

METRO MUNICIPALITY METRO MUNISIPALITEIT LEKGOTLA LA MOTSE MANGAUNG METROPOLITAN

MUNICIPALITY

SPATIAL DEVELOPMENT

FRAMEWORK (2020 – 2036)

2022/2023 REVIEW

VERSION: Council Approved Agenda Item: Special Council 61.1A (Annexure K) Date of Approval: 30/06/2020

TABLE OF CONTENTS

1 IN7	TRODUCTION1
1.1 1.2 2. LE	BACKGROUND1 MANGAUNG MUNICIPAL SDF OBJECTIVES1 GISLATIVE AND POLICY CONTEXT2
2.1	NATIONAL CONTEXT2
2.1	.1 Constitution of the Republic of South Africa 108 of 19962
2.1	.2 Municipal Systems Act 32 of 20002
2.1	.3 Spatial Planning and Land Use Management Act 16 of 2013 (SPLUMA) 2
2.1	.4 National Development Plan 20306
2.1	.5 Medium Term Strategic Framework (2019-2024)9
2.1 201	.6 Integrated Urban Development Framework (Implementation Plan) 2016- 19 11
2.1	.7 Draft National Spatial Development Framework 201814
2.1 Ass	.8 National Biodiversity Strategy and Action Plan 2015-2025, Biodiversity sessment 2018
2.1	.9 Agricultural Policy Action Plan 201516
2.1	.10 National Comprehensive Rural Development Programme 200917
2.1	.11 Industrial Policy Action Plan 2018/19-2020/2118
2.1	.12 National Infrastructure Development Plan 202219
2.1	.13 National Transport Master Plan 2005-205020
2.1	.14 Integrated Resource Plan for Electricity 2010-203021

	2.1.1 Grou	5 Development of Sustainable Human Settlements (Br and) 2004	eaking New
	2.1.1	6 Neighbourhood Development Partnership Grant 2006	22
	2.1.1 [°]	7 Sustainable Development Goals	23
2.2	2	PROVINCIAL CONTEXT	24
	2.2.1	Free State Growth and Development Strategy (FSGDS)	24
	2.2.2	Pree State Province Spatial Development Framework	25
2.3	3	MANGAUNG METROPOLITAN CONTEXT	
	2.3.1	Mangaung IDP Directives	30
	SITU	JATONAL ANALYSIS: SPATIAL ISSUES AND CHA	LLENGES
	35		
3.1	1	INSTITUTIONAL	35
	3.1.1	Cadastral Base and Institutional Boundaries	35
	3.1.2	Land Ownership	35
	3.1.3	Land Reform	35
3.2	2	SOCIO ECONOMIC OVERVIEW	36
	3.2.1	Demographic Profile	
	3.2.2	Economic and Employment Profile	
3.3	3	NATURAL ENVIRONMENT	40
	3.3.1	Topography and Hydrology	40
	3.3.2	e Geology and Soils	41
	3.3.3	Biodiversity and Conservation	41
3.4	4	MUNICIPAL LAND USE AND SPATIAL STRUCTURE	
	3.4.1	Hierarchy and Functional Role of Settlements	42



	3.4.2 Movement Network and Hierarchy	44
	3.4.3 Economic Activity	45
	3.4.4 Housing	48
	3.4.5 Community Facilities	53
	3.4.6 Engineering Services	56
	3.4.7 Local Area Spatial Structure and Land Use	59
	3.5 KEY DEVELOPMENT ISSUES AND OPPORTUNITIES	73
4	SPATIAL PROPOSAL	78
	4.1 SPATIAL DEVELOPMENT VISION	79
		80
	4.3 SPATIAL STRATEGIES	84
	4.3.2 Spatial Targeting	89
	4.3.3 Movement Network	92
	4.3.4 Sustainable Human Settlements	94
	4.3.5 Infrastructure	96
	4.3.6 Economic Development and Job Creation	
	4.4 COMPOSITE METROPOLITAN SDF	102
	4.5 SETTLEMENT SPATIAL STRUCTURE AND DE PROPOSALS	EVELOPMENT
	4.5.1 Bloemfontein	103
	4.5.2 Botshabelo	117
	4.5.3 Thaba Nchu	120
	4.5.4 Soutpan/ Ikgomotseng	123

	4.5.5 Dewetsdorp	/ Morojaneng		
	4.5.6 Wepener/ Q	ibing		
	4.5.7 Van Stander	nsrus/ Thapelong]	
	4.5.8 Mangaung F	Rural Developme	nt Plan	
5	IMPLEMENTAT	ION PROGRA	ММЕ	136
5 5	5.1 INSTITUTIONAL 5.2 SECTORAL IMF	CONTEXT OF	MSDF THE MSDF	136 137
	5.2.1 Environmen	t		
	5.2.2 Land Use Pl	anning/ Spatial 1	argeting	138
	5.2.3 Transport			
	5.2.4 Housing			139
	5.2.5 Social Servi	ces		
	5.2.6 Engineering	Services		140
	5.2.7 Economic D	evelopment		140
5	5.3 ALIGNMENT WI	TH MANGAUNC	G LUS	141
5	5.4 GROWTH MAN	AGEMENT		142
5	5.5 URBAN MANAG	SEMENT		145
	5.5.1 Urban Mana	gement Objectiv	es	145
	5.5.2 Urban Mana	gement Strategy	and Programme	145
5	6.6 IMPLEMENTAT		ORING	148
6	MANGAUNG	CAPITAL	EXPENDITURE	FRAMEWORK
AS	SESSMENT			150
6	6.1 INTRODUCTION	۱		150
6	6.2 THE ROLE OF 1	THE CEF IN MAI	NGAUNG	



6.3 CEF GUIDELINES
6.4.1 Capital Expenditure per Directorate and Department
6.4.2 Capital Expenditure per Funding Source154
6.4.3 Capital Expenditure per National Development Plan Objectives156
6.4.4 Capital Expenditure per IUDF Strategic Objectives156
6.4.5 Capital Expenditure per Municipal Strategic Objectives

LIST OF ANNEXURES

ANNEXURE A:	Land Use Budget	
ANNEXURE B:	BEVC G	uidelines
ANNEXURE C:	Sustainable Human Settlements	
	C1:	Density Typologies
	C2:	Thusong Centre Concept
	C3:	Community Facility Standards
	C4:	SMART City Concept
	Economic Empowerment	
ANNEXURE D:	Econom	ic Empowerment
ANNEXURE D:	Econom D1:	ic Empowerment Township Economy
ANNEXURE D:	Econom D1: D2:	ic Empowerment Township Economy Economic Upscaling
ANNEXURE D:	Econom D1: D2: D3:	ic Empowerment Township Economy Economic Upscaling Precision Farming
ANNEXURE D:	Econom D1: D2: D3: D4:	ic Empowerment Township Economy Economic Upscaling Precision Farming Farmer Upscaling
ANNEXURE D:	Econom D1: D2: D3: D4: D5:	ic Empowerment Township Economy Economic Upscaling Precision Farming Farmer Upscaling Market Upscaling
ANNEXURE D:	Econom D1: D2: D3: D4: D5:	ic Empowerment Township Economy Economic Upscaling Precision Farming Farmer Upscaling Market Upscaling

LIST OF APPENDICES (VOLUME 2)

APPENDIX 1:	EMF Guidelines
APPENDIX 2:	FS PSDF Guidelines
APPENDIX 3:	Precinct/ Structure Plans

6.4.6 Capital Expenditure Budget: MSDF Spatial Targeting Analysis15	7
5.5 RECOMMENDATIONS	1
6.5.1 Recommendations Related to Institutional Arrangements	1
6.5.2 Recommendations Related to Capital Project Preparation	1
6.5.3 Recommendations Related to Financial Decision-Making	3

APPENDIX 4:	Public Comments
APPENDIX 5:	CEF Report

LIST OF TABLES

Table 1. National Development Plan Objectives and Actions
Table 2. MTSF Outcomes relevant to the Mangaung SDF10
Table 3. Table 3: Pillars and Drivers of the Free State Growth and Development
Strategy
Table 4. Mangaung Alignment with Pillars and Drivers of the Free State GDS 32
Table 5. Mangaung MM Population, Households and Household Size (2011-2019)
Table 6. Mangaung Metropolitan Municipality: Employment (Formal and Informal) by
Sector, 2011-2018
Table 7. Mangaung MM Estimated Business Job Opportunities and Floor Areas,
201945
Table 8. Mangaung MM: Existing and Vacant Industrial/Commercial Land46
Table 9. Mangaung Metropolitan Municipality progress and status of informal
settlements48
Table 10. Progress on three land parcels (Catalytic land developments programmes)



Table 11. Mangaung MM Sites for Allocation53
Table 12. Areas to be relocated due to floodlines, servitudes, cemetery sites and
shortage of sites
Table 13. Mangaung Community Facilities
Table 14. Extent of WWTW in MMM57
Table 15. Summary of Landfill Sites in MMM59
Table 16. Mangaung MM Population Projections 2019-203676
Table 17. Mangaung MM Household Projections 2019-2036
Table 18. Mangaung MM Job Opportunities Projections 2019-203676
Table 19. Summary of Mangaung Incremental Land Use Budget 2019-2036
(including Backlog)77
Table 20. Correlation of Spatial Planning Categories
Table 21. Proposed Mitigation Interventions for MMM 88
Table 22. Hierarchy of Settlements
Table 23. Bloemfontein/Mangaung: Development Potential (mainly Residential) 108
Table 24. Bloemfontein/Mangaung: Proposed Development Phasing (mainly
Residential) 112
Table 25. Bloemfontein Urban Network: Integration Zone 1 – Potential Catalytic Land
Development Areas
Table 26. Bloemfontein Urban Network: Integration Zone 2 - Potential Catalytic
Development Areas
Table 27. Bloemfontein Urban Network: Integration Zone 3 - Potential Catalytic
Development Areas
Table 28. Botshabelo: Development Potential (mainly Residential) 119
Table 29. Thaba Nchu: Development Potential (mainly Residential) 121
Table 30. Botshabelo/Thaba Nchu: Development Potential (mainly Residential) 122
Table 31. Botshabelo – Thaba Nchu Urban Network: Integration Zone 4 - Catalytic
Land Development Areas
Table 32. Detail Strategies in respect of Land Acquisition and Support 129

Table 33. Intensive Farming Strategy 130
Table 34. Detail Strategies in respect of Value-Adding and Distribution
Table 35. Preferred Commodity Types in Mangaung 132
Table 36. Detail Strategies in respect of Sector Development
Table 37. Application of the Growth Management Tools in Mangaung143
Table 38. Mangaung MM Urban Management Strategy and Programmes
Table 39. 2021/2022 MTREF Total per Directorate and Department154
Table 40. 2021/2022 MTREF Total per Funding Source
Table 41. 2021/2022 MTREF Total per Urban Development Municipal Objectives
Table 42. Spatial Targeting – 2021/2022 MTREF Total per Affected Location 158

LIST OF DIAGRAMS

Diagram 1: Core Elements of the IUDF **Diagram 2: National Spatial Development Concepts** Diagram 3: Comprehensive Rural Development Plan Concept Diagram 4: Population Profile - Mangaung Metropolitan Municipality Diagram 5: Demographic Profile - Mangaung Metropolitan Municipality Diagram 6: Demographic Profile - Mangaung Metropolitan Municipality Diagram 7: Demographic Profile - Mangaung Metropolitan Municipality Diagram 8: Economic Profile - Mangaung Metropolitan Municipality Diagram 9: Mangaung Metropolitan Municipality - Labour Diagram 10: Mangaung Metropolitan Municipality - Water and Sanitation Profile Diagram 11: Mangaung Metropolitan Municipality – Lighting and Refuse Diagram 12: Mangaung Metropolitan SDF Structure Diagram 13: SPLUMA Aligned Outcome Based Planning, Sectoral Alignment and Strategy Led Budgeting Diagram 14: Functional Relationship between SDF, LUS, Linkage Table and Growth Management Strategy



Diagram 15: MMM SDF Implementation Strategy
Diagram 16: The Role of the CEF in relation to Other Internal Processes
Diagram 17: 2021/2022 MTREF Total per Directorate and Department
Diagram 18: 2021/2022 MTREF Total per Funding Source
Diagram 19: 2021/2022 MTREF Total per Urban Development Municipal Objectives
Diagram 20: 2021/2022 MTREF Total per Affected Location in Urban Areas
Diagram 21: Spatial Targeting - 2021/2022 MTREF Total per Affected Location in
Priority Development Areas
Diagram 22: Spatial Targeting - 2021/2022 MTREF Total per Affected Location in
Integration Zones
Diagram 23: Collaborative Planning Prioritisation and Performance Process of the CEF

LIST OF FIGURES

Figure 1: Mangaung Metropolitan Municipality – Study Area Figure 2: National Spatial Development Framework Figure 3: Spatial Integration of NATMAP with existing policies, SIP Projects Figure 4: Major Transmission Development Scheme Projects Figure 5: Composite Plan for the Free State Figure 6: Ward Boundaries (2021) Figure 7: Land Ownership Figure 8: Land Reform Figure 9.1: Topography and Hydrology Figure 9.2: Terrain Morphological Units Figure 10: Soils Figure 11: Biomes and Vegetation Figure 12.1: Biodiversity and Protected Areas (2017) Figure 12.2: Biodiversity and Protected Areas (2017) Figure 13: Municipal Spatial Structure and Movement Network Figure 14: Metropolitan Movement Infrastructure Figure 15: Business and Industrial Figure 16: Agriculture Figure 17: Agriculture: Commodity Distribution Figure 18: Agriculture Activities Figure 19: Grazing Capacity (HA/LSU) Figure 20: Tourism Figure 21: Informal Settlement Figure 21.1: Mangaung Informal Settlement Figure 21.2 Botshabelo / Thaba Nchu Informal Settlement Figure 21.3: Dewetsdorp Informal Settlement Figure 21.4: Wepener Informal Settlement Figure 21.5: Van Stadensrus Informal Settlement Figure 21.6: Soutpan Informal Settlement Figure 22: Educational Facilities Figure 23: Health Facilities and Cemeteries Figure 24: Safety and Security Figure 25: Community Facilities Figure 26: Water Services Figure 27: Sanitation Figure 28: Electricity Figure 29: Land Use Figure 30: Mangaung / Bloemfontein Retail Figure 31: Mangaung / Bloemfontein Retail Classification Figure 32: Mangaung / Bloemfontein Industrial/Commercial Areas Figure 33: Mangaung Water Services Figure 34: Mangaung Sanitation Figure 35: Botshabelo Land Use Figure 36: Botshabelo CBD



Figure 58.3.2: Bloemfontein SDF: Economic Activities Figure 58.4: Bloemfontein SDF: Community Facilities Figure 58.5: Bloemfontein SDF: Priority Housing Development Areas Figure 58.6: Bloemfontein SDF: Priority Housing Development Areas Phasing Figure 58.7.1: Bloemfontein SDF: Urban Network Concept Figure 58.7.2: Bloemfontein SDF: Urban Network Area Figure 58.8: Bloemfontein SDF: Composite Figure 59.1: Botshabelo and Thaba Nchu SDF: Composite Figure 59.2: Botshabelo and Thaba Nchu SDF: Priority Housing Development Areas Figure 60.1: Bloemfontein SDF: Urban Network Concept Figure 60.2: Bloemfontein SDF: Urban Network Area Figure 61: Soutpan/Ikgomotseng Development Proposals Figure 62: Dewetsdorp/Morojaneng Development Proposals Figure 63: Wepener/Qibing Development Proposals Figure 64: Van Stadensrust/Thapelong Development Proposals Figure 65: Mangaung Rural Development Framework Figure 66: Secondary Growth Points Figure 67: Spatial Targeting - 2021/2022 MTREF Total Budget per Affected Location in Urban Areas – Map Figure 68: Spatial Targeting – 2021/2022 MTREF Total per Affected Location in FA: Figure 69: Spatial Targeting – 2021/2022 MTREF Total per Affected Location in FA:

Figure 37: Botshabelo Industrial Area

INTRODUCTION

1.1 BACKGROUND

The Mangaung Metropolitan Spatial Development Framework in line with the requirements of Sections 12 and 21 of the Spatial Planning and Land Use Management Act, Act 16 of 2013.

1.2 MANGAUNG MUNICIPAL SDF OBJECTIVES

The main objective of the project is to develop an SDF for the entire Mangaung Metropolitan Municipality area (refer to **Figure 1**). This SDF needs to address spatial, environmental and economic issues confronting both the urban and rural areas. The Metropolitan Municipality is characterised by a dispersed spatial structure, with various towns and informal settlements spread across the entire municipal area, whilst the rural areas consist of a large number of farms, as well as agricultural holdings.

The SDF will also respond to the policy and legislative parameters established by National and Provincial Government and take cognisance of the municipal space economy in the context of the provincial and national space economies.

More specifically, the Mangaung Metropolitan SDF will aim towards achieving the following objectives:

- Provide a strategic spatial development vision for the metropolitan area in line with the broad development objectives of the National and Provincial policies;
- Provide a clear and comprehensive Spatial Framework for the metropolitan area which will inform, improve and guide cross-sectoral policy alignment and project implementation and integration;
- Indicate in as much detail as possible to stakeholders the desired future spatial form for the metropolitan area;
- Highlight planning, environmental, infrastructural and institutional issues that gave rise to the proposals contained in the final document;
- Provide a spatial reflection of the needs and priorities established in the Mangaung Integrated Development Plan and identify specific issues which are unique to the metropolitan area;
- Address rural development issues such as the integration with urban areas, the provision of social facilities and the provision of infrastructure to rural communities;
- Identify areas for economic opportunities, particularly in the industrial, commercial, agricultural and tourism sectors;
- Identify infrastructure needs and services constraints and bring forward tangible solutions to address these;
- Accommodate the growing housing needs taking into account the current backlogs and the projected need for development of various





ANNEXURE DOCUMENT

- housing methodologies (e.g. "Gap Housing", Social Housing, FLISP, etc.), and
- Protect the natural environment, and more specifically hydrological and topographical resources, biodiversity areas, and high potential agricultural land.

2. LEGISLATIVE AND POLICY CONTEXT

2.1 NATIONAL CONTEXT

2.1.1 Constitution of the Republic of South Africa 108 of 1996

The Constitution of South Africa, contained in Act 108 of 1996, is the supreme law of South Africa. Amongst other things, it ascribes different functions to different tiers of government to ensure the equitable and functional distribution of roles, responsibilities and duties. In terms of section 156 of the Constitution, municipalities have executive authority in respect of the right to administer the functional area of "municipal planning" and more specifically to:

- a. structure and manage its administration, budgeting and planning processes to give priority to the basic needs of the community;
- b. to promote the social and economic development of the community, and
- c. participate in national and provincial development programmes.

The Mangaung Integrated Development Plan and Spatial Development Framework are two of the most important tools at the disposal of the municipality to fulfil these legal obligations.

2.1.2 Municipal Systems Act 32 of 2000

The Act requires all municipalities to compile an **Integrated Development Plan (IDP)** designed to ensure the progressive realisation of the fundamental rights of its citizens. Under Section 26(e) the Act requires that an **IDP must include a Spatial Development Framework (SDF)**.

2.1.3 Spatial Planning and Land Use Management Act 16 of 2013 (SPLUMA)

The Spatial Planning and Land Use Management Act, Act 16 of 2013 (SPLUMA) provides the legislative foundation for all spatial planning and land use management activities in South Africa (including the Spatial Development Framework noted above). It seeks to promote consistency and uniformity in procedures and decision-making relating to land use and development.



Development Principles:

SPLUMA further provides a host of development principles which apply to spatial planning, land development and land use management. These are:



) Spatial Justice

- Deal with spatial imbalances and include areas that
 were previously excluded
- Redress access to land for the previously disadvantaged
- Plan for incremental upgrading and secure tenure

) Spatial Sustainability

- Promote land development that is within the fiscal, institutional and administrative means of the country
- Protect prime agricultural land and environmental resources
- Promote and stimulate the effective and equitable functioning of land markets
- Carefully consider social and infrastructural costs of land development
- Promote development in sustainable locations
- Establish viable communities

Spatial Efficiency

- Optimise efficient use of resources and infrastructure
- Minimise negative financial, social, economic or environmental impacts
- · Efficient and streamlined application procedures

) Spatial Resilience

 Flexibility in spatial plans, policies and land use management systems are accommodated to ensure sustainable livelihoods in communities most likely to suffer the impacts of economic and environmental shocks.

Good Administration

- Integrated approach to land use and land development
- Free-flow of information, plans and policies between and within tiers of government
- Empowering citizens

The Act clearly states that a Municipal SDF should be in line with the policies of national and provincial government and should be aligned with the plans, policies and development strategies of adjoining municipalities.

Preparation of spatial development frameworks

Section 12 of SPLUMA stipulates as follows in relation to the preparation of spatial development frameworks:

- **12.** (1) The national and provincial spheres of government and each municipality must prepare spatial development frameworks that—
 - (a) interpret and represent the spatial development vision of the responsible sphere of government and competent authority;
 - (b) are informed by a long-term spatial development vision statement and plan;
 - (c) represent the integration and trade-off of all relevant sector policies and plans;
 - (d) guide planning and development decisions across all sectors of government;
 - (e) 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;
 - (f) contribute to a coherent, planned approach to spatial development in the national, provincial and municipal spheres;
 - (g) provide clear and accessible information to the public and private sector and provide direction for investment purposes;



- (h) 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;
- (i) address historical spatial imbalances in development;
- (j) identify the long-term risks of particular spatial patterns of growth and development and the policies and strategies necessary to mitigate those risks;
- (k) 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;
- (m) take cognisance of any environmental management instrument adopted by the relevant environmental management authority;
- (n) give effect to national legislation and policies on mineral resources and sustainable utilisation and protection of agricultural resources, and
- (o) consider and, 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.

- (2) (a) 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.
 - (b) 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.
- (5) 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.

Contents of a Municipal Spatial Development Framework:

Section 21 of SPLUMA stipulates that the Mangaung Metropolitan SDF must at least comprise/ address the following:

- 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 socio-economic 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;
- 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;
- I) 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.

The Mangaung Metropolitan Municipality must fulfil its obligations set out in the Constitution, Municipal Systems Act and SPLUMA through the formulation of an IDP and SDF. The formulation of the Mangaung Metropolitan SDF should adhere to the requirements of SPLUMA in as far as the principles, methodology and content are concerned.



2.1.4 National Development Plan 2030

The National Development Plan 2030 - *Our future – make it work* - is a plan for the country to eliminate poverty and reduce inequality by 2030 through uniting South Africans, unleashing the energies of its citizens, growing an inclusive economy, building capabilities, and enhancing the

capacity of the state and leaders working together to solve complex problems.

The thirteen key objectives and actions put forward by the NDP are summarized in **Table 1** below:

Table 1. National Development Plan Objectives and Actions

NATIONAL DEVELOPMENT PLAN				
OBJECTIVES	ACTIONS APPLICABLE TO MANGAUNG METROPOLITAN MUNICIPALITY			
An economy that will create	Reduce the cost of living for poor households and costs of doing business through micro-economic reforms.			
jobs	Broaden the expanded public works programme to 2 million full-time equivalent jobs by 2020.			
Economy Infrastructure – the	the I The proportion of people with access to the electricity grid should rise to at least 90% by 2030, with non-grid options available for the rest.			
foundation for social and	Ensure that all people have access to clean, potable water and that there is enough water for agriculture and industry, recognising trade-offs			
economic development	in the use of water.			
	Reduce water demand in urban areas to 15% below the business-as-usual scenario by 2030.			
	Ensure that all people have access to hygienic sanitation.			
	By 2030 public transport will be user-friendly, less environmentally damaging, cheaper and integrated or seamless.			
	Consolidate and selectively expand on logistics infrastructure.			
	Improved productivity of infrastructure and increased levels of public and private investment to a combined 30% of GDP.			
Environmental Sustainability	Absolute reductions in the total volume of waste disposed to landfill each year.			
and Resilience – an equitable	Zero emission building standards by 2030.			
transition to a low-carbon	Carbon pricing, building standards, vehicle emission standards and municipal regulations to achieve scale in stimulating renewable energy,			
economy	waste recycling and in retrofitting buildings.			
	All new buildings to meet the energy efficiency criteria set out in South African National Standard 204.			
Integrated and Inclusive Rural	Improved infrastructure and service delivery, a review of land tenure, service to small and micro farmers, a review of mining industry			
Economy	commitments to social investment, and tourism investments.			



NATIONAL DEVELOPMENT PLAN			
ACTIONS APPLICABLE TO MANGAUNG METROPOLITAN MUNICIPALITY			
Create tenure security for communal farmers, especially women.			
Investigate different forms of financing and vesting of private property rights to land reform beneficiaries that does not hamper beneficiaries			
with a high debt burden.			
Implement a focused regional integration strategy with emphasis on road, rail and port infrastructure in the region.			
Upgrade all informal settlements on suitable, well located land by 2030.			
Reform the current planning system for improved coordination.			
Develop a strategy to densify cities, promote better located housing and settlements.			
Ensure safe, reliable and affordable public transport.			
Provide SDF norms, including improving the balance between location of jobs and people.			
Review of the grant and subsidy regime for housing			
Provide incentives for citizen participation for local planning and development of spatial compacts.			
Introduce mechanisms that would make land markets work more effectively for the poor and support rural and urban livelihoods.			
Improve access to Early Childhood Development Programmes.			
Strengthen the health system.			
Expand existing public employment initiatives to create opportunities for the unemployed.			
All children should enjoy services and benefits aimed at facilitating access to nutrition, health care, education, social care and safety.			
Increase community participation in crime prevention and safety initiatives.			
Implement the National Rural Safety Strategy Plan in high risk areas involving all role-players and stakeholders.			
Improve relations between national, provincial and local government.			
Develop clear rules restricting business interests of public servants.			
Develop restraint-of-trade agreements for senior civil servants and politicians at all levels of government.			
All corrupt officials should be made individually liable for all losses incurred as a result of their corrupt actions.			



NATIONAL DEVELOPMENT PLAN			
OBJECTIVES	ACTIONS APPLICABLE TO MANGAUNG METROPOLITAN MUNICIPALITY		
Nation Building and Social	Improve public services and spaces and build integrated housing and sport facilities in communities to ensure sharing of common spaces		
Cohesion – social compact	across race and class.		
	Promote citizen participation in forums such as Integrated Development Plans, Ward Committees, School Governing Boards and Community		
	Policing Forums.		

The NDP reports that migration into urban areas, especially by the young and poor, increases pressure on services and transport, which is complicated by the apartheid-fragmented geography. Economic growth has been slower than the demand for employment. In particular, accommodation faces challenges, including financing for lower-end housing and its incorporation into the market, and slow progress on rental accommodation (CRU and Social Housing) and upgrading of informal settlements.

Therefore, key NDP recommendations in urban areas, include:

- Upgrading all informal settlements on suitable, well-located land by 2030;
- Increased urban densities to reduce sprawl and costs;
- Initiatives to shift jobs and investment to the urban townships on the peripheries;
- Substantial investments in safe, reliable and affordable public transport and better co-ordination among the various modes;
- A comprehensive review of the grant and subsidy regime for housing to ensure diversity in product and finance options and spatial mix;

- A focused strategy on the housing gap market, involving banks, subsidies and employer housing schemes, and
- The development of spatial compacts.

Since the rural areas are vastly different from the urban areas the NDP reports that for the rural areas general productivity has been declining and emigration to cities and towns has been accelerating. The rural landscape is characterised by rural densification without associated infrastructure and governance arrangements, as well as ill-located land reform initiatives from the perspective of viable farming and access to markets. Many of these initiatives are in conflict with other imperatives such as mining or preserving biodiversity.

The NDP suggests that **rural interventions** should distinguish less dense marginal areas primarily needing appropriate service provision, from more viable and denser areas with transport and market access, including:

Innovative, targeted and better co-ordinated provision of infrastructure (including ICTs) and services provision supported by the spatial



consolidation of rural settlements to enhance densities and associated service delivery;

- Prioritising agricultural and rural development along mobility corridors, to build local economies and contribute to national food security;
- Identification of non-agricultural opportunities such as tourism and mining, especially with a "green" focus;
- Small-town development as nodes to harness rural development, and
- Mechanisms to make land markets work more effectively for the poor, especially women.

2.1.5 Medium Term Strategic Framework (2019-2024)

The Medium-Term Strategic Framework (MTSF) is Government's strategic plan for the (2019-2024) electoral term. It reflects the commitments made in the election manifesto of the governing party, including the commitment to implement the NDP.

The aspects specifically impacting on the Mangaung SDF are detailed in Error! Reference source not found. below:



Table 2. MTSF Outcomes relevant to the Mangaung SDF

MEDIUM TERM STRATEGIC FRAMEWORK OUTCOMES AND PRIORITIES APPLICABLE TO THE MANGAUNG MM		
MTSF PRIORITY	MTSF OUTCOME INTERVENTIONS	
PRIORITY 2: Economic	Improve the ease of doing business	
Transformation and Job	Demand skills planning to support growth	
Creation	Ensure the macroeconomic policy alignment and coherence	
Outcome: Investing for	Review B-BBEE to support worker empowerment and establish legislation for worker, community and HDI ownership	
accelerated inclusive growth	Ensure the implementation of the Employment Equity Act (EEA) to eliminate gender and race wage disparity	
	Review the financial sector code to support transformation in the sector	
	Reduce illicit financial flows and misuse of tax havens	
	Reducing the illicit economy activities	
PRIORITY 5: Spatial	Support intergovernmental action in support of national development objectives and local needs through piloting, refinement and	
Integration, Human	implementation of the District Development Model	
Settlements and Local	Profile and support enterprise development in townships through financial incentives and other non-financial forms of support, and remove	
Goverment	inhibiting regulations, to ensure the integration of township economies into the mainstream local economic development landscape	
	Identify and use government land and buildings in urban and rural areas as a catalyst for spatial transformation in support of the NSDF	
Outcome:	and IUDF objectives, including land and agrarian reform. (9 993 Ha identified – custodianship of national DPWI identified for settlements	
 Integrated service 	purposes)	
delivery, settlement	Enhance productivity and functionality of public sector institutions in supporting people centered service delivery	
transformation and	Modernise business processes in the public sector	
inclusive growth in	Improve financial management capability in the public sector	
urban and rural	Develop programme to strengthen asset management in the public sector	
places	Clarification of institutional arrangements for the District Development Model	
 Functional, Efficient 	Monitor implementation of the District Development Model plans through an Integrated Monitoring System for accountability	
and Integrated		
Government		
PRIORITY 5: Spatial	Implement 4 sectors GHG emission reduction implementation plan (contribution from the largest emitters of GHG)	
Integration, Human	Build capacity and allocate adequate resources for implementing climate change programmes in municipalities	
Settlements and Local	Capacitation of municipalities to fund and implement climate change programmes and adaptation measures	
Government	Audit on maintenance of municipal infrastructure resilience and readiness for climate change disasters	
	Rapidly and intensively rehabilitate and restore land	
Outcome: Environmental	Rapidly and intensively rehabilitate and restore wetlands	
Green House Gas	Ecologically sensitive areas spatially mapped and categorised according to their capabilities	
Emission reduction	Establishment of stewardship programmes	



•	State of ecological infrastructure improved Municipal preparedness to deal with climate change (adaptation)	 Increase in conservation areas Implementation of management and protection programmes of conservation areas Water resource classes and Resource Quality Objectives (RQOs) by 2024 Main stem rivers monitored for implementation of Resource Directed Measures (i.e. classification, resource quality objectives and the reserve) by 2024 River eco-status monitoring implemented
	change (adaptation)	

2.1.6 Integrated Urban Development Framework (Implementation Plan) 2016-2019

The Integrated Urban Development Framework (IUDF) sets out the policy framework for transforming and restructuring South Africa's urban spaces.

The IUDF consists of a Vision, four Strategic Goals and nine Levers which lead to Strategic Priorities that directly impact on the Mangaung MM (**Diagram 1**).

The IUDF Vision of is to create 'liveable, safe, resource-efficient cities and towns that are socially integrated, economically inclusive and globally competitive, where residents actively participate in urban life'.

The IUDF's overall outcome is Spatial Transformation to be achieved through steering urban growth towards a sustainable growth model of *compact, connected* and *coordinated* cities and towns.

The IUDF's premise is that **jobs**, **housing and transport** should be used to promote urban restructuring by:

- Reducing travel costs and distances;
- Preventing further development of housing in marginal places;
- Increasing urban densities to reduce sprawl;
- Improving public transport and the coordination between transport modes, and
- Shifting jobs and investment towards dense peripheral townships.



Diagram 1. Core elements of the IUDF



The following nine UIDF Levers are to be used to achieve the noted objectives and outcomes:

- 1. Integrated urban planning and management.
 - Cities should be well planned and managed with investment directed towards integrated social and economic development and a healthy environment, resulting in enhanced quality of life.
- 2. Integrated transport and mobility:
 - Promote higher-density urban developments along mass transit corridors to inform investments in human settlements and to improve access and inclusion.
- 3. Integrated sustainable human settlements.
 - Adequate housing and improved quality living environments;
 - A functionally equitable residential property market, and
 - Enhanced institutional capacity and coordination for better spatial targeting.
- 4. Integrated urban infrastructure:
 - Integrated urban space and public transport. Coordinate planning and implementation of public transport, human settlement, economic and social infrastructure and location decisions.
 - Maintenance and supply of bulk water resources infrastructure should be ensured.
- 5. Efficient land governance and management.
 - Promote public and private investments in land and property which provides increased municipal income to be invested in infrastructure and services.
- 6. Inclusive economic development:
- MANGAUNG
- ANNEXURE DOCUMENT

- Productive investment to be crowded in through the infrastructure build programme.
- Spatial imbalances in economic opportunities to be addressed through expanded employment in agriculture and the build programme (infrastructure development), and densification within urban areas.
- 7. Empowered active communities.
 - Equal opportunities and participation of all people, including the disadvantaged and vulnerable.
- 8. Effective urban governance.
 - Sufficient institutional, fiscal and planning capabilities and intergovernmental relations to build sustainable and resilient urban environments.
- 9. Sustainable finances.
 - Effective, well managed fiscal framework (income and expenditure) with capital expenditure being informed by development potential and needs of urban spaces.

2.1.7 Draft National Spatial Development Framework 2018

The foundation for the National SDF consists of five frames. These emanate from the NDP 2030 priorities, the National Spatial Development Vision and Logic as well as development issues identified through the analysis process. The five frames are listed below and graphically illustrated on **Diagram 2**:

- Frame One: Urban Regions, Clusters and Development Corridors as the engines of national transformation and economic growth: To focus and sustain national economic growth, drive inclusive economic development and derive maximum transformative benefit from urbanisation and urban living;
- Frame Two: Productive Rural Regions and Regional Development Anchors as the foundation of national transformation: To ensure national food security, rural transformation and rural enterprise development and quality of life in rural South Africa through a set of strong urban-rural development anchors in functional regional-rural economies;
- Frame Three: National Ecological Infrastructure System as enabler for a shared and sustainable resource foundation: To protect and enable sustainable and just access to water and other national resources for quality livelihoods of current and future generations;
- Frame Four: National Connectivity and Economic Infrastructure Networks as enabler for a shared, sustainable and inclusive economy: To develop, expand and maintain a transport, trade and communication network in support of national, regional and local economic development; and

Frame Five: National Social Service and Settlement Infrastructure Network in support of national well-being: To ensure effective access to the benefits of high-quality basic, social and economic services in a well-located system of vibrant rural service towns, acting as urban-rural anchors and rural-rural connectors.

The five frames formed the foundation for the formulation of a National Spatial Development Framework as depicted on **Figure 2**. Mangaung Metro is located along a Key National Road (N1), which connects the cities of Cape Town, Mangaung, Joburg, Tshwane and Polokwane to one another and which provides the main sub continental link into Southern Africa via Musina. The northern parts of Mangaung form part of the Central Agricultural Heartland; the eastern parts fall within the Agri-Enterprise and Small-Scale Farming Resource Region and the western and southwestern parts are part of the Arid-Agri Innovation Region.

ANGAUNG

Diagram 2. National Spatial Development Concepts

MANGAUNG





2.1.8 National Biodiversity Strategy and Action Plan 2015-2025, Biodiversity Assessment 2018

This report assesses the state of South Africa's biodiversity and ecosystems, across terrestrial, freshwater, estuarine and marine environments, with an emphasis on giving spatial information where possible, especially about ecosystems. It provides a spatial picture of the location of South Africa's threatened and under-protected ecosystems and focuses attention on geographic priority areas for biodiversity conservation.

The Biodiversity Action Plan puts forward the following Key Priorities:

- Management of biodiversity assets and their contribution to the economy, rural development, job creation and social wellbeing is enhanced.
- Investments in ecological infrastructure enhance resilience and ensure benefits to society Promoting a green economy.
- Biodiversity considerations are mainstreamed into policies, strategies and practices of a range of sectors.
- People are mobilized to adopt practices that sustain the long-term benefits of biodiversity
- Conservation and management of biodiversity is improved through the development of an equitable and suitably skilled workforce.
- Effective knowledge foundations, including indigenous knowledge and citizen science, support the management, conservation and sustainable use of biodiversity.

2.1.9 Agricultural Policy Action Plan 2015

The Agricultural Policy Action Plan (APAP, 2015-19) stems from a concern that South Africa increasingly relies on imports of crops (wheat) and livestock products (poultry) while the agricultural sector increasingly relies on imports of inputs (e.g., fertiliser, feed, mechanisation). It argues that we need to establish a more sustainable and productive agricultural sector; to strengthen our competitiveness by supporting localization where potential exists, and to promote agricultural development in a manner that translates into rural development and poverty alleviation.

Key Policy Levers are illustrated in the adjacent Diagram and elaborated on below:

Equity and Transformation

- Ensuring a more producerfriendly (and consumerfriendly) market structure
- Accelerating implementation of the Charters and the Small-scale fisheries policy
- Promoting local food economies



Investment in agro-logistics

Equitable Growth and Competitiveness



- Promoting import substitution and export expansion through concerted value chain/commodity strategies
- Reducing dependence on industrial and imported inputs
- Increasing productive use of fallow land
- Strengthening Research and Development outcomes

Environmental Sustainability

Climate Smart Agriculture

Governance

- Support services
- Skills development
- Research and Development
- Knowledge and information management (integrated spatial economic planning)
- Market access, information and regulation
- Institutional arrangements a more integrated approach

2.1.10 National Comprehensive Rural Development Programme 2009

The National Comprehensive Rural Development Programme (CRDP) aims to mobilise and empower rural communities to take initiatives aimed at controlling their own destiny - with the support of government. The goal of the CRDP is to achieve social cohesion and development by ensuring improved access to basic services, enterprise development and village industrialisation. The CRDP implements broad based-agrarian transformation focussing on community organisation and mobilisation as well as strategic investment in economic and social infrastructure.

The vision of the CRDP is to be achieved through a three-pronged strategy based on:

- Co-ordinated and integrated broad-based Agrarian Transformation;
- Strategically increased rural development through infrastructure investment, and
- An improved land reform programme.

The objectives of each of the three strategic thrusts thought applicable to the formulation of the Mangaung MM SDF are as follows (**Diagram 3**): **Diagram 3. Comprehensive Rural Development Plan Concept**





Agrarian Transformation:

- Facilitate the establishment of rural and agro-industries, co-operatives, cultural initiatives and vibrant local markets;
- Increase production and sustainable use of natural resources by promoting farming and related value chain development (exploring all possible species of food and economic activity).

Rural Development:

- Access to community and social infrastructure, especially wellresourced clinics.
- Focus on the development of new and the rehabilitation of existing infrastructure.
- Improve and develop infrastructure conducive to economic development, for example distribution and transportation infrastructure, agricultural infrastructure, water and electricity infrastructure, market and storage infrastructure, retail infrastructure and telecommunications infrastructure.
- Improve and develop infrastructure conducive to social development, for instance sanitation infrastructure, health infrastructure, sports and recreation infrastructure and education infrastructure (especially ABET centres).

Land Reform:

- Promote restitution, tenure reform and redistribution in a sustainable manner.
- Increase access to land by previously disadvantaged people.

- Establish agri-villages for local economic development on farms.
- Up-to-date information pertaining to land claims.
- Provide reliable and efficient property (deeds) registration system.
- Contribute to economic growth and housing development by providing government and private agents with essential land information in order to engage in planning as well as economic transactions.
- Provide spatial planning information and services to local municipalities and other public and private institutions that may require these services for development purposes.

2.1.11 Industrial Policy Action Plan 2018/19-2020/21

The Industrial Policy Action Plan 2018/19 to 2020/21 or the 'Revised IPAP2' as it has become known builds on the National Industrial Policy Framework (NIPF) which has the following core **objectives**:

- To facilitate diversification beyond the economy's current reliance on traditional commodities and non-tradable services that require the promotion of value-addition, characterised particularly by the movement into non-traditional tradable goods and services that compete in export markets and against imports;
- To ensure long-term intensification of South Africa's industrialisation process and movement towards a knowledge economy;
- To promote a labour-absorbing industrialisation path, with the emphasis on tradable labour-absorbing goods and services and economic linkages that create employment;



- To promote industrialisation characterised by the increased participation of historically disadvantaged people and marginalised regions in the industrial economy, and
- To contribute towards industrial development in Africa with a strong emphasis on building the continent's productive capacity and secure regional economic integration.

Significant achievements are to be obtained in implementing transformative industrial policy actions plans at the sectoral level and the development of stronger transversal platforms set the basis for further strengthening of industrial policy interventions. Special emphasis is placed on **three sectors** that are particularly well placed for scaling up through leveraging market growth and associated upgrading of supply capacity and capabilities. These are:

- Green" Industries: In particular, the manufacture of components for the 17.8 GW renewable energy generation programme and the production of solar heaters and components, and a range of other goods and services that arise from the requirements of higher energy efficiency in the economy.
- Agro-processing: In particular, the expediting of regulatory and support mechanisms to create a large-scale bio-fuels industry, the identification and promotion of export market opportunities to major net food-importing countries; and investment, production development and standards support.
- Metal fabrication, capital and transport equipment: Significant opportunities arise from the leveraging of large public procurement in

rail and electricity, the provision of associated investment and upgrading support, and exploitation of opportunities arising from mining capital equipment investment in South Africa and on the rest of the continent.

2.1.12 National Infrastructure Development Plan 2022

The National Infrastructure Plan (2022) intends to transform our economic landscape while simultaneously creating significant numbers of new jobs, and to strengthen the delivery of basic services.

The NIP 2050 is organised into six main sections. The first section offers insight into the four mission-critical infrastructure areas, namely energy, freight transport, water and digital communications. There are then five cross-cutting sections focused on the regional agenda for infrastructure, finance, strengthening institutions for delivery, rebuilding the civil construction and supplier sector and the approach to monitoring and reporting on progress. Each section follows the same format: (1) stating the vision, (2) offering a frank assessment of the current status, (3) outlining essential conditions for success and (4) stating what will be done to achieve the vision and conditions for success. With an eye to long-term success, there is significant emphasis on near-term course correction. To this end, the NIP2050 offers direction in strengthening and augmenting government's Strategic Integrated Projects (SIPs) that are relevant to the four sectors, as well as three-year action plans.



The NIP 2050 gives guidance on themes common to the four sectors, which would see significant emphasis in building capacity in the following:

- Knowledge and innovation services, for capability in planning, monitoring, budgeting, finance, procurement, project preparation, project management and sector-specific innovation. This enables evidence-based decision-making, improves cost-effectiveness, mitigates risk and helps optimise and can contribute significantly to improving infrastructure quality, delivery and sustainability. Building these capabilities will be the NIP's top priority.
- Public-private cooperation and stimulation of competition, where appropriate, in the delivery of public infrastructure.
- Spatial transformation to promote more inclusive development in line with the National Spatial Development Framework (NSDF).
- **Blended project finance** and innovative green finance.
- Executive management and technical capability within the state and its entities, so that they are stable and can lead and deliver with confidence.
- Economic regulation.
- Industrial development and localisation in the design and approach to implementation. Examples are localisation of supplier industries to infrastructure projects, driving the establishment of Special Economic Zones around intermodal transport linkage nodes, and the stimulation of the civil construction and supplier industries.
- Efficient modes of delivery.

- A safe, secure and ethical environment for public infrastructure delivery
- **Delivery of an Africa regional infrastructure programme.**
- South African civil construction and supplier industries, so that local industry gains from state infrastructure investment.

The NIP 2050 does not seek to be comprehensive – it is not meant to be a database of all projects, a consolidation of masterplans, a spatial mapping of projects or a mechanism for centralised decision-making. Rather, the aim is to identify the most critical actions that are needed for sustained improvement in public infrastructure delivery and that will have impact in the short term but with the longer-term imperatives in view.

2.1.13 National Transport Master Plan 2005-2050

The main purpose of the National Transportation Master Plan 2005-2050 is to motivate a prioritised programme for interventions to upgrade the transportation system in South Africa. The core directives or paradigm shifts emanating from the Master Plan are to:

- Place greater emphasis on developing rail as a transportation medium,
- Ensure greater integration between land use development and transportation planning; and
- Put more emphasis on enhancing development of a number of priority national transport corridors.



2

Figure 3 (from NATMAP) conceptually depicts the spatial integration of NATMAP 2050 with national policies and strategies, as set out in the NDP and IUDF above. With respect to the Mangaung MM, it should be noted that the metro lies to the south in the economic heartland of South Africa, where all the major road and rail infrastructure converge. The study area is located along the Primary Transnational Development Corridor (N1) and cross-border infrastructure connections, aimed at creating an integrated southern African economy, which require specific interventions around economic stimulus and trade and transport networks. Some of the most important connections in the vicinity of Mangaung include the following:

- D The Mangaung East London Corridor;
- D The Mangaung Port Elizabeth Corridor, and
- D The east-west Lesotho Kimberley (Sol Plaatjie) Corridor.



Figure 3: Spatial Integration of NATMAP with existing policies, SIP Projects

2.1.14 Integrated Resource Plan for Electricity 2010-2030

The Integrated Resource Plan for Electricity (IRP) 2010-2030 was promulgated in March 2011, and updated in 2013. It incorporates, amongst others, the national policy objectives and broader economic imperatives as clarified in the National Development Plan (NDP).

Figure 4 emphasises the fact that the main distribution network to the Northern Cape and Western Cape province passes to the north of



Mangaung from the Mpumalanga Energy Hub where most electricity is generated.



Figure 4: Major Transmission Development Scheme Projects

2.1.15 Development of Sustainable Human Settlements (Breaking New Ground) 2004

The National Strategy for Sustainable Development, alternatively referred to as Breaking New Ground (2004), is a comprehensive plan for the development of sustainable human settlements. Commissioned by the Department of Human Settlement, the plan promotes the creation of a nonracial, integrated society through the development of sustainable human settlements and quality housing. Within this, the Department is committed to meeting the following specific objectives:

- Accelerate housing delivery;
- Improve the quality of housing products and environments;
- Ensure asset creation;
- Ensure a single, efficient formal housing market, and
- Restructure and integrate human settlements.

It moves away from the current singular focus of housing delivery (numbers) towards more responsive mechanisms which address the multidimensional needs of sustainable human settlements.

2.1.16 Neighbourhood Development Partnership Grant 2006

The Neighbourhood Development Partnership Grant (NDPG) aims to "stimulate and accelerate investment in poor and underserved neighbourhoods." This stimulation is driven through technical assistance and capital grant financing for municipal projects that are linked to distinctive private sector element or intended to create such a link. The NDPG seeks to address the lack of development (primarily economic) in townships, informal areas and low income settlements and supports the following types of interventions:

- Turning dormitory townships into fully functional neighbourhoods;
- Strategic economic development projects;
- Land use restructuring;



- Stimulating property markets;
- Purchasing power retention;
- Public sector investment as catalyst;
- Leveraging non-governmental investment;
- Ensuring municipal support, and
- Kick-starting township regeneration.

2.1.17 Sustainable Development Goals

On 1 January 2016, the world officially began with the implementation of the 2030 Agenda for **Sustainable Development Goals** (**SDGs**) which are a universal set of goals, targets and indicators that the United Nations' member states will be expected to use to frame their agendas and political policies over the next 15 years.

This transformative plan of action is based on 17 Sustainable Development Goals to address urgent global challenges over the next 15 years summarised as follows:

- Goal 1 End poverty in all its forms everywhere.
- Goal 2 End hunger, achieve food security and improved nutrition and promote sustainable agriculture.
- Goal 3 Ensure healthy lives and promote well-being for all at all ages.
- Goal 4 Ensure inclusive and equitable quality education and promote lifelong learning
- Goal 5 Achieve gender equality and empower all women and girls

- Goal 6 Ensure availability and sustainable management of water and sanitation for all.
- Goal 7 Ensure access to affordable, reliable, sustainable and modern energy for all.
- Goal 8 Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.
- Goal 9 Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.
- Goal 10 Reduce income inequality within and among countries.
- Goal 11 Make cities and human settlements inclusive, safe, resilient and sustainable
- Goal 12 Ensure sustainable consumption and production patterns.
- Goal 13 Take urgent action to combat climate change and its impacts by regulating emissions and promoting developments in renewable energy.
- Goal 14 Conserve and sustainably use the oceans, seas and marine resources for sustainable development.
- Goal 15 Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.
- Goal 16 Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels.
- Goal 17 Strengthen the means of implementation and revitalize the global partnership for sustainable development.



2.2 PROVINCIAL CONTEXT

2.2.1 Free State Growth and Development Strategy (FSGDS)

The Free State Growth and Development Strategy (FSGDS): Free State Vision 2030 is the fundamental policy framework for the Free State Provincial Government. It is the embodiment of the broad strategic policy goals and objectives of the province in line with national policy objectives. The Strategy addresses key and most fundamental issues of development spanning the social, economic and political environment. It takes into account annual provincial priorities and sets broad targets in terms of provincial economic growth and development, service delivery and public service transformation. The Strategy has identified six priority areas (pillars) of intervention by the province, namely:

- Inclusive economic growth and sustainable job creation;
- Education innovation and skills development;
- Improved quality of life;
- Sustainable rural development;
- Efficient administration and good governance;
- Building social cohesion.

Importantly, the FSGDS identifies drivers, strategies and measurable performance targets (five year, ten year, fifteen year and twenty year targets) to ensure that there is performance in relation to the identified six priority areas. Equally, Mangaung Metro should align its Growth and Development Strategy and the five-year development plans (including the Spatial Development Framework) with those of the provincial government of Free State.

The strategy is in itself built on the Pillars and Drivers as outlined in **Table 3** below:

Table 3. Table 3: Pillars and Drivers of the Free State Growth and Development Strategy

Pillar	Specific Drivers
Inclusive economic growth and sustainable job creation	 Accelerate land reform, diversify, expand agricultural development, food security indicators and targets related to agriculture Minimise the impact of the declining mining sector and ensure that existing mining potential is harnessed Expand and diversify manufacturing opportunities Capitalise on transport and distribution opportunities Harness, increase tourism potential and opportunities
Education, innovation and skills development	Ensure an appropriate skills base for growth and development
Improved quality of life	 Curb crime and streamline criminal justice system performance Expand and maintain basic rural infrastructure Facilitate sustainable human settlements Provide and improve adequate health care for citizens Ensure social development and social security services for all citizens Integrate environmental concerns into growth and development planning
Sustainable rural development	 Increase the provision of quality basic services and invest in education, healthcare and public transport Increase investment in agro-processing, tourism, aquaculture and crafts industries Increase financial support to rural communities



Pillar	Specific Drivers
	 Increase investment in irrigation technologies and implement conservation measures Improve access to markets for small-scale farmers and rural cooperatives Mainstream rural development in growth and development planning
Build social cohesion	 Popularise and promote rights and responsibilities embedded within the Constitution Introduce African languages in all schools to facilitate understanding, tolerance, respect and diversity Develop and embed shared values amongst communities Provide arts, culture, sports and recreation opportunities and prospects for all communities Strengthen participatory democracy to encourage citizenry expression to guide and influence behaviour Increase socio-economic access and opportunities to all to eliminate any forms of prejudice and marginalisation Create a safe and secure environment for individuals
Good governance	Foster good governance to create a conducive climate for growth and development

Equally, Mangaung Metro should align its Growth and Development Strategy and the Mangaung Integrated Development Plan (including the Spatial Development Framework) with those of the provincial government of Free State.

2.2.2 Free State Province Spatial Development Framework

The Provincial Spatial Development Framework (PSDF) has a pivotal role in giving effect to the Free State Vision 2030 by means of contextualizing international and national imperatives applicable to the Free State and aligning those with the realities and site-specific characteristics of the Free State. Together with the FSGDS, the PSDF is a critical instrument in guiding the use of the resources of the province in a manner that will ensure sustainable outcomes based on provincial development needs and priorities.

2.2.2.1 Vision

The PSDF gives effect to the provincial vision of:

"A unified and prosperous Free State which fulfils the needs of all its peoples."

2.2.2.2 Giving Effect to FSGDS Pillars

The PSDF is premised on the principle that, in order to achieve the above vision, a holistic and all-embracing approach to the governance of the Free State is required. Such an approach should focus on ensuring the sustainability of the resource base upon which the general well-being of the people of the Free State depend (in line with the following statement noted in the Free State Vision 2050: "....in the quest for inclusive economic growth and development, the environment will be protected for future generations, and the lasting responses to climate changes will be part of the landscape of the development of the province").



The two dedicated PSDF drivers in support to the Free State Vision 2030 and PGOs constitute the following:

- PSDF Pillar 1: Sustainability Biophysical, social, economic and technical sustainability of all land-use programmes and projects.
- PSDF Pillar 2: Spatial Planning Integrated spatial planning and landuse management



Relationship between the Free State Vision 2030, the FSGDS pillars and drivers, and the supporting PSDF pillars and drivers

2.2.2.3 Sectoral Strategies in the PSDF

The PSDF is essentially a compilation of, and an alignment directive for the strategies and plans of the various national and provincial sectoral departments operational in the Free State. The sectoral policies, objectives and implementation strategies proposed by FSGDS and the PSDF are informed by, among others, the following:

- a) The current and the future socio-economic benefits, opportunities and constraints offered by the private sector.
- b) The spatial distribution of the activities within the sector and their spatial relationship with markets and transportation.
- c) The impact that the activities have or could have on ecologically sensitive systems or processes and areas of biodiversity.
- The need for bulk engineering and social services including electricity, water, health, education, housing, and recreational facilities.

2.2.2.4 PSDF Objectives

The key objectives of the PSDF as it relates to spatial planning are to integrate and standardise planning at all spheres of government in the province with specific reference to the following:

- a) Supporting the district and local municipalities in the preparation of their SDFs prepared in terms of the SPLUMA. Specific reference is made to:
 - (i) Facilitating the land-use classification of the entire land surface of the province in a standard format in accordance with a set of dedicated Spatial Planning Categories (SPCs).



- (ii) Describing the existing and desired future spatial patterns that provide for integrated, efficient and sustainable settlements throughout the province.
- b) Guiding the investment of public resources through the following:
 - (i) Providing a credible context for public investments in the coming years.
 - (ii) Providing certainty to all stakeholders regarding spatial and socioeconomic implications of future development in the Free State.
 - (iii) Providing a basis for co-ordinated decision-making and policyformulation regarding future land-use.
- Facilitating cross-boundary co-operation and co-ordination between C) district and local municipalities, adjoining provinces, and Lesotho as it relates to issues that are of mutual interest for their respective areas of jurisdiction (refer to inter alia issues pertaining to land-use, biodiversity conservation, and resource utilisation).

SPATIAL PLANNING CATEGORIES CORE CONSERVATION AREAS URBAN RELATED AREAS B NATURAL BUFFER AREAS E INDUSTRIAL AREAS AGRICULTURAL AREAS F SURFACE INFRASTRUCTURE


2.2.2.5 Spatial Planning Categories

The PSDF composite plan and the sectoral land-use plans were prepared in accordance with six Spatial Planning Categories (SPCs). These SPCs collectively illustrate the desired matrix of land-uses throughout the province.



The following policy guidelines apply:

- a) Land-use planning (i.e. the drafting of SDFs) must be undertaken in terms of the spatial planning principles adopted for the PSDF.
- b) Detailed land-use planning at the district and the local municipal spheres is to be undertaken in accordance with the guidelines presented in the PSDF.
- c) Land-use planning at all spheres is to be supported by the SPISYS developed by the Department of Rural Development and Land Reform or any other compatible and comparable system.
- d) Any land-use amendment has to conform to the PSDF. This means that the relevant organs of state must take account of, and apply relevant provisions of the PSDF when making decisions that affect the use of land and other resources.
- e) The PSDF does not create, or take away, land-use rights.
- f) The PSDF is to be applied in a flexible and pragmatic manner that promotes a developmental state and which takes into account the merits and particular circumstances of each case as required by law (i.e. through an Environmental Impact Assessment {EIA} undertaken in terms of the National Environmental Management Act {NEMA} 107 of 1998).
- g) No land-use changes may be approved until the parameters of the SPCs applicable to the subject area have been verified and groundtruthed through a detailed site analysis. This is to be undertaken by the proponent of the land-use change.
- h) The SPC designation illustrated by the municipal SDFs must be used as a criterion for evaluation of rezoning and development applications.

In the case where an application is inconsistent with relevant SPC, or where it implies a change of SPC designation, the onus will be on the applicant to prove that the proposed change is desirable and that it will not have a significant detrimental impact on the environment.

i) Existing Zoning Scheme Regulations must be amended, where possible, to accommodate the SPCs and their applications.

2.2.2.6 PSDF Directives for Mangaung

The spatial vision for the Free State is depicted by the Composite Spatial Plan (**Figure 5**). This plan serves as a first level broad guide to spatial planning land-use throughout the province. Plan C1 should be read together with the sectoral SPC Plans (i.e. C2-C8) and not as a stand-alone item.





2.3 MANGAUNG METROPOLITAN CONTEXT

2.3.1 Mangaung IDP Directives

2.3.1.1 Vision

The vision of the Mangaung Metro is to be a "globally safe and attractive municipality to work, invest and live in".

The following elements are part of this vision:

- A democratic municipality, rooted in the Constitution, working with all sectors of the society to improve the quality of life of the people of Mangaung;
- A municipality whose community is united in diversity, recognising our common interests and greater equality of women;
- A municipality that provides high quality of service delivery and is constantly striving to ensure value for money;
- Create an ideal environment for our people to be able to work and have access to jobs and ensure that workers' rights are protected and the workforce is skilled;
- Build a municipality that ensures that business is afforded an environment to invest and profit while promoting the common interests of the community, including decent work;
- An efficient municipality that protects local citizens, provides quality services and infrastructure, as well as leadership for local development;

- Ensure that individuals and communities embrace mutual respect and human solidarity;
- A municipality that works closely with other spheres of government, business and civil society to build a better metro, province and country;
- A municipality that is vigorously driving the pro-poor agenda and intervening strategically and programmatically in breaking the cycle of poverty, and
- A municipality that recognises its operational context in relation to the City region, the province and being part of the country.

2.3.1.2 IDP Objectives

The City had initially nine (9) developmental priorities as depicted in the braces below and after the resolution taken at the Mayco Lekgotla these priorities has since been regenerated into five (5) IDP strategic development objectives as listed below:

- Spatial Transformation: Implement and integrated and targeted strategy that transforms the spatial and economic legacy of Mangaung.
- Economic Growth: Boost economic development by strengthening organisational performance.
- Service Delivery Improvement: Strengthen service delivery as a priority for economic growth.
- **Financial Health Improvement**: Implement a financial recovery plan that rebuilds financial Strength.



- Organisational Strength: Strengthen the organisation the heart of it all.
- Facilitating economic development within the realm of agrarian economic development anchored by agricultural production;
- Facilitating rural development given the expanse of agricultural land within the City and implement innovative projects such as Agri-Park and Agri-Village in partnership with other spheres of government and the private sector respectively.
- Strengthening local economies and thereby broaden the revenue and property tax base of the municipality.
- Evolving integrated human settlements with varied housing typologies (mixed development) closer to transport corridors and employment opportunities.
- Facilitating equitable development within the regions of the City including the incorporated regions of Naledi Local Municipality and Ikgomotseng / Soutpan area.
- Implementation of the Integrated Public Transport Network with corresponding Non-Motorised Transport Initiative to evolve a reliable public transport system and confirm the City as a "walking City".
- Youth Development will be systematically pursued and initiatives such as Youth Enterprise Development and Etsose Batjha Youth Furniture Making Co-operatives will be reviewed.
- Combating the spread of HIV/AIDS through the established Local AIDS Council.

- Land development should be preceded by an extensive land audit and strategic land release to facilitate industrial development.
- Revenue enhancement processes should be enhanced to improve the liquidity of the City and thus position the City to enter the municipal Bond Market.
- Enhancing institutional development of the City through skills development and partnering with institutions of higher learning (UFS and CUT).
- Enhancing efficiency gains in relation to operations related to key performance area.
- To make a corresponding investment in the maintenance of service delivery infrastructure and utilities to extend their useful life being mindful of the set threshold of 8% of the Operational Budget of the City that should go to maintenance.
- Securing water supply from source which will be the lifeline to anchor development in the City.
- Evolving into a smart City by providing free WIFI and laying fibre-optic network that will reduce the cost of telephony and setting up business in the City.
- Partner with CSIR and HSRC to deal with social development issues (poverty mapping, use of technology and Alternative Building Technology).
- In pursuit of inclusive growth and radical economic development, the City will implement 30% set aside in all the procurement of the City.
- Installing CCTV cameras at strategic locations in pursuit of public safety.



2.3.1.3 Development Challenges and Opportunities

The following table (Error! Reference source not found.4) represents the priority development challenges, priorities, opportunities and threats noted in the M angaung IDP:

Table 4. Mangaung Alignment with Pillars and Drivers of the Free State GDS

Challenges		Priorities	Opportunities	Threats								
Mu	nicipal Transformation and Institutiona	al Development										
	Shortage of personnel in critical division – infrastructure departments, Quality of reporting and performance information	 Strengthening of critical service delivery division Improving quality of performance information (setting of KPIs by departments) 	 Assigned metropolitan status provide an opportunity for embarking on an extensive organizational review in the medium to long term Strong and credible monitoring and evaluation Attainment of clean audit Enabling policy and legislative frameworks on staff establishments 	Capacity to deliver on assigned developmental mandate								
Loc	Local Economic Development and Rural Development											
	Provision of land to accommodate emerging township small farmers Availability of economic marketing strategy and investment attraction strategy Availability of reliable public transport Lack of long-term economic development strategy	Providing commonages in partnership with the Department of Agriculture to accommodate farming activity and grazing of animals Implementation of BRT system	 Providing commonages in partnership with the Department of Agriculture to accommodate farming activity and grazing of animals Roll out of IPTN R600 million budget allocation. Agri Park and Agri-Villages developments City borrowing capacity 	 Availability of land Food security Rampant poverty Structural layout of City road infrastructure Availability of adequate funding 								
Fin	ancial Viability and Sustainability											
	Rising services arrears debt of R3.5 billion	 Implementation of Revenue Enhancement Strategy Revenue protection and prudent cash flow management Proper management and accounting of municipal infrastructural assets 	 Committed management and staff Stable and supportive political leadership Implementation of new valuation roll and data purification Rebate incentive Scheme 	 Non -compliance to internal control procedures and legislation Non-payment for municipal services compounded by high unemployment rate 								
Ser	vice Delivery											
	Housing backlogs and incomplete housing projects	 Building of mixed housing (BNG, Gap Market and Bonded Houses) Attainment of Level 2 accreditation for Housing Delivery 	 BNG, Gap Market and Bonded Houses) Level 2 accreditation for Housing Delivery Accelerating development of seven (7) land parcels with mixed development trajectory 	Social protest – communities demanding housing								

MANGAUNG

Ch	allenges	Priorities	Opportunities	Threats
•	Illegal settlements and land invasions in areas/lands planned for different development other than residential Massive service delivery and infrastructure backlogs in the townships and rural areas –roads and stormwater Inadequate funding for key service delivery projects and programmes	 Accelerate the programme of upgrading roads and stormwater in township Development and implementation of a comprehensive storm-water masterplan Increase the pace of eradicating sanitation backlogs 	 Replication of Township Revitalization Programme that has borne results at Batho Location Availability of City Support Programme that will be providing resources for Township Revitalization such as revitalization of Central Business District and Waaihoek Corridor Development Expanded bulk services to support eradication of backlogs 	 People houses being flooded during inclement weather Rising claims lodged against the municipality Limited resources at the disposal of the City Water scarcity and lack of security of water supply from source
	Ineffective service delivery – refuse and waste collection	Implementation of Integrated Waste Management Plan and purchasing of compaction trucks for waste removal	 Regular waste removal. services and building of transfer stations at strategically located sites Promotion of green environment 	 Degradation of the environment Community protests Illegal dumping may threaten the health and safety of citizens
	Ageing service delivery infrastructure (<i>including electricity and water line</i> <i>losses</i>) and utilities (fleet) Unavailability of water at source and declining dam levels	 Implementation of Water Conservation and Demand management programmes Development of electricity business strategy that also deal with green energy and future development outlook Implementation of bulk water enumentation programme 	 Implement three-pronged Mangaung Bulk Water Programme (MBWAP) Implement Water Conservation and Demand Management (MMM 10-year WCDM Strategy) Optimise available water resources through Water Reuse (Maselspoort Reuse Project) Augment water supply through the Gariep Dam (Mangaung Gariep Water Augmentation Project) 	 Wastage and losing of monies as result of water loss Unreliable water supply due to demand exceeding the supply Water usage by citizens – gardening, car washes
	Maintenance of service delivery infrastructure and utilities (including fleet)	 Implementation programme Implementation of Refurbishment and Rehabilitation programmes Multiyear capital program to ensure assets are indeed replaced at the end of their economic life Reviewing turn-around time of servicing service delivery utilities/vehicles 	Making adequate provision for rehabilitation of infrastructure	Correct use of infrastructure by communities
	Poor performance in terms of capital programmes;	 Implementation of Capital Infrastructure Procurement Plan Spending of grant funding ahead of own funds to meet spending norms 	 Enhancing future planning and contract management Fast-track delivery of programmes and project 	Loss of capital grants and community dissatisfaction about service delivery



2.3.1.4 Priority Spatial Issues

The following eight priority spatial issues have been identified in the Mangaung IDP:

- Location of economic investment not optimized.
- Limited growth potential for new development in the western areas of Bloemfontein.
- Spatial fragmentation and interdependent development patterns.
- Growth in the south-eastern and north-western areas are pulling the City apart.
- Distant urban dependencies of Botshabelo and Thaba Nchu on Bloemfontein.
- Imbalanced linkages between the urban areas and the distant rural dependants and neighbours.
- Sprawl, inequitable access, inefficient land use and ineffective investment.
- Unplanned changing character of existing residential areas.

All of the above matters will have to be addressed as part of the Mangaung Metropolitan Spatial Development Framework process.



3 SITUATONAL ANALYSIS: SPATIAL ISSUES AND CHALLENGES 3.1 INSTITUTIONAL

3.1.1 Cadastral Base and Institutional Boundaries

The Mangaung Metropolitan Municipality covers an area of approximately 988,763 ha of land bordered by the Mantsopa, Masilonyana and Tokologo Local Municipalities to the north; the Letsemeng Local Municipality to the west; and the Kopanong and Mohokare Local Municipalities to the south. (Refer to **Figure 6**).

The entire south-eastern border represents the international border with Lesotho.

The municipality is divided into **51 wards** and comprises a total of 2,481 parent farms and 6,302 farm portions. Small Holdings total about 3,171 units, while there are an estimated 209,467 individual erven within the municipal area.

3.1.2 Land Ownership

Figure 7 shows that the majority part (81%) of all land in the Metropolitan area is under private ownership and/or undetermined.

National and Provincial Government own approximately **155,971 ha** of land which represent around 16% of the total area. Most of the National and

Provincial owned land parcels are located in the eastern extents of the municipal area extending from Morago to the north, southwards up to the vicinity of Van Stadensrus. There are also a notable number of government-owned land parcels to the north-west between De Brug and Soutpan.

Land under traditional authority leadership amounts to an estimated **82,064 ha**, all of which is located in the north-eastern extents of the Mangaung Metropolitan Municipality.

The Mangaung Metropolitan Municipality owns an estimated 28,055 ha of land, the bulk of which is clustered around Bloemfontein and the Botshabelo-Thaba Nchu complex respectively (refer to inserts on **Figure 7**). This represents about 3% of all land in the municipal area.

3.1.3 Land Reform

Although the current IOP and PLAS projects of the DRDLR are scattered all over the Mangaung Municipal area (refer to **Figure 8**), clear patterns become noticeable in relation to the following:

- The majority of DRDLR project spend occurs around Thaba Nchu and Botshabelo;
- LRD, LTA and Restitution projects stretch from the southeast of Botshabelo to the southern parts of Bloemfontein, and
- There is a high concentration of State-owned land in Thaba Nchu.







Three priority platforms have been identified for land reform and include the following:

- a) The Thaba Nchu rural area comprises mostly state-owned land, which is kept in trust and administered by the Barolong Traditional Council. Ownership of the land has been a contentious issue for many years and it is thus expected that the land will eventually be transferred to the Traditional Council.
- b) The Thaba Nchu Rural Area also comprises 37 rural villages where most of the rural farmers and their families reside. Likewise, a great need has been expressed by local residents to obtain ownership of the small plots on which they reside.
- c) Finally, a vast area located generally to the south of Bloemfontein, stretching from Botshabelo in the east up to the N1 National Road in the west, currently contains many DRDLR projects and existing restitution cases, which serve as a basis for land reform implementation.

3.2 SOCIO ECONOMIC OVERVIEW

This section provides an overview of the demographic, economic and employment profile for the Mangaung Metropolitan Municipality.

3.2.1 Demographic Profile

Diagram 4 shows that the population of the Free State Province increased at a rate of 0,6% per annum from 2,745 million in 2011 to 2,834 million by 2016. The total population increment during this period is 89,123 people which translates to an annual increment of about 17,825 people in the province.

- The Mangaung Metropolitan Municipality represents approximately 28% of the provincial population.
- During the period 2011 to 2019, the Mangaung population increased from 775,028 to 878,834 – an increment of about 104,749 people which translates to around 13,000 people per annum.
- This population growth rate (1,6% per annum) is significantly higher than that of the Free State Province.
- The population represents an estimated 285,385 households at an average household size of 3,1 people per household.
- About 65% of all households reside in Mangaung/Bloemfontein; 31% in Botshabelo-Thaba Nchu, 3% in the other small towns and 2% in the farm areas.
- The household increment during the period 2011 to 2019 is approximately 4,4750 which translates to approximately 5,594 households per annum (refer to Error! Reference source not found.5).
- Diagram 5 shows that the male:female ratio in the Mangaung Metropolitan Municipality is about 48:52.
- The age group 0-14 represents 30% of the population in 2016 compared to 28% in 2011, and the age group 15-29 years represents about 28% in 2016. This implies that about 58% of the population is younger than 30 years.
- An alarming 14% of the population had no schooling in 2016 and from the 2011 figures, it is evident that the rural areas (farm areas) represent the larger portion of people with no schooling.





- Only about 9% of the population had a tertiary qualification which shows limited post school training/ skills development which is a concern.
- Diagram 6 indicates that approximately 61% of all households in the Mangaung Metropolitan Municipality earn less than R 3,500 per month (which is the threshold for government subsidized housing).
- Important to note also is the fact that the average monthly household income in Mangaung/Bloemfontein (R 10,921) is about three times higher than the average household income of Botshabelo-Thaba Nchu (R 3,509).
- The above trends are the same when looking at income per individual.
- Diagram 7 shows that about 76% of all dwelling units are formal houses while informal dwellings (backyard and informal settlements) represent about 11% of all housing stock in the municipality. In Mangaung/Bloemfontein this figure is higher at about 14% and even higher (16%) in Botshabelo/Thaba Nchu and 18% in the other small towns.
- Around 63% of housing stock is fully owned and paid off; about 11% is rented; and about 8% is occupied rent-free (especially in the rural areas).







Table 5. Mangaung MM Population, Households and Household Size (2011-2019)

	Population	Incremental Population	Incremental Population p.a.	% Growth p.a.			
Functional Area	Census 2011	%	2019	%	2011-2019	2011-2019	2011-2019
Mangaung / Bloemfontein	464,586	60%	546,568	62%	81,982	10,248	2.1%
Botshabelo /Thaba Nchu	263,853	34%	290,055	33%	26,202	3,275	1.2%
Rural	25,795	3%	18,515	2%	- 7,280	- 910	-4.1%
Small Towns	20,794	3%	23,696	3%	2,902	363	1.6%
Total	775,028	100%	878,834	100%	103,806	12,976	1.6%

Mangaung MM Population 2011-2019

Source: Mangaung Integrated Public Transport Network, 2016

Mangaung MM Households 2011-2019

		Incremental	Incremental	% Growth			
	Households	Households	Households p.a.	p.a.			
Functional Area	Census 2011	%	2019	%	2011-2019	2011-2019	2011-2019
Mangaung / Bloemfontein	150,713	63%	184,560	65%	33,846	4,231	2.6%
Botshabelo /Thaba Nchu	78,142	32%	87,334	31%	9,192	1,149	1.4%
Rural	5,203	2%	6,059	2%	855	107	1.9%
Small Towns	6,575	3%	7,432	3%	856	107	1.5%
Total	240,635	100%	285,385	100%	44,750	5,594	2.2%

Source: Mangaung Integrated Public Transport Network, 2016

Mangaung MM Household size 2011-2019

Household Size											
Functional Area	Census 2011		2019								
Mangaung / Bloemfontein	3.1		3.0								
Botshabelo /Thaba Nchu	3.4		3.3								
Rural	5.0		3.1								
Small Towns	3.2		3.2								
Total	3.2		3.1								



3.2.2 Economic and Employment Profile

- Diagram 8 shows that the Mangaung Metropolitan Municipality recorded a GVA amounting to R 85,5 billion in 2018 which represents about 40,5% of the Free State Provincial GVA (R 218,7 billion) and 2% of the National GVA (R 4,341,3 billion).
- In line with National and Provincial trends, the economic growth rate of the Mangaung Metropolitan Municipality has been declining since 2012 when it was around 4,2%, compared to the 0,9% recorded in 2018.
- The primary sector contributes a mere 3% to the economy of the Mangaung Metropolitan Municipality while the secondary sector represents 12% of the GVA. The tertiary sector dominates the Mangaung Metropolitan Municipality's economy by contributing about 85% of the GVA.
- Community services (33%) and Finance (21%) are the largest contributors followed by Trade (17%) and Transport (13%). Manufacturing (6%) is the largest contributor in the Secondary Sector while Agriculture contributes about 2% and Mining only 1% to the Mangaung GVA.
- Diagram 9 shows that, in terms of employment, the Mangaung Metropolitan Municipality holds an estimated 270,389 workers (job opportunities) of which about 13,051 (5%) are in the Primary Sector, 36,511 (14%) in the Secondary Sector and 220,826 (82%) in the Tertiary Sector.

- Community Services (29%) and Trade (22%) are the largest contributors to employment, followed by Finance (14%) and Households (12%). Construction (7%) and Manufacturing (6%) are the largest contributors in the Secondary Sector while Agriculture contributes about 3% of all job opportunities in the Metropolitan area.
- The estimated unemployment rate (2018) stands at approximately 27,1% which is about 1,8 percentage points higher than the 25,3% recorded in 2011.
- The Mangaung Metropolitan Municipality unemployment rate is in line with the national average but slightly less than the average for Free State Province.
- The more detailed sectoral employment trends for Mangaung for the period 2011 up to 2018 are reflected in Table 6.

					0												
	Employment	on to t - 2011	Employment	on to t - 2015	Employment	on to : - 2018	% grow	/th p.a.	Tre	nd		Em	plovment	Increment	(net Chang	e)	
Sector	Number	%	Number	%	Number	%	2011-2015	2015-2018	2011-2015	2015-2018	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018
Primary	10,524	4%	11,317	4%	13,051	5%	1.8%	4.9%	793	1,734	63	85	134	511	575	784	375
Agriculture,																	
forestry, fishing	8,264	3%	8,367	3%	9,290	3%	0.3%	3.5%	103	923	-227	190	124	16	165	455	303
Mining and																	
quarying	2,260	1%	2,950	1%	3,761	1%	6.9%	8.4%	690	811	290	-105	10	495	410	329	72
Secondary	31,584	13%	34,405	13%	36,511	14%	2.2%	2.0%	2,822	2,106	-1,154	846	1,436	1,693	250	598	1,258
Manufacturing	14,578	6%	16,469	6%	15,561	6%	3.1%	-1.9%	1,891	-908	-698	1,076	1,051	462	-809	-380	281
Electricity, gas																	
and water	1,190	1%	2,129	1%	2,440	1%	15.6%	4.7%	939	312	28	87	286	538	288	79	-56
Construction	15,815	7%	15,807	6%	18,510	7%	0.0%	5.4%	-8	2,703	-484	-317	99	694	772	898	1,033
Tertiary	195,245	82%	213,469	82%	220,826	82%	2.3%	1.1%	18,225	7,357	-2,170	3,919	9,132	7,343	2,194	1,129	4,034
Wholesale/retail																	
trade, catering ,																	
accomodation	52,527	22%	57,885	22%	58,392	22%	2.5%	0.3%	5,358	507	-2,243	93	2,850	4,657	2,183	-86	-1,589
Transport,																	
storage,																	
communication	12,101	5%	12,090	5%	14,083	5%	0.0%	5.2%	-11	1,993	-853	118	169	555	617	924	451
Finance,																	
insurance, real																	
estate, business																	
services	35,144	15%	32,482	13%	36,986	14%	-1.9%	4.4%	-2,662	4,505	-1,327	-853	334	-817	-519	1,544	3,480
Community,																	
social, personal,																	
government																	
services	66,905	28%	81,430	31%	79,416	29%	5.0%	-0.8%	14,525	-2,014	2,371	5,066	5,294	1,793	-1,601	-1,676	1,262
Households	28,567	12%	29,583	11%	31,949	12%	0.9%	2.6%	1,015	2,366	-119	-505	484	1,155	1,513	422	431
Total	237,352	100%	259,191	100%	270,389	100%	2.2%	1.4%	21,839	11,197	-4,353	5,782	12,273	11,752	3,845	3,893	7,300

Table 6. Mangaung Metropolitan Municipality: Employment (Formal and Informal) by Sector, 2011-2018







3.3 NATURAL ENVIRONMENT

3.3.1 Topography and Hydrology

Figures 9.1 and **9.2** graphically depict the topographic features of the Mangaung Metropolitan Municipality. The landscape mainly comprises wide open plains (flat) interrupted by a number of small hills and ridges in the central and western parts. The eastern extents of the Mangaung Metropolitan Municipality are, however, more mountainous as it represents the most southern extents of the Maluti mountains which is a prominent feature in the bordering Lesotho.

The area is primarily drained by three drainage systems:

- The Caledon River to the east which drains southwards towards the Orange River and which it links into at the Gariep Dam;
- The Riet River which originates in the vicinity of Dewetsdorp from where it flows in a northwesterly direction towards the Tierpoort Dam and then into the Kopanong Local Municipality towards the Kalkfontein Dam;
- The Modder River which also originates in the Dewetsdorp vicinity from where it flows northwards towards the Rustfontein Dam near Botshabelo and northwestwards through Maselspoort, Glen and into the Krugersdrif Dam before linking up with the Riet River, and
- Further downstream it links into the Vaal River which eventually links up with the Orange River at Douglas in the Northern Cape.

The Leeuspruit to the far north-east originates in the vicinity of Tweespruit close to Thaba Nchu and eventually becomes part of the Vet River to the north thereof.

The most prominent dams within the municipal area include the Krugersdrif, Rustfontein, Tierpoort and Welbedacht Dams.

The surface water resources in the Mangaung Metropolitan Municipality area are well developed, with a high degree of utilisation. Water requirements outstrip the local yield and water is transferred into the catchment to meet the requirements (refer to section 3.4.6 in this report).

Groundwater has always been an important source of rural water supply within the Mangaung Metropolitan Municipality area. In the drier parts of the municipal area groundwater constitutes the main, and in many cases the only source of water for rural domestic supplies and stock watering, as well as for towns. Groundwater is therefore considered as an essential resource, specifically for the smaller towns.

In the Bainsvlei/Kalkveld area to the north-west of Bloemfontein and the area to the south-west of Bloemfontein, groundwater is used extensively for agricultural purposes. In these areas, higher recharge rates occur in localised areas, resulting in particularly high-yielding aquifers on which agriculture is strongly dependent.

In the Bainsvlei/Kalkveld area to the north-west of Bloemfontein and the area to the south-west of Bloemfontein, groundwater is used extensively for agricultural purposes. In these areas, higher recharge rates occur in Localised areas, resulting in particularly high yielding aquifers on which



agriculture is strongly dependent.

3.3.2 Geology and Soils

Geology is an important determinant of soil type, groundwater availability and agricultural suitability. The Mangaung area is covered by the Karoo Supergroup geology. The geology consists primarily of siliciclastic sedimentary rocks, but also includes some felsic igneous rocks scattered in the landscape. The former, including soft shales and very soft mudstones, are the dominant rock types in virtually all parts of the Mangaung Metropolitan Municipality area.

Numerous scattered intrusions of the fine-grained felsic doleritic rock occur throughout the Mangaung Metropolitan Municipality area. The sedimentary geology has been intensively intruded by magmatic dolerite intrusive sills and dykes. The baked contact zones between the dolerite intrusion and the sedimentary host rock has led to the formation of fracture zones, which are the main sources of abstractable groundwater.

As shown on **Figure 10**, the western parts mainly comprise red weakly structured soils with high base status while the central and far south-eastern areas (around Vanstadensrus) are characterized by soils with a marked clay composition.

The more mountainous eastern escarpment area comprises soils with minimal development, usually shallow and with or without intermittent diverse soils. The areas to the north and north-east of Bloemfontein are characterized by black and red, strongly structured clayey soils with high base status. This soil type also extends to the south-east of Bloemfontein parallel to Route R702.

3.3.3 Biodiversity and Conservation

Figure 11 shows that the dominant vegetation type in the Mangaung Metropolitan Municipality is Grasslands. It comprises ten different grassland types of which the Bloemfontein Dry Grassland covers the largest area. There are also six other small vegetation types with less grasses, including riparian thickets and pan associated vegetation.

According to the Mangaung Environmental Management Framework, 2017 there are no critically endangered ecosystems within the area of jurisdiction of the municipality.

Figure 12.1 illustrates the distribution of biodiversity and protected areas throughout the municipal area. An estimated 10% of the municipal area (95,000 ha) is categorized as a Critical Biodiversity Area 1 and 3% as Critical Biodiversity Area 2 (26,000 ha).

Ecological Support Areas (ESAs) include an estimated 295,000 ha of ESA₁ (30%), and about 235,000 ha of ESA₂ (24%).







"Other Natural Areas" cover around 166,000 ha of land (17% of the municipal area) while about 140,030 ha (14% of municipal area) is classified as "Degraded". This category includes amongst other the existing urban footprint within the municipality.

Figure 12.2 shows the same information but with CBA_1 and CBA_2 and ESA_1 and ESA_2 combined. This was done in order to obtain a more consolidated perspective on the major spatial trends.

From **Figure 12.2** it is evident that protected areas mostly occur in the form of Nature Reserves which are often located around major water features, e.g. dams and rivers.

The most prominent in this regard is the cluster of nature reserves along the Modder River in the north-western extents of the Mangaung Metropolitan Municipality. This cluster includes, amongst other, the Soetdoring, Nicksview and Steenbokkraal Nature Reserves. A few smaller nature reserves are located to the north of Bloemfontein while the De Oudekraal Nature Reserve is located in the vicinity of Tierpoort. To the east are the Rustfontein and Maria Moroko Nature Reserves while the Caledon Nature Reserve is located to the south in the vicinity of the Welbedacht Dam.

Critical Biodiversity Areas are mainly clustered along the eastern border of the Mangaung Metropolitan Municipality from Van Stadensrus in the south right up to Tweespruit and Rakhoi towards the north. A few smaller clusters of Critical Biodiversity Areas also occur to the south of Bloemfontein in the vicinity of Grootvlei, Tierpoort and De Brug; as well as the areas around the Soetdoring Nature Reserve and towards Soutpan to the north.

Ecological Support Areas represent environmental corridors linking the Protected Areas and Critical Biodiversity Areas to one another, thereby facilitating the migration of fauna and flora throughout the Metropolitan area. Often these corridors coincide with the alignment of rivers as is clearly evident from **Figure 12.2**.

It is notable that the bulk of Other Natural Areas and Degraded land is located around the major urban centres like Bloemfontein, Botshabelo-Thaba Nchu, Dewetsdorp and Wepener where the high concentration of human activities has resulted in the degradation of the natural environment (see **Figure 12.2**).

3.4 MUNICIPAL LAND USE AND SPATIAL STRUCTURE

3.4.1 Hierarchy and Functional Role of Settlements

Figure 13 illustrates the regional spatial structure, land use and movement network of the Mangaung Metropolitan Municipality. It comprises three large urban centres: Bloemfontein, Botshabelo and Thaba Nchu, as well as four smaller urban centres, including Dewetsdorp, Wepener and Van Stadensrus to the south and Soutpan to the north.

Bloemfontein is the judicial capital of South Africa and the capital of Free State Province – serving as the administrative headquarters of the province.





It also represents the economic hub of the Metropolitan area and the province.

Botshabelo is located approximately 55 km to the east of Bloemfontein along route N8. It was established in 1978 as a decentralized township under the Apartheid dispensation, and it is the largest single township development in the Free State Province.

Thaba Nchu is situated approximately 12 kilometres further to the east of Botshabelo and used to be part of Bophuthatswana. As a result, it comprises the main town surrounded by about 37 rural villages located on trust land under traditional leadership.

Dewetsdorp, Wepener and Van Stadensrus were part of the former Naledi Local Municipality which have been incorporated into the Mangaung Metropolitan Municipality since the 2016 Municipal elections. Collectively, these three towns represent a mere 7,400 households of which the majority are located in Dewetsdorp and Wepener.

Dewetsdorp/Morojaneng is located approximately 75 km to the south-east of Bloemfontein along Route R702 and serves as a central place to a wellestablished surrounding farming community.

Wepener/Qibing is located about 30 km further to the south-east of Dewetsdorp close to the Lesotho border, and more specifically the Van Rooyenshoek border post.



Neither of the two towns provide any significant industrial or commercial services.

Van Stadensrus/Thapelong is significantly smaller than Dewetsdorp and Wepener and merely comprise a rural cluster of residential uses. It has no formal business area and is totally dependent on the surrounding regional agricultural activities.

Soutpan/Ikgomotseng is located about 38 km to the north of Bloemfontein along Route R700. It is a small settlement which established because of the (salt) mining activity in the area. The area is also known for the Florisbad Anthropological Centre and the Soetdoring Nature Reserve.

The rural areas of Mangaung are characterized by extensive commercial farming in the west and central and south-eastern parts.

The north-eastern areas are characterized by a large concentration of subsistence farming around the rural villages north and south of Thaba Nchu.

3.4.2 Movement Network and Hierarchy

3.4.2.1 Road

Figure 14 shows that the Mangaung Metropolitan Municipality holds a comprehensive road network comprising a number of national, provincial and secondary roads, several railway lines, the Mangaung Airport and several smaller airfields.

The major roads serving the Mangaung Metropolitan Municipality include the following:

- National Route N1 linking to Cape Town to the south and Johannesburg, Musina and Zimbabwe towards the north;
- National Route N8 extending from Upington and Kimberley eastwards past Bloemfontein, Botshabelo and Thaba Nchu and up to Maseru in Lesotho;
- National Route N6 from Bloemfontein south-eastwards towards Queenstown and East London in the Eastern Cape;
- Provincial Road R702 from Bloemfontein to Dewetsdorp and Wepener;
- Provincial Road R64 from Bloemfontein to Dealesville;
- Provincial Road R700 from Bloemfontein to Hoopstad and Bloemhof;
- Provincial Road R706 from Bloemfontein to Jagersfontein;
- Provincial Road R30 from Bloemfontein to Welkom/Odendaalsrus;
- Provincial Road R26 runs parallel to the east of the Lesotho border linking Wepener to Hobhouse and Ladybrand to the north and to Zastron to the south.



- SIP6: Construction of Thaba Nchu Public Transport Route, and
- SIP7: N8 Development Corridor.

3.4.2.2 Rail

Three major railway lines pass through the Mangaung area:

- The Johannesburg-Cape Town freight and passenger line running along Route N1.
- The Kimberley-Maseru freight line running east-west along Route N8 of which the section between Bloemfontein and Maseru forms part of SIP17.
- The Bloemfontein-Wepener line which links southwards towards the Eastern Cape. (Not operational anymore).

3.4.2.3 Air

The Bram Fischer International Airport is the primary airport in the Mangaung Metropolitan Municipality (and Free State Province) while a few smaller airfields exist throughout the remainder of the municipal area.



3.4.2.4 Public Transport

It is estimated that approximately 195,000 work related trips are being generated daily in the Mangaung municipal area of which the majority (47%) are generated in the Mangaung township area; 23% in Bloemfontein; 14% in Botshabelo and 8% in Thaba Nchu.

About 33% of these trips are made by taxis; 11% by bus and 17% by foot.

The major public transport movement desire lines are between Mangaung Township and Bloemfontein CBD; and along Route N8 between Bloemfontein CBD and the Botshabelo-Thaba Nchu complex (\pm 13,000 trips per day).

3.4.3 Economic Activity

3.4.3.1 Business

Figure 15 graphically illustrates the spatial distribution of business nodes/ activity throughout the Mangaung Metropolitan Municipality area. The primary business node in Mangaung is the Bloemfontein CBD which provides the largest number and widest range of business activities in the municipal area. A number of smaller decentralized business nodes also exist in the residential suburbs of Bloemfontein and Mangaung Township. Botshabelo, Thaba Nchu, Dewetsdorp and Wepener also have a formal business area with small formal and informal business activities scattered throughout the surrounding residential urban fabric.

Table 7 below shows that the estimated retail floor space in the municipal area is about 1,146 million m² and office floor space amounts to about 986,489 m². These economic activity areas provide jobs for an estimated 87,163 workers.

		Floor Area	(m²)	Workers (m²)							
Functional Area	Retail	Office	Total	%	Retail	Office	Total	%			
Mangaung / Bloemfontein	973,267	935,270	1,908,537	89%	27,650	51,758	79,408	91%			
Botshabelo /Thaba Nchu	143,015	45,076	188,092	9%	4,063	2,495	6,557	8%			
Rural	4,623	-	4,623	0.2%	131	-	131	0.2%			
Small Towns	25,587	6,143	31,730	1%	727	340	1,067	1%			
Total	1,146,493	986,489	2,132,982	100%	32,571	54,593	87,163	100%			

Table 7. Mangaung MM Estimated Business Job Opportunities and Floor Areas, 2019

Source: Mangaung Integrated Public Transport Network, 2016

3.4.3.2 Industrial

Figure 15 also shows the location and spatial extent of industrial/ commercial use throughout the Mangaung municipal area (also refer to Table 8 below).





 Table 8. Mangaung MM: Existing and Vacant Industrial/Commercial

 Land

		Existing	; (ha)				Vacant (
			Service					Service				
			related					related				
			(Light)					(Light)				
Functional Area	Industrial	Commercial	Industry	Total	%	Industrial	Commercial	Industry	Total	%	Total (ha)	%
Mangaung / Bloemfontein	405	507	16	928	84%	105	138	3	245	42%	1,174	70%
Botshabelo /Thaba Nchu*	131	27	13	171	15%	168	3	-	172	30%	343	20%
Rural	8	-	-	8	1%	162	-	-	162	28%	170	10%
Grand Total	544	534	30	1,108	100%	435	141	3	579	100%	1,687	100%
Mangaung / Bloemfontein (%)	34%	43%	1%	79%		9%	12%	0.2%	21%		100%	
Botshabelo /Thaba Nchu (%)	38%	8%	4%	50%		49%	1%	0.0%	50%		100%	
Rural (%)	5%	0%	0%	5%		95%	0%	0.0%	95%		100%	
Grand Total (%)	32%	32%	2%	66%		26%	8%	0.2%	34%		100%	
No significant presence of Industrial/C	ommercial	in small town	s									

* a large % of industrial buildings are vacant

About 70% of all industrial/ commercial land (1,174 ha) is located in Bloemfontein/Mangaung of which an estimated 928 ha is developed and 245 ha is still vacant.

In the Botshabelo/Thaba Nchu complex there is about 343 ha of industrial/ commercial land of which 171 ha is developed and 172 ha still vacant.

In the remaining part of the metropolitan area there is about 170 ha of industrial land of which only 8 ha is developed at present.

3.4.3.3 Agriculture

Figure 16 depicts the spatial distribution and extent of agricultural activity in the Mangaung area.

Annual crop farming is largely concentrated in the western parts of the Municipality in the vicinity of the Modder River Irrigation Scheme and covers an estimated 201,733 ha of land (20% of all agricultural land).

About 10,516 ha (1%) are irrigated and mainly occurs in the vicinity of the Modder River to the west and along the Caledon River in the south-eastern extents of the municipality.

As noted earlier, the land under traditional leadership in the north-eastern parts of the Mangaung Metropolitan Municipality is mostly used for subsistence farming which covers about 28,272 ha of land representing 3% of all agricultural use.

The remaining 718,738 ha of agricultural land in the Mangaung Metropolitan Municipality is utilized for extensive agriculture, representing an estimated 73% of all agricultural land in the municipal area.

Figure 17 illustrates the main commodities in the different parts of the Mangaung Metropolitan Municipality. In the north-western areas it is mainly maize and wheat while cattle and chicken farming also occur widely in this area. The central-southern parts in the vicinity of Dewetsdorp are most suitable for maize, sunflower, groundnut and soya beans with cattle and sheep farming also occurring extensively.

The Mangaung Agri Park initiative identified Thaba Nchu as the optimum location for the establishment of the Agri Hub for the region. It also identified potential for 15 Farmer Production Support Units of which the three top priority sites are located at Woodbridge, Felloane and Sediba, while the Rural Urban Market Centre (RUMC) was identified at Bloemfontein.






The University of Free State also suggested that the Lengau Research Facility south of Bloemfontein be used as a Farmer Training Centre.

The main commodities to be focussed on as part of the Agri Park initiative include red meat, sheep wool and vegetables.

The southern extents of the municipal area are suitable for a fairly wide range of commodities, including sheep and cattle farming.

It is also interesting to note the wide range of commodities suitable for the subsistence farming areas in the north-western parts where cattle, sheep and chicken farming also occur extensively.

Figure 18 depicts the commodity suitability in different parts of the Mangaung Metropolitan Municipality as defined in the Free State Agricultural Master Plan (AMP Version 7). The following are to be noted in this regard:

- Commercial Mixed Crop Farming and Cattle Farming dominates the landscape surrounding the Bloemfontein urban complex.
- Mixed Cattle, Small Stock and Cereal is concentrated towards the far north-west and around Dewetsdorp to the south.
- The areas between Dewetsdorp and Bloemfontein and directly to the west of the Welbedacht Dam are categorized as most suitable for Small Stock.
- The section between Wepener and Van Stadensrus is most suitable for Mixed Cereal and Cattle Farming.

The land under traditional leadership to the north-west is classified as suitable for Communal Mixed Farming.

Figure 19 shows that the western and north-western parts of the municipal area have the highest grazing capacity (7 to 10 hectares per livestock units). This represents an estimated 35% of all agricultural land in the Mangaung Metropolitan Municipality.

The central core area which covers about 50% of all agricultural land holds a Grazing Capacity of 6 ha/LSU while several areas in the far eastern parts of the municipality have relatively low grazing capacity (4-5 ha/LSU).

3.4.3.4 Tourism

Figure 20 shows that tourism facilities/ opportunities occur widely throughout the municipal area. This includes an extensive range of cultural-historic features, natural (scenery) features and tourism activities and accommodation/ conference facilities.

It is evident that the largest concentration of such facilities is around Bloemfontein while the eastern parts of the municipal area comprise a number of cultural-historic sites and extensive scenery features to be exploited.

Also important to note from **Figure 20** is the Tourism Corridors identified from the Free State SDF (along Route N6, R701, R26 and N8). There is also significant tourism potential along Route R702 between Bloemfontein,





Dewetsdorp and Wepener even though it has not been identified as such in the provincial SDF.

3.4.4 Housing

The vision of Mangaung Metro Municipality is expressed in its IDP in 2016 when the current administration was elected after the local government elections. This vision is supported in five (5) key development objectives including amongst others *spatial transformation* as key to the integrated built environment of the City. This is intended to be achieved through the following strategic objectives:

- Poverty eradication, rural and economic development, and job creation - through the prioritization of upgrading of informal settlements and economic nodes.
- Spatial development and the built environment through the Catalytic Land Development Programme.
- Basic service delivery inclusive and equitable access to basic services.
- Integrated Human Settlements by developing settlements that have access to socio-economic amenities, a mix of different landuses and the provision of different housing typologies.

3.4.4.1 Informal Settlement

Many cities in the world and in South Africa are facing the challenges of informal settlements. The influx to the settlements is due to unemployment and poverty in rural areas and perceived job opportunities in urban areas



and the low living expenses of an informal settlement. The immigrants prefer living in informal settlements where they can live very cheaply and still receive the minimum of services - and so informal settlements mushroom. This influx inevitably puts pressure on the municipalities to provide formal housing and services to a greater number of people.

The National Development Plan is advocating for the upgrading of informal settlements to provide adequate housing to the households living in informal settlements. The government of South Africa is committed to the vision of incrementally upgrading the informal settlements and providing basic services to the households.

In Mangaung Metro Municipality, there are 47 informal settlements which are home to an estimated **30 329** households. The Metro has adopted a municipal wide approach to the upgrading of the informal settlements wherein all the settlements have access to municipal utility services such as solid waste removal, access to water (individua and communal); 95% have access to electricity; and the roll-out of basic services is underway.

As illustrated on **Figure 21.1** the majority of these, are located in and around Bloemfontein/Mangaung, whilst some informal settlements are located in Botshabelo and in Thaba Nchu (**Figure 21.2**). Ikgomotseng, Qibing, Morojaneng and Thapelong which form part of the smaller towns of the Mangaung Metropolitan Municipality also have a few informal settlements (**Figures 21.3** to **21.6**).

Since 2016, Mangaung has upgraded six (6) informal settlements with a total of **872** households have been upgraded to phase 3 of the programme i.e. provision of individual household connection of water and sanitation. The Metro is currently in the process of upgrading a further sixteen (17) settlements to phase 3 by providing individual water and sanitation connection to benefit **14 653** households and two (2) through the provision of interim services such as communal taps to **4 046** households.

Table 9 below shows the progress and status of informal settlements in the

 Metro:

a) Challenges in Upgrading of Informal Settlements

One of the challenges in the upgrading of informal settlements is the lack of bulk capacity especially for sanitation in regions of Thaba-Nchu and Botshabelo.

The Metro will be exploring the alternative sanitation solutions to provide flushing toilets to households while waiting for the construction of bulk infrastructure. This solution will ensure that continued access to decent sanitation that can be converted to conventional waterborne sanitation when bulk is built.

The other challenge in the upgrading process is the fact that there is serious backlogs of basic services and making it difficult to prioritise informal settlements. The Metro will approach this problem by ensuring that the projects related to basic services provision are properly aligned in old township aeras and informal settlements.

The Metro is working with the HDA in the development and updating of the Informal Settlements Upgrading Strategy and the settlements plans. This will assist the Metro to have a coordinated and integrated approach when upgrading the informal settlements within the Metro

3.4.4.2 Towards Integrated and Sustainable Human Settlements in Mangaung by 2030

Mangaung Metropolitan Municipality approach towards the development of human settlements is based on three fundamental pillars: namely,

- the human settlements development logic,
- the mixed development delivery vehicle and
- the informal settlements upgrading strategy.

The Municipality has adopted a mixed development approach in all its catalytic projects programme. Key components of this delivery vehicle is Residential, Recreational, Retail, Industrial and Community amenities; acronym as RRRIC Strategy.

This Strategy places a big emphasis on the need for the City to undertake spatial development projects in such a manner as to overcome conditions that reflects apartheid spatial distortions. Overcoming development

Table 9. Mangaung Metropolitan Municipality progress and status of informal settlements

DETAIL OF EXPENDITURE	BUDGET 2021/2022	BUDGET 2022/2023	BUDGET 2023/2024	STATUS
MATLHARANTLHENG WATER AND SEWER _ INSTAL WATER AND SEWER (3108 U)	4 500 000	26 000 000	28 600 000	Installation of communal taps underway
MADITLHABELA - INSTAL WATER AND SEWER (938 U)	3 600 000	26 000 000	32 500 000	Installation of communal taps underway
SONDERWAT PH2 (80) &CHRIS HANI 28747 (50 U) - INST W&S RET	9 765 000			Detailed design completed. Resolving the upgrading of bulk water pipeline
CHRIS HANI 28747 – INSTAL WATER AND SEWER	5 210 147			Detailed design completed. Resolving the upgrading of bulk water pipeline
F/DOM SQ 37321 ZUMA (117 U)	10 455 875			Contractor is on site
MARIKANA (80) INSTALL RETIC	6 414 108			Contractor is on site
MKHONTO ERF 32109 (111)	8 615 699			Detailed designs are in final stages of approval to advertise for Contractor in April 2022
SALIVA 35180 & 8323 (124) - INSTAL RETIC	7 450 000			Detailed designs are in final stages of approval to advertise for Contractor in April 2022
BLOEMSIDE 9 &10 -INSTA W&S RETIC	34 125 000	42 658 200	31 962 046	Bid Evaluation
BLOEMSIDE 10 -INSTA W&S RETIC	8 902 370	28 425 300	42 000 000	Designs are approved. Awaiting start of construction in Phase 9
BLOEMSIDE 7 - INST W & S RETIC (500 U)	7 105 000	35 000 000	25 000 000	Detailed design completed. Resolving the upgrading of bulk water pipeline
GRASSLAND PH4 - INSTAL WATER RETIC (2500U)	29 000 000			Contractor is on site
SOUTPAN - INSTALL RETIC (22 U)	2 960 000	-	-	Bid Specification to appoint Contractor



RATAU Ext. 40 INSTAL OF WATER RETIC (320 U)	2 871 900	6 880 000	6 300 000	Bid Specification to appoint Contractor
CALEB MOTSHABI/KGOTSONG MAIN ROADS AND STORMWATER	3 650 000	13 660 000	13 000 000	Contractor is appointed
GRASSLAND 4 MAIN ROADS AND STORMWATER	13 104 401	10 000 000	16 000 000	Contractor is appointed
BOTSHABELO WEST MAIN ROADS AND STORMWATER	10 000 000	25 000 000	15 000 000	Contractor is appointed
TAMBO SQUARE - INSTAL WATER AND SEWER	1 896 500			Detailed designs are in final stages of approval to advertise for Contractor in April 2022
ACQUISITION OF LAND FOR INFORMAL SETTLEMENTS RELCOATIONS	20 000 000	10 000 000	10 000 000	Purchase of land is at final stages of acquisition
BOTSHABELO WEST INSTAL W&S (2500)	28 000 000	26 000 000	28 600 000	Contractor is on site
BOTSH SEC R - INSTALL WATER (1 000 U)	18 866 500	13 633 500		Contractor is appointed
THABO MBEKI SQUARE (48 HOUSEHOLDS) - INT	3 000 000			Contractor is on site
BOTSHB SEC D - INSTALL SEWER RETIC (100U)	14 000 000	18 500 000	11 230 000	Bid Evaluation
BOTSHB SEC M - INSTALL SEWER RETIC (100U)	10 400 500	17 500 000	31 900 000	Bid Evaluation
SEROALO EXT 26 - INSTALLATION OF WATER AND SANITATION (111U)		6 360 000	3 773 954	Consultant to be appointed for designs
RATAU HLAMBAZA WATER AND SEWER - ALT SYSTEM (114 U)			4 674 000	Consultant to be appointed for designs
TOTAL	263 893 000	279 617 000	291 940 000	









challenges of this nature require strategies that offered multiple and focused outcomes.

Among the instruments to address its development challenges and achieves Outcome 8, the City identified several strategic land parcels for the implementation of the Catalytic Programme to create integrated human settlements. In addition, the City has considered the sale of residential sites to government employees, the implementation of Financial Linked Individual Subsidy Programme, the development of Community Residential Units and Social Housing as part of the strategies to reduce housing backlog and create sustainable human settlements.

3.4.4.3 Catalytic Land Development Programme

The Development of Integrated and Sustainable Human Settlements through the Catalytic Land Development programme is aimed at transforming spatial housing patterns in the Municipality, by creating more inclusive, denser, mixed-use urban areas while striving for a more functional housing market that adequately responds to both supply and demand for all levels of affordability and need.

This departs from a narrow focus on housing alone to a more holistic view of human settlements. Thus, the strategy prioritizes more inclusive communities with access to various other amenities such as schools, clinics, sporting facilities and business opportunities.

The strategy seeks to attend to the multiple human settlement challenges to which the National Development Plan refers. Underpinning this approach is



Catalytic Land Development projects are funded mainly through a combination of funding streams: private, debt, the urban settlements development grant and the human settlements development grant.

an effort to facilitate social integration, urban efficiencies, and cohesion by

The City identified strategic land parcels to implement catalytic projects to: compact and densify the City; promote social cohesion; promote urban efficiencies as well as to restructure the apartheid space distortions. To this end, the City upgraded and continue to upgrade bulk-infrastructure as a priority.

Below are strategic land parcels for the implementation of the catalytic programme as identified:

- Hillside View
- Vista Park Extension 2
- Vista Park Extension 3
- Brandkop 702
- Cecilia Park
- Brandkop Racetrack
- Airport Development Node
- Estoire Development



Caleb Motshabi

- Lourierpark
- Brandkop Racetrack
- Thaba Nchu- Botshabelo Development Node

The first three land parcels, *namely; Hillside View*; *Vista Park Ext.* **2** and *Vista Park Ext.* **3** have already been allocated to Private Developers as turn-key developments. The overall progress follows in **Table 10** below:

Table 10. Progress on three land parcels (Catalytic land developments programmes)

PROJECTS	STATUS	PROGRESS & OUTSTANDING ISSUES
Hillside View	 Service Level Agreement for the installation of electrical services concluded/signed Township processes have been concluded. Civil Engineering services being installed. Developer is on site and construction underway. 600 BNG houses completed. 25 of the 50 houses for Military Veteran houses are completed. 19 Land Restitution cases & houses completed. 	 Finalisation of three traffic intersections. Upgrading of OR Tambo Road. Provision of public transport facilities along DM Selemela Road. Finalisation on the decision for the management of 839 Social Housing Units outstanding.
Vista Park Ext. 2	 Contracts documents have been signed. Township processes have been concluded. 	The re-alignment of bulk water and sewer are completed.



3.4.4.4 Land Development and Property Management

There are many challenges facing the City and it time to re-look on how we do things going forward in a vigorous attempt to save it from falling. The situation is such that prompt and aggressive decisions in the context of constrained resources and big threats are taken. Relevant to this section is land release and development which is the cornerstone for economic growth, job creation and social stability.

The disposal of land within the existing settlements should be guided by the City's development agenda of Sustainable Human Settlements, and that the disposal should be heartened by 5 (five) cornerstones embracing Sustainable Human Settlements.

Amongst the broader objectives of Sustainable Human Settlements, the most important for this purpose remain compacting and densifying the City

for improved efficiency, expanding the City's economic base and the promotion of mixed land use development.

Land development involves sustainable conversion of land from natural habitat to urban built environment. It involves orderly planning, with emphasis to the provision of services, social and community amenities, protection of cultural and heritage resources, creation of economic opportunities in the local communities supported by a sound transportation infrastructure and system, without forgetting the protection of the environment.

Sustainable development encompasses wise physical development that will ensure economic growth, provision of minimum standards of public health, provision of basic infrastructure and amenities, access to recreational facilities and again, the protection of environment. We need to strive to achieve this and order to succeed the following becomes important:

- Reviewing the process leading to approval of submissions by Council; the process is compromised and not uniform anymore.
 - Items that must be considered for approval by Council to unlock land development and economic growth are taking too long to reach Council for a decision.
- Taking immediate legal action against all the habitual defaulters; evict them and robustly implement the lessor's hypothec.

- Tenants of commercial and sundry properties who are habitual defaulters must be dealt with decisively as many of them is not even the issue of unaffordability but an attitude entitlement.
- Delegating approvals of the short-term leases to the HOD: Human Settlements, subject to quarterly reporting to Council for noting.
 - Short term leases if not considered and approved immediately when there is a vacancy in any of the properties of Council leads a difficult risk to mitigate. Possible vandalism of the property when standing empty for too long.
 - Creates difficulties when there is a need for eviction in line with contract management (non-payment of rental and breach of contract in general).
- Prioritizing funding for the installation of services on all the land development initiatives for mixed development and sell newly developed sites to expand your revenue base.
 - Revenue enhancement needed to subsidize poor areas.
 - ☐ Socio economic growth.
 - Social transformation
 - Compacting the City
 - Densification
 - Service Efficiency

- Core municipal responsibility is to provide services and facilitate development; It is not to keep undeveloped land.
- Prioritizing funding for the installation of services on all the industrial sites in Hamilton and Bloemdustria.
 - Industrialization is key in unlocking job opportunities.
 - This is important because this is revenue that is needed to subsidize poor areas.
 - Land development is needed for socio economic growth.
 - Core municipal responsibility is to provide services and facilitate development; It is not to keep undeveloped land.

Availing and selling all serviced sites in formalized areas for development

- *Revenue enhancement/Growth.*
- Job Creation.
- Economic Growth.
- Social Stability
- Resilient Communities
- Enhanced Aesthetic View
- Avoiding unnecessary moratoriums on land release/sale
 - It frustrates and stifles development
 - It repels investors
 - Leads to loss of job opportunities
 - Leads economic stagnation



ANNEXURE DOCUMENT

- Acquiring more land for forward land development planning and relocation of informal settlements located on unhabitable land.
 - Orderly planning
 - Curbing urban sprawl
 - *O* Planned infrastructure development
 - *C* Eradication of Informal Settlements
 - Sustainable Human Settlements

3.4.4.5 Mangaung Access to Land and Ownership

One of the objectives of Mangaung Metro Municipality is to ensure equitable and inclusive access to land and basic services. The Metro has been in the drive to accelerate the allocation of land and security of tenure (through registration of title deeds and incremental tenure by issuing PTOs) to the previously disadvantaged to achieve the improvement of quality of life as per Outcome 8.

Since 2016, Mangaung has made substantial in roads towards improving the lives of its residents as represented in the following **Tables 11 and 12**:

Table 11. Mangaung MM Sites for Allocation

Settlement's name	No. of households	Status
 Botshabelo (Section R extension) 	2430 households	2430 sites allocated to beneficiaries except for 10 that are not habitable. PTO's have been issued. Busy with electrification.
> Soutpan Ikgomotseng	93 households	72 beneficiaries verified, 46 sites allocated, 24 Outstanding due to verification and screening
> Wepener	398 households	> 15 sites allocated, to conduct verification process as most of the people are Farm dwellers and Backyard dwellers
Botshabelo Section L1124 &2441	500 households	 S00 sites have been allocated and PTO's issued. Currently busy with verifications for registration of Title Deeds. 1124 L Section necetived variabitions tolders
> Section M	91 households	Sites allocated with PTO's and have waterborne toilets. We are currently busy with verification for Title Deeds registration
 Section U and Section N 	13 households 7 households	All 13 sites allocated All 7 sites allocated
> Bultfontein 5 x15	361 households	> 323 sites allocated and 38 remaining still to be allocated, also busy with verification & issuing of PTO's
> Moroka Ext 27 & 40	374 + 315 = 689 households	All sites allocated except for those in dongas and flood line also busy issuing PTO's
> Serwalo	238 households	> All sites have been allocated, we currently busy issuing PTO's
> Khayelitsha	2100 households	> All sites have been allocated. List has been submitted to CENTLEC for electrification. Since there is an overflow, some will be relocated
> Matharantheng	3005 households	 Sites allocated and electrified except for those with hiccups of invasion here and there (Masakaneng) (Court case)
 Dewetsdorp x8 (Morojaneng) 	496 households	> All have been allocated but some people have not taken occupation yet (to be issued with final warning
> Turflaagte 2 (erf 53820)	67 households	> All 67 sites allocated to beneficiaries; some have been issued with PTO's
> Turflaagte 2 (erven 39701 & 39702)	27 households	All 27 sites allocated to beneficiaries

Table 12. Areas to be relocated due to floodlines, servitudes, cemetery sites and shortage of sites

Settlements name	No. of households	Status
Codesa 2 & 3	37 households	> Will be relocated to Farm Klipfontein.
> Tambo Square	98 households	> Only 17 h/h will be accommodated, and the rest will be relocated to Farm Klipfontein.
 Rankie Square (remainder) 	15 households	> 6 households have been relocated to Turflaagte erf 34222 the others refused
> Thabo Mbeki (remainder)	38 households	> 23 households have been accommodated and 15 households to be relocated to Klipfontein
Sekhupi Square	38 households	> 38 Household were relocated to Maditlhabela (phase 6)
➢ Omega	12 households	> 12 Household were relocated to Phase 6 (Maditlhabela)
≻ Khayelitsha	18 households	> To be relocated
> Holy trinity church	45 households	> To be relocated
 Freedom Square Ext 2 (remainder) 	117 households	54 families relocated to Turflaagte erf 32399 and the remaining were relocated to Turflaagte 53820
> Heidedal (Gatvol)	109 households	> To be relocated
➢ Winkie Square	107 households	> To be relocated
≻ Lusaka	23 households	Relocation of the 23 households underway
> Caleb Motshabi ext.	+/- 3000 households	> Started with relocation on the 8th of March 2021 to Farm Klipfontein and continuing
> Mkhondo	133 households	> 111 allocated at Mkhonto, the remaining 22 will be relocated to Farm Klipfontein

- Land Invasion continues unabated and this destruct the Metro from implementing its development objectives
- There are many foreign nationals in the informal settlements, and we are unable to allocate them.

Recommendations: Continuous and improved anti-land invasion programme to reduce the risk of increasing invasion. The Metro to continuously engage with the responsible Departments and authorities to assist and guide to deal with the problem of foreign nationals.

3.4.5 Community Facilities

Serving the social needs of communities by way of a comprehensive range of community facilities is one of the key requirements towards establishing sustainable human settlements. The Mangaung MM currently holds a diverse range of community facilities distributed across its area of jurisdiction, with such facilities mainly clustered around the urban nodes within the municipal area (refer to Error! Reference source not found.).

Table 13. Mangaung Community Facilities

TOWN	BLOEMFONTEIN MANGAUNG	BOTSHABELO	THABA - NCHU	WEPENER	DEWETSDORP MOROJANENG	VAN STADENSRUS THAPELONG	SOUTPAN IKGOMOTSENG	MANGAUNG RURAL
HOSPITAL/CLINIC WITH CASUALTY	12	1	1					
CLINIC	21	7	7	1	1	1	1	
HEALTH CARE SERVICES	14							
CEMETERY	10	2	38	6	5	1	3	
POLICE STATION	11	2	2	1	1	1	1	1
MAGISTRATES COURT	5	1		1	1			
CORRECTIONAL SERVICES	2			1				
FIRE SERVICES	1		1		1			
LIBRARY	9	1	1	1	2	1	1	
COMMUNITY CENTRE/HALL	7	1	2	1	1	1		
POSTAL SERVICE	23	1	2	1	1			
PRIMARY SCHOOL	65	18	20	2	2	1		43
SECONDARY SCHOOL	31	13	7	1	1	1		1
INTERMEDIATE SCHOOL		28	5	1				9
COMBINED SCHOOL	16	1	1	1	1		1	
SPECIALISED SCHOOL	7		2		1			2
TERTIARY INSTITUTIONS	15		1					

The availability, size and level of service differ widely between these nodes with the larger, higher order facilities located closer to the more affluent urban areas.

Education:

Figure 22 depicts the spatial distribution of education facilities within the municipal area. It is evident that the majority of schools are clustered around Bloemfontein, Botshabelo and Thaba Nchu. The rural villages in the traditional authority areas to the north and south of Thaba Nchu are also well-served with primary schools (and a few intermediate schools) as reflected on **Figure 22**.

Tertiary educational institutions are mostly concentrated in Bloemfontein with the University of Free State (UFS) and the Central University of Technology (CUT) being the most prominent.

The best educational facilities are, however, far from disadvantaged communities who cannot afford the travelling costs required to access such facilities.

Health:

Almost all the hospitals, clinics and health care services are located within the urban nodes of the Mangaung MM as shown on **Figure 23**. It is, however, possible that the rural farming areas and the rural villages around Thaba Nchu are served by way of mobile clinic services.

Safety and Security:

Mangaung MM has about 20 police stations of which 11 are located in/around Bloemfontein and the Mangaung Township area.

Courts are located in Mangaung, Botshabelo and Wepener as depicted on Figure 24.





Other Community Facilities:

There are an estimated 14 libraries, 10 community centres, 28 postal centres in the municipal area – mostly located in the urban centres as shown on **Figure 25**.

3.4.6 Engineering Services

- As illustrated on Diagram 10 the Mangaung Metropolitan Municipality currently serves 53% of all households with water inside the yard; 39% receives piped water inside the house/dwelling and 4% from a community stand.
- As far as sanitation is concerned, it is clear that an estimated 84% of households have access to sanitation facilities above RDP standard (VIP toilet and higher). An additional 10% have pit toilets without ventilation and 6% have bucket toilets/ no facilities. The backlogs in this regard are most prominent in the rural areas and in Botshabelo-Thaba Nchu (**Diagram 10**).
- An estimated 94% of the Mangaung Metropolitan Municipality households have access to electricity with the largest backlogs in this regard being recorded in the rural parts of the municipality (see Diagram 11).
- Weekly refuse removal services are provided to about 79% of all households and an additional 4% receive similar service less frequently. About 10% of households make use of their own refuse dumps and 4% have access to a communal dump.

3.4.6.1 Water

The Mangaung Metropolitan Municipality is both a Water Services Authority and a Water Service Provider and is therefore obliged to fulfil its mandate of providing access to safe and reliable potable water to its consumers.

Figure 26 graphically illustrates the bulk water supply system for the Mangaung Metropolitan Municipality.

There are four main water sources for the municipality as summarised below:

- The Maselspoort Weir located in the Modder River to the north of Bloemfontein from where approximately 110 Megalitres per day is extracted. This water is purified by the Maselspoort Water Treatment Works from where it is pumped to the water storage network of Bloemfontein.
- The Welbedacht Dam in the Caledon River in the southern extents of the municipality near Van Stadensrus. This water is purified at the Welbedacht Water Treatment Works (145 ML/day) from where it provides water to Wepener and Dewetsdorp, as well as Reddersburg and Edenburg which are located outside the Mangaung municipal area. This feeder line extends further northwards along Route R702 up to Bloemfontein and Bloemdustria. For planning purposes and based on previously actual achieved transfers from Welbedacht to Bloemfontein the average target potable transfer is 3.39 million m³/month (1.27 m³/s). That is roughly 110 ML/day.









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- The Rustfontein Dam serves Botshabelo located to the east thereof and links back to the Bloemfontein-Welbedacht line. The Rustfontein Water Treatment Works holds a capacity of about 100 ML/day.
- The Groothoek Dam and Water Treatment Works (12 ML/day) to the east from where water is provided to Thaba Nchu and some of the rural settlements located to the north thereof.
- The remaining rural villages and farming areas are served by a number of local boreholes.

The Welbedacht Water Treatment Works forms part of the Caledon River Water Region while the Rustfontein, Groothoek and Maselspoort Water Treatment Works all form part of the Modder River Water Region. Water supply in the Modder River is augmented from the Caledon River via a number of pump stations in the vicinity of the Knellpoort Dam into the Rietspruit and eventually into the Modder River.

3.4.6.2 Sanitation

Most of the Wastewater Treatment Works (WWTW) in Mangaung as depicted on **Figure 27** are operating to full capacity, whilst several other are completely under capacity. The combined capacity of all WWTW is 118.4 ML/day, whilst the current demand is 164.12 ML/day. The demand therefore exceeds the existing capacity with 45.72 ML/day. The current status and extent of Wastewater Treatment Works (WWTW) in MMM is summarised in **Table 14** below.

Table 14. Extent of WWTW in MMM

Treatment Works and (Licence No.)	Class, Design Capacity (M/d) & Discharge	Status and comments
Bloemfontein Bloem Spruit (Permit 842B)	Class: B Capacity: 56 Vaal, Harts and SkoonSpruit CMA Discharge to Bloemspruit	Rehabilitation of access roads Completed Refurbishment of Sludge digesters in Procurement stage but there are budget constraints. Cleaning, repair and refurbishment of sludge drying beds completed
Bloemfontein Sterkwater(16/2/7/C522/D1/X)	Class: B Capacity:20 MI/day Discharge to Renosterspruit	New license upgrade submitted for extension of capacity. Undergoing extension (from 20MI/d to 30 MI/d Civils completed and mechanical outstanding)
Bloemfontein Welvaart	Class: C Capacity: 6 Discharge: Farms for irrigation	Existing Lawful Use
Bloemfontein Bainsvlei	Class: D Capacity: 5 Discharge to irrigate Ponds	Existing Lawful Use: Refurbishing in process (installation of UV pilot system) Rehabilitation of sludge ponds including outlet structures and access ramps
Bloemfontein Northern Works (16/2/7/C522/D1)	Class: B Capacity 5MI/d Discharge to Woodland hills estate and Botanical gardens for irrigation	General authorisation:
Bloemfontein Bloemdustria (No registration Certificate)	Class: E Capacity: <1 Vaal, Harts & SkoonSpruit	General Authorisation
Botshabelo (1272B)	Class: B Capacity: 20 Klein Modder River	General authorisation

Treatment Works and (Licence No.)	Class, Design Capacity (M/d) & Discharge	Status and comments
Selosesha	Class: D Capacity: 6 SepaneSpruit & Modder-Riet Rivers	Unlicensed: Water use application WULA submitted 16 March 2016. Undergoing extension.
Dewertsdorp Sewerage Works	Class: C Capacity:2 KareefonteinSpruit	Status Uncertain: Upgrading/extension recommended
Wepener Sewerage Works	Class: C Capacity 5 Sand Spruit	Status Uncertain: Upgrading/extension recommended
Van Stadenrus Sewarage Works	Class: C Capacity 3 Wit Spruit	Water Use Registered: Upgrading/extension recommended
Soutpan Sewerage Works	Class: E Capacity 0.7 Modder-Riet River	Unlicensed in the process of applying for a new licence. Upgrading/extension recommended

Despite the current or planned upgrading efforts to improve performance of the various WWTWs, the following challenges are being experienced:

- WWTWs exceed the legal limits for key water quality parameters;
- Some WWTWs continue to exceed their design capacities;
- WWTWs do not meet the legal requirements for staffing and staff competencies;
- WWTWs have interim arrangements in terms of Section 21 of the NWA;
- Poor management of EIA processes, authorisations and records associated with upgrades;
- Poor management of water quality data, and
- Lack of environmental performance objectives and indicators recorded in the IDP and two SDBIPs.

3.4.6.3 Electricity

CENTLEC (SOC) Ltd has approximately 254,525 active customers; ranging from domestic to commercial and industrial consumers as detailed below:

- Domestic (99.30%)
- Commercial (0.27%)
- Industrial (0.30%)
- Public services (0.15%)

The area of supply in Mangaung is approximately 9,887 km² with the total length of overhead lines approximately 4,685 km (refer to **Figure 28**). The underground cables are approximately 2,500 km and the highest Maximum Demand was 324MVA in July 2009 and currently averages about 294MVA.

Energy plays a pivotal role in the lives of the communities of Mangaung Metro and it is therefore imperative for CENTLEC to ensure that plans are kept alive to the enhancement of socio-economic activities. The Master Plan (MP) is developed and maintained to ensure that effective planning and sound financial management of public finances are achieved.

Network development plans (NDP) are updated every year in line with the latest approved energy sector plans (Developed by CENTLEC), reprioritized and approved IDP program for Mangaung Metropolitan Municipality.





3.4.6.4 Solid Waste

Most urban areas have access to waste services, whilst rural areas, farms, small holdings and some informal areas do not have access to the service due to, amongst other, accessibility and distance (see **Figure 27**).

The currently licenced landfill sites are not being operated in accordance with the permit requirements and are therefore non-compliant, although efforts are being made in order to ensure operational compliance.

Table 15. Summary of Landfill Sites in MMM

LANDFILL SITE AND (LICENCE NO.)	SIZE & REMAINING AIR SPACE	STATUS AND COMMENTS
Bloemfontein Northern landfill site Permit No 16/2/7/C522/D1/Z2/P478	Size: ± 30.2 ha Remaining Air space 4%	Operational: The MMM could be compelled to close this landfill due to its close proximity to the residential area. Expected year of closure is close in +/- 5 years time.
Bloemfontein Southern landfill site Permit No B33/2/350/2/P162	Size: ± 42.0 ha Remaining Air space 49%	Operational: This site has the potential to develop a waste-to-energy/project and also to create green jobs through the sorting and separation of waste. Expected year of closure is 2038
Thaba Nchu waste disposal site	Closed	Closed: The current Thaba Nchu landfill site has been closed in terms of the legal requirements.
Botshabelo Eastern landfill site Permit No 16/2/7/C521/D1/1/P255	Size: 152 000m ² Remaining Air space 91.4%	Operational: The life expectancy of this landfill site can be extended when Thaba nchu transfer station redirects waste. Expected year of closure is 2115
Soutpan solid waste disposal site Licence No WML/BAR/14/2014	Size ± 0.69 ha Remaining Air Space 72 %	Operational: non-compliance with licence conditions. Landfill site have been fenced. Expected year of closure is not confirmed.

Dewetsdorp solid waste disposal site Licence No WML/BAR/25/2014	Size ± 5.88 ha Remaining Air space 85 %	New Landfill site have been fenced and is being constructed. Expected year of closure is not confirmed.
Wepener waste disposal site Not Licenced	Size ± 1.73ha Remaining Air space 68 %	Operational: Concerns are raised about the impact of the landfill site on human and environmental health. Landfill site have been fenced. Expected year of closure is not confirmed.
Vanstadensrus waste disposal site Licence no WML/BAR/02/2015	Size ± 0.36ha Remaining Air space 60 %	Operational. Landfill site have been fenced. Expected year of closure is not confirmed.

The following solid waste projects and initiatives are currently being implemented by the MMM:

- Upgrading of three permitted landfill sites;
- Rehabilitation and official closure of Thaba Nchu landfill site;
- Establishment of a waste transfer station in Thaba Nchu, and
- Establishment of 5 drop –off/recycling facilities in Mangaung.

3.4.7 Local Area Spatial Structure and Land Use

The following section provides a more detailed description/ analysis of the spatial structure and land use features of each of the towns in the Mangaung Metropolitan Municipality.

3.4.7.1 Bloemfontein/Mangaung

Figure 29 illustrates the major land uses and spatial structure of Bloemfontein/Mangaung.



- a) Spatial Structure and Development Trends
 - The road network of Bloemfontein represents a classic radialconcentric configuration of which the radial network includes route N1 (north and south); N8 (east and west); N6 (south); routes R64, R700 and R30 to the north-west; route 702 to the south-east; and route R706 to the south-west.
 - The concentric network is not fully developed yet see Wilcocks and George Lubbe Streets which forms a partially completed inner ring; and route N1 (blue) which represents the western halve of an imaginary outer ring to the City.
 - For more than a century, the town was planned and developed around the Central Business District as the primary activity node and supported by a number of industrial areas (Hamilton, Hilton and Ooseinde) in close proximity to the rail network and the Transnet rail yard.
 - The radial road network served this central cluster of economic activity very effectively as a common destination. It should also be noted historically the main line of movement through the City was along route M30 (Raymond Mhlaba) running parallel to the west of the railway line and serving the Central Business District (CBD) and most of the industrial areas noted above (the bulk of the economic footprint) in a north-south orientation.
 - The construction of the N1 western bypass by the late 1970s introduced a significant new structuring element to the City.
 - The City gradually developed around the CBD in a sectoral form, with the railway line creating a strong functional barrier between the western and eastern parts of the City.

- The areas to the east of the railway line were reserved for the middle and high income communities (white communities before 1994), while the majority of the poor and previously disadvantaged communities were established in the area to the east, and more specifically in the Mangaung and Heidedal township areas to the south-east of the railway line.
- This approach isolated the poor from the bulk of economic opportunities and higher order community facilities which were mainly developed to the west of the railway line.
- Except for the industrial areas which flank these disadvantaged areas, these areas offer very few job opportunities and residents need to travel up to 15 kilometers to access the CBD and the economic activities beyond it.
- Since 1994, the situation has been exacerbated as there has been a major relocation of services from the Bloemfontein CBD to a number of smaller, decentralized nodes along the major traffic routes in the western and north-western suburbs of the City.
- The N1 western bypass which was constructed by the late 1970s also contributed significantly to this new development trend.
- This phenomenon is particularly evident along Nelson Mandela Drive (R64), Walter Sisulu/N8 and Curie Street (R706) and more specifically around intersections along to the N1 freeway which provide access and visual exposure to passing regional traffic.
- This has led to under-utilized office space and general urban decay in the CBD while manufacturing, which is the dominant economic activity to the east of the railway line, has also been in decline over the past two decades.



Residential areas like Brandwag, Willows and Universitas adjacent to the west of the CBD have also experienced land use change with a mixed land use character establishing along the major traffic routes which has given rise to typical ribbon developments along the main arterials (especially Nelson Mandela Drive).





- Strategic land uses like the provincial sport stadiums, University of the Free State, Central University of Technology, and Nurses Training College also exist in this area.
- The accommodation demand derived from these tertiary educational facilities resulted in the establishment of large scale formal and informal student accommodation in the surrounding residential areas which had a significant negative impact on the character of these suburbs.
- The far western areas of Bloemfontein (west of route N1) have also experienced rapid growth during recent years with extensive development in the Langenhovenpark area, while numerous new developments are still being planned further westwards towards Spitskop and Bainsvlei (± 36 ha of industrial/commercial uses).
- The area to the west of the N1-N8 intersection along route N8 also attracted significant new development, including about 77 ha of light industrial/commercial use and the proposed Cecilia Park and Brandkop Racetrack residential developments in the north-western quadrants of the N8-N1 interchange.
- The third prominent node is the N1-R706 interchange where the casino complex was developed and where two large scale residential projects are underway Brandkop 702 and Lourierpark Phase 2.
- The N1-N6 interchange further to the south also led to the establishment of a few service industries in this area.
- To the south-west, the residential suburbs of Fichardt Park, Hospital Park, Fleurdal, Uitsig and Fauna are well-established with business nodes gradually establishing along Curie Avenue, specifically in the

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vicinity of the agricultural showgrounds and further south at the Fleurdal-Faunasig node.

- The north-western parts of Bloemfontein comprise middle- and higher-income residential areas like Dan Pienaar, Waverley, Noordhoek, Heuwelsig, Heliconhoogte and Bayswater.
- Several new middle and high income residential estates have been established in the northern extents of this area with the most prominent being Lilyvale, Wild Olive, Oubos and Summerwood, as well as Woodland Hills and Red Rock Estate located further to the north-west along route R700 (Dr Kenneth Kaunda).
- To the north-east and east the land is predominantly used for industrial use (Ooseinde and the Transnet yard) and smallholdings (Estoire).
- Industrial/ commercial uses related to logistics/warehousing are gradually establishing along route M10 between route N8 and route M30 in the Estoire area.
- The Bram Fisher International Airport Precinct is located to the east thereof with a proposed northern and southern precinct to be developed over time comprising a mixture of commercial, retail, residential and tourism related activities.
- The area south of route N8 and up to the railway line comprises the Ooseinde industrial area, the Bloemspruit Wastewater Treatment Works, the Bloemfontein Golf Club, and several other sports facilities and small-scale farming in the Bloemspruit-Shannon area.
- The Mangaung residential area represents the south-eastern quadrant of the metropolitan area. Originally the township developed southwards in a narrow strip parallel to the east of

Hamilton industrial area and Church Street (along Maphisa Road and Moshoeshoe Street up to Rocklands).

- Several activity nodes established in the Mangaung township area of which the Batho Node, Pelonomi/Twin Rivers Node, Home Affairs Node and Rocklands Node are the most prominent.
- In recent years, the former township area expanded rapidly to the south-east on both sides of Dr Belcher Road (R702) and many of these new townships were formalized by way of the Upgrading of Informal Settlements Programme (UISP).
- Hillside View adjacent to the east of the University of Free State Vista Campus and the TVET College is a prominent new medium density residential development along Church Street while single residential development is gradually extending towards Grassland, Bloemside and Bloemspruit further to the east.
- A large percentage of this residential demand is derived from the illegal occupation of land in the form of informal settlement which mainly occurs along the south-eastern periphery of Mangaung where the majority of the 28 informal settlements in the metropolitan area are located. This stimulates urban sprawl as there is continuous pressure to formalize these settlements in-situ.
- This contradicts the principle of promoting medium to high density development closer to work opportunities which is one of the strategic objectives of the City. In turn, current trends of development along the edge of the urban footprint leads to longer travelling distances and the dislocation of poor people on the fringe of the City. It also increases travel demand which results in the

congestion experienced on Dr Belcher Road which is the main link between Mangaung Township and the CBD.

- The southern part of the City between Ferreira Road and Church Street comprises the southern landfill site, a cemetery and Free State University Agricultural Research Center to the south thereof. It also includes the proposed Vista 2 and Vista 3 residential developments to the north thereof around George Lubbe Street for which services are currently being installed.
- b) Economic Activity
 - Figure 30 depicts the spatial distribution of retail uses throughout the City. It is evident that the bulk of the estimated 73,267 m² of retail space is located in the central and western parts of the City.
 - Approximately 46% of all the retail space represents retail in shopping centers.
 - Figure 31 depicts the relative size of the various larger shopping centers of which the Loch Logan is the largest at approximately 80,000 m².
 - The most significant growth/ expansion of retail space over the past four years occurred at the North Ridge Mall, Preller Square and The Towers.
 - Figure 32 shows the existing industrial/ commercial footprint of the City from which it is evident that there is about 405 ha of developed industrial land, 507 ha of commercial use (mostly in the Estoire area); and 16 ha of existing/ light industrial use. There is also some



245 ha of vacant industrial/ commercial land, most of which is located in the Bloemdustria/Highveld area.

c) Water Supply

Figure 33 depicts the most salient features of the bulk water infrastructure and the water reticulation network of Mangaung, summarized as follows:

- Water from the Welbedacht Dam feeds into the Brandkop reservoir which has storage capacity of about 136 ML, as well as the Longridge 1, 2 and 3 reservoirs located to the south-east.
- The Brandkop reservoir provides water directly to the Pellissier and Lourierpark areas to the south thereof.
- To the east thereof is a smaller reservoir which provides water to Universitas and Wilgehof to the north, and which also links to the Longridge reservoirs.
- The three Longridge reservoirs serve the entire Mangaung, Heidedal, Ooseinde and Oranjesig functional area.
- The Maselspoort bulk feeder line provides water to the two reservoirs located at Arboretum (capacity = 44 ML and 46 ML), as well as the Roderick reservoir (11 ML), the Hamilton reservoir (56,8 ML) and the Naval Hill reservoir (35 ML).
- The Arboretum reservoirs serve the north-western residential areas while the Roderick and Hamilton reservoirs can augment supply to the Longridge reservoirs or the Arboretum reservoirs.

d) Sanitation

Figure 34 shows the sewer network in the Bloemfontein/Mangaung area with the following being the most important in this regard:



- The Bloemspruit Wastewater Treatment Works (56 ML) is located at Ooseinde to the east of the CBD and is the largest wastewater treatment plant in the City.
- There is also a treatment plant (10 ML) to the east of Rodenbeck along the Renosterspruit serving the southern extensions of Mangaung.
- To the north-east next to the Bram Fischer International Airport is a new wastewater treatment plant earmarked to serve the future incremental demand emanating from development of the airport precinct.
- The Woodlands treatment plant (1 ML) is located to the north-west of the City and will functionally serve the future expansion of the City in this direction.
- To the west of Langenhoven Park is the Bainsvlei treatment works with 5 ML capacity.
- The Welvaart treatment plant (6 ML) is located to the south-west of Mangaung and serves most of the developments around route N1 south of the railway line (Pellissier and Lourierpark).
- e) Refuse Disposal

Figure 34 also shows the location of the northern and southern landfill sites of Bloemfontein.








3.4.7.2 Botshabelo

a) Salient Features

- Botshabelo was established in 1978 some 55 kilometers to the east of Bloemfontein along route N8. This was done in line with the policy of decentralized development under the Apartheid government at the time.
- The town holds an estimated population of about 206,561 people representing around 60,080 households.
- b) Movement Network
 - Figure 35 shows that Botshabelo is located to the south of route N8 with the Bloemfontein-Maseru railway line being about 2 kilometers further to the north thereof.
 - Access to the township is provided along Jazzman Mokgothu Road which extends from the intersection with route N8 southwards for about 10 kilometers up to the southernmost extents of Botshabelo T.
 - An additional access to route N8 has also been developed in the new western extents of the town (Botshabelo-F) as illustrated on Figure 35.
 - Approximately 13,000 people commute from Botshabelo to Bloemfontein daily with the bus subsidy being in excess of R 200 million per annum.

- The township has been designed around a centrally located drainage system (Klein Modder River) and large open spaces (mostly floodplain areas) separate the various township extensions, creating three large urban clusters with three road linkages across the drainage system.
- To the north-east, the town borders a steep ridge which prevents any further development in this direction.
- The Rustfontein Dam is located to the south-west of the town.
- Informal settlement generally occurs along the edges of the town.
- New townships have recently been established in the north-western parts of the town – close to route N8 to Bloemfontein.
- d) Economic Activity and Community Facilities
 - Economic Activity is mainly limited to two areas: the Botshabelo CBD (Figure 36) and the Botshabelo Industrial Area (Figure 37).
 - The Botshabelo CBD is located about 4 kilometers south of the main entrance into the town with the sports stadium bordering it to the west and the hospital to the east.
 - It is estimated that there is about 70,381 m² of retail space in Botshabelo, comprising about 1,999 job opportunities (refer to Zone 22 on Figure 38).
 - Only a few of the business sites in the Botshabelo CBD have been developed to date, with the Re-A-Hola Centre representing about 14,992 m² and the RCM Complex an additional 7,438 m². (Refer to Figure 39).

c) Layout





- Although this node is centrally located in the context of Botshabelo it is isolated from regional traffic along route N8 which limits its potential.
- Hence, it is no coincidence that the Botshabelo Mall (22,896 m²) was recently developed in the southeastern quadrant of the N8-Jazzman Mokgotu intersection at the main entrance into the town directly opposite to the east of the Botshabelo industrial area.
- Smaller business sites and spaza shops occur throughout the remaining parts of Botshabelo.
- The Botshabelo Industrial Area is located at the northern entrance into town along route N8.
- This area belongs to the Free State Development Corporation and consists of about 138 warehouses with a total floor area of 200,000 m² (see Figure 37).
- The occupancy rate of this area stands at about 89% and it employs an estimated 6,000 workers.
- Several smaller industrial sites exist in Botshabelo W to the south and in the areas surrounding, but most of these are vacant. (See Figure 40).
- The main activities in the industrial area include manufacture textile, food processing, electrical enclosures, paraffin stoves and minor engineering services.
- An extensive range of community facilities exist in Botshabelo, including 1 hospital, 13 secondary schools and 28 intermediate schools, a sports stadium and several community halls.
- Sports, recreation and open space areas are distributed throughout the area, including the floodplain of the Klein Modder River.

MANGAUNG

e) Engineering Infrastructure

- Bulk water is mainly obtained from the Rustfontein Water Treatment Works located to the southwest of Botshabelo. From here water is stored in about 16 reservoirs in different parts of the town (of which about 10 are located along the ridge to the north-east of the town) as shown on Figure 41.
- The water reticulation network serves almost the entire urban area of Botshabelo with only some parts of Botshabelo L, M N and R, as well as the new extensions to the northwest not being served.
- The Botshabelo Wastewater Treatment Works (20 ML) is located between Botshabelo J and W to the west of town (Figure 42) and is currently being upgraded. This network serves all the older parts of the township (to the north-east) with piped sewer while the remaining areas are served with alternative sanitation systems, e.g. pit latrines, VIP toilets, etc.
- The town's refuse disposal site is located to the east of Botshabelo B.







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3.4.7.3 Thaba Nchu

- a) Salient Features
 - Thaba Nchu is located an estimated 67 km to the east of Bloemfontein along route N8. There are some 37 rural villages surrounding the town to the north and south (see Figure 43). These villages are located on land under traditional authority and some are as far as 35 kilometers from Thaba Nchu.
 - It is also evident that the rural road network serving these villages to the north and south converge towards Thaba Nchu as the town provides all higher order services to the surrounding rural communities.
 - Four of these villages have recently been formalized and most of these settlements only comprise very basic lower order community facilities like mobile clinics and libraries, as well as primary schools.
 - The surrounding rural area is characterised by vast stretches of communal grazing areas while many residents still keep cattle within the Thaba Nchu area.
 - Figure 44 depicts the Thaba Nchu urban complex in greater detail. The town was established in 1893 on the farm Thaba Nchu 404 and more specifically the south-eastern portion thereof known as Dorpsgronden 411.
 - The town has a population of about 83,494 people representing an estimated 27,255 households.

- b) Movement Network
 - The Thaba Nchu area is primarily served by route N8 running through the southern parts of the town.
 - Access to the town is gained from three accesses onto route N8: an at-grade intersection in the vicinity of Seroalo to the west; an access interchange at Ratau in the central part (route S109/S110); and an at-grade intersection to the east in the vicinity of the Thaba Nchu Townlands industrial area.
 - Route S109 links to the rural villages to the south of town while route S110 links to the rural communities to the north-east.
 - Route S1531 provides access to the rural communities to the north and route S317 to the north-west.
 - The Bloemfontein-Maseru railway line passes through the central parts of the town with the Thaba Nchu railway station being located close to the intersection between routes S317 and S1531.
 - The Thaba Nchu airfield is located about 10 kilometers to the south of the town along route S109.







c) Layout

- As noted above, Thaba Nchu is characterized by a highly fragmented spatial structure.
- The south-eastern part of Thaba Nchu comprises a formal residential area, a Central Business District (CBD) and an industrial area known as Thaba Nchu Townlands "A" 605.
- The north-western townships around Selosesha seem to have been formally laid out and developed, while the central parts around Thaba Nchu 404, Thaba Nchu 908 and Mokwena 995 have developed organically before being formalized in-situ.
- There is no inherent spatial logic to the overall spatial structure of the town.

d) Economic Activity and Community Facilities

- The main business node in Thaba Nchu is the Thaba Nchu CBD which is located in the south-eastern parts of the town (see Figure 44 and Figure 45).
- It is developed along Main/Market Street which acts as activity spine and comprises a number of retail outlets, a cultural center and a shopping center at the western end where it links up with route S110.
- The CBD comprises approximately 70,834 m² of retail space (refer to Zone 21 on Figure 38) with the Thaba Nchu Shopping Center representing about 5,670 m² (refer to Figure 39).
- The Thaba Nchu Townlands "A" industrial area is located along Market Street to the east of the Thaba Nchu CBD and is earmarked to become the Agri Hub for the region (see Figure 46).

- The Selosesha Industrial Area is larger than Thaba Nchu Townlands and is located further to the north at the point of convergence of routes S317, S1531 and the Bloemfontein-Maseru railway line (next to the Thaba Nchu railway station).
- As illustrated on Figure 47 this industrial area comprises a number of factory shells of which the Snowflake Mill is the largest.
- There is a total of 38 factory buildings belonging to the Free State Development Corporation (FDC) of which about 65% are apparently occupied.
- Most of these factories are served by a rail sideline.
- Notable also from Figure 47 is the large number of factory buildings (± 26) which had been demolished/vandalized with only the foundation footprint remaining.
- A large cemetery exists in the central part of this industrial area.
- The total industrial footprint in Thaba Nchu is about 133 ha of which 92 ha is still vacant.
- In terms of community facilities, it is evident that a large number of community facilities are located in Thaba Nchu, including the following: 20 Primary Schools, 7 Secondary and 5 Intermediary Schools, 1 Combined School and 2 Special Schools (including a school for the blind), 1 hospital, 7 clinics, 2 police stations, 1 fire brigade service, 2 community centers and 2 post offices.







- e) Engineering Infrastructure
 - Bulk water is supplied via the Groothoek Water Treatment Works which is augmented via the Welbedacht-Rustfontein system.
 - As illustrated on Figure 48, most of the urban footprint of Thaba Nchu is served with piped water via a comprehensive water reticulation network.
 - The wastewater treatment works of Thaba Nchu (6 ML capacity) is located adjacent to the west of the Selosesha Industrial Area with only the central parts of Seloshesha and Thaba Nchu being provided with a piped sewer system (see Figure 49).
 - The urban areas to the north and south are all provided with alternative systems like VIP toilets and pit latrines.
 - The main landfill site is located to the south-east of the town.

3.4.7.4 Soutpan/Ikgomotseng

- a) Salient Features
 - Soutpan/Ikgomotseng is a very small town which was established due to the existence of salt deposits in the surrounding areas. (Refer to Figure 50).
 - It holds an estimated population of 3,742 people representing about 1,244 households.
 - Around 78% of these households fall in the low-income category.

- b) Movement Network
 - The town is located approximately 38 kilometers to the north of Bloemfontein and 52 kilometers to the south of Bultfontein along route R700.
 - Both Soutpan and Ikgomotseng are located along route R703 and more specifically at the staggered intersection between routes R703 and R700 as depicted on Figure 50.
- c) Layout
 - The two towns are separated from one another by the salt pan.
 - Ikgomotseng comprises an open grid network layout pattern while the layout of Soutpan is more distorted comprising several small clusters.
 - Some limited informal settlement occurs at the western entrance to lkgomotseng.
- d) Economic Activity and Community Facilities
 - Mining represents the economic base of both towns as most of the residents are employed by the salt mining industry.
 - Further to the south are the Florisbad anthropological area and the Soetdoring Nature Reserve which are tourism destinations.
 - Limited business activity occurs in both Soutpan and Ikgomotseng
 mainly basic convenience goods and services.
 - Community facilities are limited to a small police station, library and church in Soutpan, while Ikgomotseng holds a combined school, library, and sports field with a small cemetery being located to the north of the school.







e) Engineering Infrastructure

- Water is sourced from boreholes in the surrounding areas from where it is stored in one reservoir to the west of Soutpan and two reservoirs to the north-east of Ikgomotseng.
- The wastewater treatment works is located to the northwest of lkgomotseng with the refuse disposal site directly adjacent to the south thereof.

3.4.7.5 Dewetsdorp

- a) Salient Features
 - Dewetsdorp is located on the farm Kareefontein approximately 75 km to the south-east of Bloemfontein along route R702. (Refer to Figure 51).
 - The western part of the town represents the former Dewetsdorp while Morojaneng is located to the east thereof on the opposite side of the Kareefontein Spruit which flows through the town from south to north.
 - The population of the town is about 10,595 people, representing an estimated 3,071 households.
- b) Movement Network
 - Route R702 from Bloemfontein to Wepener passes the town to the north-east.
 - Links to Dewetsdorp are provided via two access routes: Voortrekker Street to the north and Church Street (which is the main link into town) to the north-east.

- The Voortrekker access route runs parallel to the golf course from where it links into Dewetsdorp. It runs through the town's CBD and extends into Morojaneng across the Kareefontein Spruit from where it continues as Tsuene Street.
- The second link road (Church Street) runs parallel to the north of Morojaneng along the Kareefontein Spruit flood line up to where it links into the Dewetsdorp CBD.
- To the north of route R702 it extends north-eastwards as route S733 towards Hobhouse, and it provides access to the Dewetsdorp railway station and the town's airstrip and sewer treatment works.
- The railway line runs parallel to the north of Route R702 but is not operational anymore.
- Route R717 from Reddersburg enters the town from the west while a gravel route (S120) from Smithfield links into the town from the south (runs parallel to the Kareefontein Spruit).
- c) Layout
 - The western part of the town (Dewetsdorp) comprises a grid layout pattern with long streets perpendicular to the contours to facilitate leading water from reservoirs above the town.
 - Morojaneng to the east comprises a layout along curvilinear grids shaped by the surrounding topography. Essentially, it comprises a central core area directly opposite to the east of Dewetsdorp with an extension to the north up to route R702; and an extension towards the south aligned to the topographic constraints.





- Morojaneng is linked to Dewetsdorp via Voortrekker Tsuene Street to the south, along Leteane Street next to the fire brigade; and Sefothelo Street further to the north, close to route R702.
- d) Economic Activity and Community Facilities
 - The economic core (CBD) of the town is located in Dewetsdorp along Church Street and Voortrekker Street as illustrated on Figure 51.
 - This business area also holds the municipal offices, police station, library, old age home, as well as the clinic.
 - In the Morojaneng area business activities are scattered along Tsuene Street (the extension of Voortrekker Street); and Sefothelo Street further to the north (very limited).
 - Morojaneng also has a clinic and library while licensing, public works and fire brigade services are located along Church Street at the Leteane Street intersection opposite to the east of the showgrounds.
 - There are also two primary schools and one high school in Morojaneng while Dewetsdorp has a combined school located at the north-western end.
- e) Services: Engineering Infrastructure
 - There are four cemeteries in the town of which the one in Morojaneng next to route R702 is the largest.
 - The landfill site is located about 2 kilometers to the south of the town (along route S661).

- Bulk water is stored in three reservoirs located on the hill bordering the town to the south. The bulk water feeder line runs parallel to the Kareefontein Spruit and the Smithfield Road from the south.
- Bulk electricity supply is provided from the north-east along the road reserves of the Hobhouse Road and route R702 to Wepener with the substation being next to the fire brigade.
- The bulk outfall sewer line runs parallel to the north of Church Street up to the sewer treatment works located next to the railway station. There are also two bulk sewer links into Morojaneng.

3.4.7.6 Wepener/Qibing

- a) Salient Features
 - Wepener is located about 120 kilometers south-east of Bloemfontein along route R26 to Zastron (see Figure 52).
 - The Van Rooyens Gate Border Post to Lesotho is located about 8 kilometers to the east of the town along route P66/R702.
 - The town was established along the banks of the Jammersberg Spruit which is a tributary of the Caledon River which passes about two kilometers to the west of the town.
 - The Jammersberg Spruit flows in an east-west direction and bisects the town into a northern and southern section. The river is characterised by a wide floodplain with frequent incidents of flooding being recorded to the north and north-east, the town is bordered by the Jammersberg (comprising Dolerite formations) and which makes northward expansion of the town impossible.





b) Movement Network

- Route R26 is the main road serving the town linking to Bloemfontein to the west (via route R702), to Hobhouse to the north, and to Van Stadensrus and Zastron to the south.
- The R26 link to Hobhouse runs a few kilometers to the west of town parallel to the Caledon River from where route S746 provides a link across the Caledon River and into town – also serving Ebenhaezershoogte and Qibing. This route runs parallel to the north of the Jammersberg Spruit and is occasionally flooded – especially the section closest to Wepener Town.
- Route R26 also passes the town to the south from where it runs towards Van Stadensrust and Zastron. This section of route R26 provides access to the town via Van Aardt Street.
- Van Aardt Street crosses the railway line and then terminates in Spies Street which crosses the spruit to link into the Wepener town area north of the spruit. From here it extends eastwards as route P66 / R702 up to the Van Rooyens Gate Border Post with Lesotho.
- The railway line passing through Wepener is the Bloemfontein-Zastron line which is not operational anymore.
- c) Layout
 - Wepener town represents the middle- and higher-income residential area and both the northern and southern portion comprise an open grid layout pattern.
 - The southern part of Wepener was developed around the railway line with the (now defunct) Wepener railway station representing the central core of this precinct.

- Qibing is located directly adjacent to the north-west of Wepener (less than 1 kilometer away) and with the new extensions of Kanana being located about 1 kilometer further to the west. The northern extensions of Kanana are still vacant.
- Opposite to the south of Kanana is Ebenhaezershoogte (south of route S746).
- d) Economic Activity and Community Facilities
 - The CBD of Wepener is L-shaped along Church Street and De Beer Street which represent the two main streets from the west and south into the town.
 - Some business activities also established in the southern section of Wepener and specifically along Van Aardt Street between the intersection onto route R26 and the railway line. This includes, amongst others, a filling station.
 - In Qibing, economic activity is limited to a small node around the clinic along the western access road into the township, and a number of home industries/spazas scattered throughout the remaining parts of the township.
 - The same applies to Kanana where a few small businesses/spazas are scattered throughout the area.
 - The police station and magistrate's court are located at the intersection between Spies and De Bruin Streets in Wepener, and with the municipal offices and town hall adjacent to the east thereof along De Beer Street.



- e) Engineering Infrastructure
 - A bulk water feeder line enters the town along the Jammersberg Spruit from the west, and feeds into the two reservoirs located at the highest point in Qibing from where water is distributed throughout the town. This supply is augmented from the dam located to the north of Qibing.
 - The bulk outfall sewer lines link up with Ebenhaesershoogte, Kanana, Qibing and Wepener respectively from where it converges at the sewer treatment works (5 ML capacity) located to the south-west of the town.
 - Bulk electricity feeds into the town along the alignment of route R702/S746 from the west.
 - The landfill site is located along route R702 to the south-east of town on the route to the border post.

3.4.7.7 Van Stadensrus

- a) Salient Features
 - The town was proclaimed in 1926 and is named after its founder M.H. Van Staden.
 - It has a relatively small population of about 1,982 people with an estimated 651 families of which the majority (66%) fall in the lowincome category.
 - The town has no economic base apart from the surrounding farming activities.

- b) Movement Network
 - Van Stadensrus is located along route R26 in the far south-eastern extents of the municipality and is accessed via Marthinus Street which links onto route R26 (see Figure 53).
 - The street network is an open grid system with Francina and Fountain Streets providing access to the Thapelang area to the north.
 - Road S358 continues to the west of Van Stadensrus leading towards Gelukwaarts.
 - There is no railway infrastructure nor an airfield serving the town.
- c) Layout
 - The Van Stadensrus (Mook) Dam is located to the north-east of the town and is the main source of water to the town.
 - This dam forms part of the Nuwejaarspruit River which flows to the north of the town.
 - The average plot size in the south-eastern and central parts of Van Stadensrus is about 2,000 m²/plot while a few blocks to the west and north-west comprise smaller erven averaging about 450 m²/plot.
 - In Thapelong to the north the erven are significantly smaller at about 300 m²/erf while some incidences of informal settlement occur along the southern and eastern fringe of the town.
 - From Figure 53 it is evident that a significant number of erven in Van Stadensrus are vacant.







- d) Economic Activity and Community Facilities
 - As noted above there is no significant economic base in the town.
 - Apart from about five small business activities (including an old closed down hotel) and small-scale agriculture on the individual plots, there are no signs of any economic activity. Two of these business uses are located in Thapelong.
 - In terms of community facilities, there is a small police station, clinic, municipal office, library and secondary school in Van Stadensrus while a primary school is located in Thapelong.
 - There are also a few churches in both areas and two cemeteries located to the south-west.
 - A sports field complex is located between Van Stadensrus and Thapelong.
- e) Engineering Infrastructure
 - Water is sourced from the Van Stadensrus Dam from where it is pumped and stored in two reservoirs to the south-east thereof. From here water is distributed into the town via three feeder lines: the one running along the southern border of the town; the second running along route S358 through the central parts of town; and the third line serving Thapelong to the north.
 - The wastewater treatment works is located to the west of town close to the Nuwejaarspruit with two outfall sewer lines feeding into it – one from Van Stadensrus and the other from Thapelong.
 - The refuse disposal site of the town is located to the south-west between the two cemeteries.

3.5 KEY DEVELOPMENT ISSUES AND OPPORTUNITIES

a) National Context

- The Mangaung Metropolitan Municipality is strategically located in the central part of the country between the three metropolitan areas in the economic heartland in Gauteng, and three coastal metropolitan areas with export harbours (East London/Buffalo City, Port Elizabeth/Nelson Mandela Bay and Cape Town).
- It also serves an east-west movement desire line between Upington, Kimberley and Maseru – the capital City of Lesotho.
- In line with its central location it is linked to the national/N1 subcontinental corridor (road and rail) between Musina and Cape Town; the east-west N8 corridor (road and rail) between Kimberley and Maseru; and the Bram Fischer International Airport.
- The MMM acts as central place to an extensive agricultural region comprising part of the national Central Agricultural Heartland; the Agri Enterprise and Small-Scale Farming Resource Region; and the Arid-Agri Innovation Region.
- Linked to the above, the metro is well-positioned towards the promotion of "Green "industries; Agro-Processing and Transport, Freight and Logistics as industrial sectors.

b) Provincial Context

Mangaung is the capital City of Free State Province, and apart from performing the associated administrative and legislative functions, it also represents about 28% of the provincial population and



contributes an estimated 40,5% of the provincial GVA and around 270,000 job opportunities.

- Spatially, the MMM performs a similar central place function in provincial context as it does in national context.
- The most important regional development corridors to promote are the N8 corridor between Maseru and Bloemfontein and the N6-R26 tourism corridor which is not optimally utilized at this stage.
- The Agri Park initiative to be established around Thaba Nchu as the Agri Hub and three surrounding Farmer Production Support Areas could make a significant contribution towards rural development in the north-eastern parts of the MMM.

c) Municipal Context

- Mangaung has a population of about 878,834 people representing around 285,385 households.
- Skills levels are relatively low and only about 10% of the population have any tertiary education/qualification. Linked to the lack of skills the MMM unemployment rate stands at 27,1%.
- An estimated 61% of the municipal households fall in the lowincome bracket earning less than R 3,500 per month. This has serious implications in terms of people's ability to pay for services and also requires special measures to ensure that services are provided at an affordable level in order to enhance the financial viability of the municipality.
- There are extensive amounts of industrial land available along route N8 east at Bloemdustria, Botshabelo and Thaba Nchu (approximately 579 ha of land).

- A significant amount of land (± 185,000 ha) is owned by any of the three spheres of government and could be utilized to promote spatial transformation.
- Bloemfontein, Dewetsdorp and Wepener act as central service centres to surrounding agricultural communities.
- Botshabelo and Thaba Nchu perform the same functions as the three areas mentioned above, but they serve the same functional area due to their close proximity to one another (including about 27 rural villages).
- This leads to the costly duplication of services and facilities in the two areas.
- The 27 rural villages in the areas surrounding Thaba Nchu are very costly to service and are too small to achieve the "critical mass" required to stimulate economic activity.
- The population/ households in most of the towns are disproportional to the number of job opportunities offered in these, e.g.:
 - Mangaung/Bloemfontein: 1 Household per job opportunity
 - Botshabelo / Thaba Nchu: 2,8 Households per job opportunity
 - Small Towns (Dewetsdorp / Wepener): 2,2 Households per job opportunity
- As a result of the above, the urban dependencies of Botshabelo and Thaba Nchu on Bloemfontein is a significant challenge, requiring 13,000 commuters to travel daily along the N8 corridor.
- d) Bloemfontein



- Although the N1 corridor stimulates economic development around the access interchanges as it passes through Bloemfontein, it distorts the spatial structure of the City and works against the spatial restructuring objectives to be achieved.
- The eastern parts of Bloemfontein are earmarked for large scale spatial transformation with specific focus on economic development and job creation.
- Although a few small business nodes have been established in this area over the past two decades, no significant changes have been recorded with regards to residential development. The landscape is still dominated by low-density, low-income housing with very limited progress in terms of GAP market and fully bonded higher income residential development.
- Higher income residential development, business and commercial development still favours the western parts of the City.

e) Botshabelo

- The southern extensions of Botshabelo are very isolated with very limited economic activity and poor access to middle and higher order community facilities.
- Economic activity favours locations closer to the N8 freeway and the latest residential townships are also located to the north-west (closer to Bloemfontein).
- The key question is whether Botshabelo should expand to the north of route N8 and towards Thaba Nchu or not.

- In Thaba Nchu the key issue is to consolidate the fragmented urban structure and to enhance the economic viability of the existing industrial and business nodes in the area.
- Functional linkages (economic and social) to the surrounding rural villages also need to be enhanced and an economic base needs to be established in these areas (supplementary to the Agri Park initiative).

g) Dewetsdorp

- The spatial consolidation and integration of the various parts of the town need to be implemented.
- The scale of residential development should be in line with the economic development and job creation potential of the node.
- Tourism should be promoted in and around the town.

h) Wepener

- Access to the town (especially from route R26 west) needs to be enhanced and connectivity between the various townships needs to be improved.
- The scale of residential development should be aligned to the economic and job creation potential of the town.
- There is significant cultural-historic and environmental tourism potential in the town and surrounds which is not optimally utilized at present.
- i) Van Stadensrus/Soutpan/Ikgomotseng

f) Thaba Nchu



The development potential of these settlements is very limited; hence infrastructure investment should be limited accordingly. The focus should purely be on meeting the very basic social needs of the communities and providing in the constitutionally mandated minimum levels of service to such.

j) Population Projections (2019 – 2036)

- Table 16 indicates that the projected population for Mangaung by 2025 is about 943,270 people and that it will increase to about 1,045,391 people by 2036.
- This represents an increment of about 64,436 people (comprising 38,139 new households) for the period 2019-2025, and an additional 102,122 people (representing 50,927 households) up to 2036. (See household information in **Table 17**).
- Hence, the total incremental population for the MMM from 2019 to 2036 is 166,558 people representing 89,066 households.
- In terms of economic activity (Refer to **Table 18**) it is estimated that approximately 37,435 new job opportunities could be created in the MMM area of jurisdiction by 2036. (This is based on an extensive Socio-Economic Forecast conducted by the BMR as part of the Mangaung IPTN during 2016).
- The projected incremental population, households and job opportunities provide the basis for the Land Use Budget for Mangaung which in essence is an estimate of the amount of land required up to 2036 to accommodate the additional people, households and economic activities.

However, it should be kept in mind that the Land Use Budget should also make provision to accommodate the existing housing backlog within the MMM, and include the land required for addressing the housing backlog into the Land Use Budget.

Table 16. Mangaung MM Population Projections 2019-2036

Population								Incremental Population		
Functional Area	2019	%	2025	%	2036	%	2019-2025	2025-2036	2019-2036	
Mangaung / Bloemfontein	546 568	62%	605 205	64%	689 833	66%	58 637	84 628	143 265	
Botshabelo /Thaba Nchu	290 055	33%	294 461	31%	308 797	30%	4 406	14 336	18 742	
Rural	18 515	2%	19 239	2%	20 780	2%	725	1 541	2 265	
Small Towns	23 696	3%	24 365	3%	25 980	2%	669	1 616	2 285	
Total	878 834	100%	943 270	100%	1 045 391	100%	64 436	102 122	166 558	

Source: Mangaung Integrated Public Transport Network, 2016

Table 17. Mangaung MM Household Projections 2019-2036

	Incremental								
	Households								
Functional Area	2019	%	2025	%	2036	%	2019-2025	2025-2036	2019-2036
	1015	/0	2025	/0	2030	70 C00/	2013-2023	2023-2030	71 624
Mangaung / Bioemfontein	184 560	65%	215 456	6/%	256 193	68%	30 896	40 / 3 /	/1634
Botshabelo /Thaba Nchu	87 334	31%	93 314	29%	101 784	27%	5 980	8 470	14 450
Rural	6 059	2%	6 671	2%	7 508	2%	612	837	1 449
Small Towns	7 432	3%	8 082	2%	8 965	2%	650	883	1 533
Total	285 385	100%	323 524	100%	374 451	100%	38 139	50 927	89 066

Source: Mangaung Integrated Public Transport Network, 2016

Table 18. Mangaung MM Job Opportunities Projections 2019-2036

Job Op	Job Opportunities (Formal Workers)								Incremental Job Opportunities			
Functional Area	2019	%	2025	%	2036	%	2019-2025	2025-2036	2019-2036			
Mangaung / Bloemfontein	179 000	79%	183 240	80%	212 535	81%	4 240	29 295	33 535			
Botshabelo /Thaba Nchu	31 038	14%	31 203	14%	35 803	14%	166	4 600	4 766			
Rural	12 121	5%	11 628	5%	11 110	4%	- 493	- 518	- 1011			
Small Towns	3 405	2%	3 415	1%	3 551	1%	10	136	146			
Total	225 564	100%	229 487	100%	263 000	100%	3 923	33 513	37 435			

Source: Mangaung Integrated Public Transport Network, 2016



k) Land Use Budget

- Table 19 reflects the Land Use Budget for Mangaung Municipality for the period 2019 up to 2036.
- The total number of housing units to be catered for up to 2036 (including the existing backlog) is estimated at about 117,804 units, representing a population of around 251,040 people.
- These households comprise about 16,357 high income, 40,193 middle income, and 61,254 low income families which would require an estimated 4,714 ha of land for housing purposes.
- Community facilities would require an additional 369 ha of land, industrial uses about 213 ha and business an estimated 122 ha. About 1,734 ha of land would be required for roads/street reserves. This brings the total additional land required for urbanisation purposes in Mangaung until 2036 to about 7,152 ha of land
- An estimated 80% of this land (5,723 ha) is required in the Bloemfontein/Mangaung area; about 10% (711 ha) in Botshabelo; around 8% (568 ha) in Thaba Nchu, and about 2% (75 ha) in the remaining small towns.
- Annexure A in this document comprises the more detailed population, household and job opportunity projections (B.1), as well as the detailed land use budgets for the various urban areas (B.2) for reference purposes.

 Table 19. Summary of Mangaung Incremental Land Use Budget 2019-2036 (including Backlog)

	Bloemfontein	Thaba		Small	Subtotal		
Facilities	/Mangaung	Nchu	Botshabelo	Towns	Urban	Rural	TOTAL
Inc. Population	203 462	18 720	24 306	2 285	248 772	2 265	251 037
Inc. Number of Units	92 491	9 572	12 758	1 533	116 354	1 449	117 803
High Income	15 200	457	350	114	16 119	238	16 357
Medium Income	33 064	2 913	2 834	694	39 505	688	40 193
Low Income	44 227	6 202	9 575	726	60 730	523	61 253
	l)	ncre me ntal	Land Needec	l (ha)			
Residential	3 754	380	480	50	4 664	50	4 714
High Income	1 216	30	23	6	1 274	24	1 298
Medium Income	1 653	146	142	24	1 965	17	1 982
Low Income	885	205	316	20	1 425	9	1 434
Business (Retail/Office)	106	7	7	1	121	1	122
Industrial	176	16	16	-	207	6	213
Community Facilities	300	27	35	3	366	3	369
Street	1 387	138	172	17	1 715	19	1 734
TOTAL	5 723	568	711	71	7 072	79	7 152



SPATIAL PROPOSAL

4

Diagram 12 graphically illustrates the structure and sequence of the main components representing the Spatial Proposals of the Mangaung SDF. It is briefly summarised as follows:

- Section 4.1 defines the Spatial Vision for the Mangaung Metropolitan area which is aligned to the five SPLUMA Principles and translated into a number of Outcomes to be achieved through strategic planning.
- Section 4.2 translates the Spatial Vision into a more detailed Spatial Concept which is based on six main Development Objectives that serve as points of departure towards future development in the municipal area.
- Section 4.3 unpacks the Spatial Strategies towards the realisation of the Spatial Concept and the six Development Objectives. This is done by means of a number of Actions per each of the six Development Objectives.
- In Section 4.4 the Spatial Strategies are consolidated into the Composite Metropolitan SDF with a 5- and 20-year development perspective.
- Following from this a number of more detailed development guidelines in terms of Environmental Core Areas, Urban Development and Urban Restructuring are formulated as Local Area Plans for each of the major settlement areas and the rural parts of the Mangaung Metropolitan area (section 4.5).
- Some development guidelines relevant to sustainable human settlement and economic empowerment are included in Annexure C and Annexure D; while EMF and Free State PSDF Guidelines and several Precinct/Structure Plans.

- The Implementation Framework as illustrated on Diagram 12 is discussed in Section 5 of this document. It summarizes the sectoral implications of the Mangaung SDF and provides guidelines towards Growth Management and Urban Management within the MMM.
- The long-term Capital Investment Framework, as well as the shorter term (3-5 year) Capital Expenditure Framework of the MMM will in future be based on the Spatial Strategies as defined in the MSDF (Strategy Led Budgeting). This is discussed in Section 6.
- BEPP Alignment: It should be noted that the Mangaung SDF was designed to align with the Mangaung Built Environment Performance Plan and associated Built Environment Value Chain. More specifically, it incorporated the concepts of Outcomes Led Planning based on a specific Theory of Change to achieve Spatial Transformation in identified Priority Development Areas (Spatial Targeting). The Spatial Strategies as defined in the MSDF are translated into multi-sectoral projects which should feed into the short- and medium- to long-term budgeting processes of Mangaung (Strategy Led Budgeting). In this way it is ensured that public spending/ investment in Mangaung is aligned to the Spatial Transformation objectives as defined in the MSDF.

Annexure B comprises a more detailed theoretical overview of the Built Environment Value Chain as summarized from the National Treasury BEPP Guidelines.



MAN	GAUNG METROPOLIT	AN SDF STF	RUCTURE				C	Diagram 12		
				SPATIAL	VISION					
5 SPLUMA Principles	> Outcomes	Led Planning :	: Sustainable	, Resilient, Inclus	sive, Efficient/Producti	ve, Well Governed	d City			
					ONCEPT					
Objective 1	Objective 2	Objective	e 3	Objective 4	Objective 5		Obje	ctive 6		
Environmental Management	Spatial Targeting	Movemen	int rk Hu	Sustainable Iman Settlements	Infrastructure Alignment	Economic Development and Job Creation				
				SPATIAL STR	RATEGIES					
• SPC	Settlement Hierarchy Mobility		• 9	mart Growth	Bulk Baticulation	Business	Industrial	Agriculture	Tourism	
Ecological Connors Private Protected Areas Climate Change Adaptation and Mitigation Flood and Fire Risk	Spacial (ransformation Intervention Strategy Theory of Change Priority Development Areas Urban Network Intervation Zones / CLDas	Accessibility Access Road Rail Airport Multi Modal	Public C	rincipies riority Housing evelopment Areas lousing Typologies Upgrading iommunity Facilities Standards	Expansion Maintenance Backlog Eradication Water Sanitation Electricity Boads	CBD Community Nodes Neighbourhood Nodes	Areas Functional Areas Functions Logistics Agri Green Agri Park		Functional Areas Eco Tourism Agri Tourism Adventure Cultural	
	Freight Logistics		gistics - Programme		- Waste	Informal / Emerging Upscaling				
		Hub			Smart City Technology	•	Tertiary Education	and Skills Developmen	t	
				COMPOSITE MU	INICIPAL SDF: Short	Term : 5 Years				
				LOCAL ARE	A PLANS					
Bloemfontein	Botshabelo	Thaba	a Nchu	Soutpan	Dewetsdorp	Wepener	Van Stade	Van Stadensrus		
			P		FRAMEWORK					
 Institutional and Sector Growth Management Urban Management 	al Alignment (Master Plans)	STRA	TEGY LED BUD	• Cap IGETING: • Cap	ital Investment Framework ital Expenditure Framework	k (Long Term): IDMS, rk (5 Year): IDP, MTRI	LTFP EF, SDBIP, Annual E	Budget		
ANNEXURE A	ANNEXU	RE B	ANN	IEXURE C	ANNEXURE D		ANNEXURE E	AP	PENDICES	
ANNEXURE A ANNEXURE B MSDF Public Notice Land Use Budget		udget	BEVC Guidelines		Sustainable Human Sett D1: Density Typologies D2: Thusong Centre Conce D3: Community Facility Str D4: SMART City Concept	lements Ecor E1:1 pt E2:1 andards E3:1 E4:1 E5:1	Economic Empowerment 1. E1: Township Economy 2. E2: Economic Upscaling 3. E3: Precision Farming 4. E4: Farmer Upscaling 5.		delines Guidelines /Structure Plans omment ort	



4.1 SPATIAL DEVELOPMENT VISION

The overarching long-term Spatial Development Vision for the Mangaung Metropolitan Area is:

"To Be A Globally Safe, Attractive and Well Governed Municipality Where Growth is Spatially Just, Economically Viable and Environmentally Sustainable".

The Mangaung Spatial Vision as noted above is based on the following Desired Outcomes which are aligned to the five SPLUMA Principles.

Sustainable Environment:

- The Mangaung environmental resources include extensive areas of significant biodiversity and high potential agricultural land which need to be utilised in an environmentally sustainable manner.
- Care should be taken to ensure that the exploitation of economic opportunities is not done at the expense of the natural or social environment.

Spatial Justice/Inclusion:

Direct the majority of public resources to ensure that the urban and rural areas work as well as possible for the poor and middle income groups, and that the social and economic needs of residents are sufficiently met through effective public service delivery and integration.

- This includes planning and implementing spatial transformation and restructuring programmes aimed at enhanced physical, social and economic integration of communities in all settlement areas.
- Facilitate continuous economic upscaling of emerging entrepreneurs from historically disadvantaged areas in order to become part of the mainstream formal economy.
- Spatial Efficiency/Economic Viability:
 - Consolidate and densify the urban fabric with mixed land use at strategically located nodal points linked to one another by way of a comprehensive public transport network.
 - Align infrastructure investment with identified, well located priority development areas.
 - Deliberately create environments conducive to retail, commercial and light industrial development, with modal transfer facilities in all activity nodes identified.
 - Agriculture needs to ensure food security in Mangaung and remains important as a creator of low skilled jobs. The limited amount of arable land means that protection and better use of this resource for commercial farmers and rural communities (through agrarian transformation) should occupy a high priority.
 - Facilitate the development of tourism attractions that create economic opportunities for all communities. Promote accessibility through the upgrading of regional road, rail and air transport infrastructure, installation of excellent IT services, and providing for a wider range of accommodation, conferencing and recreational facilities.

Spatial Resilience:

- Measures need to be put in place to enhance resilience to climate change in the urban and rural parts of the municipality and to ensure long term environmental sustainability and food security.
- The economy of Mangaung must be diversified in order to minimise risks associated with periodic sectoral cycles (economic up- and downswings).

Good Governance and Administration:

- Institutional leadership should ensure Strategy Led sectoral planning and budgeting from various spheres of government which are well-aligned and coordinated via appropriate institutional structures and procedures.
- Partnerships need to be established with various spheres of Ο government and with the private sector.

4.2 SPATIAL CONCEPT

The main objective of the Mangaung Metropolitan Municipality is to achieve a balance between development and the environment and to ensure that growth is spatially just, economically viable and environmentally sustainable.

The proposed Spatial Development Concept to achieve the above is graphically illustrated on Figure 54 and is based on the following six Objectives (also refer to **Diagram 12**):

Objective 1: Facilitate the protection and sustainable management of the natural environmental resources.

The natural environmental resources of the Mangaung MM are fundamental to future economic development in the area as two key economic sectors to the municipality (tourism and agriculture) are both resource-based.

Hence it would be important to protect and conserve all important terrestrial, aquatic and high biodiversity habitats in the MMM as conceptually illustrated on Figure 54.

This would require the containment of urban sprawl and efficient management of rural development in accordance with a coherent set of development guidelines.

Objective 2: Direct and align investment and growth to capacity, resources and opportunity in relation to a nodal settlement hierarchy.

As illustrated on Figure 54, settlement development should be directed and consolidated (spatial targeting) in a number of functional nodes of which Bloemfontein is the highest order. Secondary nodes of significance include areas such as Botshabelo and Thaba Nchu while Soutpan, Dewetsdorp, Wepener and Van Stadensrus act as lower order central places serving surrounding rural areas with agriculture as the primary economic base.







Development in the rural settlements to the north and south of Thaba Nchu should be limited and rather be consolidated around one or two priority settlements (Paradys and Gladstone) earmarked for basic service delivery to the surrounding clusters of rural settlements.

Within each of the nodes/ settlements noted above, specific areas need to be identified to promote physical, social and economic integration (Spatial Transformation) by way of an intervention strategy which is based on a Theory of Change to be applied in the specific area.

The Priority Development Areas should be the focus for dedicated, intergovernmental investment via an Inter-Governmental Project Pipeline.

Objective 3: Optimise regional connectivity and mobility as well as local access and accessibility via a comprehensive movement network.

Regional connectivity and mobility are provided by route N1, N8 and N6 which link the Metropolitan area to a number of important towns and cities in the South African context.

Route N1 acts as a link to the Gauteng City Region to the north and City of Cape Town to the south. Route N8 links the MMM to Kimberley to the west and Maseru (Lesotho) to the east (and indirectly to route N3 to Durban). Route N6 links Mangaung to three major harbour cities to the south-east: East London, Port Elizabeth and Mossel Bay. The regional routes provide linkages to major destinations in surrounding regions.

At local level access and connectivity should be enhanced in order to ensure optimal utilisation of economic opportunities and efficient service delivery in all parts of the municipality (urban and rural areas).

The Bram Fischer International Airport and the Mangaung Rail Hub Precinct could also play a significant role towards future economic development (and spatial transformation) in the area – specifically in terms of logistics related industrial/ commercial development.

An integrated public transport network should ensure that all communities have access to a wide range of economic activity areas and community facilities via various modes of transport.

Objective 4: Facilitate the establishment of sustainable human settlements in all identified nodes.

Settlement footprints should be contained at all costs in order to alleviate development pressure on the natural resources of the municipality and to optimise the efficient use of resources (e.g. land) and infrastructure (e.g. engineering services) within existing towns and settlements (Smart Growth Principles).



Hence, the Mangaung MM should generally promote higher density, compact, mixed land uses which will also enhance walkability within all settlements.

Expansion of the urban footprint should be directed to strategically located priority development areas which should also contribute towards the overall consolidation of the currently fragmented urban footprint characterising the MMM.

The development of a diverse range of housing typologies promoting integration of all income groups at low, medium and higher densities and offering a variety of tenure alternatives to all communities should also be a priority.

Linked to the principle of sustainable human settlement the Mangaung MM need to rationalise and cluster community facilities at strategically located and accessible points (served by public transport/ modal transfer facilities) in all the identified settlement areas within the municipal area. The clustering of such facilities should be aimed at providing one-stop services (especially to people dependent on public transport) and to add to the "critical mass" required to also stimulate local economic development around these facilities.

Objective 5: Align metropolitan infrastructure maintenance and construction programmes with spatial development initiatives.

Engineering services (bulk and reticulation) maintenance and expansion programmes need to be aligned to land use development programmes focussing on new developments (greenfields) and upgrading/ maintaining services and eradicating backlogs in existing areas (brownfields).

The Mangaung MM should also incrementally promote the establishment of the Smart City Concept which focusses on utilising Information and Communication Technology (ICT) to advance economic development, safety and security, governance, environmental management, transport etc. Objective 6: Identify and optimally utilise economic development opportunities in a sustainable manner.

From the situational analysis it was concluded that the most viable economic sectors within the Mangaung MM are agriculture/agri industries; business; logistics based light industrial/service industries, and tourism.

Tourism and agriculture are natural resource-based activities; hence it is important to align programmes towards the future development of these sectors with the spatial distribution of such resources (e.g. natural scenery, dams and areas of significant biodiversity). This should be done with due consideration to the environmental management programmes applicable to these areas via the relevant legislation as contained in the Mangaung EMF.

Agrarian Transformation in the subsistence farming areas under traditional leadership around Thaba Nchu is very important in this regard. The establishment of the Mangaung Agri Park (including an Agri Hub, three Farmer Production Support Units, Farmer Training Facilities and a Rural-Urban Marketing Centre) is an important initiative towards achieving agrarian transformation in this area.

Business development should be promoted in appropriately located mixed use precincts in all settlements, with the Bloemfontein Central Business District being the primary business node in the metropolitan area. Each of the priority settlement areas in Mangaung holds a business node in which development of retail, office and community services should be promoted.

The Mangaung MM should also focus on the establishment of local service industries and logistics centres; agri industries and precision farming; and "green" industries (e.g. waste to energy) that are compatible with the agriculture, tourism and conservation focus of the municipality.

Special mechanisms need to be put in place to provide opportunity for emerging entrepreneurs to do "incremental economic up-scaling" to eventually become part of the mainstream economy of the municipality (economic empowerment).

Tertiary education and skills training should be aligned with the priority economic sectors within the Mangaung MM in order to optimally utilise local opportunities in these sectors.
4.3 SPATIAL STRATEGIES

This section unpacks the strategies towards achieving each of the six development objectives of the Mangaung Metropolitan Spatial Development Framework. This is done by way of a number of actions per development objective.

4.3.1 Environmental Management

Objective 1: To facilitate the protection and sustainable management of the natural environmental resources.

The Mangaung historical, cultural and ecological wealth is given recognition through the number of tourists that visit the area simply to experience its natural and cultural-historic beauty. The environmental and historical/cultural well-being of the Mangaung MM is therefore a key contributor towards its long-term economic sustainability.

Action 1.1: Contain urban development and manage rural areas through appropriate application of Spatial Planning Categories (SPCs)

The Free State Biodiversity Plan, 2015 has identified Critical Biodiversity Areas (CBAs), Ecological Support Areas (ESAs), Other Natural Areas (ONAs) and Degraded/Transformed Areas for the whole of the Mangaung area (also refer to **Figure 12** in this report). These categories are intended

to inform decision-making regarding developments, their location and context and to guide planning, environmental assessments, authorisations and resource management within the Metropolitan area via the Mangaung Environmental Management Framework (EMF). (Also refer to **Appendix 1** in the Volume 2 report).

Supplementary to the above, the Free State Provincial Spatial Development Framework identified a number Spatial Planning Categories which collectively illustrate the desired matrix of land uses throughout the province. These SPCs are merely intended to clarify and facilitate standardized coherent decision-making throughout the province. A comprehensive set of sub-categories has been created to serve as a guide for more detailed land use planning at the municipal level, as depicted in **Table 20**.

Table 20 also illustrates the correlation/relationship between the Spatial Planning Categories (SPCs) of the FS PSDF; the Free State Biodiversity Plan Categories; and the Mangaung EMF Environmental Control Zones. These were used as basis for the Mangaung SDF.

Hence, the Mangaung MM adopts and recommends the application of the Free State SDF and the associated Spatial Planning Categories in the Metropolitan SDF. The following land uses are permitted per Spatial Planning Category as defined below (Also refer to **Appendix 2** in the Volume 2 report for a summary of the Free State PSDF Guidelines):



Table 20. Correlation of Spatial Planning Categories

FREE STATE PROVINCIAL SDF	FREE STATE BIODIVERSITY PLAN CATEGORIES					MMM ENVIRONMENTAL MANAGEMENT FRAMEWORK (EMF)	
Spatial Planning Categories	CBA 1	CBA 2	ESA 1	ESA 2	DNA	Transformed	Environmental Control Zone
SPC A : CORE	A.a						E : Biodiversity
SPC B : BUFFER	B.b	B.a B.c	B.c	B.c			E : Biodiversity D : Agriculture
SPC C : AGRICULTURAL					C.a C.b		D : Agriculture C : General
SPC D : URBAN						C.b D.a - D.r	A : Urban
SPC E : INDUSTRIAL						E.a - E.e	A : Urban
SPC F : SURFACE INFRASTRUCTURE						F.a - F.I	B : Solar
DETAILED SPATIAL PLANNING SUB- CATEGORIES	A : CORE A.a Statutory Protecte B : BUFFER B.a Non-Statutory Co B.b Ecological Corric B.c Urban Green Are C : AGRICULTURAL ARE C.a Extensive Agricult C.b Intensive Agricult	ed Areas	D : URBAN RELATED D.a Main Towns D.b Local Towns D.c Rural Settlements D.d Tribal Authority Settlements D.e Communal Settlements D.f Institutional Areas D.g Authority Areas D.h Residential Areas D.h Residential Areas D.h Residential Areas D.h Service Related Business D.k Special Business D.l SMME Incubators D.m Mixed Use Development Areas D.n Cemeteries D.o Sports Fields & Infrastructure D.p Airport and Infrastructure D.q Resorts & Tourism Related A D.r Farmsteads & Outbuildings	s reas	E: INDUSTRIAL AREAS E.a Agricultural Industry E.b Industrial Development Ze E.c Light Industry E.d Heavy Industry E.d Heavy Industry E.e Extractive Industry F: SURFACE INFRASTRUCTURE F.a National Roads F.b Main Roads F.c Minor Roads F.d Public Streets F.e Heavy Vehicle Overnight F F.f Railway Lines F.g Power Lines F.h Telecommunication Infrast F.i Renewable Energy Struct F.j Dams & Reservoirs F.k Canals F.l Sewerage Plants and Ref	acilities acilities tructure ures use Areas	

SPC A: Core/ Critical Biodiversity Areas 1: These include habitats classified as highly irreplaceable, critically endangered, or endangered terrestrial (land) and aquatic (rivers, wetlands & estuaries). It also includes essential biological corridors vital to sustain their functionality. These areas must be regarded as no-go for development and must be kept in a natural state, with a management plan focused on maintaining or improving the state of biodiversity. There should be no further loss of natural habitat and degraded areas should be rehabilitated.

SPC B: Buffer/ Critical Biodiversity Areas 2 and Ecological Support Areas 1 and 2: These areas are primarily in private ownership; hence a key challenge is to address the conflicts that often occur between biodiversity conservation and consumptive agricultural practices.

These areas may be degraded but still play an important role in supporting the functioning of ecosystems. These areas should be restored and/or managed to minimise impact on ecological infrastructure functioning, especially soil and water related services.

SPC C: Agriculture/ Other Natural Areas: These areas represent the existing and potential intensive agricultural footprint (i.e. homogeneous farming areas made up of cultivated land and production support areas). It includes areas in which significant or complete loss of natural habitat and ecological functioning has taken place due to farming activities. Existing and potential agricultural landscapes should be consolidated and protected; sustainable agricultural development, land and agrarian reform, and food

security should be facilitated, and ecosystems must be stabilised and managed to restore their ecological functionality.

(**Figure 55.1** depicts the spatial distribution and extent of SPC A; B and C noted above as part of the Biophysical Environment of the Mangaung MM).

SPC D: Urban Areas/ Transformed: This category includes all existing cities, large and smaller towns and villages. Settlements are to be delineated by an urban edge and are the "engine rooms" that drive regional economic development and growth. The purpose is to develop and manage settlements on a sustainable basis (i.e. supportive of environmental integrity, human well-being and economic efficiency).

SPC E: Industrial/ Transformed: These represent the major areas identified for economic development and job creation. The objective is to provide the infrastructure and other requirements to enable the optimal development of such areas.

SPC F: Surface Infrastructure/ Transformed: An effective, competitive and responsive infrastructure network is imperative for ongoing economic development. Hence, sufficient provision should be made for the provision of such in line with the development objectives for the region.





Action 1.2: Establish ecological corridors to protect continuous biodiversity patterns and to adapt to environmental changes.

Informal conservation areas within the Mangaung boundaries include several Private Nature Reserves (PNR) and conservancies. Although these are not gazetted protected environments, it may be prudent to note conservancies/private nature reserves as areas that are voluntarily and cooperatively managed for their environmental integrity. Conservancies are also useful tools in the establishment and management of ecological corridors where willing landowners exist and where incentive schemes may be applied.

Ecological corridors can create linkages between existing natural but fragmented landscapes, enabling the survival of plant and animal populations through the provision of safe migration routes between areas.

The principle of ecological corridors should also be incorporated into the urban setting to encourage a green space network that ties in with biodiversity corridors, promotes outdoor recreation, creates safe outdoor areas for tourists and locals to walk, and that creates riparian and wetland buffer zones in urban areas.

As a general principle, large rivers should have a buffer zone of a minimum width of 150 m, medium rivers a zone of 75 m and smaller rivers a 32 m buffer. No development should occur within 1:100 flood lines surrounding rivers. This will ensure that water quality and wildlife habitats are protected. In addition, it will aid in designating where settlements should be developed



or expanded and will aid in preventing the dumping of waste and chemicals in rivers.

Action 1.3: Implement Climate Change adaptation and mitigation measures.

The MMM is prone to a myriad of extreme climate events of which the most important are the following:

- increased temperature (1-3° Celsius) with increased number of very hot days, heat wave days and high fire-danger days, and
- irregular and below average rainfall which will have a major impact on the MMM as 60% of surface water in the MMM is used for irrigation purposes.

In view of the above, the MMM Climate Change Adaptation and Mitigation Strategy proposes the following mitigation intervention measures, as listed in **Table 21**.

Table 21. Proposed Mitigation Interventions for MMM

Sector	Proposed Mitigation Interventions/ Projects Renewable Energy	Details of the Interventions
	Tenonable Energy	the National Grid, use of Solar in residential areas and industry
	Energy Efficiency (EE)	Refurbish MMM buildings (Government buildings, hospitals, clinics and schools with EE equipment) Refurbish streetlights with LED lights
Human Settlements	Insulate RDP Houses	To reduce heating and air conditioning needs for human comfort
	Renewable Energy	Install Solar Water Heaters or heat pumps in Residential areas (existing and new houses and RDP houses)
Agriculture	Smart Agriculture	Agricultural practices that reduce methane emissions Encourage organic farming (Introduce vermiculture – organic manure)
Transport	Public Transport – Bus Rapid Transport (BRT) system Introduce bicycle lanes	Introduce BRT bus system (similar to Gauteng Province's Gautrain, 'Reya Vaya' and 'A re yeng' bus services Encourage bicycle use
Waste	Waste to Energy	Convert Landfill gas to electricity
Management	Recycling	Use waste to generate biodiesel for MMM bus fleet and Biogas (Biofuels) Reduction, Recycling, Reuse of waste material

	Proposed Mitigation					
Sector	Interventions/	Details of the Interventions				
	Projects					
		Separation at Source				
		Introduce Manufacturing Plant industries				
		using Recycled materials to create jobs				
Biodiversity	Plant indigenous trees	Remove invasive alien plant species and				
	to act as carbon	plant indigenous plants				
	emissions sinks					
	Protect parks and	e.g. Municipal Open Space Services				
	open spaces to	(MOSS) study is currently underway at the				
	maintain their role as	municipality				
	carbon sinks					
Commercial	Energy Efficiency	Encourage and incentivise EE initiatives by				
and Industry		industries				

Flood Risks: Land uses must be managed to reduce the risk of flooding and to protect human life and property in the case of extreme flooding. Where critical infrastructure and areas are located within flood risk areas, the resilience of these settlements in the instance of extreme events will be compromised.

Flood risk mitigation strategies must be integrated into the land use management and infrastructure master planning systems of the municipality. Sustainable urban drainage systems and ecologically sound rural practices must be adopted when planning new development and approving changes to existing land uses.



The design of new infrastructure, in particular stormwater systems, should consider the higher frequency of flooding associated with extreme weather conditions.

New development should not be allowed to occur on slopes steeper than 1:4 as this new construction and land cleared for development increases erosion and stream siltation.

Fire Risk: The Mangaung SDF recognises that veld fire is a natural ecological process that occurs in many parts of the region. However, if this is not managed or settlement patterns exacerbate the risk of veld fire, it places great risk to life and property at significant economic and social cost.

The Mangaung Disaster Risk Management function must oversee the management of veldfire risk which must also be integrated into the Planning By-Laws.

Action 1.4: Create GIS based environmental overlay zones to inform Land Use decisions.

Overlay zones should be developed for the most critical environmental features noted above. These need to be incorporated into municipal planning systems (GIS) and should be used as decision support tools when land use applications are considered.

4.3.2 Spatial Targeting

Objective 2: Direct and align growth to capacity, resources and opportunity in relation to a regional socio-economic hierarchy of settlements.

Action 2.1: Prioritise development and investment in accordance with the Mangaung settlement hierarchy

In order to minimise the impact on the natural environmental resources of Mangaung, it is essential that human settlement and economic activities be consolidated around a number of strategically located settlements/nodal points within the municipality as depicted on **Figure 55.2**.

These settlements will become the focal points for social and economic investment (spatial targeting) by all spheres of government as well as the private sector. Each of these settlements should comprise a diverse range of urban land uses including housing, community facilities, economic activities (job opportunities), basic engineering services like water, sanitation and electricity, a comprehensive movement network and local open space system.

Consolidating and densifying the urban fabric within these settlements should result in high density mixed uses which not only enhance the viability of the public transport system, but also optimise the operational and financial efficiency of engineering and social infrastructure and services



provided. Furthermore, it will significantly reduce travel costs/ distances within and between the various urban areas which is a major benefit to the poor.

The size, function and associated range of land uses/ activities provided by the settlements would differ based on factors such as historic development, location, economic potential and environmental constraints. **Table 22** below depicts the proposed hierarchy of settlements within the Mangaung area.

Table 22. Hierarchy of Settlements

	Тошир	Hierorehy	Population Community		Economic	
	rown	nierarchy	Order	Facilities	Activity	
1	Mangaung	Small Metro	> 500,000	Higher Order	Comprehensive	
	Mangading	onial Metro		riigher Older	Regional/ National	
2	Botshabelo	Large Town	> 200,000	Higher Order	Comprehensive	
2	Dotoridadelo			riigher order	Regional/ Local	
3	Thaha Nchu	Medium	> 100 000	Middle Order	Limited Regional/	
5		Town			Local	
4	Dewetsdorp	Small Town	> 10 000	Middle Order	Limited Regional/	
7	Deweiddolp	Ciliai Towill	2 10,000		Local	
5	Wepeper	Small Town	> 10 000	Middle Order	Limited Regional/	
о тор	rioponor		10,000		Local	
6	Van	Village	> 2.000	Middle Order	Local	
Stadensrus			,			
7	Soutpan	Village	> ,000	Basic/Mobile	Local	
		Purol		Basic/Mobile		
8	Paradys Gladstone	Ruiai	. 000	Salastad Sarvisa	Agriculture	
		Boint	> ,000	Selected Service	Agriculture	
		Point		Delivery Centre		

It is essential to compile/maintain detailed Local SDF's to guide and direct the location, type, extent and phasing of development in these areas. Such Local SDF's should determine the future spatial structure, function and associated land use composition of these areas – not only to ensure orderly, cost efficient and sustainable development, but also to harness private investor confidence and to attract investment to these areas.

All these nodal points should be carefully planned, maintained and managed as these represent the major areas of future population growth, service delivery and economic development within the Mangaung MM.

Mangaung is the first order node (Small Metro) as it holds the largest population in the municipal area. Hence, it would also accommodate the higher order (national, provincial and metropolitan) public services and community facilities like the Civic Centre, Magistrates Court, Universities, Regional Police Services, Regional Hospital, Fire Brigade and Emergency Services, etc. It also comprises the most comprehensive range of economic activities including retail, office, industrial, commercial, tourism, etc. serving not only the local market, but also the region and even the national economy.

Botshabelo is classified as a Large Town and due to its high population $(\pm 200,000 \text{ residents})$, it also warrants the provision of higher order community facilities like a Magistrates Court, large Police Station, University Satellite campuses, etc. (which may be shared with Thaba Nchu).



Thaba Nchu holds a smaller population which requires the provision of typical middle order community facilities (e.g. clinics, pre-schools, primary schools, high schools, community hall, library, municipal satellite office). It also has a limited range of economic activities predominantly serving the local needs (including the needs of the clusters of rural villages to the north and south thereof).

Dewetsdorp and Wepener are categorized as Small Towns qualifying for middle order community facilities and performing a limited range of economic functions mainly focused on the needs of the local population and surrounding farming communities.

The villages of Van Stadensrus and Soutpan have very small populations which would normally be served by way of periodic and/or mobile community services like a clinic, library, post office and police station. Economic activity in these two villages will mostly be focused on the basic natural resources available within the area, e.g. agriculture around Van Stadensrus and agriculture and mining around Soutpan.

The rural villages north and south of Thaba Nchu are primarily served by Thaba Nchu but in line with the Mangaung Rural Development Plan the villages of Paradys and Gladstone are identified as Rural Growth Points intended to serve as local Service Delivery Centers, providing some basic community facilities/services within convenient distance to the surrounding clusters of rural villages (supplementary to Thaba Nchu).

Action 2.2: Promote Spatial Transformation in all Settlement Areas

The Mangaung SDF seeks to promote spatial transformation in support of accessible, walkable, inclusive and livable environments that offer equal opportunities for all sectors of society. This principle applies to all settlement areas within the municipal area. A more comprehensive focused intervention strategy is required to achieve spatial transformation in the Bloemfontein-Mangaung and the Botshabelo-Thaba Nchu areas respectively. This intervention strategy includes:

- The strengthening of existing major nodes of economic activity (Urban Core) which is the Bloemfontein CBD;
- The establishment of conditions conducive to economic development at identified nodes (Urban Hubs) within the marginalized areas (townships);
- The development of an extensive range of social/ community facilities to serve the needs of these communities in and around these hubs;
- The establishment of enhanced public transport systems between the hubs and the core area, linking marginalized communities to these areas of job opportunity, and
- The delivery of a range of housing options within the marginalized areas, but also at higher densities along the public transport corridors (Integration Zones).

These systems of Urban Cores, Urban Hubs and Public Transport Corridors (Integration Zones) are collectively referred to as the Urban Network Area, which is the priority area within the settlement earmarked for Spatial



Transformation. (Also refer to **Annexure B** for a more elaborate description of this concept).

Action 2.3: Manage development in rural and agricultural landscapes

Development in the rural and agricultural landscapes of the Mangaung area should be managed in line with the guidelines provided in the Free State SDF as summarised in **Appendix 2** and the Mangaung Environmental Management Plan summarised in **Appendix 1**.

By implication, these guidelines indicate the type of land uses that can be developed, as well as the conditions applicable in different rural Management Zones/ Spatial Planning Categories outside the urban edge.

4.3.3 Movement Network

Objective 3: Optimise metropolitan connectivity and mobility as well as local access and accessibility via a comprehensive movement network.

The aim is to establish a comprehensive, multi modal movement network serving the urban and rural parts of the municipality, linking all the identified nodal areas to one another, and functionally linking the metropolitan area to surrounding regions and major destinations as depicted on **Figure 55.2**.

Action 3.1: Capitalise on the economic opportunities posed by the national movement corridors traversing the metropolitan area.

Routes N1, N8 and N6 are the most important national routes traversing the Mangaung area.

Route N1 has played a significant role in the development of the western extents of Mangaung and more specifically the promotion of nodal development around each of the access interchanges onto N1 in the urban area. The most prominent in this regard is the N1-N8 node, followed by the N1-R706 and N1-N6 activity nodes (refer to **Figures 31 and 32** in this report).

It will, however, also be important to promote development along route N8, and specifically the eastern section of N8 between Mangaung (Bloemfontein) and Botshabelo–Thaba Nchu which is the priority area in terms of spatial restructuring and economic upliftment in the MMM.

The Free State PSDF branded this as the N8 Transnational Development Corridor. A key matter to be addressed as part of this initiative is the construction of an eastern bypass route (N1 east) to intersect with route N8 (east) and which would significantly enhance the development potential of the areas surrounding this intersection, including the Bram Fisher International Airport and the Mangaung railway precinct.

Route N6 represents the link between Mangaung and the Eastern Cape, and more specifically the Nelson Mandela and Buffalo City metropolitan areas which also have international harbours.

Action 3.2: Upgrade and maintain the secondary road network to enhance access to all areas in the Mangaung

As illustrated on **Figure 55.2**, the following are the most important secondary routes in the Mangaung Metropolitan Area which provide linkages to prominent destinations in surrounding regions:

- Route R30 to Brandfort and Welkom;
- Route R700 to Bultfontein;
- Route R64 to Dealesville and Boshof further to the north-west;
- Route R706 to Jagersfontein to the south-west;
- Route R702 serving Dewetsdorp, Wepener and Vanstadensrus and from there south-eastwards towards Zastron along route R26, and
- Route R701 towards Smithfield.

Action 3.3: Facilitate the establishment of a comprehensive public transport network which will serve as backbone to spatial restructuring and integration within the municipality.

The Mangaung Integrated Public Transport Network is intended to provide high quality, safe and affordable public transport services within the metropolitan area. This includes a comprehensive public transport network within the Mangaung-Bloemfontein complex and the Botshabelo-Thaba Nchu complex respectively, and a long-distance commuting service between these two areas.

To this end, the City has developed a Citywide *Hauweng* implementation plan that details the implementation of the integrated public transport



The *Hauweng* implementation plan divided the metropolitan area into local services areas and rural services areas. The local service areas are within Bloemfontein, Botshabelo and Thaba Nchu given the urban character and population density in these areas. Within these services areas, six functional public transport corridors were defined representing the primary public transport movement in the metropolitan area. Movement occurs within and between these defined corridors. Bloemfontein local service area comprises four of the six corridors whereas Botshabelo and Thaba Nchu comprise one corridor each. The six main corridors were divided into sub corridors that align with existing public transport service providers' operational areas to optimise and streamline existing service rationalisation.

Action 3.4: Upgrade the Bram Fischer International Airport as a means to stimulate local economic development

The Bram Fischer International Airport will play an increasingly important role in the future development of Mangaung – not only in terms of serving tourist and business travellers, but also towards the development of the areas surrounding the airport, and more specifically the way in which these developments could contribute towards the spatial restructuring of the eastern parts of the metropolitan area.





Action 3.5: Enhance the functionality of the Spoornet Precinct as a freight logistics hub

The areas around the Spoornet precinct have attracted significant freight/ logistics related development over the past two decades. This positive trend needs to be harnessed and expanded towards the airport node located to the east thereof as part of a coherent drive to stimulate extensive economic development and job creation in the eastern parts of Bloemfontein, and more specifically the areas closest to the Mangaung township.

4.3.4 Sustainable Human Settlements

Objective 4: Facilitate the establishment of sustainable human settlements in all identified settlement areas.

Action 4.1: Actively promote development aligned to Smart Growth Principles in all settlements.

The following Smart Growth Principles should be applied in all settlements within the Mangaung Metropolitan Municipality:

- Provide for a mix of different kinds of land uses, e.g. residential, retail, business, and recreational opportunities.
- Create well-designed, compact neighbourhoods where the different activities are in close proximity to each other.
- Provide a variety of transportation choices, including private, public and non-motorised transport opportunities that are safe.

- Create a variety of housing opportunities, i.e. in terms of function, form and affordability.
- Encourage growth in existing communities through infrastructure upgrade, urban renewal, new amenities and densification.
- Preserve open spaces, natural beauty, and environmentally sensitive areas.
- Protect and enhance agricultural lands and secure these as a productive land base for food security, employment, etc.
- Utilise smarter and cheaper infrastructure and green buildings and promote renewable and sustainable technologies.
- Foster a unique neighbourhood identity building on the diverse characteristics of each community.
- Engage citizens to participate in community life and decision-making.

Action 4.2: Identify strategically located land as priority housing development areas.

At present the estimated housing backlog (demand) in the Mangaung area stands at approximately 30,000 units. Furthermore, the projected incremental demand up to 2025 stands at 38,139 units and an additional 50,927 units by 2036.

As a principle, the bulk of housing should be developed within the settlement areas identified in the municipality, and more specifically in Bloemfontein, Botshabelo, Thaba Nchu, Dewetsdorp and Wepener which represent the higher order nodes.



Rural housing based on the Rural Housing Subsidy Programme/ Peoples Housing Programme should be provided to the rural villages surrounding Thaba Nchu with Paradys and Gladstone being priority villages. Residents not qualifying/ contributing to the functionality of the Rural Nodes should preferably be accommodated in one of the higher order nodes where opportunities for sustainable livelihoods are significantly enhanced.

The non-qualifying families of informal settlements in urban areas should, in principle, be accommodated on pro-actively planned and serviced formal township stands. These stands can be made available by way of rental agreement, permission to occupy, or full ownership in the case of residents who would qualify for a subsidy but for which no subsidy is available at present.

The Priority Housing Development Areas earmarked to accommodate the bulk of future residential development within the municipality are conceptually illustrated on **Figure 55.2** and discussed in greater detail in section 4.5 of this document.

It is important that these areas be functionally incorporated into the existing urban fabric in line with the Smart Growth Principles noted above. Action 4.3 Promote the development of a diverse range of housing typologies offering multiple choices in terms of affordability, density and tenure options.

It is important to note that it is possible to develop low-, medium- and highdensity housing typologies for low income, middle income and high income communities as graphically illustrated in **Annexure C1**. Unfortunately, low density typologies dominate the urban landscape in Mangaung (for all income groups) as is the case in most urban areas in South Africa.

As a general principle, the Mangaung Metropolitan Municipality should actively pursue strategies to promote medium and higher density residential development for all income groups in order to achieve an average density of not lower than 25 units/ha (as a benchmark) in new developments throughout the municipality (especially along the major public transport corridors as discussed under Action 2.2 above (Integration Zones).

In the case of low income, the subsidy scheme only makes provision for single residential full title BNG Units which normally result in low densities (around 20 units/ha). The only medium to higher density subsidised typologies is Community Residential Units (CRU) and Social Housing, both of which only cater for the rental market. There are, however, several initiatives underway throughout South Africa to develop "RDP Flats" and/or medium density double storey row housing or semi-detached RDP units in order to increase density yields.



The same principle would apply to middle- and high-income development where medium to high density typologies should be actively promoted especially around the business nodes and along major public transport routes in the metropolitan area.

Action 4.4: Rationalise and cluster community facilities in highly accessible Multi-Purpose Community Centres (Thusong Centres)

It is essential to continuously strive towards consolidating community facilities at strategic locations within the urban fabric in order to provide onestop services to communities. This follows from the nationally approved concept of a multi-purpose Thusong Centre. Preferably these community facility clusters should also be combined with local business areas (and modal transfer facilities) in order to add to the "critical mass" required to maintain/ enhance business activities in these areas.

This concept is briefly described in **Annexure C2** and should be promoted in all mixed use nodes within the various settlements in the Mangaung MM.

Action 4.5: Locate regional community facilities at higher order nodes and ensure that all nodes are provided with services and facilities appropriate to nodal function and size.

Community facilities should be provided to all human settlement areas in accordance with the CSIR Guidelines for the Provision of Social Facilities for small/ medium towns as stipulated in the Table 1 in **Annexure C3**.

4.3.5 Infrastructure

Objective 5: Manage regional infrastructure implementation and maintenance.

Action 5.1: Align infrastructure implementation and upgrading programmes with land use development programmes

Engineering services are critical towards the establishment of sustainable human settlements and facilitating economic development and job creation. Hence, infrastructure investment within the Mangaung MM should be primarily directed towards serving the identified urban and rural nodes within the municipal area.

More specifically, all Infrastructure Master Plans should be aligned to the 2025 and 2036 growth projections and designated priority development areas up to 2025 and 2036 respectively as defined in the Metropolitan Spatial Development Framework.

This should then inform the long-term Infrastructure Development Management Strategy and Long-Term Financial Plan of Mangaung as recommended by National Treasury. (Refer to Annexure B: Built Environment Value Chain).



In general, Council should be committed to provide bulk and reticulation services under the following conditions:

- Where existing township development exists within the Urban Edge;
- Extensions of existing urban development where development is contiguous (i.e. abutting) to existing municipal infrastructure services, or within designated Priority Development Areas within the Urban Edge, and
- Resort and industrial developments outside of the Urban Edge where, by prior arrangement, service provision can be feasibly provided.

Developments in all other areas will be responsible for providing capital, operating and management costs, their own bulk (treatment plants), as well as link and individual services to the standards required by the Department of Water Affairs and the municipality.

Action 5.2: Promote the development of "green technology/energy" and incrementally implement the Smart City Concept

In line with the Smart City concept as illustrated in **Annexure C4**, the Mangaung MM should focus on the following important engineering services transitions over the short to medium term:

Water

More stringent water conservation and demand-management initiatives;

- Increase water-use efficiency and equitable distribution through appropriate regional distribution schemes and incentives;
- Develop available groundwater resources;
- Adopt the re-use of wastewater effluent as standard practice, and
- Improve monitoring and reporting to ensure best practice and standards in water and wastewater management.

Energy

- Promote and enable energy efficiency and demand side management;
- Promote the development of renewable energy plants;
- Enhance universal access to clean, renewable energy services.

Transport

- Invest in public transport and non-motorised transport (NMT);
- Promote and enable low carbon transportation and shift transport patterns to reduce reliance on liquid fuels, and
- Shift freight traffic from road to rail along major routes.

Waste

- Reduce waste volumes and increase recycling and re-use;
- Introduce waste-to-energy initiatives in the longer term, and
- Invest in clean technology and value adding to waste.

Information and Communication Technology

Establish a strong broadband and fibre infrastructure network to ensure efficient communications and internet services, and to support the implementation of the Smart City concept.

4.3.6 Economic Development and Job Creation

Objective 6: Identify and optimally utilise economic development opportunities in a sustainable manner.

Action 6.1: Implement a "Township Economy Support Programme" to promote economic empowerment of emerging entrepreneurs.

There is a wide variety of economic activities that can be pursued in a "Township Economy" as listed in **Annexure D1**. The Mangaung MM should actively promote the establishment of as many as possible of these enterprises at appropriate locations within the settlement areas in order to enhance economic empowerment and job creation.

There is also little support for the informal economy, while township economies are unable to retain local spending power. Many of the challenges are as a result of insufficient institutional capacity and lack of strong instruments for implementation.

(NDP)

Linked to the above, a variety of formalised informal trading structures should be encouraged at strategic locations within business areas and close to community facilities (Thusong Centres), public transport facilities and public open spaces within the Mangaung MM.

Informal trading, skills training of informal traders, and proper management and regulation of designated informal trade areas should be dealt with as a consolidated programme in the Mangaung MM.

Annexure D2 provides more detail about informal trade empowerment and upgrading and illustrates various 'levels' of informal trade. These range from traders operating without formalised informal trading structures in 'level 1' and up to 'level 4' where traders are incorporated into the formal economy within the retail and manufacturing/ service industry sectors.

It could also involve the establishment of an "LED Warriors Forum" to make potential entrepreneurs aware of the different opportunities available and to guide them towards establishing themselves in the municipal economy. The Mangaung private sector could also provide mentorship assistance to emerging entrepreneurs in such programmes.



Action 6.2: Align tertiary education and skills development programmes to priority economic sectors

The Free State University and Central University of Technology already provides courses, but there is significant scope to enhance skills in a range of programmes listed in **Annexure D1**. Care should be taken that local skills development centers are established in at least each of the second order settlements in Mangaung.

Action 6.3: Promote business uses within strategically located mixed use nodes.

Business activity should be promoted within each of the settlement areas in the municipality. The primary business node in Mangaung is the Bloemfontein Central Business District which provides the most comprehensive range of retail and office related services and facilities.

Apart from this, a number of secondary (community nodes) and lower order (neighbourhood nodes) are proposed in all the major settlement areas within the MMM. More detail in this regard is provided in section 4.5 of this document.

Action 6.4: Facilitate light industrial and commercial development at designated strategic locations

There is significant scope for local industrial activity comprising light industries, service industries, and commercial activity. The existing

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industrial areas in Bloemfontein accommodate a range of these activities but it is almost fully developed. Hence, it is proposed that Council commences with a process towards the expansion of industrial/commercial activity in the Estoire area between the Spoornet railway hub and the Bram Fischer International Airport as depicted on **Figure 55.3**. More details are included in section 4.5.1 of this report.

Industrial/ commercial development should be promoted at Botshabelo and Thaba Nchu while the existing predominantly Agri industries in Dewetsdorp and Wepener should be protected/ maintained as far as possible.

Provision is also made for increased light industrial activity and the establishment of Agri industries in Thaba Nchu Agri Hub as part of the Mangaung Agri Park Initiative.

Action 6.5: Promote agriculture focusing on priority commodities in four functional areas

As illustrated on **Figure 55.3** there are four functional agricultural commodity areas within the Mangaung area:

- The north-western areas around Bloemfontein which also includes the bulk of irrigated land;
- The agricultural communities around Dewetsdorp in the centralsouthern parts;
- The agricultural communities around Wepener/Van Stadensrus in the far-southern parts, and



The subsistence farming communities around the rural villages in the areas under traditional leadership to the north and south of Thaba Nchu and which have been earmarked for Agrarian Transformation. (The Catalytic Intervention Region as defined in the Mangaung Rural Development Plan).

Agriculture related interventions should be aimed at optimising agricultural production and downstream beneficiation in line with the most suitable commodity value chains relevant to each of the areas noted above.

Action 6.6: Incrementally implement the Agri Park initiative in the Rural Catalytic Intervention Area

The Mangaung Agri Park Business Plan identified potential for the establishment of an Agri Hub (Agri-processing industries) at Thaba Nchu and three Farmer Production Support Units (FPSUs) in the surrounding areas. The priority FPSUs are to be established at Sediba and Feloane to the north and Woodbridge to the south of route N8.

The proposed Rural Urban Marketing Centre (RUMC) is to be located in Mangaung/Bloemfontein and could be consolidated with the existing Fresh Produce Market forming part of the Spoornet industrial area along Rudolph Greyling Avenue.

Agricultural Training and Skills Development can be undertaken at the existing Glen Agricultural Research Centre to the north of Bloemfontein and

at Lengau Experimental Farm to the south where the University of Free State proposed the establishment of such facility.

Action 6.7: Utilise precision farming to minimise the impact of agriculture on natural resources

Against the backdrop of the limited water resources available in the region and in line with the "Smart Development" concept which aims to use ICT as a means to advance development, it is furthermore recommended that the Mangaung MM promotes the introduction of Controlled Environment Farming/ Precision Farming in the municipal area with specific focus on the vacant factory shells located in the industrial areas in Botshabelo and Thaba Nchu, and as part of the value chain in the proposed Estoire-N8 industrial area close to the Bloemfontein Fresh Produce Market.

This approach optimises the use of resources such as water, energy, and space, and could provide a means of income to a number of emerging/ small farmers in the municipality. It also poses the opportunity to promote agri tourism. (Refer to **Annexure D3** for more detail in this regard.)



Controlled Environment Agriculture is a technology-based approach toward food production including hydroponics, aquaculture, and aquaponics. The aim of CEA is to provide protection and maintain optimal growing conditions throughout the development of the crop which takes place within an enclosed growing structure such as a greenhouse or building. CEA optimises the use of resources such as water, energy, space, capital and labour.

Vertical Farming is the practice of producing food in vertically stacked layers, such as in a skyscraper, used warehouse, or shipping container. The modern ideas of vertical farming use indoor farming techniques and controlled-environment agriculture (CEA) technology, where all environmental factors can be controlled. These facilities utilise artificial control of light, environmental control (humidity, temperature, gases ...) and fertigation. Some vertical farms use techniques similar to greenhouses, where natural sunlight can be augmented with artificial lighting and metal reflectors.

"We believe strongly that vertical farming can be a driver for sustainability in cities, but it's a young emerging industry with a very green face, focused on growing local, pesticide-free food, using less water, and creating potentially green jobs". (Henry Gordon-Smith, vice chair of AVF). Action 6.8: Support emerging farmers to become part of the mainstream economy

It is important that emerging farmers be supported in the Mangaung area as a means to contribute towards poverty alleviation, enhancing food security, and establishing sustainable livelihoods. This can be achieved by way of implementing a number of measures as defined in the Emerging Farmer Upscaling Model illustrated in **Annexure D4**.

The broader Thaba Nchu area could serve as a pilot project in the Mangaung area to promote the establishment of successful emerging farmers as it currently holds a number of subsistence farmers and it is a designated "Catalytic Intervention Region" in the Mangaung Rural Development Plan. (Also see **Figure 55.3**).

Action 6.9: To support Land Reform Initiatives in the Priority Land Reform Region

The Mangaung Rural Development Plan identified the rural land between Bloemfontein and Botshabelo as Priority Land Reform Region where issues pertaining Land Tenure, Redistribution, Restitution and Strategic Land Reform need to be addressed. (Also refer to **Diagram 4 and Figure 8** in this report).



Action 6.10: Promote a comprehensive range of tourism activities based on the key characteristics of the identified functional tourism areas

A number of potential functional tourism routes and precincts have been identified for the Mangaung area as depicted on **Figure 55.3**. These include the following main areas:

- Bloemfontein and surrounds which hold the largest concentration of tourism attractions and facilities in the form of cultural-historic sites and buildings, scenery, sports and recreation, and hotels, conference facilities and guesthouses. A large component of this market is overnight accommodation for travellers along the N1 corridor between Gauteng and the Western Cape;
- Route R702 with several natural and cultural historic features along the route, and more specifically around Dewetsdorp and Wepener and from there into Lesotho;
- Route R701/R26/R709 which runs parallel to the west of the Maluti escarpment and which offers natural scenery and cultural-historic features, and
- Route N8 which links eastwards into Maseru in Lesotho, and which provides access to a wide range of (largely untapped) cultural-historic, scenery and accommodation and recreational facilities in and around the Botshabelo-Thaba Nchu complex.

Through proper planning, branding and signage these four areas should be developed individually but also to contribute towards the collective tourism vision and strategy for the municipality. This strategy should aim to fully exploit opportunities related to agri-tourism, eco-tourism and adventure tourism (cycling, hiking, rock climbing, horse riding, etc.). The planning should be based on inputs from the local stakeholders (formal and informal) and should be aimed at optimising the tourism value chain (experiences/ activities) within each of the precincts based on the local resources available.

4.4 COMPOSITE METROPOLITAN SDF

Figure 57 represents the Composite Metropolitan SDF for Mangaung emanating from the Spatial Vision, Spatial Concept and Spatial Strategies as defined in sections 4.1, 4.2 and 4.3 above.

4.5 SETTLEMENT SPATIAL STRUCTURE AND DEVELOPMENT PROPOSALS

The following section provides more details pertaining the proposed spatial structure and associated development proposals for each of the settlement areas in the Mangaung Metropolitan area.



4.5.1 Bloemfontein

Development Rationale

Bloemfontein is centrally located in South African context and is the Capital City of the Free State Province. It comprises the widest range of economic activity (business, commercial, industrial, agriculture and tourism) in the province and represents the largest concentration of job opportunities.

It also holds the biggest concentration of people, housing typologies and high, middle and lower order community facilities serving a functional community in excess of 2 million people in a radius of 300 kilometers around the City.

The overall aim is to incrementally develop this urban complex into an integrated, efficient and sustainable metropolitan area.

4.5.1.1 Environmental Core

Figure 58.1 represents the proposed Metropolitan Open Space System (MOSS) for Bloemfontein and surrounds. Essentially, this system includes a number of protected areas like Naval Hill, Signal Hill, Grant's Hill, the Free State National Botanical Gardens, as well as several private conservancies and a number of parks and open spaces within the urban fabric. These open space areas are connected by way of a network of rivers and streams acting as ecological corridors.

This Metropolitan Open Space System needs to be protected, maintained and managed in line with the MOSS guidelines adopted by Council.

4.5.1.2 Movement Network

Figure 58.2 graphically illustrates the existing movement network for Bloemfontein, as well as proposals towards the expansion/ enhancement thereof. The following are the most notable in this regard:

- It is recommended that the construction of the N1 eastern bypass route be prioritised in order to unlock the economic development potential of the eastern parts of Bloemfontein around Mangaung township. This road reserve needs to be demarcated and protected at all costs.
- The Spoornet Railway Hub and the Bram Fischer International Airport are strategically located in the eastern areas of Bloemfontein with the Estoire smallholdings between these two precincts holding significant redevelopment potential.
- National route N8 links these two precincts to one another and to the existing route N1 (the main north-south transport corridor in South Africa), and it links up with the proposed N1 eastern bypass.
- As shown on Figure 58.2 an additional bypass is also planned to the west of Bloemfontein, but it is a long term prospect which will only be necessitated by the future expansion of the City in this direction (beyond the year 2036).
- The radial road network leading into Bloemfontein was historically welldeveloped and serves the City well. The only exception is the northeastern quadrant where it is recommended that a radial link be





established along the existing Tibbie Visser Avenue from Rudolph Greyling Avenue up to the proposed future N1 eastern bypass.

- This link road will open up the medium- and longer-term development potential of the north-eastern parts of Estoire and the Bloemsig area to the north of the airport. (The possible future extension of the airport runway across this alignment as illustrated on Figure 58.2 can be resolved by way of a subway underneath the extended runway).
- The concentric movement network in the north-eastern quadrant also needs to be enhanced (parallel to the east of Rudolph Greyling Avenue closer to the airport) in order to open up this area for future development and to link to the existing radial routes in surrounding areas including route N8, M30 (Andries Pretorius Street) and Tielman Roos Road (S143).
- In the western parts of the City the development of a continuous road parallel to the west of existing route N1 from Lilyvale in the north up to Lourierpark in the south is key to the successful development of all the new townships planned for this part of the City (providing access to various priority development areas).
- The creation of lower order east-west links across route N1 to facilitate local movement and interaction between communities to the east and west of the N1 freeway is also essential. It will also alleviate pressure on the existing access interchanges along route N1 as it will separate regional traffic from local traffic.
- In the Mangaung township area the historic focus was to cater for the radial movement of residents from the township area to the CBD and surrounds – hence the radial network is well established.

- In future the focus needs to be on economic development and job creation along route N8 in the Estoire area between the Spoornet railway precinct and the Bram Fischer International Airport, and (to a lesser extent) the areas around the N1-N6 intersection at the southern end of Bloemfontein. It is essential to put measures in place to enhance access for Mangaung township residents to these two areas.
- Hence, it is recommended that the concentric movement network which extends from route M30 in the south-west (Hillside) up to route N8 to the north (Airport Development Node) be significantly strengthened as only route M10 currently serves this movement desire line.
- This is especially relevant along the outer perimeter of the township where the Upgrading of Informal Settlements Programme (UISP) was extensively rolled out during the past few years without a Roads Master Plan informing the main movement network to be reserved in support of the local communities.
- Figure 58.2 illustrates how this concentric movement network could link up with route M30 to the west and with the airport node (across the railway line) to the north in the vicinity of route N8 – thereby improving access for residents from Mangaung township.
- The Bloemfontein Integrated Public Transport Network as depicted on Figure 56 in this report is a key component to the spatial restructuring of the urban environment and officially forms part of the Bloemfontein SDF. As a principle, residential densification and mixed use development should be promoted and prioritised along this network and around the proposed transfer facilities.



4.5.1.3 Economic Activity

Figure 58.3.1 graphically depicts the proposed hierarchy of higher order business nodes in Bloemfontein, as well as the existing and proposed future industrial/ commercial footprint. The most salient features in this regard are summarized as follow:

(i) Primary Business Node (Urban Core):

- The Bloemfontein CBD is the first order business node^(B1) with the redevelopment of the Waaihoek precinct to the south thereof serving as a functional extension of the CBD. (Refer to Appendix 3.1 which provides a summary of proposals towards the future development/ redevelopment of the CBD and Waaihoek areas respectively).
- The CBD serves the City as a whole, and even the communities from as far as Botshabelo and Thaba Nchu to the east and Dewetsdorp and Wepener to the south-east.

(ii) Secondary Business Nodes (Community Nodes):

A number of existing and proposed future secondary business nodes^(B2) aimed at serving the needs of surrounding communities to a radius of about 5 kilometres are also proposed. It is important to note that most of these secondary nodes are located at strategic intersections between the radial and concentric road network of the City.

- These include the Northridge Mall, Preller Square, Mimosa Square, Fleurdal, Vista (proposed), Home Affairs and Twin City nodes which are broadly located along the M10-M19 circular route. There are also two emerging secondary nodes at access interchanges along route N1 at the N1-R64 intersection at Langenhoven Park and the N1-N8 interchange in the vicinity of Cecilia Park.
- A secondary business node has also been provided for within the Phase 1 Airport Development Node to the south of route N8.

(iii) Third Order Business Nodes (Neighbourhood Nodes):

- As illustrated on Figure 58.3 it is also proposed that provision be made for a number of third order business nodes^(B3) within the urban fabric in order to serve the basic retail needs of residents at convenient distance within neighbourhoods.
- Specific effort should be made to promote the development of such lower order nodes in the vicinity of the new southern and southeastern extensions of the Mangaung township area where very few business nodes currently exist. Apart from serving the retail needs of these communities, such nodes would also provide opportunities for Local Economic Development and Empowerment of these communities, especially if it is combined with informal trade upscaling facilities at modal transfer facilities along the Integrated Public Transport Network as depicted on Figure 58.3.2.





(iv) Industrial/ Commercial Development:

As far as industrial/ commercial development is concerned, it is recommended that the following areas be targeted:

- The Ribblesdale area in the vicinity of the N1-M30 interchange (the northernmost entrance to the City).
- The N1-N8 node in the vicinity of Cecilia Park which attracted significant industrial and commercial development over the past few years.
- The N1-N6 interchange node to the south in the vicinity of Lourierpark (and which is also served by the national railway line between Gauteng and Cape Town).
- The existing Hamilton Industrial area along route M30 to the south of the CBD.
- The Ooseinde industrial area to the east of the CBD.
- The Hilton area bordering onto the Spoornet Rail Hub to the north of Ooseinde.
- The Estoire industrial/ commercial strip which developed along the northern section of Rudolph Greyling Road (M10) and along route N8 over the past number of years (and which is served with an access interchange onto route N8).
- It is recommended that this entire strip along Rudolph Greyling Road and route N8 be earmarked for consolidated commercial/ industrial development with possible focus on freight logistics and agri industries (production, processing and marketing in close proximity to the fresh produce market). This is a very strategic location served by national road, rail and air transport facilities.

- In the longer-term industrial uses may expand to the Vaalbank area to the north of the airport along Tibbie Visser Avenue towards the proposed N1 eastern bypass as illustrated on Figure 58.3.
- 4.5.1.4 Community Services and Facilities

Figure 58.4 illustrates the distribution of existing and proposed major municipal and/or government uses which in many instances also represent community facilities and services. The following should be noted:

- The SANDF Tempe military base and landing strip located in the northwestern parts.
- The SAAF base to the east of the Bram Fischer International Airport.
- Grootvlei Prison to the south-east along route R702.
- Tertiary educational precincts which include the Free State University; Central University of Technology and Nurses College to the south thereof; Vista Campus of Free State University and Motheo TVET College to the south along route M30; and the Lengau Agricultural Research Farm (and proposed Agricultural Training Facility) further to the south along route N6.
- Several Wastewater Treatment Works, a number of cemeteries and two regional refuse disposal/ landfill sites to the north and south of Bloemfontein respectively.
- The National Botanical Garden in the vicinity of Summerwood to the north and the National Zoological Garden to the west of the CBD.
- Sports and recreational facilities around Loch Logan next to the Zoological Gardens; the Schoemanpark Golf Course to the west along route N8; the Agricultural Showgrounds and Women's Memorial and



4.5.1.5 Priority Housing Development Areas

(i) Land Supply and Demand:

From **Table B2.2** in **Annexure A** it is evident that up to the year 2036 an estimated 3,337 ha of land is required to accommodate the projected 71,634 additional households in Bloemfontein. In addition, the existing backlogs/ informal settlements require an estimated 417 ha to accommodate the 20,857 units. Hence, the total demand up to 2036 is 92,491 units which would require about 3,754 ha of land.

Figure 58.5 and **Table 23** reflect the Priority Housing Development Areas identified in Bloemfontein to serve this need, as well as the estimated development potential of each of these. (It should be noted that the densities depicted in the last column of **Table 23** are merely indicative and not prescriptive. In some instances these were derived from existing layout plans and in others it was merely used as an assumption to determine the potential yield – mostly based on the nature/ character of the broader surrounding area).

The Priority Housing Development Areas are mainly located to the north-west; to the south-west; and to the south and east of the City. Each of these expansion areas comprise a number of smaller functional clusters as depicted on **Figure 58.5**. These are briefly summarised as follow:

Northern Extensions:

- Cluster 1 represents the land parcels south of route N1 and up to the existing urban fabric between Tempe, Heuwelsig and Heliconhoogte. It includes areas like Lilyvale and Rayton, as well as several land parcels on both sides of route R700 up to the Shell filling station at the N1-R700 intersection. About 785 ha of land with potential to yield approximately 9,622 residential units form part of this cluster.
- To the east thereof and bordering Bayswater to the north is Cluster 2 which comprises about 625 ha of land with potential to accommodate around 8,750 units on both sides of route M30.
- Cluster 3 is located to the north-west (outside) of route N1 and represents several land parcels around Langenhovenpark and adjacent to the north of route R64 (Spitskop, Vredenhof, Groenvlei, etc.). This cluster totals about 1,207 ha of land with a potential yield of around 7,627 units.
- Cluster 4 represents a number of land parcels to the north of Woodland Hills and route N1 which collectively comprise about 1,141 ha of land with an estimated residential yield of around 5,706 units.
- Collectively, the four clusters in the northern extensions area of Bloemfontein cover about 3,758 ha of land which can accommodate an estimated 31,705 residential units. It is expected that most of these will be Bonded Housing.



 Table 23. Bloemfontein/Mangaung: Development Potential (mainly Residential)

Cluster	Norther	N EXTENTIONS	Area (ha)	Number of Units	Units per ha	
N1	PEA1	NW - Inside Ring road	241	3 377	14	
N2	EVT6	NW - Inside Ring road	23	322	14	
N3	PEA2	NW - Inside Ring road	139	1946	14	
N4	EVT1	NW - Inside Ring road	110	1 540	14	
N5	EVT2	NW - Inside Ring road	40	556	14	
N6	PEA3	NW - Inside Ring road	113	1 582	14	
N7	EVT3	NW - Inside Ring road	19	90	5	
N8	EVT4	NW - Inside Ring road	27	80	3	
N9	EVT5	NW - Inside Ring road	73	129	2	
Subtotal Northern Cluster 1			785	9 622	12	
N10	PEA17	NE - Inside Ring road	625	8 750	14	
Subtotal Nor	thern Cluster 2		625	8 750	14	
N11	PEA11	NW - Outside Ring road	145	2 030	14	
N12	PEA9	NW - Outside Ring road	965	4 824	5	
N13	PEA10	NW - Outside Ring road	65	325	5	
N14	EVT7	NW - Outside Ring road	32	448	14	
Subtotal Nor	thern Cluster 3		1 207	7 627	6	
N15	PEA5	NW - Outside Ring road	40	198	5	
N16	PEA6	NW - Outside Ring road	52	258	5	
N17	PEA7	NW - Outside Ring road	16	81	5	
N18	PEA8	NW - Outside Ringroad	443	2 215	5	
N19	PEA4	NW - Outside Ringroad	591	2 955	5	
Subtotal Nor	thern Cluster 4		1 141	5 706	5	
Subtotal North			3 758	31 705	8	

	-				
	SOUTH - WES	TERN EXTENTIONS			
SW1	Lourier Park*	SW - Outside Ring road	365	2 789	8
SW2	Ptn 5 Brandkop 702	SW - Outside Ring road	258	1851	7
SW3	Pelissier Infill*	SW - Outside Ring road	80	200	3
SW4	Brandkop Race Track (Bfn 654)	SW - Outside Ring road	136	1 100	8
SW5	Cecilia Park	SW - Outside Ring road	46	1 900	42
SW6	EVT8	SW - Outside Ring road	195	5 850	30
SW7	Brandkop 5 Villages	SW - Outside Ring road	608	5 435	9
Subtotal Sout	h - Western Cluster 1		1 688	19 125	11
Subtotal Sout	h West		1 688	19 125	11
	SOUTHERN AND	EASTERN EXTENTIONS			
\$1	Vista 2	S - Inside Ring road	146	3 500	24
S2	Vista 3*	S - Inside Ring road	127	5 123	40
S3	Hillside x 34 (Rocklands 684)*	S - Inside Ring road	40	2 000	50
S4	Hillside x 35 (Rocklands 684)*	S - Inside Ring road	40	2 100	53
S5	Rocklands West	S - Inside Ring road	40	1 200	30
Subtotal South - Cluster 1			393	13 923	35
E1	Klipfontein	E - Inside Ring road	247	3 458	14
E2	Rodenbeck Extentions 1-6 (R/ Farm 2972)*	E - Inside Ring road	51	968	19
E3	Rodenbeck Extentions	E - Inside Ring road	344	4 816	14
Subtotal East	Cluster 2		642	9 2 4 2	14
E4	Bloemspruit	E - Inside Ring road	658	9 2 1 2	14
E5	Bloemspruit Extensions	E - Inside Ring road	375	5 250	14
Subtotal East Cluster 3			1 033	14 462	14
E6	Shannon	E - Inside Ring road	1 1 3 1	15 834	14
E7	Airport Development Node	E - Inside Ring road	740	4 400	6
E8	Estoire	E - Inside Ring road	317	9 500	30
Subtotal East	Cluster 4		2 188	29 734	14
Subtotal Sou	th and East		4 255	67 361	16
TOTAL Bloemfontein/Mangaung			9 701	118 190	12

* Estimated demand up to 2036 = 92,491 units. Surplus supply = 25,699 units.



South-western Extensions:

- The south-western extensions broadly represent the area from Cecilia Park up to Lourierpark.
- It includes all the land parcels identified for development (1,688 ha) which are located to the west of route N1. The estimated residential yield for this cluster is about 19,125 units and it includes areas like Lourierpark, Brandkop, Pellissier and Cecilia Park.
- It is anticipated that the dominant housing typologies in this area will be bonded (middle income), GAP market and Social Housing.

Southern and Eastern Extensions:

- The south-eastern extensions include all priority development areas located to the south and east of the Mangaung township area and up to the proposed future N1 eastern bypass road. It is divided into four clusters.
- Cluster 1 comprises Vista 2 and 3, as well as Hillside x34 and x35 and Rocklands (West). This area can accommodate an estimated 13,923 residential units and covers an area of about 393 ha of land.
- Cluster 2 represents the southern extensions which include Klipfontein and the Rodenbeck extensions and with potential to accommodate about 9,242 residential units (642 ha of land).
- Cluster 3 includes the Bloemspruit extensions up to the railway line to the north and the proposed N1 eastern bypass alignment to the east. It covers an area of about 1,033 ha of land and the estimated residential yield is 14,462 units.

- Cluster 4 represents the land area between the railway line and up to Estoire. It includes the Shannon smallholdings, the southern Airport Development Node (ADN) and Estoire with a total land area of 2,188 ha. The estimated residential yield on this land is about 29,734 units as depicted on Table 23.
- The total land identified in the Southern and Eastern extensions amounts to about 4,255 ha which can be developed into an estimated 67,361 units.
- These areas will accommodate the full spectrum of housing typologies/ programmes including UISP, IRDP, Social/CRU Rental, GAP market and bonded housing.

Conclusive Summary:

The Priority Housing Development Areas identified on **Figure 58.5** can accommodate a total of approximately 118,190 residential units compared to the estimated demand of 92,491 units up to 2036 (including the backlog of 20,857 units). This implies a surplus supply of about 25,699 units (about 22 % of the land identified) which will only be required after the year 2036.

Hence, the project team, in consultation with representatives from all sector departments within the MMM, went through a prioritisation process of the various Priority Housing Development Areas (based on implementation readiness). The results of this exercise are discussed in section (ii) below.


(ii) Proposed Phasing of Priority Housing Development Areas

- Figure 58.6 graphically illustrates the proposed phasing of development of the various Priority Housing Development Areas identified in Bloemfontein. It indicates the priority areas for development in the short term (2020 – 2025) in orange; the medium term priority areas (2025 – 2036) in dark green; and the areas which will only be required/ ready for development in the long term (after 2036) in blue.
- Figure 58.6 should be read in conjunction with Table 24 which indicates the estimated residential yields per phase in the various areas. Following is a brief summary of the most salient features in this regard.

Short Term Priority Housing Development Areas:

- To the north it is recommended that priority be given to the land parcels bordering onto the existing urban fabric and which is located to the south of route N1. (Areas N1-N9). The development of these areas represents incremental expansion of the urban footprint with the associated cost-efficient expansion of the existing engineering infrastructure network to the immediate surroundings (as opposed to costly leapfrog development).
- It also includes the Spitskop area (N11) which forms part of the broader Langenhoven Park development area.
- This cluster can accommodate about 11,652 residential units which is sufficient to meet the estimated demand (6,585 units) for this market up to 2025.

- To the south-west the short-term priorities (up to 2025) include Pellissier Infill (SW3) and Lourier Park (SW1) which collectively hold potential for development of about 2,989 residential units.
- In the southern and eastern extensions, the priority short-term housing development areas are Klipfontein (E1), Vista 3, Hillside x34 and x35, Rocklands West (S2-S5); Rodenbeck x1-6 (E2) and the Rodenbeck Extensions (E3) more or less up to the proposed N1 eastern bypass; and part of Bloemspruit (E4) in the north. Collectively these areas can accommodate about 25,419 residential units which is sufficient to deal with the projected demand (19,605 units) up to 2025.
- The total residential yield for land parcels earmarked for development in the short term is 43,518 units compared to the projected demand of 30,896 units. Hence, surplus short-term supply in identified areas is about 12,622 units.

Medium Term Priority Housing Development Areas:

In the northern parts of the City the priority areas for development in the medium term (2025 – 2036) are the land parcels to the north of Langenhoven Park and route R64 (N12-N14 on Figure 58.6). It is estimated that these areas can result in the development of approximately 5,597 units compared with the demand estimate of 4,878 units.

(It should be kept in mind that there is also a significant surplus from the short term (\pm 5,000 units) in the northern extension areas).





- In the south-western expansion areas, the priority projects to be developed in the medium term (2025 2036) include Brandkop (SW2 and SW7), Cecilia Park (SW5) and the existing vacant township (SW6) on the land parcel between Cecilia Park and Langenhoven Park. These four areas could yield an estimated 15,036 units during this period compared to the projected demand of 13,105 units.
- In the southern and eastern parts of the City the priority projects during this period (2025 – 2036) should be Vista 2 (S1), Bloemspruit extensions (E5) up to the proposed eastern bypass, the Airport Development Node (E7) and Estoire (E8) which could yield an estimated 22,650 units collectively. (Demand = 22,754 units).
- In total, the medium-term project areas can yield about 43,283 residential units. (Estimated demand = 40,737).

Long Term Priority Housing Development Areas:

- The areas earmarked for development in the long term mainly comprise area N10 and the cluster (N15-N19) to the north of the N1 freeway (14,456 units); area SW4 the Brandkop Racetrack (1,100 units); and the Shannon area (E6) to the east with potential for about 15,834 units (Total = 31,390 units).
- The development of the area around route N10 and the Shannon area could coincide with the development of the northern parts of Estoire and the areas north of the airport (second phase of proposed industrial/ commercial expansion along Tibbie Visser Avenue).

Note: The purpose of the above exercise to prioritise the development of the identified Priority Housing Development Areas is to provide strategic guidance in terms of where spending on bulk infrastructure upgrades and expansion should be focused in the short-, mediumand longer-term respectively, as well as the estimated quantities that need to be provided for. This information will serve as input to Engineering Service Sector/ Master Plans and the Mangaung Capital Expenditure Framework in future (refer to Section 6 of this document).

> The intention is not to imply that applications for development will only be considered within these areas within the prescribed timeframes. Individual applications may be considered at any stage in any part of the City (or in any of the Priority Housing Development Areas) but subject to availability of bulk services.

> From the City's side it should commit to expand/upgrade its bulk infrastructure in line with the phased approach defined in the MSDF which should provide some more certainty to developers/investors.



Table 24. Bloemfontein/Mangaung: Proposed Development Phasing (mainly Residential)

	NORI	HERN EXTENTIONS		Number of		Units per ha		
Cluster		Location	Area (ha)	Units	%	(Gross)		
N1	PEA1	NW - Inside Ring road	241	3 377		14		
N2	EVT6	NW - Inside Ring road	23	322		14		
N3	PEA2	NW - Inside Ring road	139	1 946		14		
N4	EVT1	NW - Inside Ring road	110	1 540		14		
N5	EVT2	NW - Inside Ring road	40	556		14		
N6	PEA3	NW - Inside Ring road	113	1 582		14		
N7	EVT3	NW - Inside Ring road	19	90		5		
N8	EVT4	NW - Inside Ring road	27	80		3		
N9	EVT5	NW - Inside Ring road	73	129		2		
N11	PEA11	NW - Outside Ring road	145	2 030		14		
Subtotal S	Short Term		930	11 652	37%	13		
N12	PEA9	NW - Outside Ring road	965	4 824		5		
N13	PEA10	NW - Outside Ring road	65	325		5		
N14	EVT7	NW - Outside Ring road	32	448		14		
Subtotal I	Medium Term		1 062	5 597	18%	5		
N10	PEA17	NE - Inside Ring road	625	8 750		14		
N15	PEA5	NW - Outside Ring road	40	198		5		
N16	PEA6	NW - Outside Ring road	52	258		5		
N17	PEA7	NW - Outside Ring road	16	81		5		
N18	PEA8	NW - Outside Ring road	443	2 215		5		
N19	PEA4	NW - Outside Ring road	591	2 955		5		
Subtotal I	Long Term		1 766	14 456	46%	8		
Subtotal I	North		3 758	31 705	100%	8		

			-			
	SOUTH -	WESTERN EXTENTIONS	r	r		-
SW3	Pelissier Infill*	SW - Outside Ring road	80	200		3
SW1	Lourier Park*	SW - Outside Ring road	365	2 789		8
Subtota	al Short Term		445	2 989	9%	7
SW2	Ptn 5 Brandkop 702	SW - Outside Ring road	258	1 851		7
SW5	Cecilia Park	SW - Outside Ring road	46	1 900		42
SW6	EVT8	SW - Outside Ring road	195	5 850		30
SW7	Brandkop 5 Villages	SW - Outside Ring road	608	5 435		9
Subtota	al Medium Term		1 107	15 036	47%	14
SW4	Brandkop Race Track (Bfn 654)	SW - Outside Ring road	136	1 100		8
Subtota	al Long Term		136	1 100	3%	8
Subtota	al South West		1 688	19 125	60%	11
	SOLITHERN 4	AND FASTERN EXTENTION	-			
S2	Vista 3*	S - Inside Ring road	127	5 123		40
S3	Hillside x 34 (Rocklands 684)*	S - Inside Ring road	40	2 000		50
S 4	Hillside x 35 (Rocklands 684)*	S- Inside Ring road	40	2 100		53
S5	Rocklands West	S - Inside Ring road	40	1 200		30
E2	Rodenbeck Extentions 1-6 (R/ Farm 2972)*	E - Inside Ring road	51	968		19
E3	Rodenbeck Extentions	E - Inside Ring road	344	4 816		14
E4	Bloemspruit	E - Inside Ring road	658	9 2 1 2		14
Subtota	al Short Term		1 299	25 419	38%	20
S1	Vista 2	S- Inside Ring road	146	3 500		24
E1	Klipfontein	E - Inside Ring road	247	3 458		14
E5	Bloemspruit Extensions	E - Inside Ring road	375	5 250		14
E7	Airport Development Node	E - Inside Ring road	740	4 400		6
E8	Estoire	E - Inside Ring road	317	9 500		30
Subtota	al Medium Term		1 825	26 108	39%	14
E6	Shannon	E - Inside Ring road	1 1 3 1	15 834		14
Subtota	al Long Term		1 1 3 1	15 834	24%	14
Subtota	al East		4 255	67 361	100%	16
TOTAL	Bloemfontein/Mangaung		9 701	118 190		12
	TOTAL BLOE	MFONTEIN/MANGAUNG				
Subtota	Short Term		2 674	40.060	2/1%	15

TOTAL BLOEMFONTEIN/MANGAUNG							
Subtotal Short Term	2 674	40 060	34%	15			
Subtotal Medium Term	3 99	46 741	40%	12			
Subtotal Long Term	3 03	31 390	27%	10			
TOTAL Bloemfontein/Mangaung	9 70	118 190		12			

Demand : Short Term: 30,896 units : Medium Term: 40,737 units



4.5.1.6 Spatial Transformation/Restructuring

Figure 58.7.1 depicts the proposed Urban Network Area concept for Bloemfontein with some of the major features of this concept super imposed on **Figure 58.7.2**. The Urban Network Area is the focus area for Spatial Transformation and associated dedicated public spending/ investment aligned to an Inter-Governmental Project Pipeline. (Also refer to **Annexure B** for more detail on this concept).

The Urban Core in this Urban Network is the Bloemfontein CBD supplemented by the Waaihoek Precinct to the south thereof and a number of tertiary education institutions to the west and south-west. The industrial clusters bordering onto the CBD also represent a significant number of job opportunities located within the functional area.

The Marginalized Area is the broader Mangaung township area located to the south-east of the Bloemfontein CBD (Urban Core).

Existing prominent business nodes in the Mangaung township (Marginalised Area) like Pelonomi, Home Affairs and Rocklands should be earmarked as Urban Hubs in the short term, but this status could be extended to any of the proposed future nodes in Mangaung township in the medium to longer term. These should be the focus areas for roll-out of the Neighbourhood Development Partnership Grant (NDPG) programme.

The three Integration Zones defined along priority public transport corridors are aimed at physically, socially and economically incorporating Mangaung Township and surrounds into the larger Bloemfontein fabric.

Mixed use densification and infill development should be promoted along each of these three corridors, and for this purpose a number of Catalytic Land Development Areas need to be identified for focussed, multi-sectoral investment over a period of time. **Tables 25, 26** and **27** conceptually depict the potential CLAs along each Integration Zone and associated prioritization for the short term (yellow), medium term (green) and long term (blue). (Only as an example).

Table 25. Bloemfontein Urban Network: Integration Zone 1 – Potential Catalytic Land Development Areas

			Bloemfontein -	Integration Zone 1	A: Moshoeshoe - I	M30 Corridor			
	CLDA 1	CLDA 2	CLDA 3	CLDA 4	CLDA 5	CLDA 6	CLDA 7	CLDA 8	CLDA 9
			Home Affairs Mixed	Rocklands Mixed Use			Vista/Lengau	Vista	Vista
	CBD Mixed	Waaihoek Mixed	Node	Node	Vista 3 Residential	Hillside Residential	Education	2 Residential	Mixed Use
invironment									
own Planning									
lousing									
and Acquisitions									
Community Facilities									
conomic Development									
vlove ment Network									
ublic Transport									
ngineering Services									
Roads and									
Stormwater									
Water									
Sanitation									
Electricity									
-									
Refuse Disposal									
and Reform									



Table 26. Bloemfontein Urban Network: Integration Zone 2 – Potential Catalytic Development Areas

		Bloemfontein - Integra	tion Zone 1B: M12 / Dr	Belcher Corridor	
	CLDA 1	CLDA 2	CLDA 3	CLDA 4	CLDA 5
	Pelonomi	Rodenbeck	Bloemspruit	Secondary Ring Road and LED	Klipfontein
	Node	Residential	Residential	nodes	Residential
Environment					
Town Planning					
Housing					
Land Acquisitions					
Community Facilities					
Economic Development					
Movement Network					
Public Transport					
Engineering Services					
Roads and					
Stormwater					
Water					
Sanitation					
			I		
Electricity					
Defuse Dispesal					
Refuse Disposal					
Land Reform					
cana neronn					

Table 27. Bloemfontein Urban Network: Integration Zone 3 – Potential Catalytic Development Areas

Bloemfontein - Integration Zone 1C: N8 Corridor						
	CLDA 1	CLDA 2	CLDA 3	CLDA 4	CLDA 5	
	Rail	Airport	Estoire Commerical /	Airport	Shannon	
	Precinct	Precinct	Mixed	Development Node	Residential	
Environment						
Town Planning						
Housing						
Land Acquisitions						
Community Facilities						
Economic Development						
Movement Network						
Public Transport						
Engineering Services						
Roads and						
Stormwater						
Water			1			
Sanitation						
Electricity						
Define Dimesel	· · · · · · · · · · · · · · · · · · ·					
Refuse Disposal						
Land Reform						
band net of the						

4.5.1.7 Land Use and Growth Management Approach

The following section seeks to provide some guidelines pertaining the proposed high-level approach towards land use and growth management to be applied within the Bloemfontein urban area:

(i) Key Development Principles

- Land use policies should be aligned towards enhancing the efficiency of the Bloemfontein Integrated Public Transport Network through promoting:
 - Increased densities along the network;
 - Increased mixture of land uses, and
 - Minimal distance between economic activities and new housing developments.
- Urban sprawl should be contained, and future development should be directed towards targeted areas within the metropolitan area (both for economic activity and for housing).
- Strengthen the Bloemfontein CBD as the primary activity node through the implementation of redevelopment/ upgrading strategies which encourage a comprehensive range of business uses (mixed); medium and high density housing; arts, culture and entertainment; community facilities and governmental facilities in addition to the already existing office and retail uses in the area.



- Promote dense, compact mixed use development within/around the proposed second and third order business nodes comprising a range of business uses, medium density residential development and community facilities (more limited range than the CBD).
- Link the network of business/ activity nodes to each other and to the CBD via the comprehensive public transport network.
- Promote mixed use development only within the activity nodes and in designated areas (in line with local area/ precinct plans) along the main public transport routes/corridors. Hence, discourage or limit major mixed use development projects outside the boundaries of these business nodes.
- In general, promote medium to higher density residential development along all the main public transport routes/corridors and within/around activity nodes.
- Retain the residential areas for residential purposes in order to secure/enhance the residential quality of neighbourhoods (i.e. consolidate alternative land uses in the activity nodes or designated mixed use areas along the main public transport corridors).
- Implement a range of growth management instruments to promote and/or discourage development in line with the spatial directives of the MSDF. One of the most effective instruments to use in this regard is thematic overlay zones which could be linked to a specific policy or by-law or to a precinct plan compiled for that purpose.

These overlay zones should form part of the LUS GIS system which should be used as decision-support system in the evaluation of land use applications.

These overlay zones will be defined in greater detail in the Mangaung MSDF-LUS Linkage Plan which will be compiled as part of the Mangaung Land Use Scheme Review towards the end of 2020.

- Typical overlay zones relevant to Bloemfontein include:
 - Urban Development Zone (UDZ) defining the part of the Bloemfontein CBD where the Urban Renewal Tax Incentive is applicable.
 - Urban Network Area which is the focus area for public spending to achieve spatial transformation and which defines the Urban Core (CBD), Urban Hubs (activity nodes in marginalised areas) and Integration Zones (earmarked for densification along the public transport nodes linking these nodes).
 - Restructuring Zone which is a legally defined area within which the Social Housing Programme may be implemented.
 - Priority Housing Development Area which is a legally defined area in which housing development may be fast-tracked (Section 7(3) of the Housing Development Agency Act, 2008).



- Transitional Zones representing areas earmarked for incremental upgrading and formalisation, e.g. informal settlements where UISP programme is implemented.
- Density Zones indicating current or proposed density parameters for specific areas.
- Mixed Use Zones defining specific areas where mixed land uses will be promoted, e.g. along sections of public transport corridors.
- Functional Use Zones demarcating areas for specific land use or administrative purposes, e.g. Student Accommodation, Shortened Land Use Procedures, Incentive Areas, etc.
- Environmental Overlay Zones highlighting environmental features like high biodiversity, wetlands, geotechnical conditions, flood lines, etc. which need to be considered when land use applications are evaluated.

4.5.1.8 Bloemfontein Composite SDF 2025 and 2036

Figure 58.8 depicts the Composite SDF for Bloemfontein with the proposed growth management boundary for 2025, as well as the urban edge (with some slight adjustments) as approved as part of the previous Mangaung MSDF.

The existing urban edge is extensive, including more land than will be required in Bloemfontein within the next 30 years. Its value as growth management instrument is very limited as it does not limit land supply for development, hence, making no contribution towards creating conditions conducive to densification, infill development and redevelopment. Technically, the MMM is also not in a position to provide bulk services to all the areas included within the urban edge.

This urban edge was, however, historically approved and several property transactions (investments) had since been made based on the fact that the properties are located within the urban edge.

It was therefore decided to retain the existing Bloemfontein Urban Edge (with some slight adjustments) as illustrated on **Figure 58.8** in order to avoid the legal implications that could result from a significantly tightened urban edge.

More important from a growth management point of view, however, is the Growth Management Boundary drawn on **Figure 58.8** which indicates the area within which the MMM will prioritise bulk infrastructure upgrading and expansion over the next 5 years (up to 2025).

Applications for development outside this area will still be considered by the MM, but it will be under no obligation to expand its bulk supply to these areas during this period.





ANNEXURE DOCUMENT

MANGAUNG

4.5.2 Botshabelo

Development Rationale

The long-term vision is for the Botshabelo area to be spatially and functionally consolidated into a single, sustainable urban cluster with Thaba Nchu to the east thereof.

This urban cluster should provide a comprehensive range of low, middle and higher order community facilities to the local residents and residents from the surrounding rural villages.

Job creation should be paramount with the main focus being on business, light industrial and commercial (including Agri industries), agriculture and tourism development orientated towards the N8 development corridor.

4.5.2.1 Environmental Core

The major environmental features of the area include the ridge series running along the eastern edge of Botshabelo and then eastwards passing Thaba Nchu to the south; as well as the northbound drainage system of the Klein-Modder River passing through Botshabelo. (Refer to **Figure 59.1**).

Combined with the parks and open spaces provided for in the layout plans of individual townships, this open space system must be actively managed and maintained in line with guidelines provided in the Mangaung Environmental Management Framework.

Open spaces should be utilized as active and passive open space systems which will encourage the utilisation of these areas as recreational areas.

4.5.2.2 Urban Development

- Business development should be consolidated in the existing Central Business District of Botshabelo.
- Based on current development trends (recently developed shopping centre), it is recommended that the land to the east of Jazzman Mokgothu Street at the entrance to Botshabelo be earmarked to develop as a secondary business node. It is strategically located serving the bulk of traffic entering the township area and having visual exposure to traffic along route N8. The existing shopping centre in this area can be supplemented with a number of additional business and commercial facilities.
- Further to the south a number of smaller, third order business nodes have been identified. Most of these nodes are located along the main road network of Botshabelo (see red network on Figure 59.1) which also serve as priority public transport routes.
- These third order business nodes should be prioritised for informal trade upscaling initiatives and economic empowerment as discussed in Annexure D1 and E2 of this document.





- Industrial and commercial activity should be consolidated within the existing Botshabelo Industrial Area which holds significant potential to be expanded to the east along route N8 in future (not before 2036 at least).
- Several Priority Housing Development Areas have been identified within and around Botshabelo as indicated on Figure 59.1 and listed in Table 28.
- Collectively, these areas total about 678 ha of land which could yield an estimated 9,796 units compared to the estimated demand of 9,206 units up to 2036.
- Figure 59.2 indicates that the priority areas for development in the short term include Area 2 (Remainder of Portion 826) with potential for 2,000 units, as well as Area 8 and 9 around the Botshabelo CBD which could be utilised for the development of about 1,830 medium density residential units (2 3 storey walk-ups) in support of the CBD. (Demand between 2019 2025 = 3,736 units).
- In the medium term (2025 2036) the focus should be on infill development within the existing urban footprint of Botshabelo (Areas 3, 4, 5, 6, 7 and 10) which could yield about 4,384 units which is sufficient to deal with the projected demand of 4,123 units during this period.
- Area 1 holds potential for about 1,582 units to be developed after 2036 (long term).

BOTSHABELO							
Number of							
Cluster	Location	Area (ha)	Units	Units per ha			
1	Botshabelo West	113	1582	14			
2 (Rem 826)	Botshabelo West	237	2000	8			
3	Botshabelo Infill	122	1708	14			
4	Botshabelo Infill	26	364	14			
5	Botshabelo Infill	79	1106	14			
6	Botshabelo CBD	10	300	30			
7	Botshabelo CBD	23	690	30			
8	Botshabelo CBD	21	630	30			
9	Botshabelo CBD	40	1200	30			
10	Botshabelo CBD	7,2	216	30			
Subtotal Botshabelo		678	9 796	14			

Table 28. Botshabelo: Development Potential (mainly Residential)



4.5.3 Thaba Nchu

Development Rationale

The long-term vision is for the Thaba Nchu area to be spatially and functionally consolidated into a single, sustainable urban cluster with Botshabelo to the west thereof.

This urban cluster should provide a comprehensive range of low, middle and higher order community facilities to the local residents and residents from the surrounding rural villages.

Job creation should be paramount with the main focus being on business, light industrial and commercial (including Agri industries), agriculture and tourism development orientated towards the N8 development corridor.

4.5.3.1 Environmental Core

- The major environmental features of the area are the ridge series running along the eastern edge of Botshabelo and then eastwards passing Thaba Nchu to the south; as well as the northbound drainage system of the Koranna Spruit passing through the Thaba Nchu area. (Refer to Figure 59.1).
- Combined with the parks and open spaces provided for in the layout plans of individual townships, this open space system must be actively managed and maintained in line with guidelines provided in the Mangaung Environmental Management Framework.

Open spaces should be utilized as active and passive open space systems which will encourage the utilisation of these areas as recreational areas.

4.5.3.2 Urban Development

- The Thaba Nchu CBD should be consolidated and strengthened as it is the primary business node within Thaba Nchu. (See Figure 59.1).
- The small concentration of business uses further to the north just to the south of the Selosesha industrial area should be consolidated to become a secondary business node to Thaba Nchu specifically serving the needs of the broader Selosesha township areas (and the rural villages to the north thereof).
- As illustrated on Figure 59.1 a number of smaller third order business nodes can be established at strategic intersections throughout the area.
- These third order business nodes should be prioritised for initiatives to promote informal trade upscaling and economic empowerment in line with the guidelines provided in Annexure D1 and E2 in this document.
- Industrial development should be consolidated in the existing Selosesha industrial area and the Thaba Nchu industrial area to the south (which has been earmarked to become the Agri-Hub in the Mangaung Agri Park initiative). The latter industrial area is also better located adjacent to the N8 development corridor. As noted in Section 4.3, Action 6.6 and Action 6.7, the possibility to utilise the vacant factory shells in Botshabelo and Thaba Nchu for Precision Farming should be investigated.



- Future residential development should be prioritised in a number of Priority Housing Development Areas as illustrated on Figure 59.1.
- The first objective is to consolidate the urban fabric around the Thaba Nchu CBD by way of infill development on Areas 15 to 20.
- The second objective is to promote development along route N8 in order to achieve the long-term goal of functionally linking Thaba Nchu and Botshabelo as one urban area. The development of Areas 12 to 18 will all contribute towards the achievement of this objective.
- Table 29 below shows that areas 15 to 20 around Thaba Nchu hold potential to yield about 3,544 units while the four land parcels along route N8 (11 – 14) can accommodate an estimated 9,419 units.
- The total estimated yield of these Priority Housing Development Areas is about 12,963 units which is almost double the estimated demand for Thaba Nchu up to 2036 which is about 6,592 units.
- In the short term (refer to Figure 59.2) it is recommended that Area 11 (Sepane) and Area 19 (closest to the CBD and Thaba Nchu industrial area) be earmarked for development. (Total capacity = 3,609 units compared to the short-term demand of 2,244 units). It should also be kept in mind that Sepane will also serve demand from Botshabelo.
- In the medium term the focus should be on infill development and more specifically areas 15, 16, 17, 18 and 20 around Thaba Nchu CBD. (Total capacity = 2,690 units compared to estimated demand of 4,347 units.
- The remaining parts of the strip could add approximately 6,664 units (Areas 12, 13 and 14) in future.

	THABA - NC	HU		
			Number of	
Cluster	Location	Area (ha)	Units	Units per ha
11 (Sepane x1,2)	Thaba - Nchu Strip	337	2 755	8
12	Thaba - Nchu Strip	60	840	14
13	Thaba - Nchu Strip	216	3024	14
14	Thaba - Nchu Strip	200	2800	14
15	Thaba - Nchu Infill	187	935	5
16	Thaba - Nchu Infill	43	215	5
17	Thaba - Nchu Infill	37	518	14
18	Thaba - Nchu Infill	41	574	14
19	Thaba - Nchu Infill	61	854	14
20	Thaba - Nchu Infill	32	448	14
Subtotal Thaba - Nch	u	1 214	12 963	11
TOTAL BOTSHABELO/	THABA -NCHU	1 892	22 759	12

Table 29. Thaba Nchu: Development Potential (mainly Residential)

- Table 30 summarises the total development potential per phase for the Botshabelo- Thaba Nchu area as a whole.
- Much of this land is under ownership of the Department of Rural Development and Land Reform and the MMM will need to engage with the Department for the release of this State-Owned land as and when required in future.



Table 30. Botshabelo/Thaba Nchu: Development Potential (mainly Residential)

BOTSHABELO/THABA -NCHU							
			Number of				
Cluster	Location	Area (ha)	Units		Units per ha		
2 (Rem 826)	Botshabelo West	237	2000		8		
8	Botshabelo CBD	21	630		30		
9	Botshabelo CBD	40	1200		30		
11 (Sepane x1,2)	Thaba - Nchu Strip	337	2 755		8		
19	Thaba - Nchu Infill	61	854		14		
Subtotal Short Term		696	7 439	33%	11		
3	Botshabelo Infill	122	1708		14		
4	Botshabelo Infill	26	364		14		
5	Botshabelo Infill	79	1106		14		
6	Botshabelo CBD	10	300		30		
7	Botshabelo CBD	23	690		30		
10	Botshabelo CBD	7,2	216		30		
15	Thaba - Nchu Infill	187	935		5		
16	Thaba - Nchu Infill	43	215		5		
17	Thaba - Nchu Infill	37	518		14		
18	Thaba - Nchu Infill	41	574		14		
20	Thaba - Nchu Infill	32	448		14		
Subtotal Medium Ter	rm	607	7 074	31%	12		
1	Botshabelo West	113	1582		14		
12	Thaba - Nchu Strip	60	840		14		
13	Thaba - Nchu Strip	216	3024		14		
14	Thaba - Nchu Strip	200	2800		14		
Subtotal Long Term		589	8 246	36%	14		
TOTAL BOTSHABELO/	THABA -NCHU	1 892	22 759	100%	12		

TOTAL BOTSHABELO/THABA -NCHU						
Subtotal Short Term		696	7 439	33%	1:	
Subtotal Medium Ter	607	7 074	31%	12		
Subtotal Long Term		589	8 246	36%	14	
TOTAL BOTSHABELO/	THABA -NCHU	1 892	22 759	100%	12	

4.5.3.3 Botshabelo-Thaba Nchu Spatial Transformation

Figures 60.1 and **60.2** respectively depict the proposed Urban Network Concept and Urban Network Area for Botshabelo-Thaba Nchu. The Urban Network Area comprises a number of business hubs, existing and proposed industrial areas, and priority housing development areas centred around route N8 and the future secondary road link between the CBD of Botshabelo and CBD of Thaba Nchu (part of the Botshabelo-Thaba Nchu public transport network).

A number of potential Catalytic Land Development Areas have been identified within this Urban Network area as depicted on **Table 31**.

Table 31. Botshabelo – Thaba Nchu Urban Network: Integration Zone 4- Catalytic Land Development Areas

		Botsh	abelo - Thaba I	Nchu Integrati	ion Zone 2: Ca	talytic Land De	evelopment A	reas		
	CLDA 1	CLDA 2	CLDA 3	CLDA 4	CLDA 5	CLDA 6	CLDA 7	CLDA 8	CLDA 9	CLDA 10
	Botshabelo CBD	Thaba Nchu CBD	Botshabelo Industrial	Thaba Nchu Industrial	Area 2 Remainder 826 Residential	Area 9, 10 Residential	Area 12 Sepane Mixed	Area 20 Residential	Areas 4-8, 16-19, 21 Residential	Areas 1, 13, 14 & 15 Residential
Environment										
Town Planning										
Housing										
Land Acquisitions										
Community Facilities				1						
Economic Development										
Movement Network										
Public Transport										
Engineering Services										
Roads and Stormwater					1 1		1			
Juinwater										
Water										
Sanitation										
		I			I					
Electricity										
Refuse Disposal										
Land Reform										





4.5.4 Soutpan/ Ikgomotseng

Development Rationale

Both settlements developed as a result of the existence of the salt mine in the vicinity.

Development potential is very low; hence infrastructure investment should be undertaken only to serve the constitutionally mandated basic needs of the community.

The economic anchor of the two settlements is the mining activity associated with the salt deposits in the area. The two settlements are almost four kilometres apart which makes it virtually impossible to consolidate in future (see **Figure 61**). Here the proposed approach is to consolidate development around Soutpan and Ikgomotseng respectively.

In Soutpan the development of the existing vacant erven should be promoted and new township development outside the existing footprint should be limited as far as possible.

In Ikgomotseng the focus should be to accommodate new development on the two large vacant properties which form part of the existing settlement footprint before any expansion of the footprint is considered.

Economic activities should be consolidated along Martin Street which provides access to the village and which may provide visual exposure to traffic passing along route R700. Apart from the salt mining activity, the potential for economic development mostly lies in agriculture/ Agri-processing and, to a lesser extent, in tourism associated with the salt mining and proximity of the Florisbad Anthropological Centre.

4.5.5 Dewetsdorp/ Morojaneng

Development Rationale

Dewetsdorp/ Morojaneng acts as a service center to an extensive farming community in the south-eastern extents of the Mangaung Metropolitan Municipality. Its economic base is farming related services, business and tourism and route R702 is a key element to the economic sustainability of the town.

Dewetsdorp and Morojaneng was historically developed as two separate towns with a large buffer strip along the Kareefonteinspruit representing the divide between the towns.

The short to medium term vision is to physically consolidate these two towns and to enhance the economic sustainability of this area.



Figure 62 depicts the development concept and associated proposals for this town, summarised as follow:

4.5.5.1 Environmental Core Landscape

- The Kareefonteinspruit running through the town should be protected as part of the open space network to a minimum of 32 m on both sides of the spruit.
- The allocated open spaces in the town should be maintained as sport and recreational areas for tourists (including the golf course).
- Church Street, Voortrekker Street, Tsuene Street, Leteane Street and Sefotlhelo Street represent the master movement network in the town and should be lined with existing and newly planted trees in order to enhance the legibility of this formgiving element.

4.5.5.2 Urban Development and Restructuring

- Church Street represents the central spine along the "Integration Zone" which should be the focus area for consolidating the two towns. It extends from the church to the west right up to route R702 (and could even extend up to the railway station if/when it is operational again.
- All developable land parcels along this road (north and south) should be utilised for a mix of land uses including residential, business and public services.

- Public services should as far as possible be consolidated in the area around the existing Fire Brigade, Licensing Department and Public Works.
- The two link roads between Dewetsdorp and Morojaneng should be upgraded in order to enhance movement of people, goods and services between the two areas.
- Business activity within the existing CBD should be maintained as this is the primary business node^(B1) within the town.
- In Morojaneng there is potential to establish some business activity^(B2) in the vicinity where Leteane Street and Sefotlhelo Street link into Church Street.
- As illustrated on Figure 62 there are also several occurrences of business activity (including Spaza shops) within Morojaneng. This can be retained as it provides a means to sustainable livelihoods for many local residents and it is within convenient walking distance.
- Future residential development should be consolidated around the following areas, as reflected on Figure 62.
 - Area A which is an infill area between the existing residential areas of Morojaneng and the Public Works and Licensing Departments. It covers an area of approximately 61,71 ha of land;
 - Areas B, C and D represent functional precincts in the Integration Zone to the north and south of Church Street and right up to route R702. It holds approximately 28,3 ha of land and should be used for residential purposes (BNG Gap and





- Social Housing) combined with small businesses and even small service industries (where such need/ opportunity exists);
- Area E next to the primary school in the eastern extents of Morojaneng (5 ha for possibly BNG Housing);
- Area F which is an existing informal settlement area, and which is proposed to be formalised in-site (12,2 ha), and
- Area G in the northern extents of the town which could be developed for GAP market purposes (2,37 ha).
- The seven areas noted above collectively represent about 54,61 ha of land which could accommodate an estimated 1,000 housing units which is sufficient to deal with the demand up to the year 2036.
- Once these land parcels are fully developed, the future expansion of residential development to the north (towards the golf course and/or expansion to the east across route R702 towards the railway station and the airfield could be considered.

4.5.6 Wepener/ Qibing

Development Rationale

Wepener/ Qibing functions as a service center to surrounding farming communities in the far south-eastern extents of the Mangaung area of jurisdiction. It also represents one of only a few points of entry into Lesotho via the Van Rooyens Gate.

The economic base of the town is farming related services, business and cultural tourism because of a strong Sotho and Boer history. Wepener, Qibing, Ebenhaesers Heights and Kanana represent a significantly fragmented settlement structure with the Jammersbergspruit and steep topography being significant formgiving elements.

The short to medium term objective is for the town to enhance its functionality as a rural service center and to improve on the efficiency of its spatial structure.

Figure 63 illustrates the development concept and proposals for Wepener/ Qibing which is briefly summarised as follow:

4.5.6.1 Environmental Core

- The Jammerspruit/ Sandspruit and tributary network running through the Wepener/Qibing areas represent the backbone of the open space system for the town and should be sufficiently protected and incorporated as part of the stormwater management system for the town.
- No development to be permitted within 32 meters on both sides of the spruit.
- Route S746/ Church Street, as well as De Beer and Spies Streets and up to Van Aardt Street represent the master movement network in the town and should be lined with existing and newly planted trees and





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- equipped with appropriate signage in order to enhance the legibility of this very strong formgiving element.
- The mountains and ridges to the north-east form an important backdrop to the town and need to be properly protected and maintained.

4.5.6.2 Urban Development and Restructuring

- Church Street, De Beer Street, Spies Street and Van Aardt Street functionally links all the settlement areas to one another and to regional routes R26 to Hobhouse, R702 to Lesotho and R26 to Mangaung and Van Stadensrus. It also provides access to each of the individual settlements.
- The primary business node^(B1) is the Wepener CBD which should be maintained and strengthened as far as possible.
- There is potential to establish a secondary business node^(B2) at the R26-Van Aardt intersection which is the most direct access into town. Service industries can also be incorporated into this node which already holds a filling station.
- It is important to also facilitate the establishment of lower order business nodes^(B2) at convenient distance within the various residential townships. Such business activity could also include Spaza shops and informal track stalls to support economic empowerment initiatives of the MMM.
- In Qibing a number of areas already function as lower order business nodes and, as illustrated on Figure 63. There is potential to establish similar activity in Ebenhaeser Heights and Kanana to the north.

- Future residential development should be consolidated in the following areas, as illustrated on Figure 63.
 - Area A to the north of Kanana which is an existing township which is vacant (38 ha);
 - Areas B (8,77 ha) and C (4,15 ha) which represent small opportunities for infill development between Ebenhausers Heights and Kanana and in close proximity to Church Street extension;
 - Area D (9,99 ha) to the north of Wepener which functionally links Wepener to Qibing;
 - Area E (14,73 ha) to the south of the route R702 and Combined School in Wepener and up to the Licensing Centre, and
 - Areas F (18,12 ha) and G (9,20 ha) to the south and north of the railway line next to route R26 at the main entrance into town.
- These seven areas collectively represent about 102,97 ha of land which is estimated to have capacity to accommodate around 2,000 units.



4.5.7 Van Standensrus/ Thapelong

Development Rationale

This is a very small rural settlement with limited growth potential which is main centered around agriculture and tourism.

The main focus should be to consolidate the spatial structure of the settlement and not to allow any further expansion of the settlement footprint until the existing footprint is fully developed.

The settlement could offer potential as a model land reform or sustainable eco-village given the amount of food gardening and irrigation activity already occurring and this could be linked to a periodic market facility that accommodates mobile government services and is also designed to attract tourists from route R702.

4.5.7.1 Environmental Core

Figure 64 illustrates the development concept and proposals for Van Stadensrus / Thapelong which is briefly summarised as follow:

- There should be no ploughing or urban development within 32 m of the banks of the Nuwejaarspruit to the north of Thapelong;
- The cultivation of arable land should be promoted, and it should not be allowed to lie fallow unless as part of a crop rotation system or converted to urban development, and

The Van Standensrus Dam could be utilised as a source for irrigation and as a tourism attraction.

4.5.7.2 Urban Development and Restructuring

- The current size of the settlement, its low population growth and limited economic prospects suggest that in terms of the NSDP and NDP that public investment should be limited to social development programs rather than investment in physical infrastructure, including housing;
 - This would mean that the settlement would be largely left to develop its own resources relying on ad-hoc government funding to incrementally develop residential units, community and associated facilities.





4.5.8 Mangaung Rural Development Plan

The following section comprises a brief summary of rural development proposals as defined in the Mangaung Rural Development Plan, 2020:

4.5.8.1 Functional Regions

The Mangaung Rural Development Framework is depicted on **Figure 65** and it identified the following functional regions:

Functional Region 1:

This region is classified as a Mining Region with the focus on potentially revitalizing the salt mining industry.

Functional Region 2:

This region is classified as an **Intensive Agriculture Region** with the focus on optimizing good soil for Commercial Farming Purposes.

Functional Region 3:

This region is classified as a Catalytic Intervention Region with the focus on several factors throughout the entire region. These include the designation of Thaba Nchu as an economic growth point, development of the Agri-Hub, strengthening of Farmer Production Support Units at Sediba and Woodbridge, tenure reform and the improvement of rural villages to serve as more effective service centres.

Functional Region 4:

This region is classified as a **Priority Land Reform Region** with the focus on the N8 development corridor as well as the cluster of projects and stateowned land in the vicinity unlocking investment potential.

Functional Region 5:

This region is classified as a **Tourism Region** with the focus on the especially the Caledon Nature Reserve, however, other aspects in this region also contributes to the tourism industry, being the aesthetic views, historical monuments and border post.

4.5.8.2 Growth Points

Five villages have been identified as potential growth points where further investment and economic growth should be stimulated. These include Paradys and Gladstone as Primary Growth Points, whilst Feloana, Kgalala and Sediba (A & B) have been identified as Secondary Growth Points. (Refer to **Figure 66).**

4.5.8.3 Strategic Focus Areas

Four Strategic Focus Areas have been identified towards the implementation of the Rural Development Plan as summarised below.



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i) Strategic Focus Area 1: Land Reform:

The various strategic directives and related strategies associated with land acquisition and development support are indicated in the diagram below. Two strategy directives relate to this focus area. (**Table 32**).

Table 32. Detail Strategies in respect of Land Acquisition and Support

Strategy Directives	
Rural Intervention Areas:	Firstly, the Thaba Nchu area possesses unique cultural- historical tenure options that need to be corrected. These exist on two levels, namely on governing level (Traditional Council), and community level (individual ownership).
Priority Land Reform:	 This strategy directive suggests that land reform takes place on three levels, namely: a) transfer of state-owned land, b) tenure upgrading, c) the acquisition of land within the appropriate functional area.
Targeted Regions	Implementation Strategy
Functional Region 3:	 Facilitate the transfer of communal land in Thaba Nchu if and when appropriate legislative guidance is received fromGovernment. Assist with formalisation (surveying) of existing tribal villages in order to make tenure upgrading possible when supported by all role-players.
Functional Region 4:	 Create a database of potential land within the functional region, including land with high agricultural potential. Assist farmers who received grants under the Comprehensive Agricultural Support Programme (CASP) to obtain land ownership, especially farmers around the N8 Corridor. Acquire high potential agricultural land with access to resources. Assist qualifying beneficiaries with skills, infrastructure, and other requirements.

General strategies	Implementation Strategy
All Functional Regions:	 Assist existing land reform beneficiary with support with post settlement support in order to make provision for both infrastructure and operational expenditure. Provide training to all land reform beneficiaries in respect of business and farming skills. Identify and assist with tenure upgrade in all supporting settlement areas.
Institutional arrangements:	 Compile a comprehensive database reflecting potential beneficiaries of land reform. Inform beneficiary communities of the various land reform programs and assist potential participants with applications in accordance with the correct protocol Create a standardised and simplified business plan format to improve the evaluation of applications.

ii) Strategic Focus Area 2: Agricultural Development:

Four main sub-focus areas have been identified with the collective aim of creating an enabling environment and markets for distribution of produce, including:

Intensive Farming and Mentoring:

Detail strategies in respect of Intensive Farming and Mentoring are summarised in **Table 33** below:



Table 33. Intensive	e Farming Strategy	arrangements:
Strategy Directives		Ŭ
Intensive Farming:	Intensive farming in the Bainsvlei area should be used as a tool to improve production capacity and guarantee food security.	
Rural Intervention Areas:	Due to the diverse settlement patterns and communal farming practices in Thaba Nchu, this functional region must be transformed to create positive economic growth.	
Resource Protection:	Farming is dependent on water and soil resources. Farming practices and mechanisms should thus consider these resources and be implemented responsibly.	
Targeted Regions	Implementation Strategy	
Functional Region 2:	 Assist commercial farmers to increase production volumes and capacities by implementing more intensive production systems and streamlining inputs, including the use of fertilisers, specialised infrastructure and optimisation of resources. Utilize appropriate research mechanisms to improve agricultural production. Identify and develop niche markets such as organic farming, hydroponics, etc. 	Value Ac The estat Municipa with the facilities potential
Functional Regions 3 & 4:	 Crop production must be encouraged parallel to livestock, as it is considered as a means of increasing job opportunities, spurring economic growth and increasing the competitive advantage of the functional region. The production of high value crops must be considered rather than the crops traditionally produced within the region such as maize and wheat. Such high value crops include cotton, dry beans, soya beans, pomegranate, antephora, pubescens, garlic, panicum, squash and pumpkin. 	The follow to this su
General strategies	Implementation Strategy	
All Functional Regions:	 Supply resource-poor farmers and cooperatives with appropriate farmer support through existing land reform and agricultural related programmes. 	

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- Develop Mentorship guidelines and encourage the development of more detailed mentorship plans to be implemented.
 - Establish an internal Municipal database where willing beneficiary groupings with specific needs can be matched with available expertise and knowledge, or where mentors can be identified and linked with needful recipients of mentorship assistance.
 - Assist Mentors and outcome-based programs financially • through grants.
 - Retain existing commercial farmer expertise through equity • schemes and mentorship arrangements.

dding and Distribution:

ablishment of more value-adding and distribution throughout the al Area will play a positive role in assisting emerging farmers processing of their products. The establishment of such should be made attractive through a process of incentivising investors.

owing detail strategies in **Table 34** are being proposed in relation ub-focus area:



Strategy Directives	
Transport Corridor:	The Corridor links production and consumer markets and should be targeted to stimulating establishment of value chains and distribution functions.
Economic Development:	This strategy directive suggests that Botshabelo and Thaba Nchu have stagnant economies and depend greatly on Bloemfontein. In order to promote economic development and ensure self-sufficiency, agricultural related industries and businesses must be directed towards of these areas.
Rural Intervention Areas:	The Agri-Hub together with farmer production support units and other agricultural related projects will create economic upliftment of the area.
Targeted Regions	Implementation Strategy
Functional Regions 2, 3 and 4:	 Create an enabling environment by pro-actively incentivizing the establishment and expansion of value-adding facilities and distribution centers within the functional regions, but especially along the N8 corridor Use existing business plans to ring-fence commodities within the agricultural value chain to encourage local processing of raw material. Continuously promote further investment for expanding the Agri-Hub to facilitate development of the local agricultural processing facilities with the Bloemfontein Fresh Produce Market to generate additional employment opportunities around the City.

Table 34. Detail Strategies in respect of Value-Adding and Distribution

General strategies	Implementation Strategy
All Functional Regions:	 Identify and incentivise opportunities for the processing of raw materials and the establishment of value-adding and distribution facilities.
Institutional arrangements:	Continuously seek opportunities and ways to improve specific product lines through participatory processes and research.
	Compile a database of available land along the N8 corridor and other strategic locations.

Commodity Selection:

The specific commodity types that were identified are indicated in the following table (**Table 35**):



Commodity Region	Commodity	Commodity Prioritisation Notes
Protein	Red meat	High potential for extensive (good grazing) and intensive (relative proximity to grain and other feedstock sources) bee and mutton sheep production. Most suitable cattle breeds include Angus, Bonsmara, and Taurus.
	Dairy	Proximity to feedstock and fairly favourable climate for dair production makes the district competitive at local and possibly regional level, but not national level for large- scale dair production. It is important to note that competition at the local level dairy market is already strong.
	Poultry	There is already a big footprint of poultry farms in Mangaung, but it remains a versatile and important product since it provides subsistence farmers and rural communities with a source of quality protein.
	Wool sheep	High production potential for wool sheep.
	Potatoes	High to very high suitability from an agronomic and food security perspective.
	Cabbage	High to very high suitability from an agronomic perspective.
	Onions	High suitability from an agronomic perspective.
Fruit & Vegetables	Asparagus	Suitable from an agronomic perspective, whilst it is rich in vitamins A, B6, C, E and K and also contains high levels of folate, calcium, iron and protein.
	Spinach	Extremely suitable from an agronomic perspective, which is considered a very healthy superfood, as it is loaded with nutrients and antioxidants in a low-calorie package.
	Beetroot	High to very high suitability from an agronomic and food security perspective.

Table 35. Preferred Commodity Types in Mangaung

Commodity Region	Commodity	Commodity Prioritisation Notes
Cereals	Wheat	Parts of the district are very suitable for winter wheat production under irrigation (note that water for irrigation is very limited, with further limitation to the availability of water to areas best suited for wheat production), which will reduce risk of crop failure significantly and increase yields to profitable levels. Wheatquality from the district is amongst the best in the world; therefore, it presents opportunities for processing into speciality or luxury baked goods.
	Sorghum	Very versatile and suitable for intensive farming on small portions of land with an average production of 2 tons per hectare.
	Maize	Good potential for rain-fed maize production, especially towards the east where very high yields can be attained.
	Soya Beans	Medium yield potential under dryland conditions.
	Groundnut	Medium yield potential under dryland conditions.
Fats and Oils	Mung bean (Green gram)	Medium yield potential under dryland conditions. It is a niche market; however, a market can be developed for this excellent food security crop.
	Sunflower	Moderate to moderately high rain-fed production potential. Slightly more suitable than canola for farms in the district with a warmer microclimate. Note that the major buyers in the area demand a specific sunflower cultivar.
	Canola (Grapeseed)	Not yet well established in the area, however, moderate to moderately high rain-fed production potential may be possible for farms with a cooler microclimate.

Source: Urban Econ: Master Agri Hub Business Plan for Thaba Nchu, Final Report, April 2016



iii) Strategic Focus Area 3: Peri-Urban Agriculture

Peri-Urban areas are usually small holdings located on the periphery of the urban edge.

Despite the fact that these areas are earmarked for agricultural use, they do not usually accommodate commercial farmers or yield great returns.

A strategy is therefore proposed that will assist in identifying certain areas for land reform to ensure optimal production. The identified area for Bloemfontein is the **Bloemspruit** and **Lakeview** Small Holdings to the east of the urban node.

The identified area is most suitable for Peri-urban Agriculture due to its proximity in relation to the following aspects:

- High density urban nodes including parts of Bloemside, Grasslands and Mangaung;
- The Fresh Produce Market and Airport;
- The Grootvlei prison as a potential offset market;
- The existing railway line and envisaged ring road for possible transport or distribution purposes, and
- The Renosterspruit for irrigation purposes.

The area earmarked for Peri-urban Agriculture will enable government to pro-actively identify and acquire land for agriculture specific project initiatives, such as 1 ha / 1 household, whilst it will also ensure that land with

good soil and production potential be optimally utilised in close proximity of existing markets. Emerging- and Small-Scale Farmers could furthermore be accommodated on these small holdings for skills development and training purposes.

iv) Strategic Focus Area 4: Economic Development

Sector Development:

Two different sectors have been identified as drivers of economic change, namely Tourism and Mining. The strategies relating thereto are discussed in **Table 36** below:

Table 36. Detail Strategies in respect of Sector Development

Strategy Directive	s
Economic Development:	Despite the valuable contribution that agriculture is making to economic development, the relevant strategy directive identifies two additional sectors that will impact positively on the rural economy. These include mining around Soutpan and tourism development in the southernmost parts of Mangaung
Resource Protection:	Since both mining and tourism involve the exploitation of resources, it is important that the same be protected at all costs.
Targeted Regions	Implementation Strategy
Functional Region 1:	 Assist existing miners in the Soutpan area with research, and if proofed viable, to assist miners with training and development initiatives to transform the mining of salt into a viable industry. Assist miners with infrastructure (windmills) requirements. Assist miners to obtain ownership of land, if required. Ensure the optimal development of the Soetdoring and Florisbad areas as tourist destinations.



Strategy Directive	95
Functional Region 5:	 Ensure the identification, listing, marketing and optimal development of all tourist destinations in accordance with the Tourism Development Plan. Ensure the protection and maintenance of all nature conservation and heritage areas.
General strategies	Implementation Strategy
All Functional Regions:	 Continuously identify opportunities and support local initiatives that could create employment and provide stimulus to the economy (i.e. recycling initiatives). Provide entrepreneurial training through accredited institutions.
Institutional Arrangements:	 Revise the Economic Development Plan for the Metro, so as to target specific areas and sectors with the view to creating employment opportunities and ensuring transformation of the economy. Compile and implement a Tourism Development Strategy for the Metro. Compile and implement an Investment Promotion Strategy for the Metro. Implement mechanisms to secure foreign investment specifically for mining and tourism, as well as for economic development in general.

Agri-Hub:

The Agri-Hub located at Thaba Nchu is regarded as one of the primary strategy directives that will spark a change in the agricultural sector and result in a progressive economy. The Agri-Hub is regarded as the main cluster of agro-processing and related activities. This will be the main focus of where the agricultural produce will go to and be further processed. The Agri-Hub will be supported directly by at least three Farmer Production Support Units (FPSUs) located at Sediba, Woodbridge and Botshabelo.

Rural Villages:

It is important to single out certain villages by assigning specific roles and functions in order to improve the overall service delivery in the vast rural area.

These potential growth points as defined on **Figure 66** are all located centrally within a cluster of villages and should be developed to become service centres within the relevant clusters.

Short Term (5 Years):

The following development services and facilities should be considered for these Primary growth points (Paradys and Gladstone):

- Secondary School
- Day Hospital
- Police service
- Community Hall and Library
- Sport Facilities
- Retail, commercial and financial services
- Auction Facilities


The upgrading of roads leading to the respective growth points should typically also form part of stimulating development, as this will improve connectivity and overall service delivery.

Medium Term (10 Years):

It is proposed that growth be stimulated further in Sediba, which forms part of Cluster 4, and that the road leading to this secondary growth point also be upgraded.

The following development services and facilities should be considered for these Primary growth points:

- Secondary School
- Police service
- Community Hall and Library
- Sport Facilities
- Retail and commercial

Finally, it is proposed to stimulate growth in Kgalala (Cluster 3) and Feloana (Cluster 1) over the long term by developing similar facilities as indicated for Sediba, as well as to upgrade the necessary road infrastructure.



IMPLEMENTATION PROGRAMME

5

5.1 INSTITUTIONAL CONTEXT OF MSDF

Diagram 13 (overleaf) illustrates the context of the Mangaung MSDF within the broader municipal institutional environment which is briefly summarised as follow:

- The Mangaung Metropolitan Municipality has a set of legally mandated powers, duties and functions assigned to it in terms of the provisions of the Municipal Structures Act.
- The powers, duties and functions of the municipality translate into a number of sectors departments / units like land use, transport, housing, environment, engineering services, economic development etc.
- Most of these sectors are guided by sector specific policies and legislation and are required to compile sector plans aligned to these. For example, an Integrated Transport Plan (ITP) is compiled in terms of the requirements of the National Land Transport Act and a Water Services Development Plan (WSDP) in terms of the Water Services Act.
- It is essential that these sector plans are all based on a common longterm Vision for the municipal area. Such Vision is normally based on/derived from the National Vision (National Development Plan: 2030); a Provincial Growth and Development Strategy (Vision 2030); and the Municipal/ City Development Strategy (Vision 2030) documents.

- The Municipal Spatial Development Framework (MSDF) represents the Spatial Vision for the municipal area with a short-term (5 year) and longer term (15-20 year) spatial perspective.
- This Spatial Development Framework needs to be aligned with the five planning principles of SPLUMA with the overarching outcome to be achieved being Spatial Transformation within the municipal area.
- When the MSDF is compiled (during the Situational Analysis) it is informed by inputs from all the other sector departments, e.g. the Environmental Management Plan will indicate all areas to be earmarked for protection (core, buffer, etc.); the Water Services Development Plan may indicate the areas most suitable or unsuitable to provide engineering services; and the Housing Plan provide information on areas earmarked / acquired for future development and which need to be incorporated into the MSDF.
- The MSDF considers all these inputs as structuring elements from where it then formulates a consolidated spatial plan (based on shortand medium- to long-term growth projections) for the municipal area earmarking specific areas for various land uses, e.g. the open space system, the priority housing development areas, economic activity areas, areas for future community facilities, consolidated movement network serving all these areas, etc.
- This consolidated, multi-sectoral plan (MSDF) holds certain implications for the various sectors/ sector departments within the municipality given the fact that it defined a new development







perspective, development principles, priorities and timeframe for development within the municipal area.

- Hence, when sector plans are revised in future, these plans need to be based on the MSDF growth projections and be aligned with the MSDF Spatial Strategy in terms of proposed location, extent and nature of land use development within the municipal area.
- This process is referred to as sectoral alignment and it provides the basis for Strategy Led Budgeting in the following way:
 - All short-term priority projects (MSDF aligned) identified by the various sector departments feed into the Mangaung Capital Expenditure Framework, MTEF and Budget via the annual Municipal IDP.
 - The longer-term spatial perspective of the municipal area informs the long-term Infrastructure Management and Development Strategy and Long-Term Financial Plan which are consolidated into the long-term Capital Investment Framework.
- Annual National Grant Funding and Provincial Allocations are also released based on the spatial strategy and development rationale of the municipality, emanating from the MSDF.
- In this way all investments are spatially aligned and all infrastructure investment within the metropolitan area is congruent with the broader development vision and spatial strategy as captured in the Municipal Spatial Development Framework.
- Collective sectoral investment in the correct areas within the municipality over an extended period of time will inevitably result in spatial transformation and enhanced spatial justice, efficiency,

sustainability and resilience, and effectively represents good administration – the five principles of SPLUMA.

5.2 SECTORAL IMPLICATIONS OF THE MSDF

The following section highlights the main sectoral implications emanating from the Mangaung Spatial Development Framework.

5.2.1 Environment

- As far as is possible, protect and expand priority conservation areas (core and buffer), establish ecological linkages, and preserve highpotential agricultural land within the municipality.
- Incentive schemes should be put in place to promote conservation and maintenance of ecological corridors and conservancies on privately owned land (environmental stewardship).
- Prepare and implement management plans for municipal nature reserves and other ecological assets.
- Prepare and implement initiatives for the rehabilitation of drainage systems and wetlands in urban areas.
- Monitor the incremental implementation of the Mangaung Climate Change and Mitigation Strategy.
- Develop resource efficient strategies for all municipal services and land and building development (e.g. compulsory green energy installations in building development, grey water circulation, sustainable urban drainage, etc.) as part of the implementation of the broader SMART City concept.



- Formulate a Flood and Veld Fire Risk Mitigation Strategy.
- Reinforce and prioritise open/ public space with good quality urban management to ensure use and safety, especially also development in poor and denser neighbourhoods of the municipality.

5.2.2 Land Use Planning/ Spatial Targeting

- Maintain the comprehensive municipal GIS system which incorporates environmental, land use and infrastructure information. This should be linked to the Mangaung Land Use Scheme and should also comprise a range of overlay zones to inform decision-making processes.
- Consistently assess development applications in line with the Smart Growth principles and strategic spatial directives provided in the MSDF.
- Ensure that all Local Area/ Precinct Plan processes in the MMM incorporate and are aligned to the Mangaung SDF Directives.
- Update the existing "Structure Plans" to align with the Mangaung SDF and Land Use Scheme, also incorporating relevant comments received as part of the MSDF consultation process. (See Appendix 4).
- Ensure that the Mangaung Spatial Transformation Agenda (BEPP) is carried forward as a dedicated programme via the IDP, MSDF and CEF/CIF in the identified Urban Network Area.
- Oversee the implementation of a comprehensive Growth Management Strategy to facilitate densification and infill development in order to alleviate development pressure on the Urban Edge.
- Implement Urban Management Programmes in priority activity node areas with specific focus on the Mangaung CBD.

- Require private landowners in functional priority development areas to plan and coordinate development collectively (beyond individual property boundaries and interests) in order to ensure appropriate infrastructure arrangements, the provision of inclusionary housing, public facilities, etc.
- Support Transit Oriented Development which utilises public transport/ NMT as opposed to private vehicular use.
- Support compatible and sustainable rural activities outside the urban edge (including tourism) if these activities are of a nature and form appropriate in a rural context, generate positive socio-economic returns, and do not compromise the environment, agricultural sustainability, or the ability of the municipality to deliver on its mandate.
- Integrate spatial planning, transport planning (emphasising public transport and NMT), and social facilities planning.
- Enable private and community sector participation by making known the Municipality's spatial principles and intent in user friendly communiques and guidelines.
- Launch a capacity building programme aimed at establishing a "paradigm shift" amongst all service providers and stakeholders (politicians and officials of all spheres of government) towards a "principles based" planning and management approach for the Municipality. This would ensure that unnecessary political pressure(s) does not derail the collective actions needed to restructure the spatially fragmented and unsustainable spatial structure of the Mangaung Metropolitan Municipality.



5.2.3 Transport

- The existing / proposed movement network should be maintained / upgraded through agreements with the South African National Roads Agency (SANRAL) and the Provincial Department of Roads and Transport with the top priority being the N1 eastern bypass.
- Other priorities include the proposed link roads to open up the priority development areas to the west of route N1, and the compilation of a Roads Master Plan for the Mangaung township area and surrounds.
- Shift municipal resources to prioritize development of the Integrated Public Transport Network and the supplementary NMT network.
- Engage with Spoornet and ACSA regarding future development of the Rail Hub and International Airport.

5.2.4 Housing

- The housing department should ensure that the bulk of the subsidised housing stock is provided within the Priority Development Areas (part of the Mangaung Urban Network) and in accordance with the typology directives provided in the MSDF (especially with regards to higher densities). This will contribute towards the effective consolidation and restructuring of the municipal urban structure.
- Support increased densities in greenfields and redevelopment projects.
- Prioritize the general upgrading and transformation of existing informal settlements. (Upgrading of Informal Settlements Programme).

- Put in place an inter-governmental portfolio of land (existing and earmarked for purchase), linked to an agreed land preparation and release programme to cater for lower income housing.
- Prioritize infill housing opportunity on public land for the BNG, FLISP, social/ rental, and GAP markets.
- Where possible, proactively plan for back-yarding opportunity in lower income housing projects.
- Support initiatives to accommodate farm workers on farms (in a manner which secures tenure).
- Formulate a Student Accommodation Policy and Precinct Plan.
- Develop a Mangaung Inclusionary Housing Policy and Guidelines.

5.2.5 Social Services

- Development of community facilities should be aligned with the housing programme in consultation with the relevant provincial departments in order to ensure sustainable human settlements (especially also in the informal settlement upgrading areas).
- Consolidate community facilities and services within Thusong Centers or in designated mixed-use nodes / areas along the priority public transport corridors and close to non-motorized transport infrastructure.



5.2.6 Engineering Services

- Sector Plans like the Water Services Development Plan, Roads and Stormwater Master Plan, Integrated Transport Plan and Electricity Master Plan must be aligned to the spatial directives and growth projections and timeframes provided for Functional Areas (see Annexure A3) in the MSDF when these are reviewed / updated in future. The outputs of these documents should be consolidated into a Long-Term Infrastructure Development and Management Strategy (IDMS) linked to a Long-Term Financial Plan for the municipality.
- Ensure that the bulk of capital expenditure is focused on infrastructure development and service delivery within the designated Priority Development Areas demarcated in the MSDF.
- Prioritize basic residential services for poor households, specifically in informal settlements, backyard dwellings, and as minimum level of basic services to marginalized rural settlement.
- Proactively maintain and upgrade municipal infrastructure services to limit/ mitigate risk to ecological services.
- Support initiatives to protect water resources, rehabilitate degraded aquatic systems, retrofit or implement water demand management systems, and mainstream water conservation.
- Implement three-pronged Mangaung Bulk Water Programme (MBWAP).
- Implement Water Conservation and Demand Management (MMM 10year WCDM Strategy).

- Optimise available water resources through Water Reuse (Maselspoort Reuse Project).
- Augment water supply through the Xhariep Dam (Mangaung Xhariep Water Augmentation Project).
- Support energy diversification and energy efficiency initiatives to enable a transition to a low carbon, sustainable energy future (aligned with SMART City concept).

5.2.7 Economic Development

- Ensure that all designated economic activity areas including business nodes, industrial/ commercial areas, and tourism precincts are well managed and maintained (clean, green and save).
- Establish strong working relationships with the private sector (business forums, etc.) in order to monitor needs and to obtain support.
- Formulate a comprehensive Informal Trade Upscaling Strategy for the municipal area linked to the proposed LED Warriors Mentorship Programme.
- Ensure alignment of Skills Development Programmes offered to the sectoral requirements of Mangaung.
- Investigate feasibility of precision farming/ vertical farming in empty factory shells in Botshabelo-Thaba Nchu (possible public-private partnerships).
- Assist in initiatives to diversify, strengthen, and open up new opportunities and jobs in the rural economy, including the identification of strategically located land for land reform purposes (emerging farming).



- Support the implementation of the Agri Park initiative.
- Facilitate the compilation of Tourism Brochures for the four functional tourism precincts (public-private partnership) as part of the Tourism Branding Strategy for the municipal area.

5.3 ALIGNMENT WITH MANGAUNG LUS

Care needs to be taken to ensure that the Mangaung Land Use Scheme is properly aligned to the Mangaung SDF. The mechanism to be used to achieve this alignment is the Linkage Plan which will be compiled as part of the Mangaung LUS update. **Diagram 14** graphically depicts the functional relationship between the MSDF, LUS, Linkage Plan and Growth Management Strategy.

- Important directives pertaining to the review of the Mangaung LUS include the following:
 - □ Generally, increase densities to limit urban expansion.
 - Relax development controls to promote rather that constrain development.
 - Use Zone definitions should be more inclusive in order to generally promote mixed use in support of economic development.
 - Consider Use Zone to promote tourism development.
 - As part of a broader Growth Management Strategy the Linkage Plan should comprise a number of Overlay Zones to inform decision-making and to direct investment.

Diagram 14: Functional Relationship between SDF, LUS, Linkage Plan and Growth Management Strategy





5.4 GROWTH MANAGEMENT

In essence, a growth management strategy is an implementation strategy for the spatial development framework. It entails the application/ utilisation of a number of growth management tools in combination with one another with a view to achieve the desired spatial outcome as reflected in the spatial development framework. It thus focuses on ways and means (how) to facilitate/ enhance the achievement of the proposals contained in the spatial development framework.

The implementation of tools and mechanisms for growth management are aimed at achieving any of the following outcomes:

- Preventing development in sensitive environments;
- Discouraging development in peripheral locations (i.e. curbing urban sprawl);
- Encouraging development primarily in identified priority development areas, and
- Facilitating densification along public transport corridors and intensification of a range of mixed land uses within identified activity nodes.

There are several growth management tools available to guide and influence public and private development processes, and in the growth management strategy an authority indicates which of these instruments it intends using and what it wants to achieve with these. The UDB is one such growth management tool, but its efficiency is significantly enhanced only when used in combination with some of the other instruments. At the core of the proposed Growth Management Strategy for the Mangaung Metropolitan Municipality should be the following strategic objectives which are based on the Mangaung Theory of Change incorporated into the MSDF:

- Determine priority areas for short-medium term investment and allocation of future development rights.
- Re-direct the respective capital investment programmes of the sector departments to address the short-term problem areas and strategic priority areas.
- Limit future development rights in infrastructure problem areas within the municipality until backlogs have been addressed.
- Identify priority investment areas (e.g. Priority Development Areas) for the public and private sector, specifically in respect of municipal infrastructure.
- Introduce development conditions that are congruent with global bestpractice standards relating to resource efficiency (Smart Growth).
- Introduce development obligations relating to the full spectrum of inclusionary housing (i.e. subsidised housing, bonded, rental / social housing) in identified priority areas and
- Apply a package of incentives to promote and facilitate development that subscribes to the socio-economic and spatial imperatives of the municipality in priority areas (especially around public transport corridors).

Table 37 elaborates further on some of the most prominent growthmanagement tools that can be used to guide, direct and influencedevelopment patterns and trends in Mangaung.



Table 37. Application of the Growth Management Tools in Mangaung

GROWTH MANAGEMENT TOOL	APPLICATION IN MMM	GROWTH MANAGEMENT TOOL	APPLICATION IN MMM
Comprehensive plan	The comprehensive plan is a document composed of written goals and policies, as well as maps used to guide the type, location, and quantity of development in a community over a 10 or 20-year period based on existing conditions and future hopes. This plan is strategic in nature and should include goals for economic growth and how it can be contained within existing areas or areas designated for growth. Such plans can be compiled at regional (metropolitan) level, as well as at local (precinct) level. In the Mangaung context, this refers to the Mangaung Metropolitan Spatial Development Framework (which is part of its Integrated Development Plan) and more detailed Precinct Plans for focus areas within the metropolitan area.	Redevelopment upgrading areas (brownfields)	These are programmes at the provincial, metropolitan and local levels to promote economic development and/or redevelopment in needy and rundown areas with the use of tax incentives, regulatory waivers, infrastructure improvements, and urban revitalisation. In the Mangaung context these could include the Central Business District which has been demarcated as Urban Development Zone (UDZs) in terms of the Urban Renewal Tax Incentive implemented by National Treasury, as well as business nodes within marginalised areas (Urban Hubs) which can benefit from the Neighbourhood Partnership Development Grant (NDPG). Additionally, the establishment of City Improvement Districts (CIDs) in selected secondary activity nodes is a good example of how this tool can be used in partnership with the private sector to promote uppracting in decaying areas
Threshold public service standards	This relates to the level of public services that must be provided for different types of development. Service levels can be set for schools, water, sewers, roads, transport, libraries and parks. Proposed development that will result in non-maintenance of these service levels can be denied approval.	Zoning	Use zones in the Mangaung Land Use Scheme specify written requirements and standards for permitted uses of buildings, the height and size of buildings, the size of yards, parking and signs and fences, among others. The purpose is to separate land uses that are seen as incompatible and to enhance development processes.
Fiscal impact analysis	This refers to a municipality conducting a study of the projected short- and long-term costs and revenues associated with new development in a community. It can be used to evaluate the most appropriate time and place for development to occur based on using existing utilities and rate of development. In essence, this is thus a cost-benefit model that supports a cost effective, incremental approach towards urban expansion. This is yet to be conducted for Mangaung for selected priority development areas. In broad terms, however, the Capital Investment Framework (CIF) accepts that the greatest cost benefit will be achieved through development in nodes and corridors as indicated	Focused economic development in growth areas	The objective is to direct economic growth towards areas specifically designated for growth (i.e. activity nodes) and then to properly provide the infrastructure required to maintain these areas. This approach also supports the implementation of proper public transportation as these nodes represent clear destinations around which to design a public transport system. For Mangaung, a system of primary, secondary and tertiary nodes has been proposed. These nodes are arranged, based on planning theory, around the Urban Core (CBD) and is aimed at providing infrastructure so as to provide for economic growth and residential densification in these nodes.
Land-use and infrastructure coordination	This strategy requires development to occur in areas already served by existing bulk service networks or areas planned to be served by such networks in order to prevent leapfrog development and continuous demands for service extensions. For Mangaung this coordination is generally encouraged through the IDP and is specifically mapped in the MSDF.	Bulk service contributions	Bulk service contributions are a cost assessment imposed against new development to generate revenue to fund or recover the costs of reasonable service improvements necessitated by the development. This tool must be imposed carefully to balance the competing demands presented when dealing with the pros and cons of new development. Obligations imposed during development applications, generally require developers to fund, build, and dedicate for public use, basic facilities required by future residents of the new developments.
			in the MSDF, the relevant Mangaung Bulk Service Contribution

To promote development in priority geographic areas as proposed in the MSDF, the relevant Mangaung Bulk Service Contribution Policies need to be linked to the CIF. This should be done in terms of rebates on bulk service contributions in geographic priority areas. Qualifying developments must comply with the land use proposals.



GROWTH MANAGEMENT TOOL	APPLICATION IN MMM	GROWTH MANAGEMENT TOOL	APPLICATION IN MMM
Strategic development areas	These are strategically located vacant areas designated for growth by the local government. The area is chosen due to its strategic location, the services available in the area, and/or because of local zoning regulations or comprehensive plans. These areas are used as priority funding areas and can represent both infill development and urban expansion. The Mangaung MSDF identified several strategic/ priority development areas notably to the north, south- west, south and east of the core node as such strategic development areas.	Ring-fencing	This mechanism allows for income or part of income generated by one area through rates and taxes to be reinvested in that same area by way of a dedicated fund. This provides for the upgrading of roads and infrastructure to optimise the development potential of a specific area. This is usually only a temporary measure until certain predetermined objectives for an area have been met. This tool requires further investigation for Mangaung.
Purchase of Development Rights (PDRs)	This programme is an effective tool to channel economic development towards certain areas and to deflect growth pressures from others. With a PDR program, a local authority is allowed to create certain districts where the land is reserved for conservation, open space or agricultural production. It allows the municipality implementing the program to impose special assessment rates on these districts that are beneficial to the community, and which promotes the use of these areas for conservation, open space, recreational or agricultural purposes. In essence, the community in such a district is thus compensated (by way of special assessment rates) to maintain and enhance the existing character in an area instead of urbanising the area.	Tax increment financing	Tax Increment Financing (TIF) entails the use of increased (incremental) property tax by private sector developers to finance engineering services over an agreed period. The developers provide and fund the required infrastructure pro-actively, which stimulates development and results in increased income from rates and taxes. In terms of prior agreement, the developer(s) are then allowed to use the increased income from taxes for a set period to finance the loans or debt incurred for the infrastructure. Local government receives the same tax income from the area as before, is released from the responsibility to provide infrastructure, benefits from high economic growth and job creation, and eventually receives the full higher tax income.
Transit-oriented development (TOD)	This tool is currently not used in Mangaung and requires further investigation to be applied in areas like private conservancies, etc. TOD forms an important component of the Mangaung SDF as it provides the basis for the development of the system of nodes and corridors. The MSDF identified a number of priority public transport routes (integration zones) that also form the basis for future residential densification.	Incentives	This tool requires further investigation for Mangaung. The creation of incentives and concession packages is one of the most important methods used by municipalities to attract new investment and can be efficiently and innovatively applied to initiate development in focus areas. Incentive and concession packages
Land Acquisition Plan	These plans are usually compiled to assess future public land needs, and to guide the municipality by way of a strategy to timeously obtain such land in accordance with a predetermined programme, e.g. housing programme.		 that could be offered are: Rates and taxes incentives; Infrastructure concessions; Land and buildings incentives; Regulatory reform concessions, and

Finance incentives.



5.5 URBAN MANAGEMENT

Info Box: Urban Management

Urban management is needed to sustain the capital investment made and to establish the preconditions for investor confidence and continued investment momentum. Importantly, it does not follow capital investment but is a continuous activity in the precinct.

Urban management not only includes the day to day operations in a precinct, such as cleaning, waste removal, traffic, transport, trader management and security services, but also extends to place-making and marketing and social services. The management of localised public transport operations is also a critical success factor to successful urban management. Similarly, the quality of asset or facilities management of public sector facility owners has a considerable impact on successful precinct management.

Effective urban management requires a partnership approach – with the private sector and resident households and businesses – tailored to the specificities of the particular priority precinct. Hence, successful urban management is based on working with precinct stakeholders on a continuous basis, through mechanisms such as CIDs, in a shared, efficient management and maintenance approach, to retain and increase investment, create jobs, and manage risks for all parties. This will contribute to the safety and maintenance of precincts. The ultimate objective is to achieve inclusive, vibrant, safe, and investment friendly precincts owned by the community active within them.

Source: BEPP Guidelines

5.5.1 Urban Management Objectives

Specific urban management objectives to be pursued in priority precincts in the MMM (e.g. Bloemfontein CBD) include the following:

- Institutional and inter-departmental coordination with regard to service delivery and intervention, and the identification of an appropriate institutional arrangement for the coordination and implementation of programmes and projects;
- Continuous application of prescribed land use management processes in the precinct;
- The enhancement of the contribution of the public space (environment) in precincts through appropriate design interventions and ongoing maintenance;
- The identification and initiation of strategic public investments such as infrastructure, housing, as well as economic and social facilities, and
- Guiding and directing strategic private sector investments and facilitating private sector access to mechanisms such as City Improvement Districts (CIDs), tax incentives and funding sources

5.5.2 Urban Management Strategy and Programme

Table 38 below depicts the various programmes of the proposed MMMUrban Management Strategy to be applied in identified priority precincts.



Table 38. Mangaung MM Urban Management Strategy andProgrammes

Programm	e 1: Basic Maintenance and Service Enhancement
1.1. In	nproved Basic Service Levels
1.2	Joint Maintenance Scheduling Programme
1.3	Consistent Wayleave Programme
1.4	Inter-Governmental Joint Service Agreements
1.5	Dedicated Regional Response Crews
1.6	Communication Management System
Programm	e 2: By-Law Enforcement
2.1	By-Law Awareness Campaign
2.2	By-Law Enforcement
2.3	Prosecution Teams and Municipal Courts
Programm	e 3: Public Space and Properties Management
3.1	Government Properties Database
3.2	"Problem" Government Properties Strategies
3.3	Sidewalks and Public Parks and Open Space Maintenance Programme
Programm	e 4: Neglected Private Properties Management
4.1	Neglected Private Properties Database
4.2	Intervention Programme for Neglected Properties

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5.1	Visible Policing and Support Services
5.2	Crime Prevention Strategies: CCTV
5.3	Street Lighting Provision/Maintenance
5.4	Design-Out Crime
rogram	me 6: Social Development and Care
6.1	Social Care Programme: Shelter, Health, Welfare (Grants)
6.2	Sustainable Livelihoods Programme: Emerging Entrepreneur Upscaling
	Sustainable Livelihoods Programme: Emerging Entropropour Training
	Sustainable Livenhoods Programme. Emerging Entrepreneur Training
rogram	me 7: Precinct Development Plans and Guidelines
rogram 7.1	me 7: Precinct Development Plans and Guidelines Area Specific Development Plans and Strategies (Precinct Plans)
7.1 7.2	MMM Urban Design Guidelines
7.1 7.2 rogram	me 7: Precinct Development Plans and Guidelines Area Specific Development Plans and Strategies (Precinct Plans) MMM Urban Design Guidelines me 8: Incentive and Investment Promotion
rogram 7.1 7.2 rogram 8.1	MMM Urban Design Guidelines MMM Urban Design Guidelines Urban Development Zones: CID, Restructuring, Integration
rogram 7.1 7.2 rogram 8.1 8.2	MMM Urban Design Guidelines MMM Urban Design Guidelines Urban Development Zones: CID, Restructuring, Integration Integrated Incentive Policy
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Each of the eight programmes is briefly summarised as follow:

- **Basic Maintenance and Service Enhancement** comprises six subprogrammes which are all aimed towards achieving a minimum level of basic maintenance and service enhancement in the precinct. It deals with aspects such as joint Memoranda of Understanding/Service Level Agreements with internal and external (other spheres of government) service providers in the MMM; joint maintenance scheduling for the area; the implementation of consistent wayleave procedures for all public and private developments; and the possible establishment of regional, multi-disciplinary Response Crews to clean up/fix problem areas whenever required. This programme also highlights the importance of establishing a Central Complaints or Reporting Centre through which the MMM community can report problems/complaints regarding maintenance, renewal and upgrading in the various areas.
- By-Law Enforcement comprises four sub-programmes which include the launching of a public by-law awareness campaign; a renewed focus on by-law enforcement; dedicated prosecution teams to enforce/police by-laws; and an investigation around the possibility of establishing municipal courts to deal with by-law related contraventions (in order to speed up prosecution processes).
- Public Space and Properties Management oversees the proper management and maintenance of all government owned properties and

public open spaces in the precinct. This programme focuses on the following three main areas:

- The compilation and maintenance of a database on government owned properties (municipal, provincial, national);
- The identification of "problem" government properties and the formulation of redevelopment, disposal or restoration strategies, and
- The development/maintenance of all road reserves, sidewalks, parks and public open spaces.
- Neglected Private Properties Management seeks to efficiently monitor and identify poorly maintained and neglected private properties in order to pro-actively prevent urban decay. The programme comprises two sub-programmes: the first dealing with the compilation of a database for poorly maintained or neglected privately owned properties; and the second comprising a strategy or programme of intervention to deal with each of these properties in consultation with the private owners.
- Safety and Security aims to establish private sector confidence and to create a climate conducive to private investment in specific areas. This programme comprises four sub-programmes. It includes aspects such as visible policing and support services; the implementation of CCTV and other crime prevention strategies; the provision/maintenance of street lighting in priority areas; and design guidelines aimed at



designing-out crime, e.g. building orientation providing "eyes on the street", etc.

- Social Development and Care is aimed at investing in people. It seeks to formulate a Social Capacity Building and Training Strategy which will result in human behaviour supportive to urban development/renewal.
 - The Social Care Sub-Programme focuses on providing proper shelter, health and welfare services to the homeless. This also includes initiatives to deal with prostitution, drug trafficking and abuse, alcohol abuse and street children.
 - The Sustainable Livelihoods Sub-Programme focusses on skills development and training for emerging entrepreneurs, as well as initiatives to facilitate economic upscaling of informal traders in order to incrementally become part of the mainstream formal economy in identified activity nodes.
- Precinct Development Plans and Guidelines provides for the compilation of detailed precinct plans and development strategies. The main benefit of such plan is the fact that it creates a common spatial vision towards the future development of the precinct (based on the collective inputs from local stakeholders). Future public and private investment are then directed by this plan.

A set of Urban Design Guidelines for the MMM as a whole should inform the individual precinct plans and ensure consistency in urban design approach, standards, etc. applied in all areas. Incentive and Investment Promotion firstly focuses on identifying and declaring specific areas to qualify for certain incentive schemes (e.g. Restructuring Zone; City Improvement District; Integration Zone, etc.). It also comprises a Strategic Development Fast Tracking Programme to speed up administrative processes for high profile (catalytic) projects. The establishment of Development Agencies to provide specialist support to facilitate development; and establishment of Business Liaison mechanisms in order enhance public-private partnerships also form part of the Incentive and Investment Promotion Programme.

5.6 IMPLEMENTATION AND MONITORING

It is important to note that the Mangaung SDF forms part of the Integrated Development Plan of the Municipality (in line with section 26 (e) of the Municipal Systems Act) and that it does not represent a parallel process thereto. The MSDF related projects/initiatives which are deemed critical towards the future development of the MMM were identified and included in the Implementation Framework.

The next step would be for these proposals to be incorporated into the Mangaung Integrated Development Plan (IDP) (Refer to **Diagram 15**). For example, the proposed environmental projects/actions emanating from the MSDF should feed into the Objectives, Strategies and Projects under Environmental and Health Services in the municipal IDP from where the



projects are incorporated into the budgeting process (Capital Expenditure Framework) of the Municipality.

Diagram 15: MMM SDF Implementation Strategy



Many of the projects following from the MSDF may already be listed in the IDP, but the MSDF may serve to better illustrate the strategic significance and spatial logic of such.

In this way the MSDF provides a multi-sectoral, integrated perspective on future development in the MMM. Having identified the important projects/initiatives to be implemented following from the MSDF, it is important for MMM officials to continuously monitor whether these



projects/initiatives are being incorporated into the relevant development Objectives, Strategies and Projects in the IDP of the Municipality, and that these projects are appropriately prioritised in the Capital Expenditure Framework (budgeting process), from where implementation will follow.

This is a continuous process which should be followed as part of the annual IDP Review Process and should also be dealt with as part of the annual Performance Management Assessment.

MANGAUNG CAPITAL EXPENDITURE FRAMEWORK ASSESSMENT

6.1 INTRODUCTION

The following section represents the outcome of an assessment/ evaluation of the Capital Expenditure Framework (CEF) 2021/2022 – 2023/2024 of Mangaung Metropolitan Municipality against the backdrop of the Mangaung Spatial Development Framework.

6

6.2 THE ROLE OF THE CEF IN MANGAUNG

The role of a CEF is to frame the outcomes of a multitude of planning documents within the municipality in order to ensure that implementation is guided by a strategic, spatial, financial and socio-economic logic. A CEF serves not only as a performance evaluation mechanism, but also as a rationale towards capital investment planning that provides business intelligence, data validation, project synchronisation and expenditure prioritisation. Furthermore, the role of the CEF is to strengthen the process currently institutionalised within the municipality, and to show how capital investment matures from planning to implementation through various stages of governance.

The primary outputs of the CEF can be best understood in terms of the process flow shown in **Diagram 16** below:

Firstly, prior to subjecting projects applying for budget to a prioritisation and budgeting process, the municipality must first identify all capital demand or needs that are required over the long-term within their jurisdiction, irrespective whether the capital demand stems from local, provincial or national spheres of government. The Capital Investment Framework (CIF) therefore aims to gather the long-term capital demand required for the municipality to function optimally.

- The next step is to consolidate the capital demand into one synthesised plan depicted spatially, along with all the budget reform requirements emanating from the MFMA and National Treasury (i.e. SIPDM project life-cycle planning, mSCOA segments, etc.).
- The SDF is then unpacked to identify the spatial vision, as well as the Functional Areas and Priority Development Areas for the municipality in order to prepare a socio-economic and developmental profile for the municipality.
- The socio-economic and developmental profiling serves as a primary input to the demand quantification and setting of programmatic longterm infrastructure investment targets required realise the spatial vision of the municipality.
- The spatial development vision of the municipality, along with other strategic, financial, policy, socio-economic and technical objectives are used to prepare a prioritisation model in order to rank or score capital demand (projects) based on their alignment to the spatial, strategic, financial, policy, socio-economic and technical objectives of the municipality.
- The process of setting up a budget for the CEF draws from the outcomes of the long-term financial plan whereby the affordability envelope and the optimal funding mix for capital investment for the municipal is modelled based on key socio-economic and population



growth projections. Once the affordability envelope is known, the 10year capital budget can be prepared with inputs from the project prioritisation results.

■ The final step in preparing the CEF is to define an implementation programme for the medium term – in line with the Medium-Term

Expenditure Framework (MTEF). The medium-term implementation plan of the CEF is known as the Capital Expenditure Implementation Programme (CEIP) which is essentially the first three budget years of the 10-year Capital Expenditure Framework.



Diagram 16: The Role of the CEF in relation to Other Internal Processes



6.3 CEF GUIDELINES

According to the guidelines for the preparation of a CEF prepared by COGTA, a CEF should comprise of the following components:

- Step 1: Identify Functional Areas (FA) and Priority Development Areas (PDAs);
- Step 2: Undertake developmental and socio-economic profiling for the municipality as a whole, as well as each Functional Area;
- Step 3: Compile a land budget for residential and commercial growth for the next ten years;
- Step 4: Confirm the appropriateness of the SDF vision and long-term spatial structure for the municipality as an input to the prioritisation and budget alignment of the municipality;
- Step 5: Prepare programmatic and project-based responses per sector based on the land budget and residential and commercial growth estimates, in order to identify capital investment requirements and backlogs;
- Step 6: Develop a long-term financial plan, with a planning horizon of 10-years;
- Step 7: Compile an affordability envelope and optimal capital funding mix;
- Step 8: Structure capital investment programmes per Functional Area;
- Step 9: Compile a CEF for a 10-year horizon based on spatiallyprioritisation, and
- Step 10: Conceptualise a 3-year (MTREF) CEIP with project and programmes which will serve as the municipal capital budget.

Steps 1 to 4 were conducted as part of the MSDF process during the period January 2020 to June 2020. The compilation of the Mangaung CEF 2021/22 should be conducted in line with steps 5 to 10 as the MSDF inputs (Steps 1 - 4) are now available to inform the CEF.

The next CEF process (2022/23) should be conducted in line with steps 5 to 10 as the MSDF inputs (Steps 1 - 4) are now available to inform the CEF.

6.4 EVALUATING THE 2021/22-2023/24 MEDIUM TERM REVENUE AND EXPENDITURE FRAMEWORK

This section comprises of a preliminary assessment of the Mangaung Metropolitan Municipality's 2021/22-2023/24 MTREF which serves to inform the compilation of the next generation CEF for the Mangaung Metropolitan Municipality's CEF.

Data sourced for this analysis comprise of the 2021/22 – 2023/24 MTREF Report and the final draft Mangaung Spatial Development Framework, June 2020.



6.4.1 Capital Expenditure per Directorate and Department

The capital budget for the 2021/22 financial year is set at R 1,221,006 million (R1,253,258 decreased by R 32,252 million (2.57%) as compared to the 2020/21 Adjustment Budget.

More than 70% of the total 2021/2022 MTREF combined budget has been allocated to Human Settlements, Engineering Services and Centlec. Human Settlements has the largest piece of the pie, and this can be attributed to a number of informal settlements in the metro.

The municipality is directing efforts towards the service delivery shortcomings facing the people of Mangaung such as; water provision needs, power cuts experienced throughout the country as well as the deteriorating state of infrastructure. The budget is well informed and the budget distribution in the directorates (Centlec, Human Settlements and Engineering Services) seems to be sufficient.

As illustrated on **Diagram 17 and Table 39**, office of the City Manager has also been allocated a substantial 13% of the 2021/2022 MTREF budget, in order to ensure that objectives of the institution are effectively fulfilled.

Metro Police and Social Services have each been allocated only 1% of the 2021/2022 MTREF budget. Softer services, typically provided through the Economic and Rural Development, Planning and Social Services directorates only account for 9% of the budget, down by 1% from the 2021/22 MTREF budget.





DIRECTORATE	2021/2022	2022/2023	2023/2024	TOTAL MTREF	TOTAL MTREF %
OFFICE OF THE CITY MANAGER	163 505 326	249 597 156	230 200 000	643 302 482	13%
CORPORATE SERVICES	43 500 000	51 600 000	51 500 000	146 600 000	4%
SOCIAL SERVICES	15 608 760	26 866 845	19 905 000	62 380 605	1%
PLANNING	43 703 446	59 646 315	42 244 775	145 594 536	4%
ECONOMIC AND RURAL DEVELOPMENT	47 682 990	35 032 000	37 155 000	119 869 990	4%
HUMAN SETTLEMENTS	341 679 538	340 890 419	296 966 364	979 536 321	28%
METRO POLICE	13 400 000	11 775 000	9 447 500	34 622 500	1%
ENGINEERING SERVICES	201 094 126	209 262 456	258 685 331	669 041 913	16%
WATER	114 285 541	121 819 086	169 144 805	405 249 432	9%
WASTE AND FLEET MANAGEMENT	18 794 100	6 093 423	4 691 273	29 578 796	2%
CENTLEC	217 751 826	143 462 011	126 391 959	487 605 796	18%
TOTAL	1 221 005 653	1 256 044 711	1 246 332 007	3 7 23 382 371	100%

Table 39. 2021/2022 MTREF Total per Directorate and Department

6.4.2 Capital Expenditure per Funding Source

The funding source split within a municipality indicates the dependency a municipality has on external funding such as grant funding. Following the principle of gearing, a dependency on external funding is not necessarily a negative phenomenon – this depends on the conditions of the grants and the larger Long-Term Financial Plan of a municipality.

In Mangaung 75% of the 2021/22 MTREF Capital Budget, are funded from grants. The largest grant being the Urban Settlements Development Grant, representing 39% of the 2021/22 MTREF Capital Budget as shown in **Table 40 and Diagram 18**.

The Urban Settlements Development Grant is used to achieve the following goals of the municipality:

- Upgrading and Maintenance of Infrastructure (11% of the 2021/22 MTREF Capital Budget);
- Human Settlements (6% of the 2021/22 MTREF Capital Budget);
- Better Sanitation (9% of the 2021/22 MTREF Capital Budget);
- Poverty Reduction, Job Creation, Rural and Economic Development (0,27% of the 2021/22 MTREF Capital Budget), and
- Social and Community Service (4% of the 2021/22 MTREF Capital Budget).
- Provision of potable water (9% of the 2021/22 MTREF Capital Budget).



This is done through the purchase of the following assets during the MTREF:

- Housing (6% of the 2021/22 MTREF Capital Budget);
- Water/Water Distribution (9% of the 2021/22 MTREF Capital Budget);
- Wastewater Management/Sewerage (9% of the 2021/22 MTREF Capital Budget);
- Road Transport/Roads (8% of the 2021/22 MTREF Capital Budget);
- Electricity Distribution (2% of the 2021/22 MTREF Capital Budget);
- Planning and Development/Town Planning/Building Enforcement (4% of the 2021/22 MTREF Capital Budget);
- Community & Social Services/Other Community (0.1% of the 2021/22 MTREF Capital Budget), and
- Waste Management/Solid Waste (1% of the 2021/22 MTREF Capital Budget).

Table 40. 2021/2022 MTREF Total per Funding Source

SOURCE OF FUNDING	2021/2022	2022/2023	2023/2024	TOTAL MTREF %
External loans	0	0	0	0%
Own funds	105 910 600	119 087 000	118 007 500	9%
Revenue	184 285 796	117 320 155	94 305 800	15%
Donations	13 000 000	13 417 170	13 847 727	1%
GRANTS	917 809 256	1 006 220 386	1 020 170 980	75%
Public Transport Infrastructure and systems Grant	163 505 326	249 597 156	230 200 000	13%
USDG Grant	480 410 930	477 006 230	498 030 980	39%
ISUP	263 893 000	279 617 000	291 940 000	22%
Programme and Project Support Grant	0	0	0	0%
National Electricification Programme	0	0	0	0%
Neighbourhood Development Partnership Grant	10 000 000	0	0	1%
TOTAL	1 221 005 652	1 256 044 711	1 246 332 007	100%





Diagram 18: 2021/2022 MTREF Total per Funding Source

6.4.3 Capital Expenditure per National Development Plan Objectives

The National Development Plan (NDP) is a long term South African development plan, developed by the National Planning Commission. The NDP serves as an action plan for securing the future of South Africans as charted in the Constitution and should guide capital expenditure at a local government level in order to realise the set-out objectives of the said plan.

6.4.4 Capital Expenditure per IUDF Strategic Objectives

The key outcome of the IUDF is spatial transformation. The identified policy levers and priorities are crucial for maximising the potential of urban areas, by integrating and aligning investments in a way that improves the urban form.

6.4.5 Capital Expenditure per Municipal Strategic Objectives

The Municipal Strategic Objectives are set out in the Mangaung IDP. The 2021/22 MTREF budget favours capital expenditure, especially in terms of infrastructure provision. Strategic objectives such as the upgrading and maintenance of infrastructure, human settlements, and eradication of the bucket system all aim to improve the infrastructure situation within the Mangaung Metropolitan Area (See **Table 41** and **Diagram 19** above).

Table 41. 2021/2022 MTREF Total per Urban Development Municipal Objectives

STRATE GIC OBJECTIVE	2021/2022	2022/2023	2023/2024	MTREF %
Good Governance	207 005 326	301 197 156	281 700 000	17%
Upgrading and Maintenance of infrastructure	435 050 614	326 774 327	429 911 611	36%
Social and Community Service	29 008 760	38 641 845	29 352 500	2%
Poverty Reduction, Job Creation, Rural and Economic dev.	103 454 195	97 701 671	80 740 139	8%
Financial Sustainability	0	0	0	0%
Eradication of Bucket System, VIP Toilets	104 807 220	150 839 293	127 661 394	9%
Human Settlement	341 679 538	340 890 419	296 966 364	28%
TOTAL	1 221 005 653	1 256 044 711	1 246 332 008	



Diagram 19: 2021/2022 MTREF Total per Urban Development Municipal

Objectives



6.4.6 Capital Expenditure Budget: MSDF Spatial Targeting Analysis

This section comprises a spatial analysis on the 2021/22 MTREF, in order to establish the measure of spatial targeting with respect to the Spatial Structuring Elements of the Mangaung Metropolitan Municipality i.e.:

- Functional Areas;
- Priority Development Areas, and
- Urban Network Strategy Elements.

6.4.6.1 Capital Expenditure per Functional Area

According to the CEF Guidelines a Functional Area is an area with similar characteristics (homogenic) from a developmental and service demand perspective. A typical example is to demarcate the rural part of the municipality or the tribal land as a Functional Area because it has more or less similar challenges (density, services provision needs, etc.) and it requires a specific development strategy that is unique to the development challenges of the area.

For the purpose of this report, Functional Areas have been dissected using ward boundaries where adjacent wards have been grouped together to form clusters A-N (as shown in **Table 42** below) of which some fall within the designated intervention zones and in so doing, enabling an analysis of capital expenditure within the metro.

Table 42. Spatial Targeting – 2021/2022 MTREF Total per Affected Location

MANGAUNG AND CENTLEC	CLUSTER	WARD NR's	C.	APITAL ESTIMATES		%
MANGAUNG CLUSTERS			BUDGET 2021/2022	BUDGET 2022/2023	BUDGET 2023/2024	
Bloemfontein Central	Α	1,2,3,4,5	19 260 883	7 895 436	37 732 349	2%
Mangaung South	В	9,13,14,15,18	92 259 805	148 386 282	97 939 506	8%
Bloemfontein South	С	6,7,10,11,12	16 673 849	588 429	3 853 546	1%
Bloemfontein East	D	16,17,19,47	124 350 231	119 154 324	121 679 781	10%
Bloemfontein North	E	8,45,46	63 021 733	54 268 557	46 978 806	5%
Bloemfontein West	F	20,21,22,44,48	45 284 522	36 128 254	47 840 443	4%
Botshabelo North	G	23,24,25,26	29 187 792	11 555 839	21 187 820	2%
Botshabelo East	н	27,28,29,30	146 712 667	164 929 876	136 568 367	12%
Botshabelo South	I	31,32,33,35	22 696 408	44 338 120	27 680 728	2%
Thaba Nchu Central	J	34,36,37	28 684 180	31 716 846	40 261 455	2%
Thaba Nchu Peri-Urban	к	39,40,43	13 550 026	16 683 665	12 092 596	1%
Thaba Nchu, Botshabelo	L	42,49	4 116 330	3 255 839	4 655 000	0%
	М	38,41	9 765 000	0	0	1%
Not Determined (Utilisation in all wards)	N	All	605 442 228	617 143 242	647 861 611	50%
TOTAL			1 221 005 654	1 256 044 709	1 246 332 008	100%

As indicated on **Table 42** above, 2021/2022 MTREF has been primarily allocated to Cluster H which is found in Botshabelo East. Subsequently, 10% of the MTREF 2021/2022 budget is focused on cluster D, Bloemfontein East which is inclusive of the N8 corridor, Estoire, Airport node and others. Mangaung South which is classified spatially as a previously disadvantaged area has been considerably allocated 8% of the total MTREF 2021/2022 budget. The allocation is aligned with the City's spatial objectives of spatially targeting marginalised and

Bloemfontein South, Thaba Nchu Peri-urban and cluster M, are least allocated with a total of 1% each of the 2021/2022 MTREF budget.



Figure 67: Spatial Targeting – 2021/2022 MTREF Total per Affected Location in Urban Areas – Map (Projects amounted R0 – R 35 243 685))



MTREF 2021/2022 projects are densely located in the City, Bloemfontein **(Figure 67)** even though the highest budget has been allocated to Botshabelo East.

The distribution of projects seems to consider the hierarchy of settlements in the metro since urban services are most all of them found in the City. The state of the infrastructure should also be accommodative as well because all the traffic ends up in the City. Figure 68: Spatial Targeting – 2021/2022 MTREF Total Budget per Affected Location vs. Integration Zones



Figure 69: Spatial Targeting – 2021/2022 MTREF Total Budget per Affected Location vs. Integration Zones



ANNEXURE DOCUMENT

MANGAUNG

6.4.6.2 Capital Expenditure along the integration zones

According to the CEF Guidelines "Priority Development Areas" as the name suggests, are areas where the municipality intends to focus investment in order to achieve the goals of the SDF and other strategic documents. According to the SDF, several conceptual priority development nodes were identified.

Botshabelo CBD, Loch Logan CBD, Thaba Nchu CBD, Botshabelo-H, Fleurdal, Home Affairs, Mimosa, Northridge, Preller Square, Selosesha 1, Twin City, Airport Node, Makro, N1/R64, New N8, Vista 2,3, Bloemside, Botshabelo - E,K,L,S,T,W, LEmo, Rendevous, Rockland, South Centre, Thaba Nchu, Brandkop, Estoire, Hillside, Klip, Noordhoek, R700/N1, Rondebeck, Selosesha 2,3, Sepane 1,2.

Priority developments relate to development in terms of time (Current development focus, vs. future development focus). Capital expenditure within the priority development areas is distributed unevenly along the three integration zones as seen on **Figure 68** and **69**.

Major developments are occurring along the integration zone 1 where priority developments such as Home Affairs, Rocklands, Vista 2,3, Hillside are found. Moreover, as indicated in **Table 42** the second largest budget of 8% of the total MTREF 2021/2022 budget falls in integration zone 1.

Affected locations are represented by a conglomerate of wards, which could explain the extremely low indicator of spatial targeting. More money is being



spent in the "current" priority development nodes than the "future" priority development nodes,

indicating an attempt to phase investment. The asset being spent in current nodes include a composition that represents true city building including electricity distribution, community services, sports facilities, water distribution, wastewater management and water management, as well as housing and public transport development.

6.5 RECOMMENDATIONS

6.5.1 Recommendations Related to Institutional Arrangements

6.5.1.1 Strategic Alignment of Municipal Processes

The municipal planning process is in fact a fully integrated process, requiring all directorates to collaboratively participate in the planning, collation, estimation, prioritisation and implementation of capital projects. In order to do this and navigate through the complex and multi-faceted annual budget cycle, other municipalities have instituted a centralised platform to not only align municipal processes, but to actively facilitate the cyclical process and actions required by each role player. It is recommended that the Mangaung Metropolitan Municipality adopt a similar methodology.

6.5.1.2 Enhance Intra-municipal Collaboration

It is recommended that the spatial development framework serves as the basis from which the several engineering master plans are developed. This is to ensure synchronised growth estimations, needs estimates followed by collaborative investment targeting, and that areas of higher priority are serviced first.

6.5.1.3 Evaluate Capital Budget Prioritisation Rationale

It is recommended that he Mangaung Metropolitan Municipality embark on a process to adopt a Multi Criteria Assessment framework that will allow the Municipality to prioritise between capital expenditure needs using various metrics that result in the optimal financial, economic, social, strategic, technical, environmental and spatial outcomes.

6.5.1.4 Improve Expenditure Visibility within Municipal Area

It is recommended that the Mangaung Metropolitan Municipality develop the ability to view the demand and expenditure of other public sector institutions within the jurisdiction of the municipality, in order to collaboratively plan, coordinate service delivery, and so strengthen inter-governmental relations.

6.5.2 Recommendations Related to Capital Project Preparation

6.5.2.1 Capital Demand Identification

To develop a complete CEF, the municipality needs to understand the total capital demand within the municipality over a ten-year horizon. It is therefore recommended that the different directorates centralise the entire capital demand in preparation for a scientifically based prioritisation process.



162

It is also recommended that the forecasted population and land use feed into the engineering and community service modelling to conceptualise programmes and ultimately projects for prioritisation as part of the CEF.

6.5.2.2 Guidelines for Defining Capital Expenditure Projects

In order to ensure optimal utilisation of the prioritisation methodology, each project must have an equal opportunity to score in the MCA prioritisation framework. In order to achieve this, several principles must be adhered to when compiling a list of capital expenditure demand. These include:

- Timeframe: Capital expenditure projects must be temporally applicable, which means that several master plans need to be updated, as times have changed, and demands might have shifted.
- Granular: Capital expenditure demand must be broken down to a project level, and not only referred to as programmes – in terms of the project segment of MSCOA as legislated by National Treasury.
- MSCOA specific: Capital expenditure projects must relate to all regulated segments of MSCOA as legislated by National Treasury.
- Multi-year capital demand: Capital expenditure projects often span over several financial years and will have a multi-year capital demand. All capital demand over the life span of the project execution should be captured.
- Future year capital demand: Capital expenditure demand are often done in such a way that the financial / technical / strategic planner has a 5 to 10-year horizon, showing what expenditure will be required during the horizon period. This longer-term perspective is not only good

practice from a strategic perspective but is also legislated by the MFMA and CEF guidelines.

- Asset location: Capital expenditure projects often relate to a physical asset in the ground. This implies that the asset must have a geolocation or be geo-referenced. This is referred to as the works location. The same asset may also have an affected location, which relates to the area that will benefit from the expenditure or the use of the asset. These are vital elements to understand when evaluating projects against spatial criteria as captured in the SDF, technical plans, and population distribution.
- Conceptualised community needs: Community needs often relate to operational expenditure. However, in some cases, community needs relate to a capital expenditure (i.e. the construction of a library or a community hall, etc.). Relevant community needs should be distributed to the relevant directorate, to conceptualise a project at the hand of the minimum attributes required for capital expenditure demand, which will then enable the newly conceptualise project to compete in the MCA framework and so, depending on the score and funding envelope of the municipality, be assigned budget.

6.5.2.3 Spatial Targeting - Good Practices

The spatial targeting analysis of the 2021/22 MTREF highlighted the impact of attributing 60% of the capital budget to "City Wide". For improved spatial targeting analysis accuracy, it is recommended that works and affected locations are better reported per project. This will also enable the



municipality to show that the desired spatial vision set out in the SDF are being implemented over time.

6.5.3 Recommendations Related to Financial Decision-Making

6.5.3.1 Centralisation of Capital Expenditure Project Information

It is recommended that capital expenditure demand information is to be stored in one centralised planning and budgeting platform – to serve as one source of the truth, and to provide a platform for enhanced decision-making.

6.5.3.2 Institutionalisation of Decision-Making Processes

Diagram 23 below depicts the integrated planning and budgeting process that can implemented using the CP3 system at Mangaung Local Municipality to facilitate the process of project preparation, prioritisation and budget scenario development. This methodology has been referenced by the City Support Program (CSP) as an exemplary method to institutionalise municipal processes as it has been implemented in the City of Johannesburg and the City of Tshwane.

The integrated planning and budgeting CP3 process enables the municipality to amongst other:

Capture all capital demand or capital needs emanating from municipal departments on one spatially enabled platform;

- Evaluate projects at the hand of various criteria either quantitative, qualitative or spatial – based on data inputs from municipal departments;
- Evaluate capex against various spheres of governments' strategic outcomes – as per the various policy documents of the municipality;
- Interact with other public realm entities in a collaborative manner through means of the inter-governmental planning platform;
- Prioritise projects based on a sophisticated spatially-enabled prioritisation model – through means of a multi-criteria model;
- Run a budget analysis in order to test various capex scenarios based on standardised indicators and inputs from the long-term financial model affordability envelope;
- Facilitate a budget scenario process together with the finance department of the municipality in order to determine the optimal MTREF capex budget for the municipality – annually, and
- Evaluate and report on a myriad of elements related to the capital investment book at any point in time based on the regulatory and institutional requirements emanating from the MFMA and National Treasury, i.e. SIPDM project phasing, mSCOA segments, MBRR schedule reports, etc.

Note: The comprehensive CEF Report is included in **Appendix 5** of the MSDF Volume 2.





Diagram 23: Collaborative Planning Prioritisation and Performance Process of the CEF



ANNEXURES

METRO MUNICIPALITY METRO MUNISIPALITEIT LEKGOTLA LA MOTSE





ANNEXURE A

LAND USE BUDGET



ANNEXURE A1: POPULATION, HOUSEHOLD AND JOB OPPORTUNITY PROJECTIONS

Table A1.1: Mangaung MM Population Projections 2019-2039

		F	Population						Incren	nental Popu	Ilation	Increme	ntal Popula	tion p.a.	%	Growth p.a	a.
	Census																
Functional Area	2011	%	2019	%	2025	%	2036	%	2011-2019	2019-2025	2025-2036	2011-2019	2019-2025	2025-2036	2011-2019	2019-2025	2025-2036
Mangaung / Bloemfontein	464 586	60%	546 568	62%	605 205	64%	689 833	66%	81 982	58 637	84 628	10 248	9 773	7 693	2,1%	1,7%	1,2%
Botshabelo /Thaba Nchu	263 853	34%	290 055	33%	294 461	31%	308 797	30%	26 202	4 406	14 336	3 275	734	1 303	1,2%	0,3%	0,4%
Rural	25 795	3%	18 515	2%	19 239	2%	20 780	2%	- 7280	725	1 541	- 910	121	140	-4,1%	0,6%	0,7%
Small Towns	20 794	3%	23 696	3%	24 365	3%	25 980	2%	2 902	669	1 616	363	111	147	1,6%	0,5%	0,6%
Total	775 028	100%	878 834	100%	943 270	100%	1 045 391	100%	103 806	64 436	102 122	12 976	10 739	9 284	1,6%	1,2%	0,9%

Source: Mangaung Integrated Public Transport Network, 2016

Table A1.2: Mangaung MM Household Projections 2019-2039

			louseholds						Increm	ental Hous	eholds	Increme	ntal Househ	olds p.a.	% Growth p.a.		
	Census																
Functional Area	2011	%	2019	%	2025	%	2036	%	2011-2019	2019-2025	2025-2036	2011-2019	2019-2025	2025-2036	2011-2019	2019-2025	2025-2036
Mangaung / Bloemfontein	150 713	63%	184 560	65%	215 456	67%	256 193	68%	33 846	30 896	40 737	4 231	5 149	3 703	2,6%	2,6%	1,6%
Botshabelo /Thaba Nchu	78 142	32%	87 334	31%	93 314	29%	101 784	27%	9 192	5 980	8 470	1 149	997	770	1,4%	1,1%	0,8%
Rural	5 203	2%	6 059	2%	6 671	2%	7 508	2%	855	612	837	107	102	76	1,9%	1,6%	1,1%
Small Towns	6 575	3%	7 432	3%	8 082	2%	8 965	2%	856	650	883	107	108	80	1,5%	1,4%	0,9%
Total	240 635	100%	285 385	100%	323 524	100%	374 451	100%	44 750	38 139	50 927	5 594	6 357	4 630	2,2%	2,1%	1,3%

Source: Mangaung Integrated Public Transport Network, 2016

Table A1.3: Mangaung MM Household Size 2019-2036

		Household Size			
Functional Area	Census 2011	2019	2025	2036	
Mangaung / Bloemfontein	3,1	3,0	2,8	2,7	
Botshabelo /Thaba Nchu	3,4	3,3	3,2	3,0	
Rural	5,0	3,1	2,9	2,8	
Small Towns	3,2	3,2	3,0	2,9	
Total	3,2	3,1	2,9	2,8	

Source: Mangaung Integrated Public Transport Network, 2016



												Incremen	tal Job Opp	ortunities			
	Job Opp	ortunit	ies (Forma	al Work	ærs)				Incremen	tal Job Opp	ortunities		p.a.		%	Growth p.a).
Functional Area	2015	%	2019	%	2025	%	2036	%	2015-2019	2019-2025	2025-2036	2015-2019	2019-2025	2025-2036	2015-2019	2019-2025	2025-2036
Mangaung / Bloemfontein	174 727	79%	179 000	79%	183 240	80%	212 535	81%	4 273	4 240	29 295	1 068	707	2 663	<mark>0,6</mark> %	0,4%	1,4%
Botshabelo /Thaba Nchu	30 669	14%	31 038	14%	31 203	14%	35 803	14%	369	166	4 600	92	28	418	0,3%	0,1%	1,3%
Rural	12 362	6%	12 121	5%	11 628	5%	11 110	4%	- 241	- 493	- 518	- 60	- 82	- 47	-0,5%	-0,7%	-0,4%
Small Towns	3 370	2%	3 405	2%	3 415	1%	3 551	1%	35	10	136	9	2	12	0,3%	0,0%	0,4%
Total	221 129	100%	225 564	100%	229 487	100%	263 000	100%	4 436	3 923	33 513	1 109	654	3 047	0,5%	0,3%	1,2%

Table A1.4. Mangaung MM Job Opportunities Projections 2019-2036

Source: Mangaung Integrated Public Transport Network, 2016



ANNEXURE A2: POPULATION, HOUSEHOLD AND JOB OPPORTUNITY PROJECTIONS

Table A2.1. Land Use Budget: Backlog + Increment 2019-2036

	Bloemfo	ntein/Man	gaung	Thaba Nchu			Botshabelo			Small Towns			Rural			Total		
	Total: Bad	klog + Incr	ement	Total: Backlog + Increment			Total: Backlog + Increment			Total: Backlog + Increment			Total: Backlog + Increment			Total: Backlog + Increment		
	2019-2036			2019-2036			2019-2036			2019-2036			2019-2036			2019-2036		
Facilities	Requirement			Requirement			Requirement			Requirement			Requirement			Requirement		
	number	ha	%	number	ha	%	number	ha	%	number	ha	%	number	ha	%	number	ha	%
Inc. Number of Units (incl. backlog)	92 491	3 754	66%	9 572	380	67%	12 758	480	68%	1 533	50	70%	1 449	50	64%	117 803	4 714	66%
High Income (@500m² (20du/ha))	15 200	1 216		457	30		350	23		114	6		238	24		16 357	1 298	
Medium Income (@250m²(40du/ha))	33 064	1 653		2 913	146		2 834	142		694	24		688	17		40 193	1 982	
Low Income (@180m²(56du/ha))	44 227	885		6 202	205		9 575	316		726	20		523	9		61 253	1 434	
Inc. Population (incl. backlog)	203 462			18 720			24 306			2 285			2 265			251 037		
Nett residential Density	25			25			27			31			29			25		
Business (m²)	247 956	83	1%	18 013	6	1%	19 259	6	1%	1 828	1	1%	2 039	1	1%	289 095	96	1%
Offices (floor area in m²)	141 244	24	0,4%	2 564	1	0,2%	2 662	1	0,1%	183	0	0,1%	204	0	0,1%	146 857	26	0,4%
Education		165	3%		15	3%		19	3%		2	3%		2	2%		203	3%
Small Crèche	85	4		8	0		10	0		1	0		1	0		105	5	
ECD Hub and Care Centre	10	1		1	0		1	0		0	0		0	0		13	1	
Primary (including Grade R)	29	81		3	7		3	10		0	1		0	1		36	100	
Secondary	16	78		1	7		2	9		0	1		0	1		20	96	
Health Services		7	0,1%		1	0,1%		1	0,1%		0	0,1%		0	0,1%		8	0,1%
Primary Health Clinic	8	2		1	0		1	0		0	0		0	0		10	2	
Community Health Centre	3	5		0	0		0	1		0	0		0	0		4	6	
Safety and Security		4	0,1%		0	0,1%		1	0,1%		0	0,1%		0	0,1%		5	0,1%
Police	3	3		0	0		0	0		0	0		0	0		4	4	
Fire Station	3	1		0	0		0	0		0	0		0	0		4	1	
Social /Cultural		22	0%		2	0,4%		3	0,4%		0	0,3%		0	0,3%		27	0%
Local Library	10	1		1	0		1	0		0	0		0	0		13	1	
Social Services	-	-		-	-		-	-		-			-	-		-	-	
Worship Centre	68	10		6	1		8	1		1	0		1	0		84	13	
Post Office/ICT Access Point	20	1		2	0		2	0		0	0		0	0		25	1	
Communty Hall (Small)	20	10		2	1		2	1		0	0		0	0		25	13	
Sports and Recreation		102	2%		9	2%		12	2%		1	2%		1	1%		126	2%
Sports Facilities and Parks	-	61		-	6		-	7		-	1		-	1		-	75	
Regional Parks	-	41		-	4		-	5		-	0		-	0		-	50	
Industrial		176	3%		16	3%		16	2%		-	0%		6	7%		213	3%
Streets		1 387	24%		138	24%		172	24%		17	24%		19	24%		1 734	24%
TOTAL		5 723	100%		568	100%		711	100%		71	100%		79	100%		7 152	100%
Nett Residential Density	25			25			27			31			29			25		
Gross Density	16			17			18			22			18			16		


Table A2.2: Bloemfontein/Mangaung Town: Land Use Budget 2019-2036

	Demand Database (Backlog)		Bloemfontein/Mangaung Town (2019-2025)			Bloemfontein/Mangaung Town (2025-2036)			Total: Increment 2019-2036			Total: Backlog + Increment 2019- 2036			
Excilition	Re	quirement		Re	quirement		Re	equirement	t	R	equirement		R	equirement	
Facilities	number	ha	%	number	ha	%	number	ha	%	number	ha	%	number	ha	%
Number of Units	20 857	417	62%	30 896	1 408	69%	40 737	1 929	64%	71 634	3 337	66%	92 491	3 754	66%
High Income (@800m ² (12,5du/ha))		-		6 585	527		8 615	689		15 200	1 216		15 200	1 216	
Medium Income (@500m²(20du/ha))		-		13 161	658		19 903	995		33 064	1 653		33 064	1 653	
Low Income (@200m²(50du/ha))	20 857	417		11 151	223		12 219	244		23 370	467		44 227	885	
Population	60 196			58 637			84 628			143 265			203 462		
Nett residential Density	50			22			21			21			25		
Business (m ²)	18 059	6	1%	83 544	28	1%	146 353	49	2%	229 897	77	2%	247 956	83	1%
Offices (floor area in m ²)	1 806	0,6	0%	15 038	2,5	0%	124 400	20,7	1%	139 438	23	0%	141 244	24	0%
Education		49	7%		47	2%		69	2%		116	2%		165	3%
Small Crèche	25	1		24	1		35	2		60	3		85	4	
ECD Hub and Care Centre	3	0		3	0,3		4	0		7	1		10	1	
Primary (including Grade R)	9	24		8	23		12	34		20	57		29	81	
Secondary	5	23		5	23		7	32		11	55		16	78	
Health Services		2	0%		2	0%		3	0%		5	0%		7	0%
Primary Health Clinic	3	1		2	0,5		4	1		6	1		8	2	
Community Health Centre	1	2		1	1		1	2		2	4		3	5	
Safety and Security		1	0%		1	0%		2	0%		3	0%		4	0%
Police	1	1		1	1		1	1		2	2		3	3	
Fire Station	1	0		1	0,3		1	0		2	1		3	1	
Social /Cultural		6	1%		6	0%		9	0%		15	0%		22	0%
Local Library	3	0		3	0		4	0		7	0		10	1	
Social Services										-	-		-	-	
Worship Centre	20	3		20	3		28	4		48	7		68	10	
Post Office/ICT Access Point	6	0		6	0,3		8	0		14	1		20	1	
Communty Hall (Small)	6	3		6	3		8	4		14	7		20	10	
Sports and Recreation		30	4%		29	1%		42	1%		72	1%		102	2%
Sports Facilities and Parks		18			18			25		-	43		-	61	
Regional Parks		12			12			17		-	29		-	41	
Industrial/Commercial			0%		25	1%		151	5%		176	3%		176	3%
Streets		164	24%		496	24%		727	24%		1 223	24%		1 387	24%
TOTAL		676	100%		2 045	100%		3 001	100%		5 046	100%		5 723	100%
Nett Residential Density	50			22			21			21			25		
Gross Density	31			15			14			14			16		



MANGAUNG METROPOLITAN MUNICIPALITY SPATIAL DEVELOPMENT FRAMEWORK

Table A2.3: Thaba Nchu: Land Use Budget 2019-2036

	Demand D	Demand Database (Backlog)		Thaba Nchu (2019-2025)			Thaba Nchu (2025-2036)			Total: Increment 2019-2036			Total: Backlog + Increment 2019- 2036			
To silible a	Re	quirement	:	Re	quirement		Re	quiremen	t	R	equirement		R	equirement		
Facilities	number	ha	%	number	ha	%	number	ha	%	number	ha	%	number	ha	%	
Number of Units	2 980	98	66%	2 244	95	72%	4 347	187	65%	6 59 2	282	67 %	9 57 2	380	67%	
High Income (@650m² (15du/ha))		-		182	12		274	18		457	30		457	30		
Medium Income (@500m²(20du/ha))		-		871	44		2 042	102		2 913	146		2 913	146		
Low Income (@330m²(30du/ha))	2 980	98		1 191	39		2 031	67		3 222	106		6 202	205		
Population	9 183			1 463			8 074			9 536			18 720			
Nett residential Density	30			24			23			23			25			
Business (m²)	2 755	1	1%	2 341	1	1%	12 918	4	2%	15 258	5	1%	18 013	6	1%	
Offices (floor area in m ²)	275	0,1	0%	351	0,1	0%	1 938	0,6	0%	2 289	1	0%	2 564	1	0%	
Education		7	5%		1	1%		6	2%		8	2%		15	3%	
Small Crèche	4	0		1	0		3	0		4	0		8	0		
ECD Hub and Care Centre	0	0		0,1	0		0,4	0		0	0		1	0		
Primary (including Grade R)	1	4		0,2	1		1	3		1	4		3	7		
Secondary	1	4		0,1	1		1	3		1	4		1	7		
Health Services		0	0%		0	0%		0	0%		0	0%		1	0%	
Primary Health Clinic	0	0		0,1	0		0,3	0		0	0		1	0		
Community Health Centre	0	0		0,0	0		0,1	0		0	0		0	0		
Safety and Security		0	0%		0	0%		0	0%		0	0%		0	0%	
Police	0	0		0,0	0		0,1	0		0	0		0	0		
Fire Station	0	0		0,0	0		0,1	0		0	0		0	0		
Social /Cultural		1	1%		0	0%		1	0%		1	0%		2	0%	
Local Library	0	0		0,1	0		0,4	0		0	0		1	0		
Worship Centre	3	0		0,5	0		3	0		3	0		6	1		
Post Office/ICT Access Point	1	0		0,1	0		1	0		1	0		2	0		
Communty Hall (Small)	1	0		0,1	0		1	0		1	0		2	1		
Sports and Recreation		5	3%		1	1%		4	1%		5	1%		9	2%	
Sports Facilities and Parks		3			0			2		-	3		-	6		
Regional Parks		2			0			2		-	2		-	4		
Industrial/Commercial			0%		2	2%		14	5%		16	4%		16	3%	
Streets		36	24%		32	24%		70	24%		101	24%		138	24%	
TOTAL		149	100%		132	100%		287	100%		419	100%		568	100%	
Nett Residential Density	30			24			23			23			25			
Gross Density	20			17			15			16			17			



MANGAUNG METROPOLITAN MUNICIPALITY SPATIAL DEVELOPMENT FRAMEWORK

Table A2.4: Botshabelo: Land Use Budget 2019-2036

	Demand D	Demand Database (Backlog)		Botshabelo (2019-2025)			Botshabelo (2025-2036)			Total: Increment 2019-2036			Total: Backlog + Increment 2019- 2036			
Facilities	Re	quirement		Re	quirement		Re	quirement	t	R	equirement	:	R	equirement		
Facilities	number	ha	%	number	ha	%	number	ha	%	number	ha	%	number	ha	%	
Number of Units	4 900	162	66%	3 736	151	72%	4 123	168	65 %	7 858	319	68%	12 758	480	68%	
High Income (@650m² (15du/ha))		-		149	10		201	13		350	23		350	23		
Medium Income (@500m²(20du/ha))		-		1 349	67		1 485	74		2 834	142		2 834	142		
Low Income (@330m²(30du/ha))	4 900	162		2 238	74		2 437	80		4 675	154		9 575	316		
Population	15 100			2 943			6 263			9 206			24 306			
Nett residential Density	30			25			25			25			27			
Business (m²)	4 530	2	1%	4 709	2	1%	10 020	3	1%	14 729	5	1%	19 259	6	1%	
Offices (floor area in m ²)	453	0,2	0%	706	0,2	0%	1 503	0,5	0%	2 209	1	0%	2 662	1	0%	
Education		12	5%		2	1%		5	2%		7	2%		19	3%	
Small Crèche	6	0		1	0		3	0		4	0		10	0		
ECD Hub and Care Centre	1	0		0	0		0	0		0	0		1	0		
Primary (including Grade R)	2	6		0	1		1	3		1	4		3	10		
Secondary	1	6		0	1		1	2		1	4		2	9		
Health Services		1	0%		0	0%		0	0%		0	0%		1	0%	
Primary Health Clinic	1	0		0	0		0	0		0	0		1	0		
Community Health Centre	0	0		0	0		0	0		0	0		0	1		
Safety and Security		0	0%		0	0%		0	0%		0	0%		1	0%	
Police	0	0		0	0		0	0		0	0		0	0		
Fire Station	0	0		0	0		0	0		0	0		0	0		
Social /Cultural		2	1%		0	0%		1	0%		1	0%		3	0%	
Local Library	1	0		0	0		0	0		0	0		1	0		
Worship Centre	5	1		1	0		2	0		3	0		8	1		
Post Office/ICT Access Point	2	0		0	0		1	0		1	0		2	0		
Communty Hall (Small)	2	1		0	0		1	0		1	0		2	1		
Sports and Recreation		8	3%		1	1%		3	1%		5	1%		12	2%	
Sports Facilities and Parks		5			1			2		-	3		-	7		
Regional Parks		3			1			1		-	2		-	5		
Industrial/Commercial			0%		2	1%		14	5%		16	3%		16	2%	
Streets		59	24%		51	24%		62	24%		113	24%		172	24%	
TOTAL		245	100%		210	100%		257	100%		467	100%		711	100%	
Nett Residential Density	30			25			25			25			27			
Gross Density	20			18			16			17			18			



Table A2.5: Small Towns: Land Use Budget 2019-2036

	Demand I (Back	Database dog)	Sr (2	nall Towns 2019-2025)		Sr (2	nall Towns 2025-2036)		Total: In	crement 201	9-2036	Total: Back	log + Increm 2036	ent 2019-
Facilities	Require	ement	Re	quirement		Re	quirement	:	R	equirement		R	equirement	
Facilities	number	ha	number	ha	%	number	ha	%	number	ha	%	number	ha	%
Number of Units	-	-	650	21	72%	883	29	69 %	1 533	50	70 %	1 533	50	70%
High Income (@500m² (20du/ha))		-	47	2		66	3		114	6		114	6	
Medium Income (@350m²(28du/ha))		-	270	9		424	15		694	24		694	24	
Low Income (@270m²(37du/ha))	-	-	333	9		393	11		726	20		726	20	
Population	-		669			1 616			2 285			2 285		
Business (m²)	-	-	535	0	1%	1 293	0	1%	1 828	1	1%	1 828	1	1%
Offices (floor area in m ²)	-	0,0	54	0,0	0 %	129	0,0	0 %	183	0	0%	183	0	0%
Education		-		1	2%		1	3%		2	3%		2	3%
Small Crèche	-	-	0	0		1	0		1	0		1	0	
ECD Hub and Care Centre	-	-	0	0		0	0		0	0		0	0	
Primary (including Grade R)	-	-	0	0		0	1		0	1		0	1	
Secondary	-	-	0	0		0	1		0	1		0	1	
Health Services		-		0	0%		0	0%		0	0%		0	0%
Primary Health Clinic	-	-	0	0		0	0		0	0		0	0	
Community Health Centre	-	-	0	0		0	0		0	0		0	0	
Safety and Security		-		0	0%		0	0%		0	0%		0	0%
Police	-	-	0	0		0	0		0	0		0	0	
Fire Station	-	-	0	0		0	0		0	0		0	0	
Social /Cultural		-		0	0%		0	0%		0	0%		0	0%
Local Library	-	-	0	0		0	0		0	0		0	0	
Worship Centre	-	-	0	0		1	0		1	0		1	0	
Post Office/ICT Access Point	-	-	0	0		0	0		0	0		0	0	
Communty Hall (Small)	-	-	0	0		0	0		0	0		0	0	
Sports and Recreation		-		0	1%		1	2%		1	2%		1	2%
Sports Facilities and Parks		-		0			0		-	1		-	1	
Regional Parks		-		0			0		-	0		-	0	
Industrial					0%			0%		-	0%		-	0%
Streets		-		7	24%		10	24%		17	24%		17	24%
TOTAL		-		29	100%		42	100%		71	100%		71	100%



Table A2.6: Rural: Land Use Budget 2019-2036

	Demand I (Back	Database (log)	(2	Rural 2019-2025)		()	Rural 2025-2036)		Total: In	crement 201	9-2036	Total: Back	log + Increm 2036	ent 2019-
Facilities	Require	ement	Re	quirement		Re	equirement	t	R	equirement		R	equirement	
Facilities	number	ha	number	ha	%	number	ha	%	number	ha	%	number	ha	%
Number of Units	-	-	612	21	71%	837	29	59%	1 449	50	64%	1 449	50	64%
High Income (@1 000m² (10du/ha))		-	99	10		139	14		238	24		238	24	
Medium Income (@250m²(40du/ha))		-	272	7		416	10		688	17		688	17	
Low Income (@180m²(56du/ha))	-	-	241	4		282	5		523	9		523	9	
Population	-		725			1 541			2 265			2 265		
Business (m²)	-	-	652	0	1%	1 387	0	1%	2 039	1	1%	2 039	1	1%
Offices (floor area in m ²)	-	0,0	65	0,0	0%	139	0,0	0%	204	0	0%	204	0	0%
Education		-		1	2%		1	2%		2	2%		2	2%
Small Crèche	-	-	0	0		1	0		1	0		1	0	
ECD Hub and Care Centre	-	-	0	0		0	0		0	0		0	0	
Primary (including Grade R)	-	-	0	0		0	1		0	1		0	1	
Secondary	-	-	0	0		0	1		0	1		0	1	
Health Services		-		0	0%		0	0%		0	0%		0	0%
Primary Health Clinic	-	-	0	0		0	0		0	0		0	0	
Community Health Centre	-	-	0	0		0	0		0	0		0	0	
Safety and Security		-		0	0%		0	0%		0	0%		0	0%
Police	-	-	0	0		0	0		0	0		0	0	
Fire Station	-	-	0	0		0	0		0	0		0	0	
Social /Cultural		-		0	0%		0	0%		0	0%		0	0%
Local Library	-	-	0	0		0	0		0	0		0	0	
Worship Centre	-	-	0	0		1	0		1	0		1	0	
Post Office/ICT Access Point	-	-	0	0		0	0		0	0		0	0	
Communty Hall (Small)	-	-	0	0		0	0		0	0		0	0	
Sports and Recreation		-		0	1%		1	2%		1	1%		1	1%
Sports Facilities and Parks		-		0			0		-	1		-	1	
Regional Parks		-		0			0		-	0		-	0	
Industrial					0%		6	11%		6	7%		6	7%
Streets		-		7	24%		12	24%		19	24%		19	24%
TOTAL		-		30	100%		50	100%		79	100%		79	100%



ANNEXURE A3: LAND USE BUDGETS PER URBAN AREA

Table A3.1: Incremental Development Potential per Functional Subarea for Capital Expenditure Framework

	Increment (2019-2025)				Increment (2025-2026)							
		Increment	(2019-2025)			Increment	(2025-2036)		1	OTAL Increme	ent (2019-2036	;)
				Industrial				Industrial				Industrial
				/Commercial				/Commercial				/Commercial
	Number of	Retail floor	Office floor	Site Area	Number of	Retail floor	Office floor	Site Area	Number of	Retail floor	Office floor	Site Area
Subarea	Units	area (m²)	area (m²)	(ha)	Units	area (m²)	area (m²)	(ha)	Units	area (m²)	area (m²)	(ha)
				Bloemfonte	in/Mangaung	Town						
Demand Database (Backlog)	20 857	18 059	1 806						20 857	18 059	1 806	-
Northern extentions	8 986	24 299	4 374	3	4 878	17 525	14 896	15	13 865	41 824	19 270	18
South - Western extentions	2 305	6 233	1 122	10	13 105	47 080	40 018	60	15 410	53 314	41 140	70
Southern and Eastern extentions	19 605	53 011	9 542	13	22 754	81 748	69 486	75	42 359	134 759	79 028	88
Subtotal Bloemfontein/Mangaung Town	51 753	101 602	16 844	25	40 737	146 353	124 400	151	92 491	247 956	141 244	176
				Botshab	elo/Thaba No	chu						
Demand Database (Backlog)	7 880	7 285	728						7 880	7 285	728	-
Remaining Botshabelo	-	-	-	-	4 165	11 278	1 692	-	4 165	11 278	1 692	-
Integration Zone 2	5 980	7 050	1057	4	3 149	8 528	1 279	21	9 129	15 578	2 337	25
Remaining Thaba Nchu	-	-	-	-	1 157	3 132	470	7	1 157	3 132	470	7
Subtotal Botshabelo/Thaba Nchu	13 860	14 335	1 786	4	8 470	22 938	3 441	28	22 330	37 273	5 227	32
				Sr	nall Towns							
Demand Database (Backlog)									-	-	-	-
Dewetsdorp/Morojaneng	285	235	23		387	567	57		673	802	80	-
Wepener/Ebenaeser/Sophia/Kanana/Qibing	309	254	25		419	613	61		727	867	87	-
Van Stadensrus/Thapelang	56	46	5		77	112	11		133	159	16	-
Subtotal Small Towns	650	535	54	-	883	1 293	129	-	1 533	1 828	183	-
				-	Rural							
Demand Database (Backlog)									-	-		-
Rural	528	563	56		722	1 197	120	5	1 250	1 760	176	5
Soutpan/Ikgomotseng	84	89	9		115	190	19	1	199	279	28	1
Subtotal Rural	612	652	65	0	837	1 387	139	6	1 449	2 039	204	6
Total	66 876	117 124	18 748	29	50 927	171 971	128 109	184	117 803	289 095	146 857	213





ANNEXURE B BUILT ENVIRONMENT VALUE CHAIN (BEVC) GUIDELINES



ANNEXURE B: SDF ALIGNMENT TO BUILT ENVIRONMENT VALUE CHAIN

The Built Environment Value Chain (BEVC) is at the heart of the outcomes led approach of the BEPP and is an intergovernmental process aimed at achieving the CoE Built Environment objectives. It is an intervention logic that structures the BEPP as a plan and planning process whose starting point is the identification and definition of integrated outcomes.

Diagram 1 (overleaf) graphically illustrates the BEVC and is briefly summarised as follows.

Outcomes Led Planning:

- Cities need to follow an Outcome Led Planning Approach which means planning backwards from the outcome it needs to achieve to work out how best to achieve it.
- In general, the desired outcome for Mangaung is to be well governed, spatially transformed, inclusive, productive and sustainable.
- These Outcomes (what) are to be achieved by way of the implementation of a comprehensive Theory of Change (how) to be applied in the city focusing on the elements listed in **Table 1**.
- Spatial Planning (the compilation of the Municipal Spatial Development Framework and all Precinct Plans/ Local Area Plans as contemplated in Section 21 of SPLUMA) represent spatial strategies aligned to the Outcomes Led Planning Approach and the

associated Theory of Change as proposed for the Mangaung municipality.

Table 1: Theory of Change

Well Governed City	Inclusive City	Productive City	Sustainable City							
	Theory of C	Change								
 Institutional Vision and Leadership 	 Diverse Housing Options: Location Typology Income Tenure 	Economic Growth Reduced Travel Time Efficient Services and Infrastructure	Ecosystem Integrity							
 Planning and Delivery Capacity 	Ingegrated Accessible Public Transport		Climate Change Resilience							
Partnership Establishment	 Access to Economic and Social Facilities/ Services 		Sustainable Resource Utilisation							
 Institutional Alignment for Spatial Transformation: Planning Budgeting Implementation Management 										



MANGAUNG METROPOLITAN MUNICIPALITY SPATIAL DEVELOPMENT FRAMEWORK





2

Strategy Led Budgeting:

- The projects identified from these spatial plans should serve as inputs to the budgeting processes of the Mangaung Municipality which means that budgeting in Mangaung is Strategy Led (derived from the spatial strategies and implementation programmes defined in the various spatial planning documents).
- As part of the Strategy Led Budgeting process the municipality should align its Prioritisation and Budgeting Tools to support / give preference to projects which will significantly contribute towards the realisation of the Outcomes and the Theory of Change adopted for Mangaung.

Spatial Planning:

- The Mangaung Spatial Development Framework was compiled in line with the requirements of SPLUMA, and more specifically section 21(c) which states that it must include a longer term spatial development vision statement for the municipal area which indicates the desired spatial growth and development pattern for the next 10 to 20 years; and which is to be reinforced with <u>a 5 year</u> spatial plan (section 26(b)), and a capital expenditure framework for the development programmes emanating from the SDF (section 21(m)), depicted spatially.
- The Municipal SDF must also include a focused and targeted spatial restructuring agenda that enables transformative urban mixed land uses at appropriate locations – referred to as **Spatial Targeting**.

- This approach is promoted through the National Treasury's Urban Network Strategy (UNS) and supporting spatial planning and urban design guidance. The aim is to provide a strategic approach to restructuring the typical spatial organization of South African towns and cities to enable economic growth. The idea is to do more with less, thus encouraging efficiencies through investment consolidation and agglomeration (especially government grants aimed at spatial transformation in very specific areas within the Urban Network).
- As illustrated on **Diagram 2**, on the following page, these spatially targeted areas include specifically identified **Integration Zones** and **Marginalised Areas**. An Integration Zone could comprise the Inner City or Central Business District which represent the main economic activity node/destination in the town/city (Urban Core); the Urban Hub (local economic node(s)) within the disadvantaged township/ area; and the Transport Corridor that links these nodes. Marginalised Areas could include informal settlements that will be upgraded in-situ, as well as other priority housing development areas and a secondary feeder road network normally converging at the Urban Hub identified in this area.
- This Urban Network Area becomes the focus of the intergovernmental co-ordination, planning, budgeting and implementation. It is called <u>Intergovernmental Programme Pipeline</u> in the BEPP and contributes to infrastructure-led growth by spatially targeting public investment from all spheres of government in **specific areas** within the Urban Network. The intended outcome of



all this investment is spatial transformation and physical, social and economic integration of communities.

Diagram 2: Urban Network Concept



The "specific areas" referred to above are strategic points/ precincts within the municipality's Urban Network Area

- where inclusive, transit-oriented development can be achieved. These areas are indicated as "Priority Catalytic Land Development Areas" on Diagram 1.
- Other priority nodes/ areas may also be identified in the remaining parts of the municipal area (areas outside the Urban Network area), but development of these areas would be mostly private sector driven and may require only a very specific input from the municipality (e.g. approval of land use rights, bulk service availability, regional access, etc.).
- These Catalytic Land Development Areas (CLDAs) may be further supported by local, precinct level spatial planning and urban design which articulates the Development Vision/ Concept/ Rationale for the area; the Development Objectives for the area; a Spatial Plan and Development Strategy; and an associated list of Catalytic Land Development Projects to be implemented over a period of time in this area.
- This list of projects should also include projects to be implemented by other spheres of government (i.e. an Inter-Governmental Project Pipeline).
- This comprehensive list of projects to be implemented is referred to as the Catalytic Land Development Programme (CLDP) for the precinct (Catalytic Land Development Area).
- Mangaung needs to identify, establish and mandate sufficient skilled capacity to manage each Catalytic Land Development Programme. Hence, it is recommended that a CLDP Programme Manager and Management Committee be appointed to oversee



MANGAUNG METROPOLITAN MUNICIPALITY SPATIAL DEVELOPMENT FRAMEWORK

the identification, planning and implementation of projects in each of the Catalytic Land Development Areas.

At municipal scale the various Catalytic Land Development Programmes are consolidated into a Catalytic Land Development Portfolio to be coordinated by a CLD Portfolio Manager supported by a CLD Executive Steering Committee. (Refer to Diagram 1).

Budgeting:

- Resourcing, and especially financing the CLDP and development in the spatially targeted area (Catalytic Land Development Area) is what is referred to as <u>Strategy Led Budgeting</u>.
- The CLD Portfolio of the municipality serves as input to the Long Term (10 – 20 year) and Term of Office (5 years) Planning and Budgeting processes of the municipality.
- Strategy-Led Budgeting requires a robust long-term development strategy supported by a long-term financial strategy (the nature of major municipal investments means that financing them is a longterm exercise).
- The Long Term Development Strategy comprises a long term vision and development path for the municipality (derived from the Municipal SDF's 20 year vision) mapped out to provide a clear frame within which resource allocation decisions are to be made and a value proposition that can attract alternative resourcing arrangements.

- Long Term Sector Plans/ Strategies for housing, water, sanitation, roads, etc. should be aligned with the Long-Term Development Plans (and by implication the Municipal SDF).
- The objective of the Long Term Financial Strategy is to create a more sustainable and integrated, bankable Infrastructure
- Development Management Strategy (IDMS) and Long Term Financial Plan (Capital Investment Framework) for the municipality as opposed to the Annual Budget (Capital Expenditure Framework), which is a short term statement of the municipality's income and expenditure plan (MTREF), aimed at implementing projects based on existing available resources (SDBIP).
- The IDP and the Capital Expenditure Framework are the key shorter term (Term of Office) implementation planning and prioritization tools to progressively bring about or catalyse the envisaged change.
- The Medium-Term Revenue and Expenditure Framework (MTREF) approach seeks to create multi-year predictability in the budget to support programme implementation within a clear affordability envelope on a rolling three-year basis. This is supported by a Municipal Service Delivery and Budget Implementation Plan (SDBIP).
- Collectively, the MTREF and SDBIP represent the municipal Capital Expenditure Framework which translates into the Annual Budget from where Implementation of individual projects follows.



- Urban management is needed to sustain the capital investment made and to establish the preconditions for investor confidence and continued investment momentum. Importantly, it does not follow capital investment but is a <u>continuous activity in the priority</u> <u>precincts.</u>
- While urban management can be understood to be the day to day operations in a precinct, such as cleaning, waste removal, traffic, transport and trader management and security services, it can extend to place-making and marketing and social services. The management of localized public transport operations is also a critical success factor to successful urban management. Similarly, the quality of asset or facilities management of public sector facility owners has <u>a considerable impact</u> on successful precinct management.
- Effective urban management requires a partnership approach with the private sector and resident households and businesses – tailored to the specificities of the particular priority precinct.





ANNEXURE C SUSTAINABLE HUMAN SETTLEMENTS





ANNEXURE DOCUMENT CONTENT

ANNEXURE C: SUSTAINABLE HUMAN SETTLEMENTS	.1
ANNEXURE C1: HOUSING DENSITIES / TYPOLOGIES	1
ANNEXURE C2: THUSONG CENTRE CONCEPT	4
ANNEXURE C3: COMMUNITY FACILITIES PROVISION STANDARDS AND GUIDELINES	7
ANNEXURE C4: SMART CITY CONCEPT	8



ANNEXURE C: SUSTAINABLE HUMAN SETTLEMENTS

ANNEXURE C1: HOUSING DENSITIES / TYPOLOGIES

	H	ousing Type	Erf Configuration	Erf Area	Gross Density	Nett Density	Building Size	Coverage	Building Height	Housing Tenure	Subsidy Option		Examples
Low Density	1	Detached Housing	12m x 20m	240m ²	25du/ha 88p/ha	42du/ha 147p/ha	30m²	13%	1 Storey	Full Ownership	Project Linked Subsidy		
busing	2	Single Story Semi- Detached Housing	9m x 16m	144m ²	33du/ha 115p/ha	69du/ha 242p/ha	36m²	25%	1 Storey	Full Ownership	Project Linked Subsidy		
Im-Density Ho	3	Double Storey Semi- Detached Housing	7m x 16m	112m²	73du/ha 255p/ha	99du/ha 346p/ha	48m²	21%	2 Storey	Full Ownership, Sectional Title	Project Linked Subsidy	-	
Mediu	4	Single Storey Row Housing	4.5m x 12m 7m x 12m	54m² 84m²	59 d u/ha 207p/ha	120du/ha 420p/ha	52m ²	38%	1 Storey	Full Ownership	Project Linked Subsidy	-	
nsity	5	Double Storey Row Housing	4.5mx 12m 7m x 12m	54m² 84m²	118du/ha 413p/ha	358du/ha 1245p/ha	52m ²	38%	2 Storey	Full Ownership	Project Linked Subsidy	_	
ium-High De	6	Walk-Ups	n/a	n/a	80u/ha 280p/h	160u/ha 560p/h	n/a	n/a	3-4 Storey	Rental or Sectional Titles	institutional Subsidy		
Med	7	Flats	n/a	n/a	100-200u/ha 350-700p/h	200- 400u/ha 700-1400p/h	n/a	n/α	4-8 Storey	Rental or Sectional Title	Institutional Subsidy		



1

ANNEXURE C1.2



12 Units per hectare 42 persons per hectare



LOW INCOME



25 units per hectare 88 persons per hectare



35 units per hectare 123 persons per hectare



55 Units per hectare 192 persons per hectare

18 units per hectare

63 persons per hectare



73 units per hectare 255 persons per hectare



85 units per hectare 297 persons per hectare



90 units per hectare 315 persons per hectare



100 – 200 units per hectare 350-700 persons per hectare

HIGH DENSITY

MANGAUNG





TSHWANE - THEMBALIHLE VILLAGE

JOHANNESBURG - TURFFONTEIN







ANNEXURE C1.3: MEDIUM DENSITY RESIDENTIAL – AFFORDABLE HOUSING

MANGAUNG METROPOLITAN MUNICIPALITY SPATIAL DEVELOPMENT FRAMEWORK



ANNEXURE C2: THUSONG CENTRE CONCEPT

Floor Area of MPCC 1 878m

INCREMENTAL DEVELOPMENT OF A THUSONG CENTRE/MPCC

Essentially, a Thusong Centre is "a focal point at which a comprehensive range of essential services can be obtained by people living in its vicinity". The key to the success of Thusong Centre development is rooted in the principle of focused and deliberate government investment spending within and around a strategically selected spatial point, to ensure that these centres develop to provide an extensive range of community facilities. Such points are typically major intersections, and/or consolidated with existing cluster(s) of business activity and social services. A good example of a Thusong Centre/ MPCC in Olievenhoutbosch is depicted on Diagram 1.

The development of a Thusong Centre takes place over time and is based on an incremental growth process guided and stimulated by a number of strategic investments by various spheres of government (i.e. public investment). This process is, however, not limited to a single building as noted in the example above, but can also relate to the incremental development of a broader precinct (refer to **Diagram 2**).

Very briefly, the first step in the physical development of a Thusong Centre could be the establishment of a community hall which is utilised for a variety of functions, including serving as a SASSA pay-out point by the end of the month; accommodating the mobile clinic once a week; serving as an ABET centre during certain times of the week; etc. Because of the concentration of people at the community hall during the week, a formal/informal public transport facility may establish which, in turn, attracts informal trade.

As the Thusong Centre develops, a greater variety of more permanent community facilities may be added by various spheres of government, including a clinic, post office, and police station.





MANGAUNG METROPOLITAN MUNICIPALITY SPATIAL DEVELOPMENT FRAMEWORK





5

With the increased intensity of activity and visitors at the precinct, the initial informal trade at the public transport facility can transform into some formal retail activities. Low and medium density residential development should be developed in close proximity around the node which not only enhances the viability of existing community facilities, but also strengthens the capacity for local economic development as the "critical mass" in the precinct increases.

Associated with the residential development follows the establishment of educational facilities like a crèche, primary school and sports fields. Over a period of time the node expands incrementally, and as more functions and associated residential activities are added, it may eventually also accommodate specialised services like adult education (FET colleges and ABET centres), some commercial activities like hardware stores and even light service industries.



ANNEXURE C3: COMMUNITY FACILITIES PROVISION STANDARDS AND GUIDELINES

FACILITY	AVERAGE THRESHOLD
Loca	I facilities
Crèche	1/2 400 population
Primary School (including Grade R)	1/7000 population
Post Office	1/10 000 population
Community Hall	1/10 000 population
Secondary School	1/12 500 population
ECD Hub and Care Centre	1/20 000 population
Library	1/20 000 population
Primary Health Clinic	1/24 000 population
Sports Facilities and Parks	0.5ha/1 000 population (60%)
Regio	nal facilities
Tertiary Education	Variety of institutions
*Community Health Centre	1/60 000 population
Police	1/60 000 population
Fire Station	1/60 000 population
Solid Waste Disposal Site/Recycling Depot	One per Municipality
Civic Centre/Municipal-/Government Offices	One per Municipality
District Magistrate's Court	One per Municipality
Regional Parks	0.5ha/1 000 population (40%)

Table 1: CSIR Guidelines for the provision of Social Facilities (small/medium towns)

*Hospital: 1/300 000 people

In view of the above standards and the Land Use Budgets compiled for each of the areas in Mangaung MM it is recommended that future additional community facilities be prioritised in line with the directives provided



ANNEXURE C4: SMART CITY CONCEPT

What is a Smart City?

MANGAUNG

A Smart City primarily uses information and communication technologies (ICT) to enhance quality, performance and interactivity of urban services, to reduce costs and resource consumption and to improve contact between citizens and government. It connects human capital, social capital and ICT infrastructure in order to address public issues, achieve a sustainable development and increase the quality of life of citizens.

Smart city applications are developed with the goal of improving the management of urban flows and allowing for real time responses to challenges. A smart city may therefore be more prepared to respond to challenges than one with a simple 'transactional' relationship with its citizens.

<u>Smart Mobility</u> aims to provide an on-demand mobility system that would allow customers to choose among motorised public and private transport modes and / or non-motorised transport modes to assemble the fastest or cheapest way of getting anywhere they need to go at any time. It includes new mobile technologies and intuitive apps which integrate public transportation, better infrastructure, and car sharing.

<u>Smart Government</u> entails the use of innovative policies, business models, and technology to address the financial, environmental, and service



challenges facing public sector organizations. It relies on open and accessible consolidated information systems and communication networks from which the public becomes better informed about whether the government is performing and conforming to highest ethical standards.



<u>Smart Communities</u> are strategic, purposeful, and resourceful. They are driven by long-term commitments to safeguard their natural resources and economic opportunities for future generations, and preserving the beauty, vitality, and equity of the region. These communities protect their ecological assets from destruction or degradation, promote renewable energy solutions, and practice sustainable development.

Smart Living is fuelled by the rise of devices and objects connected to the internet – wearables, home appliances, fashion accessories etc. Internet connected appliances that communicate with one another, more efficient energy usage and cloud-enhanced home security are just some of the developments that consumers are starting to enjoy. Advances in technology, such as mobile and GPS-enabled devices, live data sensors, and big data, have created a foundation for governments to develop better services, foster accountability, and increase transparency. When disaster incidents strike, critical information exchange across departmental, municipal, and jurisdictional lines expedites communication to at-risk populations and hastens their evacuation from harm's way. It tracks disasters in real-time, locate medical resources, align logistics, coordinate response teams, and automatically publish updated maps that keep the media and public informed. Similarly, GIS highlight recurring crime hot spot locations, and help deploy critical resources to the right place at the right time. Real-time monitoring tools are used to regulate infrastructure and manage natural and manmade threats like vandalism/ theft.

<u>A Smart Environment</u> aims to provide more efficient urban structure, buildings and energy. A compact city characterised by medium and high density mixed-use environments which are designed around efficient multi modal public transport systems. Careful building design to reduce heat loads, maximise natural light and promote the circulation of fresh air and installation of solar heaters and water harvesting infrastructure. Green energy generated from natural sources: solar power, wind power, hydropower, geothermal energy, biomass and biofuels. Monitoring and controlling operations of urban and rural infrastructures like bridges, railway tracks, on- and offshore- windfarms and it can also be used for scheduling repair and maintenance activities.

<u>Smart Economies</u> are largely the result of the influence of ICT applications on all aspects of urban economy, which in turn changes the land-use system. Main Economic Sectors influenced by Smart Technology include:

- Banking and Finance
- Education and Research
- ICT, Mobile and Telecommunications
- Travel, Tourism and Transportation
- Healthcare and Social Welfare
- National Security and Defence
- Retail and Distribution
- Energy and Utilities



ANNEXURE D

ECONOMIC EMPOWERMENT





ANNEXURE D: ECONOMIC EMPOWERMENT / UPSCALING GUIDELINES

ANNEXURE D1: TOWNSHIP ECONOMY: POTENTIAL JOB CREATION OPPORTUNITIES

Main Sectors	Secondary Category	Examples of Business Opportunities
	Retail (Formal)	Butchery, Bottle store, Cellphone, Café, Clothing, Tombstones, Fast Food, General Dealer, Farm Shop, Plant Nursery
	Retail (Informal)	Street Vending/Food Seller, Fruit & Vegetable Seller, Brick Making, Liquor Seller, Shebeen, Tavern, Spaza, Tombstone Trader
1 Business	Retail (Markets)	Crafters Market, Food & Fresh Produce Market
I. DUSITIESS	Personal Services	Hair & Beauty Salons, Fashion Designer, Laundrette, Gym, Traditional Healer
	Offices	Burial Society, Banks, ATM, Financiers/Cash Loans, Internet Café, Renting of Machinery, Home Office, Security Companies
	Motor Vehicle Related Retail	Car Sales Lot, Car Wash, Cash for Scrapyard, Motor Spares, Filling Station
2. Service	Services	Dress Making/Tailors/Manufacture Uniforms, Bakery/Catering, Engraving, Printing, Picture Framing, Jewellery Manufacturing, Watch/Cellphone Repairs, Shoe Repairs, Key Cutting, Dry Cleaners, Funeral Services (Parlour/Undertaker), Basket Ware and Cane Furniture, Office Furniture, Upholstery
Industries	Infrastructure	Sanitation (plumbers), Electrician, Security Gates & Fencing, Mobile Toilets, Solar Panels/Geysers
	Green Economy	Cleaning Services, Waste Collection and Sorting/Recycling
	Retail (Formal)	Craft/Curio Shop, Coffee Shop, Restaurant
	Retail (Informal)	Crafters Market, Food & Fresh Produce Market
3 Tourism	Offices	Tourist Operators
o. rounsin	Hospitality Establishment	Hotel, Guest House, Bed & Breakfast, Conferencing, Camp Sites
	Services	Catering & Events, Heritage Tourism, Sports/Adventure Tourism, Water Sports and Recreation Parks, Tourist Guide, Hunting Guide



1

Main Sectors	Secondary Category	Examples of Business Opportunities
4. Creative Industry	Services	Arts & Crafts Workshops/Exhibitions, Cinemas, Music & Entertainment, Music & Video Production, Fashion Designer, Jewellery Manufacturing, Bead Making, Leather/Hide Products, Coordination of Cultural Events
	Medical & Health	Hospital and Clinic, Substance Abuse Treatment/War on Drugs, Hospice/Nursing/Care Centre (treatment and care for HIV/AIDS and other chronic ailments), Traditional Healer
	Funeral / internment services (confinement)	Burial Society, Catering-, Renting-, Cemetery Services
	Institutional Care Facility	Orphanage/Children's Home, Shelters, Soup Kitchen, Care for Elderly, Assisting the Elderly with Social Grants
	Cultural Facilities	Community Centres, Church and Religious Services
5. Community	Educational Facilities	Crèche & pre-schools, Schools, Sports Coaching, FET Colleges, Feeding schemes for schools and hospitals
Services	Other Education	Motor vehicle driving school, Special education - disabilities, Initiation school, Dancing /Music/Art Schools
	Protection services	Security Guards
	Emergency services	Ambulance Services/Paramedics
	Administrative	Postal/Courier Services
	Animal Care Facilities	Indoor / outdoor kennels, Veterinarian clinic, Animal rehabilitation centres
		Internet Solutions, Multimedia Service Centres, Internet Cafes, Electronic Repairs, ICT Recycling
	ICTS	Depots
C Agriculture and	Animal production	Livestock/Poultry Farming
6. Agriculture and	Crop production	Vegetable/Herb Farming
Agronitocessing	Agricultural industry	Milling, Feed Mixing, Processing/Sorting/Packing of Farm Produce, Farm Stall, Oil refinery, Biofuels
7 Transport	Services	Taxi Operators/Associations, Logistics companies, Tour Operators
	Infrastructure	Paving of Walkways and Cycle Lanes
8. Finance	Services	Stokvels, Money Lending Schemes, Burial Societies



Main Sectors	Secondary Category	Examples of Business Opportunities
9. Manufacturing	Production &	Food production, Bakery, Manufacturing of Machinery-/Metal (steel)- /Non-metal (charcoal/tar/bricks)-
	Matar Carrian related	/Clothing and Textile-/ Wood and Furniture (Carpentry) Products, Abattoir
	(Light) Industry	Fitment centre/Vehicle repairs, Panelbeater/Auto body, Towing Service, Motor Workshop
	Engineering Service	Engineering Workshop e.g. welding, cutting, joinery, pumps, pipes and fitting, etc. Electrical
	related (Light) Industry	Workshop/Contractors, Lawnmower Repairs
		Storage Facilities, Storage and selling of coal, sand, building material, Scrap Yard, Recycling Depot,
10. Commercial	Warehousing & storage	Auction Yard
11. Construction and Real Estate	Services	Construction Business, Property Developers, Estate/Renting Agents
	Infrastructure	Builders, Carpenters, Brick/Paving layers, Electricians, Plumbers
12. Mining	Active Mining	Sand Mining, Quarrying
	Mining Rehabilitation	Cleaning Services, Waste Collection and Planting of new vegetation



ANNEXURE D2: INFORMAL TRADE /SERVICES INDUSTRY UPSCALING

Informal Trade Empowerment and Upscaling

Annexure D2.1 highlights the concept to upscale informal trading businesses, the stages to achieve upscaling are represented as Level 1 – Level 4. Annexure D2.2 – Annexure D2.5 highlights examples of the various informal trade structures referred to the Informal Trade Upscaling concept on Annexure D2.1.

LEVEL 1	Informal trading business in a form of selling perishable or		
	non-perishable goods, and informal motor repair		
	businesses are being conducted without adequate		
	formalised informal structures.		
LEVEL2	Formalised informal trading structures in this level are very		
	basic. Level 2A structures are temporary and may be		
	placed along pedestrian movement desire lines where		
	space is limited, see examples on Annexure D2.2. Level		
	2B structures are more permanent in nature, and may be		
	utilised by small emerging service industries.		
LEVEL 3	The structures at Level 3 are permanent and typically		
	larger in size when compared with 'level 1' informal trading		
	structures. Level 3a includes features such as lock-up		
	roller doors for over-night storage, and may include water		
	and sanitation services shared between traders, see		

ANNEXURE D2.1

examples on Annexure D2.2. This allows for more
comprehensive retail activities including food preparations
and/ or service industries such as internet cafes, kiosk,
electronic repair services, motor repairs services and
welding works, as reflected on Annexure D2.3 and
Annexure D2.4.LEVEL 4Level 4 provides that informal traders be incorporated into
the formal economy (as illustrated on Annexure D2.5) by
way of providing permanent and formalised trading
structures as part of a shopping centre or business
incubation centre.





TYPES OF FORMALISED INFORMAL TRADE STRUCTURES

ANNEXURE D2.2





EMERGING LOCAL ENTERPRENEURS – SHIPPING CONTAINERS CONVERTED FOR BUSINESS

ANNEXURE D2.3







4Walls Business – Selling and Educating on Green Energy



Local Businesses in Shipping Containers close to Taxi Rank



Spinach King Bakery and Gym in Khayelisha



7

LOCAL EMPOWERMENT INDUSTRIAL ZONE – BEEHIVE SERVICE INDUSTRY

Service Industry Units

ANNEXURE D2.4







TYPES OF FORMALISED INFORMAL TRADE STRUCTURES

ANNEXURE D2.5



SERVICE INDUSTRIES - Formalised Informal Trading Structures

SMME INFRASTRUCTURE - Linear Beehive Buildings





PROMINENT TOURISM DESTINATIONS DESIGNED FROM SHIPPING CONTAINERS

ANNEXURE D2.6





ANNEXURE D3: PRECISION FARMING

PRECISE FARMING

Vertical Farming in Green Building



Horizontal Farming in Green Building



Vertical Farming in an Iron-Zinc Vertical Box




FARMING IN SHIPPING CONTAINERS







ANNEXURE D4: EMERGING FARMER UPSCALING

Support Emerging Farmers to Become Part of the Mainstream Economy

It is important that emerging farmers be supported in the Mangaung MM as a means to contribute towards poverty alleviation, enhancing food security, and establishing sustainable livelihoods. This can be achieved by way of implementing the following measures in identified Rural Intervention Areas (to be read in conjunction with **Diagram 3**):

- Increasing land availability and tenure security for agricultural purposes through prioritised processing of Land Claims/ Restitution processes in this area.
- Exploiting the opportunities offered by the potential of the agricultural land identified within the area (in conjunction with Department of Rural Development and Land Reform).
- Significantly increasing production per hectare beyond the subsistence farming yield.
- Providing training support to emerging and small-scale farmers and ensuring that appropriate skills development takes place in line with the most appropriate farming activities in the area.
- Encouraging the use of different crops and new planting, harvesting and processing techniques.
- Supporting a variety of farming concepts including intensive commercial farming, small scale commercial farming (vertical farming/precision farming), subsistence farming, aquaculture development, and agro processing industries.

- Providing production and harvesting infrastructure in order to create production surplus in the area.
- Increasing job creation in the area through labour-intensive agricultural projects and extending the agriculture value chain by way of agro-industries and agro-tourism.
- Establishment of a fresh produce market which would support the globally growing demand for organic (chemical free) produce and 'farmer's markets', while supporting small-scale farmers by creating offset areas for both individually and communally harvested produce from surrounding areas.

The surplus income generated through the initiatives above would assist emerging farmers to become part of the mainstream economy as shown on Diagram 3







ANNEXURE D5: SUBSISTANCE AGRICULTURE UPSCALING MODEL

The Subsistence Agriculture Upscaling Model (refer to **Diagram 4**) is earmarked to specifically establish linkages between subsistence agriculture and the formal economy in the following way:

- Informal trade stalls and fresh produce markets can be established at urban and rural nodes/ agri-villages where local residents can buy/ sell any surplus produce from surrounding plots/ farms.
- Furthermore, formal agreements could be put in place with a number of receiving parties including local schools with feeding schemes or surrounding tourist destinations, where household or communal produce could be sold as food source.
- Small-scale agro-processing industries could also be established locally (preferably at rural nodes) where value is added to the goods, to varying degrees (e.g. packaging).
- Secondly, in line with the CRDP, one or more co-operatives (coops) can be established in rural communities in order to mobilise and organise people into functional groups to effectively take charge of their own development.
- Coordinated by the co-ops, surplus produce could regularly be transported to the closest rural node (collection/ distribution hub).
- From here, the collected produce could be distributed to formal retailers in nearby towns and agro-industries, according to fixed contracts.
- The increased scale derived from pooling operations will ease negotiations with potential customers, reduce logistics costs and decrease input costs.

• Through such a process, residents in rural areas gain access to the formal economy but with limited risk.

Diagram 4: Establish Linkages between Subsistence Agriculture and Formal Economy





