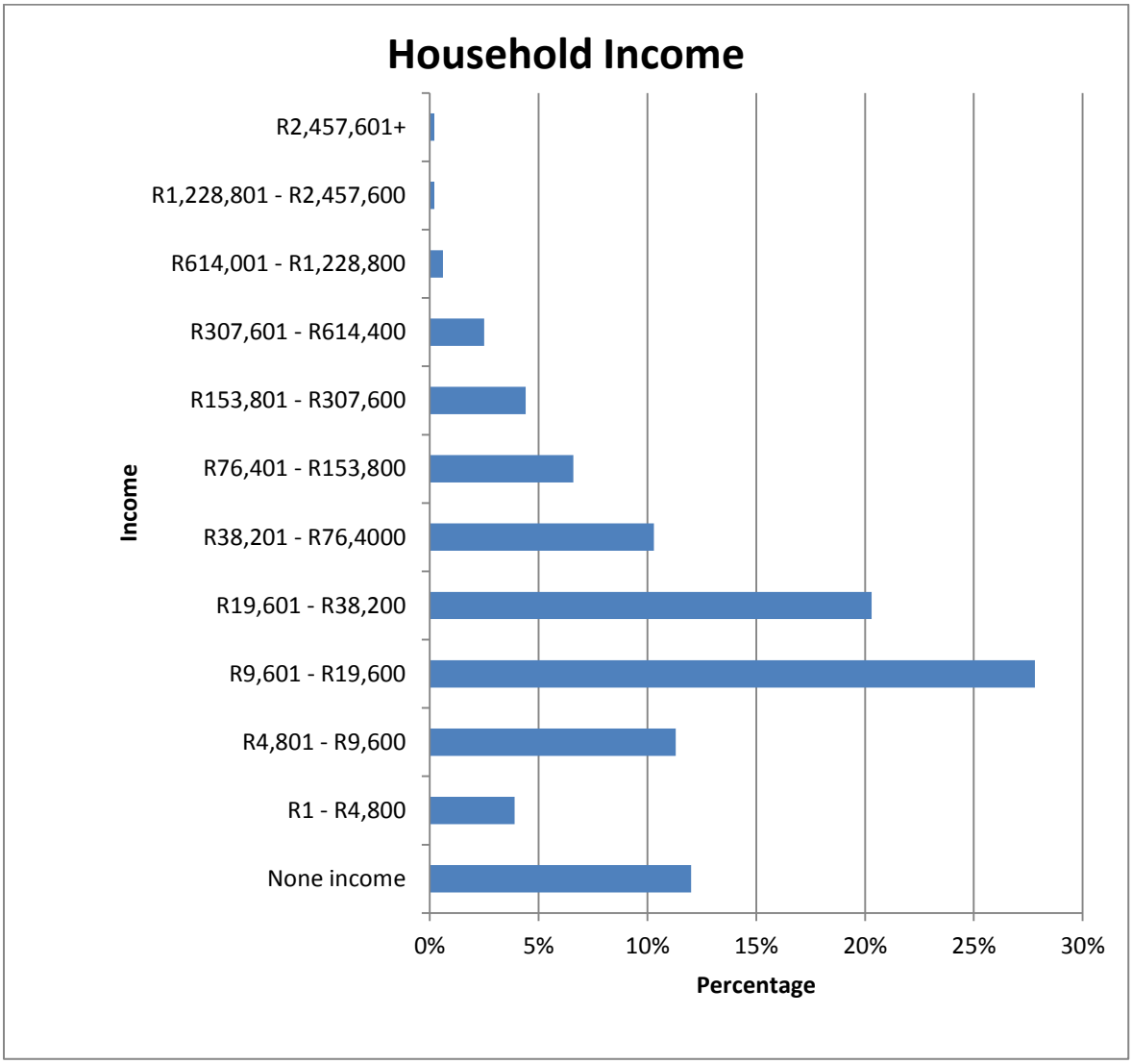


Figure 4: Household Income in Musina

The table above (Census 2011) shows that majority of people within Musina municipality with regard to income levels fall within R9,601 to R19,600 followed by R19,601 to R38,200 and R4,801 to R9,601 respectively. People who earn from R2, 457,601plus are the least on the table.

2.6.2.1.6 LANGUANGE

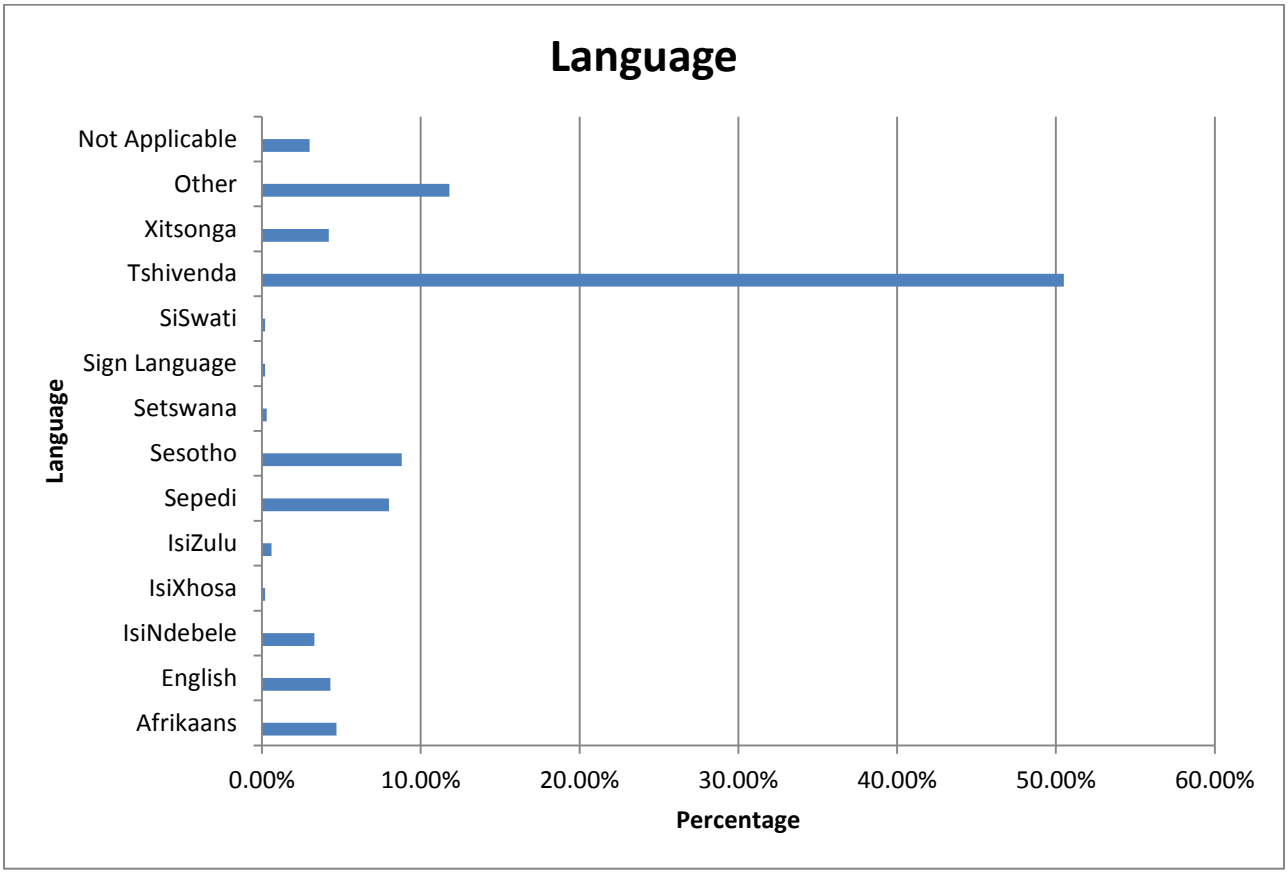


Figure 5: Languages in Musina Local Municipality

According to Census 2011 the figure above indicates that majority of people in the municipality speak Tshivenda followed by other international languages (foreign) and Sesotho respectively. Other languages well represented in the area are Sepedi, Afrikaans, Xitsonga, English and IsiNdebele respectively.

2.6.2.1.7 POPULATION GROUPS

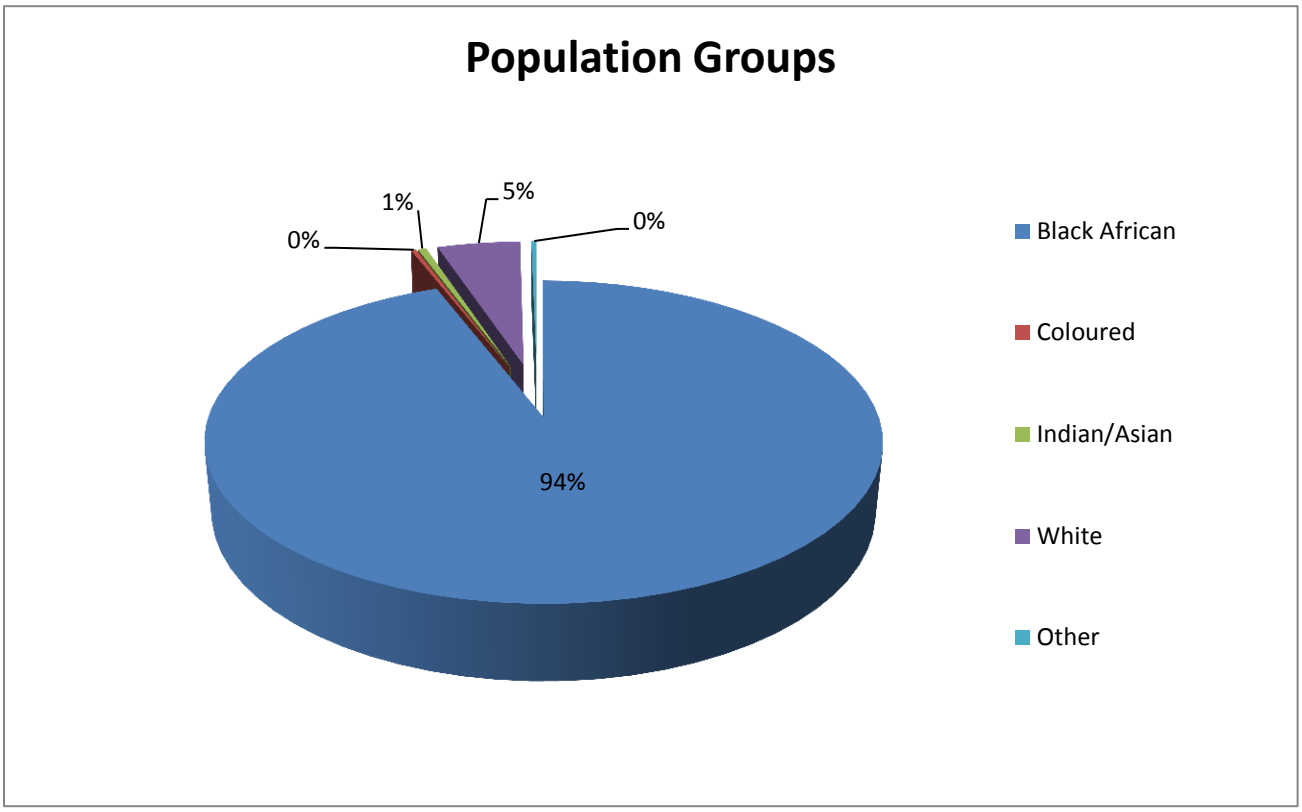
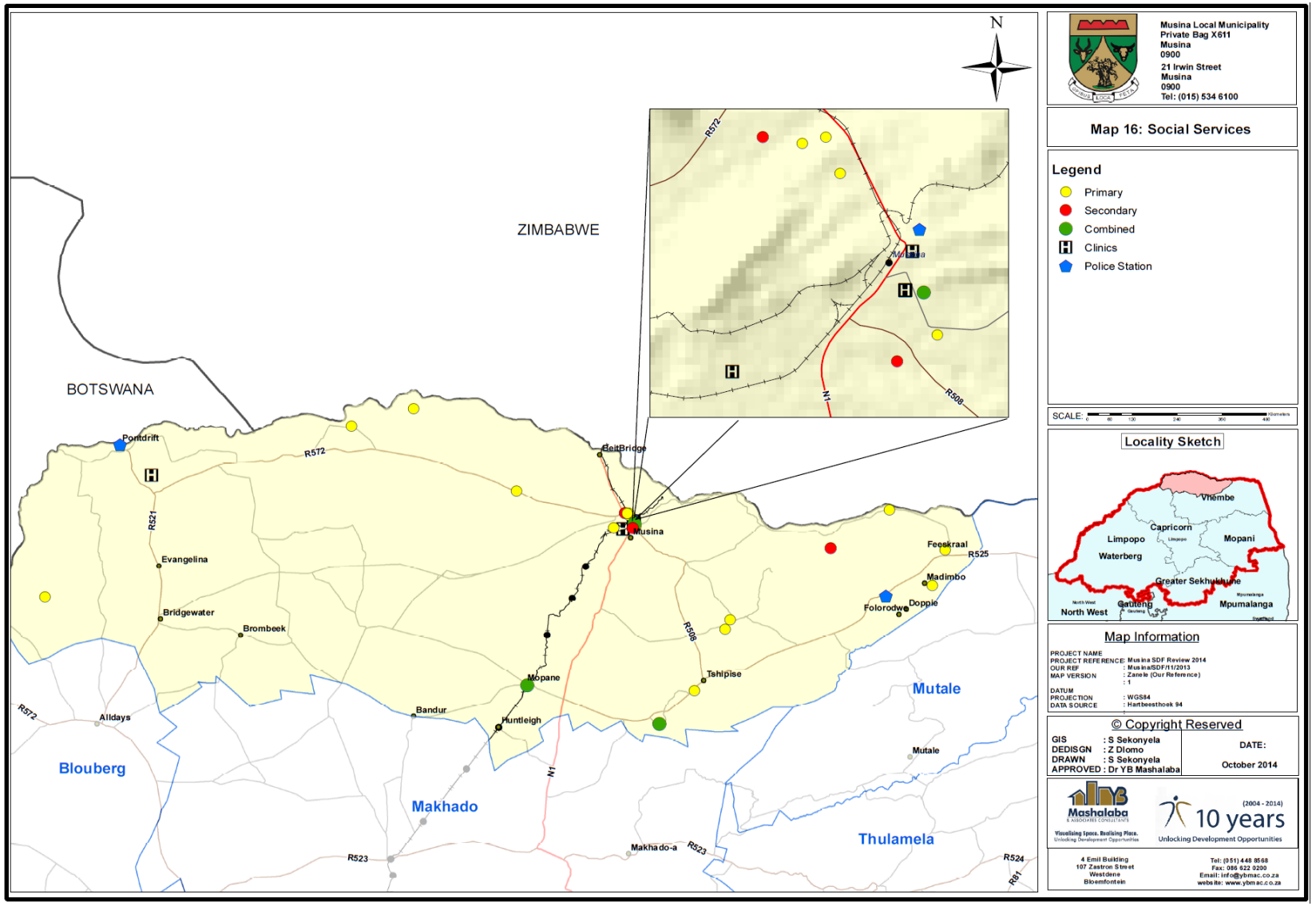


Figure 6: Different population groups in Musina

According to Census 2011 the graph above shows that majority of people living in Musina are African. The remaining population is made up of White, Indian, Asian and Coloured individuals. A very small percentage of individuals belong to other race groups.

2.6.2.2 SOCIAL SERVICES



The previous map presents the educational, medical and law enforcement infrastructure within the Musina Local Municipality. In the following sections the status quo of this infrastructure is outlined and identified challenges are listed.

2.6.2.3 HEALTH

Table 11: Access to health

MUNICIPALITY	CLINICS	HEALTH CENTRES	HOSPITALS	TOTAL HEALTH FACILITIES
MUSINA	3	0	1	4
Access to water and sanitation	3	0	1	4

The previous table shows the number of health facilities in the municipal area of Musina as well as the number of health facilities that have access to water and sanitation.

The following challenges are faced in terms of the provision of healthcare in the Musina Local Municipality:

- Overcrowding in all health centres;
- Poor road infrastructure which causes poor accessibility;
- Influx of immigrants;
- Malaria;
- Lack of dedicated PHC pharmacists and assistant pharmacist;
- Rabies;
- HIV and AIDS related conditions remain a challenge to be prioritized by Department;
- Most of the health facilities are old and dilapidated;
- Most of the equipment are old and non-functional; and
- Shortage of personnel.

2.6.2.4 EDUCATION

2.6.2.4.1 SCHOOLS

There are 9 secondary schools with 4 607 pupils within the boundaries of the municipality. Furthermore, there are 29 primary schools accommodating 9 791 pupils. There are also 4 combined schools that accommodate the needs of 1 023 pupils. In the Musina municipal area there are no special need schools or institutions. Access to education is a significant issue that needs to be addressed.

The following challenges have been identified in terms of education within the municipal area:

- Musina Local municipality does not have schools for learners with special needs;
- No tertiary institutions;
- Scholar transport especially in farming areas and the villages is not available;
- Lack of education facilities and infrastructure results in a negative culture of learning;
- The vast backlog of classrooms and learner support material, especially in rural areas impedes proper teaching and learning;
- Unavailability of ABET centres that will respond to the high illiteracy rate among the adult population;
- The backlog of ABET centres in the district is 203 and only 98 have been built;
- Lack of scholar transport and learners travel a distance of about 15 kilometres to access schools;

- Lack of a technical skills institution to support the mining operations that are happening and this leads mining companies to source the skills from other towns.

2.6.2.4.2 LIBRARIES

The provision of libraries is an important function as it supports education and social empowerment. These libraries are important in areas where low levels of literacy are prevalent. The Musina Local Municipality performs the unfunded mandate to ensure that people have access to this vital educational facility in an adequate environment to serve the community, both in size per service point and location. Vast areas remain un-serviced and this is more problematic as literacy levels in the un-serviced areas are very low.

2.6.2.4.3 SPORTS, RECREATION, ARTS AND CULTURE

The Musina Local Municipality has quite a number of sports and recreation facilities. Most of these sports facilities that are of a higher standard are found in Musina and Nancefield with the rest scattered in the five rural settlements areas. The Sports and Recreation infrastructure consists of 2 Cluster stadiums, 2 Community halls, 4 satellite offices and numerous combination playing fields. In contrast to the more urban settlement areas, most of the facilities located in the rural areas have hard gravel surfaces.

It is evident that sport and recreation provision requires some attention. There exists a definite need for better quality and upgraded facilities. The role of sports in the lives of both residents and youth cannot be underestimated. Sports develop important life skills, it enables both residents and youth to deal with frustrations in a healthy way, and it keeps them away from negative influences such as crime, drugs, etc. Furthermore sports provide opportunities for the future.

A sustainable model for the management and maintenance of the sports and recreation infrastructure across the municipality needs to be established. This model needs to take into account that some of the facilities used were not originally built by the Municipality, but other stakeholders.

2.6.2.5 EMPLOYMENT, OCCUPATION AND INCOME LEVELS

2.6.2.5.1 EMPLOYMENT SECTORS

Economic potential of Musina local municipality is in agriculture and Eco-Tourism. The majority of people within Musina local municipality are making their living through agricultural pursuits. Commercial and subsistence agriculture is the key occupational sector in the area.

Table 12: Employment Sectors

Economic Employment by Sector	
Sector	**2012/13 Financial Year**
Agriculture, forestry and fishing	54%
Mining and quarrying	18%
Manufacturing	5%
Wholesale and retail trade	6%
Finance, property etc.	4%
Government, community and social services	23%
Infrastructure services	2%
Source: STATS SA 2011	

2.6.2.5.2 UNEMPLOYMENT

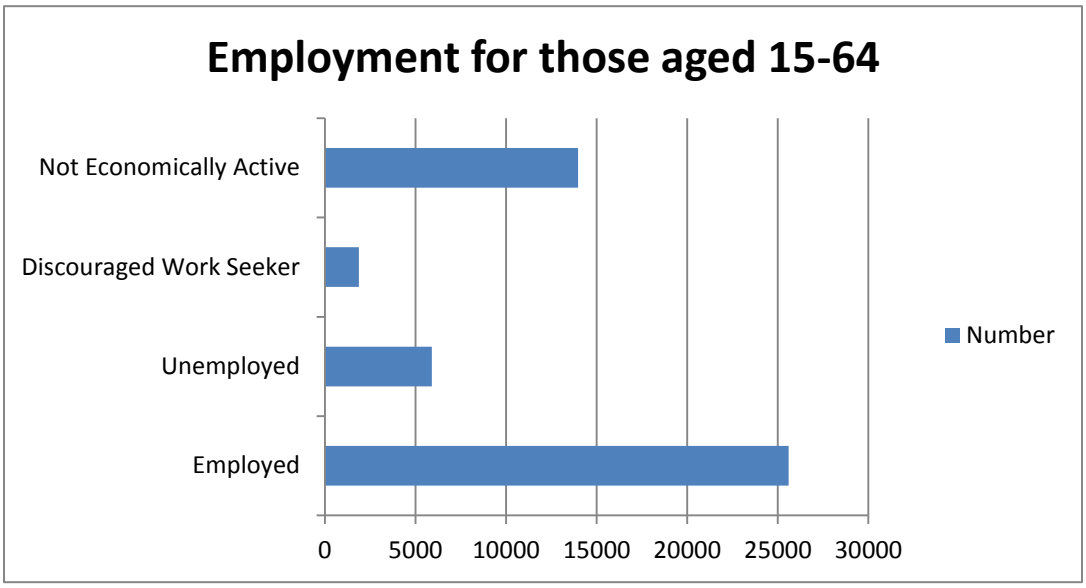


Figure 7: Unemployment Status

According to Census 2011 the figure above indicates that majority of the people in the local municipality are employed but it also shows that there are many people who are economically not active.

2.6.2.5.3 THE STRUCTURE OF LOCAL ECONOMY

Musina Local Economic Development Strategy outlines the economic growth potential of the municipality to be contained in Agriculture, Tourism and Mining. The main contributors to the local economy of Musina include Agriculture, Forestry and Fishing (7%), Mining (30%), Transport and communication (15%), Manufacturing (11%), Finance and business services (9%), wholesale & retail trade, catering and accommodation (6%), community, social, personal services (6%), government services (5%) and construction (5%).

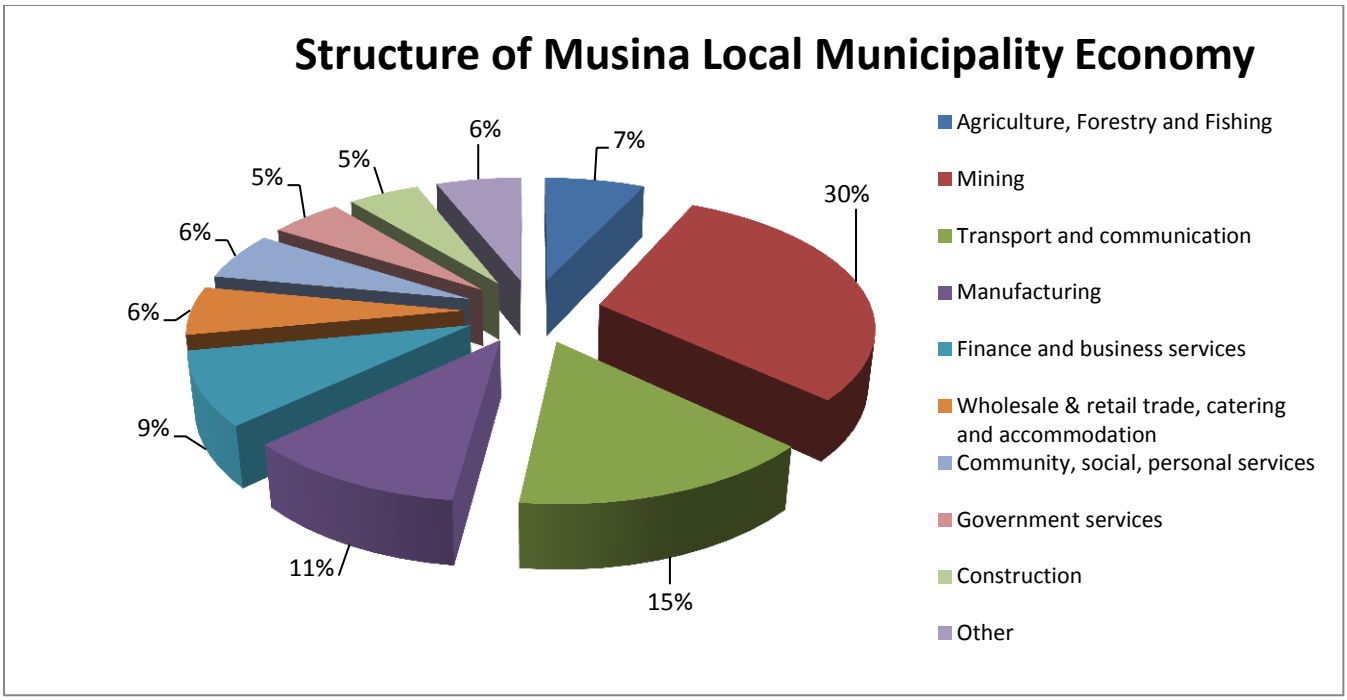


Figure 8: Main contributors to Musina local economy

2.6.2.6 LAND REFORM

Currently there are approximately 351 land claims lodged on 351 farm subdivisions. The extent of these claims is approximately 279 109ha which encompasses more than a third (36%) of the municipal area. Land claims and restitution is part of the process of addressing past imbalances resulting from the planning of the past. Land claims have a significant impact on spatial development within municipalities. The land claims within the Musina municipal area will thus have a measureable impact on the town's spatial development. Twenty one of the current land claims are on government land. The majority of this land is located along the National road and rail routes and adjacent to Mapungubwe.

In addition to these claims on state land, there are another two clusters of claims. The first cluster of claims relates to the institutional land around the Venetia mine which is owned by De Beers Consolidated Mines. The second

cluster of these claims is located in the Domboni/Madimbo areas owned by the South African Development Trust. The remaining portion of land claims are located on private farms. These claims on private land are distributed mainly in the South and East of the municipality.

2.6.2.7 CEMETERIES

Table 13: Cemeteries financial performance

Financial Performance 2011/12: Cemeteries					
Details	2010/11	2011/12			**R'000**
	Actual	Original Budget	Adjustment Budget	Actual	Variance to Budget
Total Operational Revenue (excluding tariffs)	85	81	81	84	3
Expenditure:					
Employees	201	688	688	186	502
Repairs and Maintenance	1	3	3	0	3
Other	4	11	11	9	2
Total Operational Expenditure	206	702	702	195	507
Net Operational (Service) Expenditure	121	621	621	111	504

The Musina Local Municipality has two cemeteries that are active at present. The older one is located at Nancefield and the second one is located adjacent to the Tiger Brand's waste water treatment facility to the south of Musina. The old Nancefield cemetery is reaching capacity and the Musina Local Municipality is in the course of securing additional land.

2.6.2.8 CRIME

The safety of communities is a matter of concern as crime is a problem across the municipal area. Crime in the Musina municipal area appears to be on the rise. One of the most significant factors influencing crime is the high level of

unemployment. Other factors that are contributing to the high levels of crime in the municipal area include illegal immigration, youth unemployment and drug as well as alcohol abuse.

Although additional efforts have been directed at policing, the crime levels are generally still high and on the increase.

Law enforcement infrastructure in the municipality includes:

- 3 Police stations:
  - Tshamutumbu
  - Pontdrift
  - Musina
- 1 Magisterial district court.

The main types of crime that are prevalent in Musina Municipality are:

- Sexual offences.
- Abuse of Woman and children
- Housebreaking and theft

The 2014 year thus far has seen escalations in the following types of crime:

- Kidnapping
- Neglect and ill-treatment of children
- Crimen injuria
- Robbery at residential premises
- Commercial crime
- Drug-related crime
- Stock-theft
- Burglary at non-residential premises
- Malicious damage to property

- Arson
- Robbery with aggravating circumstances
- Common robbery
- Common assault
- Attempted murder
- Sexual Crimes

2.6.2.9 PROPERTY MARKET PATTERNS AND GROWTH PRESSURES

The response of the municipality in addressing the conversion of rural land to urban areas is the formalisation of rural areas. The area of Madimbo is one of the areas experiencing formalisation. At present, 913 erven are being formalised on Hetty Farm in Madimbo and a further 622 have been proposed to be formalised in the near future. The other village earmarked for formalisation is Fees kraal. Formalisation of rural areas to urban uses improves the living conditions as there would be bulk supply of basic infrastructure for service delivery. The farm properties situated along the river banks have higher market value as they have high agricultural potential due to their geographical location. Also forming part of this is the Forever resort property in Tshipise situated in next to the Honnet nature reserve.

2.6.2.9.1 THE DRIVERS OF THE LOCAL ECONOMY

The economic drivers of the Musina Local Municipality include farming, tourism and mining operations. In addition to the current drivers, there are possible new mining developments that will be moving into the area. One of the proposed developments relates to the possible development of new coal mines in the area. Musina is viewed as a nodal growth point. This view of Musina is due to its location on the N1 towards the Beit bridge border post. The position of Musina in this location reinforces its regional position as a linkage and gateway from the border post to South Africa's leading economic centres of Pretoria and Johannesburg.

2.6.2.10 MUNICIPAL FINANCES

2.6.2.10.1 OPERATING INCOME AND EXPENDITURE

The table below illustrates the Municipal financial performance from the financial year 2010/11 to the financial year 2013/14, as well as the amounts for the Medium term revenue and Expenditure for the 2014/15 financial year.

Table 14: Musina Municipal financial performance 2010/11

Budgeted Financial Performance (Revenue and Expenditure by Standard Classification)										
Standard Classification Description	**Ref**	**2010/11**	**2011/12**	**2012/13**	**Current Year 2013/14**			**2014/15 Medium Term Revenue & Expenditure Framework**		
R thousand	**1**	**Audited Outcome**	**Audited Outcome**	**Audited Outcome**	**Original Budget**	**Adjusted Budget**	**Full Year Forecast**	**Budget Year 2014/15**	**Budget Year +1 2015/16**	**Budget Year +2 2016/17**
Revenue - Standard										
Municipal governance and administration		**40,047**	**45,023**	**45,150**	**76,133**	**–**	**76,133**	**88,278**	**63,871**	**74,887**
Executive and council		11,331	10,946	10,213	37,507	–	37,507	11,985	12,042	13,867
Mayor and Council		11,331	10,946	10,213	37,507		37,507	11,985	12,042	13,867
Municipal Manager										
Budget and treasury office		27,981	33,287	34,137	37,736		37,736	42,901	40,862	50,002
Corporate services		735	790	800	890	–	890	33,391	10,967	11,018

Budgeted Financial Performance (Revenue and Expenditure by Standard Classification)										
Standard Classification Description	**Ref**	**2010/11**	**2011/12**	**2012/13**	**Current Year 2013/14**			**2014/15 Medium Term Revenue & Expenditure Framework**		
R thousand	**1**	**Audited Outcome**	**Audited Outcome**	**Audited Outcome**	**Original Budget**	**Adjusted Budget**	**Full Year Forecast**	**Budget Year 2014/15**	**Budget Year +1 2015/16**	**Budget Year +2 2016/17**
Human Resources										
Information Technology		735	790	800	890		890	934	967	1,018
Property Services								32,457	10,000	10,000
Other Admin								–		
Community and public safety		**107**	**89**	**89**	**982**	**–**	**982**	**98**	**105**	**112**
Community and social services		**107**	**89**	**89**	**982**	**–**	**982**	**98**	**105**	**112**
Libraries and Archives		7	8	8	8		8	8	9	9
Museums & Art Galleries etc.									–	-
Community halls and Facilities									–	-
Cemeteries & Crematoriums		100	81	81	90		90	90	96	103
Child Care									–	-
Aged Care									–	-
Other Community									–	-
Other Social					884		884	–	–	-
Sport and recreation									–	-
Public safety		**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**
Police										

Budgeted Financial Performance
(Revenue and Expenditure by Standard Classification)

Standard Classification Description	Ref	2010/11	2011/12	2012/13	Current Year 2013/14			2014/15 Medium Term Revenue & Expenditure Framework		
R thousand	1	Audited Outcome	Audited Outcome	Audited Outcome	Original Budget	Adjusted Budget	Full Year Forecast	Budget Year 2014/15	Budget Year +1 2015/16	Budget Year +2 2016/17
Fire										
Civil Defence										
Street Lighting										
Other										
Housing										
Health		–	–	–	–	–	–	–	–	–
Clinics										
Ambulance										
Other										
Economic and environmental services		**41,896**	**28,749**	**24,790**	**24,374**	**–**	**24,374**	**23,210**	**23,200**	**24,084**
Planning and development		**28,279**	**25,826**	**21,843**	**18,129**	**–**	**18,129**	**20,010**	**19,808**	**20,522**
Technical Services			13,787	15,604	16,844		16,844	18,943	19,808	20,522
EPWP/building/planning		28,279	12,039	6,239	1,285		1,285	1,067	–	–
Other								–		
Road transport		**13,617**	**2,923**	**2,947**	**6,245**	**–**	**6,245**	**3,200**	**3,392**	**3,562**
Roads										
Public Buses										
Parking Garages										
Vehicle Licensing and Testing		13,617	2,923	2,947	3,200		3,200	3,200	3,392	3,562
Other					3,045		3,045	–	–	–

Budgeted Financial Performance
(Revenue and Expenditure by Standard Classification)

Standard Classification Description	Ref	2010/11	2011/12	2012/13	Current Year 2013/14			2014/15 Medium Term Revenue & Expenditure Framework		
R thousand	1	Audited Outcome	Audited Outcome	Audited Outcome	Original Budget	Adjusted Budget	Full Year Forecast	Budget Year 2014/15	Budget Year +1 2015/16	Budget Year +2 2016/17
Environmental protection		–	–	–	–	–	–	–	–	–
Pollution Control										
Biodiversity & Landscape										
Other										
Trading services		**49,118**	**76,224**	**101,470**	**97,544**	**–**	**97,544**	**94,546**	**99,749**	**104,899**
Electricity		**44,082**	**69,669**	**93,810**	**90,095**	**–**	**90,095**	**85,891**	**91,094**	**95,649**
Electricity Distribution		44,082	69,669	93,810	90,095		90,095	85,891	91,094	95,649
Electricity Generation										
Water		–	–	–	–	–	–	–	–	–
Water Distribution										
Water Storage										
Waste water management		–	–	–	–	–	–	–	–	–
Sewerage										
Storm Water Management										
Public Toilets										
Waste management		**5,036**	**6,555**	**7,660**	**7,449**	**–**	**7,449**	**8,655**	**8,655**	**9,250**
Solid Waste		5,036	6,555	7,660	7,449		7,449	8,655	8,655	9,250
Other		**–**	**–**	**–**	**40**	**–**	**40**	**40**	**43**	**45**
Air Transport										
Abattoirs										

Budgeted Financial Performance
(Revenue and Expenditure by Standard Classification)

Standard Classification Description	Ref	2010/11	2011/12	2012/13	Current Year 2013/14			2014/15 Medium Term Revenue & Expenditure Framework		
R thousand	1	Audited Outcome	Audited Outcome	Audited Outcome	Original Budget	Adjusted Budget	Full Year Forecast	Budget Year 2014/15	Budget Year +1 2015/16	Budget Year +2 2016/17
Tourism					40		40	40	43	45
Forestry										
Markets										
Total Revenue - Standard	2	**131,168**	**150,085**	**171,499**	**199,073**	**–**	**199,073**	**206,171**	**186,968**	**204,027**
Expenditure - Standard										
Municipal governance and administration		**65,755**	**67,090**	**71,096**	**77,480**	**–**	**77,480**	**91,171**	**90,156**	**94,839**
Executive and council		21,239	24,582	26,616	37,972	–	37,972	44,247	45,250	47,513
Mayor and Council		15,727	17,285	20,072	26,979		26,979	34,219	35,000	36,750
Municipal Manager		5,512	7,297	6,544	10,993		10,993	10,028	10,250	10,763
Budget and treasury office		34,374	30,948	30,577	24,727		24,727	26,798	28,406	29,826
Corporate services		10,142	11,560	13,903	14,781	–	14,781	20,125	16,500	17,500
Human Resources		495	1,584	1,737	1,007		1,007	2,181	2,250	2,500
Information Technology		2,257	3,518	3,599	3,783		3,783	6,166	6,250	6,500
Property Services		–								
Other Admin		7,390	6,458	8,567	9,991		9,991	11,778	8,000	8,500
Community and public safety		**4,337**	**5,109**	**4,989**	**4,963**	**–**	**4,963**	**6,938**	**7,087**	**7,547**
Community and social										

Budgeted Financial Performance (Revenue and Expenditure by Standard Classification)										
Standard Classification Description	**Ref**	**2010/11**	**2011/12**	**2012/13**	**Current Year 2013/14**			**2014/15 Medium Term Revenue & Expenditure Framework**		
R thousand	**1**	**Audited Outcome**	**Audited Outcome**	**Audited Outcome**	**Original Budget**	**Adjusted Budget**	**Full Year Forecast**	**Budget Year 2014/15**	**Budget Year +1 2015/16**	**Budget Year +2 2016/17**
services		**1,292**	**1,306**	**1,547**	**1,355**	**–**	**1,355**	**2,195**	**2,338**	**2,492**
Libraries and Archives		442	506	553	159		159	37	38	42
Museums & Art Galleries etc.		–	68	198	158		158	–	–	–
Community halls and Facilities								–	–	
Cemeteries & Crematoriums		591	702	702	718		718	2,008	2,100	2,200
Child Care								–	–	
Aged Care								–		
Other Community								–		
Other Social		259	30	94	320		320	150	200	250
Sport and recreation		2,499	3,285	3,391	3,547		3,547	4,698	4,700	5,000
Public safety		**400**	**518**	**51**	**61**	**–**	**61**	**46**	**49**	**55**
Police										
Fire										
Civil Defence										
Street Lighting		400	518	51	61		61	46	49	55
Other										
Housing										
Health		**146**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**
Clinics										

Budgeted Financial Performance
(Revenue and Expenditure by Standard Classification)

Standard Classification Description	Ref	2010/11	2011/12	2012/13	Current Year 2013/14			2014/15 Medium Term Revenue & Expenditure Framework		
R thousand	1	Audited Outcome	Audited Outcome	Audited Outcome	Original Budget	Adjusted Budget	Full Year Forecast	Budget Year 2014/15	Budget Year +1 2015/16	Budget Year +2 2016/17
Ambulance	-									
Other	-	146	–							
Economic and environmental services	-	**23,178**	**45,347**	**36,967**	**43,650**	**–**	**43,650**	**37,896**	**38,258**	**40,269**
Planning and development	-	**19,514**	**23,011**	**27,593**	**33,809**	**–**	**33,809**	**28,097**	**28,458**	**29,881**
Technical Services	-	18,906	17,317	23,918	27,069		27,069	14,192	14,250	14,963
Pew/building/planning	-	608	5,694	3,675	6,740		6,740	9,746	9,800	10,290
IDP & LED	-							4,158	4,408	4,628
Road transport	-	**3,664**	**22,336**	**9,374**	**9,841**	**–**	**9,841**	**9,799**	**9,800**	**10,388**
Roads	-		15,050	–						
Public Buses	-									
Parking Garages	-									
Vehicle Licensing and Testing	-	3,664	7,286	9,374	9,841		9,841	9,799	9,800	10,388
Other	-									
Environmental protection	-	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**
Pollution Control	-									
Biodiversity & Landscape	-									
Other	-									
Trading services	-	**36,705**	**44,892**	**67,948**	**59,752**	**–**	**59,752**	**59,271**	**41,067**	**43,120**
Electricity	-									

Budgeted Financial Performance
(Revenue and Expenditure by Standard Classification)

Standard Classification Description	Ref	2010/11	2011/12	2012/13	Current Year 2013/14			2014/15 Medium Term Revenue & Expenditure Framework		
R thousand	1	Audited Outcome	Audited Outcome	Audited Outcome	Original Budget	Adjusted Budget	Full Year Forecast	Budget Year 2014/15	Budget Year +1 2015/16	Budget Year +2 2016/17
		30,105	**37,490**	**54,727**	**50,858**	**–**	**50,858**	**49,132**	**30,421**	**31,942**
Electricity Distribution										
Electricity Generation		30,105	37,490	54,727	50,858		50,858	49,132	30,421	31,942
Water		**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**
Water Distribution										
Water Storage										
Waste water management		**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**
Sewerage										
Storm Water Management										
Public Toilets										
Waste management		**6,600**	**7,402**	**13,221**	**8,894**	**–**	**8,894**	**10,139**	**10,646**	**11,178**
Solid Waste		6,600	7,402	13,221	8,894		8,894	10,139	10,646	11,178
Other		**459**	**626**	**673**	**388**	**–**	**388**	**388**	**400**	**420**
Air Transport										
Abattoirs										
Tourism		459	626	673	388		388	388	400	420
Forestry										
Markets										
Total Expenditure - Standard	3	**130,434**	**163,064**	**181,673**	**186,233**	**–**	**186,233**	**195,664**	**176,968**	**186,195**
Surplus/(Deficit) for the year		**734**	**(12,979)**	**(10,174)**	**12,840**	**–**	**12,840**	**10,507**	**10,000**	**17,832**

Budgeted Financial Performance (Revenue and Expenditure by Standard Classification)										
Standard Classification Description	Ref	2010/11	2011/12	2012/13	Current Year 2013/14			2014/15 Medium Term Revenue & Expenditure Framework		
R thousand	1	Audited Outcome	Audited Outcome	Audited Outcome	Original Budget	Adjusted Budget	Full Year Forecast	Budget Year 2014/15	Budget Year +1 2015/16	Budget Year +2 2016/17

The table above indicates that for the past 3 years the Council experienced a deficit balance before capital transfers and contributions. However, a surplus balance reflected after the inclusion of the capital transfers and contribution with the exception of the financial year 2010/11.

2.6.2.10.2 CAPITAL EXPENDITURE

The table below illustrates the capital expenditure from the financial year 2010/11 to the financial year 2013/14, as well as the amounts for the Medium term revenue and Expenditure for the 2014/15 financial year. This table illustrates the Council's implementation of the projects outlined within the Municipal IDP.

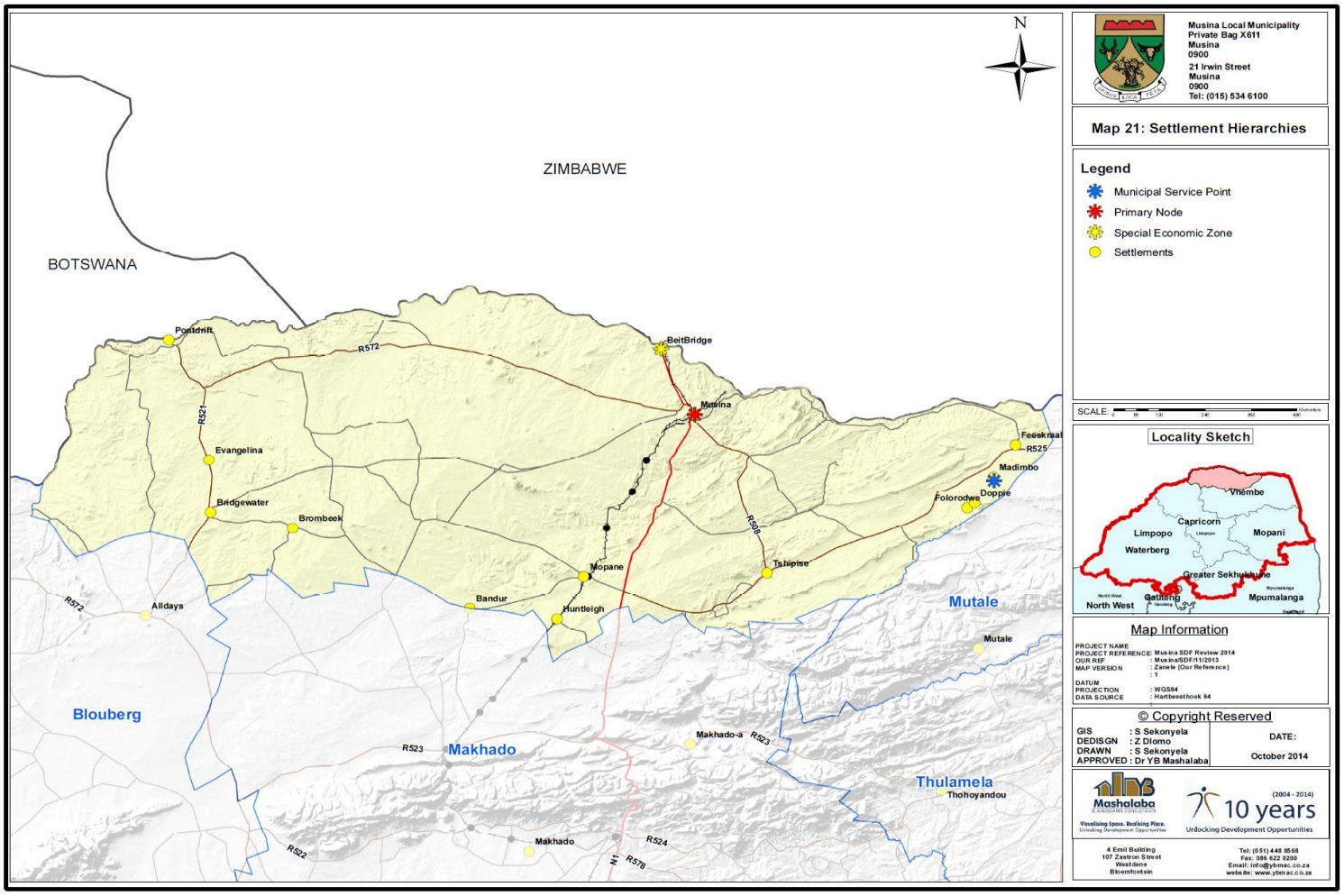
Table 15: Budget Summary of Capital Expenditure and Funds Sources

Budget Summary of Capital Expenditure and Funds Sources										
Description	**2010/11**	**2011/12**	**2012/13**	**Current Year 2013/14**				**2014/15 Medium Term Revenue & Expenditure Framework**		
R'000	**Audited Outcome**	**Audited Outcome**	**Audited Outcome**	**Original Budget**	**Adjusted Budget**	**Full Year Forecast**	**Pre-audit outcome**	**Budget Year 2014/15**	**Budget Year +1 2015/16**	**Budget Year +2 2016/17**
Capital expenditure & funds sources										
Capital expenditure	**17,310**	14,079	10,491	49,684	–	49,684	49,684	29,450	29,808	38,354
Transfers recognised - capital	**10,010**	12,039	10,491	16,844	–	16,844	16,844	18,943	19,808	20,522
Public contributions & donations	**–**	–	–	–	–	–	–	–	–	–
Borrowing	**–**	–	–	20,000	–	20,000	20,000	–	–	–
Internally generated funds	**7,300**	2,040	–	12,840	–	12,840	12,840	10,507	10,000	17,832
Total sources of capital funds	**17,310**	14,079	10,491	49,684	–	49,684	49,684	29,450	29,808	38,354

The table depicts a decline of capital expenditure and sources of funding from the past three financial years until it rises for the financial year 2013/14. Some of the factors contributing to this increase may include the borrowing option. The Budget for the 2014/15 financial year also indicates a decrease in capital expenditure and Fund sources.

2.6.3 BUILT ENVIRONMENT

2.6.3.1 HIERARCHY AND ROLE OF SETTLEMENTS



The spatial structure of the Musina Local Municipality classifies the municipality as a second order settlement in terms of the hierarchy as outlined in the Spatial Rational. Consequently the spatial framework of the municipality is aligned to the NSDP, ASGISA and the LEGDP.

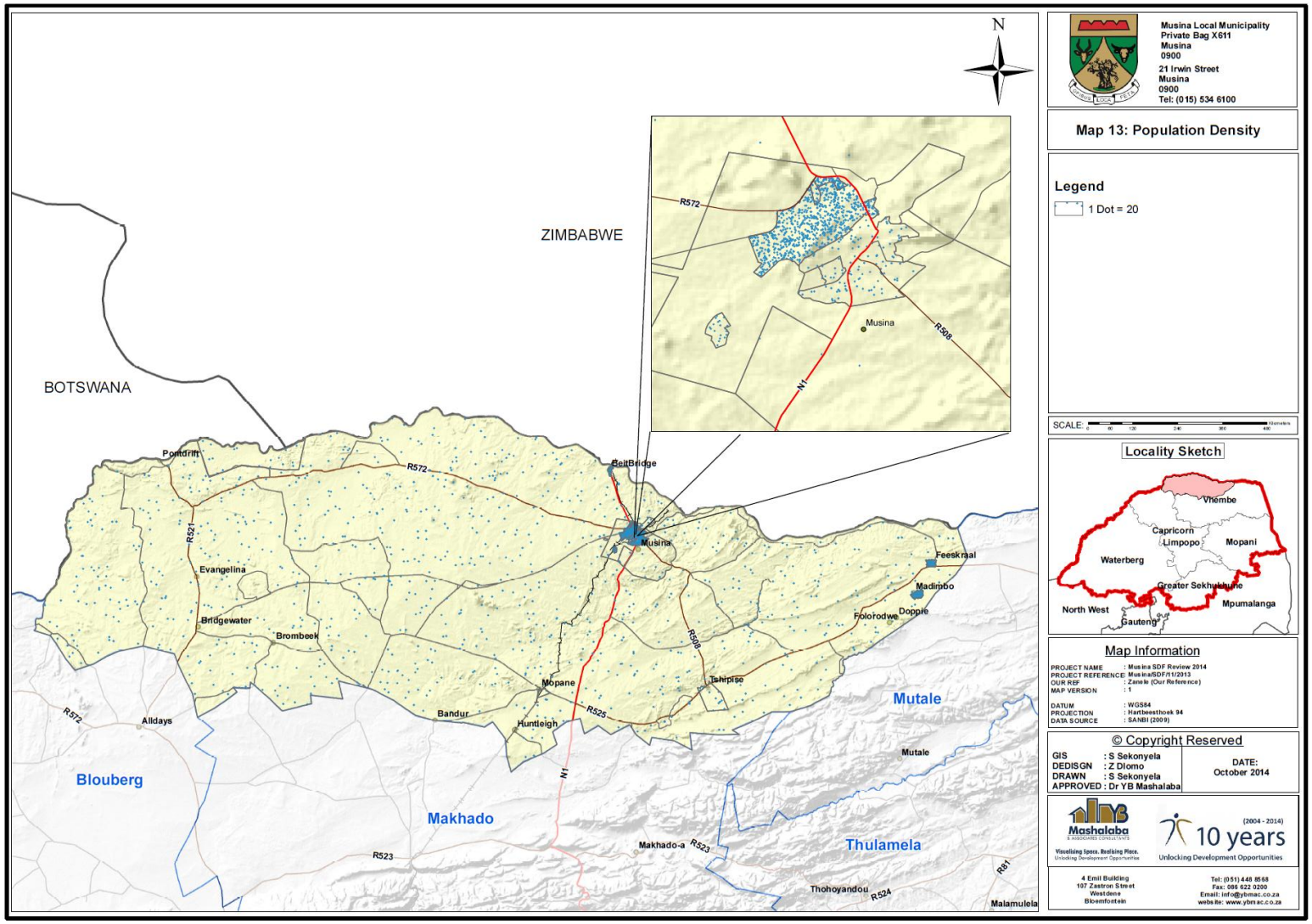
The hierarchy of settlements according to the Limpopo Spatial Rationale is indicated as follows:

- First (1st) Order Settlements
- Second (2nd) Order Settlements
- Third (3rd) Order Settlements
- Fourth (4th) Order Settlements
- Fifth (5th) Order Settlements

The settlement hierarchy of the Musina Local Municipality as per the spatial rationale is as follows:

- Musina and Nancefield can be described as a provincial growth point and 1st order settlement as a result of the reasonably high level of economic activity and their relative positions as a service centre for local and surrounding communities.
- The areas of Madimbo, Malale, Tshikhudini, Tanda and Domboni are classified as 5th order settlements as a result of their small populations and due to the fact that these areas are only functioning as residential areas with no economic base. As a result of these settlements lacking economic base, the potential of these settlements for future self-sustainable developments is extremely limited.
- Tshipise is classified as a 3rd order settlement and a local service point due to its function as a provider of very limited services to the neighbouring commercial farming areas, tourism attractions and nature conservation areas.

2.6.3.2 SETTLEMENT DENSITIES



As indicated earlier that the total population of Musina is 68 359 (Stats SA, 2011), and the areas of settlements with the municipal area is 0.08%. The table below, in correlation to the map above depicts the concentrations per Stats SA sub-place. This information indicates that the majority (46.5%) of Musina's population resides in Nancefield, making it the most dense settlement in Musina.

Table 16 : Densities per Sub-place (Stats SA, 2011)

Sub Place	Population
Mapungubwe Nature Reserve SP	332
Musina NU	19366
Honnet Nature Reserve	230
Beit Bridge SP	1001
Mushongoville	3008
Nancefield Ext 2	675
Nancefield	31134
Musina Ext5	1906
Musina Mine	57
Musina SP1	4423
Bergview East	424
Bergview West	44
Baobab Tree Reserve	189
Lost City	747
SMG Military Base	73
Malale SP	1963
Madimbo SP	2740
Mopane SP	45

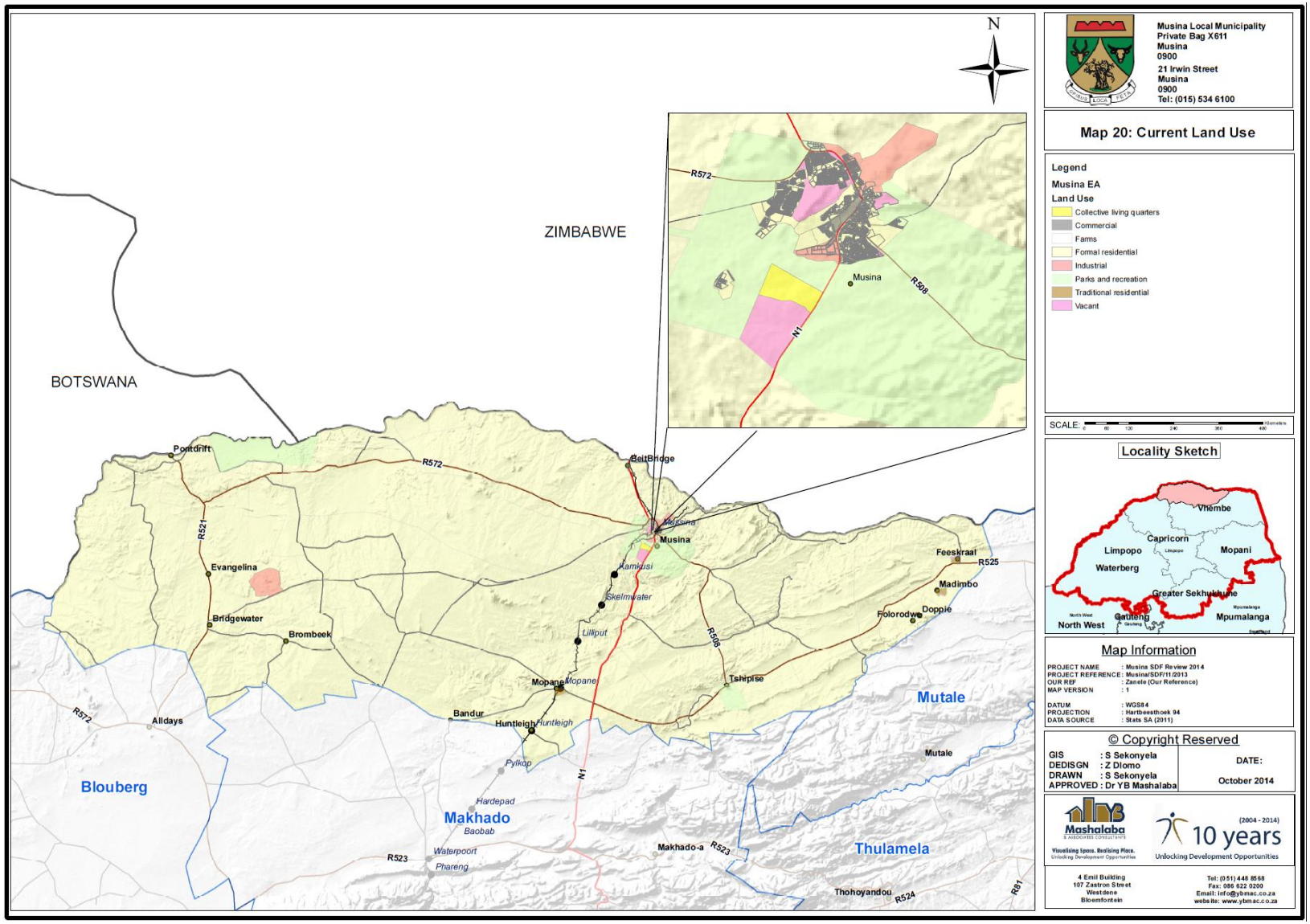
Such densities have a negative effect on the land use in the areas. In addition, the densities exert pressure on service delivery in the area. Examples of some of the land uses include backyard-rooms on stands to accommodate the population and other land uses include informal business activities such as car washes, tuck shops and braai facilities to mention but a few. (See figure below).

In light of the above mentioned information, more dense and compact developments need to be catered for in areas ear-marked for future residential

within and near the Nancefield area. High density residential developments of 20-35u/ha would be in accord with the Musina Town Master Plan and the Residential 2 as per Musina Town Planning Scheme.

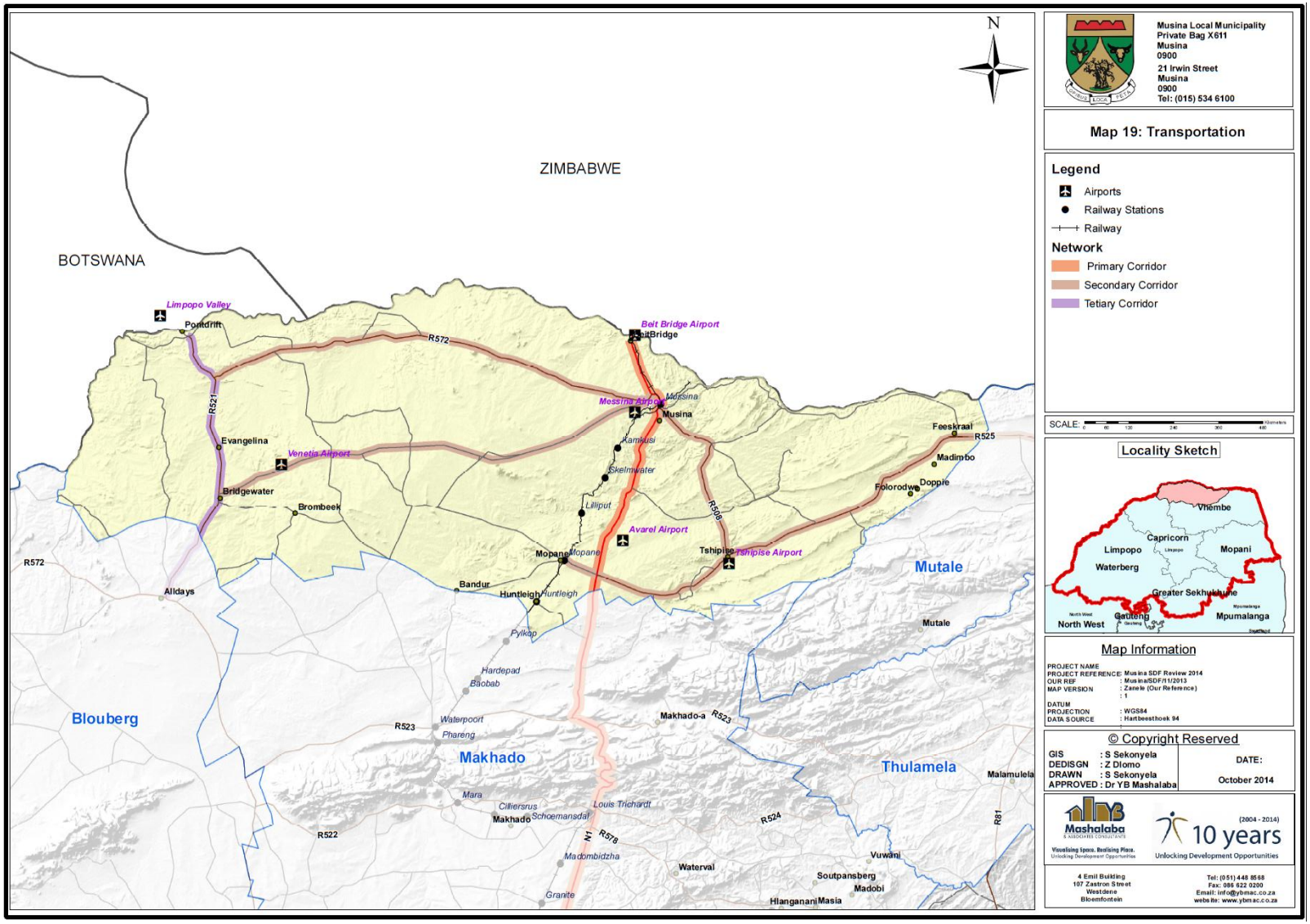
Figure 9: Some land uses in Nancefield

2.6.3.3 LAND USE MANAGEMENT ISSUES



Musina Local Municipality has a Town Planning Scheme which has been in use since 1983. The town planning scheme is largely focused on the urban areas in the previous jurisdictional area of the municipality. Due to the fact that the scheme was out-dated, there was a need for the development an updated land use management scheme covering the full extent of the municipal area. This led to the development of the Musina Land Use Management Scheme (LUMS) was developed. The purpose of Land Use Management Scheme is not to constrain development but rather to have controlled and orderly development with regard to zonings and different land uses. The new Land Use Management Scheme was adopted by Council in 2009 which incorporates the previous Town Planning Scheme and provision was made for the whole jurisdiction area of Musina.

2.6.3.4 TRANSPORTATION



National Land Transport Transition Act 22 of 2000, section 18 (1), (2) & (3) stipulates that Land Transport planning must be integrated with land development process and must be carried out so as to cover both public and private transport and all modes of land transport relevant in the area concerned and must focus on the most effective and economic way of moving from one point to another in the system.

Transport plans must be developed to enhance effective functioning of cities, towns and rural areas. This can be achieved through Integrated Transport Planning of transport infrastructure and facilities, transport operation including freight movement, bulk services and public transport services.

National land transport act requires municipalities to develop their ITPs which comply with the minimum requirements as set out in the: "Minimum requirements for preparation of Integrated Transport Plans" published 30 November 2007. Transport vision is an integrated safe, reliable, efficient, affordable and sustainable multimodal transport system and adequate infrastructure.

2.6.3.4.1 ROADS

The National Roads in the Limpopo province include the N1, the R37, the R71, the R81, the R510/R572 and the R521/R523. These roads fall under the jurisdiction of the National Department of Transport through South African National Roads Agency. Table below shows the roads in the municipal area and the length of roads in the municipal area of Musina:

Table 17: Road Links

			Provincial Roads 2012	
Municipality	Total length of Sealed/Paved Roads:Km	Total Length of Gravel/Dirt Roads:Km	Total Length of Roads:Km	Percentage (%) of Sealed/Paved Roads
Vhembe	1 410	2673	4083	34,5%
Musina	420	661	1081	38,8%

The provincial road network is of particular importance as it provides access to the different settlements. This involves both the construction of new roads and the maintenance of existing roads. Economic feasibility comes into play and it is therefore critical that roads that provide access to priority settlements (growth and population concentrations points) should be maintained and upgraded as a first priority, even before the construction of new roads are considered.

The Musina Local Municipality has a backlog of about 20 km of gravel roads that have to be tarred and 25 km backlog of tar roads that have to be upgraded/re-surfaced.

2.6.3.4.2 BUS AND TAXI RANK/ROUTES

Table 18: Buses and Taxis Routes

MUNICIPALITY	NO. OF TAXIS	TAXI ROUTES	NO. OF BUSES	SUBSIDISED BUS ROUTES
MUSINA	482	21	13	0
VDM	**2 865**	**272**	**500**	**241**

The table above shows the number of Taxis and Buses as well as the number of routes for transportation purposes. There is only 1 Taxi rank in the municipal area of Musina.

Table 19: Major Public Transport Corridor Routes in VDM Area

ROUTE CODE	CORRIDOR ROUTE
Musina to Nancefield and Beit Bridge	Along the N1 North from Musina to Beit Bridge
Polokwane to Dendron to Alldays	R521 corridor

Two corridors above show that Musina local municipality is playing an important role in linkages in South Africa and the N1 corridor is being served by the railway freight.

Major Freight Transport roads in Musina:

- N1 National Road from Polokwane to Beit Bridge;
- R521 from Vivo to Pontdrift Border; and
- R572 from Musina to Pontdrift.

The following challenges are experienced in terms of transport within the municipal area:

- Unlicensed meter taxi and taxi operators;
- Shortage of scholar transport in villages and farms;
- Bad condition of the roads;
- Congestion in the Central Business District; and
- Heavy Trucks damage the road infrastructure in the urban area.

2.6.3.4.3 AIR

There are 4 air strips in Musina local municipality area, the one which is most used is the Musina Airport. Currently there is no high-value freight in Musina, and the availability of such freight in the future is very unlikely. Musina is mostly a thoroughfare for road and rail and therefore, air freight potential is very low or insignificant.

As indicated earlier, Musina is regarded by travellers as a thoroughfare to and from Zimbabwe as opposed to an end destination. It is estimated that majority of South African travellers from Zimbabwe as well as millions of foreigners used Beit Bridge border post in 2009. The assumption is that majority of these travellers were either end-route to Polokwane or Gauteng. Therefore, a limited number would regard Musina as their end destination and this result in a little demand for air travel to Musina.

Another factor highlighting the limited demand for passenger air travel is that it estimated that less than 700 passengers might have chosen to fly to Mapungubwe and close to 500 may have chosen to fly to Pafuri, so in both circumstances they will prefer direct flights as opposed to landing at Musina. According to Limpopo Tourism & Parks Board directory it is indicated that there are 16 places offering accommodation for visitors which offers about 170 units/rooms. Using calculated assumptions regarding to tenancy and extent of stay, it is projected that about 15 700 overnight visitors stayed in the area, and around 10% of day visitors or 200 visitors came to the area in 2009. Approximately 5%, of overnight visitors or 790 visitors, and about 3% of day visitors, or 700 visitors, could have used air travel if it was accessible. Most of these visitors are assumed to be hunters or business travellers related to the mining activities in the area. All in all about 2 500 visitors might have flown into Musina by means of scheduled flights – equal to about 7 passengers per day.

2.6.3.4.4 RAIL

There is a 597 km line which formed part of the former Northern Transvaal Mainline extending form Pretoria to Beit Bridge via Musina. This line is part of the route falling within Limpopo boundaries just immediately south of Pienaarsrivier direct to the South African border at the northern part of Beit Bridge. For several years this has been a very busy general cargo route for both international and local traffic. After it was linked with two continuous rail routes within Zimbabwe, it has become more significant.

This line has transported and carried more than 1.8 million tons of traffic during the 2011 review period. More than 500 000 tons of this was transit traffic to and from countries in the north. About 727 574 tons of traffic was dispatched from stations on the line and this included more than 300 000 tons of coal from

Musina. The traffic received on the line included liquid petroleum products, cement as well as several grains.

2.6.3.5 SERVICES INFRASTRUCTURE

2.6.3.5.1 WATER

According to the municipal IDP 2013-2014, 88% of households have access to piped water and 12% have access to water service below RDP standards this includes households with no access to water services. Households in rural villages are provided with communal stand pipes at a basic services level (Musina Local Municipality, 2013-14).

According to Musina reviewed IDP 2012/13 about 7879 houses in the urban areas of Musina has metered yard water connections. In the rural areas of Madimbo (1037 households), Malale (700 households), Domboni (127 households), and Tshikhudini (192 households), have standpipes of RDP standard. Currently all people irrespective of rural or urban have access to water. Out 7879 of urban dwellers households 2459 receive free basic water and out of 2056 only 523 villagers also receive free basic water.

Table 20: Percentage distributions of households by types of water source

Type of water source		Census 2001 Percentage	Community Survey 2007 Percentage
Piped water	Inside dwelling	16.6	33.6
	Inside the yard	48.1	38.7
Communal stand pipe		27.7	20.8
Borehole		2.2	1.1
Spring		0.0	0.4
Dam/Pool		2.2	2.0
River/Stream		2.3	2.0
Water vendor		0.2	0.1
Rain tank		0.3	0.1

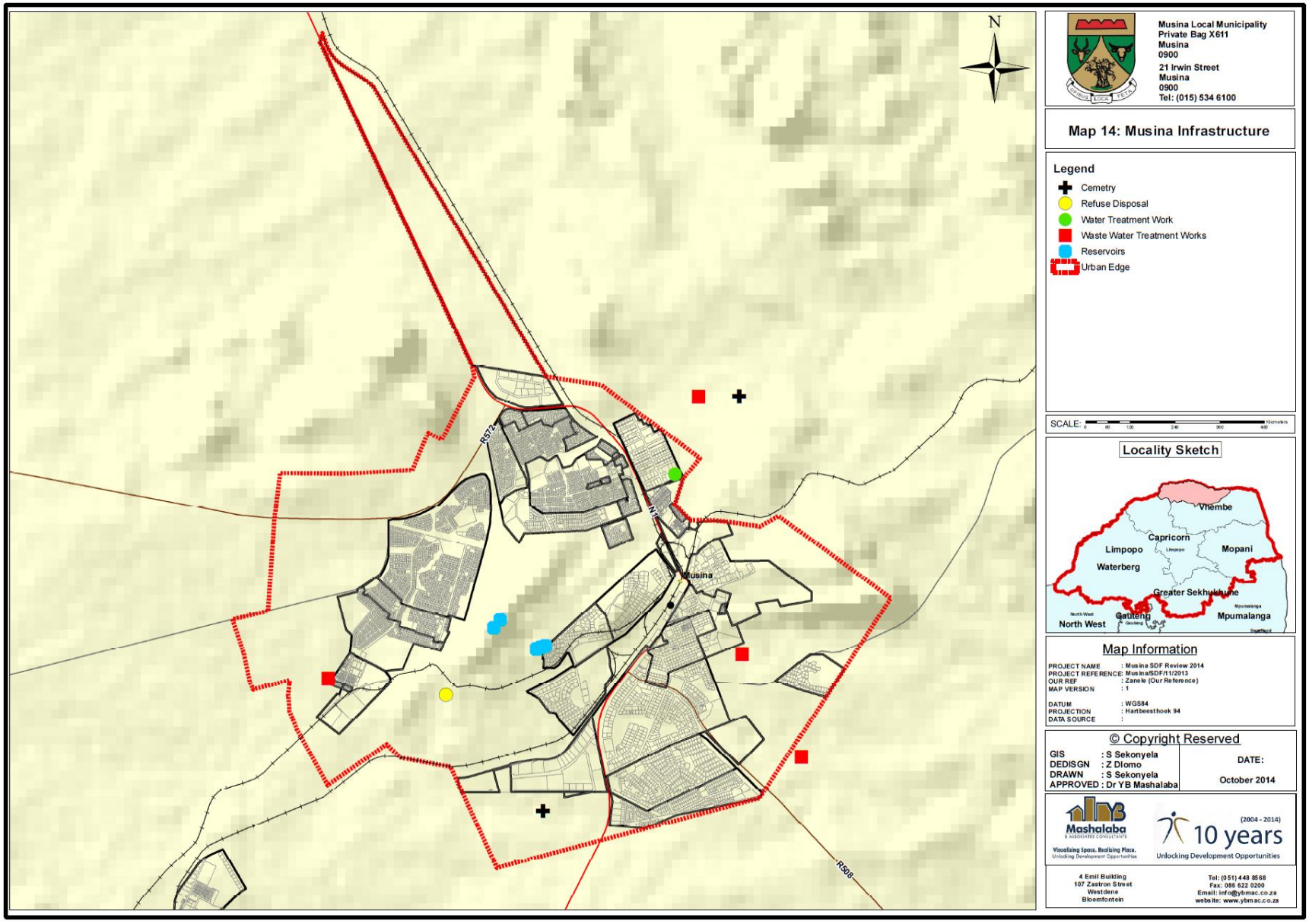
Other	0.5	1.0

Table 21 Distribution of households by access to piped water and municipality – 1996, 2001 and 2011

Municipality	Piped (tap) water inside the dwelling/ yard			Piped (tap) water on communal stand			No access to piped (tap) water		
	1996	**2001**	**2011**	**1996**	**2001**	**2011**	**1996**	**2001**	**2011**
Musina	6 992	7 485	15 144	230	3 205	3 538	984	888	1 360

According to the table above (Census 2011), the number of people with access to piped water inside the dwelling/yard increased from 2001 and 2011 as compared to 1996. There was also a huge increase in terms of piped water on communal stand from 2001 and 2011 as opposed to 1996. With regard to people with no access to piped water the number of those with no access decreased in 2001 as compared to 1996 but increased drastically in 2011.

Map 14 below shows the service of bulk infrastructure in the Musina urban area. The map depicts 1 refuse disposal site, 1 water treatment works plant, 4 waste water treatment works plant and 5 reservoirs. Access to water services


N
R572
N1
Musina
R508
Musina Local Municipality
Private Bag X611
Musina
0900
21 Irwin Street
Musina
0900
Tel: (015) 534 6100
Map 14: Musina Infrastructure
Legend
Cemetry
Refuse Disposal
Water Treatment Work
Waste Water Treatment Works
Reservoirs
Urban Edge
SCALE:
Locality Sketch
Vhembe
Capricorn
Limpopo
Mopani
Waterberg
Greater Sekhukhune
North West
Gauteng
Mpumalanga
Map Information
PROJECT NAME : Musina SDF Review 2014
PROJECT REFERENCE : MusinaSDF/11/2013
OUR REF : Zanele (Our Reference)
MAP VERSION : 1
DATUM : WGS84
PROJECTION : Hartbeesthoek 94
DATA SOURCE :
© Copyright Reserved
GIS : S Sekonyela
DEDISGN : Z Dlomo
DRAWN : S Sekonyela
APPROVED : Dr YB Mashalaba
DATE:
October 2014
Mashalaba
& ASSOCIATES CONSULTANTS
Visualising Space. Realising Place.
Unlocking Development Opportunities
(2004 - 2014)
10 years
Unlocking Development Opportunities
4 Emil Building
107 Zastron Street
Westdene
Bloemfontein
Tel: (051) 448 8568
Fax: 086 622 0200
Email: info@ybmac.co.za
website: www.ybmac.co.za

2.6.3.5.2 WASTE WATER TREATMENT

According to the municipal IDP 2013-14, 74% of households have access to sanitation and 26% have access to sanitation below RDP standards, this includes households with no access to sanitation. Households in rural villages are provided with VIP toilets at a basic services level as sanitation (Musina Local Municipality, 2013-14).

Status Quo:

- The municipality does not have a bucket system
- Green drop status 1 waste water plant in Musina is at 17% and the 1 waste water plant in Nancefield was not accessed in 2010/11
- 8003 households in the urban area are connected to a waterborne sewer system or onsite septic tank system.
- 1856 Households in the villages have V.I.P. toilets. The backlog on VIP toilets is 510 in our proclaimed area.
- 8003 Households in the urban area have access to sanitation and 2811 households benefit from free basic sanitation
- 1856 households in the villages of Madimbo, Malale, Tshikhudini, Domboni and Tanda receive free basic sanitation.
- 116 households in urban area are still on septic tank.

According to Musina IDP review 2012/13 there is no bucket system within the municipality and 7879 of households in the urban centres have access to waterborne sewerage system or on-site septic tank system as well as access to sanitation whilst 2459 benefit from free basic sanitation. About 1721 households in the villages use Ventilated Improved Pit latrines with a backlog of 491. 1721 houses in Madimbo, Malale, Tshikhudini, Domboni and Tanda receive free basic sanitation as well.

Table 22 Distribution of households by type of toilet facility and municipality – 1996, 2001 and 2011

Municipality	Flush/ chemical toilet			Pit toilet			Bucket latrine			No toilets		
	1996	**2001**	**2011**	**1996**	**2001**	**2011**	**1996**	**2001**	**2011**	**1996**	**2001**	**2011**
	5 164	6 228	13 339	1 895	1 973	3 731	41	159	130	1 068	3 218	2 645

According to the table above (Census 2011) indicates that in the years 2001 and 2011 there was an increase in the number of people using flush/chemical toilet as well as pit latrines as compared to 1996. In terms of bucket latrines, 1996 was low but increased considerably in 2001 and shows a positive decrease in the year 2011. In terms of the number of people with no toilets the number was low in 1996 but increased considerably in 2001 and shows a positive decline in the year 2011.

2.6.3.5.3 SOLID WASTE MANAGEMENT

All households in both the urban areas and rural areas do receive a weekly refuse removal service. Businesses are serviced on a daily basis, the municipal area has 1 unlicensed refuse dump site and one licenced refuse dump located at the Venetia Mine.

Status Quo:

- 8003 urban households have access to refuse removal services once a week
- 1856 households in Madimbo, Malale, and Domboni have access to refuse removal once a week, Tshikhudini and Tanda have no access to refuse removal.

- Musina collects 10 tons of solid waste per month
- Public institutions, government buildings and commercial properties are serviced on a daily basis.

Challenges:

- Waste collection management strategy for rural areas
- Littering

Table 23: Refuse removal status

REFUSE REMOVAL STATUS Musina	
Removed by local authority/private company at least once a week	12 319
Removed by local authority/private company less often	425
Communal refuse dump	1 079
Own refuse dump	3 954
No rubbish disposal	2 171
Other	95

Table 24 Distribution of households by type of refuses removal and municipality – 1996, 2001 and 2011

Municipality	Removed by local authority/ company			Communal refuse dump			No rubbish disposal		
	1996	**2001**	**2011**	**1996**	**2001**	**2011**	**1996**	**2001**	**2011**
Musina	4 474	5 792	12 744	3 230	3 994	5 033	388	1 792	2 171

According to the table above (Census 2011), there is a positive increase in terms of refuse removal handled by the local authority/private company in the Musina Local Municipality in the years 2001 and 2011as compared to 1996. There is also an increase with regard to availability of communal refuse dump in 2001 and 2011 as opposed to 1996. Furthermore, the table indicates a negative increase for people with no rubbish disposal from 2001 as well as 2011 in comparison to 1996.

2.6.3.5.4 ENERGY

According to municipal IDP 2013-14, it is indicated that about 76.4%, 65.8% and 53.5% of households have access to electricity for lighting, cooking and heating respectively. 0.6%, 0.3% and 18.9% have no access to electricity for lighting, cooking and heating respectively (Musina Local Municipality, 2013-14).

Table 25: Energy sources by households

Municipalities, energy or fuel for heating by head of the household	
Musina	
Electricity	10 727
Gas	135
Paraffin	206
Wood	5 116

Coal	28
Animal dung	5
Solar	30
Other	0
None	3 795

The current situation if terms of electricity supply and demand is as follows:

- Musina local municipality is a license holder in the urban area of Musina Nancefield and in the villages and the farming area the license holder is Eskom.
- 8003 households in the urban area have metered (conventional and pre-paid) electrical house connections.
- 2811 Indigent households receive free basic electricity.
- Madimbo, Domboni and Malale are electrified and 523 households in the rural villages receive free basic electricity from Eskom.
- There is no backlog on electricity in municipal urban areas the whole urban area is energised.
- The total backlog on electricity in the villages is 1112 : Madimbo 372, Domboni 60, Malale 480, Tanda 99 and Tshikhudini 101
- 2 bulk substation in Musina 1 substation by Eskom Thabor rural areas are fed by 1 Eskom substation Musina to Pafuri and Beit Bridge Township (IDP 2013/14).

2.6.3.6 HUMAN SETTLEMENTS

2.6.3.6.1 HOUSING

The Constitution of South Africa (Act 108 of 1996) stipulates that every person has the right to access to adequate housing. Therefore, it is the Constitutional mandate that the state and its organs take reasonable legislative and certain pre-cautionary measures within its available resources to attain the progressive realization of this fundamental right. Due to the fact that Musina Local

Municipality is one of the economic hub in Limpopo there is a huge influx of people in the area.

The economic growth draws influx of people from rural areas to urban parts of the municipality which results in population growth. The huge influx required that the municipality increase its housing provision as well as other basic services that enhance integrated sustainable human settlements. The housing provision challenge is not only experienced in Musina town clusters, but, to other surrounding rural areas. There is an alarming crisis for housing development in the municipality. To address this challenge of housing need the Musina Local Municipality has created the Housing Unit. The Housing Unit recent focal point is the development and management of social housing as well as promotion of housing provision for various categories of income groups in a manner that permits integration and cross subsidization.

The following challenges are currently experienced with regard to housing and informal settlements in the Musina municipal area:

- Availability of land for future township establishment development in private farms, the negotiations with the department of Public works are underway for the alienation of land for township establishment on the farms Erasmus and Pretorius and other farms as identified for development.
- Housing chapter is out-dated
- Mushrooming of informal backyard dwelling
- Poor quality
- Distribution of settlements and densities make service provision difficult

2.6.3.6.1.1 THE SPATIAL ASPECTS OF HOUSING

The manner in which houses are distributed across the municipality is very crucial. Different areas or settlements will clearly indicate concentration of housing while others will show a scattered type of settlement. Nevertheless, there is a relationship between very dense settlements within the Thulamela area on the south east of Musina and the topography as well as steady decrease in concentrations across the local municipality towards the west. Musina urban areas are the most densely populated settlements followed by areas or settlements situated along the banks of three main rivers as well as the Limpopo River. Therefore, it is evident that the environment has an impact on basic settlement patterns (SDF 2011).

2.6.3.6.1.2 DWELLING TYPES

There was an increase in the overall number of households recorded by Census 2011as compared to 2001. The Musina local municipality by 2001 census recorded the total number of households at 11 577 and by 2011 census it recorded 20 042.

Table 26: Types of Dwellings

Type of main dwelling	Musina
House or brick/concrete block structure on a separate stand or yard or on a farm	13 352
Traditional dwelling/hut/structure made of traditional materials	1 956
Flat or apartment in a block of flats	213
Cluster house in complex	177
Townhouse (semi-detached house in a complex)	14
Semi-detached house	40
House/flat/room in backyard	817

Type of main dwelling	Musina
Informal dwelling (shack; in backyard)	1 851
Informal dwelling (shack; not in backyard; e.g. in an informal/squatter settlement or on a farm)	1 056
Room/flatlet on a property or larger dwelling/servants quarters/granny flat	385
Caravan/tent	64
Other	119

2.6.3.6.1.3 PERIOD OF RESIDENCE

Musina Local municipality experienced high levels of in-migration in both rural areas of farming and traditional areas whilst on the contrary the developed areas of Nancefield show a slight change. On the other hand Musina town showed a bigger number of new immigrants over the last ten years (SDF, 2011).

The following table indicates the number of people who migrated to Musina over the decade as tabulated in the StatsSA 2011.

Table 27: Migration into Musina

2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
305	370	416	561	687	931	1 235	1 704	1 730	2 041	4 246

According to StatsSA 2011 30 830 people moved out of Musina to other areas either within the province or outside the province. Close to 11 639 people that were born after October 2001 never migrated and only 2 470 moved.

Out of the population of Musina 48 756 were South African citizens and 17 981 were immigrants. 1 062 did not specify their citizenship whilst 559 were not applicable.

2.6.3.7 LAND

Land plays a critical role in municipal development. Key issues that have been identified with regard to land include:

- Land values are responsible for a substantial portion of municipal revenue.
- Land values have a significant impact on the ability of the municipality to intervene in the development process.
- Land ownership and land availability largely influences the rate of development.
- Land restitution is part of the process of addressing past imbalances resulting from the previous political dispensation.

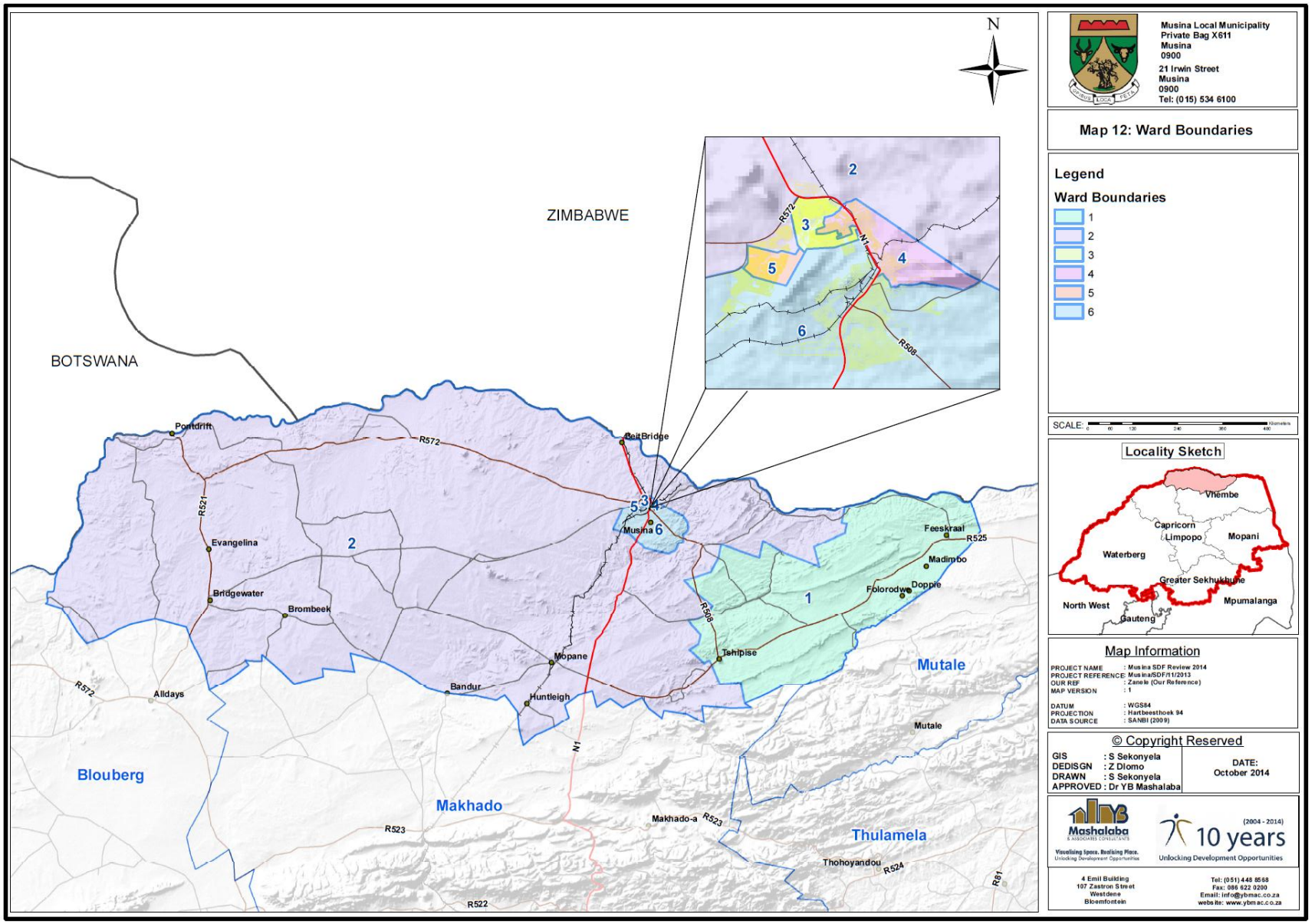
2.6.3.7.1 MUNICIPAL WARD DEMARCATIONS

Ward demarcations outline the power and jurisdiction of the municipality. Furthermore, these demarcations have a significant impact on the allocation of resources within the municipal area. Additionally these ward demarcations have a vital role to play in the identification of development priorities. Map 12 shows 2011 ward demarcations.

The majority of National and Provincial Government owned land, with the exception of a few individual farms, is located on the periphery of the town of Musina. This land constitutes 8% of the land holdings of the Musina Local Municipality. The land owned by the municipality includes 27 farms, distributed throughout the municipality. These farms constitute 2% of land holdings of the municipality. Privately owned land consists of around 786 portions and make up 59% of the land in the municipal area.

Institutional land in Musina can be classified mostly in terms of the two clusters within which it is located. This institutional land is owned predominantly by De Beers Consolidated Mines and the South African Development Trust. The majority of this land is located around the Venetia Diamond Mine and the Domboni/Madimbo areas respectively.

Mixed ownership sites originate from parent farms that were subdivided. The ownership of these subdivisions is distributed between government, the private sector and institutions. Mixed ownership sites constitute roughly 1% of the land ownership of the municipality.


N
ZIMBABWE
BOTSWANA
Pontdrift
Beit Bridge
Musina
Evangelina
Bridgewater
Brombeek
Alldays
Bandur
Huntleigh
Mopane
Tshipise
Feeskraal
Madimbo
Doppie
Folorodwe
Blouberg
Makhado
Makhado-a
Mutale
Thulamela
Thohoyandou
R572
R521
R525
R508
R523
R524
R522
R81
N1
1
2
3
4
5
6
Musina Local Municipality
Private Bag X611
Musina
0900
21 Irwin Street
Musina
0900
Tel: (015) 534 6100
Map 12: Ward Boundaries
Legend
Ward Boundaries
SCALE:
Locality Sketch
Vhembe
Capricorn
Limpopo
Mopani
Waterberg
Greater Sekhukhune
North West
Mpumalanga
Gauteng
Map Information
PROJECT NAME : Musina SDF Review 2014
PROJECT REFERENCE: Musina/SDF/11/2013
OUR REF : Zanele (Our Reference)
MAP VERSION : 1
DATUM : WGS84
PROJECTION : Hartbeesthoek 94
DATA SOURCE : SANBI (2009)
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GIS : S Sekonyela
DEDISGN : Z Diomo
DRAWN : S Sekonyela
APPROVED : Dr YB Mashalaba
DATE:
October 2014
Mashalaba
& ASSOCIATES CONSULTANTS
Visualising Space. Realising Place.
Unlocking Development Opportunities
(2004 - 2014)
10 years
Unlocking Development Opportunities
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Westdene
Bloemfontein
Tel: (051) 448 8568
Fax: 086 622 0200
Email: info@ybmac.co.za
website: www.ybmac.co.za

2.6.3.7.2 LAND RESTITUTION AND LAND CLAIMS

At present there are approximately 351 land claims lodged on 351 farm subdivisions. The extent of these claims is approximately 279 109ha which encompasses more than a third (36%) of the municipal area. Land claims and restitution is part of the process of addressing past imbalances resulting from the planning of the past. Land claims have a significant impact on spatial development within municipalities. The land claims within the Musina municipal area will thus have a measureable impact on the town's spatial development. Twenty one of the current land claims are on government land. The majority of this land is located along the National road and rail routes and adjacent to Mapungubwe.

In addition to these claims on state land, there are other two clusters of claims. The first cluster of claims relates to the institutional land around the Venetia mine which is owned by De Beers Consolidated Mines. The second cluster of these claims is located in the Domboni and Madimbo areas owned by the South African Development Trust. The remaining portion of land claims are located on private farms. These claims on private land are distributed mainly in the South and East of the municipality.

2.6.3.7.3 LAND AVAILABILITY

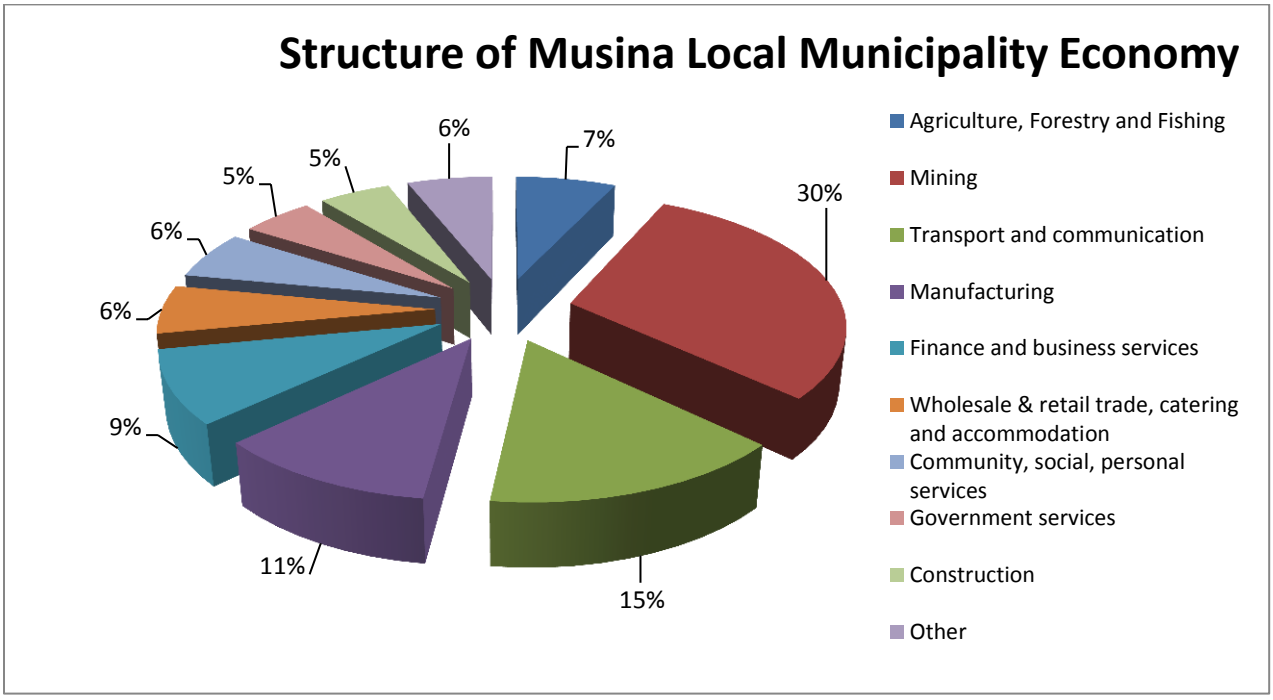
According to the Musina Master Plan, a total of 553ha of land is available for future development and it falls within the Musina 2030 urban edge. Within the long term urban edge, a total of 3903 ha of land is available for future development. However, 3180ha of land can be developed but would require migratory measures, and 723 ha have unlimited development zones. 618ha would be reserved for servitudes and 189ha falls under flood lines and high

sensitive areas. The remaining 1238 ha could be developed for low density tourism and recreation.

In the northern direction of the town, beyond the Musina Master Plan long term urban edge, a total area of 4232ha can be developed for special uses such as Special Economic Zone, which would cater for various land uses.

2.6.3.8 ECONOMIC STRUCTURE

Musina Local Economic Development Strategy outlines the economic growth potential of the municipality to be contained in Agriculture, Tourism and Mining. The main contributors to the local economy of Musina include Agriculture, Forestry and Fishing (7%), Mining (30%), Transport and communication (15%), Manufacturing (11%), Finance and business services (9%), wholesale & retail trade, catering and accommodation (6%), community, social, personal services (6%), government services (5%) and construction (5%).



2.6.3.8.1 PRIMARY SECTORS

The Primary Economic Sectors of Musina have been identified as follows:

- Mining
- Finance and Business Services
- Manufacturing
- Agriculture, Forestry and Fishing

2.6.3.8.2 SECONDARY SECTORS

The Primary Economic Sectors of Musina have been identified as follows:

- Wholesale and Retail Trade, Catering and Accommodation
- Government Services
- Construction

2.6.3.8.3 PROJECTS

- Establish Manufacturing Incubator in Musina town;
- Undertake poster campaign to entice business start-ups in projects identified by LED Strategy;
- Investigate potential and promote opportunities for development of retail, industrial, storage & distribution and wholesale enterprises and transport hub;
- Establish local Business Support Centre in Nancefield ;
- Create rural community support cooperatives in Madimbo, Malale and Domboni Tshikhudini and Tanda;
- Provide land claims support;
- Undertake expansion of aquaculture production and extension of aquaculture value chain linkages;
- Establish vegetable processing plant in Musina town;

- Develop map and brochures of local tourism facilities and attractions and improve and increase road signage to villages, major attractions and facilities;
- Establish arts and crafts, jewellery and ornament incubator, exhibition and workshop stalls and curio shop linked to tourism information centre in Musina town; and
- Establish database of available land for mining development and encourage commencement of mining activities with existing mineral rights owners

2.6.3.9 TOURISM

2.6.3.9.1 TOURISM AND CONSERVATION

The number of nature reserves and protected areas in the municipality decorate the municipality as a good tourist attraction

2.6.3.9.2 GREATER MAPUNGUBWE TRANSFRONTIER CONSERVATION AREA

The Mapungubwe National Park, forms part of the Greater Mapungubwe National Park (GMTCA) which stretches across Botswana Zimbabwe and South Africa. South African constitutes 21% of the total areas of the national park. Mapungubwe which means 'Hill of the Jackal' was recently declared world a heritage site. Mapungubwe of is one of the richest archaeological sites in the South Africa.

2.6.3.9.3 VHEMBE BIOSPHERE REGION

The Vhembe Biophysical Region is composed of the Kruger National Park, the Mapungubwe National Park, Magareng Plateau and some cultural sites. Hunting and the scenic landscape makes it a destination for most eco-tourists.

2.7 SYNTHESIS

2.7.1 BIOPHYSICAL

2.7.1.1 WATER

The primary economic activity in the municipality is mining and agriculture. As mentioned earlier in the hydrology and aquatic ecosystem section (2.6.1.3.), Musina has seven rivers. However, there is predominant agricultural activity along the Nwanedi River and Nzhelele River. These rivers serve as irrigation systems support to the nearby communities for agricultural activity. Map 24 illustrates the agricultural corridor within the municipality.

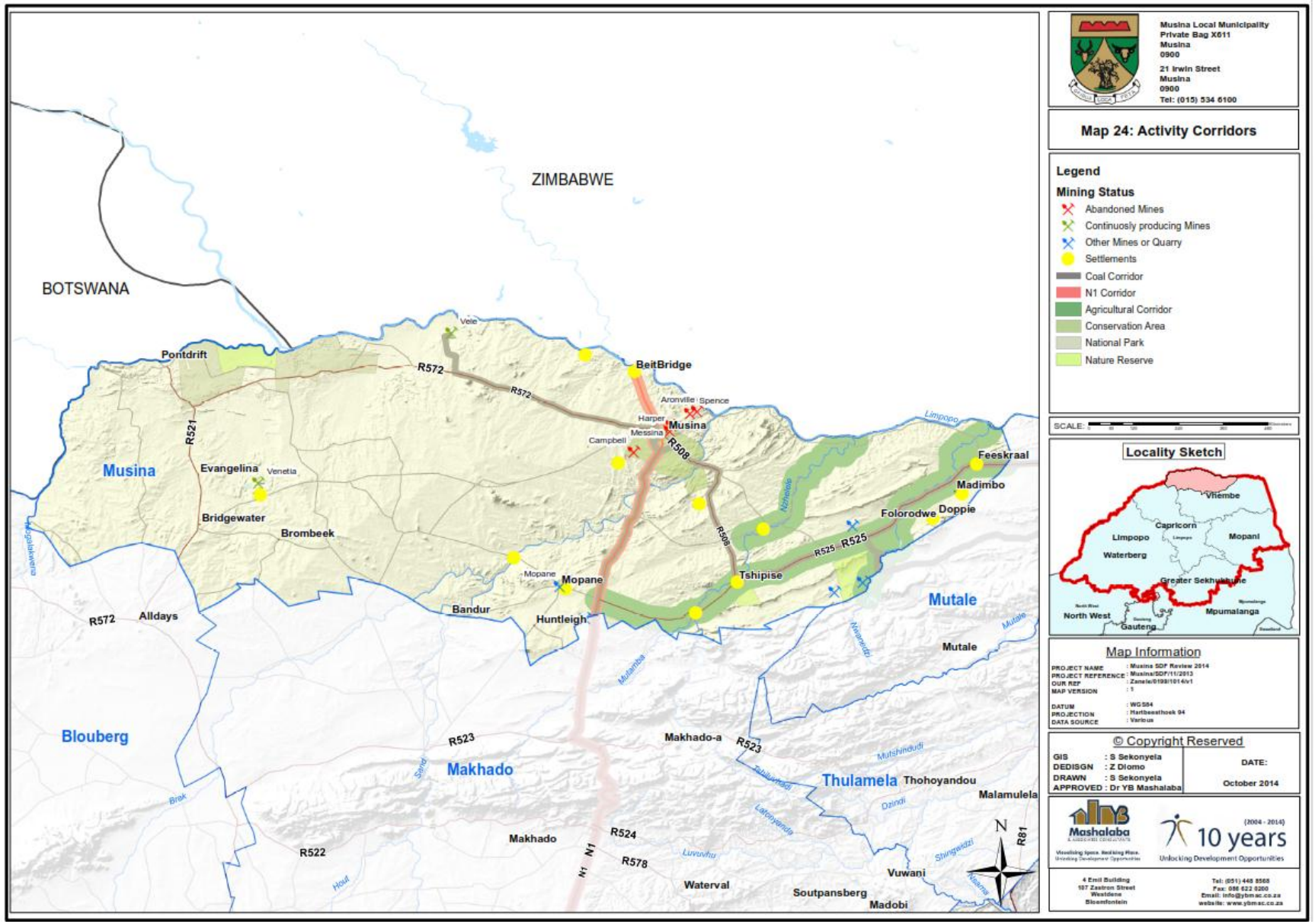
2.7.1.2 LAND

This section can be analyses by categorising forms of land into two categories. The first category focuses on the municipal geology while the second category focuses on surface soils. As indicated earlier (section 2.6.1.1. Geology) that the Municipal area has deposits of coal and diamonds. Both of these commodities are being mined and contribute tremendously to the municipal economic activity.

The formation of the land surface is attributed to the geology but also affected by the climatic changes and fluctuations in temperature. As indicated earlier in the document, Musina is a semi-arid area with summer rainfalls and annual average temperature of 30°C. However there is little effect on the type of products farmed in the region. Some of the agricultural produce may include citrus, tomatoes and mangoes. Most of the agricultural activity occurs along the rivers where there are sufficient water sources.

Musina vegetation is predominantly covered by savannah terrestrial ecosystem. This means that the great extent of the municipal vegetation is not endangered. However, conservation and heritage sites spread from the west to the east of the municipal areas. In this regard, natural as well as a few endangered ecosystems are sufficiently sustained, thus making the municipal area a good tourist attraction.

The municipal land capability has an effect on both cultivation and grazing capacity. As mentioned that the most cultivated land is along the river bank, and on the other hand grazing capacity need to be addressed in terms of the climatic limitation to avoid over grazing and ecosystem depletion. This is addressed by facilitating grazing in intensive grazing areas and conserving other areas such as wild life. These categories are detailed in the agriculture section (2.6.1.3.).


ZIMBABWE
BOTSWANA
Pontdrift
Veie
R572
BeitBridge
Aronville
Spence
Harper
Messina
Musina
Campbell
R508
R521
Musina
Evangelina
Venetia
Bridgewater
Brombeek
Limpopo
Nzhelele
Feeskraal
Madimbo
Doppie
Folorodwe
R525
Tshipise
Mopane
Bandur
Huntleigh
R572
Alldays
Mutale
Mutale
Mutshindudi
Blouberg
R523
Makhado-a
Makhado
Thulamela
Thohoyandou
Malamulela
Dzindi
Brak
Sand
Makhado
R524
R522
N1
R578
Luvuvhu
Waterval
Soutpansberg
Vuwani
Madobi
R81
N
Musina Local Municipality
Private Bag X611
Musina
0900
21 Irwin Street
Musina
0900
Tel: (015) 534 6100
Map 24: Activity Corridors
Legend
Mining Status
Abandoned Mines
Continuosly producing Mines
Other Mines or Quarry
Settlements
Coal Corridor
N1 Corridor
Agricultural Corridor
Conservation Area
National Park
Nature Reserve
SCALE:
Locality Sketch
Vhembe
Capricorn
Limpopo
Mopani
Waterberg
Greater Sekhukhune
North West
Mpumalanga
Gauteng
Map Information
PROJECT NAME : Musina SDF Review 2014
PROJECT REFERENCE : Musina/SDF/11/2013
OUR REF : Zenele/0189/1014/v1
MAP VERSION : 1
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PROJECTION : Hartbeesthoek 94
DATA SOURCE : Various
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GIS : S Sekonyela
DEDISGN : Z Dlomo
DRAWN : S Sekonyela
APPROVED : Dr YB Mashalaba
DATE:
October 2014
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(2004 - 2014)
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2.7.1.3 ENVIRONMENTAL SINKS (CONCERNS)

The Local Municipality has not yet developed an Environmental Management Plan. However, as it stands, the five cemeteries in Musina are located within residential areas. With regards to aquatic pollution, 'setback distances' provide a safe parameter around boreholes and wells. The parameter restrains contamination from other land uses such as cemeteries and land fill sites.

Generally the river systems are potentially subject to pollution based on human activity. In areas along the river banks, products like fertilizers may contaminate the rivers downstream. Mining activity, especially coal possesses potential threat to the quality of air.

There are plans of legalising the current land fill site within the municipality. In addition the development of the Eco-industrial Park is intended to focus on recycling.

2.7.2 SOCIO-ECONOMIC

2.7.2.1 PRIMARY ECONOMY

Agriculture and mining are the two main primary economies. The mining sector constitutes of diamonds as the biggest primary economy and coal being the second. Agriculture is categorized into four classifications, namely, commercial extensive, intensive, game farming and subsistence farming. Tourism also plays a major economic role as it is based on the natural systems. Scenic routes, resorts and nature reserves are some of the main attractions in the tourism sector.

2.7.2.2 SECONDARY ECONOMY

The 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, aerospace manufacturing, energy utilities, breweries, bottlers, construction and shipbuilding.

In terms of the economic structure of the Musina Local Municipality, a lot of extraction and activities associated with the primary economy are taking place. There exists potential related to the processing of these raw materials into finished products. The Special Economic Zones proposed for the municipal area is where this potential can be accommodated. 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.

2.7.2.3 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 Beit-Bridge border post has a significant impact on the transport, logistics and distribution activities within the municipal area. Although these services are available to a larger degree, potential exists for the expansion of these services. Tourism in the municipal area should also be recognised and important growth factor. Furthermore, service industries supporting the tertiary and primary economies should be promoted.

2.7.3 SOCIO-ECONOMIC FRAMEWORK

2.7.3.1 DEMOGRAPHIC INDICATORS

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

With regards to education, a shift towards the enhancement of Further Education Training (FET) colleges that concentrate on mining and agriculture as the main economic contributors is vital. This builds on the facts indicated earlier which shows that the municipality does not have a tertiary educational institute. This will positively increase the economic activity of the municipality and reduce unemployment rate.

2.7.3.1 RURAL DEVELOPMENT

Rural development can be assessed by investigating rural livelihoods, access to income, access to land and access to services. As indicated, Madimbo serves as the service point for the greater eastern villages.

The eastern villages have a high population concentration. These villages still operate within tribal systems, which is characterised by subsistence farming and indigenous knowledge systems. To complement this, other services such as the municipal office, clinic, schools, agricultural projects and programmes can be developed further.

The main source of income in the villages is through grants, of which the SASSA offices provide the services to the villages using Madimbo as a central point,

and agriculture at varying degrees of intensity. The agricultural activity is supported by programmes and projects run by the Department of Agriculture which is located along the R525 route.

2.7.4 BUILT ENVIRONMENT

2.7.4.1 GROWTH PRESSURES

Settlement indicators such as density, quality of urban environment as well as social and economic integration levels also have an impact on the level of development. Rural development which indicates access to services, land, income and livelihoods contributes immensely to the depiction of the municipal human resources.

With regards to housing as a human development indicator, the Musina residential use accommodates the bulk of the population. Rural areas such Madimbo are characterised by sparsely populated residential units. Similar and even further scattered settlements can be found in remote agricultural and farm units.

The eastern parts of Musina town are characterised by middle to high income earners. The demand for such properties is increasing and it is accommodated by developments in the easterly direction. In contrast, the increasing housing demand in the western direction of Musina (Nancefield) is accommodated by backrooms within the subsidised residential properties. This could be highly attributed by the affordability of the masses residing in Nancefield (See table below.)

Table 28: Income and housing prices

Income Midpoint 2011 (R)	House Price	Distribution (%)	Classification
R 0	R 0	80.8%	Freestanding low cost home
R 3 656	R 11 269		Freestanding low cost home
R 10 970	R 33 811		Freestanding low cost home
R 21 939	R 67 619		Freestanding low cost home
R 43 878	R 135 235		Freestanding low cost home
R 87 754	R 270 468	8.8%	Gap & Entry level Economic Freestanding / Group
R 175 508	R 540 933	6.2%	Low-middle income
R 351 016	R 1 081 864	3.1%	Middle income
R 702 031	R 2 163 726	0.7%	Middle-high income
R 1 404 060	R 4 327 449	0.2%	High income
R 2 808 120	R 8 654 896	0.2%	Elite
R 3 776 458	R 11 639 407		Elite

2.7.5 ISSUES AND OPPORTUNITIES

2.7.5.1 STRATEGIC OPPORTUNITIES:

Agricultural activities take up large portions of land in the municipality, with more than half of the employed population being employed in this sector.

The agricultural sector of Musina municipality also contributes approximately 35% to the same sector in the district, showing its importance to the local economy. It is essential that job opportunities are spread to all the people, especially to people from the settlements in the eastern parts of the municipality, which are very rural in nature and are not reaping the same benefits as the population in the urban area surrounding Musina town.

The manufacturing sector of the economy is not currently performing well. However, given the strong agricultural base, opportunities for expansion of the manufacturing industry exists through agro-processing and other activities.

The municipality benefits from a potentially economically active population that comprises approximately 70% of the total population, which provides the municipality with a large human resource base. This allows opportunities for development projects to involve and benefit local people. The age distribution of the municipality's population also indicates a fairly young potential economically active population, necessitating development to focus on the youth.

In terms of economic indicators, the municipality also enjoys comparative advantages in the agriculture, mining, manufacturing and transport industries, compared to the District. The municipality should therefore capitalise on these advantages to further strengthen its position in the district.

Furthermore, the fastest growing sectors in the municipality were those of transport and construction sectors. The current growth occurring in these sectors should be exploited to ensure the creation of new job opportunities for the local people.

- Location / bordering onto two countries / importation of scarce skills / trading in needed commodities
- Natural tourism attractions, Frontier Park, Baobab Tree, World heritage site (Mapungubwe),Game farming
- Infrastructure
- Water catchments
- Potential for alternative energy
- Willingness of communities to participate in planning
- Support through PPP
- Mining
- Existence of cooperatives
- Agriculture
- Accommodations

- Rail network

2.7.5.2 DEVELOPMENT CONSTRAINTS

The Limpopo Spatial Rationale (2002) indicates that Musina municipality has a dualistic economy comprising a "commercial" component largely located in Musina (urban area) and "non-commercial" component. Problems encountered in respect of the non-commercial component are:

- The natural resource base and economy does not have the capacity to support the total population, forcing a large percentage of the labour force to seek employment opportunities outside of the municipality
- The low levels of income from the formal sector forced a portion of the population still residing in the area to enter and participate in informal and marginal activities
- The low level of income also imply low levels of buying power and , therefore, few opportunities for related activities such as trade. This in turn supports the leakage of buying power since there are fewer local outlets to buy from
- Land claims are a major factor influencing development. A total of approximately 781 920ha (representing 30, 53% of the total area of the Vhembe district) is subject to land claims. The total area of the municipality is 757 829ha and the amount of land claimed is approximately 279 109ha, which comprises more than a third (36%) of the municipality.
- The economic relationship between the settlements in the municipality and Musina CBD are not yet strong
- Employment opportunities in Musina should also benefit people from the other settlements within the municipality
- There is a shortage of job opportunities and job creation in the area

- Established businesses and farmers still prefer to employ immigrants at lower wages
- SMME's need financial assistance to expand their businesses and to promote/advertise their products, and
- There is a lack of finance to pursue farming projects

Priority Issues:

- Trucks in the CBD
- Illegal warehouses in the CBD
- Condition of road infrastructure
- Traffic Congestion in the CBD
- Littering in the CBD
- Lack of public toilets
- Population densities in Nancefield
- Lack of law enforcement:
    - Land use
    - Traffic
    - Police
    - Beit-Bridge Gateway
    - Urban Rural Linkages
    - Waste management in rural areas
    - Informal trade
    - Community development
    - Land availability
    - Settlement densities

Table 29: SWOT Analysis

Strong revenue base Council compliance Credible IDP Effective compliance Developed policies and procedures Availability of land	Implemented policies, procedures and by-laws Gender/Disability imbalance Limited Office space The inability of the municipality to attract, manage and retain staff Limited attempts to Market and brand the Municipality Little evidence of Municipal monitoring and evaluation strategies Handling traffic congestion within the CBD Electronic Records Management Mushrooming of backrooms
Improved service delivery through satellite offices Land development Solar energy Geographical location – SADC region Infrastructure development Tourism	Influx of foreign nationals High Crime activity Possibility of not achieving some MDGs Lack of land for development – LEGDP High rate of unemployment Delays in water, roads, electricity and sanitation services for new developments

3. PROPOSALS

3.1 PROPOSALS OVERVIEW

PRIORITY AREAS	PROPOSAL	ACTIONS
Musina Central Business District (CBD)	1. Upgrading and revitalization of the Central Business District making it more attractive to both investment and tourism.	1.1. Upgrading, renovation and maintenance of buildings in the Central Business District.
	2. Improvement of the environment in the Central Business District to enable sense of place.	2.1. Creation of public open spaces on the area located adjacent to the railway station and opposite to the Musina Hospital.
	3. Integrated Public Transport Node to be developed on the site of the existing Taxi Rank and adjacent site.	3.1. Upgrading of existing taxi rank and adjacent land into Integrated Public Transport Node where rail, taxi, and bus services interlink. 3.2. Redesigning of the vending

PRIORITY AREAS	PROPOSAL	ACTIONS
		stalls within the existing taxi rank to create an illusion of space. This can be achieved by decreasing the taxi rank wall height to increase visibility.
	4. Upgrading of Tourism information centre of Musina.	4.1. Upgrading of Tourism Information Centre and the inclusion of a local arts, Indigenous Knowledge systems (heritage) and crafts market with appropriate infrastructure. This will improve the tourism market within the Municipality.
	5. Upgrading of the N1 running through the Central Business District as to control the flow of trucks within the CBD.	5.1. This can be achieved by having stop and go control points on both ends of the CBD. The first control point will be located just before SUPA QUICK on the southern entrance of the CBD while the other control point will be located just before the N1 business centre on the northern

PRIORITY AREAS	PROPOSAL	ACTIONS
		entrance of the CBD. 5.2. Between these two control points the middle lane will be strictly reserved for trucks. This middle lane will prohibit trucks from stopping within the CBD. 5.3. Harsh fines for stopping, parking of driving in areas that do not form part of dedicated truck infrastructure. 5.4. Formalisation of the informal truck stop located opposite the N1 Business centre on the northern entrance. 5.5. While the southern N1will be occupied mostly by trucks lining up on the control point, Harold Grenfell Street will be used by light motor vehicles as an alternative route to relief traffic congestion. 5.6. The incorporation of trade

PRIORITY AREAS	PROPOSAL	ACTIONS
		infrastructure at the truck stop location for the promotion of local economic development.
Rural-Urban linkages	1. Rural areas within the Musina Municipal area and other settlement areas such as Madimbo should be recognised as important economic contributors of the municipality. 2. These nodes should be strategically reinforced based on their position, role and growth path. 3. These areas should furthermore be integrated via public transport and mobile service delivery.	Development of Madimbo as local service centre for government services, education and agricultural goods and services. Development of Tshipise as a growth point and tourism node.
Pontdrift Border Post (Environmental Management Zone) EMZ	1. The Pontdrift border post is located within a region full of tourist attractions, such as Evangelina, the Great Mapungubwe Transfrontier Conservation Area, the Limpopo River Conservancy and aquaculture in terms of crocodile farming,	1.1. This node can be developed and promoted as the gateway into Botswana for its scenic surroundings. 1.2. This border post should be incorporated into the tourist

PRIORITY AREAS	PROPOSAL	ACTIONS
	as well as cultural heritage sites in the Mapungubwe. 2. Skills development initiative are to be directed at local people within the surrounding rural areas being employed in the tourism sector as guides and those with Indigenous Knowledge Systems (IKS) will be beneficial in this regard.	information centre located in Musina town. 1.3. Trade with respect to tourism products and fresh produce can be facilitated through the development of a market with stalls at the border post. 2.1. Small settlements along the R572 route would benefit from the skills development and improve their livelihoods.
Beit Bridge Border Post	1. Special Economic Zone accommodating various economic activities including transport, logistics, warehousing and offices associated with the gateway position of the Beit-Bridge border post.	1.1. Development of warehouses and office blocks related to transport, logistics and warehousing.

PRIORITY AREAS	PROPOSAL	ACTIONS
	2. The upgrading and improvement of the Gateway Park Truck Stop to be in line with the long term objectives of Mutasshi.	2.1. In the Beit-Bridge area businesses supporting the goods and services associated with transport and logistics need to be integrated into the Special Economic Zone.
	3. Mirror development of Gateway Truck Stop across the road to improve efficiency and capacity.	3.1. Establishment of offices and services centres for truck companies as well as truck stop. Integration of related businesses to accommodate travellers.
	4. Formalization of the existing taxi rank at the border post.	4.1. Facilitate small scale trade at the taxi rant by providing infrastructure such as trading stalls.
Musina Special Economic Zone	1. Establishment of the Musina Special Economic Zone and development of the Special Economic Zone in line with the long term objectives of Mutasshi.	1.1. The SEZ location will be situated on Antonvilla north of Musina town and on Tempelhof farm near Beit Bridge. (**See figure 6**

PRIORITY AREAS	PROPOSAL	ACTIONS
	2. Furthermore the Special Economic Zone should include businesses and industries associated with the secondary and tertiary economic sectors of the municipal area.	**and 7**) 2.1. Industries in the Musina Special Economic Zone should be clustered into three categories, namely logistics, manufacturing and energy. SEZ area will incorporate the existing industrial area and the old mines. 2.2. Musina Special Economic Zone is to include warehouses, office blocks, industrial buildings and a regional shopping centre. 2.3. The existing industrial area will connect the SEZ to the rail and road infrastructure in order to facilitate the transfer of freight between rail and roads.

PRIORITY AREAS	PROPOSAL	ACTIONS
Limpopo Eco-Industrial Park	1. The Limpopo Eco-Industrial Park will be the first zero solid waste Eco-Industrial Park in the province.	1.1. This eco-park will be located in close proximity to the SEZ. 1.2. The Eco-Industrial Park provides opportunities in areas such as eco-tourism, environmental management, environmental education and training. 1.3. The main industrial components of the Limpopo Eco-Industrial Park development are to include a Coke Plant accompanied by a Power Co-Generation Plant and a Gas-to-Liquid Plant. 1.4. The development of various facilities within the park including a visitor's centre, an industrial ecology faculty, an entire Eco-tourism area. 1.5. The waste generated from these plants combined with the waste generated by the

PRIORITY AREAS	PROPOSAL	ACTIONS
		Mutasshi Special Economic Zones will be processed by a Plasma Waste Gasification Plant and a Brick Making Factory. This system will form a closed loop and this process of the chain of industries that benefit from each other is known as Industrial Symbiosis. 1.6. The Eco-industrial park shall also integrate solar technologies.
Northern and Southern townships	1. Addressing spatial segregation	1.1. This challenge can be addressed by broader development plans for accessibility, nodal points as well as economic growth points. 1.2. The main segregating element is the 'koppie' located between Nancefield and Musina Town. However, the proposed bypass will work as an integrating element as it will expose the

PRIORITY AREAS	PROPOSAL	ACTIONS
		Nancefield area to more commuters. 1.3. In addition, the development of a mixed land use (Business, commercial, light industry etc.) as an economic growth point in the Nancefield area will improve spatial integration within the Musina area. This growth point should be located on the land parcel where the R572 from Pontdrift and D2692 from Alldays merge in the Nancefield area.
Proposed N1 Bypass	1. The N1 Bypass is an existing proposal. 2. In conjunction with the bypass it is proposed that truck stops be accommodate along the Bypass. 3. The truck stop on the Nancefield side is to incorporate a market which will provide infrastructure for trade.	The N1 Bypass is to redirect heavy trucks away from the Central Business District. This will alleviate the pressure on roads infrastructure currently experienced as well as relieve

PRIORITY AREAS	PROPOSAL	ACTIONS
		congestion. The truck stops to be located along the bypass will attract commuters, travellers and truck drivers to boost the economy of Nancefield. The proposed market to be developed within the truck stop will promote local economic development. The proposed N1 bypass and truck stop, will work as a buffer between Nancefield and the existing landfill site.

Figure 10: Antonvilla SEZ proposed location

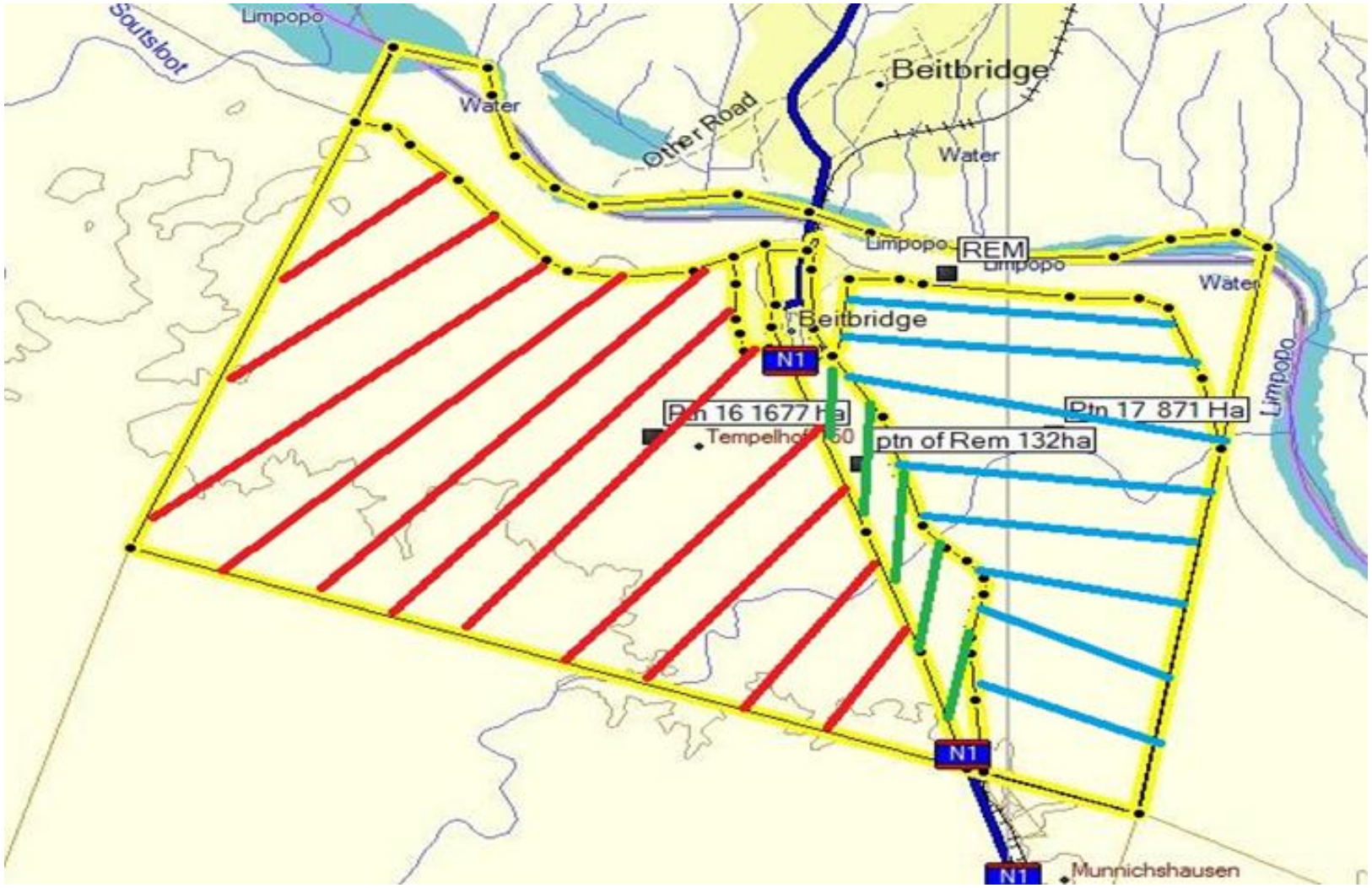


Figure 11: Beit Bridge SEZ proposed location

3.2 PROPOSALS

3.2.1 MUSINA TOWN CENTRAL BUSINESS DISTRICT

The Musina Central Business District is at present challenged by congestion, informality and urban decay. One of the main issues that have been identified is the effect of high volumes of heavy trucks passing through the town via the N1. These trucks have an impact on the traffic flow through the town and the Central Business District as well as on the road infrastructure and urban environment. It is vital that these issues be addressed in order to ensure that the town remains an attractive centre for investment. The proposed bypass discussed later in this section is an existing proposal directed at diverting these trucks away from the Central Business District. However, the timelines for the implementation of this bypass are at present unclear.

It is thus proposed that these issues be addressed in the meantime by means of upgrades to existing infrastructure and formalisation of existing activities. As there is no alternative route along which trucks can be diverted at present, it is proposed that the N1 running through the town of Musina be upgraded and expanded for the incorporation of dedicated truck lanes. No on street parking is to be provided along the N1 and strict fines are to be imposed for illegal stopping or parking on this road. It is proposed that a number of the existing informal truck stops located in strategic areas be formalised. These truck stops are to be integrated with restroom facilities and infrastructure supporting informal trade. These truck stops are to be accessible from the N1 with minimum impact on the flow of traffic. In order to effectively regulate the trucks within the Central Business District, these trucks will be restricted to using only infrastructure provided for them. Deviation from these lanes, parking facilities and truck stops is to result in heavy fines.

Furthermore, the Central Business District is in dire need of revitalisation. Maintenance, upgrading and renovation of a number of buildings in the Central Business District should be prioritised. Public facilities within the Central Business District should be upgraded and capacity improved. Public Spaces for interaction, recreation and informal trade should be incorporated into the Central Business District and surrounding area. The existing informal trade should be provided with the required infrastructure and can also be accommodated within these public spaces. Waste collection points and bins with in the Central Business District should be improved to reduce litter and improve the cleanliness of the urban environment. As part of this inner city revitalization, the tourism information centre is also to be upgraded and integrated with an arts and crafts market.

Land uses commonly found within the Central Business District of a town or city is not compatible with residential areas. It is proposed that a buffer zone be incorporated to serve as a transition zone and to promote mixed land use within the urban area. The land uses to be accommodated within this buffer zone are to include offices, institutions and high density residential development.

The existing taxi rank of Musina plays a vital role in the public transport system of the town. It is proposed that this taxi rank and available adjacent land be developed into an Integrated Public Transport Node. This Integrated Public Transport Node will be the location where rail, taxi, long distance bus and taxi services come together. Removal of wall of existing taxi rank will be required to promote accessibility. In conjunction with this node, street vendor trading areas are to be provided.

3.2.2 RURAL-URBAN LINKAGES AREAS

Rural towns surrounding the Musina and other urban areas such as Nancefield should be recognised as important contributors to both the local and regional. These nodes should be strategically reinforced based on their position, role and growth path. It is vital that the linkages between the rural and urban environments be reinforced. These areas should furthermore be integrated via public transport and mobile service delivery. Skills Development initiatives proposed should in line with surrounding mining, tourism and agricultural industries.

3.2.2.1 MADIMBO

The rural centre of Madimbo is at present the one stop service centre in terms of government services for the surrounding rural area. There is a primary school in Madimbo and it is proposed the development of a secondary school be initiated. In addition to being a government service centre, Madimbo is also a population concentration point. It is proposed that the infrastructure in Madimbo be further developed to enable its development as a local service centre. It is argued that with adequate infrastructure development and the development of a secondary school the settlement of Madimbo will be able to develop and establish itself as a town. Madimbo will then be able to provide the surrounding rural area with not only government services, but also education and basic goods and services.

The settlement of Madimbo should also be examined in terms of tourism potential. Through local economic development and skills development programs the residents of the settlement can be provided with a means of earning a living. Projects that can be looked at include the manufacturing of pots and traditional arts and crafts for sale in the tourism industry. In addition to the provision of infrastructure, it is vital that linkages between Madimbo and

the larger settlements be improved. It is these linkages that will affect the sustainable growth and development of Madimbo.

3.2.2.2 TSHIPISE

The development of Tshipise as a growth point and tourism node should be reinforced through the provision of infrastructure that will facilitate its growth.

3.2.3 SPATIAL FORM

For addressing the spatial form created by Apartheid-induced segregation and fragmentation between the township on the North and that on the South there must be integration and regeneration of the Southern township areas with broader development plans for accessibility, nodal points as well as economic growth points. Creation of a more compact densified and less fragmented town pattern will enable the town to function effectively and efficiently. The N1 bypass will act as an instrument for the integration of these fragmented areas as it will attract and stimulate growth from both areas toward the bypass.

3.2.4 MUTASSHI SPECIAL ECONOMIC ZONE

Special Economic Zones understood to be geographically designated areas of a country set aside for specifically targeted economic activities. These economic activities are then supported through special arrangements, legislation and support systems that are often different from those that apply in the rest of the country. Special Economic Zones have been identified as mechanism enabling industrial development. Additionally, Special Economic Zones also contribute towards the growth of exports, localization, decent employment, increased fixed investment and related industrial infrastructure.

In Africa, industries are poorly developed and exports are dominated by a few primary commodities. However, African governments are making the transition and the implementation of policies directed at diversifying and expanding export markets has started. One of the ways in which these policies aim to address export market challenges is through Special Economic Zones. Industrial development in South Africa is a crucial priority as it is understood to be the key to economic prosperity and success. It is required that the country creates and sustains economic opportunities in all its regions.

Successful Special Economic Zone initiatives have the tendency to focus on the provision of the required support structures. These support structures include skills development, infrastructure, technology, research and development, finance, marketing support, logistics, market access and incubation programmes. A review of literature has revealed that Special Economic Zones are key instruments utilised in countries with the fastest growing economies like Brazil, China and India amongst others. Leadership, coordination and effective implementation are the key factors influencing the success of these zones.

Special Economic Zones are effective and are essential in achieving development goals. However, there are a number of key factors that have a significant impact on the successful implementation of these zones. One of the most significant factors is the location of the Special Economic Zone. The location of the zone also has an influence on the type of zone. Furthermore the SEZ should be strategically located in close proximity to transportation linkages, large industrial, commercial and residential centres. In the case of Musina, the location of the Beit-Bridge SEZ characterises it at a gateway economic zone. The industries in this zone are largely dependent on the functions served at its location. It is also important that partners and potential investors be identified prior to implementation. A comprehensive and investor

friendly policy framework needs to be established. The attraction of foreign direct investment is essential for South Africa. This is achieved through development incentives. It is vital that these incentives are attractive to potential partners and investors. Due to the level of investment required for special economic zones, it is vital that a feasibility assessment be conducted prior to the initiation.

Best practice supports the implementation of an SEZ model with the following features:

- The industrial estates should permit the hosting of SEZ enterprises as well as enterprises registered under other regimes.
- The SEZ should be flexible in order to accommodate a wide range of commercial and industrial activities.
- The SEZ should promote the private development of the zone above public development as international experience has demonstrated the impact this private development has on likelihood of success.

The Mutasshi project is an initiative driven by the Office of the Premier in Limpopo. The objective of the Mutasshi project is the development of a special economic zones and a logistics hub. At present no detail planning has been completed with regard to the Mutasshi project. However, the scale of the proposed development is quite substantial. It is argued that the successful implementation of the project will change the entire economic landscape in the region. At present it is not possible to factor in the details of the initiative into current planning. It is therefore recommended that approaches to the initiative are to be flexible and facilitated through short term smaller initiatives. It is vital that these short-term initiatives do not exclude any long term development possibilities.

The focus area of the Mutasshi initiative is largely directed at the activity corridor the town of Musina and the Beit-Bridge Border Post. It is proposed that this initiative be expanded to go beyond the function of a logistics hub and include special economic zones which are strategically located. Proposals that have been drafted with regard to this include the Beit-Bridge Gateway Economic Zone and the Musina Special Economic Zone. The development, strengthening and reinforcement of these nodes are to constitute the more short-term objective directed at achieving the long-term objective of the Mutasshi initiative.

The proposed Mutasshi development is to include the following:

- Regional Shopping Centre:
  - 75 000m^2
  - R849 million
- 10 unit warehouses
  - 5 000m^2 each
  - R341 million
- Double Storey Office Blocks
  - 4 000m^2 each
  - R412 million
- 10 Industrial Buildings
  - 4 000m^2 each
  - R272 million

3.2.4.1 BEIT-BRIDGE GATEWAY ECONOMIC ZONE

The Beit-Bridge Border Post is quite similar to the case of the Niagara Gateway Economic Zone. In the Niagara case, the zone was identified due to its strategic location and its implications for cross-border trade and growth in the region. The planning and economic development in the Gateway Economic

Zone was directed at the support of economic diversity and promotion of increased opportunities for cross-border trade, the movement of goods and tourism. The Niagara Gateway Economic zone strives to be a model for similar zones in the future. The integration of its strategic position, growth opportunities and transport linkages will continue to contribute to the success of the zone. One of the challenges the Gateway Economic Zone faced was existing policy and incentive structures. In response to these challenges, where feasible policy was amended and specific policy and incentives structures were implemented for the Gateway Economic Zone.

The Beit-Bridge Border Post is viewed as the gateway between South Africa and the African countries to the north. The border post also forms part of the North South Corridor. At present infrastructure in this area includes the Beit-Bridge South African Border Post, the Gateway Truck Stop, the Shell Select Border Service Station and the Beit-Bridge Traffic Control Centre. Additional land adjacent to the border post is in the process of being acquired. This land includes the Lee Family Holdings and Templhof.

The directive of the Mutasshi initiative is to mirror the development on the Zimbabwean side and the objectives include:

- The development of a sustainable flagship low carbon city which will act as a replicable model that helps the poor to become economically prosperous and act as an anchor for regional economic development.
- A foundation for unparalleled freedom of trade and movement.
- A recreational centre proving recreational, cultural, sports and shopping facilities.
- The development of an e-Commerce logistics hub directed at positioning as the best of Africa.
- The establishment of an economic and empowerment incubator serving specifically previously disadvantaged people by creating employment,

stimulating industrial growth opportunities, promoting local agriculture and proving a platform from which agricultural produce produced locally and regionally can be sold and exported to the rest of Africa and other international marketplaces.

In terms of the Beit-Bridge Special Economic Zone it is proposed that the existing Gateway Truck stop be either expanded or upgraded to meet the ever increasing demand. It is also proposed that this development be duplicated across the road. This development should offer the same services and infrastructure as the existing Gateway Truck Stop. Furthermore, the Special Economic Zone in this area should include the development of warehouses and office blocks. In the Beit-Bridge area businesses supporting the goods and services required by the trucking industry and tourism need to be integrated into the Special Economic Zone. Informal trade at the border post should be formalized through the provision of infrastructure and designated informal trading areas.

3.2.4.2 MUSINA SPECIAL ECONOMIC ZONE

The Musina Special Economic Zone will be predominantly focused around the existing and proposed industrial areas as outlined in the Musina Local Municipality Master Plan located along the N1 road to the Beit-Bridge Border Post. Land which was previously utilised for mining purposes is also in the process of being acquired. This portion of land, known as Antonvilla will also be accommodating the Limpopo Eco-Industrial Park. The locations of these sites are strategically located along the road and rail infrastructure of the town. Additional land is in the process of being acquired The Musina Special Economic Zone should make provision for industries related to the core economic structure of the town. The main contributors to the economy in the

Musina Local Municipality include Mining, Agriculture, Forestry and Fisheries and Transport and Communication. It is thus vital that the Musina Special Economic Zone be developed with these industries and businesses in mind. The industries in the Musina Special Economic zone should include agro-processing, agro-industry and expansion of the manufacturing industry. Furthermore, the Musina Special Economic Zone should integrate the rail and road infrastructure in order to facilitate the transfer of freight between rail and roads. At present there are a number of businesses and warehouses operating illegally in the town of Musina. These businesses are having and adverse impact on the infrastructure and the community of the town of Musina. Through stronger enforcement measures and development incentives it is possible to relocate these illegal businesses to the Special Economic Zones where they are better accommodated by existing and proposed infrastructure. The relocation of these illegal businesses will also serve as a catalyst for the development and investment in the rest of the sites.

There are a number of development incentives that can be utilized to promote investment in these areas. These include possible tax incentives for businesses investing in the area, addressing the affordability of the sites and making a number of the sites available to lease for different periods of time. The short, medium and long term leasing of these sites will enable investment in these areas by making it more affordable. Development aspects that should be considered in the Musina Special Economic Zone include warehouses, office blocks, industrial buildings and a regional shopping centre.

3.2.5 LIMPOPO ECO-INDUSTRIAL PARK

The Limpopo Eco-Industrial Park is to be located on a section of land known as Antonvilla. Previously utilised as mining land, Antonvilla is located to the North East of the town of Musina. Although a number of Eco-Industrial Parks have

been developed across the globe with great success, the Limpopo Eco-Industrial Park is said to be the first zero solid waste Eco-Industrial Park in the world.

An Eco-Industrial Park is defined as a community of manufacturing and service businesses who are in search of enhanced environmental and economic performance through collaboration. This collaboration involves the managing of environmental and resource issues, including energy, water, and materials.

The collection of the businesses and firms involved in the initiative are in search of a collective benefit that outweighs the sum of the individual benefits each company would realize if it was primarily concerned with its individual performance. The main goal of an Eco-Industrial Park is the improvement of the economic performance of the participating companies whilst at the same time minimizing their environmental impact. The following table outlines the benefits of Eco-Industrial Parks.

Table 30 Benefits of Eco-Industrial Parks

Benefits of Eco-Industrial Parks	
Monetary benefits	• Lower production costs (purchasing unwanted by-products from others at bargain prices and selling its own by-products) • Decreases energy consumption (less transportation) • Decrease in required waste management (on-site, or even being able to sell what would otherwise be waste) • Lower compliance costs • Lower research and development costs (shared

	with other companies)
Environmental benefits	• Reduced demand on natural resources • Decreased waste (in all forms: solid waste, air emissions, wastewater) • Lower chance of accidents in transportation (pipes instead of trucks)
Societal benefits	• Improved economy and more jobs • Cheap heating (in both park and residential neighbourhoods) • Cleaner air, cleaner water, improved health • Decreased demand on sewer system, landfill etc.

The main industrial components of the Limpopo Eco-Industrial Park development are to include a Coke Plant accompanied by a Power Co-Generation Plant and a Gas-to-Liquid Plant. The waste generated from these plants combined with the waste generated by the Mutasshi Special Economic Zones will be processed by a Plasma Waste Gasification Plant and a Brick Making Factory. This system will form a closed loop and this process of the chain of industries that benefit from each other is known as Industrial Symbiosis. The term Industrial Symbiosis is derived from the field of Industrial Ecology. The concept of the Limpopo Eco-Industrial Park is derived from the main principles of Industrial Ecology field.

The opportunities located at the Eco-Industrial Park are not limited to the industrial components described earlier. Furthermore, the Eco-Industrial Park provides additional opportunities in areas such as eco-tourism, environmental management, environmental education and training. In order to support the

development of these opportunities, the Limpopo Eco-Industrial Park will house various facilities such as a Visitor's Centre, an Industrial Ecology Faculty, an entire Eco-Tourism area and Training Facilities. An important initiative that has been proposed for the Limpopo Eco-Industrial Park is a Business Incubator. This facility will be set up to provide opportunities and support for Small, Medium and Micro Enterprises (SMMEs). This incubator is to promote local economic development and promote the entrepreneurial spirit.

The Limpopo Eco-Industrial Park will result in a substantial economic injection for the province. It is projected that the project will bring in more than ± R16.4 billion during the construction phase and a further ± R10.3 billion annually during the operational phase. The project also holds some socio-economic benefits. It is projected that the project will be responsible for the creation of approximately 80,000 jobs during the construction phase and 70,000 direct and indirect jobs during the operational phase. The jobs created during the operational phase are to include employment generated by associated down-stream and side-stream businesses. Furthermore, the project will also be developing a permanent serviced housing facility consisting of at least 1,500 units. This housing facility will initially provide for the accommodation of construction workers and after completion of construction the housing development will be upgraded and handed over to the Musina Municipality.

Although the Limpopo Eco-Industrial Park is an existing initiative, it is proposed that more be done to get the initiative off the ground. This development is to make a substantial contribution to the local and provincial economy. Furthermore the initiative will create much needed employment opportunities and support skills development in the area. It is also proposed that this development should integrate solar technologies into the planned infrastructure. This development also has the potential to impact on the issues associated with waste management in the municipality.

3.2.6 N1 BYPASS

One of the key issues identified affecting the community and infrastructure in the town of Musina is the movement of large trucks through the town. These trucks are too large and the available road infrastructure is not capable of handling these excessive loads. Furthermore these trucks cause congestion in the Central Business District and the noise levels are a nuisance for the community. Previous proposals made earlier in this section are directed at mitigating the consequences of these trucks. However, this issue will be more efficiently addressed by the proposed bypass. In conjunction with the bypass, truck stops, a market and the upgrading of the existing coal loading facility are proposed.

One of the main reasons for the construction of bypass roads in urban centres is the removal of through-traffic from the centre of a town or city to the periphery. These bypasses are constructed with the main purpose of improving the flow of traffic, reducing travel times and road safety. These bypass roads don not only have traffic implications, but also environmental and economic consequences. Bypass roads reduce noise, congestion and pollution emissions along the previous route. However, these projects are often accompanied by concerns on the part of local land owners and businesses. The concerns of these groups include the scope of their business revenues, the value of properties and the impact of the road on land uses.

Bypass roads improve accessibility; reduce traffic and congestion in urban centres and enables development of new areas. Bypass roads also serve as a catalyst for the redevelopment of other areas. On the other hand, it is said the construction of a bypass road is likely to bring about a decrease in industrial and commercial land use within the community due to the redirection of traffic and client base. Additionally, the dispersion and expansion of businesses along the length of the bypass also has an effect on land use.

The construction of bypass roads has significant impacts on urban centres. These impacts include the number and severity of accidents, land prices in different neighbourhoods, spatial distribution of residential housing and business activities and land uses. Different sub-areas are affected by the bypass roads in different ways. It is vital that the equity and distributional effects of a bypass road be taken into consideration in addition to efficiency considerations. The distributional effects of a bypass are related to a number of factors. These factors include the specific location of the bypass in relation to the town, the distance from the town centre, zoning plans and schemes, planning policy, the socio-economic conditions, traffic volumes and the local population growth rate.

Bypass roads also have the propensity to strengthen roads they bypassed by altering their status from a main road to local road. When this status is altered certain building restrictions like the building line can be relaxed and this promotes redevelopment.

The proposed bypass will redirect truck traffic away from the Central Business District. In addition to redirecting the traffic going through town, the bypass will also address fragmentation. The bypass will stimulate development along its length and this will pull the areas of Nancefield and Musina town towards each other. Along this Bypass it is proposed that two truck stops be developed in the vicinity of the current coal offloading facility. These trucks stops are to include filling stations, convenience stores and restaurants will be located on both sides of the bypass. These truck stops are also to provide safe parking for the trucks and restroom facilities for drivers. The truck stop on the eastern side of the bypass is to be integrated with the existing coal offloading facility. The coal loading facilities are to be upgraded as this node will become the receiving point of coal from Vele, Tshikondeni and Makhado mines. On the western side, the truck stop will be integrated with a market where members of

the community can sell various goods and food. This market will serve as a place where truck drivers can purchase food and supplies at more affordable prices. The establishment of the market will promote local economic development in the town of Musina and provide opportunities for employment and entrepreneurship.

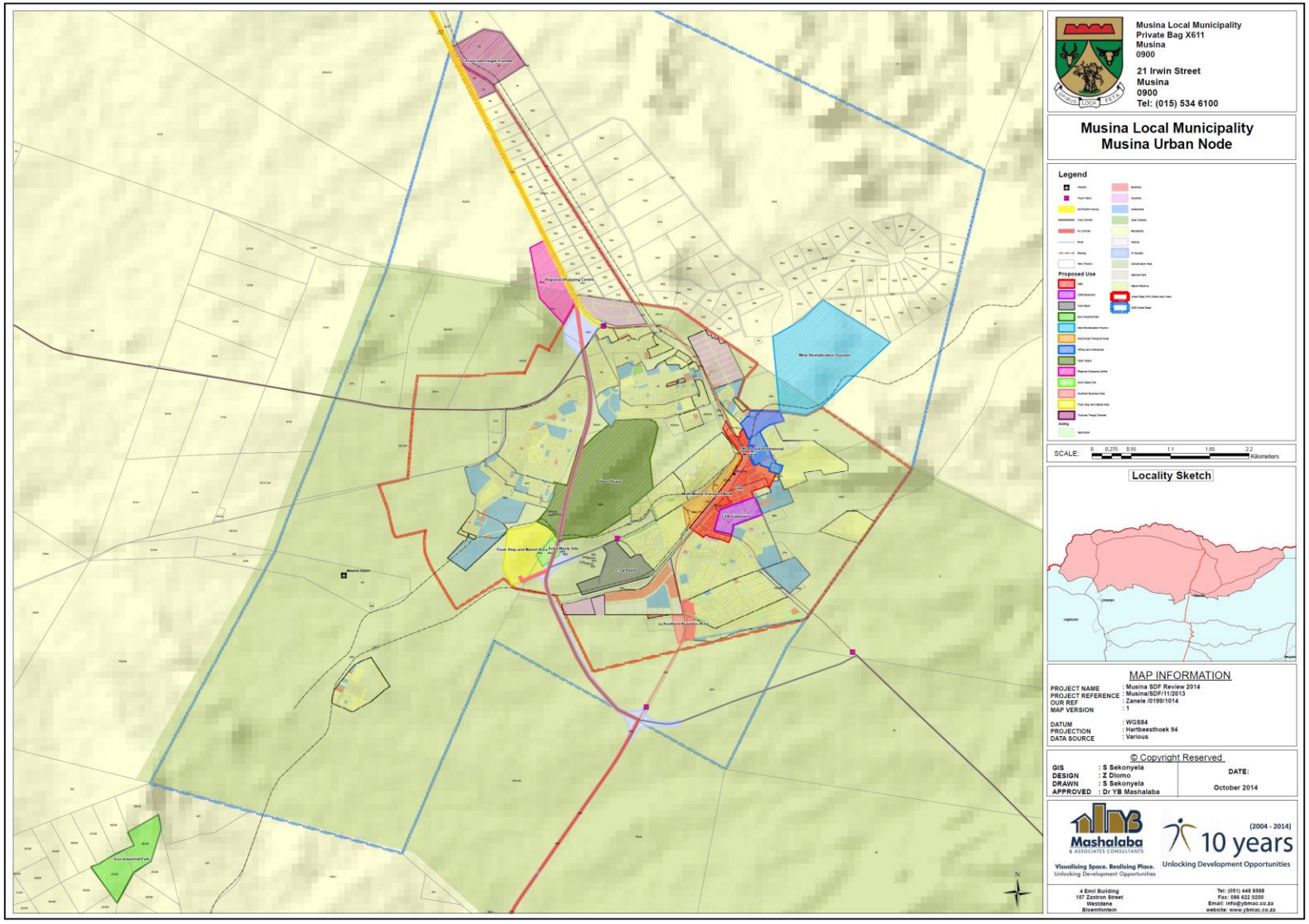
3.2.7 PONTDRFIT

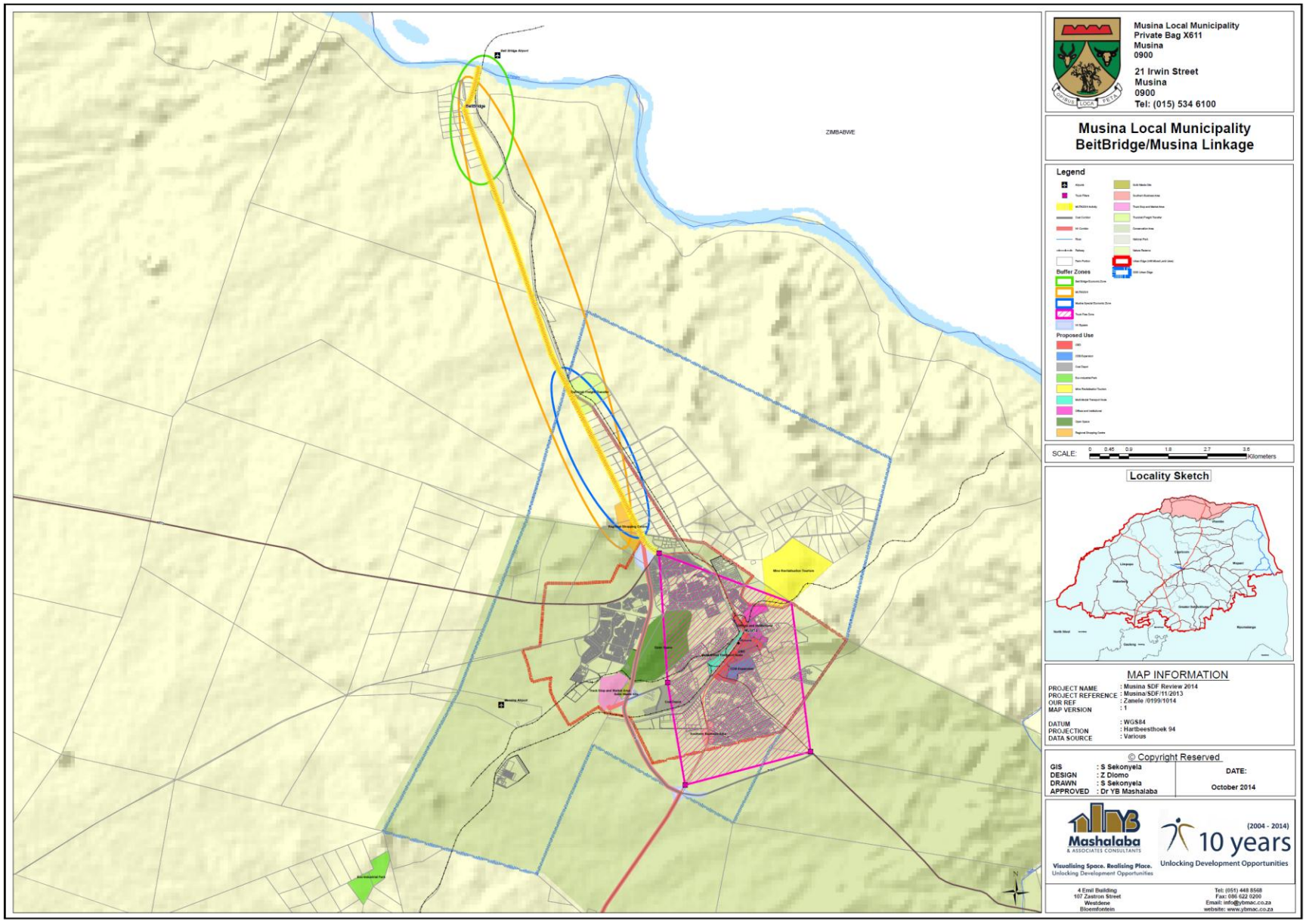
At present the Pontdrift Border Post is not really developed. The operating hours of the border post are from 08h00 to 16h00 and only concessions are allowed. There is no bridge crossing into Botswana and a cableway is used when the river is flooded. It is proposed that Pontdrift Border Post be promoted as the tourism gateway into Botswana and the Great Mapungubwe Trans Frontier Conservation Area. Furthermore, Pontdrift should be tied to the environmental assets in the surrounding area, such as Evangelina, Limpopo River Conservancy and aquaculture in terms of crocodile farming, as well as cultural heritage sites in the Mapungubwe. Local people within the surrounding rural areas employed in the tourism sector as guides and those with Indigenous Knowledge Systems will be beneficial in this regard. In respect of these guides potential for Pontdrift as cross border tourism node should be examined.

The Beit-Bridge Border post is very congested at present. This congestion provides the opportunity for the Pontdrift Border Post to be developed as the Tourism Gateway into Botswana. The development of this border post will also relieve some of the congestion currently experienced at Beit-Bridge. The development of Pontdrift as a tourism node will contribute significantly to the tourism industry in the municipal area. The informal trade currently operating at this post should be provided with the appropriate infrastructure in order to formalise their trade. Facilities and an information centre should be developed

at the border post in order to provide more information on tourism in the area and the Great Mapungubwe Trans Frontier Conservation Area.

3.3 PROPOSAL MAPS




ZIMBABWE
Musina Local Municipality
Private Bag X611
Musina
0900
21 Irwin Street
Musina
0900
Tel: (015) 534 6100
Musina Local Municipality
BeitBridge/Musina Linkage
Legend
Buffer Zones
Proposed Use
SCALE:
Kilometers
Locality Sketch
MAP INFORMATION
PROJECT NAME : Musina SDF Review 2014
PROJECT REFERENCE : Musina/SDF/11/2013
OUR REF : Zanele /0199/1014
MAP VERSION : 1
DATUM : WGS84
PROJECTION : Hartbeesthoek 94
DATA SOURCE : Various
© Copyright Reserved
GIS : S Sekonyela
DESIGN : Z Dlomo
DRAWN : S Sekonyela
APPROVED : Dr YB Mashalaba
DATE:
October 2014
Mashalaba
& ASSOCIATES CONSULTANTS
Visualising Space. Realising Place.
Unlocking Development Opportunities
(2004 - 2014)
10 years
Unlocking Development Opportunities
4 Emil Building
107 Zastron Street
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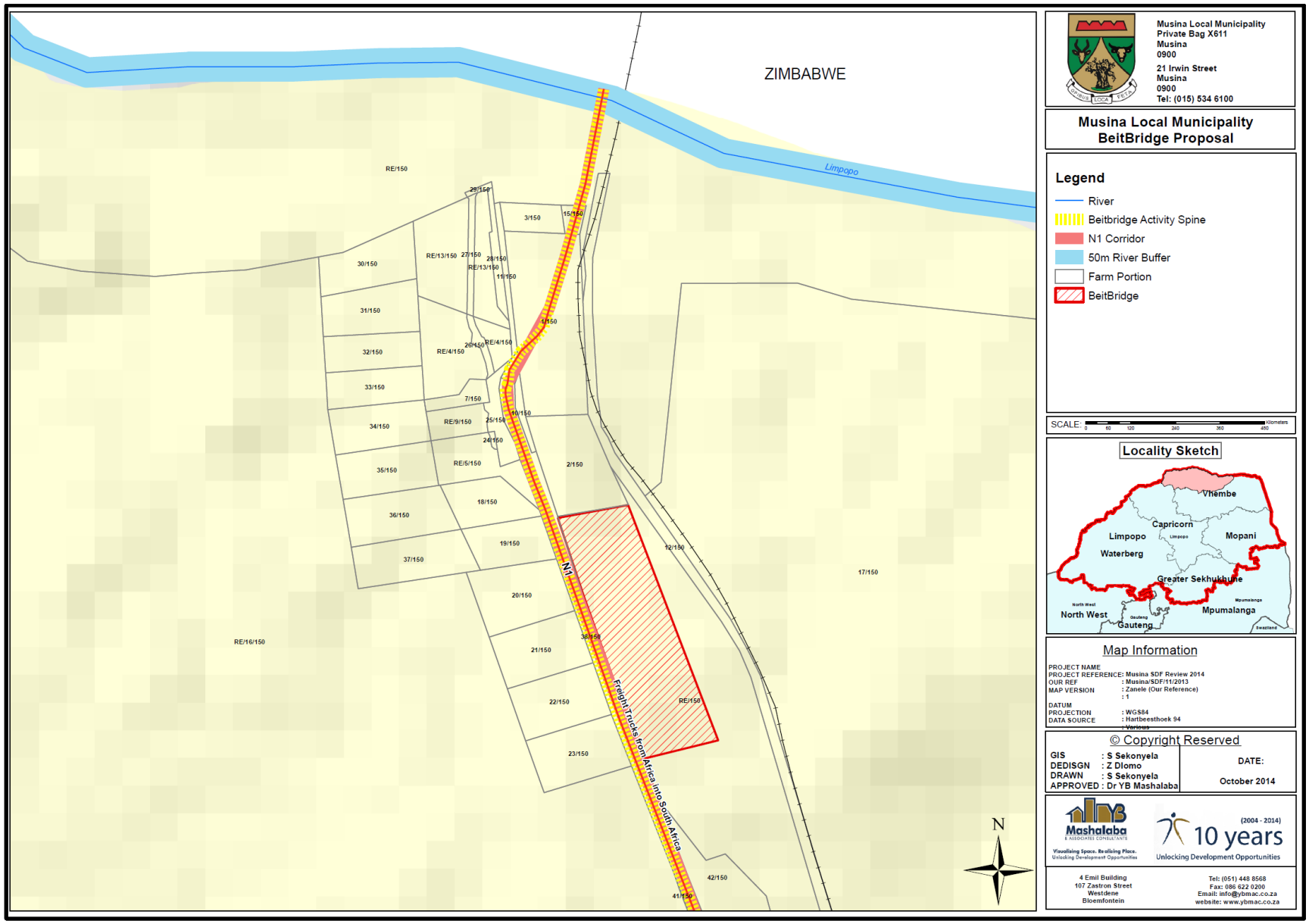
Bloemfontein
Tel: (051) 448 8568
Fax: 086 622 0200
Email: info@ybmac.co.za
website: www.ybmac.co.za


ZIMBABWE
Limpopo
RE/150
29/150
3/150
15/150
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RE/13/150
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19/150
12/150
37/150
17/150
N1
20/150
38/150
RE/16/150
21/150
RE/150
22/150
Freight Trucks from Africa into South Africa
23/150
42/150
41/150
N
Musina Local Municipality
Private Bag X611
Musina
0900
21 Irwin Street
Musina
0900
Tel: (015) 534 6100
Musina Local Municipality
BeitBridge Proposal
Legend
River
Beitbridge Activity Spine
N1 Corridor
50m River Buffer
Farm Portion
BeitBridge
SCALE:
0
60
120
240
360
480
Kilometers
Locality Sketch
Vhembe
Capricorn
Limpopo
Mopani
Waterberg
Greater Sekhukhune
North West
Mpumalanga
Gauteng
Map Information
PROJECT NAME
PROJECT REFERENCE: Musina SDF Review 2014
OUR REF : Musina/SDF/11/2013
MAP VERSION : Zanele (Our Reference)
: 1
DATUM
PROJECTION : WGS84
DATA SOURCE : Hartbeesthoek 94
: Various
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